Chair William Smith
Vice Chair
Member Jenny Highlander
Member Danielle J. Judd
Member Matt Webster
School Board Member Tina Certain

City Manager Rodolfo Valladares
City Attorney Scott Walker

The Planning and Zoning Board will conduct a

Regular Planning and Zoning Board Meeting
At 6:00 PM

to address the item(s) below.

Meeting Date: August 11, 2026

Meeting Location: James A. Lewis City Commission Chambers
15100 NW 142 Terrace
Alachua, FL 32615

Planning and Zoning Board Meeting

Notice given pursuant to Section 286.0105, Florida Statutes. In order to appeal any decision made at this meeting, you will need a verbatim record of the proceedings. It will be your responsibility to ensure such a record is made.
In accordance with Section 286.26, Florida Statutes, persons with disabilities needing special accommodations to participate in this meeting should contact the Chair, through the City Clerk's office, no later than 5:00 P.M. on the day prior to the meeting.

CALL TO ORDER

INVOCATION

PLEDGE TO THE FLAG

APPROVAL OF THE AGENDA

I. OLD BUSINESS

II. NEW BUSINESS

A) APPROVE MEETING MINUTES-JUNE 9, 2026

B) PCA26-0003: CERTIFICATE OF APPROPRIATENESS FOR THE CONSTRUCTION OF A DETACHED SINGLE-FAMILY RESIDENCE ON A PROPERTY LOCATED AT 14620 NORTHWEST 138 TERRACE (TAX PARCEL 03392-002-002).

C) PCA26-0004: CERTIFICATE OF APPROPRIATENESS FOR THE CONSTRUCTION OF A DETACHED SINGLE-FAMILY RESIDENCE ON A PROPERTY GENERALLY LOCATED AT THE NORTHWEST CORNER OF NORTHWEST 146 AVENUE AND NORTHWEST 138 TERRACE (TAX PARCEL 03392-002-001).

D) PSP25-0006 | TOLOSA NORTH SITE PLAN APPLICATION - A REQUEST BY JBROWN PROFESSIONAL GROUP, INC. (THE “APPLICANT” & “AGENT”) ON BEHALF OF ALACHUA HABITAT FOR HUMANITY, INC. (THE “PROPERTY OWNER”) FOR A SITE PLAN PROPOSING THE CONSTRICTION OF 10 QUADPLEX STRUCTURES AND TWO TOWNHOUSE STRUCTURES, FOR A TOTAL OF 50 MULTIFAMILY DWELLING UNITS, WITH ASSOCIATED SITE IMPROVEMENTS ON A ± 7.47-ACRE SUBJECT PROPERTY GENERALLY LOCATED ALONG THE SOUTH OF W STATE ROAD 235 AND EAST OF NW 135TH TERRACE (TAX PARCELS: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000). FLU: MODERATE DENSITY RESIDENTIAL; ZONING: PD-R (QUASI-JUDICIAL HEARING).

III. BOARD COMMENTS/DISCUSSION

IV. CITIZENS COMMENTS

ADJOURN

Commission Agenda
Item

MEETING DATE: August 11, 2026
SUBJECT: Approve Meeting Minutes-June 9, 2026
PREPARED BY: Brenda Flieger
RECOMMENDED ACTION:
Approve Meeting Minutes-June 9, 2026

Summary

Approve Meeting Minutes-June 9, 2026

FINANCIAL IMPACT

ADDITIONAL FINANCIAL INFORMATION

ATTACHMENTS

1. 26.06.09.M.PZB

Regular Planning and Zoning Board Meeting Minutes
June 9, 2026 at 6:00 PM

Chair William Smith
Vice Chair William Menadier
Member Jenny Highlander
Member Danielle J. Judd
Member Matthew Webster
School Board Member Tina Certain

City Manager Rodolfo Valladares
City Attorney Scott Walker

Meeting Location: James A. Lewis City Commission Chambers
15100 NW 142 Terrace
Alachua, FL 32615

Planning and Zoning Board Meeting

Notice given pursuant to Section 286.0105, Florida Statutes. In order to appeal any decision made at this meeting, you will need a verbatim record of the proceedings. It will be your responsibility to ensure such a record is made. In accordance with Section 286.26, Florida Statutes, persons with disabilities needing special accommodations to participate in this meeting should contact the Chair, through the City Clerk's office, no later than 5:00 P.M. on the day prior to the meeting.

CALL TO ORDER

William Smith – Chair 6:02 pm William Menadier, Vice Chair - Absent

INVOCATION

Led by Virginia Johns

PLEDGE TO THE FLAG

APPROVAL OF THE AGENDA

Member Danielle Judd moved to approve the agenda with the changes stated by

the Chair; seconded by Member Jenny Highlander.
Motion passed by unanimous consent.

I. OLD BUSINESS

II. NEW BUSINESS

A) APPROVE MEETING MINUTES- APRIL 21,2026

Member Judd moved to approve the meeting minutes from the April 21, 2026 meeting; seconded by Member Highlander.
Motion passed by unanimous consent.

B) PSP26-0003 | MLM BUILDING ADDITION - PROGRESS CENTER - A REQUEST BY EDA CONSULTANTS, INC. (APPLICANT/AGENT), ON BEHALF OF MLM BIOLOGICS INC. (PROPERTY OWNER), FOR A SITE PLAN WHICH PROPOSES THE CONSTRUCTION OF A ± 6,509 SQUARE FOOT OFFICE BUILDING WITH ASSOCIATED SITE IMPROVEMENTS ON A ± 1.51-ACRE PROPERTY, LOCATED AT 13700 PROGRESS BOULEVARD, ON TECHNOLOGY AVENUE (TAX PARCEL 03956-010-017). FLU: INDUSTRIAL; ZONING: PLANNED UNIT DEVELOPMENT (PUD); QUASI-JUDICIAL HEARING.

Parker Stevens, Planner, 06/09/26, Staff Report, Filed.

Sergio Reyes, EDA Consultants, 06/09/26, Available for Questions, Submitted.

Member Highlander moved that, based upon the competent substantial evidence, the presentation before this Board, and Staff's recommendation, this Board find the site plan application for MLM Biologics, inc., to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City of Alachua Land Development Regulations and approve the site plan; seconded by Member Judd.

Motion passed by 4-0 roll call vote.

C) PSSC26-0001 - HATHCOCK COMMUNTY CENTER SMALL-SCALE COMPREHENSIVE PLAN MAP AMENDMENT - A REQUEST BY THE CITY OF ALACHUA (APPLICANT/PROPERTY OWNER) FOR CONSIDERATION OF AN AMENDMENT TO THE CITY OF ALACHUA FUTURE LAND USE MAP (FLUM). THE PROPOSED AMENDMENT WOULD CHANGE THE FUTURE LAND USE DESIGNATION FROM MEDIUM DENSITY RESIDENTIAL AND RECREATION TO PUBLIC ON A ± 1.48-ACRE SUBJECT PROPERTY (TAX PARCELS 03113-000-000; 03114-000-000; 03120-000-000.) CURRENT FLU: MEDIUM DENSITY RESIDENTIAL; PROPOSED FLU: PUBLIC; CURRENT ZONING: RESIDENTIAL SINGLE FAMILY 3 (RSF-3); PROPOSED ZONING: GOVERNMENT FACILITY (GF); LEGISLATIVE HEARING.

Parker Stevens, Planner, 06/09/26, Staff Report, Filed.

Member Judd moved that, based upon the competent substantial evidence, the presentation before this Board, and Staff's recommendation, this Board finds the application for a Small-Scale Comprehensive Plan Amendment for the City of Alachua, to be consistent with the City of Alachua Comprehensive Plan and transmits the application to the City Commission with a recommendation to approve; seconded by Member Highlander.

Motion passed by 4-0 roll call vote.

D) PR26-0001 - HATHCOCK COMMUNTY CENTER SITE-SPECIFIC AMENDMENT TO THE OFFICIAL ZONING ATLAS (REZONING) - A REQUEST BY THE CITY OF ALACHUA FOR CONSIDERATION OF A SITE-SPECIFIC AMENDMENT TO THE CITY OF ALACHUA OFFICIAL ZONING ATLAS (REZONING). THE PROPOSED AMENDMENT WOULD CHANGE THE ZONE DISTRICT FROM RESIDENTIAL SINGLE FAMILY – 3 (RSF-3) TO GOVERNMENT FACILITY (GF) ON A ± 0.49-ACRE SUBJECT PROPERTY GENERALLY LOCATED AT THE SOUTHEAST CORNER OF NW 159TH LANE AND NW 141ST STREET, AND WEST OF THE CLEATHER HATHCOCK COMMUNITY CENTER (TAX PARCEL 03114-000-000). CURRENT FLU: MEDIUM DENSITY RESIDENTIAL; PROPOSED FLU: PUBLIC; CURRENT ZONING: RESIDENTIAL SINGLE FAMILY 3 (RSF-3); PROPOSED ZONING: GOVERNMENT FACILITY (GF); QUASI-JUDICIAL HEARING.

Parker Stevens, Planner, 06/09/26, Staff Report, Filed.

Member Judd moved that, based upon the competent substantial evidence, the presentation before this Board, and Staff's recommendation, this Board finds the application for a Site-Specific Amendment to the Official Zoning Atlas for the City of Alachua to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City's Land Development Regulations and transmits the application to the City Commission with a recommendation to approve; seconded by Member Highlander.

Motion passed by 4-0 roll call vote.

E) PPP25-0003 – CONVERGENCE RESEARCH PARK RESIDENTIAL PHASE 4 "CANOPY TRACE" | A REQUEST BY VECTOR CIVIL ENGINEERING, LLC, AGENT AND APPLICANT FOR SPLIT OAK ALACHUA INVESTMENTS, LLLP, PROPERTY OWNER, FOR THE CONVERGENCE RESEARCH PARK RESIDENTIAL PHASE 4 WHICH PROPOSES THE SUBDIVISION OF LAND INTO 60 SINGLE-FAMILY DETACHED LOTS WITH ASSOCIATED COMMON AREAS AND RIGHTS-OF-WAYS ON A ± 10.60-ACRE SUBJECT PROPERTY GENERALLY LOCATED SOUTH OF US HIGHWAY 441 ALONG PROGRESS

BOULEVARD (TAX PARCEL 03929-005-000.) FUTURE LAND USE: CORPORATE PARK DISTRICT; ZONING: CORPORATE PARK DISTRICT (QUASI-JUDICIAL).

Bryan Thomas, Director of Planning and Community Development, 06/09/26, Staff Report, Filed.

Dave Stockman, Land Owner Representative, 06/09/26, Available for Questions, Submitted.

Member Judd moved that, based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and transmits the Preliminary Plat of Canopy Trace/Convergence Phase 4 to the City Commission, with a recommendation to approve, subject to the five (5) conditions provided in Exhibit "A" and located on page 17 of the Staff Report; seconded by Member Highlander.
Motion passed by 4-0 roll call vote.

III. BOARD COMMENTS/DISCUSSION

IV. CITIZENS COMMENTS

ADJOURN

Member Highlander moved to adjourn; seconded by Member Judd.

Motion passed by unanimous consent.

Chair Smith adjourned the meeting. 6:47 p.m.

ATTEST:

_____
Presiding Officer

PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA:

_____
Staff Liaison

Board Agenda
Item

MEETING DATE: August 11, 2026

SUBJECT: PCA26-0003: CERTIFICATE OF APPROPRIATENESS FOR THE CONSTRUCTION OF A DETACHED SINGLE-FAMILY RESIDENCE ON A PROPERTY LOCATED AT 14620 NORTHWEST 138 TERRACE (TAX PARCEL 03392-002-002).

PREPARED BY: Jean Paul Perez

RECOMMENDED ACTION:

I move that this Board approve the Certificate of Appropriateness requested by Eagleview Endeavors, LLC for the construction of a detached single-family residence.

Summary

The Planning Division received an application by Fla Homes, Inc., a Delaware corporation ("Applicant"), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company ("Owner"), for a certificate of appropriateness for a detached single-family residence in the City of Alachua Downtown Historic District. The property is located at 14620 Northwest 138 Terrace and identified by Alachua County Property Appraiser as Tax Parcel No. 03392-002-002 ("Property"). The Property has a future land use classification of Medium Density Residential (8 du/ac) and an underlying RSF-3 zoning designation. The Property is also located within the Community Redevelopment Area. Additional information and analysis is provided in the attached staff report.

FINANCIAL IMPACT

None.

ADDITIONAL FINANCIAL INFORMATION

None.

ATTACHMENTS

1. Staff Report
2. Application Materials
3. Public Notice
4. Resume on File, Jean-Paul W. Perez

City of Alachua
Planning & Community Development Department
Staff Report

Planning & Zoning Board Hearing Date: August 11, 2026
Quasi-Judicial Hearing **Application #: PCA26-0003**

SUBJECT:	A request for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District
APPLICANT/AGENT:	Fla Homes, Inc.
PROPERTY OWNER:	Lioncrest Capitol, LLC
LOCATION:	14620 Northwest 138 Terrace
PARCEL ID NUMBER:	03392-002-002
FLUM DESIGNATION:	Medium Density Residential (8 du/ac)
ZONING:	RSF-3
OVERLAY:	City of Alachua Downtown Historic District
ACREAGE:	±0.13
PROJECT PLANNER:	Jean-Paul W. Perez
RECOMMENDATION:	Staff recommends that the Planning & Zoning Board approve the certificate of appropriateness.
RECOMMENDED MOTION:	*I move that this Board approve the Certificate of Appropriateness requested by Lioncrest Capitol, LLC for the construction of a detached single-family residence.*

SUMMARY

The Planning Division received an application by Fla Homes, Inc., a Delaware corporation ("Applicant"), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company ("Owner"), for a certificate of appropriateness for a detached single-family residence in the City of Alachua Downtown Historic District. The property is located at 14620 Northwest 138 Terrace and identified by Alachua County Property Appraiser as Tax Parcel No. 03392-002-002 ("Property"). The Property has a future land use classification of Medium Density Residential (8 du/ac) and an underlying RSF-3 zoning designation. The Property is also located within the Community Redevelopment Area.

EXISTING USES

The Property is vacant and was previously owned by the First Presbyterian Church of Alachua ("Church"). The parcels were sold and subdivided with the Alachua County Property Appraiser in a manner consistent with the original platted lot and block boundaries (reference Lots 1-3, Block 32, Clark's First Addition to the City of Alachua, Plat Book A, Page 108, Official Records of Alachua County, Florida) for the purposes of infill development.

SURROUNDING USES

The existing uses, Future Land Use Map ("FLUM") designations, and zoning districts of the surrounding area are identified in Table 1. The information below is not intended to be all-inclusive, and may not identify all existing uses, FLUM designations, and/or zoning districts surrounding the subject property. The referenced dates of construction of the adjacent structures was obtained from the public records made available by the Alachua County Property Appraiser. Alachua County Property Appraiser records show major modifications to the adjacent structures have occurred which may have impacted the historical integrity and/or appearance.

Table 1. Surrounding Land Uses

Direction	Existing Use(s)	FLUM Designation(s)	Zoning District(s)
North	Single-family residence (circa 1959)	Medium Density Residential (8 du/ac)	RSF-3
South	Single-family residence (circa 1900)	Medium Density Residential (8 du/ac)	RSF-3
East	Single-family residence (circa 1950)	Medium Density Residential (8 du/ac)	RSF-3
West	Vacant (Lot 3)/Church (circa 1900)	Medium Density Residential (8 du/ac)	RSF-3

[Remainder of this page intentionally left blank.]

HISTORIC OVERLAY DISTRICT

Section 3.7.2(A) of the City's Land Development Regulations ("LDRs") establishes the standards for the Historic Overlay District (including the City of Alachua Downtown Historic District). The general purposes of the Historic Overlay District are to:

1. Protect the beauty of the City and improve the quality of its environment through identification, recognition, conservation, maintenance and enhancement of its historic and architectural resources;
2. Protect against designated land and buildings or structures having historic and architectural significance from the intrusion of development that fails to protect such significance;
3. Stabilize and improve property values in such districts, strengthening the local economy;
4. Foster civic pride; and
5. Encourage redevelopment of the City's downtown.

Section 3.7.2(A)(2)(a) of the LDRs establishes the City of Alachua Downtown Historic District, which includes all lots within an area bounded by NW 145th Avenue, NW 145th Terrace, NW 148th Place, and NW 138th Terrace. The area of the district, the subject property, and contributing historic structures are shown in Figure 5.

COMPREHENSIVE PLAN CONSISTENCY ANALYSIS

The goals, objectives, and policies (GOPs) identified below are provided to establish a basis of the application's consistency with the Comprehensive Plan. There may be additional GOPs which the application is consistent with that are not identified within this report. An evaluation and findings of consistency with the identified GOPs is also provided below.

Future Land Use Element

Goal 1: *Historic, Cultural and Archeological Preservation*

The City shall encourage the preservation of historic, cultural, and archeological resources through the use of preservation districts, land acquisition, and partnerships with local, state and federal protection agencies.

Objective 3.1: *Historic Preservation Districts*

The City shall encourage property owners to maintain and improve buildings, grounds, streetscape and vistas and encourage settlement and revitalization of established neighborhoods.

Policy 3.5.a: The City shall ensure that future development within a historic district is sensitive to the historic character of the historic district.

Policy 3.9.a: An historic preservation overlay zoning classification shall be used to protect significant historic resources.

Policy 3.10.a: The City shall establish and maintain Certificate of Appropriateness procedures for reviewing exterior changes to historic buildings, structures and sites in historic districts.

Evaluation & Findings: The Applicant has submitted materials to support that the design of the proposed residence. The application represents a development pattern consistent with original plat of the City and in a modest style akin to early Florida settler homes.

FINDINGS OF FACT: COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

Compliance with the Zoning District Standards

The City's LDRs recognizes that historic and architectural resources are assets. The stated purpose of historic preservation is to protect the beauty of the city, to protect the land, buildings, structures, and sites, stabilize and improve property values, foster civic pride, and encourage redevelopment of the downtown. Given the unique Certain standards and, where appropriate, establishes exceptions when strict application of the standards would negatively impact reasonable use of a property.

The RSF-3 zoning district requires a minimum lot size of 10,000 square feet (roughly a quarter-acre) and a maximum gross density of 3 dwelling units per acre. The Property is approximately half of the required size at 5,636 square feet and represents a density of approximately 8 du/ac. However, Section 8.4.2(A), LDRs, states unimproved lots of record in residential districts may be developed with one single-family detached dwelling and any customary accessory structures. Specifically, lots that were lawfully created prior to January 22, 1992 (adoption of the first Comprehensive Plan for the City of Alachua and the first establishment of known lots of record), are exempt from minimum lot area and width standards of the applicable zoning district. In this case, the Property was created on the Clark's First Addition to the City of Alachua (Plat Book A, Page 108, Alachua County Official Records) plat recorded February 12, 1914. Submitted drawings show the residence will meet minimum yard setback requirements.

Municipal potable water and sanitary sewer are available to the property and is in the municipal electric service territory. Connection to essential municipal services will be required prior to the issuance of a Certificate of Occupancy.

Certificate of Appropriateness Standards

Section 2.4.6(F) of the City's LDRs establishes the standards with which all certificates of appropriateness must comply. The application has been reviewed for with those standards and an evaluation of the findings is provided below:

(F) ***Certificate of appropriateness standards***. The following standards shall be applied in determining whether to approve, approve with conditions, or deny a certificate of appropriateness:

(1) *Affect exterior appearance*. Whether the proposed action will affect the exterior appearance of a building or structure and if such action will be visible from a street, or if such action will affect the appearance of any interior portion of a building or structure listed on the National Register of Historic Places or a building or structure listed as a contributing building to the City of Alachua Downtown Historic District.

Evaluation & Findings: The proposed residence will be oriented to face the abutting street, Northwest 138 Terrace, in a manner consistent with the LDRs. Siting of the building will be consistent with existing development patterns in the area on similarly situated lots. Based on proposed design and building siting, issuing the Certificate of Appropriateness will not negatively impact the historical integrity of the City of Alachua Downtown Historic District.

(2) *Affect consistency with historical, architectural or other relevant qualities*. Whether any such affect is consistent with the historical, architectural, or other qualities which the Historic Overlay District seeks to protect and preserve.

Evaluation & Findings: The proposed residence combines features of shotgun and bungalow style American architecture. The home is clad with lap board siding and edge trim utilizing modern materials on all facades. Board and baton siding is used to accent the gables. The front façade has a recessed entrance and front porch with window shutters. The roof utilizes a gable in the front while the rear is hipped, generally straddling the line between modern efficiency and imitating aesthetics. A color palette was not provided and may be a consideration of the Board. The design and siting of the proposed residence is consistent with the historical and architectural development patterns of the time period of incorporation of the City of Alachua.

(3) *Negative or positive impact on neighboring properties of historical significance*. Whether the proposed action will have a negative or positive impact on neighboring properties that have historic significance.

Evaluation & Findings: Based on the design and siting presented to staff, the proposed development of the property represents a positive impact to the site and does not represent a negative impact on the adjacent properties.

(4) *Effect of denial*. Whether the denial of a certificate of appropriateness would deprive the owner of reasonable beneficial use of their property.

Evaluation & Findings: The construction of a detached single-family residence on the property is a reasonable beneficial use of the property and the principal use desired within the zoning district. Denial would require a rational nexus and warrant a more thorough investigation of either the deficiencies of the Application and/or the historical merits of the vacant parcel.

(5) *Demolition*. In cases where a certificate of appropriateness is proposed for demolition of all or a portion of a historic property, the applicant shall demonstrate:

(a) That no other feasible alternative can be found;

(b) The extent to which the property may not be beneficially used without approval of the demolition;

(c) The ability to obtain a reasonable return from the existing structures; and

(d) Whether or not the building, structure, or property contributes to a Historic Overlay District, or no longer has historical significance.

Evaluation & Findings: The standard is not applicable for this request.

City of ALACHUA
the good life community

Authorized Agent Affidavit

Planning & Community Development Department

A completed authorized agent affidavit or letter of authorization must be provided/included with the application materials whenever a property owner wishes to have an application submitted on their behalf by a third party or tenant. If a property has multiple owners, each owner must provide authorization for the third party to submit the application.

***NOTE:** Incomplete affidavits will not be accepted and may delay the processing of applications.*

A. PERSON PROVIDING AUTHORIZATION

(i.e., the property owner)

Full Name: Lioncrest Capitol LLC Title: Owner

Organization:

Mailing Address: 4605 NW 103rd Lane

City: Gainesville State: FL Zip: 32653

Phone: Mobile: 352 275 6097

Email: willcherring@gmail.com

B. PROPERTY INFORMATION

Address of Subject Property: Lot 1 NW 138th Terrace

Tax Parcel Number(s): 03392-002-002

Acreage: 0.1

C. AUTHORIZED AGENT

(i.e., the third party submitting the associated application)

Full Name: Debbie Herring Title: Agent

Organization: Fla Homes Inc

Mailing Address: 13919 NW 145th Ave Alachua FL 32615

Phone: 386 418 4663 Mobile: 352 262 0586

Email: flahomes@windstream.net

D. AUTHORIZED/REQUESTED ACTIONS

(Include any action or application that the authorized agent will be permitted to apply for and represent on behalf of the property owner)

Certificate of Appropriateness
Anything needed for Building Permit

E. SIGNATORY

I/We hereby certify that I/we am/are the property owner(s) of record or I/we have received authorization from the property owner of record to file an application for the actions listed above in Section "D" of this form related to the property identified above in Section "B" of this form. I/we authorize the agent listed above in Section "C" of this form tc act on my/our behalf for the purposes of this application and those actions listed above in Section "D" of this form.

Under penalty of perjury, I/we certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Property Owner

Signature of Co-property Owner

William Carl Herring IV, Manager
Printed Name of Property Owner

Printed Name of Co-property Owner

State of Florida

County of Alachua

The forgoing application is acknowledged before me by means of ☐ physical appearance or ■ online notarization this 20 day of July, 2026 by William Carl Herring IV, Manager ■ who is/are personally known to me, or ☐ who has/have produced as identification.

Notary Public State of Florida
Kristy D Morgan
My Commission HH 803661
Expires 6/6/2030

Signature of Notary Public

State of: Florida

Print Name: Kristy D Morgan

My Commission Expires: 6/6/2030

City of ALACHUA

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY
Case #: _____
Application Fee: $_____
Filing Date: _____
Acceptance Date: _____
Review Type: P&Z

Certificate of Appropriateness Application

Reference City of Alachua Land Development Regulations 2.4.6

You must have all information for your application to be considered complete. Incomplete applications will not be accepted.

A. PROJECT TYPE

☐ Demolition ☐ Removal
☒ New Construction ☐ Addition
☐ Alteration of Exterior Features

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☒ Agent
2. Name of Applicant(s) or Contact Person(s): Debbie Herring Title: Agent
   Company (if applicable): Fla Homes Inc
   Physical address: 13919 NW 145th Ave
   Mailing Address: Same As Above
   City: Alachua State: FL ZIP: 32615
3. If the applicant is agent for the property owner*:
   Name of Owner (title holder): Lioncrest Capitol LLC
   Mailing Address: 4605 NW 103rd Lane
   City: Gainesville State: FL ZIP: 32653
   Telephone: 386-418-4663 FAX: NA e-mail: flahomes@windstream.net

C. PROPERTY AFFECTED

1. Address of Subject Property: TBD NW 138th Terrace Lot 1, Alachua, FL 32615
2. Parcel ID Number(s): 03392-002-002
3. Existing Use of Property: Vacant
4. Future Land Use Map Designation: Medium Density Residential
5. Zoning Designation: Residential Single Family (RSF3)
6. Acreage: 0.1
7. Number of Existing Structures on the Property: None

D. ATTACHMENTS

1. A detailed drawing which identifies the dimensions of the property, location of existing building(s) and those proposed (if applicable), distances of buildings from property lines, building setback lines (dimensioned), and names of adjacent streets. A current survey or site plan may be submitted to meet this requirement, if all requested information is provided.
2. Set of plans and specifications for the project. All drawings must be clear, concise, and drawn to scale. Plans must include and dimension all exterior elevations and provide a dimensioned floor plan illustrating all rooms within any proposed addition (if applicable).
3. Photographs of existing building(s) (all facades or elevations of building(s) and adjacent buildings). Photographs must clearly illustrate the appearance and conditions of existing building(s) affected by the project, close-up pictures of any specific elements under consideration by the project (for

example, windows or doors if proposed to be removed and/or replaced), as well as photographs depicting such elements and their relation with neighboring buildings.

4. If demolition is proposed, a report from a registered structural engineer stating the condition of the structure.
5. The applicant must provide a report which addresses the following:

   (1) ***Affect Exterior Appearance***

   Whether the proposed action will affect the exterior appearance of the subject land or structure or the appearance of any interior portion specifically identified in any relevant designation ordinance.

   (2) ***Affect Consistent with Historical, Architectural, or Other Relevant Qualities***

   Whether any such affect is consistent with the historical, architectural, or other qualities which the relevant designation ordinance seeks to protect and enforce.

   (3) ***Negative or Positive Impact on Neighboring Lands of Historical Significance***

   Whether the proposed action will have a negative or positive impact on neighboring lands that have historic significance.

   (4) ***Effect of Denial***

   Whether the denial of a Certificate of Appropriateness would deprive the owner of reasonable beneficial use of their land.

   (5) ***Demolition***

   In cases where a Certificate of Appropriateness is proposed for demolition of all or a portion of a Historic Property, the applicant shall demonstrate:

   (a) That no other feasible alternative can be found;

   (b) The extent to which the land may not be beneficially used without approval of the demolition;

   (c) The ability to obtain a reasonable return from the existing structure(s); and

   (d) Whether or not the building, structure, or land contributes to a Historic Overlay (HO) District, or no longer has historical significance.

6. Proof of ownership.
7. Proof of payment of taxes.
8. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

All attachments are required for a complete application. **A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.**

I/We certify and acknowledge that:

1. I /We must comply with the current Florida Building Code through the Building Department and obtain any necessary permits prior to receiving a final certificate of occupancy.
2. I/We must comply with the requirements of the Alachua County Fire Marshall.
3. I /We must obtain a Local Business Tax Receipt.
4. I/We must meet parking standards and any use specific standards for the zoning district
5. Falsifying information on this application may result in the Certificate of Appropriateness being revoked.

Debbie Herring, agent
Signature of Applicant

Signature of Co-applicant

Debbie Herring, Agent
Typed or printed name and title of applicant

Typed or printed name of co-applicant

07/20/2026
Date

Date

State of Florida County of Alachua

The foregoing application is acknowledged before me this 20 day of July, 2026, by Debbie Herring, Agent

who is/are personally known to me, or who has/have produced
as identification.

Kristy D Morgan
Signature of Notary Public, State of Florida

Notary Public State of Florida
Kristy D Morgan
My Commission HH 803861
Expires 6/6/2030

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 3647880 2 PG(S)
9/19/2025 11:09 AM
BOOK 5234 PAGE 1183
J.K. JESS IRBY, ESQ.
Clerk of the Court, Alachua County, Florida
ERECORDED Receipt # 1287739
Doc Stamp-Mort: $0.00
Doc Stamp-Deed: $0.70
Intang. Tax: $0.00

PREPARED BY AND RETURN TO:
Name: William Herring, IV, of
Stag Ventures, LLC
Address: 4605 Northwest 103rd Lane
Gainesville, FL 32653

File No: None
Parcel No.: 03392-002-000

(Space Above This Line For Recording Data)

Quitclaim Deed

THIS QUITCLAIM DEED, executed this 10th day of September, 2025, by first party, Grantor, Stag Ventures, LLC, a Utah Limited Liability Company, whose post office address is 4605 Northwest 103rd Lane, Gainesville, FL 32653, to second party, Grantee Lioncrest Capital, LLC, a Florida Limited Liability Company, whose post office address is 4605 Northwest 103rd Lane, Gainesville, FL 32653.

WITNESSETH, that the said first party, for the sum of $10.00, and other good and valuable consideration paid by the second party, the receipt whereof is hereby acknowledged, does hereby remise, release, and quitclaim unto the said second party forever, all the right, title, interest, claim, and demand which the said first party has in and to the following described parcel of land, and all improvements and appurtenances thereto, in Alachua, Florida:

Lot 1, Block 32, Clark's First Addition to the City of Alachua, according to the Plat thereof, recorded in Plat Book A, Page(s) 108, of the Public Records of Alachua County, Florida.

IN WITNESS WHEREOF, the Grantor has caused this Quitclaim Deed to be executed and delivered the day and year first above written.

Signed, sealed and delivered
in the presence of:

Stag Ventures, LLC, a Utah Limited Liability Company

By: _____
William Herring, IV

_____
WITNESS
Swisa Bates
PRINT NAME

_____
WITNESS
John Donnelly
PRINT NAME

1203 NW 4th Ave
Gainesville FL 32601
WITNESS 1 ADDRESS

356 NW 43rd Ct.
Gainesville FL 32606
WITNESS 2 ADDRESS

STATE OF FLORIDA
COUNTY OF ALACHUA

The foregoing instrument was acknowledged before me by means of (X) physical presence or ( ) online notarization, this 10 day of September, 2025, by William Herring, IV of Stag Ventures, LLC, a Utah Limited Liability Company, (X) who is/are personally known to me or ( ) who has/have produced _____ as identification.

Kristy D Morgan
Signature of Notary Public

Kristy D. Morgan
Print, Type/Stamp Name of Notary

Notary Public State of Florida
Kristy D. Morgan
My Commission HH 629783
Expires 6/6/2026

Real Estate Account #03392 002 000

Owner:
STAG VENTURES LLC

Situs:
UNASSIGNED LOCATION RE

Parcel details
Property Appraiser

Get Bills By Email
Sign up

2025 Annual Bill

ALACHUA COUNTY TAX COLLECTOR

Notice of Ad Valorem Taxes and Non-ad Valorem Assessments

BILL	AMOUNT DUE
2025 Annual Bill	$0.00

PAID

Print (PDF)

If paid by:
Nov 30, 2025

Please pay:
$0.00

Combined taxes and assessments: $1,177.41

SAVE TIME PAY ONLINE @ WWW.ALACHUACOLLECTOR.COM

Ad Valorem Taxes

MILLAGE		TAX
21.7696	$1,044.94	

Non-Ad Valorem Assessments

AMOUNT
$132.47

Parcel Details

Owner:	STAG VENTURES LLC
Situs:	UNASSIGNED LOCATION RE
Account	03392 002 000
Alternate Key	400002
Millage code	1700
Millage rate	21.7696
Assessed value:	$48,000
School assessed value:	$48,000

2025 TAX AMOUNTS

Ad valorem:	$1,044.94
Non-ad valorem:	$132.47
Total Discountable:	$1,177.41
Total tax:	$1,177.41

LEGAL DESCRIPTION

CLARKS 1ST ADD PB A-108 LOTS 1 2 3 BK 32 OR 5215/0120

LOCATION

Book, page, item:	5215-0120-
Geo number:	14-08-18-03392002000
Range:	18

Township:	08
Section:	14
Neighborhood:	233214.02
Use code:	000
Total acres:	0.36

Alachua County Tax Collector

Convenience Fees

Credit/Debit Card, Apple Pay, Google Pay, and PayPal Transactions: A **2.5% processing fee (minimum $2.50)** applies to non-DMV transactions. A **$2.50 processing fee** applies to DMV transactions.

International and Commercial Credit Card Transactions: A **3.95% processing fee (minimum $2.50)** applies to non-DMV transactions.

Bank Account (E-Check) Transactions: A **$1 processing fee** applies.

BOUNDARY SURVEY

LYING IN SECTION 14, TOWNSHIP 8 SOUTH,
RANGE 18 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA

LEGAL DESCRIPTION

LOTS 1, 2 AND 3, BLOCK 32, CLARK'S FIRST ADDITION TO THE CITY OF ALACHUA, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK A, PAGE(S) 108, OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA.

LEGEND

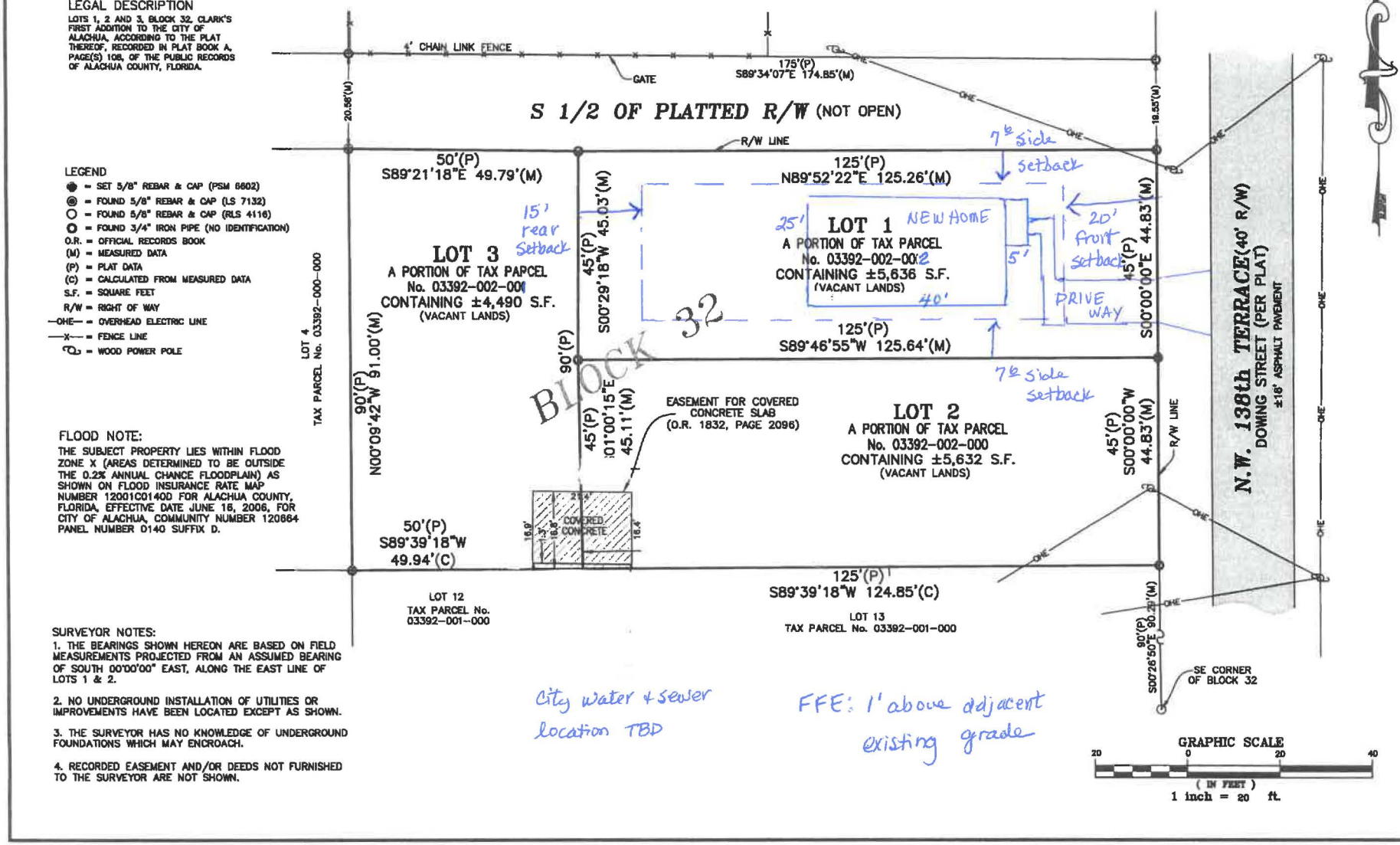
- ● = SET 5/8" REBAR & CAP (PSM 6602)
- ◉ = FOUND 5/8" REBAR & CAP (LS 7132)
- ○ = FOUND 5/8" REBAR & CAP (RLS 4116)
- O = FOUND 3/4" IRON PIPE (NO IDENTIFICATION)
- O.R. = OFFICIAL RECORDS BOOK
- (M) = MEASURED DATA
- (P) = PLAT DATA
- (C) = CALCULATED FROM MEASURED DATA
- S.F. = SQUARE FEET
- R/W = RIGHT OF WAY
- —OHE— = OVERHEAD ELECTRIC LINE
- —x— = FENCE LINE
- = WOOD POWER POLE

FLOOD NOTE:

THE SUBJECT PROPERTY LIES WITHIN FLOOD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 12001C0140D FOR ALACHUA COUNTY, FLORIDA, EFFECTIVE DATE JUNE 16, 2006, FOR CITY OF ALACHUA, COMMUNITY NUMBER 120664 PANEL NUMBER 0140 SUFFIX D.

SURVEYOR NOTES:

1. THE BEARINGS SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS PROJECTED FROM AN ASSUMED BEARING OF SOUTH 00°00'00" EAST, ALONG THE EAST LINE OF LOTS 1 & 2.
2. NO UNDERGROUND INSTALLATION OF UTILITIES OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN.
3. THE SURVEYOR HAS NO KNOWLEDGE OF UNDERGROUND FOUNDATIONS WHICH MAY ENCROACH.
4. RECORDED EASEMENT AND/OR DEEDS NOT FURNISHED TO THE SURVEYOR ARE NOT SHOWN.



City water & sewer location TBD

FFE: 1' above adjacent existing grade

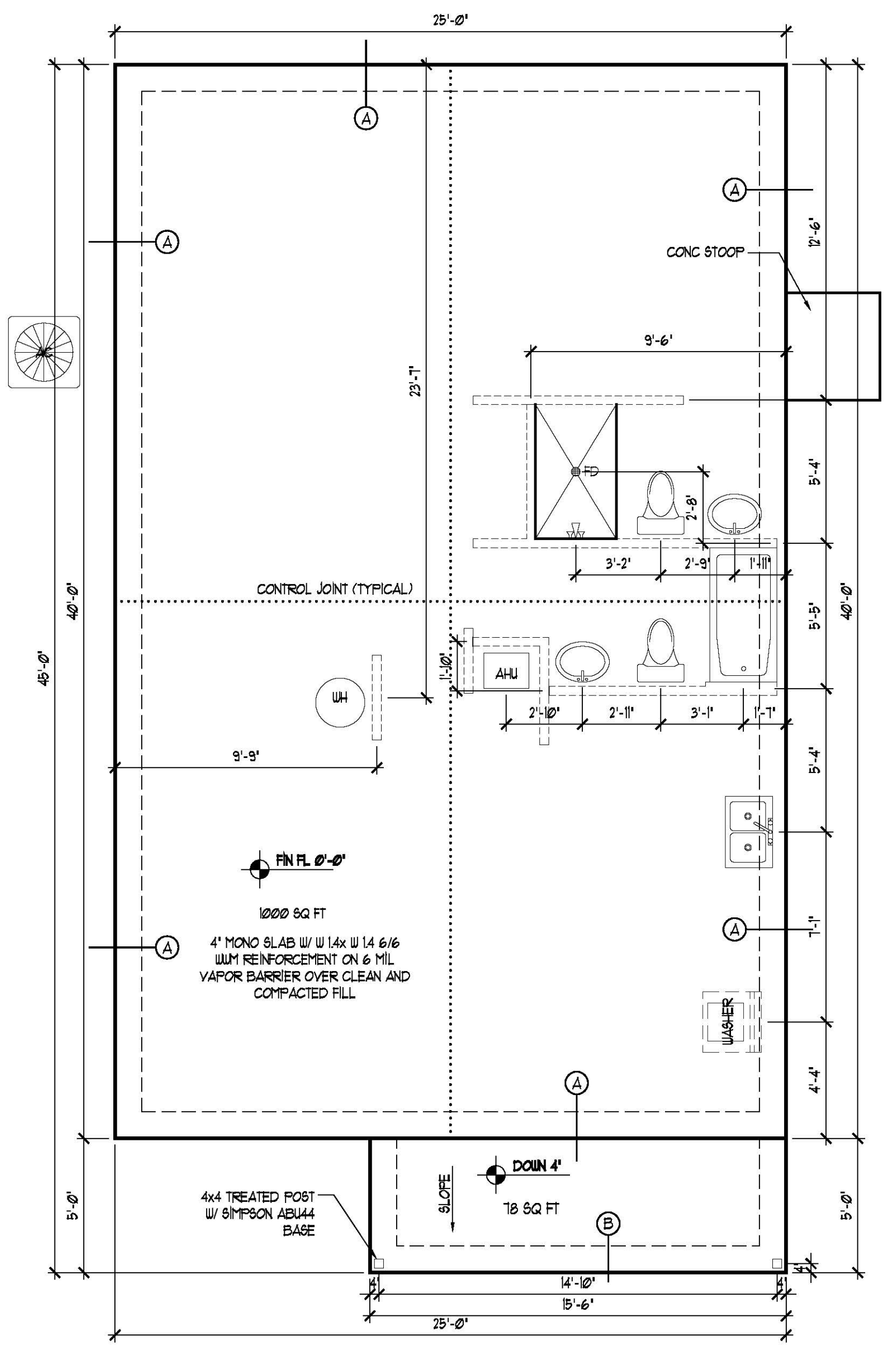
CERTIFIED TO:
STAG VENTURES, LLC, A UTAH LIMITED LIABILITY COMPANY
U.S. TITLE
WESTCOR LAND TITLE INSURANCE COMPANY

FLOWERS SURVEYING AND MAPPING INC
207 SE CONDOR GLEN
HIGH SPRINGS, FLORIDA 32643
(386) 462-0130

LEIGH ANN FLOWERS
Leigh A Flowers
PROFESSIONAL SURVEYOR & MAPPER
FLA LICENSE NO. 6602

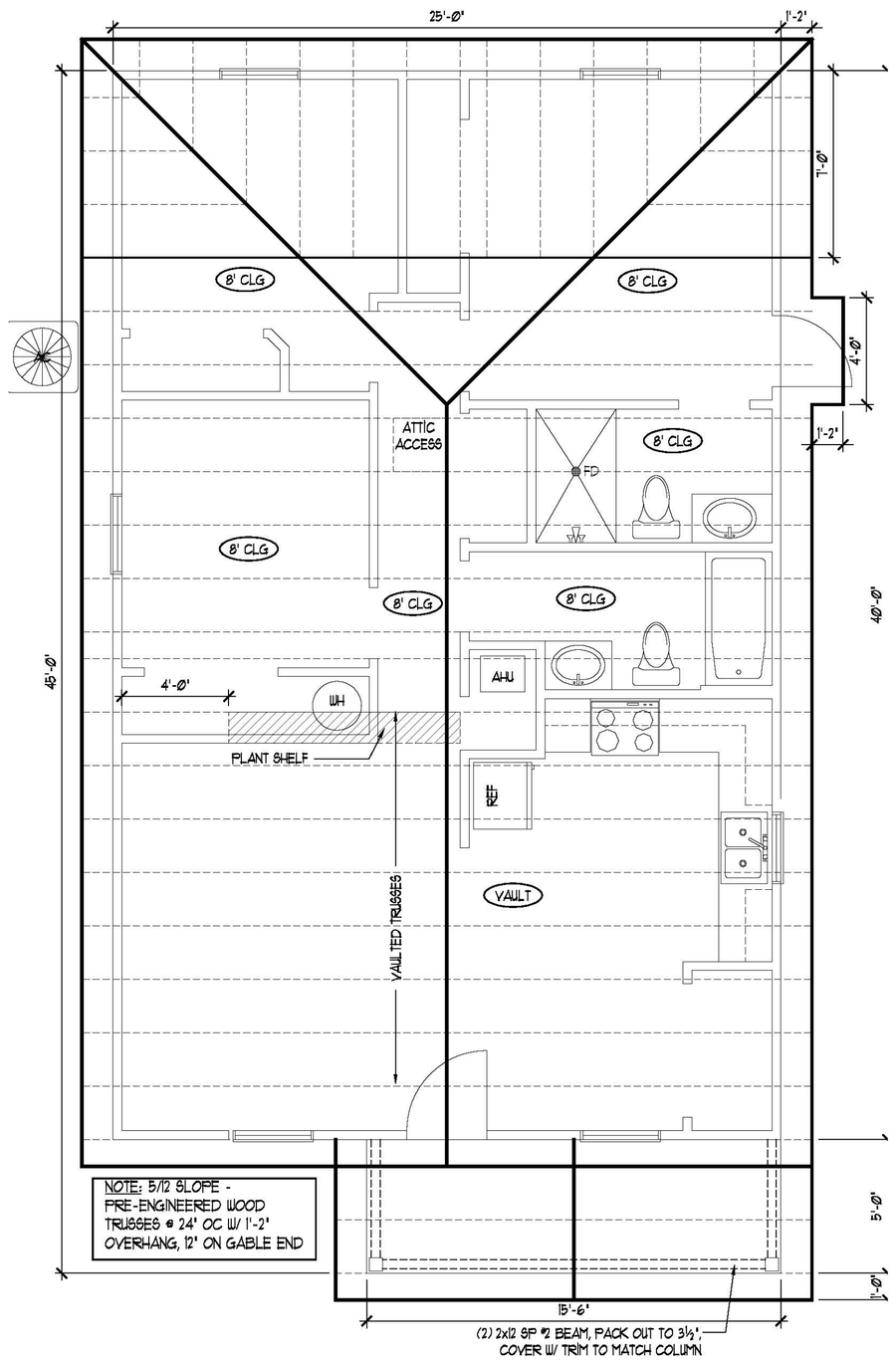
FIELD BOOK: SEE FILES | JOB NUMBER: 24-008
DRAWN BY:
CHECKED BY:
SURVEY DATE: 3/4/26
SHEET 1 OF 1

FLA HOMES INC
13919 NW 145th Ave
Alachua FL 32615
3/23/26 D. Herring, agent



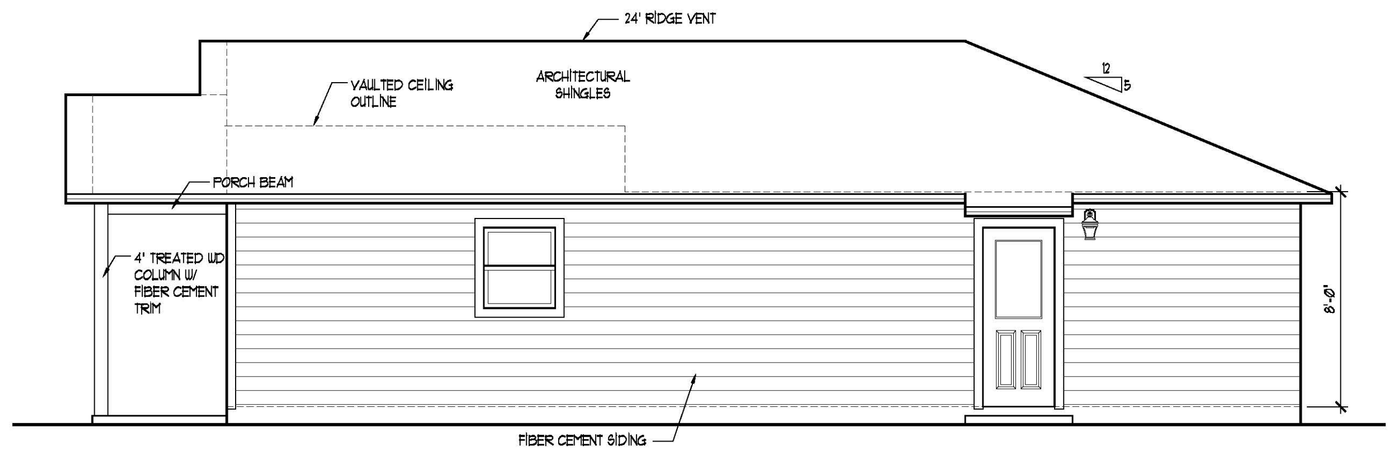
FOUNDATION PLAN

SCALE: ¼" = 1'-Ø"



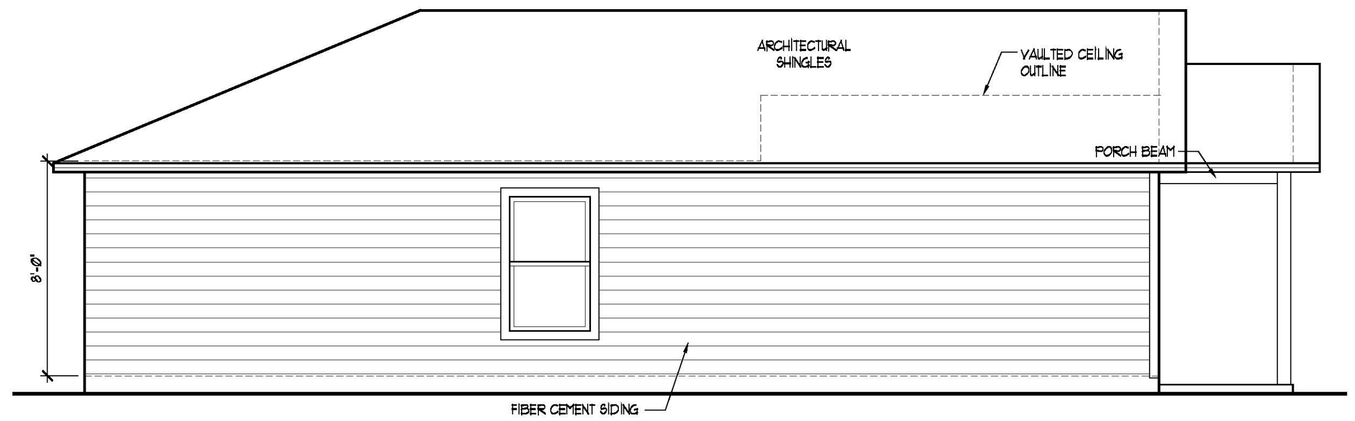
ROOF TRUSS FRAMING PLAN

SCALE: ¼" = 1'-Ø"



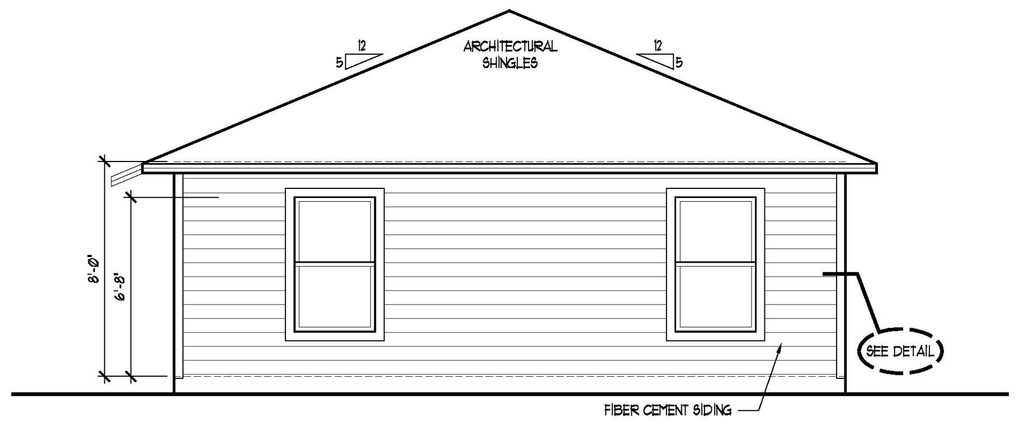
LEFT SIDE ELEVATION

SCALE: ¼" = 1'-Ø"



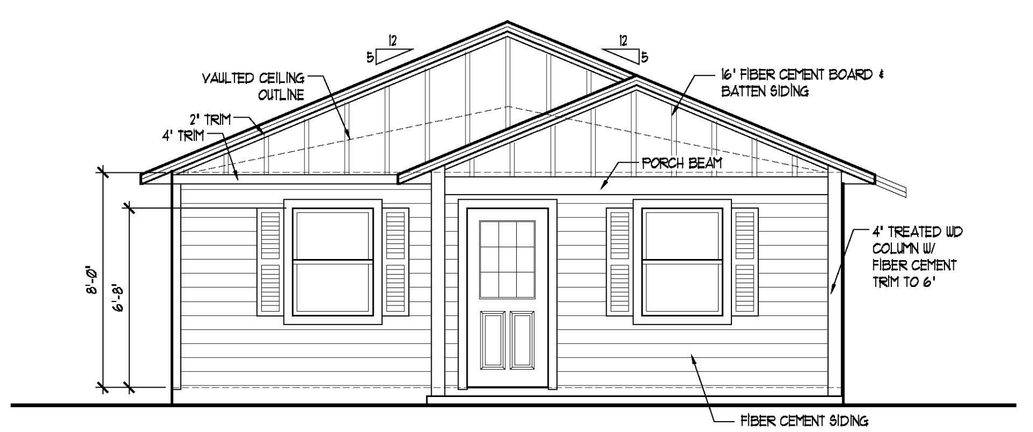
RIGHT SIDE ELEVATION

SCALE: ¼" = 1'-Ø"



REAR ELEVATION

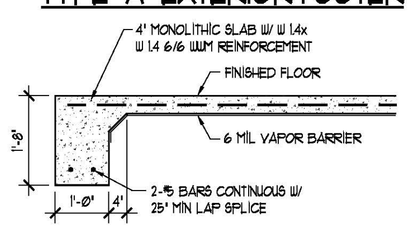
SCALE: ¼" = 1'-Ø"



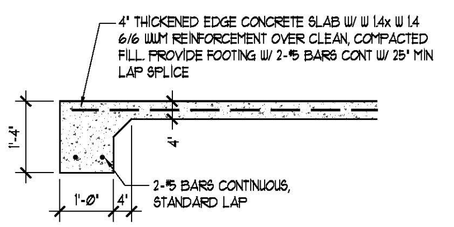
FRONT ELEVATION

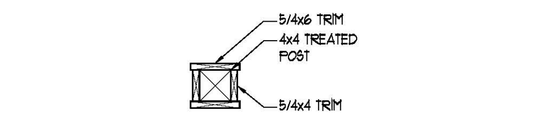
SCALE: ¼" = 1'-Ø"

TYPE 'A' EXTERIOR FOOTER

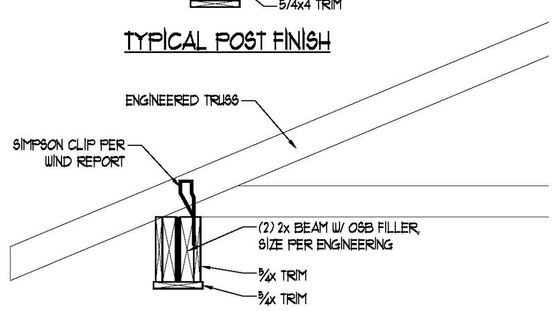


TYPE 'B' PORCH FOOTER

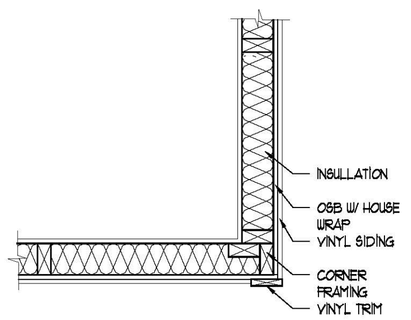




TYPICAL POST FINISH



TYPICAL BEAM FINISH



FRONT & REAR TRIM DETAIL

CUSTOMER NAME:

FLA HOMES, INC. R/C

13919 NW 145TH AVENUE, ALACHUA, FLORIDA 32615
(386) 418-4663 flahomes@windstream.net LICENSE #: CGC 052062

PLAN NAME: CITRUS III MODEL

SCALE: 1/4" = 1'-0" UNLESS OTHERWISE NOTED

SHEET NUMBER 2 of 2

AREA SUMMARY	
H/C:	1000
FRONT PORCH	78
REAR PORCH	N/A
GARAGE	N/A
TOTAL:	1078

REVISION DATE
JULY 29, 2024

SUBDIVISION:

LOT #:

PAGE CONTENT: EXTERIOR ELEVATIONS, FOUNDATION & ROOF TRUSS PLAN & DETAILS

DRAWN BY: JOHN RICHTER
HOME ALONE DESIGNS
folome@bellsouth.net

*ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL CODES
*FLA HOMES, INC. ASSUMES NO RESPONSIBILITY OF USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF FLA HOMES, INC. IS PROHIBITED
*MODIFICATION AS NECESSARY TO MEET CODE REQUIREMENTS OR TO FACILITATE MECHANICAL INSTALLATIONS OR TO ACCOMMODATE MANUFACTURED EQUIPMENT IS EXPECTED. WE RESERVE THE RIGHT TO MAKE ANY CHANGES FOR ANY REASON, AT ANY TIME, PROVIDING THE CHANGES COMPLY WITH APPLICABLE LOCAL CODES
*CONTRACTOR SHALL VERIFY ALL DRAWINGS, AND COORDINATE ALL DRAWINGS WITH ACTUAL CONDITIONS. THE SUB-CONTRACTOR SHALL NOTIFY THE BUILDER IN WRITING WHEN A DISCREPENCY, ERROR, OR OMISSION EXISTS. THE SUB-CONTRACTOR SHALL NOT PROCEED WITHOUT LOCAL CODES AND CONTACT THE BUILDER FOR PROPER ADJUSTMENT.

since Marshall took office. previously asked Marshall

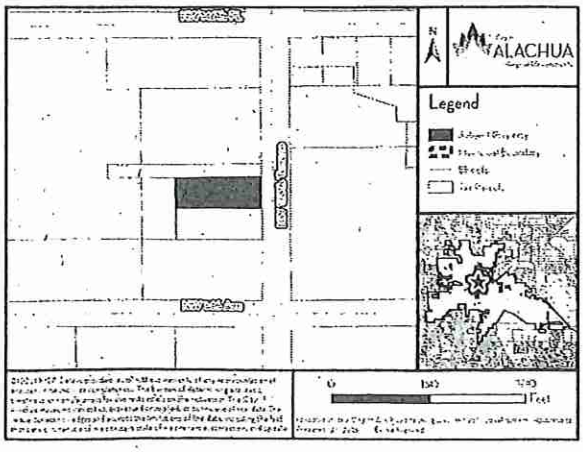
City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application No. PCA26-0003 | Certificate of Appropriateness

An application by Fla Homes, Inc., a Delaware corporation (agent), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company (owner), for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District located at 14620 Northwest 138 Terrace consisting of 0.13 acres; Tax Parcel 03392-002-002.



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. one week prior to the date of hearing. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

(Published: Alachua County Today - July 30, 2026)

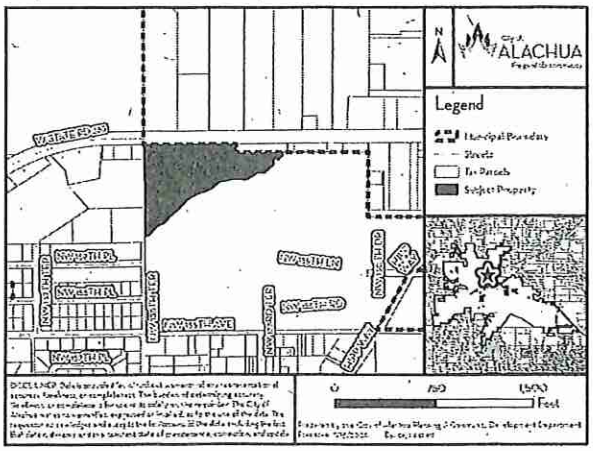
City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application No. PSP25-0006 | Tolosa North Site Plan Application

A request by JBrown Professional Group, Inc. (the "Applicant" & "Agent") on behalf of Alachua Habitat for Humanity, Inc. (the "Property Owner") for a site plan proposing the construction of 10 quadplex structures and two townhouse structures, for a total of 50 multifamily dwelling units, with associated site improvements on a ± 7.47-acre subject property generally located along the south of W State Road 235 and east of NW 135th Terrace (Tax Parcels: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000). FLU: Moderate Density Residential; Zoning: PD-R.



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application, staff report, and any related materials are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. one week prior to the date of hearing. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL, 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 1501 at least 48 hours prior to the public hearing.

(Published: Alachua County Today - July 30, 2026)

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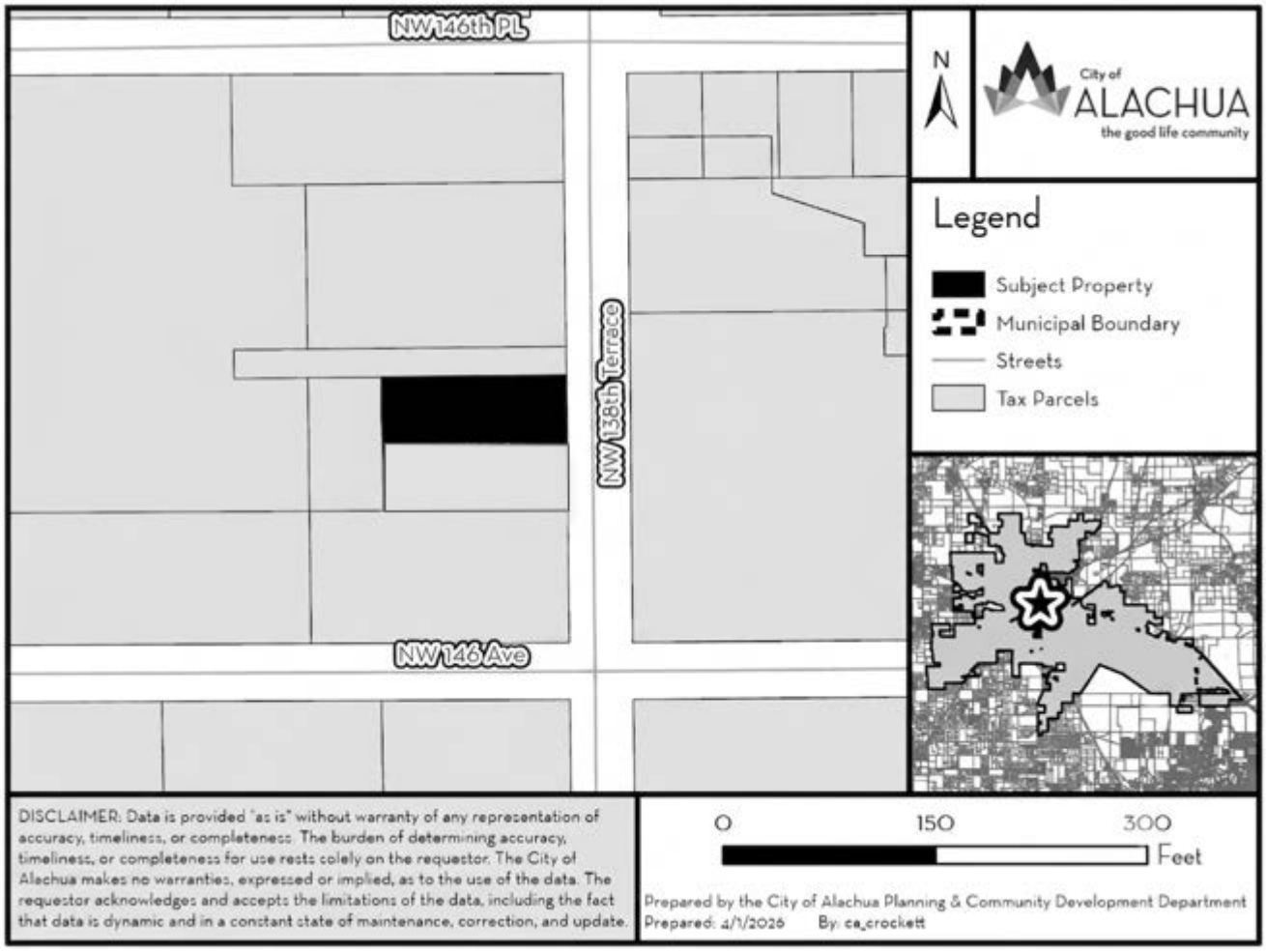
Application No. PCA26-0003 | Certificate of Appropriateness

An application by Fla Homes, Inc., a Delaware corporation (agent), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company (owner), for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District located at 14620 Northwest 138 Terrace consisting of 0.13 acres; Tax Parcel 03392-002-002.



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accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

JEAN-PAUL W. PEREZ

Principal Planner
Planning and Community Development Department

Jean-Paul W. Perez is a Principal Planner for the City of Alachua. He supports the functions of the Planning and Community Development Department, conducts technical review of development permit petitions of various scales and complexities, coordinates the development review process across multiple departments, governmental agencies, and professional consultants, and assists members of the public. Jean-Paul holds a bachelor of urban and regional planning from Florida Atlantic University.

EDUCATION

Florida Atlantic University (FAU)
College of Science
Bachelor of Urban and Regional Planning (BURP)
Graduated: August 2013

WORK EXPERIENCE

City of Alachua, Florida | Principal Planner | June 2026 – Present
15100 NW 142nd Ter, Alachua, Fl 32615 | 352-384-2444
City of Newberry, Florida | Principal Planner | April 2022 – May 2026
25493 NW 1 Ave, Newberry, Fl 32669 | 352-472-2161
Broward County, Florida | Senior Planner | November 2017 – March 2022
1 N University Blvd, Plantation, FL 33324 | 954-357-8361
City of Hollywood, Florida | Planning Administrator | March 2015 – October 2017
2600 Hollywood Blvd, Hollywood, FL 33020 | 954-967-4636
City of Boca Raton, Florida | Land Development Coordinator | March 2014 – February 2015
201 W Palmetto Park Rd, Boca Raton, FL 33432 | 561-393-7700
Town of Jupiter, Florida | Building Support Specialist II | July 2013 – February 2014
210 Military Trail, Jupiter, FL 33458 | 561-746-5134

CERTIFICATES AND OTHER SKILLS

Skills & Proficiencies
Project Management | Proficient
Technical Writing & Analysis | Proficient
Public Speaking | Proficient
ArcGIS Pro | Competent
Certifications & Professional Organizations
Crime Prevention Through Environmental Design | Certified Practitioner | December 2012
Certificate in Geographical Information Systems (FAU) | Certificate Recipient | August 2013
Stormwater, Erosion, and Sedimentation Control Inspector (FDEP) | FSESCI Qualified Inspector

Board Agenda
Item

MEETING DATE: August 11, 2026

SUBJECT: PCA26-0004: CERTIFICATE OF APPROPRIATENESS FOR THE CONSTRUCTION OF A DETACHED SINGLE-FAMILY RESIDENCE ON A PROPERTY GENERALLY LOCATED AT THE NORTHWEST CORNER OF NORTHWEST 146 AVENUE AND NORTHWEST 138 TERRACE (TAX PARCEL 03392-002-001).

PREPARED BY: Jean Paul Perez

RECOMMENDED ACTION:

I move that this Board approve the Certificate of Appropriateness requested by Eagleview Endeavors, LLC for the construction of a detached single-family residence.

Summary

The Planning Division received an application by Fla Homes, Inc., a Delaware corporation ("Applicant"), on behalf of Eagleview Endeavors, LLC, a Florida limited liability company ("Owner"), for a certificate of appropriateness for a detached single-family residence in the City of Alachua Downtown Historic District. The property is generally located at northwest corner of Northwest 146 Avenue and Northwest 138 Terrace and identified by Alachua County Property Appraiser as Tax Parcel No. 03392-002-001 ("Property"). The Property has a future land use classification of Medium Density Residential (8 du/ac) and an underlying RSF-3 zoning designation. The Property is also located within the Community Redevelopment Area. Additional information and analysis is provided in the attached staff report.

FINANCIAL IMPACT

None.

ADDITIONAL FINANCIAL INFORMATION

None.

ATTACHMENTS

1. Staff Report
2. Application Materials
3. Public Notice
4. Resume on File, Jean-Paul W. Perez

City of Alachua
Planning & Community Development Department
Staff Report

Planning & Zoning Board Hearing Date: August 11, 2026
Quasi-Judicial Hearing **Application #: PCA26-0004**

SUBJECT:	A request for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District
APPLICANT/AGENT:	Fla Homes, Inc.
PROPERTY OWNER:	Eagleview Endeavors, LLC
LOCATION:	Northwest corner of Northwest 146 Avenue and Northwest 138 Terrace
PARCEL ID NUMBER:	03392-002-001
FLUM DESIGNATION:	Medium Density Residential (8 du/ac)
ZONING:	RSF-3
OVERLAY:	City of Alachua Downtown Historic District
ACREAGE:	±0.1
PROJECT PLANNER:	Jean-Paul W. Perez
RECOMMENDATION:	Staff recommends that the Planning & Zoning Board approve the certificate of appropriateness.
RECOMMENDED MOTION:	*I move that this Board approve the Certificate of Appropriateness requested by Eagleview Endeavors, LLC for the construction of a detached single-family residence.*

SUMMARY

The Planning Division received an application by Fla Homes, Inc., a Delaware corporation ("Applicant"), on behalf of Eagleview Endeavors, LLC, a Florida limited liability company ("Owner"), for a certificate of appropriateness for a detached single-family residence in the City of Alachua Downtown Historic District. The property is generally located at northwest corner of Northwest 146 Avenue and Northwest 138 Terrace and identified by Alachua County Property Appraiser as Tax Parcel No. 03392-002-001 ("Property"). The Property has a future land use classification of Medium Density Residential (8 du/ac) and an underlying RSF-3 zoning designation. The Property is also located within the Community Redevelopment Area.

EXISTING USES

The Property is vacant and was previously owned by the First Presbyterian Church of Alachua ("Church"). The parcels were sold and subdivided with the Alachua County Property Appraiser in a manner consistent with the original platted lot and block boundaries (reference Lots 1-3, Block 32, Clark's First Addition to the City of Alachua, Plat Book A, Page 108, Official Records of Alachua County, Florida) for the purposes of infill development.

SURROUNDING USES

The existing uses, Future Land Use Map ("FLUM") designations, and zoning districts of the surrounding area are identified in Table 1. The information below is not intended to be all-inclusive, and may not identify all existing uses, FLUM designations, and/or zoning districts surrounding the subject property. The referenced dates of construction of the adjacent structures was obtained from the public records made available by the Alachua County Property Appraiser. Alachua County Property Appraiser records show major modifications to the adjacent structures have occurred which may have impacted the historical integrity and/or appearance.

Table 1. Surrounding Land Uses

Direction	Existing Use(s)	FLUM Designation(s)	Zoning District(s)
North	Single-family residence (circa 1959)	Medium Density Residential (8 du/ac)	RSF-3
South	Single-family residence (circa 1900)	Medium Density Residential (8 du/ac)	RSF-3
East	Vacant (PCA26-0003)	Medium Density Residential (8 du/ac)	RSF-3
West	Church (circa 1900)	Medium Density Residential (8 du/ac)	RSF-3

[Remainder of this page intentionally left blank.]

HISTORIC OVERLAY DISTRICT

Section 3.7.2(A) of the City's Land Development Regulations ("LDRs") establishes the standards for the Historic Overlay District (including the City of Alachua Downtown Historic District). The general purposes of the Historic Overlay District are to:

1. Protect the beauty of the City and improve the quality of its environment through identification, recognition, conservation, maintenance and enhancement of its historic and architectural resources;
2. Protect against designated land and buildings or structures having historic and architectural significance from the intrusion of development that fails to protect such significance;
3. Stabilize and improve property values in such districts, strengthening the local economy;
4. Foster civic pride; and
5. Encourage redevelopment of the City's downtown.

Section 3.7.2(A)(2)(a) of the LDRs establishes the City of Alachua Downtown Historic District, which includes all lots within an area bounded by NW 145th Avenue, NW 145th Terrace, NW 148th Place, and NW 138th Terrace. The area of the district, the subject property, and contributing historic structures are shown in Figure 5.

COMPREHENSIVE PLAN CONSISTENCY ANALYSIS

The goals, objectives, and policies (GOPs) identified below are provided to establish a basis of the application's consistency with the Comprehensive Plan. There may be additional GOPs which the application is consistent with that are not identified within this report. An evaluation and findings of consistency with the identified GOPs is also provided below.

Future Land Use Element

Goal 1: *Historic, Cultural and Archeological Preservation*

The City shall encourage the preservation of historic, cultural, and archeological resources through the use of preservation districts, land acquisition, and partnerships with local, state and federal protection agencies.

Objective 3.1: *Historic Preservation Districts*

The City shall encourage property owners to maintain and improve buildings, grounds, streetscape and vistas and encourage settlement and revitalization of established neighborhoods.

Policy 3.5.a: The City shall ensure that future development within a historic district is sensitive to the historic character of the historic district.

Policy 3.9.a: An historic preservation overlay zoning classification shall be used to protect significant historic resources.

Policy 3.10.a: The City shall establish and maintain Certificate of Appropriateness procedures for reviewing exterior changes to historic buildings, structures and sites in historic districts.

Evaluation & Findings: The Applicant has submitted materials to support that the design of the proposed residence. The application represents a development pattern consistent with original plat of the City and in a modest style akin to early Florida settler homes.

FINDINGS OF FACT: COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

Compliance with the Zoning District Standards

The City's LDRs recognizes that historic and architectural resources are assets. The stated purpose of historic preservation is to protect the beauty of the city, to protect the land, buildings, structures, and sites, stabilize and improve property values, foster civic pride, and encourage redevelopment of the downtown. Given the unique standards and, where appropriate, establishes exceptions when strict application of the standards would negatively impact reasonable use of a property.

The RSF-3 zoning district requires a minimum lot size of 10,000 square feet (roughly a quarter-acre) and a maximum gross density of 3 dwelling units per acre. The Property is approximately half of the required size at 4,490 square feet and represents a density of approximately 8 du/ac. However, Section 8.4.2(A), LDRs, states unimproved lots of record in residential districts may be developed with one single-family detached dwelling and any customary accessory structures. Specifically, lots that were lawfully created prior to January 22, 1992 (adoption of the first Comprehensive Plan for the City of Alachua and the first establishment of known lots of record), are exempt from minimum lot area and width standards of the applicable zoning district. In this case, the Property was created on the Clark's First Addition to the City of Alachua (Plat Book A, Page 108, Alachua County Official Records) plat recorded February 12, 1914. Submitted drawings show the residence will meet minimum yard setback requirements.

The provided survey depicts a slab, which encroaches the minimum rear yard setback, that is connected to a detached shed on the southern adjacent property. The date of the installation of the slab is unknown and represents a pre-existing nonconformity. Staff acknowledges the encroachment and has not made a determination whether the slab is lawful or unlawful. Staff has advised the Applicant resolve the issue with the adjacent owner. Staff does not recommend the Board address the encroachment through conditions, only that the improvement is nonconforming and be deemed a civil matter. Pursuant to Section 8.3.5, LDRs, should the slab require repairs costing greater than 50% of the value of the slab or complete replacement, it may not be reconstructed in its current location and must comply with current LDRs.

Municipal potable water and sanitary sewer are available to the property and is in the municipal electric service territory. Connection to essential municipal services will be required prior to the issuance of a Certificate of Occupancy.

Certificate of Appropriateness Standards

Section 2.4.6(F) of the City's LDRs establishes the standards with which all certificates of appropriateness must comply. The application has been reviewed for with those standards and an evaluation of the findings is provided below:

(F) *Certificate of appropriateness standards*. The following standards shall be applied in determining whether to approve, approve with conditions, or deny a certificate of appropriateness:

(1) *Affect exterior appearance*. Whether the proposed action will affect the exterior appearance of a building or structure and if such action will be visible from a street, or if such action will affect the appearance of any interior portion of a building or structure listed on the National Register of Historic Places or a building or structure listed as a contributing building to the City of Alachua Downtown Historic District.

Evaluation & Findings: The proposed residence will be oriented to face a portion of a partially vacated public right-of-way which connects to Northwest 138 Terrace. Siting of the building will be consistent with existing development patterns in the area on similarly situated lots. Based on proposed design and building siting, issuing the Certificate of Appropriateness will not negatively impact the historical integrity of the City of Alachua Downtown Historic District.

(2) *Affect consistency with historical, architectural or other relevant qualities*. Whether any such affect is consistent with the historical, architectural, or other qualities which the Historic Overlay District seeks to protect and preserve.

Evaluation & Findings: The proposed residence imitates a shotgun style of American architecture. The home is clad with lap board siding and edge trim utilizing modern materials on the side and rear facades. Board and baton siding is used on the front façade and gable. The front façade has a recessed entrance and front porch that spans the width of the front facade. The roof utilizes a gable in the front while the rear is hipped, generally straddling the line between modern efficiency and imitating historical aesthetics. A color palette was not provided and may be a consideration of the Board. The design and siting of the proposed residence is consistent with the historical and architectural development patterns of the time period of incorporation of the City of Alachua.

(3) *Negative or positive impact on neighboring properties of historical significance*. Whether the proposed action will have a negative or positive impact on neighboring properties that have historic significance.

Evaluation & Findings: Based on the design and siting presented to staff, the proposed development of the property represents a positive impact to the site and does not represent a negative impact on the adjacent properties.

(4) *Effect of denial*. Whether the denial of a certificate of appropriateness would deprive the owner of reasonable beneficial use of their property.

Evaluation & Findings: The construction of a detached single-family residence on the property is a reasonable beneficial use of the property and the principal use desired within the zoning district. Denial would require a rational nexus and warrant a more thorough investigation of either the deficiencies of the Application and/or the historical merits of the vacant parcel.

(5) *Demolition*. In cases where a certificate of appropriateness is proposed for demolition of all or a portion of a historic property, the applicant shall demonstrate:

(a) That no other feasible alternative can be found;

(b) The extent to which the property may not be beneficially used without approval of the demolition;

(c) The ability to obtain a reasonable return from the existing structures; and

(d) Whether or not the building, structure, or property contributes to a Historic Overlay District, or no longer has historical significance.

Evaluation & Findings: The standard is not applicable for this request.

City of ALACHUA
the good life community

Authorized Agent Affidavit

Planning & Community Development Department

A completed authorized agent affidavit or letter of authorization must be provided/included with the application materials whenever a property owner wishes to have an application submitted on their behalf by a third party or tenant. If a property has multiple owners, each owner must provide authorization for the third party to submit the application.

NOTE: *Incomplete affidavits will not be accepted and may delay the processing of applications.*

A. PERSON PROVIDING AUTHORIZATION

(i.e., the property owner)

Full Name: Eagleview Endeavors LLC Title: Owner

Organization:

Mailing Address: 4605 NW 103rd Lane

City: Gainesville State: FL Zip: 32653

Phone: Mobile: 352 275 6097

Email: willcherring@gmail.com

B. PROPERTY INFORMATION

Address of Subject Property: Lot 3 NW 138th Terrace

Tax Parcel Number(s): 03392-002-001

Acreage: 0.1

C. AUTHORIZED AGENT

(i.e., the third party submitting the associated application)

Full Name: Debbie Herring Title: Agent

Organization: Fla Homes Inc

Mailing Address: 13919 NW 145th Ave Alachua FL 32615

Phone: 386 418 4663 Mobile: 352 262 0586

Email: flahomes@windstream.net

D. AUTHORIZED/REQUESTED ACTIONS

(Include any action or application that the authorized agent will be permitted to apply for and represent on behalf of the property owner)

Certificate of Appropriateness
Anything needed for Building Permit

E. SIGNATORY

I/We hereby certify that I/we am/are the property owner(s) of record or I/we have received authorization from the property owner of record to file an application for the actions listed above in Section "D" of this form related to the property identified above in Section "B" of this form. I/we authorize the agent listed above in Section "C" of this form to act on my/our behalf for the purposes of this application and those actions listed above in Section "D" of this form.

Under penalty of perjury, I/we certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Property Owner

Signature of Co-property Owner

William Carl Herring IV, Manager
Printed Name of Property Owner

Printed Name of Co-property Owner

State of Florida
County of Alachua

The forgoing application is acknowledged before me by means of ☐ physical appearance or ■ online notarization this 20 day of July, 2026 by William Carl Herring IV, Manager
■ who is/are personally known to me, or ☐ who has/have produced as identification.

Notary Public State of Florida
Kristy D Morgan
My Commission HH 803861
Expires 6/6/2030

Signature of Notary Public
State of: Florida
Print Name: Kristy D Morgan
My Commission Expires: 6/6/2030

City of ALACHUA

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY
Case #: _____
Application Fee: $_____
Filing Date: _____
Acceptance Date: _____
Review Type: P&Z

Certificate of Appropriateness Application

Reference City of Alachua Land Development Regulations 2.4.6

You must have all information for your application to be considered complete. Incomplete applications will not be accepted.

A. PROJECT TYPE

☐ Demolition ☐ Removal
☒ New Construction ☐ Addition
☐ Alteration of Exterior Features

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☒ Agent
2. Name of Applicant(s) or Contact Person(s): Debbie Herring Title: Agent
   Company (if applicable): Fla Homes Inc
   Physical address: 13919 NW 145th Ave
   Mailing Address: Same As Above
   City: Alachua State: FL ZIP: 32615
3. If the applicant is agent for the property owner*:
   Name of Owner (title holder): Eagleview Endeavors LLC
   Mailing Address: 4605 NW 103rd Lane
   City: Gainesville State: FL ZIP: 32653
   Telephone: 386-418-4663 FAX: NA e-mail: flahomes@windstream.net

C. PROPERTY AFFECTED

1. Address of Subject Property: TBD NW 138th Terrace Lot 3, Alachua, FL 32615
2. Parcel ID Number(s): 03392-002-001
3. Existing Use of Property: Vacant
4. Future Land Use Map Designation: Medium Density Residential
5. Zoning Designation: Residential Single Family (RSF3)
6. Acreage: 0.1
7. Number of Existing Structures on the Property: None

D. ATTACHMENTS

1. A detailed drawing which identifies the dimensions of the property, location of existing building(s) and those proposed (if applicable), distances of buildings from property lines, building setback lines (dimensioned), and names of adjacent streets. A current survey or site plan may be submitted to meet this requirement, if all requested information is provided.
2. Set of plans and specifications for the project. All drawings must be clear, concise, and drawn to scale. Plans must include and dimension all exterior elevations and provide a dimensioned floor plan illustrating all rooms within any proposed addition (if applicable).
3. Photographs of existing building(s) (all facades or elevations of building(s) and adjacent buildings). Photographs must clearly illustrate the appearance and conditions of existing building(s) affected by the project, close-up pictures of any specific elements under consideration by the project (for

example, windows or doors if proposed to be removed and/or replaced), as well as photographs depicting such elements and their relation with neighboring buildings.

4. If demolition is proposed, a report from a registered structural engineer stating the condition of the structure.
5. The applicant must provide a report which addresses the following:

   (1) ***Affect Exterior Appearance***

   Whether the proposed action will affect the exterior appearance of the subject land or structure or the appearance of any interior portion specifically identified in any relevant designation ordinance.

   (2) ***Affect Consistent with Historical, Architectural, or Other Relevant Qualities***

   Whether any such affect is consistent with the historical, architectural, or other qualities which the relevant designation ordinance seeks to protect and enforce.

   (3) ***Negative or Positive Impact on Neighboring Lands of Historical Significance***

   Whether the proposed action will have a negative or positive impact on neighboring lands that have historic significance.

   (4) ***Effect of Denial***

   Whether the denial of a Certificate of Appropriateness would deprive the owner of reasonable beneficial use of their land.

   (5) ***Demolition***

   In cases where a Certificate of Appropriateness is proposed for demolition of all or a portion of a Historic Property, the applicant shall demonstrate:

   (a) That no other feasible alternative can be found;

   (b) The extent to which the land may not be beneficially used without approval of the demolition;

   (c) The ability to obtain a reasonable return from the existing structure(s); and

   (d) Whether or not the building, structure, or land contributes to a Historic Overlay (HO) District, or no longer has historical significance.

6. Proof of ownership.
7. Proof of payment of taxes.
8. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

All attachments are required for a complete application. **A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.**

I/We certify and acknowledge that:

1. I /We must comply with the current Florida Building Code through the Building Department and obtain any necessary permits prior to receiving a final certificate of occupancy.
2. I/We must comply with the requirements of the Alachua County Fire Marshall.
3. I /We must obtain a Local Business Tax Receipt.
4. I/We must meet parking standards and any use specific standards for the zoning district
5. Falsifying information on this application may result in the Certificate of Appropriateness being revoked.

Debbie Herring, agent
Signature of Applicant

Signature of Co-applicant

Debbie Herring, Agent
Typed or printed name and title of applicant

Typed or printed name of co-applicant

07/20/2026
Date

Date

State of Florida County of Alachua

The foregoing application is acknowledged before me this 20 day of July, 2026, by Debbie Herring, Agent

who is/are personally known to me, or who has/have produced _____ as identification.

Notary Public State of Florida
Kristy D Morgan
My Commission HH 603861
Expires 6/6/2030

Kristy Morgan
Signature of Notary Public, State of Florida

PREPARED BY AND RETURN TO:
Name: William Herring, IV, of
Stag Ventures, LLC
Address: 4605 Northwest 103rd Lane
Gainesville, FL 32653

File No: None
Parcel No.: 03392-002-000

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 3647873 2 PG(S)
9/19/2025 10:49 AM
BOOK 5234 PAGE 1153
J.K. JESS IRBY, ESQ.
Clerk of the Court, Alachua County, Florida
ERECORDED Receipt # 1287730
Doc Stamp-Mort: $0.00
Doc Stamp-Deed: $0.70
Intang. Tax: $0.00

(Space Above This Line For Recording Data)

Quitclaim Deed

THIS QUITCLAIM DEED, executed this 10th day of September, 2025, by first party, Grantor, Stag Ventures, LLC, a Utah Limited Liability Company, whose post office address is 4605 Northwest 103rd Lane, Gainesville, FL 32653, to second party, Grantee Eagleview Endeavors, LLC, a Florida Limited Liability Company, whose post office address is 4605 Northwest 103rd Lane, Gainesville, FL 32653.

WITNESSETH, that the said first party, for the sum of $10.00, and other good and valuable consideration paid by the second party, the receipt whereof is hereby acknowledged, does hereby remise, release, and quitclaim unto the said second party forever, all the right, title, interest, claim, and demand which the said first party has in and to the following described parcel of land, and all improvements and appurtenances thereto, in Alachua, Florida:

Lot 3, Block 32, Clark's First Addition to the City of Alachua, according to the Plat thereof, recorded in Plat Book A, Page(s) 108, of the Public Records of Alachua County, Florida.

IN WITNESS WHEREOF, the Grantor has caused this Quitclaim Deed to be executed and delivered the day and year first above written.

Signed, sealed and delivered
in the presence of:

Stag Ventures, LLC, a Utah Limited Liability Company

By: William Herring
William Herring, IV

WITNESS
Jurisa Botes
PRINT NAME

WITNESS
John Donnelly
PRINT NAME

1203 NW 4th Ave. Gainesville FL 32601
WITNESS 1 ADDRESS

3956 NW 43rd Ct.
Gville, FL 32606
WITNESS 2 ADDRESS

STATE OF FLORIDA
COUNTY OF ALACHUA

The foregoing instrument was acknowledged before me by means of (X) physical presence or ( ) online notarization, this 10 day of September, 2025, by William Herring, IV of Stag Ventures, LLC, a Utah Limited Liability Company, (X) who is/are personally known to me or ( ) who has/have produced _____ as identification.

Kristy D. Morgan
Signature of Notary Public

Kristy D. Morgan
Print, Type/Stamp Name of Notary

Notary Public State of Florida
Kristy D. Morgan
My Commission HH 629783
Expires 6/6/2026

Real Estate Account #03392 002 000

Owner:
STAG VENTURES LLC

Situs:
UNASSIGNED LOCATION RE

Parcel details
Property Appraiser

Get Bills By Email
Sign up

2025 Annual Bill

ALACHUA COUNTY TAX COLLECTOR

Notice of Ad Valorem Taxes and Non-ad Valorem Assessments

BILL	AMOUNT DUE
2025 Annual Bill	$0.00

PAID

Print (PDF)

If paid by:
Nov 30, 2025

Please pay:
$0.00

Combined taxes and assessments: $1,177.41

SAVE TIME PAY ONLINE @ WWW.ALACHUACOLLECTOR.COM

Ad Valorem Taxes

MILLAGE		TAX
21.7696	$1,044.94	

Non-Ad Valorem Assessments

AMOUNT
$132.47

Parcel Details

Owner:	STAG VENTURES LLC
Situs:	UNASSIGNED LOCATION RE
Account	03392 002 000
Alternate Key	400002
Millage code	1700
Millage rate	21.7696
Assessed value:	$48,000
School assessed value:	$48,000

2025 TAX AMOUNTS

Ad valorem:	$1,044.94
Non-ad valorem:	$132.47
Total Discountable:	$1,177.41
Total tax:	$1,177.41

LEGAL DESCRIPTION

CLARKS 1ST ADD PB A-108 LOTS 1 2 3 BK 32 OR 5215/0120

LOCATION

Book, page, item:	5215-0120-
Geo number:	14-08-18-03392002000
Range:	18

Township:	08
Section:	14
Neighborhood:	233214.02
Use code:	000
Total acres:	0.36

Alachua County Tax Collector

Convenience Fees

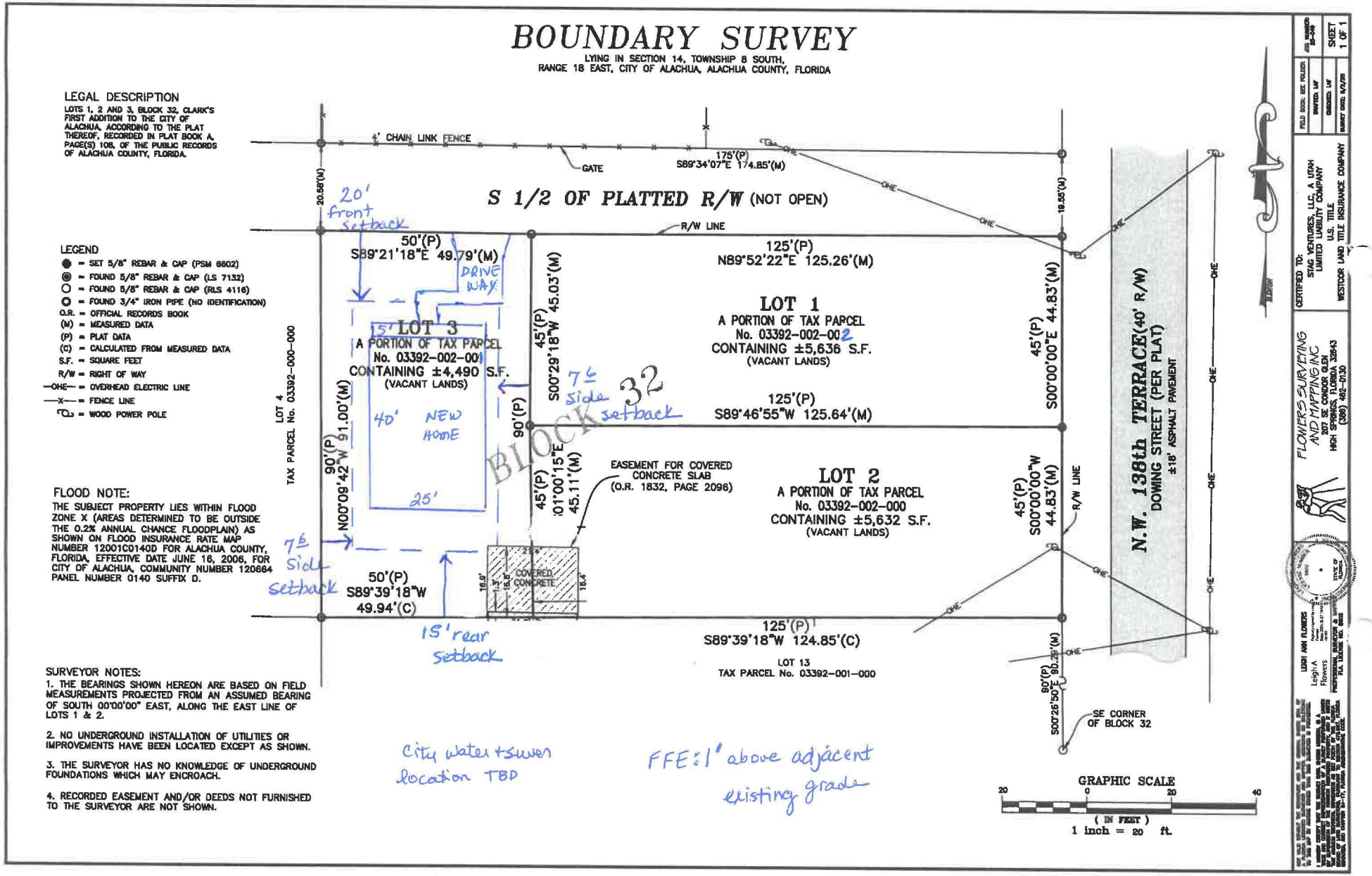
Credit/Debit Card, Apple Pay, Google Pay, and PayPal Transactions: A **2.5% processing fee (minimum $2.50)** applies to non-DMV transactions. A **$2.50 processing fee** applies to DMV transactions.

International and Commercial Credit Card Transactions: A **3.95% processing fee (minimum $2.50)** applies to non-DMV transactions.

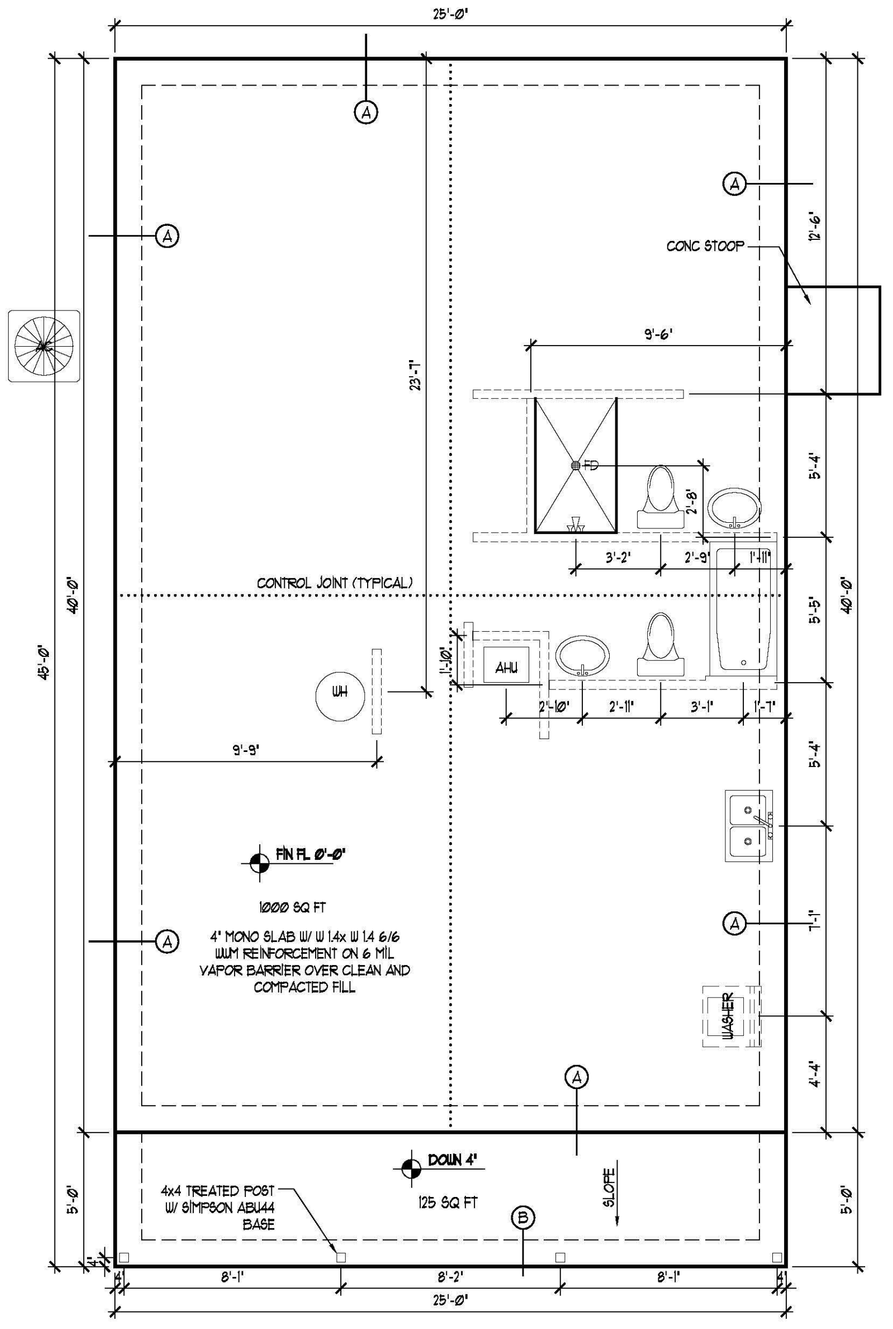
Bank Account (E-Check) Transactions: A **$1 processing fee** applies.

BOUNDARY SURVEY

LYING IN SECTION 14, TOWNSHIP 8 SOUTH, RANGE 18 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA

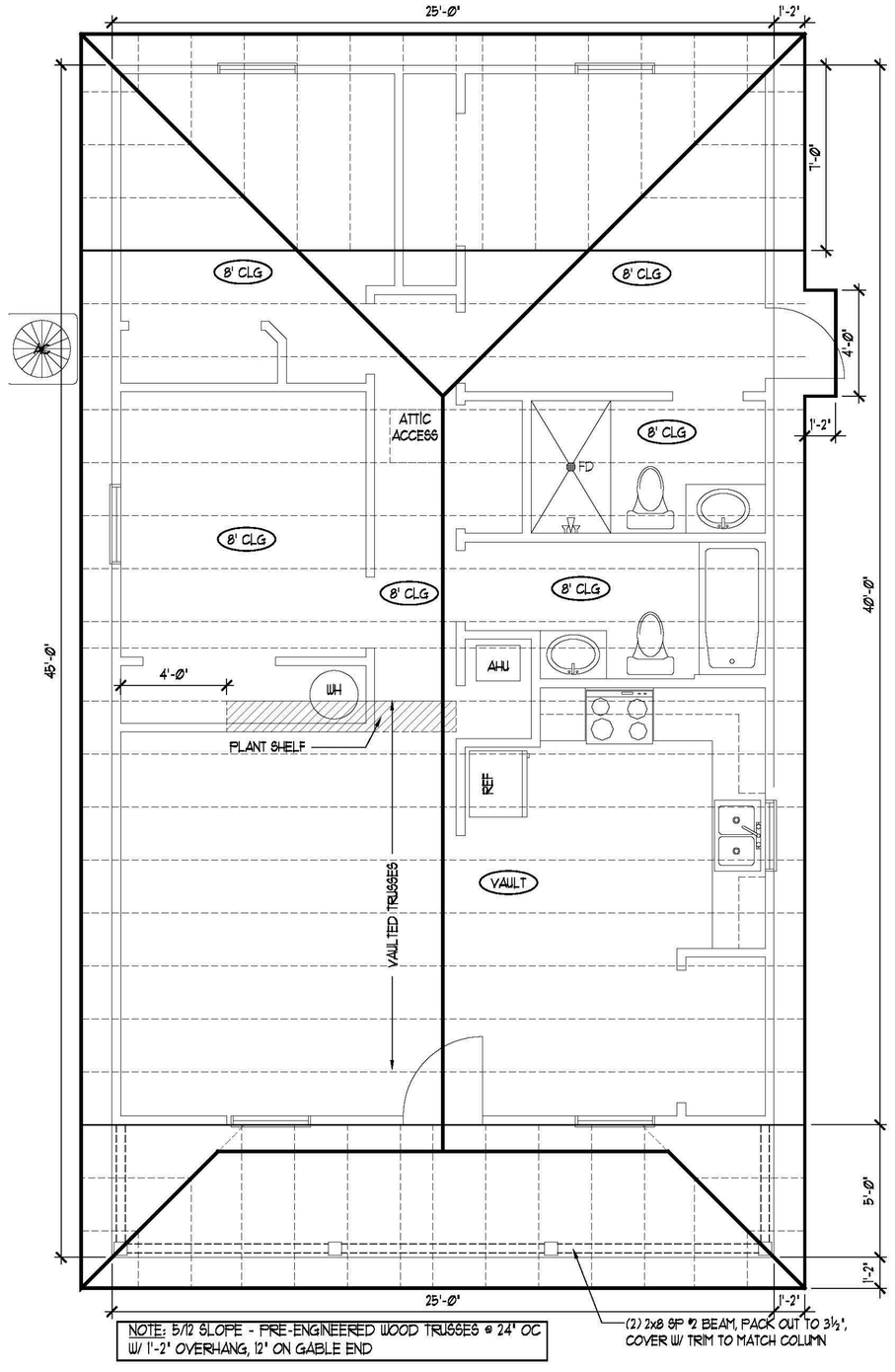


FLA HOMES, INC
13919 NW 145th Ave
Alachua FL 32615
3/23/26 D. Herring, agent



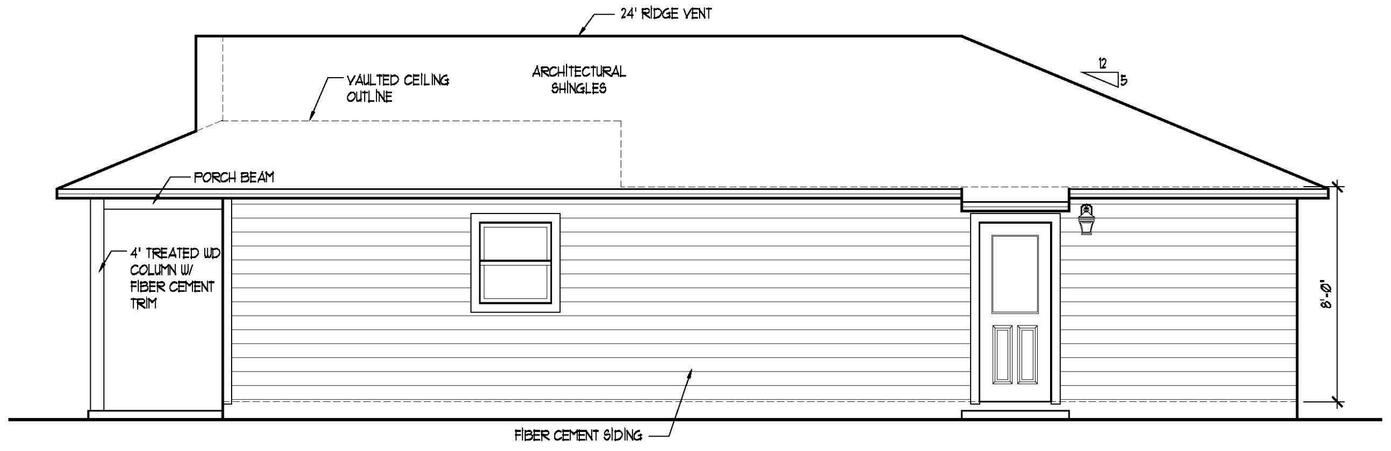
FOUNDATION PLAN

SCALE: ¼" = 1'-Ø"



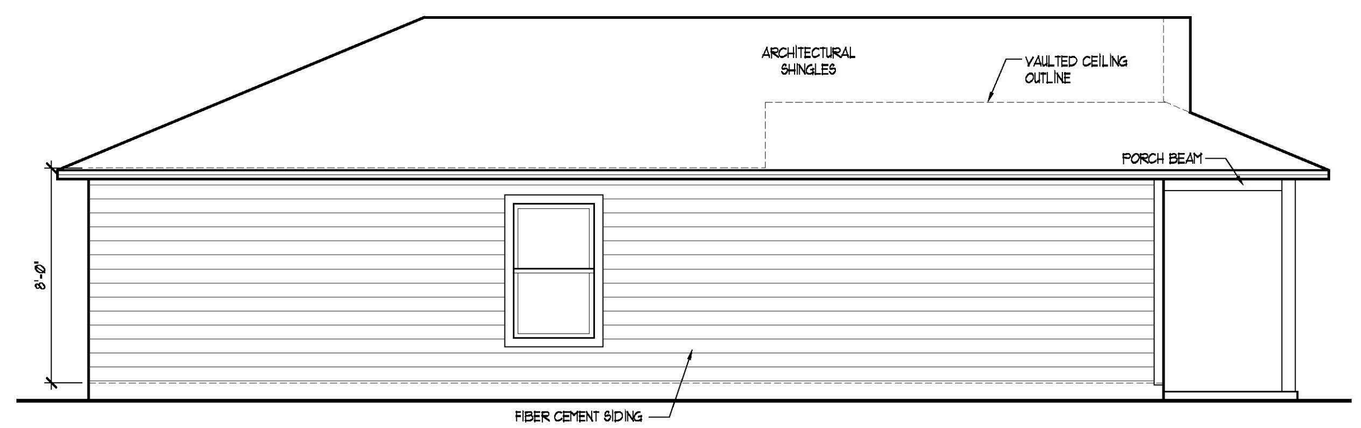
ROOF TRUSS FRAMING PLAN

SCALE: ¼" = 1'-Ø"



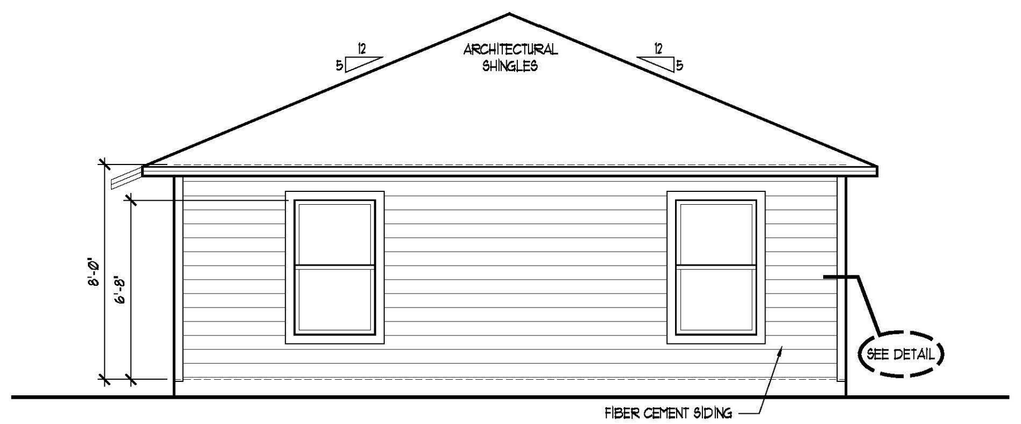
LEFT SIDE ELEVATION

SCALE: ¼" = 1'-Ø"



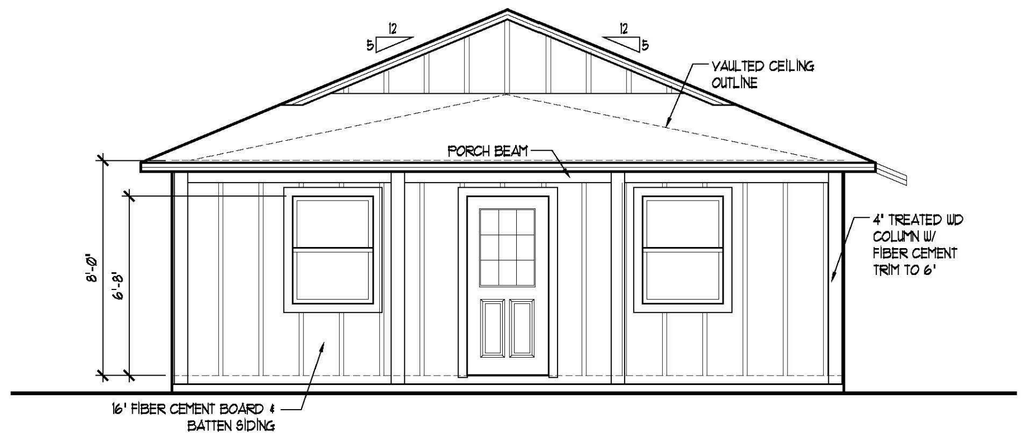
RIGHT SIDE ELEVATION

SCALE: ¼" = 1'-Ø"



REAR ELEVATION

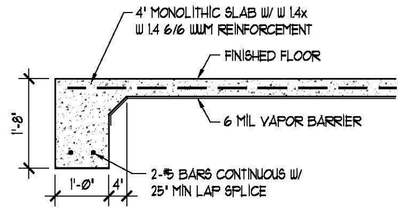
SCALE: ¼" = 1'-Ø"



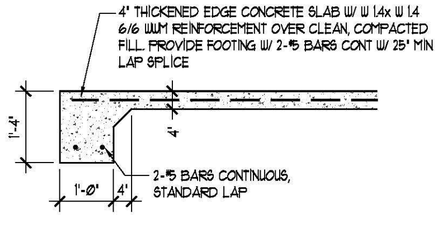
FRONT ELEVATION

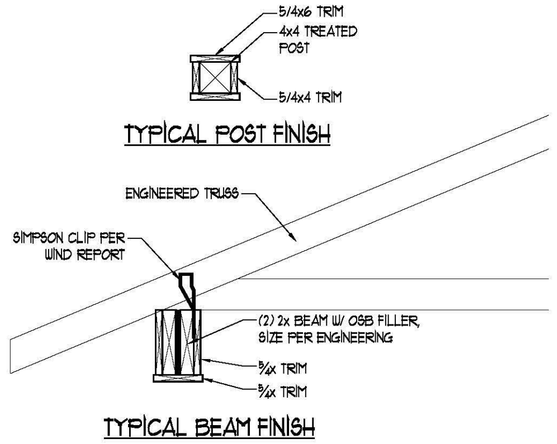
SCALE: ¼" = 1'-Ø"

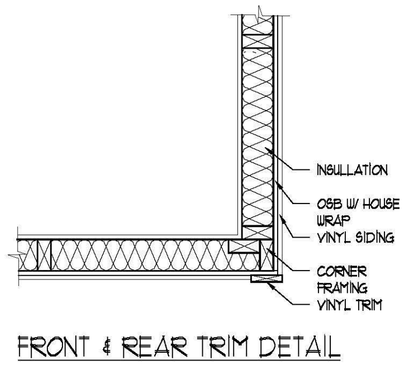
TYPE 'A' EXTERIOR FOOTER



TYPE 'B' PORCH FOOTER







FRONT & REAR TRIM DETAIL

CUSTOMER NAME:

FLA HOMES, INC. R/C

13919 NW 145TH AVENUE, ALACHUA, FLORIDA 32615
(386) 418-4663 flahomes@windstream.net LICENSE #: CGC 052062

PLAN NAME: CITRUS II MODEL

SCALE: 1/4" = 1'-0"
UNLESS OTHERWISE NOTED

SHEET NUMBER
2 of 2

AREA SUMMARY	
H/C:	1000
FRONT PORCH	125
REAR PORCH	N/A
GARAGE	N/A
TOTAL:	1125

REVISION DATE
JULY 28, 2024

SUBDIVISION:
LOT #:

PAGE CONTENT:
EXTERIOR ELEVATIONS, FOUNDATION & ROOF TRUSS PLAN & DETAILS

DRAWN BY: JOHN RICHTER
HOME ALONE DESIGNS
folome@bellsouth.net

*ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL CODES.
*FLA HOMES, INC. IS NOT RESPONSIBLE FOR ANY MODIFICATIONS OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF FLA HOMES, INC. IS PROHIBITED.
*FLA HOMES, INC. RESERVES THE RIGHT TO MODIFICATION AS NECESSARY TO MEET CODE REQUIREMENTS OR TO FACILITATE MECHANICAL INSTALLATIONS OR TO ACCOMMODATE BUILDING MATERIALS. WE RESERVE THE RIGHT TO MAKE ANY CHANGES FOR ANY REASON, AT ANY TIME, PROVIDING THE CHANGES
*BUILDER IS RESPONSIBLE TO VERIFY, AND COORDINATE ALL DRAWINGS.
*COMPLY WITH APPLICABLE LOCAL CODES.
WHEN A DISCREPENCY, ERROR, OR OMISSION EXISTS, THE SUB-CONTRACTOR SHALL NOTIFY THE BUILDER IMMEDIATELY. LOCAL CODES AND CONTACT THE BUILDER IN WRITING FOR PROPER ADJUSTMENT.

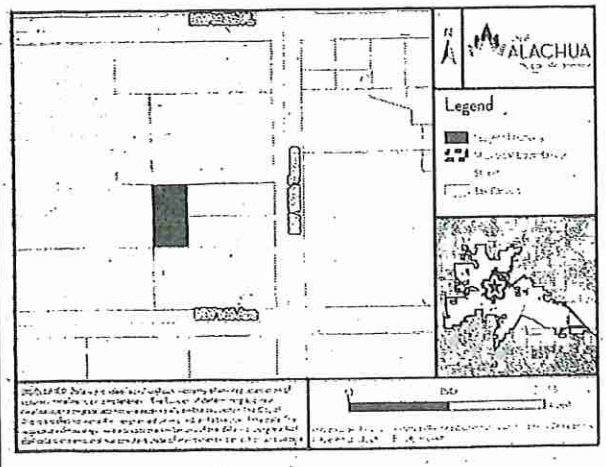
City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application No. PCA26-0004 | Certificate of Appropriateness

An application by Fla Homes, Inc., a Delaware corporation (agent), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company (owner), for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District generally located at the northwest corner of Northwest 146 Avenue and Northwest 138 Terrace consisting of 0.1 acres; Tax Parcel 03392-002-001.



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. one week prior to the date of hearing. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

(Published: Alachua County Today - July 30, 2026)

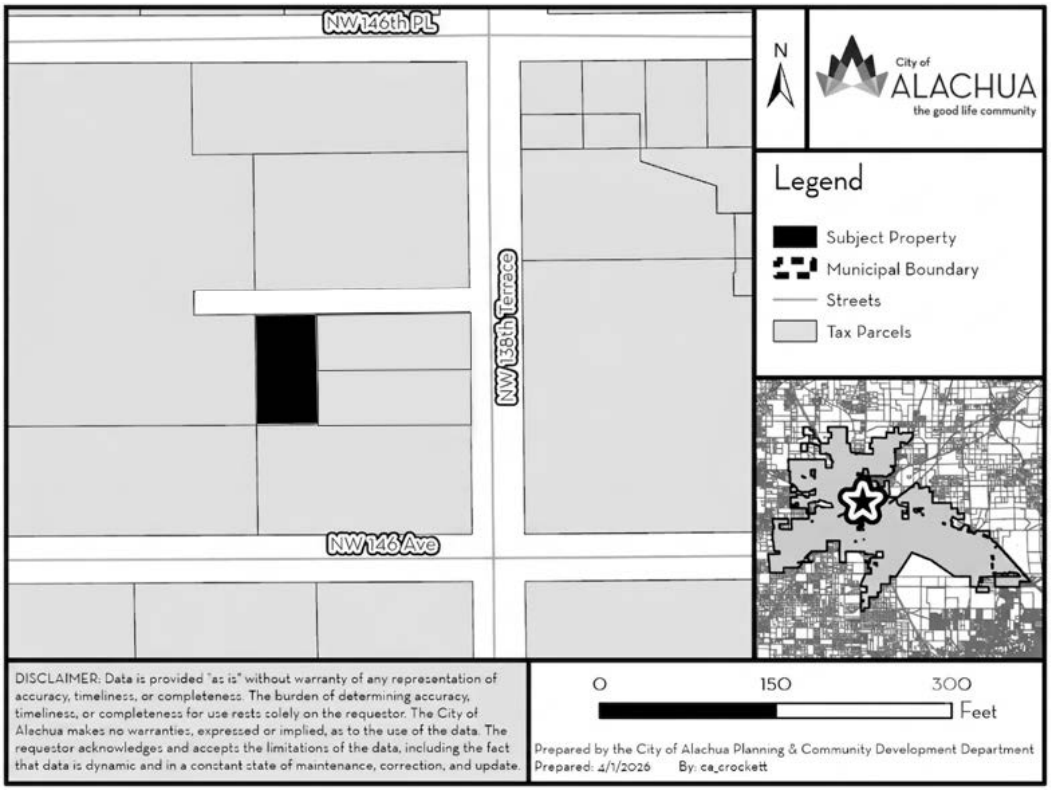
since Marshall too

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application No. PCA26-0004 | Certificate of Appropriateness

An application by Fla Homes, Inc., a Delaware corporation (agent), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company (owner), for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District generally located at the northwest corner of Northwest 146 Avenue and Northwest 138 Terrace consisting of 0.1 acres; Tax Parcel 03392-002-001.



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JEAN-PAUL W. PEREZ

Principal Planner
Planning and Community Development Department

Jean-Paul W. Perez is a Principal Planner for the City of Alachua. He supports the functions of the Planning and Community Development Department, conducts technical review of development permit petitions of various scales and complexities, coordinates the development review process across multiple departments, governmental agencies, and professional consultants, and assists members of the public. Jean-Paul holds a bachelor of urban and regional planning from Florida Atlantic University.

EDUCATION

Florida Atlantic University (FAU)
College of Science
Bachelor of Urban and Regional Planning (BURP)
Graduated: August 2013

WORK EXPERIENCE

City of Alachua, Florida | Principal Planner | June 2026 – Present
15100 NW 142nd Ter, Alachua, Fl 32615 | 352-384-2444
City of Newberry, Florida | Principal Planner | April 2022 – May 2026
25493 NW 1 Ave, Newberry, Fl 32669 | 352-472-2161
Broward County, Florida | Senior Planner | November 2017 – March 2022
1 N University Blvd, Plantation, FL 33324 | 954-357-8361
City of Hollywood, Florida | Planning Administrator | March 2015 – October 2017
2600 Hollywood Blvd, Hollywood, FL 33020 | 954-967-4636
City of Boca Raton, Florida | Land Development Coordinator | March 2014 – February 2015
201 W Palmetto Park Rd, Boca Raton, FL 33432 | 561-393-7700
Town of Jupiter, Florida | Building Support Specialist II | July 2013 – February 2014
210 Military Trail, Jupiter, FL 33458 | 561-746-5134

CERTIFICATES AND OTHER SKILLS

Skills & Proficiencies
Project Management | Proficient
Technical Writing & Analysis | Proficient
Public Speaking | Proficient
ArcGIS Pro | Competent
Certifications & Professional Organizations
Crime Prevention Through Environmental Design | Certified Practitioner | December 2012
Certificate in Geographical Information Systems (FAU) | Certificate Recipient | August 2013
Stormwater, Erosion, and Sedimentation Control Inspector (FDEP) | FSESCI Qualified Inspector

Board Agenda
Item

MEETING DATE: August 11, 2026

SUBJECT: PSP25-0006 | Tolosa North Site Plan Application - A request by JBrown Professional Group, Inc. (the "Applicant" & "Agent") on behalf of Alachua Habitat for Humanity, Inc. (the "Property Owner") for a site plan proposing the constriction of 10 quadplex structures and two townhouse structures, for a total of 50 multifamily dwelling units, with associated site improvements on a ± 7.47-acre subject property generally located along the south of W State Road 235 and east of NW 135th Terrace (Tax Parcels: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000). FLU: Moderate Density Residential; Zoning: PD-R (Quasi-Judicial Hearing).

PREPARED BY: Carson Crockett

RECOMMENDED ACTION:

Staff recommends that the Planning & Zoning Board find the site plan application for Alachua Habitat for Humanity, Inc. to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City's Land Development Regulations and approve the site plan subject to the six conditions in Exhibit "A" and located on page 21 of the August 11, 2026, staff report.

Recommended Motion: *I move that, based upon the competent substantial evidence, the presentation before this Board, and Staff's recommendation, this Board finds the site plan application for Alachua Habitat for Humanity, Inc. to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City's Land Development Regulations and approve the site plan subject to the six conditions in Exhibit "A" and located on page 21 of the August 11, 2026, staff report.*

Summary

This application is a request by JBrown Professional Group Inc. (Applicant and Agent) on behalf of Alachua Habitat for Humanity, Inc. (Property Owner) for a site plan proposing the construction of 10 quadplex structures and two townhouse structures for a total of 50 multifamily dwelling units. At least 50% of the dwelling units will be provided as affordable units, meaning the units will be for families earning less than 80% of the Alachua County median income. The ± 7.47-acre subject property is generally located along the southern edge of W State Road 235 and east of NW 135th Terrace (tax parcels: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

Access to the site will be provided via one vehicular ingress/egress drive to W State Road 235. Sidewalks will be provided internal to the site and along the south of W State Road 235 for future connection to other sites. Stormwater will be conveyed to an on-site stormwater management system on the southern and eastern portions of the subject property.

FINANCIAL IMPACT

N/A

ADDITIONAL FINANCIAL INFORMATION

N/A

ATTACHMENTS

1. Staff Report
2. Application Materials
3. Site Plan
4. Published Notice Materials
5. Carson J. Crockett, AICP - Resume on File

City of Alachua
Planning & Community Development Department
Staff Report

Planning & Zoning Board Hearing Date: August 11, 2026
Quasi-Judicial Hearing **Application #: PSP25-0006**

SUBJECT:	A request for a site plan proposing the construction of 10 quadplex structures and two townhouse structures, for a total of 50 multifamily dwelling units, with associated site improvements. At least 50% of the dwelling units will be provided for families earning less than 80% of the Alachua County median income.
APPLICANT/AGENT:	JBrown Professional Group Inc.
PROPERTY OWNER:	Alachua Habitat for Humanity, Inc.
LOCATION:	Generally located along the south of W State Road 235 and east of NW 135th Terrace.
PARCEL ID NUMBER:	03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000
FLUM DESIGNATION:	Moderate Density Residential
ZONING:	Planned Development – Residential (PD-R)
OVERLAY:	N/A
ACREAGE:	± 7.47
PROJECT PLANNER:	Carson J. Crockett, AICP
RECOMMENDATION:	Staff recommends that the Planning & Zoning Board find the site plan application for Alachua Habitat for Humanity, Inc. to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City's Land Development Regulations and approve the site plan subject to the six conditions in Exhibit "A" and located on page 21 of the August 11, 2026, staff report.
RECOMMENDED MOTION:	*I move that, based upon the competent substantial evidence, the presentation before this Board, and Staff's recommendation, this Board finds the site plan application for Alachua Habitat for Humanity, Inc. to be consistent with the City of Alachua Comprehensive Plan and in compliance with the City's Land Development Regulations and approve the site plan subject to the six conditions in Exhibit "A" and located on page 21 of the August 11, 2026, staff report.*

SUMMARY

This application is a request by JBrown Professional Group Inc. (Applicant and Agent) on behalf of Alachua Habitat for Humanity, Inc. (Property Owner) for a site plan proposing the construction of 10 quadplex structures and two townhouse structures for a total of 50 multifamily dwelling units. At least 50% of the dwelling units will be provided as affordable units, meaning the units will be for families earning less than 80% of the Alachua County median income. The ± 7.47-acre subject property is generally located along the southern edge of W State Road 235 and east of NW 135th Terrace (tax parcels: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

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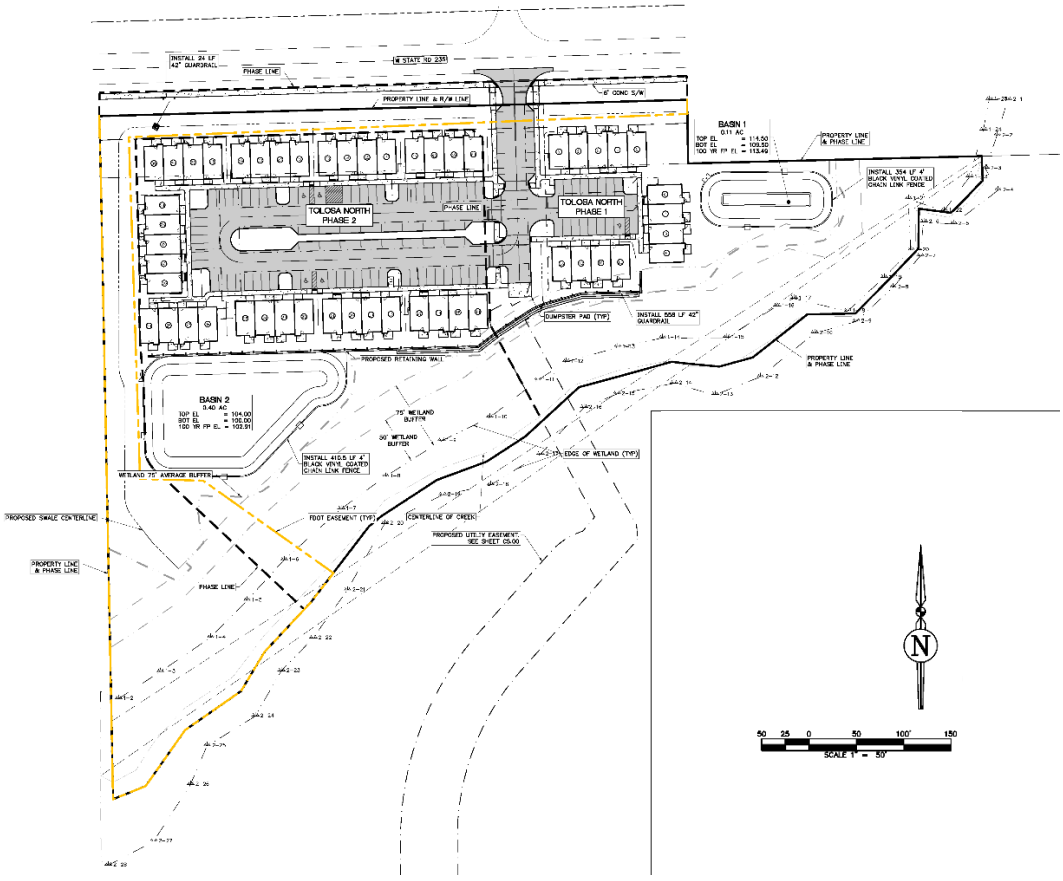

Figure 1. Proposed Site Plan

EXISTING USES

The subject property is undeveloped and is comprised of primarily naturally wooded areas. The subject property is part of the Tolosa Planned Development (PD).

SURROUNDING USES

The existing uses, Future Land Use Map (FLUM) designations, and zoning districts of the surrounding area are identified in Table 1. Figure 2 provides an overview of the vicinity of the subject property. (NOTE: The information below is intended to provide a general overview of the area surrounding the subject property and to generally orient the reader. The information below is not intended to be all-inclusive, and may not identify all existing uses, FLUM designations, and/or zoning districts surrounding the subject property).

Table 1. Surrounding Land Uses

Direction	Existing Use(s)	FLUM Designation(s)	Zoning District(s)
North	Single-Family Residential; General Agriculture	Rural/Agriculture (County)	Agricultural (A)(County)
South	Single-Family Residential; Vacant	Moderate Density Residential	Planned Development-Residential (PD-R)
East	Single-Family Residential; Vacant	Moderate Density Residential	Planned Development-Residential (PD-R)
West	Vacant	Industrial	Light and Warehouse Industrial (ILW)

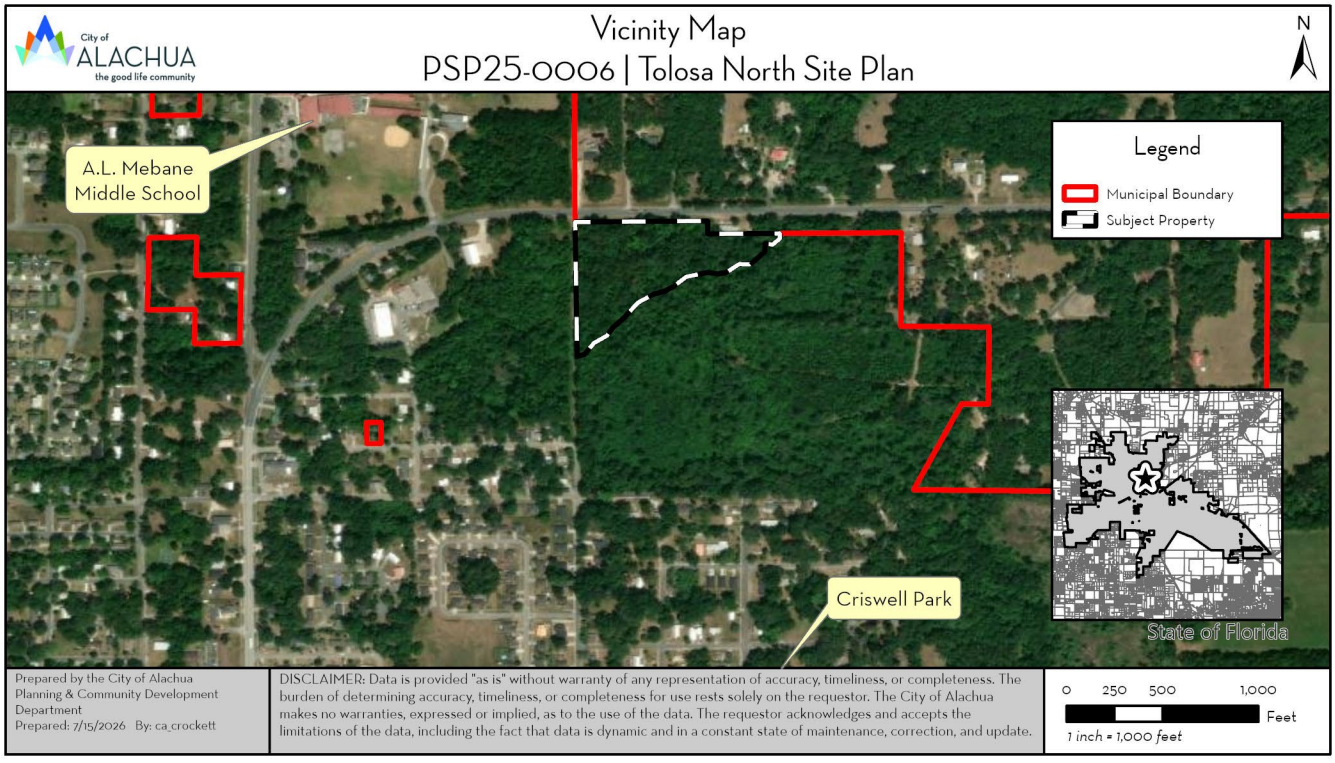

Figure 2. Vicinity Map

NEIGHBORHOOD MEETING

The purpose of a neighborhood meeting is to educate the owners of nearby land and any other interested members of the public about the project and to receive comments regarding the project. Neighborhood meetings are required for site plan applications.

A neighborhood meeting was held on May 5, 2025, at 15010 NW 142nd Terrace (The Swick House). As required by Section 2.2.4 of the City's Land Development Regulations, all property owners within 400 feet of the subject property were notified and notice of the meeting was published in a newspaper of general circulation. The applicant was available to answer questions. Materials submitted by the applicant indicate that the meeting was attended by no members of the public.

COMPREHENSIVE PLAN CONSISTENCY ANALYSIS

The goals, objectives, and policies (GOPs) identified below are provided to establish a basis of the application's consistency with the Comprehensive Plan. There may be additional GOPs which the application is consistent with that are not identified within this report. An evaluation and findings of consistency with the identified GOPs is also provided below.

Future Land Use Element

Goal 1: *Future Land Use Map 2035*

The City shall maintain a Future Land Use Map in order to effectively guide development in a sustainable manner and to ensure economic prosperity and stability while maintaining a high quality of life for all of its present and future citizens, businesses, and visitors.

Objective 1.2: *Residential*

The City shall establish four Residential land use categories to ensure an orderly urban growth pattern that will provide a variety of housing options to its residents and provides for the best use of available lands for residential development.

Policy 1.2.b: *Moderate Density Residential* (0 to 4 dwelling units per acre): The Moderate Density Residential land use category allows residential development at a maximum density of 4 dwelling units per acre. The following uses are allowed in the Moderate Density Residential land use category:

1. Single family detached dwelling units;
2. Accessory dwelling units;
3. Manufactured or modular homes meeting certain design criteria;
4. Mobile homes only within mobile home parks;
5. Duplexes and quadplexes;
6. Townhomes;
7. Residential Planned Developments; and,
8. Supporting community services such as schools, houses of worship, parks, and community centers.

Evaluation & Findings: The subject property is designated with the Moderate Density Residential land use category, which permits for quadplex and townhouse dwellings in addition to the subject property being subject to the Tolosa PD. The Tolosa PD permits a density of 60 dwelling units in this Development Area B. The site plan proposes the construction of 50 dwelling units in Development Area B, which is within both the maximum density of the Tolosa PD and the gross maximum density of four dwelling units an acre permitted by the Moderate Density Residential land use category across the entire PD.

Policy 2.5.a: There shall be a minimum of 10 percent open space required. The City shall establish incentives for the provision of open space beyond minimum requirements.

Evaluation & Findings: The proposed site plan provides approximately 57 percent of open space, well beyond the minimum 10 percent required.

Objective 5.1: *Natural Features*

The City shall coordinate land use categories with appropriate topography, soils, areas of seasonal flooding, wetlands and habitat during review of proposed amendments to the Future Land Use Map and the development review process. Natural features may be included as amenities within a development project.

Policy 5.1.a: *Topography*: The City shall protect the natural topography of the City. Including steep and seepage slopes, by requiring new development to include techniques to minimize negative impacts on the natural terrain. An emphasis will be placed on retaining the natural function of seepage slopes during development. Additionally, retention of existing native vegetation will be encouraged as one method of protecting slopes.

Evaluation & Findings: The proposed site plan will generally maintain the natural flow of stormwater and direction of topography on the subject property. No topographical alterations are proposed within the delineated wetland or required wetland buffer. A full environmental conditions analysis is included within this staff report.

Policy 5.1.b: *Soils*: The City shall ensure soil protection and intervention measures are included in the development process.

Evaluation & Findings: The soils present on the subject property are generally suitable for the type of proposed development. Erosion protection measures are included as part of the proposed site plan. A full environmental conditions analysis is included within this staff report.

Policy 5.1.c: *Flood prone areas*: The City shall require as part of the development review process the identification of FEMA flood zone areas. Where necessary, base flood elevations and minimum finished floor elevations shall be established. The City shall also require finished floor elevations on subdivision plats, site plans and building permits when necessary to determine compliance with flood prone area regulations. The City shall establish standards for a limitation on filling in flood prone areas.

Evaluation & Findings: The subject property is located within Flood Zone X, and as such, there are no concerns regarding flooding potential. A full environmental conditions analysis is included within this staff report.

Policy 5.1.d: *Wetlands*: The City shall utilize statewide wetland delineation methodology in accordance with Florida Administrative Code (FAC) and regulations adopted by the FDEP and Suwannee River Water Management District.

Evaluation & Findings: The subject property does contain delineated wetlands. All wetlands have been buffered as required by the Conservation and Open Space Element of the Comprehensive Plan and no impacts to the wetlands are anticipated. A full environmental conditions analysis is included within this staff report.

Policy 5.1.e: *Habitat*: The City shall require as part of the development review process, an inventory of listed species for all new developments in areas identified as known habitat for listed species if listed species are known to exist in close proximity to the development. The survey shall include detailed information regarding type, quantity, location, and habitat requirements for any listed species identified. A de minimus threshold for properties required to complete the inventory may be established in the City's Land Development Regulations.

Evaluation & Findings: A listed species assessment was conducted by the Applicant, with the results submitted as part of the application materials. No listed species are known to exist on the site; however, the site does contain potentially suitable habitat for gopher tortoises and eastern indigo snakes. Staff has recommended two conditions of approval related to the potentially suitable habitat. A full environmental conditions analysis is included within this staff report.

Transportation Element

Objective 1.1: *Level of Service*

The City shall establish a safe, convenient, and efficient level of service standard for all motorized and non-motorized transportation systems.

Evaluation & Findings: A public facilities impact analysis has been included within this staff report. No adverse impacts on the established level of service of any roadway segments are anticipated as part of this application. A site plan is a final development order and, if approved, concurrency will be reserved.

Policy 1.4.b: The City shall require any commercial, industrial, or residential development which must obtain site plan or subdivision approval to provide a sidewalk along the frontage or any collector or arterial street when a sidewalk is not present along the frontage of the street. A sidewalk shall not be required if a sidewalk does not exist within 2,640 feet of the property on the same side of the collector or arterial street.

Evaluation & Findings: The proposed site plan includes the installation of pedestrian sidewalk facilities along the frontage of W State Road 235. The sidewalk facility along W State Road 235 will connect with the proposed internal sidewalk network.

Housing Element

Objective 1.1: *Provision of Safe, Affordable, Quality Housing*

The City shall facilitate the provision of safe, sanitary, healthy and affordable quality housing, to accommodate all present and future residents at all income and age levels, including those with special needs, through a variety of housing types, preferably within mixed-income neighborhoods.

Evaluation & Findings: The proposed site plan is for affordable housing, with 50 percent of the units to be limited to families with incomes at 80 percent or less of the Alachua County annual median income and the remaining units being limited to 120 percent or less of the Alachua County annual median income, resulting in a mixed-income development. The dwelling units proposed will be in 10 townhouse style quadplexes and two townhomes, providing the City with additional variety in housing type from the predominantly single family development pattern. Staff has recommended a condition of approval that would require the affordability and income level requirements be memorialized through deed restrictions on the subject property.

Community Facilities Element

Policy 1.1.d: The City hereby establishes the following level of service standards for sanitary sewer facilities:

a) *Quality*: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).

b) *Quantity*: System-wide wastewater collection and treatment will be sufficient to provide a minimum of 250 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with Rule 62-600.405, Florida Administrative Code, or subsequent provision.

c) *System capacity*: If the existing demand and reserved capacity of the committed use of the City's wastewater facility reaches 85% of the permitted capacity design, no further development orders for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation & Findings: A public facilities impact analysis has been included within this staff report. No adverse impacts on the established level of service of sanitary sewer facilities are anticipated as part of this application. A site plan is a final development order and, if approved, concurrency will be reserved.

Policy 2.1.a: The City hereby establishes the following level of service standards for solid waste disposal facilities for residential uses:

Facility Type	Level of Service Standard
Solid Waste Landfill	0.73 tons per capita per year

Evaluation & Findings: A public facilities impact analysis has been included within this staff report. No adverse impacts on the established level of service of solid waste facilities are anticipated as part of this application. A site plan is a final development order and, if approved, concurrency will be reserved.

Policy 4.1.c: The City establishes the following level of service standards for potable water:

1. *Quality*: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection.
2. *Quantity*: System-wide potable water distribution and treatment will be sufficient to provide a minimum 275 gallons per day per equivalent residential unit (ERU) on an average annual basis.
3. *Capacity*: Plant expansion shall be planned in accordance with Florida Administrative Code. Additionally, if the existing demand and reserved capacity f the City's potable water facility reaches 85% of the permitted design capacity, no further development orders or permits for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation & Findings: A public facilities impact analysis has been included within this staff report. No adverse impacts on the established level of service of potable water facilities are anticipated as part of this application. A site plan is a final development order and, if approved, concurrency will be reserved.

Conservation and Open Space Element

Policy 1.3.d: The City shall require prior to development approval, an inventory of listed species for all new developments in areas identified as known habitat for listed species. The inventory shall include detailed information regarding type, quantity, location and habitat requirements for any listed species identified. De minimus threshold for properties required to complete the inventory shall be established in the City's Land Development Regulations.

Evaluation & Findings: A listed species assessment was conducted by the Applicant, with the results submitted as part of the application materials. No listed species are known to exist on the site; however, the site does contain potentially suitable habitat for gopher

tortoises and eastern indigo snakes. Staff has recommended two conditions of approval related to the potentially suitable habitat. A full environmental conditions analysis is included within this staff report.

Objective 1.10: *Wetlands*

The City shall protect and preserve wetland values and functions from adverse, human caused, physical and hydrological disturbances.

Evaluation & Findings: The subject property does contain delineated wetlands. All wetlands have been buffered as required by the Conservation and Open Space Element of the Comprehensive Plan and no impacts to the wetlands are anticipated. A full environmental conditions analysis is included within this staff report.

Recreation Element

Policy 1.2.b: The City shall adhere to a minimum level of service of five acres of community, neighborhood or pocket park per 1,000 persons, with a minimum of 20 percent of this in improved, passive parks.

Evaluation & Findings: A public facilities impact analysis has been included within this staff report. No adverse impacts on the established level of service of recreation facilities are anticipated as part of this application. A site plan is a final development order and, if approved, concurrency will be reserved.

Public School Facilities Element

Objective 2.2: *Level of Service Standards*

The City shall ensure, in coordination with the School Board, that the capacity of public schools is sufficient to support new residential subdivision, plats and/or site plans at the adopted level of service (LOS) standards within the period covered by the five-year schedule of capital improvements.

Evaluation & Findings: A public facilities impact analysis has been included within this staff report. No adverse impacts on the established level of service of public school facilities are anticipated as part of this application. The impacts anticipated as a result of this development have been reviewed and certified by the School Board of Alachua County. A site plan is a final development order and, if approved, concurrency will be reserved.

Economic Element

Policy 1.6.b: Consider a mix of owner-occupied and rental housing for employees that will maintain the neighborhood character and community fabric.

Evaluation & Findings: The proposed site plan will provide affordable and workforce housing in a multifamily product with a townhouse aesthetic to help respect and maintain the neighborhood character while providing for additional housing opportunities.

ENVIRONMENTAL CONDITIONS ANALYSIS

Wetlands

Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Evaluation & Findings: A delineated wetland does exist on the subject property; however, no development in or impacts to the wetland are proposed. All buffers required by the City's Comprehensive Plan and Section 6.9 of the City's Land Development Regulations have been provided for.

Strategic Ecosystems

Strategic Ecosystems were identified by an ecological inventory project in a report prepared for Alachua County Department of Growth Management in 1987 and updated in 1996. The purpose of the inventory was to identify, inventory, map, describe, and evaluate the most significant natural biological communities in private ownership in Alachua County.

Evaluation & Findings: No strategic ecosystems exist on or adjacent to the subject property; therefore, there are no concerns related to strategic ecosystems.

Regulated Plant & Animal Species

The Florida Natural Areas Inventory (FNAI) has identified areas throughout the State of Florida which may contain good quality natural communities. This data layer is known as the Potential Natural Areas (PNA) data layer, and identifies privately owned lands that are not managed or listed for conservation purposes. These areas were delineated by FNAI scientific staff through interpretation of natural vegetation from 1988-1993 FDOT aerial photographs and from input received during Regional Ecological Workshops held for each regional planning council. These workshops were attended by experts familiar with natural areas in the region.

Potential Natural Areas were assigned ranks of Priority 1 through Priority 5 based on size, perceived quality, and type of natural community present. The areas included in Priority 5 are exceptions to the above criteria. These areas were identified through the same process of aerial photographic interpretation and regional workshops as the PNA 1 through 4 ranked sites, but do not meet the standard criteria.

Evaluation & Findings: The subject property is identified as priority three by the FNAI. A listed species survey was submitted by the applicant and noted the existence of no listed species present on the subject property; however, potential habitat for gopher tortoises and eastern indigo snakes exists. As such, staff has recommended two conditions of approval regarding gopher tortoises and eastern indigo snakes.

Soil Survey

The hydrologic soil group is an indicator of potential soil limitations. The hydrologic soil group, as defined for each specific soil, refers to a group of soils which have been categorized according to their runoff-producing characteristics. These hydrologic groups are defined by the Soil Survey of Alachua County, Florida, dated August 1985. The chief consideration with respect to runoff potential is the capacity of each soil to permit infiltration (the slope and kind of plant cover are not considered, but are separate factors in predicting runoff.) There are four hydrologic groups: A, B, C, and D. "Group A" soils have a higher infiltration rate when thoroughly wet and therefore have a lower runoff potential. "Group D" soils have a lower infiltration rate and therefore a higher runoff potential.

There are five soil types found within the subject property, shown in Table 2.

Table 2. Soil Types

Soil Type	Hydrologic Group	Drainage Class	Limitations		% of Subject Property (may not total to 100% due to rounding)
			Dwellings Without Basements	Small Commercial Buildings	
Bivans Sand; 5 to 8% Slope	D	Somewhat Poorly Drained	Severe	Severe	44.01%
Fort Meade Fine Sand; 0 to 5% Slope	A	Well Drained	Slight	Slight	24.80%
Kendrick Fine Sand; 2 to 5% Slope	A	Well Drained	Slight	Slight	21.29%
Pomona Sand; 0 to 5% Slope	D	Poorly Drained	Severe	Severe	9.88%
Kanapaha Sand; 0 to 5% Slope	B/D	Poorly Drained	Severe	Severe	>0.01%

Evaluation & Findings: Two of the soils on the subject property are poorly drained (Pomona Sand and Kanapaha Sand); however, they comprise less than 10% of the subject property and are primarily contained within the required wetland buffer area. No major development activities are proposed for these poorly drained soils. Two of the soils are well drained and comprise approximately 45% of the subject property (Fort Meade Fine Sand and Kendrick Fine Sand). These well drained soils have no major limitations on development. The last soil is somewhat poorly drained and comprises approximately 45% of the subject property (Bivans Sand). Although limitations do exist for this somewhat poorly drained soil, those limitations do not inherently preclude the development of the subject property. Proper drainage systems have been accounted for in the proposed site plan to address any potential limitations of the Bivans Sand portion of the subject property. All of the soils on the subject property have poor potential for wetland wildlife habitat.

Flood Potential

Panel 12001C0140D of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Series, dated June 16, 2006 indicates that the development area is in Flood Zone X (areas determined to be outside of the 500-year floodplain).

Evaluation & Findings: The subject property is located in Flood Zone X; therefore, there are no concerns related to flood potential.

Karst-Sensitive Features

Karst sensitive areas include geologic features, such as fissures, sinkholes, underground streams, and caverns, and are generally the result of irregular limestone formations.

Evaluation & Findings: There are no potential sinkholes known to exist on the subject property and the subject property is not an area of high aquifer recharge potential according to the Suwannee River Water Management District (SRWMD) High Aquifer Recharge Potential Map (HARP).

Wellfield Protection Zones

Policy 7.2.1 of the Future Land Use Element of the City's Comprehensive Plan establishes a 500-foot radius area around each city-owned potable water well.

Evaluation & Findings: The subject property is not in a wellfield protection zone; therefore, there are no concerns related to wellfield protection.

Historic Structures/Markers and Historic Features

The State of Florida and the Alachua County Historic Resources Inventory identify historic structures in addition to the City's Historic Overlay District, as established by Section 3.7 of the City's Land Development Regulations.

Evaluation & Findings: No historic markers or resources are identified on the subject property; therefore, there are no concerns related to historic structures.

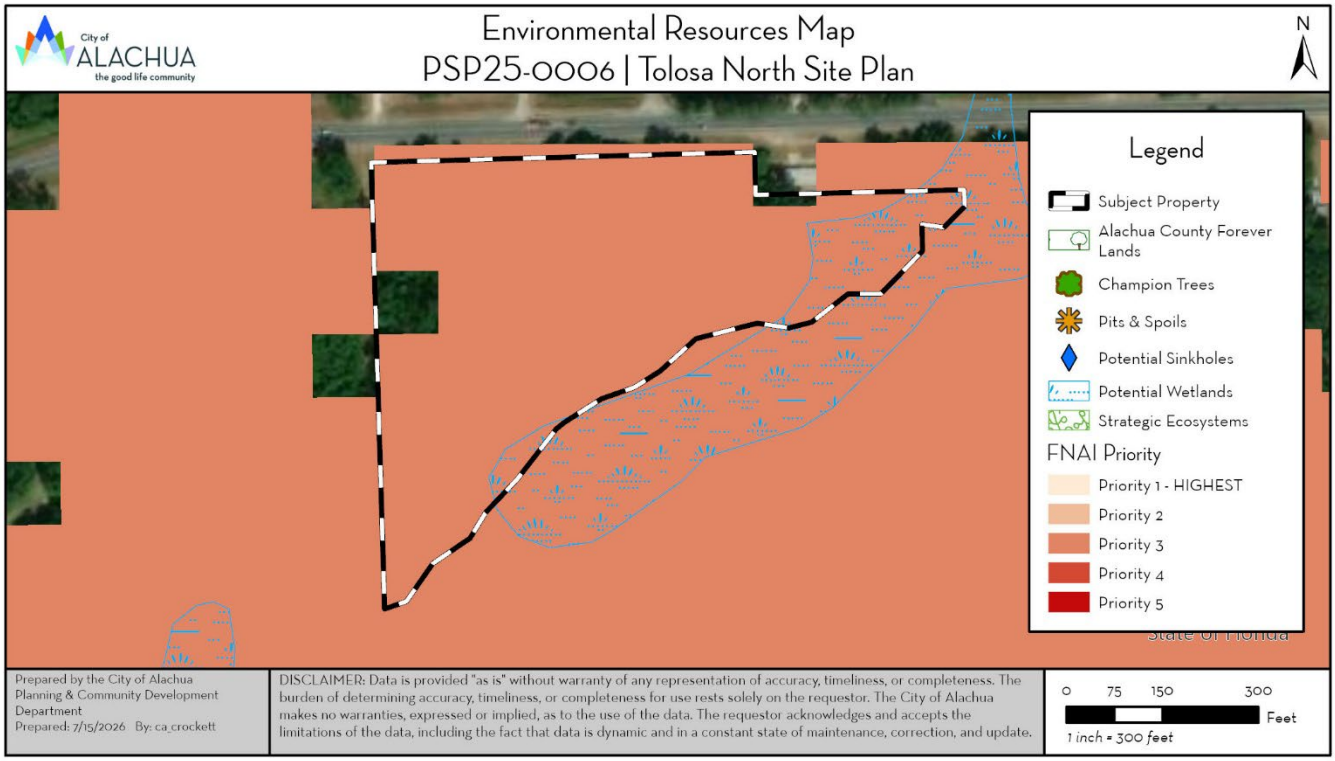

Figure 3. Environmental Resources Map

FINDINGS OF FACT: COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

Site Plan Standards

Section 2.4.9(E)(1) of the City's Land Development Regulations (LDRs) establishes the standards with which all site plans must be found compliant. The application has been reviewed for compliance with the standards of Section 2.4.9(E)(1). An evaluation of the findings of the applicant's compliance with the standards of Section 2.4.9(E)(1) is provided below.

(1) *Minor site plan and site plan standards*. A minor site plan or site plan shall be approved only upon a finding the applicant demonstrates all of the following standards are met:

(a) *Consistency with Comprehensive Plan*. The development and uses proposed by the minor site plan or site plan comply with the goals, objectives and policies of the Comprehensive Plan.

Evaluation & Findings: A Comprehensive Plan consistency analysis is included within this staff report. The application has been reviewed for, and found to be consistent with, the Comprehensive Plan.

(b) *Use allowed in zone district*. The use is allowed in the zone district in accordance with Article 4, Use Regulations.

Evaluation & Findings: The subject property is located within Development Area B of the Tolosa PD. Multiple-family dwellings, including quadplexes and townhomes, are permitted in Development Area B of the Tolosa PD.

(c) *Zone district use specific standards*. The development and uses proposed by the minor site plan or site plan comply with Section 4.3, Use specific standards.

Evaluation & Findings: Section 4.3.1(A)(3) of the City's LDRs establishes the use specific standards for multiple-family dwellings, including quadplexes and townhomes. The application has been reviewed for, and found to comply with, all applicable use specific standards.

(d) *Development and design standards*. The development proposed by the minor site plan or site plan and its general layout and design comply with all applicable standards in Article 6, Development Standards.

Evaluation & Findings: The application has been reviewed for, and found to comply with, all applicable standards in Article 6, including Section 6.1, Off-street parking and loading standards, Section 6.2, Tree protection and landscaping standards, Section 6.3, Fencing standards, Section 6.4, Exterior lighting standards, Section 6.6, Infill standards, Section 6.7, Open space standards, and Section 6.9, Environmental protection standards.

(e) ***Subdivision standards***. In cases where a subdivision has been approved or is pending, the development proposed by the minor site plan or site plan and its general layout and design comply with all applicable standards in Article 7, Subdivision Standards.

Evaluation & Findings: No subdivision of land is proposed by this application; therefore, this standard is not applicable.

(f) ***Complies with all other relevant City laws, ordinances, regulations, requirements, and State and Federal laws and regulations***. The proposed development and use complies with all other relevant City laws, ordinances, regulations, requirements, and with all State and Federal laws and regulations.

Evaluation & Findings: The application has been found to comply with all other relevant City laws, ordinance, regulations, and requirements, including PD Ordinance 19-28 and Section 2.4.14, Certificate of concurrency compliance.

PUBLIC FACILITIES IMPACT ANALYSIS

Section 2.4.14 of the City's Land Development Regulations (LDRs) establishes the standards for a Certificate of Concurrency Compliance which applies to all development orders unless exempted by Section 2.4.14(C). The application has been reviewed for impacts to roads, sanitary sewer, solid waste, stormwater management, potable water, and recreation facilities to ensure the application's potential impacts do not negatively impact the level of service (LOS) for those public facilities.

Traffic Impact

The following impacts are expected on the roadway segments identified in Table 3.

Table 3-1. Affected Comprehensive Plan Roadway Segments[1]

Segment Number[2]	Segment Description	Lanes	Functional Classification	Area Type	LOS
9	SR 235 From US 441 to NW 140th Street	2/U Bays	Major Collector	Comm	D
10	SR 235 From NW 140th Street to East City Limit	2/U	Major Collector	Comm	D
12	CR 241 From NW SR 235 to North City Limit	2/U	Major Collector	Comm	D

1 City of Alachua Comprehensive Plan, Transportation Element.
2 For developments generating less than 1,000 trips, affected roadway segments are identified as all those wholly or partially located within 1/2 mile of the development's ingress/egress, or to the nearest intersecting major street, whichever is greater [Section 2.4.14(H)(2)(a)of the LDRs].

Table 3-2. Projected Impact on Affected Comprehensive Plan Roadway Segment

Traffic System Category	Segment 9 SR 235		Segment 10 SR 235		Segment 12 CR 241	
	AADT	Peak Hour	AADT	Peak Hour	AADT	Peak Hour
Maximum Service Volume[1]	14,400	1,290	14,400	1,290	15,120	1,359
Existing Traffic[2]	8,200	765	5,200	470	6,765	608
Reserved Trips[3]	463	76	64	6	356	35
Available Capacity[3]	5,737	449	9,136	814	7,999	716
Increase/Decrease in Trips Generated by Development[4]	275	25	366	34	92	8
Residual Capacity	5,462	424	8,770	780	7,907	708
Residual Percentage of Permitted Design Capacity Utilized	62.07%	67.13%	39.10%	39.53%	47.71%	47.90%

1 AADT & Peak Hour MSVs calculated using LOSPLAN 2012. County Facilities reflect a 10 percent reduction in the MSV calculated within LOSPLAN 2012 as set forth in the Generalized Tables for AADT / Peak Hour Volumes, FDOT 2018 Q/LOS Handbook.
2 Florida Department of Transportation. (2026). *2025 Count Data*. Accessed via Florida Traffic Online April 2026.
3 Source: City of Alachua July 2026 Development Monitoring Report.
4 Trip Generation Formula: ITE Trip Generation 10th edition (Code LUC 22); Trip Distribution: Segment 9 – 75%; Segment 10 – 100%; Segment 12 – 25%.

Evaluation & Findings: The anticipated impacts of the proposed development will not adversely affect the level of service of any affected roadway segment. The impacts are therefore acceptable. A site plan is a final development order and, if approved, concurrency will be reserved.

Potable Water Impacts

Table 4. Potable Water Impacts

System Category	Gallons Per Day
Current Permitted Capacity[1]	3,000,000
Less Actual Potable Water Flows[1]	1,447,333
Reserved Capacity[2]	388,836
Available Capacity	1,163,831
Increase/Decrease in Potable Water Demand from Application[3]	13,750
Residual Capacity	1,150,081
Residual Percentage of Permitted Design Capacity Utilized	61.66%

1 City of Alachua Public Services Department, April 2026
2 City of Alachua July 2026 Development Monitoring Report
3 Formula: Per City of Alachua Comprehensive Plan, Community Facilities Element Policy 4.1.c(2): 275 GPD / Unit

Evaluation & Findings: The anticipated impacts of the proposed development will not adversely affect the level of service of potable water facilities. The impacts are therefore acceptable. A site plan is a final development order and, if approved, concurrency will be reserved.

Sanitary Sewer Impacts

Table 5. Sanitary Sewer Impacts

System Category	Gallons Per Day
Treatment Plant Permitted Capacity[1]	1,500,000
Less Actual Treatment Plant Flows[1]	756,000
Reserved Capacity[2]	353,712
Available Capacity	390,288
Increase/Decrease in Sanitary Sewer Demand from Application[3]	12,500
Residual Capacity	377,788
Residual Percentage of Permitted Design Capacity Utilized	74.81%

1 City of Alachua Public Services Department, April 2026
2 City of Alachua July 2026 Development Monitoring Report
3 Formula: Per City of Alachua Comprehensive Plan, Community Facilities Element Policy 1.1.d(b): 250 GPD / Unit

Evaluation & Findings: The anticipated impacts of the proposed development will not adversely affect the level of service of sanitary sewer facilities. The impacts are therefore acceptable. A site plan is a final development order and, if approved, concurrency will be reserved.

Solid Waste Impacts

Table 6. Solid Waste Impacts

System Category	Pounds Per Day	Tons Per Year
Existing Demand[1]	45,412.00	8,287.69
Reserved Capacity[2]	44,106.36	8,049.41
Increase/Decrease in Demand Generated by Application[3]	530	96.725
New River Solid Waste Facility Anticipated Capacity[4]	30+ Years	

1 Bureau of Economic & Business Research, University of Florida, Estimates of Population by County and City in Florida (2025); Policy 2.1.a, Community Facilities Element. Formula: 11,353 Persons x 0.73 tons per year.
2 City of Alachua July 2026 Development Monitoring Report
3 Formula: Per City of Alachua Comprehensive Plan, Community Facilities Element Policy 2.1.a: 0.73 tons / year per capita * (50 units * 2.65 persons per unit)
4 New River Solid Waste Association, April 2026

Evaluation & Findings: The anticipated impacts of the proposed development will not adversely affect the level of service of solid waste facilities. The impacts are therefore acceptable. A site plan is a final development order and, if approved, concurrency will be reserved.

Recreation Facilities

Table 7-1. Recreational Impacts

System Category	Acreage
Existing City of Alachua Recreation Acreage[1]	135.48
Acreage Required to Serve Existing Population[2]	56.77
Reserved Capacity[1]	13.49
Available Capacity	65.23
Increase/Decrease in Recreation Acreage Demand by Development[3]	0.66
Residual Capacity	64.57
Residual Percentage of Recreation Acreage Capacity Utilized	52.34%

1 City of Alachua July 2026 Development Monitoring Report
2 Bureau of Economic & Business Research, University of Florida, Estimates of Population by County and City in Florida (2025); Policy 1.2.b, Recreation Element. Formula: 11,353 Persons x (5 acres / 1,000 persons).
3 Formula: Per City of Alachua Comprehensive Plan, Recreation Element Policy 1.2.b: 2.65 persons per unit * 50 units * (5 acres / 1,000 persons).

Table 7-2. Passive Recreational Impacts

System Category	Acreage
Existing Improved Passive Park Space[1]	34.82
Minimum Improved Passive Park Space Required to Serve Existing Population[1, 2]	11.35
Reserved Capacity[1, 2]	2.70
Available Improved Passive Park Space	20.77
Increase/Decrease in Improved Passive Park Space Demand by Development [3]	0.13
Residual Capacity	20.64
Residual Percentage of Improved Passive Park Space Capacity Utilized	40.72%

1 City of Alachua July 2026 Development Monitoring Report
2 Formula: Per City of Alachua Comprehensive Plan, Recreation Element Policy 1.2.b: Acreage Required * 0.20
3 Formula: Per City of Alachua Comprehensive Plan, Recreation Element Policy 1.2.b: 2.65 persons per unit * 50 units * (5 acres / 1,000 persons) * 0.20

Evaluation & Findings: The anticipated impacts of the proposed development will not adversely affect the level of service of recreation facilities. The impacts are therefore acceptable. A site plan is a final development order and, if approved, concurrency will be reserved.

Public School Facilities

A School Capacity Review was submitted to The School Board of Alachua County (SBAC) in accordance with the City's Comprehensive Plan, specifically Policies 1.1.b, 1.1.c, 1.1.e, and 1.1.f of the Public School Facilities Element. On July 9, 2026, the SBAC certified that capacity is currently available at the elementary, middle, and high school levels to support the proposed development. A site plan is a final development order and, if approved, concurrency will be reserved.

EXHIBIT "A"
TO
PSP25-0006
TOLOSA NORTH SITE PLAN
STAFF REPORT

CONDITIONS

1. The Applicant acknowledges and agrees that if any gopher tortoises or gopher tortoise burrows are discovered on site, it shall provide a 100% gopher tortoise survey for the subject property, which shall include a list of all local, state, and federal permits required for relocation of any gopher tortoises on site. Surveys shall be valid for a period of 3 years from original date of survey. This condition shall be the obligation of any subsequent party with interest in the property subject to this development order.
2. The Applicant acknowledges and agrees it shall utilize the standard measures for protection for the Eastern Indigo Snake as outlined in the latest snake protection/education plan developed by the U.S. Fish and Wildlife Service. This condition shall be the obligation of any subsequent party with interest in the property subject to this development order.
3. The Applicant acknowledges and agrees that the dwelling units on the subject property shall be deed restricted affordable housing for a minimum of the 30-years (through the year 2056) in the following manner:
    a. 50% of the dwelling units shall be deed restricted for low- and moderate-income families, meaning for families earning less than 80% of the Alachua County median income as published by the Shimberg Center for Housing Studies.
    b. All remaining dwelling units shall be deed restricted for work-force housing, meaning for families earning 120% or less of the Alachua County median income as published by the Shimberg Center for Housing Studies.

    The Applicant further acknowledges and agrees that, prior to recording the deed restrictions, they must provide draft language of the deed restrictions for review and approval by the City of Alachua Planning & Community Development Department to ensure compliance with this condition. The deed restrictions shall be recorded in the public records of Alachua County, Florida, and shall run with the land. The Applicant shall be responsible for all costs associated with recording the deed restrictions in the public records of Alachua County, Florida. A recorded copy of the deed restrictions must be provided to the City of Alachua Planning & Community Development Department prior to scheduling of final inspection of any building permit or site work permit associated with this development order. It will be the responsibility of a duly established property owners association or property management company to verify the income levels of prospective tenants and/or owners prior to the sale or lease of any unit. Failure to follow this deed restriction constitutes a violation of Subpart B of the City of Alachua Code of Ordinances, Land Development Regulations. This condition

shall be the obligation of any subsequent party with interest in the property subject to this development order.

4. The Applicant acknowledges and agrees that to ensure the continued compliance with the City of Alachua Comprehensive Plan and Land Development Regulations, the development order authorizing this site plan shall be recorded in the public records of Alachua County, Florida, and shall run with the land. The Applicant shall be responsible for all costs associated with recording the development order in the public records of Alachua County, Florida. This condition shall be the obligation of any subsequent party with interest in the property subject to this development order.
5. The Applicant acknowledges and agrees that it shall obtain all other applicable local, state, and federal permits before the commencement of site plan work. This condition shall be the obligation of any subsequent party with interest in the property subject to this development order.
6. The Applicant acknowledges and agrees that Conditions 1 – 5 as stated above do not inordinately burden the land and shall be binding upon the property owner, including any subsequent property owners, successors, or assigns, and that the site plan shall comply with Conditions 1 – 6 as stated herein.

EXHIBIT "B"
TO
PSP26-0005
TOLOSA NORTH SITE PLAN
STAFF REPORT

SUPPORTING MATERIALS
SUBMITTED BY CITY STAFF TO THE
PLANNING AND ZONING BOARD

City of ALACHUA
the good life community

RODOLFO VALLADARES
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR BRYAN S. THOMAS, AICP

July 22, 2026

Submitted electronically to Jack.Charnas@jbpro.com

Jack Charnas, P.E.
JBrown Professional Group, Inc.
3530 NW 43rd Street
Gainesville, Florida 32606

Application #: PSP25-0006

RE: Notice of Hearing to be Scheduled for the Tolosa North Site Plan Application

Dear Jack Charnas,

On July 6, 2026, the City of Alachua received your revised site plan application for the Tolosa North project submitted on behalf of Alachua Habitat for Humanity, Inc. Based on review of the materials submitted, the City has determined that this application can now be scheduled for a hearing before the Planning & Zoning Board.

The application has been scheduled for the **August 11, 2026,** Planning & Zoning Board meeting.

You must provide two *double sided, three-hole punched, color sets* of each **complete** application package, five full size sets of site plans, and a digital copy of all materials in PDF format on a CD or by emailing a Cloud/FTP link to download the materials to planning@cityofalachua.org *no later than 10 business days prior to the Planning & Zoning Board meeting at which your application is scheduled to be heard*; therefore, the above referenced materials must be submitted to the City no later than ***Monday, July 27, 2026***. Materials may be submitted earlier than this date.

Additionally, Section 2.2.9(D) of the Land Development Regulations requires the applicant to place posted notice signs on the subject property at least 14 days prior to the public hearing; therefore, posted notice signs must be placed on the property no later than ***Monday, July 27, 2026***. These signs are now available for pick-up at the building counter in City Hall.

If you plan to utilize a PowerPoint presentation or would like other materials to be available for reference during the public hearing, please submit the presentation or materials no later than 12:00 PM on the last business day prior to the Planning & Zoning Board meeting; therefore, the presentation or materials must be submitted no later than 12:00 PM on ***Monday, August 10, 2026***. Any presentation or materials may be submitted electronically by emailing them to planning@cityofalachua.org.

If you have any questions regarding the information above, please contact me at (386) 418-6137 or at ccrockett@cityofalachua.org.

Sincerely,

Carson J. Crockett, AICP
Principal Planner

CC: Rodolfo Valladares, City Manager *(by electronic mail)*
Scott Walker, City Attorney *(by electronic mail)*
Kiersten Ballou, Assistant City Attorney *(by electronic mail)*
Kristie Williams, Legal Assistant *(by electronic mail)*
Bryan Thomas, AICP, Planning & Community Development Director *(by electronic mail)*
Jean-Paul Perez, Principal Planner *(by electronic mail)*
Parker Stevens, Planner *(by electronic mail)*
Brenda Flieger, Planning Assistant *(by electronic mail)*
Project File

City of ALACHUA
the good life community

City of Alachua

RODOLFO VALLADARES, P.E.
CITY MANAGER

INTER-OFFICE COMMUNICATION

DATE: **July 20, 2026**

TO: **Bryan Thomas, AICP**
Planning & Community Development Director

FROM: **Tom Ridgik, P.E.**
Engineering Supervisor

TR 7/20/2026

RE: **Tolosa North Phases 1 & 2 Site Plans**

Public Services has reviewed the subject project (July 2026 Documents) and offer the following comments. Review was specific to Public Services utilities.

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NO.	COMMENTS
1	**Comment on May Submittal** **General** Provide public utility easements as required for all utilities shown hereon by metes and bound description and in accordance with the regulatory agency department for public utilities. Please update and **submit** applicable sheets. **Comment on Nov Submittal** **General** See markups on Sketch and Description. For electric power circuits, provide 10-foot wide easements. How will the easements for electrical infrastructure be officially recorded? Note: COA plans to write three separate easement descriptions, each a different width; namely, 20, 30 and 35 feet. Please modify sketch to be consistent with this.

NO.	COMMENTS
	Please **submit** response and **resubmit** affected drawings. **Comment on Feb Submittal** **General** Tolosa Electric Easement Sketch & Description: No Exceptions. Tolosa Sewer Easement Sketch & Description: Inasmuch as this easement includes a water main, please change title to "Tolosa Sewer and Water Easement…." Tolosa Water Easement Sketch & Description: COA will own and maintain the water distribution infrastructure until the water meters. Thus, modify sketch & description so easement includes the water service infrastructure up to and including the meters. If such additional easements are problematic, please contact COA to discuss. See C5.00 markup. Please **resubmit** both the "Sewer and Water Easement" and the "Water" easements. **Comment on May Submittal** **General** **Approved**
2	**Comment on May Submittal** **Sheet C0.00** This project has been submitted to Planning as a Site Plan application. Thus please change title from "CONSTRUCTION PLANS" TO "SITE PLANS". Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C0.00** **Approved**
3	**Comment on May Submittal** **Sheet C1.00** Under **General Construction Notes**, add "12. THE CITY OF ALACHUA SHALL BE COMPENSATED FOR ALL WORK REQUIRED OF THE CITY TO MODIFY ITS INFRASTRUCTURE. SUCH WORK

NO.	COMMENTS
	INCLUDES, BUT IS NOT LIMITED TO, WATER, WASTEWATER AND ELECTRIC INFRASTRUCTURE IMPROVEMENTS, RELOCATION OR DEMOLITION. FOR PROJECTS NOT WITHIN THE CITY'S ELECTRIC SERVICE AREA, MODIFICATIONS TO THE CITY'S ELECTRIC INFRASTRUCTURE EITHER WITHIN OR ADJACENT TO THE PROJECT AREA MAY BE REQUIRED.THE CITY SHALL BE COMPENSATED FOR SUCH MODIFICATIONS." Under **Paving, Grading and Drainage Specifications**, add "15. NEW ROADS – PAVEMENT TRANSVERSE MARKINGS – MATERIALS OF STOP LINES SHALL BE HOT-APPLIED STANDARD THERMOPLASTIC. MATERIALS OF CROSSWALK LONGITUDINAL BARS – 24-INCH SHALL BE HOT-APPLIED HIGH FRICTION THERMOPLASTIC. 16. UNLESS AN ALTERNATE IS APPROVED BY COA, GROUT BOTTOM OF ALL STORMWATER DRAINAGE STRUCTURE INVERTS AS PER FDOT INDEX 425-001 AND AS PER COA STANDARD DETAIL 210. 17. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND CITY OF ALACHUA PROJECT MANAGER IN ADVANCE PRIOR TO PLACING LIMEROCK AND LAYING ASPHALT FOR FIELD INSPECTIONS." Under **STANDARD ABBREVIATIONS,** Add "EOM END OF MAINTENANCE". Change "ST STORM" to "ST STORMWATER" Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C1.00** **Approved**
4	**Comment on May Submittal** **Sheets C4.01, C4.04 and C4.05** COA Detail 215 only applies to sanitary manholes. Thus, please delete references to it for storm manholes in the Storm Structures Table. Please **Revise & Resubmit** these sheets. **Comment on Nov Submittal** **Sheets C4.01, C4.04 and C4.05**

NO.	COMMENTS
	Approved
4	**Comment on May Submittal** **Sheet C5.00** See markup. **Keyed Note 1:** Is the design intent to end COA WW maintenance at the manhole near the property line? If so, all maintenance upstream this manhole will be the responsibility of the property owners association. The COA is fine with this approach, but points out that normally the COA EOM is at the cleanout closest to the WW main. Also show the COA EOM for the water system, usually at the water meter and at the BFP, if present. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Upon further reflection, relocate the COA EOM WW leader so it points to WWMH-05. Relocate the COA EOM Water leader so it points to the meter, not the BFP. See attached markup. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
5	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 2:** Piping between buildings is complex. On 22 X 34 size sheets, it can be figured out, but requires effort. On 11 X 17 size sheets, it is not legible. The reviewer found it difficult to review such piping. Once piping concepts have been finalized, consider adding expanded views to increase

NO.	COMMENTS
	clarity. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
6	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 3:** Normally, City preference is to locate water meters as close as possible to the water main; namely, in front of buildings. But the proposed location in the alley between buildings has been reviewed by City Distribution & Collection staff. They take no exception to the proposed location (alley between buildings), but such piping is still subject to review on the revised set. For each fire water sprinkler application, note that a backflow preventer & enclosure (Detail 121) is required for each such application. What is the sprinkler fire supply flow requirement per building? What is the proposed line size? If calculations show that one BFP and associated piping has sufficient capacity for the fire sprinklers for two buildings, the COA will consider this approach. The above can be discussed in more detail with City staff. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
7	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 4:** Please add a parallel 8-inch WW main to reduce lateral length and maintenance issues.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
8	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 5:** Please increase distance between edge of parking lot and edge of building to 15 feet to allow for installing various utilities as well as installing and repairing the water. Note that as per COA DCM PUE width for water mains is 20 feet, but at 15 ft PUE should suffice here. Call out the PUE. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
9	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 6:** Please review water fittings 14 & 19. To reviewer's knowledge, the smallest available CLDI is 4-inch, not 2-inch. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** The reviewer went to the U.S. Pipe website, but could not find 2-inch CLDI fittings. For both Class C110 & C153 DICL pipe, smallest fittings available seem to be 3-inch.

NO.	COMMENTS
	Please **submit** catalogue cut showing a 2-inch CLDI fitting. If 2-inch CLDI fittings are not available, change & **resubmit** affected sheets. **Comment on Feb Submittal** **Approved**
10	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 7:** From each bldg, please increase lateral size to 6-inches. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
11	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 8:** Aren't fittings 21 & 22 the same? If so, suggest deleting one. Also, remove ¾ inch from title so only 1-inch remains. The default water meter size shall be 1-inch. Note that a ¾-inch meter is really a 5/8-inch meter with ¾-inch fittings. If the Engineer wants to pursue a ¾ X 5/8 inch meter, then submit supporting information and calculations. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
12	**Comment on May Submittal** **Sheet C5.00**

NO.	COMMENTS
	Keyed Note 9: **Wastewater Structure Table** Please call out the Rim Elevation of each WW Manhole. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
13	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 10:** Either on this table or somewhere in the documents, please clarify whether each PVC WW main is either SDR 26 or SDR 35. If any portion of the pipe is more than 10 feet deep, provide SDR 26 pipe. Otherwise, SDR 35 is acceptable. If all WW pipe is the same SDR, a general note will suffice. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
14	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 11:** As previously mentioned, please provide 1-inch meters. If the Engineer wants to pursue a 5/8-inch meter (with ¾-inch fittings), then submit supporting information and calculations. Water meter estimated flow range must be less that the flow ranges published in the COA Flow Ordinance. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.00 **Approved**
15	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 12:** Please add General Note 4, with text as follows: "4. SEE C5.01 FOR WATER AND WASTEWATER SPECIFICATIONS." Then add water and wastewater specs to C5.01. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Previously, the reviewer neglected to forward COA Water & Wastewater (W&WW) specs. To this sheet, please add COA W&WW specifications, which can be found at the end of the submittal review comments. Also, these specifications apply to all W&WW infrastructure to be owned by the COA. Of course, if the Engineer so elects, they can include additional W&WW specs that apply to that W&WW infrastructure to be owner by the property owner. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
16	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 13:** If bldg plumbing allows, please relocate WWCO-12 so that lateral length under pavement is reduced. Please **submit** response & **Revise and Resubmit** this drawing.

NO.	COMMENTS
	Comment on Nov Submittal Sheet C5.00 Approved
17	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 14:** Please clarify. What is the typical distance between Bldgs? Please **submit** response. Comment on Nov Submittal Sheet C5.00 Approved
18	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 15:** To WWMH-05, WW STRUCTURE SCHEDULE, Please add text so it now reads "PROVIDE AN EXTERNAL DROP CONNECTION". Please **submit** response. **Comment on Nov Submittal** **Sheet C5.00** To applicable note, add "AN EXTERNAL" as per markup. Please **Revise & Resubmit** this sheet. Comment on Feb Submittal Approved
19	**Comment on May Submittal**

NO.	COMMENTS
	Sheet C5.00 Additional non-keyed comments include: Show all required PUEs, including W, WW & Electrical. As previously mentioned, install BFP(s) (with upstream isolation gate valve) in water to fire sprinkler systems. Call out COA EOM. It would be of benefit to extend 8-inch WM to SR-235 for future connection for increased reliability and increased fire flow. Please discuss with COA. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** As noted previously, please show and call out width of PUEs for the power circuits to be 10 feet. Also, the temporary overhead power lines shall require a temporary easement. Please call-out on this sheet. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
20	**Comment on May Submittal** **Sheet C5.01** **General Comments:** Will this W & WW piping be installed as part of this project? If so, show or reference on some type of geographical map somewhere in these documents. Call out any tree demolitions, etc. Add Water and WW Specs on this sheet as per attached. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01**

NO.	COMMENTS
	Approved
21	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 1:** Same comments re: Water Fitting Schedule as per C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** Implement markups as per attached marked-up C5.01. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
22	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 2:** Call out the street locations for both W & WW point of connections. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
23	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 3:**

NO.	COMMENTS
	Same comment re: WW Pipe Table as per C5.00. Identify type of PVC pipe; namely, SR 26 or SDR 35. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 4:** What is the purpose of these laterals and cleanouts? Will they serve separate houses on separate lots? If so, COA DCM requirement is that laterals and cleanouts be at lot corners. How will this be accomplished? Also call out the lateral size. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 5:** Call-out that the WM will be directionally drilled under the creek. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**

NO.	COMMENTS
25	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 6:** Should COA EOM be called out at WWMH-05? See related comments on C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** As per previous comment, please call-out the COA EOM at WWMH-05. **Approved as Noted.**
26	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 7:** Unless there is an adjacent existing gate valve, install a gate valve at the point of connection. At the point of connection, what is the size of the existing water main? **Keyed Note 8:** Call-out parameters for WWMH-04. **General Comment** Water main materials and size do not appear to be called out. Water main fittings do not appear to be called out. Is constructing the water main shown on this sheet part of the project? Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**

NO.	COMMENTS
27	**Comment on May Submittal** **Sheets C5.00 & C5.01** **General Comment:** The reviewer noticed that piping profile sheets have NOT been prepared for the WW piping. Please confirm that this is design intent. Please **submit** response & **submit** any applicable drawings, if required. **Comment on Nov Submittal** **Sheets C5.00 & C5.01** **Approved**
28	**Comment on May Submittal** **Sheet C5.02** **Detail 312:** If this detail not needed, suggest deleting. **Detail 115:** This is an old detail. Contact COA for update. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheets C5.02** **Approved**
29	**Comment on May Submittal** **Sheet C5.03** **Detail 200:** See markups, which allow for either 4- or 6-inch laterals, depending on the application. **Detail 307:** See markups. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.03 **Approved**
30	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 1:** COA does not allow use of HDPE pipe. Instead use either Certa-Lok or Fused PVC. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.05 (& Sheet C5.01)** For the WW gravity main, instead of SDR-26, please use Certa-Lok DR 18, a restrained system, for the jack & bore piping. Also, add Note 11, as follows: "11. FOR WATER MAIN PIPING: A. EXTEND TRACER WIRE THRU ENCASEMENT B. CONNECT TRACER WIRES WITH PRO-LINE TRACER-LOK CONNECTORS, PART # TL-LUG-SS C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE" Please **Revise & Resubmit** these sheets. **Comment on Feb Submittal** **Approved**
31	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 2:** Please provide gate valves at both ends of the directional drill. Valve locations shown on markup are approximate. Please **submit** response & **Revise and Resubmit** this drawing.

NO.	COMMENTS
	Comment on Nov Submittal **Sheet C5.05** Valves are shown on C5.00 & C5.01. **Approved**
32	**Comment on May Submittal** **Sheet LP-04** **Keyed Note 1:** Evaluate and confirm minimum horizontal separation between trees and water/WW infrastructure. Minimum horizontal separation requirements are: Live Oaks = 15 feet Other canopy trees = 10 feet Understory trees = 7.5 feet Note that location of some water and wastewater infrastructure is changing. Evaluate horizontal separation requirements against Water and Wastewater infrastructure shown on most current version of sheet C5.00. If necessary, discuss required horizontal separation with City. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet LP-04** The Landscape Architect & the Electrical Engineer shall compare LP-04 & E-2 to ensure there is 10 feet of minimum horizontal separation between tree trunks and power circuits as per attached LP-04 markup. Please **Revise and Resubmit** this sheet. **Comment on Feb Submittal** **Sheet LP-04** **Approved as Noted**. See Comment 44.
33	**Comment on May Submittal**

NO.	COMMENTS
	General Electrical design is being reviewed directly between electrical design engineer and COA electric staff. Comments include, but are not limited to: Relocate at least two transformers for improved truck access in the event transformer removal is required. **Revise and Resubmit** applicable electric sheets. FYI: This rating will be changed once COA electrical staff informs this reviewer that electric design has achieved Approved as Noted status or better. **Comment on Nov Submittal** **General** See previous comments on electrical easements. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. FYI: Under the assumption that the master water meter will be deleted from the project, it is possible that conduit routing will change. **Comment on Feb Submittal** Please address the above comment, which does not seem to have been yet addressed. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. Please **submit** the required information. **Comment on May Submittal** Approved
34	**Comment on May Submittal** **Fire Flow Calculations** **Comments herein are FYI. Response by Engineer is optional.** The fire flow calcs predict fire flow of about 3900 gpm at 20 psig at the tested fire hydrants. Please note that predicted fire flow by our water model is substantially lower by at least 50%, which is unusual.

NO.	COMMENTS
	Two fire flows were estimated with the test and read fire hydrants being flip-flopped. The estimated fire flows are essentially the same. Although not all references mention this, the elevation differences of hydrants should be taken into account as they affect fire flow at each location. Elevation differences are significant; namely, FH @ NW 158th Ave & NW 135 Terrace: EL = 83 ft. FH @ NW 158th Ave & NW 133the Terrace = EL = 108 ft. The FH at EL 83 should deliver much more fire flow. In fact, our water model confrims this. Also, note that the estimated fire flow by a FH in the Tolosa North site will be much less than the tested FH due to: EL of the FH at the Tolosa North site is about 116 ft. Fire flow delivery to the Tolosa North site is branched, not looped. Branched systems produce more, sometimes much more, friction losses than looped systems. If it is assumed that the branched WM commences at NW 158th Ave and NW 135 Terrace, then the EL difference is (116 – 83) = 33 ft. uphill, or 14.2 psi.. The friction loss factor for Q = 1100 gpm in an 8-inch line is 2.15 ft / 100 ft. With a WM length estimated at 1300 ft, then the estimated friction loss is about 28 ft, or 12.1psi. Thus, at the Tolosa FH with no fire flow, the residual pressure may be about only 52 psig, much less than the 78 psig at the test FH. **Comment on Nov Submittal** **Fire Flow Calculations, FYI** Inasmuch as the JB Pro Fire Flow calculation methodology will be used on future projects, please contact COA reviewer to discuss several issues, such as: Based on an internet review of calculating fire flows, an elevation correction for the test and read fire hydrants is required. Does JB Pro include the elevation correction factor in their methodology? Pressure versus flow graph: The flow x-axis is shown as linear. The more common approach is for the flow x-axis to be non-linear in which two points (flows at static and residual pressure) define a line, from which the flow at 20 psig residual can be extrapolated. The reviewer does not understand what the three points shown on the JB Pro graph represent. Flow Output Water Model and Fire Flow Report: What is the boundary condition; namely, that pressure (or equivalent) where the water

NO.	COMMENTS
	model connects to COAs existing distribution piping network. Suggest noting this on the fire flow report. Pipe lengths and diameters are not called out. Perhaps this is a limitation of the model's node map. Calling out pipe lengths and diameter improves clarity, assisting in the review process. Note that that piping from the 10X10 tap to the 6-inch master meter really consists of two segments – most is 10-inch diameter, but the jack & bore portion is 8-inch diameter. Note that velocity in an 8-inch line at 1500 gpm is about 10 fps, increasing friction loss. Does the model take into account the 8-inch jack & bore piping? A fire flow testing recommended practice is that the pressure drop during the test be at least 25% of the static pressure. For test 1, for example, the pressure drop is only 7.6%. It is may not be feasible to induce a pressure drop more than this for the test conditions, but nevertheless this is the accepted guideline. Test 2 calls-out the residual pressure as 61 psi with the associated pitot pressure also as 61 psi. This suggests that the friction loss in the line between the two hydrants is zero, which is unrealistic. **Comment on Feb Submittal** City has revised comment to **Approved as Noted.** The City welcomes a discussion of this topic with relevant Engineer's staff, but such a discussion is not germane to this particular project.
35	**Comment on May Submittal** **Sheet TBD** Please add the following City details: 115 Water Meter 121 BFP 210 Grout SW Structures **Revise and Resubmit or submit** additional sheets. **Comment on Nov Submittal** **Approved**
36	**Additional Comment on Nov Submittal** **Use of Master Water Meter Prohibited**

NO.	COMMENTS
	The reviewer assumes that the underlying concept is that the master water meter is for 50 single family residences that eventually will be each individually owned. The COA does not allow a master water meter in this application due to several factors, including, but not limited to, the city ordinance that prohibits the resale and redistribution of water. Please redesign so that City requirements are met, such as (1) Install a water meter for each townhome (2) Provide PUEs whose widths are in accordance with City requirements and (3) Provide adequate physical space for repair of water, wastewater and electric infrastructure. The City is available to discuss redesign issues with the Engineer Note: As part of the redesign, comments made herein may either no longer apply or will require update. Please **Revise and Resubmit** sheets so that the master water meter is deleted and replaced with individual meters. **Comment on Feb Submittal** The Master Water concept is no longer being used. **Approved.**
37	**New Comment** **Sheet C5.00 Markup (Attached)** The City's comment that might affect this sheet the most is to install under pavement for water service a 4-inch CLDI pipe instead of a 2-inch PVC pipe. The reason is that CLDI pipe is very reliable – digging up to repair a pipe is very expensive. 2-inch PVC water service piping is not allowed under pavement except within a 4-inch sleeve as per City details. **Markup Comment (MC) 1**: City proposes to replace 2-inch water service line with 4-inch CLDI. Just before the 5-meter bank install a 4 x 2 reducer, convert to 2-inch PVC pipe and install a 2-inch gate valve. **MC 2:** City proposes to replace water service line with 4-inch CLDI pipe to termination. Install two service connections, one per bldg in the 4-inch CLDI pipe. Each service connection consists of one 2-inch gate valve, PVC pipe and a bank of 4 water meters. Refer to Detail 130 with text "SIMILAR TO DETAIL 130". To enhance design clarity, consider adding an inset. **MC 3:** Same as MC 2.

NO.	COMMENTS
	MC 4: Same as MC 2. **MC 5:** By contrast, using 2-inch PVC water service pipe here is acceptable because piping is not under pavement. **MC 6:** Same as MC 2. **MC 7:** Please add the following note: "14. Install water meter box so that edge of water meter box is 2 feet minimum from both building and sidewalk edges." **MC 8:** Cleanout table shows WWCO-02 as being about 10 feet deep. Please evaluate. Normal cleanout depth is about 4-5 feet to facilitate building plumbing connection. **MC 9:** Water Fitting Schedule Item 16: Please change text to read "8-INCH BLOWOFF ASSEMBLY WITH 4-INCH BLOWOFF VALVE". **MC 10:** Please add the following notes: "15. FOR ALL VALVES UNDER PAVEMENT, PROVIDE TRAFFIC RATED/ROADWAY TYPE VALVE BOXES AND LIDS. 16. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM." **MC 11**: Please update water fitting schedule once all changes above have been made. **MC 12:** Please change text to " 8-INCH CLDI". 8-inch line size seems to be design intent. Line is at edge or road pavement, thus CLDI is required. **MC 13**: Please evaluate PUE locations. The PUE as shown is OK for the 8-inch water main, but not for the 4-inch (formerly 2-inch) water service connections. See Comment 1. **MC 14:** Change text so domestic service lines are 4-inch CLDI, not 2-inch PVC. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.00** All comments addressed. See new comment 46 for additional comments related to Sheet C5.00. **Approved**
38	**New Comment** **Sheet C5.00**

NO.	COMMENTS
	This reviewer noticed that in the submitted design, one 2-inch water service line is supplying water to up to 8 water meters. Does the Engineer have a design criteria for max number of ¾ x 5/8 inch water meters serviced by one 2-inch line? If so, is there a reference or is it based on engineering judgment? Please **submit** response. Comment on May Submittal **Sheet C5.00** **Approved**
39	**New Comment** **Sheet C5.01** **See markups.** **Markup Comment (MC) 1:** W INV EL is at 97.05. Please change so this lateral connects within 2 feet of the manhole bottom. **MC2:** Please change fitting schedule so there are 3-10-inch gate valves for fitting 22. **MC3:** Please change fitting schedule so there are 2-10-inch gate valves for fitting 21. Install the additional gate valve in the run nearest WWCO-15. **MC4:** Please add the following note: "8. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM." **MC5: Fitting 22 – please change text of blowoff so it reads:** "1 – 10-INCH BLOWOFF ASSEMBLY WITH 4-INCH BLOWOFF VALVE" Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.01** **Approved**
40	**New Comment** **Sheet C5.02** Please replace detail 106 with its update, which Engineer should have. If not, contact City. The update details calls out both 2-inch and 4-inch blowoff assemblies.

NO.	COMMENTS
	Comment on May Submittal **Sheet C5.02** **Approved**
41	Please evaluate whether detail 121 is still needed. If so, suggest deleting it. Please add detail 130, dual water meters, to either this or an applicable sheet. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.02** **Approved**
42	**New Comment** **Sheet C5.03** Suggest deleting the two details in the upper row that detail the concrete meter vault. Pleas add detail 328 to this sheet. If Engineer does not have this detail, please contact COA. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.03** **Approved**
43	**New Comment** **Sheet UE1.1** As previously mentioned, for WWMH-02, change invert elevation of the west lateral so that it connects within 2 feet of the manhole bottom. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet UE1.1** **Approved**
44	**New Comment** **Sheet LP-04** See markups.

NO.	COMMENTS
	Please remove shrubs around transformer to be consistent with Detail 557. Please add Detail 557 to the landscaping plans. If Engineer does not have this detail, please contact COA. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet LP-04** **Approved**
45	**New Comment** **Sheet E-4** Please replace Detail 509 with Detail 510 . Please add Detail 328 to this sheet. If Engineer does not have these details, please contact COA. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet E-04** **Approved**
46	**(New) Comment on May Submittal** **Sheet C5.00** **Water Fitting Schedule:** Keyed Note 14: Please modify first line of text from "4 X 2 REDUCER" to " 4 X 2 WATER MAIN REDUCTION (PER COA DETAIL 124)" **Water & WW Specifications:** Note 14: Please modify text as follows: "14. INSTALL WATER BOX SO ITS EDGE IS 2 FEET MIN FROM SIDEWALK EDGE, AND 3 FEET MIN FROM BLDG EDGE. Please **resubmit** this sheet. **Comment on July Submittal** **Approved**

NO.	COMMENTS
47	**(New) Comment on May Submittal** **Sheet C5.03** Please add COA Detail 124 to this sheet. COA will forward this detail to the Engineer, including its markup. As shown on the markup, on plan view, change text from "SCH80 PVC MALE ADAPTER" to "BRASS MALE PACK JOINT". Please replace Detail 130 with its update, which COA will forward to the Engineer. Please **resubmit** this sheet. **Comment on July Submittal** **Approved**
48	**(New) Comment on May Submittal** **Sheet E-6** Please replace Street Light Pedestal Approved Materials detail with revision, which will be forwarded by City. Please **resubmit** this sheet. **Comment on July Submittal** **Approved**
49	
50	
END OF COMMENTS	

Please advise if you have any questions or require additional information.

CITY OF ALACHUA WATER & WASTEWATER SPECIFICATIONS

WATER AND WASTEWATER SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CITY OF ALACHUA, PUBLIC SERVICES, DESIGN AND CONSTRUCTION MANUAL (DCM), LATEST EDITION". THE FOLLOWING NOTES EITHER EMPHASIZE

DCM REQUIREMENTS OR SPECIFY ADDITIONAL REQUIREMENTS. IF DCM AND NOTE REQUIREMENTS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

PROVIDE TRACER WIRE SYSTEM FOR WATER PIPING AS SHOWN ON THE DETAILS AND AS PER THE COA DCM. PROVIDE TRACER WIRE FOR BOTH PLASTIC (PVC) AND DUCTILE IRON PIPE.

WATER PIPING TRACER WIRE SYSTEM SHALL COMMENCE AT THE TIE-IN(S) AT EXISTING WATER MAIN(S) AND TERMINATE AT EACH COA END OF MAINTENANCE POINT.

TRACER WIRE SHALL BE SOLID COPPER #10 AWG BLUE INSULATED. TRACER WIRE SHALL BE PRO-LINE WITH PRO-LINE TRACER LOCK CONNECTORS, PART # TL-LUG-SS.

WATER METER APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE WATER METER ITSELF WILL BE FURNISHED AND INSTALLED BY THE CITY.

PROVIDE RESTRAINED JOINTS AT FITTINGS, HYDRANTS AND PIPING IN ACCORDANCE WITH AWWA STANDARDS AND AS PER CITY STANDARD DETAILS.

WATER MAINS SHALL BE EITHER PVC C900 DR 18 OR DUCTILE IRON CEMENT LINED, DEPENDING ON THE APPLICATION. UNDER ROADS AND PAVED AREAS SUCH AS PARKING LOTS, WATER MAINS SHALL BE DUCTILE IRON CEMENT LINED. ALL WATER MAINS SHALL BE NSF-61 RATED AND BURIED WITH AT LEAST 36-INCHES OF COVER.

POTABLE WATER SERVICE LINES SHALL BE 2-INCH MINIMUM, SCHEDULE 40 PVC AND RATED FOR NSF-61.

ALL FITTINGS FOR BOTH PVC AND DUCTILE IRON PIPE 4-INCHES AND LARGER SHALL BE DUCTILE IRON. FOR POTABLE WATER MAINS, FITTINGS SHALL BE CEMENT-LINED. FITTINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, ELBOWS, TEES, CROSSES AND REDUCERS.

PROVIDE PUBLIC UTILITY EASEMENTS AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.

WET TAP(S) TO PRESSURIZED WATER MAINS SHALL BE DONE BY A SUB-CONTRACTOR PRE-APPROVED BY THE CITY OF ALACHUA. RESTRAIN THE BRANCH GATE VALVE.

ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LESS THAN OR EQUAL TO 10 FEET CAN BE SDR 35.

SUBMITTALS, TESTING AND INSPECTIONS SHALL BE PERFORMED AS PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION)

City of ALACHUA
the good life community

RODOLFO VALLADARES
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR BRYAN S. THOMAS, AICP

June 23, 2026

Submitted electronically to Jack.Charnas@jbpro.com

Jack Charnas, P.E.
JBrown Professional Group, Inc.
3530 NW 43rd Street
Gainesville, Florida 32606

Application #: PSP25-0006

RE: Project Assistance Team (PAT) Comments for Tolosa North Site Plan Application

Dear Jack Charnas,

On May 26, 2026, the Planning & Community Development Department received your revised site plan application for the Tolosa North Site Plan project, which proposes the construction of 50 single-family attached residential units with associated infrastructure improvements on a +/- 7.25-acre subject property (tax parcel 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

The application has been reviewed by the City's Planning Assistance Team (PAT). Upon review of the application materials, the following insufficiencies must be addressed. A meeting may be scheduled to review these comments at the applicant's request.

Please address all insufficiencies in writing and provide an indication as to how they have been addressed by **5:00 PM on July 8, 2026**. A total of four copies of the application package, plans, and a digital copy of all materials in PDF format on a CD or sent by emailing a Cloud/FTP link must be provided by this date. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the Planning & Zoning Board. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time. If all comments are addressed by the resubmission date above, the application may be scheduled for the **August 2026 Planning & Zoning Board (PZB) Meeting**.

Pursuant to Resolution 24-05, application fees include two (2) PAT reviews, and the reviews associated with each resubmittal to confirm that comments were addressed. **Please note, if an additional PAT review is required, a surcharge of 25% of the site plan application fee will be assessed for the additional PAT review (original application fee - $2,700; 25% surcharge - $675).** You will be notified if an additional PAT review is required, and the surcharge must be paid prior to any further review of the application.

Address the following insufficiencies:

Remaining Deficiencies to be Addressed

** Unless otherwise noted, references to code sections are to the City of Alachua Land Development Regulations **

1. Article 6 – Development Standards
   a. Section 6.2 – Tree protection and landscaping standards
      i. For each tree removed, one half tree must be provided in mitigation (equivalent to 1" of tree required per tree removed). This applies to **any tree over 10" in DBH** (*including trees over 30" in DBH*). Revise required mitigation calculations as this could affect the mitigation deficit used to calculate the mitigation payment (ref. Section 6.2.1(6)(c), LDRs).
      ii. The 0.25 landscape credit awarded per mitigation tree planted applies only to mitigation trees explicitly planted for the purpose of mitigation, not landscape trees that are being counted towards mitigation. These credits are awarded in addition to tree preservation credits. Revise credit calculations (ref. Section 6.2.1(6)(c), LDRs).
      iii. The total number of additional mitigation trees (anything beyond 25%...) provided is noted at 25; however, staff noted 30 trees marked with an "M" for mitigation on the plan set. Revise and ensure the total number of mitigation trees (anything beyond 25%...) is accurate as this could affect the mitigation deficit used to calculate the mitigation payment.
      iv. Staff is requesting the investigation into the feasibility of retaining tree #30015 and #30256 as they appear to be very large live oak trees. Respond to this comment regarding the potential for preserving these two trees, including the health status of the trees and any potential health, safety, or general welfare issues that would prevent these trees from being preserved.
2. Outside Review
   a. Review and address comments from outside reviewer dated 6/16/2026 (attached).
   b. Review and address comments from City of Alachua Public Services dated 6/22/2026 (attached).
3. Miscellaneous
   a. As a general reminder, a condition of approval will be added to ensure that at least 50% of the dwelling units are provided at 80% of the Alachua County AMI or less, and that the development order will be recorded in the Public Records of Alachua County at the cost of the Applicant (ref. Section 6.2.1(6)(c)).

If you have any questions regarding the information above, please contact me at (386) 418-6137 or at ccrockett@cityofalachua.org. We look forward to receiving your revised application.

Sincerely,

Carson J. Crockett, AICP
Principal Planner

Attachments: Comments from outside reviewer 6/16/2026
Comments from City of Alachua Public Services 6/22/2026

CC: Bryan S. Thomas, AICP, Planning & Community Development Director *(by electronic mail)*
Jean-Paul Perez, Principal Planner *(by electronic mail)*
Parker Stevens, Planner *(by electronic mail)*
Brenda Flieger, Planning Assistant *(by electronic mail)*
Project File

June 16, 2026

Carson J. Crocket, Planner
Office of Planning and Community Development
ccrockett@cityofalachua.org | 386-418-6137
City of Alachua, Florida.

Ref: Site plans for Tolosa North – Phase 1 & 2

Dear Mr. Crockett:

The following comment for the site plans for Tolosa North – Phase 1 & 2 is really minor and does not require resubmittal.

Sheet C.5.00

a. The 4" DIP WM label below buildings 2&3 is not pointing at the water line.

Please do not hesitate to contact us if you have any questions/comments.

Sincerely,

Claudia Vega, P.E.
Director of Engineering
cvega@edafl.com
edafl.com

City of
ALACHUA
the good life community

City of Alachua

RODOLFO VALLADARES, P.E.
CITY MANAGER

INTER-OFFICE COMMUNICATION

DATE: **June 22, 2026**

TO: **Bryan Thomas, AICP**
Planning & Community Development Director

FROM: **Tom Ridgik, P.E.**
Engineering Supervisor

TR 6/22/2026

RE: **Tolosa North Phases 1 & 2 Site Plans**

Public Services has reviewed the subject project (May 2026 Documents) and offer the following comments. Review was specific to Public Services utilities.

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NO.	COMMENTS
1	**Comment on May Submittal** **General** Provide public utility easements as required for all utilities shown hereon by metes and bound description and in accordance with the regulatory agency department for public utilities. Please update and **submit** applicable sheets. **Comment on Nov Submittal** **General** See markups on Sketch and Description. For electric power circuits, provide 10-foot wide easements. How will the easements for electrical infrastructure be officially recorded? Note: COA plans to write three separate easement descriptions, each a different width; namely, 20, 30 and 35 feet. Please modify sketch to be consistent with this.

NO.	COMMENTS
	Please **submit** response and **resubmit** affected drawings. **Comment on Feb Submittal** **General** Tolosa Electric Easement Sketch & Description: No Exceptions. Tolosa Sewer Easement Sketch & Description: Inasmuch as this easement includes a water main, please change title to "Tolosa Sewer and Water Easement…." Tolosa Water Easement Sketch & Description: COA will own and maintain the water distribution infrastructure until the water meters. Thus, modify sketch & description so easement includes the water service infrastructure up to and including the meters. If such additional easements are problematic, please contact COA to discuss. See C5.00 markup. Please **resubmit** both the "Sewer and Water Easement" and the "Water" easements. **Comment on May Submittal** **General** **Approved**
2	**Comment on May Submittal** **Sheet C0.00** This project has been submitted to Planning as a Site Plan application. Thus please change title from "CONSTRUCTION PLANS" TO "SITE PLANS". Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C0.00** **Approved**
3	**Comment on May Submittal** **Sheet C1.00** Under **General Construction Notes**, add "12. THE CITY OF ALACHUA SHALL BE COMPENSATED FOR ALL WORK REQUIRED OF THE CITY TO MODIFY ITS INFRASTRUCTURE. SUCH WORK

NO.	COMMENTS
	INCLUDES, BUT IS NOT LIMITED TO, WATER, WASTEWATER AND ELECTRIC INFRASTRUCTURE IMPROVEMENTS, RELOCATION OR DEMOLITION. FOR PROJECTS NOT WITHIN THE CITY'S ELECTRIC SERVICE AREA, MODIFICATIONS TO THE CITY'S ELECTRIC INFRASTRUCTURE EITHER WITHIN OR ADJACENT TO THE PROJECT AREA MAY BE REQUIRED.THE CITY SHALL BE COMPENSATED FOR SUCH MODIFICATIONS." Under **Paving, Grading and Drainage Specifications**, add "15. NEW ROADS – PAVEMENT TRANSVERSE MARKINGS – MATERIALS OF STOP LINES SHALL BE HOT-APPLIED STANDARD THERMOPLASTIC. MATERIALS OF CROSSWALK LONGITUDINAL BARS – 24-INCH SHALL BE HOT-APPLIED HIGH FRICTION THERMOPLASTIC. 16. UNLESS AN ALTERNATE IS APPROVED BY COA, GROUT BOTTOM OF ALL STORMWATER DRAINAGE STRUCTURE INVERTS AS PER FDOT INDEX 425-001 AND AS PER COA STANDARD DETAIL 210. 17. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND CITY OF ALACHUA PROJECT MANAGER IN ADVANCE PRIOR TO PLACING LIMEROCK AND LAYING ASPHALT FOR FIELD INSPECTIONS." Under **STANDARD ABBREVIATIONS,** Add "EOM END OF MAINTENANCE". Change "ST STORM" to "ST STORMWATER" Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C1.00** **Approved**
4	**Comment on May Submittal** **Sheets C4.01, C4.04 and C4.05** COA Detail 215 only applies to sanitary manholes. Thus, please delete references to it for storm manholes in the Storm Structures Table. Please **Revise & Resubmit** these sheets. **Comment on Nov Submittal** **Sheets C4.01, C4.04 and C4.05**

NO.	COMMENTS
	Approved
4	**Comment on May Submittal** **Sheet C5.00** See markup. **Keyed Note 1:** Is the design intent to end COA WW maintenance at the manhole near the property line? If so, all maintenance upstream this manhole will be the responsibility of the property owners association. The COA is fine with this approach, but points out that normally the COA EOM is at the cleanout closest to the WW main. Also show the COA EOM for the water system, usually at the water meter and at the BFP, if present. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Upon further reflection, relocate the COA EOM WW leader so it points to WWMH-05. Relocate the COA EOM Water leader so it points to the meter, not the BFP. See attached markup. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
5	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 2:** Piping between buildings is complex. On 22 X 34 size sheets, it can be figured out, but requires effort. On 11 X 17 size sheets, it is not legible. The reviewer found it difficult to review such piping. Once piping concepts have been finalized, consider adding expanded views to increase

NO.	COMMENTS
	clarity. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
6	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 3:** Normally, City preference is to locate water meters as close as possible to the water main; namely, in front of buildings. But the proposed location in the alley between buildings has been reviewed by City Distribution & Collection staff. They take no exception to the proposed location (alley between buildings), but such piping is still subject to review on the revised set. For each fire water sprinkler application, note that a backflow preventer & enclosure (Detail 121) is required for each such application. What is the sprinkler fire supply flow requirement per building? What is the proposed line size? If calculations show that one BFP and associated piping has sufficient capacity for the fire sprinklers for two buildings, the COA will consider this approach. The above can be discussed in more detail with City staff. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
7	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 4:** Please add a parallel 8-inch WW main to reduce lateral length and maintenance issues.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
8	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 5:** Please increase distance between edge of parking lot and edge of building to 15 feet to allow for installing various utilities as well as installing and repairing the water. Note that as per COA DCM PUE width for water mains is 20 feet, but at 15 ft PUE should suffice here. Call out the PUE. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
9	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 6:** Please review water fittings 14 & 19. To reviewer's knowledge, the smallest available CLDI is 4-inch, not 2-inch. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** The reviewer went to the U.S. Pipe website, but could not find 2-inch CLDI fittings. For both Class C110 & C153 DICL pipe, smallest fittings available seem to be 3-inch.

NO.	COMMENTS
	Please **submit** catalogue cut showing a 2-inch CLDI fitting. If 2-inch CLDI fittings are not available, change & **resubmit** affected sheets. **Comment on Feb Submittal** **Approved**
10	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 7:** From each bldg, please increase lateral size to 6-inches. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
11	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 8:** Aren't fittings 21 & 22 the same? If so, suggest deleting one. Also, remove ¾ inch from title so only 1-inch remains. The default water meter size shall be 1-inch. Note that a ¾-inch meter is really a 5/8-inch meter with ¾-inch fittings. If the Engineer wants to pursue a ¾ X 5/8 inch meter, then submit supporting information and calculations. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
12	**Comment on May Submittal** **Sheet C5.00**

NO.	COMMENTS
	Keyed Note 9: **Wastewater Structure Table** Please call out the Rim Elevation of each WW Manhole. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
13	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 10:** Either on this table or somewhere in the documents, please clarify whether each PVC WW main is either SDR 26 or SDR 35. If any portion of the pipe is more than 10 feet deep, provide SDR 26 pipe. Otherwise, SDR 35 is acceptable. If all WW pipe is the same SDR, a general note will suffice. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
14	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 11:** As previously mentioned, please provide 1-inch meters. If the Engineer wants to pursue a 5/8-inch meter (with ¾-inch fittings), then submit supporting information and calculations. Water meter estimated flow range must be less that the flow ranges published in the COA Flow Ordinance. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.00 Approved
15	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 12:** Please add General Note 4, with text as follows: "4. SEE C5.01 FOR WATER AND WASTEWATER SPECIFICATIONS." Then add water and wastewater specs to C5.01. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Previously, the reviewer neglected to forward COA Water & Wastewater (W&WW) specs. To this sheet, please add COA W&WW specifications, which can be found at the end of the submittal review comments. Also, these specifications apply to all W&WW infrastructure to be owned by the COA. Of course, if the Engineer so elects, they can include additional W&WW specs that apply to that W&WW infrastructure to be owner by the property owner. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** Approved
16	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 13:** If bldg plumbing allows, please relocate WWCO-12 so that lateral length under pavement is reduced. Please **submit** response & **Revise and Resubmit** this drawing.

NO.	COMMENTS
	Comment on Nov Submittal Sheet C5.00 Approved
17	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 14:** Please clarify. What is the typical distance between Bldgs? Please **submit** response. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
18	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 15:** To WWMH-05, WW STRUCTURE SCHEDULE, Please add text so it now reads "PROVIDE AN EXTERNAL DROP CONNECTION". Please **submit** response. **Comment on Nov Submittal** **Sheet C5.00** To applicable note, add "AN EXTERNAL" as per markup. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
19	**Comment on May Submittal**

NO.	COMMENTS
	Sheet C5.00 Additional non-keyed comments include: Show all required PUEs, including W, WW & Electrical. As previously mentioned, install BFP(s) (with upstream isolation gate valve) in water to fire sprinkler systems. Call out COA EOM. It would be of benefit to extend 8-inch WM to SR-235 for future connection for increased reliability and increased fire flow. Please discuss with COA. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** As noted previously, please show and call out width of PUEs for the power circuits to be 10 feet. Also, the temporary overhead power lines shall require a temporary easement. Please call-out on this sheet. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
20	**Comment on May Submittal** **Sheet C5.01** **General Comments:** Will this W & WW piping be installed as part of this project? If so, show or reference on some type of geographical map somewhere in these documents. Call out any tree demolitions, etc. Add Water and WW Specs on this sheet as per attached. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01**

NO.	COMMENTS
	Approved
21	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 1:** Same comments re: Water Fitting Schedule as per C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** Implement markups as per attached marked-up C5.01. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** Approved
22	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 2:** Call out the street locations for both W & WW point of connections. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** Approved
23	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 3:**

NO.	COMMENTS
	Same comment re: WW Pipe Table as per C5.00. Identify type of PVC pipe; namely, SR 26 or SDR 35. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 4:** What is the purpose of these laterals and cleanouts? Will they serve separate houses on separate lots? If so, COA DCM requirement is that laterals and cleanouts be at lot corners. How will this be accomplished? Also call out the lateral size. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 5:** Call-out that the WM will be directionally drilled under the creek. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**

NO.	COMMENTS
25	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 6:** Should COA EOM be called out at WWMH-05? See related comments on C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** As per previous comment, please call-out the COA EOM at WWMH-05. **Approved as Noted.**
26	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 7:** Unless there is an adjacent existing gate valve, install a gate valve at the point of connection. At the point of connection, what is the size of the existing water main? **Keyed Note 8:** Call-out parameters for WWMH-04. **General Comment** Water main materials and size do not appear to be called out. Water main fittings do not appear to be called out. Is constructing the water main shown on this sheet part of the project? Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**

NO.	COMMENTS
27	**Comment on May Submittal** **Sheets C5.00 & C5.01** **General Comment:** The reviewer noticed that piping profile sheets have NOT been prepared for the WW piping. Please confirm that this is design intent. Please **submit** response & **submit** any applicable drawings, if required. Comment on Nov Submittal Sheets C5.00 & C5.01 Approved
28	**Comment on May Submittal** **Sheet C5.02** **Detail 312:** If this detail not needed, suggest deleting. **Detail 115**: This is an old detail. Contact COA for update. Please **submit** response & **Revise and Resubmit** this drawing. Comment on Nov Submittal Sheets C5.02 Approved
29	**Comment on May Submittal** **Sheet C5.03** **Detail 200:** See markups, which allow for either 4- or 6-inch laterals, depending on the application. **Detail 307**: See markups. Please **submit** response & **Revise and Resubmit** this drawing. Comment on Nov Submittal

NO.	COMMENTS
	Sheet C5.03 **Approved**
30	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 1:** COA does not allow use of HDPE pipe. Instead use either Certa-Lok or Fused PVC. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.05 (& Sheet C5.01)** For the WW gravity main, instead of SDR-26, please use Certa-Lok DR 18, a restrained system, for the jack & bore piping. Also, add Note 11, as follows: "11. FOR WATER MAIN PIPING: A. EXTEND TRACER WIRE THRU ENCASEMENT B. CONNECT TRACER WIRES WITH PRO-LINE TRACER-LOK CONNECTORS, PART # TL-LUG-SS C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE" Please **Revise & Resubmit** these sheets. **Comment on Feb Submittal** **Approved**
31	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 2:** Please provide gate valves at both ends of the directional drill. Valve locations shown on markup are approximate. Please **submit** response & **Revise and Resubmit** this drawing.

NO.	COMMENTS
	Comment on Nov Submittal **Sheet C5.05** Valves are shown on C5.00 & C5.01. **Approved**
32	**Comment on May Submittal** **Sheet LP-04** **Keyed Note 1:** Evaluate and confirm minimum horizontal separation between trees and water/WW infrastructure. Minimum horizontal separation requirements are: Live Oaks = 15 feet Other canopy trees = 10 feet Understory trees = 7.5 feet Note that location of some water and wastewater infrastructure is changing. Evaluate horizontal separation requirements against Water and Wastewater infrastructure shown on most current version of sheet C5.00. If necessary, discuss required horizontal separation with City. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet LP-04** The Landscape Architect & the Electrical Engineer shall compare LP-04 & E-2 to ensure there is 10 feet of minimum horizontal separation between tree trunks and power circuits as per attached LP-04 markup. Please **Revise and Resubmit** this sheet. **Comment on Feb Submittal** **Sheet LP-04** **Approved as Noted.** See Comment 44.
33	**Comment on May Submittal**

NO.	COMMENTS
	General Electrical design is being reviewed directly between electrical design engineer and COA electric staff. Comments include, but are not limited to: Relocate at least two transformers for improved truck access in the event transformer removal is required. **Revise and Resubmit** applicable electric sheets. FYI: This rating will be changed once COA electrical staff informs this reviewer that electric design has achieved Approved as Noted status or better. **Comment on Nov Submittal** **General** See previous comments on electrical easements. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. FYI: Under the assumption that the master water meter will be deleted from the project, it is possible that conduit routing will change. **Comment on Feb Submittal** Please address the above comment, which does not seem to have been yet addressed. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. Please **submit** the required information. **Comment on May Submittal** Approved
34	**Comment on May Submittal** **Fire Flow Calculations** **Comments herein are FYI. Response by Engineer is optional.** The fire flow calcs predict fire flow of about 3900 gpm at 20 psig at the tested fire hydrants. Please note that predicted fire flow by our water model is substantially lower by at least 50%, which is unusual.

NO.	COMMENTS
	Two fire flows were estimated with the test and read fire hydrants being flip-flopped. The estimated fire flows are essentially the same. Although not all references mention this, the elevation differences of hydrants should be taken into account as they affect fire flow at each location. Elevation differences are significant; namely, FH @ NW 158th Ave & NW 135 Terrace: EL = 83 ft. FH @ NW 158th Ave & NW 133the Terrace = EL = 108 ft. The FH at EL 83 should deliver much more fire flow. In fact, our water model confrims this. Also, note that the estimated fire flow by a FH in the Tolosa North site will be much less than the tested FH due to: EL of the FH at the Tolosa North site is about 116 ft. Fire flow delivery to the Tolosa North site is branched, not looped. Branched systems produce more, sometimes much more, friction losses than looped systems. If it is assumed that the branched WM commences at NW 158th Ave and NW 135 Terrace, then the EL difference is (116 – 83) = 33 ft. uphill, or 14.2 psi.. The friction loss factor for Q = 1100 gpm in an 8-inch line is 2.15 ft / 100 ft. With a WM length estimated at 1300 ft, then the estimated friction loss is about 28 ft, or 12.1psi. Thus, at the Tolosa FH with no fire flow, the residual pressure may be about only 52 psig, much less than the 78 psig at the test FH. **Comment on Nov Submittal** **Fire Flow Calculations, FYI** Inasmuch as the JB Pro Fire Flow calculation methodology will be used on future projects, please contact COA reviewer to discuss several issues, such as: Based on an internet review of calculating fire flows, an elevation correction for the test and read fire hydrants is required. Does JB Pro include the elevation correction factor in their methodology? Pressure versus flow graph: The flow x-axis is shown as linear. The more common approach is for the flow x-axis to be non-lineat in which two points (flows at static and residual pressure) define a line, from which the flow at 20 psig residual can be extrapolated. The reviewer does not understand what the three points shown on the JB Pro graph represent. Flow Output Water Model and Fire Flow Report: What is the boundary condition; namely, that pressure (or equivalent) where the water

NO.	COMMENTS
	model connects to COAs existing distribution piping network. Suggest noting this on the fire flow report. Pipe lengths and diameters are not called out. Perhaps this is a limitation of the model's node map. Calling out pipe lengths and diameter improves clarity, assisting in the review process. Note that that piping from the 10X10 tap to the 6-inch master meter really consists of two segments – most is 10-inch diameter, but the jack & bore portion is 8-inch diameter. Note that velocity in an 8-inch line at 1500 gpm is about 10 fps, increasing friction loss. Does the model take into account the 8-inch jack & bore piping? A fire flow testing recommended practice is that the pressure drop during the test be at least 25% of the static pressure. For test 1, for example, the pressure drop is only 7.6%. It is may not be feasible to induce a pressure drop more than this for the test conditions, but nevertheless this is the accepted guideline. Test 2 calls-out the residual pressure as 61 psi with the associated pitot pressure also as 61 psi. This suggests that the friction loss in the line between the two hydrants is zero, which is unrealistic. **Comment on Feb Submittal** City has revised comment to **Approved as Noted.** The City welcomes a discussion of this topic with relevant Engineer's staff, but such a discussion is not germane to this particular project.
35	**Comment on May Submittal** **Sheet TBD** Please add the following City details: 115 Water Meter 121 BFP 210 Grout SW Structures **Revise and Resubmit or submit** additional sheets. **Comment on Nov Submittal** **Approved**
36	**Additional Comment on Nov Submittal** **Use of Master Water Meter Prohibited**

NO.	COMMENTS
	The reviewer assumes that the underlying concept is that the master water meter is for 50 single family residences that eventually will be each individually owned. The COA does not allow a master water meter in this application due to several factors, including, but not limited to, the city ordinance that prohibits the resale and redistribution of water. Please redesign so that City requirements are met, such as (1) Install a water meter for each townhome (2) Provide PUEs whose widths are in accordance with City requirements and (3) Provide adequate physical space for repair of water, wastewater and electric infrastructure. The City is available to discuss redesign issues with the Engineer Note: As part of the redesign, comments made herein may either no longer apply or will require update. Please **Revise and Resubmit** sheets so that the master water meter is deleted and replaced with individual meters. **Comment on Feb Submittal** The Master Water concept is no longer being used. **Approved.**
37	**New Comment** **Sheet C5.00 Markup (Attached)** The City's comment that might affect this sheet the most is to install under pavement for water service a 4-inch CLDI pipe instead of a 2-inch PVC pipe. The reason is that CLDI pipe is very reliable – digging up to repair a pipe is very expensive. 2-inch PVC water service piping is not allowed under pavement except within a 4-inch sleeve as per City details. **Markup Comment (MC) 1**: City proposes to replace 2-inch water service line with 4-inch CLDI. Just before the 5-meter bank install a 4 x 2 reducer, convert to 2-inch PVC pipe and install a 2-inch gate valve. **MC 2:** City proposes to replace water service line with 4-inch CLDI pipe to termination. Install two service connections, one per bldg in the 4-inch CLDI pipe. Each service connection consists of one 2-inch gate valve, PVC pipe and a bank of 4 water meters. Refer to Detail 130 with text "SIMILAR TO DETAIL 130". To enhance design clarity, consider adding an inset. **MC 3:** Same as MC 2.

NO.	COMMENTS
	MC 4: Same as MC 2. **MC 5:** By contrast, using 2-inch PVC water service pipe here is acceptable because piping is not under pavement. **MC 6:** Same as MC 2. **MC 7:** Please add the following note: "14. Install water meter box so that edge of water meter box is 2 feet minimum from both building and sidewalk edges." **MC 8:** Cleanout table shows WWCO-02 as being about 10 feet deep. Please evaluate. Normal cleanout depth is about 4-5 feet to facilitate building plumbing connection. **MC 9:** Water Fitting Schedule Item 16: Please change text to read "8-INCH BLOWOFF ASSEMBLY WITH 4-INCH BLOWOFF VALVE". **MC 10:** Please add the following notes: "15. FOR ALL VALVES UNDER PAVEMENT, PROVIDE TRAFFIC RATED/ROADWAY TYPE VALVE BOXES AND LIDS. 16. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM." **MC 11:** Please update water fitting schedule once all changes above have been made. **MC 12:** Please change text to " 8-INCH CLDI". 8-inch line size seems to be design intent. Line is at edge or road pavement, thus CLDI is required. **MC 13:** Please evaluate PUE locations. The PUE as shown is OK for the 8-inch water main, but not for the 4-inch (formerly 2-inch) water service connections. See Comment 1. **MC 14:** Change text so domestic service lines are 4-inch CLDI, not 2-inch PVC. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.00** All comments addressed. See new comment 46 for additional comments related to Sheet C5.00. **Approved**
38	**New Comment** **Sheet C5.00**

NO.	COMMENTS
	This reviewer noticed that in the submitted design, one 2-inch water service line is supplying water to up to 8 water meters. Does the Engineer have a design criteria for max number of ¾ x 5/8 inch water meters serviced by one 2-inch line? If so, is there a reference or is it based on engineering judgment? Please **submit** response. Comment on May Submittal **Sheet C5.00** **Approved**
39	**New Comment** **Sheet C5.01** **See markups.** **Markup Comment (MC) 1:** W INV EL is at 97.05. Please change so this lateral connects within 2 feet of the manhole bottom. **MC2:** Please change fitting schedule so there are 3-10-inch gate valves for fitting 22. **MC3:** Please change fitting schedule so there are 2-10-inch gate valves for fitting 21. Install the additional gate valve in the run nearest WWCO-15. **MC4:** Please add the following note: "8. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM." **MC5: Fitting 22 – please change text of blowoff so it reads:** "1 – 10-INCH BLOWOFF ASSEMBLY WITH 4-INCH BLOWOFF VALVE" Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.01** **Approved**
40	**New Comment** **Sheet C5.02** Please replace detail 106 with its update, which Engineer should have. If not, contact City. The update details calls out both 2-inch and 4-inch blowoff assemblies.

NO.	COMMENTS
	Comment on May Submittal **Sheet C5.02** **Approved**
41	Please evaluate whether detail 121 is still needed. If so, suggest deleting it. Please add detail 130, dual water meters, to either this or an applicable sheet. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.02** **Approved**
42	**New Comment** **Sheet C5.03** Suggest deleting the two details in the upper row that detail the concrete meter vault. Pleas add detail 328 to this sheet. If Engineer does not have this detail, please contact COA. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet C5.03** **Approved**
43	**New Comment** **Sheet UE1.1** As previously mentioned, for WWMH-02, change invert elevation of the west lateral so that it connects within 2 feet of the manhole bottom. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet UE1.1** **Approved**
44	**New Comment** **Sheet LP-04** See markups.

NO.	COMMENTS
	Please remove shrubs around transformer to be consistent with Detail 557. Please add Detail 557 to the landscaping plans. If Engineer does not have this detail, please contact COA. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet LP-04** **Approved**
45	**New Comment** **Sheet E-4** Please replace Detail 509 with Detail 510 . Please add Detail 328 to this sheet. If Engineer does not have these details, please contact COA. Please **resubmit** this sheet. **Comment on May Submittal** **Sheet E-04** **Approved**
46	**(New) Comment on May Submittal** **Sheet C5.00** **Water Fitting Schedule:** Keyed Note 14: Please modify first line of text from "4 X 2 REDUCER" to " 4 X 2 WATER MAIN REDUCTION (PER COA DETAIL 124)" **Water & WW Specifications:** Note 14: Please modify text as follows: "14. INSTALL WATER BOX SO ITS EDGE IS 2 FEET MIN FROM SIDEWALK EDGE, AND 3 FEET MIN FROM BLDG EDGE. Please **resubmit** this sheet.
47	**(New) Comment on May Submittal** **Sheet C5.03** Please add COA Detail 124 to this sheet.

NO.	COMMENTS
	COA will forward this detail to the Engineer, including its markup. As shown on the markup, on plan view, change text from "SCH80 PVC MALE ADAPTER" to "BRASS MALE PACK JOINT". Please replace Detail 130 with its update, which COA will forward to the Engineer. Please **resubmit** this sheet.
48	**(New) Comment on May Submittal** **Sheet E-6** Please replace Street Light Pedestal Approved Materials detail with revision, which will be forwarded by City. Please **resubmit** this sheet.
49	
50	
END OF COMMENTS	

Please advise if you have any questions or require additional information.

CITY OF ALACHUA WATER & WASTEWATER SPECIFICATIONS

WATER AND WASTEWATER SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CITY OF ALACHUA, PUBLIC SERVICES, DESIGN AND CONSTRUCTION MANUAL (DCM), LATEST EDITION". THE FOLLOWING NOTES EITHER EMPHASIZE DCM REQUIREMENTS OR SPECIFY ADDITIONAL REQUIREMENTS. IF DCM AND NOTE REQUIREMENTS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

PROVIDE TRACER WIRE SYSTEM FOR WATER PIPING AS SHOWN ON THE DETAILS AND AS PER THE COA DCM. PROVIDE TRACER WIRE FOR BOTH PLASTIC (PVC) AND DUCTILE IRON PIPE.

WATER PIPING TRACER WIRE SYSTEM SHALL COMMENCE AT THE TIE-IN(S) AT EXISTING WATER MAIN(S) AND TERMINATE AT EACH COA END OF MAINTENANCE POINT.

TRACER WIRE SHALL BE SOLID COPPER #10 AWG BLUE INSULATED. TRACER WIRE SHALL BE PRO-LINE WITH PRO-LINE TRACER LOCK CONNECTORS, PART # TL-LUG-SS.

WATER METER APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE WATER METER ITSELF WILL BE FURNISHED AND INSTALLED BY THE CITY.

PROVIDE RESTRAINED JOINTS AT FITTINGS, HYDRANTS AND PIPING IN ACCORDANCE WITH AWWA STANDARDS AND AS PER CITY STANDARD DETAILS.

WATER MAINS SHALL BE EITHER PVC C900 DR 18 OR DUCTILE IRON CEMENT LINED, DEPENDING ON THE APPLICATION. UNDER ROADS AND PAVED AREAS SUCH AS PARKING LOTS, WATER MAINS SHALL BE DUCTILE IRON CEMENT LINED. ALL WATER MAINS SHALL BE NSF-61 RATED AND BURIED WITH AT LEAST 36-INCHES OF COVER.

POTABLE WATER SERVICE LINES SHALL BE 2-INCH MINIMUM, SCHEDULE 40 PVC AND RATED FOR NSF-61.

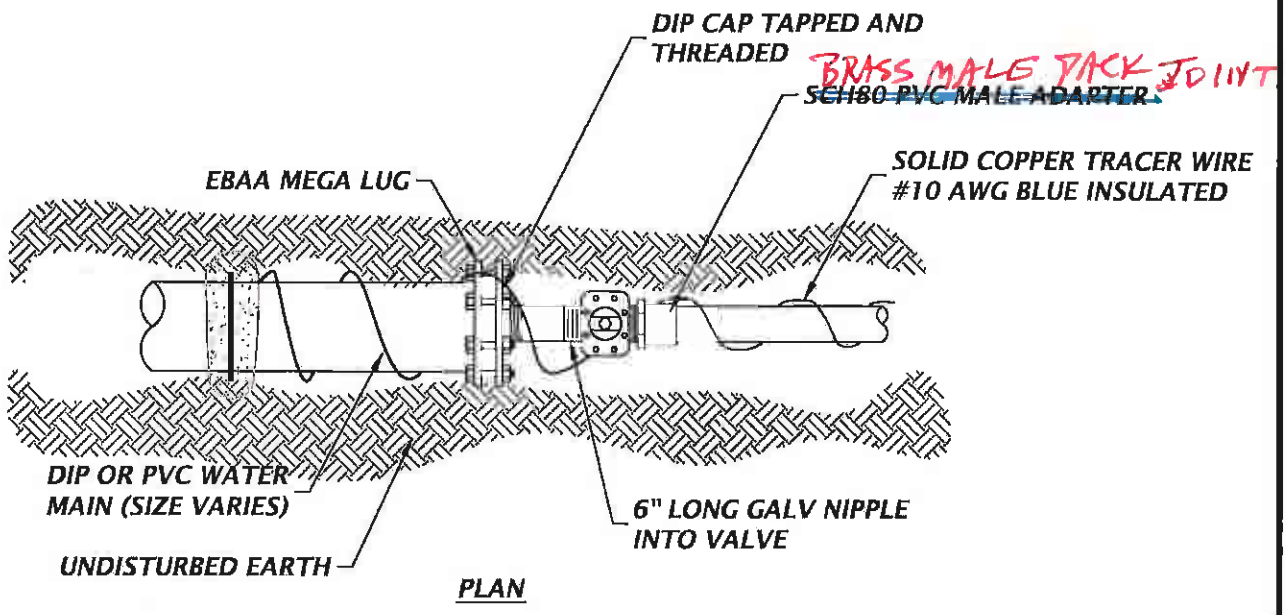
ALL FITTINGS FOR BOTH PVC AND DUCTILE IRON PIPE 4-INCHES AND LARGER SHALL BE DUCTILE IRON. FOR POTABLE WATER MAINS, FITTINGS SHALL BE CEMENT-LINED. FITTINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, ELBOWS, TEES, CROSSES AND REDUCERS.

PROVIDE PUBLIC UTILITY EASEMENTS AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.

WET TAP(S) TO PRESSURIZED WATER MAINS SHALL BE DONE BY A SUB-CONTRACTOR PRE-APPROVED BY THE CITY OF ALACHUA. RESTRAIN THE BRANCH GATE VALVE.

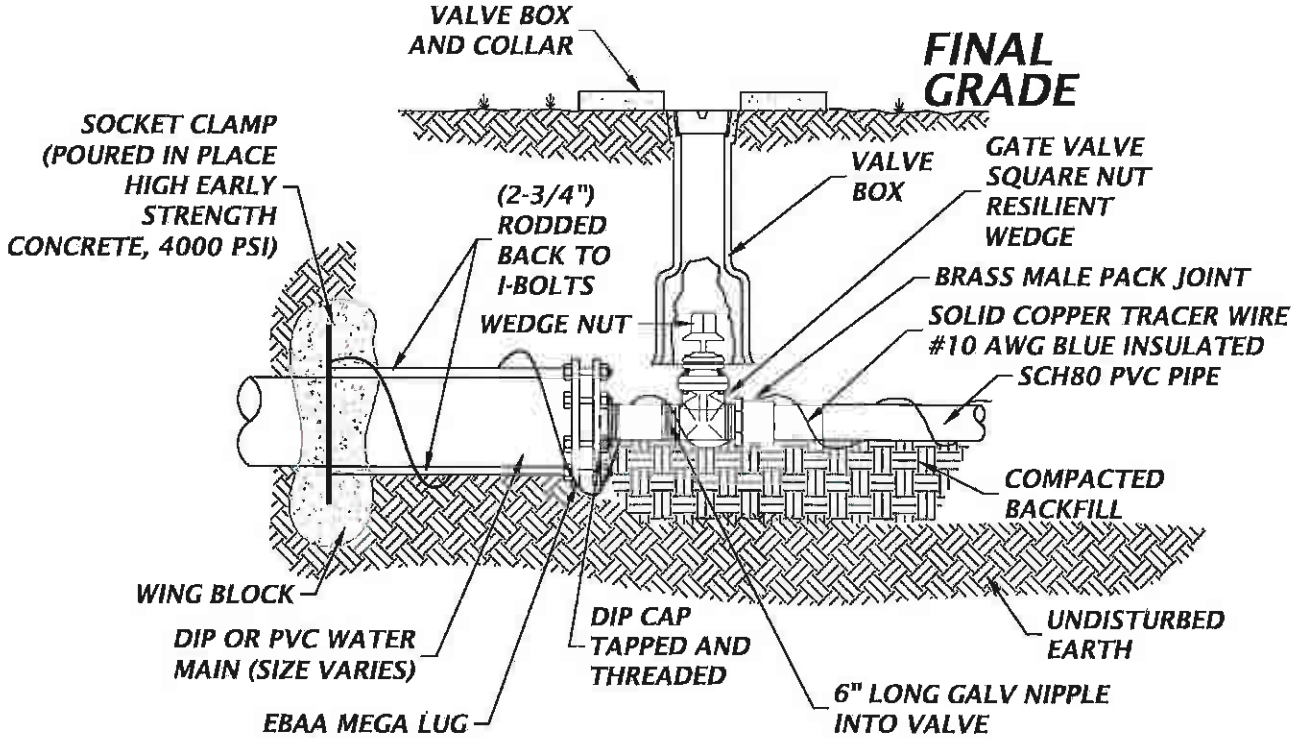
ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LESS THAN OR EQUAL TO 10 FEET CAN BE SDR 35.

SUBMITTALS, TESTING AND INSPECTIONS SHALL BE PERFORMED AS PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION)



PLAN

127



PROFILE

124

WATER MAIN REDUCTION OF LINE SIZE

NTS

City of ALACHUA public services

City of ALACHUA
the good life community

RODOLFO VALLADARES
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR BRYAN S. THOMAS, AICP

March 18, 2026

Submitted electronically to Jack.Charnas@jbpro.com

Jack Charnas, P.E.
JBrown Professional Group, Inc.
3530 NW 43rd Street
Gainesville, Florida 32606

Application #: PSP25-0006

RE: Project Assistance Team (PAT) Comments for Tolosa North Site Plan Application

Dear Jack Charnas,

On February 24, 2026, the Planning & Community Development Department received your revised site plan application for the Tolosa North Site Plan project, which proposes the construction of 50 single-family attached residential units with associated infrastructure improvements on a +/- 7.25-acre subject property (tax parcel 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

The application has been reviewed by the City's Planning Assistance Team (PAT). Upon review of the application materials, the following insufficiencies must be addressed. A meeting may be scheduled to review these comments at the applicant's request.

Please address all insufficiencies in writing and provide an indication as to how they have been addressed by **5:00 PM on April 8, 2026**. A total of four copies of the application package, plans, and a digital copy of all materials in PDF format on a CD or sent by emailing a Cloud/FTP link must be provided by this date. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the Planning & Zoning Board. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time. If all comments are addressed by the resubmission date above, the application may be scheduled for the **May 2026 Planning & Zoning Board (PZB) Meeting**.

Pursuant to Resolution 24-05, application fees include two (2) PAT reviews, and the reviews associated with each resubmittal to confirm that comments were addressed. **Please note, if an additional PAT review is required, a surcharge of 25% of the site plan application fee will be assessed for the additional PAT review (original application fee - $2,700; 25% surcharge - $675).** You will be notified if an additional PAT review is required, and the surcharge must be paid prior to any further review of the application.

Address the following insufficiencies:

Remaining Deficiencies to be Addressed

** Unless otherwise noted, references to code sections are to the City of Alachua Land Development Regulations **

1. **Article 6 – Development Standards**
   a. Section 6.2 – Tree protection and landscaping standards
      i. Staff acknowledges the Applicant's intent to claim mitigation reductions and tree credits via Section 6.2.1(6)(c). The Applicant is put on notice that a condition limiting the cost of the proposed dwellings to serve households earning 80% of the Alachua County median income or less.
      ii. Revise the mitigation calculations to reflect Section 6.2.1(6)(c) as described in the below example:
         1. For each tree removed, one half tree must be provided in mitigation (equivalent to 1" of tree required per tree removed). This applies to any tree over 10" in DBH. No mitigation is required for nuisance trees or pine trees.
         2. The following table is an example of such calculations.

ID	Status	Type	Common Name	Note	DBH (inches)	Mitigation Required (inches)
001	Removed	Quercus Virginiana	Live Oak		21	1
002	Removed	Quercus Virginiana	Live Oak		34	1
003	Removed	Prunus Serotina	Wild Cherry	Nuisance	11	0
004	Removed	Ilex Cassine	Dahoon Holly		9	0
005	Removed	Pinus Elliottii	Slash Pine	Pine	27	0
					Total Mitigation Required (inches):	2
					Total Mitigation Planted On-Site (inches):	0
					Remaining Mitigation Deficit (inches):	2

         3. For each tree provided on-site to meet the mitigation requirement, one quarter tree credit will be applied to the landscaping requirements. Mark all trees provided to meet the mitigation requirement with an M and provide a total number of mitigation trees as part of the landscape calculations. These credits are in addition to tree preservation credits.

a. For example, if 4 trees are provided on-site towards the mitigation requirement, 1 tree credit will be awarded towards the site landscaping requirements.

4. All credits being claimed must be listed under which landscape requirement the Applicant wishes to apply them towards. Credits not listed will not be awarded.
5. Credits cannot count towards the mitigation requirement, only the site landscaping, parking lot landscaping, and landscape buffer requirements.
6. Update the mitigation and preservation calculations to reflect the calculations above.

iii. The site landscaping requirement on sheet LP-04 is missing the following requirement: 1 canopy tree per acre, planted on each of the exterior sides and exterior rear of each primary structure. Add calculation and provide required plantings.

iv. Staff could not locate the 20 canopy trees planted on the primary or street-facing side of the site. The requirement of 2 canopy trees per acre, planted on the primary or street-facing side, is in addition to any buffer requirement. Provide required plantings.

2. **Outside Review**
   a. Review and address comments from outside reviewer dated 3/18/2026 (attached).
   b. Review and address comments from City of Alachua Public Services dated 3/18/2026 (attached).

If you have any questions regarding the information above, please contact me at (386) 418-6137 or at ccrockett@cityofalachua.org. We look forward to receiving your revised application.

Sincerely,

Carson J. Crockett, AICP
Principal Planner

Attachments: Comments from outside reviewer 3/18/2026
Comments from City of Alachua Public Services 3/18/2026

CC: Bryan S. Thomas, AICP, Planning & Community Development Director *(by electronic mail)*
Parker Stevens, Planner *(by electronic mail)*
Brenda Flieger, Planning Assistant *(by electronic mail)*
Project File

March 18, 2026

Carson J. Crocket, Planner
Office of Planning and Community Development
ccrockett@cityofalachua.org | 386-418-6137
City of Alachua, Florida.

Ref: Site plans for Tolosa North – Phase 1 & 2

Dear Mr. Crockett:

The following are our comments for the site plans for Tolosa North – Phase 1 & 2:

Previous comments have been addressed. New comments on the rerouted water line are as follows:

Sheet C.5.00

a. City of Alachua requires 2024 Design & Construction Manual Sec. 2.4.C(10)(i) requires water meters to be 5' away from buildings; please move the meters further away.
b. We suggest using different fittings to achieve what the multiple crosses achieve; crosses are typically not recommended. Please verify with City of Alachua if they support this design.

Please do not hesitate to contact us if you have any questions/comments.

Sincerely,

Claudia Vega, P.E.
Director of Engineering
cvega@edafl.com
edafl.com

City of ALACHUA
the good life community

City of Alachua

RODOLFO VALLADARES, P.E.
CITY MANAGER

INTER-OFFICE COMMUNICATION

DATE: **March 18, 2026**

TO: **Bryan Thomas, AICP**
Planning & Community Development Director

FROM: **Tom Ridgik, P.E.**
Engineering Supervisor

TR 3/18/2026

RE: **Tolosa North Phases 1 & 2 Site Plans**

Public Services has reviewed the subject project (Feb 2026 Documents) and offer the following comments. Review was specific to Public Services utilities.

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NO.	COMMENTS
1	**Comment on May Submittal** **General** Provide public utility easements as required for all utilities shown hereon by metes and bound description and in accordance with the regulatory agency department for public utilities. Please update and **submit** applicable sheets. **Comment on Nov Submittal** **General** See markups on Sketch and Description. For electric power circuits, provide 10-foot wide easements. How will the easements for electrical infrastructure be officially recorded? Note: COA plans to write three separate easement descriptions, each a different width; namely, 20, 30 and 35 feet. Please modify sketch to be consistent with this.

NO.	COMMENTS
	Please **submit** response and **resubmit** affected drawings. **Comment on Feb Submittal** **General** Tolosa Electric Easement Sketch & Description: No Exceptions. Tolosa Sewer Easement Sketch & Description: Inasmuch as this easement includes a water main, please change title to "Tolosa Sewer and Water Easement…." Tolosa Water Easement Sketch & Description: COA will own and maintain the water distribution infrastructure until the water meters. Thus, modify sketch & description so easement includes the water service infrastructure up to and including the meters. If such additional easements are problematic, please contact COA to discuss. See C5.00 markup. Please **resubmit** both the "Sewer and Water Easement" and the "Water" easements.
2	**Comment on May Submittal** **Sheet C0.00** This project has been submitted to Planning as a Site Plan application. Thus please change title from "CONSTRUCTION PLANS" TO "SITE PLANS". Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C0.00** **Approved**
3	**Comment on May Submittal** **Sheet C1.00** Under **General Construction Notes,** add "12. THE CITY OF ALACHUA SHALL BE COMPENSATED FOR ALL WORK REQUIRED OF THE CITY TO MODIFY ITS INFRASTRUCTURE. SUCH WORK INCLUDES, BUT IS NOT LIMITED TO, WATER, WASTEWATER AND ELECTRIC INFRASTRUCTURE IMPROVEMENTS, RELOCATION OR DEMOLITION. FOR PROJECTS NOT WITHIN THE CITY'S ELECTRIC SERVICE AREA, MODIFICATIONS TO THE CITY'S ELECTRIC INFRASTRUCTURE EITHER WITHIN OR ADJACENT TO THE PROJECT AREA MAY BE REQUIRED.THE

NO.	COMMENTS
	CITY SHALL BE COMPENSATED FOR SUCH MODIFICATIONS." Under **Paving, Grading and Drainage Specifications,** add "15. NEW ROADS – PAVEMENT TRANSVERSE MARKINGS – MATERIALS OF STOP LINES SHALL BE HOT-APPLIED STANDARD THERMOPLASTIC. MATERIALS OF CROSSWALK LONGITUDINAL BARS – 24-INCH SHALL BE HOT-APPLIED HIGH FRICTION THERMOPLASTIC. 16. UNLESS AN ALTERNATE IS APPROVED BY COA, GROUT BOTTOM OF ALL STORMWATER DRAINAGE STRUCTURE INVERTS AS PER FDOT INDEX 425-001 AND AS PER COA STANDARD DETAIL 210. 17. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND CITY OF ALACHUA PROJECT MANAGER IN ADVANCE PRIOR TO PLACING LIMEROCK AND LAYING ASPHALT FOR FIELD INSPECTIONS." Under **STANDARD ABBREVIATIONS,** Add "EOM END OF MAINTENANCE". Change "ST STORM" to "ST STORMWATER" Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C1.00** **Approved**
4	**Comment on May Submittal** **Sheets C4.01, C4.04 and C4.05** COA Detail 215 only applies to sanitary manholes. Thus, please delete references to it for storm manholes in the Storm Structures Table. Please **Revise & Resubmit** these sheets. **Comment on Nov Submittal** **Sheets C4.01, C4.04 and C4.05** **Approved**

NO.	COMMENTS
4	**Comment on May Submittal** **Sheet C5.00** See markup. **Keyed Note 1:** Is the design intent to end COA WW maintenance at the manhole near the property line? If so, all maintenance upstream this manhole will be the responsibility of the property owners association. The COA is fine with this approach, but points out that normally the COA EOM is at the cleanout closest to the WW main. Also show the COA EOM for the water system, usually at the water meter and at the BFP, if present. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Upon further reflection, relocate the COA EOM WW leader so it points to WWMH-05. Relocate the COA EOM Water leader so it points to the meter, not the BFP. See attached markup. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
5	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 2:** Piping between buildings is complex. On 22 X 34 size sheets, it can be figured out, but requires effort. On 11 X 17 size sheets, it is not legible. The reviewer found it difficult to review such piping. Once piping concepts have been finalized, consider adding expanded views to increase clarity. Please **submit** response & **Revise and Resubmit** this drawing.

NO.	COMMENTS
	Comment on Nov Submittal **Sheet C5.00** **Approved**
6	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 3:** Normally, City preference is to locate water meters as close as possible to the water main; namely, in front of buildings. But the proposed location in the alley between buildings has been reviewed by City Distribution & Collection staff. They take no exception to the proposed location (alley between buildings), but such piping is still subject to review on the revised set. For each fire water sprinkler application, note that a backflow preventer & enclosure (Detail 121) is required for each such application. What is the sprinkler fire supply flow requirement per building? What is the proposed line size? If calculations show that one BFP and associated piping has sufficient capacity for the fire sprinklers for two buildings, the COA will consider this approach. The above can be discussed in more detail with City staff. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
7	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 4:** Please add a parallel 8-inch WW main to reduce lateral length and maintenance issues. Please **submit** response & **Revise and Resubmit** this drawing.

NO.	COMMENTS
	Comment on Nov Submittal **Sheet C5.00** **Approved**
8	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 5:** Please increase distance between edge of parking lot and edge of building to 15 feet to allow for installing various utilities as well as installing and repairing the water. Note that as per COA DCM PUE width for water mains is 20 feet, but at 15 ft PUE should suffice here. Call out the PUE. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
9	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 6:** Please review water fittings 14 & 19. To reviewer's knowledge, the smallest available CLDI is 4-inch, not 2-inch. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** The reviewer went to the U.S. Pipe website, but could not find 2-inch CLDI fittings. For both Class C110 & C153 DICL pipe, smallest fittings available seem to be 3-inch. Please **submit** catalogue cut showing a 2-inch CLDI fitting. If 2-inch CLDI fittings are not available, change & **resubmit** affected sheets.

NO.	COMMENTS
	Comment on Feb Submittal **Approved**
10	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 7:** From each bldg, please increase lateral size to 6-inches. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
11	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 8:** Aren't fittings 21 & 22 the same? If so, suggest deleting one. Also, remove ¾ inch from title so only 1-inch remains. The default water meter size shall be 1-inch. Note that a ¾-inch meter is really a 5/8-inch meter with ¾-inch fittings. If the Engineer wants to pursue a ¾ X 5/8 inch meter, then submit supporting information and calculations. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
12	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 9:**

NO.	COMMENTS
	Wastewater Structure Table Please call out the Rim Elevation of each WW Manhole. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
13	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 10:** Either on this table or somewhere in the documents, please clarify whether each PVC WW main is either SDR 26 or SDR 35. If any portion of the pipe is more than 10 feet deep, provide SDR 26 pipe. Otherwise, SDR 35 is acceptable. If all WW pipe is the same SDR, a general note will suffice. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
14	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 11:** As previously mentioned, please provide 1-inch meters. If the Engineer wants to pursue a 5/8-inch meter (with ¾-inch fittings), then submit supporting information and calculations. Water meter estimated flow range must be less that the flow ranges published in the COA Flow Ordinance. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00**

NO.	COMMENTS
	Approved
15	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 12:** Please add General Note 4, with text as follows: "4. SEE C5.01 FOR WATER AND WASTEWATER SPECIFICATIONS." Then add water and wastewater specs to C5.01. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Previously, the reviewer neglected to forward COA Water & Wastewater (W&WW) specs. To this sheet, please add COA W&WW specifications, which can be found at the end of the submittal review comments. Also, these specifications apply to all W&WW infrastructure to be owned by the COA. Of course, if the Engineer so elects, they can include additional W&WW specs that apply to that W&WW infrastructure to be owner by the property owner. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
16	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 13:** If bldg plumbing allows, please relocate WWCO-12 so that lateral length under pavement is reduced. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.00 **Approved**
17	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 14:** Please clarify. What is the typical distance between Bldgs? Please **submit** response. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
18	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 15:** To WWMH-05, WW STRUCTURE SCHEDULE, Please add text so it now reads "PROVIDE AN EXTERNAL DROP CONNECTION". Please **submit** response. **Comment on Nov Submittal** **Sheet C5.00** To applicable note, add "AN EXTERNAL" as per markup. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
19	**Comment on May Submittal** **Sheet C5.00** Additional non-keyed comments include:

NO.	COMMENTS
	Show all required PUEs, including W, WW & Electrical. As previously mentioned, install BFP(s) (with upstream isolation gate valve) in water to fire sprinkler systems. Call out COA EOM. It would be of benefit to extend 8-inch WM to SR-235 for future connection for increased reliability and increased fire flow. Please discuss with COA. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** As noted previously, please show and call out width of PUEs for the power circuits to be 10 feet. Also, the temporary overhead power lines shall require a temporary easement. Please call-out on this sheet. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
20	**Comment on May Submittal** **Sheet C5.01** **General Comments:** Will this W & WW piping be installed as part of this project? If so, show or reference on some type of geographical map somewhere in these documents. Call out any tree demolitions, etc. Add Water and WW Specs on this sheet as per attached. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**

NO.	COMMENTS
21	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 1:** Same comments re: Water Fitting Schedule as per C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** Implement markups as per attached marked-up C5.01. Please **Revise & Resubmit** this sheet. **Comment on Feb Submittal** **Approved**
22	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 2:** Call out the street locations for both W & WW point of connections. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
23	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 3:** Same comment re: WW Pipe Table as per C5.00. Identify type of PVC pipe; namely, SR 26 or SDR 35.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 4:** What is the purpose of these laterals and cleanouts? Will they serve separate houses on separate lots? If so, COA DCM requirement is that laterals and cleanouts be at lot corners. How will this be accomplished? Also call out the lateral size. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 5:** Call-out that the WM will be directionally drilled under the creek. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
25	**Comment on May Submittal**

NO.	COMMENTS
	Sheet C5.01 **Keyed Note 6:** Should COA EOM be called out at WWMH-05? See related comments on C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** As per previous comment, please call-out the COA EOM at WWMH-05. **Approved as Noted.**
26	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 7:** Unless there is an adjacent existing gate valve, install a gate valve at the point of connection. At the point of connection, what is the size of the existing water main? **Keyed Note 8:** Call-out parameters for WWMH-04. **General Comment** Water main materials and size do not appear to be called out. Water main fittings do not appear to be called out. Is constructing the water main shown on this sheet part of the project? Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
27	**Comment on May Submittal** **Sheets C5.00 & C5.01**

NO.	COMMENTS
	General Comment: The reviewer noticed that piping profile sheets have NOT been prepared for the WW piping. Please confirm that this is design intent. Please **submit** response & **submit** any applicable drawings, if required. **Comment on Nov Submittal** **Sheets C5.00 & C5.01** **Approved**
28	**Comment on May Submittal** **Sheet C5.02** **Detail 312:** If this detail not needed, suggest deleting. **Detail 115**: This is an old detail. Contact COA for update. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheets C5.02** **Approved**
29	**Comment on May Submittal** **Sheet C5.03** **Detail 200:** See markups, which allow for either 4- or 6-inch laterals, depending on the application. **Detail 307**: See markups. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.03**

NO.	COMMENTS
	Approved
30	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 1:** COA does not allow use of HDPE pipe. Instead use either Certa-Lok or Fused PVC. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.05 (& Sheet C5.01)** For the WW gravity main, instead of SDR-26, please use Certa-Lok DR 18, a restrained system, for the jack & bore piping. Also, add Note 11, as follows: "11. FOR WATER MAIN PIPING: A. EXTEND TRACER WIRE THRU ENCASEMENT B. CONNECT TRACER WIRES WITH PRO-LINE TRACER-LOK CONNECTORS, PART # TL-LUG-SS C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE" Please **Revise & Resubmit** these sheets. **Comment on Feb Submittal** **Approved**
31	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 2:** Please provide gate valves at both ends of the directional drill. Valve locations shown on markup are approximate. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.05 Valves are shown on C5.00 & C5.01. **Approved**
32	**Comment on May Submittal** **Sheet LP-04** **Keyed Note 1:** Evaluate and confirm minimum horizontal separation between trees and water/WW infrastructure. Minimum horizontal separation requirements are: Live Oaks = 15 feet Other canopy trees = 10 feet Understory trees = 7.5 feet Note that location of some water and wastewater infrastructure is changing. Evaluate horizontal separation requirements against Water and Wastewater infrastructure shown on most current version of sheet C5.00. If necessary, discuss required horizontal separation with City. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet LP-04** The Landscape Architect & the Electrical Engineer shall compare LP-04 & E-2 to ensure there is 10 feet of minimum horizontal separation between tree trunks and power circuits as per attached LP-04 markup. Please **Revise and Resubmit** this sheet. **Comment on Feb Submittal** **Sheet LP-04** **Approved as Noted.** See Comment 44.
33	**Comment on May Submittal** **General** Electrical design is being reviewed directly between electrical design engineer and COA

NO.	COMMENTS
	electric staff. Comments include, but are not limited to: Relocate at least two transformers for improved truck access in the event transformer removal is required. **Revise and Resubmit** applicable electric sheets. FYI: This rating will be changed once COA electrical staff informs this reviewer that electric design has achieved Approved as Noted status or better. **Comment on Nov Submittal** **General** See previous comments on electrical easements. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. FYI: Under the assumption that the master water meter will be deleted from the project, it is possible that conduit routing will change. **Comment on Feb Submittal** Please address the above comment, which does not seem to have been yet addressed. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. Please **submit** the required information.
34	**Comment on May Submittal** **Fire Flow Calculations** **Comments herein are FYI. Response by Engineer is optional.** The fire flow calcs predict fire flow of about 3900 gpm at 20 psig at the tested fire hydrants. Please note that predicted fire flow by our water model is substantially lower by at least 50%, which is unusual. Two fire flows were estimated with the test and read fire hydrants being flip-flopped. The estimated fire flows are essentially the same. Although not all references mention this, the elevation differences of hydrants should be taken into account as they affect fire flow at each location. Elevation differences are significant; namely,

NO.	COMMENTS
	FH @ NW 158th Ave & NW 135 Terrace: EL = 83 ft. FH @ NW 158th Ave & NW 133the Terrace = EL = 108 ft. The FH at EL 83 should deliver much more fire flow. In fact, our water model confrims this. Also, note that the estimated fire flow by a FH in the Tolosa North site will be much less than the tested FH due to: EL of the FH at the Tolosa North site is about 116 ft. Fire flow delivery to the Tolosa North site is branched, not looped. Branched systems produce more, sometimes much more, friction losses than looped systems. If it is assumed that the branched WM commences at NW 158th Ave and NW 135 Terrace, then the EL difference is (116 – 83) = 33 ft. uphill, or 14.2 psi.. The friction loss factor for Q = 1100 gpm in an 8-inch line is 2.15 ft / 100 ft. With a WM length estimated at 1300 ft, then the estimated friction loss is about 28 ft, or 12.1psi. Thus, at the Tolosa FH with no fire flow, the residual pressure may be about only 52 psig, much less than the 78 psig at the test FH. **Comment on Nov Submittal** **Fire Flow Calculations, FYI** Inasmuch as the JB Pro Fire Flow calculation methodology will be used on future projects, please contact COA reviewer to discuss several issues, such as: Based on an internet review of calculating fire flows, an elevation correction for the test and read fire hydrants is required. Does JB Pro include the elevation correction factor in their methodology? Pressure versus flow graph: The flow x-axis is shown as linear. The more common approach is for the flow x-axis to be non-linear in which two points (flows at static and residual pressure) define a line, from which the flow at 20 psig residual can be extrapolated. The reviewer does not understand what the three points shown on the JB Pro graph represent. Flow Output Water Model and Fire Flow Report: What is the boundary condition; namely, that pressure (or equivalent) where the water model connects to COAs existing distribution piping network. Suggest noting this on the fire flow report. Pipe lengths and diameters are not called out. Perhaps this is a limitation of the model's node map. Calling out pipe lengths and diameter improves clarity, assisting in the review process.

NO.	COMMENTS
	Note that that piping from the 10X10 tap to the 6-inch master meter really consists of two segments – most is 10-inch diameter, but the jack & bore portion is 8-inch diameter. Note that velocity in an 8-inch line at 1500 gpm is about 10 fps, increasing friction loss. Does the model take into account the 8-inch jack & bore piping? A fire flow testing recommended practice is that the pressure drop during the test be at least 25% of the static pressure. For test 1, for example, the pressure drop is only 7.6%. It is may not be feasible to induce a pressure drop more than this for the test conditions, but nevertheless this is the accepted guideline. Test 2 calls-out the residual pressure as 61 psi with the associated pitot pressure also as 61 psi. This suggests that the friction loss in the line between the two hydrants is zero, which is unrealistic. **Comment on Feb Submittal** City has revised comment to **Approved as Noted.** The City welcomes a discussion of this topic with relevant Engineer's staff, but such a discussion is not germane to this particular project.
35	**Comment on May Submittal** **Sheet TBD** Please add the following City details: 115 Water Meter 121 BFP 210 Grout SW Structures **Revise and Resubmit or submit** additional sheets. **Comment on Nov Submittal** **Approved**
36	**Additional Comment on Nov Submittal** **Use of Master Water Meter Prohibited** The reviewer assumes that the underlying concept is that the master water meter is for 50 single family residences that eventually will be each individually owned. The COA does not allow a master water meter in this application due to several factors, including, but not limited to, the city ordinance that prohibits the resale and redistribution of water.

NO.	COMMENTS
	Please redesign so that City requirements are met, such as (1) Install a water meter for each townhome (2) Provide PUEs whose widths are in accordance with City requirements and (3) Provide adequate physical space for repair of water, wastewater and electric infrastructure. The City is available to discuss redesign issues with the Engineer Note: As part of the redesign, comments made herein may either no longer apply or will require update. Please **Revise and Resubmit** sheets so that the master water meter is deleted and replaced with individual meters. **Comment on Feb Submittal** The Master Water concept is no longer being used. **Approved.**
37	**New Comment** **Sheet C5.00 Markup (Attached)** The City's comment that might affect this sheet the most is to install under pavement for water service a 4-inch CLDI pipe instead of a 2-inch PVC pipe. The reason is that CLDI pipe is very reliable – digging up to repair a pipe is very expensive. 2-inch PVC water service piping is not allowed under pavement except within a 4-inch sleeve as per City details. **Markup Comment (MC) 1**: City proposes to replace 2-inch water service line with 4-inch CLDI. Just before the 5-meter bank install a 4 x 2 reducer, convert to 2-inch PVC pipe and install a 2-inch gate valve. **MC 2:** City proposes to replace water service line with 4-inch CLDI pipe to termination. Install two service connections, one per bldg in the 4-inch CLDI pipe. Each service connection consists of one 2-inch gate valve, PVC pipe and a bank of 4 water meters. Refer to Detail 130 with text "SIMILAR TO DETAIL 130". To enhance design clarity, consider adding an inset. **MC 3:** Same as MC 2. **MC 4:** Same as MC 2. **MC 5:** By contrast, using 2-inch PVC water service pipe here is acceptable because piping is not under pavement. **MC 6:** Same as MC 2.

NO.	COMMENTS
	MC 7: Please add the following note: "14. Install water meter box so that edge of water meter box is 2 feet minimum from both building and sidewalk edges." **MC 8:** Cleanout table shows WWCO-02 as being about 10 feet deep. Please evaluate. Normal cleanout depth is about 4-5 feet to facilitate building plumbing connection. **MC 9:** Water Fitting Schedule Item 16: Please change text to read "8-INCH BLOWOFF ASSEMBLY WITH 4-INCH BLOWOFF VALVE". **MC 10:** Please add the following notes: "15. FOR ALL VALVES UNDER PAVEMENT, PROVIDE TRAFFIC RATED/ROADWAY TYPE VALVE BOXES AND LIDS. 16. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM." **MC 11**: Please update water fitting schedule once all changes above have been made. **MC 12:** Please change text to " 8-INCH CLDI". 8-inch line size seems to be design intent. Line is at edge or road pavement, thus CLDI is required. **MC 13**: Please evaluate PUE locations. The PUE as shown is OK for the 8-inch water main, but not for the 4-inch (formerly 2-inch) water service connections. See Comment 1. **MC 14:** Change text so domestic service lines are 4-inch CLDI, not 2-inch PVC. Please **resubmit** this sheet.
38	**New Comment** **Sheet C5.00** This reviewer noticed that in the submitted design, one 2-inch water service line is supplying water to up to 8 water meters. Does the Engineer have a design criteria for max number of ¾ x 5/8 inch water meters serviced by one 2-inch line? If so, is there a reference or is it based on engineering judgment? Please **submit** response.
39	**New Comment** **Sheet C5.01** **See markups.**

NO.	COMMENTS
	Markup Comment (MC) 1: W INV EL is at 97.05. Please change so this lateral connects within 2 feet of the manhole bottom. **MC2:** Please change fitting schedule so there are 3-10-inch gate valves for fitting 22. **MC3:** Please change fitting schedule so there are 2-10-inch gate valves for fitting 21. Install the additional gate valve in the run nearest WWCO-15. **MC4:** Please add the following note: "8. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM." **MC5: Fitting 22 – please change text of blowoff so it reads:** "1 – 10-INCH BLOWOFF ASSEMBLY WITH 4-INCH BLOWOFF VALVE" Please **resubmit** this sheet.
40	**New Comment** **Sheet C5.02** Please replace detail 106 with its update, which Engineer should have. If not, contact City. The update details calls out both 2-inch and 4-inch blowoff assemblies.
41	Please evaluate whether detail 121 is still needed. If so, suggest deleting it. Please add detail 130, dual water meters, to either this or an applicable sheet. Please **resubmit** this sheet.
42	**New Comment** **Sheet C5.03** Suggest deleting the two details in the upper row that detail the concrete meter vault. Pleas add detail 328 to this sheet. If Engineer does not have this detail, please contact COA. Please **resubmit** this sheet.
43	**New Comment** **Sheet UE1.1** As previously mentioned, for WWMH-02, change invert elevation of the west lateral so that it connects within 2 feet of the manhole bottom. Please **resubmit** this sheet.

NO.	COMMENTS
44	**New Comment** **Sheet LP-04** See markups. Please remove shrubs around transformer to be consistent with Detail 557. Please add Detail 557 to the landscaping plans. If Engineer does not have this detail, please contact COA. Please **resubmit** this sheet.
45	**New Comment** **Sheet E-4** Please replace Detail 509 with Detail 510 . Please add Detail 328 to this sheet. If Engineer does not have these details, please contact COA. Please **resubmit** this sheet.
46	
47	
48	
49	
50	
END OF COMMENTS	

Please advise if you have any questions or require additional information.

CITY OF ALACHUA WATER & WASTEWATER SPECIFICATIONS

WATER AND WASTEWATER SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CITY OF ALACHUA, PUBLIC SERVICES, DESIGN AND CONSTRUCTION MANUAL (DCM), LATEST EDITION". THE FOLLOWING NOTES EITHER EMPHASIZE

DCM REQUIREMENTS OR SPECIFY ADDITIONAL REQUIREMENTS. IF DCM AND NOTE REQUIREMENTS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

PROVIDE TRACER WIRE SYSTEM FOR WATER PIPING AS SHOWN ON THE DETAILS AND AS PER THE COA DCM. PROVIDE TRACER WIRE FOR BOTH PLASTIC (PVC) AND DUCTILE IRON PIPE.

WATER PIPING TRACER WIRE SYSTEM SHALL COMMENCE AT THE TIE-IN(S) AT EXISTING WATER MAIN(S) AND TERMINATE AT EACH COA END OF MAINTENANCE POINT.

TRACER WIRE SHALL BE SOLID COPPER #10 AWG BLUE INSULATED. TRACER WIRE SHALL BE PRO-LINE WITH PRO-LINE TRACER LOCK CONNECTORS, PART # TL-LUG-SS.

WATER METER APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE WATER METER ITSELF WILL BE FURNISHED AND INSTALLED BY THE CITY.

PROVIDE RESTRAINED JOINTS AT FITTINGS, HYDRANTS AND PIPING IN ACCORDANCE WITH AWWA STANDARDS AND AS PER CITY STANDARD DETAILS.

WATER MAINS SHALL BE EITHER PVC C900 DR 18 OR DUCTILE IRON CEMENT LINED, DEPENDING ON THE APPLICATION. UNDER ROADS AND PAVED AREAS SUCH AS PARKING LOTS, WATER MAINS SHALL BE DUCTILE IRON CEMENT LINED. ALL WATER MAINS SHALL BE NSF-61 RATED AND BURIED WITH AT LEAST 36-INCHES OF COVER.

POTABLE WATER SERVICE LINES SHALL BE 2-INCH MINIMUM, SCHEDULE 40 PVC AND RATED FOR NSF-61.

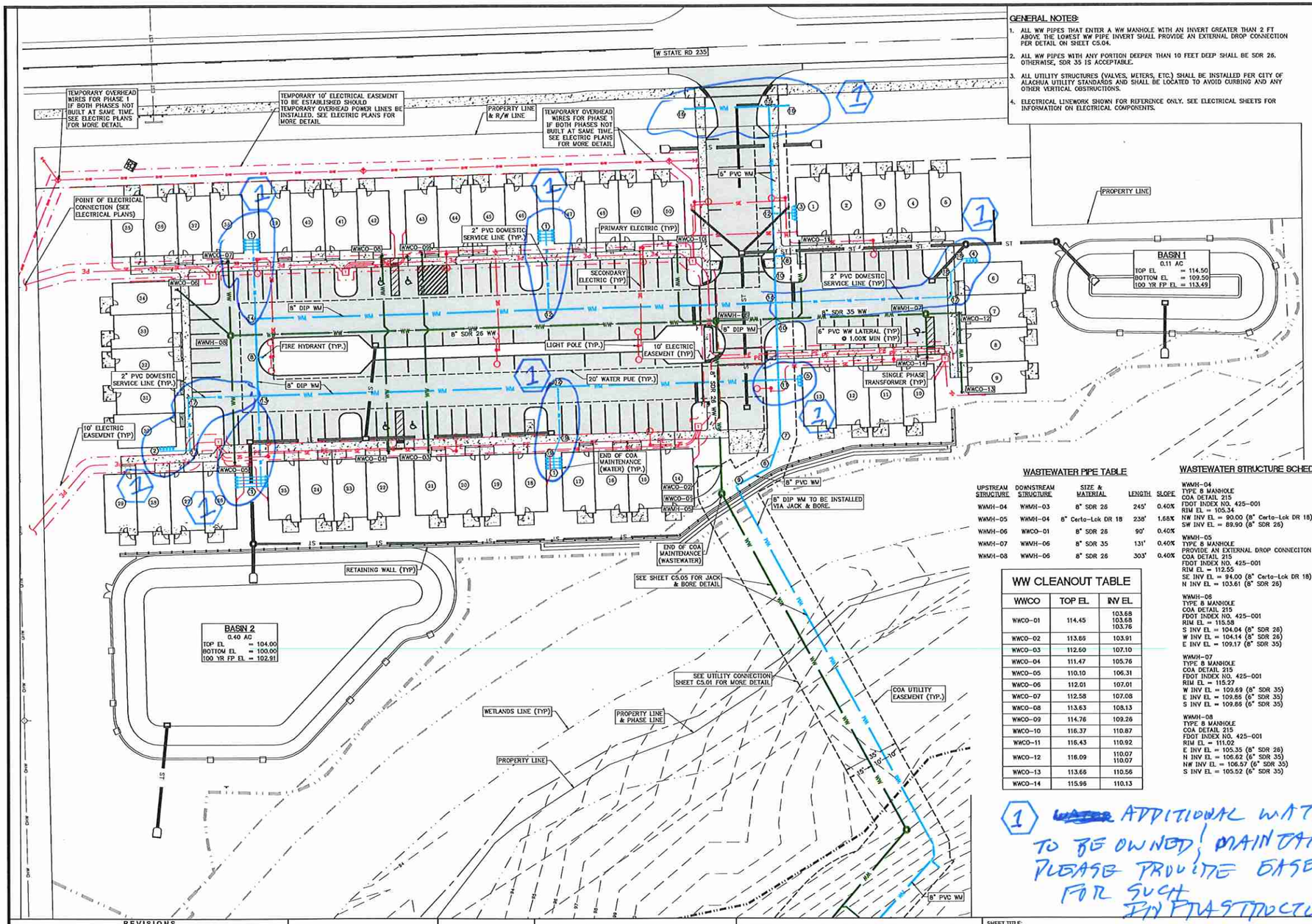
ALL FITTINGS FOR BOTH PVC AND DUCTILE IRON PIPE 4-INCHES AND LARGER SHALL BE DUCTILE IRON. FOR POTABLE WATER MAINS, FITTINGS SHALL BE CEMENT-LINED. FITTINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, ELBOWS, TEES, CROSSES AND REDUCERS.

PROVIDE PUBLIC UTILITY EASEMENTS AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.

WET TAP(S) TO PRESSURIZED WATER MAINS SHALL BE DONE BY A SUB-CONTRACTOR PRE-APPROVED BY THE CITY OF ALACHUA. RESTRAIN THE BRANCH GATE VALVE.

ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LESS THAN OR EQUAL TO 10 FEET CAN BE SDR 35.

SUBMITTALS, TESTING AND INSPECTIONS SHALL BE PERFORMED AS PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION)



GENERAL NOTES:

1. ALL WW PIPES THAT ENTER A WW MANHOLE WITH AN INVERT GREATER THAN 2 FT ABOVE THE LOWEST WW PIPE INVERT SHALL PROVIDE AN EXTERNAL DROP CONNECTION PER DETAIL ON SHEET C5.04.
2. ALL WW PIPES WITH ANY PORTION DEEPER THAN 10 FEET DEEP SHALL BE SDR 26. OTHERWISE, SDR 35 IS ACCEPTABLE.
3. ALL UTILITY STRUCTURES (VALVES, METERS, ETC.) SHALL BE INSTALLED PER CITY OF ALACHUA UTILITY STANDARDS AND SHALL BE LOCATED TO AVOID CURBING AND ANY OTHER VERTICAL OBSTRUCTIONS.
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8. POTABLE WATER SERVICE LINES SHALL BE 2-INCH MINIMUM, SCHEDULE 40 PVC AND RATED FOR NSF-61.
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12. ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LATERALS LESS THAN OR EQUAL TO 10 FEET DEEP CAN BE SDR 35.
13. SUBMITTALS, TESTING, AND INSPECTIONS SHALL BE PERFORMED PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION).

WATER FITTING SCHEDULE

(1) 8 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
3 – 2" PVC CROSS
1 – 2" PVC TEE

(2) 5 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
4 – 2" PVC TEE
1 – 2" PVC 90° BEND

(3) 5 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
1 – 2" PVC CROSS
2 – 2" PVC TEE
2 – 2" PVC 90° BEND

(4) 4 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
3 – 2" PVC TEE
1 – 2" PVC 90° BEND

(5) 4 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
1 – 2" PVC CROSS
1 – 2" PVC TEE
2 – 2" PVC 90° BEND

(6) 1 – 8" CLDI 45° RESTRAINED BEND

(7) 1 – 8" CLDI 22.5° RESTRAINED BEND

(8) 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT ASSEMBLY

(9) 1 – 8" CLDI 90° RESTRAINED BEND
1 – 8" GATE VALVE & BOX

(10) 1 – 8" CLDI (PVC TO DIP) TRANSITION COUPLING

(11) 1 – 8" CLDI ANCHOR CROSS W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX
1 – 8" x 2" REDUCER
1 – 2" GATE VALVE & BOX

(12) 1 – 8" x 2" TAPPING SADDLE
1 – 2" GATE VALVE & BOX

(13) 1 – 8" CLDI ANCHOR CROSS W/ MECH. RESTRAINT
2 – 8" GATE VALVE & BOX
2 – 2" GATE VALVE & BOX
2 – 8" x 2" REDUCER

(14) 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 8" GATE VALVE & BOX
1 – 8" x 2" REDUCER
1 – 2" GATE VALVE & BOX

(15) 1 – 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX

(16) 1 – 8" BLOW OFF ASSEMBLY

(17) 1 – 2" 90° PVC BEND

(18) 1 – 2" 45° PVC BEND

(19) 1 – 2" 22.5° PVC BEND

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWMH-04	WWMH-03	8" SDR 26	245'	0.40%
WWMH-05	WWMH-04	8" Certa-Lok DR 18	238'	1.68%
WWMH-06	WWCO-01	8" SDR 26	90'	0.40%
WWMH-07	WWMH-06	8" SDR 35	131'	0.40%
WWMH-08	WWMH-06	8" SDR 26	303'	0.40%

WW CLEANOUT TABLE

WWCO	TOP EL.	INV EL.
WWCO-01	114.45	103.68 103.68 103.76
WWCO-02	113.85	103.91
WWCO-03	112.60	107.10
WWCO-04	111.47	105.76
WWCO-05	110.10	106.31
WWCO-06	112.01	107.01
WWCO-07	112.58	107.08
WWCO-08	113.63	108.13
WWCO-09	114.76	109.26
WWCO-10	116.37	110.87
WWCO-11	116.43	110.92
WWCO-12	116.09	110.07 110.07
WWCO-13	113.66	110.56
WWCO-14	115.96	110.13

WASTEWATER STRUCTURE SCHEDULE

WWMH-04
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.34
NW INV EL = 90.00 (8" Certa-Lok DR 18)
SW INV EL = 89.90 (8" SDR 26)

WWMH-05
TYPE S MANHOLE
PROVIDE AN EXTERNAL DROP CONNECITON
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 112.55
SE INV EL = 94.00 (8" Certa-Lok DR 18)
N INV EL = 103.61 (8" SDR 26)

WWMH-06
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 115.58
S INV EL = 104.04 (8" SDR 26)
W INV EL = 104.14 (8" SDR 26)
E INV EL = 109.17 (8" SDR 35)

WWMH-07
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 115.27
W INV EL = 109.69 (8" SDR 35)
E INV EL = 109.86 (6" SDR 35)
S INV EL = 109.86 (6" SDR 35)

WWMH-08
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 111.02
E INV EL = 105.35 (8" SDR 26)
N INV EL = 106.62 (6" SDR 35)
NW INV EL = 106.57 (6" SDR 35)
S INV EL = 105.52 (6" SDR 35)

(1) ~~WATER~~ ADDITIONAL WATER INFRASTRUCTURE TO BE OWNED/MAINTAINED BY COA. PLEASE PROVIDE EASEMENTS FOR SUCH INFRASTRUCTURE

SCALE 1" = 30'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 86925

PRELIMINARY NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR THE PURPOSE OF REVIEW ONLY AND IS NOT INTENDED FOR FINAL PERMITTING, BIDDING, OR CONSTRUCTION PURPOSES.

JBPro
CIVIL ENGINEERING | LAND PLANNING
SURVEYING | CONSTRUCTION SERVICES

3530 NW 43rd Street | Gainesville, Florida 32606
4420 US-1 S, Suite 1 | St. Augustine, Florida 32086
Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: MASTER UTILITY PLAN

CLIENT: ALACHUA HABITAT FOR HUMANITY, GAINESVILLE, FLORIDA

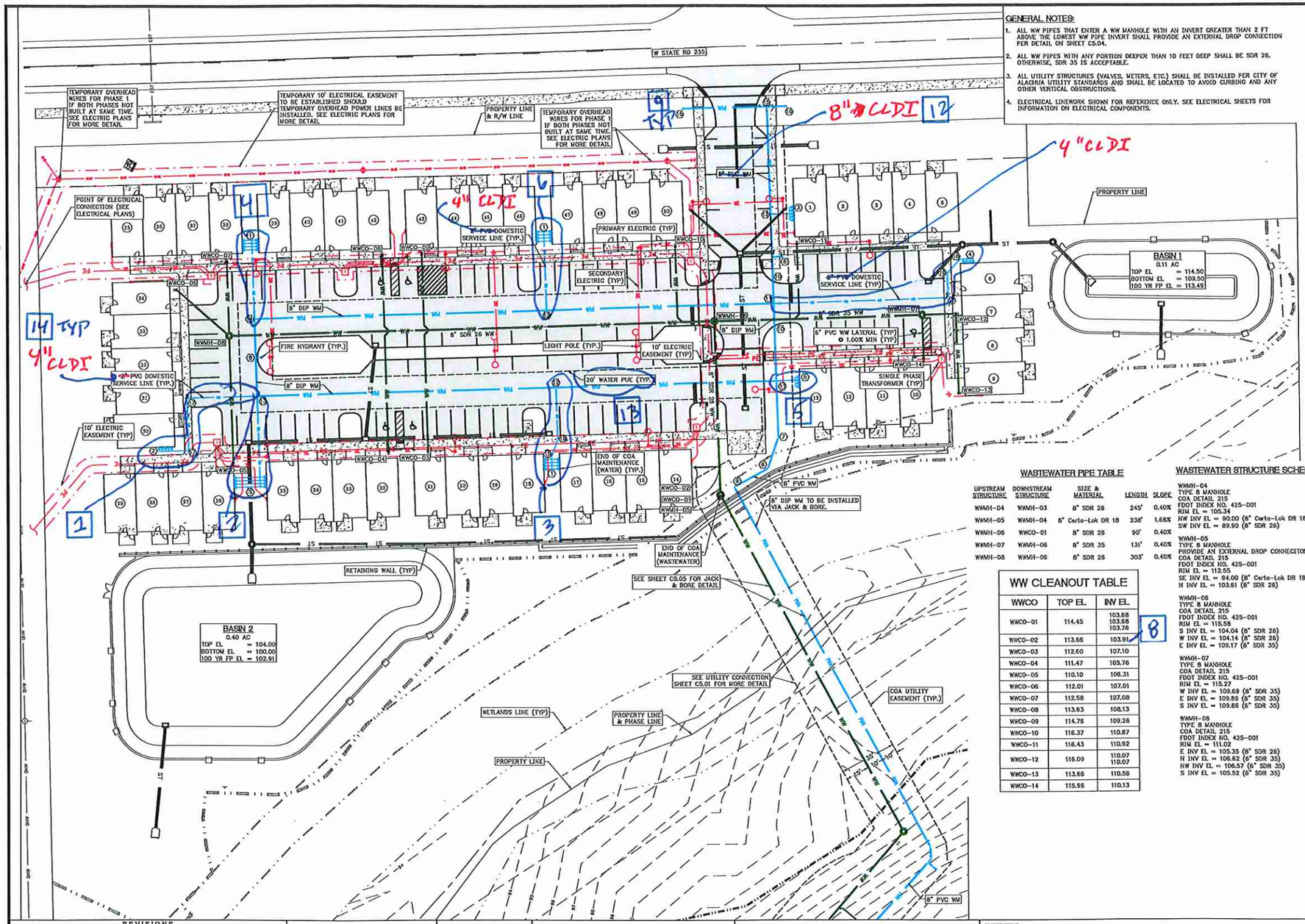
PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: FEBRUARY 26

PROJECT NO.: 0167-25-01

SHEET NO.: C5.00

1 OF 2



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11. WET-TAP(S) TO PRESSURIZED WATER MAINS SHALL BE DONE BY A SUB-CONTRACTOR PRE-APPROVED BY THE CITY OF ALACHUA. RESTRAIN THE BRANCH GATE VALVE.
12. ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LATERALS LESS THAN OR EQUAL TO 10 FEET DEEP CAN BE SDR 35.
13. SURVITALS, TESTING, AND INSPECTIONS SHALL BE PERFORMED PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION).

WATER FITTING SCHEDULE

① 8 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
3 – 2" PVC CROSS
1 – 2" PVC TEE

② 5 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
4 – 2" PVC TEE
1 – 2" PVC 90° BEND

③ 5 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
1 – 2" PVC CROSS
2 – 2" PVC TEE
2 – 2" PVC 90° BEND

④ 4 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
3 – 2" PVC TEE
1 – 2" PVC 90° BEND

⑤ 4 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
1 – 2" PVC CROSS
1 – 2" PVC TEE
2 – 2" PVC 90° BEND

⑥ 1 – 8" CLDI 45° RESTRAINED BEND

⑦ 1 – 8" CLDI 22.5° RESTRAINED BEND

⑧ 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT ASSEMBLY

⑨ 1 – 8" CLDI 90° RESTRAINED BEND
1 – 8" GATE VALVE & BOX

⑩ 1 – 8" CLDI (PVC TO DIP) TRANSITION COUPLING

⑪ 1 – 8" CLDI ANCHOR CROSS W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX
1 – 8" x 2" REDUCER
1 – 2" GATE VALVE & BOX

⑫ 1 – 8" x 2" TAPPING SADDLE
1 – 2" GATE VALVE & BOX

⑬ 1 – 8" CLDI ANCHOR CROSS W/ MECH. RESTRAINT
2 – 8" GATE VALVE & BOX
2 – 2" GATE VALVE & BOX
2 – 8" x 2" REDUCER

⑭ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 8" GATE VALVE & BOX
1 – 8" x 2" REDUCER
1 – 2" GATE VALVE & BOX

⑮ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX

⑯ 1 – 8" BLOW OFF ASSEMBLY

⑰ 1 – 2" 90° PVC BEND

⑱ 1 – 2" 45° PVC BEND

⑲ 1 – 2" 22.5° PVC BEND

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWMH-04	WWMH-03	8" SDR 26	245'	0.40%
WWMH-05	WWMH-04	8" Certa-Lok DR 18	238'	1.68%
WWMH-06	WWCO-01	8" SDR 26	90'	0.40%
WWMH-07	WWMH-06	8" SDR 35	131'	0.40%
WWMH-08	WWMH-06	8" SDR 26	303'	0.40%

WW CLEANOUT TABLE

WWCO	TOP EL.	INV EL.
WWCO-01	114.45	103.68 103.68 103.76
WWCO-02	113.66	103.91
WWCO-03	112.60	107.10
WWCO-04	111.47	105.76
WWCO-05	110.10	106.31
WWCO-06	112.01	107.01
WWCO-07	112.58	107.08
WWCO-08	113.63	108.13
WWCO-09	114.75	109.26
WWCO-10	116.37	110.87
WWCO-11	116.43	110.92
WWCO-12	118.09	110.07 110.07
WWCO-13	113.66	110.56
WWCO-14	115.95	110.13

WASTEWATER STRUCTURE SCHEDULE

WWMH-04
TYPE B MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.34
NW INV EL = 90.00 (8" Certa-Lok DR 18)
SW INV EL = 89.90 (8" SDR 26)

WWMH-05
TYPE B MANHOLE
PROVIDE AN EXTERNAL DROP CONNECITON
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 112.55
SE INV EL = 94.00 (8" Certa-Lok DR 18)
N INV EL = 103.61 (8" SDR 26)

WWMH-06
TYPE B MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 115.58
S INV EL = 104.04 (8" SDR 26)
W INV EL = 104.14 (8" SDR 26)
E INV EL = 109.17 (8" SDR 35)

WWMH-07
TYPE B MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 115.27
W INV EL = 109.69 (8" SDR 35)
E INV EL = 109.85 (8" SDR 35)
S INV EL = 109.85 (8" SDR 35)

WWMH-08
TYPE B MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 111.02
E INV EL = 105.35 (8" SDR 26)
N INV EL = 106.62 (8" SDR 35)
NW INV EL = 106.57 (8" SDR 35)
S INV EL = 105.52 (8" SDR 35)

30 15 0 30 60 90
SCALE 1" = 30'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E.
FLORIDA LICENSE NO. 59925

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SHEET TITLE: MASTER UTILITY PLAN

DATE: FEBRUARY 26

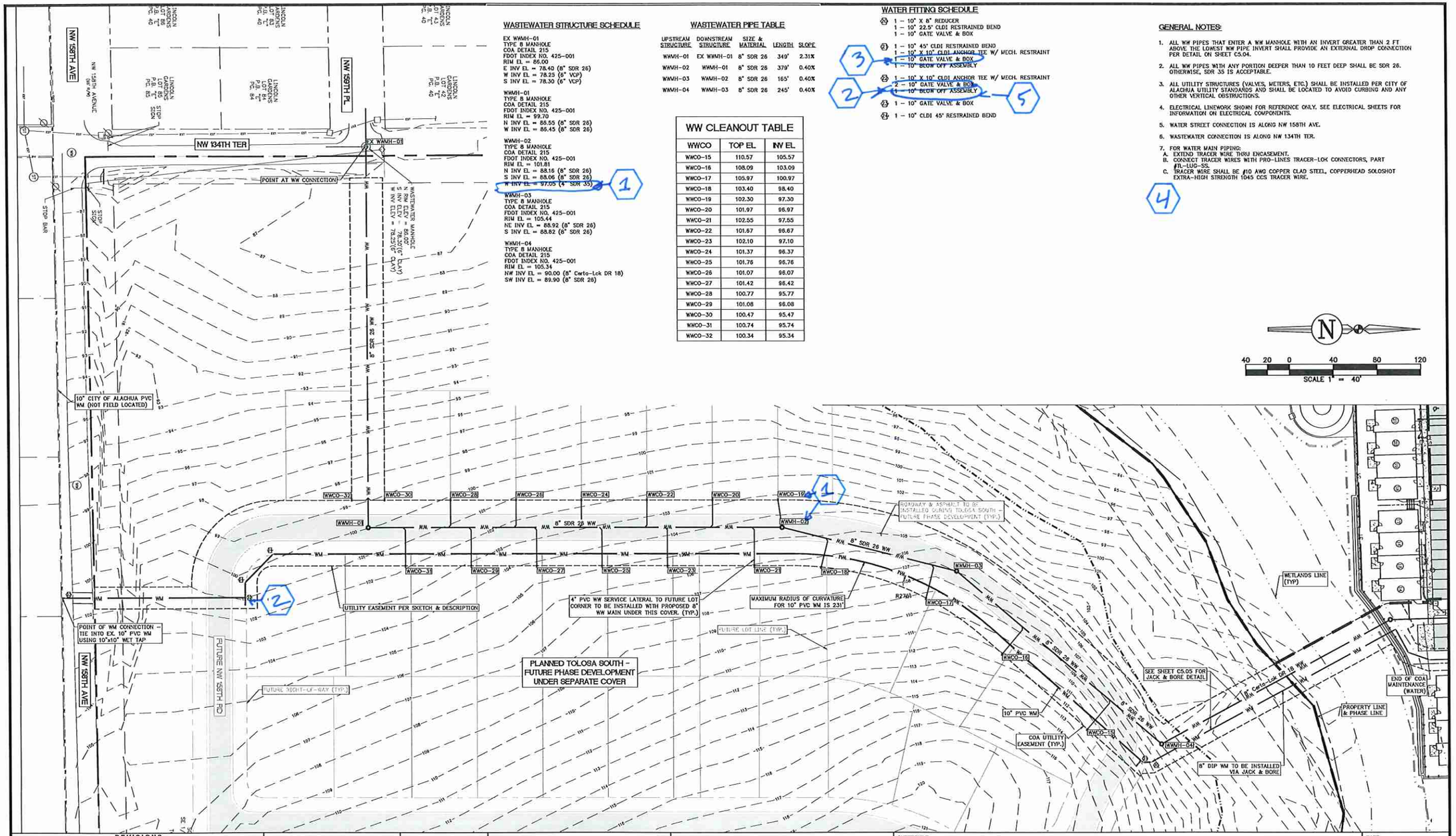
PROJECT NO.: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO.: C5.00

2 of 2



WASTEWATER STRUCTURE SCHEDULE

EX WWH-01
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 86.00
E INV EL = 78.40 (8" SDR 26)
W INV EL = 78.25 (6" VCP)
S INV EL = 78.30 (6" VCP)

WWH-01
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 99.70
N INV EL = 88.55 (8" SDR 26)
W INV EL = 88.45 (8" SDR 26)

WWH-02
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 101.81
N INV EL = 88.16 (8" SDR 26)
S INV EL = 88.06 (8" SDR 26)
W INV EL = 97.05 (4" SDR 35)

WWH-03
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.44
NE INV EL = 88.92 (8" SDR 26)
S INV EL = 88.82 (6" SDR 26)

WWH-04
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.34
NW INV EL = 90.00 (8" Certa-Lok DR 18)
SW INV EL = 89.90 (8" SDR 26)

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWH-01	EX WWH-01	8" SDR 26	349'	2.31%
WWH-02	WWH-01	8" SDR 26	379'	0.40%
WWH-03	WWH-02	8" SDR 26	165'	0.40%
WWH-04	WWH-03	8" SDR 26	245'	0.40%

WW CLEANOUT TABLE

WWCO	TOP EL	INV EL
WWCO-15	110.57	105.57
WWCO-16	108.09	103.09
WWCO-17	105.97	100.97
WWCO-18	103.40	98.40
WWCO-19	102.30	97.30
WWCO-20	101.97	96.97
WWCO-21	102.55	97.55
WWCO-22	101.67	96.67
WWCO-23	102.10	97.10
WWCO-24	101.37	96.37
WWCO-25	101.76	96.76
WWCO-26	101.07	96.07
WWCO-27	101.42	96.42
WWCO-28	100.77	95.77
WWCO-29	101.08	96.08
WWCO-30	100.47	95.47
WWCO-31	100.74	95.74
WWCO-32	100.34	95.34

WATER FITTING SCHEDULE

1 – 10" X 8" REDUCER
1 – 10" 22.5° CLDI RESTRAINED BEND
1 – 10" GATE VALVE & BOX

3 1 – 10" 45° CLDI RESTRAINED BEND
1 – 10" X 10" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 10" GATE VALVE & BOX
1 – 10" BLOW OFF ASSEMBLY

2 1 – 10" X 10" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 10" GATE VALVE & BOX
1 – 10" BLOW OFF ASSEMBLY

5 1 – 10" GATE VALVE & BOX

4 1 – 10" CLDI 45° RESTRAINED BEND

GENERAL NOTES:

1. ALL WW PIPES THAT ENTER A WW MANHOLE WITH AN INVERT GREATER THAN 2 FT ABOVE THE LOWEST WW PIPE INVERT SHALL PROVIDE AN EXTERNAL DROP CONNECTION PER DETAIL ON SHEET C5.04.
2. ALL WW PIPES WITH ANY PORTION DEEPER THAN 10 FEET DEEP SHALL BE SDR 26. OTHERWISE, SDR 35 IS ACCEPTABLE.
3. ALL UTILITY STRUCTURES (VALVES, METERS, ETC.) SHALL BE INSTALLED PER CITY OF ALACHUA UTILITY STANDARDS AND SHALL BE LOCATED TO AVOID CURBING AND ANY OTHER VERTICAL OBSTRUCTIONS.
4. ELECTRICAL LINEWORK SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL SHEETS FOR INFORMATION ON ELECTRICAL COMPONENTS.
5. WATER STREET CONNECTION IS ALONG NW 158TH AVE.
6. WASTEWATER CONNECTION IS ALONG NW 134TH TER.
7. FOR WATER MAIN PIPING:
   A. EXTEND TRACER WIRE THRU ENCASEMENT.
   B. CONNECT TRACER WIRES WITH PRO-LINES TRACER-LOK CONNECTORS, PART #TL-LUG-SS.
   C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE.

4

N

40 20 0 40 80 120
SCALE 1" = 40'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E., FLORIDA LICENSE NO. 94925

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SHEET TITLE: UTILITY CONNECTION PLAN

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: FEBRUARY 26
PROJECT NO: 0167-25-01
SHEET NO: C5.01

W. STATE ROAD 235

5' BUFFER REQUIRED, TYPE "A"
ONE CANOPY TREE AND ONE UNDERSTORY TREE PER 60 LINEAR FEET. BUFFER LENGTH IS 621 FEET. IT WILL REQUIRE 11 CANOPY TREES AND 11 UNDERSTORY TREES TOTAL.

10' BUFFER REQUIRED, TYPE "C"
ONCE CANOPY TREE PER 30 LINEAR FEET PLUS ONE SHRUB EVERY EIGHT LINEAR FEET. BUFFER LENGTH IS 223 FEET BUFFER REQUIRES 8 CANOPY TREES AND 28 SHRUBS TOTAL.

NO BUFFER PROPOSED, EXISTING TREE CANOPY IS NOT DISTURBED AND WILL REMAIN.

NO BUFFER REQUIRED

PARKING LOT A

PARKING LOT B

PHASE LINE

UNDERGROUND UTILITY OFFSET

UNDERGROUND UTILITY OFFSET

CONCRETE RETAINING WALL

WETLAND SETBACKS

SUFFICIENT TREE CANOPY/VEGETATION/WETLAND BETWEEN ADJACENT PROPERTY. NO BUFFERS PROPOSED.

(500, TYP)

(30263) - 9 CA

(30264) - 25 LA

(30477) - 8 LA

(30473) - 13 WC
(30476) - 8 WC

(30475) - 12 WC

(30474) - 9 LA

(30460) - 8 SG
(30461) - 9 WC

(30462) - 13 WC

(30431) - 10 LA

(30385) - 9 SG
(30389) - 8 SG
(30387) - 8 WO
(30386) - 14 SG
(30381) - 13 SG
(30380) - 10 SG
(30379) - 9 SG

(30382) - 9 WO

(30385) - 11 SG
(30384) - 9 SG

(30383) - 9 SG

(30319) - 20 PI

(30321) - 12 PI

(30317) - 16 PI

(30320) - 8 SG

(30168) - 14 SG

(30167) - 8 SG

(30166) - 12 BE

(30165) - 12 PS

(30185) - 8 SB

(30164) - 8 SG

(30185) - 10 SG

(30184) - 9 SG

(30183) - 11 SG

(30187) - 13 CA

(30162) - 22 PI

(30163) - 9 SG

(30160) - 9 WC

(30161) - 8 SB

(30182) - 12 SG

(30159) - 8 SG

1 AROUND TRANSFORMERS, PLEASE EITHER REMOVE OR RELOCATE SHRUBS TO BE CONSISTENT DETAIL 557

PLANT SCHEDULE PHASE 2

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	CALIPER	CANOPY/UNDERSTORY	FL GRADE	QTY
TREES							
	IG	ILEX GLABRA / GALLBERRY	65 GAL. MIN.	1.5in / 38PT (MIN.)	UNDERSTORY	FL#1	8
	LI	LAGERSTROEMIA INDICA / CRAPE MYRTLE	25 GAL. MIN.	1.5in / 38PT (MIN.)	UNDERSTORY	FL#1	4
	MG	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA	65 GAL. MIN.	2in / 50PT (MIN.)	CANOPY	FL#1	6
	QM	QUERCUS MICHAUXII / SWAMP CHESTNUT OAK	65 GAL. MIN.	2in / 50PT (MIN.)	CANOPY	FL#1	3
	QV	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	65 GAL. MIN.	2in / 50PT (MIN.)	CANOPY	FL#1	1
	TD	TAXODIUM DISTICHUM SAL. / CYPRESS	65 GAL. MIN.	2in / 50PT (MIN.)	CANOPY	FL#1	12
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD/HEIGHT	SPACING	FL GRADE	QTY
SHRUBS							
	LS	LOROPETALUM CHINENSE / CHINESE FRINGE FLOWER	3 GAL.	3FT	AS SHOWN	FL#1	60
	MC	MORELLA CERIFERA / WAX MYRTLE	7 GAL.	5FT	AS SHOWN	FL#1	12
	MC2	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	3 GAL.	3FT	AS SHOWN	FL#1	208
	PM	PODOCARPUS MACROPHYLLUS / YEW PODOCARPUS	3 GAL.	3FT	AS SHOWN	FL#1	28
	VO	VIBURNUM ODORATUM 'SHINY WATER' / SHINY WATER VIBURNUM	3 GAL.	3FT	AS SHOWN	FL#1	18
	S	ZAMIA INTEGRIFOLIA / COONTIE	3 GAL.	3FT	AS SHOWN	FL#1	191
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	FL GRADE	QTY
GROUND COVERS							
	PA	PASPALUM NOTATUM 'ARGENTINE' / ARGENTINE BAHIAGRASS	SOD	N/A	N/A	FL#1	865 SF
	SEED	PASPALUM NOTATUM 'ARGENTINE' / BAHIAGRASS	SEED	N/A	N/A	N/A	1,322 SF
	TA	TRACHELOSPERMUM ASIATICUM / ASIATIC JASMINE	1 GAL.	POT	N/A	FL#1	208

PLANT SCHEDULE PHASE 1

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	CALIPER	CANOPY/UNDERSTORY	FL GRADE	QTY
TREES							
	IG	ILEX GLABRA / GALLBERRY HOLLY	65 GAL. MIN.	1.5in / 38PT (MIN.)	UNDERSTORY	FL#1	18
	LI3	LAGERSTROEMIA INDICA / CRAPE MYRTLE	25 GAL. MIN.	1.5in / 38PT (MIN.)	UNDERSTORY	FL#1	6
	MG	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA	65 GAL. MIN.	2in / 50PT (MIN.)	CANOPY	FL#1	10
	MV2	MAGNOLIA VIRGINIANA / SWEETBAY MAGNOLIA	65 GAL. MIN.	1.5in / 38PT (MIN.)	UNDERSTORY	FL#1	11
	QV	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	65 GAL. MIN.	2in / 50PT (MIN.)	CANOPY	FL#1	12
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD/HEIGHT	SPACING	FL GRADE	QTY
SHRUBS							
	LS	LOROPETALUM CHINENSE / CHINESE FRINGE FLOWER	3 GAL.	3FT	AS SHOWN	FL#1	42
	MC	MORELLA CERIFERA / WAX MYRTLE	7 GAL.	5FT	AS SHOWN	FL#1	97
	MC2	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	3 GAL.	3FT	AS SHOWN	FL#1	108
	PM	PODOCARPUS MACROPHYLLUS / YEW PODOCARPUS	3 GAL.	3FT	AS SHOWN	FL#1	13
	S	ZAMIA INTEGRIFOLIA / COONTIE	3 GAL.	3FT	AS SHOWN	FL#1	13
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	FL GRADE	QTY
GROUND COVERS							
	PA	PASPALUM NOTATUM 'ARGENTINE' / ARGENTINE BAHIAGRASS	SOD	N/A	N/A	FL#1	865 SF
	SEED	PASPALUM NOTATUM 'ARGENTINE' / BAHIAGRASS	SEED	N/A	N/A	N/A	1,322 SF
	TA	TRACHELOSPERMUM ASIATICUM / ASIATIC JASMINE	1 GAL.	POT	N/A	FL#1	208

REFERENCE NOTES SCHEDULE

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL
MULCH				
	M-1	ORGANIC HARDWOOD MULCH	12.2 CY	

NOTES:

CONTRACTOR TO SEED ALL DISTURBED AREAS WITH ARGENTINE BAHIAGRASS.

THE APPLICANT ACKNOWLEDGES AND AGREES THAT, BECAUSE OF THE LOCATION IN RELATION TO SURROUNDING WATER FEATURES, SUSTAINABLE LANDSCAPING PRACTICES INCLUDING LIMITATIONS ON USE OF PESTICIDES AND IRRIGATION SYSTEMS MUST BE CONSIDERED. THESE PRACTICES/REQUIREMENTS INCLUDE:
(1) REQUIRING OF COMPOST FERTILIZING ONLY (AS OPPOSED TO TRADITIONAL/SYNTHETIC FERTILIZERS).
(2) NO NEW WELLS, INCLUDING IRRIGATION WELLS, PERMITTED ON THE PROPERTY.
(3) ALL LANDSCAPING SHALL CONFORM TO FLORIDA FRIENDLY LANDSCAPING PRACTICES.

PARKING LOT LANDSCAPING COMPLIANCE NOTE:

(CITY OF ALACHUA LDC SEC. 6.2.2(D)(2)) INTERIOR TREE REQUIREMENT: 1 CANOPY/ORNAMENTAL/UNDERSTORY TREE PER 1,800 SF OF PARKING LOT AREA
PARKING LOT A
TOTAL PARKING LOT AREA: 34,472 SQUARE FEET
34,472 SF ÷ 1,800 SF/TREE = 19.15 TREES
20 INTERIOR TREES REQUIRED - 20 INTERIOR TREES PROPOSED
-REQUIREMENTS MET-
PARKING LOT B
TOTAL PARKING LOT AREA: 5,150 SQUARE FEET
5,150 SF ÷ 1,800 SF/TREE = 2.86 TREES
3 INTERIOR TREES REQUIRED - 3 INTERIOR TREES PROPOSED
-REQUIREMENTS MET-

NOTES:

PER CITY OF ALACHUA, LDC, SEC. 6.2.2 (D) (1)
(i) 7.5 AC X 2 = 15 REQUIRED CANOPY TREES ON PRIMARY OR STREET SIDE.
20 CANOPY TREES PROPOSED
-REQUIREMENTS MET-

(ii) 7.5 AC X 6 = 45 REQUIRED UNDERSTORY TREES (50% FRONT, 25% EACH SIDE)
23 UNDERSTORY TREES PROPOSED IN FRONT 51% TOTAL)
22 UNDERSTORY TREES PROPOSED ON SIDES (50% TOTAL)
-REQUIREMENTS MET-

(iii) A ROW OF SHRUBS ALONG THE FRONT FACADE OF THE STRUCTURE, WITH CONSIDERATION GIVEN TO ACCESS TO UTILITY METERS OR MECHANICAL EQUIPMENT. SHRUBS SHALL NOT BE PLANTED DIRECTLY AGAINST THE STRUCTURE, BUT A MINIMUM OF TWO FEET FROM THE FACADE TO FACILITATE ADEQUATE AIR CIRCULATION. IN LIEU OF A HORIZONTAL LINE OF SHRUBS ALONG THE FRONT FACADE, SHRUB MASSES OF THREE OR MORE SPECIES MAY BE UTILIZED.
-REQUIREMENTS MET-

(iv) FOR SITES WITH MULTIPLE BUILDINGS, FOR EACH 100 FEET OF FACADE OF THE LONGEST BUILDING FACE OF ANY BUILDINGS AT LEAST ONE OF THE FOLLOWING OPTIONS, LOCATED BETWEEN ALL STRUCTURES:
-OPTION C USED TO SATISFY REQUIREMENT-

(v) A COMBINATION OF SOLID SOD, SEEDING, AND SPRIGS SHALL BE USED TO COVER 100 PERCENT OF THE LOT SITE DISTURBED BY CONSTRUCTION ACTIVITIES. AREAS OF NATIVE VEGETATION ARE NOT REQUIRED TO BE SODDED. AN AREA WITHIN 20 FEET OF THE FRONT BUILDING FAÇADE SHALL BE SODDED WITH OTHER DISTURBED AREAS TO BE SODDED, SEEDED OR SPRIGGED.
-REQUIREMENT MET-

N

0 30 60 90 120 feet

1" = 30'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

LANDSCAPE ARCHITECT OF RECORD: MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL J. HANS, RLA ON THE DATE ADJACENT TO THE SEAL.

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REGISTERED LANDSCAPE ARCHITECT MICHAEL JARED HANS LA2032 STATE OF FLORIDA

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Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: LANDSCAPE PLAN

DATE: JANUARY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LP-04

City of ALACHUA
the good life community

RODOLFO VALLADARES
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR BRYAN S. THOMAS, AICP

December 11, 2025

Submitted electronically to Jack.Charnas@jbpro.com

Jack Charnas, P.E.
JBrown Professional Group, Inc.
3530 NW 43rd Street
Gainesville, Florida 32606

Application #: PSP25-0006

RE: Project Assistance Team (PAT) Comments for Tolosa North Site Plan Application

Dear Jack Charnas,

On October 21, 2025, the Planning & Community Development Department received your revised site plan application for the Tolosa North Site Plan project, which proposes the construction of 50 single-family attached residential units with associated infrastructure improvements on a +/- 7.25-acre subject property (tax parcel 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

The application has been reviewed by the City's Planning Assistance Team (PAT). Upon review of the application materials, the following insufficiencies must be addressed. A meeting may be scheduled to review these comments at the applicant's request.

Please address all insufficiencies in writing and provide an indication as to how they have been addressed by **5:00 PM on January 7, 2026**. A total of four copies of the application package, plans, and a digital copy of all materials in PDF format on a CD or sent by emailing a Cloud/FTP link must be provided by this date. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the Planning & Zoning Board. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time. If all comments are addressed by the resubmission date above, the application may be scheduled for the **February 2026 Planning & Zoning Board (PZB) Meeting**.

Address the following insufficiencies:

Remaining Deficiencies to be Addressed

** Unless otherwise noted, references to code sections are to the City of Alachua Land Development Regulations **

5. **Article 6 – Development Standards**

   a. Section 6.1 – Off-street parking and loading

      ii. Section 6.1.4(D)(1) requires bicycle parking be provided for off-street surface parking lots with 50 or more parking spaces at a rate of one per every ten required parking spaces. Add bicycle parking calculation to sheet C0.00 and C2.00 and provide required bicycle parking.

      Remaining Deficiency: Bike parking spaces are currently shown as in landscape areas and are not paved. Confirm this is the design intent.

      iii. Section 6.1.5(C)(2) requires two loading spaces be provided for multifamily, townhouse, or two- to four-family developments with at least 20 dwelling units, but not over 50 dwelling units. Add loading space calculation to sheet C0.00 and C2.00 and provide required loading spaces.

      Remaining Deficiency: Staff only noted one of the two required loading spaces.

      iv. Section 6.1.10(A)(1) requires off-street surface parking lots with 100 or more parking spaces to provide pedestrian crosswalks, at least ten feet in width, located between all primary building entrances and the parking areas serving those entrances. Provide a ten-foot-wide crosswalk spanning from the sidewalk stub that is part of the entrance drive to the north, south to connect to the sidewalk system approximately adjacent to the dumpster pad to fulfill this requirement.

      Remaining Deficiency: Provided crosswalk location is acceptable; however, the crosswalk leads into a median and landscape island with no sidewalk connection. Provide sidewalk and curb cuts in line with the crosswalk to create a unified pedestrian network.

   b. Section 6.2 – Tree protection and landscaping standards

      ii. Provide required tree table described in Section 6.2.1(G)(1)(a). Note which trees are proposed to be preserved, relocated, and removed.

      Remaining Deficiency: Per Section 6.2.2()(6)(a), no credit will be given for the preservation of trees on the nuisance tree list. Wild Cherry is noted as a nuisance tree. Remove credits from the preservation table.

      v. Provide landscape calculations in accordance with Section 6.2.2(D)(1)(a) and Section 6.2.2(D)(2).

      Remaining Deficiency: Staff could only locate buffer calculations. Site and parking lot landscape requirement calculations were still not present on noted sheet LP-04.

      vii. Provide screening around waste receptacles as required by Section 6.2.3(B).

      Remaining Deficiency: Comment was not addressed.

viii. Staff is proposing a condition relating to the high aquifer recharge nature of the site. The proposed condition would read: "The applicant acknowledges and agrees that, because of the location in relation to surrounding water features, sustainable landscaping practices including limitations on use of pesticides and irrigation systems must be considered. These practices/requirements include: (1) requiring of compost fertilizing only (as opposed to traditional/synthetic fertilizers); (2) no new wells, including irrigation wells, permitted on the property; and, (3) all landscaping shall conform to Florida Friendly Landscaping Practices."

Remaining Deficiency: Comment was not addressed.

Additional Deficiencies to be Addressed

** Unless otherwise noted, references to code sections are to the City of Alachua Land Development Regulations **

1. **Section 6.3 – Fencing**
   a. Per Section 6.3.3(A), fences and walls, including retaining walls, shall not exceed a height of eight feet in side and rear yards in residential districts. From base to top of wall, the retaining wall exceeds eight feet. Where the retaining wall exceeds eight feet in height, provide a tier step wall design so that no one retaining wall is taller than eight feet. Fences may still be placed on top of the wall, not to exceed a combined height of 16 feet.
2. **Outside Review**
   a. Review and address comments from outside reviewer dated 11/25/2025 (attached).
   b. Review and address comments from City of Alachua Public Services dated 11/26/2025 (attached).

If you have any questions regarding the information above, please contact me at (386) 418-6137 or at ccrockett@cityofalachua.org. We look forward to receiving your revised application.

Sincerely,

Carson J. Crockett, AICP
Principal Planner

Attachments: Comments from outside reviewer 11/25/2025
Comments from City of Alachua Public Services 11/26/2025

CC: Bryan S. Thomas, AICP, Planning & Community Development Director *(by electronic mail)*
Bernadette Fisher, Principal Planner *(by electronic mail)*
Brenda Flieger, Planning Assistant *(by electronic mail)*
Project File

November 25, 2025

Carson J. Crocket, Planner
Office of Planning and Community Development
ccrockett@cityofalachua.org | 386-418-6137
City of Alachua, Florida.

Ref: Site plans for Tolosa North – Phase 1 & 2

Dear Mr. Crockett:

The following are our comments for the site plans for Tolosa North – Phase 1 & 2:

Sheet C.4.04-C4.07

a. A lot of spots at the back of the concrete terraces are not legible due to the overlap of the phasing line.
b. Please provide a handrail every time the drop in grade is greater than 18"; a 30.5" drop without a handrail is dangerous.
c. Suggest adding storm pipe schedule to each relevant grading sheet. It is cumbersome to have to go back to C4.01 every time to check a pipe.
d. Please provide profile of S-02 to S-01 pipe to verify it will not interfere with the wall or its foundations.
e. FDOT Standards 522-002 says that landings on H/C ramps should have max cross-slopes of 2% in any direction. Please provide landing slopes for C4.04 inset A and C4.05 inset A, and adjust landing grading for C4.04 inset B.

Sheet C.5.00

a. There are conflicts between the meter vault, water meter line, dumpster pad, and wastewater line. Please keep proper utility separation.

Sheet C.5.01

a. The two "16" callouts near the point of connection are not accurate; there are no tees, gate valves or blow off assemblies.
b. Please include the existing inverts for EX WWMH-01 in the wastewater structure schedule. The plan view leader for EX WWMH-01 is duplicated.

Sheet C.5.05

a. The “easement line (see sketch and description) label is not pointing to the easement line.
b. The profile label for WWMH-05 has a couple typos.

Stormwater Report

a. The pre-development drainage map was not updated in the report.
b. Table 4 is named “Post-development Modeling Outputs” but it appears to be pre-development data.
c. Please include the area drains in the pipe calculations.
d. Please note that the drainage areas do not seem to be correct

Please do not hesitate to contact us if you have any questions/comments.

Sincerely,

Claudia Vega, P.E.
Director of Engineering
cvega@edafl.com
edafl.com

City of
ALACHUA
the good life community

City of Alachua

RODOLFO VALLADARES, P.E.
CITY MANAGER

INTER-OFFICE COMMUNICATION

DATE: **Nov 26, 2025**

TO: **Bryan Thomas, AICP**
Planning & Community Development Director

FROM: **Tom Ridgik, P.E.**
Engineering Supervisor

TR 11/26/2025

RE: **Tolosa North Phases 1 & 2 Site Plans**

Public Services has reviewed the subject project (Oct 2025 Documents) and offer the following comments. Review was specific to Public Services utilities.

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NO.	COMMENTS
1	**Comment on May Submittal** **General** Provide public utility easements as required for all utilities shown hereon by metes and bound description and in accordance with the regulatory agency department for public utilities. Please update and **submit** applicable sheets. **Comment on Nov Submittal** **General** See markups on Sketch and Description. For electric power circuits, provide 10-foot wide easements. How will the easements for electrical infrastructure be officially recorded? Note: COA plans to write three separate easement descriptions, each a different width; namely, 20, 30 and 35 feet. Please modify sketch to be consistent with this.

NO.	COMMENTS
	Please **submit** response and **resubmit** affected drawings.
2	**Comment on May Submittal** **Sheet C0.00** This project has been submitted to Planning as a Site Plan application. Thus please change title from "CONSTRUCTION PLANS" TO "SITE PLANS". Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C0.00** **Approved**
3	**Comment on May Submittal** **Sheet C1.00** Under **General Construction Notes,** add "12. THE CITY OF ALACHUA SHALL BE COMPENSATED FOR ALL WORK REQUIRED OF THE CITY TO MODIFY ITS INFRASTRUCTURE. SUCH WORK INCLUDES, BUT IS NOT LIMITED TO, WATER, WASTEWATER AND ELECTRIC INFRASTRUCTURE IMPROVEMENTS, RELOCATION OR DEMOLITION. FOR PROJECTS NOT WITHIN THE CITY'S ELECTRIC SERVICE AREA, MODIFICATIONS TO THE CITY'S ELECTRIC INFRASTRUCTURE EITHER WITHIN OR ADJACENT TO THE PROJECT AREA MAY BE REQUIRED.THE CITY SHALL BE COMPENSATED FOR SUCH MODIFICATIONS." Under **Paving, Grading and Drainage Specifications**, add "15. NEW ROADS – PAVEMENT TRANSVERSE MARKINGS – MATERIALS OF STOP LINES SHALL BE HOT-APPLIED STANDARD THERMOPLASTIC. MATERIALS OF CROSSWALK LONGITUDINAL BARS – 24-INCH SHALL BE HOT-APPLIED HIGH FRICTION THERMOPLASTIC. 16. UNLESS AN ALTERNATE IS APPROVED BY COA, GROUT BOTTOM OF ALL STORMWATER DRAINAGE STRUCTURE INVERTS AS PER FDOT INDEX 425-001 AND AS PER COA STANDARD DETAIL 210. 17. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND CITY OF ALACHUA PROJECT MANAGER IN ADVANCE PRIOR TO PLACING LIMEROCK AND LAYING ASPHALT FOR FIELD INSPECTIONS." Under **STANDARD ABBREVIATIONS,**

NO.	COMMENTS
	Add "EOM END OF MAINTENANCE". Change "ST STORM" to "ST STORMWATER" Please **Revise & Resubmit** this sheet. **Comment on Nov Submittal** **Sheet C1.00** **Approved**
4	**Comment on May Submittal** **Sheets C4.01, C4.04 and C4.05** COA Detail 215 only applies to sanitary manholes. Thus, please delete references to it for storm manholes in the Storm Structures Table. Please **Revise & Resubmit** these sheets. **Comment on Nov Submittal** **Sheets C4.01, C4.04 and C4.05** **Approved**
4	**Comment on May Submittal** **Sheet C5.00** See markup. **Keyed Note 1:** Is the design intent to end COA WW maintenance at the manhole near the property line? If so, all maintenance upstream this manhole will be the responsibility of the property owners association. The COA is fine with this approach, but points out that normally the COA EOM is at the cleanout closest to the WW main. Also show the COA EOM for the water system, usually at the water meter and at the BFP, if present. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00**

NO.	COMMENTS
	Upon further reflection, relocate the COA EOM WW leader so it points to WWMH-05. Relocate the COA EOM Water leader so it points to the meter, not the BFP. See attached markup. Please **Revise & Resubmit** this sheet.
5	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 2:** Piping between buildings is complex. On 22 X 34 size sheets, it can be figured out, but requires effort. On 11 X 17 size sheets, it is not legible. The reviewer found it difficult to review such piping. Once piping concepts have been finalized, consider adding expanded views to increase clarity. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
6	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 3:** Normally, City preference is to locate water meters as close as possible to the water main; namely, in front of buildings. But the proposed location in the alley between buildings has been reviewed by City Distribution & Collection staff. They take no exception to the proposed location (alley between buildings), but such piping is still subject to review on the revised set. For each fire water sprinkler application, note that a backflow preventer & enclosure (Detail 121) is required for each such application.

NO.	COMMENTS
	What is the sprinkler fire supply flow requirement per building? What is the proposed line size? If calculations show that one BFP and associated piping has sufficient capacity for the fire sprinklers for two buildings, the COA will consider this approach. The above can be discussed in more detail with City staff. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
7	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 4:** Please add a parallel 8-inch WW main to reduce lateral length and maintenance issues. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
8	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 5:** Please increase distance between edge of parking lot and edge of building to 15 feet to allow for installing various utilities as well as installing and repairing the water. Note that as per COA DCM PUE width for water mains is 20 feet, but at 15 ft PUE should suffice here. Call out the PUE. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00**

NO.	COMMENTS
	Approved
9	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 6:** Please review water fittings 14 & 19. To reviewer's knowledge, the smallest available CLDI is 4-inch, not 2-inch. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** The reviewer went to the U.S. Pipe website, but could not find 2-inch CLDI fittings. For both Class C110 & C153 DICL pipe, smallest fittings available seem to be 3-inch. Please **submit** catalogue cut showing a 2-inch CLDI fitting. If 2-inch CLDI fittings are not available, change & **resubmit** affected sheets.
10	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 7:** From each bldg, please increase lateral size to 6-inches. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
11	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 8:**

NO.	COMMENTS
	Aren't fittings 21 & 22 the same? If so, suggest deleting one. Also, remove ¾ inch from title so only 1-inch remains. The default water meter size shall be 1-inch. Note that a ¾-inch meter is really a 5/8-inch meter with ¾-inch fittings. If the Engineer wants to pursue a ¾ X 5/8 inch meter, then submit supporting information and calculations. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
12	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 9:** **Wastewater Structure Table** Please call out the Rim Elevation of each WW Manhole. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
13	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 10:** Either on this table or somewhere in the documents, please clarify whether each PVC WW main is either SDR 26 or SDR 35. If any portion of the pipe is more than 10 feet deep, provide SDR 26 pipe. Otherwise, SDR 35 is acceptable. If all WW pipe is the same SDR, a general note will suffice. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.00 **Approved**
14	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 11:** As previously mentioned, please provide 1-inch meters. If the Engineer wants to pursue a 5/8-inch meter (with ¾-inch fittings), then submit supporting information and calculations. Water meter estimated flow range must be less that the flow ranges published in the COA Flow Ordinance. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
15	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 12:** Please add General Note 4, with text as follows: "4. SEE C5.01 FOR WATER AND WASTEWATER SPECIFICATIONS." Then add water and wastewater specs to C5.01. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** Previously, the reviewer neglected to forward COA Water & Wastewater (W&WW) specs. To this sheet, please add COA W&WW specifications, which can be found at the end of the submittal review comments. Also, these specifications apply to all W&WW infrastructure to be owned by the COA. Of course, if the Engineer so elects, they can include additional W&WW specs that apply to that W&WW infrastructure to be owner by the property owner.

NO.	COMMENTS
	Please **Revise & Resubmit** this sheet.
16	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 13:** If bldg plumbing allows, please relocate WWCO-12 so that lateral length under pavement is reduced. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
17	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 14:** Please clarify. What is the typical distance between Bldgs? Please **submit** response. **Comment on Nov Submittal** **Sheet C5.00** **Approved**
18	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 15:** To WWMH-05, WW STRUCTURE SCHEDULE, Please add text so it now reads "PROVIDE AN EXTERNAL DROP CONNECTION". Please **submit** response.

NO.	COMMENTS
	Comment on Nov Submittal **Sheet C5.00** To applicable note, add "AN EXTERNAL" as per markup. Please **Revise & Resubmit** this sheet.
19	**Comment on May Submittal** **Sheet C5.00** Additional non-keyed comments include: Show all required PUEs, including W, WW & Electrical. As previously mentioned, install BFP(s) (with upstream isolation gate valve) in water to fire sprinkler systems. Call out COA EOM. It would be of benefit to extend 8-inch WM to SR-235 for future connection for increased reliability and increased fire flow. Please discuss with COA. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.00** As noted previously, please show and call out width of PUEs for the power circuits to be 10 feet. Also, the temporary overhead power lines shall require a temporary easement. Please call-out on this sheet. Please **Revise & Resubmit** this sheet.
20	**Comment on May Submittal** **Sheet C5.01** **General Comments:** Will this W & WW piping be installed as part of this project? If so, show or reference on some type of geographical map somewhere in these documents. Call out any tree demolitions, etc.

NO.	COMMENTS
	Add Water and WW Specs on this sheet as per attached. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
21	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 1:** Same comments re: Water Fitting Schedule as per C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** Implement markups as per attached marked-up C5.01. Please **Revise & Resubmit** this sheet.
22	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 2:** Call out the street locations for both W & WW point of connections. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**

NO.	COMMENTS
23	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 3:** Same comment re: WW Pipe Table as per C5.00. Identify type of PVC pipe; namely, SR 26 or SDR 35. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 4:** What is the purpose of these laterals and cleanouts? Will they serve separate houses on separate lots? If so, COA DCM requirement is that laterals and cleanouts be at lot corners. How will this be accomplished? Also call out the lateral size. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** **Approved**
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 5:** Call-out that the WM will be directionally drilled under the creek. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.01 **Approved**
25	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 6:** Should COA EOM be called out at WWMH-05? See related comments on C5.00. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.01** As per previous comment, please call-out the COA EOM at WWMH-05. **Approved as Noted.**
26	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 7:** Unless there is an adjacent existing gate valve, install a gate valve at the point of connection. At the point of connection, what is the size of the existing water main? **Keyed Note 8:** Call-out parameters for WWMH-04. **General Comment** Water main materials and size do not appear to be called out. Water main fittings do not appear to be called out. Is constructing the water main shown on this sheet part of the project? Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal**

NO.	COMMENTS
	Sheet C5.01 **Approved**
27	**Comment on May Submittal** **Sheets C5.00 & C5.01** **General Comment:** The reviewer noticed that piping profile sheets have NOT been prepared for the WW piping. Please confirm that this is design intent. Please **submit** response & **submit** any applicable drawings, if required. **Comment on Nov Submittal** **Sheets C5.00 & C5.01** **Approved**
28	**Comment on May Submittal** **Sheet C5.02** **Detail 312:** If this detail not needed, suggest deleting. **Detail 115:** This is an old detail. Contact COA for update. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheets C5.02** **Approved**
29	**Comment on May Submittal** **Sheet C5.03** **Detail 200:** See markups, which allow for either 4- or 6-inch laterals, depending on the application.

NO.	COMMENTS
	Detail 307: See markups. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.03** **Approved**
30	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 1:** COA does not allow use of HDPE pipe. Instead use either Certa-Lok or Fused PVC. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.05 (& Sheet C5.01)** For the WW gravity main, instead of SDR-26, please use Certa-Lok DR 18, a restrained system, for the jack & bore piping. Also, add Note 11, as follows: "11. FOR WATER MAIN PIPING: A. EXTEND TRACER WIRE THRU ENCASEMENT B. CONNECT TRACER WIRES WITH PRO-LINE TRACER-LOK CONNECTORS, PART # TL-LUG-SS C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE" Please **Revise & Resubmit** these sheets.
31	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 2:** Please provide gate valves at both ends of the directional drill. Valve locations shown on markup are approximate.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet C5.05** Valves are shown on C5.00 & C5.01. **Approved**
32	**Comment on May Submittal** **Sheet LP-04** **Keyed Note 1:** Evaluate and confirm minimum horizontal separation between trees and water/WW infrastructure. Minimum horizontal separation requirements are: Live Oaks = 15 feet Other canopy trees = 10 feet Understory trees = 7.5 feet Note that location of some water and wastewater infrastructure is changing. Evaluate horizontal separation requirements against Water and Wastewater infrastructure shown on most current version of sheet C5.00. If necessary, discuss required horizontal separation with City. Please **submit** response & **Revise and Resubmit** this drawing. **Comment on Nov Submittal** **Sheet LP-04** The Landscape Architect & the Electrical Engineer shall compare LP-04 & E-2 to ensure there is 10 feet of minimum horizontal separation between tree trunks and power circuits as per attached LP-04 markup. Please **Revise and Resubmit** this sheet.
33	**Comment on May Submittal** **General** Electrical design is being reviewed directly between electrical design engineer and COA electric staff. Comments include, but are not limited to:

NO.	COMMENTS
	Relocate at least two transformers for improved truck access in the event transformer removal is required. **Revise and Resubmit** applicable electric sheets. FYI: This rating will be changed once COA electrical staff informs this reviewer that electric design has achieved Approved as Noted status or better. **Comment on Nov Submittal** **General** See previous comments on electrical easements. For each proposed transformer, please **submit** load schedules so that COA can size each transformer. FYI: Under the assumption that the master water meter will be deleted from the project, it is possible that conduit routing will change.
34	**Comment on May Submittal** **Fire Flow Calculations** **Comments herein are FYI. Response by Engineer is optional.** The fire flow calcs predict fire flow of about 3900 gpm at 20 psig at the tested fire hydrants. Please note that predicted fire flow by our water model is substantially lower by at least 50%, which is unusual. Two fire flows were estimated with the test and read fire hydrants being flip-flopped. The estimated fire flows are essentially the same. Although not all references mention this, the elevation differences of hydrants should be taken into account as they affect fire flow at each location. Elevation differences are significant; namely, FH @ NW 158th Ave & NW 135 Terrace: EL = 83 ft. FH @ NW 158th Ave & NW 133the Terrace = EL = 108 ft. The FH at EL 83 should deliver much more fire flow. In fact, our water model confrims this. Also, note that the estimated fire flow by a FH in the Tolosa North site will be much less than the tested FH due to: EL of the FH at the Tolosa North site is about 116 ft.

NO.	COMMENTS

Fire flow delivery to the Tolosa North site is branched, not looped. Branched systems produce more, sometimes much more, friction losses than looped systems.

If it is assumed that the branched WM commences at NW 158th Ave and NW 135 Terrace, then the EL difference is (116 – 83) = 33 ft. uphill, or 14.2 psi..

The friction loss factor for Q = 1100 gpm in an 8-inch line is 2.15 ft / 100 ft. With a WM length estimated at 1300 ft, then the estimated friction loss is about 28 ft, or 12.1psi.

Thus, at the Tolosa FH with no fire flow, the residual pressure may be about only 52 psig, much less than the 78 psig at the test FH.

Comment on Nov Submittal

Fire Flow Calculations, FYI

Inasmuch as the JB Pro Fire Flow calculation methodology will be used on future projects, please contact COA reviewer to discuss several issues, such as:

Based on an internet review of calculating fire flows, an elevation correction for the test and read fire hydrants is required. Does JB Pro include the elevation correction factor in their methodology?

Pressure versus flow graph: The flow x-axis is shown as linear. The more common approach is for the flow x-axis to be non-linear in which two points (flows at static and residual pressure) define a line, from which the flow at 20 psig residual can be extrapolated. The reviewer does not understand what the three points shown on the JB Pro graph represent.

Flow Output Water Model and Fire Flow Report:

What is the boundary condition; namely, that pressure (or equivalent) where the water model connects to COAs existing distribution piping network. Suggest noting this on the fire flow report.

Pipe lengths and diameters are not called out. Perhaps this is a limitation of the model's node map. Calling out pipe lengths and diameter improves clarity, assisting in the review process.

Note that that piping from the 10X10 tap to the 6-inch master meter really consists of two segments – most is 10-inch diameter, but the jack & bore portion is 8-inch diameter. Note that velocity in an 8-inch line at 1500 gpm is about 10 fps, increasing friction loss.

Does the model take into account the 8-inch jack & bore piping?

A fire flow testing recommended practice is that the pressure drop during the test be at least 25% of the static pressure. For test 1, for example, the pressure drop is only 7.6%. It is may not be feasible to induce a pressure drop more than this for the test conditions, but nevertheless this is the accepted guideline.

NO.	COMMENTS
	Test 2 calls-out the residual pressure as 61 psi with the associated pitot pressure also as 61 psi. This suggests that the friction loss in the line between the two hydrants is zero, which is unrealistic.
35	**Comment on May Submittal** **Sheet TBD** Please add the following City details: 115 Water Meter 121 BFP 210 Grout SW Structures **Revise and Resubmit or submit** additional sheets. **Comment on Nov Submittal** **Approved**
36	**Additional Comment on Nov Submittal** **Use of Master Water Meter Prohibited** The reviewer assumes that the underlying concept is that the master water meter is for 50 single family residences that eventually will be each individually owned. The COA does not allow a master water meter in this application due to several factors, including, but not limited to, the city ordinance that prohibits the resale and redistribution of water. Please redesign so that City requirements are met, such as (1) Install a water meter for each townhome (2) Provide PUEs whose widths are in accordance with City requirements and (3) Provide adequate physical space for repair of water, wastewater and electric infrastructure. The City is available to discuss redesign issues with the Engineer Note: As part of the redesign, comments made herein may either no longer apply or will require update. Please **Revise and Resubmit** sheets so that the master water meter is deleted and replaced with individual meters.

NO.	COMMENTS
37	
38	
39	
40	
END OF COMMENTS	

Please advise if you have any questions or require additional information.

CITY OF ALACHUA WATER & WASTEWATER SPECIFICATIONS

WATER AND WASTEWATER SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CITY OF ALACHUA, PUBLIC SERVICES, DESIGN AND CONSTRUCTION MANUAL (DCM), LATEST EDITION". THE FOLLOWING NOTES EITHER EMPHASIZE DCM REQUIREMENTS OR SPECIFY ADDITIONAL REQUIREMENTS. IF DCM AND NOTE REQUIREMENTS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

PROVIDE TRACER WIRE SYSTEM FOR WATER PIPING AS SHOWN ON THE DETAILS AND AS PER THE COA DCM. PROVIDE TRACER WIRE FOR BOTH PLASTIC (PVC) AND DUCTILE IRON PIPE.

WATER PIPING TRACER WIRE SYSTEM SHALL COMMENCE AT THE TIE-IN(S) AT EXISTING WATER MAIN(S) AND TERMINATE AT EACH COA END OF MAINTENANCE POINT.

TRACER WIRE SHALL BE SOLID COPPER #10 AWG BLUE INSULATED. TRACER WIRE SHALL BE PRO-LINE WITH PRO-LINE TRACER LOCK CONNECTORS, PART # TL-LUG-SS.

WATER METER APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE WATER METER ITSELF WILL BE FURNISHED AND INSTALLED BY THE CITY.

PROVIDE RESTRAINED JOINTS AT FITTINGS, HYDRANTS AND PIPING IN ACCORDANCE WITH AWWA STANDARDS AND AS PER CITY STANDARD DETAILS.

WATER MAINS SHALL BE EITHER PVC C900 DR 18 OR DUCTILE IRON CEMENT LINED, DEPENDING ON THE APPLICATION. UNDER ROADS AND PAVED AREAS SUCH AS PARKING LOTS, WATER MAINS SHALL BE DUCTILE IRON CEMENT LINED. ALL WATER MAINS SHALL BE NSF-61 RATED AND BURIED WITH AT LEAST 36-INCHES OF COVER.

POTABLE WATER SERVICE LINES SHALL BE 2-INCH MINIMUM, SCHEDULE 40 PVC AND RATED FOR NSF-61.

ALL FITTINGS FOR BOTH PVC AND DUCTILE IRON PIPE 4-INCHES AND LARGER SHALL BE DUCTILE IRON. FOR POTABLE WATER MAINS, FITTINGS SHALL BE CEMENT-LINED. FITTINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, ELBOWS, TEES, CROSSES AND REDUCERS.

PROVIDE PUBLIC UTILITY EASEMENTS AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.

WET TAP(S) TO PRESSURIZED WATER MAINS SHALL BE DONE BY A SUB-CONTRACTOR PRE-APPROVED BY THE CITY OF ALACHUA. RESTRAIN THE BRANCH GATE VALVE.

ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LESS THAN OR EQUAL TO 10 FEET CAN BE SDR 35.

SUBMITTALS, TESTING AND INSPECTIONS SHALL BE PERFORMED AS PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION)

City of ALACHUA
the good life community

RODOLFO VALLADARES
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR BRYAN S. THOMAS, AICP

August 7, 2025

Submitted electronically to Jack.Charnas@jbpro.com

Jack Charnas, P.E.
JBrown Professional Group, Inc.
3530 NW 43rd Street
Gainesville, Florida 32606

Application #: PSP25-0006

RE: Project Assistance Team (PAT) Comments for Tolosa North Site Plan Application

Dear Jack Charnas,

On May 27, 2025, the Planning & Community Development Department received your site plan application for the Tolosa North Site Plan project, which proposes the construction of 50 single-family attached residential units with associated infrastructure improvements on a 7.25-acre subject property (tax parcel 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

The application has been reviewed by the City's Planning Assistance Team (PAT). Upon review of the application materials, the following insufficiencies must be addressed. A meeting is scheduled for **10:00 AM on Tuesday, August 12, 2025** to review these comments.

Please address all insufficiencies in writing and provide an indication as to how they have been addressed by **5:00 PM on August 28, 2025**. A total of four copies of the application package, plans, and a digital copy of all materials in PDF format on a CD or sent by emailing a Cloud/FTP link must be provided by this date. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the Planning & Zoning Board. Please note that if Staff determines that the revised submission requires outside technical review by the City, your application may be delayed in order to allow for adequate review time. If all comments are addressed by the resubmission date above, the application may be scheduled for the **October 2025 Planning & Zoning Board (PZB) Meeting**.

Address the following insufficiencies:

Deficiencies to be Addressed

** Unless otherwise noted, references to code sections are to the City of Alachua Land Development Regulations **

1. **Comprehensive Plan Consistency Analysis**
   a. Evaluate Policy 3.5.a, Community Facilities Element, given the site's location in a high aquifer recharge area per the submitted natural resources checklist completed on November 27, 2024.
   b. Evaluation of Policy 5.2.c, Community Facilities Element, states that the application will implement one or more of the listed techniques required. Revise to call out the specific techniques that are being used and how.
2. **Concurrency Impact Analysis**
   a. Confirm the distance from the ingress/egress point to roadway segments 9 and 12. Staff believes these segments may be within a half mile of the ingress/egress, and as such, would be affected roadway segments. Provide any revisions if necessary to include these segments.
3. **Article 2 – Administration**
   a. Provide a copy of the neighborhood meeting mailed notice.
4. **Article 4 – Use Specific Standards**
   a. Per Section 4.3.1(A)(3)(c), when located next to single-family attached development, a townhouse or two- to four-family dwelling must incorporate a minimum of two design features (e.g., bay windows with a minimum 12-inch projection, eaves with a minimum six-inch projection, or multiple windows with minimum four-inch trim) on adjacent side facades. The east façade of unit 5 qualifies and requires a minimum two design features. Provide elevations for these facades demonstrating compliance with Section 4.3.1(A)(3)(c).
5. **Article 6 – Development Standards**
   a. <u>Section 6.1 – Off-street parking and loading</u>
      i. The parking calculation on sheet C2.00 uses the incorrect standard (sheet C0.00 is the correct standard). Revise calculation.
      ii. Section 6.1.4(D)(1) requires bicycle parking be provided for off-street surface parking lots with 50 or more parking spaces at a rate of one per every ten required parking spaces. Add bicycle parking calculation to sheet C0.00 and C2.00 and provide required bicycle parking.
      iii. Section 6.1.5(C)(2) requires two loading spaces be provided for multifamily, townhouse, or two- to four-family developments with at least 20 dwelling units, but not over 50 dwelling units. Add loading space calculation to sheet C0.00 and C2.00 and provide required loading spaces.

iv. Section 6.1.10(A)(1) requires off-street surface parking lots with 100 or more parking spaces to provide pedestrian crosswalks, at least ten feet in width, located between all primary building entrances and the parking areas serving those entrances. Provide a ten-foot-wide crosswalk spanning from the sidewalk stub that is part of the entrance drive to the north, south to connect to the sidewalk system approximately adjacent to the dumpster pad to fulfill this requirement.

b. Section 6.2 – Tree protection and landscaping standards

i. Include required note from Section 6.2.1(G)(1)(c) on the demolition plan (sheet C3.00): "All vegetative materials identified in the Florida Exotic Pest Plant Council's List of Invasive Plant Species, as amended, shall be removed at time of development."

ii. Provide required tree table described in Section 6.2.1(G)(1)(a). Note which trees are proposed to be preserved, relocated, and removed.

iii. Provide tree mitigation calculations and note any trees proposed to be planted that will count towards the mitigation requirement. Note any mitigation that is not fulfilled by the landscape plan and that will require payment into the tree mitigation fund (rate of $125 per replacement inch required). Refer to Sections 6.2.1(D)(1), 6.2.1(D)(4), and 6.2.1(D)(7).

iv. If proposing to utilize tree credits, provide tree preservation calculations for any tree to be counted towards credits per Section 6.2.1(D)(6).

v. Provide landscape calculations in accordance with Section 6.2.2(D)(1)(a) and Section 6.2.2(D)(2).

vi. Per Table 6.2-2, provide ten-foot type C buffer along the north property line.

vii. Provide screening around waste receptacles as required by Section 6.2.3(B).

viii. Staff is proposing a condition relating to the high aquifer recharge nature of the site. The proposed condition would read: "The applicant acknowledges and agrees that, because of the location in relation to surrounding water features, sustainable landscaping practices including limitations on use of pesticides and irrigation systems must be considered. These practices/requirements include: (1) requiring of compost fertilizing only (as opposed to traditional/synthetic fertilizers); (2) no new wells, including irrigation wells, permitted on the property; and, (3) all landscaping shall conform to Florida Friendly Landscaping Practices."

c. Section 6.3 – Fencing standards

i. Confirm whether any fencing is proposed as part of this site plan. If proposed, provide a typical fencing detail, including materials and height, and a fencing layout/plan.

d. Section 6.6 – Infill standards

i. The site is located within 500 feet of existing single-family, detached residential uses. Provide an analysis of the residential protection standards in Section 6.6.3 to confirm that no additional protections or conditions will be necessary.

6. **PD Ordinance 19-28 (as amended by 25-01)**
   a. Confirm the maximum height of the proposed dwellings.
   b. Confirm the square footage of the proposed dwellings. If single-story, they appear to have less than the minimum 750 square feet of living area required (20'x36.3' = 726 sq.ft.).
7. **Outside Review**
   a. Review and address comments from outside reviewer dated 8/4/2025 (attached).
   b. Review and address comments from City of Alachua Public Services dated 8/6/2025 (attached).
   c. Alachua County Fire Rescue notes no comments. See correspondence dated 7/21/2025 (attached).
8. **Miscellaneous**
   a. Please revise sheet C0.00 from "Construction Plans of..." to be titled as "Site Plan of..." for consistency with City of Alachua terminology.
   b. Check the site area across all application materials. Sheet C0.00 refers to ± 3.7-acres, the Comprehensive Plan consistency analysis refers to ± 8.49-acres, and the application itself refers to ± 7.52-acres.
   c. Please clarify whether the development will utilize master metering for water and electric or if the desire is for individual metering of units. Contact Public Services and Compliance and Risk Management departments to discuss potential requirements for easements and end of City of Alachua maintenance requirements associated with metering.
   d. Temporary construction easements and PUEs may be required near the southern connection of the site to proposed utility extensions and around the proposed boring site. Please contact the Compliance and Risk Management Department for more specific information on required easements.

If you have any questions regarding the information above, please contact me at (386) 418-6137 or at ccrockett@cityofalachua.org. We look forward to receiving your revised application.

Sincerely,

Carson J. Crockett, AICP
Principal Planner

Attachments: Comments from outside reviewer 8/4/2025
Comments from City of Alachua Public Services 8/6/2025
Correspondence from Alachua County Fire Rescue 7/21/2025

CC: Bryan S. Thomas, AICP, Planning & Community Development Director *(by electronic mail)*
Bernadette Fisher, Principal Planner *(by electronic mail)*
Brenda Flieger, Planning Assistant *(by electronic mail)*
Project File

August 04, 2025

Carson J. Crocket, Planner
Office of Planning and Community Development
ccrockett@cityofalachua.org | 386-418-6137
City of Alachua, Florida.

Ref: Site plans for Tolosa North – Phase 1 & 2

Dear Mr. Crockett:

The following are our comments to the site plans for Tolosa North – Phase 1 & 2.

1. **Sheet C0.00**
    a. The plans are not signed & sealed.
    b. Please provide a short description of the proposed project.

2. **Sheet C1.01**
    a. The latitude and longitude are blank.
    b. The project description only lists the 2 basins. Please describe the entire project.

3. **Sheet C1.10**
    a. "Parking Spaces" A. mentions manufacturing and production. Please fix.

4. **Sheet C2.02**
    a. There is a 0.5' dimension next to the dumpster pad that seems to suggest the presence of a curb, but the linework does not support that. Please clarify if a curb is proposed around the dumpster pad.

5. **Sheet C3.01**
    a. Please provide silt fences on the West side of the property.
    b. It appears a good amount of grading will be done on the adjacent property to the West. Please clarify if this is intended/permitted.

6. **Sheet C4.02 & C4.03**
    a. Please ensure building 1 has positive discharge in the back.
    b. The East driveway ramp has a low point (120.46). Please fix.

c. Please verify that the H/C ramps are ADA compliant. It appears the landings are too steep and the ramp slopes are not provided.
d. One of the spots in the back of Building 11 reads 115.20 when it appears it should read 115.06. Please verify.
e. Please clarify what is to be done about the sharp drop at the back of units 30-33.
f. Please provide spots on all 4 corners of the H/C spots.
g. Please connect the pipe from AD-01 to either S-09 or S-10.

7. Sheet C4.04

a. S-14 has a grate elevation of 113.30' in the detail and 111.16' in the storm structure table. Please clarify which is correct.
b. The pipe between S-14 and S-13 is called out as either 15" or 18". Please clarify which is correct.

8. Sheet C4.05

a. S-16 has a lot of conflicting information on this sheet. Please reconcile all inverts, pipe materials and grate elevations.

9. Sheet C4.06

a. Suggest stopping the proposed grade after S-15 to avoid confusion. It looks like the proposed grade will impede the flow out of S-15. Furthermore, on C4.05 section B-B stops at S-15 so it is unclear what proposed grade that is supposed to be.

10. Sheet C5.00

a. Fix labels overlapping around the creek crossing.

11. Sheet C5.01

a. Water line is missing legends.

12. Sheet C5.05

a. Please draw bore pits to scale on the plan view.

13. Sheet C6.02

a. Is the pipe profile intended to be S-17 to S-18?
b. Please verify the inverts shown, they differ between the profile and the spots in plan view.
c. Profile A-A's arrows should be reversed. The way the arrows are drawn in the plan view mean the profile should have SR 235 on the right.

d. The spot reading 119.62 above the pipe in the A-A profile appears to be incorrect.

14. Stormwater Report.

a. Page 4: Offsite DA does not match sheet C4.01.
b. There are 2.14 ac of pre-development drainage area that are not accounted for in the post-development drainage areas 1 + 2 + offsite. The rates and volumes provided do not reflect actual post-development conditions.
c. Please provide pipe calculations.

Please do not hesitate to contact me if you have any questions/comments.

Sincerely,

Claudia S. Vega, P.E.
Director of Engineering
cvega@edafl.com
edafl.com

City of
ALACHUA
the good life community

City of Alachua

RODOLFO VALLADARES, P.E.
CITY MANAGER

INTER-OFFICE COMMUNICATION

DATE: **Aug 6, 2025**

TO: **Bryan Thomas, AICP**
Planning & Community Development Director

FROM: **Michael Carrillo, P.E.**
Public Services Director
Tom Ridgik, P.E.
Engineering Supervisor

TR 8/6/2025

RE: **Tolosa North Phases 1 & 2 Site Plans**

Public Services has reviewed the subject project (May 2025 Documents) and offer the following comments. Review was specific to Public Services utilities.

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NO.	COMMENTS
1	**Comment on May Submittal** **General** Provide public utility easements as required for all utilities shown hereon by metes and bound description and in accordance with the regulatory agency department for public utilities. Please update and **submit** applicable sheets.
2	**Comment on May Submittal** **Sheet C0.00** This project has been submitted to Planning as a Site Plan application. Thus please change title from "CONSTRUCTION PLANS" TO "SITE PLANS". Please **Revise & Resubmit** this sheet.

NO.	COMMENTS
3	**Comment on May Submittal** **Sheet C1.00** Under **General Construction Notes**, add "12. THE CITY OF ALACHUA SHALL BE COMPENSATED FOR ALL WORK REQUIRED OF THE CITY TO MODIFY ITS INFRASTRUCTURE. SUCH WORK INCLUDES, BUT IS NOT LIMITED TO, WATER, WASTEWATER AND ELECTRIC INFRASTRUCTURE IMPROVEMENTS, RELOCATION OR DEMOLITION. FOR PROJECTS NOT WITHIN THE CITY'S ELECTRIC SERVICE AREA, MODIFICATIONS TO THE CITY'S ELECTRIC INFRASTRUCTURE EITHER WITHIN OR ADJACENT TO THE PROJECT AREA MAY BE REQUIRED.THE CITY SHALL BE COMPENSATED FOR SUCH MODIFICATIONS." Under **Paving, Grading and Drainage Specifications**, add "15. NEW ROADS – PAVEMENT TRANSVERSE MARKINGS – MATERIALS OF STOP LINES SHALL BE HOT-APPLIED STANDARD THERMOPLASTIC. MATERIALS OF CROSSWALK LONGITUDINAL BARS – 24-INCH SHALL BE HOT-APPLIED HIGH FRICTION THERMOPLASTIC. 16. UNLESS AN ALTERNATE IS APPROVED BY COA, GROUT BOTTOM OF ALL STORMWATER DRAINAGE STRUCTURE INVERTS AS PER FDOT INDEX 425-001 AND AS PER COA STANDARD DETAIL 210. 17. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND CITY OF ALACHUA PROJECT MANAGER IN ADVANCE PRIOR TO PLACING LIMEROCK AND LAYING ASPHALT FOR FIELD INSPECTIONS." Under **STANDARD ABBREVIATIONS,** Add "EOM END OF MAINTENANCE". Change "ST STORM" to "ST STORMWATER" Please **Revise & Resubmit** this sheet.
4	**Comment on May Submittal** **Sheets C4.01, C4.04 and C4.05** COA Detail 215 only applies to sanitary manholes. Thus, please delete references to it for storm manholes in the Storm Structures Table.

NO.	COMMENTS
	Please **Revise & Resubmit** these sheets.
4	**Comment on May Submittal** **Sheet C5.00** See markup. **Keyed Note 1:** Is the design intent to end COA WW maintenance at the manhole near the property line? If so, all maintenance upstream this manhole will be the responsibility of the property owners association. The COA is fine with this approach, but points out that normally the COA EOM is at the cleanout closest to the WW main. Also show the COA EOM for the water system, usually at the water meter and at the BFP, if present. Please **submit** response & **Revise and Resubmit** this drawing.
5	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 2:** Piping between buildings is complex. On 22 X 34 size sheets, it can be figured out, but requires effort. On 11 X 17 size sheets, it is not legible. The reviewer found it difficult to review such piping. Once piping concepts have been finalized, consider adding expanded views to increase clarity. Please **submit** response & **Revise and Resubmit** this drawing.
6	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 3:** Normally, City preference is to locate water meters as close as possible to the water main; namely, in front of buildings. But the proposed location in the alley between buildings has been reviewed by City Distribution & Collection staff. They take no exception to the proposed location (alley between buildings), but such piping is still subject to review on the

NO.	COMMENTS
	revised set. For each fire water sprinkler application, note that a backflow preventer & enclosure (Detail 121) is required for each such application. What is the sprinkler fire supply flow requirement per building? What is the proposed line size? If calculations show that one BFP and associated piping has sufficient capacity for the fire sprinklers for two buildings, the COA will consider this approach. The above can be discussed in more detail with City staff. Please **submit** response & **Revise and Resubmit** this drawing.
7	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 4:** Please add a parallel 8-inch WW main to reduce lateral length and maintenance issues. Please **submit** response & **Revise and Resubmit** this drawing.
8	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 5:** Please increase distance between edge of parking lot and edge of building to 15 feet to allow for installing various utilities as well as installing and repairing the water. Note that as per COA DCM PUE width for water mains is 20 feet, but at 15 ft PUE should suffice here. Call out the PUE. Please **submit** response & **Revise and Resubmit** this drawing.
9	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 6:**

NO.	COMMENTS
	Please review water fittings 14 & 19. To reviewer's knowledge, the smallest available CLDI is 4-inch, not 2-inch. Please **submit** response & **Revise and Resubmit** this drawing.
10	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 7:** From each bldg, please increase lateral size to 6-inches. Please **submit** response & **Revise and Resubmit** this drawing.
11	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 8:** Aren't fittings 21 & 22 the same? If so, suggest deleting one. Also, remove ¾ inch from title so only 1-inch remains. The default water meter size shall be 1-inch. Note that a ¾-inch meter is really a 5/8-inch meter with ¾-inch fittings. If the Engineer wants to pursue a ¾ X 5/8 inch meter, then submit supporting information and calculations. Please **submit** response & **Revise and Resubmit** this drawing.
12	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 9:** **Wastewater Structure Table** Please call out the Rim Elevation of each WW Manhole. Please **submit** response & **Revise and Resubmit** this drawing.
13	**Comment on May Submittal**

NO.	COMMENTS
	Sheet C5.00 **Keyed Note 10:** Either on this table or somewhere in the documents, please clarify whether each PVC WW main is either SDR 26 or SDR 35. If any portion of the pipe is more than 10 feet deep, provide SDR 26 pipe. Otherwise, SDR 35 is acceptable. If all WW pipe is the same SDR, a general note will suffice. Please **submit** response & **Revise and Resubmit** this drawing.
14	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 11:** As previously mentioned, please provide 1-inch meters. If the Engineer wants to pursue a 5/8-inch meter (with ¾-inch fittings), then submit supporting information and calculations. Water meter estimated flow range must be less that the flow ranges published in the COA Flow Ordinance. Please **submit** response & **Revise and Resubmit** this drawing.
15	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 12:** Please add General Note 4, with text as follows: "4. SEE C5.01 FOR WATER AND WASTEWATER SPECIFICATIONS." Then add water and wastewater specs to C5.01. Please **submit** response & **Revise and Resubmit** this drawing.
16	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 13:** If bldg plumbing allows, please relocate WWCO-12 so that lateral length under pavement is reduced.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing.
17	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 14:** Please clarify. What is the typical distance between Bldgs? Please **submit** response.
18	**Comment on May Submittal** **Sheet C5.00** **Keyed Note 15:** To WWMH-05, WW STRUCTURE SCHEDULE, Please add text so it now reads "PROVIDE AN EXTERNAL DROP CONNECTION". Please **submit** response.
19	**Comment on May Submittal** **Sheet C5.00** Additional non-keyed comments include: Show all required PUEs, including W, WW & Electrical. As previously mentioned, install BFP(s) (with upstream isolation gate valve) in water to fire sprinkler systems. Call out COA EOM. It would be of benefit to extend 8-inch WM to SR-235 for future connection for increased reliability and increased fire flow. Please discuss with COA. Please **submit** response & **Revise and Resubmit** this drawing.
20	**Comment on May Submittal** **Sheet C5.01** **General Comments:** Will this W & WW piping be installed as part of this project? If so, show or reference on some type of geographical map somewhere in these documents.

NO.	COMMENTS
	Call out any tree demolitions, etc. Add Water and WW Specs on this sheet as per attached. Please **submit** response & **Revise and Resubmit** this drawing.
21	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 1:** Same comments re: Water Fitting Schedule as per C5.00. Please **submit** response & **Revise and Resubmit** this drawing.
22	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 2:** Call out the street locations for both W & WW point of connections. Please **submit** response & **Revise and Resubmit** this drawing.
23	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 3:** Same comment re: WW Pipe Table as per C5.00. Identify type of PVC pipe; namely, SR 26 or SDR 35. Please **submit** response & **Revise and Resubmit** this drawing.
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 4:** What is the purpose of these laterals and cleanouts? Will they serve separate houses on separate lots? If so, COA DCM requirement is that laterals and cleanouts be at lot corners. How will this be accomplished? Also call out the lateral size.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing.
24	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 5:** Call-out that the WM will be directionally drilled under the creek. Please **submit** response & **Revise and Resubmit** this drawing.
25	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 6:** Should COA EOM be called out at WWMH-05? See related comments on C5.00. Please **submit** response & **Revise and Resubmit** this drawing.
26	**Comment on May Submittal** **Sheet C5.01** **Keyed Note 7:** Unless there is an adjacent existing gate valve, install a gate valve at the point of connection. At the point of connection, what is the size of the existing water main? **Keyed Note 8:** Call-out parameters for WWMH-04. **General Comment** Water main materials and size do not appear to be called out. Water main fittings do not appear to be called out. Is constructing the water main shown on this sheet part of the project? Please **submit** response & **Revise and Resubmit** this drawing.
27	**Comment on May Submittal** **Sheets C5.00 & C5.01**

NO.	COMMENTS
	General Comment: The reviewer noticed that piping profile sheets have NOT been prepared for the WW piping. Please confirm that this is design intent. Please **submit** response & **submit** any applicable drawings, if required.
28	**Comment on May Submittal** **Sheet C5.02** **Detail 312:** If this detail not needed, suggest deleting. **Detail 115**: This is an old detail. Contact COA for update. Please **submit** response & **Revise and Resubmit** this drawing.
29	**Comment on May Submittal** **Sheet C5.03** **Detail 200:** See markups, which allow for either 4- or 6-inch laterals, depending on the application. **Detail 307**: See markups. Please **submit** response & **Revise and Resubmit** this drawing.
30	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 1:** COA does not allow use of HDPE pipe. Instead use either Certa-Lok or Fused PVC. Please **submit** response & **Revise and Resubmit** this drawing.
31	**Comment on May Submittal** **Sheet C5.05** **Keyed Note 2:** Please provide gate valves at both ends of the directional drill. Valve locations shown on markup are approximate.

NO.	COMMENTS
	Please **submit** response & **Revise and Resubmit** this drawing.
32	**Comment on May Submittal** **Sheet LP-04** **Keyed Note 1:** Evaluate and confirm minimum horizontal separation between trees and water/WW infrastructure. Minimum horizontal separation requirements are: Live Oaks = 15 feet Other canopy trees = 10 feet Understory trees = 7.5 feet Note that location of some water and wastewater infrastructure is changing. Evaluate horizontal separation requirements against Water and Wastewater infrastructure shown on most current version of sheet C5.00. If necessary, discuss required horizontal separation with City. Please **submit** response & **Revise and Resubmit** this drawing.
33	**Comment on May Submittal** **General** Electrical design is being reviewed directly between electrical design engineer and COA electric staff. Comments include, but are not limited to: Relocate at least two transformers for improved truck access in the event transformer removal is required. **Revise and Resubmit** applicable electric sheets. FYI: This rating will be changed once COA electrical staff informs this reviewer that electric design has achieved Approved as Noted status or better.
34	**Comment on May Submittal** **Fire Flow Calculations** **Comments herein are FYI. Response by Engineer is optional.** The fire flow calcs predict fire flow of about 3900 gpm at 20 psig at the tested fire hydrants.

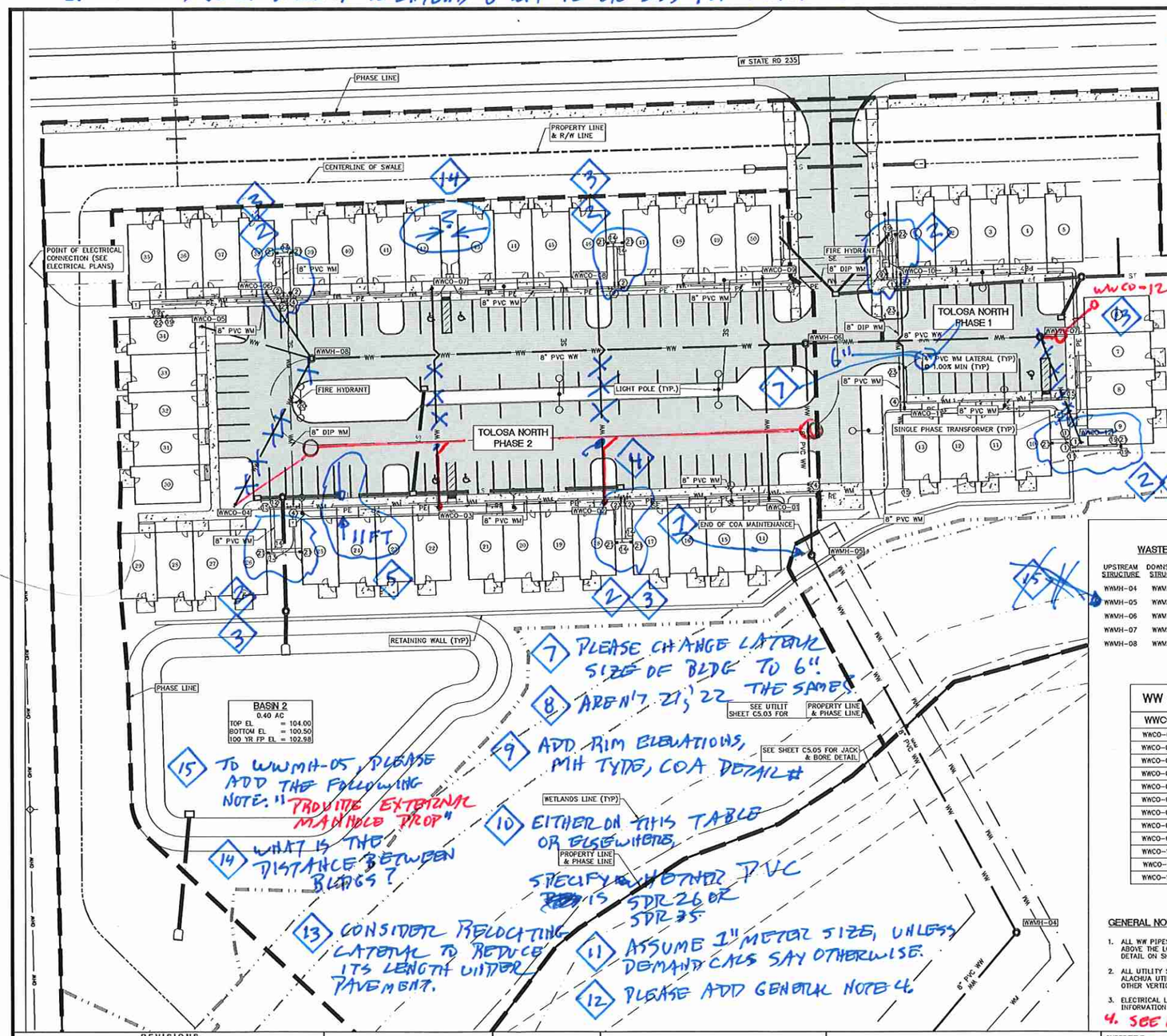
NO.	COMMENTS
	Please note that predicted fire flow by our water model is substantially lower by at least 50%, which is unusual. Two fire flows were estimated with the test and read fire hydrants being flip-flopped. The estimated fire flows are essentially the same. Although not all references mention this, the elevation differences of hydrants should be taken into account as they affect fire flow at each location. Elevation differences are significant; namely, FH @ NW 158th Ave & NW 135 Terrace: EL = 83 ft. FH @ NW 158th Ave & NW 133the Terrace = EL = 108 ft. The FH at EL 83 should deliver much more fire flow. In fact, our water model confrims this. Also, note that the estimated fire flow by a FH in the Tolosa North site will be much less than the tested FH due to: EL of the FH at the Tolosa North site is about 116 ft. Fire flow delivery to the Tolosa North site is branched, not looped. Branched systems produce more, sometimes much more, friction losses than looped systems. If it is assumed that the branched WM commences at NW 158th Ave and NW 135 Terrace, then the EL difference is (116 – 83) = 33 ft. uphill, or 14.2 psi.. The friction loss factor for Q = 1100 gpm in an 8-inch line is 2.15 ft / 100 ft. With a WM length estimated at 1300 ft, then the estimated friction loss is about 28 ft, or 12.1psi. Thus, at the Tolosa FH with no fire flow, the residual pressure may be about only 52 psig, much less than the 78 psig at the test FH.
35	**Comment on May Submittal** **Sheet TBD** Please add the following City details: 115 Water Meter 121 BFP 210 Grout SW Structures **Revise and Resubmit or submit** additional sheets.

GENERAL QC COMMENTS TO ENGINEER.

A. SHOW ALL REQUIRED DUES.

B. PROVIDE AND SHOW A BFP ~~TO EACH~~ IN WATER SUPPLY TO EACH ~~FDC~~ FIRE SPRINKLER SYSTEM.

C. IT WOULD BE OF BENEFIT TO EXTEND 8"WM TO SR-235 FOR FUTURE CONNECTION (INCREASED RELIABILITY, INCREASED FIRE FLOW). PLEASE DISCUSS WITH COA.



4 PLEASE ADD ANOTHER 8"WM TO REDUCE LATERAL LENGTH

5 DISTANCE BETWEEN PARKING LOT & BLDG IS ONLY 11 FT. PLEASE INCREASE TO 15 FT MIN TO ALLOW INSTALLATION & REPAIR OF VARIOUS UTILITIES.

7 PLEASE CHANGE LATERAL SIZE OF BLDG TO 6".

8 AREA'S 21, 22 THE SAME?

9 ADD RIM ELEVATIONS, MH TYPE, COA DETAIL #

10 EITHER ON THIS TABLE OR ELSEWHERE, SPECIFY ~~PVC~~ WHETHER PVC IS SDR 26 OR SDR 35

11 ASSUME 1" METER SIZE, UNLESS DEMAND CALS SAY OTHERWISE.

12 PLEASE ADD GENERAL NOTE 4.

13 CONSIDER RELOCATING LATERAL TO REDUCE ITS LENGTH UNDER PAVEMENT.

14 WHAT IS THE DISTANCE BETWEEN BLDGS?

15 TO WWMH-05, PLEASE ADD THE FOLLOWING NOTE: "PROVIDE EXTERNAL MANHOLE DROP"

15 PROVIDE AN EXTERNAL ~~DROP~~ CONNECTION

WATER FITTING SCHEDULE

1. 1 – 8" x 2" SADDLE; 1 – 2" GATE VALVE & BOX
2. 1 – 8" x 2" SADDLE; 1 – 2" GATE VALVE & BOX; 1 – 8" GATE VALVE & BOX
3. 1 – 8" x 2" SADDLE; 1 – 2" GATE VALVE & BOX; 2 – 8" GATE VALVE & BOX
4. 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT; 3 – 8" GATE VALVE & BOX
5. 1 – 8" x 2" SADDLE; 1 – 8" GATE VALVE & BOX
6. 1 – 2" x 2" CLDI ANCHOR TEE W/ MECH. RESTRAINT; 2 – 2" GATE VALVE & BOX
7. 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT; 2 – 8" GATE VALVE & BOX
8. 1 – 8" x 8" CLDI ANCHOR CROSS W/ MECH. RESTRAINT; 3 – 8" GATE VALVE & BOX
9. 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT; 1 – 8" GATE VALVE & BOX; 1 – 6" GATE VALVE & BOX; 1 – FIRE HYDRANT ASSEMBLY
10. 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT; 1 – 8" GATE VALVE & BOX; 1 – 2" GATE VALVE & BOX; 1 – 8" x 2" REDUCER
11. 1 – 8" CLDI 90° RESTRAINED BEND; 1 – 8" x 2" REDUCER; 1 – 2" GATE VALVE & BOX
12. 1 – 8" x 2" CLDI ANCHOR TEE W/ MECH. RESTRAINT
13. 1 – 2" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
14. 1 – 2" x 2" CLDI ANCHOR TEE W/ MECH. RESTRAINT
15. 8" CLDI 90° RESTRAINED BEND
16. 8" CLDI 45° RESTRAINED BEND
17. 8" CLDI 22.5° RESTRAINED BEND
18. 8" CLDI 11.25° RESTRAINED BEND
19. 2" CLDI 90° RESTRAINED BEND
20. 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT; 1 – 6" GATE VALVE & BOX; 1 – FIRE HYDRANT ASSEMBLY
21. 4 – 3/4" SINGLE WATER METER SERVICE CONNECTION (PER CITY OF ALACHUA DETAIL)
22. 5 – 3/4" SINGLE WATER METER SERVICE CONNECTION (PER CITY OF ALACHUA DETAIL)
23. 1 – 8" CLDI (PVC TO DIP) TRANSITION COUPLING

6 2" CLDI NOT AVAILABLE. PLEASE RESOLVE.

11 1"

6 6 6

8

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWMH-04	WWMH-03	8" PVC	245'	0.40%
WWMH-05	WWMH-04	8" PVC	238'	1.68%
WWMH-06	WWMH-05	8" PVC	118'	1.46%
WWMH-07	WWMH-06	8" PVC	131'	2.15%
WWMH-08	WWMH-06	8" PVC	275'	0.40%

10

WW CLEANOUT TABLE

WWCO	TOP EL	INV EL
WWCO-01	114.27	108.32
WWCO-02	112.97	108.82
WWCO-03	111.38	107.64
WWCO-04	110.13	106.14
WWCO-05	112.11	105.86
WWCO-06	112.39	105.66
WWCO-07	113.57	108.56
WWCO-08	114.94	108.34
WWCO-09	116.37	107.84
WWCO-10	116.44	108.64
WWCO-11	116.01	108.64
WWCO-12	113.57	109.33

WASTEWATER STRUCTURE SCHEDULE

WWMH-04
NW INV EL = 90.00 (8" PVC)
SW INV EL = 89.90 (8" PVC)

WWMH-05
SE INV EL = 94.00 (8" PVC)
N INV EL = 102.18 (8" PVC)

WWMH-06
S INV EL = 103.90 (8" PVC)
W INV EL = 104.02 (8" PVC)
E INV EL = 105.80 (8" PVC)

WWMH-07
W INV EL = 108.60 (8" PVC)
S INV EL = 108.70 (6" PVC)

WWMH-08
E INV EL = 105.12 (8" PVC)
NW INV EL = 105.22 (6" PVC)
W INV EL = 105.22 (6" PVC)
SW INV EL = 105.22 (6" PVC)

9

1 IS DESIGN INTENT TO CALL-OUT ~~EOM~~ COA EOM HERE? NORMALLY, IT'S AT EACH WWCO. ALSO, SHOW COA EOM FOR WATER SYSTEM. (AT METER)

2 SUGGEST ADDING EXPANDED ~~EXPLODED~~ VIEWS. ~~COULD NOT~~ DIFFICUT TO REVIEW AND FOR CONTRACTOR TO BUILD.

3 PLEASE REVIEW PIPING. ~~CONSIDER 1.5" COMMON~~ SUPPLY PIPE, ~~BUT THERE~~ SEE SUB COMMENTS, ~~MUST BE~~ ENOUGH SPACE FOR COA MAINTENANCE

GENERAL NOTES:

1. ALL WW PIPES THAT ENTER A WW MANHOLE WITH AN INVERT GREATER THAN 2 FT ABOVE THE LOWEST WW PIPE INVERT SHALL PROVIDE A DROP CONNECTION PER DETAIL ON SHEET C5.02.
2. ALL UTILITY STRUCTURES (VALVES, METERS, ETC.) SHALL BE INSTALLED PER CITY OF ALACHUA UTILITY STANDARDS AND SHALL BE LOCATED TO AVOID CURBING AND ANY OTHER VERTICAL OBSTRUCTIONS.
3. ELECTRICAL LINEWORK SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL SHEETS FOR INFORMATION ON ELECTRICAL COMPONENTS.

4. SEE C 5.01 FOR WATER AND WASTEWATER SPECIFICATIONS

N

30 15 0 30 60 90
SCALE 1" = 30'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 99925

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12 SHEET TITLE: MASTER UTILITY PLAN

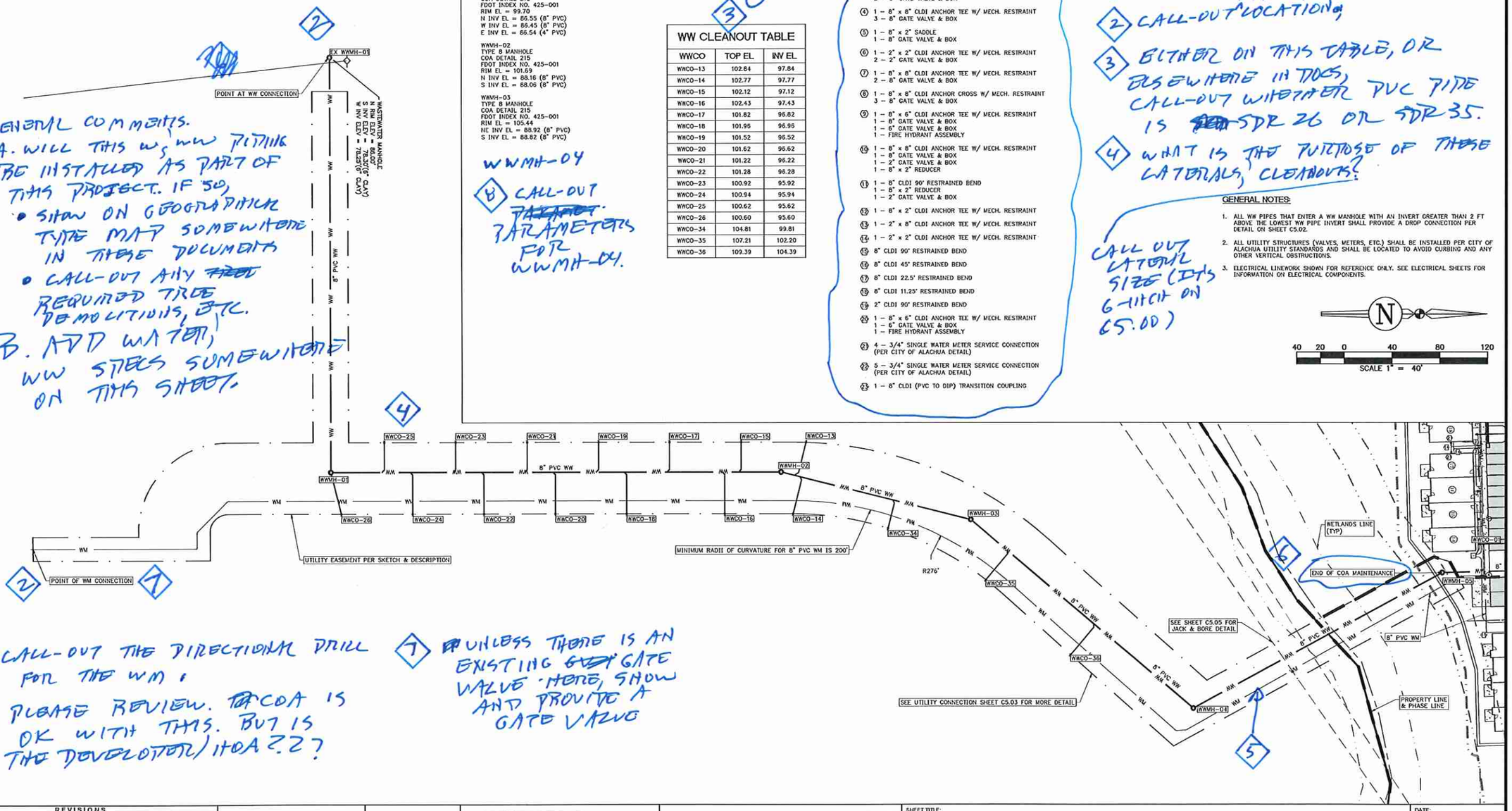
DATE: MAY 2025

PROJECT NO. 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY, GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO. C5.00



WASTEWATER STRUCTURE SCHEDULE

EX WWMH-01
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 93.52
E INV EL = 78.40 (8" PVC)

WWMH-01
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 99.70
N INV EL = 86.55 (8" PVC)
W INV EL = 86.45 (8" PVC)
E INV EL = 86.54 (4" PVC)

WWMH-02
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 101.89
N INV EL = 88.16 (8" PVC)
S INV EL = 88.06 (8" PVC)

WWMH-03
TYPE S MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.44
NE INV EL = 88.92 (8" PVC)
S INV EL = 88.82 (8" PVC)

WWMH-04

8 CALL-OUT ~~PARAMETERS~~ RIM & INV PARAMETERS FOR WWMH-04.

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWMH-01	EX WWMH-01	8" PVC	349'	2.31%
WWMH-02	WWMH-01	8" PVC	379'	0.40%
WWMH-03	WWMH-02	8" PVC	185'	0.40%
WWMH-04	WWMH-03	8" PVC	245'	0.40%

3

WW CLEANOUT TABLE

WWCO	TOP EL	INV EL
WWCO-13	102.84	97.84
WWCO-14	102.77	97.77
WWCO-15	102.12	97.12
WWCO-16	102.43	97.43
WWCO-17	101.82	96.82
WWCO-18	101.96	96.96
WWCO-19	101.52	96.52
WWCO-20	101.62	96.62
WWCO-21	101.22	96.22
WWCO-22	101.28	96.28
WWCO-23	100.92	95.92
WWCO-24	100.94	95.94
WWCO-25	100.62	95.62
WWCO-26	100.60	95.60
WWCO-34	104.81	99.81
WWCO-35	107.21	102.20
WWCO-36	109.39	104.39

WATER FITTING SCHEDULE

① 1 – 8" x 2" SADDLE
1 – 2" GATE VALVE & BOX

② 1 – 8" x 2" SADDLE
1 – 2" GATE VALVE & BOX
1 – 8" GATE VALVE & BOX

③ 1 – 8" x 2" SADDLE
1 – 2" GATE VALVE & BOX
2 – 8" GATE VALVE & BOX

④ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX

⑤ 1 – 8" x 2" SADDLE
1 – 8" GATE VALVE & BOX

⑥ 1 – 2" x 2" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 2" GATE VALVE & BOX

⑦ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 8" GATE VALVE & BOX

⑧ 1 – 8" x 8" CLDI ANCHOR CROSS W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX

⑨ 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 8" GATE VALVE & BOX
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT ASSEMBLY

⑩ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 8" GATE VALVE & BOX
1 – 2" GATE VALVE & BOX
1 – 8" x 2" REDUCER

⑪ 1 – 8" CLDI 90° RESTRAINED BEND
1 – 8" x 2" REDUCER
1 – 2" GATE VALVE & BOX

⑫ 1 – 8" x 2" CLDI ANCHOR TEE W/ MECH. RESTRAINT

⑬ 1 – 2" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT

⑭ 1 – 2" x 2" CLDI ANCHOR TEE W/ MECH. RESTRAINT

⑮ 8" CLDI 90° RESTRAINED BEND

⑯ 8" CLDI 45° RESTRAINED BEND

⑰ 8" CLDI 22.5° RESTRAINED BEND

⑱ 8" CLDI 11.25° RESTRAINED BEND

⑲ 2" CLDI 90° RESTRAINED BEND

⑳ 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT ASSEMBLY

㉑ 4 – 3/4" SINGLE WATER METER SERVICE CONNECTION (PER CITY OF ALACHUA DETAIL)

㉒ 5 – 3/4" SINGLE WATER METER SERVICE CONNECTION (PER CITY OF ALACHUA DETAIL)

㉓ 1 – 8" CLDI (PVC TO DIP) TRANSITION COUPLING

1 ~~SAME COMMENTS AS SHEET C5.01~~

1 SAME COMMENTS AS C5.00. STREET LOCATIONS

2 CALL-OUT LOCATIONS

3 EITHER ON THIS TABLE, OR ELSEWHERE IN DOCS, CALL-OUT WHETHER PVC PIPE IS ~~PER~~ SDR 26 OR SDR 35.

4 WHAT IS THE PURPOSE OF THESE LATERALS, CLEANOUTS?

CALL OUT LATERAL SIZE (ID's 6-11 ON C5.00)

GENERAL NOTES:

1. ALL WW PIPES THAT ENTER A WW MANHOLE WITH AN INVERT GREATER THAN 2 FT ABOVE THE LOWEST WW PIPE INVERT SHALL PROVIDE A DROP CONNECTION PER DETAIL ON SHEET C5.02.
2. ALL UTILITY STRUCTURES (VALVES, METERS, ETC.) SHALL BE INSTALLED PER CITY OF ALACHUA UTILITY STANDARDS AND SHALL BE LOCATED TO AVOID CURBING AND ANY OTHER VERTICAL OBSTRUCTIONS.
3. ELECTRICAL LINEWORK SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL SHEETS FOR INFORMATION ON ELECTRICAL COMPONENTS.

N

40 20 0 40 80 120
SCALE 1" = 40'

GENERAL COMMENTS.
A. WILL THIS W, WW PIPING BE INSTALLED AS PART OF THIS PROJECT. IF SO,
- SHOW ON GEOGRAPHIC TYPE MAP SOMEWHERE IN THESE DOCUMENTS
- CALL-OUT ANY ~~TREE~~ REQUIRED TREE DEMOLITIONS, ETC.

B. ADD WATER, WW SIZES SOMEWHERE ON THIS SHEET.

5 CALL-OUT THE DIRECTIONAL DRILL FOR THE WM.

6 PLEASE REVIEW. IF COA IS OK WITH THIS. BUT IS THE DEVELOPER/HOA ??

7 UNLESS THERE IS AN EXISTING GATE VALVE NEAR, SHOW AND PROVIDE A GATE VALVE

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 94925

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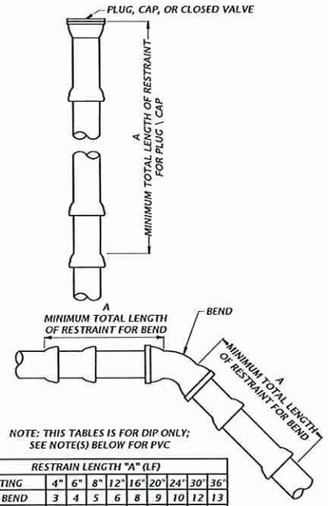
SHEET TITLE: UTILITY CONNECTION PLAN

DATE: MAY 2025
PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

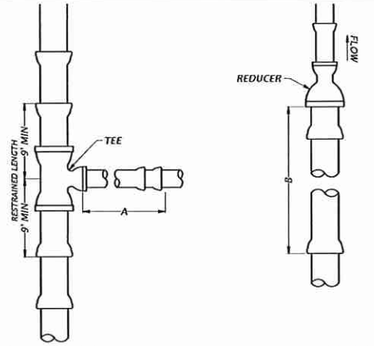
SHEET NO: C5.01



NOTE: THIS TABLES IS FOR DIP ONLY; SEE NOTE(S) BELOW FOR PVC

RESTRAIN LENGTH "A" (LF)									
FITTING	4"	6"	8"	12"	16"	20"	24"	30"	36"
11¼° BEND	3	4	5	6	8	9	10	12	13
22½° BEND	5	7	9	12	15	17	20	23	26
45°/OFFSET	10	14	18	24	30	35	40	47	53
90° BEND	24	33	42	58	72	85	97	112	126
DEAD END	42	58	75	104	131	157	181	213	243

A=MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED.



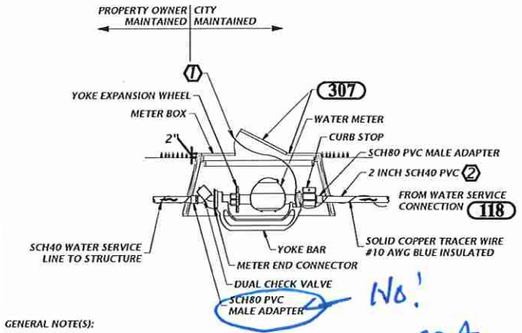
GENERAL NOTE(S):

1. THIS TABLE IS BASED ON THE RESTRAINT CALCULATION SOFTWARE PROVIDED FREE OF CHARGE BY EBAA IRON INC. AT http://www.ebaa.com/engineering.htm AND THE FOLLOWING INPUT VARIABLES:
   A. MAXIMUM TEST PRESSURE OF 150 PSI
   B. LAYING CONDITION TYPE 3
   C. POOR SOIL CONDITIONS (SOIL TYPE ML)
   D. USING DIP
   E. 2 FEET OF COVER
   F. HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
   G. SAFETY FACTOR = 1.5 TO 1
2. FOR POLYWRAPPED DIP, MULTIPLY THE FOOTAGE BY 1.50
3. FOR PVC PIPE, MULTIPLY FOOTAGE BY 1.34
4. RESTRAINED PIPE SHALL BE MANUFACTURED RESTRAINED PIPE, PUSH-ON RESTRAINTS OR MECHANICAL JOINT PIPE RESTRAINED BY EBAA MEGALUG.
5. ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

FITTING SIZE	RESTRAIN (LF) TEE "A"	REDUCER "B"
4x4	21	"
6x4	10	30
6x6	37	"
8x4	A.T.	54
8x6	28	32
8x8	54	"
12x4	A.T.	90
12x6	11	76
12x8	37	55
12x12	82	"
16x6	A.T.	111
16x8	21	96
16x12	66	56
16x16	109	"
20x6	A.T.	141
20x8	8	130
20x12	51	99
20x16	93	55
20x20	134	"
24x6	A.T.	168
24x8	A.T.	159
24x12	37	134
24x16	77	99
24x20	117	54
24x24	157	"
30x6	A.T.	203
30x8	A.T.	196
30x12	20	177
30x16	57	150
30x20	94	116
30x24	132	75
30x30	189	"
36x6	A.T.	235
36x8	A.T.	229
36x12	7	214
36x16	40	193
36x20	74	166
36x24	109	133
36x30	162	74
36x36	218	"

A.T.=RESTRAINT REQUIRED AT TEE ONLY.
*-NOT APPLICABLE

309 JOINT RESTRAINT
NTS



GENERAL NOTE(S):

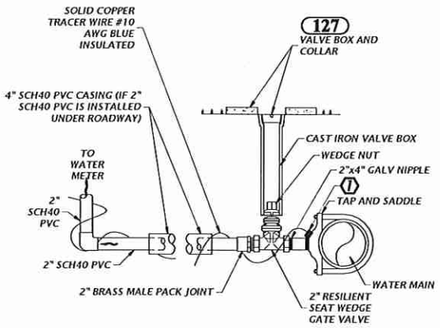
1. CONNECT TRACER WIRES WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.

KEYED NOTE(S):

1. PROVIDE ENOUGH TRACER WIRE SO IT CAN EXTEND AT LEAST 8-INCHES ABOVE METER BOX.
2. PROVIDE 2x1 (or 3/4) INCH REDUCING BUSHING SCH 80 PVC SPIGOT X SOCKET TO CONNECT TO CURB STOP.

No! CONTACT COA FOR UPDATE OF THIS DETAIL.

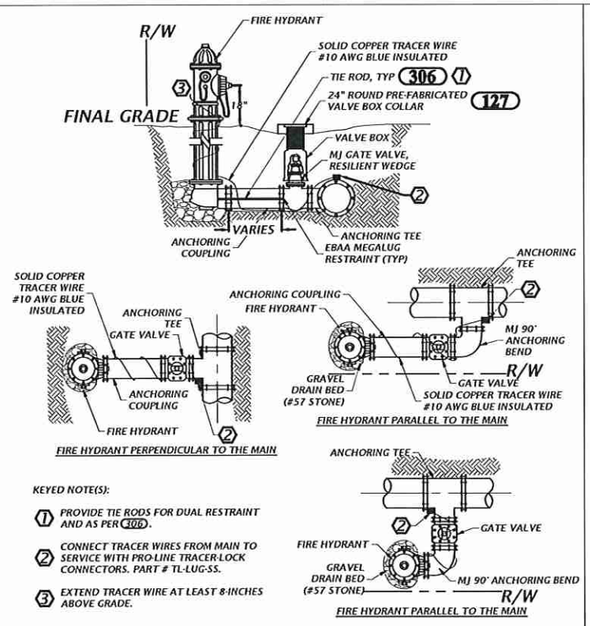
115 3/4" AND 1" WATER METER ASSEMBLY
NTS



KEYED NOTE(S):

1. CONNECT TRACER WIRES FROM MAIN TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.

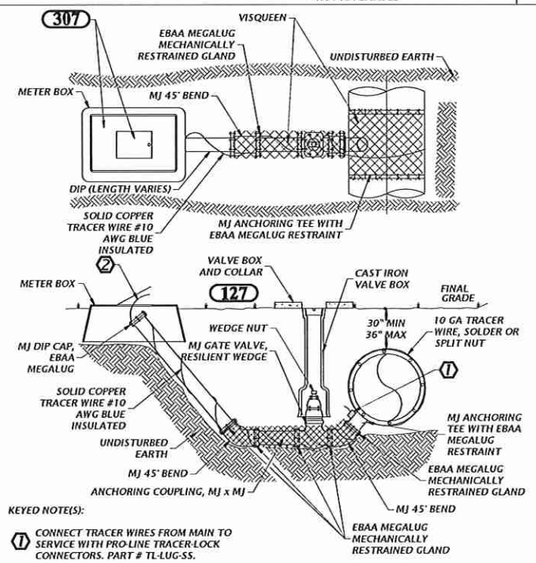
118 2" WATER SERVICE CONNECTION
NTS



KEYED NOTE(S):

1. PROVIDE TIE RODS FOR DUAL RESTRAINT AND AS PER 306.
2. CONNECT TRACER WIRES FROM MAIN TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.
3. EXTEND TRACER WIRE AT LEAST 8-INCHES ABOVE GRADE.

103 FIRE HYDRANT (PERPENDICULAR TO MAIN)
NTS



KEYED NOTE(S):

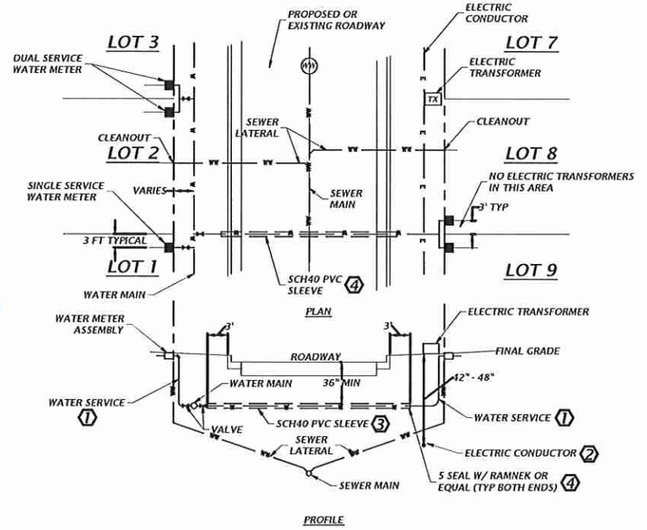
1. CONNECT TRACER WIRES FROM MAIN TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.
2. PROVIDE ENOUGH TRACER WIRE SO IT CAN EXTEND AT LEAST 8-INCHES ABOVE METER BOX.

106 2" AND 3" BLOW OFF ASSEMBLY
NTS

KEYED NOTE(S):

1. WATER METER SERVICE SHALL BE 2" PVC, OATEY PRIMER AND SOLVENT WELD JOINTS AND BE LOCATED TO AVOID CONFLICT WITH LOCATIONS OF ELECTRIC TRANSFORMERS AND FIRE HYDRANTS.
2. ELECTRIC CONDUCTORS MAY BE ON EITHER SIDE OF THE ROADWAY. WATERMAIN SHOULD BE ON THE OPPOSITE SIDE OF TRANSFORMERS.
3. PVC SLEEVE TO BE 4" BLUE SCHEDULE 40 PVC SOLVENT WELD.
4. SEAL BOTH ENDS OF 4" SLEEVE WITH RAMNEK OR EQUAL.

PLEASE REVIEW. IF THIS DETAIL NOT NEEDED, SUGGEST DELETING IT



312 SUBDIVISION SERVICE CONNECTIONS & 2-INCH OR LESS WATER SERVICE UNDER ROADWAY
NTS

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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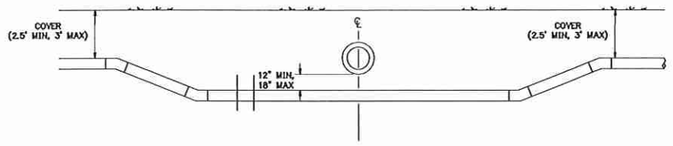
Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: UTILITY DETAILS AND NOTES

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: MAY 2025
PROJECT NO. 0167-25-01
SHEET NO. C5.02



TYPICAL WATERMAIN CROSSING SECTION DETAIL

ABBREVIATIONS

APP	APPROXIMATE	MJ	MECHANICAL JOINT
ARV	AIR RELEASE VALVE	NTS	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	OD	OUTSIDE DIAMETER
DI	DUCTILE IRON	OS&Y	OUTSIDE SCREW AND YOKE
DIP	DUCTILE IRON PIPE	PUE	PUBLIC UTILITY EASEMENT
E	ELECTRIC CONDUCTOR	PVC	POLYVINYL CHLORIDE
FLG	FLANGED	R/W	RIGHT OF WAY
FT	FOOT	RPZ	REDUCED PRESSURE ZONE
FM	FORCE MAIN	SCH	SCHEDULE
GA	GAUGE	SF	SQUARE FEET
GALV	GALVANIZED	SIM	SIMILAR
GRN	GREEN	SS	STAINLESS STEEL
GSP	GALVANIZED STEEL PIPE	TYP	TYPICAL
GV	GATE VALVE	URD	UNDERGROUND RESIDENTIAL DISTRIBUTION
ID	INSIDE DIAMETER		
LF	LINEAR FEET		
MAX	MAXIMUM	YEL	YELLOW
MIN	MINIMUM	WM	WATER MAIN
		WW	WASTEWATER

(151) DETAIL ABBREVIATIONS
NTS

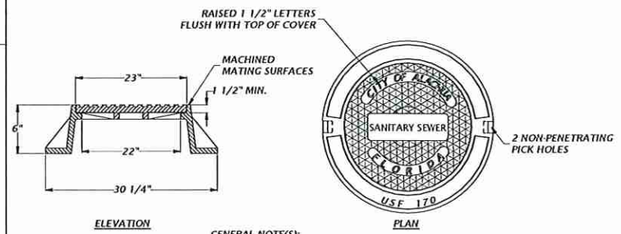
PAINT SYSTEM NO. 5
SURFACE PREPARATION -PRESSSURE WASH SURFACE TO BE PAINTED
OPTIMAL APPLICATION CONDITIONS
- *AMBIENT TEMPERATURE BETWEEN 55 AND 75 DEGREES F.*
- *HUMIDITY BELOW 60 PERCENT*
- *IF OUTSIDE THESE LIMITS, REQUEST PERMISSION TO APPLY PAINT FROM COA INSPECTOR OR SERVICES DURING CONSTRUCTION ENGINEER*

APPLY (SPRAY) FIRST COAT
APPLY (SPRAY) SECOND COAT EITHER WITHIN TWO HOURS OR MORE THAN 48 HOURS AFTER APPLYING FIRST COAT.
PRODUCT
- *KRYLON [illegible] PAINT*
- *FUSION ALL-IN-ONE*
- *PAINT PLUS PRIMER*

SPRAY

COLORS
- *POTABLE WATER - GLOSS PATRIOTIC BLUE*
- *WASTEWATER - GLOSSY SPRING GRASS*
- *RECLAIMED - GLOSSY ICY GRAPE*

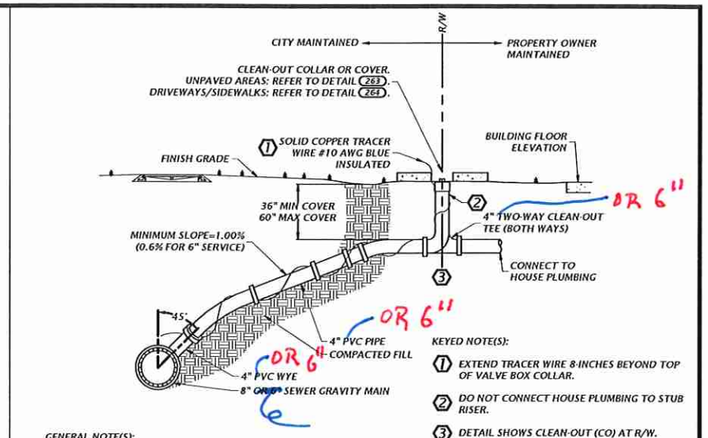
(307) PAINT SYSTEM NO. 5
NTS



ELEVATION *PLAN*

GENERAL NOTE(S):
1. *USF 170 RING AND CE COVER*
2. *LOAD CLASSIFICATION: HEAVY DUTY*
3. *MATERIAL: GRAY CAST IRON, ASTM A48 CLASS 35B*
4. *PAINT TOP AS PER (307)*

(212) STANDARD SEWER MANHOLE FRAME AND COVER
NTS

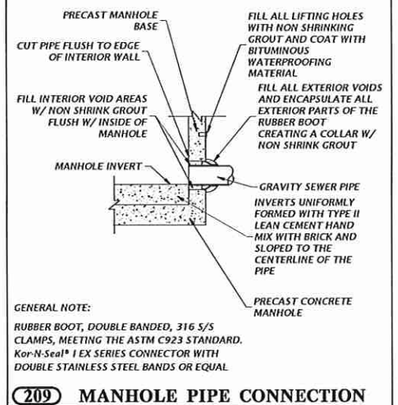


GENERAL NOTE(S):
A. SOLVENT WELD ALL PVC FITTINGS.
B. DURING DESIGN AND CONSTRUCTION, REVIEW LATERAL LOCATION RELATIVE TO PROPOSED DRIVEWAY. STRONG CITY OF ALACHUA PREFERENCE IS FOR CLEAN-OUT NOT TO BE INSTALLED IN DRIVEWAY. SEE CITY OF ALACHUA DESIGN AND CONSTRUCTION MANUAL.

KEYED NOTE(S):
1. *EXTEND TRACER WIRE 8-INCHES BEYOND TOP OF VALVE BOX COLLAR.*
2. *DO NOT CONNECT HOUSE PLUMBING TO STUB RISER.*
3. *DETAIL SHOWS CLEAN-OUT (CO) AT R/W. INSTALLING CITY MAINTAINED CO BETWEEN R/W AND MIDDLE OF PUE IS PERMITTED. CITY OF ALACHUA MUST APPROVE LOCATION IF CO IS INSTALLED BETWEEN MIDDLE OF PUE AND PUE TERMINUS.*

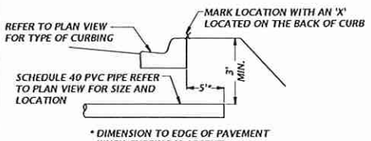
C. LATERAL SIZE DEPENDS ON APPLICATION.

(200) WASTEWATER SERVICE LATERAL
NTS



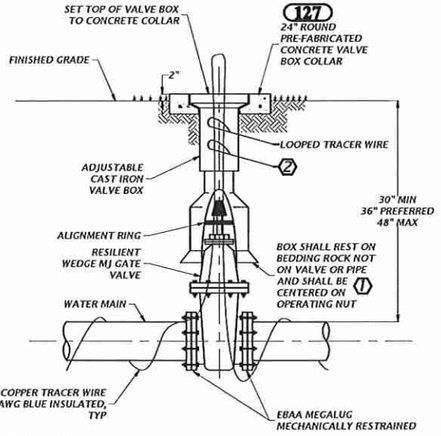
GENERAL NOTE:
RUBBER BOOT, DOUBLE BANDED, 316 S/S CLAMPS, MEETING THE ASTM C923 STANDARD. Kor-N-Seal® I EX SERIES CONNECTOR WITH DOUBLE STAINLESS STEEL BANDS OR EQUAL

(209) MANHOLE PIPE CONNECTION
NTS



* DIMENSION TO EDGE OF PAVEMENT WHEN CURBING IS ABSENT

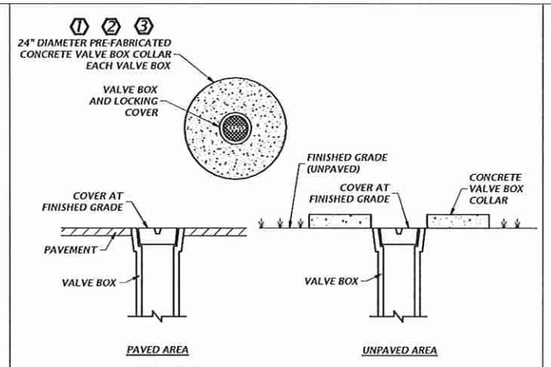
(421) SLEEVE CROSSING
NTS



GENERAL NOTE(S):
1. *PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.*
2. *VALVE BOX LID TO BE LETTERED WITH THE WORD "WATER" OR "RECLAIMED".*

KEYED NOTE(S):
1. *WHEN VALVE BOX IS TO BE INSTALLED IN ROADWAY OR OTHER TRAFFIC AREAS SET VALVE BOX ON FIVE (5) SOLID COMMON BRICKS.*
2. *VALVE BOX MAY SERVE AS ACCESS POINT FOR TRACER WIRES. PROVIDE ENOUGH LOOPED TRACER WIRE SO IT CAN EXTEND 8-INCHES ABOVE GRADE.*

(145) GATE VALVE FOR WATER AND RECLAIMED WATER MAINS 4" OR LARGER
NTS

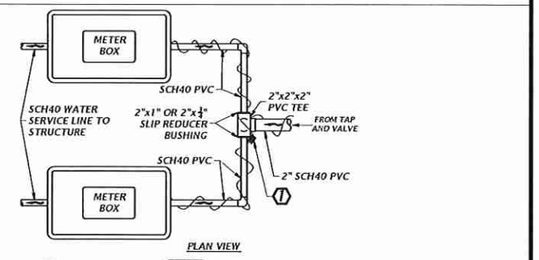


PAVED AREA *UNPAVED AREA*

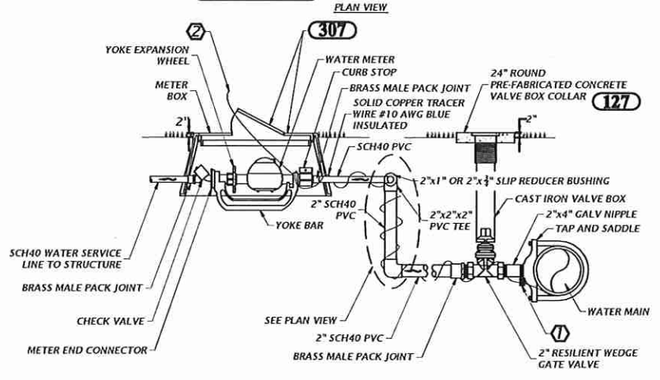
KEYED NOTE(S):
1. *VALVE BOX COLLAR FEATURES:*
   - *24" DIAMETER, 11" INNER OPENING*
   - *4" THICK*
   - *TWO RINGS OF #3 REBAR*
   - *4000 PSI TEST CONCRETE*
2. *SUPPLIER AND PRODUCT:*
   - *MASONRY SUPPLY, INC., SELMA, NC OR EQUAL*
   - *ITEM: 24" CONCRETE VALVE BOX COLLAR OR EQUAL*
   - *PART: MSVB-24 OR EQUAL*
3. *PAINT VALVE BOX COVER AND COLLAR AS PER (307)*

(127) VALVE BOX COLLAR
NTS

KEYED NOTE(S):
1. *CONNECT TRACER WIRES FROM SERVICE TO MAIN AND FROM SERVICE TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.*
2. *PROVIDE ENOUGH TRACER WIRE SO IT CAN EXTEND AT LEAST 8-INCHES ABOVE METER BOX.*



PLAN VIEW



(130) DUAL WATER SERVICE CONNECTION
NTS

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 99925

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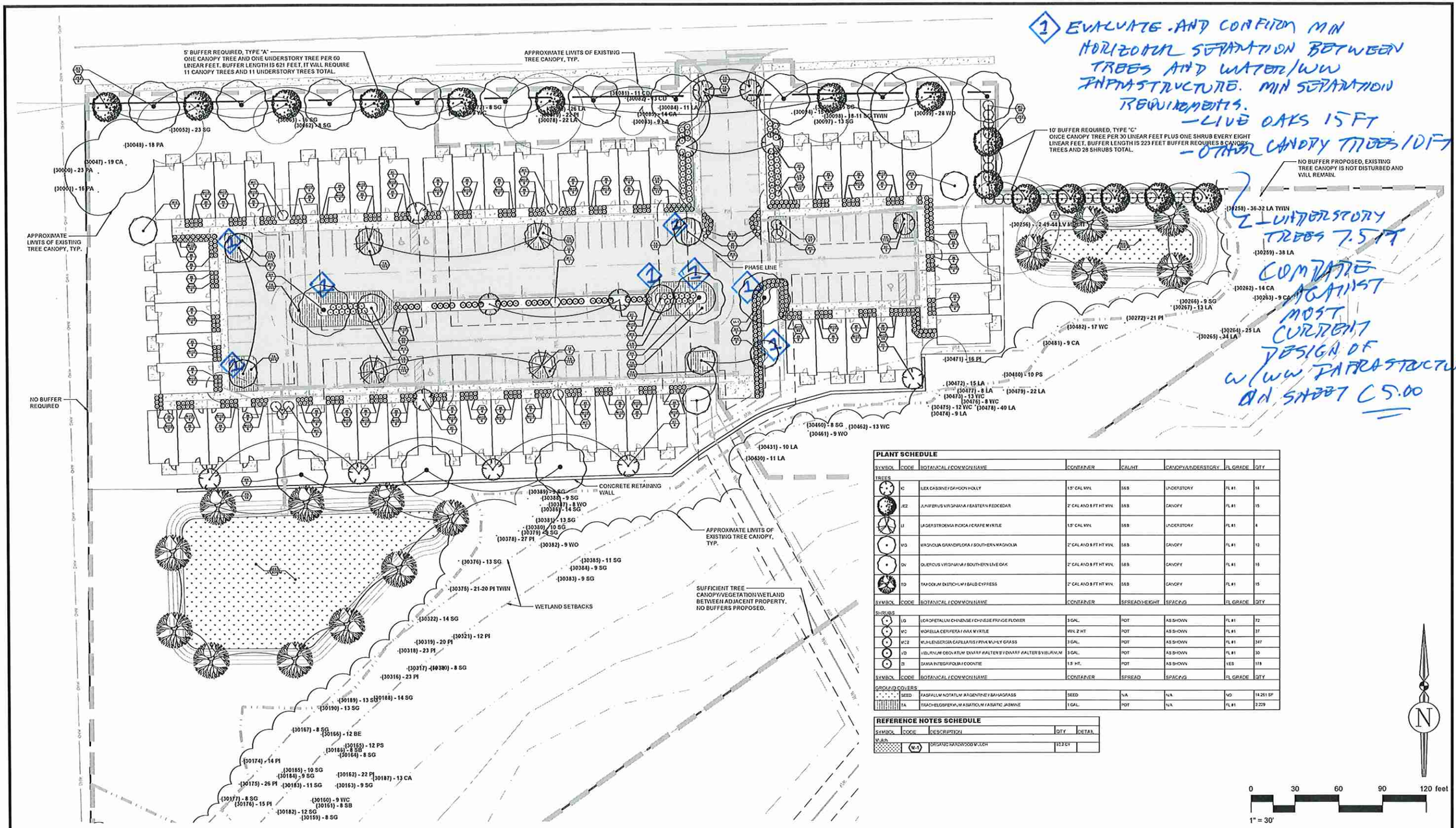
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: UTILITY DETAILS AND NOTES

CLIENT: ALACHUA HABITAT FOR HUMANITY, GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: MAY 2025
PROJECT NO.: 0167-25-01
SHEET NO.: C5.03



1 EVALUATE AND CONFIRM MIN HORIZONTAL SEPARATION BETWEEN TREES AND WATER/WW INFRASTRUCTURE. MIN SEPARATION REQUIREMENTS.
- LIVE OAKS 15 FT
- OTHER CANOPY TREES 10 FT

2 1 UNDERSTORY TREES 7.5 FT COMPARE AGAINST MOST CURRENT DESIGN OF W/WW INFRASTRUCTURE ON SHEET C5.00

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	CAL/HT	CANOPY/UNDERSTORY	FL GRADE	QTY
TREES							
	IC	ILEX CASSINE / DAHOON HOLLY	1.5" CAL MIN.	SAB	UNDERSTORY	FL #1	14
	JR2	JUNIPERUS VIRGINIANA / EASTERN REDCEDAR	2" CAL AND 8 FT HT MIN.	SAB	CANOPY	FL #1	15
	LI	LAGERSTROEMIA INDICA / CRAPE MYRTLE	1.5" CAL MIN.	SAB	UNDERSTORY	FL #1	6
	MG	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA	2" CAL AND 8 FT HT MIN.	SAB	CANOPY	FL #1	13
	QV	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	2" CAL AND 8 FT HT MIN.	SAB	CANOPY	FL #1	18
	TD	TAXODIUM DISTICHUM / BALD CYPRESS	2" CAL AND 8 FT HT MIN.	SAB	CANOPY	FL #1	15
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD/HEIGHT	SPACING	FL GRADE	QTY
SHRUBS							
	LC	LORAPETALUM CHINENSE / CHINESE FRINGE FLOWER	3 GAL.	POT	AS SHOWN	FL #1	72
	MC	MORELLA CERIFERA / WAX MYRTLE	MIN. 2 HT	POT	AS SHOWN	FL #1	37
	MC2	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	3 GAL.	POT	AS SHOWN	FL #1	247
	VD	VIBURNUM OBOVATUM 'DWARF WALTER' / DWARF WALTER'S VIBURNUM	3 GAL.	POT	AS SHOWN	FL #1	30
	ZI	ZAMIA INTEGRIFOLIA / COONTIE	1.5 HT.	POT	AS SHOWN	LES	178
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	FL GRADE	QTY
GROUND COVERS							
	SEED	PASPALUM NOTATUM 'ARGENTINE' / BAHIAGRASS	SEED	N/A	N/A	NO	14,251 SF
	TA	TRACHELOSPERMUM ASIATICUM / ASIATIC JASMINE	1 GAL.	POT	N/A	FL #1	2,229

REFERENCE NOTES SCHEDULE

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL
MULCH				
	M-1	DESIGNS HARDWOOD MULCH	153 CY	

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

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SHEET TITLE: LANDSCAPE PLAN

DATE: APRIL 2025
PROJECT NO: 167-24-01
SHEET NO: LP-04

CLIENT: HABITAT FOR HUMANITY GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH ALACHUA HABITAT

From: Silver Ware
To: Carson J. Crockett
Subject: RE: Request for Review - PSP25-0006 | Tolosa North Site Plan Application
Date: Monday, July 21, 2025 4:12:35 PM
Attachments: image001.png
acfrat100px_8e96f141-4af5-4d84-985f-b158b6011d19.png
250x80-solid_5fc5c36a-9223-461e-ab0d-410fc61c95b9.png
picture3_b83a3c75-d14f-41fe-8ec8-7a9caa87172b.png
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county_news_62f65719-1553-4875-a002-735233338cec.png

Good afternoon

ACFR has no comment at this time.

Thank you

Chip

Silver Ware
Fire Prevention Officer
Fire Rescue
911 SE 5th ST • Gainesville • FL • 32601
352-384-3121 (office) • 352-494-3140 (mobile) • 352-384-3157 (fax)

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From: Carson J. Crockett <ca_crockett@cityofalachua.org>
Sent: Thursday, July 17, 2025 3:09 PM
To: Rodolfo Valladares <ro_valladares@cityofalachua.org>; Jeanene Carrillo <ma_carrillo@cityofalachua.org>; Bryan Thomas <br_thomas@cityofalachua.org>; Bernadette Fisher <be_fisher@cityofalachua.org>; Brenda Flieger <br_flieger@cityofalachua.org>; Michael Carrillo <mi_carrillo@cityofalachua.org>; Ashley Spencer <as_spencer@cityofalachua.org>; Thomas Ridgik <th_ridgik@cityofalachua.org>; Eiman Abbas <ei_abbas@cityofalachua.org>; Mark Avery <ma_avery@cityofalachua.org>; Josiah A. Serravalle <jo_serravalle@cityofalachua.org>; Grafton Wilson <gr_wilson@cityofalachua.org>; Anne-Marie DiRocco <an_dirocco@cityofalachua.org>; Brent Lanier <br_lanier@cityofalachua.org>; John Adler <jadler@alachuacounty.us>; Silver Ware

City of ALACHUA
the good life community

RODOLFO VALLADARES
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR BRYAN S. THOMAS, AICP

July 17, 2025

Submitted electronically to Jack.Charnas@jbpro.com

Jack Charnas, P.E.
JBrown Professional Group, Inc.
3530 NW 43rd Street
Gainesville, Florida 32606

Application #: PSP25-0006

RE: Completeness Review for Tolosa North Site Plan application

Dear Jack Charnas,

On May 27, 2025, the Planning & Community Development Department received your site plan application for the Tolosa North Site Plan project, which proposes the construction of 50 single-family attached residential units with associated infrastructure improvements on a 7.25-acre subject property (tax parcel 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000).

According to Section 2.6.6 of the City's Land Development Regulations (LDRs), upon receipt of an application, a completeness review shall be conducted to determine that the application contains all the necessary information and materials, is in proper form and of sufficient detail, and is accompanied by the appropriate fee. The Planning & Community Development Department has reviewed the aforementioned application for completeness and finds that **the application is now complete, subject to the following:**

Submit the Following Documents:

1. Proof of mailing of neighborhood meeting notices. Proof of publication was included; however, no letter or proof of mailing was included.
2. Proof of application or approved FDOT access permit.

Submit the above documents no later than Thursday, July 24, 2025.

A full review of the application will now be undertaken by the City, with the findings transmitted to you and a Project Assistance Team (PAT) meeting scheduled under separate cover.

If you have any questions regarding the information above, please contact me at (386) 418-6137 or at ccrockett@cityofalachua.org.

Sincerely,

Carson J. Crockett, AICP
Planner

CC: Bryan Thomas, AICP, Planning & Community Development Director *(by electronic mail)*
Bernadette Fisher, Principal Planner *(by electronic mail)*
Brenda Flieger, Planning Assistant *(by electronic mail)*

City of ALACHUA
THE GOOD LIFE COMMUNITY

FOR OFFICE USE ONLY
Case #: _____
Application Fee: $_____
Filing Date: _____
Completeness Date: _____
Review Type: P&Z or PZB & CCOM

Site Plan Application

Reference City of Alachua Land Development Regulations (LDRs), Section 2.4.9

A. PROJECT

1. Project Name: Tolosa North - Phase 1 and 2
2. Pre-Application Conference Date: 01/23/25
3. Neighborhood Meeting Date: 05/05/25
4. Address of Subject Property: Unassigned
5. Parcel ID Number(s): 3130-007-001, 3130-004-000, 3130-008-000, 3130-009-000, 3135-002-000
6. Existing Use of Property: Vacant
7. Future Land Use Map Designation: Moderate Density Residential
8. Zoning Designation: PD-R
9. Acreage: 7.52 AC
10. Total Existing Building Square Footage, if applicable: N/A
11. Total Existing Impervious Area (not including existing building area), if applicable: N/A
12. Total Building Square Footage Proposed: 0.99 AC
13. Total New Impervious Area Proposed (not including building area): 2.19 AC

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ■ Agent
2. Name of Applicant(s) or Contact Person(s): Jack Charnas Title: Project Manager
   Company (if applicable): JBPro
   Mailing address: 3530 NW 43rd St
   City: Gainesville State: FL ZIP: 32606
   Telephone: 352-375-8999 FAX: _____ e-mail: Jack.Charnas@jbpro.com
3. If the applicant is agent for the property owner*:
   Name of Owner (title holder): Mr. David Weiss
   Mailing Address: 2610 NW 43rd St., Suite 2B
   City: Gainesville State: FL ZIP: 32606

** Must provide an executed Authorized Agent Affidavit or other acceptable documentation (as deemed acceptable by the City in its sole discretion) authorizing the agent to act on behalf of the property owner.*

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ■ No
   If yes, list names of all parties involved: _____
2. Has the applicant discussed possible utility/infrastructure fees with the Public Services Department?
   If no, contact the Public Services Department at 386-418-6140. ■ Yes ☐ No

D. ATTACHMENTS

1. Site Plan. Sheet size shall be 24" X 36" with a 3" left margin and ½" top, bottom, and right margin.

   Site Plan shall include:

   a. Name and location of project.
   b. Name and contact information (address, telephone, and email address) of property owner, developer (if applicable), and all professional consultants (i.e., landscape architect, photometric, electrical engineer, architect, etc.) for the project.
   c. Zoning of the subject property.
   d. Vicinity map - indicating general location of the site and major adjacent streets and all adjacent properties.
   e. Boundary and topographic survey. Survey shall be signed and sealed by the surveyor, and shall be no older than two (2) years.
   f. Complete legal description of the subject property.
   g. Statement of proposed uses.
   h. Location of the subject property in relation to adjacent properties.
   i. Date, north arrow, and graphic scale (not to exceed one (1) inch equal to 50 feet.)
   j. Area and dimensions of the subject property.
   k. Structures and major features – fully dimensioned – including setbacks from property lines and right-of-ways, distances between structures (if structures are within 25 feet of one another), floor area of each building, floor area ratio, and property lines.
   l. Location of all property lines, existing and proposed adjacent right-of-ways, sidewalks, curbs, and gutters.
   m. Distance between ingress and egress connections for the project and the ingress / egress connections for all contiguous properties and for properties on the opposite side of the road, measured from the interior radius of all ingress/egress connections.
   n. Location of all existing and proposed utilities (electric, potable water, sanitary sewer, gas, etc.) on the subject property, and on adjacent properties if located within 50 feet of the subject property, and within adjacent rights-of-way.
   o. Location of all existing and proposed fire hydrants.
   p. Location of all existing easements on the property and on adjacent properties if located within 50 feet of the subject property, and recording information for such easements.
   q. Location of all proposed easements (legal descriptions and sketches of all proposed easements shall be provided by the applicant following a review of proposed utility locations by Public Services).
   r. Location and dimensions of all existing and proposed vehicular parking spaces, dimensions of all drive aisles, and the angle of parking spaces.
   s. Location of all bicycle parking areas and specifications of bicycle racks.
   t. Location, dimensions, and vertical clearance of all off-street loading spaces, if required by Section 6.1 of the LDRs.
   u. Location and dimensions of all vehicle stacking spaces, if required by Section 6.1 of the LDRs.
   v. Vehicular parking calculations, indicating the minimum and maximum number of required spaces and the number of parking spaces provided (regular and accessible spaces) in accordance with Section 6.1 of the LDRs.
   w. Bicycle parking calculations, if required by Section 6.1 of the LDRs.
   x. Striping and signage for all traffic control devices.
   y. Landscape Plan, indicating the location, size, and design of required and proposed landscaped areas. Landscape Plans shall identify the following with sufficient detail and calculations to demonstrate compliance with Section 6.2.2 of the LDRs:
      i. Location, identification of the species, and size of all existing trees.
      ii. Required perimeter buffer areas.
      iii. Parking lot perimeter landscaping.
      iv. Parking lot interior landscaping.
      v. Building façade landscaping.
      vi. Calculation of landscaped areas (see Policy 2.4.a of the Comprehensive Plan Future Land Use Element).
      vii. Calculation of open space provided (see Section 6.7 of the LDRs).
      viii. Calculation of tree credits, if applicable. Calculations shall be as set forth in Sections 6.2.1(D)(4) and 6.2.2(D)(6) of the LDRs and shall be shown on the plan in tabular format (if tree credits are utilized, the Landscape Plan must identify in the landscape calculations where credit is applied).
      ix. Tree protection detail in accordance with Section 6.2.1(D)(2) of the LDRs.
      x. If tree removal is proposed, a tree survey, showing:
         (a) Each tree proposed for removal;
         (b) Each tree proposed for retention;
         (c) The size and species (both common and scientific names) of all trees proposed for removal/retention;
         (d) Location, size, and species of all new trees proposed to meet mitigation requirements. Mitigation trees must be shown on the plans and a list of all mitigation trees and calculation of required mitigation must be provided on the plan in tabular format.

z. Location of waste receptacles and detail of waste receptacle screening, demonstrating compliance with Section 6.2.3(B) and, if within the Gateway Overlay District, with Section 3.7.2(C)(5)(c)(ii).
aa. Photometric Plan, demonstrating compliance with the applicable provisions of Section 6.4 of the LDRs.
bb. Location and size of any lakes, ponds, canals, or other waters and waterways, and required setbacks dimensioned on the plans from such waterways.
cc. For development consisting of a nonresidential use, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet in area and except for use types within the industrial services, manufacturing and production, warehouse freight and movement, waste-related services, and wholesale sales use categories ***not*** located within 500 feet of the right-of-way of US Highway 441: Architectural plans demonstrating compliance with the design standards for business uses as provided in Section 6.8.2 of the LDRs. Architectural plans shall include:
    i. Calculation of glazing of:
        (a) the front façade;
        (b) any facade facing a street;
        (c) any façade facing a publicly-accessible parking area which is a part of the development and consisting of 15 percent or more of the minimum off-street parking required by Section 6.1.4(B) of the LDRs; and,
        (d) any façade facing vacant land classified as CSV, A, RSF-1, RSF-3, RSF-4, RSF-6, RMH-5, RMH-P, RMF-8 or RMF-15, or lands containing existing residential uses.
    ii. Calculation of the area of all façades subject to glazing.
    iii. Detail on the architectural plans depicting façade massing or a massing alternative as defined in Section 6.8.2(A)(2)(b).
    iv. Identification of each material utilized in each façade and the percentage of the total area of the façade for each material used.
dd. For development consisting of a nonresidential use where a single retail services tenant is greater than or equal to 20,000 square feet in area: Architectural plans demonstrating compliance with the design standards for single tenant retail sales and service uses greater than or equal to 20,000 square feet in area as provided in Section 6.8.3 of the LDRs. Architectural plans shall include:
    i. Color plans depicting the color of all materials used in the façade.
    ii. Identification of each material utilized in each façade and the percentage of the total area of the façade for each material used.
    iii. Calculation of glazing of:
        (a) the front façade;
        (b) any facade facing a street;
        (c) any façade facing a publicly-accessible parking area which is a part of the development and consisting of 15 percent or more of the minimum off-street parking required by Section 6.1.4(B) of the LDRs; and,
        (d) any façade facing vacant land classified as CSV, A, RSF-1, RSF-3, RSF-4, RSF-6, RMH-5, RMH-P, RMF-8 or RMF-15, or lands containing existing residential uses.
    iv. Calculation of the area of all façades subject to glazing.
    v. If a glazing alternative as defined in Section 6.8.3(A)(2)(a)(iv) is used, calculation of area of alternative materials used or identification of other architectural features meeting the requirements of Section 6.8.3 of the LDRs.
    vi. Detail on the architectural plans depicting façade massing or a massing alternative as defined in Section 6.8.2(A)(2)(b) of the LDRs.
ee. For development consisting multi-family residential uses and/or a mobile home park:
    i. Gross acreage.
    ii. Number of dwelling units proposed.
    iii. Density.
    iv. Location and percentage of total open space and recreation areas.
    v. Floor area of each dwelling unit.
    vi. Number of proposed parking spaces.
    vii. Street layout, if applicable.
    viii. Layout of mobile home stands (for mobile home parks only).
    ix. City of Alachua Public School Student Generation Form.

2. Stormwater management plan - including the following:
    a. Plans showing existing contours at one (1) foot intervals based on U.S. Coastal and Geodetic Datum.
    b. Proposed finished floor elevation of all buildings.
    c. Existing and proposed stormwater management facilities with size and grades.
    d. Proposed orderly disposal of surface water runoff.
    e. Drainage calculations.

3. Fire Department Access and Water Supply Plan. All fire protection plans are subject to review and approval by the Alachua County Fire Marshal and City of Alachua Public Services Department. Fire Department Access and Water Supply Plan shall include:
    a. Plans prepared by a professional engineer licensed in the State of Florida.

b. Fire flow calculations for each newly constructed building. Calculations shall be performed in accordance with Chapter 18, Section 18.4 of the Florida Fire Prevention Code.
c. Documentation from the water purveyor stating the available flow to the subject property.

4. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools (if applicable) in accordance with Section 2.4.14 of the LDRs.

5. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy).

   For commercial/corporate park/industrial projects: In addition to submitting specific written information regarding the development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, a response to the design and performance standards as provided in Policy 1.3.d (for commercial projects), Policy 1.4.f (for corporate park projects), or Policy 1.5.d (for industrial projects) of the Future Land Use Element:

   The following criteria shall apply when evaluating commercial/corporate park/industrial development proposals:

   1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
   2. Buffering from adjacent existing/potential uses;
   3. Open space provisions and balance of proportion between gross floor area and site size;
   4. Adequacy of pervious surface area in terms of drainage requirements;
   5. Placement of signage;
   6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
   7. Safety of on-site circulation patterns (patron, employee and delivery vehicles), including parking layout and drive aisles, and points of conflict;
   8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
   9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
   10. Performance based zoning requirements, which may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
   11. Commercial/Corporate Park/Industrial uses shall be limited to an intensity of less than or equal to 0.50 floor area ratio for parcels 10 acres or greater, 0.50 floor area ratio for parcels less than 10 acres but 5 acres or greater, a 0.75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.
   12. Complementary residential uses (corporate park only).

6. *For Site Plans for Buildings Less than 80,000 Square Feet in Area:* One (1) set of mailing labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications (current list may be obtained from the Planning & Community Development Department).
   For Site Plans for Buildings Greater than or Equal to 80,000 Square Feet in Area: Two (2) sets of mailing labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications (current list may be obtained from the Planning & Community Development Department).

7. Neighborhood Meeting Materials, including:
   i. Copy of the required published notice (advertisement) – must be published a newspaper of general circulation, as defined in Article 10 of the City's LDRs;
   ii. Copy of written notice (letter) sent to all property owners within 400 feet and to all persons/organizations registered with the City to receive notice, and a copy of the mailing labels or a list of those who received written notice; and,
   iii. Written summary of meeting – must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.

8. Legal description: (1) on 8.5" x 11" paper; and (2) electronic file in Word format.

9. Proof of ownership (i.e., copy of deed.)

10. Proof of payment of taxes.

11. Traffic Impact Analysis or Statement, as deemed applicable to the project by the City of Alachua in its sole discretion.

12. Environmental Assessment or Study, as deemed applicable to the project by the City of Alachua in its sole discretion.

13. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District (SRWMD) or Self-Certification for a Stormwater Management System in Uplands Serving Less than 10 Acres of Total Project Area and Less than 2 Acres of Impervious Surfaces from the Florida Department of Environmental Protection (FDEP) pursuant to Section 403.814(12), Florida Statutes (or documentation which shows a permit application/exemption/self-certification has been submitted to SRWMD or FDEP).

14. If access is from a County Road, access management permit from Alachua County Public Works (or documentation which shows a permit application has been submitted).

15. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation which shows a permit application has been submitted).

16. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any costs associated with outside professional consulting services deemed necessary by the City in its sole discretion will be billed to the applicant at the rate of the consultant. The invoice for such services shall be paid in full prior to any public hearing(s) on the application.

All applicable attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

Under penalty of perjury, I/we certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant

Signature of Co-applicant

Jack Charnas, Project manager

Typed or printed name *and title* of applicant

Typed or printed name *and title* of co-applicant

JACK CONSTANTINE CHARNAS LICENSE 7/22/26 No. 96925 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jack C. Charnas, PE
FL Registration No. 96925 This item has been digitally signed and sealed by Jack C. Charnas, PE on the date adjacent to the seal.

Jack C Charnas
Digitally signed by Jack C Charnas
DN: cn=Jack C Charnas, c=US, o=Unaffiliated
Date: 2026.07.22 13:43:18 -04'00'

STATE OF FLORIDA
COUNTY OF ALACHUA

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization, this 21 day of May, 2025, by Jack Charnas who executed the same and has _____ produced _____ as identification or ☑ is personally known to me.

Camryn Figueroa
Signature of Notary

Print Name: Camryn Figueroa
Notary Public, State of Florida

My Commission Expires: 12/11/2028

CAMRYN FIGUEROA
Notary Public
State of Florida
Comm# HH662301
Expires 12/11/2028

City of ALACHUA
the good life community

Authorized Agent Affidavit

Planning & Community Development Department

A completed authorized agent affidavit or letter of authorization must be provided/included with the application materials whenever a property owner wishes to have an application submitted on their behalf by a third party or tenant. If a property has multiple owners, each owner must provide authorization for the third party to submit the application.

NOTE: *Incomplete affidavits will not be accepted and may delay the processing of applications.*

A. PERSON PROVIDING AUTHORIZATION

(i.e., the property owner)

Full Name: Jessica Parrish Title: Cheif Executive Officer

Organization: Alachua Habitat for Humanity

Mailing Address: 1022 NW 2nd St.

City: Gainesville State: FL Zip: 32601

Phone: 352-378-4663 Mobile:

Email: jparrish@alachuahabitat.org

B. PROPERTY INFORMATION

Address of Subject Property: N/A

Tax Parcel Number(s): 03130-007-001, 03130-004-000, 03130-008-000, 03130-009-000, 03135-002-000

Acreage: 7.5

C. AUTHORIZED AGENT

(i.e., the third party submitting the associated application)

Full Name: Jack Charnas Title: Project Manager

Organization: JBPro

Mailing Address:

Phone: 3523758999 Mobile:

Email: jack.charnas@jbpro.com

D. AUTHORIZED/REQUESTED ACTIONS

(Include any action or application that the authorized agent will be permitted to apply for and represent on behalf of the property owner)

Site Plan submittals and associated items to permit the Tolosa North Phase 1 & 2 Development.

E. SIGNATORY

I/We hereby certify that I/we am/are the property owner(s) of record or I/we have received authorization from the property owner of record to file an application for the actions listed above in Section "D" of this form related to the property identified above in Section "B" of this form. I/we authorize the agent listed above in Section "C" of this form to act on my/our behalf for the purposes of this application and those actions listed above in Section "D" of this form.

Under penalty of perjury, I/we certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Property Owner

Signature of Co-property Owner

Jessica Parrish
Printed Name of Property Owner

Printed Name of Co-property Owner

State of Florida
County of Alachua

The forgoing application is acknowledged before me by means of ☒ physical appearance or ☐ online notarization this 2nd day of April, 2026 by Jessica Parrish ☒ who is/are personally known to me, or ☐ who has/have produced _____ as identification.

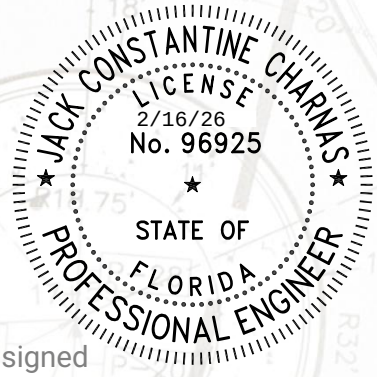
[NOTARY SEAL]

Notary Public State of Florida
Brenda Rapp
My Commission HH 701323
Expires 8/17/2029

Brenda Rapp
Signature of Notary Public
State of: Florida
Print Name: Brenda Rapp
My Commission Expires: 8/17/29

Tolosa North – Phase 1 & 2

Stormwater Management Report



Jack C. Charnas, PE
FL Registration No. 96925

This item has been digitally signed and sealed by Jack C. Charnas, PE on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Jack C Charnas

Digitally signed by Jack C Charnas
DN: cn=Jack C Charnas, o=Unaffiliated, email=jccharnas@gmail.com
Date: 2026.02.16 10:24:58 -05'00'

3530 NW 43rd Street
Gainesville, FL 32606
(352) 375-8999
www.jbpro.com

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Attachments

Attachment A: Site Location Map

Attachment B: Geotechnical Engineering Report

Attachment C: Pre-Development Drainage Area Map

Attachment D: Pre-Development Drainage Calculations

Attachment E: Post-Development Drainage Area Map

Attachment F: Post-Development Drainage Calculations

Attachment G: Pre- / Post-Development Results Comparisons

Attachment H: Pre- / Post-Development ICPR Input and Output Reports

I. Introduction

The proposed Tolosa North project is a 50-unit residential townhome development. This project will design and permit both phases 1 and 2 at the same time.

Tolosa North will consist of 50 units across 12 buildings located on 7.52 acres. The site is located on the South of W State Road 235, as shown in **Attachment A**. The property contains 0.93 acres of wetlands with the southern property boundary running along the centerline of a creek. A 75' average width buffer has been provided for the wetland. Most of the site is comprised of Wooded areas in good condition. There are three (3) total drainage areas containing the proposed development as well as offsite area. The drainage areas are listed below.

Drainage Area 1	=	0.99 AC
Drainage Area 2	=	2.41 AC
Drainage Area 3	=	2.28 AC
Offsite	=	39.47 AC

The proposed improvements to serve the development include a paved parking lot, sidewalks, and underground utilities. On site stormwater management will be provided by 2 stormwater basins. Runoff will reach the stormwater basins via sheet flow, drainage swales, inlets and storm sewer piping. The stormwater basins are designed as a retention system with discharge to the southern creek/wetland.

II. Drainage Design Criteria

A. City of Alachua

Stormwater Quantity: All developments shall be constructed and maintained so that post-development runoff rates and pollutant loads do not exceed pre-development conditions. While development activity is underway and after it is completed, the characteristics of stormwater runoff shall approximate the rate, volume, quality, and timing of stormwater runoff that occurred under the site's natural unimproved or existing state, except that the first one-half inch of stormwater runoff shall be treated in an off-line retention system or according to other best management practices as described in the water management district's Surface Water Management Permitting Manual, as amended.

Stormwater Quality: Facilities which directly discharge into an Outstanding Florida Water shall include an additional level of treatment equal to the runoff of the first 1.5 inches of rainfall from the design storm consistent with F.A.C. 62-25.025(9), in effect upon adoption of the

Comprehensive Plan, in order to meet the receiving water quality standards of F.A.C. Chapter 62-302, in effect upon adoption of the Comprehensive Plan. Stormwater discharge facilities shall be designed so as not to lower the receiving water quality below the minimum conditions necessary to assure the suitability of water for the designated use of its classification as established in F.A.C. Chapter 62-302, in effect upon adoption of the Comprehensive Plan.

Section 6.9.3 (C)(3) Development draining into surface water, canal, stream or sinkhole: In addition, steps to control erosion and sedimentation must be taken for all development, including exempt development as cited above, that is adjacent to or drains into a surface water, canal, or stream, or that empties into a sinkhole, by first allowing the runoff to enter a grassed swale or other conveyance designed to percolate 80 percent of the runoff from a three-year, one-hour design storm within 72 hours after a storm event.

B. Alachua County

Stormwater management facilities must be designed in accordance with the following from Article 9 of the Unified Land Development Code:

Stormwater Treatment Performance Standards: Per Alachua County Stormwater Treatment Code Section 77.27, the Alachua County Stormwater Treatment Standard is based on minimum levels of stormwater treatment and BMP design criteria that are presumed to achieve the desired level of pollutant load reduction. Projects using retention BMPs within the Karst Sensitive Areas must meet (a), (b), or (c) below, and treat the first inch of runoff from the project area with one or more LID techniques separate from the dry retention basin.

a. Discharging directly or indirectly to surface waters – Reduce annual average total nitrogen and phosphorus load by 70% and 80%, respectively.

b. Discharging directly to an Outstanding Florida Waterbody – Reduce both annual average total nitrogen and phosphorus load by 95%.

c. Discharging within watersheds of Verified Impaired Water Bodies or Water Bodies within Adopted Nutrient Total Maximum Daily Loads (TMDLs) – Choose the greater nutrient reduction option of the following: meet requirements of (a), (b) or reduce the nitrogen and phosphorus loadings of predevelopment by 10%.

C. Suwannee River Water Management District (SRWMD)

Stormwater management facilities must be designed in accordance with the Suwannee River Water Management District Applicant's Handbook Volume II as follows:

Stormwater Quantity: Dry retention, online stormwater ponds must be designed such that the storm events are attenuated with post-development peak discharge rates not exceeding the pre-development peak discharge rates for the 100-yr 1-hr, 2-hr, 4-hr, 8-hr, and 24-hr storm events, while providing 1 ft of freeboard. In addition, half of the entire stored volume must be recovered within 7 days following the end of the critical storm event, and the entire stored volume must be recovered within 30 days following the end of the critical storm event.

Stormwater Quality: Dry retention, online stormwater ponds must be designed such that the treatment volume shall be the runoff from the first 2.0" of rainfall following a critical duration storm event. Additionally, that volume of runoff must be treated within 72 hours following the end of the critical storm event.

D. National Pollutant Discharge Elimination System (NPDES)

Chapter 62-621.300(4) FAC requires that a Stormwater Pollution Prevention Plan (SWPPP) must be developed for issuance of a Generic Permit for Stormwater Discharge from Large and Small Construction Activities in order to be in conformance with the Florida Department of Environmental Protection (FDEP) regulation of point source discharges of stormwater from construction sites, as defined by the NPDES.

As outlined under the above-mentioned rule, FDEP requires construction Activities spanning one (1) acre or more to comply with the regulations that limit point source discharge of stormwater runoff from the construction site. A Notice of Intent (NOI) must be submitted to FDEP prior to construction. The SWPPP must be included within the plan set to demonstrate the means by which the guidelines of the NPDES will be met. The project drawing set includes an SWPPP for the project, and the contractor will file for the NOI prior to beginning construction activities.

E. Rainfall Data (All Agencies)

The rainfall amounts that were used in this report came from the SRWMD Applicant's Handbook Vol. II. The information in **Table 1** (below) identifies rainfall amount (in) for each design storm that was used to design the stormwater management facilities.

Table 1: Rainfall Amounts

Storm Duration	Depth of Rainfall (in)				
	1 Hour	2 Hour	4 Hour	8 Hour	24 Hour
100 Year	4.40	5.40	6.72	8.00	11.04

III. Design Methodology

Determination of the stormwater runoff conditions for both pre- and post-development conditions utilizes the NRCS curve number method. This method calculates runoff curve numbers based on the soil characteristics and the land use cover conditions for the contributing drainage area. Rainfall hydrographs are generated based on accepted rainfall volumes for the local area, rainfall volume over time, and storm event distributions accepted by the local regulatory agencies.

JBPro utilizes the stormwater modeling program Stormwise (ICPR version 4) to perform the stormwater basin flood routings. The program uses the runoff conditions and the basin design parameters to route the required storm events. The program is used to determine the peak flood stages and compare pre- and post-development conditions to determine the critical storm event. The critical storm event is the controlling storm event which dictates the final basin

design. In addition, the PercPak feature of ICPR is used to analyze groundwater mounding and soil infiltration effects for each of the design storms to determine the drawdown times for both water quantity and quality calculations. Stormwise (ICPR 4) is an accepted analysis program by the regulatory agencies having jurisdiction.

IV. Geotechnical Investigation

GSE Engineering & Consulting, Inc. (GSE) performed the geotechnical engineering investigation for the proposed stormwater basin systems. A copy of the "Geotechnical Engineering Report" is provided as **Attachment B**.

A summary of the recommended soil parameters for stormwater management design analysis are listed in **Table 2**. The vertical and horizontal infiltration rates utilized by JBPro incorporate a design safety factor of 2. The data in the table below for Basins 1 corresponds to "Eastern Stormwater Management Facility" in the geotechnical report and Basin 2 corresponds to "Southwestern Stormwater Management Facility in the geotechnical report. Refer to **Attachment B** for the distribution of soil classifications within the proposed site.

Table 2: Soil Parameters

Soil Parameter	Basin 1	Basin 2
Unsaturated Vertical Infiltration Rate	1.5 ft / day	2 ft / day
Horizontal Hydraulic Conductivity Rate	2 ft / day	3 ft / day
Specific Yield	20%	20%
Elevation of Effective Aquifer	103.5 FT	94 FT
Average Seasonal High Water Elevation	104 FT	94.5 FT
Design Vertical Infiltration Rate	0.75 ft / day	1 ft / day
Design Horizontal Hydraulic Conductivity Rate	1 ft / day	1.5 ft / day

V. Pre-Development Drainage Design

A. Drainage Area Curve Numbers

As shown in Attachment D, the Pre-Development analysis is broken down into (1) Drainage Area. **Table 3** provides the Pre-Development Drainage Area Curve Number for the single drainage area. Full calculations for the curve numbers below can be seen in Attachment D.

Table 3: Pre-Development Design Data

Design Parameter	Pre DA-1
Total Drainage Area (Acres)	5.68
Weight Curve Number (CN)	70

B. Stormwater Management Design

As shown on the Pre-Development Drainage Map (**Attachment C**) and Pre-Development Drainage Calculations (**Attachment D**), Pre DA-1 discharges to the wetland to the south via overland flow. An offsite drainage area, Pre DA-Offsite, is shown that predominantly drains to the FDOT Right-of-Way located on the north side of W State Road 235. Offsite stormwater flows are conveyed via a system of roadside ditches which are piped under SR-235 south via an existing 24" storm pipe to a headwall that discharges to the subject parcel and flows down to the wetland. The full input report from ICPR can be seen in **Attachment H**. The FDOT rainfall distribution was used to analyze all of the 1-, 2-, 4-, 8-, and 24-hour storms.

C. Flood Routing – Max Stage

The site was analyzed to establish pre-development flood stages and the overland total flow and max flow rate across the site was analyzed as discharge to the wetland. ICPR input data and modeling results are provided in the output reports included in **Attachment H**. A summary of the pre-development modeling results is shown in **Table 4** below.

Table 4: Pre-development Modeling Outputs

Design Storm	Pre-development peak rate (cfs)	Pre-development cumulative discharge volume (ft^3)
100yr-01hr	17.24	33,120
100yr-02hr	15.30	48,288
100yr-04hr	11.57	69,967
100yr-08hr	13.58	92,221
100yr-24hr	4.89	148,044

VI. Post-Development Drainage Design

A. Stormwater Management Design

As shown on the Post-Development Drainage Map (**Attachment E**) and calculations (**Attachment F**), a pair of stormwater retention basins are proposed to handle the post-development stormwater runoff. Stormwater runoff from the proposed development will enter the system via stormwater curb and surface inlets as well as sheet flow. The FDOT rainfall distribution was used to analyze the 1-, 2-, 4-, 8-, and 24-hour storms. The retention basins were designed to provide 12" of freeboard for the max stage while controlling discharge to levels that do not exceed the pre-development results.

- Basin 1 is designed as a retention basin that discharges offsite to the south wetland.
- Basin 2 is designed as a retention basin that discharges offsite to the south wetland.

The offsite drainage area that was previously entering the site through an existing headwall located along SR 235 on the north property line has been maintained in the post-development condition. A new swale has been provided for the offsite drainage area to better control the flow of water and reduce future erosion concerns.

B. Drainage Area Curve Numbers

As shown in **Attachment E**, the post-development analysis is broken down into three drainage areas. **Table 5** provides the post-development drainage area curve numbers for each drainage area. Full calculations for each of the curve numbers below can be seen in **Attachment F**. The drainage areas were broken down into several categories, including Impervious Area, Open Space, and Retention Areas. Curve numbers were assigned to each category based on the data presented in TR-55, which is an accepted report for curve numbers.

Table 5: Post-Development Design Data

Design Parameter	Basin 1	Basin 2	Basin 3
Total Drainage Area (Acres)	0.99	2.41	2.28
Weighted Curve Number (CN)	84	93	78

C. Basin Stage – Storage Relationship

Basins 1 & 2 are designed to retain stormwater runoff such that pre-development discharge conditions are not exceeded. The stage/volume/storage calculations for the basins are shown in **Attachment F** and in **Tables 6A and 6B** below.

Table 6A: Basin 1 Storage/Volume

Stage (FT)	Storage Volume (CF)	Storage Volume (AC-FT)
109.5	0.00	0.00
110	574.25	0.01
111	2,211.25	0.05
112	4,542.75	0.10
113	7,625.25	0.18
114	11,515.25	0.26
114.5	13,779.00	0.32

Table 6B: Basin 2 Storage/Volume

Stage (FT)	Storage Volume (CF)	Storage Volume (AC-FT)
100	0.00	0.00
101	11,942.96	0.27
102	25,337.79	0.58
103	40,241.03	0.92
104	56,709.23	1.30

D. Water Quality Treatment Volume

For this project, the Suwannee River Water Management District criteria governs the water quality treatment volume recovery requirements. This criteria requires the WQTV to be the runoff from the first 2.0" of rainfall over each drainage area. The total WQTV for the project is calculated below, followed by a breakdown on how much WQTV is held within each basin. The SRWMD requires that the required Water Quality Treatment Volume (WQTV) be recovered within 72 hours following the design storm event. In accordance with SRWMD recommendations, the water quality treatment volume was routed using Stormwise as a slug load to determine the WQTV recovery time. **Table 7** shows the routing recovery time after the slug load was applied. The full calculations for WQTV recovery are provided in **Attachment H**.

DA-1 WQTV: (0.75) x (2.0 in) x (1 ft / 12 in) x (43,041 SF) = 5,396 CF

DA-2 WQTV: (0.82) x (2.0 in) x (1 ft / 12 in) x (104,789 SF) = 14,341 CF

Total WQTV Required = 19,737 CF

Table 7: Water Quality Treatment Volume Storage

Basin Name	Stored Volume Stage (FT)	Stored Volume (CF)	Recovery Time (HRS)
Basin 1	111.00	2,211	48.0
Basin 2	102.00	25,338	48.0
	Total:	**27,549 CF**	

The minimum WQTV can be contained and treated within the two stormwater basins. The elevations of stored water in each of the basins can be seen in **Table 7** above. With a maximum recovery time of 48 hours, each stormwater basin adequately recovers the WQTV, as required by SRWMD.

E. Flood Routing – Max Stage

Each stormwater basin was analyzed to establish the max stage for each storm event and determine the 100-year critical floodplain elevation. A full summary of the max stage for each basin under all required storm events can be seen in **Attachment H**. A summary of the 100-year critical floodplain elevations can be seen in **Table 8** below.

Table 8: Critical Storm Events

Basin Name	Basin 1	Basin 2
Critical Storm Event	100YR-008HR	100YR-004HR
Basin Max Stage	113.49 FT	102.91 FT
12” Freeboard Elevation	113.50 FT	103.00 FT

SRWMD requires a minimum freeboard of 12” for stormwater basins. A minimum of 12” of freeboard is provided in each of the two on-site basins.

F. Flood Routing – Volume Recovery

As required by SRWMD and FDOT, 7-Day and 30-Day Recovery Results for each storm event can be seen in **Attachment H**. Basins 1 & 2 recover half of the maximum stored volume within 7 days and fully recover the stored volume within 30 days following each storm event.

G. Flood Routing – Volume Discharge

The discharge from Basin 1 and 2 to the “Wetland” node to the south was calculated to ensure the discharge amounts do not exceed Pre-Development conditions. A summary of the total discharge volumes and max discharge rate into the “Wetland” node in ICPR can be seen in **Attachment H**.

VII. Pre-/ Post-Development Comparisons

Per SRWMD criteria, post-development discharge conditions shall not exceed pre-development discharge conditions. Basins 1 & 2 are designed as retention systems to control rate and volume discharge to the southern wetland and provide minimum required freeboard during the critical event. Modeling results for the post-development discharge rate and volume can be seen in **Table 9** below. Comparisons of rate and volume discharges can be seen in **Table 10** below, with full results in **Attachment H**. All post-development discharge volumes and max discharge rates are lower than the pre-development volumes and rates.

Table 9: Post-Development Discharge Rates & Volumes

Storm	Peak Discharge Rate (cfs)	Cumulative Discharge Volume (ft^3)
100yr-01hr	12.43	24,536
100yr-02hr	10.24	43,257
100yr-04hr	9.84	67,713
100yr-08hr	11.80	91,188
100yr-24hr	4.79	142,802

Table 10: Comparison of Pre-Development to Post-Development Modeling Results

Design Storm	Pre peak rate (cfs)	Post peak rate (cfs)	Δrate (cfs)	Pre volume (ft^3)	Post volume (ft^3)	Δvolume (ft^3)
100yr-01hr	17.24	12.43	-4.81	33,120	24,536	-7,584
100yr-02hr	15.30	10.24	-5.06	48,288	43,257	-5,031
100yr-04hr	11.57	9.84	-1.73	69,967	67,713	-2,254
100yr-08hr	13.58	11.80	-1.78	92,221	91,188	-1,033
100yr-24hr	4.89	4.79	-0.10	148,044	142,802	-5,242

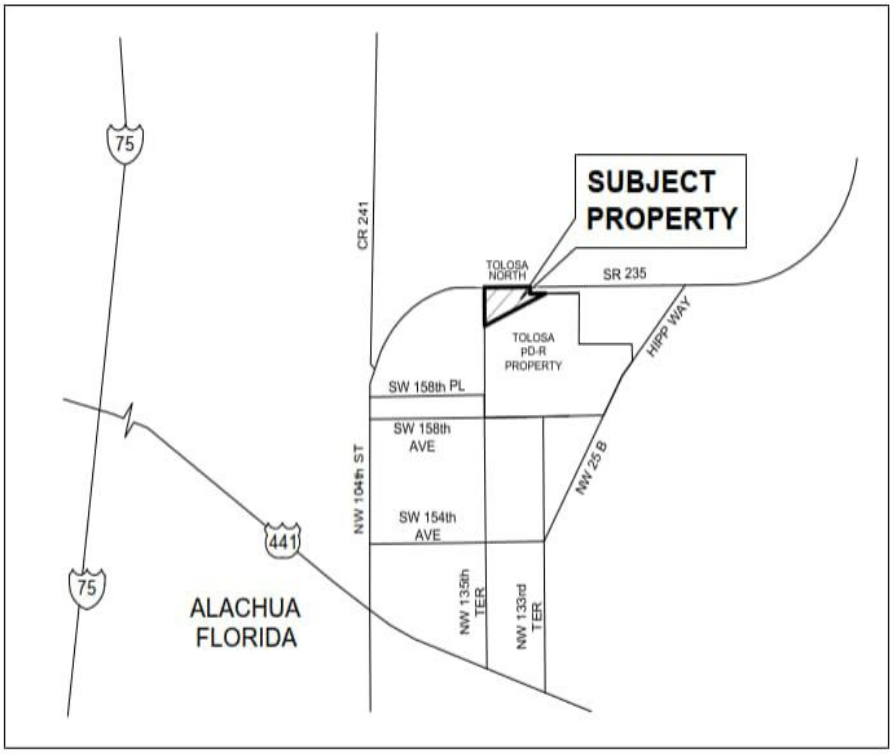
VIII. Conclusions

The Tolosa North stormwater system conforms to all SRWMD, City of Alachua, and NPDES requirements. As shown within this report, each of the two onsite basins are designed as retention basins that reduce post-development discharges to the southern wetland and provide the minimum 12” of freeboard. Additionally, each of the onsite basins demonstrates the ability to recover from each storm event within the required time. Based on the data provided in this report, this project complies with the required stormwater management design and permitting requirements for all applicable agencies.

ATTACHMENT A

Site Map

(Exhibit on Next Page)



LOCATION MAP

NTS

Attachment B

Geotechnical Engineering Report

(Exhibit on Next Page)

Engineering & Consulting, Inc.

SUMMARY REPORT OF A GEOTECHNICAL SITE EXPLORATION

TOLOSA NORTH ALACHUA HABITAT
ALACHUA, ALACHUA COUNTY, FLORIDA

GSE PROJECT NO. 16604

Prepared For:

ALACHUA HABITAT FOR HUMANITY

JUNE 2024

GSE Engineering & Consulting, Inc.

June 11, 2024

David Weiss
Alachua Habitat for Humanity
2610 NW 43rd Street, Suite 2B
Gainesville, Florida 32606

Subject: Summary Report of a Geotechnical Site Exploration
Tolosa North Alachua Habitat
Alachua, Alachua County, Florida
GSE Project No. 16604

GSE Engineering & Consulting, Inc. (GSE) is pleased to submit this geotechnical site exploration report for the above referenced project.

Presented herein are the findings and conclusions of our exploration, including the geotechnical parameters and recommendations to assist with building foundation and stormwater management designs.

GSE appreciates this opportunity to have assisted you on this project. If you have any questions or comments concerning this report, please contact us.

Sincerely,

GSE Engineering & Consulting, Inc.

Kevin P. Fisher, E.I.
Staff Engineer

KENNETH L. HILL LICENSE No.40146 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Kenneth L Hill
Digitally signed by Kenneth L Hill
Date: 2024.06.11 16:01:15 -04'00'
on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Kenneth L. Hill, P.E.
Principal Engineer
Florida Registration No. 40146

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1. Project Site Location Map
2. Site Plan Showing Approximate Locations of Field Tests

1.0 INTRODUCTION

1.1 General

GSE Engineering & Consulting, Inc. (GSE) has completed this geotechnical exploration for the proposed Tolosa North Alachua Habitat located in Alachua, Alachua County, Florida. This exploration was performed in accordance with GSE Proposal No. 2024-283 (Rev. 1) dated May 6, 2024. Mr. David Weiss, President, of Alachua Habitat for Humanity authorized our services on May 20, 2024.

1.2 Project Description

This project will consist of thirteen townhomes and two stormwater management facilities. The site is located at the southeast corner of the intersection of W State Road 235 and NW 135th Terrace in Alachua, Alachua County, Florida. The Alachua County Tax Parcel Number is 03135-000-000.

Mr. Jack Charnas, P.E. provided information about the project and a site plan illustrating the locations of the proposed improvements. The townhomes will be two-story, wood frame construction. Structural loads have not been provided but are estimated to be on the order of 2 to 3 kips per foot. The finished floors of the buildings are anticipated to be set near or just above the existing site grades.

One stormwater management facility will cover approximately 0.58 acres in the southwestern part of the property, while another will cover about 0.13 acres in the eastern area. The plans indicate both basins will be approximately 3 feet deep. We anticipate the southwestern basin will be excavated into grade on the north side and a berm filled along the southeast side to form the basin.

A recent aerial photograph of the site was obtained. The site plan and aerial photograph were used in preparation of this exploration and report.

1.3 Purpose

The purpose of this geotechnical exploration was to determine the general subsurface conditions, evaluate these conditions with respect to the proposed construction, and prepare geotechnical parameters and recommendations to assist with building foundation and stormwater management designs.

2.0 FIELD AND LABORATORY TESTS

2.1 General Description

The procedures used for field sampling and testing are in general accordance with industry standards of care and established geotechnical engineering practices for this geographic region. This exploration consisted of performing thirteen (13) Standard Penetration Test (SPT) borings to depths of 20 feet below land surface (bls) at the building locations (one per building), five (5) auger borings to depths of 20 feet bls within the proposed southwestern stormwater management facility, and two (2) auger borings to depths of 15 feet bls within the proposed eastern stormwater management facility.

The soil borings were performed at the approximate locations as shown on Figure 2. The borings were located at the site using the provided site plan and obvious site features as reference. The boring locations should be considered approximate. The soil borings were performed from May 29 through 30, 2024.

2.2 Auger Borings

The auger borings were performed in accordance with ASTM D1452. The borings were performed with flight auger equipment that was rotated into the ground in a manner that reduces soil disturbance. After penetrating to the required depth, the auger was retracted and the soils collected on the auger flights were field classified and placed in sealed containers. Representative samples of each stratum were retained from the auger boring. Results from the auger borings are provided in Section 5.1.

2.3 Standard Penetration Test Borings

The soil borings were performed with a drill rig employing flight auger drilling techniques and Standard Penetration Testing (SPT) in accordance with ASTM D1586. The SPTs were performed continuously to 10 feet and at 5-foot intervals thereafter. Soil samples were obtained at the depths where the SPTs were performed. The soil samples were classified in the field, placed in sealed containers, and returned to our laboratory for further evaluation.

After drilling to the sampling depth, the standard two-inch O.D. split-barrel sampler was seated by driving it 6 inches into the undisturbed soil. Then the sampler was driven an additional 12 inches by blows of a 140-pound hammer falling 30 inches. The number of blows required to produce the next 12 inches of penetration were recorded as the penetration resistance (N-value). These values and the complete SPT boring logs are provided in Section 5.2.

Upon completion of the sampling, the boreholes were abandoned in accordance with Water Management District guidelines.

2.4 Soil Laboratory Tests

The soil samples recovered from the soil borings were returned to our laboratory, and examined to confirm the field descriptions. Representative samples were then selected for laboratory testing. The laboratory tests consisted of thirteen (13) percent soil fines passing the No. 200 sieve determinations, thirteen (13) natural moisture content determinations, six (6) Atterberg Limits tests, and five (5) constant head hydraulic conductivity tests. These tests were performed in order to aid in classifying the soils and to further evaluate their engineering properties. The laboratory tests are provided in Section 5.3.

3.0 FINDINGS

3.1 Surface Conditions

Mr. Kevin P. Fisher, E.I. with GSE visited the site on May 24, 2024 to observe the site conditions and mark the boring locations. Mr. Jason Kite with Jason Kite, LLC was retained by GSE to clear lanes to allow access to the boring locations for drilling equipment.

The site is heavily wooded with large trees and thick underbrush. The site is bordered by West State Road 235 to the north and NW 135th Terrace to the west. A residential home is present northeast of the site.

The topography at the site is gently to moderately sloping down toward the southwest from the north. Regional topography is gently rolling hills. The Alachua County Growth Management website indicates the ground surface elevations at the site are near elevations 90 to 120 feet[1].

3.2 Subsurface Conditions

The locations of the auger and SPT borings are provided on Figure 2. Complete logs for the borings are provided in Sections 5.1 and 5.2. Descriptions for the soils encountered are accompanied by the Unified Soil Classification System symbol (SM, SP-SM, etc.) and are based on visual examination of the recovered soil samples and the laboratory tests performed. Stratification boundaries between the soil types should be considered approximate, as the actual transition between soil types may be gradual.

The auger borings located in the proposed southwestern stormwater management facility (P-1 through P-5) initially penetrated 0.5 to 3 feet of a near-surface sandy stratum consisting of sand with silt and sand with clay (SP-SM, SP-SC). This was underlain by clayey to very clayey sand (SC, SC/CL) and clay with sand (CL/CH) to the explored depths of 20 feet bls.

The auger borings located in the proposed eastern stormwater management facility (P-6, P-7) initially penetrated 3 feet of a near-surface sandy stratum consisting of sand with clay (SP-SC). This was underlain by clayey to very clayey sand (SC, SC/CL) and clay with sand (CL/CH) to the explored depths of 15 feet bls.

The SPT borings at the building locations initially penetrated 0 to 17 of a near-surface sandy stratum consisting of poorly graded sand and sand with silt (SP, SP-SM). This was underlain by interbedded strata of clayey to very clayey sand, silty clayey sand, and sand with clay (SC, SC/CL, SM/SC, SP-SC) or clay-rich soils consisting of clay with sand and clay (CL/CH, CH) to the explored depths of 20 feet bls.

The surficial layer of poorly graded sand and sand with silt (SP, SP-SM) is generally in a very loose to dense condition with N-values ranging from 2 to 33 blows per foot. The underlying clayey to very clayey sand, silty clayey sand, and sand with clay (SC, SC/CL, SM/SC, SP-SC) is generally in a loose to very dense condition with N-values ranging from 5 to 58 blows per foot. The clay-rich soils (CL/CH, CH) are generally in a stiff to very stiff condition with N-values ranging from 9 to 30 blows per foot.

[1] Alachua County Growth Management website, http://mapgenius.alachuacounty.us/.

The groundwater table was encountered in the SPT borings at depths ranging from 13.5 to 18 feet bls at the time of our investigation.

3.3 Review of Published Data

The majority of the site is mapped as four soil series by the Soil Conservation Service (SCS) Soil Survey for Alachua County[2]. The following soil descriptions are from the Soil Survey.

Fort Meade fine sand, 0 to 5 percent slopes - This nearly level to gently sloping, well drained soil is in both small and large areas on the gently rolling uplands. The areas are mostly irregular in shape and range from about 10 to 400 acres.

Typically, the surface layer is fine sand about 14 inches thick. The upper 10 inches is very dark brown, and the lower 4 inches is very dark grayish brown. The underlying layer is fine sand to a depth of 80 inches or more. In sequence from the top, the upper 20 inches is dark brown; the next 9 inches is dark yellowish brown; the next 28 inches is yellowish brown; and the lower 14 inches is dark brown.

Included with this soil in mapping are small areas of Arredondo, Gainesville, Kendrick, and Millhopper soils. Also included are small areas of soils which are similar to the Fort Meade soil but which have only 6 to 10 inches of a very dark gray or very dark grayish brown surface layer over a fine sand or loamy sand underlying layer. Total included areas are less than 15 percent.

In this Fort Meade soil, the available water capacity is low to medium. The permeability is rapid. The natural fertility is low. Organic matter content of the surface layer is moderately low to high. Surface runoff is slow. The water table is more than 72 inches below the surface.

Pomona sand, depressional - This nearly level, very poorly drained soil is in shallow depressional areas and along narrow drainageways in the flatwoods. Slopes are nearly smooth or slightly concave and range from 0 to 2 percent. These areas are relatively small and irregularly shaped or elongated. They range from about 10 to 35 acres.

Typically, the surface layer is very dark gray sand about 4 inches thick. The subsurface layer is light gray sand to a depth of 25 inches. The upper part of the subsoil is dark brown sand to a depth of 32 inches; many of the sand grains are coated with organic material. The next layer is grayish brown sand to a depth of 52 inches. Below this, the lower part of the subsoil is gray sandy loam to a depth of 73 inches. Between depths of 73 and 80 inches, the underlying material is gray sandy loam and loamy sand.

Included with this soil in mapping are small areas of Monteocha, Plummer, Pompano, and Surrency soils. Total included areas are about 15 percent.

In this Pomona soil, the water table is less than 10 inches below the surface for about 6 months or more. Water is on the surface for about 4 months or more during most years. The available water capacity is low in the surface and subsurface layers and low to high in the subsoil. Permeability is raped to very rapid in the surface and subsurface layers, moderate to rapid in the upper part of the subsoil, and moderately slow to moderate in the lower part. Natural fertility is low. Organic matter content in the surface layer is moderately low.

[2] Soil Survey of Alachua County, Florida. Soil Conservation Service, U.S. Department of Agriculture.

Kendrick sand, 2 to 5 percent slopes - This gently sloping, well drained soil is in both small and large areas on the gently rolling uplands. These areas are mostly irregularly shaped or elongated and range from about 20 to 200 acres.

Typically, the surface layer is dark grayish brown sand about 9 inches thick. The subsurface layer is yellowish brown loamy sand to a depth of 26 inches. The subsoil extends to a depth of 90 inches or more. The upper 5 inches is yellowish brown fine sandy loam; the next 20 inches is dark yellowish brown, mottled sandy clay loam; the next 22 inches is dark yellowish brown sandy clay loam; the next 10 inches is yellowish brown, mottled fine sandy loam; and the lower 7 inches is yellowish brown sandy clay loam.

Included with this soil in mapping are some small areas of soils that have similar characteristics to the Kendrick soils except that they have loamy sand surface and subsurface layers less than 20 inches thick over a sandy clay loam subsoil. Small areas of soils that are similar to the Kendrick soils but have fine sand surface and subsurface layers or have a subsoil that is sandy clay throughout are included. Also included are small areas of Arredondo, Blichton, Bonneau, Lochloosa, and Norfolk soils. A few areas of Kendrick soils have 0 to 2 percent slopes to 5 to 8 percent slopes. Small moderately eroded spots are in a few areas. Sinkholes and limestone boulders are in some areas and are shown by appropriate symbols. Total included areas are about 15 percent.

In this Kendrick soil, the available water capacity is low in the surface and subsurface layers, medium in the upper 5 inches of the subsoil, and medium to high below this depth. Permeability is rapid in the surface and subsurface layers. Permeability is moderate to moderately rapid in the upper 5 inches of the subsoil, moderately slow to moderate in the next 42 inches, slow in the lower 17 inches. Organic matter content is low to moderately low in the surface layer. The water table is more than 72 inches below the surface. Surface runoff is moderately slow.

Bivans sand, 5 to 8 percent slopes - This is a sloping, poorly drained soil on short breaking slopes and along hillsides of the uplands. The areas are irregular and elongated in shape. They range from about 5 to 40 acres.

Typically, the surface layer is dark gray sand about 5 inches thick. The subsurface layer is light brownish gray sand about 5 inches thick. It has a few nodules of ironstone and fragments of phosphatic limestone. The subsoil extends to a depth of 59 inches. The upper 20 inches is gray sandy clay and a few nodules of ironstone and fragments of phosphatic limestone. The next 29 inches is gray, mottled sandy clay. Between depths of 59 and 80 inches, the underlying material is gray, mottled sandy clay.

Included with this soil in mapping are small areas of Blichton, Boardman, Lochloosa, and Wacahoota soils. Small areas of soils that are similar to Bivans soils but that have a very dark gray or black loamy sand surface layer 8 to 12 inches thick over a sandy clay loam subsoil are also included in some areas. Small areas of Bivans soil that have slopes of 2 to 5 percent are included. Total included areas are about 15 percent or less.

In this Bivans soil, the subsurface layer and upper part of the subsoil are saturated by a perched water table for 1 to 3 months during most years. Wetness is caused mainly by hillside seepage. Surface runoff is rapid. The available water capacity is low to medium. Permeability is moderate to moderately rapid in the surface and subsurface layers. It is very slow to slow in the subsoil. Natural fertility is low to medium, and the organic matter content is moderately low to moderate in the surface layer.

3.4 Laboratory Soil Analysis

Selected soil samples recovered from the soil borings were analyzed for the percent soil fines passing the No. 200 sieve, natural moisture content, Atterberg Limits, and hydraulic conductivity. Samples selected for laboratory testing were collected at depths ranging from 1 to 18 feet bls. These tests were performed to confirm visual soil classification and evaluate their engineering properties. The complete laboratory report is provided in Section 5.3.

The laboratory tests indicate the tested soils consist of sand with clay, clayey sand, very clayey sand, and clay. The tested sand with clay (SP-SC) contains approximately 10 percent soil fines passing the No. 200 sieve with natural moisture contents of about 3.5 to 4.7 percent. The tested clayey sand (SC) contains approximately 17 to 27 percent soil fines passing the No. 200 sieve with natural moisture contents of about 9 to 18 percent. The tested very clayey sand (SC/CL) contains approximately 30 to 37 percent soil fines passing the No. 200 sieve with natural moisture contents of about 14 to 28 percent. The tested clay (CH) contains approximately 85 to 93 percent soil fines passing the No. 200 sieve with natural moisture contents of about 50 to 51 percent.

Atterberg Limits tests indicate the tested very clayey sand (SC/CL) has Liquid Limit (LL) values of 42 to 49, Plastic Limit (PL) values of 15 to 24, and Plasticity Index (PI) values of 21 to 34. This corresponds to a material with low ($LL < 50$ and $PI < 25$) to marginal ($50 \leq LL \leq 60$ and $25 \leq PI \leq 35$) potential for expansive behavior[3]. The tested clay (CH) has LL values of 76 and 108, PL values of 18 and 24, and PI values of 58 and 84. This corresponds to a material with high potential ($LL > 60$ and $PI > 35$) for expansive behavior.

Although not tested, the clay with sand is expected to have a high potential for expansive behavior. It is our experience that clay-rich soils in this area of Alachua County having more than about 40 percent soil fines passing the No. 200 sieve have a high potential for expansive behavior.

The constant head hydraulic conductivity test results indicate the sand with clay has hydraulic conductivity values of 2.3 to 3.5 feet per day. The tested clayey sand (SC) has hydraulic conductivity values of 0 to 3.3 feet per day.

[3] U.S. Department of the Army USA, 1983, Foundations in Expansive Soils, TM 5-818-7, p. 4-1.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General

The following recommendations are made based upon our understanding of the proposed construction, a review of the attached soil borings and laboratory test data, and experience with similar projects and subsurface conditions. If plans or the location of proposed construction changes from those discussed previously, GSE requests the opportunity to review and possibly amend our recommendations with respect to those changes.

The final design of a foundation system is dependent upon adequate integration of geotechnical and structural engineering considerations. Consequently, GSE must review the final foundation design in order to evaluate the effectiveness and applicability of our initial analyses, and to determine if additional recommendations may be warranted. Without such a review, the recommendations presented herein could be misinterpreted or misapplied resulting in potentially unacceptable performance of the foundation system.

The performance of site improvements may be sensitive to their post-construction relationship to site groundwater levels, seepage zones, or soil/rock characteristics exposed at final site grades. GSE recommends that use of boring information for final design of all site improvements be predicated on proper horizontal and vertical control of borings.

In this section of the report, we present our geotechnical parameters and recommendations to assist with building foundation and stormwater management designs as well as our general site preparation guidelines.

4.2 Groundwater

The groundwater table was encountered in the SPT borings at depths ranging from 13.5 to 18 feet bls at the time of our exploration. However, you should expect water to perch on top of the very clayey sands and clay-rich soils after periods of heavy and seasonal rainfall.

4.3 Building Foundations

The SPT borings at the building locations initially penetrated 0 to 17 of a near-surface sandy stratum consisting of poorly graded sand and sand with silt (SP, SP-SM). This was underlain by interbedded strata of clayey to very clayey sand, silty clayey sand, and sand with clay (SC, SC/CL, SM/SC, SP-SC) or clay-rich soils consisting of clay with sand and clay (CL/CH, CH) to the explored depths of 20 feet bls. Laboratory tests conducted on the very clayey sand indicate it is low to marginally expansive. Laboratory tests conducted on the clay indicate it is highly expansive.

The majority of the soil conditions at the building locations consist of shallow clay-rich soils that are expected to have a moderate to high potential for expansive behavior. These conditions are known to have a higher risk for differential foundation movements due to volume changes of the expansive soils. We recommend you consider several options to reduce this risk, including deep subgrade remediation in conjunction with conventional, shallow foundations; moderate subgrade remediation using stiff, shallow foundations; or no subgrade remediation using a very stiff post-tensioned slab/foundation.

There are several foundation and subgrade preparation options for reducing the risk for differential foundation movement related to volume changes of the expansive clay soils. We wish to point out that these options will not eliminate this risk, but are intended to provide economical foundation and site preparation alternatives that should significantly reduce the risk, when compared to using conventional foundations and subgrade preparation methods. Our recommended foundation options for the buildings are presented below.

Conventional Foundations and Undercutting

The proposed structures can be supported by conventional, shallow foundations designed for a maximum net soil bearing pressure of 3000 psf if undercutting and replacement of the clay-rich soils is performed beneath the building limits. Net bearing pressure is defined as the soil bearing pressure at the base of the foundation in excess of the natural overburden pressure. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

The foundations should be embedded a minimum of 18 inches below the lowest adjacent grade. Interior foundations or thickened sections should be embedded a minimum of 12 inches. The foundations should have minimum widths of 18 inches for strip footings, and 24 inches for columns, even though the maximum soil bearing pressure may not be fully developed. If the bearing surface is poorly graded sand or sand with silt (SP, SP-SM), the upper 12-inches should be compacted to 95 percent of the Modified Proctor maximum dry density (ASTM D 1557). If clay-rich soils are present at the bearing depth, they should be visually observed and probed to confirm the upper 12 inches are firm and unyielding.

With conventional, shallow foundations, we recommend the building limits and a minimum of 3 feet past the foundation edges be undercut to a minimum depth of 4 feet below the foundation bottom elevation. The foundation undercuts should initially be backfilled with clayey sand or crushed limerock fill materials to at least the foundation bottom. Above this elevation, the undercuts on the inside of the foundation lines can be backfilled with clean sand fill.

The clayey sand fill should have a minimum of 15 percent and a maximum of 35 percent soil fines passing the No. 200 sieve. Clayey sand fill should have a maximum Liquid Limit of 45 and a maximum Plasticity Index of 15. Clayey sand fill should be placed in approximate 6-inch loose lifts that are compacted to a minimum of 98 percent of the Standard Proctor maximum dry density (ASTM D-698). This may be achieved by mixing soils at the site or importing soils.

Crushed limerock fill should meet FDOT gradation requirements and be placed in approximate 6-inch loose lifts. Limerock fill should be compacted to a minimum of 98 percent of the Modified Proctor maximum dry density (ASTM D-1557).

The primary intent of deep undercutting is to remove the majority of the expansive soils from the “active” zone. The active zone is the depth of soil below ground surface that undergoes changes in moisture content with seasonal changes in rainfall and weather. The purpose of using the clayey sand or limerock fill material is to provide a low permeability material that reduces the potential for storm and irrigation water penetrating the deeper clay-rich soils beneath the undercut which can result in swelling of the clay and heave in the buildings. Additionally, the low permeability material is also intended to reduce the effect of vegetation removing moisture from the expansive soils which can result in shrinkage and settlement.

The sand placed above the low permeability materials should consist of clean sand having less than 10 percent passing the No. 200 sieve. The sand should be placed in approximate 12-inch loose lifts that are compacted to a minimum of 95 percent of the Modified Proctor maximum dry density.

Stiff Foundations and Undercutting

An alternative to undercutting to a depth of 4 feet beneath the foundation bottoms is undercutting to a lesser depth and using a stiffer foundation. The intent of this option is to reduce the costs of the subgrade preparation by using a stiffer foundation that is capable of "bridging" some of the differential movement that may occur.

We recommend stiff, shallow foundations designed for a maximum net soil bearing pressure of 3000 psf if undercutting and replacement of the clay-rich soils is performed along the foundation lines. Net bearing pressure is defined as the soil bearing pressure at the base of the foundation in excess of the natural overburden pressure. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

The foundations should be embedded a minimum of 18 inches below the lowest adjacent grade. Interior foundations or thickened sections should be embedded a minimum of 12 inches. The foundations should have minimum widths of 18 inches for strip footings, and 24 inches for columns, even though the maximum soil bearing pressure may not be fully developed. If the bearing surface is poorly graded sand or sand with silt (SP, SP-SM), the upper 12-inches should be compacted to 95 percent of the Modified Proctor maximum dry density (ASTM D 1557).

Stiff foundations can consist of grade beams or a thickened edge "waffle-type" slab having steel in the top and bottom. The grade beams and thickened sections are typically at least 20-inches thick, but the thickness and reinforcing should be determined by your architect or structural engineer. We recommend the stiff foundation design consider the subgrade soils to have a modulus of subgrade reaction, MR, of 175 pci.

With stiff, shallow foundations, we recommend the building limits and a minimum of 3 feet past the foundation edges be undercut to a minimum depth of 2 feet below the foundation bottom elevation. The foundation undercuts should initially be backfilled with clayey sand or crushed limerock fill materials to at least the foundation bottom. Above this elevation, the undercuts on the inside of the foundation lines can be backfilled with clean sand fill. The floor slab undercut can also be backfilled with sand fill, again assuming that rainwater/stormwater does not accumulate and become trapped during construction. The portion of the undercut on the outside of the foundation lines should be backfilled with compacted clayey sand or crushed limerock fill material.

The clayey sand or limerock fill materials should be placed and compacted as recommended above.

Post-Tensioned Slab/Foundation

A third option for supporting structures on expansive soils is using a post-tensioned slab/foundation that is designed to resist differential movements from volume changes of the expansive soils. The post-tensioned foundation will not eliminate differential foundation movement or cracking, but will spread out the movement over a larger area, reducing the amount of angular distortion and the risk for cracking. However, a post-tensioned foundation may not eliminate cracks from developing. With this option, the foundation can be constructed directly on the existing soils, but you should consider either filling the building pad or providing some minimal undercut to provide a suitable sand material that eases construction of the utilities beneath the building.

For the post-tensioned slab/foundation design, we recommend you consider a maximum net soil bearing pressure of 3,000 psf. Net bearing pressure is defined as the soil bearing pressure at the base of the foundation in excess of the natural overburden pressure. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

For the post-tensioned foundation design, we recommend you consider the edge moisture variation distance for center and edge lift to be 4 and 5 feet, respectively. The maximum anticipated differential soil movements for center and edge lift are estimated to be 0.7 and 0.5 inches, respectively. A slab subgrade friction coefficient of 0.6 can be considered.

The foundations should be embedded a minimum of 18 inches below the lowest adjacent grade. Interior foundations or thickened sections should be embedded a minimum of 12 inches. The foundations should have minimum widths of 16 inches for strip footings, and 24 inches for columns, even though the maximum soil bearing pressure may not be fully developed. If the foundation bearing surface is poorly graded sand or sand with silt (SP, SP-SM), the upper 12-inches should be compacted to 95 percent of the Modified Proctor maximum dry density (ASTM D 1557). If clay-rich soils are present at the bearing depth, they should be visually observed and probed to confirm the upper 12 inches are firm and unyielding.

4.4 Site Preparation

The soils at this site should be suitable for supporting the proposed construction using normal, good practice site preparation procedures. Undercutting and replacement of clay-rich soils may be necessary. The following recommendations are our general guidelines for site preparation.

4.4.1 Stripping

Strip the construction limits and 10 feet beyond the perimeter of all grass, roots, topsoil, pavement, and other deleterious materials. You should expect to strip to depths of 12 or more inches. Deeper stripping will likely be necessary due to major root systems present at the site.

Undercut clay-rich soils as recommended in this report.

4.4.2 Dewatering

Temporary dewatering is not expected to be necessary for this project. However, if needed, we anticipate dewatering can be accomplished with sumps placed near the construction area, or with underdrains connected to a vacuum pump.

In any case, the site should always be graded to promote runoff and limit the amount of ponding. Localized ponding of stormwater is expected without proper grading during construction, and could render previously acceptable surfaces unacceptable.

4.4.3 Proof-Rolling

In areas that do not require undercutting, proof-roll the subgrade with heavy rubber-tired equipment, such as a loaded front-end loader or dump truck, to identify any loose or soft zones not found by the soil borings. The proof-rolling should be monitored by a geotechnical engineer or qualified technician. Undercut or otherwise treat these zones as recommended by the geotechnical engineer in this report.

4.4.4 Proof Compaction

Compact the subgrade to a density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). The specified compaction should be obtained to a depth of 1 foot below the foundation bottoms and the existing grade prior to placing fill. Vibratory roller equipment should not be used within approximately 100 feet of existing structures. Lighter "walk-behind" compaction equipment may be used to achieve the degree of compaction.

Should clayey sand be encountered at the bearing surface, this material should be probed and visually confirmed to be unyielding in the upper 12 inches in lieu of density testing. If the excavations penetrate clayey sands or clay-rich soils, the excavation should be performed in a manner that reduces soil disturbance. Clayey sand soils (with fines content in excess of 15 percent) that are removed and replaced or appreciably disturbed need to be re-compacted to 98 percent of the Standard Proctor maximum dry density (ASTM D698).

4.4.5 Fill Placement

Imported fill placed to raise the site grades should consist of clean sand having less than 10 percent passing the No. 200 sieve. On-site soils meeting the requirements of Section 4.8 may also be used as structural fill. The fill should be placed in maximum 12-inch loose lifts that are compacted to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). If lighter "walk-behind" compaction equipment is used, this may require lifts of 4 inches or less to achieve the required degree of compaction.

4.5 Quality Control and Construction Materials Testing

It should be noted that the geotechnical engineering design does not end with the advertisement of the construction documents. As the geotechnical engineer of record, GSE is the most qualified to perform the construction materials testing that will be required for this project. The benefits of having the geotechnical engineer of record also perform the construction materials testing are numerous. If GSE continues to be involved with the project through construction, we will be able to constantly re-evaluate and possibly alter our geotechnical recommendations in a timely and cost-effective manner once final design and construction techniques are developed. This often results in cost savings for the project.

We recommend performing compaction testing beneath the concrete floor slab and the building foundations. We recommend one test be performed every 50 linear feet of continuous footing and every other column footing, per foot depth of fill or native material. We recommend a compaction test be performed for each 2,500 square feet of floor area or 10,000 square feet of pavement area per foot of fill or native material, or a minimum of three tests each, whichever is greater. Test all footing excavations to a depth of 12 inches at the frequencies stated above.

4.6 Undercutting Requirements

Perform selective undercutting and backfilling for the selected foundation system for each building per the foundation system selected as discussed in Section 4.3.

4.7 Stormwater Management

The auger borings located in the proposed southwestern stormwater management facility (P-1 through P-5) initially penetrated 0.5 to 3 feet of a near-surface sandy stratum consisting of sand with silt and sand with clay (SP-SM, SP-SC). This was underlain by clayey to very clayey sand (SC, SC/CL) and clay with sand (CL/CH) to the explored depths of 20 feet bls.

The auger borings located in the proposed eastern stormwater management facility (P-6, P-7) initially penetrated 3 feet of a near-surface sandy stratum consisting of sand with clay (SP-SC). This was underlain by clayey to very clayey sand (SC, SC/CL) and clay with sand (CL/CH) to the explored depths of 15 feet bls.

The water table was not encountered in the auger borings at the time of our exploration. We anticipate the seasonal high groundwater table to be perched on the very clayey sands.

The laboratory permeability tests indicate the surficial layer of sand with clay (SP-SC) has hydraulic conductivity values of 2.3 to 3.5 feet per day. The deeper clayey sand (SC) encountered below the surficial sandy material has hydraulic conductivity values of 0 to 3.3 feet per day. The underlying very clayey sand and clay with sand are expected to be confining soils.

Based upon our findings and test results, our recommended soil parameters for the stormwater management design in the explored areas are presented below. The recommended parameters consider the results of the permeability tests, wash 200 determinations, and our experience with these types of soils. The parameters below do not consider a factor of safety.

Proposed Southwestern Stormwater Management Facility (P-1 through P-5)

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 7.5 feet bls.
2. Unsaturated vertical infiltration rate of 2 feet per day.
3. Horizontal hydraulic conductivity equal to 3 feet per day.
4. Specific yield (fillable porosity) of 20 percent.
5. Average seasonal high groundwater table depth equal to 7 feet bls.

Proposed Eastern Stormwater Management Facility (P-6, P-7)

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 9 feet bls.
2. Unsaturated vertical infiltration rate of 1.5 feet per day.
3. Horizontal hydraulic conductivity equal to 2 feet per day.
4. Specific yield (fillable porosity) of 20 percent.
5. Average seasonal high groundwater table depth equal to 8.5 feet bls.

In areas where clay-rich soils are present at the basin bottom, we recommend these soils be undercut a minimum of 2 feet and backfilled with the on-site sands and sands with silt (SP, SP-SM) having a maximum of 12 percent soil fines passing the No. 200 sieve. The intent of this undercutting and replacement is to provide a more uniform sand "blanket" at the basin bottom that allows the migration of water to the deeper deposits of sand. This sand blanket will also reduce the potential for clay-fines leaching out of the soils when water is present in the basin that can result in a thin layer of confining type material on the basin bottom that can reduce the effectiveness of the basin.

4.8 Fill Suitability

The soils encountered at this site within the explored depths range from sands (SP) to clays (CL/CH). A discussion of the suitability for reuse as structural fill for each soil classification according to the Unified Soil Classification System (USCS) designation is provided below.

SP, SP-SM – Sands (SP) and sand with silt (SP-SM) have less than 5 percent and 12 percent soil fines passing the No. 200 sieve, respectively, and are typically well draining soils that are suitable for reuse as structural fill. The sands with silt may require moisture conditioning (drying) to make the material more workable. These soils will require stockpiling and drying before they are reused if they are excavated from below the water table.

SM – Silty sands (SM) can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Silty sands are typically non-plastic or have low plasticity, and can be reused as structural fill with precautions. Silty sands can be moisture sensitive and difficult to work and compact and can rut if the moisture content is near or above the optimum moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable silty sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Silty sands with more than 30 percent soil fines are especially moisture sensitive, and are not recommended for reuse as structural fill. These soils will behave more as sandy silt, and for this reason, very silty sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SM/ML. Silty sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

SC – Clayey sand (SC) soils can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Clayey sands can have a high range of plasticity, varying from a PI of 7 or greater and plotting above the A-line to highly plastic. Friable clayey sands are typically suitable for use as structural fill with precautions. Clayey sands will be moisture sensitive and difficult to work and compact and can rut during placement if the moisture content is near or above the natural moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable clayey sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Clayey sands with more than 30 percent soil fines passing the No. 200 sieve are especially moisture sensitive and are typically highly plastic, and are not recommended for reuse as structural fill. These soils will behave more as sandy clay, and for this reason, very clayey sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SC/CH or SC/CL. Clayey sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

ML, MH, CL, CH – Silts and clays are not suitable materials for reuse as structural fill.

When using on-site soils as fill materials, we recommend the silty and clayey sand soils (SM, SC) be used in the lower depths of the fill. Sand and sand with silt (SP, SP-SM) should be used in the upper portions of the fill. We recommend a minimum of 2 feet of sand (SP, SP-SM) cover the silty and clayey sand fill materials to reduce the potential for soggy surface conditions due to the low permeability characteristics of the silty and clayey sand materials.

4.9 Surface Water Control and Landscaping

Roof gutters should be considered to divert runoff away from the buildings. The gutter downspouts should discharge a minimum of 10 feet from the structures to reduce the amount of water collecting around the foundations. Where possible, the gutter downspouts should discharge directly into the storm sewer system or onto the asphalt paved areas in order to reduce the amount of water collecting around the foundations. Grading of the site should be such that water is diverted away from the buildings on all sides to reduce the potential for erosion and water infiltration along the foundation.

With respect to landscaping, it is recommended that existing and planted trees and large “tree-like” shrubbery with potential for developing large root systems be planted a minimum distance of half their mature height, and preferably their expected final height, away from the structures. The purpose of this is to reduce the potential for foundation or slab movements from the growth of root systems as the landscaping matures. Consideration should also be given to using landscaping that has a low water demand, so that excessive irrigation is not conducted around the structures.

If excavations for underground utilities encounter the clay-rich soils, the excavations should be made such that they do not trap water (i.e. "swimming pool" or "bowl" effect). Sloping the excavations, installing underdrains, or extending the excavation to a more pervious area can achieve this. Allowing surface water to become trapped within utility trenches or other excavations (including footings) serves as a potential water source for the clay, which can result in shrink swell of these soils. Furthermore, during construction, surface water within the building areas must be controlled such that the water does not become trapped and represent a source of water for the underlying clay-rich soils. Mismanagement of the surface water during construction within the building footprint could result in subsequent post-construction slab movement.

The above recommendations are intended to maintain relatively consistent moisture contents within the clay-rich expansive soils encountered by the borings. The importance of proper surface water control and landscaping placement cannot be overemphasized in accomplishing this objective.

5.0 FIELD DATA

5.1 Auger Boring Logs

GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

BORING NUMBER P-1

DATE PERFORMED 5/30/2024
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING NE
ESTIMATED SEASONAL HIGH 1.0 ft, perched
LOGGED BY WDI
CHECKED BY KPF
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1	(SP-SC) Brown SAND with clay
			1.5
			(SC/CL) Brown, gray, and orange very clayey SAND with trace sandstone
		AU 2	*%PASS-200 = 30*
			MC = 20
5			
		AU 3	
10			
		AU 4	
15			
		AU 5	17.5
			(CL/CH) Gray, brown, and orange CLAY with sand
20			20.0
			Bottom of borehole at 20.0 feet.

BORING NUMBER P-2

DATE PERFORMED 5/30/2024
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING NE
ESTIMATED SEASONAL HIGH 0.0 ft, perched
LOGGED BY WDI
CHECKED BY KPF
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0			(SP-SC) Brown SAND with clay
			0.5
		AU 1	(SC/CL) Gray very clayey SAND with trace sandstone
5			5.0
			(CL/CH) Gray and green CLAY with sand and trace sandstone
		AU 2	
10			
			12.0
		AU 3 PS	(SC) Brown and gray clayey SAND
			%PASS-200 = 27
			MC = 11
15			
			16.0
		AU 4	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
20			20.0
			Bottom of borehole at 20.0 feet.

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GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

BORING NUMBER P-3

DATE PERFORMED 5/30/2024
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING NE
ESTIMATED SEASONAL HIGH 1.5 ft, perched
LOGGED BY WDI
CHECKED BY KPF
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0	AU 1	(SP-SM) Gray and brown SAND with silt
		2.0
	AU 2	(SC/CL) Gray, brown, and orange very clayey SAND with trace sandstone *%PASS-200 = 32* *MC = 14*
5	AU 3	
10		12.5
	AU 4	(SC) Gray and brown clayey SAND with trace sandstone
15		17.0
	AU 5	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
20		20.0 Bottom of borehole at 20.0 feet.

BORING NUMBER P-4

DATE PERFORMED 5/30/2024
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING NE
ESTIMATED SEASONAL HIGH >20 ft
LOGGED BY WDI
CHECKED BY KPF
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0	AU 1	(SP-SC) Brown SAND with clay
		1.5
	AU 2	(SC) Gray, brown, and orange clayey SAND with trace sandstone
5	AU 3	
10		12.0
	AU 4	(SC) Brown and gray clayey SAND
15	AU 5 PS	*%PASS-200 = 26* *MC = 18* *k_h = 3.3 ft/day*
20		20.0 Bottom of borehole at 20.0 feet.

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CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

DATE PERFORMED 5/30/2024 **BORING NUMBER P-5**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH 12.5 ft, perched
NOTES

DATE PERFORMED 5/30/2024 **BORING NUMBER P-6**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH 12.0 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1 PS	(SP-SC) Brown SAND with clay *%PASS-200 = 10* *MC = 3.5* *k_h = 2.3 ft/day*
3.0			(SC) Brown and gray clayey SAND with trace sandstone
5		AU 2	
		AU 3	
10			▽
13.0		AU 4	(SC/CL) Brown, gray, and orange very clayey SAND with trace sandstone
15			
15.5		AU 5	(SC/CL) Gray and brown very clayey SAND
20			
20.0			Bottom of borehole at 20.0 feet.

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1 PS	(SP-SC) Brown SAND with clay *%PASS-200 = 10* *MC = 4.7* *k_h = 3.5 ft/day*
3.0		AU 2	(SC) Brown and gray clayey SAND
5		AU 3	
10			▽
12.5		AU 4	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
15			
15.0			Bottom of borehole at 15.0 feet.

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GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity **PROJECT NAME** Tolosa North Alachua Habitat

PROJECT NUMBER 16604 **PROJECT LOCATION** Alachua, Alachua County, Florida

DATE PERFORMED 5/30/2024 **BORING NUMBER P-7**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING NE CHECKED BY KPF

▽ ESTIMATED SEASONAL HIGH 5.0 ft, perched

NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1	(SP-SC) Brown SAND with clay
			3.0
		AU 2 PS	(SC) Brown and gray clayey SAND with trace sandstone *%PASS-200 = 17* *MC = 9.0*
5			▽
			5.5
			(SC/CL) Gray, brown, and orange very clayey SAND with trace sandstone
		AU 3	
10			
			13.0
		AU 4	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
15			15.0
			Bottom of borehole at 15.0 feet.

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5.2 Standard Penetration Test Soil Boring Logs

GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-1

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** 18.0 ft
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 18.0 ft
NOTES

DEPTH (ft)	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)
0	(SP-SM) Very loose to loose brown SAND with silt			
			SPT 1	1-1-1 (2)
			SPT 2	1-1-2 (3)
5			SPT 3	2-3-3 (6)
			SPT 4	3-4-3 (7)
		7		
	(SP) Medium dense brown and gray SAND		SPT 5	4-4-7 (11)
		8.5		
	(SC) Medium dense gray and brown clayey SAND		SPT 6	9-11-16 (27)
10				
			SPT 7	21-13-9 (22)
15		16		
	(SP-SC) Very dense brown and gray SAND with clay			
			SPT 8	14-26-32 (58)
20		20		
	Bottom of borehole at 20.0 feet.			

LIQUID LIMIT, % | PLASTIC LIMIT, % | PLASTICITY INDEX | PERCENT PASS NO. 200 SIEVE | MOISTURE CONTENT, %

▲ SPT N VALUE ▲
20 40 60 80

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GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-2

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** 13.5 ft
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 13.5 ft
NOTES

DEPTH (ft)	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)
0	(SP-SM) Very loose to loose brown SAND with silt			
			SPT 1	1-1-1 (2)
			SPT 2	1-2-2 (4)
5			SPT 3	2-3-3 (6)
			SPT 4	2-3-4 (7)
		7		
	(SP) Loose to dense brown and gray SAND		SPT 5	3-3-4 (7)
			SPT 6	4-7-9 (16)
10				
	▼			
			SPT 7	13-14-17 (31)
15				
		17		
	(SP-SC) Dense brown and gray SAND with clay			
			SPT 8	19-23-25 (48)
20		20		
	Bottom of borehole at 20.0 feet.			

LIQUID LIMIT, % | PLASTIC LIMIT, % | PLASTICITY INDEX | PERCENT PASS NO. 200 SIEVE | MOISTURE CONTENT, %

▲ SPT N VALUE ▲
20 40 60 80

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5590 SW 64th St
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BORING NUMBER B-3

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 5.5 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP) Very loose to medium dense brown SAND		SPT 1	1-2-1 (3)						20 40 60 80
				SPT 2	2-3-4 (7)						
5		(SP) Medium dense pale brown and gray SAND ▽	4.5	SPT 3	4-5-7 (12)						
		(SC/CL) Loose to dense gray, brown, and orange very clayey SAND	6	SPT 4	6-6-6 (12)						
				SPT 5	6-9-13 (22)						
10				SPT 6	18-18-16 (34)						
				SPT 7	3-3-5 (8)						
15											
			19	SPT 8	5-8-11 (19)						
20		(CL/CH) Very stiff gray, brown, and orange CLAY	20								
		Bottom of borehole at 20.0 feet.									

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GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

BORING NUMBER B-4

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 3.5 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SC) Loose gray and brown clayey SAND		SPT 1	3-2-3 (5)	49	15	34	37	19	20 40 60 80
			2.5								
		(SC) Loose gray and brown clayey SAND with trace sandstone ▽		SPT 2	6-5-5 (10)						
			4								
5		(SC/CL) Medium dense gray, brown, and orange very clayey SAND with trace sandstone		SPT 3	6-5-6 (11)						
			6								
		(SC) Medium dense gray and brown clayey SAND		SPT 4	7-9-14 (23)						
			7.5								
		(CL/CH) Stiff to very stiff gray, brown, and orange CLAY with sand		SPT 5	5-7-6 (13)						
10				SPT 6	8-11-15 (26)						
				SPT 7	7-12-15 (27)						
15											
			16.5								
		(CL/CH) Stiff gray, brown, and orange CLAY									
				SPT 8	4-5-7 (12)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-5

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/30/24 **COMPLETED** 5/30/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 0.0 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		▽ (SC/CL) Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone		SPT 1	4-4-5 (9)	45	24	21	34	19	20 40 60 80
				SPT 2	5-7-9 (16)						
			4.5	SPT 3	3-6-7 (13)						
5		(CL/CH) Stiff to very stiff gray and green CLAY with sand and trace sandstone	6	SPT 4	11-13-17 (30)						
		(SC/CL) Medium dense to dense gray, brown and orange very clayey SAND with trace sandstone		SPT 5	6-7-11 (18)						
10				SPT 6	13-16-26 (42)						
			12								
		(CL/CH) Stiff gray, brown, and orange CLAY		SPT 7	5-7-8 (15)						
15											
			17.5								
		(SC) Dense pale gray and brown clayey SAND		SPT 8	8-12-19 (31)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-6

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/30/24 **COMPLETED** 5/30/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 6.5 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP) Very loose to medium dense brown SAND		SPT 1	1-1-1 (2)						
			3	SPT 2	3-3-8 (11)						
5		(SP-SC) Medium dense brown and gray SAND with clay		SPT 3	6-8-9 (17)						
			5.5								
		(SC) Medium dense gray, brown, and orange clayey SAND ▽		SPT 4	9-12-13 (25)						
			7								
		(CH) Stiff gray, green, brown, and orange CLAY		SPT 5	3-3-6 (9)	76	18	58	85	51	
			9	SPT 6	4-7-8 (15)						
10		(CL/CH) Stiff green and orange CLAY									
			13.5								
		(CL/CH) Stiff gray, brown, and orange CLAY with sand		SPT 7	3-6-8 (14)						
15											
				SPT 8	4-6-8 (14)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-7

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/30/24 **COMPLETED** 5/30/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 0.0 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		▽ (SC/CL) Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone		SPT 1	3-4-4 (8)	42	15	27	32	16	20 40 60 80
				SPT 2	6-6-8 (14)						
5				SPT 3	4-5-5 (10)						
		(CL/CH) Stiff green, gray, and orange CLAY	5.5	SPT 4	7-7-7 (14)						
				SPT 5	3-4-6 (10)						
		(SC) Medium dense gray, brown, and orange clayey SAND	8.5	SPT 6	9-8-7 (15)						
10											
			13.5								
		(CL/CH) Very stiff gray, brown, green, and orange CLAY with sand and trace sandstone		SPT 7	6-8-10 (18)						
15											
			19								
		(SP-SC) Medium dense gray and brown SAND with clay		SPT 8	6-10-12 (22)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-8

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 4.0 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP) Brown SAND	1								20 40 60 80
		(SC) Loose to medium dense gray and brown clayey SAND with trace sandstone		SPT 1	4-3-6 (9)						
	▽			SPT 2	6-9-9 (18)						
5		(SC/CL) Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone	4.5	SPT 3	3-5-5 (10)						
				SPT 4	9-14-15 (29)						
		(CH) Stiff green and orange CLAY	7.5	SPT 5	4-4-5 (9)						
10				SPT 6	5-6-7 (13)	108	24	84	93	50	
		(SP-SC) Medium dense gray, brown, and orange SAND with clay	11.5								
				SPT 7	8-10-11 (21)						
15											
		(CL/CH) Stiff gray, brown, and orange CLAY with sand	18								
20			20	SPT 8	5-5-6 (11)						
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-9

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** >20 ft
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SC) Loose to medium dense brown, gray, and orange clayey SAND									20 40 60 80
				SPT 1	3-4-6 (10)						
				SPT 2	5-7-8 (15)						
5			5	SPT 3	8-10-14 (24)						
		(SC) Medium dense to dense gray and brown clayey SAND with trace sandstone		SPT 4	12-14-20 (34)						
				SPT 5	10-18-20 (38)						
10				SPT 6	15-25-21 (46)						
			12								
		(SC) Medium dense gray, brown, and orange clayey SAND									
				SPT 7	7-12-17 (29)						
15											
			19								
		(SP) Medium dense pale gray and brown SAND		SPT 8	10-13-15 (28)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-10

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** NE
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 2.5 ft, perched
NOTES

DEPTH (ft)	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0	(SP) Very loose to loose brown SAND		SPT 1	1-1-2 (3)	46	19	27	37	28	20 40 60 80
		3	SPT 2	2-2-4 (6)						
5	(SC/CL) Loose to medium dense brown, gray, and orange very clayey SAND		SPT 3	6-7-9 (16)						
		6.5	SPT 4	9-10-11 (21)						
	(SC/CL) Medium dense to dense gray, green, and orange very clayey SAND		SPT 5	5-5-7 (12)						
10			SPT 6	9-10-12 (22)						
		14	SPT 7	10-19-20 (39)						
15	(SC/CL) Dense gray and orange very clayey SAND									
		17.5								
	(CL/CH) Stiff green, brown, and orange CLAY		SPT 8	3-4-7 (11)						
20		20								
	Bottom of borehole at 20.0 feet.									

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Gainesville, FL 32608
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BORING NUMBER B-11

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** 16.3 ft
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 16.0 ft
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP) Very loose to loose brown SAND		SPT 1	1-2-1 (3)						20 40 60 80
				SPT 2	1-1-2 (3)						
5			5	SPT 3	3-3-4 (7)						
		(SP) Loose to dense tan SAND	6	SPT 4	5-15-18 (33)						
		(SP-SC) Medium dense to dense brown and gray SAND with clay	7.5	SPT 5	15-11-11 (22)						
10		(SC) Loose to medium dense brown and gray clayey SAND		SPT 6	10-12-15 (27)						
15		▽		SPT 7	3-4-5 (9)						
			17								
		(SM/SC) Loose brown and gray silty clayey SAND with trace sandstone		SPT 8	2-2-3 (5)						
20			20								
		Bottom of borehole at 20.0 feet.									

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Gainesville, FL 32608
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BORING NUMBER B-12

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** 15.0 ft
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 15.0 ft
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP) Very loose to loose brown SAND		SPT 1	1-1-1 (2)						20 40 60 80
				SPT 2	2-3-4 (7)						
5				SPT 3	3-4-4 (8)						
			6	SPT 4	3-4-4 (8)						
		(SP) Loose to medium dense gray and brown SAND		SPT 5	5-5-8 (13)						
			8.5	SPT 6	13-18-18 (36)						
10		(SC) Dense gray and brown clayey SAND	11								
		(SP-SC) Dense gray and brown SAND with clay		SPT 7	19-18-14 (32)						
15		▼									
			17.5								
		(SC/CL) Loose brown, green, and orange very clayey SAND		SPT 8	3-3-4 (7)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-13

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida
DATE STARTED 5/29/24 **COMPLETED** 5/29/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Flight Auger
▼ **AT TIME OF DRILLING** 18.0 ft
LOGGED BY WDI **CHECKED BY** KPF
▽ **ESTIMATED SEASONAL HIGH** 18.0 ft
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SM) Very loose to loose brown SAND with silt									20 40 60 80
				SPT 1	1-1-2 (3)						
				SPT 2	1-1-2 (3)						
5				SPT 3	3-3-4 (7)						
			6	SPT 4	5-3-4 (7)						
		(SP) Loose to medium dense gray and brown SAND		SPT 5	5-8-9 (17)						
			8.5	SPT 6	12-12-13 (25)						
10		(SC) Medium dense to dense gray and brown clayey SAND									
				SPT 7	17-21-15 (36)						
15											
		▼									
				SPT 8	7-12-21 (33)						
20			20								
		Bottom of borehole at 20.0 feet.									

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5.3 Laboratory Results

GSE Engineering & Consulting, Inc.

SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 16604

Project Name: Tolosa North Alachua Habitat

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
P-1	3-3.5	Brown, gray, and orange very clayey SAND with trace limestone	20				30			SC/CL
P-2	12-14	Brown and gray clayey SAND	11				27		NF	SC
P-3	3-3.5	Gray, brown, and orange very clayey SAND with trace sandstone	14				32			SC/CL
P-4	16-18	Brown and gray clayey SAND	18				26		3.3	SC
P-5	1-3	Brown SAND with clay	3.5				10		2.3	SP-SC
P-6	1-3	Brown SAND with clay	4.7				10		3.5	SP-SC
P-7	3-5	Brown and gray clayey SAND with trace sandstone	9.0				17		NF	SC
B-4	4-5.5	Medium dense gray, brown, and orange very clayey SAND with trace sandstone	19	49	15	34	37			SC/CL
B-5	1-2.5	Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone	19	45	24	21	34			SC/CL
B-6	7-8.5	Stiff gray, green, brown, and orange CLAY	51	76	18	58	85			CH
B-7	1-2.5	Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone	16	42	15	27	32			SC/CL
B-8	8.5-10	Stiff green and orange CLAY	50	108	24	84	93			CH

GSE Engineering & Consulting, Inc.

SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 16604

Project Name: Tolosa North Alachua Habitat

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
B-10	4-5.5	Loose to medium dense brown, gray, and orange very clayey SAND	28	46	19	27	37			SC/CL

5.4 Key to Soil Classification

KEY TO SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				SYMBOLS		GROUP NAME
				GRAPHIC	LETTER	
COARSE-GRAINED SOILS	Gravels	Clean Gravels	Cu ≥ 4 and 1 ≤ Cc ≤ 3		GW	Well graded GRAVEL
More than 50% retained on No. 200 sieve	More than 50% of coarse fraction retained on No. 4 sieve	Less than 5% fines	Cu < 4 and/or 1 > Cc > 3		GP	Poorly graded GRAVEL
		Gravels with fines	Fines classify as ML or MH		GM	Silty GRAVEL
		More than 12% fines	Fines classify as CL or CH		GC	Clayey GRAVEL
	Sands	Clean Sands	Cu ≥ 6 and 1 ≤ Cc ≤ 3		SW	Well graded SAND
	50% or more of coarse fraction passes No. 4 sieve	Less than 5% fines	Cu < 6 and/or 1 > Cc > 3		SP	Poorly graded SAND
		Sand with fines	Fines classify as ML or MH		SP-SM	SAND with silt
		5% ≤ fines < 12%	Fines classify as CL or CH		SP-SC	SAND with clay
		Sand with fines	Fines classify as ML or MH		SM	Silty SAND
		12% ≤ fines < 30%	Fines classify as CL or CH		SC	Clayey SAND
		Sand with fines	Fines classify as ML or MH		SM	Very silty SAND
		30% fines or more	Fines classify as CL or CH		SC	Very clayey SAND
FINE-GRAINED SOILS	Clays	inorganic	50% ≤ fines < 70%		CL/CH	Sandy CLAY
50% or more passes the No. 200 sieve			70% ≤ fines < 85%		CL/CH	CLAY with sand
			fines ≥ 85%		CL/CH	CLAY
	Silts and Clays	inorganic	PI > 7 and plots on/above "A" line		CL	Lean CLAY
	Liquid Limit less than 50		PI < 4 or plots below "A" line		ML	SILT
		organic	Liquid Limit - oven dried / Liquid Limit - not dried < 0.75		OL	Organic clay / Organic silt
	Silts and Clays	inorganic	PI plots on or above "A" line		CH	Fat CLAY
	Liquid Limit 50 or more		PI plots below "A" line		MH	Elastic SILT
		organic	Liquid Limit - oven dried / Liquid Limit - not dried < 0.75		OH	Organic clay / Organic silt
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor				PT	PEAT

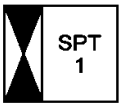
CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

	No. OF BLOWS, N	RELATIVE DENSITY
	0 - 4	Very Loose
	5 - 10	Loose
SANDS:	11 - 30	Medium dense
	31 - 50	Dense
	OVER 50	Very Dense

	No. OF BLOWS, N	CONSISTENCY
	0 - 2	Very Soft
SILTS	3 - 4	Soft
&	5 - 8	Firm
CLAYS:	9 - 15	Stiff
	16 - 30	Very Stiff
	31 - 50	Hard
	OVER 50	Very Hard

	No. OF BLOWS, N	RELATIVE DENSITY
	0 - 8	Very Soft
	9 - 18	Soft
LIMESTONE:	19 - 32	Moderately Hard
	33 - 50	Hard
	OVER 50	Very Hard

SAMPLE GRAPHIC TYPE LEGEND



Location of SPT Sample

Location of Auger Sample

PARTICLE SIZE IDENTIFICATION

BOULDERS:		Greater than 300 mm
COBBLES:		75 mm to 300 mm
GRAVEL:	Coarse -	19.0 mm to 75 mm
	Fine -	4.75 mm to 19.0 mm
SANDS:	Coarse -	2.00 mm to 4.75 mm
	Medium -	0.425 mm to 2.00 mm
	Fine -	0.075 mm to 0.425 mm
SILTS & CLAYS:		Less than 0.075 mm

LABORATORY TEST LEGEND

LL	=	Liquid Limit, %
PL	=	Plastic Limit, %
PI	=	Plasticity Index, %
% PASS - 200	=	Percent Passing the No. 200 Sieve
MC	=	Moisture Content, %
ORG	=	Organic Content, %
k_h	=	Horizontal Hydraulic Conductivity, ft/day

6.0 LIMITATIONS

6.1 Warranty

This report has been prepared for our client for their exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

6.2 Auger and SPT Borings

The determination of soil type and conditions was performed from the ground surface to the maximum depth of the borings, only. Any changes in subsurface conditions that occur between or below the borings would not have been detected or reflected in this report.

Soil classifications that were made in the field are based upon identifiable textural changes, color changes, changes in composition or changes in resistance to penetration in the intervals from which the samples were collected. Abrupt changes in soil type, as reflected in boring logs and/or cross sections may not actually occur, but instead, be transitional.

Depth to the water table is based upon observations made during the performance of the auger and SPT borings. This depth is an estimate and does not reflect the annual variations that would be expected in this area due to fluctuations in rainfall and rates of evapotranspiration.

6.3 Site Figures

The measurements used for the preparation of the figures in this report were made using the provided site plan and by estimating distances from existing structures and site features. Figures in this report were not prepared by a licensed land surveyor and should not be interpreted as such.

6.4 Unanticipated Soil Conditions

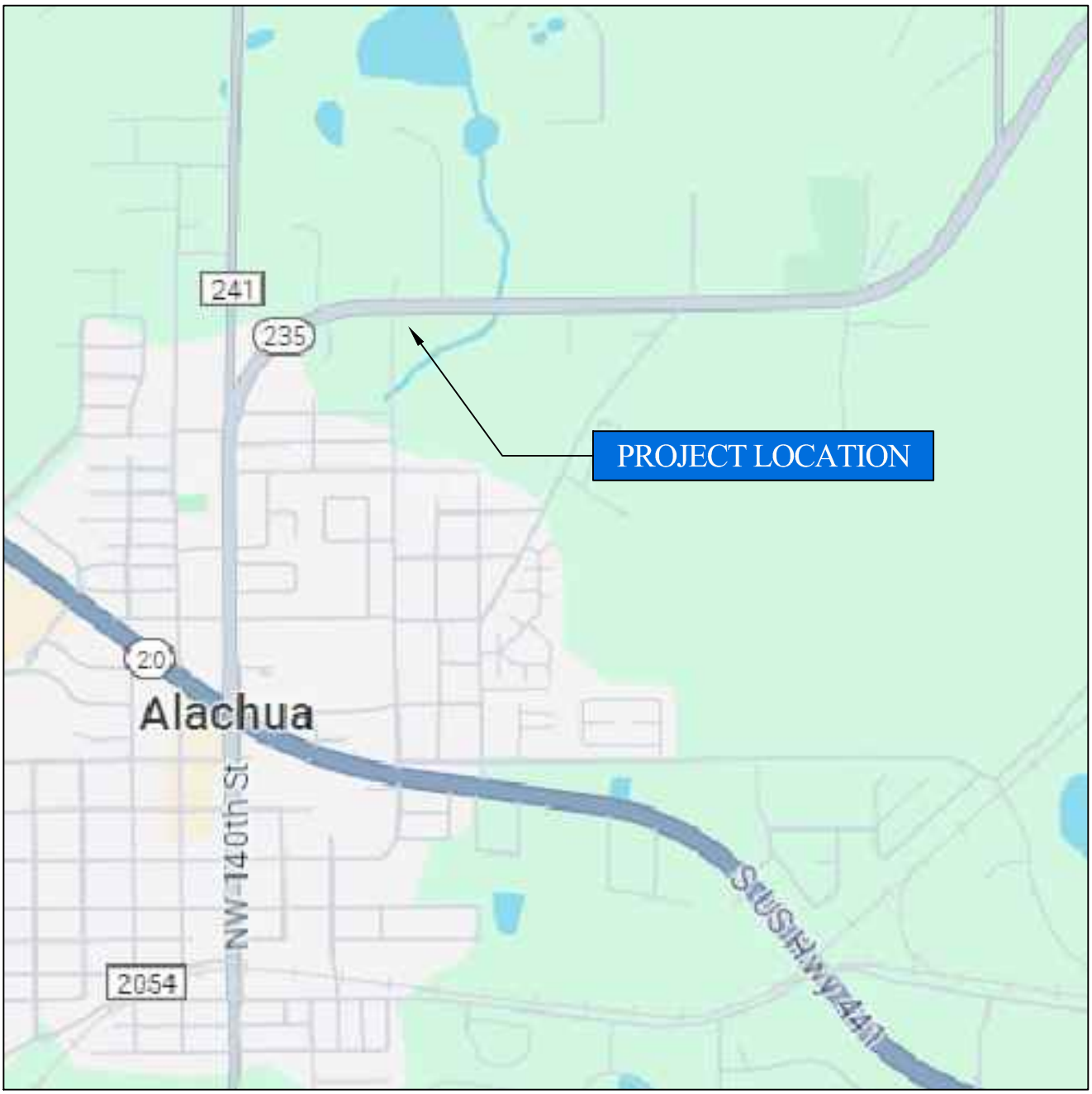
The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on Figure 2. This report does not reflect any variations that may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

6.5 Misinterpretation of Soil Engineering Report

GSE Engineering & Consulting, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If others make the conclusions or recommendations based upon the data presented, those conclusions or recommendations are not the responsibility of GSE.

FIGURES



NORTH

NOT TO SCALE

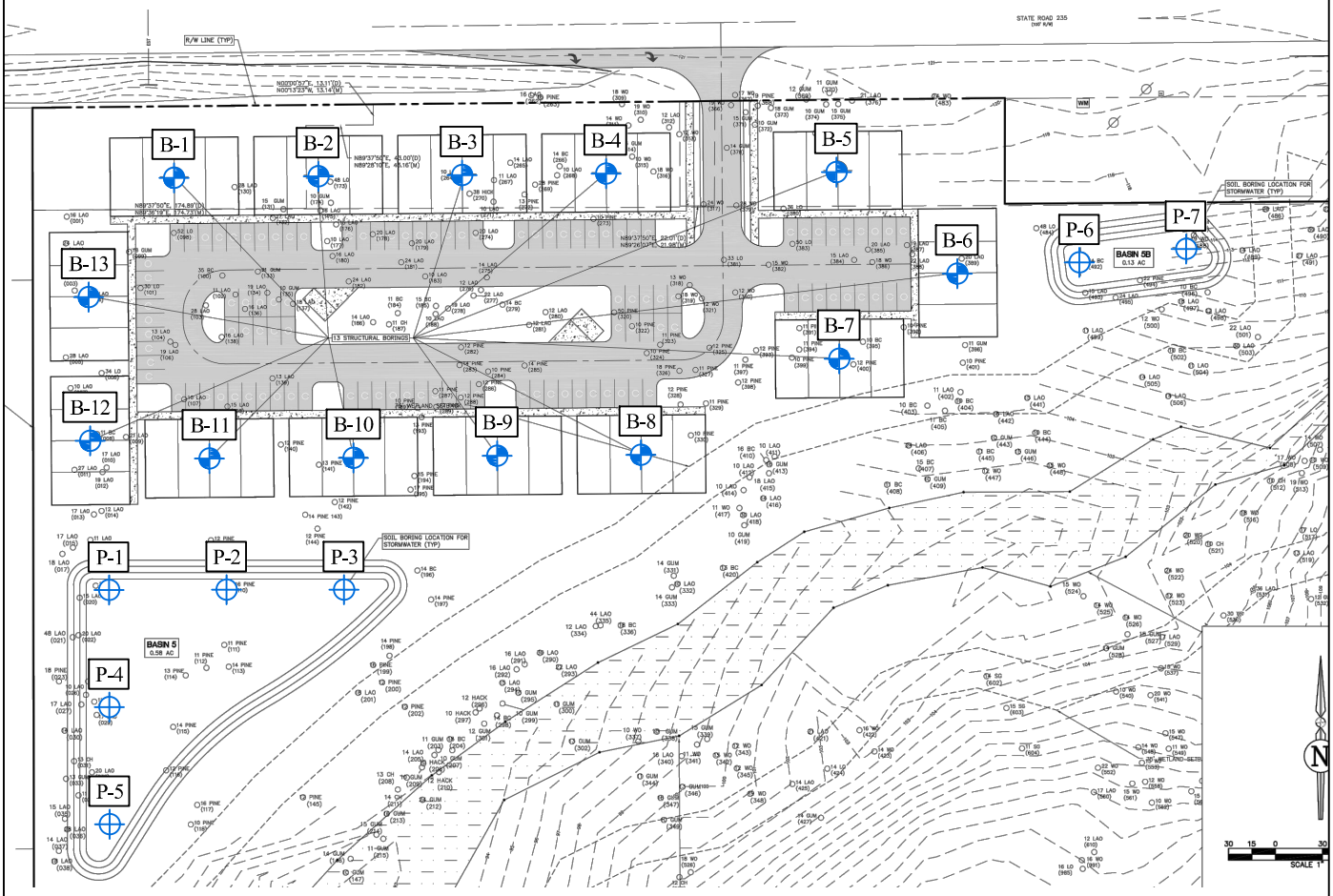
TOLOSA NORTH ALACHUA HABITAT
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT NO. 16604

PROJECT SITE LOCATION MAP

DESIGNED BY: KPF
CHECKED BY : KLH
DRAWN BY : EEW

GSE Engineering & Consulting, Inc.

FIGURE 1



LEGEND:

SPT BORING

AUGER BORING

NORTH

0 120'

SCALE: 1" = 120' APPROX.

TOLOSA NORTH ALACHUA HABITAT
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT NO. 16604

SITE PLAN SHOWING APPROXIMATE LOCATIONS OF FIELD TESTS

DESIGNED BY: KPF
CHECKED BY : KLH
DRAWN BY : EEW

GSE Engineering & Consulting, Inc.

FIGURE 2

GSE Engineering & Consulting, Inc.

June 9, 2025

David Weiss
Alachua Habitat for Humanity
2610 NW 43rd Street, Suite 2B
Gainesville, Florida 32606

Subject: Slope Stability and Background Seepage Analysis
Tolosa North, Phase 1 and 2 Berm Stability
Alachua, Alachua County, Florida
GSE Project No. 16604A

GSE Engineering & Consulting, Inc. (GSE) is pleased to submit this report summarizing our Slope Stability Analyses for the proposed berms at Basins 1 and 2 at Tolosa North, Phase 1 & 2 in Alachua, Alachua County, Florida.

BACKGROUND INFORMATION

We understand that you are coordinating due diligence related work into developing this site into a residential townhome development with two stormwater management facilities. The site is located at the southeast corner of the intersection of W State Road 235 and NW 135th Terrace in Alachua, Alachua County, Florida. The Alachua County Tax Parcel Number is 03135-000-000. Mr. Jack Charnas, P.E. with JBPro provided information on the project including Sheet C2.00 Master Development Plan, Sheet C4.04 Basin Grading Plan, and Sheet C4.05 Basin Grading Plan.

GSE completed a geotechnical exploration for the project and presented our findings and recommendations in our report dated June 11, 2024 (GSE Project No. 16604). This report included Standard Penetration Test (SPT) borings and auger borings for building foundation and stormwater management designs. We anticipate that the berms will be constructed with soils containing a minimum of 15 percent soil fines passing the No. 2000 sieve and compacted to 95 percent of the Standard Proctor maximum dry density (AASHTO T-99).

From the provided plan, the critical slope of Basin 1 appears to be located in the southern portion of the basin. Elevation grades for the berm range from 108 feet to 114.5 feet. The berm has a 3:1 slope on the interior and a 4:1 or flatter slope on the exterior. The pond bottom elevation is 109.5 feet.

From the provided plan, the critical slope of Basin 2 appears to be located in the southern portion of the basin. Elevation grades for the berm range from 95 feet to 104 feet. The berm has a 3:1 slope on the interior and a 4:1 or flatter slope on the exterior. A retaining wall will be located along the northern portion of the basin. The pond bottom elevation is 100.5 feet.

In addition to the slope stability analyses, GSE performed background seepage analyses to determine the pore pressure within the berms at the flood stage elevations (100YR-24HR) given as 113.35 feet and 102.85 feet for Basin 1 and Basin 2, respectively.

We included these results in our slope stability analyses. The locations of the borings are shown in Figure 2. The boring logs are attached to this report. GSE also reviewed the provided plans and information in the preparation of this analysis and report.

PURPOSE

The purpose of this analysis was to evaluate the provided berm geometry for stability using the soil and groundwater data collected at the site along with the provided stage storage information.

SEEPAGE EVALUATION

GSE performed a background seepage using "SLIDE" a Rocscience software program with user-friendly, 2D limit equilibrium slope stability analysis program for all types of soil and rock slopes, embankments, earth dams, and retaining walls. Slide2 includes built-in finite element groundwater seepage analysis, probabilistic analysis, multi-scenario modeling, and support design. GSE evaluated the worst-case scenario, which is the 100-year, 24-hour storm event with stage elevations of 113.35 feet and 102.85 feet for Basin 1 and Basin 2, respectively. GSE evaluated a transient condition with 12 stage elevations over an approximate 8-day analysis for Basin 1 and 15-day analysis for Basin 2. The results of this are included in the slope stability of the embankment berms and are shown in the attachments.

We used soil data collected from the geotechnical site exploration (GSE Project No. 16604 dated June 11, 2024) in our model of the subgrade soils beneath the berms. Borings P-2, P-4, P-5, and P-6 were used in our analysis of the subsurface soils below the berms.

Auger boring P-2, performed in Basin 2, initially penetrated 0.5 feet of sand with clay (SP-SC) overlying interbedded strata of clayey to very clayey sand (SC, SC/CL) and clay-rich soils consisting of clay with sand (CL/CH) to the explored depth of 20 feet bls.

Auger boring P-4, performed in Basin 2, initially penetrated 1.5 feet of sand with clay (SP-SC) overlying clayey sand (SC) to the explored depth of 20 feet bls.

Auger boring P-5, performed in Basin 2, initially penetrated 3 feet of sand with clay (SP-SC) overlying clayey to very clayey sand (SC/CL) to the explored depth of 20 feet bls.

Auger boring P-6, performed in Basin 1, initially penetrated 3 feet of sand with clay (SP-SC) overlying clayey sand (SC) to a depth of 12.5 feet bls. This was underlain by clay-rich soils consisting of clay with sand (CL/CH) to the explored depth of 15 feet bls.

The groundwater table was not encountered at the time of our exploration.

EMBANKMENT STABILITY ANALYSIS

Stability against rotational failure was analyzed using "SLIDE", an application that can apply any one of several well established, widely accepted two-dimensional limit state equilibrium theories independently of wall configuration, subsurface conditions and external loading. In this case, the Bishop Simplified, Morgenstern Price, and Spencer Methods were used.

SLIDE was configured to generate and analyze stability against rotation on more than 150 potential failure surfaces. The analyses incorporated the results of the background seepage analysis mentioned above.

GSE evaluated design parameters to achieve a minimum FS of 1.5. GSE recommends the berms be constructed under GSE observation. If soil conditions are encountered that are different from those used in our analysis, additional recommendations may be warranted.

We recommend that the berms be constructed with soils having a minimum of 15 percent soil fines passing the No. 200 sieve compacted to a minimum 95 percent maximum dry density per AASHTO Method T-99 with maximum 6-inch lifts. These soil conditions were considered when performing the model.

GSE evaluated a berm consisting of the silty or clayey sands. Representative samples of the tested soils suitable for berm material had 17 to 27 percent soil fines passing the No. 200 sieve and moisture contents of 9 to 18 percent. The model considers the silty or clayey sand used for berm construction to have a maximum permeability of 1.0 feet per day.

Considering the soil parameters, the potential failure surface with the lowest factor of safety for stability against rotational failure (FS_{min}) of the embankment berms was 4.714 for Basin 1 and 3.697 for Basin 2. Tables 1 & 2 summarize this information.

Table 1. Summary of Slope Stability Results: Basin 1

Stages	Hour	FS
1 (initial)	0	4.714
2	4	4.714
3	6	4.714
4	8	4.714
5	10	4.714
6	12	4.714
7	24	4.714
8	44	4.714
9	66	4.714
10	100	4.714
11	148	4.714
12	200	4.714

Table 2. Summary of Slope Stability Results: Basin 2

Stages	Hour	FS
1 (initial)	0	3.697
2	5	3.697
3	10	3.697
4	11	3.697
5	12	3.697
6	15	3.697
7	25	3.697
8	30	3.697
9	40	3.697
10	100	3.697
11	230	3.697
12	360	3.697

GSE recommends a QA/QC program be implemented to ensure the berms are constructed in accordance with the soil parameters used in the modeling. Any deviation could result in a reduced performance of the stormwater management facilities.

Piping failure of the soil can occur at the exterior toe of the berm if exit velocities of any "daylighted" water exceeds a tolerable gradient. The hydraulic gradients for the exterior berms analyzed in the "SLIDE" program indicate a low gradient, occurring where seepage water may exit the lower portions or "toe" of the berm. This relatively low exit gradient indicates a suitable factor of safety against internal piping type erosion. The construction of the berm(s) in accordance with our recommendations is important so that local areas of high hydraulic gradients are not created.

BERM CONSTRUCTION RECOMMENDATIONS

The soils at this site should be suitable for supporting the proposed construction using normal, good practice site preparation procedures. The following recommendations are our general guidelines for site preparation and include best management practices outlined in the SRWMD Applicant's Handbook Vol II.

Stripping

Strip the construction limits and 10 feet beyond the perimeter of all grass, roots, topsoil, and other deleterious materials. You should expect to strip to depths of 12 or more inches. Deeper stripping will likely be necessary due to major root systems present at the site.

Ground which will become the foundation of earth berms shall be stripped of all vegetation and organic detritus or residue, including muck, mud, slimes, or other material which would flow or undergo excessive consolidation under heavy loading. All earth foundation surfaces on which fill is to be placed shall be scarified or moistened and compacted prior to spreading of first course fill material, and the berm base shall be well drained during construction, except when placing hydraulic fill.

Materials

Material used for earthen berms shall be free of stumps, vegetation, trees, palmettos, muck, and other extraneous matter which could affect the compactability, density, permeability, or shear strength of the finished berm.

Water Level Control

Sufficient water level control structures shall be installed in the impoundment area behind an earthen berm to maintain the minimum required freeboard and to accommodate the release of storm water resulting from heavy rainfall. We understand that this has been provided for the proposed stormwater management facilities.

Dewatering

Temporary dewatering will likely not be necessary for this project. However, if needed, we anticipate dewatering can be accomplished with sumps placed near the construction area, or with underdrains connected to a vacuum pump.

In any case, the site should always be graded to promote runoff and limit the amount of ponding. Localized ponding of stormwater is expected without proper grading during construction and could render previously acceptable surfaces unacceptable.

Proof-Rolling

Proof-roll the subgrade with heavy rubber-tired equipment, such as a loaded front-end loader or dump truck, to identify any loose or soft zones not found by the soil borings. The proof-rolling should be monitored by a geotechnical engineer or qualified technician. Undercut or otherwise treat these zones as recommended by the geotechnical engineer in this report.

Fill Placement and Compaction

The berm should be constructed with consistent material so that drainage pathways are not created with layers of more permeable material. The proposed silty sand fill to construct the berm should be placed and compacted as described below in order to prevent internal erosion of the berm caused by piping. This condition can occur when sandy fill soils with high permeability are underlain by the native soils with relatively low permeability. The silty sands (SM, A-2-4) should be placed in maximum 6-inch loose lifts that are compacted to at least 95 percent of the Standard Proctor maximum dry density (AASHTO METHOD T-99). A-2-6 and A-2-7 materials can be used if compaction (95 percent Standard Proctor) can be achieved. These (A-2-6, and A-2-7) materials can be moisture sensitive and difficult to compact. They should be placed and compacted within 2 percent of the optimum moisture content. If lighter "walk-behind" compaction equipment is used, this may require lifts of 4 inches or less to achieve the required degree of compaction.

We recommend planting the slopes of the berm with grass, sod, or other material as soon as possible in order to control erosion and sloughing.

Each berm shall be constructed to meet or exceed the minimum safety requirements of the specifications and design for that berm. Draglines, drag scrapers, tractor, or other appropriate earth moving equipment shall be used to place materials used in berm construction. Materials used in rolled berms shall be blended prior to compaction. The soil shall be compacted, and density tests shall be performed to ensure that the designed densities are obtained.

A qualified representative of the design engineer shall be present on the site each working day during construction of a rolled berm to ensure that materials and construction methods meet all specifications of the design. GSE recommends the Water Management District engineer be advised of the date on which construction or shaping of a new berm will begin so that they can inspect the site.

Areas around any water level control structure pipe, any other conduit, or any surface of discontinuity between materials within the mass of the berm shall be carefully installed to avoid potential concentration of seepages. All conduits through berms shall have two or more seepage collars spaced in accordance with good engineering practices pertinent to the material used for the fill. All pipes and joints in pipes extending through a berm shall be made leak-proof and shall be constructed of material suitable for the fluids carried and load imposed. In order to avoid leaks associated with differential settlement, conduits through berms shall not be rigidly supported by piles or piers. Backfill around conduits shall be of a density that is equal to or greater than those of the surrounding embankment. Particular attention shall be devoted to the lower third of the conduit.

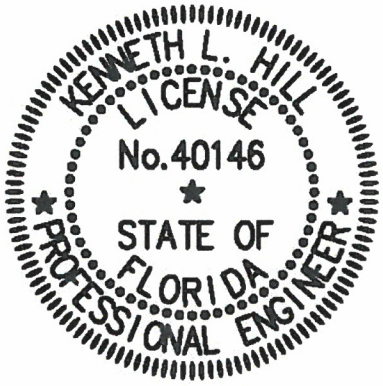
LIMITATIONS

This report has been prepared for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices and makes no other warranty either expressed or implied as to the professional advice provided in the report.

CLOSING

GSE appreciates the opportunity to have assisted you on this project. If you have any questions or comments concerning this report or if we may be of further assistance, please contact us.

Sincerely,
GSE Engineering & Consulting, Inc.



This item has been digitally signed and sealed by Kenneth L Hill
Digitally signed by Kenneth L Hill
Date: 2025.06.09 11:43:19 -04'00'
on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Kevin P. Fisher, E.I.
Staff Engineer

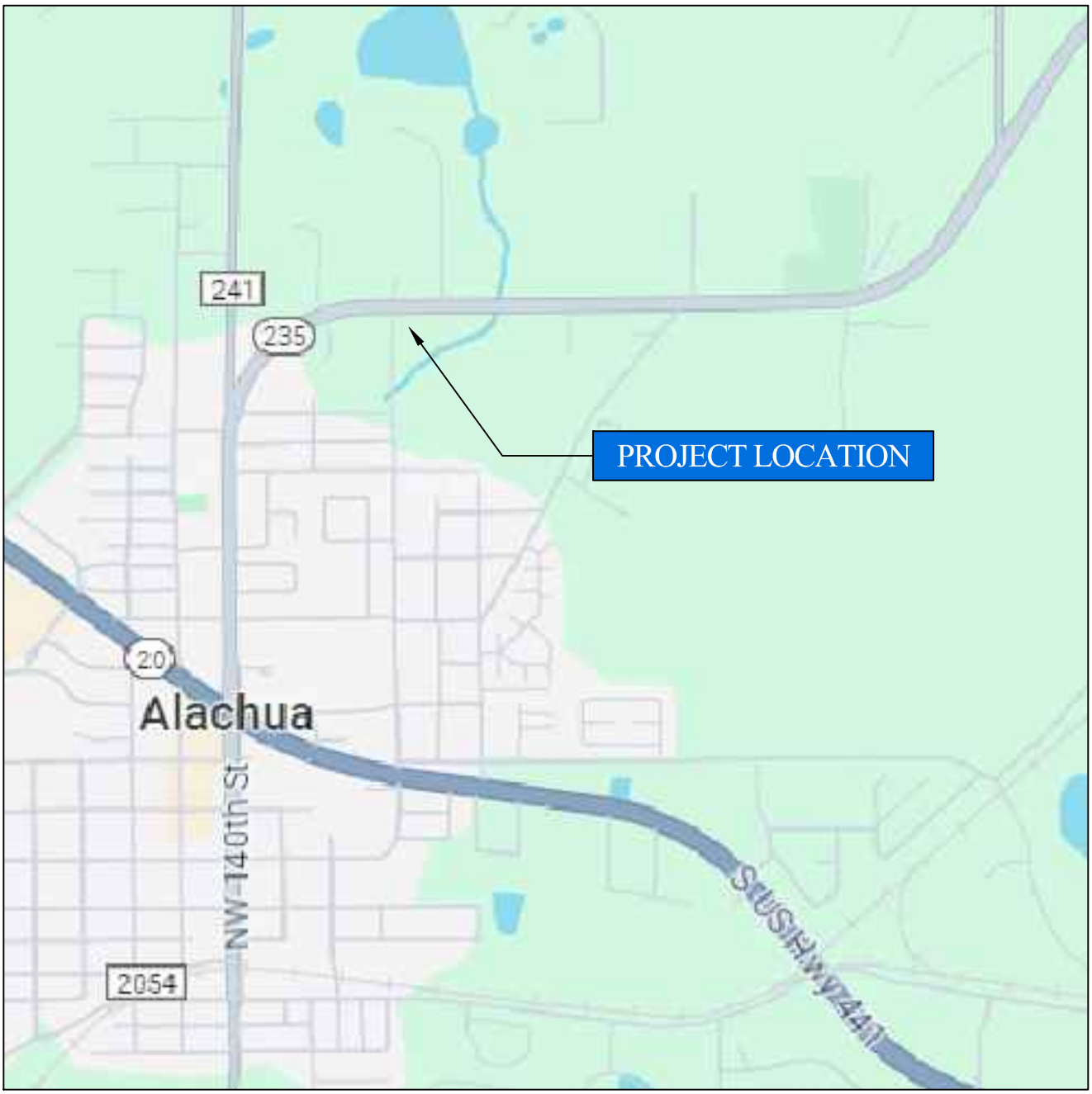
Kenneth L. Hill, P.E.
Principal Engineer
Florida Registration Number 40146

KPF/KPF:bjo
Q:\Projects\16604A Tolosa North, Phase 1 & 2 Berm Stability\16604A.doc

Attachments: Figure 1 – Project Site Location Map
Figure 2 – Site Plan Showing Approximate Locations of Field Tests
Auger Boring Logs
Soil Classification Chart
Slide Input/Output Figures

Distribution: Addressee (1 – Electronic)
File (1)

ATTACHMENTS



NORTH

NOT TO SCALE

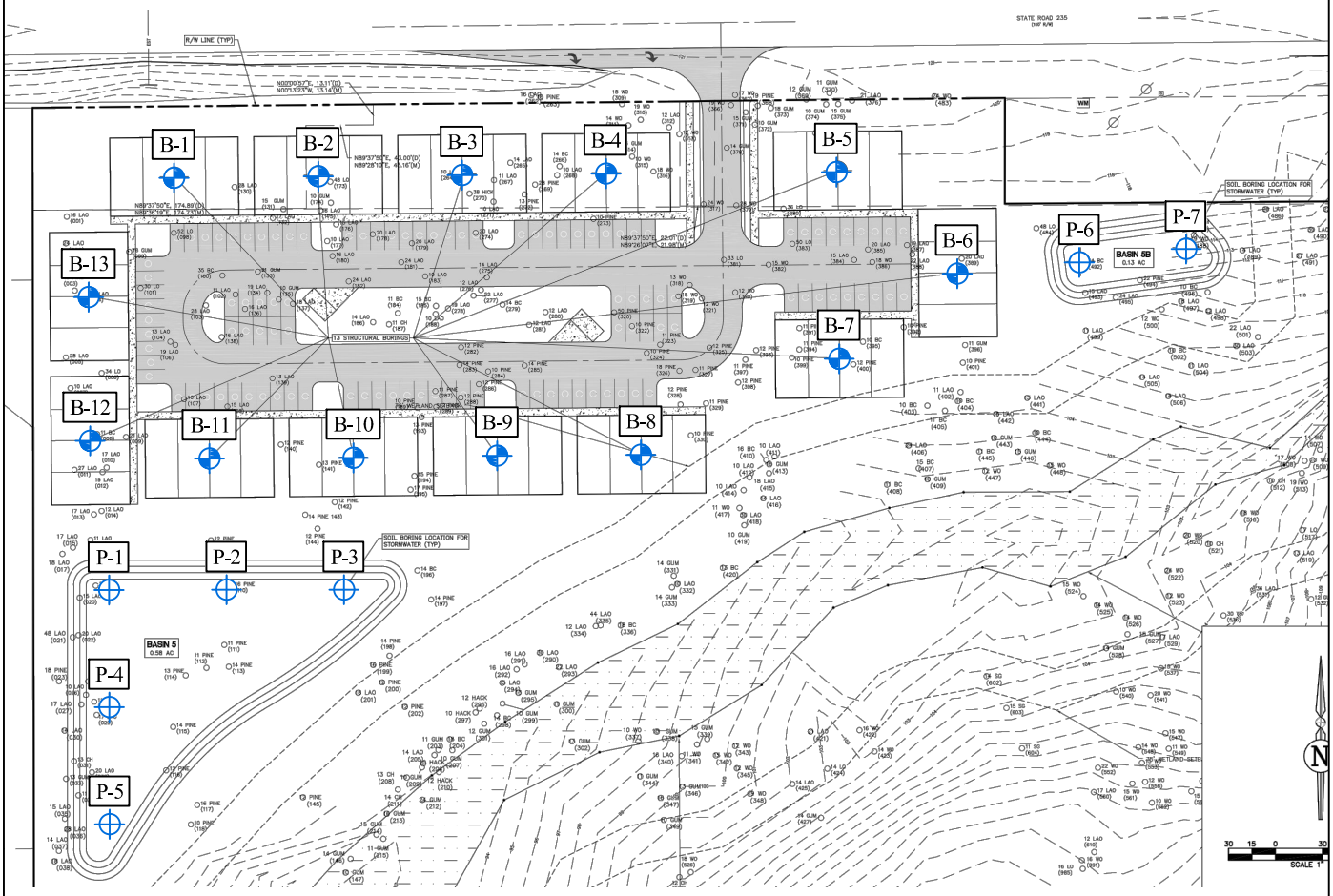
TOLOSA NORTH ALACHUA HABITAT
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT NO. 16604

PROJECT SITE LOCATION MAP

DESIGNED BY: KPF
CHECKED BY : KLH
DRAWN BY : EEW

GSE Engineering & Consulting, Inc.

FIGURE 1



LEGEND:

- SPT BORING
- AUGER BORING

NORTH

0 120'

SCALE: 1" = 120' APPROX.

TOLOSA NORTH ALACHUA HABITAT
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT NO. 16604

SITE PLAN SHOWING APPROXIMATE LOCATIONS OF FIELD TESTS

DESIGNED BY: KPF
CHECKED BY : KLH
DRAWN BY : EEW

GSE Engineering & Consulting, Inc.

FIGURE 2

GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

BORING NUMBER P-1

DATE PERFORMED 5/30/2024
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING NE
ESTIMATED SEASONAL HIGH 1.0 ft, perched
LOGGED BY WDI
CHECKED BY KPF
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0	AU 1	(SP-SC) Brown SAND with clay
1.5		(SC/CL) Brown, gray, and orange very clayey SAND with trace sandstone
	AU 2	*%PASS-200 = 30* *MC = 20*
5	AU 3	
10	AU 4	
15	AU 5	
17.5		(CL/CH) Gray, brown, and orange CLAY with sand
20		Bottom of borehole at 20.0 feet.

BORING NUMBER P-2

DATE PERFORMED 5/30/2024
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING NE
ESTIMATED SEASONAL HIGH 0.0 ft, perched
LOGGED BY WDI
CHECKED BY KPF
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		(SP-SC) Brown SAND with clay
0.5	AU 1	(SC/CL) Gray very clayey SAND with trace sandstone
5	AU 2	
5.0		(CL/CH) Gray and green CLAY with sand and trace sandstone
10		
12.0	AU 3 PS	(SC) Brown and gray clayey SAND *%PASS-200 = 27* *MC = 11*
15		
16.0	AU 4	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
20		
20.0		Bottom of borehole at 20.0 feet.

(Continued Next Page)

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GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

DATE PERFORMED 5/30/2024 **BORING NUMBER P-3**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH 1.5 ft, perched
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0	AU 1	(SP-SM) Gray and brown SAND with silt
		▽
2.0		
	AU 2	(SC/CL) Gray, brown, and orange very clayey SAND with trace sandstone *%PASS-200 = 32* *MC = 14*
5		
	AU 3	
10		
12.5		
	AU 4	(SC) Gray and brown clayey SAND with trace sandstone
15		
17.0		
	AU 5	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
20		
20.0		Bottom of borehole at 20.0 feet.

DATE PERFORMED 5/30/2024 **BORING NUMBER P-4**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH >20 ft
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0	AU 1	(SP-SC) Brown SAND with clay
1.5		
	AU 2	(SC) Gray, brown, and orange clayey SAND with trace sandstone
5		
	AU 3	
10		
12.0		
	AU 4	(SC) Brown and gray clayey SAND
15		
	AU 5 PS	*%PASS-200 = 26* *MC = 18* *k_h = 3.3 ft/day*
20		
20.0		Bottom of borehole at 20.0 feet.

(Continued Next Page)

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GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

DATE PERFORMED 5/30/2024 **BORING NUMBER P-5**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH 12.5 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1 PS	(SP-SC) Brown SAND with clay *%PASS-200 = 10* *MC = 3.5* *k_h = 2.3 ft/day*
3.0			(SC) Brown and gray clayey SAND with trace sandstone
5		AU 2	
		AU 3	
10			▽
13.0		AU 4	(SC/CL) Brown, gray, and orange very clayey SAND with trace sandstone
15			
15.5		AU 5	(SC/CL) Gray and brown very clayey SAND
20			
20.0			Bottom of borehole at 20.0 feet.

DATE PERFORMED 5/30/2024 **BORING NUMBER P-6**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH 12.0 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1 PS	(SP-SC) Brown SAND with clay *%PASS-200 = 10* *MC = 4.7* *k_h = 3.5 ft/day*
3.0		AU 2	(SC) Brown and gray clayey SAND
5		AU 3	
10			▽
12.5		AU 4	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
15			
15.0			Bottom of borehole at 15.0 feet.

(Continued Next Page)

AB 2 PORTRAIT - GINT STD US.GDT - 6/11/24 11:21 - P:\GENERAL\PROJECTS\16604 TOLOSA NORTH ALACHUA HABITAT\16604 BORINGS\16604 BORINGS.GPJ

GSE Engineering & Consulting, Inc.
GSE Engineering
5590 SW 64th St
Gainesville, FL 32608
Telephone: 3523773233

CLIENT Alachua Habitat for Humanity
PROJECT NAME Tolosa North Alachua Habitat
PROJECT NUMBER 16604
PROJECT LOCATION Alachua, Alachua County, Florida

DATE PERFORMED 5/30/2024 **BORING NUMBER P-7**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING NE CHECKED BY KPF
▽ ESTIMATED SEASONAL HIGH 5.0 ft, perched
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1	(SP-SC) Brown SAND with clay
			3.0
5		AU 2 PS	(SC) Brown and gray clayey SAND with trace sandstone *%PASS-200 = 17* *MC = 9.0* ▽
			5.5
		AU 3	(SC/CL) Gray, brown, and orange very clayey SAND with trace sandstone
10			
			13.0
		AU 4	(CL/CH) Gray, brown, and orange CLAY with sand and trace sandstone
15			15.0
			Bottom of borehole at 15.0 feet.

AB 2 PORTRAIT - GINT STD US.GDT - 6/11/24 11:21 - P:\GENERAL\PROJECTS\16604 TOLOSA NORTH ALACHUA HABITAT\16604 BORINGS\16604 BORINGS.GPJ

GSE Engineering & Consulting, Inc.

SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 16604

Project Name: Tolosa North Alachua Habitat

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
P-1	3-3.5	Brown, gray, and orange very clayey SAND with trace limestone	20				30			SC/CL
P-2	12-14	Brown and gray clayey SAND	11				27		NF	SC
P-3	3-3.5	Gray, brown, and orange very clayey SAND with trace sandstone	14				32			SC/CL
P-4	16-18	Brown and gray clayey SAND	18				26		3.3	SC
P-5	1-3	Brown SAND with clay	3.5				10		2.3	SP-SC
P-6	1-3	Brown SAND with clay	4.7				10		3.5	SP-SC
P-7	3-5	Brown and gray clayey SAND with trace sandstone	9.0				17		NF	SC
B-4	4-5.5	Medium dense gray, brown, and orange very clayey SAND with trace sandstone	19	49	15	34	37			SC/CL
B-5	1-2.5	Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone	19	45	24	21	34			SC/CL
B-6	7-8.5	Stiff gray, green, brown, and orange CLAY	51	76	18	58	85			CH
B-7	1-2.5	Loose to medium dense gray, brown, and orange very clayey SAND with trace sandstone	16	42	15	27	32			SC/CL
B-8	8.5-10	Stiff green and orange CLAY	50	108	24	84	93			CH

GSE Engineering & Consulting, Inc.

SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 16604

Project Name: Tolosa North Alachua Habitat

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
B-10	4-5.5	Loose to medium dense brown, gray, and orange very clayey SAND	28	46	19	27	37			SC/CL

KEY TO SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				SYMBOLS		GROUP NAME
				GRAPHIC	LETTER	
COARSE-GRAINED SOILS	Gravels	Clean Gravels	Cu ≥ 4 and 1 ≤ Cc ≤ 3		GW	Well graded GRAVEL
More than 50% retained on No. 200 sieve	More than 50% of coarse fraction retained on No. 4 sieve	Less than 5% fines	Cu < 4 and/or 1 > Cc > 3		GP	Poorly graded GRAVEL
		Gravels with fines	Fines classify as ML or MH		GM	Silty GRAVEL
		More than 12% fines	Fines classify as CL or CH		GC	Clayey GRAVEL
	Sands	Clean Sands	Cu ≥ 6 and 1 ≤ Cc ≤ 3		SW	Well graded SAND
	50% or more of coarse fraction passes No. 4 sieve	Less than 5% fines	Cu < 6 and/or 1 > Cc > 3		SP	Poorly graded SAND
		Sand with fines	Fines classify as ML or MH		SP-SM	SAND with silt
		5% ≤ fines < 12%	Fines classify as CL or CH		SP-SC	SAND with clay
		Sand with fines	Fines classify as ML or MH		SM	Silty SAND
		12% ≤ fines < 30%	Fines classify as CL or CH		SC	Clayey SAND
		Sand with fines	Fines classify as ML or MH		SM	Very silty SAND
		30% fines or more	Fines classify as CL or CH		SC	Very clayey SAND
FINE-GRAINED SOILS	Clays	inorganic	50% ≤ fines < 70%		CL/CH	Sandy CLAY
50% or more passes the No. 200 sieve			70% ≤ fines < 85%		CL/CH	CLAY with sand
			fines ≥ 85%		CL/CH	CLAY
	Silts and Clays	inorganic	PI > 7 and plots on/above "A" line		CL	Lean CLAY
	Liquid Limit less than 50		PI < 4 or plots below "A" line		ML	SILT
		organic	Liquid Limit - oven dried / Liquid Limit - not dried < 0.75		OL	Organic clay / Organic silt
	Silts and Clays	inorganic	PI plots on or above "A" line		CH	Fat CLAY
	Liquid Limit 50 or more		PI plots below "A" line		MH	Elastic SILT
		organic	Liquid Limit - oven dried / Liquid Limit - not dried < 0.75		OH	Organic clay / Organic silt
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor				PT	PEAT

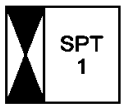
CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

	No. OF BLOWS, N	RELATIVE DENSITY
	0 - 4	Very Loose
	5 - 10	Loose
SANDS:	11 - 30	Medium dense
	31 - 50	Dense
	OVER 50	Very Dense

	No. OF BLOWS, N	CONSISTENCY
	0 - 2	Very Soft
SILTS	3 - 4	Soft
&	5 - 8	Firm
CLAYS:	9 - 15	Stiff
	16 - 30	Very Stiff
	31 - 50	Hard
	OVER 50	Very Hard

	No. OF BLOWS, N	RELATIVE DENSITY
	0 - 8	Very Soft
	9 - 18	Soft
LIMESTONE:	19 - 32	Moderately Hard
	33 - 50	Hard
	OVER 50	Very Hard

SAMPLE GRAPHIC TYPE LEGEND



Location of SPT Sample

Location of Auger Sample

PARTICLE SIZE IDENTIFICATION

BOULDERS:		Greater than 300 mm
COBBLES:		75 mm to 300 mm
GRAVEL:	Coarse -	19.0 mm to 75 mm
	Fine -	4.75 mm to 19.0 mm
SANDS:	Coarse -	2.00 mm to 4.75 mm
	Medium -	0.425 mm to 2.00 mm
	Fine -	0.075 mm to 0.425 mm
SILTS & CLAYS:		Less than 0.075 mm

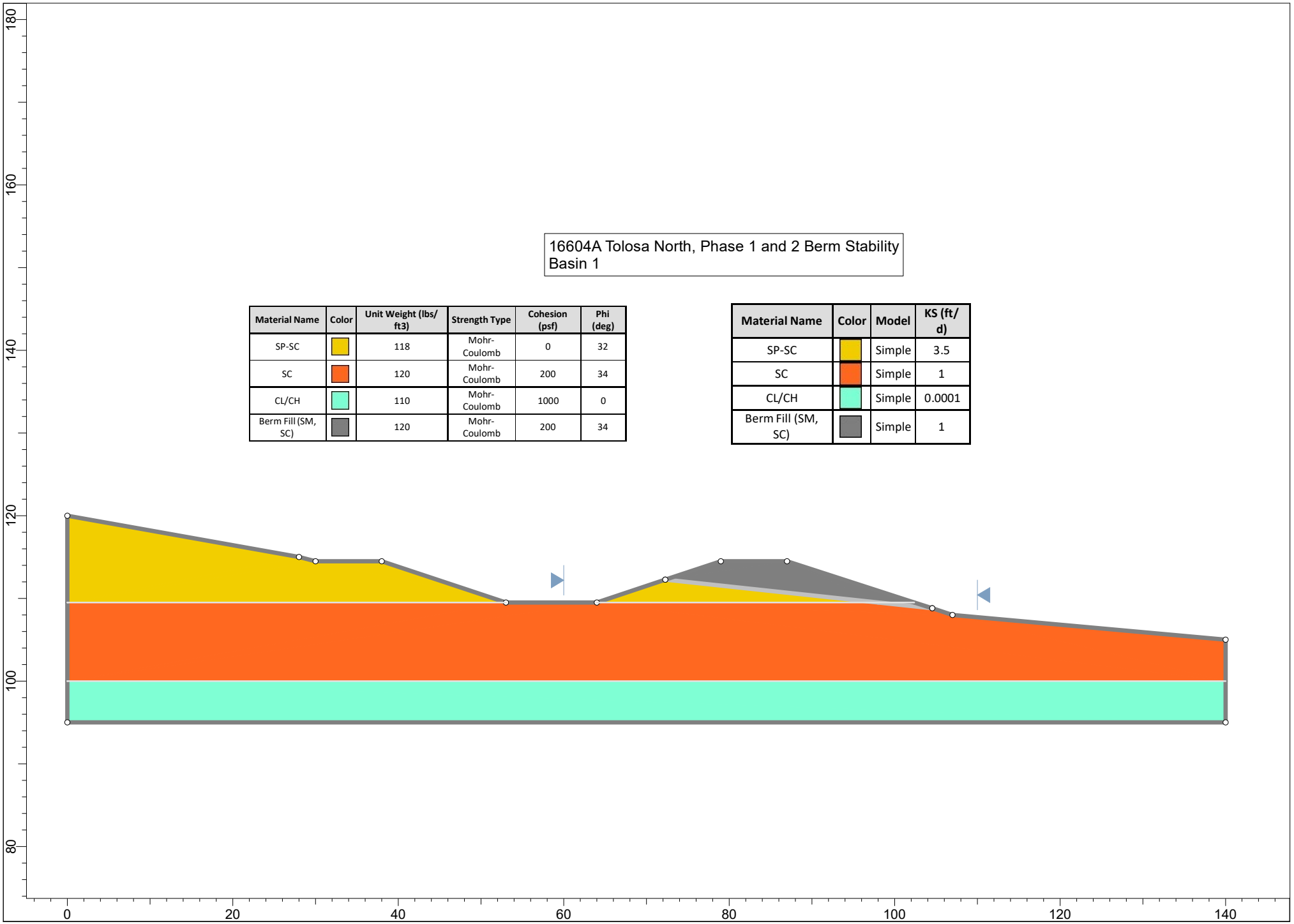
LABORATORY TEST LEGEND

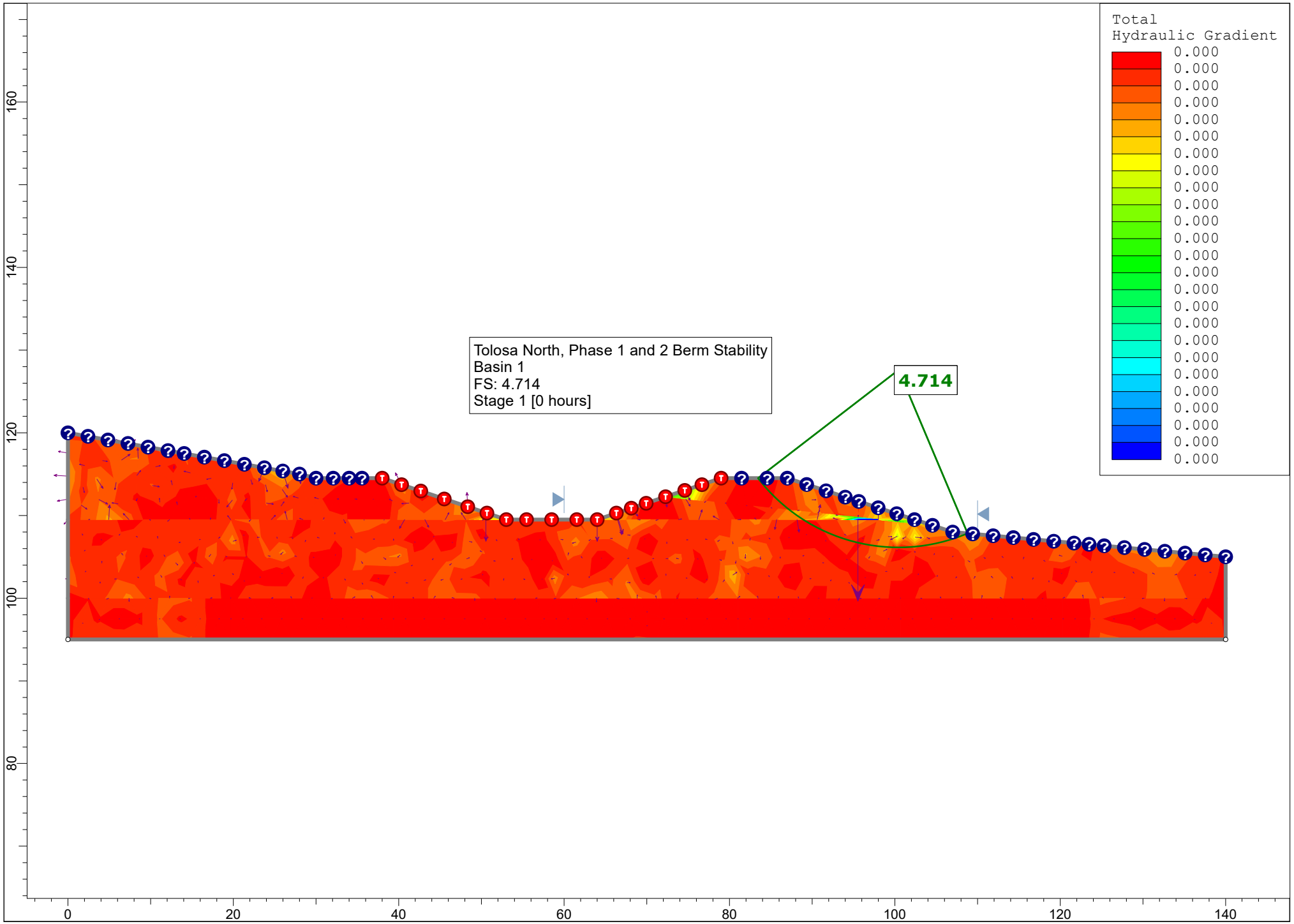
LL	=	Liquid Limit, %
PL	=	Plastic Limit, %
PI	=	Plasticity Index, %
% PASS - 200	=	Percent Passing the No. 200 Sieve
MC	=	Moisture Content, %
ORG	=	Organic Content, %
k_h	=	Horizontal Hydraulic Conductivity, ft/day

16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 1

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (deg)
SP-SC		118	Mohr-Coulomb	0	32
SC		120	Mohr-Coulomb	200	34
CL/CH		110	Mohr-Coulomb	1000	0
Berm Fill (SM, SC)		120	Mohr-Coulomb	200	34

Material Name	Color	Model	KS (ft/d)
SP-SC		Simple	3.5
SC		Simple	1
CL/CH		Simple	0.0001
Berm Fill (SM, SC)		Simple	1

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Hydraulic Gradient
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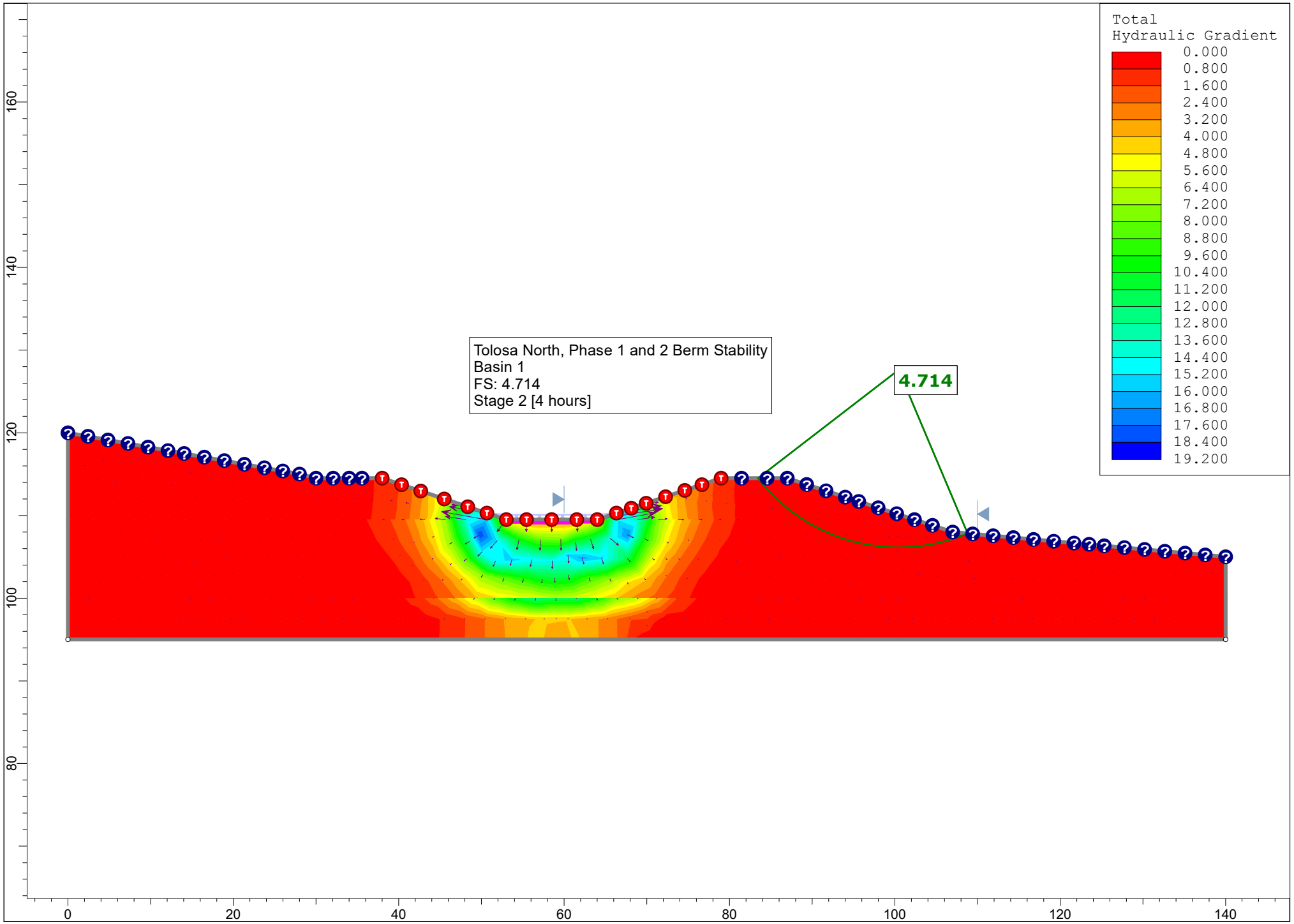
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 1 [0 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140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2.400
3.200
4.000
4.800
5.600
6.400
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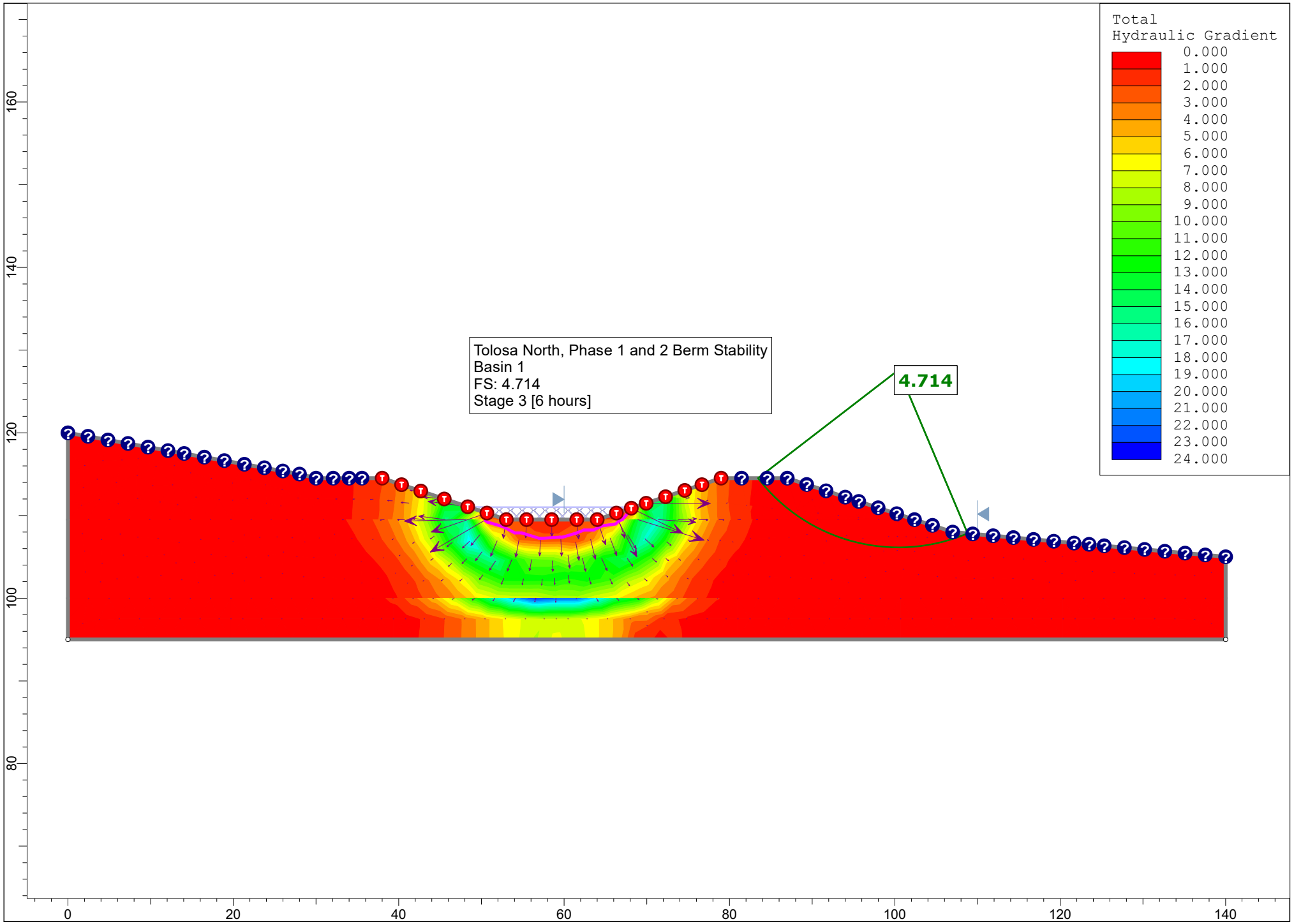
8.000
8.800
9.600
10.400
11.200
12.000
12.800
13.600
14.400
15.200
16.000
16.800
17.600
18.400
19.200
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 2 [4 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140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4.000
5.000
6.000
7.000
8.000
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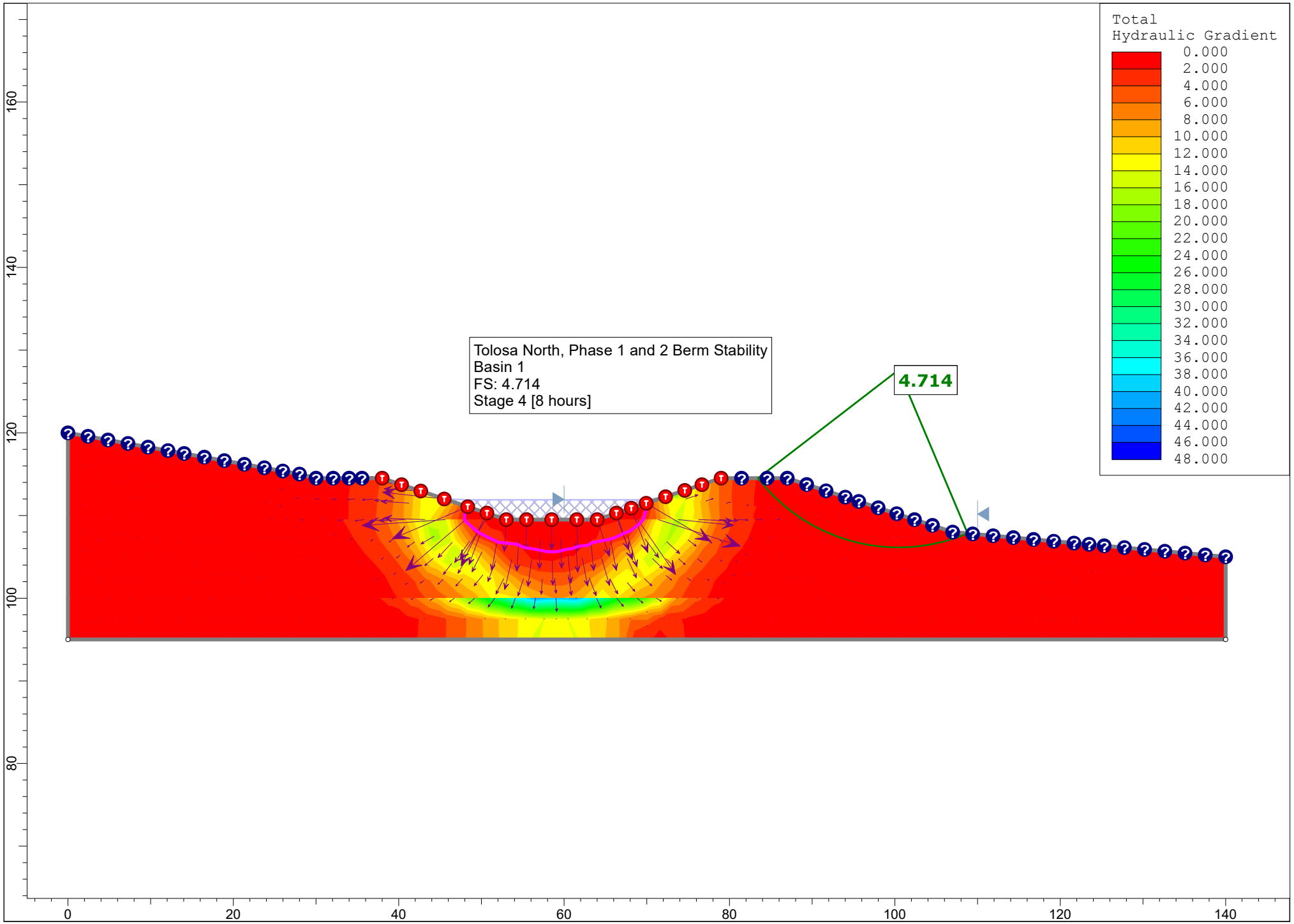
11.000
12.000
13.000
14.000
15.000
16.000
17.000
18.000
19.000
20.000
21.000
22.000
23.000
24.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 3 [6 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140


Total
Hydraulic Gradient
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4.000
6.000
8.000
10.000
12.000
14.000
16.000
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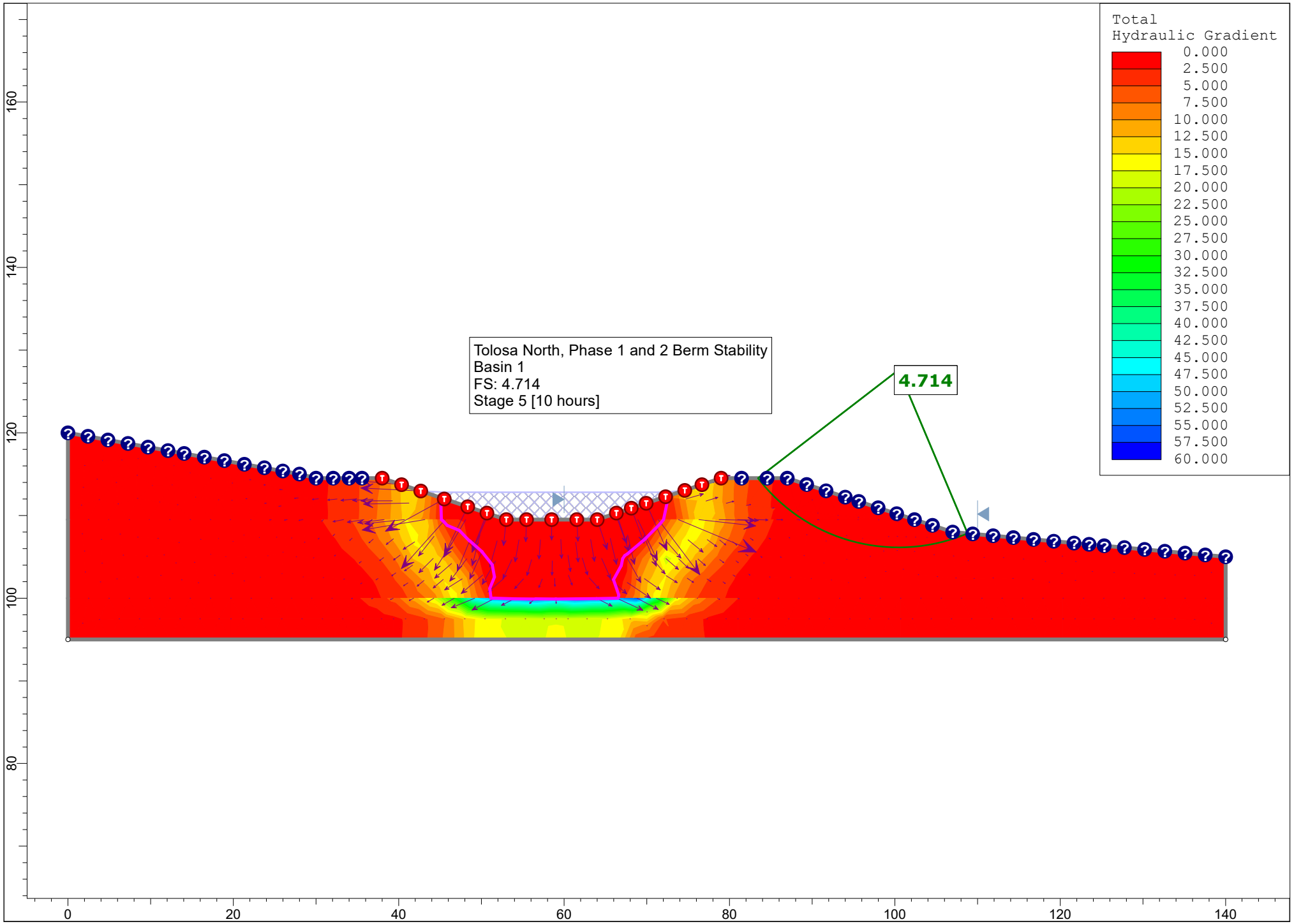
22.000
24.000
26.000
28.000
30.000
32.000
34.000
36.000
38.000
40.000
42.000
44.000
46.000
48.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 4 [8 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140


Total
Hydraulic Gradient
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2.500
5.000
7.500
10.000
12.500
15.000
17.500
20.000
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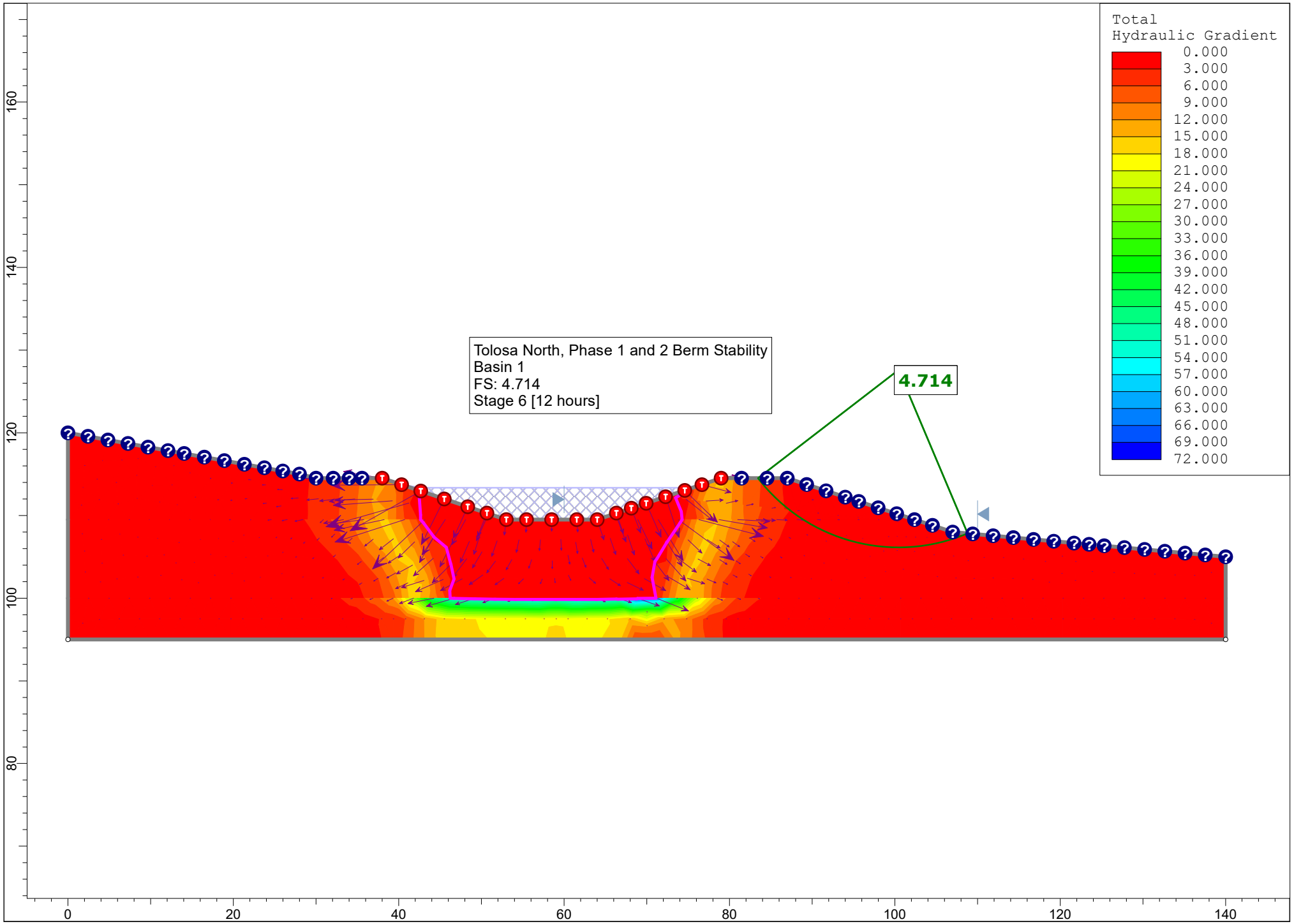
25.000
27.500
30.000
32.500
35.000
37.500
40.000
42.500
45.000
47.500
50.000
52.500
55.000
57.500
60.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 5 [10 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140


Total
Hydraulic Gradient
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3.000
6.000
9.000
12.000
15.000
18.000
21.000
24.000
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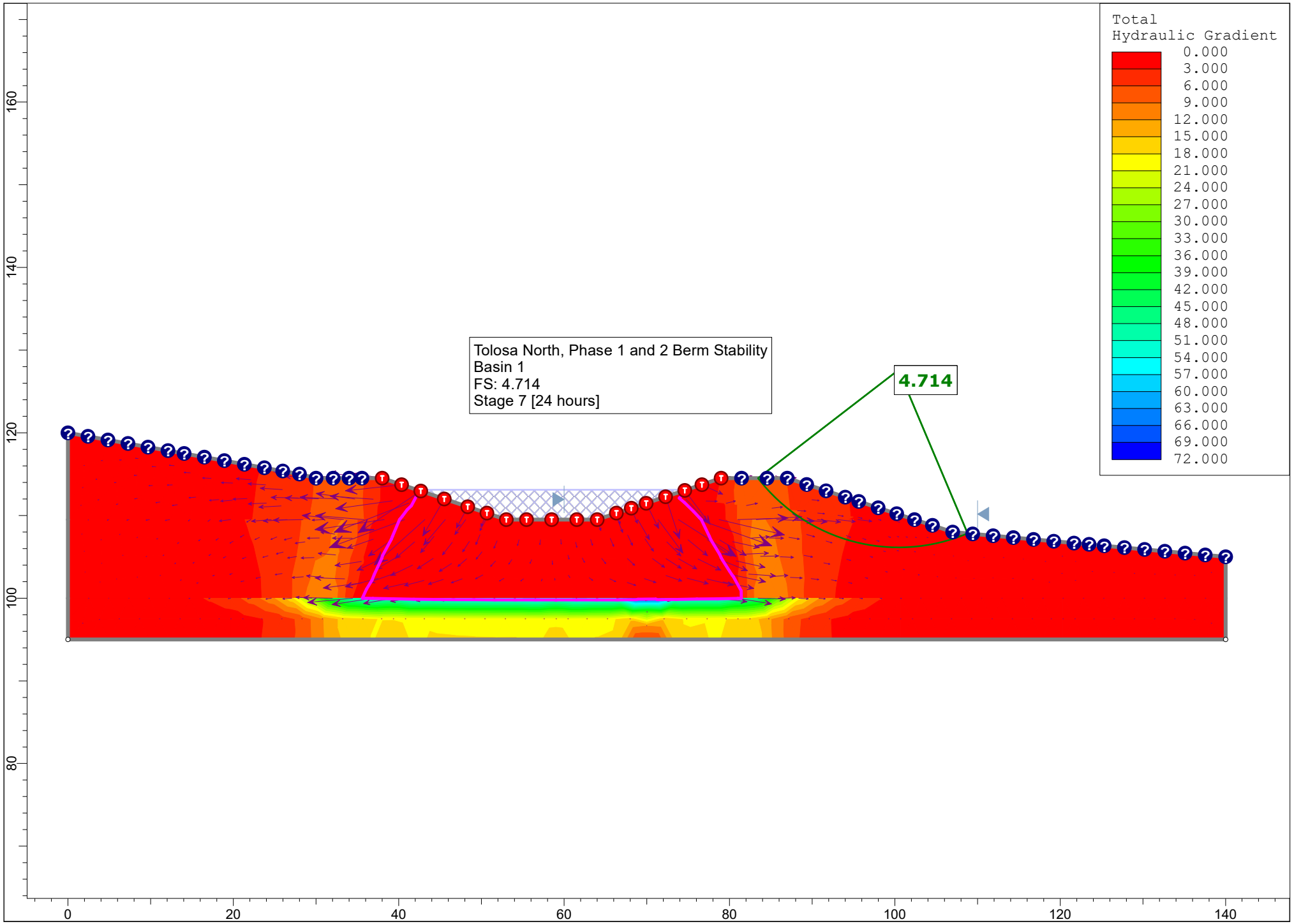
33.000
36.000
39.000
42.000
45.000
48.000
51.000
54.000
57.000
60.000
63.000
66.000
69.000
72.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 6 [12 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140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Hydraulic Gradient
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3.000
6.000
9.000
12.000
15.000
18.000
21.000
24.000
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33.000
36.000
39.000
42.000
45.000
48.000
51.000
54.000
57.000
60.000
63.000
66.000
69.000
72.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 7 [24 hours]
4.714
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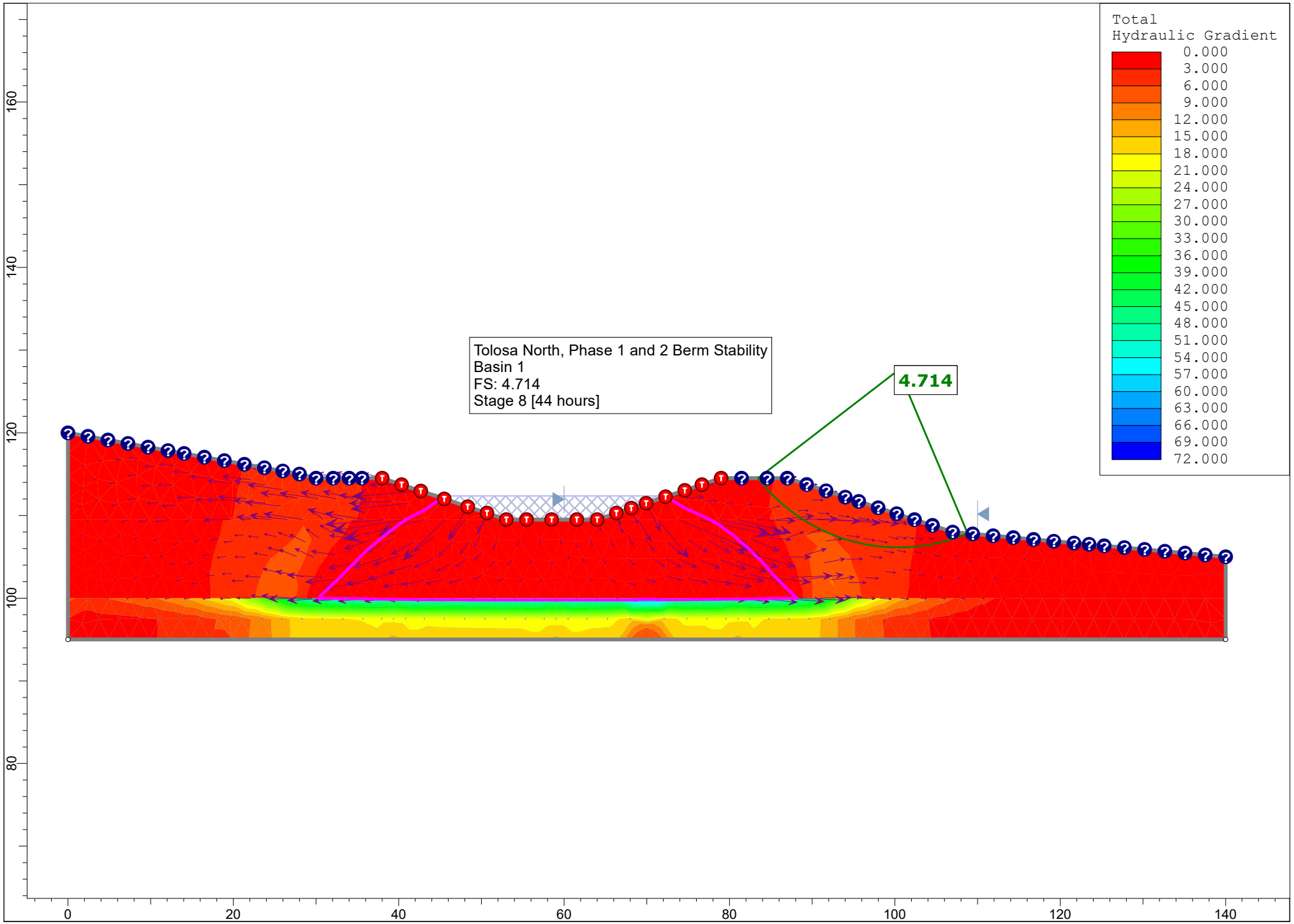
140
120
100
80
0
20
40
60
80
100
120
140


Total
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6.000
9.000
12.000
15.000
18.000
21.000
24.000
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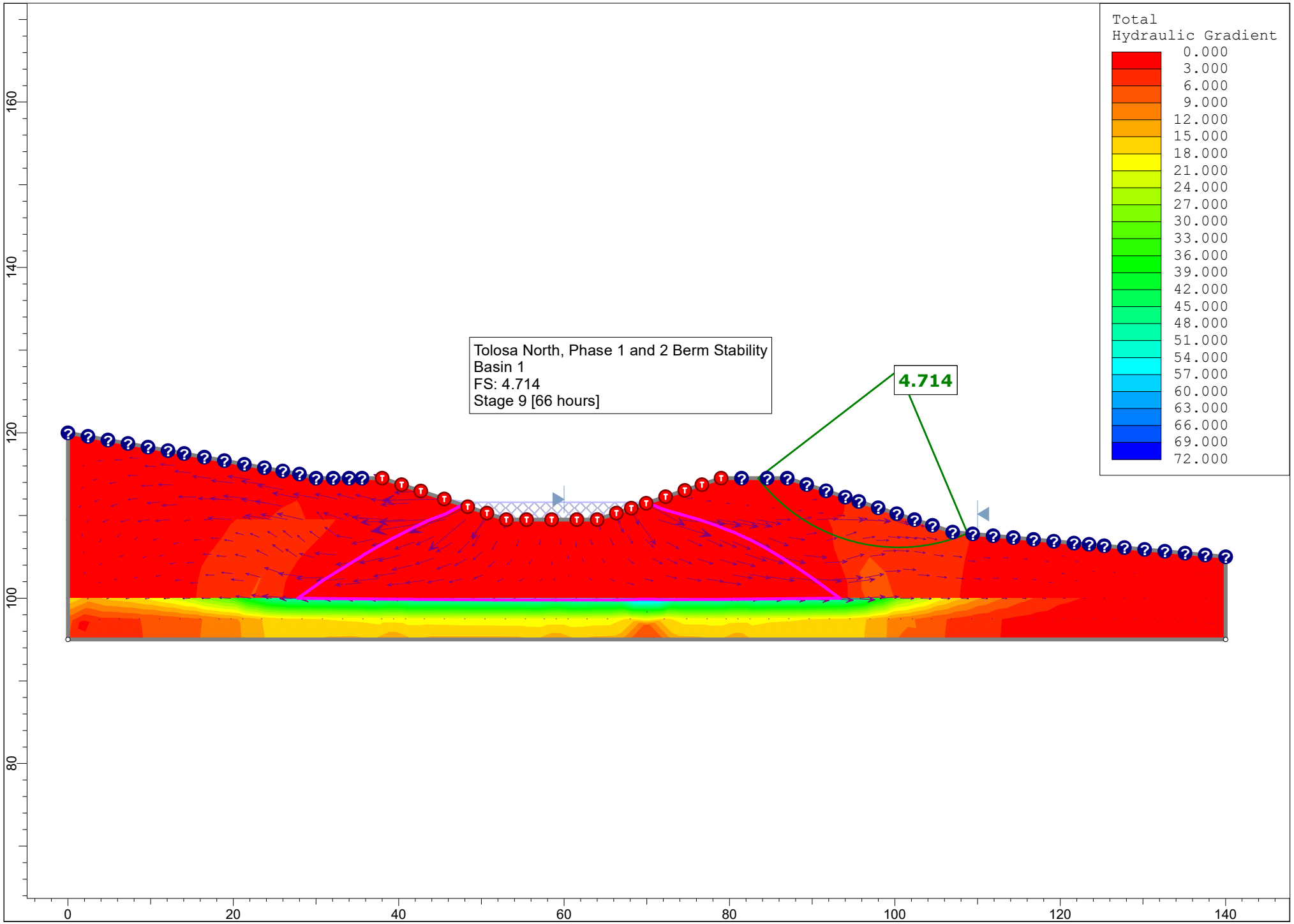
30.000
33.000
36.000
39.000
42.000
45.000
48.000
51.000
54.000
57.000
60.000
63.000
66.000
69.000
72.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 8 [44 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140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Hydraulic Gradient
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3.000
6.000
9.000
12.000
15.000
18.000
21.000
24.000
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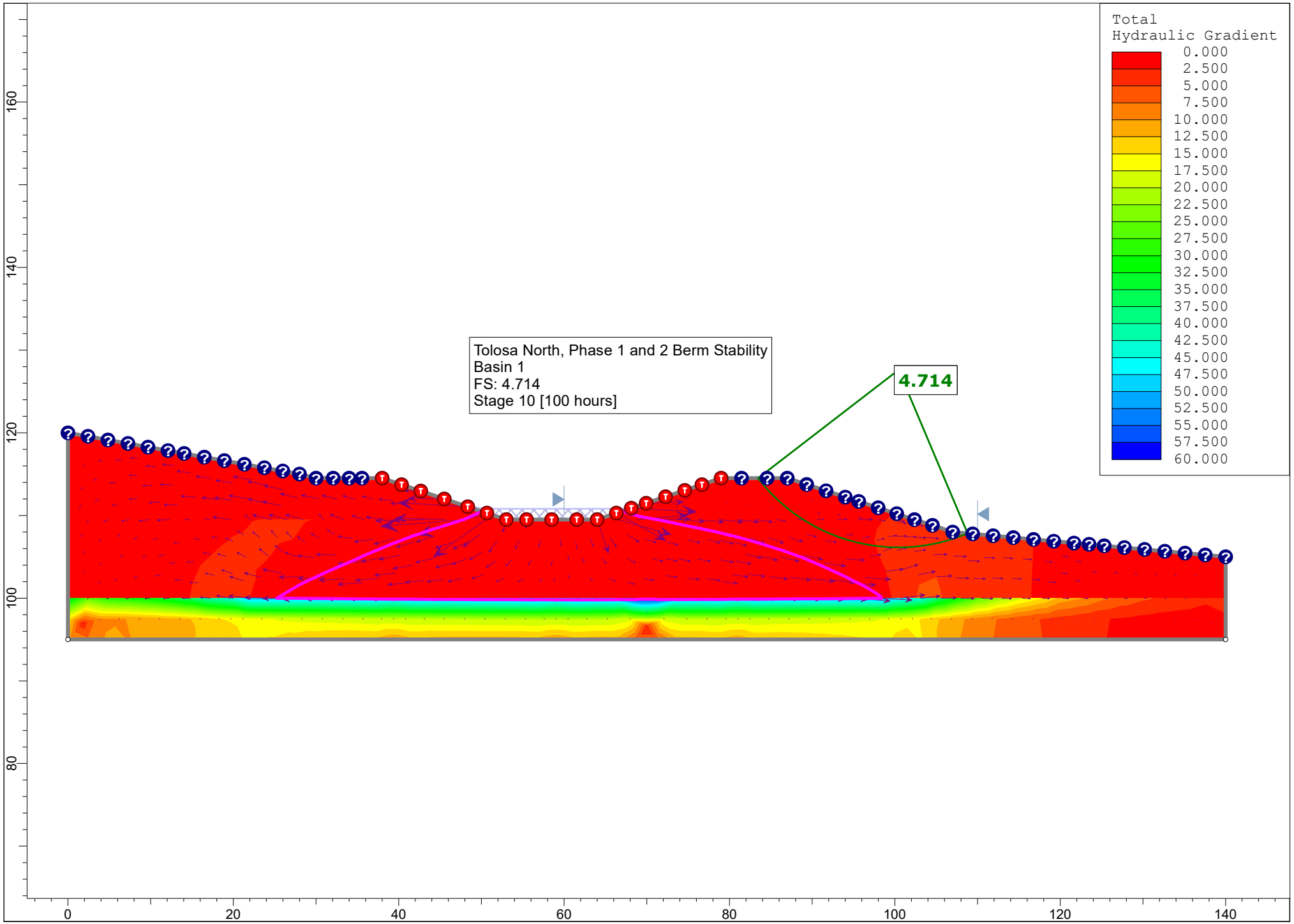
36.000
39.000
42.000
45.000
48.000
51.000
54.000
57.000
60.000
63.000
66.000
69.000
72.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 9 [66 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140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Hydraulic Gradient
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7.500
10.000
12.500
15.000
17.500
20.000
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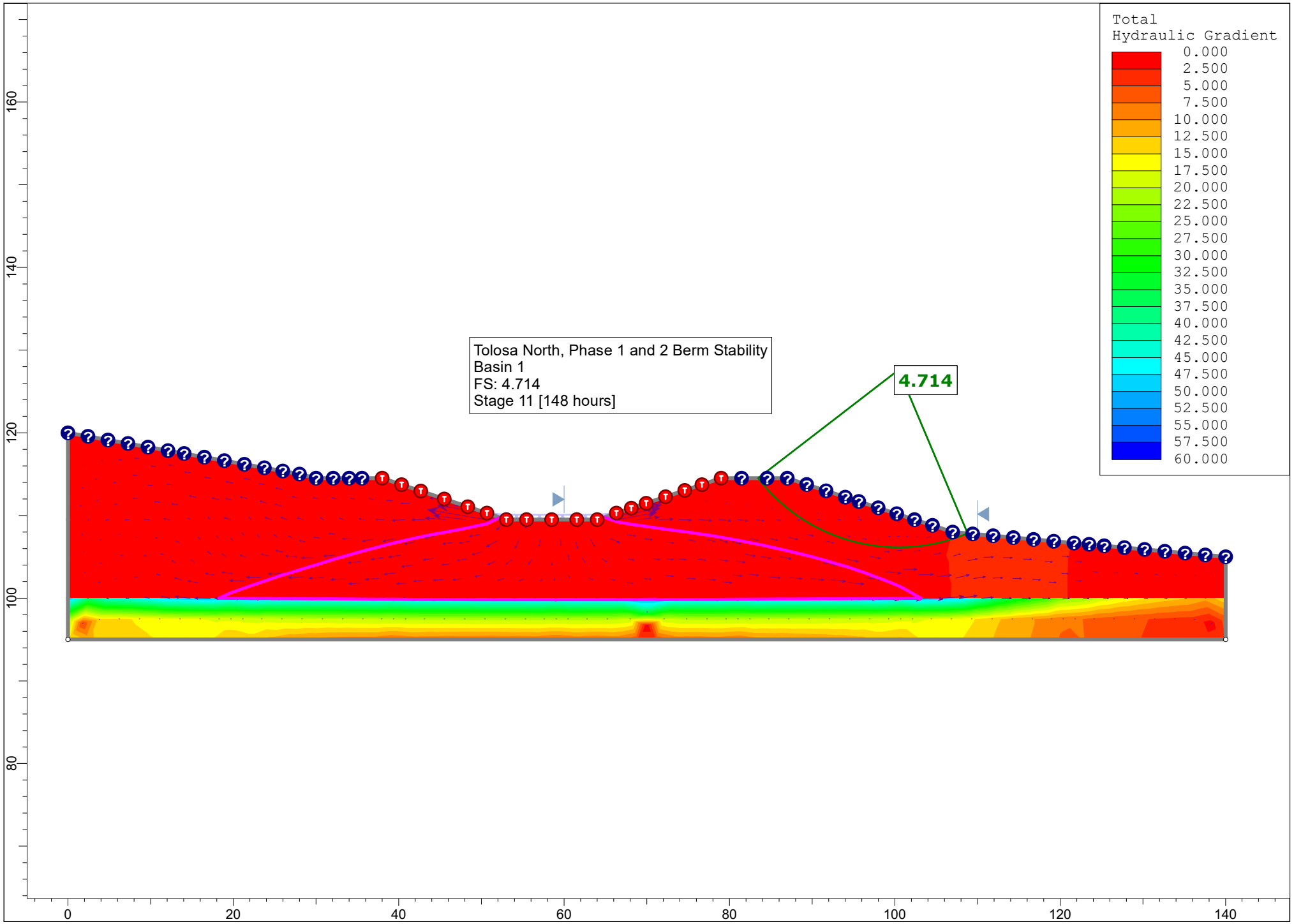
27.500
30.000
32.500
35.000
37.500
40.000
42.500
45.000
47.500
50.000
52.500
55.000
57.500
60.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 10 [100 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140


Total
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5.000
7.500
10.000
12.500
15.000
17.500
20.000
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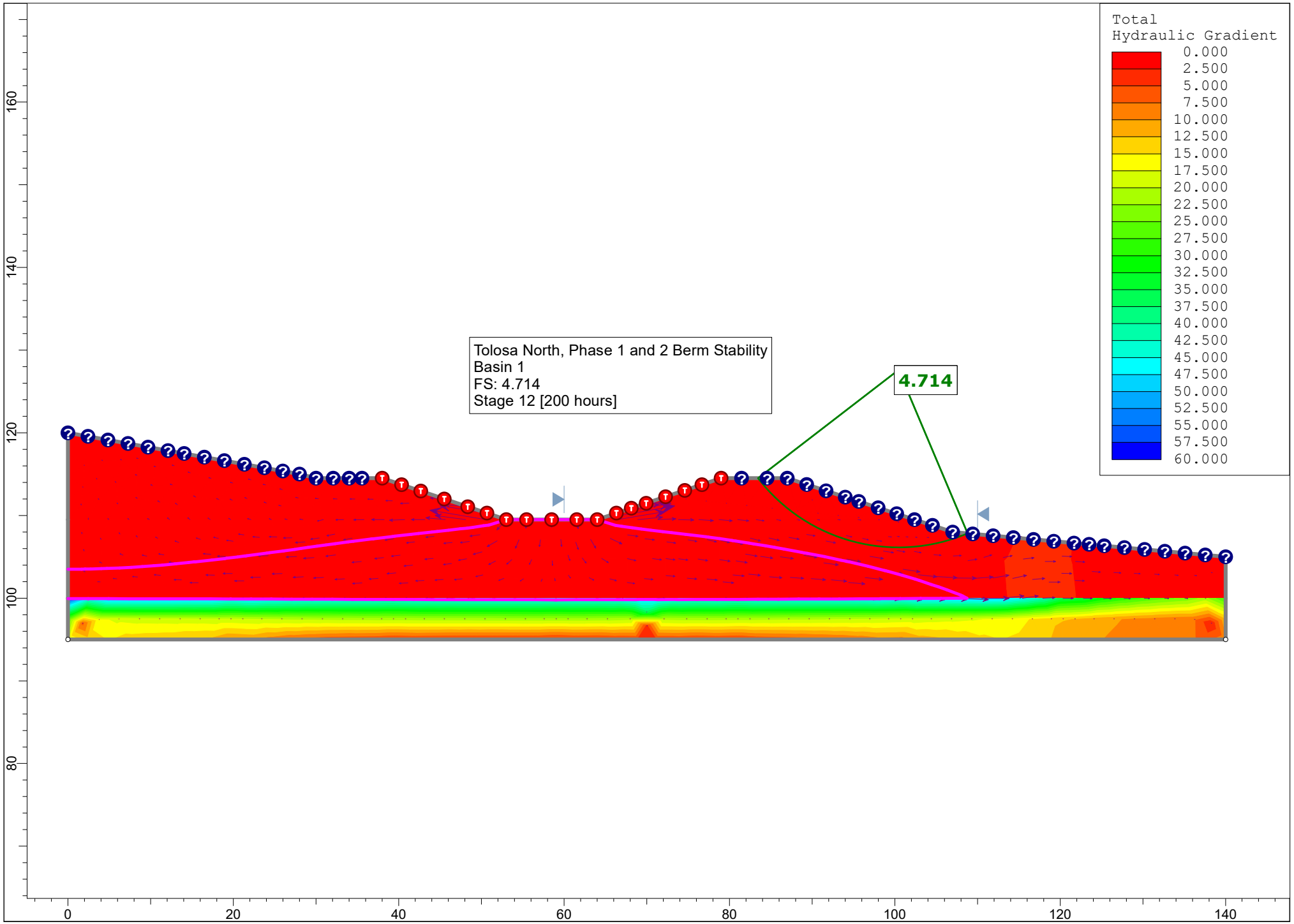
27.500
30.000
32.500
35.000
37.500
40.000
42.500
45.000
47.500
50.000
52.500
55.000
57.500
60.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 11 [148 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140


Total
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0.000
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5.000
7.500
10.000
12.500
15.000
17.500
20.000
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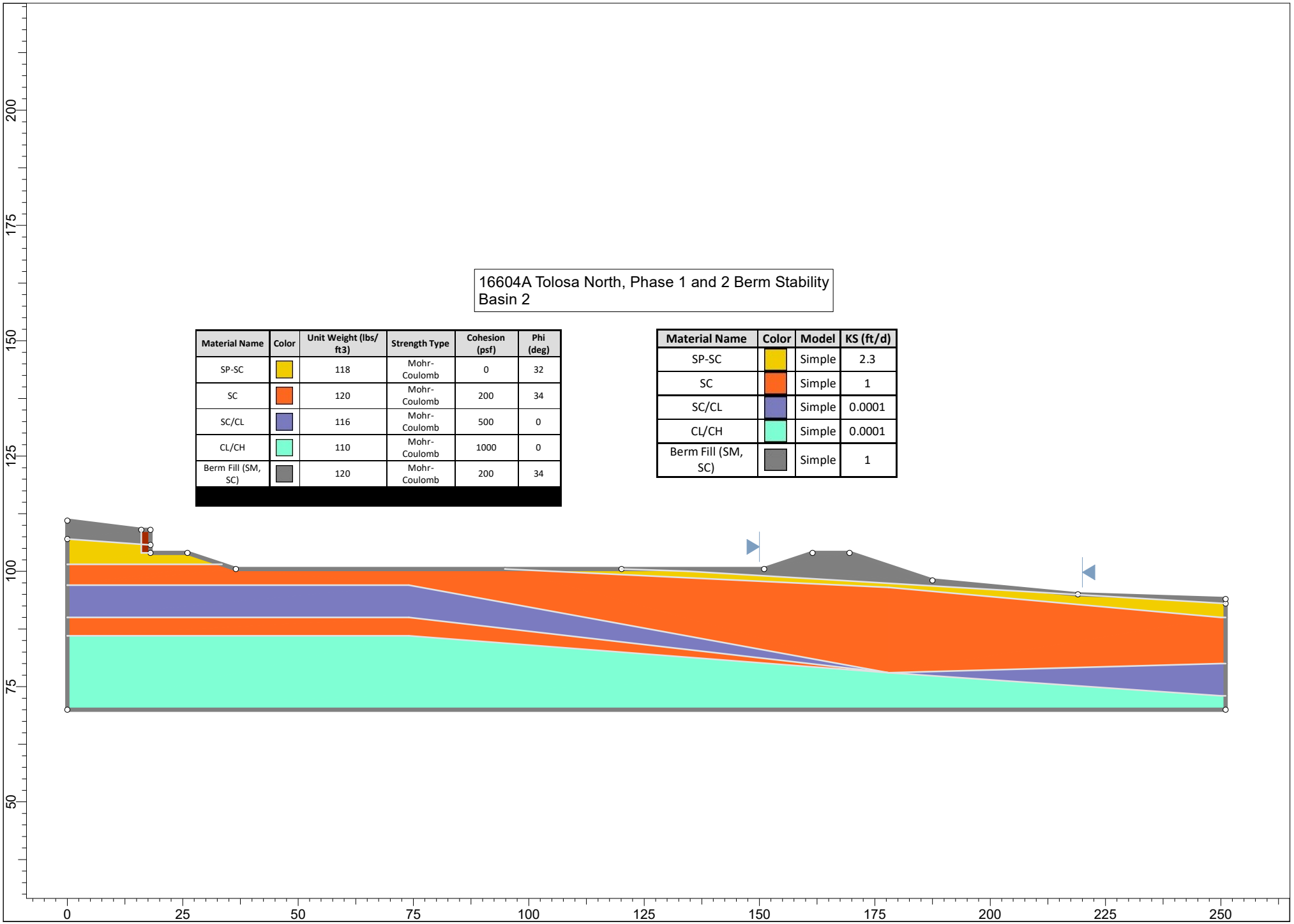
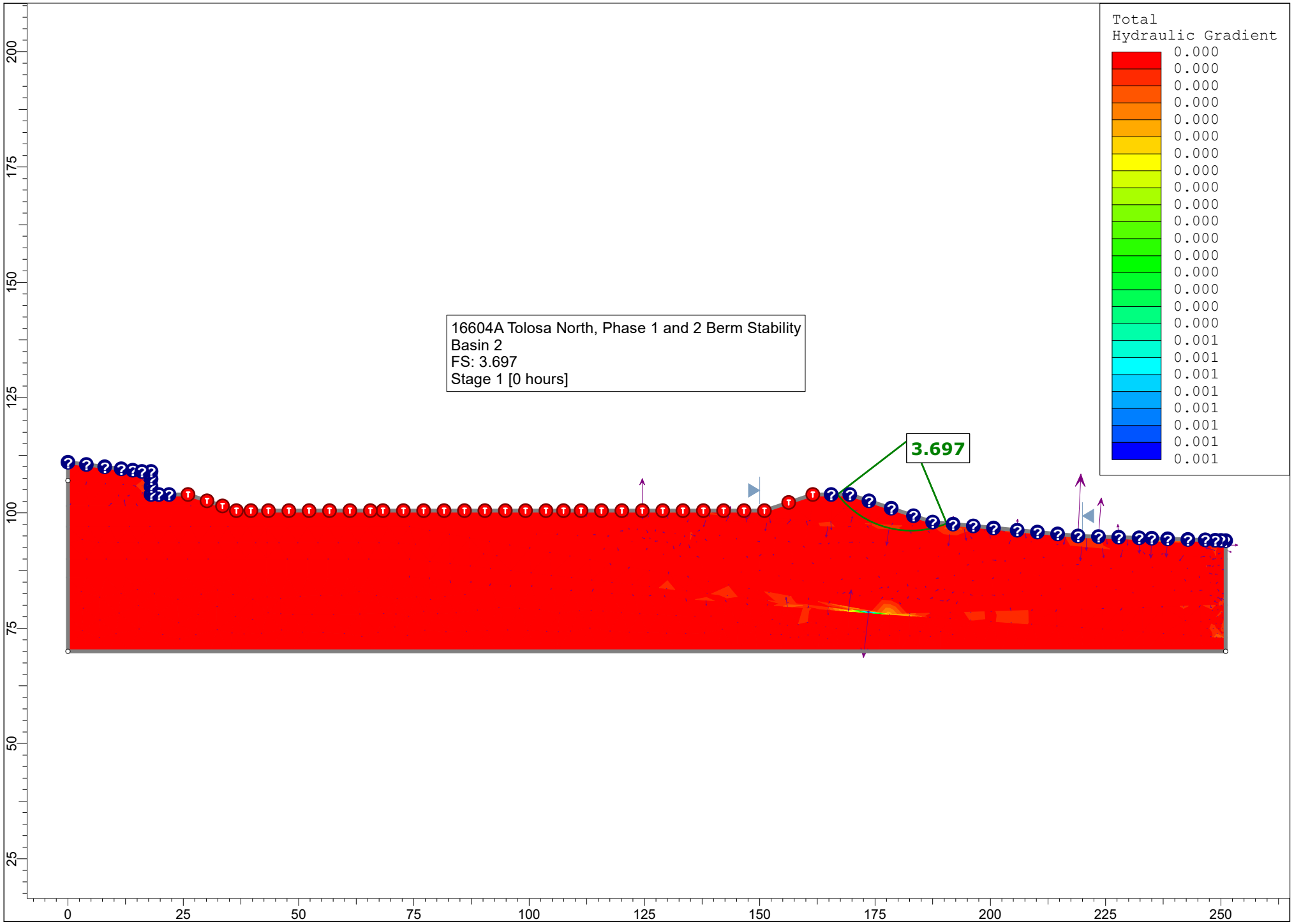
27.500
30.000
32.500
35.000
37.500
40.000
42.500
45.000
47.500
50.000
52.500
55.000
57.500
60.000
Tolosa North, Phase 1 and 2 Berm Stability
Basin 1
FS: 4.714
Stage 12 [200 hours]
4.714
160
140
120
100
80
0
20
40
60
80
100
120
140

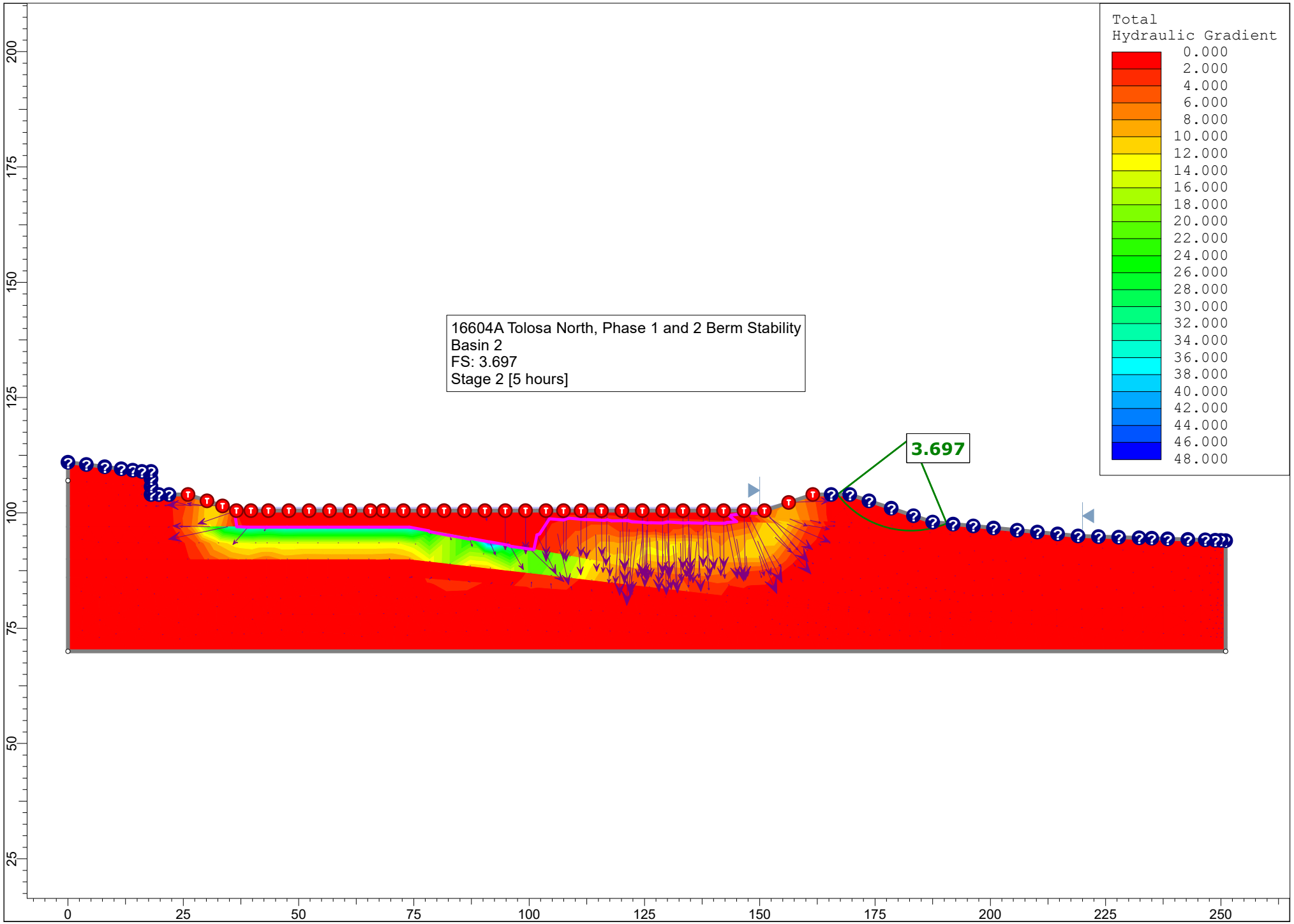
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2

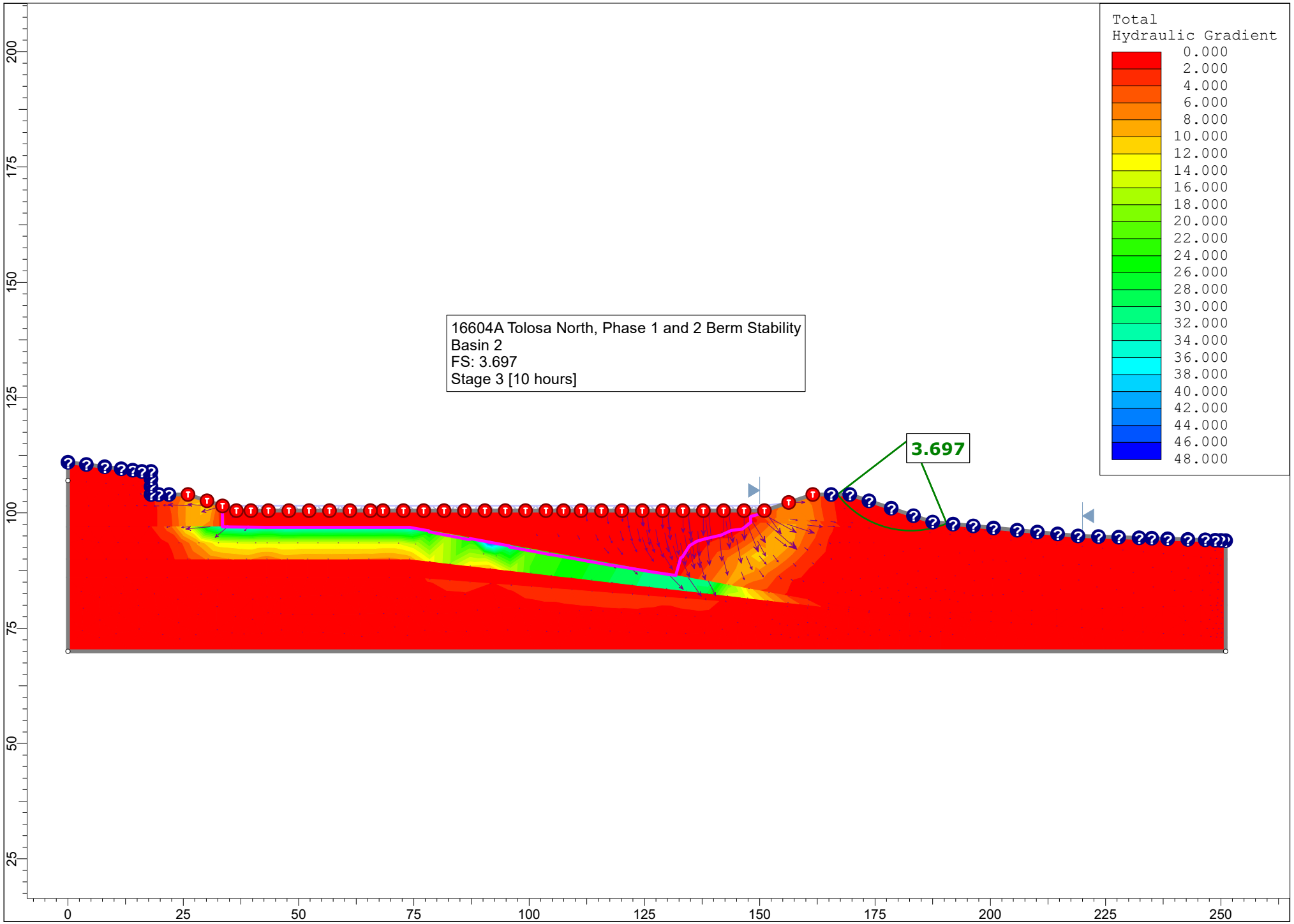
Material Name	Color	Unit Weight (lbs/ ft3)	Strength Type	Cohesion (psf)	Phi (deg)
SP-SC		118	Mohr-Coulomb	0	32
SC		120	Mohr-Coulomb	200	34
SC/CL		116	Mohr-Coulomb	500	0
CL/CH		110	Mohr-Coulomb	1000	0
Berm Fill (SM, SC)		120	Mohr-Coulomb	200	34

Material Name	Color	Model	KS (ft/d)
SP-SC		Simple	2.3
SC		Simple	1
SC/CL		Simple	0.0001
CL/CH		Simple	0.0001
Berm Fill (SM, SC)		Simple	1




Total
Hydraulic Gradient
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.000
0.001
0.001
0.001
0.001
0.001
0.001
0.001
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 1 [0 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
0.000
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
26.000
28.000
30.000
32.000
34.000
36.000
38.000
40.000
42.000
44.000
46.000
48.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 2 [5 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
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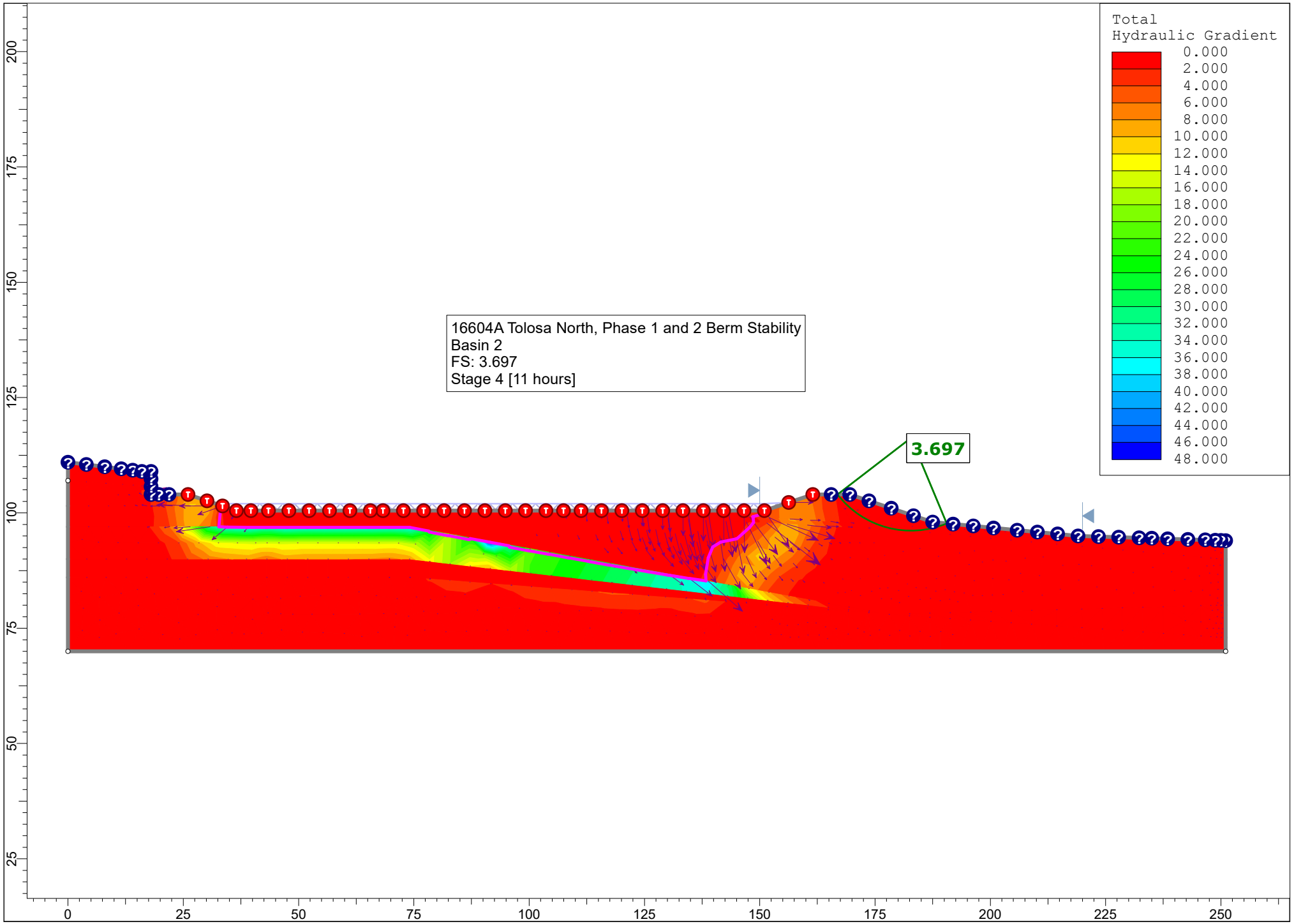
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
18.000
20.000
22.000
24.000
26.000
28.000
30.000
32.000
34.000
36.000
38.000
40.000
42.000
44.000
46.000
48.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 3 [10 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250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Hydraulic Gradient
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2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
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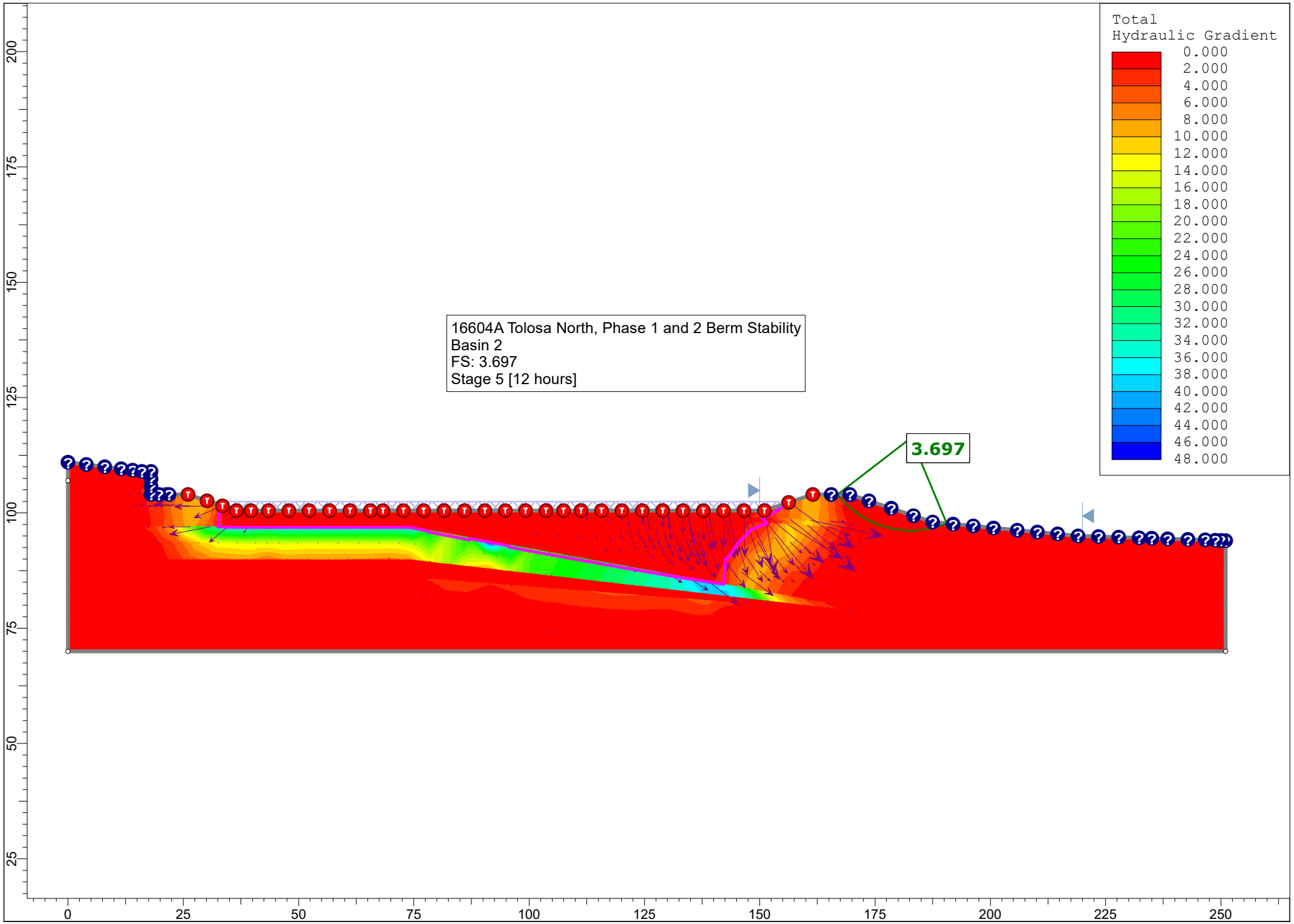
22.000
24.000
26.000
28.000
30.000
32.000
34.000
36.000
38.000
40.000
42.000
44.000
46.000
48.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 4 [11 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
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4.000
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8.000
10.000
12.000
14.000
16.000
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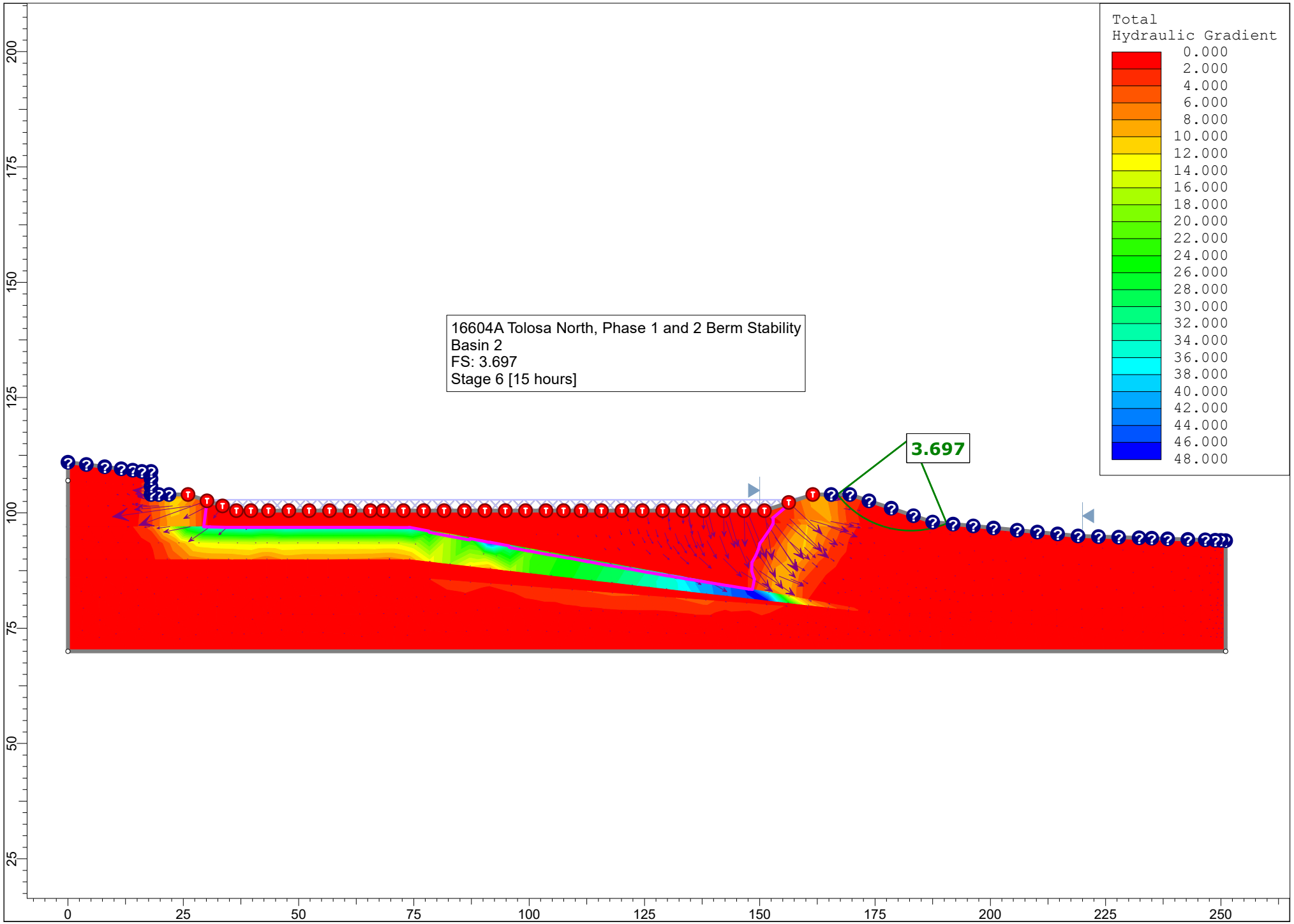
22.000
24.000
26.000
28.000
30.000
32.000
34.000
36.000
38.000
40.000
42.000
44.000
46.000
48.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 5 [12 hours]
3.697
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
0.000
2.000
4.000
6.000
8.000
10.000
12.000
14.000
16.000
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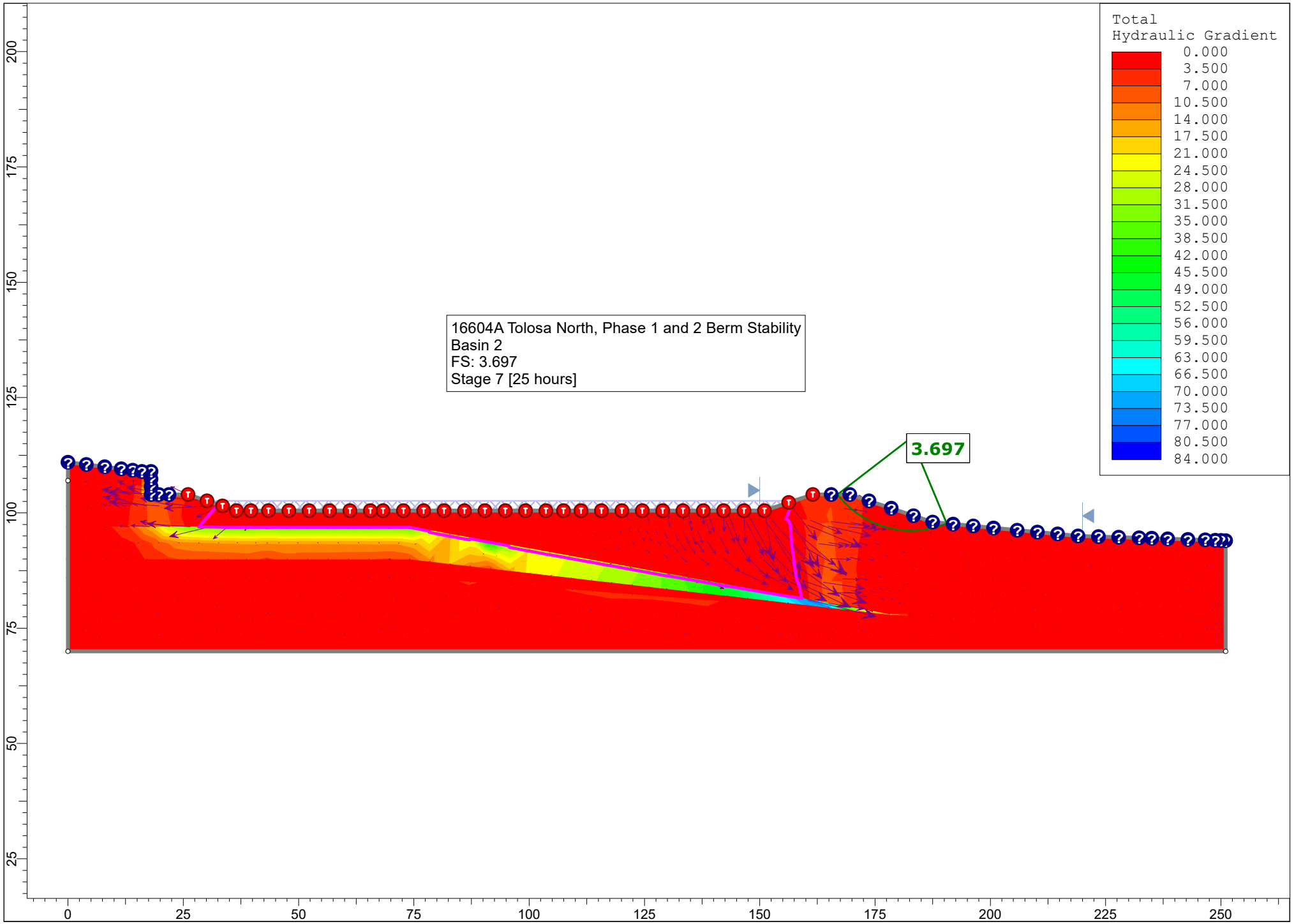
20.000
22.000
24.000
26.000
28.000
30.000
32.000
34.000
36.000
38.000
40.000
42.000
44.000
46.000
48.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 6 [15 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
0.000
3.500
7.000
10.500
14.000
17.500
21.000
24.500
28.000
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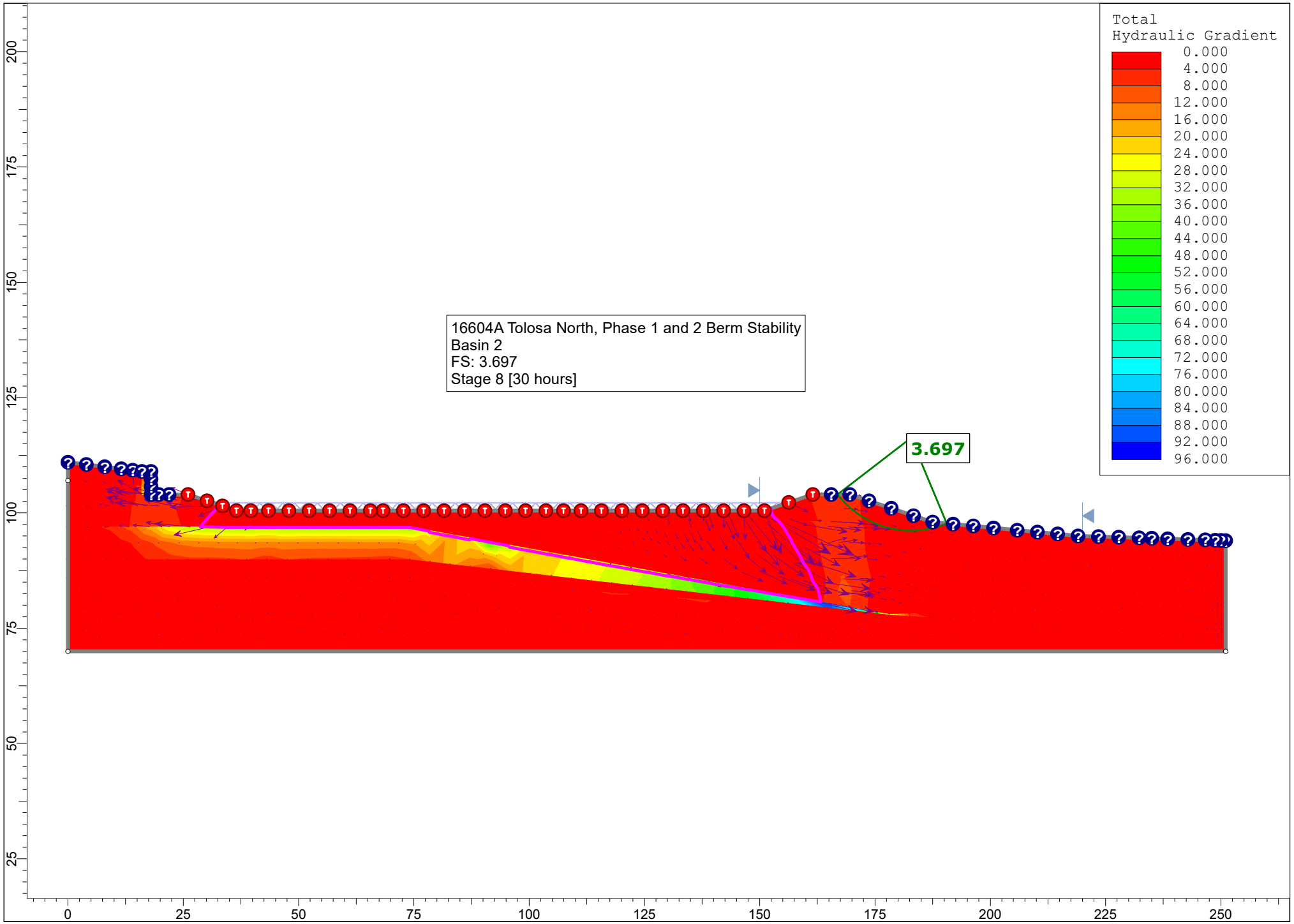
35.000
38.500
42.000
45.500
49.000
52.500
56.000
59.500
63.000
66.500
70.000
73.500
77.000
80.500
84.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 7 [25 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
0.000
4.000
8.000
12.000
16.000
20.000
24.000
28.000
32.000
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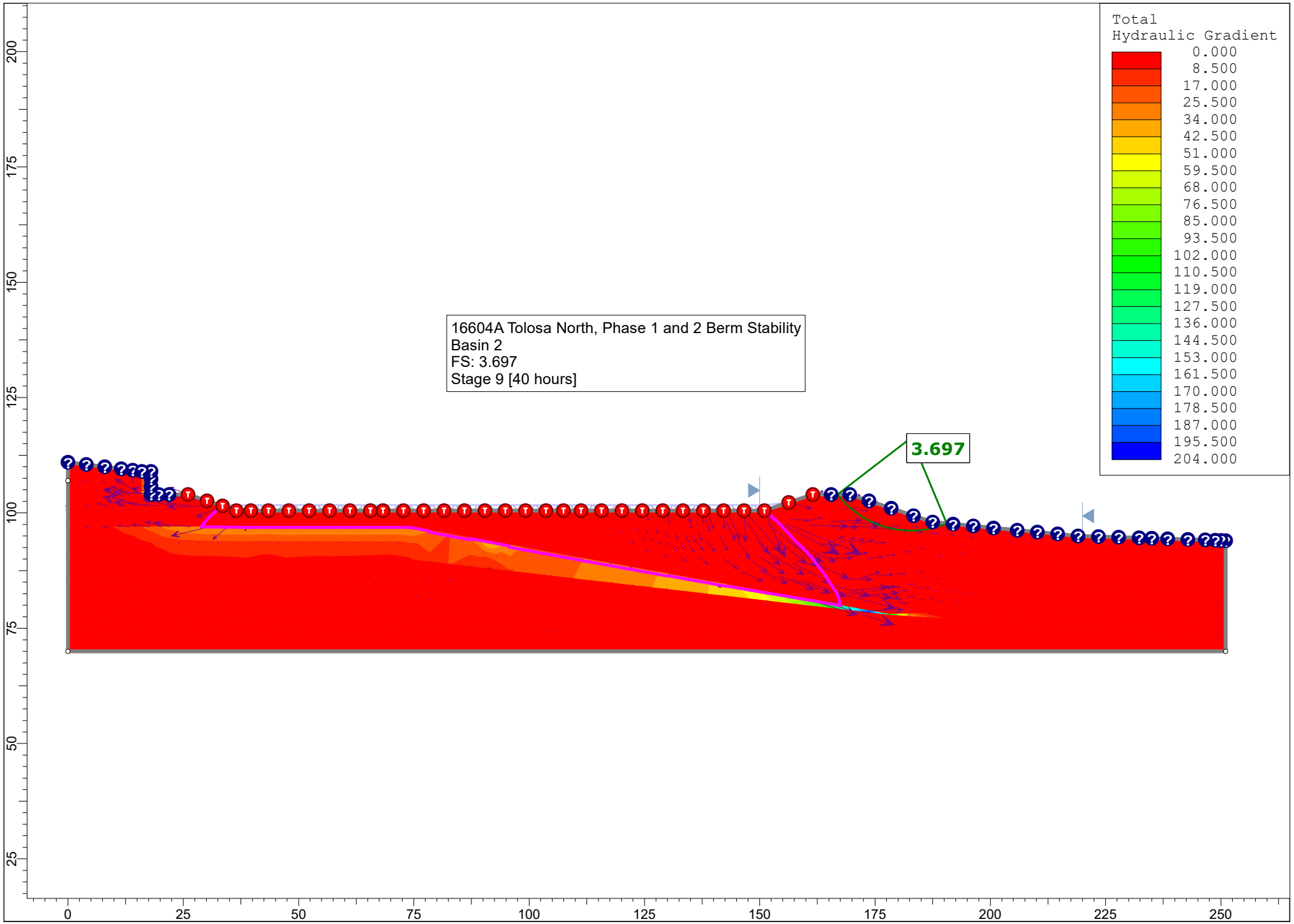
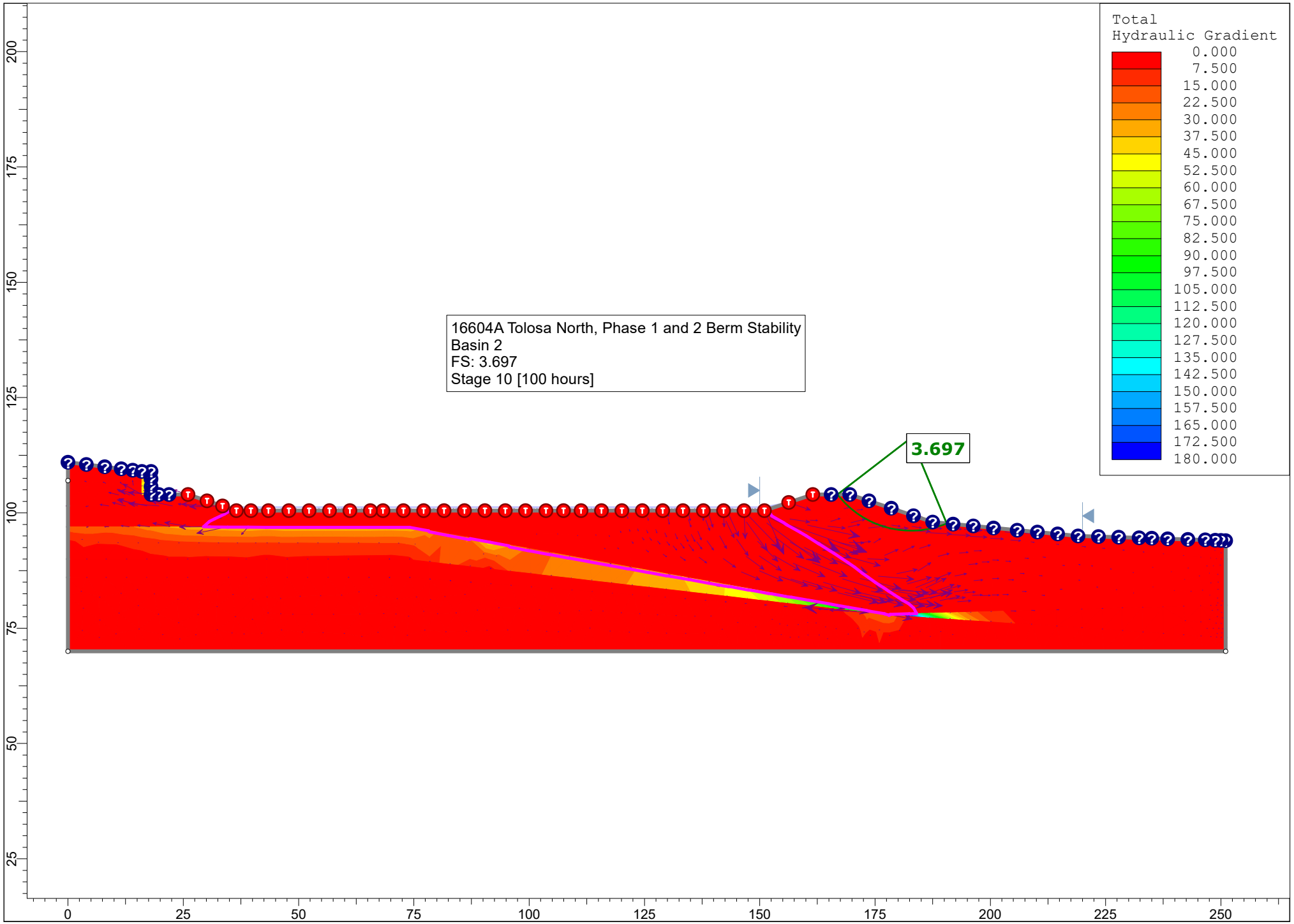
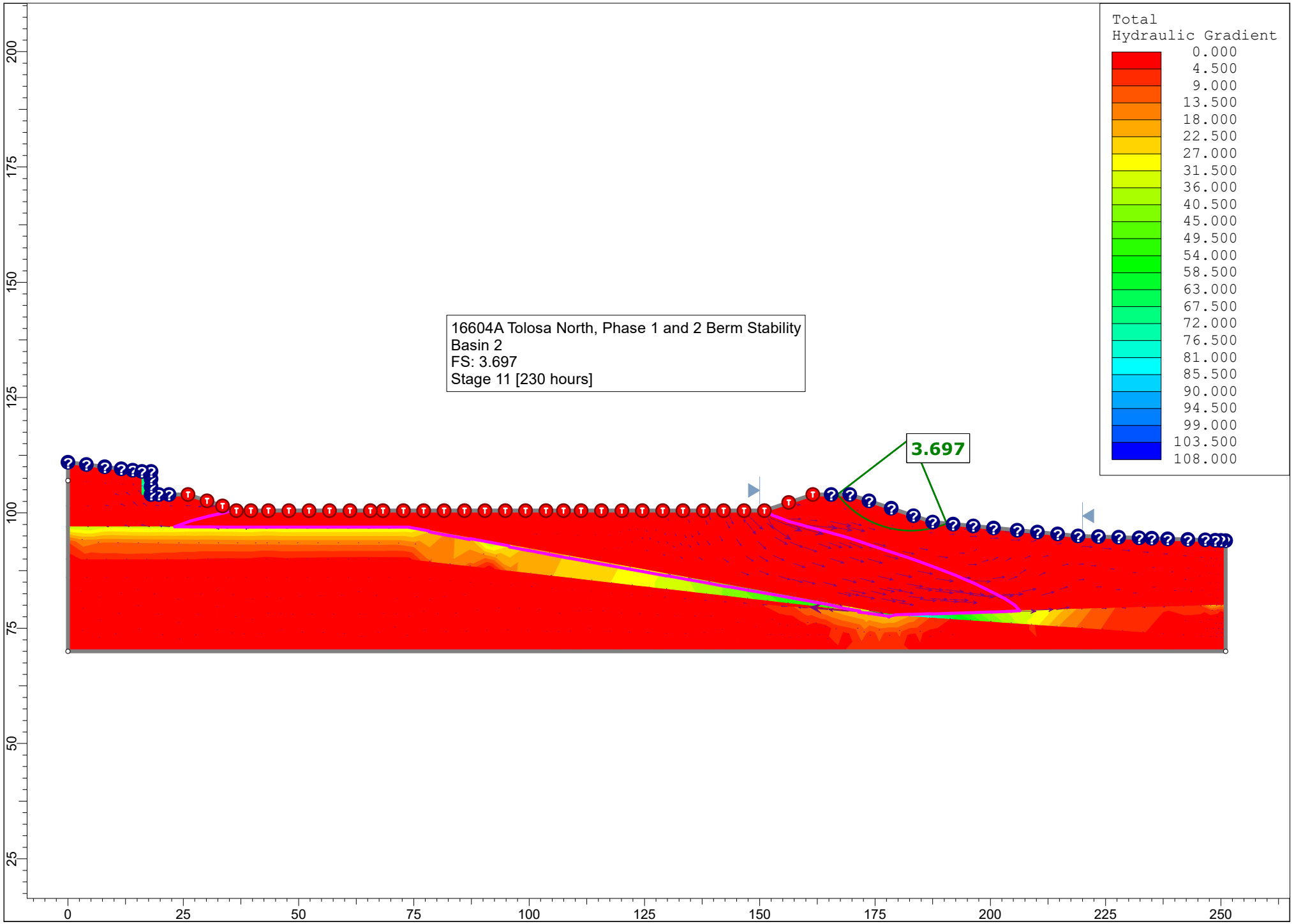
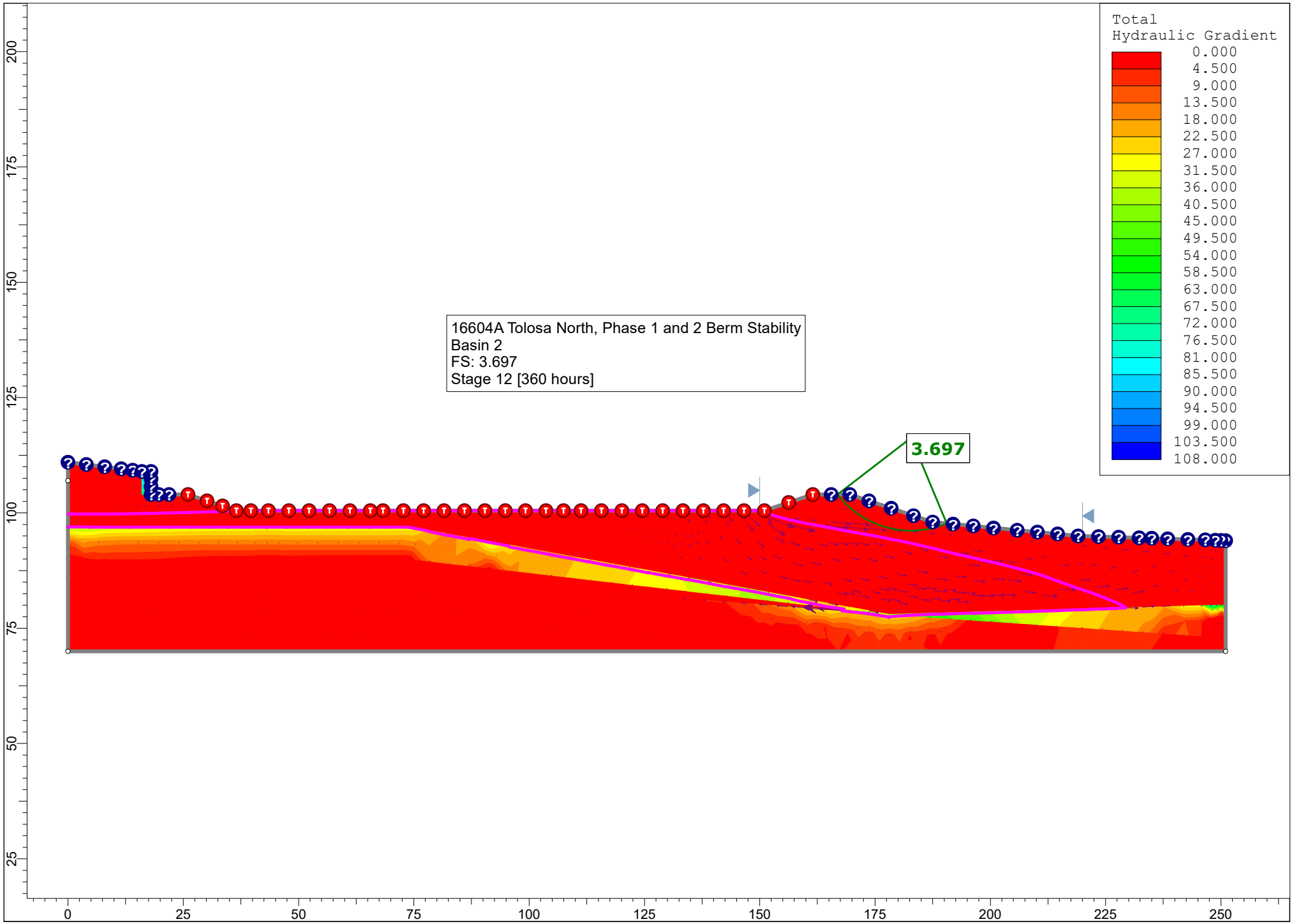
40.000
44.000
48.000
52.000
56.000
60.000
64.000
68.000
72.000
76.000
80.000
84.000
88.000
92.000
96.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 8 [30 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 9 [40 hours]
3.697
Total
Hydraulic Gradient
0.000
8.500
17.000
25.500
34.000
42.500
51.000
59.500
68.000
76.500
85.000
93.500
102.000
110.500
119.000
127.500
136.000
144.500
153.000
161.500
170.000
178.500
187.000
195.500
204.000
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
0.000
7.500
15.000
22.500
30.000
37.500
45.000
52.500
60.000
67.500
75.000
82.500
90.000
97.500
105.000
112.500
120.000
127.500
135.000
142.500
150.000
157.500
165.000
172.500
180.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 10 [100 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250

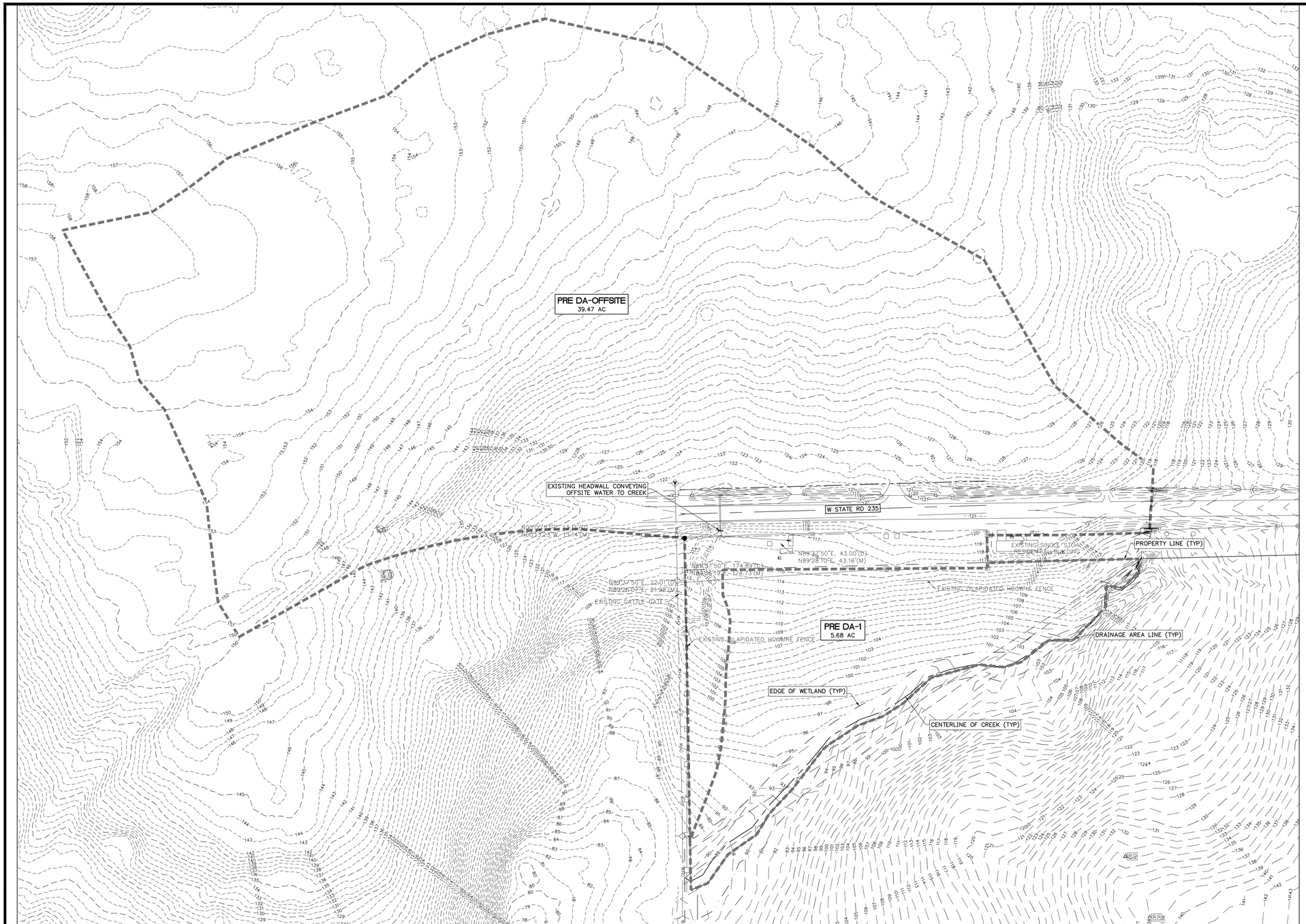

Total
Hydraulic Gradient
0.000
4.500
9.000
13.500
18.000
22.500
27.000
31.500
36.000
40.500
45.000
49.500
54.000
58.500
63.000
67.500
72.000
76.500
81.000
85.500
90.000
94.500
99.000
103.500
108.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 11 [230 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250


Total
Hydraulic Gradient
0.000
4.500
9.000
13.500
18.000
22.500
27.000
31.500
36.000
40.500
45.000
49.500
54.000
58.500
63.000
67.500
72.000
76.500
81.000
85.500
90.000
94.500
99.000
103.500
108.000
16604A Tolosa North, Phase 1 and 2 Berm Stability
Basin 2
FS: 3.697
Stage 12 [360 hours]
3.697
200
175
150
125
100
75
50
25
0
25
50
75
100
125
150
175
200
225
250

ATTACHMENT C

Pre-Development Drainage Area Map

(Exhibit on Next Page)



LEGEND

DRAINAGE AREA LINE

GENERAL NOTE

1. TREES HAVE BEEN HIDDEN FROM THE SHEET FOR PLAN READABILITY. PLEASE SEE LANDSCAPE PLANS FOR ALL TREE IMPACTS.

N

100 50 0 100 200 300

SCALE 1" = 100'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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4420 US-1 S, Suite 1 | St. Augustine, Florida 32086
Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: PRE DEVELOPMENT MASTER DRAINAGE PLAN

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JANUARY 26

PROJECT NO: 0167-25-01

SHEET NO: C4.00

ATTACHMENT D

Pre-Development Drainage Calculations

(Exhibit on Next Page)

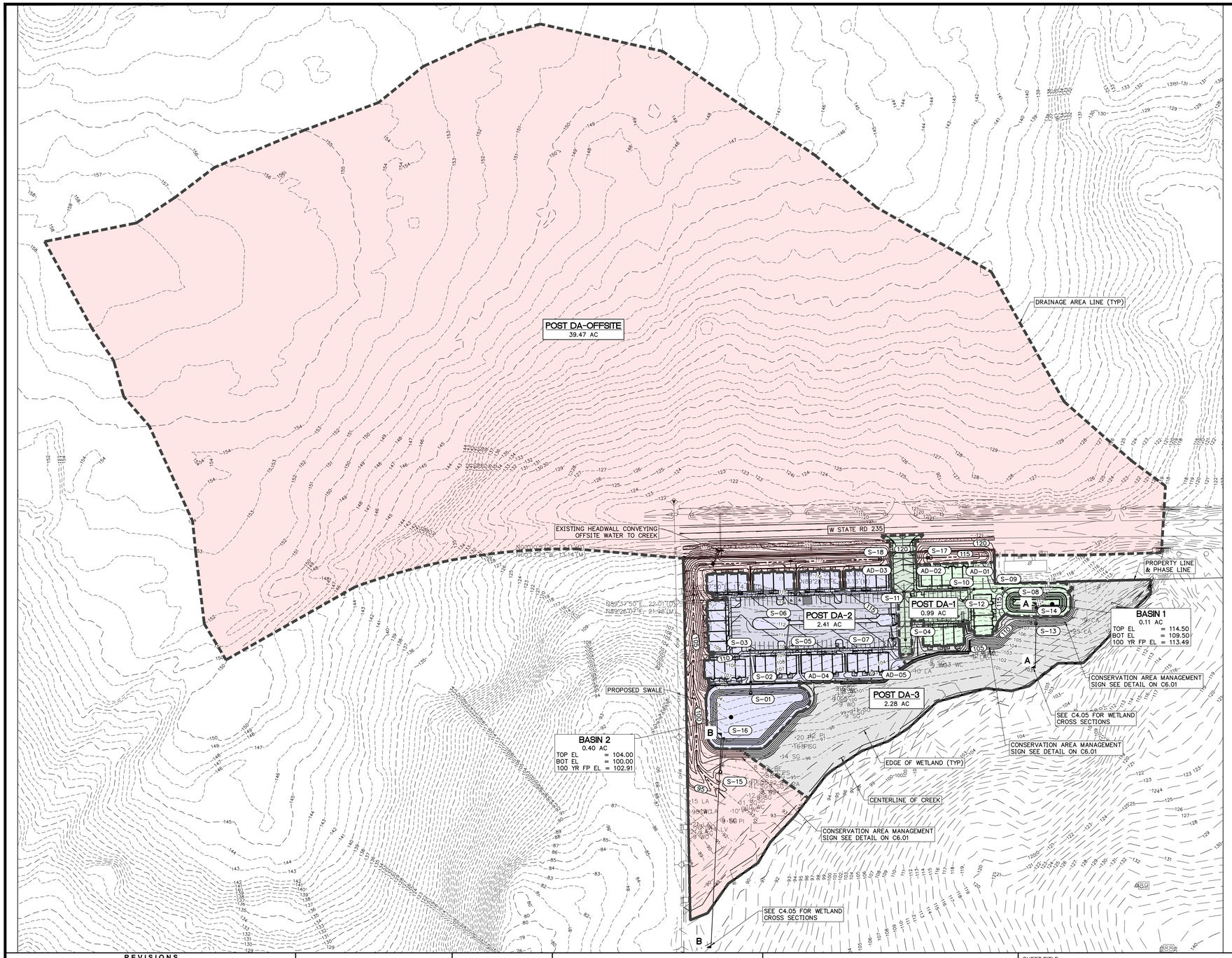
Pre Development Curve Number Calculations:

DA - Basin 1	Area (SF)	Area (AC)	CN	C	Soil Group
Wooded Area (Good Condition)	36,190.99	0.83	30	0.15	A
Wooded Area (Good Condition)	35,784.16	0.82	55	0.20	B
Wooded Area (Good Condition)	22,524.61	0.52	77	0.30	A/D
Wooded Area (Good Condition)	112,455.54	2.58	77	0.30	C/D
Wetland	40,486.94	0.93	98	0.95	-
	247,442.25	5.68	70.38	0.37	**Use 70**

ATTACHMENT E

Post-Development Drainage Area Map

(Exhibit on Next Page)



STORM STRUCTURES TABLE

DITCH BOTTOM INLETS

S-03
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 109.84
E INV EL = 103.16 (15" RCP)
S INV EL = 103.16 (18" RCP)

S-04
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.16
N INV EL = 111.68 (15" RCP)

S-05
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 110.90
E INV EL = 106.23 (15" RCP)
W INV EL = 103.89 (15" RCP)
N INV EL = 106.23 (15" RCP)

S-06
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 112.18
S INV EL = 106.82 (15" RCP)

S-07
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 112.63
W INV EL = 107.38 (15" RCP)

S-11
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.93
E INV EL = 111.21 (15" RCP)
NW INV EL = 112.57 (12" HDPE)
NE INV EL = 112.56 (12" HDPE)
S INV EL = 111.20 (15" RCP)

S-12
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 114.93
NE INV EL = 110.22 (15" RCP)

S-14
TYPE E DBI
FDOT INDEX NO. 425-052
GRATE EL = 113.45
S INV EL = 109.09 (15" RCP)

S-16
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 103.00
S INV EL = 96.50 (18" RCP)

MANHOLES

S-02
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 110.05
N INV EL = 102.68 (18" RCP)
S INV EL = 100.65 (18" RCP)
E INV EL = 103.18 (12" HDPE)

S-09
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 116.39
W INV EL = 109.66 (15" RCP)
SE INV EL = 109.66 (15" RCP)

S-10
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 115.87
SW INV EL = 110.06 (15" RCP)
E INV EL = 109.94 (15" RCP)
W INV EL = 110.51 (15" RCP)

MITERED END SECTIONS

S-01
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 100.50 (18" RCP)

S-08
MITERED END SECTION
FDOT INDEX NO. 430-022
NW INV EL = 109.50 (15" RCP)

S-13
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 109.00 (15" RCP)

S-15
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 95.00 (18" RCP)

AREA DRAINS

AD-01
AREA DRAIN
GRATE EL = 115.05
S INV EL = 109.95 (12" HDPE)

AD-02
AREA DRAIN
GRATE EL = 115.85
SW INV EL = 112.77 (12" HDPE)

AD-03
AREA DRAIN
GRATE EL = 115.80
SE INV EL = 112.77 (12" HDPE)

AD-04
AREA DRAIN
GRATE EL = 110.16
E INV EL = 104.30 (12" HDPE)
W INV EL = 104.30 (12" HDPE)

AD-05
AREA DRAIN
GRATE EL = 111.95
W INV EL = 105.83 (12" HDPE)

STORM PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
AD-01	INSERTATEE	12" HDPE	19'	0.50%
AD-02	S-11	12" HDPE	41'	0.50%
AD-03	S-11	12" HDPE	41'	0.50%
AD-04	S-02	12" HDPE	111'	1.00%
AD-05	AD-04	12" HDPE	153'	1.00%
S-02	S-01	18" RCP	20'	0.71%
S-03	S-02	18" RCP	63'	0.75%
S-04	S-11	15" RCP	96'	0.50%
S-05	S-03	15" RCP	73'	1.00%
S-06	S-05	15" RCP	59'	1.00%
S-07	S-05	15" RCP	115'	1.00%
S-09	S-08	15" RCP	32'	0.50%
S-10	S-09	15" RCP	57'	0.50%
S-11	S-10	15" RCP	140'	0.50%
S-12	S-10	15" RCP	31'	0.50%
S-14	S-13	15" RCP	31'	0.30%
S-16	S-15	18" RCP	66'	2.26%
S-17	S-18	18" RCP	93'	0.50%

LEGEND

DRAINAGE AREA LINE

N

100 50 0 100 200 300
SCALE 1" = 100'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: POST DEVELOPMENT MASTER DRAINAGE PLAN

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JANUARY 26
PROJECT NO: 0167-25-01
SHEET NO: C4.01

ATTACHMENT F

Post-Development Drainage Calculations

(Exhibit on Next Page)

Curve Number Calculations:

Post DA - 1	Area (SF)	Area (AC)	CN	C	Soil Group
Open Space (Good Condition)	9,594.63	0.22	39	0.15	A
Open Space (Good Condition)	863.82	0.02	80	0.30	A/D
Open Space (Good Condition)	790.03	0.02	80	0.30	C/D
Impervious Area	27,044.87	0.62	98	0.95	-
Retention Area	4,747.45	0.11	100	1.00	-
	43,040.79	0.99	84.38	0.75	**Use 84**

Post DA - 2	Area (SF)	Area (AC)	CN	C	Soil Group
Open Space (Good Condition)	3,942.33	0.09	39	0.15	A
Open Space (Good Condition)		0.00	61	0.20	B
Open Space (Good Condition)	17,253.23	0.40	80	0.30	C/D
Impervious Area	66,328.84	1.52	98	0.95	-
Retention Area	17,264.81	0.40	100	1.00	-
	104,789.22	2.41	93.15	0.82	**Use 93**

Post DA - 3	Area (SF)	Area (AC)	CN	C	Soil Group
Open Space (Good Condition)	355.61	0.01	39	0.15	A
Open Space (Good Condition)	2,508.50	0.06	61	0.20	B
Open Space (Good Condition)	2,349.06	0.05	80	0.30	A/D
Open Space (Good Condition)	11,849.06	0.27	80	0.30	C/D
Wooded Area (Good Condition)	2,386.71	0.05	30	0.15	A
Wooded Area (Good Condition)	9,063.64	0.21	55	0.20	B
Wooded Area (Good Condition)	18,517.89	0.43	77	0.30	A/D
Wooded Area (Good Condition)	30,059.43	0.69	77	0.30	C/D
Impervious Area	595.67	0.01	98	0.95	-
Wetland	21,578.92	0.50	98	0.95	-
	99,264.50	2.28	78.44	0.43	**Use 78**

Stormwater Retention Basin 1				
Stage	Surface Area (SF)	Surface Area (AC)	Volume (CF)	Cumulative Volume (AC-FT)
109.50	993.00	0.02	0.00	0.00
110.00	1,304.00	0.03	574.25	0.01
111.00	1,970.00	0.05	2,211.25	0.05
111.75	2,501.44	0.06	3,904.01	0.09
112.00	2,693.00	0.06	4,542.75	0.10
113.00	3,472.00	0.08	7,625.25	0.18
114.00	4,308.00	0.10	11,515.25	0.26
114.50	4,747.00	0.11	13,779.00	0.32

Perimeter	75' Offset	375' Offset
297	768	1916

Stormwater Retention Basin 2				
Stage	Surface Area (SF)	Surface Area (AC)	Volume (CF)	Cumulative Volume (AC-FT)
100.00	11,231.17	0.26	0.00	0.00
101.00	12,654.76	0.29	11942.96	0.27
102.00	14,134.89	0.32	25337.79	0.58
103.00	15,671.58	0.36	40241.03	0.92
104.00	17,264.81	0.40	56709.23	1.30

Perimeter	75' Offset	375' Offset
540	1010	2156

Drainage Structure Catchment Areas for Pipe Sizing Calculations

Structure Name	Area	Pervious %	Impervious %	Pervious Area	Impervious Area
S-01	0	20%	80%		
S-02	0	20%	80%	0	0
S-03	24,864	20%	80%	4,973	19,891
S-04	2,700	0%	100%	0	2,700
S-05	9,459	20%	80%	1,892	7,567
S-06	18,362	20%	80%	3,672	14,690
S-07	9,099	20%	80%	1,820	7,279
S-08	0	20%	80%	0	0
S-09	0	32%	68%	0	0
S-10	0	32%	68%	0	0
S-11	6,045	0%	100%	0	6,045
S-12	14,323	32%	68%	4,583	9,740
AD-01	2,698	100%	0%	2,698	0
AD-02	577	100%	0%	577	0
AD-03	488	100%	0%	488	0
AD-04	5,879	47%	53%	2,763	3,116
AD-05	1,768	80%	20%	1,414	354

CN	89	
Pervious %	20%	54
Impervious %	80%	98
CN	84	
Pervious %	32%	54
Impervious %	68%	98

Pipe Sizing Calculations

Structure No.		Structure Type		Structure Elevation		Pipe Details			Contributing Area (Into Upper Inlet) "A"		Contributing Area (Total in Pipe) "A"		Runoff Coefficient "C"		Rainfall Intensity "i" (in/hr)	Flow "Q" (CFS)		Pipe Size (in)	Flowline		Crown		Hydraulic Gradient		Slope			Velocity		Flow	Min Physical Velocity (fps)	Max Physical Velocity (fps)	Min Physical Slope (%)	HGL Clearance (FT)	Pipe Capacity	Upper Inlet Capacity
Upper	Lower	Upper	Lower	Upper	Lower	Length (FT)	Material	Roughness Coefficient "Manning's n"	Pervious Area (SF)	Impervious Area (SF)	Pervious Area (SF)	Impervious Area (SF)	Pervious	Impervious		Flow into Inlet "Q" (CFS)	Total Flow in Pipe "Q" (CFS)		Upper End Elevation (FT)	Lower End Elevation (FT)	Upper End Elevation (FT)	Lower End Elevation (FT)	Upper End Elevation (FT)	Lower End Elevation (FT)	Hydraulic Grade (%)	Physical Grade (%)	Min. Physical Grade (%)	Actual Velocity (fps)	Physical Velocity (fps)	Full Flow Capacity (CFS)	2.5	13	0.49	1		
AD-05	AD-04	Type C DBI	Type C DBI	111.54	110.17	153.28	HDPE	0.01	1,414	354	1,414	354	0.20	0.95	6.2	0.09	0.09	12	105.83	104.30	106.83	105.30	102.11	102.11	0.00	1.00	0.18	0.11	5.89	4.62	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
AD-04	S-02	Type C DBI	Type 8 Manhole	110.17	110.05	111.04	HDPE	0.01	2,763	3,116	4,178	3,469	0.20	0.95	6.2	0.50	0.59	12	104.30	103.19	105.30	104.19	102.11	102.09	0.02	1.00	0.18	0.75	5.88	4.62	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-03	S-02	Type 8 Manhole	Type 8 Manhole	109.73	110.05	63.38	RCP	0.012	4,973	19,891	12,357	49,427	0.20	0.95	6.2	2.83	7.04	18	103.16	102.69	104.66	104.19	102.33	102.09	0.38	0.75	0.15	3.98	5.57	9.85	GOOD	GOOD	GOOD	GOOD	GOOD	#N/A
S-05	S-03	Type C DBI	Type 8 Manhole	110.90	109.73	72.54	RCP	0.012	1,892	7,567	7,384	29,536	0.20	0.95	6.2	1.08	4.20	15	103.89	103.16	105.14	104.41	102.60	102.33	0.36	1.00	0.19	3.43	5.69	6.99	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-06	S-05	Type C DBI	Type C DBI	112.18	110.90	58.55	RCP	0.012	3,672	14,690	3,672	14,690	0.20	0.95	6.2	2.09	2.09	15	106.82	106.23	108.07	107.48	102.65	102.60	0.09	1.00	0.19	1.70	5.69	6.99	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-07	S-05	Type C DBI	Type C DBI	112.63	110.90	115.50	RCP	0.012	1,820	7,279	1,820	7,279	0.20	0.95	6.2	1.04	1.04	15	107.39	106.23	108.64	107.48	102.62	102.60	0.02	1.00	0.19	0.84	5.70	6.99	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-02	S-01	Type 8 Manhole	MES	110.05	102.00	20.50	RCP	0.012	0	0	16,534	52,897	0.20	0.95	6.2	0.00	7.62	18	100.65	100.50	102.15	102.00	102.09	102.00	0.45	0.71	0.15	4.31	5.43	9.60	GOOD	GOOD	GOOD	GOOD	GOOD	#N/A
AD-03	S-11	Type C DBI	Type C DBI	115.80	115.93	40.62	HDPE	0.01	488	0	488	0	0.20	0.95	6.2	0.01	0.01	12	112.77	112.57	113.77	113.57	110.93	110.93	0.00	0.50	0.18	0.02	4.16	3.27	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
AD-02	S-11	Type C DBI	Type C DBI	115.85	115.93	40.82	HDPE	0.01	577	0	577	0	0.20	0.95	6.2	0.02	0.02	12	112.77	112.56	113.77	113.56	110.93	110.93	0.00	0.50	0.18	0.02	4.16	3.27	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
AD-01	S-10	Type C DBI	Type 8 Manhole	115.05	115.87	19.46	HDPE	0.01	2,698	0	2,698	0	0.20	0.95	6.2	0.08	0.08	12	109.95	109.85	110.95	110.85	110.89	110.89	0.00	0.50	0.18	0.10	4.16	3.26	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-04	S-11	Type C DBI	Type C DBI	115.16	115.93	96.15	RCP	0.012	0	2,700	0	2,700	0.20	0.95	6.2	0.37	0.37	15	111.68	111.20	112.93	112.45	110.93	110.93	0.00	0.50	0.19	0.30	4.03	4.94	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-10	S-09	Type 8 Manhole	Type 8 Manhole	115.98	116.39	59.35	RCP	0.012	0	0	8,346	18,485	0.20	0.95	6.2	0.00	2.74	15	109.96	109.66	111.21	110.91	110.89	110.80	0.15	0.50	0.19	2.23	4.03	4.94	GOOD	GOOD	GOOD	GOOD	GOOD	#N/A
S-11	S-10	Type C DBI	Type 8 Manhole	115.93	115.87	137.11	RCP	0.012	0	6,045	1,065	8,745	0.20	0.95	6.2	0.82	1.21	15	111.20	110.51	112.45	111.76	110.93	110.89	0.03	0.50	0.19	0.99	4.03	4.94	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-12	S-10	Type C DBI	Type 8 Manhole	114.86	115.87	25.08	RCP	0.012	4,583	9,740	4,583	9,740	0.20	0.95	6.2	1.45	1.45	15	110.19	110.07	111.44	111.32	110.90	110.89	0.04	0.50	0.19	1.18	4.02	4.93	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
S-09	S-08	Type 8 Manhole	MES	116.39	112.75	32.21	RCP	0.012	0	0	8,346	18,485	0.20	0.95	6.2	0.00	2.74	15	109.66	109.50	110.91	110.75	110.80	110.75	0.15	0.50	0.19	2.23	4.03	4.94	GOOD	GOOD	GOOD	GOOD	GOOD	#N/A

ATTACHMENT G

Pre/Post-Development Results Comparison

(Exhibit on Next Page)

Scenario	Sim	Node Name	Relative Time [hrs]	Total Inflow Volume [ft3]
Post-Development	100YR-001HR	POST-WETLAND	719.0039	25536
Pre-Development	100YR-001HR	PRE-WETLAND	72.0027	33120
Post-Development	100YR-002HR	POST-WETLAND	719.0077	43257
Pre-Development	100YR-002HR	PRE-WETLAND	72.0027	48288
Post-Development	100YR-004HR	POST-WETLAND	719.0017	67713
Pre-Development	100YR-004HR	PRE-WETLAND	72.0027	69967
Post-Development	100YR-008HR	POST-WETLAND	719.0035	91188
Pre-Development	100YR-008HR	PRE-WETLAND	72.0027	92221
Post-Development	100YR-024HR	POST-WETLAND	719.0054	142802
Pre-Development	100YR-024HR	PRE-WETLAND	72.0027	148044

Node Max Conditions : Multi Item | (sim, name) [Post-Development]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
100YR-001HR	POST-WETLAND	90.00	0.00	90.00	0.0000	12.43	0.00	0
100YR-002HR	POST-WETLAND	90.00	0.00	90.00	0.0000	10.24	0.00	0
100YR-004HR	POST-WETLAND	90.00	0.00	90.00	0.0000	9.84	0.00	0
100YR-008HR	POST-WETLAND	90.00	0.00	90.00	0.0000	11.80	0.00	0
100YR-024HR	POST-WETLAND	90.00	0.00	90.00	0.0000	4.79	0.00	0

Node Max Conditions : Multi Item | (sim, name) [Pre-Development]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
100YR-001HR	PRE-WETLAND	90.00	0.00	90.00	0.0000	17.24	0.00	0
100YR-002HR	PRE-WETLAND	90.00	0.00	90.00	0.0000	15.30	0.00	0
100YR-004HR	PRE-WETLAND	90.00	0.00	90.00	0.0000	11.57	0.00	0
100YR-008HR	PRE-WETLAND	90.00	0.00	90.00	0.0000	13.58	0.00	0
100YR-024HR	PRE-WETLAND	90.00	0.00	90.00	0.0000	4.89	0.00	0

ATTACHMENT H

Pre/Post-Development Input and Output Reports

(Exhibit on Next Page)

Simple Basin: POST-DA-1

Scenario:	Post-Development
Node:	BASIN 1
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.9900 ac
Curve Number:	84.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: POST-DA-2

Scenario:	Post-Development
Node:	BASIN 2
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.4100 ac
Curve Number:	93.0

Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: POST-DA-3

Scenario:	Post-Development
Node:	POST-WETLAND
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.2800 ac
Curve Number:	78.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PRE-DA-1

Scenario:	Pre-Development

Node:	PRE-WETLAND
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	25.2000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.6800 ac
Curve Number:	70.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: POST-DA-1

Scenario:	WQTV
Node:	BASIN 1
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.2300 ac
Curve Number:	84.0
Ia/S:	0.00
% Impervious:	0.00

% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: POST-DA-2

Scenario:	WQTV
Node:	BASIN 2
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.4700 ac
Curve Number:	89.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Node: BASIN 1

Scenario:	Post-Development
Type:	Stage/Area
Base Flow:	0.00 cfs

Initial Stage: 109.50 ft
Warning Stage: 113.50 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
109.50	0.0200	871
110.00	0.0300	1307
111.00	0.0500	2178
112.00	0.0600	2614
113.00	0.0800	3485
114.00	0.1000	4356
114.50	0.1100	4792

Comment:

Node: BASIN 2

Scenario: Post-Development
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 100.00 ft
Warning Stage: 103.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
100.00	0.2600	11326
101.00	0.2900	12632
102.00	0.3200	13939
103.00	0.3600	15682
104.00	0.4000	17424

Comment:

Node: POST-GW-1

Scenario: Post-Development
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 90.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	9999.0000	90.00

Comment:

Node: POST-GW-2

Scenario: Post-Development
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	999.0000	90.00

Comment:

Node: POST-WETLAND

Scenario: Post-Development
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 90.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	999.0000	90.00

Comment:

Node: PRE-WETLAND

Scenario: Pre-Development
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 90.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	999.0000	90.00

Comment:

Node: BASIN 1

Scenario: WQTV
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 111.00 ft
Warning Stage: 113.50 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
109.50	0.0200	871
110.00	0.0300	1307
111.00	0.0500	2178
112.00	0.0600	2614
113.00	0.0800	3485
114.00	0.1000	4356
114.50	0.1100	4792

Comment:

Node: BASIN 2

Scenario: WQTV
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 102.00 ft
Warning Stage: 103.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
100.50	0.2700	11761
101.00	0.2900	12632
102.00	0.3200	13939
103.00	0.3600	15682

Stage [ft]	Area [ac]	Area [ft2]
104.00	0.4000	17424

Comment:

Node: POST-GW-1

Scenario: WQTV
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 90.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	9999.0000	90.00

Comment:

Node: POST-GW-2

Scenario: WQTV
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	999.0000	90.00

Comment:

Node: POST-WETLAND

Scenario: WQTV
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 90.00 ft
Warning Stage: 90.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	90.00
0	0	0	999.0000	90.00

Comment:

Drop Structure Link: OUTFALL-1

Scenario: Post-Development
From Node: BASIN 1
To Node: POST-WETLAND
Link Count: 1
Pipe Flow Direction: Both
Solution: Combine
Increments: 0
Pipe Count: 1

Upstream Pipe

Invert: 109.09 ft
Manning's N: 0.0120

Geometry: Circular

Max Depth: 1.25 ft

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Downstream Pipe

Invert: 109.00 ft
Manning's N: 0.0120

Geometry: Circular

Max Depth: 1.25 ft

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	30.00 ft	Top Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0	Op Table:		Op Table:	
Exit Loss Coef:	0	Ref Node:		Ref Node:	
Bend Loss Coef:	0	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	113.35 ft	Ref Node:	
Control Elevation:	113.35 ft	Discharge Coefficients	
Max Depth:	3.00 ft	Weir Default:	3.200
Max Width:	4.50 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	112.85 ft	Ref Node:	
Control Elevation:	112.85 ft		

Max Depth:	0.50 ft
Max Width:	0.42 ft
Fillet:	0.00 ft

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: OUTFALL-2

Scenario:	Post-Development
From Node:	BASIN 2
To Node:	POST-WETLAND
Link Count:	1
Pipe Flow Direction:	Both
Solution:	Combine
Increments:	0
Pipe Count:	1
Damping:	0.0000 ft
Length:	50.00 ft
FHWA Code:	0
Entr Loss Coef:	0
Exit Loss Coef:	0
Bend Loss Coef:	0
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream Pipe

Invert:	96.50 ft
Manning's N:	0.0120

Geometry: Circular

Max Depth:	1.50 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream Pipe

Invert:	95.00 ft
Manning's N:	0.0120

Geometry: Circular

Max Depth:	1.50 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Pipe Comment:

Weir Component

Weir:	1
Weir Count:	1

Bottom Clip

Default:	0.00 ft

Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	103.00 ft
Control Elevation:	103.00 ft
Max Depth:	3.00 ft
Max Width:	4.50 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component

Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	102.50 ft
Control Elevation:	102.50 ft
Max Depth:	0.50 ft
Max Width:	1.25 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component

Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	101.83 ft
Control Elevation:	101.83 ft
Max Depth:	0.67 ft
Max Width:	0.75 ft
Fillet:	0.00 ft

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Percolation Link: PERC-1

Scenario:	Post-Development	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	BASIN 1	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	POST-GW-1	Perimeter 1:	297.00 ft
Link Count:	1	Perimeter 2:	768.00 ft
Flow Direction:	Both	Perimeter 3:	1916.00 ft
Aquifer Base Elevation:	103.50 ft	Distance P1 to P2:	75.00 ft
Water Table Elevation:	104.00 ft	Distance P2 to P3:	300.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	15
Horizontal Conductivity:	1.000 fpd	# of Cells P2 to P3:	30
Vertical Conductivity:	0.750 fpd		
Fillable Porosity:	0.200		
Layer Thickness:	5.50 ft		

Comment:

Percolation Link: PERC-2

Scenario:	Post-Development
From Node:	BASIN 2
To Node:	POST-GW-2
Link Count:	1
Flow Direction:	Both
Aquifer Base Elevation:	94.00 ft
Water Table Elevation:	94.50 ft
Annual Recharge Rate:	0 ipy
Horizontal Conductivity:	1.500 fpd
Vertical Conductivity:	1.000 fpd
Fillable Porosity:	0.200
Layer Thickness:	6.00 ft

Surface Area Option:	Vary Based on Stage/Area Table
Vertical Flow Termination:	Horizontal Flow Algorithm
Perimeter 1:	540.00 ft
Perimeter 2:	1010.00 ft
Perimeter 3:	2156.00 ft
Distance P1 to P2:	75.00 ft
Distance P2 to P3:	300.00 ft
# of Cells P1 to P2:	15
# of Cells P2 to P3:	30

Comment:

Drop Structure Link: OUTFALL-1

Scenario:	WQTV
From Node:	BASIN 1
To Node:	POST-WETLAND
Link Count:	1
Pipe Flow Direction:	Both
Solution:	Combine
Increments:	0
Pipe Count:	1
Damping:	0.0000 ft
Length:	30.00 ft
FHWA Code:	0
Entr Loss Coef:	0
Exit Loss Coef:	0
Bend Loss Coef:	0
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream Pipe	
Invert:	107.00 ft
Manning's N:	0.0120
Geometry: Circular	
Max Depth:	1.25 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream Pipe	
Invert:	106.00 ft
Manning's N:	0.0120
Geometry: Circular	
Max Depth:	1.25 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	113.30 ft
Control Elevation:	113.30 ft
Max Depth:	3.00 ft
Max Width:	4.50 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	112.80 ft
Control Elevation:	112.80 ft
Max Depth:	0.50 ft
Max Width:	0.42 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: OUTFALL-2		Upstream Pipe		Downstream Pipe	
Scenario:	WQTV	Invert:	100.00 ft	Invert:	95.00 ft
From Node:	BASIN 2	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	POST-WETLAND	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	50.00 ft	Top Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0	Op Table:		Op Table:	
Exit Loss Coef:	0	Ref Node:		Ref Node:	
Bend Loss Coef:	0	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	102.80 ft	Ref Node:	
Control Elevation:	102.80 ft	Discharge Coefficients	
Max Depth:	3.00 ft	Weir Default:	3.200
Max Width:	4.50 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	102.00 ft
Control Elevation:	102.00 ft
Max Depth:	0.80 ft
Max Width:	0.42 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Percolation Link: PERC-1			
Scenario:	WQTV	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	BASIN 1	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	POST-GW-1	Perimeter 1:	297.00 ft
Link Count:	1	Perimeter 2:	768.00 ft
Flow Direction:	Both	Perimeter 3:	1916.00 ft
Aquifer Base Elevation:	103.50 ft	Distance P1 to P2:	75.00 ft
Water Table Elevation:	104.00 ft	Distance P2 to P3:	300.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	15
Horizontal Conductivity:	1.000 fpd	# of Cells P2 to P3:	30
Vertical Conductivity:	0.750 fpd		
Fillable Porosity:	0.200		
Layer Thickness:	5.50 ft		

Comment:

Percolation Link: PERC-2

Scenario:	WQTV	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	BASIN 2	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	POST-GW-2	Perimeter 1:	540.00 ft
Link Count:	1	Perimeter 2:	1010.00 ft
Flow Direction:	Both	Perimeter 3:	2156.00 ft
Aquifer Base Elevation:	94.00 ft	Distance P1 to P2:	75.00 ft
Water Table Elevation:	94.50 ft	Distance P2 to P3:	300.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	15
Horizontal Conductivity:	1.500 fpd	# of Cells P2 to P3:	30
Vertical Conductivity:	1.000 fpd		
Fillable Porosity:	0.200		
Layer Thickness:	6.50 ft		

Comment:

Simulation: 100YR-001HR

Scenario:	Post-Development
Run Date/Time:	10/8/2025 8:52:28 AM
Program Version:	StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	721.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set:

Green-Ampt Set:

Vertical Layers Set:

Impervious Set:

Tolerances & Options

Time Marching: SAOR

Max Iterations: 6

Over-Relax Weight Fact: 0.5 dec

dZ Tolerance: 0.0010 ft

Max dZ: 1.0000 ft

Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr

Ia/S: 0.20 dec

Smp/Man Basin Rain Opt: Global

Rainfall Name: ~FDOT-1

Rainfall Amount:	4.40 in
Storm Duration:	1.0000 hr
Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (1D):	100 ft2
Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-002HR

Scenario: Post-Development
Run Date/Time: 10/8/2025 8:53:18 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	722.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FDOT-2
Rainfall Amount: 5.40 in
Storm Duration: 2.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100YR-004HR

Scenario: Post-Development
Run Date/Time: 10/8/2025 8:53:36 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	724.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FDOT-4
		Rainfall Amount:	6.72 in
		Storm Duration:	4.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-008HR

Scenario:	Post-Development
Run Date/Time:	10/8/2025 8:53:51 AM
Program Version:	StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	728.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FDOT-8
		Rainfall Amount:	8.00 in
		Storm Duration:	8.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-024HR

Scenario:	Post-Development
Run Date/Time:	10/8/2025 8:54:07 AM
Program Version:	StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	744.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000

Max Calculation Time: 30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	50.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	50.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec

Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FDOT-24
		Rainfall Amount:	11.04 in
		Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-001HR

Scenario: Pre-Development
Run Date/Time: 10/8/2025 8:54:23 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FDOT-1
Rainfall Amount: 4.40 in
Storm Duration: 1.0000 hr
Dflt Damping (1D): 0.0050 ft

Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100YR-002HR

Scenario: Pre-Development
Run Date/Time: 10/8/2025 8:54:29 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FDOT-2
Rainfall Amount: 5.40 in
Storm Duration: 2.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100YR-004HR

Scenario: Pre-Development
Run Date/Time: 10/8/2025 8:54:31 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FDOT-4
		Rainfall Amount:	6.72 in
		Storm Duration:	4.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-008HR

Scenario:	Pre-Development
Run Date/Time:	10/8/2025 8:54:33 AM
Program Version:	StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FDOT-8
		Rainfall Amount:	8.00 in
		Storm Duration:	8.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-024HR

Scenario: Pre-Development
Run Date/Time: 10/8/2025 8:54:34 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000

Max Calculation Time: 30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	50.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	50.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec

Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft		
		Rainfall Name:	~FDOT-24
		Rainfall Amount:	11.04 in
		Storm Duration:	24.0000 hr
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area (1D):	100 ft2
		Energy Switch (1D):	Energy

Comment:

Simulation: 100YR-001HR

Scenario: WQTV
Run Date/Time: 10/8/2025 8:54:36 AM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	30.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

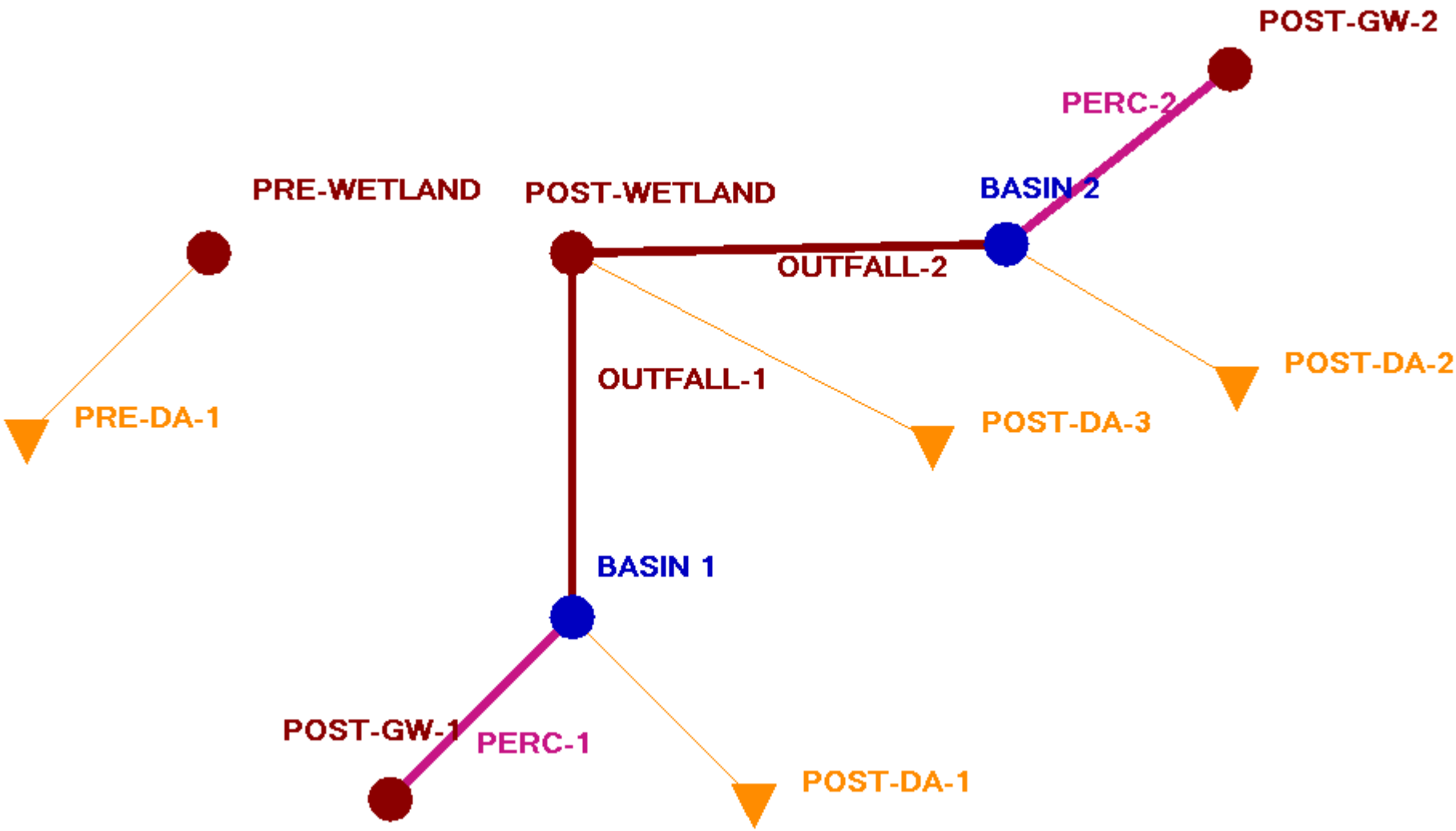
Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FDOT-1
Rainfall Amount: 0.00 in
Storm Duration: 1.0000 hr
Dflt Damping (1D): 0.0050 ft

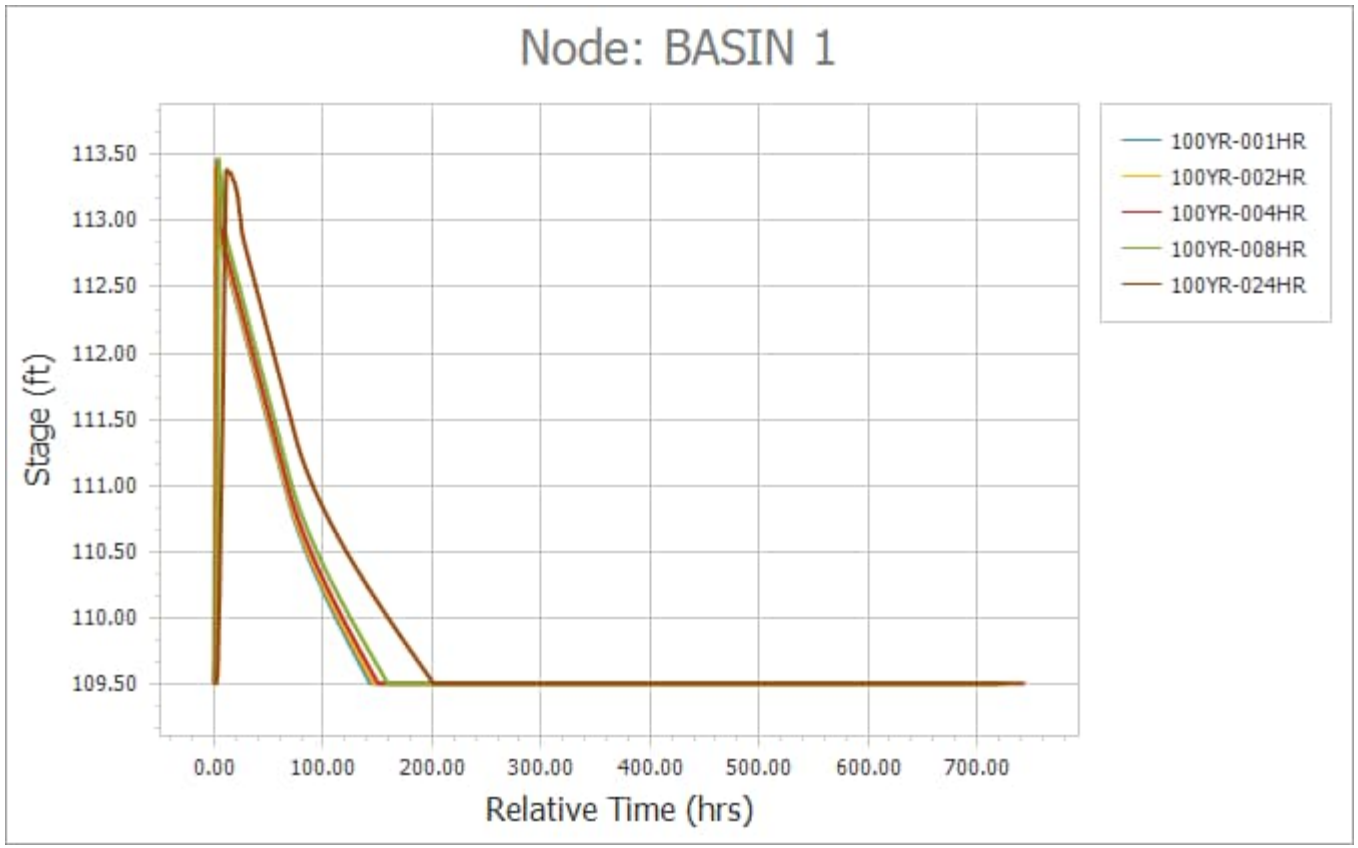
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

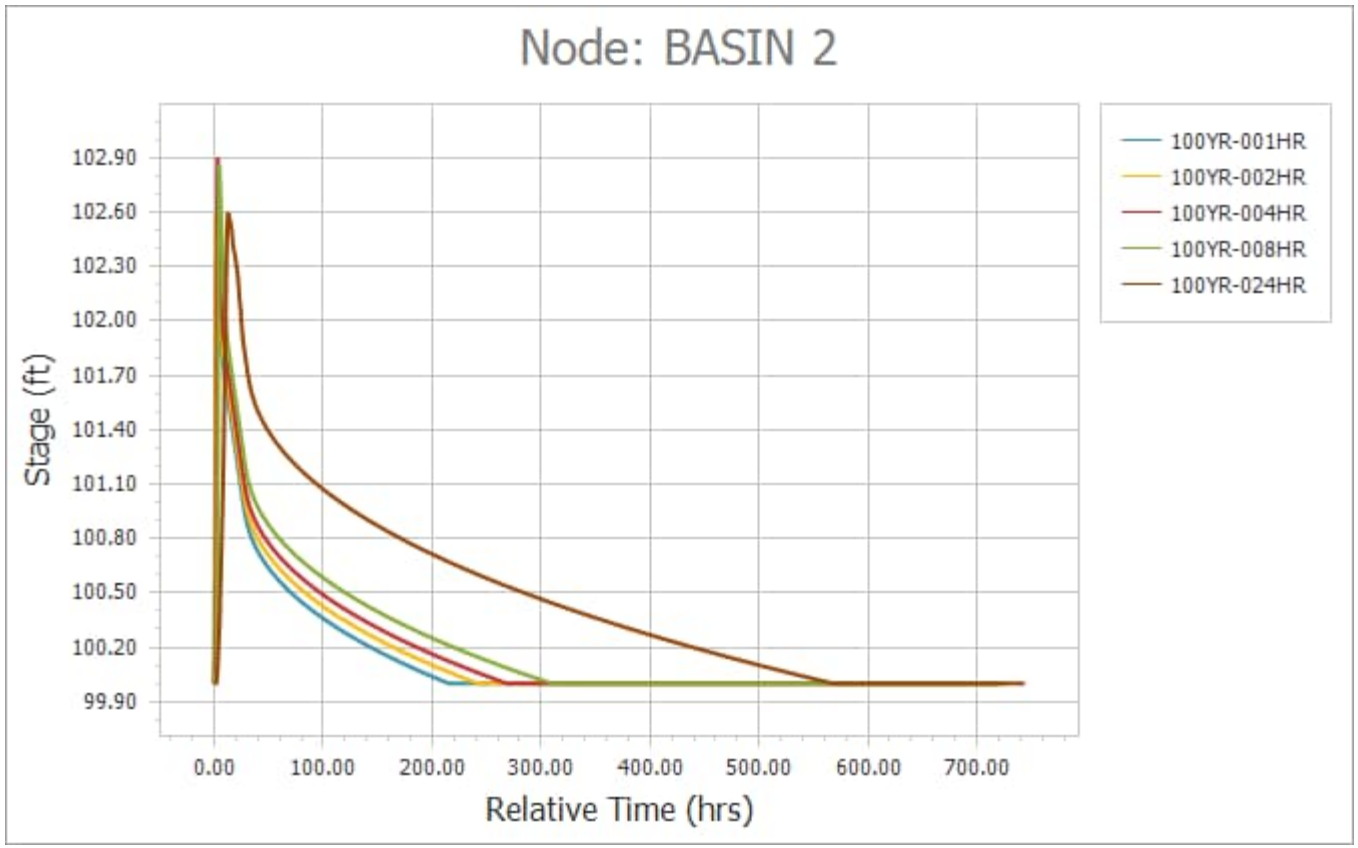
Comment:

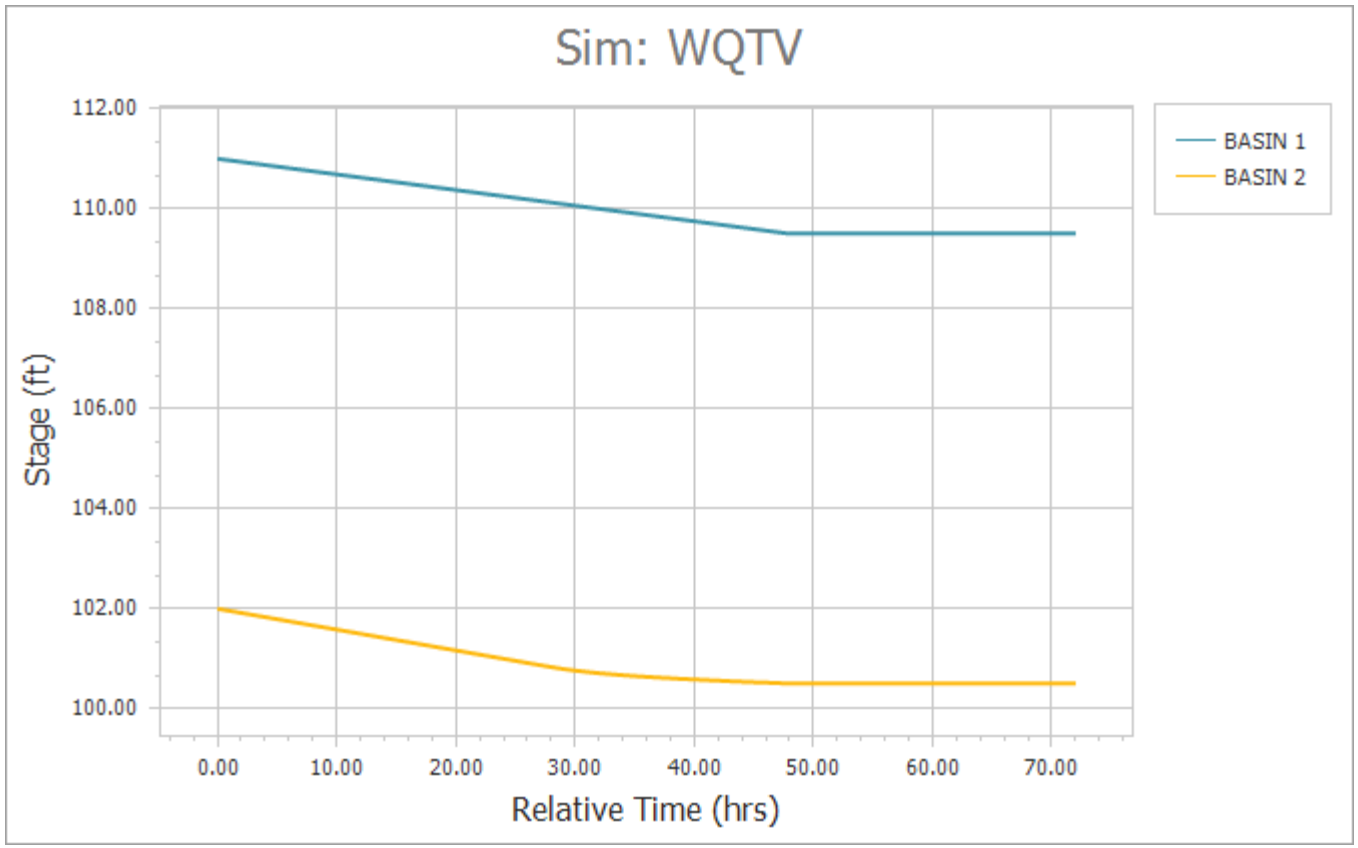
Tolosa North Phase 1 & 2 StormWise Node Map



Scenario	Sim	Node Name	Warning Stage [ft]	Maximum Stage [ft]
Post-Development	100YR-001HR	BASIN 1	113.50	113.39
Post-Development	100YR-001HR	BASIN 2	103.00	102.35
Post-Development	100YR-002HR	BASIN 1	113.50	113.42
Post-Development	100YR-002HR	BASIN 2	103.00	102.59
Post-Development	100YR-004HR	BASIN 1	113.50	113.47
Post-Development	100YR-004HR	BASIN 2	103.00	102.91
Post-Development	100YR-008HR	BASIN 1	113.50	113.49
Post-Development	100YR-008HR	BASIN 2	103.00	102.86
Post-Development	100YR-024HR	BASIN 1	113.50	113.40
Post-Development	100YR-024HR	BASIN 2	103.00	102.60


Node: BASIN 1
Stage (ft)
113.50
113.00
112.50
112.00
111.50
111.00
110.50
110.00
109.50
0.00
100.00
200.00
300.00
400.00
500.00
600.00
700.00
Relative Time (hrs)
100YR-001HR
100YR-002HR
100YR-004HR
100YR-008HR
100YR-024HR


Node: BASIN 2
Stage (ft)
102.90
102.60
102.30
102.00
101.70
101.40
101.10
100.80
100.50
100.20
99.90
0.00
100.00
200.00
300.00
400.00
500.00
600.00
700.00
Relative Time (hrs)
100YR-001HR
100YR-002HR
100YR-004HR
100YR-008HR
100YR-024HR


Sim: WQTV
112.00
110.00
108.00
106.00
104.00
102.00
100.00
Stage (ft)
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
Relative Time (hrs)
BASIN 1
BASIN 2

Tolosa North Phase 1 & 2

Fire Flow Calculations

October 13, 2025

Jack Charnas, P.E.
FL Registration No. 96925

3530 NW 43rd Street
Gainesville, FL 32606
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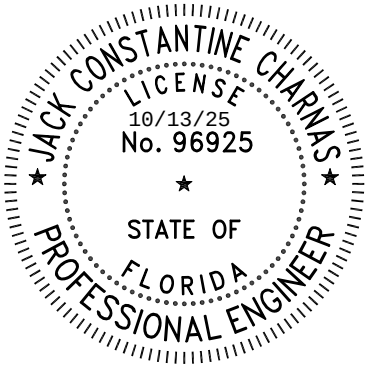
www.jbpro.com



Jack C Charnas

Digitally signed by Jack C Charnas
DN: cn=Jack C Charnas, o=Unaffiliated, email=jccharnas@gmail.com
Date: 2025.10.13 14:24:39 -04'00'

This item has been digitally signed and sealed by Jack Charnas, PE on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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NFPA 2021 Calculations

PROJECT: Tolosa North Phase 1 & 2 (Middle Unit)

DATE: September 25, 2025

BUILDING CONSTRUCTION:	Type V-B (000)
FIRE FLOW AREA (Total Floor Area):	3,260 SF
FIRE FLOW REQUIRED:	1,500
BUILDING FULLY SPRINKLED?	No
ALLOWABLE REDUCTION OF REQUIRED FIREFLOW:	0%
MINIMUM NFPA FIRE FLOW:	1,500 GPM
RESULTANT FIRE FLOW:	1,500 GPM
FLOW DURATION:	2 Hours
AVAILABLE FIRE FLOW (@ 20 psi):	4,079.53 GPM 1,500 GPM Per Model

ASSUMPTIONS:

- Building is a Type V-B wood framed structure.
- Minimum allowable Fire Flow shall be 1,000 GPM (NFPA 18.4.5.3.2)

NFPA 2021 Calculations

PROJECT: Tolosa North Phase 1 & 2 (Corner Unit)

DATE: September 25, 2025

BUILDING CONSTRUCTION:	Type V-B (000)
FIRE FLOW AREA (Total Floor Area):	3,118 SF
FIRE FLOW REQUIRED:	1,500
BUILDING FULLY SPRINKLED?	No
ALLOWABLE REDUCTION OF REQUIRED FIREFLOW:	0%
MINIMUM NFPA FIRE FLOW:	1,500 GPM
RESULTANT FIRE FLOW:	1,500 GPM
FLOW DURATION:	2 Hours
AVAILABLE FIRE FLOW (@ 20 psi):	4,079.53 GPM 1,500 GPM Per Model

ASSUMPTIONS:

- Building is a Type V-B wood framed structure.
- Minimum allowable Fire Flow shall be 1,000 GPM (NFPA 18.4.5.3.2)

Florida Fire Prevention Code, Table 18.4.5.2.1

Table 18.4.5.2.1 Minimum Required Fire Flow and Flow Duration for Buildings

Fire Flow Area ft² (× 0.0929 for m²)					Fire Flow gpm† (× 3.785 for L/min)	Flow Duration (hours)
I(443), I(332), II(222)*	II(111), III(211)*	IV(2HH), V(111)*	II(000), III(200)*	V(000)*		
0–22,700	0–12,700	0–8200	0–5900	0–3600	1500	2
22,701–30,200	12,701–17,000	8201–10,900	5901–7900	3601–4800	1750	
30,201–38,700	17,001–21,800	10,901–12,900	7901–9800	4801–6200	2000	
38,701–48,300	21,801–24,200	12,901–17,400	9801–12,600	6201–7700	2250	
48,301–59,000	24,201–33,200	17,401–21,300	12,601–15,400	7701–9400	2500	
59,001–70,900	33,201–39,700	21,301–25,500	15,401–18,400	9401–11,300	2750	
70,901–83,700	39,701–47,100	25,501–30,100	18,401–21,800	11,301–13,400	3000	3
83,701–97,700	47,101–54,900	30,101–35,200	21,801–25,900	13,401–15,600	3250	
97,701–112,700	54,901–63,400	35,201–40,600	25,901–29,300	15,601–18,000	3500	
112,701–128,700	63,401–72,400	40,601–46,400	29,301–33,500	18,001–20,600	3750	
128,701–145,900	72,401–82,100	46,401–52,500	33,501–37,900	20,601–23,300	4000	4
145,901–164,200	82,101–92,400	52,501–59,100	37,901–42,700	23,301–26,300	4250	
164,201–183,400	92,401–103,100	59,101–66,000	42,701–47,700	26,301–29,300	4500	
183,401–203,700	103,101–114,600	66,001–73,300	47,701–53,000	29,301–32,600	4750	
203,701–225,200	114,601–126,700	73,301–81,100	53,001–58,600	32,601–36,000	5000	
225,201–247,700	126,701–139,400	81,101–89,200	58,601–65,400	36,001–39,600	5250	
247,701–271,200	139,401–152,600	89,201–97,700	65,401–70,600	39,601–43,400	5500	
271,201–295,900	152,601–166,500	97,701–106,500	70,601–77,000	43,401–47,400	5750	
Greater than 295,900	Greater than 166,500	106,501–115,800	77,001–83,700	47,401–51,500	6000	
		115,801–125,500	83,701–90,600	51,501–55,700	6250	
		125,501–135,500	90,601–97,900	55,701–60,200	6500	
		135,501–145,800	97,901–106,800	60,201–64,800	6750	
		145,801–156,700	106,801–113,200	64,801–69,600	7000	
		156,701–167,900	113,201–121,300	69,601–74,600	7250	
		167,901–179,400	121,301–129,600	74,601–79,800	7500	
		179,401–191,400	129,601–138,300	79,801–85,100	7750	
		Greater than 191,400	Greater than 138,300	Greater than 85,100	8000	

*Types of construction are based on NFPA 220.
†Measured at 20 psi (139.9 kPa).

Florida Fire Prevention Code, Table 18.4.5.2.1

including, but not limited to, fire sprinkler protection, type of construction of the building, occupancy, development density, building size, and setbacks.

18.4.3.2 Increases in Fire Flow Requirements. The minimum required fire flow shall be permitted to be increased by the AHJ where conditions indicate an unusual susceptibility to group fires or conflagrations. An upward modification shall not be more than twice that required for the building under consideration.

18.4.4 Fire Flow Area.

18.4.4.1 General. The fire flow area shall be the total floor area of all floor levels of a building except as modified in 18.4.4.2.

18.4.4.2 Type I (443), Type I (332), and Type II (222) Construction. The fire flow area of a building constructed of Type I (443), Type I (332), and Type II (222) construction shall be the area of the three largest successive floors.

18.4.5 Fire Flow Requirements for Buildings.

18.4.5.1 One- and Two-Family Dwellings Not Exceeding 5000 ft² (464.5 m²).

18.4.5.1.1 The minimum fire flow and flow duration requirements for one- and two-family dwellings having a fire flow area that does not exceed 5000 ft² (464.5 m²) shall be 1000 gpm (3785 L/min) for 1 hour.

18.4.5.1.2* A reduction in required fire flow of 75 percent shall be permitted where the one- and two-family dwelling is provided with an approved automatic sprinkler system.

18.4.5.1.3* Where one- and two-family dwellings are proposed to be constructed in areas where water distribution systems providing fire flow were designed and installed prior to the effective date of this *Code*, the AHJ shall be authorized to accept the previously designed system fire flow where the one- and two-family dwellings are provided with approved automatic sprinkler systems.

18.4.5.1.4 A reduction in fire flow shall be permitted for building separation distance in accordance with 18.4.5.1.4 and Table 18.4.5.1.4.

Table 18.4.5.1.4 Permitted Fire Flow Reduction for Building Separation

Separation Distance Between Buildings on a Single Lot		Separation Distance to Lot Line or Easement[a]		Permitted Fire Flow Reduction
ft	m	ft	m	
>30 and ≤50	>9.1 and ≤15.2	>15 and ≤25	>4.6 and ≤7.6	25%
>50	>15.2	>25	>7.6	40%

[a] See 18.4.5.1.4.3.

18.4.5.1.4.1 Where multiple buildings are located on a single lot, the building separation distance shall be the distance between the buildings.

18.4.5.1.4.2 Where a building abuts a lot line, the building separation distance shall be the distance between the building and the lot line.

18.4.5.1.4.3 Where a building is contiguous to a public right of way or no-build easement, the separation distance shall be the distance between the building to the opposite side of the right of way or no-build easement.

18.4.5.1.4.4 Where multiple buildings are located on a single lot and abut a lot line, the building separation distance for determining fire flow reduction shall be the smallest of the two distances.

18.4.5.1.5* The reductions in 18.4.5.1.2, 18.4.5.1.3, and 18.4.5.1.4 shall not reduce the required fire flow to less than 500 gpm (1900 L/min).

18.4.5.2 One- and Two-Family Dwellings Exceeding 5000 ft² (464.5 m²).

18.4.5.2.1 Fire flow and flow duration for dwellings having a fire flow area in excess of 5000 ft² (464.5 m²) shall not be less than that specified in Table 18.4.5.2.1.

18.4.5.2.2 Required fire flow shall be reduced by 75 percent and the duration reduced to 1 hour where the one- and two-family dwelling is provided with an approved automatic sprinkler system.

18.4.5.2.3 A reduction in the required fire flow shall be permitted where a one- and two-family dwelling is separated from all lot lines in accordance with Table 18.4.5.1.4.

18.4.5.2.4 Required fire flow for one- and two-family dwellings protected by an approved automatic sprinkler system shall not exceed 2000 gpm (7571 L/min) for 1 hour.

18.4.5.2.5* The reductions in 18.4.5.2.2, and 18.4.5.2.3 shall not reduce the required fire flow to less than 500 gpm (1900 L/min) for 1 hour.

18.4.5.3 Buildings Other Than One- and Two-Family Dwellings.

18.4.5.3.1* The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table 18.4.5.2.1.

18.4.5.3.2 Required fire flow shall be reduced by 75 percent when the building is protected throughout by an approved automatic sprinkler system. The resulting fire flow shall not be less than 1000 gpm (3785 L/min).

18.4.5.3.3 Required fire flow shall be reduced by 75 percent when the building is protected throughout by an approved automatic sprinkler system, which utilizes quick response sprinklers throughout. The resulting fire flow shall not be less than 600 gpm (2270 L/min).

18.4.5.3.4* Required fire flow for buildings protected by an approved automatic sprinkler system shall not exceed 2000 gpm (7571 L/min) for 2 hours.

18.4.5.3.5 Required fire flow for open parking structures that are not protected throughout by an approved automatic sprinkler system shall be reduced by 75 percent where all of the following conditions are met:

(1) The structure complies with the building code.
(2) The structure is of Type I or Type II construction.
(3) The structure is provided with a Class I standpipe system in accordance with NFPA 14. Class I standpipe systems of the manual dry type shall be permitted.

ISO 2008 Fire Flow Calculations

ISO Needed Fire Flow (NFF) Worksheet

(Page references are to the appropriate sections in the ISO Guide for Determination of Needed Fire Flow)

Petition Number:		**Date:**	9/25/2025
Project:	Tolosa North - Phase 1 & 2 - Middle Unit	**Engineer:**	Douglas Poole, E.I.
	Habitat For Humanity	**Checked By:**	Jack Charnas, P.E.
Location:	Unassigned Location RE.		
	Alachua, FL		

Subject Building

Construction Class (p. 4): Wood Frame Construction **construction coefficient (F) (p. 2):** 1.5

Area of largest floor in the building (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.): 1630 **sq.ft.**

Total area of all other floors (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.): 1630 **sq. ft.**

Effective Area (A_i) (p. 9) : 2,445 **sq. ft.** **(Show calculations below)**

Ai=1,630+0.5(1,630)

Needed Fire Flow attributed to construction (C_i) (per formula (p. 2)): **1335.067414**

(Round to the nearest 250 gpm. See p. 10 for maximum and minimum values of C_i)

Type of Occupancy: Combustible (C-3) **Occupancy Factor (O_i) (p. 11):** 1

Exposures (p. 16)

Front:

construction of facing wall of exposure building (p. 4):	Wood Frame Construction		
Distance (ft.) to the exposure building:	11 - 30	**Length of exposure wall:**	21
Number of stories of exposure wall:	2	**Length x number of stories:**	42
Opening Protection in exposure wall:	Unprotected		
Factor for exposure (X_i) from Table 330.A (p. 17):	0.17		

Back:

construction of facing wall of exposure building (p. 4):			
Distance (ft.) to the exposure building:		**Length of exposure wall:**	0
Number of stories of exposure wall:	0	**Length x number of stories:**	0
Opening Protection in exposure wall:			
Factor for exposure (X_i) from Table 330.A (p. 17):	0		

Left:

construction of facing wall of exposure building (p. 4):	Wood Frame Construction		
Distance (ft.) to the exposure building:	0 - 10	**Length of exposure wall:**	36.33
Number of stories of exposure wall:	2	**Length x number of stories:**	72.66
Opening Protection in exposure wall:	Unprotected		
Factor for exposure (X_i) from Table 330.A (p. 17):	0.22		

Right:

construction of facing wall of exposure building (p. 4):	Wood Frame Construction		
Distance (ft.) to the exposure building:	0 - 10	**Length of exposure wall:**	38.33
Number of stories of exposure wall:	2	**Length x number of stories:**	76.66
Opening Protection in exposure wall:	Unprotected		
Factor for exposure (X_i) from Table 330.A (p. 17):	0.22		

Communications (p. 18)

Passageway Opening Protection:

Construction class of communication (Table 330.B) :

Is communication open or enclosed?

Length of communication (in feet):

Factor for Communications (P_i) from Table 330.B on p.19): 0

Calculation of Needed Fire Flow (p. 1)

$NFF=(C_i)(O_i)[1.0+(X+P)_i]$ (substitute values as determined above. For exposures and communications use the single side with the highest charge.)

NFF= 1250 x 1 x [1 + (0.22 + 0)

NFF= 1525 gpm

NFF= 1500 gpm (rounded to nearest 250 gpm per ISO requirements)

Note: ISO evaluates hydrant distribution by examining the number and type of hydrants within 1,000 feet of each representative building. They also look at the distance from each such hydrant to the subject building, measured as apparatus can lay hose.

Hydrants with at least one large pumper outlet may receive credit for up to 1,000 gpm. Hydrants with at least two hose outlets, but no pumper outlet, may receive credit for up to 750 gpm. And hydrants with only one hose outlet may receive credit for up to 500 gpm.

Hydrants within 300 feet of the subject building may receive credit for up to 1,000 gpm (but not more than the credit that would apply based on the number and type of outlets). Hydrants from 301 feet to 600 feet from the subject building may receive credit for up to 670 gpm (but not more than the credit that would apply based on the number and type of outlets). And hydrants from 601 feet to 1,000 feet from the subject building receive credit for 250 gpm. Under certain circumstances, when all fire department pumpers carry sufficient large-diameter hose, ISO may allow maximum credit for hydrants up to 1,000 feet from the subject building.

More than one fire hydrant may be required for proper distribution of water per ISO requirements.

ISO Needed Fire Flow (NFF) Worksheet

(Page references are to the appropriate sections in the ISO Guide for Determination of Needed Fire Flow)

Petition Number:		**Date:**	9/25/2025
Project:	Tolosa North - Phase 1 & 2 - Corner Unit	**Engineer:**	Douglas Poole, E.I.
	Habitat For Humanity	**Checked By:**	Jack Charnas, P.E.
Location:	Unassigned Location RE.		
	Alachua, FL		

Subject Building

Construction Class (p. 4): Wood Frame Construction **construction coefficient (F) (p. 2):** 1.5

Area of largest floor in the building (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.): 1559 **sq.ft.**

Total area of all other floors (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.): 1559 **sq. ft.**

Effective Area (A_i) (p. 9) : 2,339 **sq. ft.** **(Show calculations below)**

Ai=1,559+0.5(1,559)

Needed Fire Flow attributed to construction (C_i) (per formula (p. 2)): **1305.667071**

(Round to the nearest 250 gpm. See p. 10 for maximum and minimum values of C_i)

Type of Occupancy: Combustible (C-3) **Occupancy Factor (O_i) (p. 11):** 1

Exposures (p. 16)

Front:
- **construction of facing wall of exposure building (p. 4):**
- **Distance (ft.) to the exposure building:** **Length of exposure wall:** 0
- **Number of stories of exposure wall:** 2 **Length x number of stories:** 0
- **Opening Protection in exposure wall:**
- **Factor for exposure (X_i) from Table 330.A (p. 17):** 0

Back:
- **construction of facing wall of exposure building (p. 4):**
- **Distance (ft.) to the exposure building:** **Length of exposure wall:** 0
- **Number of stories of exposure wall:** 0 **Length x number of stories:** 0
- **Opening Protection in exposure wall:**
- **Factor for exposure (X_i) from Table 330.A (p. 17):** 0

Left:
- **construction of facing wall of exposure building (p. 4):** Wood Frame Construction
- **Distance (ft.) to the exposure building:** 0 - 10 **Length of exposure wall:** 36.33
- **Number of stories of exposure wall:** 2 **Length x number of stories:** 72.66
- **Opening Protection in exposure wall:** Unprotected
- **Factor for exposure (X_i) from Table 330.A (p. 17):** 0.22

Right:
- **construction of facing wall of exposure building (p. 4):** Wood Frame Construction
- **Distance (ft.) to the exposure building:** 0 - 10 **Length of exposure wall:** 36.33
- **Number of stories of exposure wall:** 2 **Length x number of stories:** 72.66
- **Opening Protection in exposure wall:** Unprotected
- **Factor for exposure (X_i) from Table 330.A (p. 17):** 0.22

Communications (p. 18)

Passageway Opening Protection:

Construction class of communication (Table 330.B) :

Is communication open or enclosed?

Length of communication (in feet):

Factor for Communications (P_i) from Table 330.B on p.19): 0

Calculation of Needed Fire Flow (p. 1)

$NFF=(C_i)(O_i)[1.0+(X+P)_i]$ (substitute values as determined above. For exposures and communications use the single side with the highest charge.)

NFF= 1250 x 1 x [1 + (0.22 + 0)

NFF= 1525 gpm

NFF= 1500 gpm (rounded to nearest 250 gpm per ISO requirements)

Note: ISO evaluates hydrant distribution by examining the number and type of hydrants within 1,000 feet of each representative building. They also look at the distance from each such hydrant to the subject building, measured as apparatus can lay hose.

Hydrants with at least one large pumper outlet may receive credit for up to 1,000 gpm. Hydrants with at least two hose outlets, but no pumper outlet, may receive credit for up to 750 gpm. And hydrants with only one hose outlet may receive credit for up to 500 gpm.

Hydrants within 300 feet of the subject building may receive credit for up to 1,000 gpm (but not more than the credit that would apply based on the number and type of outlets). Hydrants from 301 feet to 600 feet from the subject building may receive credit for up to 670 gpm (but not more than the credit that would apply based on the number and type of outlets). And hydrants from 601 feet to 1,000 feet from the subject building receive credit for 250 gpm. Under certain circumstances, when all fire department pumpers carry sufficient large-diameter hose, ISO may allow maximum credit for hydrants up to 1,000 feet from the subject building.

More than one fire hydrant may be required for proper distribution of water per ISO requirements.

Hydrant Flow Test Report

FIRE HYDRANT FLOW TEST REPORT

TOLOSA NORTH

04/21/2025

Inspectors:
Ian Daniels (JBPro)
Joshua Watson (JBPro)
Emory Summers (CoA)

Report Prepared By:
Ian Daniels (JBPro)

Prepared For:
David Weiss (Alachua Habitat)

Inspection Introduction

JBPro was scheduled to perform hydrant flow tests for Tolosa North associated with the City of Alachua (CoA). This report summarizes the pressure and flow measured at the tested hydrants seen in the Exhibit below.

Summary of site and inspection of hydrants

1. Are all hydrants clear and accessible? **Y** / N
2. No leaks, corrosion or cracks noted on hydrants at time of inspection? Y / **N**
3. Operating nut and threads in good condition at time of inspection? **Y** / N
4. All caps in place on hydrants? **Y** / N

If any of the above were answered no, please clarify below:

The hydrant at the intersection of NW 158th Ave & NW 133rd Ter was dated 2017, no deficiencies noted. The hydrant at the intersection of NW 135th Ter & NW 158th Ave had no date and had a slight leak at main cap. It should be noted that the read hydrant is in need of maintenance, repair, or replacement.

Inspection Summary:

The read hydrant was flushed first and reclosed to remove any contaminants that may affect the gauge. Once complete, the cap gauge was attached. The read hydrant was reopened slowly and the static pressure was read. The read hydrant was kept open. The flow hydrant was then flushed and reclosed. The hydro hitch was then attached to the hydrant. The inspector at the flow hydrant called the inspector at the read hydrant to let him know that the flow test was starting. The flow test was started. Read hydrant residual pressure was then checked and the pitot pressure was checked at the flow hydrant. Water was flowed for 1-2 minutes to verify a steady reading was taken, then shut off at flow hydrant. The Hydro-hitch was removed and hydrant cap replaced. A final reading was taken at the read hydrant before water being shut off at read hydrant. Once shut off, cap gauge was removed and hydrant cap reinstalled. All readings recorded and hydrants checked to ensure all systems were closed and secure. This process was then followed for a second test.

Hydrant Flow Test Report

Project Location: Tolosa North
Read Hydrant Location: Intersection of NW 135th Ter & NW 158th Ave
Flow Hydrant Location: Intersection of NW 158th Ave & NW 133rd Ter

Flow Test Information

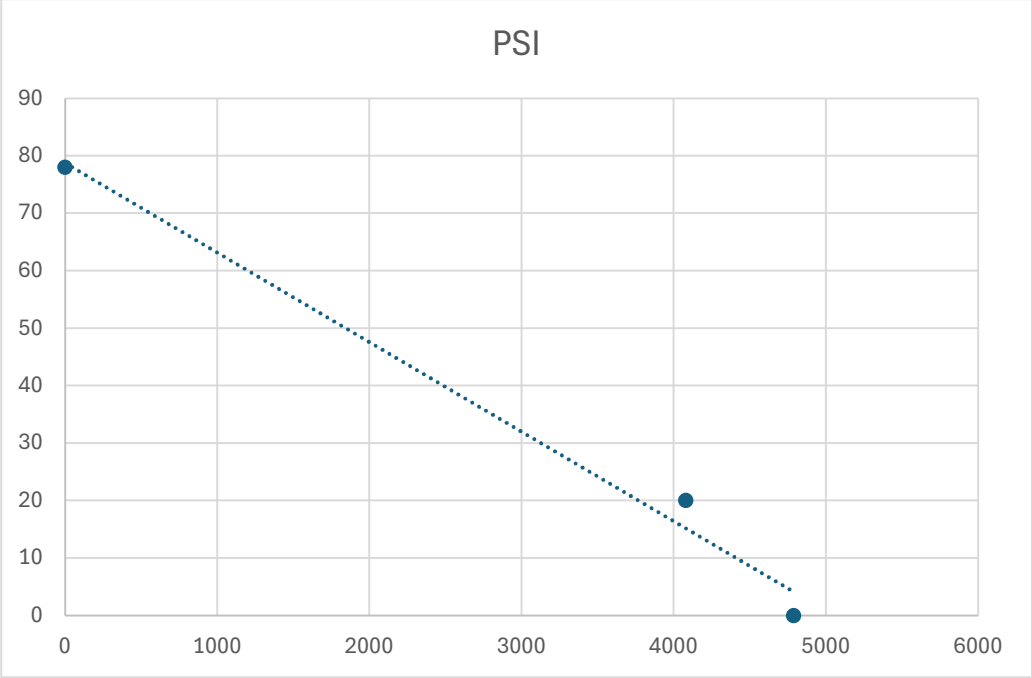
Test Date: 4/21/2025
Test Time: 9:00 AM
Conducted By: Ian Daniels & Josh Watson (JBPro)
Witnessed By: Emory Summers (CoA)

Read Hydrant Data

Static Pressure: 78 psi
Residual Pressure: 72 psi

Flow Hydrant Data

Outlet	Elev	Size (in)	C	Pitot Pressure (psi)	Flow (gpm)
1	0	2.5	0.9	51	1198.29



Available Fire Flow @ 20 psi: 4079.53

Hydrant Flow Test Report

Project Location: Tolosa North
Read Hydrant Location: Intersection of NW 133rd Ter & NW 135th Ter
Flow Hydrant Location: Intersection of NW 135th Ter & NW 133rd Ter

Flow Test Information

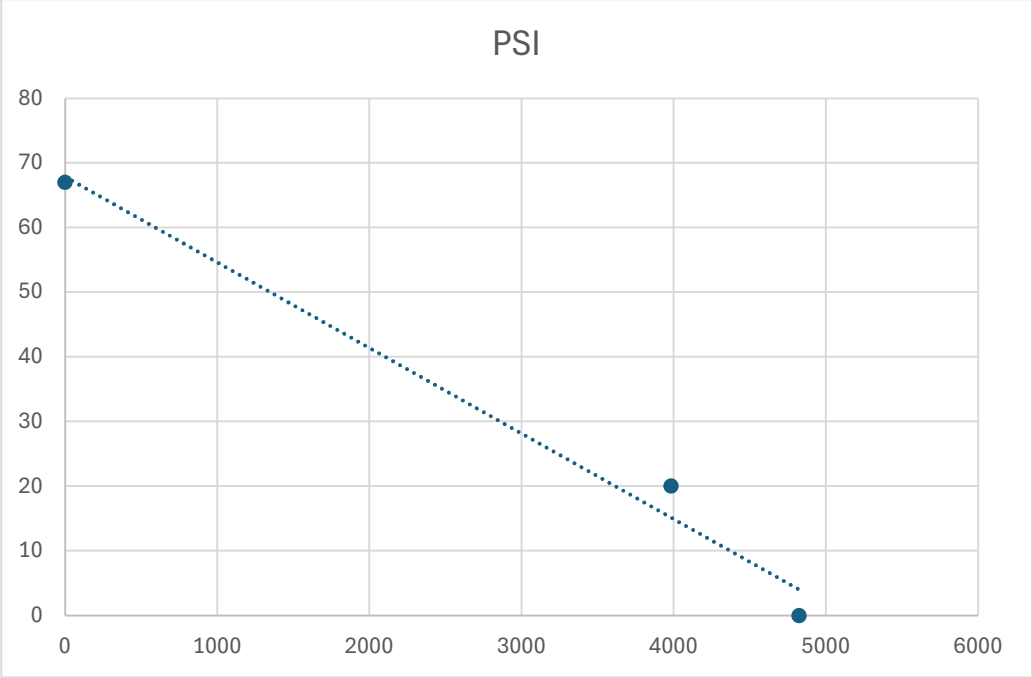
Test Date: 4/21/2025
Test Time: 9:00 AM
Conducted By: Ian Daniels & Josh Watson (JBPro)
Witnessed By: Emory Summers (CoA)

Read Hydrant Data

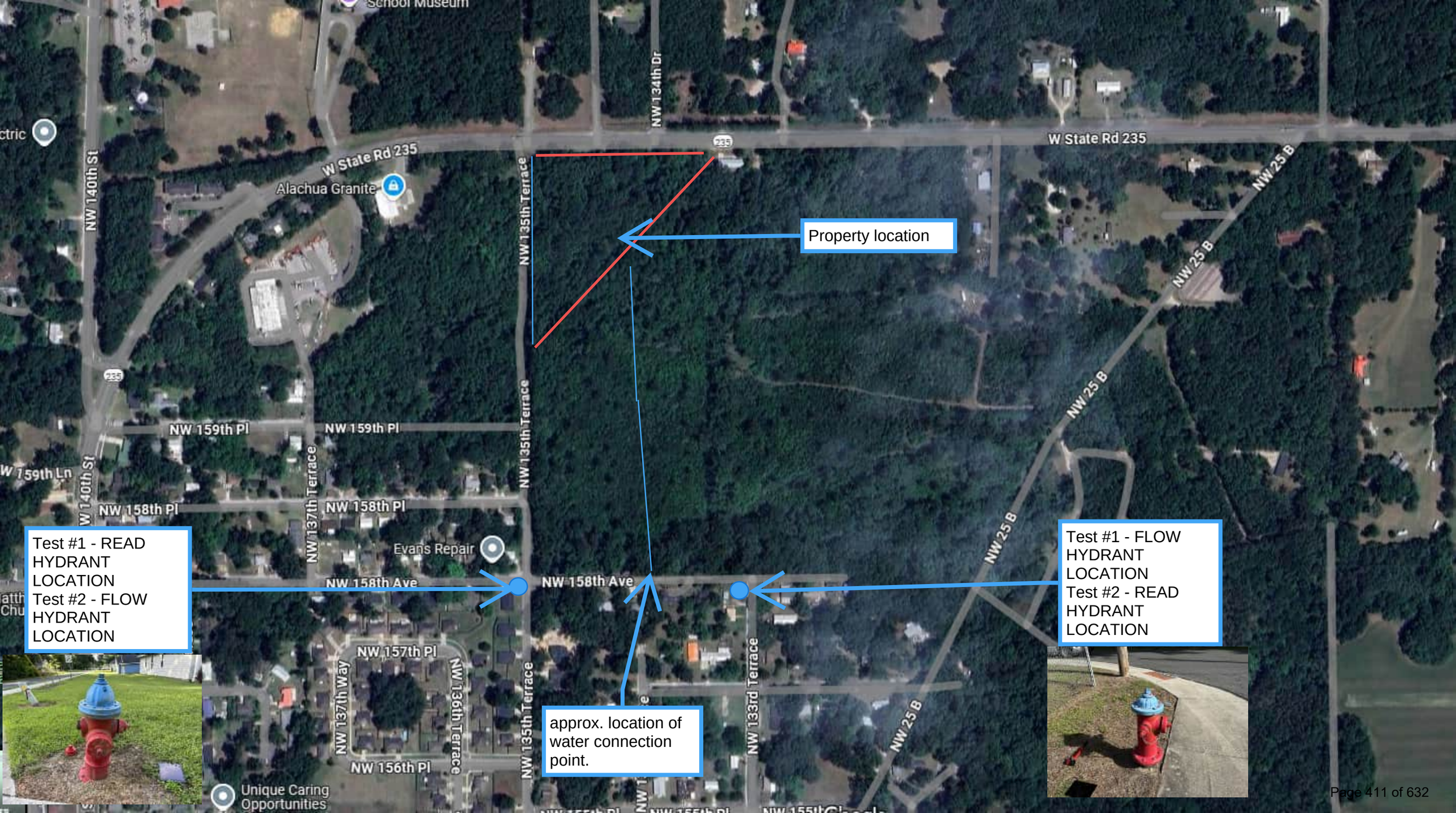
Static Pressure: 67 psi
Residual Pressure: 61 psi

Flow Hydrant Data

Outlet	Elev	Size (in)	C	Pitot Pressure (psi)	Flow (gpm)
1	0	2.5	0.9	61	1310.51

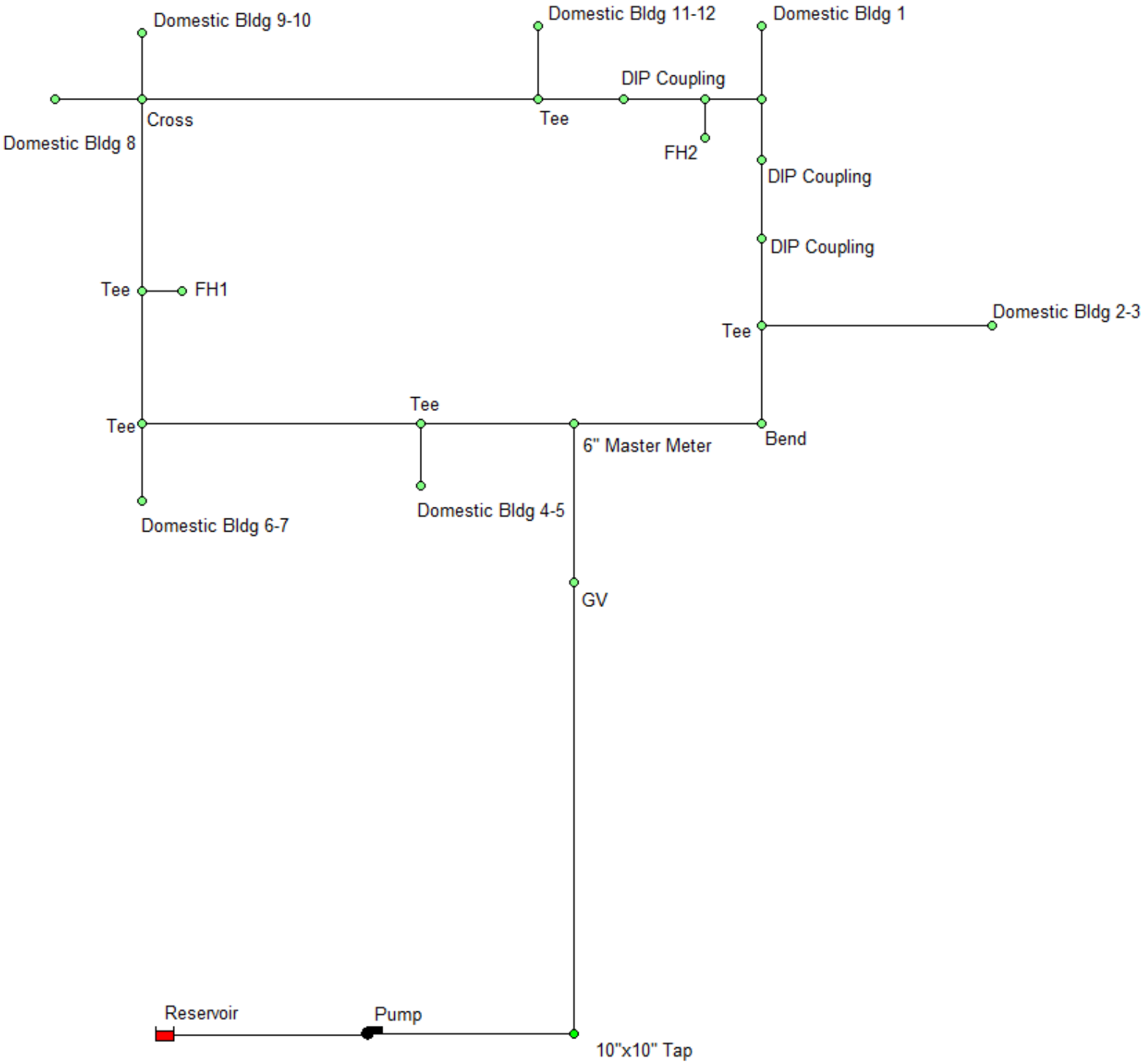


Available Fire Flow @ 20 psi: 3982.65


Property location
Test #1 - READ HYDRANT LOCATION
Test #2 - FLOW HYDRANT LOCATION
Test #1 - FLOW HYDRANT LOCATION
Test #2 - READ HYDRANT LOCATION
approx. location of water connection point.
W State Rd 235
NW 140th St
NW 135th Terrace
NW 134th Dr
NW 25 B
NW 159th Pl
NW 158th Pl
NW 158th Ave
NW 137th Terrace
NW 157th Pl
NW 156th Pl
NW 136th Terrace
NW 137th Way
NW 133rd Terrace
Alachua Granite
Evans Repair
Unique Caring Opportunities

EPANET 2.2 Fire Flow Output Reports

EPANET 2.2 Water Model Node Map



EPANET 2.2 Fire Flow Report - FH1

Node ID	Elevation ft	Base Demand GPM	Pressure psi
Junc FH1	114	1500	30.00
Junc DOMESTIC4-5	109.33	72	37.41
Junc DOMESTIC6-7	107.5	72	33.84
Junc DOMESTIC9-10	109	72	32.31
Junc DOMESTIC8	108.5	45	32.16
Junc DOMESTIC11-12	111.25	72	33.62
Junc FH2	119	1	33.55
Junc DOMESTIC1	113	45	35.90
Junc DOMESTIC2-3	111	72	34.43

EPANET 2.2 Fire Flow Report - FH2

Node ID	Elevation ft	Base Demand GPM	Pressure psi
Junc FH1	114	1	35.07
Junc DOMESTIC4-5	109.33	72	38.90
Junc DOMESTIC6-7	107.5	72	37.71
Junc DOMESTIC9-10	109	72	35.84
Junc DOMESTIC8	108.5	45	35.69
Junc DOMESTIC11-12	111.25	72	33.80
Junc FH2	119	1500	30.18
Junc DOMESTIC1	113	45	32.95
Junc DOMESTIC2-3	111	72	33.45

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TOLOSA NORTH – PHASE 1 & 2 SITE PLAN APPLICATION
CONCURRENCY ANALYSIS

Type of Application:	Site Plan, Phase 1 & 2
Owner:	Alachua Habitat for Humanity, Inc.
Applicant:	JBPro, as agent for Alachua Habitat for Humanity, Inc.
Site Address(es):	Address Unassigned
Parcel Number(s):	3130-007-001 3130-004-000 3130-008-000 3130-009-000 3135-002-000
Property Size/Area:	7.54 acres, collectively (total PD site area 50.45 acres)
Unit Count:	50 single-family, attached units (Phase 1 – 13 units, Phase 2 – 37 units)
Future Land Use:	Moderate Density Residential
Zoning Classification:	PD-R (Ordinance 25-01)

ITEM SUMMARY

JBPro, on behalf of Alachua Habitat for Humanity, Inc, hereby files a Site Plan Application for Phase 1 and Phase 2 of the Tolosa North PD-R. This Site Plan proposes 50 single-family attached units on a collective 8.49 acres, made up of 5 parcels. The proposed site plan demonstrates acceptable impacts to City of Alachua public facilities as demonstrated in the below analysis.

Wastewater

Policy 1.2.a.1 of the Capital Improvements Element of the Comprehensive Plan establishes adopted wastewater LOS Standards of *250 gallons per day per equivalent residential dwelling unit on an average annual basis*. As shown in **Table 1**, the proposed site plan is thus estimated to generate 12,500 gallons of wastewater per day.

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Table 1 – Wastewater		
Type of Housing	Residential Units	Gallons Per Day*
Single Family Attached	50	12,500
Totals	50	12,500
*Based on a LOS of 250 gallons per day per dwelling unit		

The City of Alachua's Final Budget report for Fiscal year 2024-2025 cited the capacity of the City's Wastewater Treatment Facility as 1,500,000 gallons per day. The report also stated that the site is currently processing 764,000 gallons of water per day, or 51% of the Facility's capacity. However, the report notes that considering existing flows as well as reserved capacities, 1,199,759 gallons per day (79.98%) of the Facility's capacity is accounted for. As per the City of Alachua Comprehensive Plan Community Facilities Element, if the existing demand and reserved capacity reaches 85% of the Facility's total capacity, no further development orders for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement. Thus, the true available capacity of the Wastewater Treatment plant for the purposes of this site plan application are 5.02%, or 75,300 gallons per day. A summary of this information is available in **Table 2.**

Table 2 – Wastewater Capacity	
Type of Capacity	Gallons Per Day
Wastewater Treatment Facility Total Capacity	1,500,000
Wastewater Treatment Facility 85% Capacity	1,275,000
Existing Flows	764,000
Existing Flows and Reserved Capacity	1,199,759
Available Capacity	75,300 gallons per day
Site Plan Estimated Generation	12,500 gallons per day

As shown above in **Table 1**, the wastewater treatment demand generated from the proposed site plan is **12,500 gallons per day**. As shown above in **Table 2,** the available capacity of the City of Alachua Wastewater Treatment Facility is **75,300 gallons per day**.

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Therefore, the estimated impact to the City of Alachua Wastewater Treatment Facility generated by this request, if approved, is within the adopted Wastewater LOS standards and is consistent with Policy 1.2.a.1 of the City of Alachua Comprehensive Plan Capital Improvements Element.

Solid Waste

Policy 1.2.a.3 of the Capital Improvements Element of the Comprehensive Plan establishes adopted Solid Waste LOS Standards of *0.73 tons per capita per year* for residential uses. Additionally, The US Census Bureau estimates that, on average, 2.51 persons live in each dwelling unit (du) in the State of Florida, according to their online portal (using 2019-2023 data). As shown in **Table 3**, the proposed site plan is thus estimated to generate 91.62 tons of solid waste per year.

Table 3 – Solid Waste Generated Demand			
Housing Type	Residential Units	Persons Per du*	Tons Per Year**
Single Family Attached	50	2.51	91.62
Totals	50	2.51	91.62
*Based on an estimate of 2.51 persons/du from the US Census Bureau using 2019-2023 data			
**Based on a LOS of 0.73 tons per capita per year			

The City of Alachua publishes an annual concurrency analysis report that contains information on each of its LOS capacities. According to the 2025 Annual Currency Status Report, Existing Demand of Solid Waste is **8,246.08 tons per year** and Reserved Capacity is **5,226.41 tons per year**. With this demand, the New River Solid Waste Facility, which performs solid waste processing for the city of Alachua, is anticipated to have capacity for the next **30+ years**. A Summary of this information is available in **Table 4**.

Table 4 – Solid Waste Capacity*	
Capacity Type	Tons Per year
Existing Demand	8,246.08
Reserved Capacity	5,226.41
New River Solid Waste Facility Anticipated Capacity	30+ Years
*According to the City of Alachua 2025 Annual Concurrency Status Report	

Analysis: The proposed site plan is estimated to generate **91.62 tons of solid waste per year**. Current demand plus reserved capacity equals **13,472.49 tons per year**, and the New River Solid Waste Facility Anticipated Capacity is expected to last for another 30+ years. After the development of the proposed site, the total demand of the city will equal **13,564.11 tons per year**, a **0.68%** increase from before the development.

Therefore, the proposed site plan, if accepted, will not negatively impact the adopted LOS requirements for Solid Waste in the City of Alachua. The proposed site plan's estimated impact on solid waste capacity is negligible in comparison to the scale of existing demand and facility capacity. The proposed site plan is consistent with the concurrency requirements as established in the City of Alachua Comprehensive Plan.

Stormwater

Policy 1.2.a.4 of the Capital Improvements Element of the Comprehensive Plan establishes adopted Stormwater LOS Standards as the following criterion:

> *For all projects which are located completely within a stream or open lake watershed, detention systems must be designed such that the peak rate of post- development runoff will not exceed the peak-rate of predevelopment runoff for storm events up through and including either:*

1. *A design storm with a 10-year, 24-hour rainfall depth with Soil Conservation Service Type II distribution falling on average antecedent moisture conditions for projects serving exclusively agricultural, silvicultural, conservation, or recreational uses; or*
2. *A design storm with 100-year critical duration rainfall depth for projects serving any land use other than agricultural, silvicultural, conservation, or recreational uses*
3. *The level of service standard for water quality treatment shall be treatment for the "first one inch" of runoff, and shall be in compliance with the design and performance standards established in Rules 40C42.025, and 40C-42.035, Florida Administrative Code, to ensure that the receiving water quality standards of Rule 62.302.500, Florida Administrative Code, are met and to ensure their water quality is not degraded below the minimum conditions necessary to maintain their classifications as established in Rule 62-302, Florida Administrative Code. These standards shall apply to all new development and redevelopment.*

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4. *Infill residential development within improved residential areas or subdivisions existing prior to the adoption of this Comprehensive Plan, must ensure that its post-development stormwater runoff will not contribute pollutants which will cause the runoff from the entire improved area or subdivision to degrade receiving water bodies and their water quality as stated above.*

Analysis: The proposed site plan is a residential development and is thus not subject to the first criteria. Additionally, it is not an infill residential development or a pre-existing subdivision and is thus not subject to the fourth criteria. However, the site plan is subject to criterion 2 and 3.

The proposed site plan complies with all City of Alachua stormwater design criteria, as well as the design and performance standards established in the Florida Administrative Code. Stormwater facilities are designed for the 100-year storm critical duration rainfall depth. Thus, the proposed site plan meets all applicable criteria for the LOS standards for Stormwater as established in Policy 1.2.a.4 of the City of Alachua Comprehensive Plan Capital Improvements Element.

Potable Water

Policy 1.2.a.5 of the City of Alachua Comprehensive Plan Capital Improvements Element establishes adopted potable water LOS Standards of *275 gallons per day per equivalent residential dwelling unit on an average annual basis*. As shown in **Table 5**, the proposed site plan would generate 13,750 gallons of potable water usage per day.

Table 5 – Potable Water Consumption

Housing Type	Residential Units	Gallons Per Day*
Single Family Attached	50	13,750
Totals	50	13,750
*Based on a LOS of 275 gallons per dwelling unit per day		

The City of Alachua publishes an annual concurrency analysis report that contains information on each of its LOS capacities. According to the 2025 Annual Currency Status Report, the Current Permitted Capacity of Potable Water Public Facilities is **2,300,000 gallons per day**. The Less Actual Potable Water Flows account for **1,565,500 gallons per day**, while Reserved Capacity accounts for **391,367 gallons per day**. Thus, there are currently 343,133 gallons per day of Available Capacity. A summary of this information is available in **Table 6**.

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Table 6 – Potable Water Capacity*	
Capacity Type	Gallons Per Day
Current Permitted Capacity	2,300,000
Less Actual Potable Water Flows	1,565,500
Reserved Capacity	391,367
Available Capacity	343,133
*According to the City of Alachua 2025 Annual Concurrency Status Report	

Analysis: According to **Policy 4.1.c(3)** of the City of Alachua Comprehensive Plan Community Facilities Element, if the existing demand and reserved capacity of the potable water facilities reaches 85% of their permitted design capacity, no further development orders or permits for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement. Currently, the percentage of permitted design capacity utilized is 85.08%. However, the report states that:

> *Funds have been allocated in the FY 2025 – 2029 CIP; therefore, there are no issues related to exceeding the 85% permitted design capacity at this time.*

Therefore, the proposed site plan will not negatively impact the adopted LOS standards for Potable Water, as the demand generated will not exceed available capacity, and the 85% permitted design capacity limit is not in effect due to the funds allocated in the FY 2025-2029 CIP. Thus, the proposed site plan meets the requirements of Policy 1.2.a.5 of the Capital Improvements Element of the Comprehensive Plan.

Recreation

Policy 1.2.a.6 of the Capital Improvements Element of the Comprehensive Plan establishes adopted Recreation LOS Standards as *5 acres per 1,000 persons, with 20 percent of this area as improved, passive parks.* As shown in **Table 7**, the site plan will reserve **0.65 acres** of open space to maintain current LOS, with **0.13 acres** of that area as improved, passive parks.

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Table 7 – Recreation Demand			
Housing Type	Residential Units	Total People*	Acres of Open Space**
Single Family Detached	50	125.5	0.65
Totals	50	125.5	0.65
*Based on an estimate of 2.51 persons/du from the US Census Bureau using 2019-2023 data			
**Based on a LOS of 5 acres per 1000 persons			

The City of Alachua publishes an annual concurrency analysis report that contains information on each of its LOS capacities. According to the 2025 Annual Currency Status Report, the City has **135.48 acres** of Existing Recreation. Of those, **56.48 acres** are utilized by existing population requirements, and **12.44 acres** are reserved capacity. Thus, **66.56 acres** of recreation acreage are available. A summary of this information is available in **Table 8**.

Table 8 – Unimproved Recreation Capacity*	
Capacity Type	Acreage
Existing City of Alachua Recreation Acreage	135.48
Acreage Required to Serve Existing Population	56.48
Reserved Capacity	12.44
Available Recreation Acreage	66.56
*According to the City of Alachua 2025 Annual Concurrency Status Report	

Additionally, the report states that the City of Alachua contains **34.82 acres** of current improved Passive Park Acreage. Existing population accounts for **11.30 acres**, while **2.49 acres** are reserved. Thus, **21.04 acres** of Improved Recreation Capacity is available. A summary of this information is available in **Table 9.**

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Table 9 – Unimproved Recreation Capacity*	
Capacity Type	Acreage
Current Improved Passive Park Acreage	34.82
Acreage Required to Serve Existing Population	11.30
Reserved Capacity	2.49
21.04	21.04
*According to the City of Alachua 2025 Annual Concurrency Status Report	

Analysis: This site plan proposes 50 units. Utilizing the Census data cited above in **Table 7** regarding persons per dwelling unit (2.51), this site plan is estimated to generate **125.5 persons** (50 x 2.51). Applying the adopted Recreation LOS Standards stated above of *5 acres per 1,000 persons, with 20 percent of this area as improved, passive parks*, the required open space for this request is **0.6275 acres** (125.5 x 0.005), with the requirement for improved, passive parks being **0.1255 acres** (0.6275 x 0.2). As stated above, this request is proposing **0.65 acres** of open space, with **0.13 acres** as improved, passive parks. Conversely, the City of Alachua has **66.56 acres** of unimproved recreation acreage available and **21.04 acres** of improved, passive park acreage available. After the development of the proposed site, the city of Alachua would have **65.92 acres** of unimproved recreation acreage and **20.91 acres** of improved, passive park acreage available.

Therefore, this request meets the requirements of Policy 1.2.a.6 of the Capital Improvements Element of the Comprehensive Plan.

Public Schools

According to **Policy 1.2.a.7** of Capital Improvements Element, Policy 2.2.b of the Public School Facilities Element sets forth the adopted LOS standards for Public Schools in the City of Alachua. **Policy 2.2.b** states:

> *The uniform, district-wide LOS standards shall be 100% of Program Capacity (see definition) for elementary, middle, and high schools. This LOS standard shall apply to all concurrency service areas (CSA) as adopted in the Interlocal Agreement.*

The School Board of Alachua County posts the enrollment data of their schools on their online platform periodically. The Tolosa North Phase 1 & 2 Site Plan would be zoned for Alachua Elementary School, Mebane Middle School, and Santa Fe High School,

respectively. The most recent edition of school enrollment counts, titled "Enrollment Counts 2009.17.2025" dated September 17th, 2024, states the capacity of those schools, as shown in **Table 10**, below.

Table 10 – School Capacity				
School	Capacity	Enrollment	Capacity%	Available Capacity
Alachua Elementary School	525	328	62%	197
Mebane Middle School	788	388	49%	400
Santa Fe High School	1291	1144	89%	147

The School Board of Alachua County provides a Public School Generation Calculation Form for the City of Alachua that contains student generation multipliers per dwelling unit. With this information, we can establish the impact of the proposed site plan on zoned school capacities, and thus, LOS standards for Public Schools. **Table 11** shows the available capacity of public schools the site would be zoned for, and the student generation rate of the site plan.

Table 11 – Capacity Impact			
School	Available Capacity	Student Multiplier/du*	Student Generation
Alachua Elementary School	197	0.12	6
Mebane Middle School	400	0.06	3
Santa Fe High School	147	0.09	5
*Based on City of Alachua Public School Student Generation Calculation Form, using Single-Family multipliers			

Analysis: As shown above in **Table 10**, the anticipated additional students to be generated from the proposed site plan is approximately 6 for elementary, 3 for middle, and 5 for high. The available capacity of the zoned schools for the proposed site plan are 197 for elementary, 400 for middle, and 147 for high. **Therefore, the estimated impact to Alachua County Public Schools generated by this request, if approved, is negligible, and firmly within the adopted Public School LOS standards, and further, is consistent with Policy 2.2.b of the City of Alachua Comprehensive Plan Public Schools Element.**

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Transportation

Section 2.4.14(H)(2) of the City of Alachua Land Development Regulations states that

> *For the purposes of making concurrency determinations, affected roadway facilities shall be determined as follows:*
>
> *(a)Development generating 1,000 or fewer trips. For proposed site plans generating less than or equal to 1,000 external average daily trips (ADT), affected roadway segments are all those wholly or partially located within one-half mile of the development's ingress/egress, or to the nearest intersecting major street, whichever is greater.*

Thus, the roadway facilities affected by the Tolosa North Phase 1 & 2, defined as the segments extending a half-mile in both directions from the site's access point include SR 235 (From US 441 to NW 140th Street), SR 235 (From NW 140th Street to East City Limit), and CR 241 (From NW SR 235 to North City Limit). (from the ingress/egress point to a half-mile in either direction).

Table 12: Transportation Impact			
Segment	9	10	12
Units	50	50	50
Trip Distribution Assumption	75%	100%	25%
Daily Trip Generation Rate	7.32	7.32	7.32
Daily Trips	275	366	92
PM Peak Trip Generation Rate	0.67	0.67	0.67
PM Peak Hour Trips	25	366	8
Current AADT	9,400	5,100	3,300
Reserved Capacity	38	0	356
Available Capacity	9,362	5,100	2,944
Proposed AADT	300	366	100
Proposed Available Capacity	9,062	4,734	2,844
MSV/Daily	14,400	14,400	15,120

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Trip Generation and Capacity Analysis

The City of Alachua publishes an annual concurrency analysis report that contains information on each of its adopted level of service (LOS) capacities. The AADT, maximum service volume (MSV), reserved capacity, and available capacity values used in this analysis were pulled directly from that report. This ensures consistency with the City's adopted concurrency management system.

The proposed residential development consists of 50 single-family attached units, with trip generation calculated using the ITE 10th Edition Trip Generation Manual (LUC 22 – Multi-Family Low Rise). A daily trip generation rate of 7.32 trips per dwelling unit and a PM peak hour trip rate of 0.67 trips per dwelling unit were applied.

Based on this methodology, the development is expected to generate approximately 366 new daily trips, including 25 PM peak hour trips on Segment 9, 366 PM peak hour trips on Segment 10, and 8 PM peak hour trips on Segment 12. Trip distribution assumptions were applied across the network to account for directional travel demand: 75% of trips were assigned to Segment 9, 100% to Segment 10, and 25% to Segment 12.

Analysis shows that Segment 9 will continue to operate well below its maximum service volume. With the addition of 300 trips, sufficient available capacity remains (9,062 ADT versus 14,400 MSV). Segment 10 is projected to accommodate the proposed trips without exceeding adopted level of service standards. Even after the full trip assignment, the available capacity remains sufficient, with 4,734 trips below the maximum service volume. Segment 12 also maintains adequate reserve capacity after accounting for the proposed project. The available capacity after assignment (2,844 ADT) remains below the maximum service volume of 15,120 ADT.

The trip generation analysis indicates that the proposed 50-unit single-family attached development will not create deficiencies on the surrounding roadway network. All evaluated segments (9, 10, and 12) remain within their maximum service volumes after assignment of project trips. Therefore, the proposed development is consistent with the adopted concurrency requirements and level of service standards, as documented in the City of Alachua's annual concurrency analysis report.

Conclusion

In conclusion, the proposed site plan meets the LOS standards of Wastewater, Solid Waste, Stormwater, Potable Water, Recreation, Public Schools, and Transportation, which are all categories of LOS standards established in Objective 1.2 of the City of Alachua Comprehensive Plan Capital Improvement Element. **Thus, the proposed site plan is consistent with the City of Alachua Comprehensive Plan and meets the standards for concurrency.**

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TOLOSA NORTH – PHASE 1 & 2 SITE PLAN APPLICATION
CONSISTENCY ANALYSIS

Type of Application:	Site Plan, Phase 1 & 2
Owner:	Alachua Habitat for Humanity, Inc.
Applicant:	JBPro, as agent for Alachua Habitat for Humanity, Inc.
Site Address(es):	Address Unassigned
Parcel Number(s):	3130-007-001 3130-004-000 3130-008-000 3130-009-000 3135-002-000
Property Size/Area:	7.54 acres, collectively (total PD site area 50.45 acres)
Unit Count:	50 single-family, attached units (Phase 1 – 13 units, Phase 2 – 37 units)
Future Land Use:	Moderate Density Residential
Zoning Classification:	PD-R (Ordinance 25-01)

ITEM SUMMARY

JBPro, on behalf of Alachua Habitat for Humanity, Inc, hereby files a Site Plan Application for Phase 1 and Phase 2 of the Tolosa North PD-R. This Site Plan proposes 50 single-family attached units on a collective 8.49 acres, made up of 5 parcels. The proposed site plan demonstrates consistency with the City of Alachua Comprehensive Plan, as demonstrated in the analysis below.

Future Land Use Element

FLUE Policy 1.2.a of the Comprehensive Plan (Future Land Use Element) establishes Moderate Density Residential (0 to 4 dwelling units per acre): The Moderate Density Residential future land use category allows residential development at a maximum density of 4 dwelling units per acre. The following uses are allowed in the moderate density residential land use category:

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1. Single family, conventional dwelling units;
2. Accessory dwelling units;
3. Manufactured or modular homes meeting certain design criteria
4. Mobile homes only within mobile home parks;
5. Duplexes and quadplexes;
6. Townhomes;
7. Residential Planned Developments;
8. Supporting community services, such as schools, houses of worship, parks, and community centers

Analysis: The proposed density of the subject property is estimated to be 0.99 units per acre (50 units / 50.45 total PD acres), which will not exceed the maximum limit of 4 dwelling units per acre which is imposed by the Comprehensive Plan for Moderate Density Residential future land use designation. The acceptable density range of the applicable future land use designation is established to be 0-4 dwelling units per acre. The site plan proposes 0.99 dwelling units / acre. **Therefore, this application is consistent with Comprehensive Plan FLUE Policy 1.2.a as to Moderate Density Residential.**

FLUE Policy 2.4.c of the Comprehensive Plan regarding *Tree Protection*, states that "*[t]he City shall require the preservation of heritage trees and champion trees when possible. Standards shall be set for determining the health and safety risks associated with heritage and champion trees both on individual residential lots, and existing and proposed developments*."

Analysis: Heritage and Champion trees will be protected in accordance with City of Alachua Land Development Regulations. **Therefore, this application is consistent with Comprehensive Plan FLUE Policy 2.4.c as to Tree Protection.**

FLUE Policy 2.4.d of the Comprehensive Plan regarding *Tree Protection*, states "*[t]he City shall establish standards for the preservation of regulated trees. Particular attention shall be given to preserving specimen and preferred species of regulated trees, where feasible.*"

Analysis: All tree protection standards will be met, and **therefore, this application is consistent with Comprehensive Plan FLUE Policy 2.4.d as to Tree Protection**.

FLUE Policy 2.5.a of the Comprehensive Plan regarding Open Space, states *"[t]here shall be a minimum of 10% percent open space required. The City shall establish incentives for the provision of open space beyond minimum requirements.*

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Analysis: The site plan proposes 1 acre of open space. Using the 8.49 acres subject to this site plan application, open space will make up 11.78% of the subject property. **Therefore, this application is consistent with the Comprehensive Plan FLUE Policy 2.5.a as to Open Space.**

FLUE Policy 2.5.b of the Comprehensive Plan regarding Open Space states *"open space shall not be limited to unusable portions of project sites. A portion of open space shall be usable and functional.*

Analysis: This proposed site plan will conform to the City's Open Space standards and will include usable and functional open space. **Therefore, this application is consistent with the Comprehensive Plan FLUE Policy 2.5.b as to Open Space**.

FLUE Objective 5.1 of the Comprehensive Plan regarding Natural Features, states *"[t]he City shall coordinate Future Land Use designations with appropriate topography, soils, areas of seasonal flooding, wetlands and habitat during review of proposed amendments to the Future Land Use Map and the development review process. Natural features may be included as amenities within a development project.*

Analysis: The overall PD-R property does include some large trees which will be protected in accordance with the City's tree regulation standards. Additionally, a small creek runs roughly along the subject property from the Southernmost point to the Easternmost point. Due to the presence of the creek, small quantities of area on the site contain a wetland designation according to the Alachua County Property Appraiser. The proposed site plan accounts for said wetlands by steering development away from wetland areas and locating water basins where wetlands intersect the site. Ultimately, the proposed site plan does not encroach on the wetlands or habitat present on the site parcels. All regulations regarding wetlands present in the City of Alachua Comprehensive Plan, including buffering, are followed by the proposed site plan. **Therefore, this application for the Phase 1 and 2 site plan review is consistent with the Comprehensive Plan FLUE Objective 5.1.**

FLUE Policy 5.2.a of the Comprehensive Plan regarding new development, states that *"[a]ll new development shall meet level of service requirements for roadways, potable water and sanitary sewer, stormwater, solid waste, public schools, and improved recreation in accordance with LOS standards adopted in the elements addressing these facilities*."

Analysis: An LOS analysis of these systems is provided in a Concurrency Analysis of this application request. The proposed development does not degrade the level of service of roadways, potable water, sanitary sewer, stormwater, solid waste, public schools, or recreation below an acceptable level. **Therefore, this application for the Phase 1 and 2 site plan review is consistent with the Comprehensive Plan FLUE Policy 5.2.a.**

FLUE Policy 7.1.a *regarding the Expansion and Extension of Utilities. States "[t]he City shall require utility easements as part of the development review process*."

Analysis: Utility easements will be granted where required, in accordance with FLUE Policy 7.1.a. **Therefore, this application request for the Phase 1 & 2 site plan review is consistent with the Comprehensive Plan FLUE Policy 7.1.a.**

FLUE Policy 9.2 regarding Connections to Water and Wastewater Systems, states *"[a]ny new residential subdivision within the corporate limits, where potable water service is available, as defined in Policy 4.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, regardless of size, that is within either a Residential or Agriculture Future Land Use Map Designation shall connect to the City of Alachua's potable water system. Any new residential subdivision within the corporate limits, where wastewater service is available, as defined in Policy 1.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, regardless of size, that is within a Residential Future Land Use Map Designation shall connect to the City of Alachua's wastewater system."*

Analysis: The proposed future development will connect to the City's potable water and wastewater system. **Therefore, it is consistent with the Comprehensive Plan FLUE Policy 9.2.**

Transportation Element

TE Policy 1.4.a regarding Bicycle and Pedestrian Standards, states that *"[t]he City shall require any development which must obtain site plan or subdivision approval to provide additional right-of-way width for bicycle and pedestrian ways along all proposed collector and arterial streets."*

Analysis: There are no new collectors or arterial roadways planned as part of this application request. SR 235, which is classified as a Major Collector has ample right-of-way for bicycle and pedestrian facilities. **Therefore, this application is consistent with the Comprehensive Plan Transportation Element Policy 1.4.a.**

TE Policy 1.4.c regarding Bicycle and Pedestrian Standards, states that *"[t]he City shall require pedestrian paths within subdivisions and within new developments to be connected to paths outside the development."*

Analysis: The site plan proposes internal pedestrian sidewalks that connect to lands outside of the development, specifically along W SR 235. **Therefore, this application is consistent with the Comprehensive Plan Transportation Element Policy 1.4.c.**

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TE Policy 1.5.c regarding the Linking of Land Use and Transportation, states that *"[t]o the extent feasible, the City shall require new developments which are compatible with adjacent existing development to interconnect with one another through one of the following methods:*

1. *Through the extension of a sidewalk from one project to another;*
2. *Through the extension of a multi-purpose trail from one project to another."*

Analysis: This application is for the submission of the site plan for Phase 1 and 2 for review. While this application is limited in scope to the parcels identified above, it is part of a larger Planned Development, Tolosa North, and will contain a pedestrian crossing that will connect to the larger part of the PD-R to the south, as long as it can be installed with no impact to the wetland that it will have to cross. The site plan submitted here for Phase 1 and 2 also proposes at least 2 additional connections to neighboring roadways / properties. **Therefore, this application is consistent with the Comprehensive Plan Transportation Element Policy 1.5.c.**

Community Facilities Element:

CFE Objective 1.2 regarding Wastewater Service, states that *"[n]ew development may only occur within areas where wastewater service is available or shall be made available as a part of the proposed development. For purposes of this objective, development does not include an addition to an existing development of less than 33% of the existing floor area of the development or an addition of less than 33% of the existing impervious surface area within a five-year period."*

Analysis: The site plan proposes to connect to the City's wastewater facilities. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Objective 1.2.**

CFE Policy 1.2.a regarding Wastewater Service, states that *"[t]he City shall establish a Community Wastewater Service Area, which includes all areas where wastewater service is available. Wastewater service shall be deemed available if:*

1. *A gravity water main exists within 100 feet of the property line of any lot with a residential land use category or an existing single family residence and wastewater service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.*

2. *Gravity wastewater main exists with 500 feet of the property line of any proposed residential subdivision consisting of 5 units or less and the gravity wastewater system is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.*

3. *A gravity wastewater main, wastewater pumping station, or force main exists within 2,640 feet of the property line of any proposed residential subdivision comprised of more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and the gravity wastewater system, wastewater pumping station, or force main is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways."*

Analysis: According to this site plan submission, Phase 1 & 2 of the Tolosa North PD-R will connect to the City's wastewater facilities. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Policy 1.2.a.**

CFE Policy 2.1.a regarding Solid Waste Level of Service Standards and Implementation, states that "[t]he City hereby establishes the following level of service standards for solid waste disposal facilities for residential uses:

Facility Type	Level of Service Standard
Solid Waste Landfill	0.73 tons per capita per year"

Analysis: Solid waste will be the responsibility of the residents to make arrangements to remove from the site. Based on the above Level of Service Standard, the Solid Waste generated from this 50-unit development is estimated to be approximately 91.62 tons (50 x 2.51 = 125.5 x 0.73). The City does provide solid waste services for all City residents with an emphasis on reuse and recycling (CFE Objective 2.1), and the City residents also have the use of the New River Solid Waste Landfill. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Policy 2.1.a.**

CFE Policy 3.1.b regarding Drainage and Stormwater Level of Service Standards and Implementation, states that *"[t]he City shall require the construction of roads within new plats or replats to be arranged so that the grades of the streets shall conform as closely as possible to the original topography to prevent the interruption of natural drainage flows, including sheet flow and flow to isolated wetland systems."*

Analysis: Any proposed roadways within the future development will be designed in accordance with this requirement. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities and Natural Groundwater Recharge Element Policy 3.1.b.**

CFE Policy 3.5.a regarding Stormwater System Design in High Aquifer Recharge Areas, states that *"The following general requirements apply to stormwater management systems within high aquifer recharge areas:*

1. *Stormwater shall not be directly discharged to active sinkholes;*
2. *When soil and water table conditions allow, the use of offline retention systems for stormwater treatment shall be required;*
3. *Swale conveyances shall be used to the greatest extent possible and contextually appropriate;*
4. *Projects in areas zoned for industrial land uses shall not discharge industrial pollutants into the stormwater system or allow permit pollutants to come in contact with groundwater;*
5. *Natural depressions may be used for stormwater management only when hydrogeological evidence shows that the geologic structure and soils are stable and unlikely to form a direct connection to the groundwater. To verify geologic stability, the design professional shall provide soil boring information and/or supplemental data such as ground penetrating radar;*
6. *If the hydrogeological conditions are suitable and a natural depression is proposed for use as part of the stormwater management system, a spreader swale shall be employed at the inflow location;*
7. *Regular inspection shall be conducted by developer/maintenance entity to visibly check for the indicators of or the existence of solution pipes; and,*
8. *Remedial plugging activities shall employ methodologies acceptable to the applicable regulatory agency (the Florida Department of Environmental Protection or the Suwannee River Water Management District.)"*

Analysis: The stormwater system design for the future development will be designed in accordance with this requirement as set forth below. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities and Stormwater System Design in High Aquifer Recharge Areas 3.5.a.**

1. Stormwater discharges from the site discharge to an existing wetland prior to flowing offsite and do not discharge directly to an active sinkhole.
2. Soil and water table conditions do not allow for the use of offline retention systems for stormwater treatment. Subsurface geotechnical exploration was conducted in areas associated with the proposed stormwater management facilities returned a layer of clayey to very clayey sand at depth of 3'-20' below ground surface (bgs). Hydraulic conductivity rates for these clayey sands range from 0-3.3 fpd, allowing for little to no infiltration. The groundwater tables sits at 13.5'-18' bgs, however due

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to the presence of the clayey to very clayey sand layer, water is expected to perch at that layer after heavy rainfalls.

3. Swale conveyance is proposed for the appropriate portion of the site and is located along the north and west site boundary to convey stormwater flows around the perimeter of the site to the discharge point at the SW corner of the site where stormwater enters the existing wetland and eventually flows offsite.
4. This parcel is zoned PD-R (Planned Development, Residential) therefore this line item is non-applicable.
5. Natural depressions are not present on the site and are not proposed for stormwater management.
6. Non-applicable per line item 5 above.
7. The developer/maintenance entity shall be responsible for ongoing maintenance and inspection for the proposed storm system per the maintenance instructions set forth in the engineering reports for this project.
8. Remedial plugging activities are not proposed for this project.

CFE Policy 4.1.b regarding Water System Level of Service Standards, states that *"[t]he City shall establish a Community Potable Water Service Area, which includes all areas where potable water service is available. Water service shall be deemed available if:*

1. *A water main exists within 100 feet of any lot within a residential land use category or an existing single family residence water service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.*
2. *A water main exists within 500 feet of any proposed residential subdivision consisting of 5 units or less and water service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.*
3. *A water main exists within 2,640 feet of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and water service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways."*

Analysis: According to this site plan submission, Phase 1 & 2 of the Tolosa North PD-R will connect to the City's potable water facilities. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Policy 4.1.b.**

CFE Policy 4.2.a regarding Water System Capital Improvements, states that *"n]ew development may only occur within areas where potable water services is available or shall be made available as part of the proposed development.*

For purposes of this policy, new development does not include an addition to an existing development of less than 33% of the existing floor area of the development or an addition of less than 33% of the existing impervious surface area within a five-year period."

Analysis: According to this site plan submission, Phase 1 & 2 of the Tolosa North PD-R will connect to the City's potable water facilities. **Therefore, it is consistent with the Comprehensive Plan Community Facilities Element Policy 4.2.a.**

CFE Policy 4.2.b regarding Water System Capital Improvements, states that *"[t]he City will continue to require necessary on-site water system improvements to be completed at the expense of the property owner."*

Analysis: According to this site plan submission, Phase 1 & 2 of the Tolosa North PD-R will connect to the City's potable water facilities at the expense of the owner/developer. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Policy 4.2.b.**

CFE Policy 5.2.b regarding Groundwater Quality and Quantity Protection, states that *"[t]he City shall require demonstration from engineering design and reports that post-development recharge volumes will equal pre-development recharge volumes to the Floridian aquifer."*

Analysis: The stormwater management design calculations for Tolosa North, Phase 1 & 2, will document the stormwater system design for pre-development flow vs. post-development flow. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Policy 5.2.b.**

CFE Policy 5.2.c regarding Groundwater Quality and Quantity Protection, states that *"[a]pplicants for new development, expansions, or redevelopment shall employ one or more of the following techniques to address potential groundwater quality and quantity impacts:*

1. *Construction and maintenance of shallow, landscaped retention basins;*
2. *Decreasing the amount of stormwater runoff through the use of pervious surfaces or increased open space;*
3. *Development of a stormwater pollution prevention plan;*
4. *Development of a sinkhole remediation plan; and*
5. *Development of a groundwater monitoring plan"*

Analysis: The Tolosa North, Phase 1 & 2 development will implement construction and maintenance of shallow, landscaped retention basins and development of a stormwater pollution prevention plan (SWPPP) to address potential groundwater quality/quantity impacts. Please see Sheet C1.01 of the construction drawings for the proposed SWPPP. Please see Sheet C4.01

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(Post Development Master Drainage Plan) and Sheets C4.04 and C4.05 (Basin Grading Plan) for information pertaining to the implementation of the retention basins. **Therefore, this application is consistent with the Comprehensive Plan Community Facilities Element Policy 5.2.c.**

Conservation and Open Space Element:

COS Policy 1.2.j regarding Native Communities and Ecosystems, states that *"[t]he City shall require all new development to maintain internal and external connectivity of all open and natural space to the maximum extent practicable."*

Analysis: The Tolosa North, Phase 1 & 2 development will address internal and external connectivity of all open and natural space as required in this policy. **Therefore, this application is consistent with the Comprehensive Plan Conservation and Open Space Policy 1.2.j.**

COS Policy 1.2.l regarding Native Communities and Ecosystems, states that *"[t]he City shall protect regulated, heritage, and champion trees. The City may continue to participate in the Florida Champion Tree Program. Additionally the City will require tree removal permits to protect regulated, heritage, and champion trees from accidental removal and other development related disturbances to the extent allowed by 163.045 and 163.3209, Florida Statutes."*

Analysis: Regulated, heritage, and champion trees will be protected in accordance with this policy, and the City of Alachua Land Development Regulations. **Therefore, this application is consistent with the Comprehensive Plan Conservation and Open Space Policy 1.2.l.**

COS Policy 1.3.d regarding Listed Species, states that *"[t]he City shall require prior to development approval, an inventory of listed species for all new developments in areas identified as known habitat for listed species. The inventory shall include detailed information regarding type, quantity, location and habitat requirements for any listed species identified. De minimus threshold for properties required to complete the inventory shall be established in the City's Land Development Regulations."*

Analysis: An environmental assessment of the property including an inventory of listed species has been performed and is included with this submittal. **Therefore, this application is consistent with the Comprehensive Plan Conservation and Open Space Policy 1.3.d.**

COS Policy 1.10.g regarding Wetlands, states that *"[t]he City shall require natural vegetative buffers around wetlands to protect the fragile ecosystems they sustain. Buffers, measured from the outer edge of the wetland, shall be created as established in the following table:*

Resource Addressed	***Required Buffer (feet)***
Wetlands less than or equal to 0.5 acre that do not support federally and/or state regulated vertebrate wetland/aquatic dependent animal species.	*50' average* *35' minimum*
Wetlands greater than 0.5 acre that do not support the animal species described above.	*75' average* *50' minimum*
Areas where the animal species described above have been documented within 300 feet of a wetland.	*100' average* *75' minimum"*

Analysis: The subject property does contain trace wetland areas on the periphery of the property. The required wetland buffer per Policy 1.10.g is present in the proposed site plan and will be implemented in site development. **Therefore, this application is consistent with the Comprehensive Plan Conservation and Open Space Policy 1.10.g.**

COS OBJECTIVE 1.12 regarding Water Resources, states that *"[t]he City shall protect and conserve the quantity and quality of water resources, not only for the benefit of residents of the City, but for all in North Florida who depend on the Floridian Aquifer for drinking water, and for the benefit of all connected springs, streams, and rivers which may be impacted by the City's land use and development practices."*

Analysis: There are no water resources on the subject property (Tolosa North, Phase 1 & 2), however, this property is part of a larger PD-R for Tolosa North, and is planned to be a part of a bigger PD-R development to be known as Tolosa. Any water resources on these sites will be protected according to this policy. **Therefore, this application is consistent with the Comprehensive Plan Conservation and Open Space Element Objective 1.12.**

COS Policy 1.12.d regarding Water Resources, states that *"[t]he City shall require the following buffers for development along surface water bodies. Buffers shall be measured from the outer edge of the water body, and created as established in the following table.*

Resource Addressed	***Required Buffer (feet)***
Surface waters less than or equal to 0.5 acre that do not support federally and/or state regulated vertebrate wetland/aquatic dependent animal species.	*50' average* *35' minimum*
Surface waters greater than 0.5 acre that do not support the animal species described above.	*75' average* *50' minimum*
Areas where the animal species described above have been documented within 300 feet of a surface water	*100' average* *75' minimum*

Analysis: The subject property does contain trace surface on the periphery of the property. The required buffer per Policy 1.12.d is present in the proposed site plan and will be implemented in site development. **Therefore, this application is consistent with the Comprehensive Plan Conservation and Open Space Policy 1.12.d.**

CONCLUSION

As illustrated above, this site plan application for Tolosa North, Phase 1 & 2 is consistent with the Comprehensive Plan, specifically described in the Elements analyzed above.

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Meeting Minutes

Information
May 5 2025 @ 6:00 PM at the Swick House

Purpose
Neighborhood Meeting

Attendees
- Jack Charnas, PE
- Eryn Mertens, JD

Minutes
- JBPro waited until 6:20 PM for attendees to arrive before beginning the presentation
    - No attendees showed
    - Jack Charnas presented to Eryn Mertens
- Presentation ended 6:30
    - No attendees showed
        - Meeting ended 6:40.

STANDOFF:
Continued from page A1

Bail set by judge at $250K on remaining charges

couch. She asked another person to call police, prompting Robinson to allegedly retrieve a handgun from his waistband, aim it at her chest, and say, "I'll shoot it out with the police." The woman told officers the weapon had a green laser that was trained directly on her.

Robinson then allegedly slapped the victim's glasses off her face, took them, and left the residence.

One witness, who had been in another room attempting to contact police, said she did not see the gun but heard yelling and confirmed Robinson was present. A second witness, reportedly in the same room as the victim, corroborated her account and said she saw Robinson brandish the weapon.

Police noted that Robinson had previously been trespassed indefinitely from the residence in February. He was not located the night of the incident, and a sworn complaint was filed. He was later arrested in Newberry on two outstanding warrants.

Robinson faces charges of possession of a firearm by a convicted felon, aggravated assault with a deadly weapon, battery with a prior conviction, grand theft, and armed trespassing. His criminal history includes six felony convictions—two involving violence—and 14 misdemeanor convictions, including three violent offenses. He served a state prison sentence and was released in 2022.

In January 2024, Robinson pleaded no contest to charges of battery, trespassing, property damage, and interfering with a 911 call. He was sentenced to nine months in prison followed by three years of probation.

Following the March incident, his probation officer requested a warrant for violation of probation, which was also served during his arrest.

Judge Meshon Rawls ordered Robinson held without bail on the probation violation and a pending motion from the State Attorney's Office seeking pretrial detention on the new charges. Bail was set at $250,000 on the remaining counts.

# # #

Email cwalker@alachuatoday.com

RECREATION:
Continued from page A1

Community passion and leadership

Alumnus.

Basford began his career in parks and recreation while earning a master's degree in sport management at UF. During that time, he interned with the City of Gainesville and worked for the City of Alachua. He later served five years as recreation director for the City of High Springs while earning a second master's degree in recreation, parks and tourism at UF.

While in Alachua and High Springs, Basford made significant contributions to youth programs and community recreation. He volunteered as a mentor with the Alachua County School Board's Take Stock in Children program and served as the Task Force Executive for the 2013, 2014 and 2015 National Babe Ruth World Series events. He also enhanced programming within the High Springs Parks and Recreation Division and played a key role in transitioning it into a formal city department.

Basford led several community improvement initiatives, including a playground development project aimed at expanding and upgrading recreational spaces in High Springs.

Today, Basford serves as the assistant city manager for Jersey Village, Texas, where he oversees parks and recreation, public works, infrastructure and utilities. His leadership has supported major infrastructure upgrades, including an $8 million flood mitigation project on a city golf course. He has also directed improvements in water and wastewater systems, street rehabilitation, and municipal facilities.

His efforts earned him national recognition as a Top 30 Under 30 honoree by the National Recreation and Park Association. Known for his passion for community-driven development, Basford continues to lead projects that enhance public infrastructure and quality of life in his Texas community.

Locally, spring sports were in full swing over the weekend. Santa Fe Soccer Alliance hosted matches at the Legacy Multipurpose Fields, while Santa Fe Babe Ruth Baseball held games at the Hal Brady Recreation Complex's World Series and Pavilion fields. The 13-15 Boys division played a doubleheader at Progress Copeland Park. In addition, Santa Fe Babe Ruth Softball hosted its second annual Jeremy Payne Invitational at the Gene Curls Softball Complex, with teams from Dixie, Keystone, Bronson, Newberry and Gilchrist County participating.

# # #

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LAWSUIT:
Continued from page A1

Trial court hearing set for July 15

Appeal, seeking to overturn a February verdict that awarded $15,115,724 to Sgt. Kevin Davis, who claimed he was the victim of racial discrimination and retaliation despite being a white employee.

But just days later, on April 2, the appellate court issued an order holding the appeal in abeyance, citing pending motions still under review in the lower court. The court instructed the Sheriff's legal team to provide updates every 30 days or risk dismissal of the appeal.

$15 Million Verdict Draws Scrutiny

The jury's verdict, delivered on February 7, 2025, included $115,724 for lost wages and a striking $15 million for emotional distress. Davis, who remains employed by the Sheriff's Office, argued that he faced years of retaliation and career stagnation due to his support of Black colleagues and internal complaints. The case drew widespread attention, in part because it involved a white plaintiff alleging racial bias within a law enforcement agency.

The award was finalized in a Feb. 28 judgment signed by Circuit Judge Gloria R. Walker.

However, attorneys for the Sheriff's Office argue that the verdict was legally flawed, factually unsupported, and improperly influenced by emotion. In motions filed shortly after the verdict, the defense called the damages "grossly excessive" and asked the court to either set aside the verdict, order a new trial, or reduce the award to more appropriate figures.

Motion Hearing Scheduled for July

A July 15, 2025 hearing has been scheduled to address the pending motions. According to a court notice filed March 20, attorneys will argue for a directed verdict in favor of the Sheriff, or in the alternative, a new trial and a remittitur to reduce damages. The hearing is set for 3:00 p.m. at the Alachua County Courthouse in Gainesville, before Judge Walker.

The defense contends that Davis's claims of emotional distress were never corroborated by medical records or expert testimony and included only generalized statements about stress, sleep issues, and blood pressure concerns.

"The evidence presented provides little detail of the duration, severity or consequences of the condition," the motion states.

The Sheriff's legal team argues that if any damages are to be awarded, they should not exceed $30,000 for emotional distress and $16,457 for lost wages, referencing their interpretation of the plaintiff's own expert analysis.

Statutory Limits and Legal Challenges

The Sheriff's Office argues that damage caps under Title VII and Florida's Civil Rights Act — $300,000 and $200,000 respectively — should apply. While Section 1981 claims are uncapped, they say the evidence justifies only a nominal award.

Attorneys also point to several trial errors, including hearsay, irrelevant testimony about unrelated employee behavior, and improper jury instructions. They claim the jury was misled, particularly regarding the legal standard under Section 1983 and the requirement to prove an official discriminatory policy under the Monell doctrine.

What Next?

The July 15 hearing may determine whether the verdict is overturned, reduced, or sent back for a new trial. If the motions fail, the paused appeal may resume. The Sheriff's Office has stated it will continue challenging the verdict.

# # #

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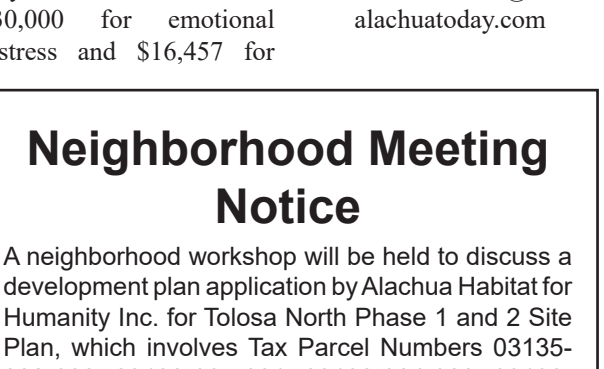
Neighborhood Meeting Notice

A neighborhood workshop will be held to discuss a development plan application by Alachua Habitat for Humanity Inc. for Tolosa North Phase 1 and 2 Site Plan, which involves Tax Parcel Numbers 03135-002-000, 03130-007-001, 03130-004-000, 03130-008-000, and 03130-009-000. These parcels are located in the City of Alachua, Florida. They are South of W State Rd 235, West of Magnolia St, and East of NW 140th St and are approximately ±7.52 acres in total size.

This is not a public hearing. The purpose of the workshop is to inform neighboring property owners about the nature of the project and to seek community feedback. The neighborhood meeting will be held on Monday, May 5, 2025, at the Swick House Cypress Room, located at 15010 NW 142 Terrace, Alachua, FL 32615, between the hours of 6:00PM and 8:00PM.

Contact Person: Jack Charnas, PE
@ jack.charnas@jbpro.com, 352-275-8999



LOCATION MAP
NTS

(Published: Alachua County Today - April 17, 2025)

03129-001-000
KOLOMYIKO IVAN
14317 NW 142ND AVE
ALACHUA, FL 32615

03129-004-000
CSL FLORIDA SYSTEM LLC
C/O CSL OHIO SYSTEM LLC 2101 RIVEF
LITTLE ROCK, AR 72202

03129-010-000
FRAZIER & FORD & LEWIS
PO BOX 52
ALACHUA, FL 32616

03129-010-001
PHILPOT IRA JUDSON
25323 N COUNTY RD UNIT 1491
ALACHUA, FL 32615

03129-010-002
PHILPOT IRA JUDSON
25323 N COUNTY RD UNIT 1491
ALACHUA, FL 32615

03130-001-000
LEMNAH EULA W HEIRS
13220 W STATE ROAD 235
ALACHUA, FL 32615

03130-004-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-006-000
HARRIS MONICA KAY
13232 W STATE RD 235
ALACHUA, FL 32615

03130-007-000
GARCIA ISRAEL JR & LYDIA JEANETTE
13508 W STATE RD 235
ALACHUA, FL 32615

03130-007-001
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-008-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-008-002
SHETH VISVAMBHAR
PO BOX 2668
ALACHUA, FL 32616

03130-009-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-009-001
TAMBURINO DOMINIC & RELOMATEE
600 W OLYMPIC PL APT 709
SEATTLE, WA 98119

03130-010-000
DASA & PATEL
12954 WEST STATE ROAD 235
ALACHUA, FL 32615

03130-011-000
RODRIGUEZ FERNANDO & NANCY B
13310 W STATE RD 235
ALACHUA, FL 32615

03130-012-000
LEMNAH WAUNITA
13220 W STATE ROAD 235
ALACHUA, FL 32615

03130-013-000
BROMENSCHENKEL ASHLEY KRISTINE
13116 W STATE ROAD 235
ALACHUA, FL 32615

03130-013-001
LEMNAH WAUNITA
13220 W STATE ROAD 235
ALACHUA, FL 32615

03131-001-000
WETHERINGTON KENNETH ELLIS
3730 SE 14TH TER
GAINESVILLE, FL 32641

03131-042-000
CAPOBIANCO CASSANDRA
13518 NW 158TH PL
ALACHUA, FL 32615

03131-043-000
MARAF PROPERTY HOLDINGS LLC
2828 NW 142ND AVE
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03131-044-000
JOINER TONIA Q
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03131-045-000
GARRISON BERNICE HEIRS
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03133-000-000
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GAINESVILLE, FL 32601

03133-001-001
NMRV HOLDINGS LLC
10403 W STATE ROAD 235
ALACHUA, FL 32615

03133-002-000
NMRV HOLDINGS LLC
10403 W STATE ROAD 235
ALACHUA, FL 32615

03133-002-001
NMRV HOLDINGS LLC
10403 W STATE ROAD 235
ALACHUA, FL 32615

03135-001-000
3RD GENERATION DEVELOPER LLC
C/O WILLIAM WESEMAN
1085 SW 175TH CT
NEWBERRY, FL 32669

03135-002-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

JBPro
Civil Engineering | Land Planning
Surveying | Construction Services

Monday, May 5, 2025 at 6:00 PM
The Swick House

Gainesville | St. Augustine
3530 NW 43rd Street
Gainesville, FL 32606

Tolosa North Phase 1 & 2 – Zoning Master Plan
Alachua Habitat for Humanity, Inc.
Neighborhood Meeting
Sign-In Sheet

Name	Address	Phone	Email
Jack Charnas	3530 NW 43rd St. Gainesville FL 32606	352-375-8999	JackCharnas@JBPro.com
Eryn Mertens	3530 NW 43 ST, GVL, FL 32606	352-375-8999	eryn.mertens@jbpro.com

JBPro
Civil Engineering | Land Planning
Surveying | Construction Services

Gainesville | St. Augustine
3530 NW 43rd Street
Gainesville, FL 32606

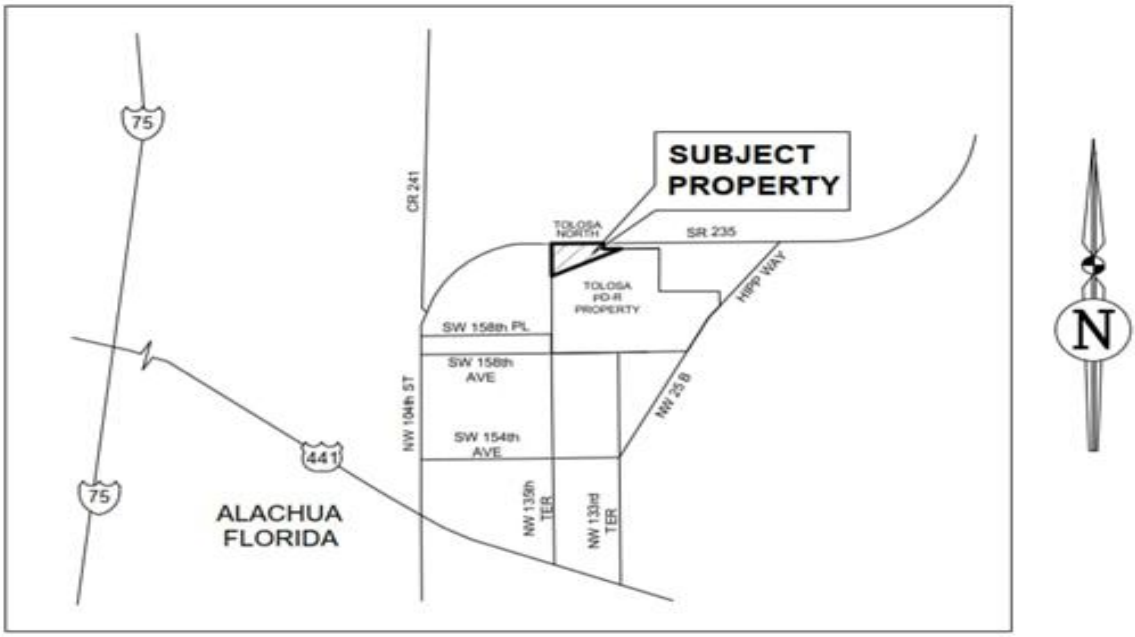
Neighborhood Meeting Notice

You are cordially invited to attend a Neighborhood Meeting as described below.

As a property owner located within the required 400-foot radius of a proposed development, you are hereby being notified of a proposal for a Site Plan, responsive to the Tolosa North Alachua Habitat PD Zoning Master Plan, which was approved in December of 2024, as required by Section 2.2.4 Neighborhood Meetings of the City of Alachua Land Development Regulations. Alachua Habitat for Humanity, Inc., is proposing a development on ±7.52 acres in the City of Alachua, Florida. These parcels are located South of W State Rd 235, West of Magnolia Street, and East of NW 140th St. The proposed Site Plan will encompass parcels 03135-002-000, 03130-007-001, 03130-004-000, 03130-008-000, and 03130-009-000.

The neighborhood meeting will be held on **Monday, May 5, 2025**, at the **Swick House Cyprus Room**, located at **15010 NW 142 Terrace, Alachua, FL 32615**, between the hours of **6:00 PM and 8:00 PM**.

Contact Person: Jack Charnas, PE @ jack.charnas@jbpro.com, 352-275-8999



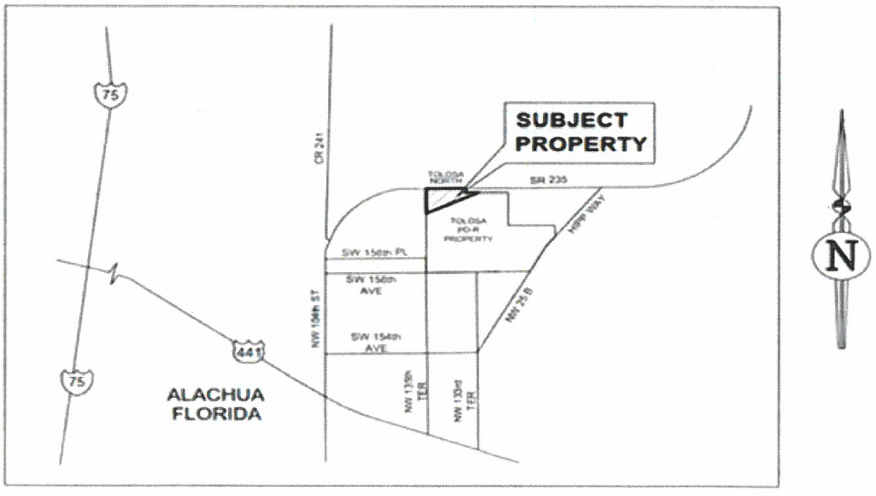
LOCATION MAP
NTS

Neighborhood Meeting Notice

A neighborhood workshop will be held to discuss a development plan application by Alachua Habitat for Humanity Inc. for Tolosa North Phase 1 and 2 Site Plan, which involves Tax Parcel Numbers 03135-002-000, 03130-007-001, 03130-004-000, 03130-008-000, and 03130-009-000. These parcels are located in the City of Alachua, Florida. They are South of W State Rd 235, West of Magnolia St, and East of NW 140th St and are approximately ±7.52 acres in total size.

This is not a public hearing. The purpose of the workshop is to inform neighboring property owners about the nature of the project and to seek community feedback. The neighborhood meeting will be held on Monday, May 5, 2025, at the Swick House Cypress Room, located at 15010 NW 142 Terrace, Alachua, FL 32615, between the hours of 6:00PM and 8:00PM.

Contact Person: Jack Charnas, PE
@ jack.charnas@jbpro.com, 352-275-8999



LOCATION MAP
NTS

(Published: Alachua County Today - April 17, 2025)

CITY MANAGER
MIKE DAROZA
PO BOX 9
ALACHUA, FL 32615

COUNTY MANAGER
MICHELE L. LIEBERMAN
12 SE 1ST STREET
GAINESVILLE, FL 32601

ASSISTANT DIRECTOR PLANNING
LINDA DIXON, AICP
PO BOX 115050
GAINESVILLE, FL 32611

ANTOINETTE ENDELICATO
5562 NW 93RD AVENUE
GAINESVILLE, FL 32653

TAMARA ROBBINS
PO BOX 2317
ALACHUA, FL 32616

LYNDA COON
7216 NW 126 AVENUE
ALACHUA, FL 32615

JOSEPH & PHYLLIS STRICKLAND
14103 NW 156TH PLACE
ALACHUA, FL 32615

JEAN CALDERWOOD
14095 NW 174TH AVE
ALACHUA, FL 32615

LYNN HORTON
19005 NW 138TH AVE
ALACHUA, FL 32615

DIRECTOR, ENVIRONMENTAL
PROTECTION DEPARTMENT
STEPHEN HOFSTETTER
14 NE 1ST STREET
GAINESVILLE, FL 32601

PLANNER
CARSON CROCKET
15100 NW 142ND TERRACE
ALACHUA, FL 32615

JBPro
Civil Engineering | Land Planning
Surveying | Construction Services

Gainesville | St. Augustine
3530 NW 43rd Street
Gainesville, FL 32606

Neighborhood Meeting Notice

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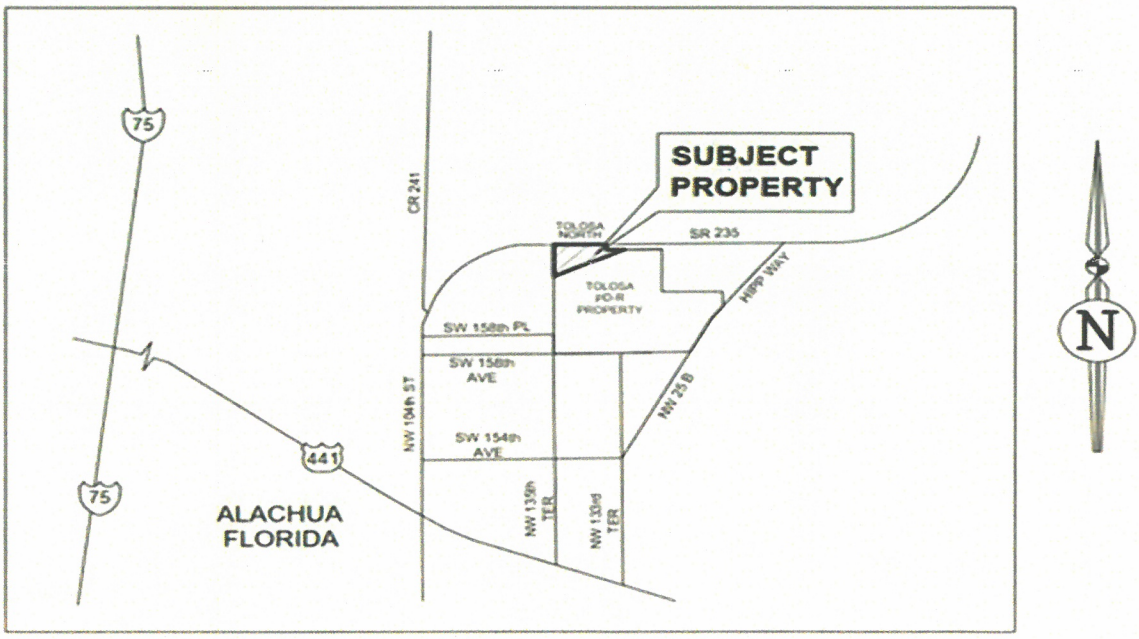
Contact Person: Jack Charnas, PE @ jack.charnas@jbpro.com, 352-275-8999



LOCATION MAP
NTS

JACKSONVILLE RPDC 320
17 APR 2025 PM 4 L

JBrown Professional Group Inc.
3530 NW 43rd Street
Gainesville, FL 32606

CARSON CROCKET
15
AL

NIXIE 326 7E 1 7Z04/26/25
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
BC: 32606610430 *3024-00969-10-43

9326020534715357

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32606>6104
32615-5344

DESCRIPTION PER OFFICIAL RECORDS BOOK 5186, PAGE 2940:

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST A DISTANCE OF 642.81 FEET TO THE CENTERLINE OF THE CREEK, BEING THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 642.81 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE RUN NORTH 89 DEGREES 25 MINUTES 36 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 217.75 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 28 MINUTES 49 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 195.78 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 00 MINUTES 46 SECONDS EAST ALONG SAID RIGHT-OF-WAY DISTANCE OF 22.46 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 25 MINUTES 21 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 185.34 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN SOUTH 00 DEGREES 05 MINUTES 40 SECONDS WEST DEPARTING SAID RIGHT-OF-WAY 67.51 FEET; THENCE RUN NORTH 89 DEGREES 35 MINUTES 57 SECONDS EAST, 310.82 FEET TO THE CENTERLINE OF THE AFORESAID CREEK (LYING NORTH 55 DEGREES 06 MINUTES 31 SECONDS EAST 1134.73 FEET FROM THE POINT OF BEGINNING); THENCE CONTINUE ALONG THE CENTERLINE OF SAID CREEK 1235.77 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.52 ACRES, MORE OR LESS.

BEING MORE PARTICULARLY DESCRIBED BY A CURRENT FIELD SURVEY AS FOLLOWS:

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 5/8" IRON ROD WITH CAP "LB 8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST ALONG THE WEST BOUNDARY OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER A DISTANCE OF 585.33 FEET TO A 5/8" IRON ROD WITH CAP "LB 8031" LYING IN THE CENTERLINE OF A CREEK FOR THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING RUN THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST ALONG THE SAID WEST BOUNDARY A DISTANCE OF 585.33 FEET TO A 5/8" IRON ROD WITH CAP "LB 8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA; THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST ALONG THE WEST BOUNDARY OF THE NORTHEAST QUARTER OF SAID SOUTHWEST QUARTER A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE LEAVING SAID WEST BOUNDARY AND RUN NORTH 89 DEGREES 25 MINUTES 35 SECONDS EAST ALONG SAID SOUTH RIGHT-OF-WAY BOUNDARY A DISTANCE OF 621.32 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE LEAVING SAID SOUTH RIGHT-OF-WAY BOUNDARY AND RUN SOUTH 00 DEGREES 49 MINUTES 46 SECONDS EAST 67.33 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075" LYING ON THE NORTH BOUNDARY OF THE AFORESAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 89 DEGREES 38 MINUTES 25 SECONDS EAST ALONG SAID NORTH BOUNDARY A DISTANCE OF 309.47 FEET TO A POINT LYING IN THE CENTERLINE OF THE AFORESAID CREEK (SAID POINT LYING NORTH 57 DEGREES 33 MINUTES 17 SECONDS EAST 1102.71 FEET FROM THE POINT OF BEGINNING); THENCE SOUTHWESTERLY ALONG THE CENTERLINE OF SAID CREEK A DISTANCE OF 1199 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.47 ACRES, MORE OR LESS.

Prepared by and return to:
John F. Roscow, IV
Holden, Roscow & Caedington, PL
5608 NW 43rd Street
Gainesville, FL 32653
(352) 373-7788
File Number: **23-0895.SB**

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 3591099 4 PG(S)
11/12/2024 4:13 PM
BOOK 5186 PAGE 2940
J.K. JESS IRBY, ESQ.--Clerk
Clerk of the Court, Alachua County, Florida
ERECORDED Receipt # 1235379
Doc Stamp-Mort: $0.00
Doc Stamp-Deed: $0.70
Intang. Tax: $0.00

[Space Above This Line For Recording Data]

Corrective Warranty Deed

This Warranty Deed made this 11th **day of November, 2024** between **Bentley Timber LLC, a Florida limited liability company,** whose post office address is **17032 Cercis Loop, Clermont, FL 34711**, grantor, and **Alachua Habitat for Humanity, Inc., a Florida not for profit corporation,** whose post office address is **2630 NW 41st Street, Suite C-3, Gainesville, FL 32606**, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Alachua County, Florida** to-wit:

SEE EXHIBIT "A" ATTACHED HERETO

Parcel Number: 03135-000-000

THIS CORRECTIVE WARRANTY DEED IS FOR THE PURPOSE OF INCLUDING THE MORE PARTICULAR SURVEY LEGAL DESCRIPTION IN THAT CERTAIN WARRANTY DEED FILED IN OR BOOK 5174, PAGE 1131, PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **12/31/2023**.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Bentley Timber LLC, a Florida Limited Liability Company

By: _____
David A. Fisher, Manager

Witness
Printed Name: Ethan Santiago
P.O. Address: 13400 CR 455
Ste 107, Clermont, FL 34711

Witness
Printed Name: Joshua Steele
P.O. Address: 13400 CR 455
Ste 107, Clermont FL 34711

State of Florida
County of Lake

The foregoing instrument was acknowledged before me by means of [x] physical presence or [_] online notarization, this 11th day of November, 2024 by David A. Fisher, Manager of Bentley Timber LLC who [_] is personally known or [✓] has produced a driver's license as identification.

[Seal]

ETHAN SANTIAGO
Notary Public
State of Florida
Comm# HH490035
Expires 2/7/2028

Notary Public
Print Name: Ethan Santiago
My Commission Expires: 2/7/28

EXHIBIT "A"

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST A DISTANCE OF 642.81 FEET TO THE CENTERLINE OF THE CREEK, BEING THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 642.81 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE RUN NORTH 89 DEGREES 25 MINUTES 36 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 217.75 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 28 MINUTES 49 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 195.78 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 00 MINUTES 46 SECONDS EAST ALONG SAID RIGHT-OF-WAY DISTANCE OF 22.46 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 25 MINUTES 21 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 185.34 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN SOUTH 00 DEGREES 05 MINUTES 40 SECONDS WEST DEPARTING SAID RIGHT-OF-WAY 67.51 FEET; THENCE RUN NORTH 89 DEGREES 35 MINUTES 57 SECONDS EAST, 310.82 FEET TO THE CENTERLINE OF THE AFORESAID CREEK (LYING NORTH 55 DEGREES 06 MINUTES 31 SECONDS EAST 1134.73 FEET FROM THE POINT OF BEGINNING); THENCE CONTINUE ALONG THE CENTERLINE OF SAID CREEK 1235.77 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.52 ACRES, MORE OR LESS.

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Holden, Roscow & Caedington, PL
5608 NW 43rd Street
Gainesville, FL 32653
(352) 373-7788
File Number: **23-0895.SB**

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 3591099 4 PG(S)
11/12/2024 4:13 PM
BOOK 5186 PAGE 2940
J.K. JESS IRBY, ESQ.--Clerk
Clerk of the Court, Alachua County, Florida
ERECORDED Receipt # 1235379
Doc Stamp-Mort: $0.00
Doc Stamp-Deed: $0.70
Intang. Tax: $0.00

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(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Alachua County, Florida** to-wit:

SEE EXHIBIT "A" ATTACHED HERETO

Parcel Number: 03135-000-000

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To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **12/31/2023**.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Bentley Timber, LLC, a Florida Limited Liability Company

By: _____
David A. Fisher, Manager

Witness
Printed Name: Ethan Santiago
P.O. Address: 13400 CR 455
Ste 107, Clermont, FL 34711

Witness
Printed Name: Joshua Steele
P.O. Address: 13400 CR 455
Ste 107, Clermont FL 34711

State of Florida
County of Lake

The foregoing instrument was acknowledged before me by means of [x] physical presence or [_] online notarization, this 11th day of November, 2024 by David A. Fisher, Manager of Bentley Timber LLC who [_] is personally known or [✓] has produced a driver's license as identification.

[Seal]

ETHAN SANTIAGO
Notary Public
State of Florida
Comm# HH490035
Expires 2/7/2028

Notary Public
Print Name: Ethan Santiago
My Commission Expires: 2/7/28

EXHIBIT "A"

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST A DISTANCE OF 642.81 FEET TO THE CENTERLINE OF THE CREEK, BEING THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 642.81 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE RUN NORTH 89 DEGREES 25 MINUTES 36 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 217.75 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 28 MINUTES 49 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 195.78 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 00 MINUTES 46 SECONDS EAST ALONG SAID RIGHT-OF-WAY DISTANCE OF 22.46 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 25 MINUTES 21 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 185.34 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN SOUTH 00 DEGREES 05 MINUTES 40 SECONDS WEST DEPARTING SAID RIGHT-OF-WAY 67.51 FEET; THENCE RUN NORTH 89 DEGREES 35 MINUTES 57 SECONDS EAST, 310.82 FEET TO THE CENTERLINE OF THE AFORESAID CREEK (LYING NORTH 55 DEGREES 06 MINUTES 31 SECONDS EAST 1134.73 FEET FROM THE POINT OF BEGINNING); THENCE CONTINUE ALONG THE CENTERLINE OF SAID CREEK 1235.77 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.52 ACRES, MORE OR LESS.

BEING MORE PARTICULARLY DESCRIBED BY A CURRENT FIELD SURVEY AS FOLLOWS:

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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Prepared by and return to:
John F. Roscow, IV
Holden, Roscow & Caedington, PL
5608 NW 43rd Street
Gainesville, FL 32653
(352) 373-7788
File Number: **23-0895.SB**

RECORDED IN OFFICIAL RECORDS
INSTRUMENT # 3591099 4 PG(S)
11/12/2024 4:13 PM
BOOK 5186 PAGE 2940
J.K. JESS IRBY, ESQ.--Clerk
Clerk of the Court, Alachua County, Florida
ERECORDED Receipt # 1235379
Doc Stamp-Mort: $0.00
Doc Stamp-Deed: $0.70
Intang. Tax: $0.00

[Space Above This Line For Recording Data]

Corrective Warranty Deed

This Warranty Deed made this 11th **day of November, 2024** between **Bentley Timber LLC, a Florida limited liability company,** whose post office address is **17032 Cercis Loop, Clermont, FL 34711**, grantor, and **Alachua Habitat for Humanity, Inc., a Florida not for profit corporation,** whose post office address is **2630 NW 41st Street, Suite C-3, Gainesville, FL 32606**, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Alachua County, Florida** to-wit:

SEE EXHIBIT "A" ATTACHED HERETO

Parcel Number: 03135-000-000

THIS CORRECTIVE WARRANTY DEED IS FOR THE PURPOSE OF INCLUDING THE MORE PARTICULAR SURVEY LEGAL DESCRIPTION IN THAT CERTAIN WARRANTY DEED FILED IN OR BOOK 5174, PAGE 1131, PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **12/31/2023**.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Bentley Timber, LLC, a Florida Limited Liability Company

By: _____
David A. Fisher, Manager

Witness
Printed Name: Ethan Santiago
P.O. Address: 13400 CR 455
Ste 107, Clermont, FL 34711

Witness
Printed Name: Joshua Steele
P.O. Address: 13400 CR 455
Ste 107, Clermont FL 34711

State of Florida
County of Lake

The foregoing instrument was acknowledged before me by means of [x] physical presence or [_] online notarization, this 11th day of November, 2024 by David A. Fisher, Manager of Bentley Timber LLC who [_] is personally known or [✓] has produced a driver's license as identification.

[Seal]

ETHAN SANTIAGO
Notary Public
State of Florida
Comm# HH490035
Expires 2/7/2028

Notary Public
Print Name: Ethan Santiago
My Commission Expires: 2/7/28

EXHIBIT "A"

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST A DISTANCE OF 642.81 FEET TO THE CENTERLINE OF THE CREEK, BEING THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 642.81 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE RUN NORTH 89 DEGREES 25 MINUTES 36 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 217.75 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 28 MINUTES 49 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 195.78 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 00 MINUTES 46 SECONDS EAST ALONG SAID RIGHT-OF-WAY DISTANCE OF 22.46 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 25 MINUTES 21 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 185.34 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN SOUTH 00 DEGREES 05 MINUTES 40 SECONDS WEST DEPARTING SAID RIGHT-OF-WAY 67.51 FEET; THENCE RUN NORTH 89 DEGREES 35 MINUTES 57 SECONDS EAST, 310.82 FEET TO THE CENTERLINE OF THE AFORESAID CREEK (LYING NORTH 55 DEGREES 06 MINUTES 31 SECONDS EAST 1134.73 FEET FROM THE POINT OF BEGINNING); THENCE CONTINUE ALONG THE CENTERLINE OF SAID CREEK 1235.77 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.52 ACRES, MORE OR LESS.

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Prepared by and return to:
John F. Roscow, IV
Holden, Roscow & Caedington, PL
5608 NW 43rd Street
Gainesville, FL 32653
(352) 373-7788
File Number: **23-0895.SB**

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In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Bentley Timber LLC, a Florida Limited Liability Company

By: _____
David A. Fisher, Manager

Witness
Printed Name: Ethan Santiago
P.O. Address: 13400 CR 455
Ste 107, Clermont, FL 34711

Witness
Printed Name: Joshua Steele
P.O. Address: 13400 CR 455
Ste 107, Clermont FL 34711

State of Florida
County of Lake

The foregoing instrument was acknowledged before me by means of [x] physical presence or [_] online notarization, this 11th day of November, 2024 by David A. Fisher, Manager of Bentley Timber LLC who [_] is personally known or [✓] has produced a driver's license as identification.

[Seal]

ETHAN SANTIAGO
Notary Public
State of Florida
Comm# HH490035
Expires 2/7/2028

Notary Public
Print Name: Ethan Santiago
My Commission Expires: 2/7/28

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Signed, sealed and delivered in our presence:

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By: _____
David A. Fisher, Manager

Witness
Printed Name: Ethan Santiago
P.O. Address: 13400 CR 455
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Printed Name: Joshua Steele
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Print Name: Ethan Santiago
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EXHIBIT "A"

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST A DISTANCE OF 642.81 FEET TO THE CENTERLINE OF THE CREEK, BEING THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 642.81 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE RUN NORTH 89 DEGREES 25 MINUTES 36 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 217.75 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 28 MINUTES 49 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 195.78 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 00 MINUTES 46 SECONDS EAST ALONG SAID RIGHT-OF-WAY DISTANCE OF 22.46 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 25 MINUTES 21 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 185.34 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN SOUTH 00 DEGREES 05 MINUTES 40 SECONDS WEST DEPARTING SAID RIGHT-OF-WAY 67.51 FEET; THENCE RUN NORTH 89 DEGREES 35 MINUTES 57 SECONDS EAST, 310.82 FEET TO THE CENTERLINE OF THE AFORESAID CREEK (LYING NORTH 55 DEGREES 06 MINUTES 31 SECONDS EAST 1134.73 FEET FROM THE POINT OF BEGINNING); THENCE CONTINUE ALONG THE CENTERLINE OF SAID CREEK 1235.77 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.52 ACRES, MORE OR LESS.

BEING MORE PARTICULARLY DESCRIBED BY A CURRENT FIELD SURVEY AS FOLLOWS:

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 5/8" IRON ROD WITH CAP "LB 8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST ALONG THE WEST BOUNDARY OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER A DISTANCE OF 585.33 FEET TO A 5/8" IRON ROD WITH CAP "LB 8031" LYING IN THE CENTERLINE OF A CREEK FOR THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING RUN THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST ALONG THE SAID WEST BOUNDARY A DISTANCE OF 585.33 FEET TO A 5/8" IRON ROD WITH CAP "LB 8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER

OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST ALONG THE WEST BOUNDARY OF THE NORTHEAST QUARTER OF SAID SOUTHWEST QUARTER A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE LEAVING SAID WEST BOUNDARY AND RUN NORTH 89 DEGREES 25 MINUTES 35 SECONDS EAST ALONG SAID SOUTH RIGHT-OF-WAY BOUNDARY A DISTANCE OF 621.32 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE LEAVING SAID SOUTH RIGHT-OF-WAY BOUNDARY AND RUN SOUTH 00 DEGREES 49 MINUTES 46 SECONDS EAST 67.33 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075" LYING ON THE NORTH BOUNDARY OF THE AFORESAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 89 DEGREES 38 MINUTES 25 SECONDS EAST ALONG SAID NORTH BOUNDARY A DISTANCE OF 309.47 FEET TO A POINT LYING IN THE CENTERLINE OF THE AFORESAID CREEK (SAID POINT LYING NORTH 57 DEGREES 33 MINUTES 17 SECONDS EAST 1102.71 FEET FROM THE POINT OF BEGINNING); THENCE SOUTHWESTERLY ALONG THE CENTERLINE OF SAID CREEK A DISTANCE OF 1199 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.47 ACRES, MORE OR LESS.

John Power TAX COLLECTOR Serving Alachua County
FLORIDA STERLING AWARD RECIPIENT

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

ACCOUNT NUMBER	PROPERTY ADDRESS	MILLAGE CODE
03130 004 000	UNASSIGNED LOCATION RE	1700

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

EXEMPTIONS:

SCAN TO PAY ONLINE

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
COUNTY GENERAL	7.6180	1,100	0	1,100	8.38
LIBRARY GENERAL	1.0000	1,100	0	1,100	1.10
SCHOOL CAP PROJECT	1.5000	1,100	0	1,100	1.65
SCHOOL DISCRNRY & CN	0.7480	1,100	0	1,100	0.82
SCHOOL GENERAL	3.0130	1,100	0	1,100	3.31
SCHOOL VOTED	1.0000	1,100	0	1,100	1.10
CHILDREN'S TRUST	0.4500	1,100	0	1,100	0.50
SUWANNEE RIVER WATER MGT DIST	0.2936	1,100	0	1,100	0.32
CITY OF ALACHUA	5.9500	1,100	0	1,100	6.55

TOTAL MILLAGE 21.5726 — AD VALOREM TAXES $23.73

LEGAL DESCRIPTION

COM SW COR OF NE1/4 OF SW1/4 RUN E 174.89 FT POB N 53 FT E 100 FT S 100 FT W 100
See Additional Legal on Tax Roll

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
550 COUNTY FIRE SERVICES	1.000	Varies	90.69

NON-AD VALOREM ASSESSMENTS $90.69

PAY ONLY ONE AMOUNT.

COMBINED TAXES AND ASSESSMENTS $114.42

IF PAID BY	Mar 31, 2025				
PLEASE PAY	$0.00				

Please Retain this Portion for your Records. Receipt Available Online.

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

PLEASE PAY IN U.S. FUNDS TO JOHN POWER, TAX COLLECTOR • P.O. BOX 44310 • JACKSONVILLE, FL 32231-4310

ACCOUNT NUMBER	PROPERTY ADDRESS
03130 004 000	UNASSIGNED LOCATION RE

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

PAY ONLY ONE AMOUNT

	IF PAID BY	PLEASE PAY
☐	Mar 31, 2025	$0.00
☐		
☐		
☐		
☐		

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Receipt # 24-0138708 $114.42 Paid 03/21/2025

John Power TAX COLLECTOR Serving Alachua County
FLORIDA STERLING AWARD RECIPIENT

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

ACCOUNT NUMBER	PROPERTY ADDRESS	MILLAGE CODE
03130 007 001	UNASSIGNED LOCATION RE	1700

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

EXEMPTIONS:

SCAN TO PAY ONLINE

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
COUNTY GENERAL	7.6180	1,400	0	1,400	10.67
LIBRARY GENERAL	1.0000	1,400	0	1,400	1.40
SCHOOL CAP PROJECT	1.5000	1,400	0	1,400	2.10
SCHOOL DISCRNRY & CN	0.7480	1,400	0	1,400	1.05
SCHOOL GENERAL	3.0130	1,400	0	1,400	4.22
SCHOOL VOTED	1.0000	1,400	0	1,400	1.40
CHILDREN'S TRUST	0.4500	1,400	0	1,400	0.63
SUWANNEE RIVER WATER MGT DIST	0.2936	1,400	0	1,400	0.41
CITY OF ALACHUA	5.9500	1,400	0	1,400	8.33
TOTAL MILLAGE	21.5726			AD VALOREM TAXES	$30.21

LEGAL DESCRIPTION

COM SW COR NE1/4 OF SW1/4 POB E 217.89 FT N TO N LINE NE1/4 OF SW1/4 W 223.36 FT
See Additional Legal on Tax Roll

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
550 COUNTY FIRE SERVICES	1.000	Varies	90.69
NON-AD VALOREM ASSESSMENTS			$90.69

PAY ONLY ONE AMOUNT.

COMBINED TAXES AND ASSESSMENTS	$120.90

IF PAID BY PLEASE PAY	Mar 31, 2025 $0.00				

Please Retain this Portion for your Records. Receipt Available Online.

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

PLEASE PAY IN U.S. FUNDS TO JOHN POWER, TAX COLLECTOR • P.O. BOX 44310 • JACKSONVILLE, FL 32231-4310

ACCOUNT NUMBER	PROPERTY ADDRESS
03130 007 001	UNASSIGNED LOCATION RE

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

PAY ONLY ONE AMOUNT

	IF PAID BY	PLEASE PAY
☐	Mar 31, 2025	$0.00
☐		
☐		
☐		
☐		

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www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

Receipt # 24-0138708 $120.90 Paid 03/21/2025

John Power TAX COLLECTOR Serving Alachua County
FLORIDA STERLING AWARD RECIPIENT

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

ACCOUNT NUMBER	PROPERTY ADDRESS	MILLAGE CODE
03130 008 000	UNASSIGNED LOCATION RE	1700

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

EXEMPTIONS:

SCAN TO PAY ONLINE

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
COUNTY GENERAL	7.6180	3,953	0	3,953	30.11
LIBRARY GENERAL	1.0000	3,953	0	3,953	3.95
SCHOOL CAP PROJECT	1.5000	50,000	0	50,000	75.00
SCHOOL DISCRNRY & CN	0.7480	50,000	0	50,000	37.40
SCHOOL GENERAL	3.0130	50,000	0	50,000	150.65
SCHOOL VOTED	1.0000	50,000	0	50,000	50.00
CHILDREN'S TRUST	0.4500	3,953	0	3,953	1.78
SUWANNEE RIVER WATER MGT DIST	0.2936	3,953	0	3,953	1.16
CITY OF ALACHUA	5.9500	3,953	0	3,953	23.52

TOTAL MILLAGE 21.5726 — AD VALOREM TAXES $373.57

LEGAL DESCRIPTION

COM SW COR OF NE1/4 OF SW1/4 E 413.9 FT POB N 66.13 FT W 195.74 FT SLY 15 FT M/L
See Additional Legal on Tax Roll

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
550 COUNTY FIRE SERVICES	1.000	Varies	90.69

NON-AD VALOREM ASSESSMENTS $90.69

PAY ONLY ONE AMOUNT.

COMBINED TAXES AND ASSESSMENTS $464.26

IF PAID BY	Mar 31, 2025				
PLEASE PAY	$0.00				

Please Retain this Portion for your Records. Receipt Available Online.

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

PLEASE PAY IN U.S. FUNDS TO JOHN POWER, TAX COLLECTOR • P.O. BOX 44310 • JACKSONVILLE, FL 32231-4310

ACCOUNT NUMBER	PROPERTY ADDRESS
03130 008 000	UNASSIGNED LOCATION RE

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

PAY ONLY ONE AMOUNT

	IF PAID BY	PLEASE PAY
☐	Mar 31, 2025	$0.00
☐		
☐		
☐		
☐		

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Receipt # 24-0138708 $464.26 Paid 03/21/2025

John Power TAX COLLECTOR Serving Alachua County
FLORIDA STERLING AWARD RECIPIENT

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

ACCOUNT NUMBER	PROPERTY ADDRESS	MILLAGE CODE
03130 009 000	UNASSIGNED LOCATION RE	1700

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

EXEMPTIONS:

SCAN TO PAY ONLINE

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
COUNTY GENERAL	7.6180	2,000	0	2,000	15.24
LIBRARY GENERAL	1.0000	2,000	0	2,000	2.00
SCHOOL CAP PROJECT	1.5000	2,000	0	2,000	3.00
SCHOOL DISCRNRY & CN	0.7480	2,000	0	2,000	1.50
SCHOOL GENERAL	3.0130	2,000	0	2,000	6.03
SCHOOL VOTED	1.0000	2,000	0	2,000	2.00
CHILDREN'S TRUST	0.4500	2,000	0	2,000	0.90
SUWANNEE RIVER WATER MGT DIST	0.2936	2,000	0	2,000	0.59
CITY OF ALACHUA	5.9500	2,000	0	2,000	11.90

TOTAL MILLAGE 21.5726 — AD VALOREM TAXES $43.16

LEGAL DESCRIPTION

COM SW COR NE1/4 OF SW1/4 E 435.78 FT POB N 66.86 TO S R/W SR 235 ELY ALG R/W 18
See Additional Legal on Tax Roll

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
550 COUNTY FIRE SERVICES	1.000	Varies	90.69

NON-AD VALOREM ASSESSMENTS $90.69

PAY ONLY ONE AMOUNT.

COMBINED TAXES AND ASSESSMENTS $133.85

IF PAID BY	Mar 31, 2025				
PLEASE PAY	$0.00				

Please Retain this Portion for your Records. Receipt Available Online.

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2024 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

PLEASE PAY IN U.S. FUNDS TO JOHN POWER, TAX COLLECTOR • P.O. BOX 44310 • JACKSONVILLE, FL 32231-4310

ACCOUNT NUMBER	PROPERTY ADDRESS
03130 009 000	UNASSIGNED LOCATION RE

ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606-7422

PAY ONLY ONE AMOUNT

	IF PAID BY	PLEASE PAY
☐	Mar 31, 2025	$0.00
☐		
☐		
☐		
☐		

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Receipt # 24-0138708 $133.85 Paid 03/21/2025

OPTIMUS TRAFFIC SOLUTIONS, LLC
briansnyder@optimustraffic.com
352-389-9221

MEMORANDUM

Brian Richard Snyder
State of Florida
Professional Engineer,
License No. 74607

This item has been digitally signed and sealed by Brian Richard Snyder, PE, on the date indicated here.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

To: Carlos Nieto, PE and Justin Tabor, AICP

From: Brian Snyder, PE

Brian R Snyder Digitally signed by Brian R Snyder DN: CN=Brian R Snyder, dnQualifier=A01410C00000195DB92E83000115910, O=Unaffiliated, C=US Date: 2025.03.05 11:36:33-05'00'

cc: Tim Boehlein, PE

Date: March 5, 2025

Re: Tolosa North Alachua – Turn Lane Warrant Analysis

The proposed Tolosa North townhome subdivision will be located on SR 235 approximately 2,200 FT east of NW 140th Street, in the City of Alachua. The site will consist of approximately 52 townhomes at the full buildout, anticipated in 2026. A single connection on SR 235 is being proposed for this development. The preliminary site plan is provided in **Attachment A**.

As stated in the methodology email provided in **Attachment B**, an eastbound right-turn lane warrant analysis and a westbound left-turn lane warrant analysis at the SR 235/proposed site access intersection has been requested by FDOT and the City of Alachua. This Memorandum provides the estimated forecasted 2026 buildout volumes and turn lane warrant analysis in accordance with the methodology correspondence.

The trip generation for the site, provided in **Table 1**, is based on the ITE Trip Generation Manual, 11th Edition. The trip generation documentation is provided in **Attachment C**.

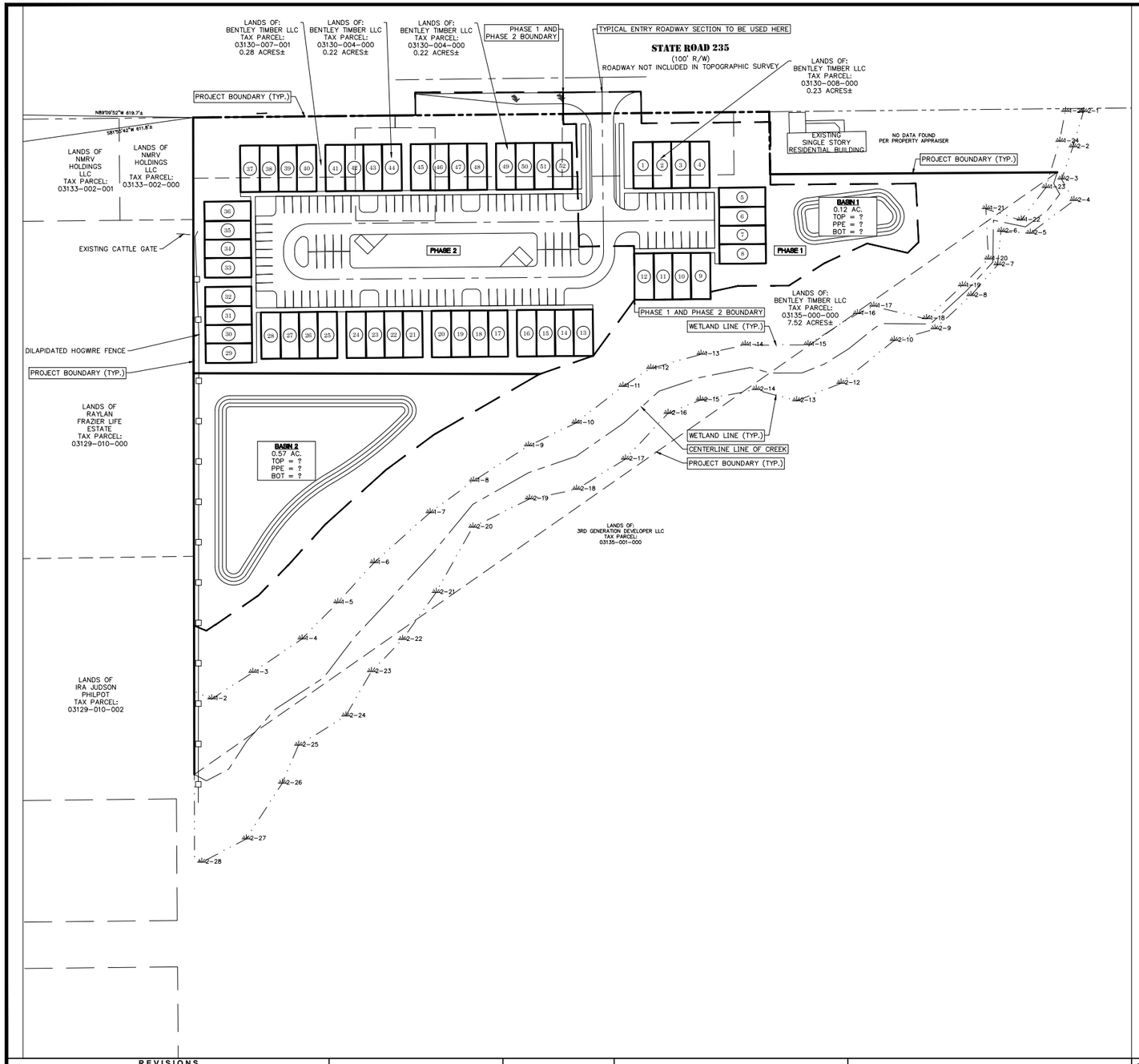
Table 1 - Tolosa North Trip Generation

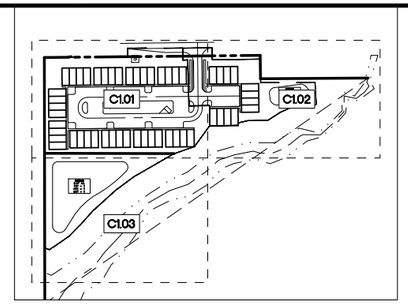
Land Use	Land Use Code	Variable Type	Variable Size	Daily Trips	AM Peak Trips			PM Peak Trips		
					Total	In	Out	Total	In	Out
Single-Family Attached Housing	215	DUs	52	346	21	5	16	27	16	11

Traffic counts were collected on March 4, 2025, on SR 235 near the proposed site access, during the PM peak two hours. The peak season factor was applied to the observed traffic volumes. Background traffic volumes were forecasted for the year 2026, and project trips were added to the background volumes to derive the buildout conditions used for the analysis. The count data and forecasted volume data is provided in **Attachment D**.

National Cooperative Highway Research Program (NCHRP) 457 was used to perform the eastbound right-turn lane and westbound left-turn lane warrant analysis. The turn lane warrant analysis graphs are provided in **Attachment E**. Based on the results of the analysis, neither an eastbound right nor a westbound left-turn lane are warranted at the site access intersection during the 2026 buildout condition and are therefore not recommended.

Attachment A
Site Plan





KEY MAP
SCALE = N.T.S.

GENERAL NOTES:

1) THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING RIGHT-OF-WAY AND EASEMENTS AND FOR CONSTRUCTING ON-SITE FACILITIES FOR ALL OTHER INFRASTRUCTURE LOCATED ON THE SITE OF THE PROPOSED PD-R DISTRICT, INCLUDING BUT NOT LIMITED TO, ELECTRICAL UTILITY LINES, TELEPHONE LINES, CABLE TV LINES, OR THE UNDERGROUND CONDUIT FOR SUCH FEATURES

PHASING NOTES:

1) THIS PD-R SHALL BE VALID FOR 10 YEARS FROM THE DATE OF FINAL ZONING APPROVAL.

2) A MINIMUM OF 30 RESIDENTIAL LOTS SHALL BE PLATTED IN DEVELOPMENT PRIOR TO APPROVAL OF NON-RESIDENTIAL USES IN DEVELOPMENT AREA.

3) THE DEVELOPMENT MAY BE SERVED BY A SINGLE ROADWAY CONNECTION TO STATE ROAD 235.

PROPOSED USES AND DENSITIES NOTES:

1) PROPOSED USES MAY BE ADJUSTED DURING THE BUILDOUT OF THE PD AND SHALL CONFORM TO THE ALLOWABLE USE TABLE.

2) ALL USE AREAS MAY BE ADJUSTED DURING THE PHASED BUILDOUT OF THE PD BY UP TO 10.0%

ALLOWABLE USE NOTES:

1) STORMWATER MANAGEMENT FACILITIES AND UTILITY SYSTEMS ARE ALLOWED IN ALL USE AREAS.

PROPOSED TOWNHOMES (PHASE 1):

TOTAL BUILDINGS - 3

TOTAL UNITS - 12

PROPOSED TOWNHOMES (PHASE 2):

TOTAL BUILDINGS - 10

TOTAL UNITS - 40

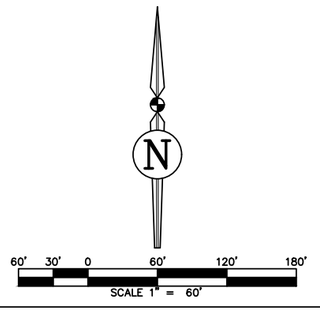
PARKING CALCULATIONS:

TOWNHOMES:

REQUIRED - 2 SPACES/UNIT = 2x52 = 104 SPACES

PROVIDED - 145 SPACES

MAXIMUM DEVELOPMENT AREA + DENSITY/INTENSITY	ALLOWABLE USES:	MAXIMUM POTENTIAL DEVELOPMENT	LOT BREAKDOWN BY PHASE	DIMENSIONAL STANDARDS
SINGLE FAMILY ATTACHED RESIDENTIAL/NON-RESIDENTIAL	- SINGLE FAMILY DETACHED RESIDENTIAL - SINGLE FAMILY ATTACHED RESIDENTIAL - MULTI-FAMILY RESIDENTIAL - DAYCARE - RELIGIOUS USES - RESTAURANT WITHOUT A DRIVE-THRU - COMMUNITY BUILDINGS/CLUBHOUSE - PROFESSIONAL OFFICE - NEIGHBORHOOD RECREATION CENTER - COMMERCIAL RECREATION, INDOOR	40 UNITS & 20,000 SQ. FT.	- PHASE 1: 3 - PHASE 2: 40 - TOTAL LOTS: 43	SINGLE FAMILY DETACHED RESIDENTIAL MIN. LOT AREA = ? SQ. FT. MIN. LOT WIDTH = ?' FRONT = ?' SIDE = ?' REAR = ?' MAX BUILDING HEIGHT = ?' MAX LOT COVERAGE = ?% SINGLE FAMILY DETACHED RESIDENTIAL MIN. LOT AREA = ? SQ. FT. MIN. LOT WIDTH = ?' FRONT = ?' SIDE = ?' REAR = ?' MAX BUILDING HEIGHT = ?' MAX LOT COVERAGE = ?% SINGLE FAMILY DETACHED RESIDENTIAL MIN. LOT AREA = ? SQ. FT. MIN. LOT WIDTH = ?' FRONT = ?' SIDE = ?' REAR = ?' MAX BUILDING HEIGHT = ?' MAX LOT COVERAGE = ?%
COMMON AREA	- UTILITY SYSTEMS - STORM-WATER MANAGEMENT SYSTEMS - PEDESTRIAN TRAILS-PERVIOUS & IMPERVIOUS - RECREATIONAL FACILITIES - COMMONS BUILDING/CLUBHOUSE - PARK STRUCTURES, GAZEBOS, PICNIC PAVILIONS	2,000 SQ. FT.		



REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: LOGAN B. PETERS, PE
FLORIDA LICENSE NO. 88516

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NOT FOR CONSTRUCTION
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4420 US-1 S, Suite 1 | St. Augustine, Florida 32086
Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: MASTER PHASING PLAN

DATE: AUGUST 2024
PROJECT NO: 167-24-01
SHEET NO: C1.00

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

Attachment B
Methodology Correspondence

briansnyder@optimustraffic.com

From: Nieto, Carlos A <CarlosA.Nieto@dot.state.fl.us>
Sent: Thursday, February 27, 2025 8:21 AM
To: briansnyder@optimustraffic.com; jtabor@cityofalachua.org
Cc: Adams, Bradley
Subject: RE: Tolosa North - Habitat for Humanity - Traffic Study Memo

Brian,

Sorry for the late reply. I am good with the proposed split.

Carlos Nieto, P.E.
Traffic Services Engineer
Florida Department of Transportation District 2
Phone (904) 360-5455

From: briansnyder@optimustraffic.com <briansnyder@optimustraffic.com>
Sent: Wednesday, February 26, 2025 3:47 PM
To: Nieto, Carlos A <CarlosA.Nieto@dot.state.fl.us>; jtabor@cityofalachua.org
Cc: Adams, Bradley <Bradley.Adams@dot.state.fl.us>
Subject: RE: Tolosa North - Habitat for Humanity - Traffic Study Memo

Carlos, Justin,

Can you let me know if you will accept a distribution based on count data or if you are okay with the assumption of 90/10 split? I may have the counts collected tomorrow.

Thank you,

Brian Snyder, PE
Principal
Optimus Traffic Solutions, LLC

briansnyder@optimustraffic.com
352-389-9221
www.optimustraffic.com

From: briansnyder@optimustraffic.com <briansnyder@optimustraffic.com>
Sent: Tuesday, February 25, 2025 3:58 PM
To: 'Nieto, Carlos A' <CarlosA.Nieto@dot.state.fl.us>; jtabor@cityofalachua.org
Cc: 'Adams, Bradley' <Bradley.Adams@dot.state.fl.us>
Subject: RE: Tolosa North - Habitat for Humanity - Traffic Study Memo

Carlos,

I believe it is reasonable. I can use a distribution based on the counts in and out of the homes in this area, approximately 8 homes, instead. I can collect counts from 7:00 AM to 9:00 AM and 4:00 PM to 6:00

PM to ensure we are getting a decent amount of traffic. Please let me know if you prefer this method instead.

Thank you,

Brian Snyder, PE
Principal
Optimus Traffic Solutions, LLC

briansnyder@optimustraffic.com
352-389-9221
www.optimustraffic.com

From: Nieto, Carlos A <CarlosA.Nieto@dot.state.fl.us>
Sent: Tuesday, February 25, 2025 3:34 PM
To: briansnyder@optimustraffic.com; jtabor@cityofalachua.org
Cc: Adams, Bradley <Bradley.Adams@dot.state.fl.us>
Subject: RE: Tolosa North - Habitat for Humanity - Traffic Study Memo

Brian,

Please add the left-turn lane analysis as well. I do not think it would be warranted (especially with the distribution proposed) but it should be included.

A long the lines of the distribution, I am not familiar with the area is 90/10 reasonably appropriate? Any comments on this Justin?

Sincerely,

Carlos Nieto, P.E.
Traffic Services Engineer
Florida Department of Transportation District 2
Phone (904) 360-5455

From: briansnyder@optimustraffic.com <briansnyder@optimustraffic.com>
Sent: Monday, February 24, 2025 10:28 AM
To: Nieto, Carlos A <CarlosA.Nieto@dot.state.fl.us>; jtabor@cityofalachua.org
Subject: Tolosa North - Habitat for Humanity - Traffic Study Memo

EXTERNAL SENDER: Use caution with links and attachments.

Justin, Carlos,

Good morning. I will be preparing a traffic study memo for the Tolosa North Habitat for Humanity site. I have been coordinating with Tim Boehlein at JBPro. Based on our discussion, I believe the following traffic study Memo should address your concerns.

A traffic study memo will be prepared for Tolosa North Habitat for Humanity in the City of Alachua to determine whether an eastbound right-turn lane will be warranted. The following methodology will be used for this study.

- A count will be performed near the proposed site access during the PM peak two-hours.
- A trip generation estimation will be calculated based on the ITE Trip Generation, 11th edition.
- The majority of the traffic will be to/from the west on SR 235, traveling to the City of Alachua, I-75, and Gainesville. It will be estimated that 90% of the project trips will be to/from the west on SR 235 and 10% will be to/from the east on SR 235.
- Full buildout of this site is estimated near the end of 2026, therefore, background trips will be forecasted to 2026 based on historical ADT provided by FDOT traffic online. The background and project trips will be combined to derive the buildout trips used for the analysis.
- NCHRP 457 will be used to determine whether an eastbound right-turn lane is warranted under the buildout condition.
- The Memo will provide the recommendation either to provide a right-turn lane or not provide a right-turn lane based on the results.

Please let me know if you concur with this methodology.

Thank you,

Brian Snyder, PE
Principal
Optimus Traffic Solutions, LLC

briansnyder@optimustraffic.com
352-389-9221
www.optimustraffic.com

Attachment C
Trip Generation

Single-Family Attached Housing
(215)

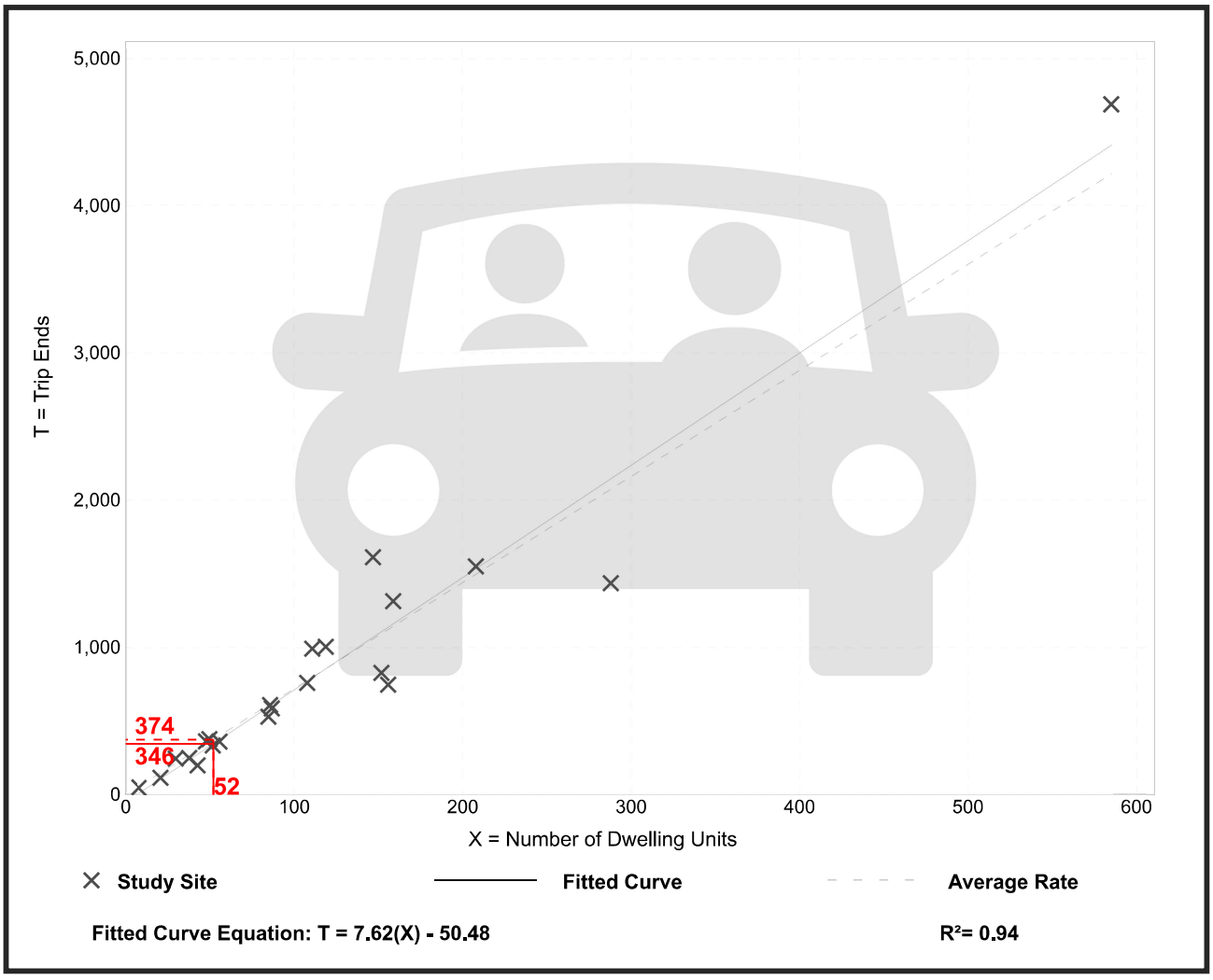
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 120
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

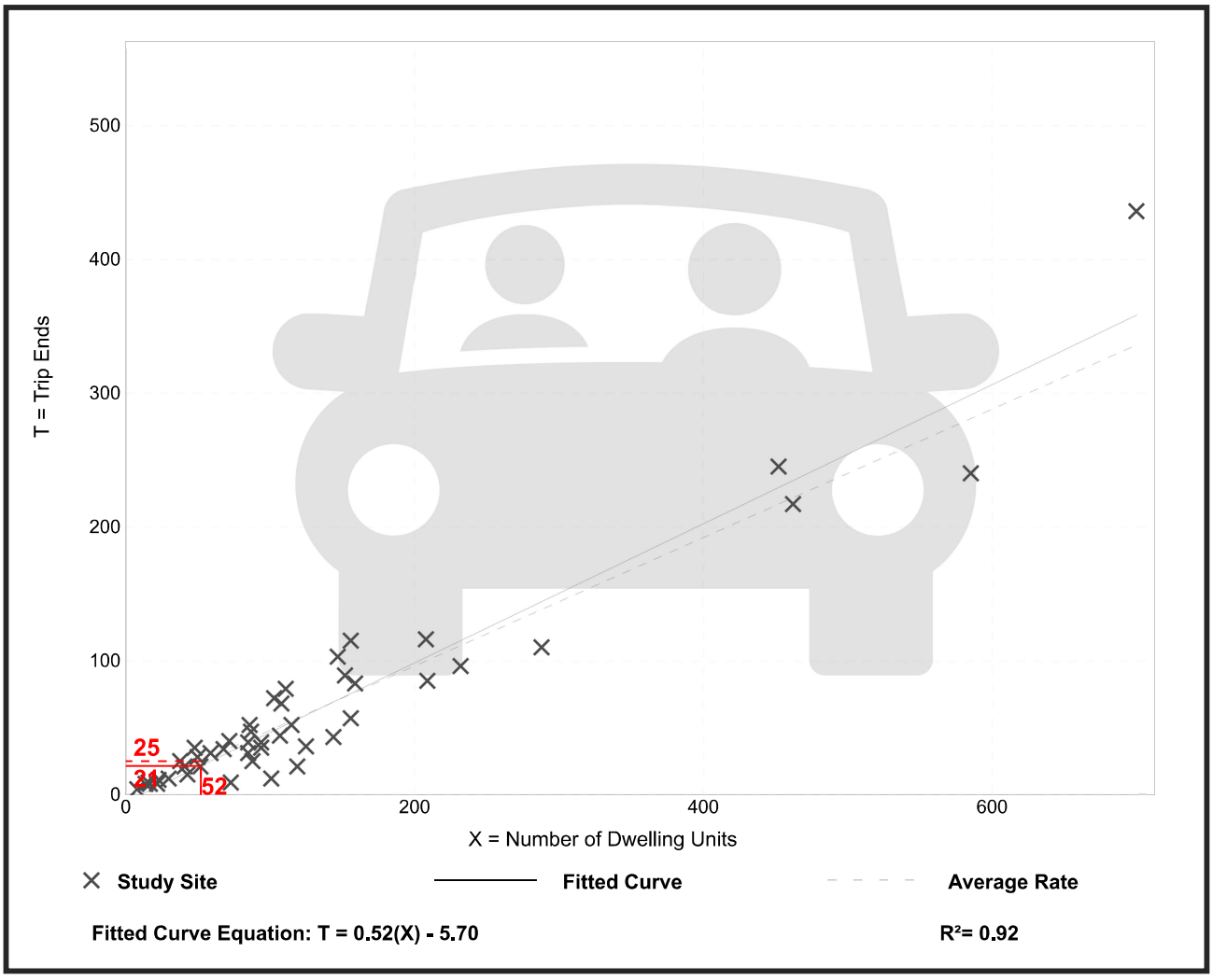
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	46
Avg. Num. of Dwelling Units:	135
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

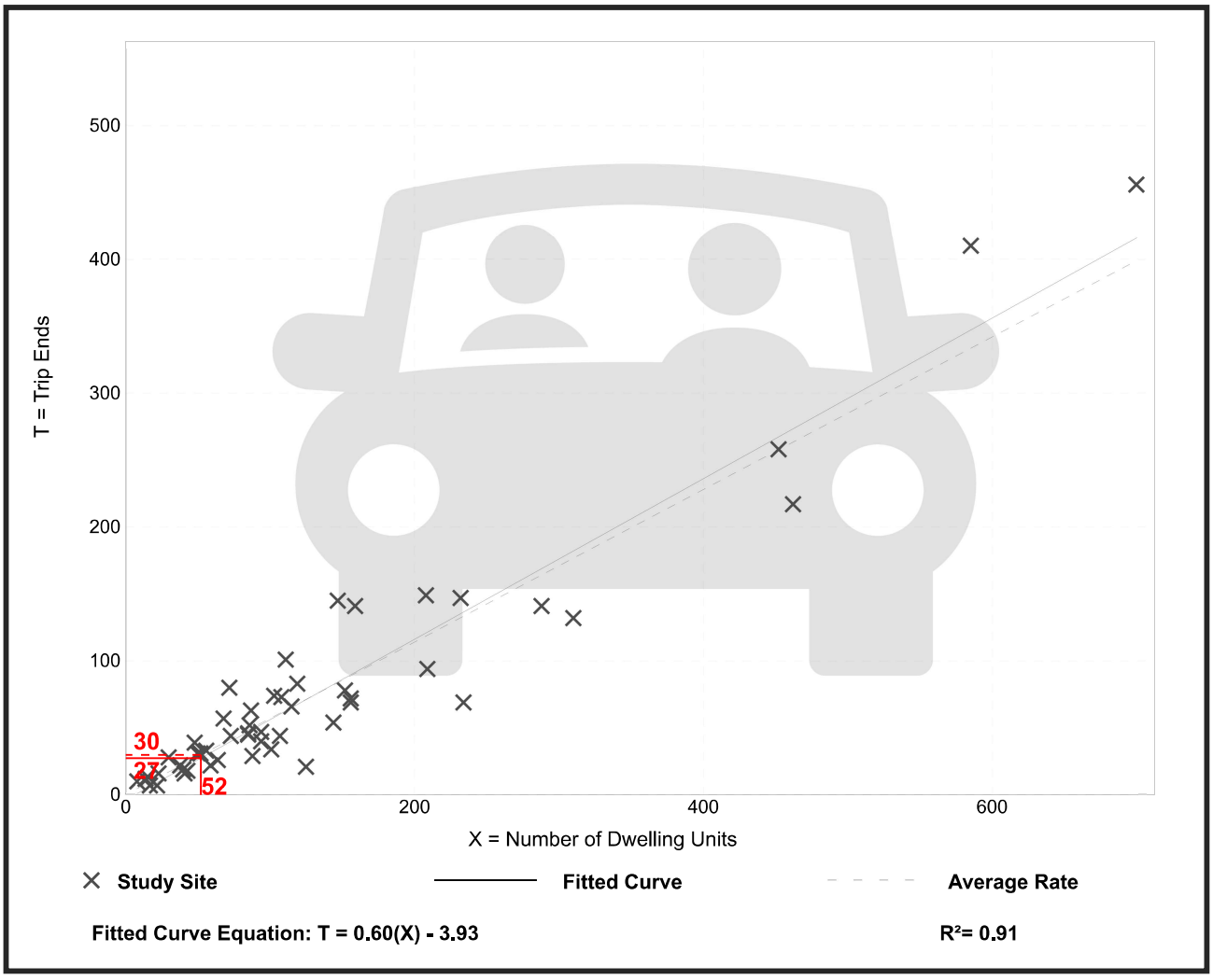
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,** **Peak Hour of Adjacent Street Traffic,** **One Hour Between 4 and 6 p.m.**
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	136
Directional Distribution:	59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

Attachment D
Traffic Volume Forecast

Summary of Turning Movement Counts - from Traffic Count on iOS

Study Name	Tolosa
Observer	Brian Snyder
Location	SR 235
Weather	Sunny

Cars and Trucks

	N/A Northbound					N/A Southbound					SR 235 Eastbound					SR 235 Westbound						
Start Time	Left	Thru	Right	UTurn	Total	Left	Thru	Right	UTurn	Total	Left	Thru	Right	UTurn	Total	Left	Thru	Right	UTurn	Total	Total All	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	61	0	0	61	0	51	0	0	51	112	440
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	52	0	0	52	0	55	0	0	55	107	448
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	67	0	0	67	0	47	0	0	47	114	463
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	56	0	0	56	0	51	0	0	51	107	452
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	71	0	0	71	0	49	0	0	49	120	459
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	66	0	0	66	0	56	0	0	56	122	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	60	0	0	60	0	43	0	0	43	103	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	70	0	0	70	0	44	0	0	44	114	
Total	0	0	0	0	0	0	0	0	0	0	0	503	0	0	503	0	397	0	0	397	900	

Peak Season Factor	1.00
Growth Rate (SR 235)	3.31%
2026 Growth Factor	1.0331

Table 1 - Tolosa North Trip Generation

Land Use	Land Use Code	Variable Type	Variable Size	Daily Trips	AM Peak Trips			PM Peak Trips		
					Total	In	Out	Total	In	Out
Single-Family Attached Housing	215	D.U.s	52	346	21	5	16	27	16	11

PM Project Trips		
To/from the west (90%)	14	10
To/from the east (10%)	2	1

PM Buildout Turning Movement Counts - SR 235 at Proposed Site Access

Scenario	N/A Northbound					N/A Southbound					SR 235 Eastbound					SR 235 Westbound				
	Left	Thru	Right	UTurn	Total	Left	Thru	Right	UTurn	Total	Left	Thru	Right	UTurn	Total	Left	Thru	Right	UTurn	Total
Observed PM Pk Hour Counts	0	0	0	0	0	0	0	0	0	0	0	260	0	0	260	0	203	0	0	203
Peak Season Factor	0	0	0	0	0	0	0	0	0	0	0	260	0	0	260	0	203	0	0	203
Background Trips	0	0	0	0	0	0	0	0	0	0	0	269	0	0	269	0	210	0	0	210
Project Trips	10	0	1	0	11	0	0	0	0	0	0	0	14	0	14	2	0	0	0	2
Buildout Trips	10	0	1	0	11	0	0	0	0	0	0	269	14	0	283	2	210	0	0	212

1%

Attachment E
Turn Lane Warrant Analysis Graphs

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

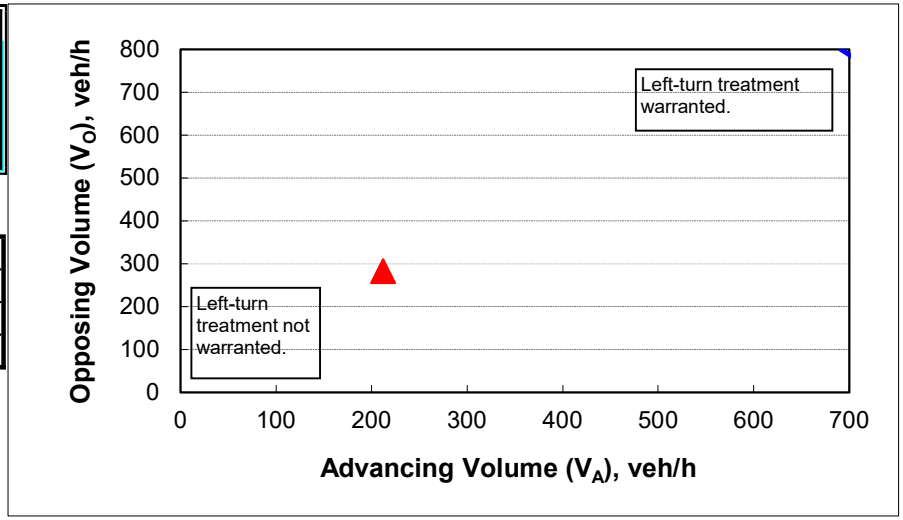
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	45
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	212
Opposing volume (V_O), veh/h:	283

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1177
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

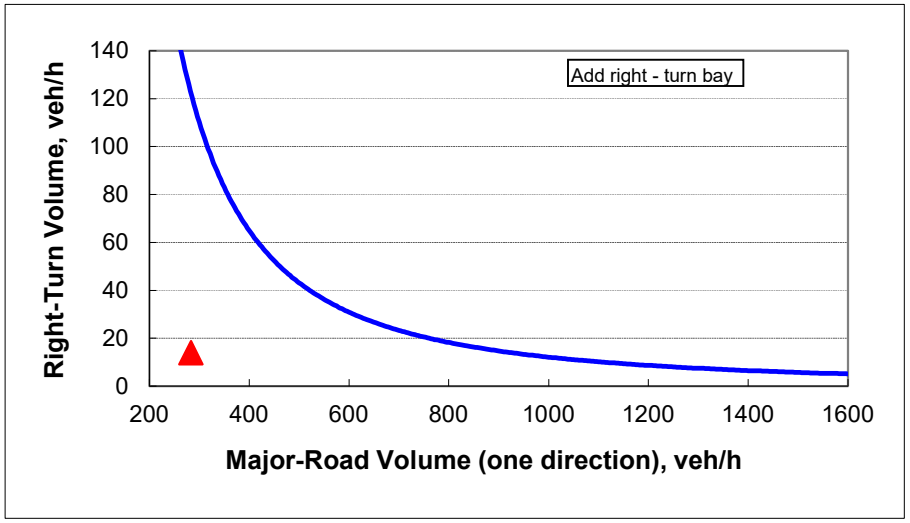
INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	45
Major-road volume (one direction), veh/h:	283
Right-turn volume, veh/h:	14

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	123
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



ECS Florida, LLC

Results for Alachua County Natural Resources Checklist and Preliminary Threatened & Endangered Species Assessment

Tolosa North-Alachua Habitat
State Road 235 and Southwest 158th Place, Gainesville, Florida 32615

For: Alachua Habitat for Humanity

2610 Northwest 43rd Street, Suite 2B, Gainesville, Florida 32606

ECS Project Number 55:7098-A

November 27, 2024

November 27, 2024

Mr. David Weiss
Alachua Habitat for Humanity
2610 Northwest 43rd Street, Suite 2B
Gainesville, Florida 32606

ECS Project No. 55:7098-A

Reference: Results for Alachua County Natural Resources Checklist and Preliminary Threatened & Endangered Species Assessment, Tolosa North-Alachua Habitat, State Road 235 and Southwest 158th Place, Gainesville, Alachua County, Florida

Dear Mr. Weiss:

ECS Florida, LLC (ECS) is pleased to provide you with results of our Alachua County Natural Resources Checklist and Preliminary Threatened & Endangered Species Assessment for the Tolosa North-Alachua Habitat. ECS services were provided in general accordance with ECS Proposal No. 55:12053 authorized on November 17, 2024.

If there are questions regarding this report, or a need for further information, please contact the undersigned.

ECS Florida, LLC

Chrissy Carr
Natural Resources Assistant Department Manager
CCarr@ecslimited.com
904-880-0960

Jason Adams
Natural Resources Department Manager
JAdams2@ecslimited.com
813-302-1644

INTRODUCTION

ECS scientists completed a Alachua County Natural Resources Checklist and Preliminary Threatened & Endangered Species Assessment for the Tolosa North-Alachua Habitat, located at State Road 235 and Southwest 158th Place in Gainesville, Alachua County, Florida. An aerial view of the subject property is provided in **Appendix I**. The field portion of the survey was conducted on November 20th.

The purpose of the field visit was to evaluate the site for the occurrence and/or potential for occurrence of jurisdictional wetlands and/or protected wildlife species (and their habitats).

The following report (and referenced exhibits) describes relevant ecological conditions observed on the site during the field investigation and the results of documented literature regarding the presence of protected wildlife species and/or habitat on the site and its relevant surroundings.

SITE LOCATION AND DESCRIPTION

The site is located in the physiographic area known as the Ocala Uplift District. The site is an approximately 6.53-acre property located at State Road 235 and Southwest 158th Place in Gainesville, Alachua County, Florida and is identified by the Alachua County Property Appraiser as parcel identification number 03135-002-000 and owned by Bentley Timber LLC (**Figure 1**).

The site is classified by Alachua County as undeveloped land. At the time of this survey, the site was observed to be occupied by undeveloped land (**Figure 2**).

The upland canopy vegetation is dominated by live oak (*Quercus virginiana*) and slash pine (*Pinus eliottii*). The upland herbaceous layer is dominated beauty berry (*Callicarpa americana*), caeserweed (*Urena lobata*), and coral ardisia (*Ardisia crenata*).

The wetland canopy vegetation is dominated by hackberry (*Celtis laevigata*) while the subcanopy is dominated by cabbage palm (*Sabal palmetto*). The wetland herbaceous vegetation is dominated by arrowleaf elephant's ear (*Xanthosoma sagittifolium*), coral ardisia (*Ardisia crenata*), and cinnamon fern (*Osmunda cinnamomea*).

Site photographs taken at the time of this survey are included in **Appendix II**.

Soils

Four (4) general soil types were identified by the Natural Resource Conservation Service's (NRCS) S*oil Survey of Alachua County, Florida*. The following soil units and descriptions were mapped by the soil survey on the site:

- **Unit 5 -Fort Meade fine sand**, consists of well drained soils that formed from sandy marine deposits. These soils are found in ridges on marine terraces. Slope ranges from 0 to 5 percent. Fort Meade fine sand is classified as non-hydric. These soils cover approximately 24% of the site by area.

- **Unit 25 -Pomona sand**, depressional consists of nearly level, very poorly drained soil found in shallow depressional areas and along narrow drainageways in the flatwoods. Slopes are nearly smooth to slightly concave with slopes ranging from 0 to 2 percent. The water table is less than 10 inches below the surface for about 6 months or more and water is on the surface for about 4 months or more during most years. Pomona sand is classified as hydric. These soils cover approximately 11% of the site by area.
- **Unit 30 -Kendrick sand**, consists of well drained soils that formed from loamy marine deposits. These soils are found in ridges on marine terraces. Slope ranges from 2 to 5 percent. Kendrick sand is classified as non-hydric. These soils cover approximately 21% of the site by area.
- **Unit 76 -Bivans sand**, consists of poorly drained soils that formed from sandy and clayey marine deposits. These soils are found in hills on marine terraces. Slope ranges from 5 to 8 percent. Bivans sand is classified as non-hydric. These soils cover approximately 44% of the site by area.

Figure 3 shows the site and soils as mapped by the Soil Survey.

Vegetative Communities and Land Uses

Prior to the field visit, Geographic Information System (GIS) data from the Suwanee River Water Management District (SRWMD) was reviewed to identify documented vegetative communities and land uses on the property (**Figure 4**). These site conditions are documented using the Florida Land Use, Cover and Forms Classification System (FLUCCS, Florida Department of Transportation, 1999). FLUCCS classifications for the land covers and uses (as adapted from SRWMD coverages) on the property are as follows: **1130 : Low Density, Mixed Units (Fixed and Mobile Home Units), 4100: Upland Coniferous Forests, and 4340: Upland Mixed Coniferous/Hardwood.**

PRELIMINARY THREATENED AND ENDANGERED SPECIES METHODS

A protected wildlife species survey and habitat assessment were conducted over the property on November 20th. Protected wildlife species are defined as those listed as Threatened, Endangered, or Species of Special Concern by the U.S. Fish and Wildlife Service (USFWS) and/or the Florida Fish and Wildlife Conservation Commission (FWC). Random locations throughout the site were sampled for potential threatened and endangered species of Alachua County, Florida.

Results of Survey

Federal and state listed threatened and endangered species for Alachua County were reviewed from the USFWS North Florida Ecological Services Office website and the Florida Natural Areas Inventory (FNAI) website prior to the site visit (**Appendix III**). Biota was broken down into six categories as follows:

Amphibians

The Project area appears to be located outside of the FWC's Range Map for the frosted flatwoods salamander (*Ambystoma cingulatum*). Additionally, no potential habitat or individuals were observed onsite.

The Project area appears to be located within the FWC's Range Map for the striped newt (*Notophthalmus perstriatus*). However, no potential habitat or individuals were observed onsite.

No additional threatened or endangered amphibian species or their habitats were encountered during the time of this survey.

Birds

ECS reviewed the FWC's Historical Bald Eagle Nesting Areas online database. The nearest documented bald eagle (*Haliaeetus leucodephalus*) nest (AL035) is located approximately 4.36 miles southeast of the site (**Figure 7a**). This nest is located outside of the FWC recommended buffer distance of 660 feet.

ECS reviewed the USFWS' map of wood stork (*Mycteria americana*) Nesting Colonies and Core Foraging Areas Active Within 2010-2019. The site appears to be located within a Core Foraging Area (**Figure 7b**). However, no individuals or suitable potential habitat were observed on the site at the time of this survey. The wood stork prefers habitat with woody vegetation over standing water. They typically forage in water up to 16 inches deep and commonly travel up to 25 miles to feeding sites. The wetlands onsite do not pond water and thus do not have appropriate foraging habitat for wood storks.

The eastern black rail's (*Laterallus jamaicensis ssp, jamaicensis*) expected range overlaps the site area, but no critical habitat has been designated for this species according to FWS IPaC resource list. The eastern black rail requires marsh habitat with dense overhead cover and soils that are moist or saturated, which is often found along the fringe of gently sloping wetlands adjacent to higher wetland/upland areas with high vegetative cover. No evidence of the eastern black rail was observed on the site. The wetlands onsite are not marsh-like with dense overhead cover. Due to the lack of habitat on or adjacent to the project site, the proposed project will not result in adverse impacts to the eastern black rail.

The site location is in the expected range of the Everglades snail kite (*Rostrhamus sociabilis plumbeus*), according to FWS IPaC resource list. While the FWS IPaC resource list shows "final critical habitat" for this the snail kite, the site location does not overlap the critical habitat.

The sandhill crane (*Antigone canadensis pratensis*) was noted on the FNAI query results as a potential species to be affected by site development. The sandhill crane prefers habitats with little canopy cover and shallow herbaceous wetlands. Due to the passerin nature of foraging and no nesting habitat nearby, no impacts are anticipated.

No Florida burrowing owls (*Athene cunicularia floridana*) or their burrows were observed on the site at the time of this survey.

ECS reviewed the USFWS' Habitat Range map for the red-cockaded woodpecker (*Picoides borealis*). The nearest documented nesting area for the red-cockaded woodpecker is located approximately 12.7 miles southeast (**Figure 7c**). No individuals were directly observed on the site at the time of this survey. Additionally, the site does not appear to be located within a designated FWC management unit (FWC Red-Cockaded Woodpecker Management Plan, August 2003).

No other threatened or endangered species or their habitats were encountered at the time of this survey.

Fish

No threatened or endangered species were encountered during the time of this survey. No wetlands capable of sustaining a fish community were observed on the subject property.

Mammals

According to the U.S. Fish and Wildlife Service, the tricolored bat (*Perimyotis subflavus*) is a small insectivorous bat that is distinguished by its unique tricolored fur and often appears yellowish to nearly orange. During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves of live or recently dead deciduous hardwood trees, but may also be found in Spanish moss, pine trees, and occasionally human structures. The site falls within the current range for this species, but no critical habitat has been established in Florida. The site contains forested habitat which may be suitable for this species and informal or formal coordination with the USFWS may be required prior to development of the site pending finalization of the USFWS's proposal to list the tricolored bat as endangered in summer 2024.

Reptiles

Limited gopher tortoise (*Gopherus polyphemus*) habitat was noted within the upland portion of the site, and no gopher tortoises or suspected gopher tortoise burrows were directly observed on the site at the time of this survey. A more detailed survey may be required by FWC during the regulatory permitting review cycle as the habitat is suitable for this species.

The Eastern indigo snake (*Drymarchon corais couperi*) is listed as Federally Threatened. It is considered to have a commensal relationship with gopher tortoises, utilizing gopher tortoise burrows as nesting spots. Due to the potential gopher tortoise habitat located on the site, potential Eastern indigo snake habitat is considered to be present on the site.

The Project area appears to be located within the FWC's Range Map for the short-tailed snake (*Lampropeltis extenuate*). However, no potential habitat or individuals were observed onsite.

No other threatened or endangered species or their habitats were encountered during the time of this survey.

Insects

The monarch butterfly is a federally listed candidate species. Their preferred habitat includes open fields and meadows with milkweed which is the sole host plant of the monarch butterfly. No monarch butterfly individuals or milkweed plants was encountered during the time of this survey.

No additional threatened or endangered species or their habitats were encountered during the time of this survey.

ALACHUA COUNTY NATURAL RESOURCES CHECKLIST

A copy of the Alachua County Natural Resources Checklist completed for the site has been included in Appendix IV of this report. Items of note are discussed in detail below.

Listed Species/Listed Species Habitat

Please refer to the Preliminary Threatened & Endangered Species Survey portion of this report.

High Aquifer Recharge Areas

High Aquifer Recharge Areas are areas where stream-to-sink surface water basins occur and areas where the Floridan aquifer system is vulnerable or highly vulnerable. According to the Alachua County Floridan Aquifer High Recharge Area Map, the site is located in an area with a rating of "High Vulnerability." The site appears to also be located in an area designated as a "Stream-to-Sink Basin." The Alachua County Floridan Aquifer High Recharge Area Map is included as **Figure 8**.

Soils

Please refer to the site soil descriptions included in this report.

Mineral Resource Areas

According to the University of Florida's Mineral Resources of Alachua County Map (dated 1990), the site is located in a undifferentiated mineral resource area. The University of Florida's Mineral Resources of Alachua County Map is included as **Figure 9**.

Flood Zones

A review of FEMA's Flood Insurance Rate Map indicates no floodplains are mapped within the project boundary (**Figure 10**).

CONCLUSIONS

Wetlands

Based on field observations and a review of FLUCCS classifications and the U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) online mapper, ECS confirmed the presence of a jurisdictional wetland feature present on the site.

The southeastern boundary of the site is mapped by the NWI as "Riverine" (**Figure 5**). ECS observed a forested wetland including a ditch that borders the southeastern boundary of the site. Please refer to **Figure 6** for the approximate wetland location observed by ECS at the time of this survey. ECS did not perform a jurisdictional flagging of the wetland feature observed on the site.

Species

Suitable gopher tortoise (*Gopherus polyphemus*) and Eastern indigo snake (*Drymarchon corais couperi*) habitat was observed on the site at the time of this survey; however, no gopher tortoise burrows were observed on the site.

No other threatened or endangered species or their habitats were encountered during the time of this survey.

Wood Stork Nesting Colonies and Core Foraging Areas

No potential wood stork habitat was observed on-site during the course of the field visit. The location generally falls within a Core Foraging Area (CFA). The USFWS typically issues project specific guidance during federal and state permitting. ECS can assist at the time of permit review should USFWS require additional information.

FWC Gopher Tortoise Permitting Guidance

The FWC may request additional measures be taken by an applicant during regulatory permit review of this property as a result of the presence of potentially occupied gopher tortoise burrows and suitable gopher tortoise habitat observed on the site at the time of this due diligence investigation.

- A permit is required for any site preparation activity conducted as a precursor to development that disturbs vegetation or the ground which impacts gopher tortoises or their burrows at the time of or as a result of development. To conduct these activities without a permit is a violation of Rule 68A27.003, F.A.C.
- On sites where tortoises are present and burrows (active or inactive) are present, most site preparation activities require a permit. These activities include building construction, bulldozing, paving, clearing, or grading.
- The FWC uses a multi-tiered approach to permitting actions involving gopher tortoises. These permits are divided into three main types: 1) Authorized Agent permits, which authorize persons to capture, transport, and release tortoises; 2) Site-specific relocation permits, which authorize capturing and relocation of tortoises either within the boundaries of the area being impacted (onsite) or from the area being impacted to a permitted recipient site (off-site); and 3) Recipient Site permits, which authorize the use of designated sites meeting specific criteria as recipient areas for tortoises.
- ECS recommends a 100% Gopher Tortoise Survey be conducted prior to construction.
- If gopher tortoises are present, ECS recommends a gopher tortoise relocation permit application be submitted no earlier than 90 days prior to construction as per the FWC and Rule 68A27.003, F.A.C. Upon your request, ECS can proceed with a proposal for incidental take and relocation mitigation activities.

Indigo Snake General Permitting Guidance

The FWC may request additional measures be taken by an applicant during regulatory permit review of this property as a result of the presence of suitable potential indigo snake habitat observed on the site at the time of this due diligence investigation. An eastern indigo snake protection/education plan (Plan) has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by

applicants and their construction personnel. At least 30 days prior to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented. As long as the signatory of the e-mail certifies compliance with the USFWS Plan no further written confirmation or "approval" from the USFWS is needed and the applicant may move forward with the project. ECS can provide this documentation support on your behalf for future permit applications.

Additional assessment of the site may be required by the appropriate regulatory agencies.

LIMITATIONS OF THIS REPORT

It is important to note that the conclusions of this report are necessarily based on the conditions observed on the day of the field investigation, as well as our scientific judgment of the site's potential to support wetlands or protected species (based on each species' optimal habitat requirements). Due to this "snapshot" view of the site, the results presented in this report may not accurately reflect changing site conditions and/or potential wetland or wildlife species' temporal and spatial locations.

This report is provided for the exclusive use of the listed client. This report is not intended to be used or relied upon in conjunction with other projects or by other unidentified third parties. The use of this report by any undesignated party will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

Appendix I: Figures

Alachua County, Florida

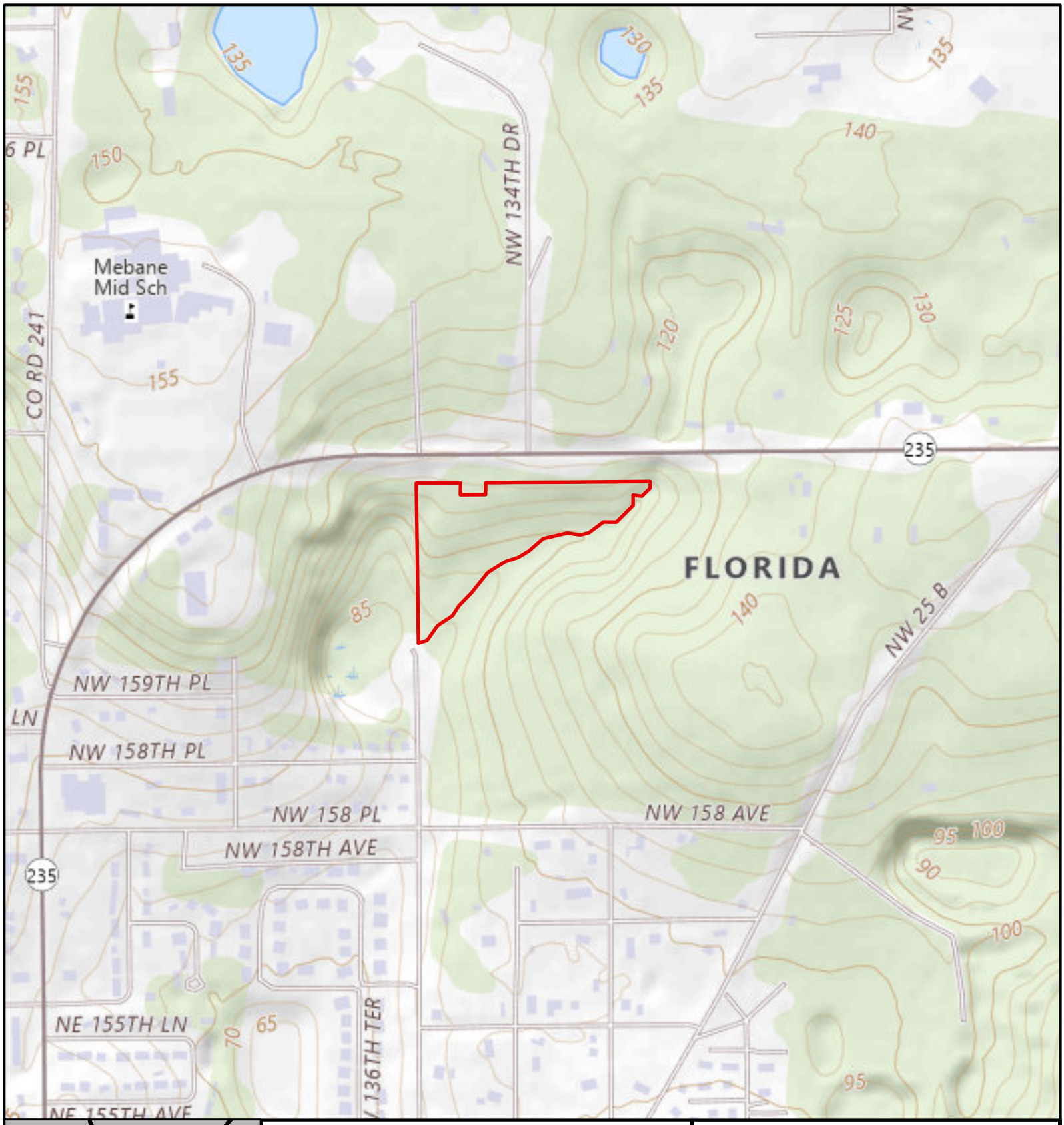
Figure 1: Aerial Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

0 50 100 200 Feet

Project Boundary

Created by: Nico Martinez
November 2024



Alachua County, Florida

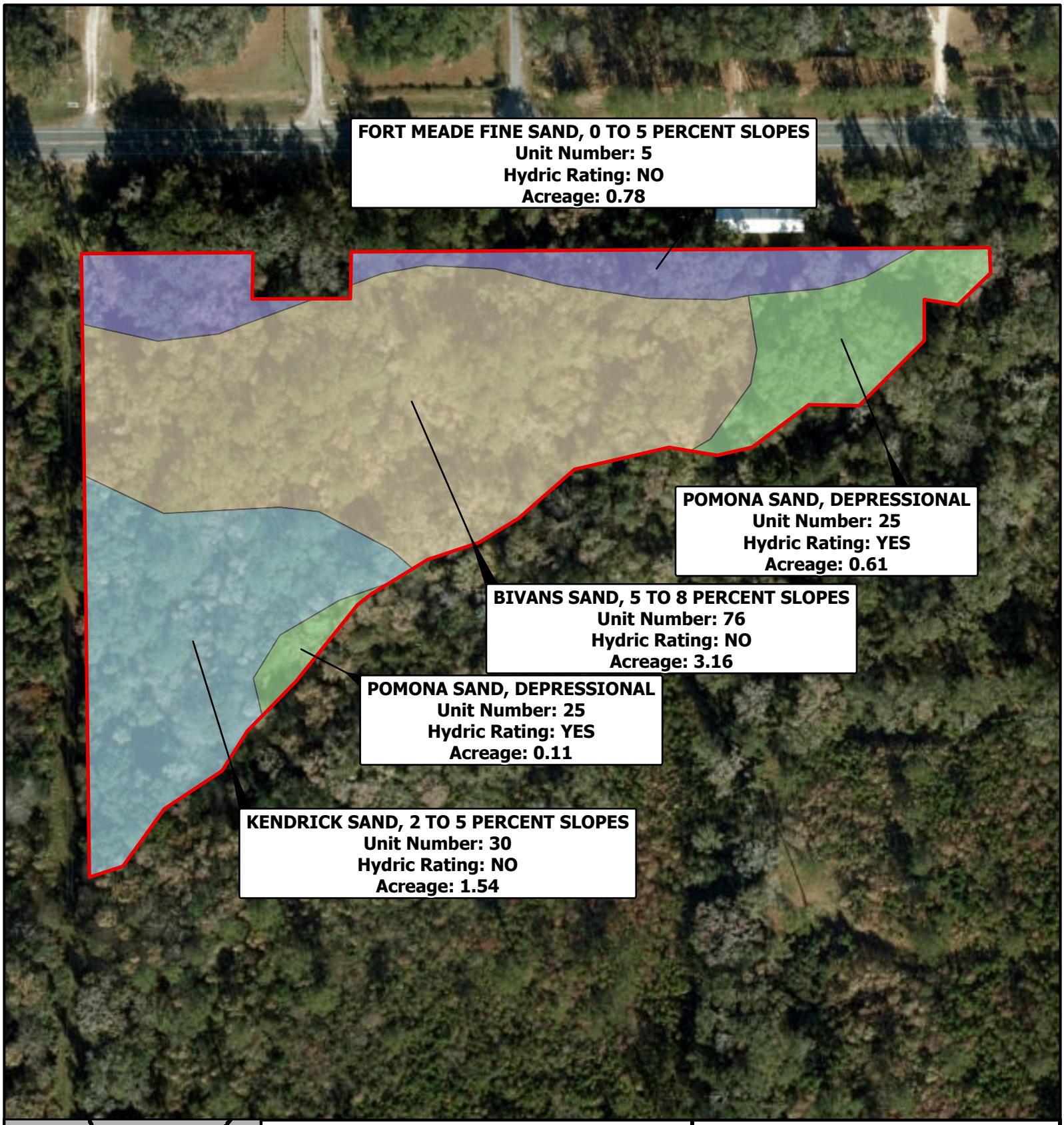
Figure 2: Topographic Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

0 200 400 800 Feet

Project Boundary

Created by: Nico Martinez
November 2024



Alachua County, Florida

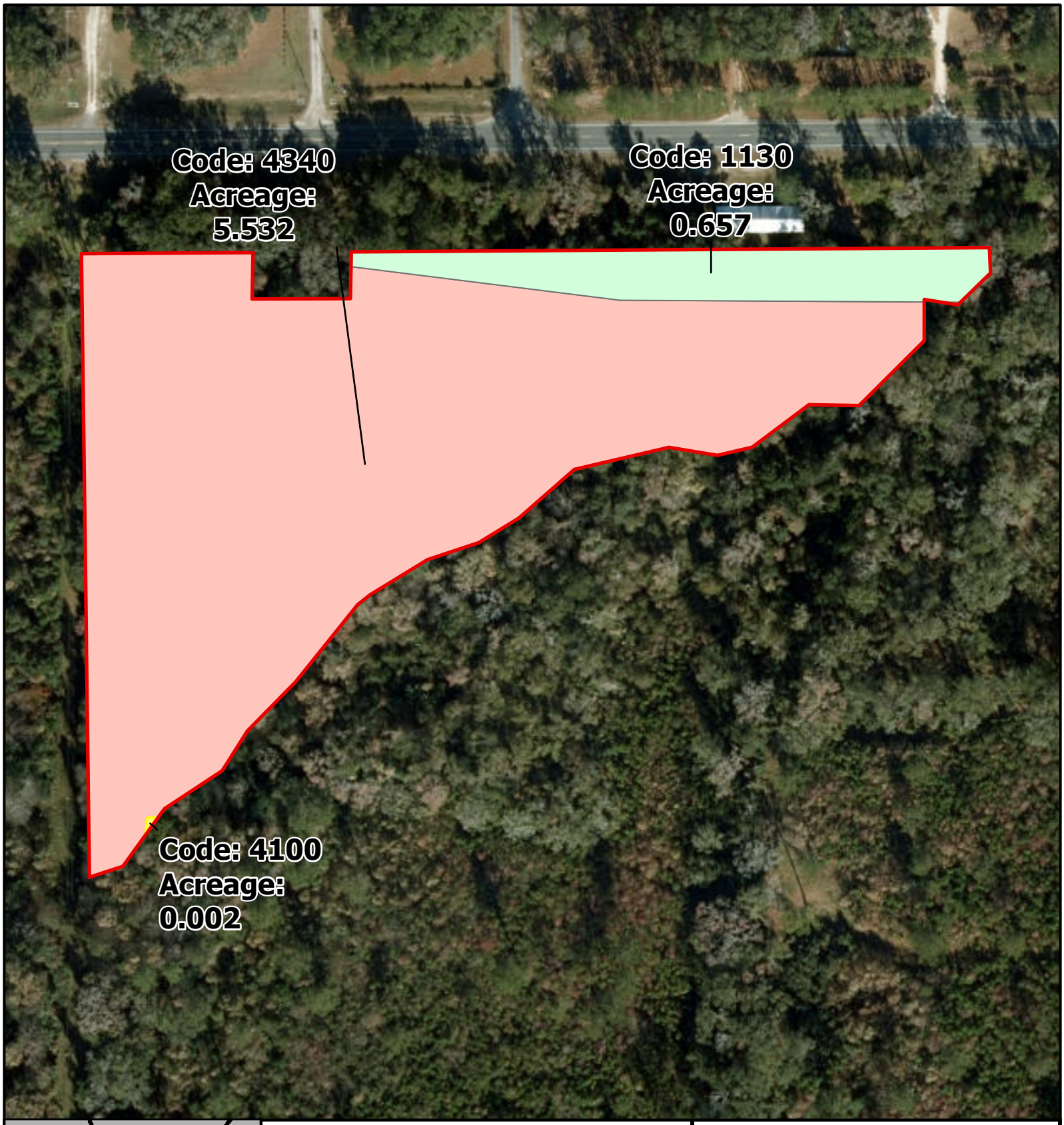
Figure 3: Soils Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

0 50 100 200 Feet

Project Boundary
Soils
Soil Type
BIVANS
FORT MEADE
KENDRICK
POMONA

Created by: Nico Martinez
November 2024



Alachua County, Florida

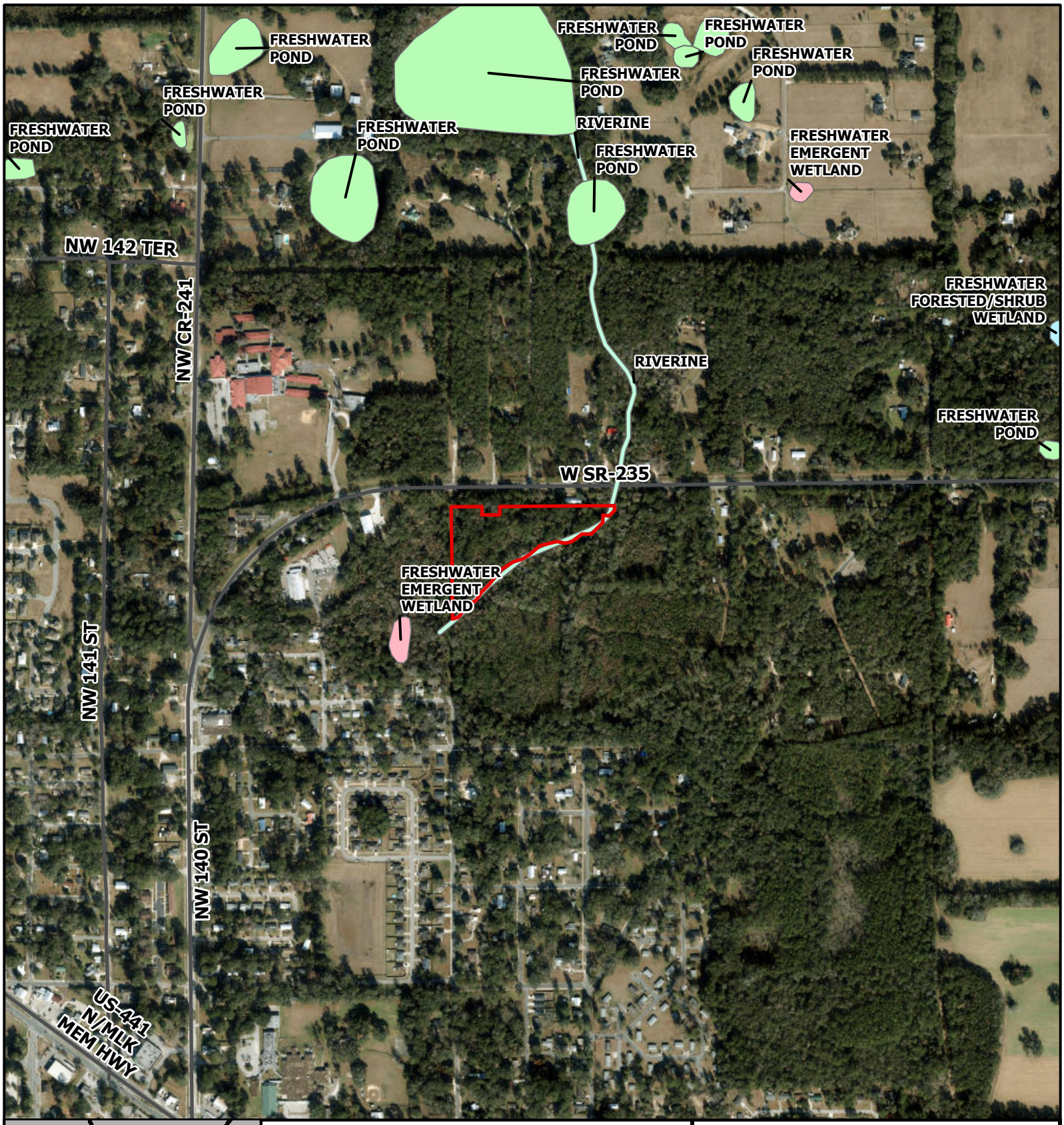
Figure 4: FLUCCS Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

Feet
0 50 100 200

Project Boundary
FLUCCS
Landuse Description
4340: Upland Mixed - Coniferous / Hardwood
1130: Low Density, Mixed Units (Fixed and Mobile Home Units)
4100: Upland Coniferous Forests

Created by: Nico Martinez
November 2024



Alachua County, Florida

Figure 5: NWI Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

0 300 600 1,200 Feet

Project Boundary
NWI
Wetland Type
FRESHWATER EMERGENT WETLAND
FRESHWATER FORESTED/SHRUB WETLAND
FRESHWATER POND
RIVERINE

ECS

Created by: Nico Martinez
November 2024

Alachua County, Florida

Figure 6: Wetland Approximation Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

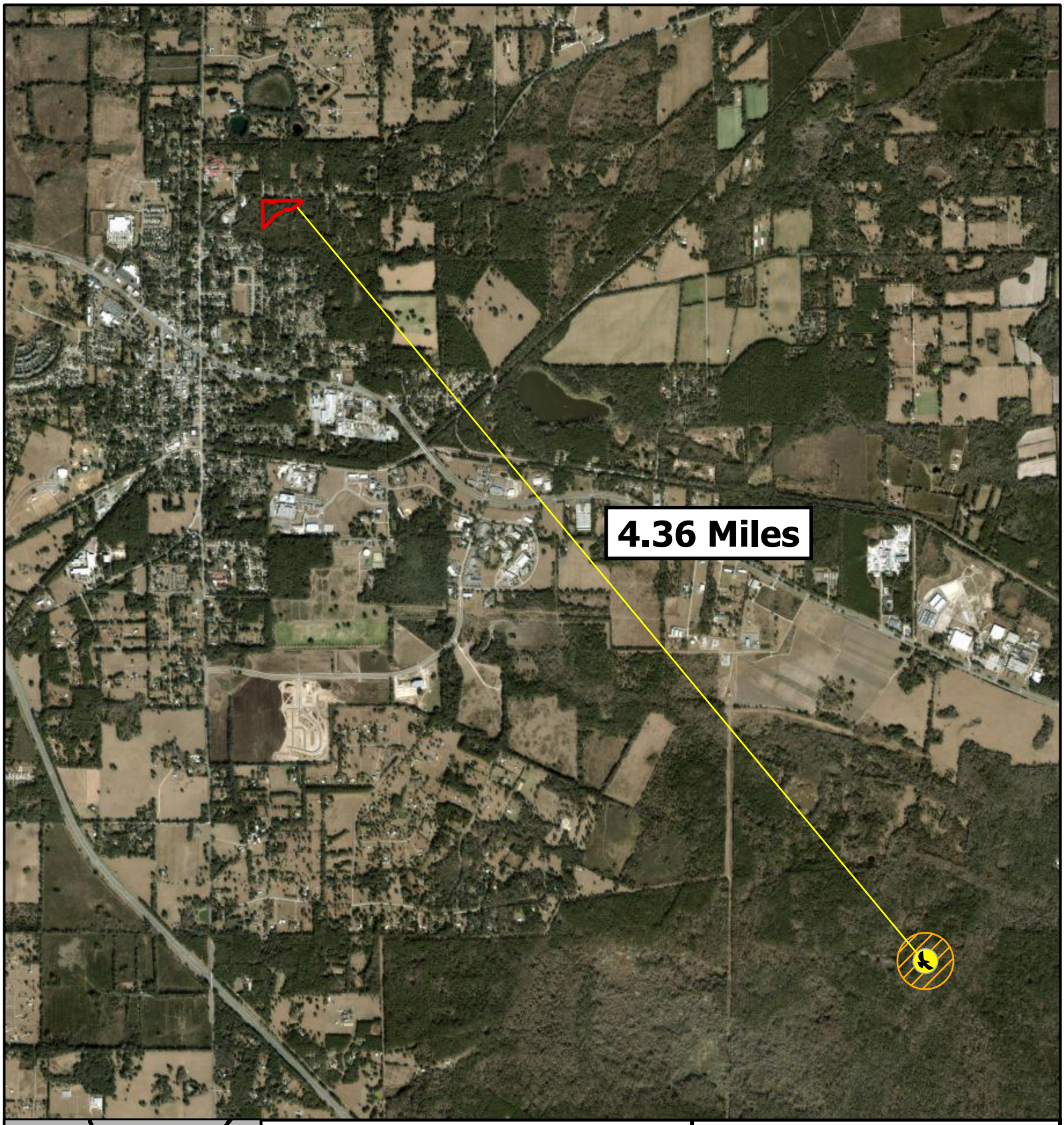
N
W E
S

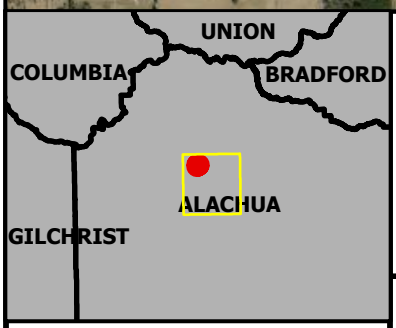
0 50 100 200 Feet

Project Boundary

Wetland

Created by: Nico Martinez
November 2024





Alachua County, Florida

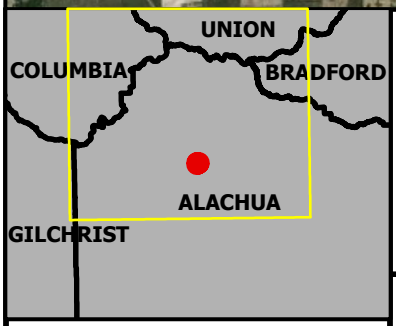
Figure 7A: Threatened & Endangered Species Map - Eagle
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

Created by: Nico Martinez
November 2024

N
W E
S

0 0.25 0.5 1 Miles

- Project Boundary
- Eagle Nesting
- Eagle Nesting Buffer (660ft)



Alachua County, Florida

Figure 7B: Threatened & Endangered Species Map - Wood Stork
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

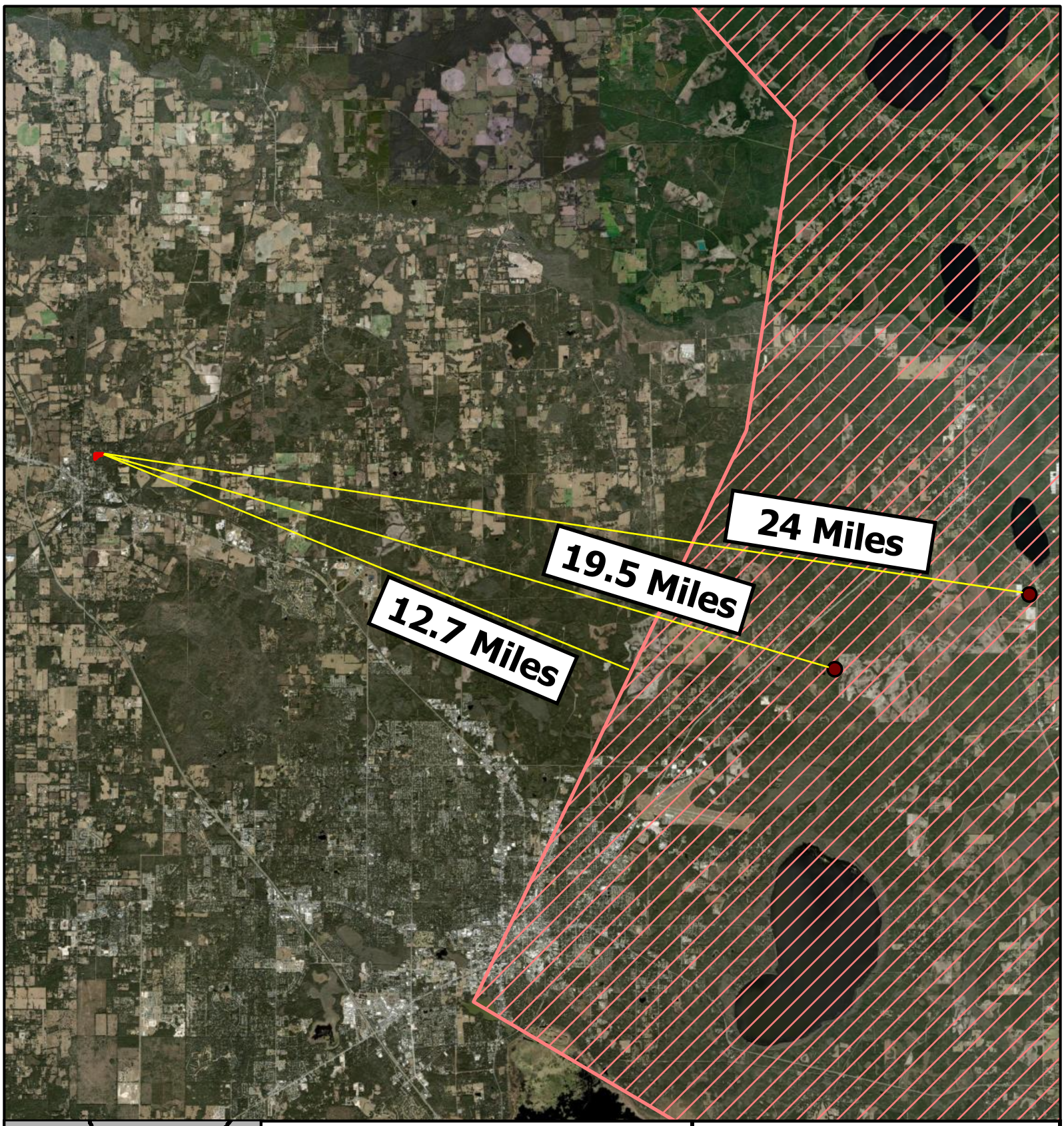
N
W E
S

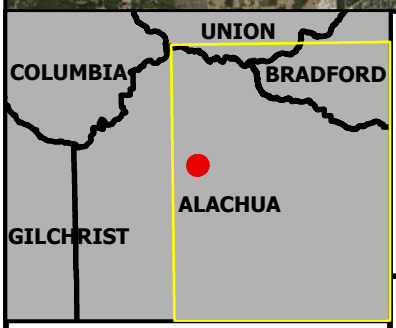
0 1 2 4 Miles

Project Boundary

Wood Stork Area

Created by: Nico Martinez
November 2024





Alachua County, Florida

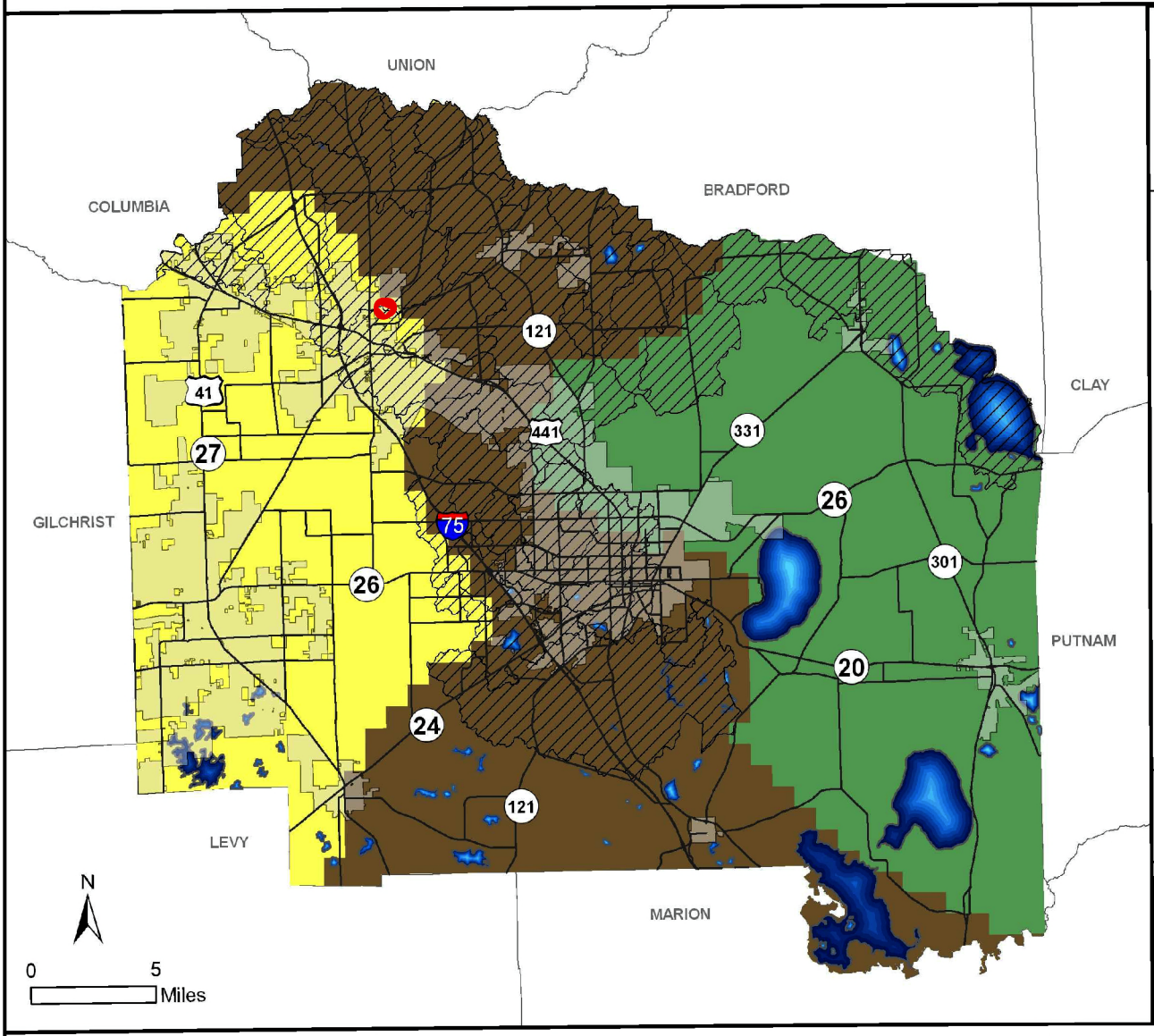
Figure 7C: Threatened & Endangered Species Map - Red-cockaded Woodpecker
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

0 1.25 2.5 5 Miles

- Project Boundary
- Red-cockaded Woodpecker Nesting
- Red-cockaded Woodpecker Area

Created by: Nico Martinez
November 2024



Alachua County Floridan Aquifer High Recharge Area

Legend

Generalized Vulnerability Rating

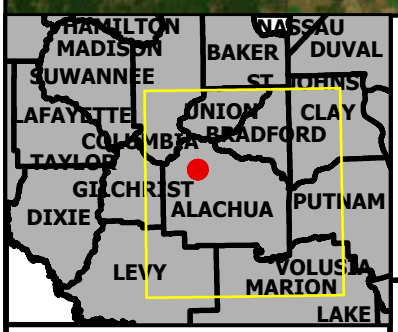
- Low Vulnerability
- Vulnerable
- High Vulnerability
- Stream-to-Sink Basins
- Municipalities
- Major Roads
- Lakes

High Aquifer Recharge Areas: Areas where stream-to-sink surface water basins occur and areas where the Floridan aquifer system is vulnerable or highly vulnerable

Source:
Basins Layer used to produce the Stream-to-Sink Basins Layer (FDEP, 1998)
Generalization of Alachua County (Floridan) Aquifer Vulnerability Assessment Results (Advanced Geospatial Inc., 2008)

Prepared At:
Alachua County
Environmental Protection Department
201 SE 2nd Avenue, Suite 201
Gainesville, FL 32601

DISCLAIMER: This map and the spatial data contains are made available as a public service to be used for reference purposes only. The Alachua County Environmental Protection Department provides this information AS IS without warranty of any kind, implied or expressed regarding accuracy, completeness, fitness of use. The quality of the data is dependent on the various sources from which each data layer is obtained. 3-27-2009



Alachua County, Florida

Figure 8: Aquifer Recharge Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

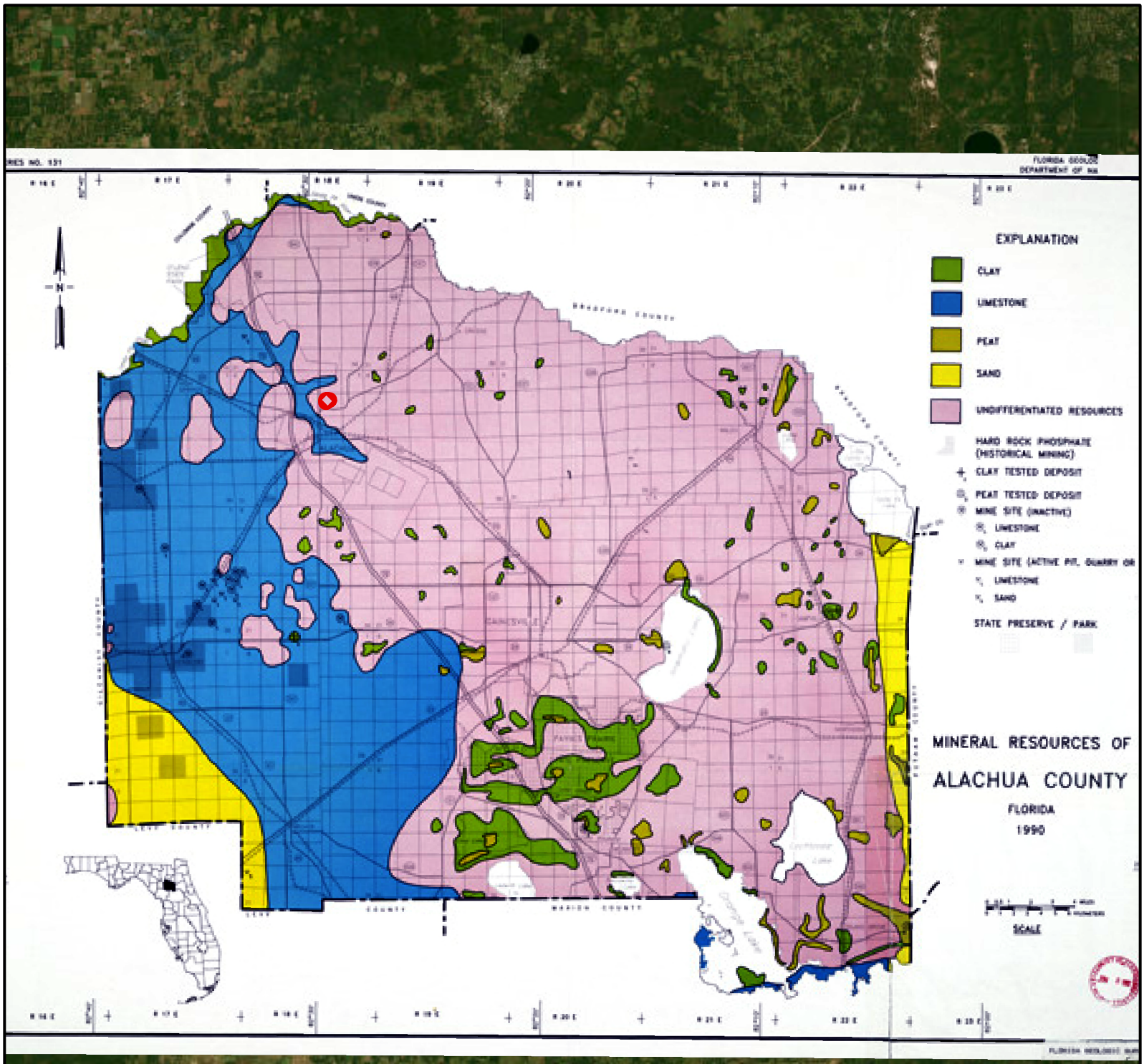
N
W E
S

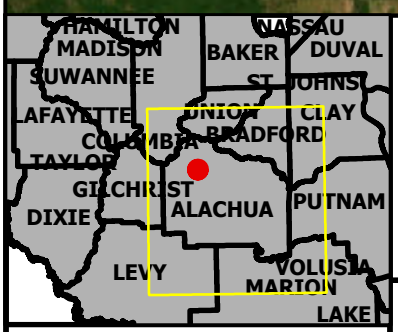
0 2.5 5 10 Miles

Project Boundary

ECS

Created by: Nico Martinez
November 2024





Alachua County, Florida

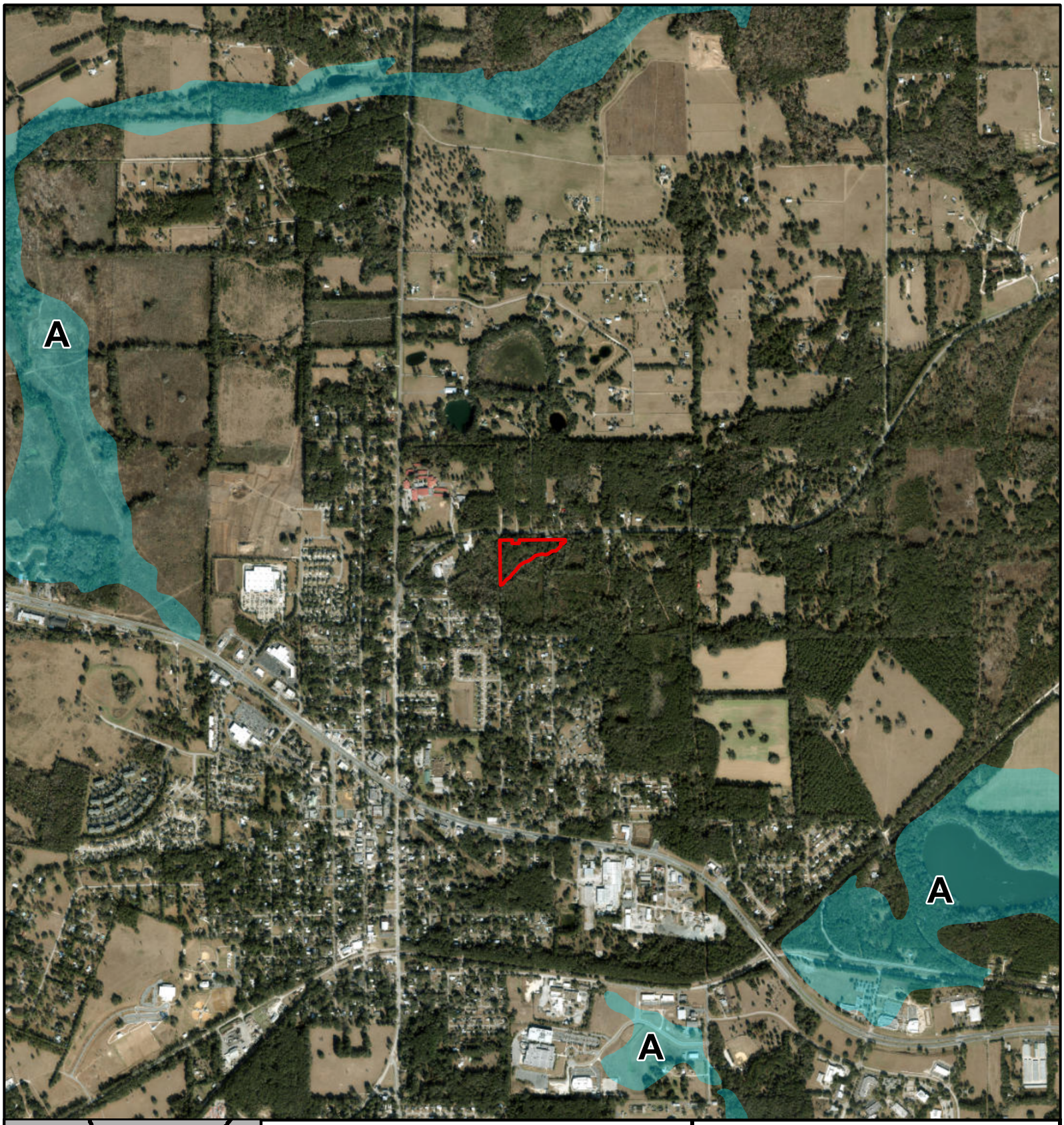
Figure 9: Mineral Resources Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

N
W E
S

0 2.5 5 10 Miles

Project Boundary

Created by: Nico Martinez
November 2024



Alachua County, Florida

Figure 10: FEMA Flood Hazard Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

Created by: Nico Martinez
November 2024

N
W E
S

0 500 1,000 2,000 3,000 Feet

Project Boundary

Project Boundary

Flood Hazard Zones

A

Alachua County, Florida

Figure 11: LiDAR Map
Tolosa North Alachua Habitat
SR-235 & 158th Place, Alachua, FL, 32615
Office 55: Project 7098-A

Created by: Nico Martinez
November 2024

N
W E
S

0 50 100 200 Feet

Project Boundary

LiDAR

Elevation (ft)

118.38
87.993

Appendix II: Site Photos

1 - Representative upland community

2 - Representative upland community

3 - Ditch within wetland facing upstream

4 - View of wetland facing southeast

5 - View of wetland facing south

6 - Representative upland community

7 - Representative live oak

8 - Representative small mammal burrow

Appendix III: A List of Threatened and Endangered Species

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Alachua County, Florida

Local office

Florida Ecological Services Field Office

(352) 448-9151
(772) 562-4288
fw4flesregs@fws.gov

777 37th St
Suite D-101
Vero Beach, FL 32960-3559

https://www.fws.gov/office/florida-ecological-services

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

NOT FOR CONSULTATION

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Everglade Snail Kite Rostrhamus sociabilis plumbeus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7713	Endangered
Whooping Crane Grus americana No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Reptiles

NAME	STATUS
Eastern Indigo Snake Drymarchon couperi Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/646	Threatened

Clams

NAME	STATUS

NOT FOR CONSULTATION

Oval Pigtoe Pleurobema pyriforme Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4132	Endangered
Suwannee Moccasinshell Medionidus walkeri Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/533	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

NOT FOR CONSULTATION

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

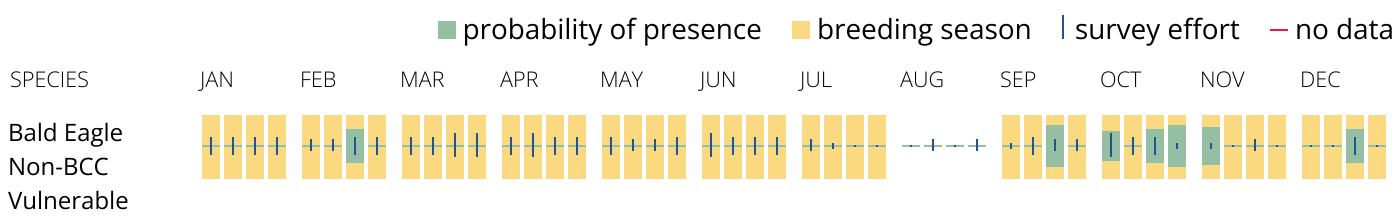
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

NOT FOR CONSULTATION

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

NOT FOR CONSULTATION

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NOT FOR CONSULTATION

NAME	BREEDING SEASON
American Kestrel Falco sparverius paulus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15

Chimney Swift Chaetura pelagica — Breeds Mar 15 to Aug 25
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Great Blue Heron Ardea herodias occidentalis — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Henslow's Sparrow Centronyx henslowii — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3941

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Magnificent Frigatebird Fregata magnificens — Breeds Oct 1 to Apr 30
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Painted Bunting Passerina ciris — Breeds Apr 25 to Aug 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Prairie Warbler Setophaga discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Semipalmated Sandpiper Calidris pusilla — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Swallow-tailed Kite Elanoides forficatus — Breeds Mar 10 to Jun 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8938

NOT FOR CONSULTATION

Worthington's Marsh Wren *Cistothorus palustris griseus* Breeds Apr 10 to Aug 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

NOT FOR CONSULTATION

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

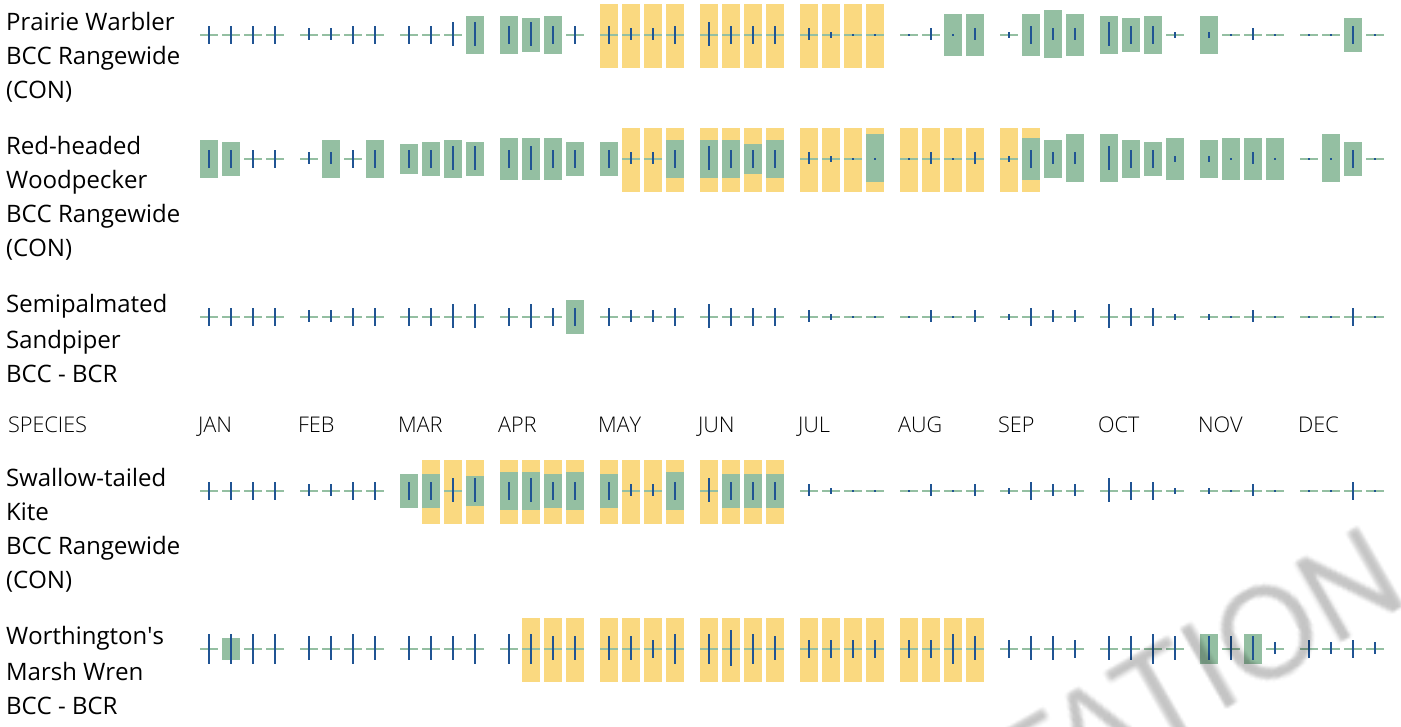
No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

NOT FOR CONSULTATION



NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

NOT FOR CONSULTATION

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

NOT FOR CONSULTATION

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

NOT FOR CONSULTATION

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and

nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
850-681-9364 fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Query Results

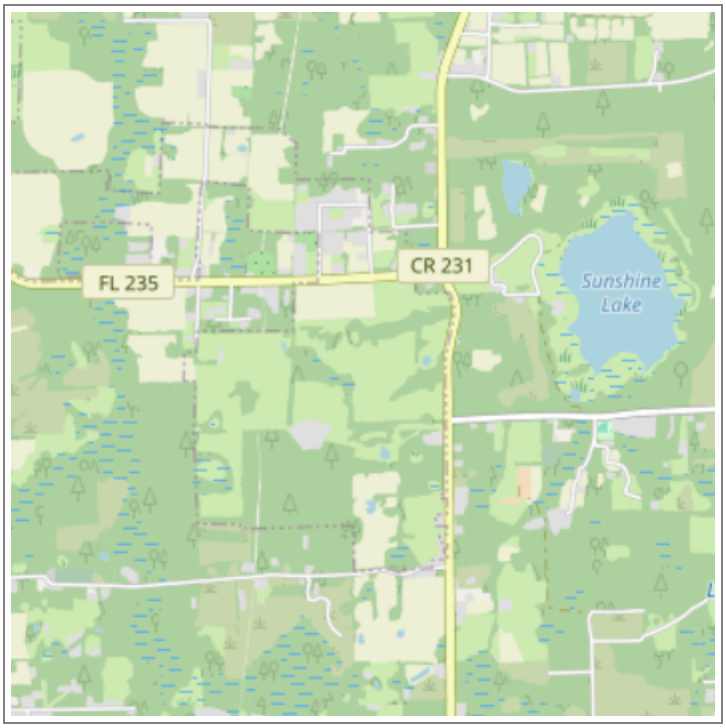
UNOFFICIAL REPORT

Created 11/19/2024

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 2 Matrix Units: 26993 , 26994



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 26993

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

3 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi Eastern Indigo Snake	G3	S2?	T	FT
Mycteria americana Wood Stork	G4	S2	T	FT
Upland hardwood forest	G5	S3	N	N

Matrix Unit ID: 26994

0 **Documented** Elements Found

0 **Documented-Historic** Elements Found

3 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Drymarchon couperi Eastern Indigo Snake	G3	S2?	T	FT
Mycteria americana Wood Stork	G4	S2	T	FT
Upland hardwood forest	G5	S3	N	N

Matrix Unit IDs: 26993 , 26994

28 **Potential** Elements Common to Any of the 2 Matrix Units

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Agrimonia incisa incised groove-bur	G3	S2	N	T
Ambystoma cingulatum Frosted Flatwoods Salamander	G2	S1	T	FT
Antigone canadensis pratensis Florida Sandhill Crane	G5T2	S2	N	ST
Asplenium x curtissii Curtiss' spleenwort	GNA	S1	N	N
Asplenium x heteroresiliens Morzenti's spleenwort	G2	S1	N	N
Asplenium x plenum ruffled spleenwort	G1Q	S1	N	N
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	ST
Brickellia cordifolia Flyr's brickell-bush	G3	S2	N	E
Calopogon multiflorus many-flowered grass-pink	G2G3	S2S3	N	T
Calydorea coelestina Bartram's ixia	G2G3	S2S3	N	E
Crotalus horridus Timber Rattlesnake	G4	S3	N	N
Ctenium floridanum Florida toothache grass	G2	S2	N	E
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST
Hartwrightia floridana hartwrightia	G2	S2	N	T
Heterodon simus Southern Hognose Snake	G2	S2S3	N	N
Lampropeltis extenuata Short-tailed Snake	G3	S3	N	ST
Lithobates capito Gopher Frog	G2G3	S3	N	N
Litsea aestivalis pondspice	G3?	S2	N	E
Matelea floridana Florida spiny-pod	G2	S2	N	E
Myotis austroriparius Southeastern Myotis	G4	S3	N	N
Neofiber alleni Round-tailed Muskrat	G2	S2	N	N
Notophthalmus perstriatus Striped Newt	G2G3	S2	N	C
Peucaea aestivalis Bachman's Sparrow	G3	S3	N	N

Pycnanthemum floridanum Florida mountain-mint	G3	S3	N	T
Sciurus niger niger Southeastern Fox Squirrel	G5T5	S3	N	N
Sideroxylon alachuense silver buckthorn	G1	S1	N	E
Ursus americanus floridanus Florida Black Bear	G5T4	S4	N	N
Verbesina heterophylla variable-leaf crownbeard	G2	S2	N	E

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

Appendix IV: Alachua County Checklist

Alachua County, Board of County Commissioners
Department of Growth Management
10 SW 2nd Ave., Gainesville, Fl 32601
Tel. 352.374.5249, Fax. 352.338.3224
http://growth-management.alachuacounty.us

Submit to:
Development Services Division

ENVIRONMENTAL RESOURCES ASSESSMENT CHECKLIST

Pursuant to Alachua County Comprehensive Plan 2002, as amended, Conservation Open Space Element Policy 3.4.1, applications for land use change, zoning change, and development approval shall be required to submit an inventory of natural resource information. The inventory shall include site specific identification, analysis and mapping of each resource present on or adjacent to the site. The identification and analysis shall indicate information sources consulted.

Natural Resources Checklist:

Check "Yes" for each resource or resource characteristic identified and discuss and provide supporting material.
Check "N/A" for each resource or resource characteristic not present or otherwise relevant to the application.

Yes	☑	N/A	☐	Surface Waters (ponds, lakes, streams, springs, etc.)
Yes	☑	N/A	☐	Wetlands
Yes	☑	N/A	☐	Surface Water or Wetland Buffers
Yes	☐	N/A	☑	Floodplains (100-year)
Yes	☐	N/A	☑	Special Area Study Resource Protection Areas (Cross Creek, Idylwild/Serenola, etc)
Yes	☐	N/A	☑	Strategic Ecosystems (within or adjacent to mapped areas)
Yes	☐	N/A	☑	Significant Habitat (biologically diverse natural areas)
Yes	☑	N/A	☐	Listed Species/Listed Species Habitats (FNAI S1, S2, & S3; State or Federally E, T, SSC)
Yes	☐	N/A	☑	Recreation/Conservation/Preservation Lands
Yes	☐	N/A	☑	Significant Geological Features (caves, springs, sinkholes, etc.)
Yes	☑	N/A	☐	High Aquifer Recharge Areas
Yes	☐	N/A	☑	Wellfield Protection Areas
Yes	☐	N/A	☑	Wells
Yes	☑	N/A	☐	Soils
Yes	☑	N/A	☐	Mineral Resource Areas
Yes	☐	N/A	☑	Topography/Steep Slopes
Yes	☐	N/A	☑	Historical and Paleontological Resources
Yes	☐	N/A	☑	Hazardous Materials Storage Facilities
Yes	☐	N/A	☑	Contamination (soil, surface water, ground water)

SIGNED: Christina Carr **PROJECT #**ECS7098-A **DATE:**11/26/2024

For assistance please visit the Alachua County Environmental Protection Department (ACEPD) website at http://www.alachuacounty.us/government/depts/epd/natural/devchecklist.aspx or contact ACEPD at (352) 264-6800. (version 5/20/05)

October 24, 2025

David Weiss
Alachua Habitat for Humanity
2610 NW 43rd ST.
Suite 2B
Gainesville, FL 32606

SUBJECT: Permit Number ERP-001-251360-1
Tolosa North Phase 1 and 2

Dear David Weiss:

Enclosed is your permit issued by the Suwannee River Water Management District on October 24, 2025. This permit is a legal document and should be kept with your other important documents. Permit issuance does not relieve you from the responsibility of obtaining any necessary permits from any federal, state, or local agencies for your project.

Noticing Your Permit:
For noticing instructions, please refer to the noticing materials in this package regarding closing the point of entry for someone to challenge the issuance of your permit. Please note that if a timely petition for administrative hearing is filed, your permit will become non-final and any activities that you choose to undertake pursuant to your permit will be at your own risk.

Compliance with Permit Conditions:
To submit your required permit compliance information, go to the District's website at https://permitting.sjrwmd.com/srepermitting/jsp/start.jsp. Click to sign-in to your existing account or to create a new account. Select the "Apply/Submit" tab, select "Submit Compliance Data", enter your permit number, and select "No Specific Date" for the Compliance Due Date Range. You will then be able to view all the compliance submittal requirements for your project. Select "the compliance item that you are ready to submit and then attach the appropriate information or form. The forms to comply with your permit conditions are available at floridaswater.com/permitting under the section "Handbooks, forms, fees, final orders". Click on forms to view all permit compliance forms, then scroll to the ERP application forms section and select the applicable compliance forms. Alternatively, if you have difficulty finding forms or need copies of the appropriate forms, please contact the Resource Management Division at (386) 362-1001.

Compliance with Other Permitting Programs:
This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any construction, alteration, operation, maintenance, removal or abandonment authorized by this permit.

The Suwannee River Water Management District did not issue a National Pollutant Discharge Elimination System (NPDES) permit for this project. If this project meets the thresholds such that a NPDES permit is required, you must apply to the Florida Department of Environmental

Protection directly. More information about NPDES permits may be found online at https://floridadep.gov/water/stormwater. **Failure to obtain a NPDES permit prior to construction could subject you to enforcement action by that agency.**

Transferring Your Permit:

Your permit requires you to notify the District in writing within 30 days of any change in ownership or control of the project or activity covered by the permit, or within 30 days of any change in ownership or control of the real property on which the permitted project or activity is located or occurs. You will need to provide the District with the information specified in rule 62-330.340, Florida Administrative Code (F.A.C.). Generally, this will require you to complete and submit Form 62-330.340(1), "Request to Transfer Permit".

Please note that a permittee is liable for compliance with the permit before the permit is transferred. The District, therefore, recommends that you request a permit transfer in advance in accordance with the applicable rules. You are encouraged to contact District staff for assistance with this process.

Thank you and please let us know if you have additional questions. For general questions contact us at (386) 362-1001.

Sincerely,

Timothy W Alexander

_____

Tim Alexander
Deputy Executive Director

Enclosures: Permit

cc: District Permit File

ERP Individual Permit

PERMITTEE:
David Weiss
Alachua Habitat for Humanity
2610 NW 43rd ST.
Suite 2B
Gainesville, FL 32606

PERMIT NUMBER: ERP-001-251360-1
DATE ISSUED: October 24, 2025
DATE EXPIRES: October 24, 2030
COUNTY: Alachua
TRS: S11 T8S R18E

PROJECT: Tolosa North Phase 1 and 2

Upon completion, the approved entity to which operation and maintenance maybe transferred pursuant to rule 62-330.310 and 62-330.340 or 40B-4.1130, Florida Administrative Code (F.A.C) shall be:

David Weiss
Alachua Habitat for Humanity
2610 NW 43rd ST.
Suite 2B
Gainesville, FL 32606

Based on the information provided to the Suwannee River Water Management District (District), the subject proposed project has met the conditions of issuance as found in subsection 62-330.301, subsections 62-330.407 through 62-330.635, or subsection 40B-4.3030, F.A.C. The permit is hereby in effect for the activity description below:

This permit authorizes the construction of 2.19 acres of impervious surfaces on a total project area of 2.7 acres and the construction, operation, and maintenance of a stormwater management system serving a total of 2.19 acres of impervious surface area. The project shall be constructed in a manner consistent with the application package, plans, and calculations certified by Jack Charnas, P.E. of JBPro on or before October 13, 2025.

This permit also constitutes a grant of water quality certification under Section 401 of the Clean Water, 33 U.S.C. Section 1341. Pursuant to Rule 62-330.062, F.A.C. Issuance of the individual or conceptual approval permit under this chapter shall constitute certification of compliance with water quality standards.

As the permittee and/or operation and maintenance entity, it is your responsibility to ensure that adverse off-site impacts do not occur either during or after the construction. Any additional construction or alterations not authorized by this permit may result in flood control or water quality problems both on and off site and will be a violation of District rule.

You and any other substantially affected persons are entitled to request an administrative hearing or mediation. Please refer to the enclosed notice of rights.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in paragraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:

    1. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

    2. For all other activities — "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].

    3. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:

    1. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

    2. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:

    1. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in chapter 62-330, F.A.C.;

    2. Convey to the permittee or create in the permittee any interest in real property;

3. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

4. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the District in writing:

    1. Immediately if any previously submitted information is discovered to be inaccurate; and

    2. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with section 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

19. This permit does not authorize the permittee to cause any adverse impact to or "take" of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of "take" and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a "take" permit cannot be issued. Requests for further information or review can be sent to FWCConservationPlanningServices@MyFWC.com.

20. The permittee shall operate and maintain the stormwater management system until those responsibilities are transferred to an approved homeowner's association by a transfer of the permit authorized by the District.

21. The Permittee shall submit documentation to the District demonstrating that the Articles of Incorporation have been filed with the Secretary of State, and that the corporation is in good standing, prior to any request to transfer this permit to a homeowner's association.

22. The Permittee shall submit documentation to the District demonstrating that all stormwater management systems are located on common areas owned or controlled by a homeowner's association prior to any request to transfer this permit to the HOA.

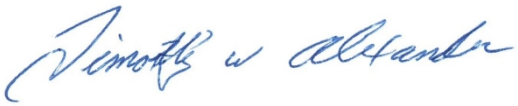
23. The permittee shall record Declarations of Covenants and Restrictions restricting clearing, dredging, or filling within designated conservation areas as set forth in the approved mitigation plan prior to the sale of any lot or parcel.

24. The permittee shall submit documentation to the District demonstrating the homeowner's association has been in operation over twenty-four consecutive months by providing copies of all meeting minutes, copies of all operation and maintenance expenses incurred, and documentation showing that all levied assessments have been collected, and other documentation deemed necessary by the District to establish that the homeowner's association has the ability to accept responsibility for the operation and maintenance of the system.

25. The permittee shall include the finished floor elevations for the lots and any wetland delineation lines on the final subdivision plat and shall submit a copy of the final, approved plat to the District following recordation.

WITHIN 30 DAYS AFTER COMPLETION OF THE PROJECT, THE PERMITTEE SHALL NOTIFY THE DISTRICT, IN WRITING, THAT THE FACILITIES ARE COMPLETE.

AUTHORIZED BY: Suwannee River Water Management District

By: 

_____

Tim Alexander
Deputy Executive Director

NOTICE OF RIGHTS

1. A person whose substantial interests are or may be determined has the right to request an administrative hearing by filing a written petition with the Suwannee River Water Management District (District), or may choose to pursue mediation as an alternative remedy under Section 120.569 and 120.573, Florida Statutes, (F.S.), before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth in Sections 120.569 and 120.57 F.S. Pursuant to Rule 28-106.111, Florida Administrative Code, (F.A.C.), the petition must be filed at the office of the District Clerk at District Headquarters, 9225 C.R. 49, Live Oak, Florida 32060 within twenty-one (21) days of receipt of written notice of the decision or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). A petition must comply with Chapter 28-106, F.A.C.

2. If the Governing Board takes action which substantially differs from the notice of District decision to grant or deny the pe1mit application, a person whose substantial interests are or may be determined has the right to request an administrative hearing or may choose to pursue mediation as an alternative remedy as described above. Pursuant to Rule 28-106.111, F.A.C., the petition must be filed at the office of the District Clerk at District Headquarters, 9225 C.R. 49, Live Oak, Florida 32060 within twenty-one (21) days of receipt of written notice of the decision or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). Such a petition must comply with Chapter 28-106, F.A.C.

3. A substantially interested person has the right to a formal administrative hearing pursuant to Section 120.569 and 120.57(1), F.S., where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal hearing must comply with the requirements set forth in Rule 28-106.201, F.A.C.

4. A substantially interested person has the right to an informal hearing pursuant to Section 120.569 and 120.57(2), F.S., where no material facts are in dispute. A petition for an informal hearing must comply with the requirements set forth in Rule 28-106.301, F.A.C.

5. A petition for an administrative hearing is deemed filed upon receipt of the petition by the Office of the District Clerk at the District Headquarters in Live Oak, Florida.

6. Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing pursuant to Rule 28-106.111, F.A.C.

7. The right to an administrative hearing and the relevant procedures to be followed is governed by Chapter 120, Florida Statutes, and Chapter 28-106, F.A.C.

8. Pursuant to Section 120.68, F.S., a person who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to the Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

9. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 3 73, F. S., may seek review of the order pursuant to Section 373.114, F.S., by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy of the Department of Environmental Protection and any person named in the order within 20 days of adoption of a rule or the rendering of the District order.

10. For appeals to the District Courts of Appeal, a District action is considered rendered after it is signed on behalf of the District, and is filed by the District Clerk.

11. Failure to observe the relevant time frames for filing a petition for judicial review, or for Commission review, will result in waiver of the right to review.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Notice of Rights has been sent to:

David Weiss
Alachua Habitat for Humanity
2610 NW 43rd ST.
Suite 2B
Gainesville, FL 32606
(239) 404-1221

This October 24, 2025

_____
Deputy Clerk
Suwannee River Water Management District
9225 C.R. 49
Live Oak, Florida 32060
386.362.1001 or 800.226.1066 (Florida only)

cc: File Number: ERP-001-251360-1

NOTICING INFORMATION
Dear Permittee:

Please be advised that the Suwannee River Water Management District (District) has not published a notice in the newspaper advising the public that it has issued a permit for this project.

Newspaper publication, using the District's form, notifies members of the public of their right to challenge the issuance of the permit. If proper notice is given by newspaper publication, then there is a 21-day time limit to file a petition challenging the issuance of the permit.

To close the point of entry for filing a petition, you may publish (at your own expense) a onetime notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice, the time to challenge the issuance of your permit will not expire.

A copy of the notice and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit as proof of publication. In accordance with 40B-1.1010(4), F.A.C., a copy of the affidavit shall be provided to the District within 14 days of publication. A scanned copy of the affidavit may be forwarded to Tilda Musgrove by email at *tjm@srwmd.org* (preferred method) or send the original affidavit of publication to:

Tilda Musgrove
Resource Management
9225 CR 49
Live Oak, FL 32060
If you have any questions, please contact me at 386.362.1001.
Sincerely,

Tilda Musgrove

Tilda Musgrove
Business Resource Specialist
Resource Management

NOTICE OF AGENCY ACTION TAKEN BY THE
SUWANNEE RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following permit was issued on _____:
(Name and address of applicant)_____
permit#_____. The project is located in _____County, Section _____, Township _____ South, Range _____ East. The permit authorizes a surface water management system on _____ acres for _____ known as _____. The receiving water body is _____.
A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the Suwannee River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40BB-1.1010, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the Resource Management Business Resource Specialist at District Headquarters, 9225 CR 49, Live Oak FL 32060 or by e-mail to tjm@srwmd.org, within twenty-one (21) days of newspaper publication of the notice of intended District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., is not available.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Live Oak, FL during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the next regular District business day.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40B-1.1010, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, you may request the Notice of Rights for this permit by contacting the Business Resource Specialist in the Division of Resource Management (RM), 9225 CR 49, Live Oak,, FL 32060, or by phone at 386.362.1001.

NEWSPAPER ADVERTISING

ALACHUA
Gainesville Sun Legal Advertising
PO Box 14747
Gainesville, FL 32614
352.372.4222

BRADFORD
Bradford County Telegraph, Legal Advertising
P. O. Drawer A
Starke, FL 32901
904-964-6305/ fax 904-964-8628

COLUMBIA
Lake City Reporter
180 E Duval Street
Lake City, FL 32055
386.754.0401

DIXIE
Dixie County Advocate
174 County Road 351
Cross City, FL 32628
352.498.3312

GILCHRIST
Levy County Citizen
17 NE 3rd Street
Chiefland, FL 32626
352.493.4796

HAMILTON
Madison Carrier
PO Drawer 772
Madison, FL 32344
850.973.4141

JEFFERSON
Monticello News
PO Drawer 772
Madison, FL 32344
850.997.3568

LAFAYETTE
Dixie County Advocate
174 County Road 351
Cross City, FL 32628
352.498.3312

LEVY
Levy County Citizen
17 NE 3rd Street
Chiefland, FL 32626
352.493.4796

MADISON
Madison Carrier
PO Drawer 772
Madison, FL 32344
850.973.4141

SUWANNEE
Lake City Reporter
180 E Duval Street
Lake City, FL 32055
386.754.0401

TAYLOR
Taco Times
PO Box 888
Perry, FL 32348
850.584.5513

UNION
Union County Times
125 E Main Street
Lake Butler, FL 32054
386.496.2261

DRIVEWAY CONNECTION PERMIT FOR ALL CATEGORIES

PART 1: PERMIT INFORMATION

APPLICATION NUMBER: 2025-A-291-00023

Permit Category: B - 21 to 600 VTPD Access Classification: _____

Project: Alachua Habitat for Humanity- Tolosa North

Permittee: David Weiss

Section/Mile Post: / State Road: _____

Section/Mile Post: / State Road: _____

PART 2: PERMITTEE INFORMATION

Permittee Name: David Weiss

Permittee Mailing Address: 2610 NW 43rd St., Suite 2B

City, State, Zip: Gainesville, Florida 32606

Telephone: (239) 404-1221 ext. _____

Engineer/Consultant/or Project Manager: _____

Engineer responsible for construction inspection: _____ _____
NAME P.E. #

Mailing Address: _____

City, State, Zip: _____

Telephone: _____ FAX, Mobile Phone, etc. Fax: / Mobile:

PART 3: PERMIT APPROVAL

The above application has been reviewed and is hereby approved subject to all Provisions as attached.

Permit Number: 2025-A-291-00023
Department of Transportation

Signature: Randall Woodard Title: PERMITS COORDINATOR II

Department Representative's Printed Name Randall Woodard

Temporary Permit ☐ YES ☑ NO (If temporary, this permit is only valid for 6 months)

Special provisions attached ☐ YES ☑ NO

Date of Issuance: 5/30/2025

If this is a normal (non-temporary) permit it authorizes construction for one year from the date of issuance. This can only be extended by the Department as specified in 14-96.007(6).

Approved
2025-A-291-00023
Randall Woodard
5/30/2025

See following pages for General and Special Provisions

PART 4: GENERAL PROVISIONS

1. Notify the Department of Transportation Maintenance Office at least 48 hours in advance of starting proposed work.
   Phone: 3523814342 , Attention: Randall Woodard
2. A copy of the approved permit must be displayed in a prominent location in the immediate vicinity of the connection construction.
3. Comply with Rule 14-96.008(1), F.A.C., Disruption of Traffic.
4. Comply with Rule 14-96.008(7), F.A.C., on Utility Notification Requirements.
5. All work performed in the Department's right of way shall be done in accordance with the most current Department standards, specifications and the permit provisions.
6. The permittee shall not commence use of the connection prior to a final inspection and acceptance by the Department.
7. Comply with Rule 14-96.003(3)(a), F.A.C., Cost of Construction.
8. If a Significant Change of the permittee's land use, as defined in Section 335.182, Florida Statutes, occurs, the Permittee must contact the Department.
9. Medians may be added and median openings may be changed by the Department as part of a Construction Project or Safety Project. The provision for a median might change the operation of the connection to be for right turns only.
10. All conditions in NOTICE OF INTENT WILL APPLY unless specifically changed by the Department.
11. All approved connection(s) and turning movements are subject to the Department's continuing authority to modify such connection(s) or turning movements in order to protect safety and traffic operations on the state highway or State Highway System.
12. **Transportation Control Features and Devices in the State Right of Way.** Transportation control features and devices in the Department's right of way, including, but not limited to, traffic signals, medians, median openings, or any other transportation control features or devices in the state right of way, are operational and safety characteristics of the State Highway and are not means of access. The Department may install, remove or modify any present or future transportation control feature or device in the state right of way to make changes to promote safety in the right of way or efficient traffic operations on the highway.
13. The Permittee for him/herself, his/her heirs, his/her assigns and successors in interest, binds and is bound and obligated to save and hold the State of Florida, and the Department, its agents and employees harmless from any and all damages, claims, expense, or injuries arising out of any act, neglect, or omission by the applicant, his/her heirs, assigns and successors in interest that may occur by reason of this facility design, construction, maintenance, or continuing existence of the connection facility,except that the applicant shall not be liable under this provision for damages arising from the sole negligence of the Department.
14. The Permittee shall be responsible for determining and notify all other users of the right of way.
15. Starting work on the State Right of Way means that I am accepting all conditions on the Permit.

Approved
2025-A-291-00023
Randall Woodard
5/30/2025

PART 5: SPECIAL PROVISIONS

NON-CONFORMING CONNECTIONS: ☐ YES ☐ NO

If this is a non-conforming connection permit, as defined in Rule Chapters 14-96 and 14-97, then the following shall be a part of this permit.

1. The non-conforming connection(s) described in this permit is (are) not permitted for traffic volumes exceeding the Permit Category on page 1 of this permit, or as specified in "Other Special Provisions" below.

2. All non-conforming connections will be subject to closure or relocation when reasonable access becomes available in the future.

OTHER SPECIAL PROVISIONS:

1. This permit only applies to work being done within FDOT right of way. 2. Contact FDOT Inspector Dale Hunter 48 hours in advance 352-575-3713 for a preconstruction meeting and before any work is performed within FDOT right of way.3. The Contractor must have a copy of the approved FDOT Permit on site during construction. 4. See permit terms and conditions.

PART 6: APPEAL PROCEDURES

You may petition for an administrative hearing pursuant to sections 120.569 and 120.57, Florida Statutes. If you dispute the facts stated in the foregoing Notice of Intended Department Action (hereinafter Notice), you may petition for a formal administrative hearing pursuant to section 120.57 (1), Florida Statutes. If you agree with the facts stated in the Notice, you may petition for an informal administrative hearing pursuant to section 120.57(2), Florida Statutes. You must file the petition with:

Clerk of Agency Proceedings
Department of Transportation
Haydon Burns Building
605 Suwannee Street, M.S. 58
Tallahassee, Florida 32399-0458

The petition for an administrative hearing must conform to the requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code, and be filed with the Clerk of Agency Proceedings by 5:00 p.m. no later than 21 days after you received the Notice. The petition must include a copy of the Notice, be legible, on 8 1/2 by 11 inch white paper, and contain:

1. Your name, address, telephone number, any Department of Transportation identifying number on the Notice, if known, the name and identification number of each agency affected, if known, and the name, address, and telephone number of your representative, if any, which shall be the address for service purposes during the course of the proceeding.
2. An explanation of how your substantial interests will be affected by the action described in the Notice;
3. A statement of when and how you received the Notice;
4. A statement of all disputed issues of material fact. If there are none, you must so indicate;
5. A concise statement of the ultimate facts alleged, including the specific facts you contend warrant reversal or modification of the agency's proposed action, as well as an explanation of how the alleged facts relate to the specific rules and statutes you contend require reversal or modification of the agency's proposed action;
6. A statement of the relief sought, stating precisely the desired action you wish the agency to take in respect to the agency's proposed action.

If there are disputed issues of material fact a formal hearing will be held, where you may present evidence and argument on all issues involved and conduct cross-examination. If there are no disputed issues of material fact an informal hearing will be held, where you may present evidence or a written statement for consideration by the Department.

Mediation, pursuant to section 120.573, Florida Statutes, may be available if agreed to by all parties, and on such terms as may be agreed upon by all parties. The right to an adminstrative hearing is not affected when mediation does not result in a settlement.

Your petition for an administrative hearing shall be dismissed if it is not in substantial compliance with the above requirements of Rule 28-106.201(2) or Rule 28-106.301(2), Florida Administrative Code. If you fail to timely file your petition in accordance with the above requirements, you will have waived your right to have the intended action reviewed pursuant to chapter 120, Florida Statutes, and the action set forth in the Notice shall be conclusive and final.

Approved
Randall Woodard
5/30/2025

PERMIT TERMS AND CONDITIONS

FDOT Gainesville Maintenance

All construction and/or maintenance on the Department's right-of-way shall conform to the most recent editions of: FDOT Design Standards, the FDOT Standard Specifications for Road and Bridge Construction, the FDOT Plans Preparation Manual Volume 1, and the Manual on Uniform Traffic Control.

The permittee shall be responsible for any damage caused by the construction associated with this permit. The permittee shall repair any damages according to the most current standards.

All damaged concrete within the project limits shall be replaced joint to joint.

All portions of the right-of-way disturbed during construction associated with this permit shall be sodded as follows:

- Urban Areas: sod with St. Augustine, Bermuda, or Centipede, FDOT will specify.
- Rural Areas: sod to match existing.

48 hours before digging operations the contractor shall call Sunshine State One Call at 811. The permittee is cautioned that utilities may be present within the construction area.

No tree trimming or tree removal will be allowed unless special permission is granted by the FDOT.

The permittee shall maintain proper placement and condition of all existing FDOT regulatory and/or informational signs.

Notify the Department of Transportation Maintenance office 48 hours in advance of starting proposed work at (352) 381-4342 or (352) 381-4300.

The connection to or modification of any portion of the FDOT stormwater system is prohibited unless approved by a separate drainage permit.

All permits shall include a maintenance of traffic plan before any work can begin. A worksite traffic supervisor with a certification from the FDOT approved Work Zone Traffic Control Course must be on-site anytime the contractor is working in the FDOT right-of-way.

All lane closure shall be called in to the FDOT Maintenance Office at (352) 381-4300 when the lane is closed and immediately after the lane is open.

Pedestrian traffic shall be detoured around the work area in a safe manner and in accordance with the FDOT Design Standards Index 660.

Lane closure will only be allowed Monday – Friday between the hours of 9:00AM Thru 4:00 PM or unless otherwise approved by FDOT.

An onsite preconstruction conference will be held prior to starting any work.

No unapproved signs are to be placed on or overhanging into the right-of-way.

There shall be no tracking of soil from the permitted job site onto the roadway. If tracking does occur, the permittee and or contractor shall install the "Soil Tracking Prevention Device" per Standard Index 106.

	Permit Information
Project Name	Alachua Habitat for Humanity-Tolosa North
Permit #	2025-A-291-00023
SR	235
Rdwy Section	26110
M.P.	1.43

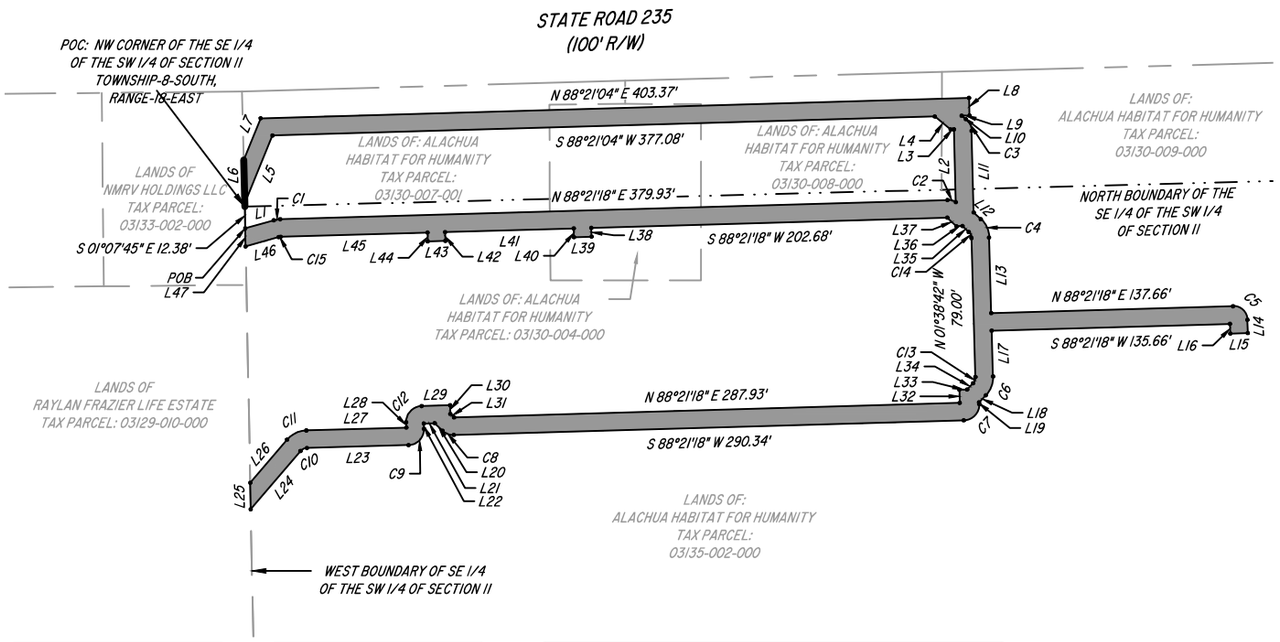
Approved
2025-A-291-00023
Randall Woodard
5/30/2025

Approved
2025-A-291-00023
Randall Woodard
5/30/2025

Approved
2025-A-291-00023
Randall Woodard
5/30/2025

SKETCH & DESCRIPTION

IN SECTION 11 TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA



Line Table		
Line#	Direction	Length
L1	N74°10'34"E	16.91'
L2	N01°29'07"W	41.39'
L3	S88°21'18"W	1.83'
L4	N50°45'33"W	11.69'
L5	S22°11'06"W	41.92'
L6	N01°25'32"W	24.97'
L7	N22°11'06"E	25.55'
L8	S01°29'07"E	10.00'
L9	S88°21'04"W	4.48'
L10	S50°45'33"E	3.01'
L11	S01°29'07"E	46.38'
L12	S46°38'42"E	5.58'
L13	S01°38'42"E	43.00'
L14	S01°38'42"E	7.50'
L15	S88°21'18"W	10.00'
L16	N01°38'42"W	5.50'
L17	S01°38'42"E	26.00'
L18	S43°21'18"W	5.58'
L19	S01°38'42"E	0.95'
L20	N46°38'42"W	6.17'
L21	S88°21'18"W	6.17'
L22	S01°38'42"E	3.00'
L23	S88°21'18"W	57.95'
L24	S40°32'04"W	43.48'

Line Table		
Line#	Direction	Length
L25	N01°07'45"W	15.04'
L26	N40°32'04"E	32.24'
L27	N88°21'18"E	56.95'
L28	N01°38'42"W	3.00'
L29	N88°21'18"E	16.24'
L30	S01°38'42"E	4.93'
L31	S46°38'42"E	2.93'
L32	N01°38'42"W	7.50'
L33	N88°21'18"E	4.41'
L34	N43°21'18"E	4.90'
L35	N46°38'42"W	4.90'
L36	S88°21'18"W	3.48'
L37	N46°38'42"W	7.07'
L38	S01°38'42"E	5.00'
L39	S88°21'18"W	10.00'
L40	N01°38'42"W	5.00'
L41	S88°21'18"W	73.25'
L42	S01°38'42"E	5.00'
L43	S88°21'18"W	10.00'
L44	N01°38'42"W	5.00'
L45	S88°21'18"W	83.59'
L46	S74°10'34"W	19.53'
L47	N01°07'45"W	10.34'

Curve Table					
Curve#	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	3.71'	15.00'	14°10'44"	N81°15'56"E	3.70'
C2	4.92'	9.00'	31°17'55"	S75°59'45"E	4.86'
C3	7.74'	9.00'	49°16'26"	S26°07'20"E	7.50'
C4	11.78'	15.00'	45°00'00"	S24°08'42"E	11.48'
C5	12.57'	8.00'	90°00'00"	S46°38'42"E	11.31'
C6	11.78'	15.00'	45°00'00"	S20°51'18"W	11.48'
C7	14.14'	9.00'	90°00'00"	S43°21'18"W	12.73'
C8	7.07'	9.00'	45°00'00"	N69°08'42"W	6.89'
C9	14.14'	9.00'	90°00'00"	S43°21'18"W	12.73'
C10	4.17'	5.00'	47°49'14"	S64°26'41"W	4.05'
C11	12.52'	15.00'	47°49'14"	N64°26'41"E	12.16'
C12	14.14'	9.00'	90°00'00"	N43°21'18"E	12.73'
C13	3.93'	5.00'	45°00'00"	N20°51'18"E	3.83'
C14	3.93'	5.00'	45°00'00"	N24°08'42"W	3.83'
C15	1.24'	5.00'	14°10'44"	S81°15'56"W	1.23'

ABBREVIATIONS

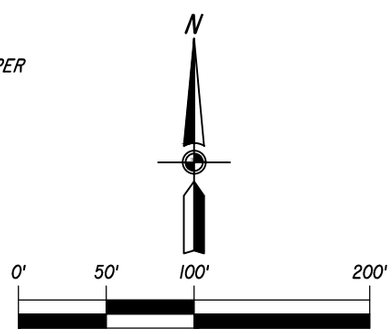
LS: LICENSED SURVEYOR
POB: POINT OF BEGINNING
POC: POINT OF COMMENCEMENT
PSM: PROFESSIONAL SURVEYOR & MAPPER
R/W: RIGHT OF WAY

NOTES

1. THIS IS NOT A BOUNDARY SURVEY
2. THIS SKETCH AND DESCRIPTION IS BASED ON PLATS, DEEDS, OTHER DOCUMENTS OF RECORD OBTAINED BY THIS SURVEYOR AS NEEDED, OR THOSE PROVIDED BY THE CLIENT. A TITLE SEARCH WAS NOT COMPLETED BY THIS SURVEYOR
3. NO FIELD OBSERVATIONS WERE COMPLETED AS PART OF THIS SKETCH.

SYMBOL LEGEND

EASEMENT LINE
SECTION LINE
TAX PARCEL LINE
RIGHT-OF-WAY LINE
EASEMENT



Scale: 1" = 100'
Units: US Survey Feet

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THE MAP OF THE PROPERTY DESCRIBED HEREON WAS MADE UNDER MY SUPERVISION AND THIS MAP OF SURVEY FURTHER MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE STATE OF FLORIDA BOARD OF PROFESSIONAL SURVEYORS & MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THE MAP OF SURVEY SHOWN HEREON IS A TRUE AND ACCURATE REPRESENTATION THEREOF TO THE BEST OF MY KNOWLEDGE, BEING SUBJECT TO NOTES AND NOTATIONS SHOWN HEREON.

Richard L White

Digitally signed by Richard L White
DN: cn=Richard L White, c=US, o=Unaffiliated, email=richard.white@jbpro.com
Date: 2026.02.24 06:57:45 -05'00'

SEAL

Richard L. White, PLS
PROFESSIONAL LAND SURVEYOR LS4816
CERTIFICATE OF AUTHORIZATION NUMBER: LB8031

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR & MAPPER OR VALID DIGITAL SIGNATURE IN ELECTRONIC FORM.

Scale:	1" = 100'
Project #:	0167-25-001
Drawn:	A.Cortina
Checked:	R.White
File:	Tolosa Electric Easement s&d.dwg
File Date:	2/19/2026
FB / PG:	N/A
Sheet:	1 of 2

SKETCH & DESCRIPTION

IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA

DESCRIPTION - BY THIS SURVEYOR

A PARCEL OF LAND SITUATE, LYING AND BEING IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA AND RUN THENCE SOUTH 01 DEGREES 07 MINUTES 45 SECONDS EAST ALONG THE WEST BOUNDARY OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11 A DISTANCE OF 12.38 FEET TO THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING AND LEAVING THE AFORESAID WEST BOUNDARY, RUN THENCE NORTH 74 DEGREES 10 MINUTES 34 SECONDS EAST 16.91 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 15.00 FEET, THROUGH A CENTRAL ANGLE OF 14 DEGREES 10 MINUTES 44 SECONDS, FOR AN ARC LENGTH OF 3.71 FEET (THE CHORD OF SAID ARC BEING NORTH 81 DEGREES 15 MINUTES 56 SECONDS EAST 3.70 FEET); THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 379.93 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 9.00 FEET, THROUGH A CENTRAL ANGLE OF 31 DEGREES 17 MINUTES 55 SECONDS, FOR AN ARC LENGTH OF 4.92 FEET (THE CHORD OF SAID ARC BEING SOUTH 75 DEGREES 59 MINUTES 45 SECONDS EAST 4.86 FEET); THENCE NORTH 01 DEGREES 29 MINUTES 07 SECONDS WEST 41.39 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 1.83 FEET; THENCE NORTH 50 DEGREES 45 MINUTES 33 SECONDS WEST 11.69 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 04 SECONDS WEST 377.08 FEET; THENCE SOUTH 22 DEGREES 11 MINUTES 06 SECONDS WEST 41.92 FEET; THENCE NORTH 01 DEGREES 25 MINUTES 32 SECONDS WEST 24.97 FEET; THENCE NORTH 22 DEGREES 11 MINUTES 06 SECONDS EAST 25.55 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 04 SECONDS EAST 403.37 FEET; THENCE SOUTH 01 DEGREES 29 MINUTES 07 SECONDS EAST 10.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 04 SECONDS WEST 4.48 FEET; THENCE SOUTH 50 DEGREES 45 MINUTES 33 SECONDS EAST 3.01 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 9.00 FEET, THROUGH A CENTRAL ANGLE OF 49 DEGREES 16 MINUTES 26 SECONDS, FOR AN ARC LENGTH OF 7.74 FEET (THE CHORD OF SAID ARC BEING SOUTH 26 DEGREES 07 MINUTES 20 SECONDS EAST 7.50 FEET); THENCE SOUTH 01 DEGREES 29 MINUTES 07 SECONDS EAST 46.38 FEET; THENCE SOUTH 46 DEGREES 38 MINUTES 42 SECONDS EAST 5.58 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 15.00 FEET, THROUGH A CENTRAL ANGLE OF 45 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 11.78 FEET (THE CHORD OF SAID ARC BEING SOUTH 24 DEGREES 08 MINUTES 42 SECONDS EAST 11.48 FEET); THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 43.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 137.66 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 8.00 FEET, THROUGH A CENTRAL ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 12.57 FEET (THE CHORD OF SAID ARC BEING SOUTH 46 DEGREES 38 MINUTES 42 SECONDS EAST 11.31 FEET); THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 7.50 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 10.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 5.50 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 135.66 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 26.00 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 15.00 FEET, THROUGH A CENTRAL ANGLE OF 45 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 11.78 FEET (THE CHORD OF SAID ARC BEING SOUTH 20 DEGREES 51 MINUTES 18 SECONDS WEST 11.48 FEET); THENCE SOUTH 43 DEGREES 21 MINUTES 18 SECONDS WEST 5.58 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 0.95 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 9.00 FEET, THROUGH A CENTRAL ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 14.14 FEET (THE CHORD OF SAID ARC BEING SOUTH 43 DEGREES 21 MINUTES 18 SECONDS WEST 12.73 FEET); THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 290.34 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 9.00 FEET, THROUGH A CENTRAL ANGLE OF 45 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 7.07 FEET (THE CHORD OF SAID ARC BEING NORTH 69 DEGREES 08 MINUTES 42 SECONDS WEST 6.89 FEET); THENCE NORTH 46 DEGREES 38 MINUTES 42 SECONDS WEST 6.17 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 6.17 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 3.00 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 9.00 FEET, THROUGH A CENTRAL ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 14.14 FEET (THE CHORD OF SAID ARC BEING SOUTH 43 DEGREES 21 MINUTES 18 SECONDS WEST 12.73 FEET); THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 57.95 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 5.00 FEET, THROUGH A CENTRAL ANGLE OF 47 DEGREES 49 MINUTES 14 SECONDS, FOR AN ARC LENGTH OF 4.17 FEET (THE CHORD OF SAID ARC BEING SOUTH 64 DEGREES 26 MINUTES 41 SECONDS WEST 4.05 FEET); THENCE SOUTH 40 DEGREES 32 MINUTES 04 SECONDS WEST 43.48 FEET TO THE AFORESAID WEST BOUNDARY OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11; THENCE NORTH 01 DEGREES 07 MINUTES 45 SECONDS WEST ALONG SAID WEST BOUNDARY A DISTANCE OF 15.04 FEET; LEAVING SAID WEST BOUNDARY, RUN THENCE NORTH 40 DEGREES 32 MINUTES 04 SECONDS EAST 32.24 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 15.00 FEET, THROUGH A CENTRAL ANGLE OF 47 DEGREES 49 MINUTES 14 SECONDS, FOR AN ARC LENGTH OF 12.52 FEET (THE CHORD OF SAID ARC BEING NORTH 64 DEGREES 26 MINUTES 41 SECONDS EAST 12.16 FEET); THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 56.95 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 3.00 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 9.00 FEET, THROUGH A CENTRAL ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 14.14 FEET (THE CHORD OF SAID ARC BEING NORTH 43 DEGREES 21 MINUTES 18 SECONDS EAST 12.73 FEET); THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 16.24 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 4.93 FEET; THENCE SOUTH 46 DEGREES 38 MINUTES 42 SECONDS EAST 2.93 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 287.93 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 7.50 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 4.41 FEET; THENCE NORTH 43 DEGREES 21 MINUTES 18 SECONDS EAST 4.90 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 5.00 FEET, THROUGH A CENTRAL ANGLE OF 45 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 3.93 FEET (THE CHORD OF SAID ARC BEING NORTH 20 DEGREES 51 MINUTES 18 SECONDS EAST 3.83 FEET); THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 79.00 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 5.00 FEET, THROUGH A CENTRAL ANGLE OF 45 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 3.93 FEET (THE CHORD OF SAID ARC BEING NORTH 24 DEGREES 08 MINUTES 42 SECONDS WEST 3.83 FEET); THENCE NORTH 46 DEGREES 38 MINUTES 42 SECONDS WEST 4.90 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 3.48 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 42 SECONDS WEST 7.07 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 202.68 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 5.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 10.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 5.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 73.25 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 5.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 10.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 5.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 83.59 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 5.00 FEET, THROUGH A CENTRAL ANGLE OF 14 DEGREES 10 MINUTES 44 SECONDS, FOR AN ARC LENGTH OF 1.24 FEET (THE CHORD OF SAID ARC BEING SOUTH 81 DEGREES 15 MINUTES 56 SECONDS WEST 1.23 FEET); THENCE SOUTH 74 DEGREES 10 MINUTES 34 SECONDS WEST 19.53 FEET TO THE WEST BOUNDARY OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11; THENCE NORTH 01 DEGREES 07 MINUTES 45 SECONDS WEST ALONG SAID WEST BOUNDARY A DISTANCE OF 10.34 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.37 ACRES MORE OR LESS

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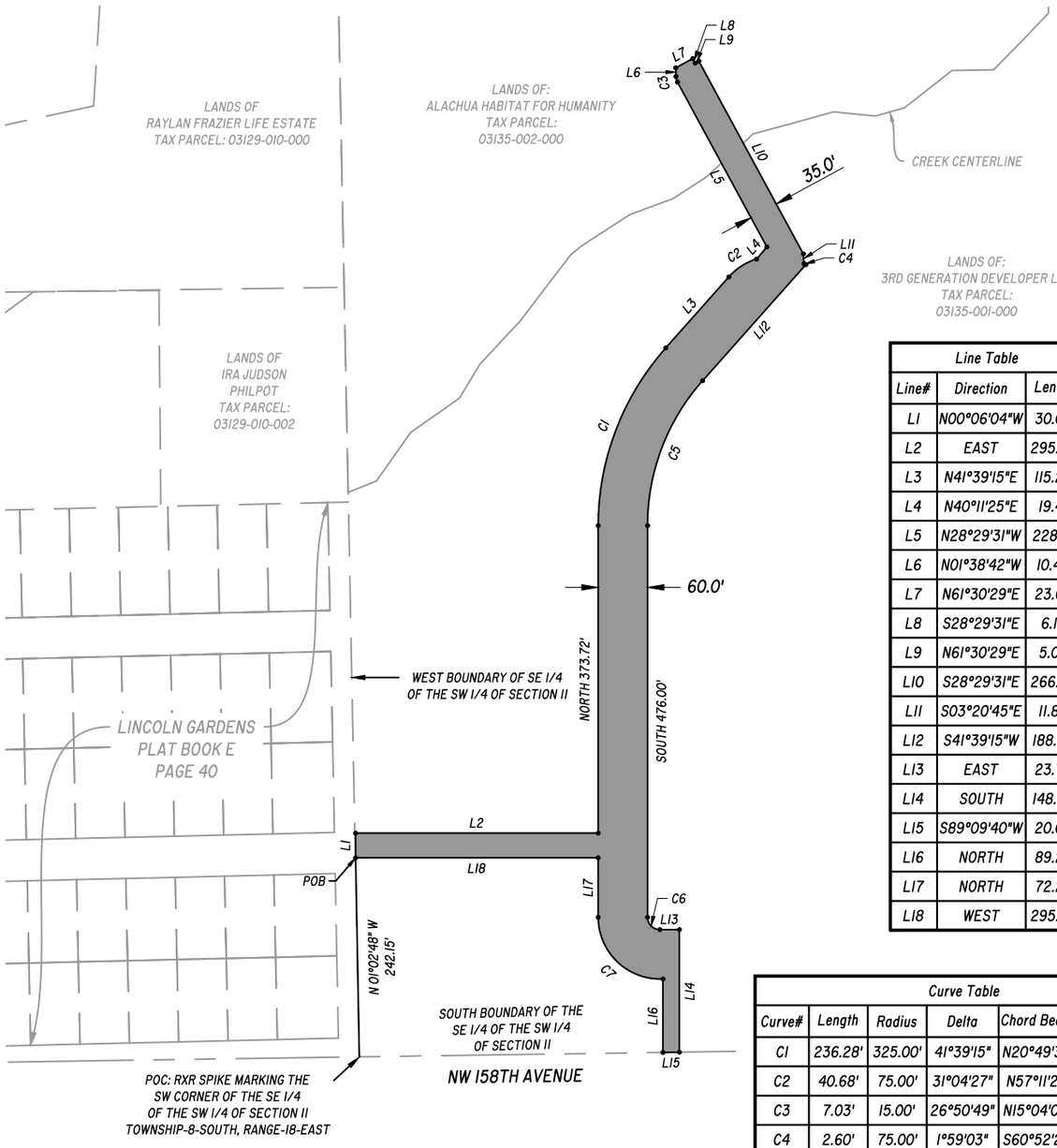
File:	Tolosa Electric Easement s&d.dwg
File Date:	2/24/2026
FB / PG:	N/A
Sheet:	2 of 2

SKETCH & DESCRIPTION

IN SECTION 11 TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA



Line Table		
Line#	Direction	Length
L1	N00°06'04"W	30.00'
L2	EAST	295.05'
L3	N41°39'15"E	115.29'
L4	N40°11'25"E	19.41'
L5	N28°29'31"W	228.01'
L6	N01°38'42"W	10.49'
L7	N61°30'29"E	23.65'
L8	S28°29'31"E	6.13'
L9	N61°30'29"E	5.00'
L10	S28°29'31"E	266.64'
L11	S03°20'45"E	11.86'
L12	S41°39'15"W	188.77'
L13	EAST	23.70'
L14	SOUTH	148.97'
L15	S89°09'40"W	20.00'
L16	NORTH	89.26'
L17	NORTH	72.28'
L18	WEST	295.00'

Curve Table					
Curve#	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	236.28'	325.00'	41°39'15"	N20°49'38"E	231.11'
C2	40.68'	75.00'	31°04'27"	N57°11'29"E	40.18'
C3	7.03'	15.00'	26°50'49"	N15°04'07"W	6.96'
C4	2.60'	75.00'	1°59'03"	S60°52'29"E	2.60'
C5	192.66'	265.00'	41°39'16"	S20°49'37"W	188.44'
C6	23.56'	15.00'	90°00'00"	S45°00'00"E	21.21'
C7	121.51'	75.19'	92°35'41"	N46°22'38"W	108.71'

ABBREVIATIONS

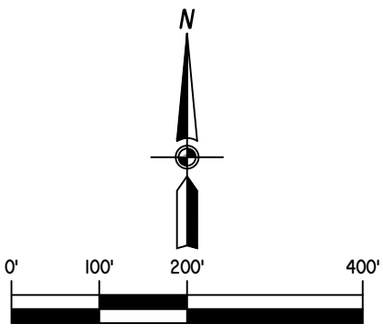
LS: LICENSED SURVEYOR
POB: POINT OF BEGINNING
POC: POINT OF COMMENCEMENT
PSM: PROFESSIONAL SURVEYOR & MAPPER
R/W: RIGHT OF WAY

SYMBOL LEGEND

EASEMENT LINE
TAX PARCEL LINE
RIGHT-OF-WAY LINE
EASEMENT

NOTES

1. THIS IS NOT A BOUNDARY SURVEY
2. THIS SKETCH AND DESCRIPTION IS BASED ON PLATS, DEEDS, OTHER DOCUMENTS OF RECORD OBTAINED BY THIS SURVEYOR AS NEEDED, OR THOSE PROVIDED BY THE CLIENT. A TITLE SEARCH WAS NOT COMPLETED BY THIS SURVEYOR
3. NO FIELD OBSERVATIONS WERE COMPLETED AS PART OF THIS SKETCH.



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Richard L. White

Digitally signed by Richard L. White
DN: cn=Richard L. White, c=US, email=richard.white@jbpro.com
Date: 2026.05.26 07:32:16 -04'00'

SEAL

Richard L. White, PLS
PROFESSIONAL LAND SURVEYOR LS4816
CERTIFICATE OF AUTHORIZATION NUMBER: LB8031

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR & MAPPER OR VALID DIGITAL SIGNATURE IN ELECTRONIC FORM.

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Drawn:	A.Cortina
Checked:	R.White
File:	TN Water & Sewer E s&d.dwg
File Date:	4/8/2026
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Sheet:	1 of 2

SKETCH & DESCRIPTION

IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA

DESCRIPTION - BY THIS SURVEYOR

A PERPETUAL NON-EXCLUSIVE WATER AND WASTEWATER UTILITY EASEMENT OVER, UNDER, AND ACROSS LANDS SITUATE, LYING AND BEING IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A RAILROAD SPIKE MARKING THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST; THENCE NORTH 01 DEGREES 02 MINUTES 48 SECONDS WEST, ALONG THE WEST BOUNDARY OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, A DISTANCE OF 242.15 FEET TO THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING, RUN THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST 30.00 FEET; THENCE LEAVING SAID WEST BOUNDARY AND RUN EAST 295.05 FEET; THENCE NORTH 373.72 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 325.00 FEET, THROUGH A CENTRAL ANGLE OF 41 DEGREES 39 MINUTES 15 SECONDS, FOR AN ARC LENGTH OF 236.28 FEET (THE CHORD OF SAID ARC BEING NORTH 20 DEGREES 49 MINUTES 38 SECONDS EAST 231.11 FEET); THENCE NORTH 41 DEGREES 39 MINUTES 15 SECONDS EAST 115.29 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 75.00 FEET, THROUGH A CENTRAL ANGLE OF 31 DEGREES 04 MINUTES 27 SECONDS, FOR AN ARC LENGTH OF 40.68 FEET (THE CHORD OF SAID ARC BEING NORTH 57 DEGREES 11 MINUTES 29 SECONDS EAST 40.18 FEET); THENCE NORTH 40 DEGREES 11 MINUTES 25 SECONDS EAST 19.41 FEET; THENCE NORTH 28 DEGREES 29 MINUTES 31 SECONDS WEST 228.01 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 15.00 FEET, THROUGH A CENTRAL ANGLE OF 26 DEGREES 50 MINUTES 49 SECONDS, FOR AN ARC LENGTH OF 7.03 FEET (THE CHORD OF SAID ARC BEING NORTH 15 DEGREES 04 MINUTES 07 SECONDS WEST 6.96 FEET); THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 10.49 FEET; THENCE NORTH 61 DEGREES 30 MINUTES 29 SECONDS EAST 23.65 FEET; THENCE SOUTH 28 DEGREES 29 MINUTES 31 SECONDS EAST 6.13 FEET; THENCE NORTH 61 DEGREES 30 MINUTES 29 SECONDS EAST 5.00 FEET; THENCE SOUTH 28 DEGREES 29 MINUTES 31 SECONDS EAST 266.64 FEET; THENCE SOUTH 03 DEGREES 20 MINUTES 45 SECONDS EAST 11.86 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 75.00 FEET, THROUGH A CENTRAL ANGLE OF 01 DEGREES 59 MINUTES 03 SECONDS, FOR AN ARC LENGTH OF 2.60 FEET (THE CHORD OF SAID ARC BEING SOUTH 60 DEGREES 52 MINUTES 29 SECONDS EAST 2.60 FEET); THENCE SOUTH 41 DEGREES 39 MINUTES 15 SECONDS WEST 188.77 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 265.00 FEET, THROUGH A CENTRAL ANGLE OF 41 DEGREES 39 MINUTES 16 SECONDS, FOR AN ARC LENGTH OF 192.66 FEET (THE CHORD OF SAID ARC BEING SOUTH 20 DEGREES 49 MINUTES 37 SECONDS WEST 188.44 FEET); THENCE SOUTH 476.00 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST; THENCE ALONG SAID CURVE WITH A RADIUS OF 15.00 FEET, THROUGH A CENTRAL ANGLE OF 90 DEGREES 00 MINUTES 00 SECONDS, FOR AN ARC LENGTH OF 23.56 FEET (THE CHORD OF SAID ARC BEING SOUTH 45 DEGREES 00 MINUTES 00 SECONDS EAST 21.21 FEET); THENCE EAST 23.70 FEET; THENCE SOUTH 148.97 FEET TO A POINT LYING ON THE NORTH RIGHT-OF-WAY BOUNDARY OF NW 158TH AVENUE; THENCE SOUTH 89 DEGREES 09 MINUTES 40 SECONDS WEST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 20.00 FEET; LEAVING SAID RIGHT-OF-WAY BOUNDARY RUN THENCE NORTH 89.26 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST; THENCE ALONG SAID CURVE WITH A RADIUS OF 75.19 FEET, THROUGH A CENTRAL ANGLE OF 92 DEGREES 35 MINUTES 41 SECONDS, FOR AN ARC LENGTH OF 121.51 FEET (THE CHORD OF SAID ARC BEING NORTH 46 DEGREES 22 MINUTES 38 SECONDS WEST 108.71 FEET); THENCE NORTH 72.28 FEET; THENCE WEST 295.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 1.78 ACRES MORE OR LESS.

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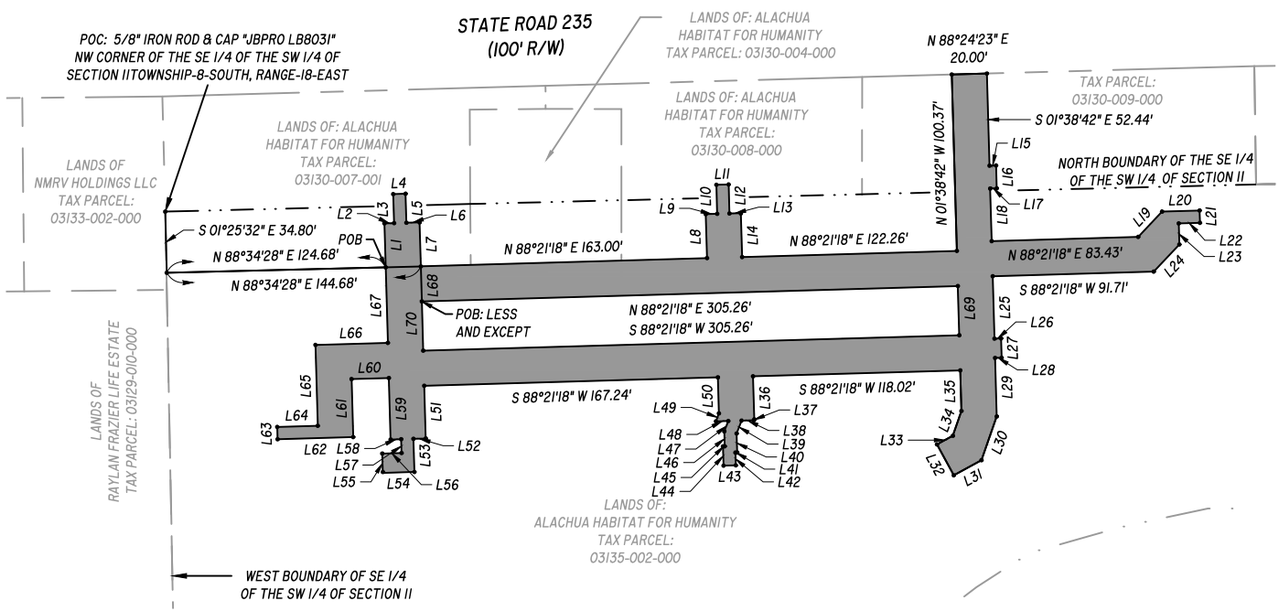
Scale:	N/A
Project #:	0167-25-001
Drawn:	A.Cortina
Checked:	R.White
File:	TN Water & Sewer E s8d.dwg
File Date:	4/8/2026
FB / PG:	N/A
Sheet:	2 of 2

SKETCH & DESCRIPTION

IN SECTION 11 TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA



Line Table		
Line#	Direction	Length
L1	N01°38'42"W	25.00'
L2	N88°21'18"E	5.50'
L3	N01°38'42"W	16.50'
L4	N88°21'18"E	7.00'
L5	S01°38'42"E	16.50'
L6	N88°21'18"E	7.50'
L7	S01°38'42"E	25.00'
L8	N01°38'42"W	25.00'
L9	N88°21'18"E	6.50'
L10	N01°38'42"W	16.50'
L11	N88°21'18"E	7.00'
L12	S01°38'42"E	16.50'
L13	N88°21'18"E	6.50'
L14	S01°38'42"E	25.00'
L15	N88°21'18"E	3.74'
L16	S01°38'42"E	13.00'
L17	S88°21'18"W	3.74'
L18	S01°38'42"E	29.92'
L19	N43°21'18"E	19.80'
L20	N88°21'18"E	21.39'

Line Table		
Line#	Direction	Length
L21	S01°38'42"E	7.00'
L22	S88°21'18"W	12.09'
L23	S01°38'42"E	11.98'
L24	S43°21'18"W	21.24'
L25	S01°38'42"E	35.50'
L26	N88°21'18"E	3.74'
L27	S01°38'42"E	11.00'
L28	S88°21'18"W	3.74'
L29	S01°38'42"E	33.30'
L30	S19°10'55"W	26.34'
L31	S61°30'29"W	17.98'
L32	N28°29'31"W	20.00'
L33	N61°30'29"E	10.23'
L34	N19°10'55"E	14.92'
L35	N01°38'42"W	23.13'
L36	S01°38'42"E	24.49'
L37	S20°51'18"W	0.55'
L38	S88°21'18"W	7.04'
L39	S20°51'18"W	7.82'
L40	S01°38'42"E	10.84'

Line Table		
Line#	Direction	Length
L41	S88°21'18"W	1.00'
L42	S01°38'42"E	7.25'
L43	S88°21'18"W	7.00'
L44	N01°38'42"W	11.00'
L45	N88°21'18"E	1.00'
L46	N01°38'42"W	8.48'
L47	N20°51'18"E	6.32'
L48	S88°21'18"W	7.04'
L49	N20°51'18"E	4.86'
L50	N01°38'42"W	20.51'
L51	S01°38'42"E	30.00'
L52	S88°21'18"W	7.00'
L53	S01°38'42"E	18.85'
L54	S88°21'18"W	18.00'
L55	N01°38'42"W	11.00'
L56	N88°21'18"E	11.00'
L57	N01°38'42"W	7.85'
L58	S88°21'18"W	6.00'
L59	N01°38'42"W	35.00'
L60	S88°21'18"W	21.24'

Line Table		
Line#	Direction	Length
L61	S01°38'42"E	33.00'
L62	S88°21'18"W	43.08'
L63	N01°38'42"W	7.00'
L64	N88°21'18"E	23.08'
L65	N01°38'42"W	46.00'
L66	N88°21'18"E	41.24'
L67	N01°38'42"W	43.00'
L68	S01°38'42"E	19.92'
L69	S01°38'42"E	28.00'
L70	N01°38'42"W	28.00'

SYMBOL LEGEND

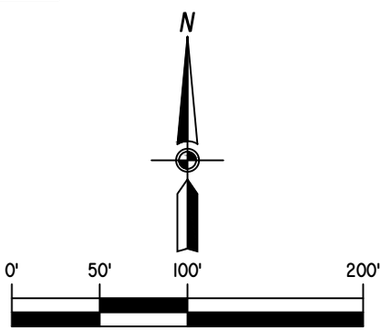
- EASEMENT LINE
- SECTION LINE
- TAX PARCEL LINE
- RIGHT-OF-WAY LINE
- EASEMENT

ABBREVIATIONS

LS: LICENSED SURVEYOR
POB: POINT OF BEGINNING
POC: POINT OF COMMENCEMENT
PSM: PROFESSIONAL SURVEYOR & MAPPER
R/W: RIGHT OF WAY

NOTES

1. THIS IS NOT A BOUNDARY SURVEY
2. THIS SKETCH AND DESCRIPTION IS BASED ON PLATS, DEEDS, OTHER DOCUMENTS OF RECORD OBTAINED BY THIS SURVEYOR AS NEEDED, OR THOSE PROVIDED BY THE CLIENT. A TITLE SEARCH WAS NOT COMPLETED BY THIS SURVEYOR
3. NO FIELD OBSERVATIONS WERE COMPLETED AS PART OF THIS SKETCH.



Scale: 1" = 100'
Units: US Survey Feet

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THE MAP OF THE PROPERTY DESCRIBED HEREON WAS MADE UNDER MY SUPERVISION AND THIS MAP OF SURVEY FURTHER MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE STATE OF FLORIDA BOARD OF PROFESSIONAL SURVEYORS & MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THE MAP OF SURVEY SHOWN HEREON IS A TRUE AND ACCURATE REPRESENTATION THEREOF TO THE BEST OF MY KNOWLEDGE, BEING SUBJECT TO NOTES AND NOTATIONS SHOWN HEREON.

Richard L. White

Digitally signed by Richard L. White
DN: cn=Richard L. White, c=US, email=richard.white@jbpro.com
Date: 2026.05.26 07:30:50 -04'00'

SEAL

Richard L. White, PLS
PROFESSIONAL LAND SURVEYOR LS4816
CERTIFICATE OF AUTHORIZATION NUMBER: LB8031

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR & MAPPER OR VALID DIGITAL SIGNATURE IN ELECTRONIC FORM.

Scale:	1" = 100'
Project #:	0167-25-001
Drawn:	A.Cortina
Checked:	R.White
File:	Tolosa Water Easement s&d.dwg
File Date:	4/6/2026
FB / PG:	N/A
Sheet:	1 of 2

SKETCH & DESCRIPTION

IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA

DESCRIPTION - BY THIS SURVEYOR

A PERPETUAL NON-EXCLUSIVE WATER UTILITY EASEMENT OVER, UNDER, AND ACROSS LANDS SITUATE, LYING AND BEING IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 5/8" IRON ROD & CAP STAMPED "LB8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA AND RUN THENCE SOUTH 01 DEGREES 25 MINUTES 32 SECONDS EAST ALONG THE WEST BOUNDARY OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 11 A DISTANCE OF 34.80 FEET; THENCE LEAVING SAID WEST BOUNDARY RUN NORTH 88 DEGREES 34 MINUTES 28 SECONDS EAST 124.68 FEET TO THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING RUN THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 25.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 5.50 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 16.50 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 7.00 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 16.50 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 7.50 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 25.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 163.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 25.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 6.50 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 16.50 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 7.00 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 16.50 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 6.50 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 25.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 122.26 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 100.37 FEET TO THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235 (100.00' RIGHT-OF-WAY); THENCE NORTH 88 DEGREES 24 MINUTES 23 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 20.00 FEET; THENCE LEAVING SAID RIGHT-OF-WAY RUN SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 52.44 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 3.74 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 13.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 3.74 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 29.92 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 83.43 FEET; THENCE NORTH 43 DEGREES 21 MINUTES 18 SECONDS EAST 19.80 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 21.39 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 7.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 12.09 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 11.98 FEET; THENCE SOUTH 43 DEGREES 21 MINUTES 18 SECONDS WEST 21.24 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 91.71 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 35.50 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 3.74 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 11.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 3.74 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 33.30 FEET; THENCE SOUTH 19 DEGREES 10 MINUTES 55 SECONDS WEST 26.34 FEET; THENCE SOUTH 61 DEGREES 30 MINUTES 29 SECONDS WEST 17.98 FEET; THENCE NORTH 28 DEGREES 29 MINUTES 31 SECONDS WEST 20.00 FEET; THENCE NORTH 61 DEGREES 30 MINUTES 29 SECONDS EAST 10.23 FEET; THENCE NORTH 19 DEGREES 10 MINUTES 55 SECONDS EAST 14.92 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 23.13 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 18.02 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 24.49 FEET; THENCE SOUTH 20 DEGREES 51 MINUTES 18 SECONDS WEST 0.55 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 7.04 FEET; THENCE SOUTH 20 DEGREES 51 MINUTES 18 SECONDS WEST 7.82 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 10.84 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 1.00 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 7.25 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 7.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 11.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 1.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 8.48 FEET; THENCE NORTH 20 DEGREES 51 MINUTES 18 SECONDS EAST 6.32 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 7.04 FEET; THENCE NORTH 20 DEGREES 51 MINUTES 18 SECONDS EAST 4.86 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 20.51 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 167.24 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 30.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 7.00 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 18.85 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 18.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 11.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 11.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 7.85 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 6.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 35.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 21.24 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 33.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 43.08 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 7.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 23.08 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 46.00 FEET; THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 41.24 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 43.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.77 ACRES MORE OR LESS.

LESS AND EXCEPT:

COMMENCE AT A 5/8" IRON ROD & CAP STAMPED "LB8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA AND RUN THENCE SOUTH 01 DEGREES 25 MINUTES 32 SECONDS EAST ALONG THE WEST BOUNDARY OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 11 A DISTANCE OF 34.80 FEET; THENCE LEAVING SAID WEST BOUNDARY RUN NORTH 88 DEGREES 34 MINUTES 28 SECONDS EAST 144.68 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 19.92 FEET TO THE POINT OF BEGINNING.FROM SAID POINT OF BEGINNING RUN THENCE NORTH 88 DEGREES 21 MINUTES 18 SECONDS EAST 305.26 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 42 SECONDS EAST 28.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 18 SECONDS WEST 305.26 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 42 SECONDS WEST 28.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.20 ACRES MORE OR LESS

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Checked:	R.White
File:	Tolosa Water Easement s&d.dwg
File Date:	4/6/2026
FB / PG:	N/A
Sheet:	2 of 2

SITE PLANS OF TOLOSA NORTH - PHASE 1 & 2 FOR ALACHUA HABITAT FOR HUMANITY, INC

GENERAL DEVELOPMENT INFORMATION

1. PROPOSED NAME OF SITE: TOLOSA NORTH – PHASE 1 & 2

2. PROPERTY ADDRESS: UNASSIGNED LOCATION RE.

3. TAX PARCEL NO.: 3130-007-001 / 3130-004-000 / 3130-008-000 / 3130-009-000 / 3135-002-000

4. SECTION/TOWNSHIP/RANGE: 11/ 8 SOUTH/ 18 EAST

5. ZONING: PD-R

6. FUTURE LAND USE: MODERATE DENSITY RESIDENTIAL

7. JURISDICTION: CITY OF ALACHUA

8. CONTACT INFORMATION:
   - A. PROPERTY OWNER: ALACHUA HABITAT FOR HUMANITY, INC.
     1022 NW 2ND ST. GAINESVILLE, FL 32601
     CONTACT: JESSICA PARRISH, CHIEF EXECUTIVE OFFICER, (352) 378-4663
   - B. CIVIL ENGINEER: JBROWN PROFESSIONAL GROUP INC.
     CONTACT: JACK C. CHARNAS, P.E. (352) 375-8999
   - C. SURVEYOR: JBROWN PROFESSIONAL GROUP INC.
     CONTACT: TROY WRIGHT, P.S.M., (352) 375-8999

9. PROJECT DESCRIPTION: THE PROJECT WILL CONSIST OF 50 SINGLE FAMILY RESIDENTIAL LOTS WITH ASSOCIATED INFRASTRUCTURE IMPROVEMENTS.

10. DEVELOPMENT DATA:

A. TOTAL SITE AREA	= 328,621.15 SQ. FT.	= 7.54 AC.±	
B. TOTAL BUILDING AREA	= 43,170.84 SQ. FT.	= 0.99 AC.	= 13.13%
C. TOTAL IMPERVIOUS AREA	= 95,426.81 SQ. FT.	= 2.19 AC.	= 29.05%
D. OPEN AREA	= 190,023.5 SQ. FT.	= 4.36 AC	= 57.82%

11. PARKING REQUIREMENTS: (CITY OF ALACHUA)

A. PARKING REQUIRED:	2 PARKING SPACES PER UNIT
B. PARKING PROVIDED:	100 PARKING SPACES
C. ADA PARKING SPACE PROVIDED:	5 SPACES
D. BICYCLE PARKING REQUIRED:	1 PER 10 REQUIRED PARKING SPACES
E. BICYCLE PARKING PROVIDED:	10 BICYCLE PARKING SPACES
G. REQUIRED LOADING SPACES:	2 SPACES
H. PROVIDED LOADING SPACES:	2 SPACES

12. MINIMUM BUILDING SETBACKS:

A. FRONT/STREET	0 FT
B. REAR	0 FT
C. SIDE	0 FT

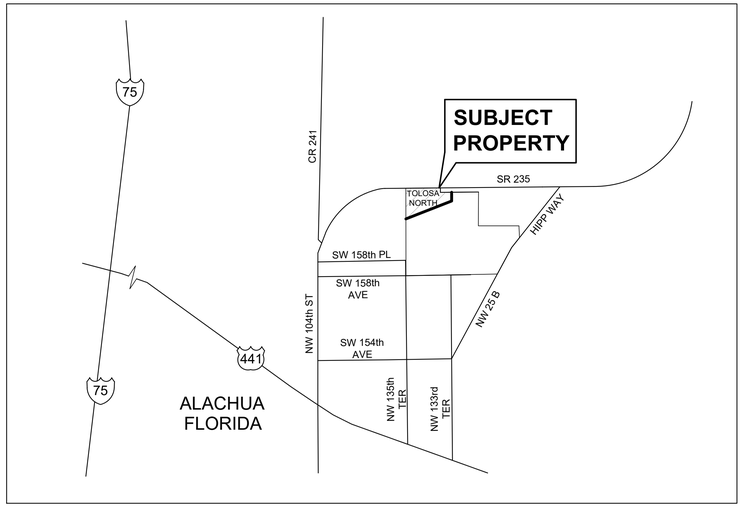
13. UTILITY INFORMATION

A. WATER:	CITY OF ALACHUA
B. WASTEWATER:	CITY OF ALACHUA
C. ELECTRIC:	CITY OF ALACHUA
D. PHONE/ CABLE:	WINDSTREAM/COX

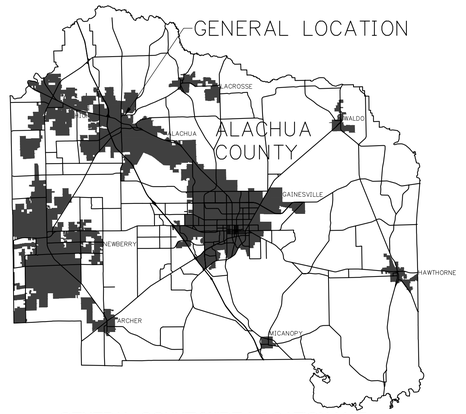
16. THIS SITE IS LOCATED IN A FEMA FLOOD ZONE X PER PANEL 12001C0135D EFFECTIVE DATE 06/16/2006.

DESCRIPTION BY THIS FIRM:

A PARCEL OF LAND LYING IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 11; THENCE N00°06'04"W, ALONG THE WEST LINE OF SAID SECTION 11, A DISTANCE OF 240.15 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N00°06'04"W ALONG SAID WEST LINE, A DISTANCE OF 30.69 FEET; THENCE DEPARTING SAID WEST LINE, S77°58'18"E , A DISTANCE OF 95.09 FEET; THENCE N90°00'00"E A DISTANCE OF 222.04 FEET; THENCE N00°00'00"W A DISTANCE OF 395.00 FEET TO A POINT OF CURVATURE, SAID CURVE TO THE RIGHT THROUGH AN ANGLE OF 41° 39' 15", HAVING A RADIUS OF 325.00 FEET, AND A CHORD BEARING AND DISTANCE OF N20°49'38"E ,231.11 FEET; THENCE N41°39'15"E A DISTANCE OF 177.10 FEET; THENCE N28°29'31"W A DISTANCE OF 217.10 FEET; THENCE N61°30'29"E A DISTANCE OF 5.00 FEET; THENCE N28°29'31"W A DISTANCE OF 10.00 FEET; THENCE N61°30'29"E A DISTANCE OF 20.00 FEET; THENCE S28°29'31"E A DISTANCE OF 10.00 FEET; THENCE N61°30'29"E A DISTANCE OF 5.00 FEET; THENCE S28°29'31"E A DISTANCE OF 267.44 FEET; THENCE S35°01'46"W, A DISTANCE OF 59.60 FEET TO A POINT OF CURVATURE, SAID CURVE TO THE LEFT THROUGH AN ANGLE OF 83° 14' 37", HAVING A RADIUS OF 5.00 FEET, AND A CHORD BEARING AND DISTANCE OF S83°16'34"W, 6.64 FEET; THENCE S41°39'15"W A DISTANCE OF 124.06 FEET TO A POINT OF CURVATURE, SAID CURVE TO THE LEFT THROUGH AN ANGLE OF 41° 39' 16", HAVING A RADIUS OF 265.00 FEET, AND A CHORD BEARING AND DISTANCE OF S20°49'37"W, 188.44 FEET; THENCE S00°00'00"W A DISTANCE OF 425.00 FEET; THENCE N90°00'00"W, A DISTANCE OF 285.20 FEET; THENCE N77°58'18"W A DISTANCE OF 91.81 FEET TO THE POINT OF BEGINNING.
CONTAINING 1.52 ACRES, MORE OR LESS



LOCATION MAP
N.T.S.



GENERAL COUNTYWIDE LOCATION MAP
N.T.S.

TOLOSA NORTH - PHASE 1 + 2

SHEET INDEX

SHEET NO.	TITLE
C0.00	COVER SHEET
C1.00	LEGEND, ABBREVIATIONS, AND NOTES
C1.01	STORMWATER POLLUTION PREVENTION PLAN
C2.00	MASTER DEVELOPMENT PLAN
C2.01	MASTER SIGNAGE AND PAVEMENT MARKING PLAN
C2.02	DIMENSION PLAN
C3.00	DEMOLITION AND TREE PROTECTION PLAN – NORTH
C3.01	DEMOLITION AND TREE PROTECTION PLAN – SOUTH
C3.02	EROSION AND SEDIMENTATION CONTROL PLAN
C4.00	PRE DEVELOPMENT MASTER DRAINAGE PLAN
C4.01	POST DEVELOPMENT MASTER DRAINAGE PLAN
C4.02	MASTER GRADING PLAN
C4.03	PARKING LOT GRADING PLAN
C4.04	GRADING PLAN – BUILDINGS 1 – 3
C4.05	GRADING PLAN – BUILDINGS 4 – 6
C4.06	GRADING PLAN – BUILDING 7 – 9
C4.07	GRADING PLAN – BUILDING 10 – 12
C4.08	WETLAND GRADING SECTIONS
C4.09	BASIN GRADING PLAN
C4.10	BASIN GRADING PLAN
C5.00	MASTER UTILITY PLAN
C5.01	UTILITY CONNECTION PLAN
C5.02	UTILITY DETAILS AND NOTES
C5.03	UTILITY DETAILS AND NOTES
C5.04	UTILITY DETAILS AND NOTES
C5.05	JACK AND BORE DETAIL
C6.00	DETAILS AND NOTES
C6.01 –C6.02	DETAILS AND NOTES
C6.03	FDOT DRAINAGE DETAILS AND NOTES
UE1.0 – UE1.1	UTILITY CONNECTION PLAN AND PROFILE
SUR-1	ALTA SURVEY
SUR-2	TOPOGRAPHIC SURVEY
LG-01	GENERAL NOTES
LP-01 – LP-02	NOTES
LP-03	DETAILS
LP-04 – LP-05	SITE PLAN
LT-01	TREE PROTECTION NOTES & LEGEND
LT-02 – LT-03	TREE MITIGATION DETAILS & CALCULATIONS
LT-04 – LT-05	TREE PROTECTION AND REMOVAL PLAN
E00 – E07	ELECTRICAL PLANS

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

Jack C Charnas — Digitally signed by Jack C Charnas; DN: cn=Jack C Charnas, o=US, Date: 2026.01.08 18:08:52 -04'00'

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JACK CHARNAS, PE ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

JACK CONSTANTINE CHARNAS LICENSE No. 96925 07/06/2026 STATE OF FLORIDA PROFESSIONAL ENGINEER

JBPro
CIVIL ENGINEERING | LAND PLANNING
SURVEYING | CONSTRUCTION SERVICES

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Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: COVER SHEET

DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C0.00

J:\0167-25-001 – Tolosa North – Phase 1 & 2\Production\Civil\Sheets\C0.00 – Cover Sheet.dwg, 7/6/2026 1:39:16 PM, Jack C

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN THE WORK LIMITS OF ALL IMPROVEMENTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES DURING CONSTRUCTION. IN THE EVENT THAT A UTILITY CONFLICT OCCURS, CONTRACTOR SHALL NOTIFY THE ENGINEER AND UTILITY PROVIDER TO COORDINATE REMEDIAL ACTION.
2. THE CITY OF ALACHUA SHALL BE NOTIFIED 24 HOURS IN ADVANCE FOR INSPECTION OF PERTINENT STAGES OF CONSTRUCTION WITHIN THEIR RESPECTIVE R/W; SUBGRADE PREPARATION, LIMEROCK PLACEMENT, INSPECTION OF THE SWEPT LIMEROCK BASE PRIOR TO THE PLACEMENT OF ASPHALT, AND OTHERS AS REQUIRED FOR APPROVAL.
3. THE CITY OF ALACHUA SHALL BE COMPENSATED FOR ALL WORK REQUIRED OF THE CITY TO MODIFY ITS INFRASTRUCTURE. SUCH WORK INCLUDES, BUT IS NOT LIMITED TO, WATER, WASTEWATER AND ELECTRIC INFRASTRUCTURE IMPROVEMENTS, RELOCATION OR DEMOLITION. FOR PROJECTS NOT WITHIN THE CITY'S ELECTRIC SERVICE AREA, MODIFICATIONS TO THE CITY'S ELECTRIC INFRASTRUCTURE EITHER WITHIN OR ADJACENT TO THE PROJECT AREA MAY BE REQUIRED. THE CITY SHALL BE COMPENSATED FOR SUCH MODIFICATIONS.
4. IF UNDERDRAINS ARE NECESSARY, THE CITY OF ALACHUA PUBLIC SERVICES, DURING FIELD INSPECTION, SHALL DETERMINE THE EXACT LOCATION AND REQUIREMENTS. THE CONTRACTOR SHALL INSTALL UNDERDRAINS AS REQUIRED.
5. WHERE SUBSOIL EXCAVATION IS REQUIRED, THE LIMITS OF EXCAVATION SHALL BE A MINIMUM OF 24" BELOW THE LIMEROCK BASE. EXACT LOCATIONS OF SUBSOIL EXCAVATION SHALL BE AS DIRECTED BY THE CITY OF ALACHUA OR THE GEOTECHNICAL ENGINEER.
6. CONTRACTOR SHALL DISPOSE OF SUBSOIL EXCAVATED MATERIALS (UNSUITABLE FOR FILL) OFF SITE TO A PERMITTED LOCATION OR PER AN APPROVED DISPOSAL PLAN AND LOCATION SITE.
7. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF ALL FOREIGN DEBRIS AND MATERIAL OFFSITE. DISPOSAL METHODS AND LOCATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND REQUIREMENTS.
8. CONCRETE SIDEWALK CROSSING SHALL BE A MINIMUM OF 4 INCHES THICK AND HAVE A 3,000 PSI COMPRESSIVE STRENGTH.
9. EXISTING TOPOGRAPHY INFORMATION DEPICTED IS BASED ON THE PROJECT TOPOGRAPHIC SURVEY CONDUCTED BY JBRO ON 05/09/2024. THE CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATION GRADES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT WILL AFFECT FINISH GRADE DESIGN FOR PROPER RUNOFF CONDITIONS PRIOR TO CONSTRUCTION. JBPRO WILL ASSIST THE CONTRACTOR IN REVISING ANY GRADING DISCREPANCIES PRIOR TO CONSTRUCTION TO ASSURE PROPER GRADING AND RUNOFF CONDITIONS RESULT UPON COMPLETION OF CONSTRUCTION.
10. ALL STRUCTURES SHALL ADHERE TO THE 2023 FLORIDA BUILDING CODE(S), THE 2023 NATIONAL ELECTRIC CODE AND THE 2023 FLORIDA FIRE PREVENTION CODE, AS AMENDED.
11. ALL INTERSECTIONS OF PEDESTRIAN SIDEWALKS AND ROADWAYS SHALL COMPLY WITH THE 2020 FLORIDA ACCESSIBILITY CODE. DETECTABLE WARNINGS AND CURB RAMPS SHALL BE USED.
12. MIN FFE REFERS TO THE MINIMUM ELEVATION OF THE BUILDING FOUNDATION.

PAVING, GRADING, AND DRAINAGE SPECIFICATIONS

1. ALL DRAINAGE CONSTRUCTION, INCLUDING MATERIALS, CONSTRUCTION TECHNIQUES, AND TECHNICAL STANDARDS, SHALL BE IN ACCORDANCE WITH THE FDOT FY 2025-26 STANDARD PLANS AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. ALL AREAS OF NEW CONSTRUCTION SHALL BE CLEANED AND GRUBBED. TOP SOIL REMAINING ONSITE MAY BE STOCKPILED FOR FINE GRADING IN LANDSCAPED AREAS, IF SUITABLE. THE CONTRACTOR SHALL FURNISH ALL FILL REQUIRED AND DISPOSE OF ALL EXCESS OR UNSUITABLE MATERIAL OFFSITE IN ACCORDANCE WITH ALL REGULATORY REQUIREMENTS. TREES TO REMAIN SHALL BE PROTECTED PRIOR TO STARTING CONSTRUCTION AND SHALL BE PROTECTED THROUGHOUT SITE CONSTRUCTION.
3. ALL PROPOSED UNDERGROUND UTILITY INSTALLATIONS WITHIN THE LIMITS OF ROADWAY SUBGRADE, INCLUDING STORMWATER, POTABLE WATER, WASTEWATER, GAS, ELECTRICAL CONDUIT, AND SLEEVES FOR FUTURE UTILITIES, SHALL BE INSTALLED PRIOR TO STABILIZATION OF THE ROADWAY SUBGRADE.
4. ALL NEW ASPHALT PAVEMENT CONSTRUCTION SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
   A. EARTHWORK: FILL MATERIALS SHALL CONFORM TO AASHTO SOIL GROUPS A-1, A-2, A-3, OR A-4 AND SHALL BE PLACED IN 6" – 12" LOOSE LIFTS AND COMPACTED TO 95% DENSITY USING MODIFIED PROCTOR METHOD (AASHTO T-180).
   B. SUBSOIL EXCAVATION: WHERE SUBSOIL EXCAVATION IS REQUIRED, UNSUITABLE MATERIALS SHALL BE REMOVED TO A DEPTH OF 24" BELOW THE LIMEROCK BASE AND BACKFILLED WITH CLEAN FILL.
   C. STABILIZED SUBGRADE: ALL STABILIZED MATERIAL SHALL CONFORM TO SECTION 914 AND PLACED ACCORDING TO SECTION 160 IN ONE 12" MINIMUM COMPACTED LIFT. SUBGRADE SHALL BE STABILIZED TO A MINIMUM LBR VALUE OF 40 PER DESIGN SECTION.
   D. BASE COURSE: ALL MATERIAL SHALL BE LIMEROCK CONFORMING TO SECTION 911 AND PLACED ACCORDING TO SECTION 200 IN A SINGLE OR TWO EQUAL COMPACTED LIFTS (PER DESIGN SECTION). BASE MATERIAL SHALL BE COMPACTED TO 98% DENSITY BY MODIFIED PROCTOR METHOD (AASHTO T-180). THE PRIME COAT SHALL CONFORM TO SECTION 300.
   E. ASPHALTIC CONCRETE: ALL ASPHALTIC CONCRETE MATERIAL SHALL BE TYPE SP STRUCTURAL COURSE (TYPE AND THICKNESS PER DESIGN SECTION) AND SHALL CONFORM TO SECTION 334. ALL ASPHALTIC CONCRETE CONSTRUCTION SHALL CONFORM TO SECTION 330.
5. ALL ASPHALTIC CONCRETE MIX DESIGN AND PORTLAND CONCRETE CEMENT MIX DESIGN SHALL BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION. ASPHALT MIX DESIGN MUST BE APPROVED BY THE CITY OF GAINESVILLE. DENSITY REPORTS AND ASPHALT MIX DESIGN REPORT SHALL BE SUBMITTED TO THE CITY OF ALACHUA FOR APPROVAL PRIOR TO PAVING BEING PERFORMED.
6. ALL CONCRETE USED FOR CONSTRUCTION OF DRAINAGE STRUCTURES, SIDEWALKS, SPILLWAYS, CURBING, ETC. SHALL BE CLASS I CONFORMING TO SECTION 347.
7. CONCRETE SIDEWALKS AND DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 522.
8. CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED IN CONFORMANCE TO SECTION 520.
9. HIGH DENSITY POLYETHYLENE (HDPE) SHALL CONFORM TO SECTION 948-2.3.
10. POLYPROPYLENE PIPE (PP) SHALL CONFORM TO SECTION 948-7.
11. REINFORCED CONCRETE PIPE (RCP) SHALL CONFORM TO SECTION 449-4.
12. HDPE, PP, AND RCP ARE INTERCHANGEABLE STORM PIPE MATERIALS AS APPROVED BY THE CITY OF ALACHUA.
13. ALL SLOPES OF 4:1 OR GREATER SHALL BE SODDED.
14. ALL TESTING REPORTS AND ASPHALT DESIGN REPORTS MUST BE SUBMITTED FOR APPROVAL BY THE CITY OF ALACHUA PRIOR TO ANY PAVEMENT INSTALLATION.
15. NEW ROADS – PAVEMENT TRANSVERSE MARKINGS – MATERIALS OF STOP LINES SHALL BE HOT-APPLIED STANDARD THERMOPLASTIC. MATERIALS OF CROSSWALK LONGITUDINAL BARS-24-INCH SHALL BE HOT-APPLIED HIGH FRICTION THERMOPLASTIC."
16. UNLESS AN ALTERNATE IS APPROVED BY COA, GROUT BOTTOM OF ALL STORMWATER DRAINAGE STRUCTURE INVERTS AS PER FDOT INDEX 425-001 AND AS PER COA STANDARD DETAIL 210."
17. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND CITY OF ALACHUA PROJECT MANAGER IN ADVANCE PRIOR TO PLACING LIMEROCK AND LAYING ASPHALT FOR FIELD INSPECTIONS."

STORMWATER MAINTENANCE PLAN

1. MAINTENANCE RESPONSIBILITY:

   ALACHUA HABITAT FOR HUMANITY INC. SHALL BE THE ENTITY RESPONSIBLE FOR THE MAINTENANCE OF THE MASTER STORMWATER MANAGEMENT SYSTEM. THE CITY OF ALACHUA PUBLIC SERVICES SHALL BE THE ENTITY RESPONSIBLE FOR MAINTAINING THE STORMWATER MANAGEMENT SYSTEM WITHIN THE CITY RIGHT-OF-WAY AND DESIGNATED DRAINAGE EASEMENTS

2. MAINTENANCE PLAN NOTES:

   A. STORM PIPES AND DRAINAGE STRUCTURES SHALL BE INSPECTED SEMI- ANNUALLY FOR STRUCTURAL SOUNDNESS AND OPERATIONAL FUNCTION. ANY DEFECTS DISCOVERED SHOULD BE REPAIRED TO ORIGINAL DESIGN CONDITION.

   B. THE BASIN AND STORMPIPES SHALL BE CLEANED OUT ANNUALLY OF ANY ACCUMULATED SEDIMENTATION BUILDUP. IF THE BASINS OR STORMPIPES ARE SHOWING EXCESSIVE SEDIMENTATION ACCUMULATION, THE BASIN BOTTOMS, AND STORMPIPES SHALL BE CLEANED OUT MORE OFTEN AS THE CONDITION DICTATES.

   C. BASIN SIDE SLOPES SHALL BE MAINTAINED WITH A GOOD STAND OF GRASS. SEASONAL GRASSES SHALL BE PLANTED TO AVOID EROSION (WINTER RYE, SUMMER MILLET, ETC.). LANDSCAPE PLANTINGS WITHIN THE BASIN SHALL BE MAINTAINED PROPERLY.

   D. STORMWATER MANAGEMENT BASINS THAT DO NOT DRAWDOWN PROPERLY AND MAINTAIN STANDING WATER FOR AN EXTENDED PERIOD OF TIME MAY REQUIRE REMEDIAL ACTION. THE ENGINEER SHALL BE NOTIFIED TO HELP COORDINATE REMEDIAL ACTION IN THE EVENT THIS OCCURS.

   E. ANY LANDSCAPING PROVIDED FOR EROSION CONTROL SHALL BE MAINTAINED IN A SOUND CONDITION AT ALL TIMES AND SHALL BE REMOVED OR REPLACED IF NOT FUNCTIONING PROPERLY.

   F. TREES AND SHRUBS SHALL NOT BE PLANTED WITHIN THE FOREBAY AREAS OF THE BASIN OR WITHIN 25' OF A CONTROL STRUCTURE. PLANTS THAT GROW WITHIN THESE AREAS MAY BE REMOVED TO RETAIN THE INTEGRITY OF THE STORMWATER BASIN FUNCTIONALITY.

   G. ANY REPLACEMENT PLANTINGS SHALL BE NATIVE VEGETATION.

   H. PERMANENT IRRIGATION IS NOT PROPOSED WITHIN THE BASIN. TEMPORARY IRRIGATION MAY BE USED TO ESTABLISH NEW PLANTINGS.

   I. THE STORMWATER MANAGEMENT AREA MAY BE TREATED FOR WEEDS WITH THE USE OF HERBICIDES. PESTICIDES MAY ALSO BE USED. PESTICIDES SHOULD ONLY BE USED IF A PEST IS IDENTIFIED AS CAUSING A DECLINE IN THE HEALTH OF THE BASIN LANDSCAPING. HERBICIDE AND PESTICIDE USE SHALL CONFORM TO THE MANUFACTURER'S INSTRUCTIONS AND SHALL ADHERE TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

   J. MAINTENANCE SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF VEGETATION WHICH IS DEAD OR DYING OR VEGETATION TO BE A DETRIMENT TO THE FUNCTIONING OF THE STORMWATER MANAGEMENT AREA.

   K. IN THE EVENT A SINKHOLE OR OTHER GEOLOGICAL FEATURE DEVELOPS, THE OWNER SHALL CONTRACT WITH A CIVIL ENGINEERING OR GEOTECHNICAL ENGINEERING CONSULTING FIRM TO DIRECT THE OWNER TO AN APPROPRIATE REMEDIATION CONSTRUCTION TECHNIQUE TO PLUG OR STABILIZE THE FEATURE AND PREVENT GROUNDWATER CONTAMINATION. THE REMEDIATION CONSTRUCTION TECHNIQUES SHALL FOLLOW GENERALLY ACCEPTED METHODOLOGIES FOR KARST FEATURE REPAIRS AS OUTLINED BY THE SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD). THE SRWMD SHALL BE NOTIFIED OF ANY EVENT OCCURING AND THE REMEDIATION MEASURES TAKEN TO CORRECT THE GEOLOGIC FEATURE.

   L. ALL CONDITIONS OF THE SRWMD ENVIRONMENTAL RESOURCE PERMIT (ERP) SHALL BE ADHERED TO INCLUDING REQUIRED INSPECTIONS AND REPORTING.

NPDES EROSION AND SEDIMENTATION CONTROL PERMITTING NOTES

1. THE CONTRACTOR IS REQUIRED TO FILE THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (FDEP) NOTICE OF INTENT (NOI) TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (CGP) (RULE 62-621.300(4), F.A.C.). CONSTRUCTION ACTIVITY SHALL NOT COMMENCE PRIOR TO OBTAINING AN ACKNOWLEDGEMENT LETTER FROM FDEP VERIFYING THE NOI IS COMPLETE, THE PROJECT IS COVERED BY THE GENERIC PERMIT, AND THE PROJECT IDENTIFICATION NO. IS ESTABLISHED. CONTRACTOR SHALL PROVIDE THE EOR AND PROPERTY OWNER WITH A COPY OF THE FDEP ACKNOWLEDGEMENT LETTER VERIFYING COVERAGE.
2. THE CONTRACTOR SHALL ABIDE BY THE REQUIREMENTS OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND CGP AT ALL TIMES THROUGHOUT CONSTRUCTION, AND UTILIZE ALL APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED TO PREVENT EROSION AND SEDIMENTATION DISCHARGE OFFSITE DURING CONSTRUCTION.
3. SEDIMENTATION AND EROSION CONTROL BMP'S SHALL BE IN ACCORDANCE WITH THE STATE OF FLORIDA EROSION AND SEDIMENTATION CONTROL DESIGNER AND REVIEWER MANUAL, DATED JULY 2013, OR LATEST UPDATE. THE CONTRACTOR IS RESPONSIBLE TO UTILIZE ALL BMP'S, AS NECESSARY THROUGHOUT CONSTRUCTION, AND MAY UTILIZE MULTIPLE BMP'S OR OTHER MEANS AND METHODS DEEMED APPROPRIATE TO CONTROL EROSION AND SEDIMENTATION DISCHARGE.
4. THE CONTRACTOR SHALL UTILIZED A STATE OF FLORIDA CERTIFIED EROSION & SEDIMENTATION CONTROL (ESC) INSPECTOR DURING CONSTRUCTION TO ABIDE BY THE TERMS OF THE NOI PERMIT COVERAGE. AT A MINIMUM THE CERTIFIED INSPECTOR SHALL INSPECT ALL DISCHARGE POINTS, DISTURBED AREAS, MATERIAL STORAGE AREAS, STRUCTURAL CONTROLS AND CONSTRUCTION ENTRANCES/EXITS AT LEAST ONCE EVERY SEVEN (7) DAYS AND AFTER EVERY ½ INCH OR GREATER STORM EVENT. MAJOR OBSERVATIONS AND INCIDENTS OF NON-COMPLIANCE SHOULD BE RECORDED IN THE INSPECTION REPORT, AS WELL AS CORRECTIVE ACTIONS AND MAINTENANCE. UNLESS ADVISED OTHERWISE, MAINTENANCE MUST OCCUR WITHIN SEVEN (7) CALENDAR DAYS OF THE INSPECTION. THESE INSPECTIONS MUST BE DOCUMENTED AND SIGNED BY A QUALIFIED INSPECTOR AS DEFINED BY THE CGP. THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE CGP WHEN THE REPORTS DO NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.
5. UPON SATISFACTORY COMPLETION OF THE PROJECT CONSTRUCTION AND SITE STABILIZATION, THE CONTRACTOR SHALL FILE THE NPDES STORMWATER NOTICE OF TERMINATION (NOT) (RULE 62-621.300(6), F.A.C.) WITH FDEP. THE PERMIT COVERAGE IS DEEMED COMPLETE WHEN ALL SOIL DISTURBING CONSTRUCTION ACTIVITIES ARE COMPLETE AND STABILIZATION OF ALL DISTURBED OPEN AREAS HAVE REACHED AT LEAST 70% VEGETATIVE COVER OR OTHER PERMANENT STABILIZATION IS IN PLACE. A COPY OF THE NOT SHALL BE PROVIDED TO THE EOR AND PROPERTY OWNER.

GEOTECHNICAL TESTING GENERAL NOTE

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING GEOTECHNICAL TESTING FOR EACH SPECIFIED DESIGN COURSE, SUBGRADE, BASE COURSE, AND PAVEMENT. TESTING REQUIREMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF ALACHUA PUBLIC SERVICES CONSTRUCTION AND INSPECTION STANDARDS AND FDOT CONSTRUCTION AND INSPECTION STANDARDS. TESTING RESULTS SHALL BE PROVIDED TO THE OWNER AND THE ENGINEER FOR REVIEW AND APPROVAL OF CONFORMANCE TO DESIGN SPECIFICATIONS PRIOR TO CONSTRUCTION OF THE SUBSEQUENT COURSE.
2. IN THE EVENT THE CONTRACTOR PROCEEDS TO THE NEXT COURSE PRIOR TO SUBMITTING AND RECEIVING APPROVAL OF THE TEST RESULTS, THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RECONSTRUCT ANY WORK NECESSARY TO BRING ALL DESIGN COURSES INTO COMPLIANCE WITH THE DESIGN SECTION SPECIFICATIONS.
3. TESTING REPORTS WITH GEOTECHNICAL TESTING RESULTS SHALL DENOTE THE TESTING LOCATIONS.
4. TESTING ALONG ROADWAYS SHALL BE PROVIDED AT A MINIMUM 200 LF SPACING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING GEOTECHNICAL TESTING FOR ALL MATERIAL USED ON RESIDENTIAL HOME SITES. TESTING RESULTS SHALL BE PROVIDED TO THE OWNER AND THE ENGINEER FOR REVIEW AND APPROVAL

REQUIRED SUBMITTALS

1. PRIOR TO CONSTRUCTION INSTALLATION OF SPECIFIC WORK SCOPE ITEMS THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUBMITTAL INFORMATION TO THE EOR FOR REVIEW AND APPROVAL. THESE SUBMITTALS SHALL INCLUDE SOURCE PROVIDER, MANUFACTURER LITERATURE, CUT SHEETS, DIMENSIONED DRAWINGS, FABRICATION DRAWINGS, SKETCHES, DETAILS AND ANY OTHER INFORMATION NECESSARY FOR THE EOR TO REVIEW AND APPROVE AS TO COMPLIANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS.
2. THE FOLLOWING SCOPE ITEMS SHALL REQUIRE SUBMITTALS:
   A. STORM SEWER STRUCTURES, PIPING AND APPURTENANCES
   B. POTABLE WATER SYSTEM MATERIALS, FITTINGS AND APPURTENANCES
   C. WASTEWATER PIPING, FITTINGS, STRUCTURES AND APPURTENANCES
   D. EROSION CONTROL MATERIALS AND DEVICES
   E. ELECTRICAL EQUIPMENT, MATERIALS AND APPURTENANCES
   F. ASPHALT MIX DESIGN(S)
   G. CONCRETE MIX DESIGN(S)
   H. EARTHWORK SOIL IMPORT SOURCE
   I. GRASSING / SOD TYPE AND SOURCE
3. MATERIALS SHALL NOT BE DELIVERED ONSITE OR INSTALLED UNTIL SUBMITTAL APPROVAL IS PROVIDED BY THE EOR OR EOR'S REPRESENTATIVE.
4. CONTRACTOR IS RESPONSIBLE FOR ANY COST INCURRED TO REVISE ANY WORK COMPLETED PRIOR TO SUBMITTAL APPROVAL. THE OWNER OR EOR ARE NOT RESPONSIBLE FOR COSTS INCURRED IF ANY MATERIALS ARE PURCHASED, DELIVERED OR INSTALLED PRIOR TO SUBMITTAL REVIEW AND APPROVAL.
5. THE CONTRACTOR SHALL PROVIDE A LIST OF SUB-CONTRACTORS THAT WILL BE PERFORMING ANY PHASES OF WORK ON THE PROJECT. THE LIST SHALL INCLUDE NAME OF COMPANY, ADDRESS, PHONE NUMBERS, AND EMAIL ADDRESSES OF INDIVIDUALS RESPONSIBLE FOR THE SUB-CONSULTANT WORK EFFORT AND THE CONTACT INFORMATION FOR THE INDIVIDUALS IN RESPONSIBLE CHARGE OF PERFORMING THE WORK IN THE FIELD.

WORK WITHIN THE CITY RIGHT-OF-WAY

1. THE METHOD AND MANNER OF PERFORMING THE WORK AND THE QUALITIES OF MATERIAL FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BY THE CITY OF ALACHUA FOR WORK WITHIN THEIR RESPECTIVE RIGHT-OF-WAYS.
2. TRAFFIC CONTROL WITHIN EXISTING R/W SHALL BE IN ACCORDANCE WITH LATEST MUTCD OR FDOT STANDARDS FOR CONTROL OF TRAFFIC THROUGH WORK ZONES.
3. NO WORK SHALL BE DONE NOR MATERIALS USED IN THE RIGHT-OF-WAY WITHOUT INSPECTION BY THE CITY OF ALACHUA. THE CONTRACTOR SHALL FURNISH THE CITY WITH EVERY REASONABLE FACILITY FOR ASCERTAINING WHETHER THE WORK PERFORMED AND MATERIALS USED ARE IN ACCORDANCE WITH THE REQUIREMENTS AND INTENT OF THE PLANS AND SPECIFICATIONS.
4. THE CITY OF ALACHUA RESERVES THE RIGHT TO MODIFY THE PROPOSED WORK WITHIN THEIR RIGHT-OF-WAY TO ENSURE COMPATIBILITY WITH EXISTING IMPROVEMENTS. SUCH MODIFICATION COSTS SHALL BE BORN BY THE CONTRACTOR.
5. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE SEEDED, FERTILIZED, AND MULCHED UNLESS SODDING IS OTHERWISE SPECIFIED. SODDING IS REQUIRED ON ALL SLOPES 3:1 OR STEEPER.
6. ALL WORK WITHIN OR ON CITY OF ALACHUA OWNED AND MAINTAINED FACILITIES, ROW OR EASEMENTS WILL REQUIRE AS-BUILT PLANS. AS-BUILT PLANS SHOULD SHOW THE CONSTRUCTED CONDITIONS OF THE CITY OWNED OR MAINTAINED AREA AND SHALL BE PER FDOT STANDARDS AND PROCEDURES AND BE PERFORMED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER.
7. INSTALLATION OR CONSTRUCTION OF MAILBOXES, PRIVATE IRRIGATION PIPING, OR PRIVATE UTILITY CHASES, ETC. IN PUBLIC RIGHT OF WAYS UNDER CITY OWNERSHIP SHALL REQUIRE A RIGHT OF WAY USE PERMIT PRIOR TO BEGINNING.

WORK WITHIN FDOT RIGHT-OF-WAY

1. ALL WORK PERFORMED WITHIN THE DEPARTMENT'S RIGHT-OF-WAY SHALL CONFORM TO THE MOST CURRENT EDITION OF THE FOLLOWING PUBLICATIONS.
   A. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (ENGLISH)
   B. FDOT STANDARDS INDEX (ENGLISH)
   C. FDOT PLANS PREP MANUAL
   D. FDOT FLEXIBLE PAVEMENT DESIGN MANUAL FOR NEW CONSTRUCTION AND PAVEMENT REHABILITATION
2. SHOULD A CONFLICT ARISE BETWEEN THE DETAILS SHOWN IN THE PLANS AND THE DEPARTMENT OF TRANSPORTATION STANDARDS THE ENGINEER/APPLICANT SHALL IMMEDIATELY CONFER WITH THE DEPARTMENT'S ENGINEER IN ORDER TO RESOLVE THE DISCREPANCY.
3. ALL TRAFFIC STRIPING AND MARKINGS ARE TO BE LEAD-FREE, NON-SOLVENT BASED THERMOPLASTIC.
4. REMOVAL OF EXISTING STRIPING SHALL BE ACCOMPLISHED USING THE "HYDRO-BLAST" METHOD. IF THIS PROCESS DAMAGES/SCARS PAVEMENT, THEN THE PAVEMENT SHALL BE MILLED AND RESURFACED PER FDOT STANDARDS.
5. ALL DIRECTIONAL ARROWS SHALL BE PLACED AS ONE SEGMENT.
6. ALIGNMENT OF PROPOSED PAVEMENT MARKINGS SHALL MATCH EXISTING PAVEMENT MARKINGS AT PAVEMENT MARKING LIMITS OF CONSTRUCTION.
7. ALL CURB AND GUTTER AND SIDEWALK WILL BE REMOVED AND REPLACED JOINT TO JOINT.
8. ALL DISTURBED AREA WITH THE DEPARTMENT'S RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION BY GRADING AND SODDING THE AREA DISTURBED (BERMUDA IN RURAL, CENTIPEDE IN UTILITY STRIPS).
9. BURNING OF ANY MATERIAL OR DEBRIS IS PROHIBITED IN FDOT RIGHT-OF-WAY.
10. ALL LANES MUST BE OPENED FOR TRAFFIC DURING AN EVACUATION NOTICE OF A HURRICANE OR OTHER CATASTROPHIC EVENT AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT.
11. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC PLAN AND SUBMIT TO FDOT PRIOR TO CONSTRUCTION COMMENCING.
12. THE GOVERNING PUBLICATIONS FOR MAINTENANCE OF TRAFFIC ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 600 AND THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST., SECTION 102, AND THE LATEST EDITION OF THE MUTCD.

STANDARD ABBREVIATIONS

ACPW	ALACHUA COUNTY PUBLIC WORKS	LTG	LIGHT
ADJ	ADJACENT	MAINT	MAINTENANCE
ALUM	ALUMINUM	MAX	MAXIMUM
APT	APARTMENT	MES	MITERED END SECTION
ASPH	ASPHALT	MH	MANHOLE
B&J	BORE AND JACK	MIN	MINIMUM
BC	BACK OF CURB	MO	MONTH
BCCMP	BITUNIMOUS COATED CORRUGATED METAL PIPE	N	NORTH
BLDG	BUILDING	N/A	NOT APPLICABLE
BM	BENCHMARK	NE	NORTH EAST
BOP	BEGINNING OF PROFILE	NG	NATURAL GRADE
BSL	BUILDING SETBACK LINE	NIC	NOT IN CONTRACT
C&G	CURB AND GUTTER	NO	NUMBER
C1	CURVE ONE	NTS	NOT TO SCALE
CATV	CABLE TELEVISION	NW	NORTH WEST
CET	CURB END TAPER	OC	ON CENTER
CF	CUBIC FEET	PCPE	PERFORATED CORRUGATED POLYETHYLENE PIPE
CI	CAST IRON	PE	POLYETHYLENE PIPE
CIP	CAST-IN-PLACE	PL	PROPERTY LINE
CL	CENTER LINE	PP	POLYPROPYLENE PIPE
CLF	CHAIN LINK FENCE	POB	POINT OF BEGINNING
CMP	CORRUGATED METAL PIPE	POE	POINT OF ENDING
CMPA	CORRUGATED METAL PIPE ARCHED	PRVT	PRIVATE
CMU	CONCRETE MASONRY UNIT	PRI	PRIMARY
CO	CLEAN OUT	PSI	POUNDS PER SQUARE INCH
COA	CITY OF ALACHUA	PT	PRESSURE TREATED (NON ARSENIC)
COMM	COMMUNICATIONS	PUD	PLANNED URBAN DEVELOPMENT
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT
CPE	CORRUGATED POLYETHYLENE PIPE	PVC	POLYVINYL CHLORIDE
CY	CUBIC YARD	PVMT	PAVEMENT
DBI	DITCH BOTTOM INLET	P&P	PLAN AND PROFILE
DCBP	DOUBLE CHECK BACKFLOW PREVENTER	R/W	RIGHT OF WAY
DEG	DEGREES	R1'	ONE FOOT RADIUS
DHWL	DESIGN HIGH WATER LEVEL	RB	REACTION BLOCK
DI	DUCTILE IRON	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	REF	REFERENCE
DIM	DIMENSION	RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
DIP	DUCTILE IRON PIPE	REQ'D	REQUIRED
E	EAST	RT	RIGHT
E/M	EASEMENT	RW	RESILIENT WEDGE
EL	ELEVATION	S	SOUTH
ELEC	ELECTRIC	S/W	SIDEWALK
EOM	END OF MAINTENANCE	SE	SOUTH EAST
EOP	END OF PROFILE	SEC	SECONDARY
EP	EDGE OF PAVEMENT	SF	SQUARE FEET
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE	SG	SWITCH GEAR
EX	EXISTING	SI	SURFACE INLET
FC	FACE OF CURB	SRWMD	SUWANNEE RIVER WATER MANAGEMENT DISTRICT
FDC	FIRE DEPARTMENT CONNECTION	SMU	STORMWATER MANAGEMENT UTILITY
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	SPA	SPACE
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	SPT	STANDARD PENETRATION TEST
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FG	FINISH GRADE	SSL	STAINLESS STEEL
FH	FIRE HYDRANT	ST	STORMWATER
FL	FIRE LINE	ST.	STREET
FLL	FLOW LINE	STA	STATION
FM	FORCE MAIN	STD	STANDARD
FO	FIBER OPTIC	STL	STEEL
FP	FLOOD PLAIN	SW	SOUTH WEST
FT	FEET	SY	SQUARE YARD
FUT	FUTURE	TBC	TRAFFIC BEARING COVER
GALV	GALVANIZED	TBM	TEMPORARY BENCHMARK
GRU	GAINESVILLE REGIONAL UTILITIES	TBR	TO BE REMOVED
GV	GATE VALVE	TEL	TELEPHONE
HC	HANDICAP	TFMR	TRANSFORMER
HDPE	HIGH DENSITY POLYETHYLENE	TV	TELEVISION
HORIZ	HORIZONTAL	TW	TOP OF WALL
HP	HIGH POINT	TYP	TYPICAL
HR	HOUR	UD	UNDER DRAIN
INV	INVERT	UTIL	UTILITIES
IRR	IRRIGATION	VCP	VITRIFIED CLAY PIPE
L1	LINE ONE	VEH	VEHICLE
LAT	LATITUDE	W	WEST
LBR	LIMEROCK BEARING RATIO	W/	WITH
LF	LINEAR FEET	W/WW	WATER/WASTEWATER
LONG	LONGITUDE	WM	WATER MAIN
LP	LOW POINT	WS	WATER SERVICE
LT	LEFT	WW	WASTEWATER
		YR	YEAR

LEGEND

- EST — EXISTING STORM SEWER LINE
- EWW — EXISTING SANITARY SEWER LINE
- EGAS — EXISTING GAS SERVICE LINE
- ECATV — EXISTING CATV & TELEPHONE LINE
- EUE — EXISTING UNDERGROUND ELECTRIC LINE
- EWM — EXISTING WATER MAIN
- -76- — EXISTING CONTOUR LINE
- EXISTING FENCE
- +178.3 — NATURAL GROUND SPOT ELEVATION
- 22 PI — EXISTING TREE TO REMAIN
- 22 PI — EXISTING TREE TO BE REMOVED
- PROPOSED ASPHALT PAVEMENT
- PROPOSED 4" CONC SIDEWALK
- PROPOSED 6" CONC PAVEMENT
- PROPOSED GRAVEL PAVEMENT
- 87 — PROPOSED FINISH ELEVATION CONTOUR
- • 35.00 — PROPOSED FINISH SPOT ELEVATION
- PROPOSED DIRECTIONAL FLOW ARROW
- DRAINAGE AREA DIVIDE
- PROPOSED SILT FENCE
- PROPOSED TREE BARRICADE FENCE
- PROPOSED CENTERLINE
- ST — PROPOSED STORM SEWER LINE
- WM — PROPOSED WATER MAIN
- PE — PROPOSED PRIMARY ELECTRIC SERVICE CONDUIT
- SE — PROPOSED SECONDARY ELECTRIC SER

STORMWATER POLLUTION PREVENTION PLAN

A. PROJECT NAME AND LOCATION

PROJECT NAME: TOLOSA NORTH – PHASE 1 & 2

LOCATION:

ADDRESS: UNASSIGNED LOCATION RE.
SECTION 11
TOWNSHIP 8 SOUTH
RANGE 18 EAST
COUNTY: ALACHUA
LATITUDE: 29.8032
LONGITUDE: –82.4884

B. SITE MAP

THE SITE MAP IS DEPICTED ON SHEET C4.01 – POST–DEVELOPMENT MASTER DRAINAGE PLAN.

C. NATURE OF THE CONSTRUCTION ACTIVITY

THE PROJECT WILL CONSIST OF 50 SINGLE FAMILY RESIDENTIAL LOTS WITH ASSOCIATED INFRASTRUCTURE IMPROVEMENTS. THE PROJECT WILL PROPOSE 2 STORMWATER BASINS ALONG WITH ACCOMPANYING DRAINAGE INFRASTRUCTURE.

D. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES

1. INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AND IMPLEMENTATION OF THE EROSION AND SEDIMENTATION CONTROL PLAN.
2. EXCAVATION OF STORMWATER MANAGEMENT BASIN IMPROVEMENTS. STABILIZE BASIN SLOPES.
3. CLEARING AND GRUBBING OF PROPOSED SITE AND UTILITY EASEMENTS AND BUILDING PAD AREAS.
4. SITE GRADING.
5. INSTALLATION OF STORM SEWER, SANITARY SEWER AND UTILITIES.
6. ROAD AREA SUBGRADE.
7. CONSTRUCTION OF CURB AND GUTTER.
8. ROAD AREA BASE.
9. FINISHED GRADING OF LOT BUILDING PADS, LOT GRADING, AND STABILIZATION OF THE SITE.
10. ASPHALT PAVING.
11. INSTALLATION OF SIDEWALKS
12. FINAL GRASSING AND LANDSCAPING.
13. CLEANING SEDIMENT FROM STORM SEWER SYSTEM AND BASIN OUTFALL.

E. TOTAL AREA OF THE PROJECT SITE: 7.54± ACRES

F. TOTAL AREA OF THE SITE TO BE DISTURBED: 2.7± ACRES

G. SOIL TYPES AND WATER TABLE

1. SOILS ARE VARIABLE WITH VARYING DEPTHS OF SILTY SAND SOILS OVER A VERY CLAYEY SAND LAYER.
2. THERE IS A CONFINING LAYER AT THIS LOCATION IN THE VERY CLAYEY SAND LAYER AT ROUGHLY 7'–8'± BELOW THE SURFACE.
3. SOIL TYPES WITHIN THE PROJECT AREA ARE CLASSIFIED PER NRCS AS FORTE MEADE FINE SAND, POMONA SAND, DEPRESSIONAL, KENDRICK SAND, AND BIVANS SAND..
4. THE ESTIMATED 100 YEAR FLOOD PLAIN IS EXPECTED TO BE AT ELEV = 113.39' FOR BASIN 1.
   THE ESTIMATED 100 YEAR FLOOD PLAIN IS EXPECTED TO BE AT ELEV = 102.94' FOR BASIN 2.

H. LOCATION AND DRAINAGE AREA FOR EACH DISCHARGE POINT

STORMWATER BASIN NO.	DRAINAGE AREA	LOCATION OF DISCHARGE POINT	RECEIVING WATERS
BASIN 1	1.23 AC	S–14	CREEK
BASIN 2	2.53 AC	S–16	CREEK

I. CONTROLS

1. PRIOR TO SOIL DISTURBING ACTIVITIES THE CONTRACTOR SHALL INSTALL THE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THE SEDIMENTATION AND EROSION CONTROL PAN.
2. THE CONTRACTOR SHALL CONTROL AND RESTRICT SITE ACCESS. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MATERIALS AT THE ACCESS POINT, AS REQUIRED, TO PREVENT MIGRATION OF ERODIBLE MATERIALS OFFSITE, EITHER BY VEHICLE, WIND OR STORM WATER TRANSPORT.
3. THE CONTRACTOR SHALL CONSTRUCT, INSTALL AND STABILIZE STORM WATER BASINS. SITE GRADING SHALL DIRECT STORM WATER RUNOFF TO THESE FACILITIES DURING CONSTRUCTION AND PRIOR TO DISCHARGE FROM THE PROJECT SITE.
4. UPON INSTALLATION, THE CONTRACTOR SHALL PROTECT THE STORM AND SANITARY SEWER SYSTEMS WITH HAYBALES AND/OR FILTER FABRIC TO PREVENT DEBRIS AND SEDIMENTS FROM ENTERING THESE SYSTEMS.
5. THE CONTRACTOR SHALL UTILIZE TEMPORARY CONTROLS SUCH AS SEEDING, MULCHING, GEOTEXTILES, WATERING, SOD STABILIZATION OR OTHER MEANS TO PREVENT EROSION OF EXPOSED SOILS FROM WIND, WATER OR RAIN.

J. CONTROLS TO DIVERT STORMWATER FLOW DURING CONSTRUCTION

1. THE CONTRACTOR SHALL TAKE MEASURES TO INSURE STORM WATER RUNOFF DOES NOT LEAVE THE PROJECT SITE WITHOUT FIRST PASSING THROUGH A SEDIMENT BASIN TO ALLOW SETTLING OF SUSPENDED SOLIDS IN THE STORM WATER PRIOR TO DISCHARGE FROM THE PROJECT SITE.
2. THE CONTRACTOR SHALL INSTALL SILT FENCING AS SHOWN ON THE SEDIMENTATION AND EROSION CONTROL PLAN.
3. THE CONTRACTOR SHALL CONSTRUCT, INSTALL AND STABILIZE STORM WATER BASINS. SITE GRADING SHALL DIRECT STORM WATER RUNOFF TO THESE FACILITIES DURING CONSTRUCTION AND PRIOR TO DISCHARGE FROM THE PROJECT SITE.
4. THE CONTRACTOR SHALL USE SILT FENCING, TEMPORARY SWALES, EARTHEN DIKES, CHECK DAMS OR OTHER MEANS TO DIRECT STORM WATER RUNOFF TO TEMPORARY SETTLING BASINS OR STORM WATER BASINS DURING CONSTRUCTION.

K. TEMPORARY SEDIMENT BASINS

1. THE CONTRACTOR SHALL CONSTRUCT, INSTALL AND STABILIZE STORM WATER BASINS OR SUMP OUTFALLS. THE CONTRACTOR SHALL USE THESE FACILITIES AS TEMPORARY SEDIMENT BASINS DURING THE SITE CONSTRUCTION PHASE. SITE GRADING SHALL DIRECT STORM WATER RUNOFF TO THESE FACILITIES DURING CONSTRUCTION AND PRIOR TO DISCHARGE FROM THE PROJECT SITE.
2. THE CONTRACTOR SHALL CLEAN STORM WATER BASINS OF SILT AND SEDIMENT DEPOSITS AT THE END OF CONSTRUCTION AND DISPOSE OF THE MATERIALS IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

L. PERMANENT STORM WATER MANAGEMENT CONTROLS

1. THE COMPLETED PROJECT HAS TWO (2) PERMANENT STORMWATER MANAGEMENT FACILITIES. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE PERMITTED AND APPROVED BY THE CITY OF ALACHUA AND THE SRWMD.
2. THE COMPLETED PROJECT WILL INCORPORATE AND MAINTAIN PERMANENT GRASSING, LANDSCAPING AND/OR GROUND COVERS TO PROTECT SITE SOILS FROM EROSION AND TRANSPORT.

M. CONTROLS FOR SPECIAL POLLUTANTS

1. WASTE DISPOSAL: WASTE CONSTRUCTION MATERIALS, DEBRIS AND GARBAGE WILL BE PLACED IN APPROPRIATE CONTAINERS. THE CONTRACTOR SHALL DISPOSE OF THESE MATERIALS IN AN APPROPRIATE MANNER AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. NO WASTE MATERIALS SHALL BE BURIED ON SITE.
2. OFFSITE VEHICLE TRACKING: THE CONTRACTOR SHALL CONTROL AND RESTRICT SITE ACCESS. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MATERIALS AT THE VEHICLE ACCESS POINT, AS REQUIRED, TO PREVENT MIGRATION OF ERODIBLE MATERIALS OFFSITE, EITHER BY VEHICLE, WIND OR STORM WATER TRANSPORT.
3. FERTILIZERS, HERBICIDES AND PESTICIDES: FLORIDA FRIENDLY FERTILIZERS AND PESTICIDES WILL BE USED AT A MINIMUM AND IN ACCORDANCE WITH THE MANUFACTURER'S SUGGESTED APPLICATION RATES. THE CONTRACTOR SHALL NOT STORE THESE ITEMS ON SITE.
4. TOXIC SUBSTANCES: THE CONTRACTOR SHALL NOT STORE FUELS, PAINT, CHEMICALS OR OTHER MATERIALS THAT ARE CONSIDERED TO BE TOXIC ON SITE. SHOULD THE CONTRACTOR DESIRE TO STORE SUCH MATERIALS ON SITE, THE CONTRACTOR SHALL PREPARE AND SUBMIT A WRITTEN PLAN TO ADDRESS STORAGE, SPILL PREVENTION AND CLEANUP PRIOR TO STORING THE MATERIALS ON SITE.
5. OTHER: PORT–O–LETS OR OTHER TEMPORARY SANITATION FACILITIES SHALL BE LOCATED AWAY FROM THE INLET POINTS TO THE STORM SEWER SYSTEM AND AWAY FROM THE STORM WATER BASINS. THE CONTRACTOR SHALL NOT ALLOW VEHICLE MAINTENANCE ON SITE.

N. MAINTENANCE PLAN

1. THE CONTRACTOR SHALL MAINTAIN PERMANENT AND TEMPORARY SEDIMENT AND EROSION CONTROL FEATURES IN ACCORDANCE WITH THE PLANS AND TECHNICAL SPECIFICATIONS.
2. SILT FENCING SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND ANY NECESSARY REPAIRS TO SHALL BE MADE IMMEDIATELY. THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM THE SILT FENCING WHEN IT HAS REACHED ONE–THIRD THE HEIGHT OF THE SILT FENCE.
3. THE CONTRACTOR SHALL MAINTAIN THE SITE VEHICULAR ACCESS POINT TO PREVENT TO PREVENT MIGRATION OF ERODIBLE MATERIALS OFFSITE, EITHER BY VEHICLE, WIND OR STORM WATER TRANSPORT.
4. THE CONTRACTOR SHALL INSPECT INLETS, MANHOLES AND OUTFALLS IMMEDIATELY AFTER EACH RAINFALL EVENT AND REPAIR THE CONTROLS NECESSARY TO PREVENT SILT AND SEDIMENTS FROM ENTERING THE STORM AND SANITARY SEWERS OR FROM DISCHARGING OFFSITE.
5. MULCH OR SOD THAT HAS WASHED OUT SHALL BE REPLACED IMMEDIATELY.
6. THE CONTRACTOR SHALL MAINTAIN ALL AREAS OF THE PROJECT SITE WITH PROPER EROSION AND SEDIMENT CONTROLS THROUGHOUT THE SITE CONSTRUCTION PERIOD OF THE PROJECT.

O. COMPLIANCE INSPECTIONS

1. QUALIFIED PERSONNEL WILL INSPECT ALL POINTS OF DISCHARGE, ALL DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN STABILIZED, ACTIVE CONSTRUCTION AREAS, VEHICULAR ACCESS POINTS AND ALL BEST MANAGEMENT PRACTICES AT LEAST ONCE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT THAT IS 0.5 INCHES OR GREATER. AREAS OF THE PROJECT SITE THAT HAVE BEEN STABILIZED SHALL BE INSPECTED AT LEAST ONCE A MONTH. THESE INSPECTIONS SHALL CONTINUE UNTIL A NOTICE OF TERMINATION IS FILED.

P. NON–STORM WATER DISCHARGES

1. IT IS EXPECTED THAT THE FOLLOWING NON–STORM WATER DISCHARGES MAY OCCUR FROM THE SITE DURING CONSTRUCTION: FIRE FLOW TESTS OR FLUSHING, WATER FROM UTILITY LINE FLUSHING, PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED) AND UNCONTAMINATED GROUNDWATER (FROM DEWATERING ACTIVITIES).
2. DEWATERING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEP GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUND WATER FROM ANY NONCONTAMINATED SITE ACTIVITY.
3. IF NON–STORM WATER DISCHARGES DO OCCUR, WATERS SHOULD BE DIRECTED TO STORM WATER BASINS OR TEMPORARY BASINS PRIOR TO DISCHARGE FROM THE PROJECT SITE.
4. TURBID WATERS FROM STORM WATER PONDS SHALL NOT BE PUMPED OFFSITE OR DIRECTLY TO OFFSITE RECEIVING WATERS.
5. ANY PUMPED WATER FROM THE STORM WATER PONDS SHALL BE TREATED SO AS NOT TO ALLOW DISCHARGE OF POLLUTED WATERS FROM THE PROJECT SITE. TREATMENT OPTIONS INCLUDE SILT FENCES, SETTLING PONDS, PROPERLY USED FLOCCULATING AGENTS OR OTHER APPROPRIATE MEANS.

CONSTRUCTION INSPECTION FORM
STORMWATER POLLUTION PREVENTION PLAN

INSPECTION FREQUENCY: WEEKLY OR AFTER 0.50 INCHES OF RAIN

PROJECT NAME: TOLOSA NORTH – PHASE 1 & 2
OWNER: ALACHUA HABITAT FOR HUMANITY
CONTRACTOR: _____
CONSTRUCTION MANAGER: _____

FORM INSTRUCTIONS: ENTER THE DATE OF THE INSPECTION. IF THE INSPECTED ITEM IS SATISFACTORY, INSERT A CHECK. IF THE INSPECTED ITEM IS UNSATISFACTORY, INSERT AN "X" AND DESCRIBE THE MAINTENANCE ACTIONS TAKEN TO CORRECT THE PROBLEM. THE INSPECTOR SHALL ENTER THEIR INITIALS. CREATE ADDITIONAL SHEETS IF NECESSARY.

INSPECTOR INFORMATION:

NAME _____ QUALIFICATION _____ DATE _____

THE ABOVE SIGNATURE ALSO SHALL CERTIFY THAT THIS FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES IF THERE ARE NOT ANY INCIDENTS OF NON–COMPLIANCE IDENTIFIED ABOVE.

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

NAME (RESPONSIBLE AUTHORITY) _____ DATE _____

CERTIFICATION STATEMENT
STORMWATER POLLUTION PREVENTION PLAN

ALL CONTRACTOR(S) AND/OR SUB–CONTRACTOR(S) RESPONSIBLE FOR COMPLYING WITH THIS STORMWATER POLLUTION PREVENTION PLAN SHALL SIGN THE CERTIFICATION STATEMENT BELOW. MULTIPLE COPIES OF THIS CERTIFICATION STATEMENT MAY BE NECESSARY DEPENDING ON THE NUMBER OF SUB–CONTRACTORS ASSOCIATED WITH THE PROJECT.

SITE: TOLOSA NORTH – PHASE 1 & 2

CONTRACTING FIRM: _____
FIRM NAME
ADDRESS
TELEPHONE NUMBER

I CERTIFY, UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC STORMWATER PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

NAME TITLE

SIGNATURE DATE

DATE OF INSPECTION	SILT FENCE / EARTH DIKES	STRUCTURAL DIVERSION	SWALE	SEDIMENT TRAP	CHECK DAM	SUBSURFACE DRAIN	PIPE SLOPE DRAIN	LEVEL SPREADERS	STORM DRAIN INLET PROTECTION	VEGETATIVE BUFFER STRIP	VEGETATIVE PRESERVATION AREA	RETENTION POND	CONSTRUCTION ENTRANCE STABILIZATION	PERIMETER DITCH	CURB AND GUTTER	PAVED ROAD SURFACE	ROCK OUTLET PROTECTION	REINFORCED SOIL RETAINING SYSTEM	GABION	SEDIMENT BASIN	TEMPORARY SEED / SOD	PERMANENT SEED / SOD	MULCH	HAY BALES	GEOTEXTILE	RIP–RAP	TREE PROTECTION	DETENTION POND	RETENTION POND	WASTE DISPOSAL / HOUSEKEEPING	DAM	SAND BAG	OTHER	OBSERVATIONS OR MAINTENANCE ACTIONS TAKEN	INSPECTED BY

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JACK CHARNAS, PE ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

JACK CONSTANTINE CHARNAS LICENSE No. 96925 07/06/2026 STATE OF FLORIDA PROFESSIONAL ENGINEER

JBPro
CIVIL ENGINEERING | LAND PLANNING
SURVEYING | CONSTRUCTION SERVICES

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4420 US-1 S, Suite 1 | St. Augustine, Florida 32086
Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN

DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C1.01

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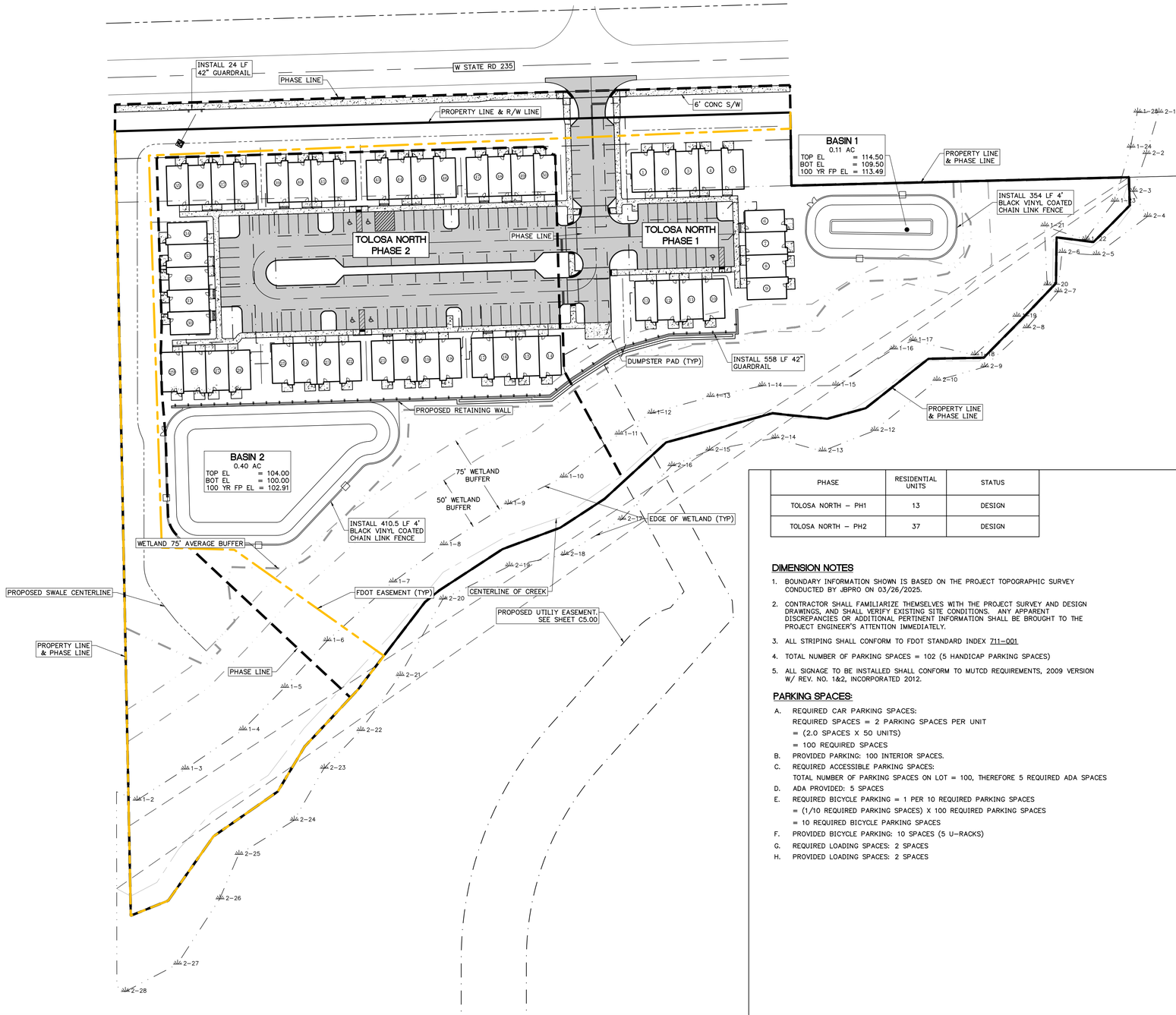

PHASE	RESIDENTIAL UNITS	STATUS
TOLOSA NORTH – PH1	13	DESIGN
TOLOSA NORTH – PH2	37	DESIGN

DIMENSION NOTES

1. BOUNDARY INFORMATION SHOWN IS BASED ON THE PROJECT TOPOGRAPHIC SURVEY CONDUCTED BY JBPRO ON 03/26/2025.
2. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE PROJECT SURVEY AND DESIGN DRAWINGS, AND SHALL VERIFY EXISTING SITE CONDITIONS. ANY APPARENT DISCREPANCIES OR ADDITIONAL PERTINENT INFORMATION SHALL BE BROUGHT TO THE PROJECT ENGINEER'S ATTENTION IMMEDIATELY.
3. ALL STRIPING SHALL CONFORM TO FDOT STANDARD INDEX 711-001
4. TOTAL NUMBER OF PARKING SPACES = 102 (5 HANDICAP PARKING SPACES)
5. ALL SIGNAGE TO BE INSTALLED SHALL CONFORM TO MUTCD REQUIREMENTS, 2009 VERSION W/ REV. NO. 1&2, INCORPORATED 2012.

PARKING SPACES:

A. REQUIRED CAR PARKING SPACES:
   REQUIRED SPACES = 2 PARKING SPACES PER UNIT
   = (2.0 SPACES X 50 UNITS)
   = 100 REQUIRED SPACES
B. PROVIDED PARKING: 100 INTERIOR SPACES.
C. REQUIRED ACCESSIBLE PARKING SPACES:
   TOTAL NUMBER OF PARKING SPACES ON LOT = 100, THEREFORE 5 REQUIRED ADA SPACES
D. ADA PROVIDED: 5 SPACES
E. REQUIRED BICYCLE PARKING = 1 PER 10 REQUIRED PARKING SPACES
   = (1/10 REQUIRED PARKING SPACES) X 100 REQUIRED PARKING SPACES
   = 10 REQUIRED BICYCLE PARKING SPACES
F. PROVIDED BICYCLE PARKING: 10 SPACES (5 U-RACKS)
G. REQUIRED LOADING SPACES: 2 SPACES
H. PROVIDED LOADING SPACES: 2 SPACES

LEGEND

PHASE LINE

FDOT EASEMENT LINE

N

50 25 0 50 100' 150
SCALE 1" = 50'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: MASTER DEVELOPMENT PLAN

DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C2.00

Jul 25, 2025 - 1:55:46 PM, JACK.C
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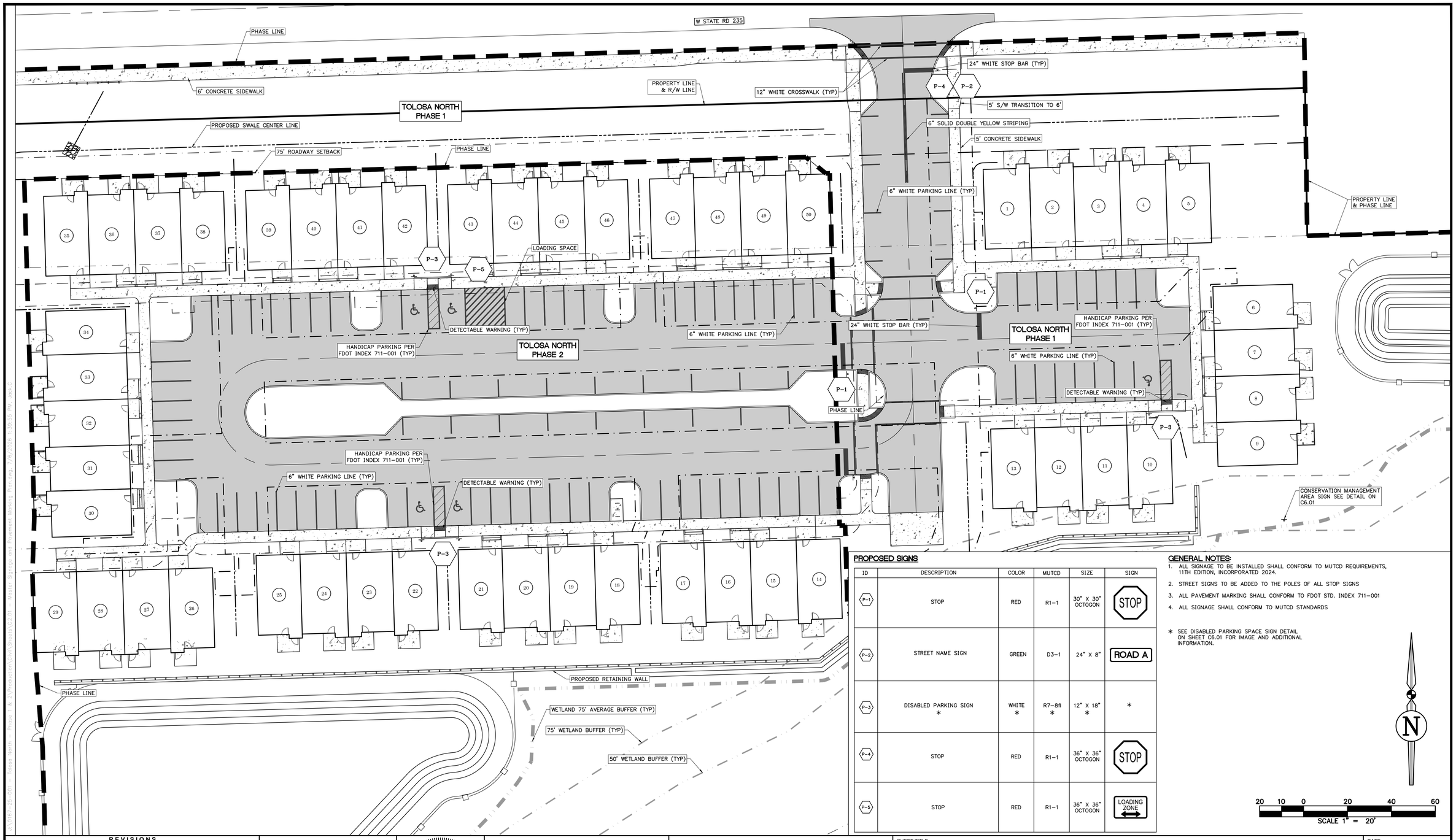

PROPOSED SIGNS

ID	DESCRIPTION	COLOR	MUTCD	SIZE	SIGN
P-1	STOP	RED	R1-1	30" X 30" OCTOGON	STOP
P-2	STREET NAME SIGN	GREEN	D3-1	24" X 8"	ROAD A
P-3	DISABLED PARKING SIGN *	WHITE *	R7-8fl *	12" X 18" *	*
P-4	STOP	RED	R1-1	36" X 36" OCTOGON	STOP
P-5	STOP	RED	R1-1	36" X 36" OCTOGON	LOADING ZONE

GENERAL NOTES:

1. ALL SIGNAGE TO BE INSTALLED SHALL CONFORM TO MUTCD REQUIREMENTS, 11TH EDITION, INCORPORATED 2024.
2. STREET SIGNS TO BE ADDED TO THE POLES OF ALL STOP SIGNS
3. ALL PAVEMENT MARKING SHALL CONFORM TO FDOT STD. INDEX 711-001
4. ALL SIGNAGE SHALL CONFORM TO MUTCD STANDARDS

* SEE DISABLED PARKING SPACE SIGN DETAIL ON SHEET C6.01 FOR IMAGE AND ADDITIONAL INFORMATION.

N

20 10 0 20 40 60

SCALE 1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: MASTER SIGNAGE AND PAVEMENT MARKING PLAN

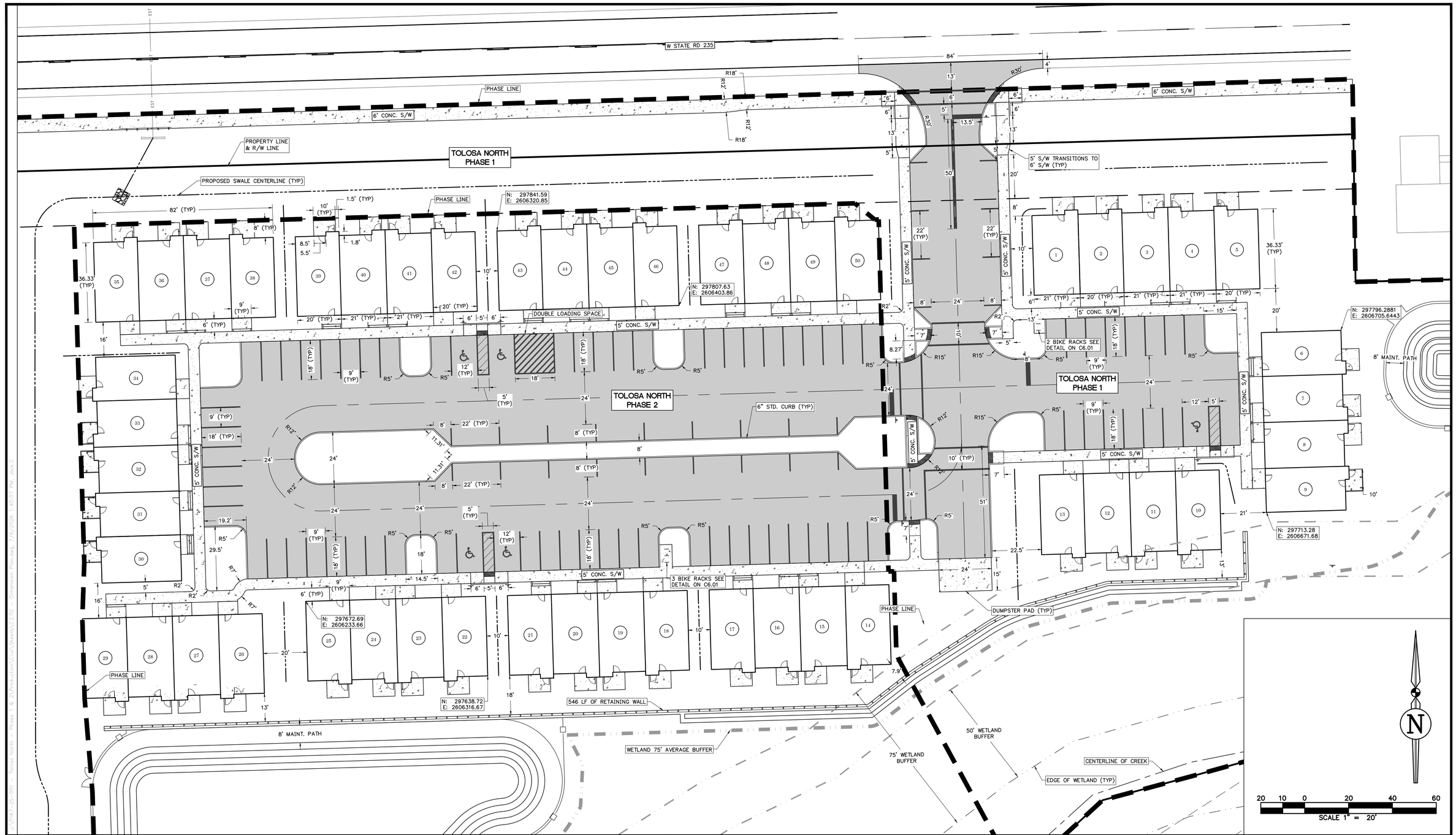
DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C2.01



REVISIONS				
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ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: DIMENSION PLAN

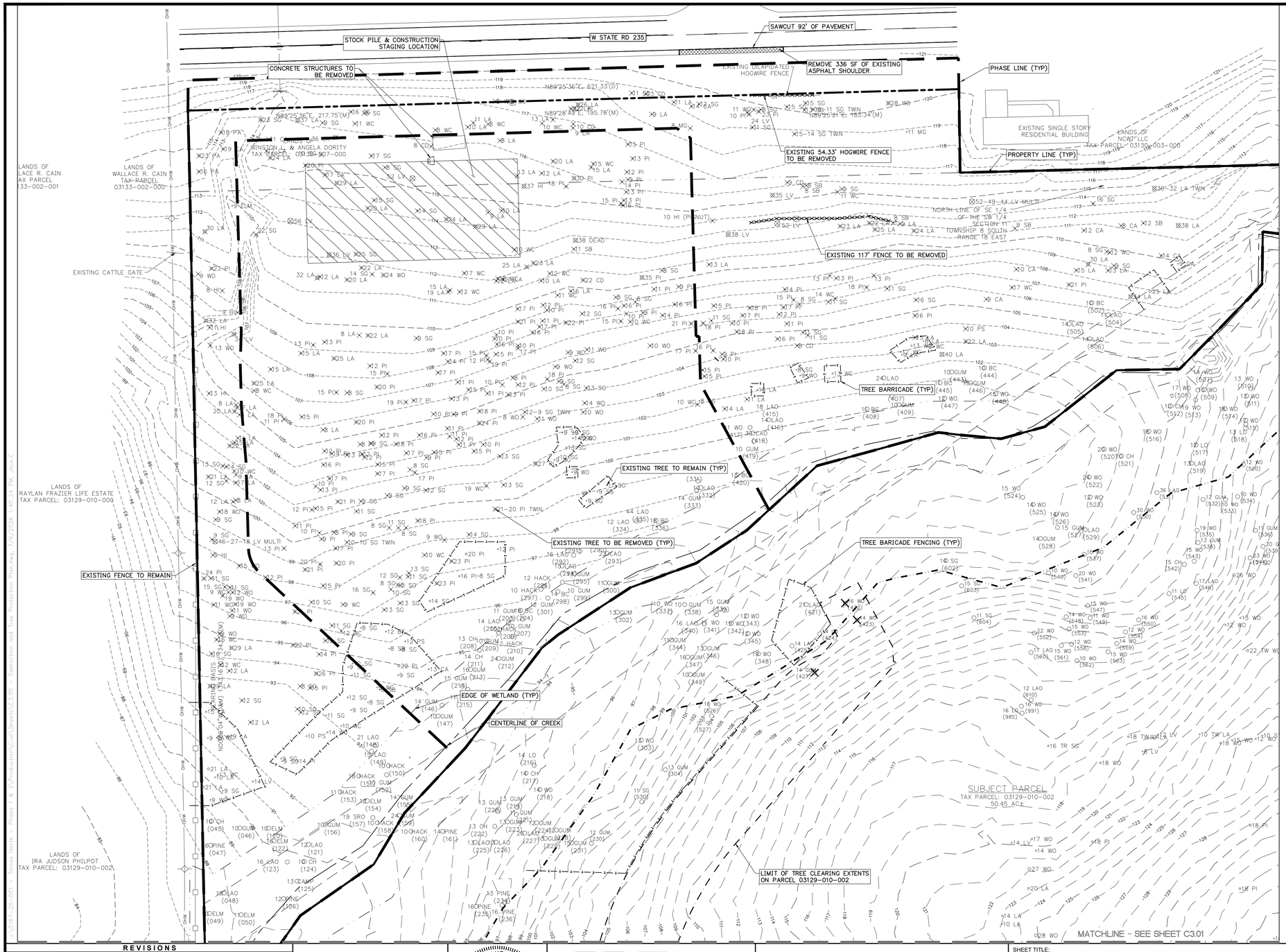
DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C2.02

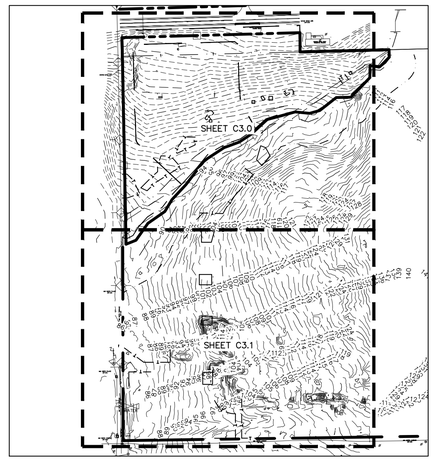


DEMOLITION LEGEND

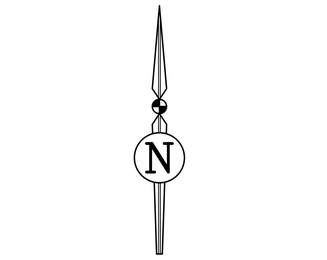
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN — ○ 12 CA
- EXISTING FENCING TO BE REMOVED
- TREE BARRICADE FENCING — T — T —
- EXISTING SITE FEATURE TO BE REMOVED — X
- PROPOSED PHASE LINE
- SAWCUT
- TREE CLEARING EXTENTS (PARCEL 03129-010-002)

GENERAL DEMOLITION NOTES

1. PRIOR TO DEMOLITION AND CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO VERIFY THE LOCATION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES TO BE REMOVED OR RELOCATED.
2. CONTRACTOR IS RESPONSIBLE FOR ALL SITE DEMOLITION AND MATERIAL REMOVAL. IN ADDITION TO THE DEMOLITION SHOWN, THE CONTRACTOR SHALL REMOVE ALL MISCELLANEOUS TRASH, DEBRIS, FENCING ETC., IN ORDER TO PROVIDE A CLEAN CONSTRUCTION SITE.
3. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF ALL DEMOLITION MATERIAL OFF SITE. DISPOSAL METHODS AND LOCATIONS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
4. REMOVAL OF ALL CONSTRUCTION DEBRIS, LIMEROCK, EXCESS OF BUILDERS SAND, CONCRETE AND MORTAR DEBRIS, EXISTING WEEDS AND GRASSES, AND ALL FOREIGN MATERIALS IN THE PLANTING BED AND SOD AREAS IS THE RESPONSIBILITY OF THE SITE WORK CONTRACTOR. SOIL IN AREAS TO BE LANDSCAPED SHALL BE UNCOMPACTED, SUITABLE FOR ROOT GROWTH WITH APPROPRIATE AMOUNTS OF ORGANIC MATTER, AND OF PH RANGE OF 5.5 – 6.5.
5. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL DESIGNATE A TEMPORARY CONSTRUCTION ENTRANCE AND STOCKPILE AREA.
6. SEE LANDSCAPE PLANS FOR TREE MITIGATION AND PLANTING PLANS.
7. ALL VEGETATIVE MATERIALS IDENTIFIED IN THE FLORIDA EXOTIC PEST PLANT COUNCIL'S LIST OF INVASIVE SPECIS, AS AMENDED, SHALL BE REMOVED AT TIME OF DEVELOPMENT.



KEY MAP



REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: DEMOLITION AND TREE PROTECTION PLAN - NORTH

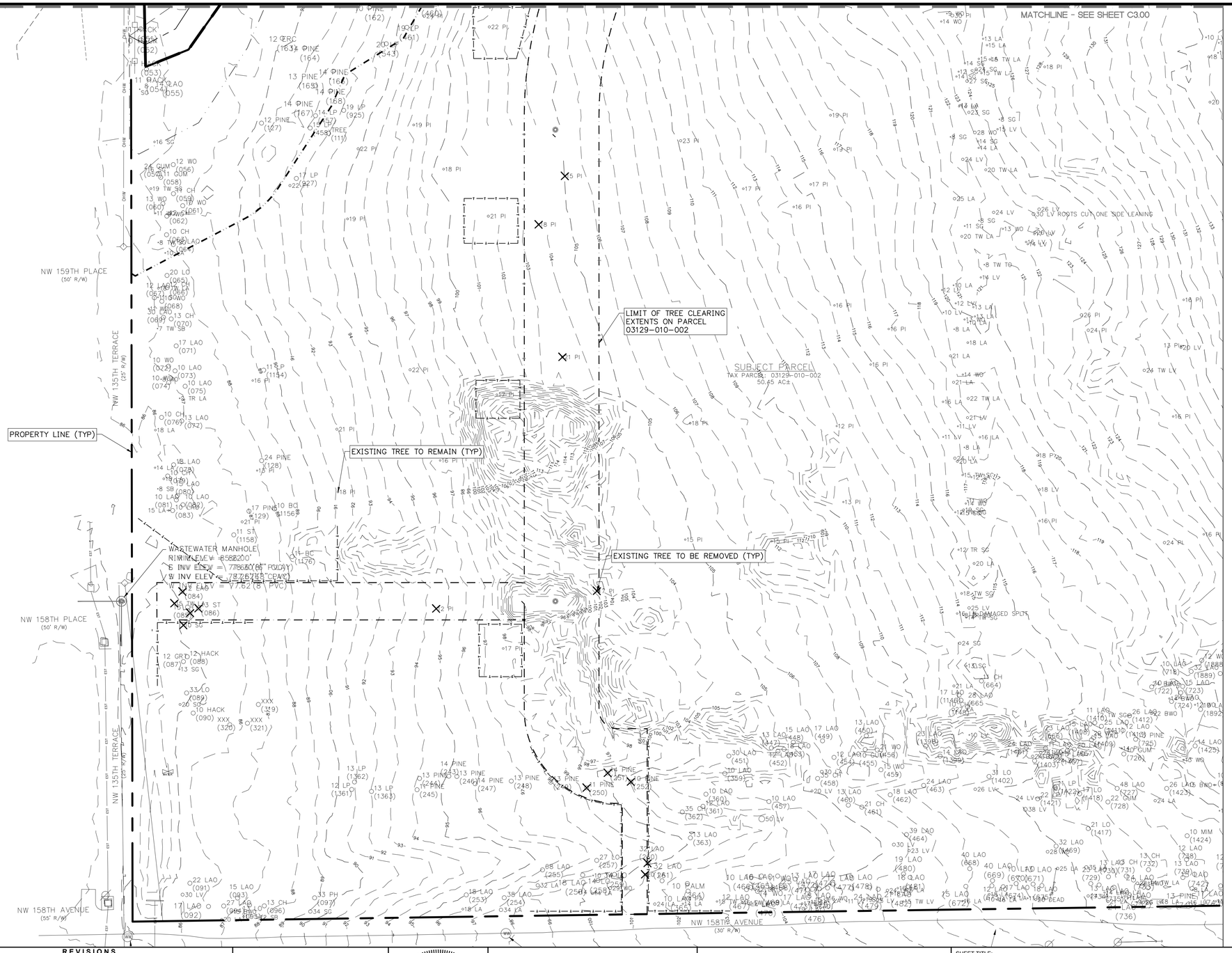
DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C3.00



DEMOLITION LEGEND

EXISTING TREE TO BE REMOVED	⊗
EXISTING TREE TO REMAIN	○ 12 CA
EXISTING FENCING TO BE REMOVED	×—×—×—×—×
TREE BARRICADE FENCING	—T—T—
EXISTING SITE FEATURE TO BE REMOVED	×
PROPOSED PHASE LINE	▬ ▬
SAWCUT	— — —
TREE CLEARING EXTENTS (PARCEL 03129-010-002)	- - - -

GENERAL DEMOLITION NOTES

1. PRIOR TO DEMOLITION AND CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO VERIFY THE LOCATION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES TO BE REMOVED OR RELOCATED.
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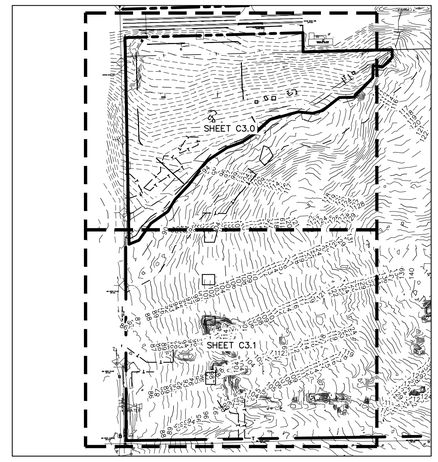
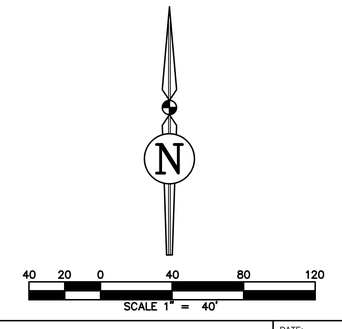
6. SEE LANDSCAPE PLANS FOR TREE MITIGATION AND PLANTING PLANS.
7. ALL VEGETATIVE MATERIALS IDENTIFIED IN THE FLORIDA EXOTIC PEST PLANT COUNCIL'S LIST OF INVASIVE SPECIS, AS AMENDED, SHALL BE REMOVED AT TIME OF DEVELOPMENT.



KEY MAP



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ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: DEMOLITION AND TREE PROTECTION PLAN - SOUTH

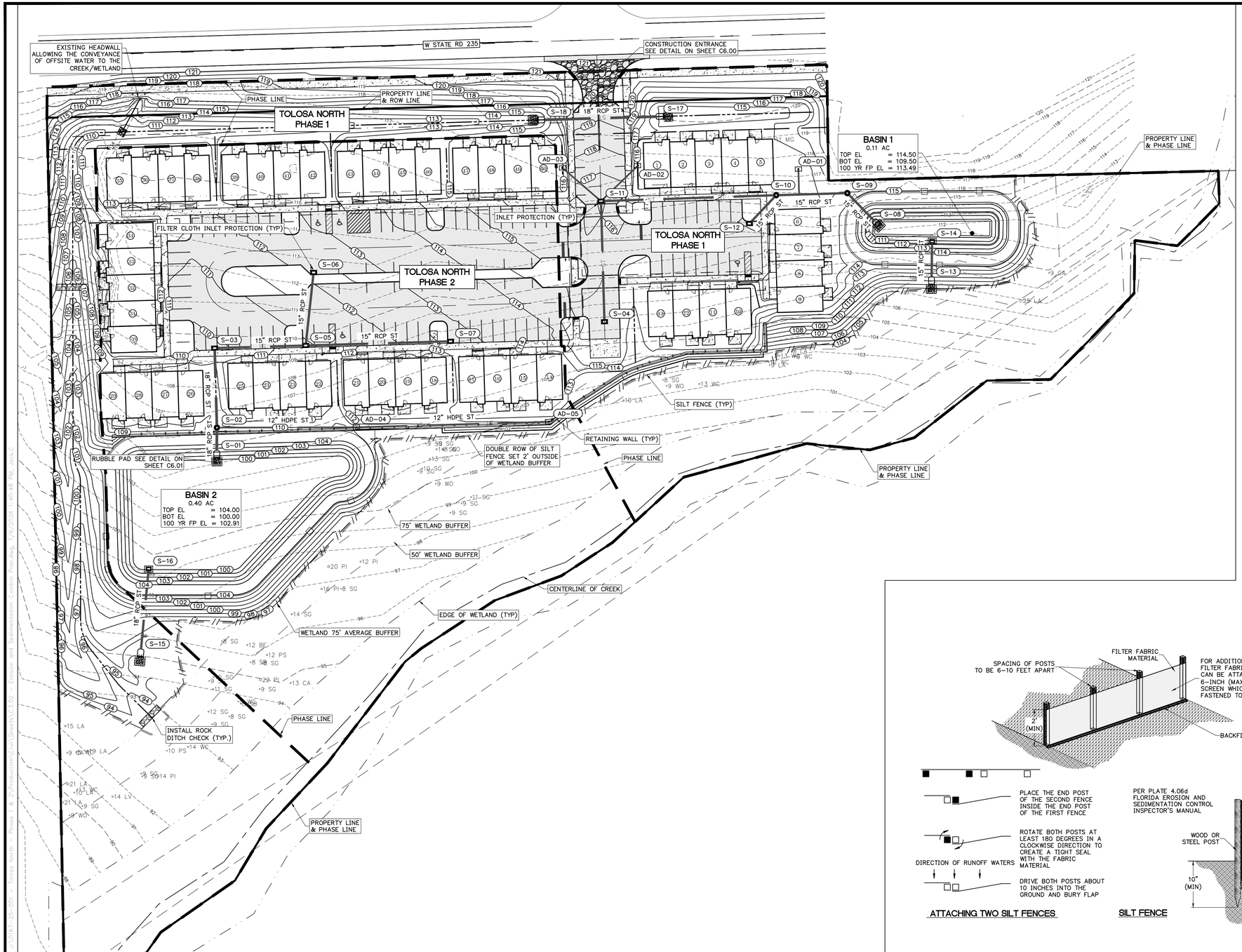
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C3.01



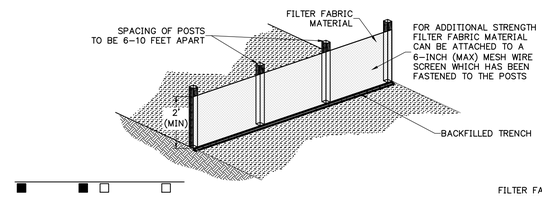
EROSION AND SEDIMENTATION CONTROL NOTES

1. THE CONTRACTOR SHALL UTILIZE THE EROSION AND SEDIMENTATION CONTROL PLAN AS A GENERAL GUIDE AND DIRECTION FOR MINIMUM CONTROL MEASURES. CONTRACTOR SHALL UTILIZE EROSION CONTROL BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED TO MINIMIZE EROSION AND SEDIMENTATION BUILDUP ONSITE AND TO PREVENT EROSION AND SEDIMENTATION DISCHARGE OFF PROPERTY.
2. CONTRACTOR SHALL EMPLOY AN FDEP CERTIFIED EROSION AND SEDIMENTATION CONTROL INSPECTOR TO MONITOR THE CONTRACTOR'S EROSION AND SEDIMENTATION CONTROL WORK EFFORT THROUGHOUT CONSTRUCTION.
3. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY, AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM THE SITE.
4. SILT FENCING AND OTHER SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED WHERE SHOWN ON THE DRAWINGS PRIOR TO STARTING CONSTRUCTION. ALL STORM DRAIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION IN ACCORDANCE WITH FDOT EROSION AND SEDIMENTATION CONTROL DESIGNER AND REVIEWER MANUAL (JUNE 2007) TO PREVENT SEDIMENT DISCHARGE TO THE EXISTING STORMWATER MANAGEMENT SYSTEM.
5. THE RETENTION BASINS SHALL BE PROTECTED FROM SEDIMENT DISCHARGE BY SILT FENCE AT THE DISCHARGE STORM STRUCTURE. CAREFUL ATTENTION SHALL BE PAID TO PREVENT EROSION FROM ENTERING THE BASIN BOTTOM BEYOND THE IMMEDIATE EXIT OF THE STRUCTURE. REMOVE ALL SEDIMENT BUILDUP AT THE DISCHARGE STRUCTURE REGULARLY THROUGHOUT CONSTRUCTION.
6. PROTECT EXISTING STORMWATER INLET STRUCTURES WITH FILTER FABRIC OR OTHER EROSION CONTROL DEVICE TO PREVENT SEDIMENTS FROM ENTERING STORM SEWER SYSTEM.
7. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER 1/2" OR GREATER RAINFALL. ANY DEFICIENCIES DISCOVERED SHALL BE REPAIRED, ADJUSTED, OR IMPROVED AS REQUIRED.
8. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND APPROVED, AND VEGETATION IS FULLY ESTABLISHED.
9. CONTRACTOR SHALL MINIMIZE AIR POLLUTION FROM PARTICULATES AND DUST. WATER SHALL BE APPLIED AS NEEDED TO REDUCE DUST DURING CONSTRUCTION. USE OTHER STABILIZATION METHODS SUCH AS HYDROMULCHING AS NEEDED.
10. CONTRACTOR SHALL STOCKPILE AND STORE MATERIALS SUCH THAT STORMWATER FLOW IS NOT IMPEDED DURING CONSTRUCTION AND MATERIAL EROSION DOES NOT OCCUR.
11. ALL DISTURBED OPEN AREAS WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE COMPLETELY GRASSED BY COMPLETION OF CONSTRUCTION. GRASS SEEDING RATES AND MIXTURES SHALL BE PER FDOT EROSION AND SEDIMENTATION CONTROL DESIGNER AND REVIEWER MANUAL (JULY 2013). EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO FINAL RELEASE.
12. THE STORM SEWER SYSTEM SHALL BE FLUSHED OUT TO REMOVE ALL ACCUMULATED DEBRIS AND SEDIMENT UPON COMPLETION OF CONSTRUCTION.

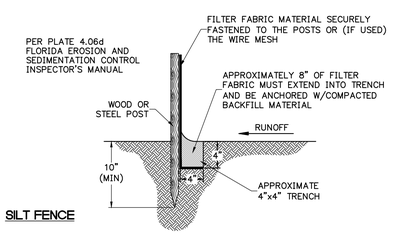
SILT FENCE/TREE BARRICADE OFFSET

LEGEND

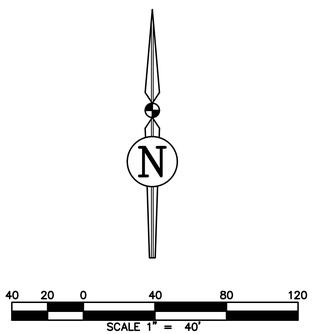
- SILT-FENCE BARRIERS PER FDOT EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (JUNE 2013)
- 22 PI — EX TREE TO REMAIN
- FILTER CLOTH INLET PROTECTION
- FILTER SOCK INLET PROTECTION
- PHASE BOUNDARY LINE



ATTACHING TWO SILT FENCES



SILT FENCE



REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: **JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925**

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SHEET TITLE: EROSION AND SEDIMENTATION CONTROL PLAN

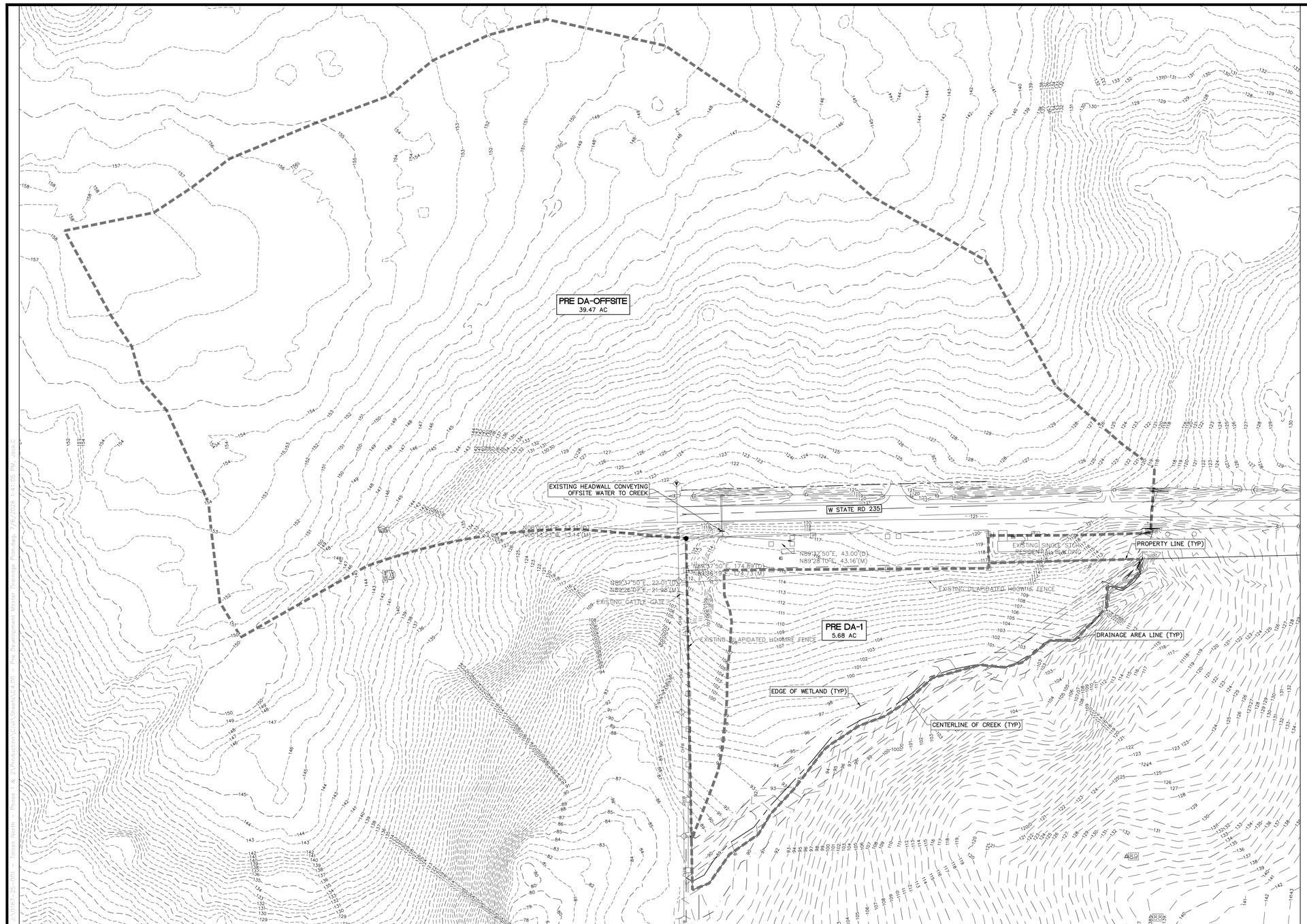
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C3.02



LEGEND

DRAINAGE AREA LINE

GENERAL NOTE

1. TREES HAVE BEEN HIDDEN FROM THE SHEET FOR PLAN READABILITY. PLEASE SEE LANDSCAPE PLANS FOR ALL TREE IMPACTS.

N

100 50 0 100 200 300

SCALE 1" = 100'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: PRE DEVELOPMENT MASTER DRAINAGE PLAN

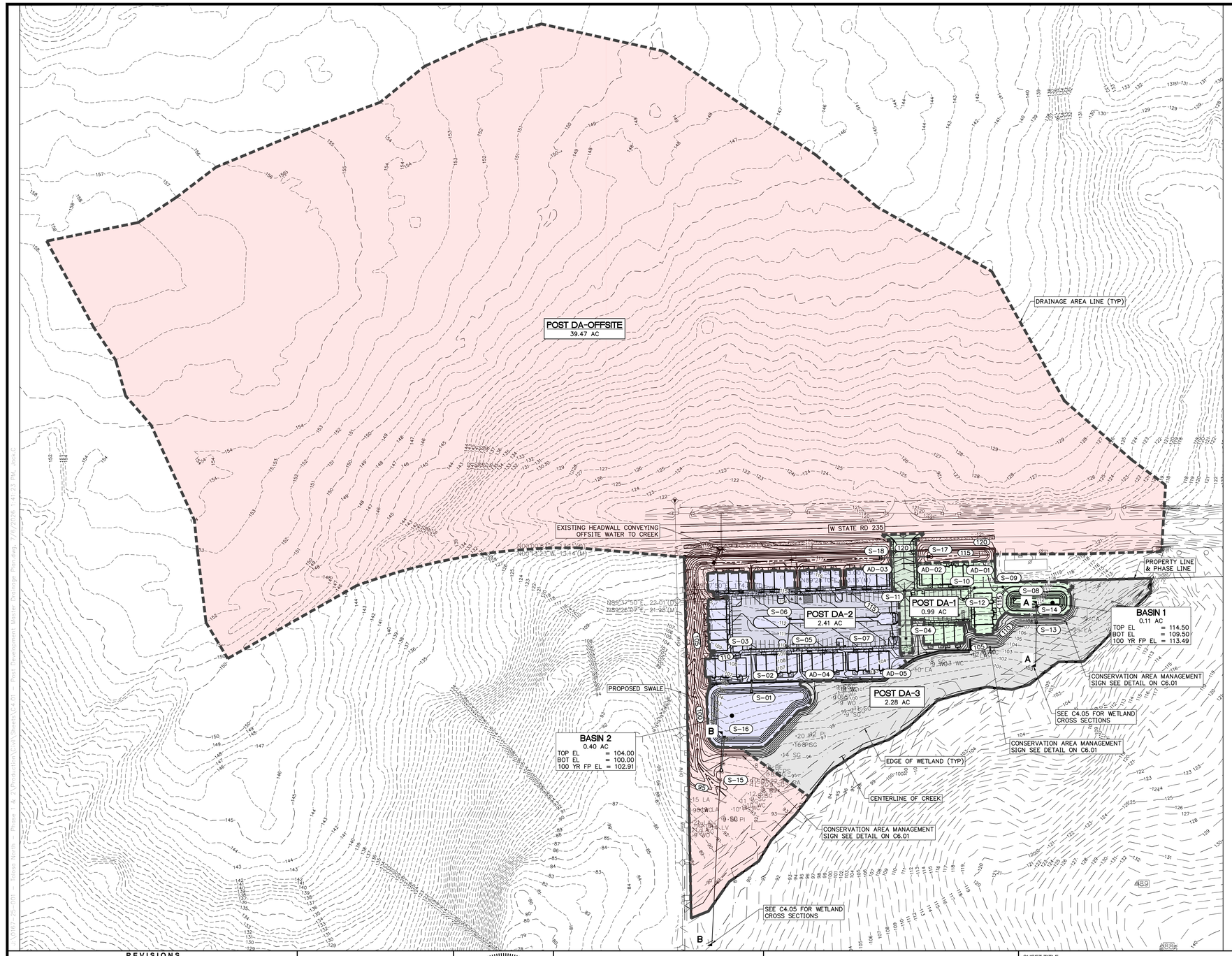
DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C4.00



STORM STRUCTURES TABLE

DITCH BOTTOM INLETS

S-03
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 109.84
E INV EL = 103.16 (15" RCP)
S INV EL = 103.16 (18" RCP)

S-04
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.16
N INV EL = 111.68 (15" RCP)

S-05
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 110.90
E INV EL = 106.23 (15" RCP)
W INV EL = 103.89 (15" RCP)
N INV EL = 106.23 (15" RCP)

S-06
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 112.18
S INV EL = 106.82 (15" RCP)

S-07
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 112.63
W INV EL = 107.38 (15" RCP)

S-11
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.93
E INV EL = 111.21 (15" RCP)
NW INV EL = 112.57 (12" HDPE)
NE INV EL = 112.56 (12" HDPE)
S INV EL = 111.20 (15" RCP)

S-12
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 114.93
NE INV EL = 110.22 (15" RCP)

S-14
TYPE E DBI
FDOT INDEX NO. 425-052
GRATE EL = 113.45
S INV EL = 109.09 (15" RCP)

S-16
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 103.00
S INV EL = 96.50 (18" RCP)

MANHOLES

S-02
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 110.05
N INV EL = 102.68 (18" RCP)
S INV EL = 100.65 (18" RCP)
E INV EL = 103.18 (12" HDPE)

S-09
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 116.39
W INV EL = 109.66 (15" RCP)
SE INV EL = 109.66 (15" RCP)

S-10
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 115.87
SW INV EL = 110.06 (15" RCP)
E INV EL = 109.94 (15" RCP)
W INV EL = 110.51 (15" RCP)

MITERED END SECTIONS

S-01
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 100.50 (18" RCP)

S-08
MITERED END SECTION
FDOT INDEX NO. 430-022
NW INV EL = 109.50 (15" RCP)

S-13
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 109.00 (15" RCP)

S-15
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 95.00 (18" RCP)

AREA DRAINS

AD-01
AREA DRAIN
GRATE EL = 115.05
S INV EL = 109.95 (12" HDPE)

AD-02
AREA DRAIN
GRATE EL = 115.85
SW INV EL = 112.77 (12" HDPE)

AD-03
AREA DRAIN
GRATE EL = 115.80
SE INV EL = 112.77 (12" HDPE)

AD-04
AREA DRAIN
GRATE EL = 110.16
E INV EL = 104.30 (12" HDPE)
W INV EL = 104.30 (12" HDPE)

AD-05
AREA DRAIN
GRATE EL = 111.95
W INV EL = 105.83 (12" HDPE)

STORM PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
AD-01	INSERTATEE	12" HDPE	19'	0.50%
AD-02	S-11	12" HDPE	41'	0.50%
AD-03	S-11	12" HDPE	41'	0.50%
AD-04	S-02	12" HDPE	111'	1.00%
AD-05	AD-04	12" HDPE	153'	1.00%
S-02	S-01	18" RCP	20'	0.71%
S-03	S-02	18" RCP	63'	0.75%
S-04	S-11	15" RCP	96'	0.50%
S-05	S-03	15" RCP	73'	1.00%
S-06	S-05	15" RCP	59'	1.00%
S-07	S-05	15" RCP	115'	1.00%
S-09	S-08	15" RCP	32'	0.50%
S-10	S-09	15" RCP	57'	0.50%
S-11	S-10	15" RCP	140'	0.50%
S-12	S-10	15" RCP	31'	0.50%
S-14	S-13	15" RCP	31'	0.30%
S-16	S-15	18" RCP	66'	2.26%
S-17	S-18	18" RCP	93'	0.50%

LEGEND

DRAINAGE AREA LINE

N

100 50 0 100 200 300
SCALE 1" = 100'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: POST DEVELOPMENT MASTER DRAINAGE PLAN

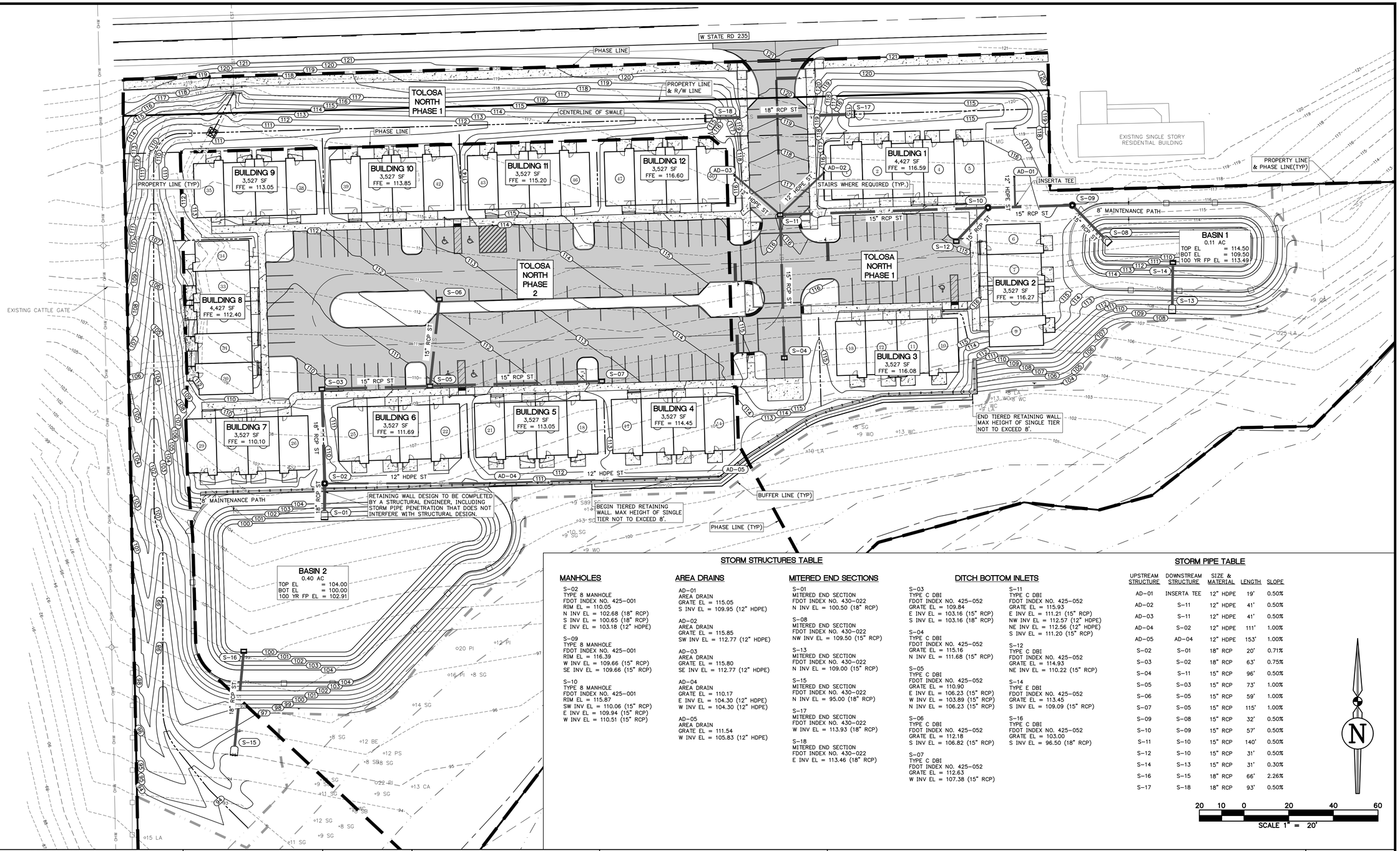
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C4.01



STORM STRUCTURES TABLE

MANHOLES

S-02
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 110.05
N INV EL = 102.68 (18" RCP)
S INV EL = 100.65 (18" RCP)
E INV EL = 103.18 (12" HDPE)

S-09
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 116.39
W INV EL = 109.66 (15" RCP)
SE INV EL = 109.66 (15" RCP)

S-10
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 115.87
SW INV EL = 110.06 (15" RCP)
E INV EL = 109.94 (15" RCP)
W INV EL = 110.51 (15" RCP)

AREA DRAINS

AD-01
AREA DRAIN
GRATE EL = 115.05
S INV EL = 109.95 (12" HDPE)

AD-02
AREA DRAIN
GRATE EL = 115.85
SW INV EL = 112.77 (12" HDPE)

AD-03
AREA DRAIN
GRATE EL = 115.80
SE INV EL = 112.77 (12" HDPE)

AD-04
AREA DRAIN
GRATE EL = 110.17
E INV EL = 104.30 (12" HDPE)
W INV EL = 104.30 (12" HDPE)

AD-05
AREA DRAIN
GRATE EL = 111.54
W INV EL = 105.83 (12" HDPE)

MITERED END SECTIONS

S-01
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 100.50 (18" RCP)

S-08
MITERED END SECTION
FDOT INDEX NO. 430-022
NW INV EL = 109.50 (15" RCP)

S-13
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 109.00 (15" RCP)

S-15
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 95.00 (18" RCP)

S-17
MITERED END SECTION
FDOT INDEX NO. 430-022
W INV EL = 113.93 (18" RCP)

S-18
MITERED END SECTION
FDOT INDEX NO. 430-022
E INV EL = 113.46 (18" RCP)

DITCH BOTTOM INLETS

S-03
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 109.84
E INV EL = 103.16 (15" RCP)
S INV EL = 103.16 (18" RCP)

S-04
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.16
N INV EL = 111.68 (15" RCP)

S-05
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 110.90
E INV EL = 106.23 (15" RCP)
W INV EL = 103.89 (15" RCP)
N INV EL = 106.23 (15" RCP)

S-06
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 112.18
S INV EL = 106.82 (15" RCP)

S-07
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 112.63
W INV EL = 107.38 (15" RCP)

S-11
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.93
E INV EL = 111.21 (15" RCP)
NW INV EL = 112.57 (12" HDPE)
NE INV EL = 112.56 (12" HDPE)
S INV EL = 111.20 (15" RCP)

S-12
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 114.93
NE INV EL = 110.22 (15" RCP)

S-14
TYPE E DBI
FDOT INDEX NO. 425-052
GRATE EL = 113.45
S INV EL = 109.09 (15" RCP)

S-16
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 103.00
S INV EL = 96.50 (18" RCP)

STORM PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
AD-01	INSERTA TEE	12" HDPE	19'	0.50%
AD-02	S-11	12" HDPE	41'	0.50%
AD-03	S-11	12" HDPE	41'	0.50%
AD-04	S-02	12" HDPE	111'	1.00%
AD-05	AD-04	12" HDPE	153'	1.00%
S-02	S-01	18" RCP	20'	0.71%
S-03	S-02	18" RCP	63'	0.75%
S-04	S-11	15" RCP	96'	0.50%
S-05	S-03	15" RCP	73'	1.00%
S-06	S-05	15" RCP	59'	1.00%
S-07	S-05	15" RCP	115'	1.00%
S-09	S-08	15" RCP	32'	0.50%
S-10	S-09	15" RCP	57'	0.50%
S-11	S-10	15" RCP	140'	0.50%
S-12	S-10	15" RCP	31'	0.50%
S-14	S-13	15" RCP	31'	0.30%
S-16	S-15	18" RCP	66'	2.26%
S-17	S-18	18" RCP	93'	0.50%

N

20 10 0 20 40 60
SCALE 1" = 20'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: MASTER GRADING PLAN

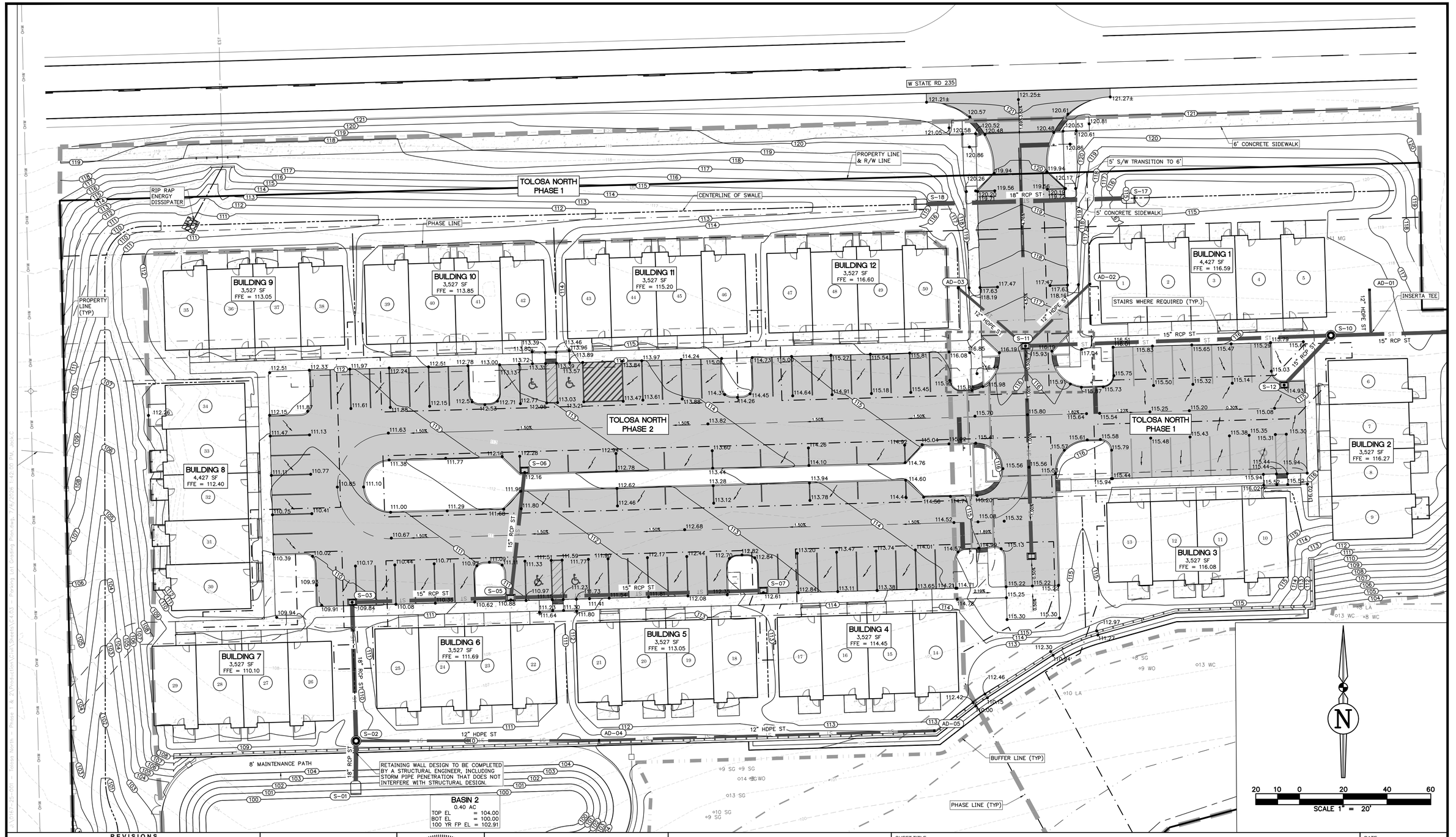
DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C4.02



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NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: PARKING LOT GRADING PLAN

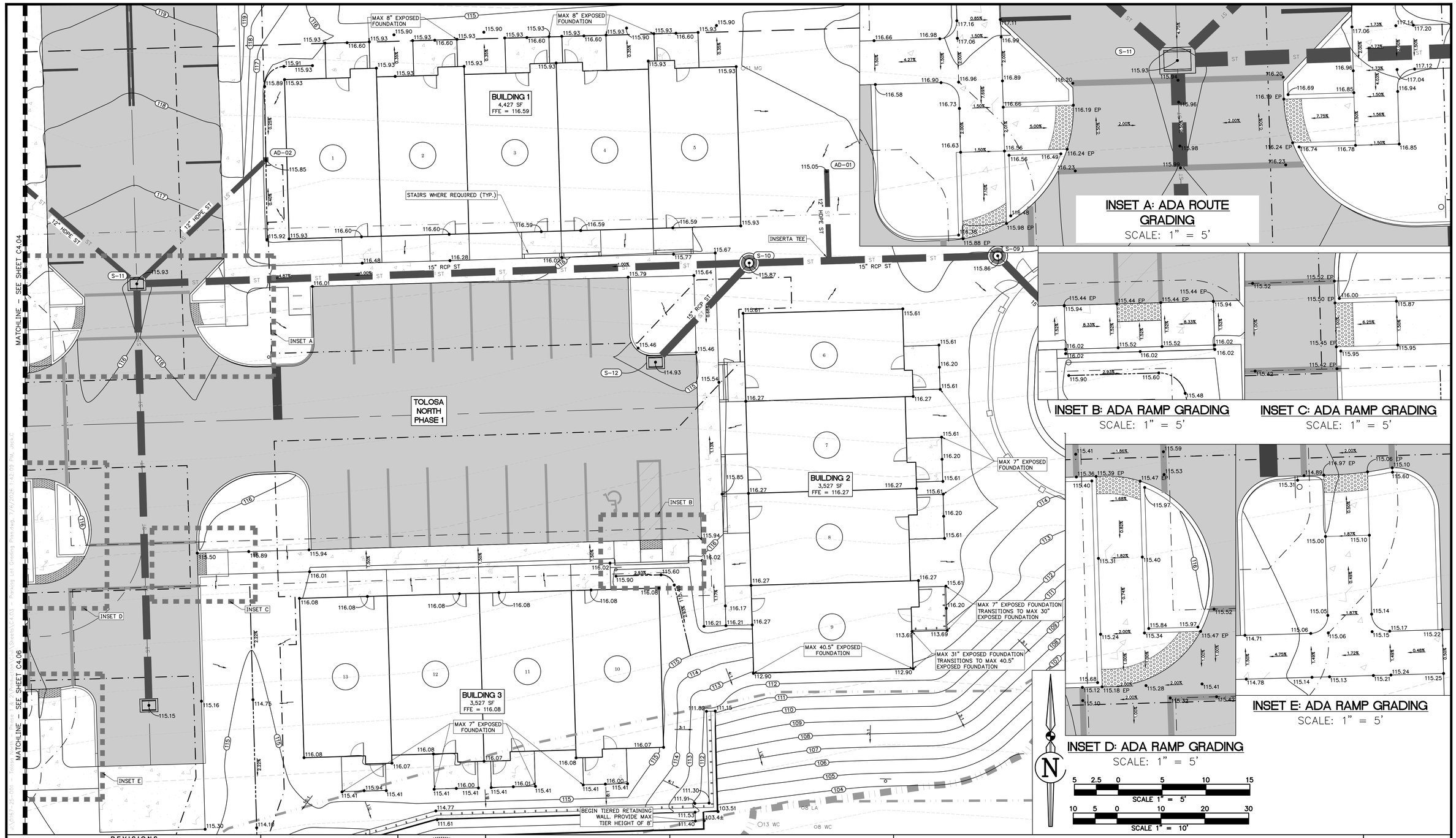
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C4.03



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ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: GRADING PLAN - BUILDINGS 1 - 3

DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C4.04

MATCHLINE – SEE SHEET C4.07

MATCHLINE – SEE SHEET C4.06

MATCHLINE – SEE SHEET C4.04

BUILDING 6
3,527 SF
FFE = 111.69

BUILDING 5
3,527 SF
FFE = 113.05

BUILDING 4
3,527 SF
FFE = 114.45

15" RCP ST

S-05

S-07

INSET A

MAX 6" EXPOSED FOUNDATION

12" HDPE ST

AD-04

AD-05

SINGLE TIER RETAINING WALL SECTION. PROVIDE MAX HEIGHT OF 8'.

RETAINING WALL TRANSITIONS TO 6" ABOVE FINISHED GRADE

BEGIN TIERED RETAINING WALL. PROVIDE MAX TIER HEIGHT OF 8'.

PROPOSED RETAINING WALL WITH FENCE
TOP AND BOTTOM OF WALL ELEVATION VARIES

INSET A: ADA RAMP GRADING

SCALE: 1" = 5'

SCALE 1" = 5'

SCALE 1" = 10'

N

REVISIONS				
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SHEET TITLE: GRADING PLAN - BUILDINGS 4 - 6

DATE: JULY 26

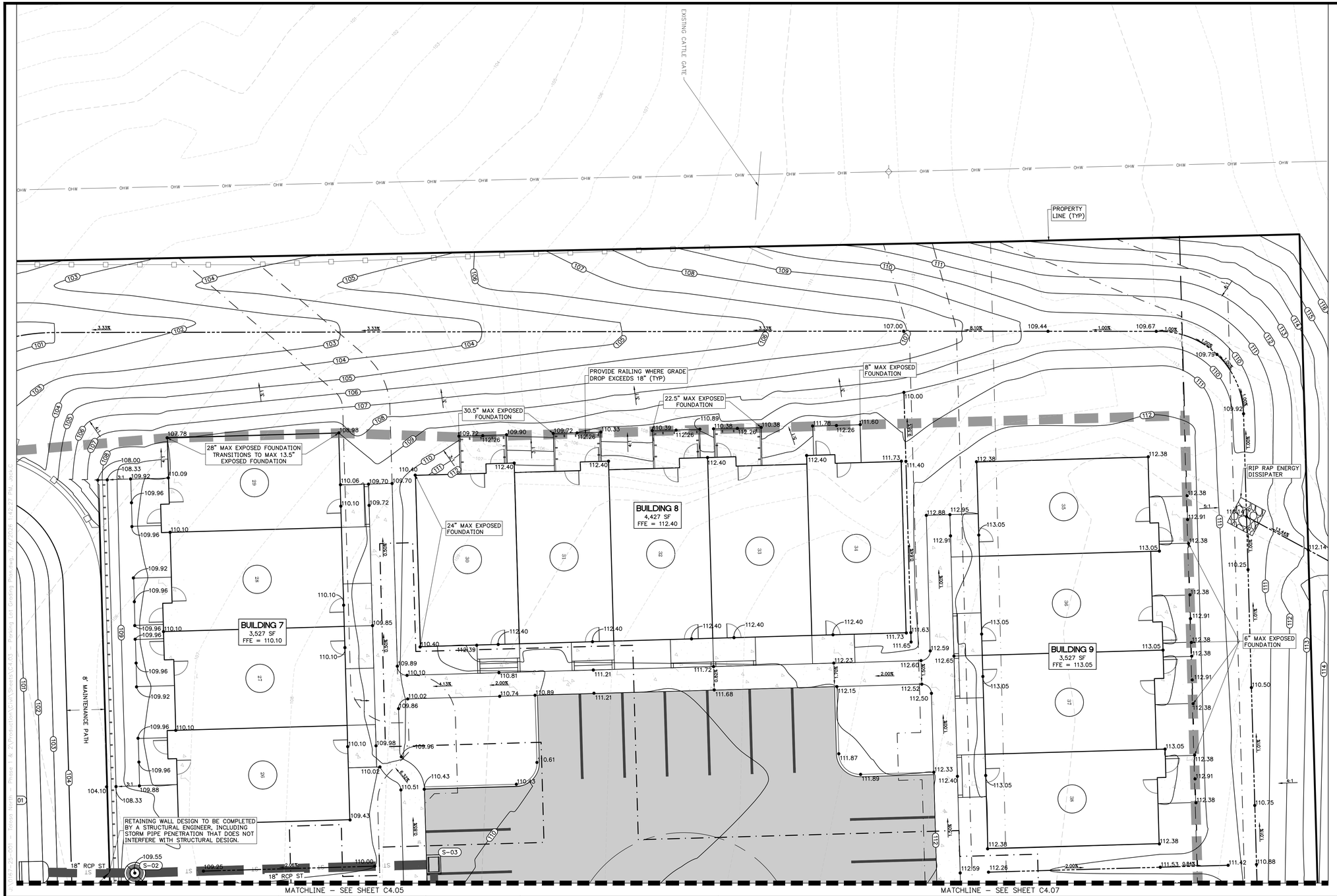
PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C4.05

J:\0167-25-001 - Tolosa North - Phase 1 & 2\Production\Civil\Sheets\C4.03 - Parking Lot Grading Plan.dwg, 7/9/2026



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ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: GRADING PLAN - BUILDING 7 - 9

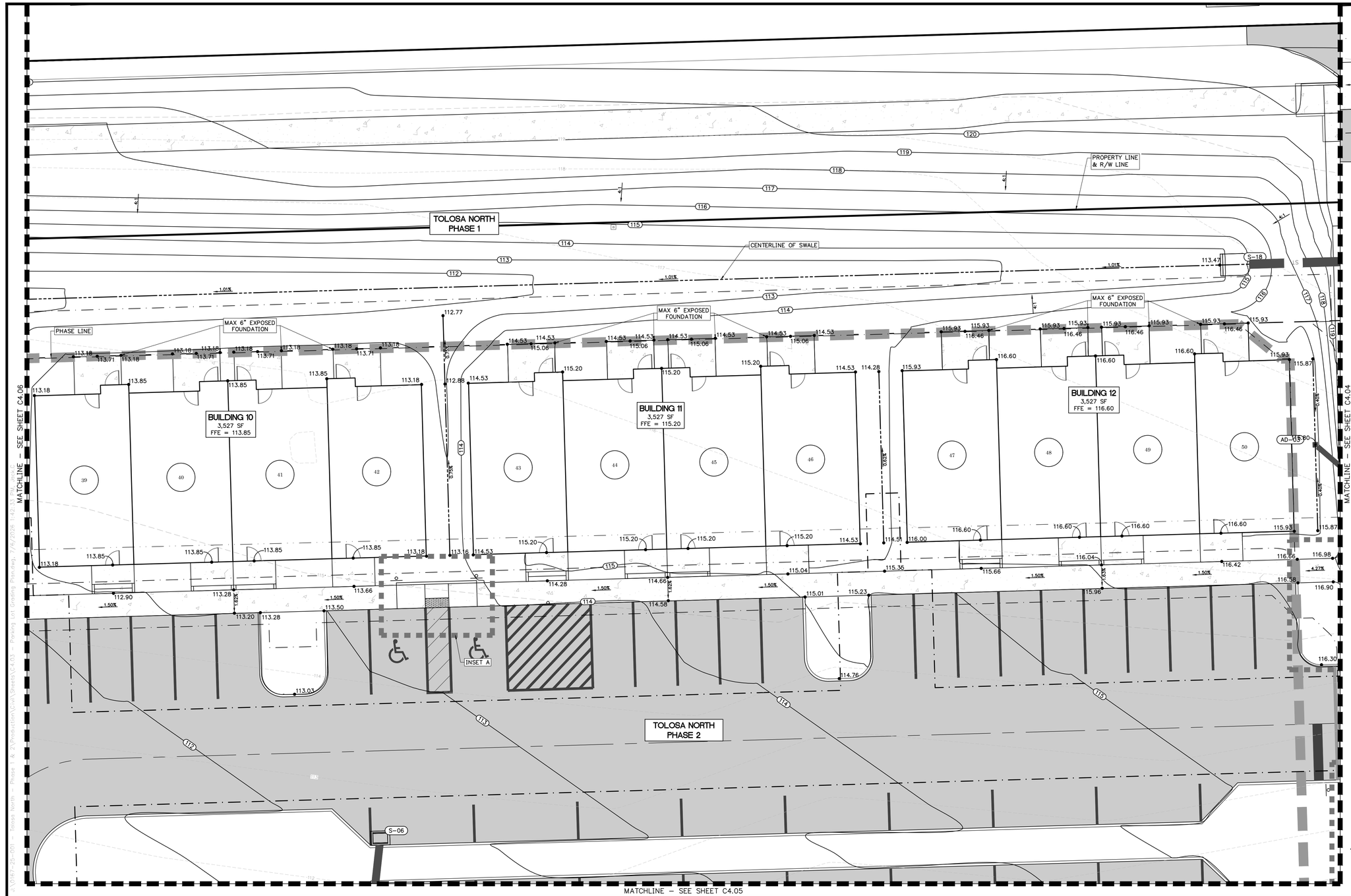
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

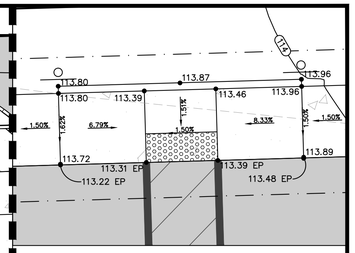
PROJECT: TOLOSA NORTH PHASE 1 & 2

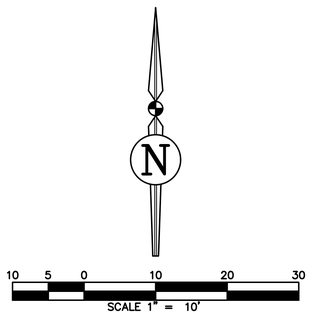
DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C4.06







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SHEET TITLE: GRADING PLAN - BUILDING 10 - 12

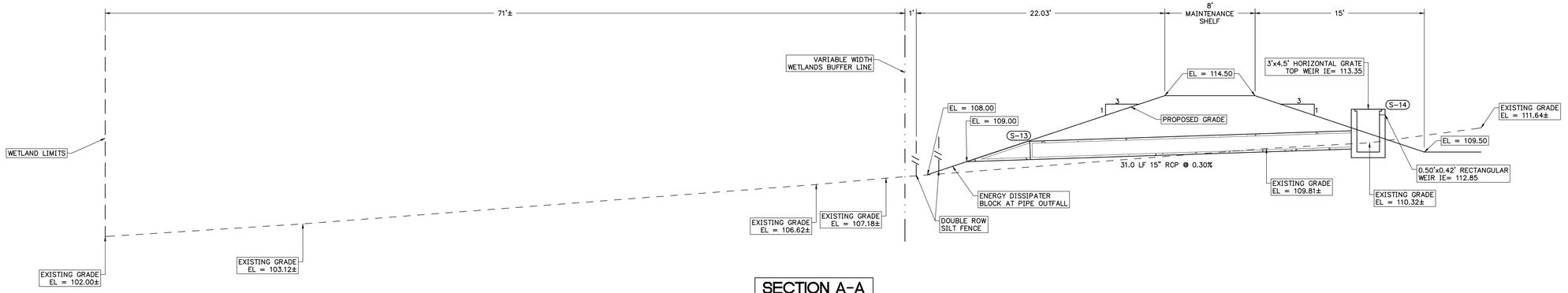
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

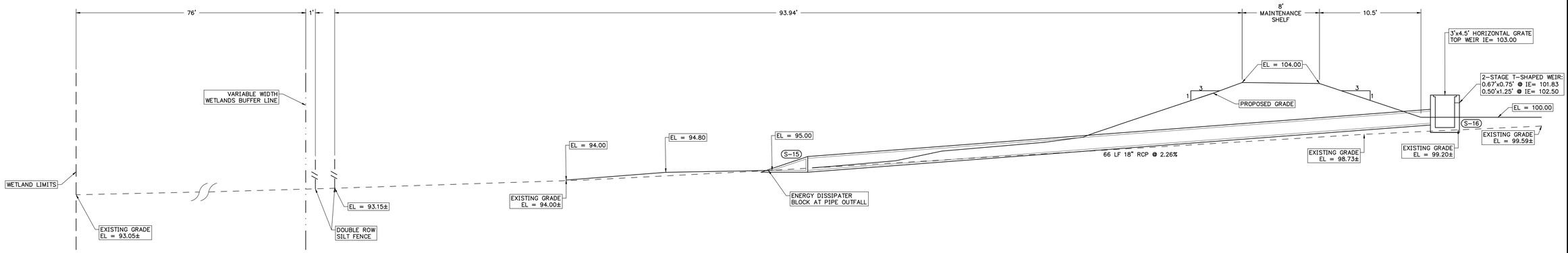
DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C4.07



SECTION A-A
NTS



SECTION B-B
NTS

REVISIONS

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SHEET TITLE: WETLAND GRADING SECTIONS

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C4.08

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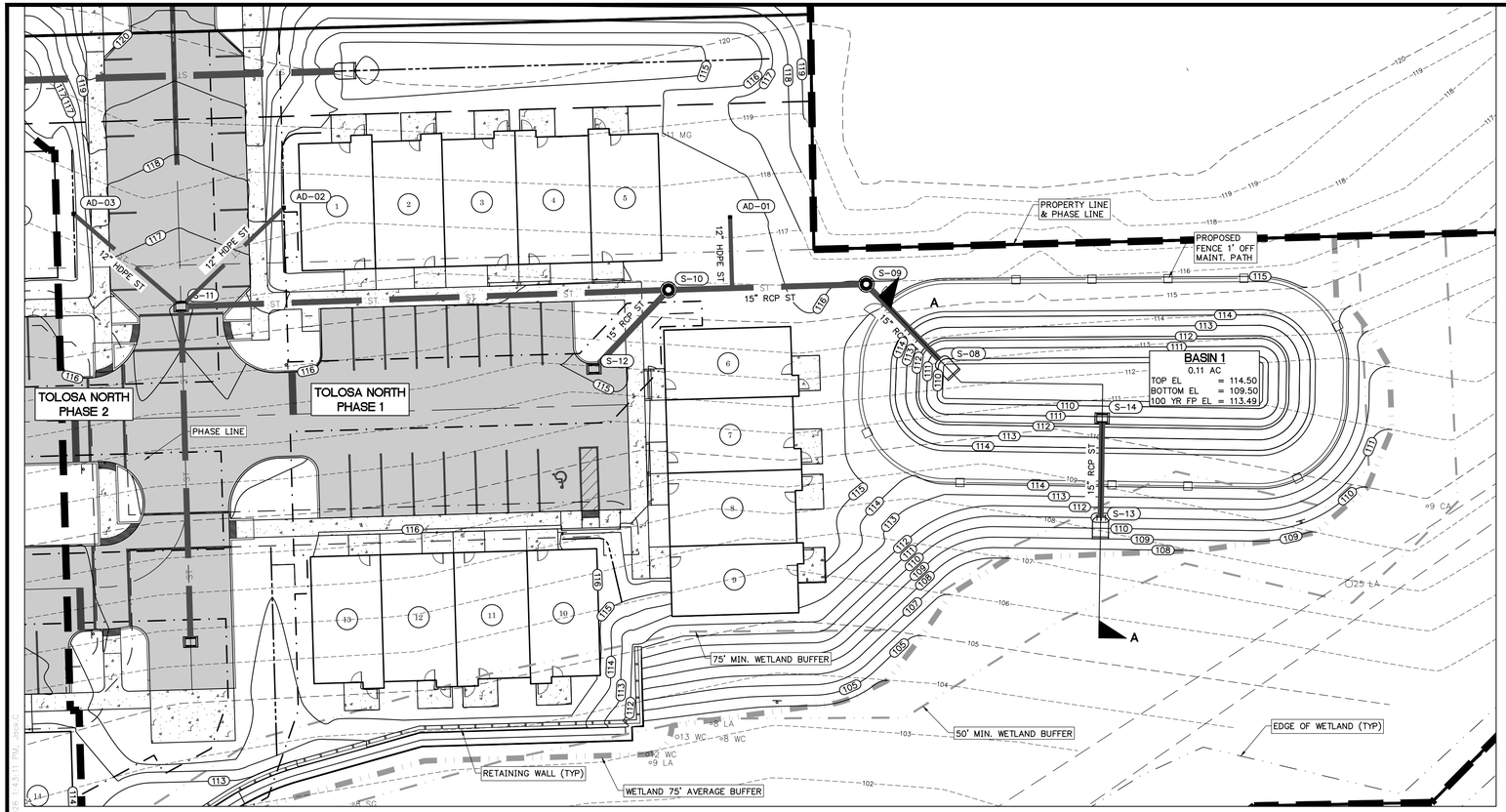


BASIN 1 PLAN VIEW
1"=20'

STORM STRUCTURES TABLE

MANHOLES

S-09
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 116.39
W INV EL = 109.66 (15" RCP)
SE INV EL = 109.66 (15" RCP)

S-10
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 115.87
SW INV EL = 110.06 (15" RCP)
E INV EL = 109.94 (15" RCP)
W INV EL = 110.51 (15" RCP)

DITCH BOTTOM INLETS

S-11
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 115.93
E INV EL = 111.21 (15" RCP)
NW INV EL = 112.57 (12" HDPE)
NE INV EL = 112.56 (12" HDPE)
S INV EL = 111.20 (15" RCP)

S-12
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 114.93
NE INV EL = 110.22 (15" RCP)

S-14
TYPE E DBI
FDOT INDEX NO. 425-052
GRATE EL = 113.45
S INV EL = 109.09 (15" RCP)

MITERED END SECTIONS

S-08
MITERED END SECTION
FDOT INDEX NO. 430-022
NW INV EL = 109.50 (15" RCP)

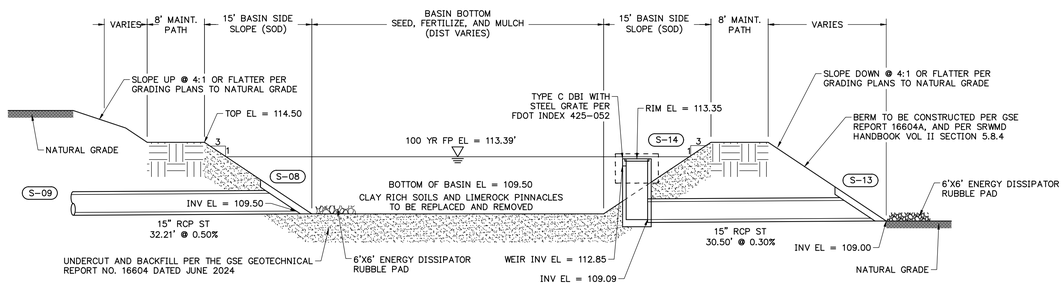
S-13
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 109.00 (15" RCP)

STORM PIPE TABLE

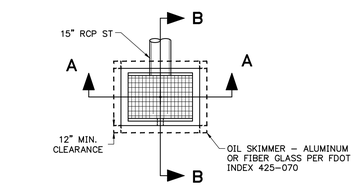
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
S-09	S-08	15" RCP	32'	0.50%
S-10	S-09	15" RCP	57'	0.50%
S-12	S-10	15" RCP	31'	0.50%
S-14	S-13	15" RCP	31'	0.30%

N

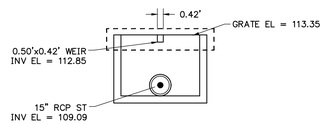
20 10 0 20 40 60
SCALE 1" = 20'



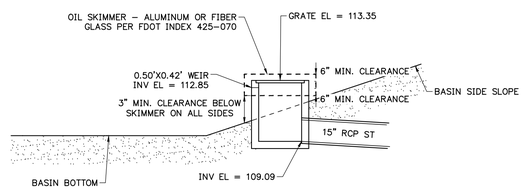
BASIN 1 CROSS SECTION A-A
N.T.S.



PLAN VIEW



SECTION A-A



SECTION B-B

BASIN CONTROL STRUCTURE (S-14)
NTS

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: BASIN GRADING PLAN

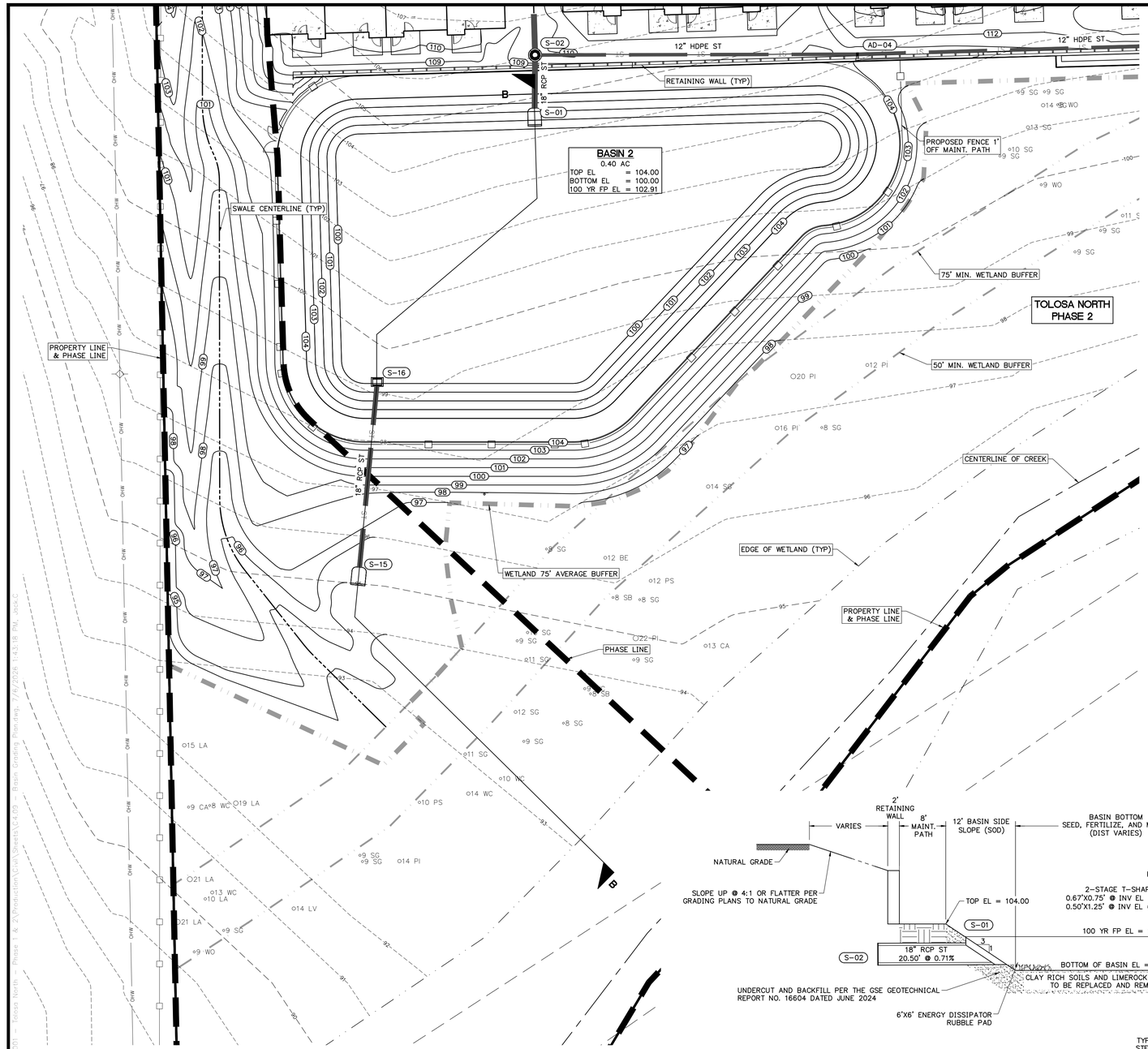
DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C4.09



BASIN 2 PLAN VIEW
1"=20'

STORM STRUCTURES TABLE

MANHOLES

S-02
TYPE 8 MANHOLE
FDOT INDEX NO. 425-001
RIM EL = 110.05
N INV EL = 102.68 (18" RCP)
S INV EL = 100.65 (18" RCP)
E INV EL = 103.18 (12" HDPE)

MITERED END SECTIONS

S-01
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 100.50 (18" RCP)

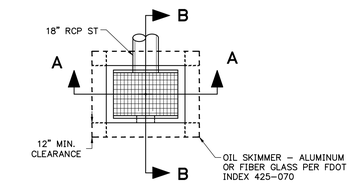
S-15
MITERED END SECTION
FDOT INDEX NO. 430-022
N INV EL = 95.00 (18" RCP)

DITCH BOTTOM INLETS

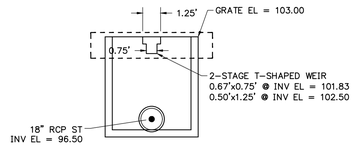
S-16
TYPE C DBI
FDOT INDEX NO. 425-052
GRATE EL = 103.00
S INV EL = 96.50 (18" RCP)

STORM PIPE TABLE

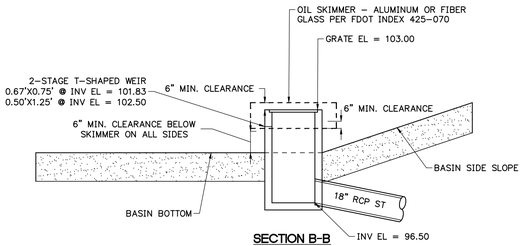
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
S-02	S-01	18" RCP	20'	0.71%
S-03	S-02	18" RCP	63'	0.75%
S-16	S-15	18" RCP	66'	2.26%



PLAN VIEW

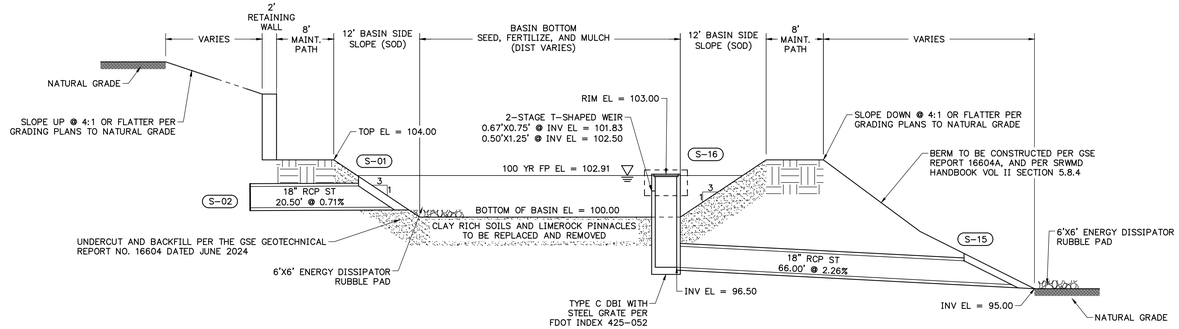


SECTION A-A

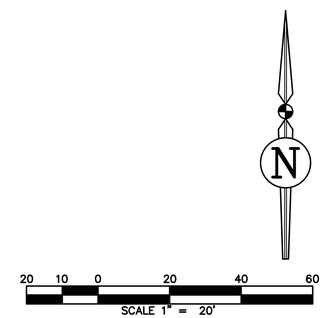


SECTION B-B

BASIN CONTROL STRUCTURE (S-16)
NTS



BASIN 2 CROSS SECTION B-B
N.T.S.



REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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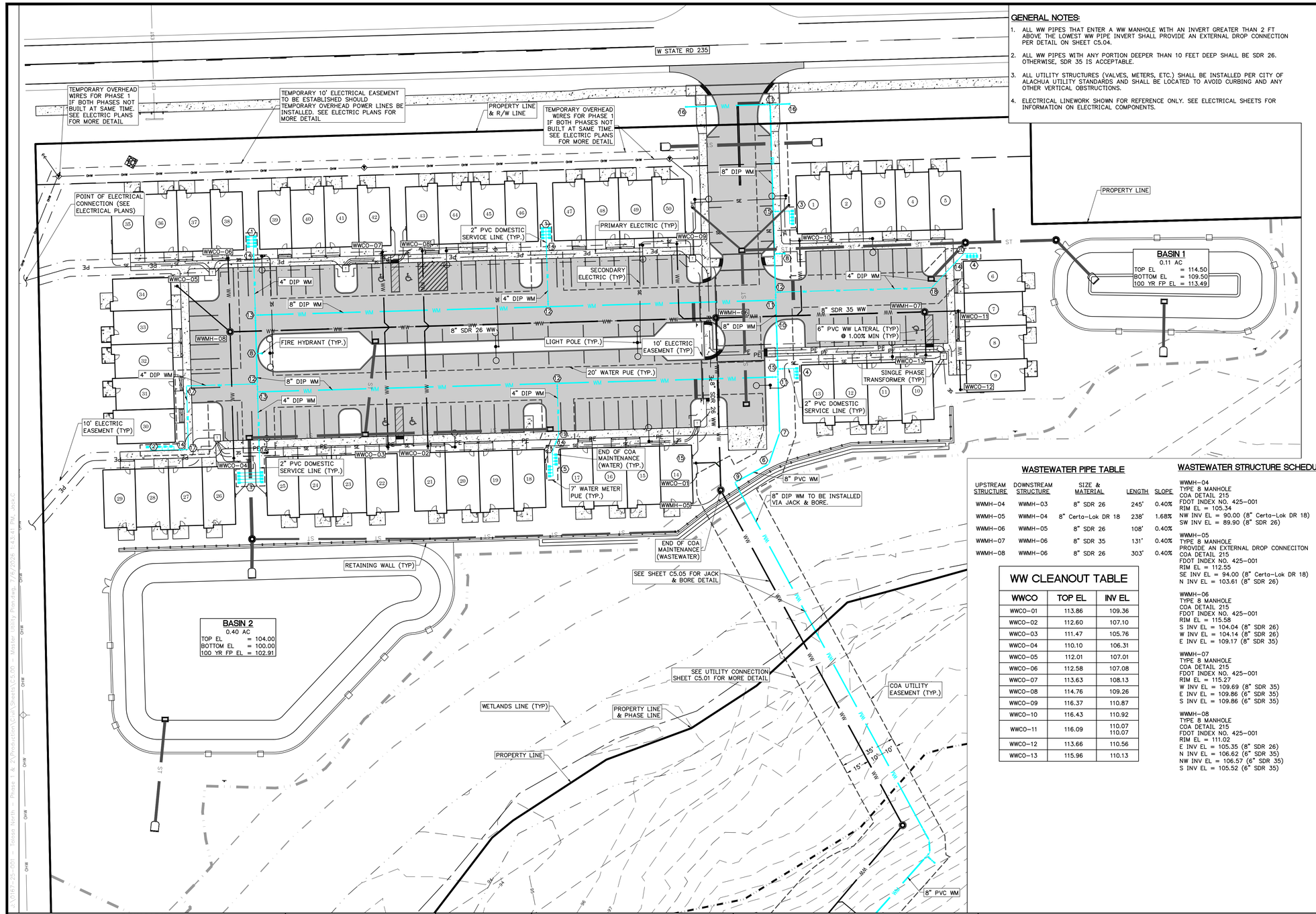
SHEET TITLE: BASIN GRADING PLAN

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26
PROJECT NO: 0167-25-01
SHEET NO: C4.10

J:\0167-25-001 - Tolosa North - Phase 1 & 2\Production\Civil\Sheets\C4.09 - Basin Grading Plan.dwg, 7/6/2026 11:43:18 PM, JackC



GENERAL NOTES:

1. ALL WW PIPES THAT ENTER A WW MANHOLE WITH AN INVERT GREATER THAN 2 FT ABOVE THE LOWEST WW PIPE INVERT SHALL PROVIDE AN EXTERNAL DROP CONNECTION PER DETAIL ON SHEET C5.04.
2. ALL WW PIPES WITH ANY PORTION DEEPER THAN 10 FEET DEEP SHALL BE SDR 26. OTHERWISE, SDR 35 IS ACCEPTABLE.
3. ALL UTILITY STRUCTURES (VALVES, METERS, ETC.) SHALL BE INSTALLED PER CITY OF ALACHUA UTILITY STANDARDS AND SHALL BE LOCATED TO AVOID CURBING AND ANY OTHER VERTICAL OBSTRUCTIONS.
4. ELECTRICAL LINEWORK SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL SHEETS FOR INFORMATION ON ELECTRICAL COMPONENTS.

CITY OF ALACHUA WATER + WASTEWATER SPECIFICATIONS

1. WATER AND WASTEWATER SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CITY OF ALACHUA, PUBLIC SERVICES, DESIGN AND CONSTRUCTION MANUAL (DCM), LATEST EDITION". THE FOLLOWING NOTES EITHER EMPHASIZE DCM REQUIREMENTS OR SPECIFY ADDITIONAL REQUIREMENTS. IF DCM AND NOTE REQUIREMENTS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
2. PROVIDE TRACER WIRE SYSTEM FOR WATER PIPING AS SHOWN ON THE DETAILS AND THE COA DCM. PROVIDE TRACER WIRE FOR BOTH PLASTIC (PVC) AND DUCTILE IRON PIPE.
3. WATER PIPING TRACER WIRE SYSTEM SHALL COMMENCE AT THE TIE-IN(S) AT EXISTING WATER MAIN(S) AND TERMINATE AT EACH COA END OF MAINTENANCE POINT.
4. TRACER WIRE SHALL BE SOLID COPPER #10 AWG BLUE INSULATED. TRACER WIRE SHALL BE PRO-LINE WITH PRO-LINE TRACER LOCK CONNECTORS, PART #TL-LUO-SS.
5. WATER METER APPURTENANCES SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE WATER METER ITSELF WILL BE FURNISHED AND INSTALLED BY THE CITY.
6. PROVIDE RESTRAINED JOINTS AT FITTINGS, HYDRANTS AND PIPING IN ACCORDANCE WITH AWWA STANDARDS AND CITY STANDARD DETAILS.
7. WATER MAINS SHALL BE EITHER PVC C900 DR 18 OR DUCTILE IRON CEMENT LINED, DEPENDING ON THE APPLICATION. UNDER ROADS AND PAVED AREAS SUCH AS PARKING LOTS, WATER MAINS SHALL BE DUCTILE IRON CEMENT LINED. ALL WATER MAINS SHALL BE NSF-61 RATED AND BURIED WITH AT LEAST 36-INCHES OF COVER.
8. POTABLE WATER SERVICE LINES SHALL BE 2-INCH MINIMUM, SCHEDULE 40 PVC AND RATED FOR NSF-61.
9. ALL FITTINGS FOR BOTH PVC AND DUCTILE IRON PIPE 4-INCHES AND LARGER SHALL BE DUCTILE IRON. FOR POTABLE WATER MAINS, FITTINGS SHALL BE CEMENT-LINED. FITTINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, ELBOWS, TEES, CROSSES, AND REDUCERS.
10. PROVIDE PUBLIC UTILITY EASEMENTS AS REQUIRED FOR ALL UTILITIES SHOWN HERON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.
11. WET-TAP(S) TO PRESSURIZED WATER MAINS SHALL BE DONE BY A SUB-CONTRACTOR PRE-APPROVED BY THE CITY OF ALACHUA. RESTRAIN THE BRANCH GATE VALVE.
12. ALL GRAVITY WASTEWATER MAINS AND LATERALS DEEPER THAN 10 FEET SHALL BE SDR 26. GRAVITY WASTEWATER MAINS AND LATERALS LESS THAN OR EQUAL TO 10 FEET DEEP CAN BE SDR 35.
13. SUBMITTALS, TESTING, AND INSPECTIONS SHALL BE PERFORMED PER THE CITY OF ALACHUA DCM (MOST CURRENT EDITION).
14. INSTALL WATER BOX SO ITS EDGE IS 2 FEET MIN FROM SIDEWALK EDGE, AND 3 FEET FROM BLDG EDGE.
15. FOR ALL VALVES UNDER PAVEMENT, PROVIDE TRAFFIC RATED/ROADWAY TYPE VALVE BOXES AND LIDS.
16. ALL LATERALS SHALL CONNECT TO MANHOLES WITHIN 2 FEET OF MANHOLE BOTTOM.

WATER FITTING SCHEDULE

① 8 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
3 – 2" PVC CROSS
1 – 2" PVC TEE

② 5 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
4 – 2" PVC TEE
6 – 2" PVC 90° BEND

③ 5 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
4 – 2" PVC TEE
1 – 2" PVC 90° BEND

④ 4 – SINGLE WATER METER SERVICE (PER COA DETAIL 118)
3 – 2" PVC TEE
1 – 2" PVC 90° BEND

⑤ 8 – SINGLE WATER METER SERVICE (PER COA DETAIL 118, AND SIMILAR TO DETAIL 130)
7 – 2" PVC TEE
1 – 2" PVC 90° BEND

⑥ 1 – 8" CLDI 45° RESTRAINED BEND

⑦ 1 – 8" CLDI 22.5° RESTRAINED BEND

⑧ 1 – 8" x 6" CLDI ANCHOR TEE W/ MECH. RESTRAINT
1 – 6" GATE VALVE & BOX
1 – FIRE HYDRANT ASSEMBLY

⑨ 1 – 8" CLDI 90° RESTRAINED BEND
1 – 8" GATE VALVE & BOX

⑩ 1 – 8" CLDI (PVC TO DIP) TRANSITION COUPLING

⑪ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
3 – 8" GATE VALVE & BOX

⑫ 1 – 8" x 4" TAPPING SLEEVE
1 – 4" GATE VALVE & BOX

⑬ 1 – 8" x 8" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 8" GATE VALVE & BOX
1 – 8" X 4" REDUCER
1 – 4" GATE VALVE & BOX

⑭ 1 – 4" x 2" WATERMAIN REDUCTION (PER COA DETAIL 124)
1 – 2" GATE VALVE & BOX

⑮ 1 – 2" TAPPING SADDLE
1 – 2" GATE VALVE & BOX

⑯ 1 – 8" BLOW OFF ASSEMBLY W/ 4" BLOW OFF VALVE

⑰ 1 – 4" 90° CLDI RESTRAINED BEND

⑱ 1 – 4" 45° CLDI RESTRAINED BEND

⑲ 1 – 4" 22.5° CLDI RESTRAINED BEND

⑳ 1 – 2" 45° PVC BEND

㉑ 1 – 2" 22.5° PVC BEND

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWMH-04	WWMH-03	8" SDR 26	245'	0.40%
WWMH-05	WWMH-04	8" Certa-Lok DR 18	238'	1.68%
WWMH-06	WWMH-05	8" SDR 26	108'	0.40%
WWMH-07	WWMH-06	8" SDR 35	131'	0.40%
WWMH-08	WWMH-06	8" SDR 26	303'	0.40%

WW CLEANOUT TABLE

WWCO	TOP EL	INV EL
WWCO-01	113.86	109.36
WWCO-02	112.60	107.10
WWCO-03	111.47	105.76
WWCO-04	110.10	106.31
WWCO-05	112.01	107.01
WWCO-06	112.58	107.08
WWCO-07	113.63	108.13
WWCO-08	114.76	109.26
WWCO-09	116.37	110.87
WWCO-10	116.43	110.92
WWCO-11	116.09	110.07 110.07
WWCO-12	113.66	110.56
WWCO-13	115.96	110.13

WASTEWATER STRUCTURE SCHEDULE

WWMH-04
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.34
NW INV EL = 90.00 (8" Certa-Lok DR 18)
SW INV EL = 89.90 (8" SDR 26)

WWMH-05
TYPE 8 MANHOLE
PROVIDE AN EXTERNAL DROP CONNECITON
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 112.55
SE INV EL = 94.00 (8" Certa-Lok DR 18)
N INV EL = 103.61 (8" SDR 26)

WWMH-06
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 115.58
S INV EL = 104.04 (8" SDR 26)
W INV EL = 104.14 (8" SDR 26)
E INV EL = 109.17 (8" SDR 35)

WWMH-07
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 115.27
W INV EL = 109.69 (8" SDR 35)
E INV EL = 109.86 (6" SDR 35)
S INV EL = 109.86 (6" SDR 35)

WWMH-08
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 111.02
E INV EL = 105.35 (8" SDR 26)
N INV EL = 106.62 (6" SDR 35)
NW INV EL = 106.57 (6" SDR 35)
S INV EL = 105.52 (6" SDR 35)

30 15 0 30 60 90
SCALE 1" = 30'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: MASTER UTILITY PLAN

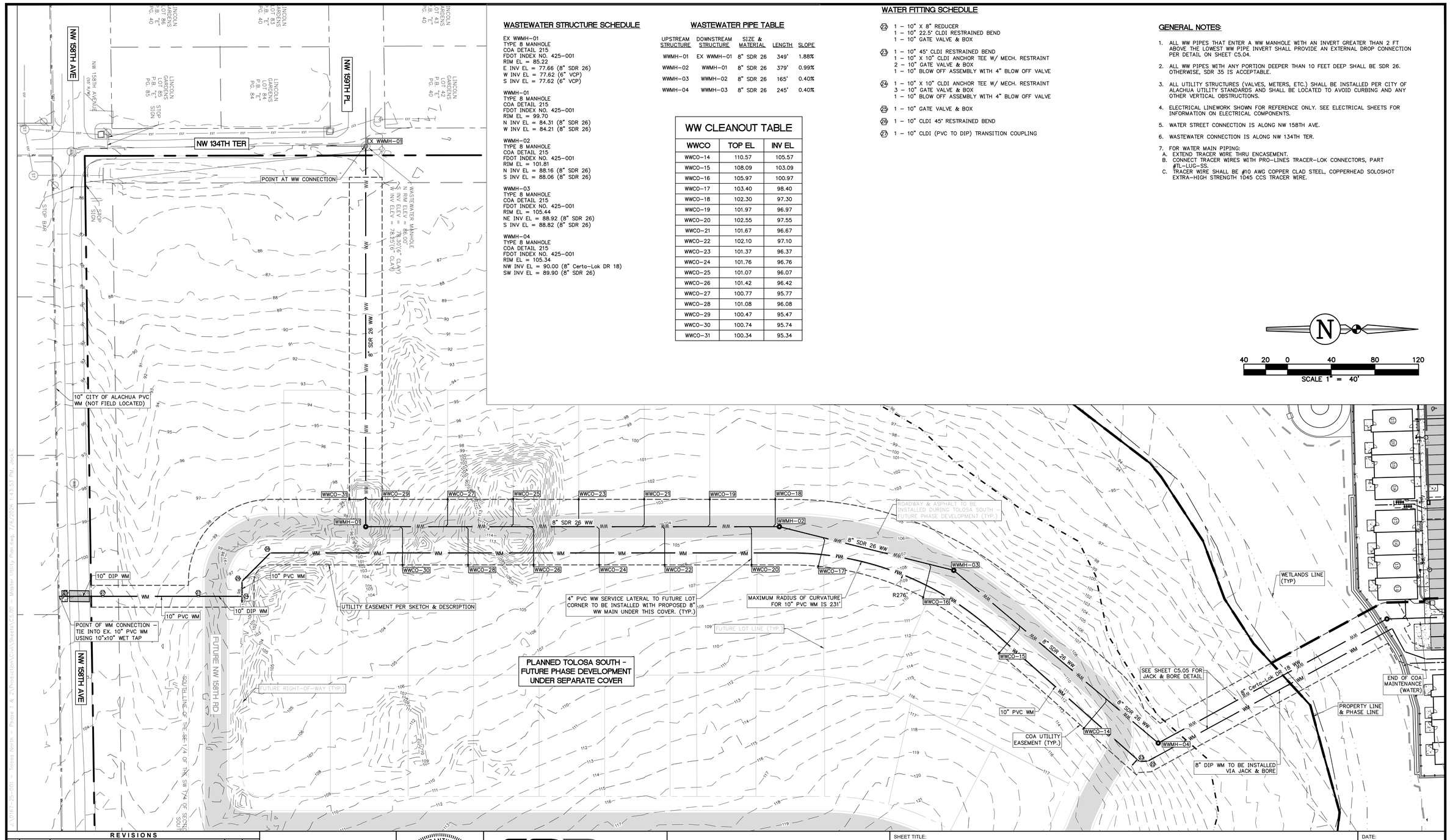
DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C5.00

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2



WASTEWATER STRUCTURE SCHEDULE

EX WWMH-01
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 85.22
E INV EL = 77.66 (8" SDR 26)
W INV EL = 77.62 (6" VCP)
S INV EL = 77.62 (6" VCP)

WWMH-01
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 99.70
N INV EL = 84.31 (8" SDR 26)
W INV EL = 84.21 (8" SDR 26)

WWMH-02
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 101.81
N INV EL = 88.16 (8" SDR 26)
S INV EL = 88.06 (8" SDR 26)

WWMH-03
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.44
NE INV EL = 88.92 (8" SDR 26)
S INV EL = 88.82 (8" SDR 26)

WWMH-04
TYPE 8 MANHOLE
COA DETAIL 215
FDOT INDEX NO. 425-001
RIM EL = 105.34
NW INV EL = 90.00 (8" Certa-Lok DR 18)
SW INV EL = 89.90 (8" SDR 26)

WASTEWATER PIPE TABLE

UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	SIZE & MATERIAL	LENGTH	SLOPE
WWMH-01	EX WWMH-01	8" SDR 26	349'	1.88%
WWMH-02	WWMH-01	8" SDR 26	379'	0.99%
WWMH-03	WWMH-02	8" SDR 26	165'	0.40%
WWMH-04	WWMH-03	8" SDR 26	245'	0.40%

WW CLEANOUT TABLE

WWCO	TOP EL	INV EL
WWCO-14	110.57	105.57
WWCO-15	108.09	103.09
WWCO-16	105.97	100.97
WWCO-17	103.40	98.40
WWCO-18	102.30	97.30
WWCO-19	101.97	96.97
WWCO-20	102.55	97.55
WWCO-21	101.67	96.67
WWCO-22	102.10	97.10
WWCO-23	101.37	96.37
WWCO-24	101.76	96.76
WWCO-25	101.07	96.07
WWCO-26	101.42	96.42
WWCO-27	100.77	95.77
WWCO-28	101.08	96.08
WWCO-29	100.47	95.47
WWCO-30	100.74	95.74
WWCO-31	100.34	95.34

WATER FITTING SCHEDULE

(22) 1 – 10" X 8" REDUCER
1 – 10" 22.5° CLDI RESTRAINED BEND
1 – 10" GATE VALVE & BOX

(23) 1 – 10" 45° CLDI RESTRAINED BEND
1 – 10" X 10" CLDI ANCHOR TEE W/ MECH. RESTRAINT
2 – 10" GATE VALVE & BOX
1 – 10" BLOW OFF ASSEMBLY WITH 4" BLOW OFF VALVE

(24) 1 – 10" X 10" CLDI ANCHOR TEE W/ MECH. RESTRAINT
3 – 10" GATE VALVE & BOX
1 – 10" BLOW OFF ASSEMBLY WITH 4" BLOW OFF VALVE

(25) 1 – 10" GATE VALVE & BOX

(26) 1 – 10" CLDI 45° RESTRAINED BEND

(27) 1 – 10" CLDI (PVC TO DIP) TRANSITION COUPLING

GENERAL NOTES:

1. ALL WW PIPES THAT ENTER A WW MANHOLE WITH AN INVERT GREATER THAN 2 FT ABOVE THE LOWEST WW PIPE INVERT SHALL PROVIDE AN EXTERNAL DROP CONNECTION PER DETAIL ON SHEET C5.04.
2. ALL WW PIPES WITH ANY PORTION DEEPER THAN 10 FEET DEEP SHALL BE SDR 26. OTHERWISE, SDR 35 IS ACCEPTABLE.
3. ALL UTILITY STRUCTURES (VALVES, METERS, ETC.) SHALL BE INSTALLED PER CITY OF ALACHUA UTILITY STANDARDS AND SHALL BE LOCATED TO AVOID CURBING AND ANY OTHER VERTICAL OBSTRUCTIONS.
4. ELECTRICAL LINEWORK SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL SHEETS FOR INFORMATION ON ELECTRICAL COMPONENTS.
5. WATER STREET CONNECTION IS ALONG NW 158TH AVE.
6. WASTEWATER CONNECTION IS ALONG NW 134TH TER.
7. FOR WATER MAIN PIPING:
   A. EXTEND TRACER WIRE THRU ENCASEMENT.
   B. CONNECT TRACER WIRES WITH PRO-LINES TRACER-LOK CONNECTORS, PART #TL-LUG-SS.
   C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE.

N

40 20 0 40 80 120
SCALE 1" = 40'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: UTILITY CONNECTION PLAN

DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C5.01

ABBREVIATIONS

APP	APPROXIMATE	MJ	MECHANICAL JOINT
ARV	AIR RELEASE VALVE	NTS	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	OD	OUTSIDE DIAMETER
		OS&Y	OUTSIDE SCREW AND YOKE
DI	DUCTILE IRON		
DIP	DUCTILE IRON PIPE	PUE	PUBLIC UTILITY EASEMENT
E	ELECTRIC CONDUCTOR	PVC	POLYVINYL CHLORIDE
FLG	FLANGED	R/W	RIGHT OF WAY
FT	FOOT	RPZ	REDUCED PRESSURE ZONE
FM	FORCE MAIN		
GA	GAUGE	SCH	SCHEDULE
GALV	GALVANIZED	SF	SQUARE FEET
GRN	GREEN	SIM	SIMILAR
GSP	GALVANIZED STEEL PIPE	SS	STAINLESS STEEL
		TYP	TYPICAL
GV	GATE VALVE	URD	UNDERGROUND RESIDENTIAL DISTRIBUTION
ID	INSIDE DIAMETER		
LF	LINEAR FEET		
MAX	MAXIMUM	YEL	YELLOW
MIN	MINIMUM	WM	WATER MAIN
		WW	WASTEWATER

151 DETAIL ABBREVIATIONS
NTS

PAINT SYSTEM NO. 5

SURFACE PREPARATION -PRESSSURE WASH SURFACE TO BE PAINTED

OPTIMAL APPLICATION CONDITIONS

- *AMBIENT TEMPERATURE BETWEEN 55 AND 75 DEGREES F.*
- *HUMIDITY BELOW 60 PERCENT*
- *IF OUTSIDE THESE LIMITS, REQUEST PERMISSION TO APPLY PAINT FROM COA INSPECTOR OR SERVICES DURING CONSTRUCTION ENGINEER*

APPLY (SPRAY) FIRST COAT

APPLY (SPRAY) SECOND COAT EITHER WITHIN TWO HOURS OR MORE THAN 48 HOURS AFTER APPLYING FIRST COAT.

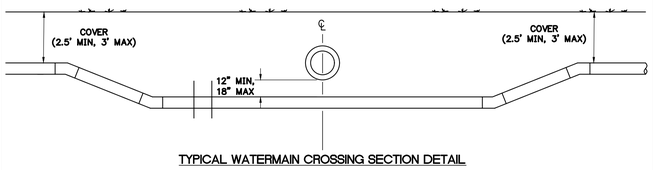
PRODUCT

- *KRYLON SPRAY PAINT*
- *FUSION ALL-IN-ONE*
- *PAINT PLUS PRIMER*

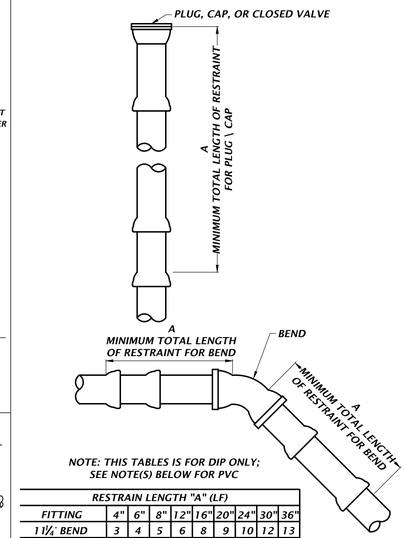
COLORS

- *POTABLE WATER - GLOSS PATRIOTIC BLUE*
- *WASTEWATER - GLOSSY SPRING GRASS*
- *RECLAIMED - GLOSSY ICY GRAPE*

307 PAINT SYSTEM NO. 5
NTS



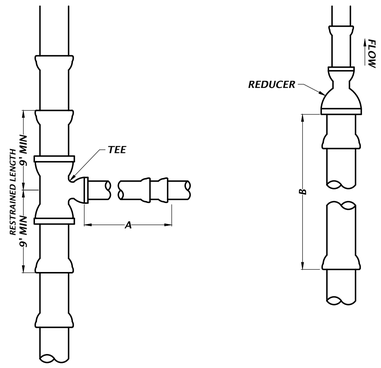
TYPICAL WATERMAIN CROSSING SECTION DETAIL



NOTE: THIS TABLES IS FOR DIP ONLY; SEE NOTE(S) BELOW FOR PVC

RESTRAIN LENGTH "A" (LF)									
FITTING	*4"*	*6"*	*8"*	*12"*	*16"*	*20"*	*24"*	*30"*	*36"*
11¼° BEND	3	4	5	6	8	9	10	12	13
22½° BEND	5	7	9	12	15	17	20	23	26
45°/OFFSET	10	14	18	24	30	35	40	47	53
90° BEND	24	33	42	58	72	85	97	112	126
DEAD END	42	58	75	104	131	157	181	213	243

A=MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED.



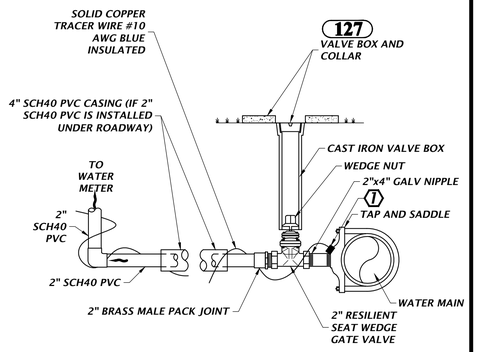
GENERAL NOTE(S):

1. *THIS TABLE IS BASED ON THE RESTRAINT CALCULATION SOFTWARE PROVIDED FREE OF CHARGE BY EBAA IRON INC. AT http://www.ebaa.com/engineering.htm AND THE FOLLOWING INPUT VARIABLES:*
   - *A. MAXIMUM TEST PRESSURE OF 150 PSI*
   - *B. LAYING CONDITION TYPE 3*
   - *C. POOR SOIL CONDITIONS (SOIL TYPE ML)*
   - *D. USING DIP*
   - *E. 2 FEET OF COVER*
   - *F. HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS*
   - *G. SAFETY FACTOR = 1.5 TO 1*
2. *FOR POLYWRAPPED DIP, MULTIPLY THE FOOTAGE BY 1.50*
3. *FOR PVC PIPE, MULTIPLY FOOTAGE BY 1.34*
4. *RESTRAINED PIPE SHALL BE MANUFACTURED RESTRAINED PIPE, PUSH-ON RESTRAINTS OR MECHANICAL JOINT PIPE RESTRAINED BY EBAA MEGALUG.*
5. *ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.*

309 JOINT RESTRAINT
NTS

	RESTRAIN (LF)	
FITTING SIZE	*TEE "A"*	*REDUCER "B"*
4x4	21	*
6x4	10	30
6x6	37	*
8x4	A.T.	54
8x6	28	32
8x8	54	*
12x4	A.T.	90
12x6	11	76
12x8	37	55
12x12	82	*
16x6	A.T.	111
16x8	21	96
16x12	66	56
16x16	109	*
20x6	A.T.	141
20x8	8	130
20x12	51	99
20x16	93	55
20x20	134	*
24x6	A.T.	168
24x8	A.T.	159
24x12	37	134
24x16	77	99
24x20	117	54
24x24	157	*
30x6	A.T.	203
30x8	A.T.	196
30x12	20	177
30x16	57	150
30x20	94	116
30x24	132	75
30x30	189	*
36x6	A.T.	235
36x8	A.T.	229
36x12	7	214
36x16	40	193
36x20	74	166
36x24	109	133
36x30	162	74
36x36	218	*

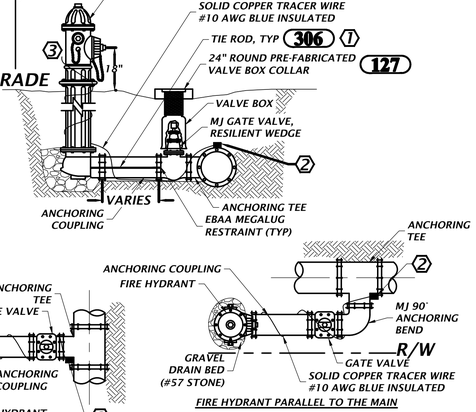
A.T.=RESTRAIN REQUIRED AT TEE ONLY.
**-NOT APPLICABLE*

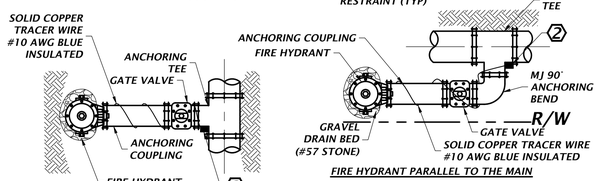


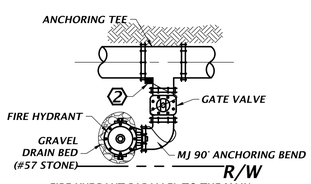
KEYED NOTE(S):

1 *CONNECT TRACER WIRES FROM MAIN TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.*

118 2" WATER SERVICE CONNECTION
NTS







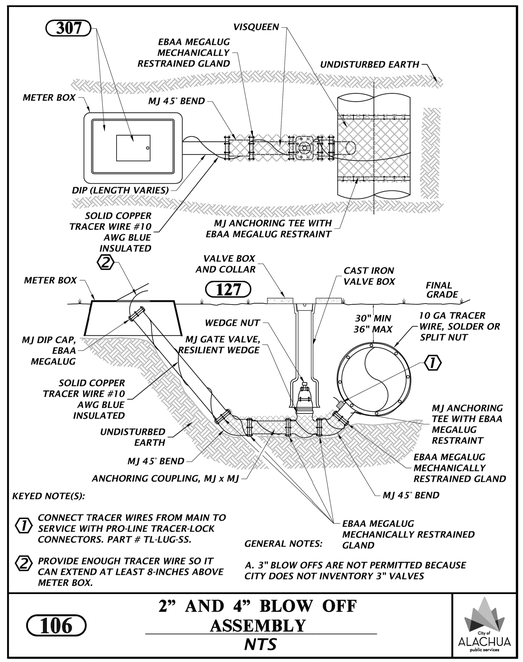
KEYED NOTE(S):

1 *PROVIDE TIE RODS FOR DUAL RESTRAINT AND AS PER 306.*

2 *CONNECT TRACER WIRES FROM MAIN TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.*

3 *EXTEND TRACER WIRE AT LEAST 8-INCHES ABOVE GRADE.*

103 FIRE HYDRANT (PERPENDICULAR TO MAIN)
NTS



KEYED NOTE(S):

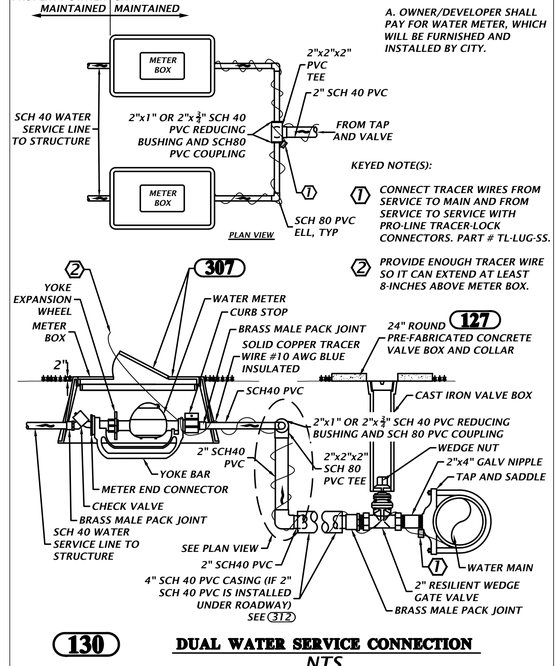
1 *CONNECT TRACER WIRES FROM MAIN TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.*

2 *PROVIDE ENOUGH TRACER WIRE SO IT CAN EXTEND AT LEAST 8-INCHES ABOVE METER BOX.*

GENERAL NOTES:

A. 3" BLOW OFFS ARE NOT PERMITTED BECAUSE CITY DOES NOT INVENTORY 3" VALVES

106 2" AND 4" BLOW OFF ASSEMBLY
NTS



GENERAL NOTE:

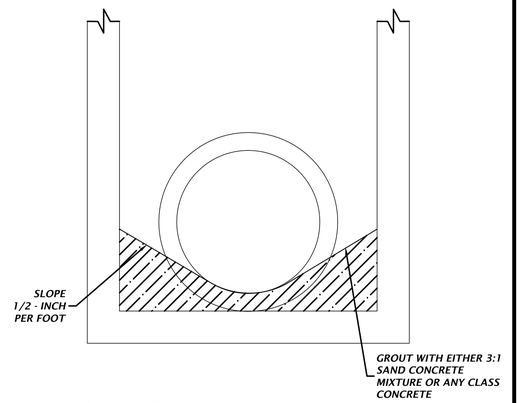
A. OWNER/DEVELOPER SHALL PAY FOR WATER METER, WHICH WILL BE FURNISHED AND INSTALLED BY CITY.

KEYED NOTE(S):

1 *CONNECT TRACER WIRES FROM SERVICE TO MAIN AND FROM SERVICE TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.*

2 *PROVIDE ENOUGH TRACER WIRE SO IT CAN EXTEND AT LEAST 8-INCHES ABOVE METER BOX.*

130 DUAL WATER SERVICE CONNECTION
NTS



GENERAL NOTE(S):

1. *UNLESS OTHERWISE NOTED, GROUT INVERTS OF ALL STORMWATER STRUCTURES.*
2. *BASED ON FDOT INDEX 425-001, STANDARD PLANS, SUPPLEMENTARY DETAILS FOR DRAINAGE STRUCTURES*

210 GROUTING INVERTS OF STORMWATER STRUCTURES
NTS

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: UTILITY DETAILS AND NOTES

DATE: JULY 26

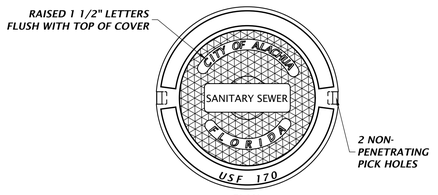
PROJECT NO: 0167-25-01

SHEET NO: C5.02

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

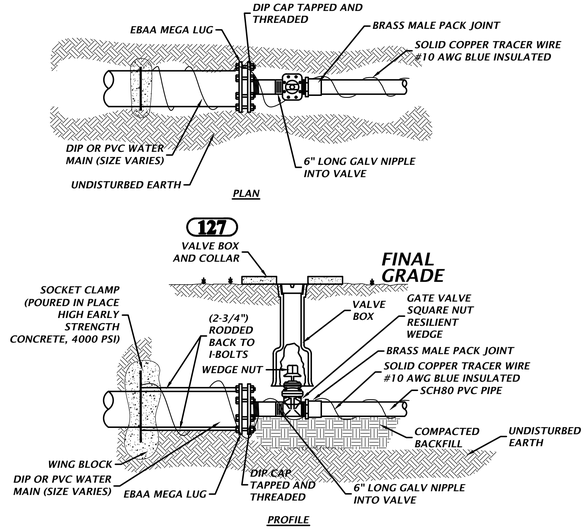
J:\0167-25-001 - Tolosa North - Phase 1 & 2\Production\Civil\Sheets\C5.02 - Utility Details and Notes.dwg, 7/6/2026 11:44:07 PM, Jack.C



GENERAL NOTE(S):

1. *USF 170 RING AND CE COVER*
2. *LOAD CLASSIFICATION: HEAVY DUTY*
3. *MATERIAL: GRAY CAST IRON, ASTM A48 CLASS 35B*
4. *PAINT TOP AS PER* (307)

(212) STANDARD SEWER MANHOLE FRAME AND COVER
NTS



(124) WATER MAIN REDUCTION OF LINE SIZE
NTS

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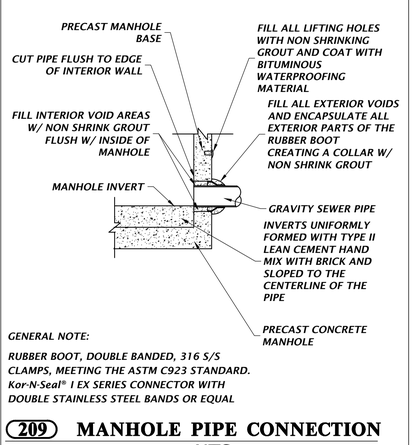
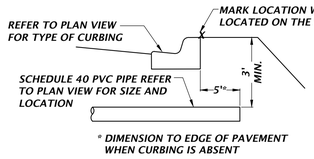


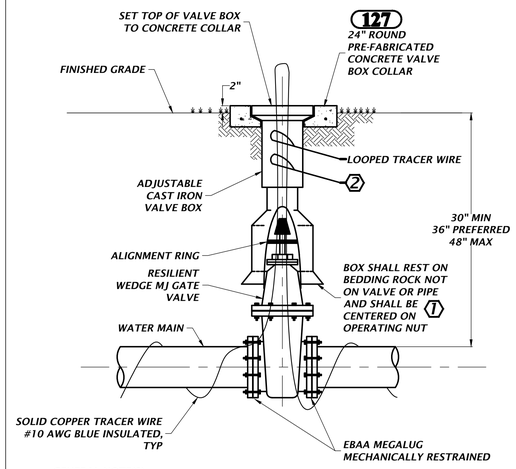
GENERAL NOTE:

RUBBER BOOT, DOUBLE BANDED, 316 S/S CLAMPS, MEETING THE ASTM C923 STANDARD. Kor-N-Seal® I EX SERIES CONNECTOR WITH DOUBLE STAINLESS STEEL BANDS OR EQUAL

(209) MANHOLE PIPE CONNECTION
NTS



(421) SLEEVE CROSSING
NTS



GENERAL NOTE(S):

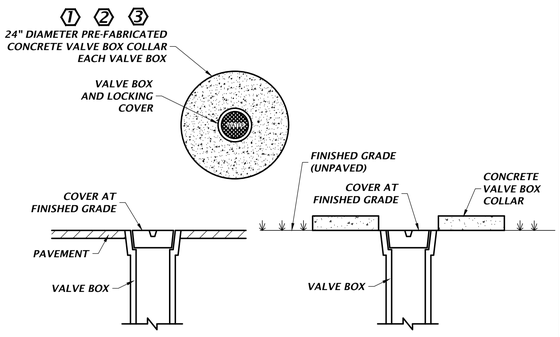
1. *PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.*
2. *VALVE BOX LID TO BE LETTERED WITH THE WORD "WATER" OR "RECLAIMED".*

KEYED NOTE(S):

(1) *WHEN VALVE BOX IS TO BE INSTALLED IN ROADWAY OR OTHER TRAFFIC AREAS SET VALVE BOX ON FIVE (5) SOLID COMMON BRICKS.*

(2) *VALVE BOX MAY SERVE AS ACCESS POINT FOR TRACER WIRES. PROVIDE ENOUGH LOOPED TRACER WIRE SO IT CAN EXTEND 8-INCHES ABOVE GRADE.*

(145) GATE VALVE FOR WATER AND RECLAIMED WATER MAINS 4" OR LARGER
NTS



KEYED NOTE(S):

(1) *VALVE BOX COLLAR FEATURES:*
- *24" DIAMETER, 11" INNER OPENING*
- *4" THICK*
- *TWO RINGS OF #3 REBAR*
- *4000 PSI TEST CONCRETE*

(2) *SUPPLIER AND PRODUCT:*
- *MASONRY SUPPLY, INC., SELMA, NC OR EQUAL*
- *ITEM: 24" CONCRETE VALVE BOX COLLAR OR EQUAL*
- *PART: MSVB-24 OR EQUAL*

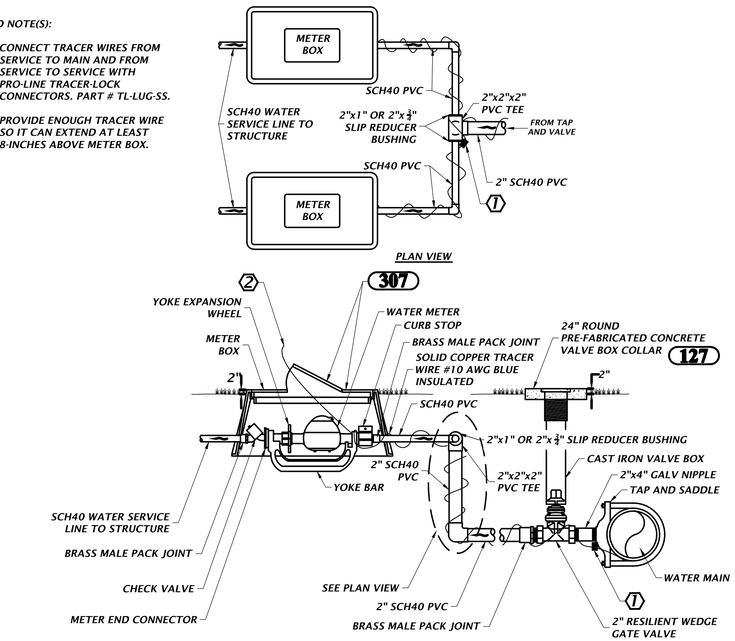
(3) *PAINT VALVE BOX COVER AND COLLAR AS PER* (307)

(127) VALVE BOX COLLAR
NTS

KEYED NOTE(S):

(1) *CONNECT TRACER WIRES FROM SERVICE TO MAIN AND FROM SERVICE TO SERVICE WITH PRO-LINE TRACER-LOCK CONNECTORS. PART # TL-LUG-SS.*

(2) *PROVIDE ENOUGH TRACER WIRE SO IT CAN EXTEND AT LEAST 8-INCHES ABOVE METER BOX.*



(130) DUAL WATER SERVICE CONNECTION
NTS

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: UTILITY DETAILS AND NOTES

DATE: JULY 26

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CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C5.03

FLOW STREAMS

- POTABLE WATER
- WW– WASTEWATER FORCE MAIN
- WW–GR WASTEWATER GRAVITY

LINE LEGENDS

- TRACER WIRE
- SUBDIVISION BOUNDARY OR PROPERTY LOT BOUNDARY
- TRACER WIRE CONNECTOR
- GROUND WIRE

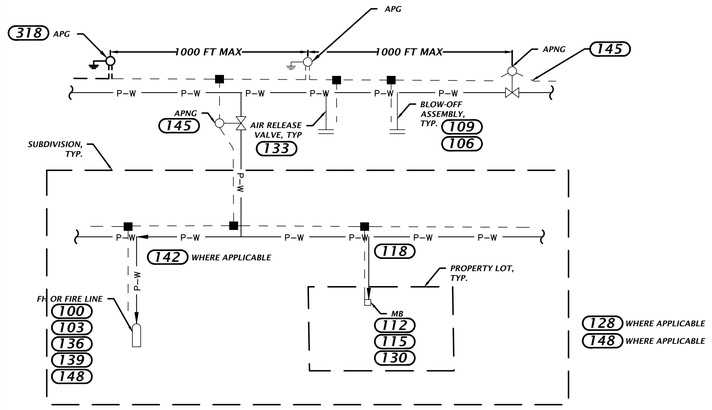
SYMBOLS

- APG — ACCESS POINT WITH PROVISIONS TO GROUND TRANSMITTER
- MH — MANHOLE
- APNG — GENERAL VALVE WITH VALVE BOX USED AS ACCESS POINT. (NON-GROUNDED)
- LS — LIFT STATION
- MB — METER BOX
- FH — FIRE HYDRANT

GENERAL NOTE(S):

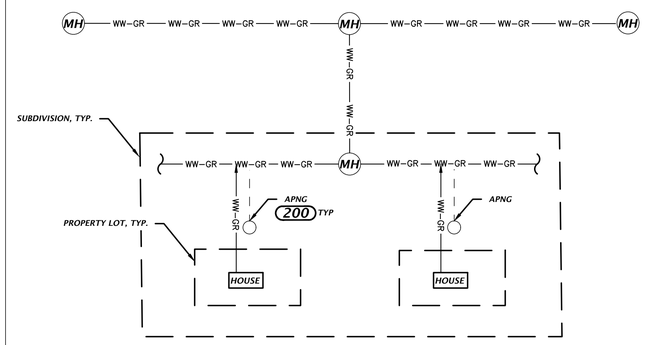
1. RIGHT-OF-WAY AND PUBLIC UTILITY EASEMENTS NOT SHOWN.
2. THESE CONFIGURATION DETAILS DO NOT STAND ALONE. SEE RELATED TRACER WIRE DETAILS.
3. TRACER WIRE CONNECTORS SHALL BE PRO-LINE TRACER-LOCK CONNECTORS, PART #TL-LUG-SS.
4. TRACER WIRE REQUIRED FOR BOTH DUCTILE IRON AND PVC PIPE.

321A TRACER WIRE CONFIGURATION: LEGENDS AND ABBREVIATIONS
NTS



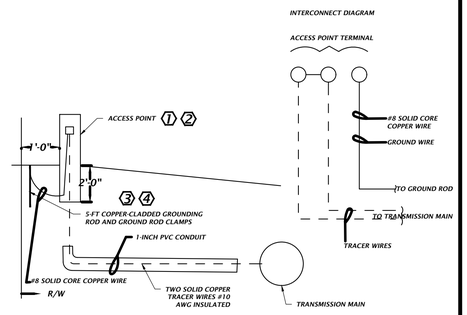
GENERAL NOTES: SEE 321A

321B POTABLE (OR RECLAIMED) TRACER WIRE CONFIGURATION
NTS



GENERAL NOTES: SEE 321A

321D WASTEWATER GRAVITY SYSTEM TRACER WIRE CONFIGURATION
NTS



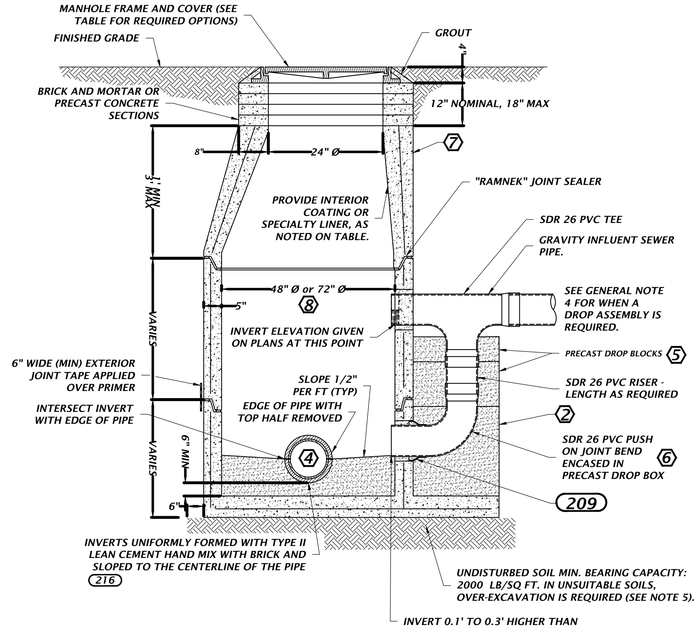
GENERAL NOTE(S):

1. THIS DETAIL APPLIES TO WATER, WASTEWATER, OR RECLAIMED WATER TRANSMISSION MAINS.

KEYED NOTE(S):

1. PRODUCT: PROMARK CATHODIC PROTECTION TEST STATION, 3-INCH TEST STATION WITH STANDARD 5 STAINLESS STEEL TERMINALS, PART # PM-TS3.
2. COLORS: BLUE FOR POTABLE WATER, GREEN FOR WASTEWATER, PURPLE FOR RECLAIMED WATER.
3. INSTALL ROD SO TOP IS ABOUT 3-INCHES BELOW GRADE.
4. DO NOT LOCATE GROUNDING ROD IN PATH OF TRACER WIRE.

318 ACCESS POINT FOR TRANSMISSION MAIN
NTS



215 STANDARD MANHOLE AND DROP, AS REQUIRED
NTS

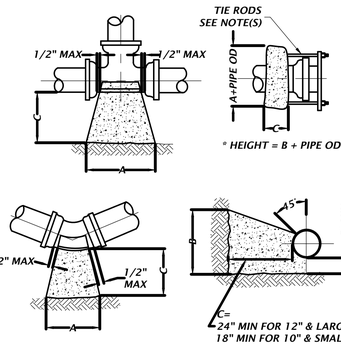
TABLE – MANHOLE LININGS AND COVERS			
APPLICATION TYPE	HYDROGEN SULFIDE GAS CONCENTRATION	MANHOLE LINING REQUIRED	MANHOLE COVER AND FLUME
TYPE 1: WASTEWATER DISCHARGE FROM RESIDENTIAL HOMES, EITHER DIRECTLY OR INDIRECTLY	LOW	YES 3	CAST IRON 212
TYPE 2: OFF-ROAD OR CITY ROAD, RECEIVES FORCE MAIN DISCHARGE, EITHER DIRECTLY OR INDIRECTLY	HIGH	YES 1	COMPOSITE 213
TYPE 3: COUNTY OR STATE ROAD, RECEIVES FORCE MAIN DISCHARGE, EITHER DIRECTLY OR INDIRECTLY	HIGH	YES 1	CAST IRON WITH COATING 214

GENERAL NOTE(S):

1. MODIFY DETAIL AS NECESSARY IF DROP NOT REQUIRED.
2. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478-73 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND SEALED WITH "RAMNEK" SEALER.
3. THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE JOINED AND SEALED WITH "RAMNEK" SEALER.
4. MANHOLE AND DROP ASSEMBLY SHALL BE REQUIRED FOR 6" OR LARGER INFLUENT PIPES WITH 2 FOOT OR GREATER INFLUENT DROP.
5. ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
6. PRECAST BASE SECTIONS WITH A BOTTOM SHALL BE INSTALLED ON UNDISTURBED EARTH. BEDDING IS REQUIRED WHEN THE SOIL CONDITIONS ARE WET OR WHEN THE SOIL IS UNSUITABLE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR.

KEYED NOTE(S):

1. UNLESS OTHERWISE NOTED OR SHOWN, FOR NEW MANHOLES, PROVIDE AGRU SURE-GRIP YELLOW 3.0 MM THICK LINER. FOR EACH EXISTING MANHOLE THAT CONNECTS TO NEW PIPING, PROVIDE RAVEN 405 EPOXY COATING. FURNISH AND INSTALL THESE PRODUCTS AS PER LATEST VERSION OF CITY OF ALACHUA, PUBLIC SERVICES, REQUIREMENTS FOR DESIGN AND CONSTRUCTION.
2. THIS CONCRETE BOX INCLUDES PIPING INTEGRALLY CAST AT THE FACTORY.
3. INTERIOR: TWO COATS WATER BASED EPOXY COATING. RED INITIAL COAT FOLLOWED BY GRAY FINAL COAT.
4. GRAVITY PIPE WITH TOP HALF REMOVED PASSES THROUGH MANHOLE AS PER
5. FROM MANHOLE VENDOR. TYPICAL SIZES ARE 2'x2'x2' AND 2'x2'x1'.
6. FOR EXISTING MANHOLE, PROVIDE FLOWABLE FILL AROUND JOINT BEND INSTEAD OF PRECAST DROP BOX
7. FOR ALL MANHOLES, PROVIDE EXTERIOR COAT AS FOLLOWS: TWO COATS WATER BASED EPOXY COATING. RED INITIAL COAT FOLLOWED BY GRAY FINAL COAT.
8. MANHOLE (MH) HEIGHT = RIM ELEVATION MINUS FLOOR ELEVATION. WHEN MANHOLE HEIGHT LESS THAN 20 FEET, PROVIDE 48" DIAMETER. WHEN MANHOLE HEIGHT 20 FEET OR MORE, PROVIDE 72" DIAMETER.



GENERAL NOTE(S):

1. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
2. THESE TABLES SHOW MINIMUM SIZES FOR THRUST BLOCKS IN GOOD SOIL (A-1 THRU A-3, CLEAN SANDS AND GRAVELS) WITH MINIMUM BEARING CAPACITY OF 2000 psi.
3. POOR SOILS A-4 THRU A-8, SILTY SOILS, CLAYS, MUCK AND PEAT WILL REQUIRE LARGER THRUST BLOCKING.
4. BOTH CONCRETE THRUST BLOCKS AND TIE RODS MUST BE USED WHEN, IN THE JUDGEMENT OF THE ENGINEER, THE NATURE AND CRITICALITY OF AN INSTALLATION IS SUCH AS TO REQUIRE POSITIVE ASSURANCE OF STABILITY.
5. THE USE OF THRUST BLOCKS SHALL BE LIMITED TO SITUATIONS SUCH AS POINT REPAIR WHERE EXPOSING SEVERAL JOINTS OF PIPE IS NOT FEASIBLE DUE TO EXISTING GROUND CONDITIONS.
6. CONCRETE COLLARS WITH TIE RODS MAY BE USED ON DEAD END LINES AT THE CONTRACTOR'S DISCRETION. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:

3" - 8"	DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
10" - 12"	DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
14" - 16"	DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
18" - 20"	DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
24"	DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
30" - 36"	DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD)
42" - 48"	DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
54"	DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

7. MAXIMUM TEST PRESSURE TO BE 150 PSI.

THRUST BLOCK FOR TEES AND PLUGS

	90° BEND			SF BEARING
SIZE	A	B	C	SURFACE
4"	16"	16"	18"	1.78
6"	20"	24"	18"	3.33
8"	26"	32"	18"	5.78
10"	32"	40"	18"	8.89
12"	36"	48"	24"	12.00
14"	40"	56"	24"	15.56
16"	48"	60"	24"	20.00
18"	56"	64"	24"	24.89
20"	60"	76"	24"	31.67
24"	72"	90"	24"	45.00
30"	86"	102"	24"	60.67
36"	116"	108"	24"	86.11

THRUST BLOCK FOR BENDS

	90° BEND			SF BEARING	45° BEND			SF BEARING	22-1/2° BEND			SF BEARING	11-1/4° BEND			SF BEARING
SIZE	A	B	C	SURFACE	A	B	C	SURFACE	A	B	C	SURFACE	A	B	C	SURFACE
4"	16"	16"	18"	1.78	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56
6"	22"	32"	18"	4.89	16"	18"	18"	2.00	14"	16"	18"	1.56	14"	16"	18"	1.56
8"	32"	36"	18"	8.00	24"	28"	18"	4.67	16"	18"	18"	2.00	14"	16"	18"	1.56
10"	36"	46"	18"	11.50	26"	36"	18"	6.50	20"	24"	18"	3.33	14"	18"	18"	1.75
12"	44"	56"	24"	17.11	32"	40"	24"	8.89	24"	30"	24"	5.00	16"	20"	24"	2.22
14"	52"	62"	24"	22.39	36"	48"	24"	12.00	26"	36"	24"	6.50	20"	24"	24"	3.33
16"	58"	72"	24"	29.00	40"	54"	24"	15.00	32"	38"	24"	8.44	22"	26"	24"	3.97
18"	64"	80"	24"	35.56	46"	60"	24"	19.17	36"	42"	24"	10.50	24"	32"	24"	5.33
20"	72"	88"	24"	44.00	52"	66"	24"	23.83	38"	48"	24"	12.67	26"	36"	24"	6.50
24"	96"	96"	24"	36.89	64"	78"	24"	34.67	46"	56"	24"	17.89	32"	40"	24"	8.89
30"	122"	102"	24"	86.11	72"	94"	24"	47.00	56"	62"	24"	24.11	36"	48"	24"	12.00
36"	166"	104"	24"	123.33	88"	108"	24"	66.00	64"	78"	24"	34.67	44"	54"	24"	16.50

306 THRUST BLOCK AND TIE ROD DETAILS
NTS

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: UTILITY DETAILS AND NOTES

CLIENT: ALACHUA HABITAT FOR HUMANITY, GAINESVILLE, FLORIDA

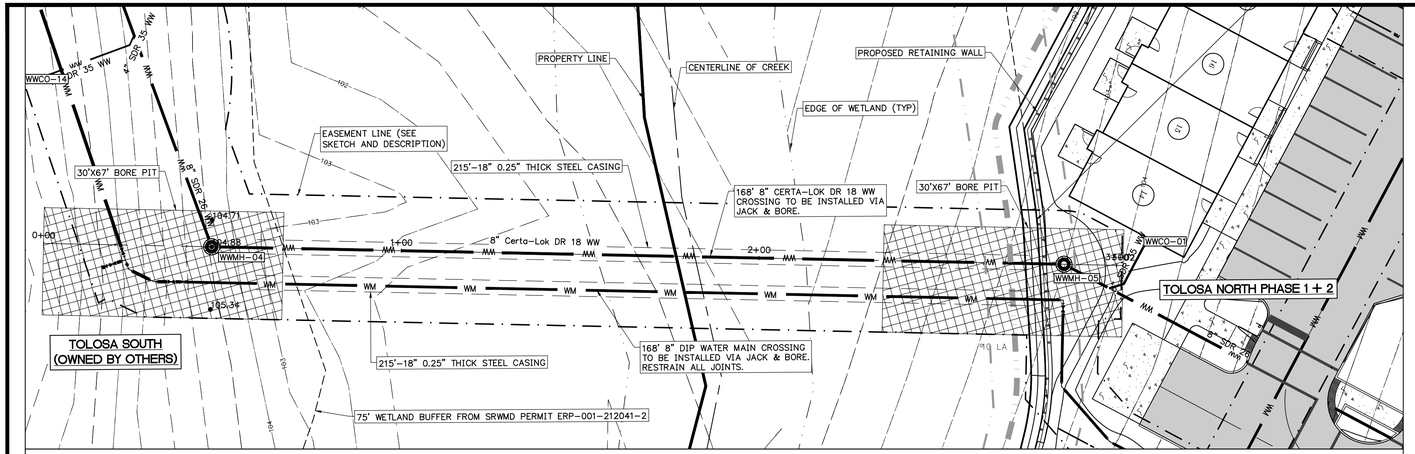
PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

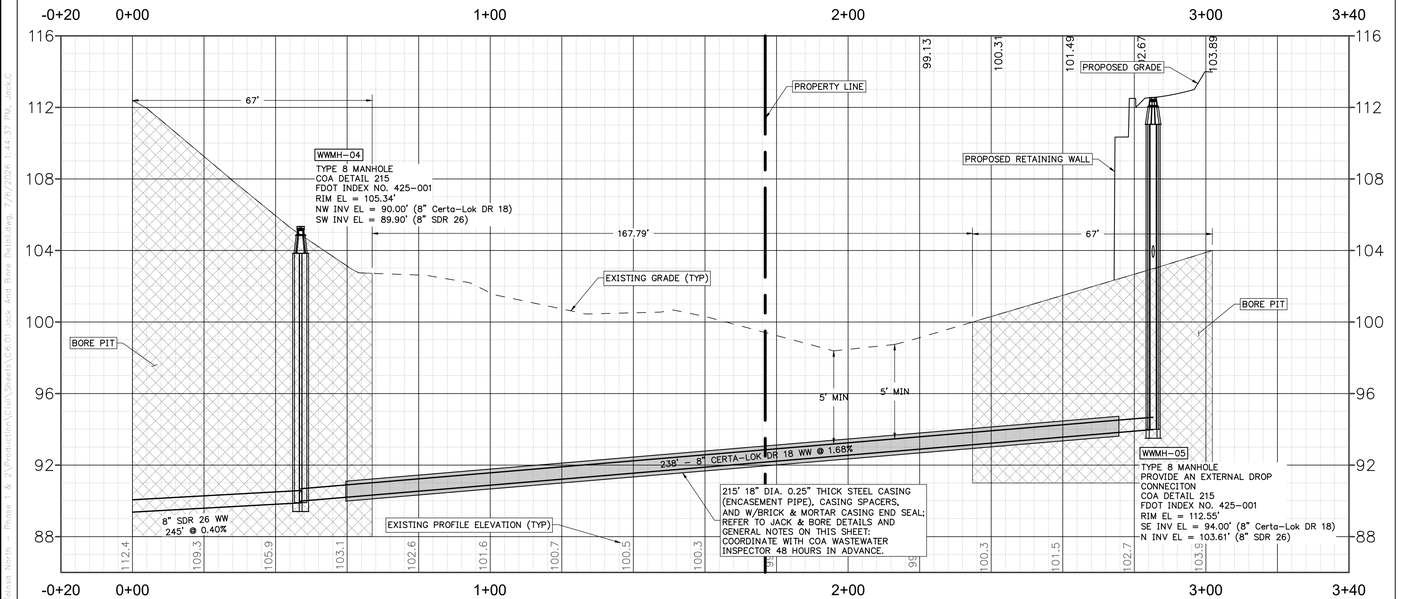
PROJECT NO: 0167-25-01

SHEET NO: C5.04

J:\0167-25-001 — Tolosa North — Phase 1 & 2\Production\Civil\Sheets\C5.02 – Utility Details and Notes.dwg, 7/9/2026 11:44:22 PM, jack.C

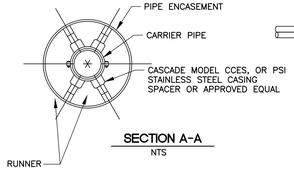


PLAN VIEW
1" = 20'

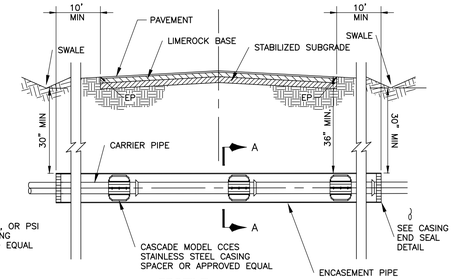


PROFILE VIEW - Jack and Bore
1"=20' H, 1"=4' V

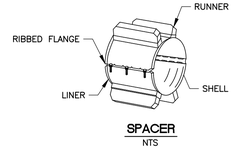
CARRIER PIPE	MINIMUM NUMBER OF RUNNERS	HEIGHT OF RUNNERS
2" – 10"	4	2"
12" – 24"	4	2.5"
30" – 36"	6	2.5"



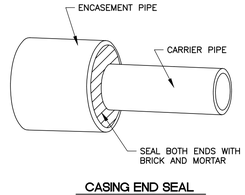
SECTION A-A
NTS



PROFILE
NTS



SPACER
NTS



CASING END SEAL
NTS

SPACERS NOTES:

1. CARRIER PIPE SHALL BE CENTERED WITHIN CASING BY USE OF MODEL CCS STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY CASCADE WATER WORKS MFG. COMPANY OR APPROVED EQUAL. SPACERS FOR PIPES OVER 48" MAY REQUIRE THREE PIECE SHELLS. SHELL CONNECTORS ABOVE 48" WILL BE RECEIVER BAR/ WASHER PLATE TYPE.
2. SPACERS SHALL BE BOLT-ON STYLE WITH A TWO PIECE SOLID SHELL MADE FROM T-304 STAINLESS STEEL OF A MINIMUM 14 GA. THICKNESS. THE SHELL SHALL BE LINED WITH A RIBBED PVC SHEET OF A 0.090" THICKNESS THAT OVERLAPS THE EDGES. RUNNERS MADE FROM UHMW POLYMER, SHALL BE ATTACHED TO RISERS AT APPROPRIATE POSITIONS TO PROPERLY LOCATE THE CARRIER WITHIN THE CASING AND TO EASE INSTALLATION. RISERS SHALL BE MADE FROM T-304 STAINLESS STEEL OF A MINIMUM 14 GA. THICKNESS AND SHALL BE ATTACHED TO THE SHELL BY MIG WELDING. ALL WELDS SHALL BE FULLY PASSIVATED. ALL FASTENERS SHALL BE MADE FROM T-304 STAINLESS STEEL. CASING SPACERS SHALL BE MODEL CCS AS MANUFACTURED BY CASCADE WATER WORKS MFG. COMPANY OF YORKVILLE ILL., PSI OR APPROVED EQUAL.
3. GENERAL- ONE SPACER SHALL BE PLACED NOT MORE THAN TWO FEET FROM EACH END OF CASING. SUBSEQUENT SPACERS SHALL BE PLACED AT 6'-10' INTERVALS WITHIN THE CASING, OR IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS.
4. PVC CARRIER- ONE SPACER SHALL BE PLACED ON THE SPIGOT END OF EACH SEGMENT AT THE LINE MARKING THE LIMIT OF INSERTION INTO THE BELL. WHEN THE JOINT IS COMPLETE, THE SPACER SHALL BE IN CONTACT WITH THE BELL OF THE JOINT SO THAT THE SPACER PUSHES THE JOINT AND RELIEVES COMPRESSION WITHIN THE JOINT. SUBSEQUENT SPACERS SHALL BE PLACED AT 6'-10' INTERVALS, OR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

TYPICAL JACK AND BORE DETAIL

JACK AND BORE DETAIL GENERAL NOTES:

1. ENGINEERS, DEVELOPERS, CONTRACTORS, INSPECTORS, AND OTHERS INVOLVED WITH BORE AND JACK CONSTRUCTION SHALL PERFORM ALL WORK IN ACCORDANCE WITH CITY OF ALACHUA STANDARDS. ALL PROPOSED DEVIATIONS FROM THESE STANDARDS SHALL REQUIRE WRITTEN APPROVAL FROM THE CITY OF ALACHUA PUBLIC WORKS.
2. CONTRACTOR SHALL PROVIDE AND PAY FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, CONSTRUCTION WATER AND POWER, TRANSPORTATION, MAINTENANCE OF TRAFFIC, AND ALL OTHER SERVICES AND FACILITIES NECESSARY TO EXECUTE AND DELIVER A COMPLETE AND PROPERLY FUNCTIONING PROJECT WITHIN THE TIME SPECIFIED BY THE CONTRACT OR PURCHASE ORDER.
3. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONDUCT A SURVEY OF THE SITE TO DOCUMENT PRE-EXISTING CONDITIONS AND SUBMIT A PRE-EXISTING CONDITIONS REPORT TO EOR.
4. AT NO TIME DURING CONSTRUCTION SHALL THE CONTRACTOR OPERATE EXISTING WATER AND SANITARY SEWER FACILITIES (VALVES, PUMPS, ETC) WITHOUT ON-SITE APPROVAL AND ASSISTANCE FROM CITY OF ALACHUA PERSONNEL.
5. THE CONTRACTOR SHALL DESIGN AND/OR MAINTAIN ALL EXCAVATIONS AS REQUIRED TO COMPLY WITH ALL APPLICABLE FEDERAL (OSHA), STATE (FDOT, ETC.), COUNTY, CITY REQUIREMENTS AT ALL TIMES DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL ABIDE BY ALL RULES, REGULATIONS AND REQUIREMENTS OF THE OWNERS OF THE PROPERTY WHERE THE WORK IS BEING PERFORMED, INCLUDING NOTIFICATION 48 HOURS PRIOR TO START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC (SIGNAL LIGHTS, WARNING SIGNS, FLAGGING, BARRICADES, ETC) FOR SAFETY AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION OVER THE ROADWAY OR RAILROAD INVOLVED.
8. THE CONTRACTOR, IF REQUIRED, SHALL INSTALL SPLIT MEGALUGS ON ALL EXPOSED WATER MAIN BELLS AND FORCE MAIN BELLS PRIOR TO EXCAVATING BELOW THEM. SUPPORT ALL EX UNDERGROUND UTILITY CROSSINGS TO PREVENT MOVEMENT WHILE TRENCHING FOR THE WASTEWATER SEWER PIPE.
9. THE CONTRACTOR SHALL PROVIDE SHORING TO MAINTAIN LIMITS OF EXCAVATION AS SHOWN PLAN.
10. THE CONTRACTOR MAY PROVIDE ALTERNATIVE WATER MAIN PIPE MATERIAL TO BOTH OWNER AND EOR FOR REVIEW AND APPROVAL.
11. FOR WATER MAIN PIPING:
    A. EXTEND TRACER WIRE THRU ENCASEMENT.
    B. CONNECT TRACER WIRES WITH PRO-LINES TRACER-LOK CONNECTORS, PART #TL-LUG-SS.
    C. TRACER WIRE SHALL BE #10 AWG COPPER CLAD STEEL, COPPERHEAD SOLOSHOT EXTRA-HIGH STRENGTH 1045 CCS TRACER WIRE.

X 0.5X 0 X 2X 3X
SCALE 1" = X'

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: JACK AND BORE DETAIL

DATE: JULY 26

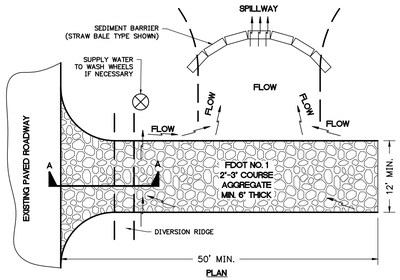
PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C5.05

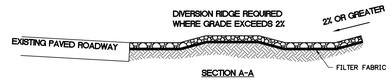
J:\0167-25-001 - Tolosa North - Phase 1 & 2\Construction\Sheets\0167-25-001 Jack and Bore Details.dwg, 7/9/2026 1:43:57 PM, Jack C



PLAN

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

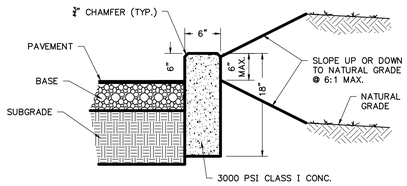
NTS



SECTION A-A

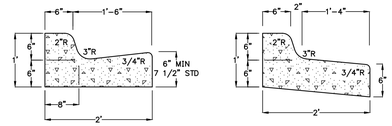
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. USE SANDBAGS, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.



STANDARD CURB DETAIL

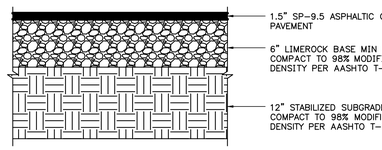
N.T.S.



NOTE:
WHEN USED ON THE HIGH SIDE OF ROADWAYS, THE CROSS-SLOPE OF THE GUTTER SHALL MATCH THE CROSS-SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON THE PLANS.

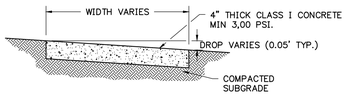
TYPE 'F' CONCRETE CURB AND GUTTER

N.T.S.



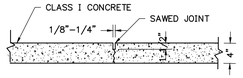
TYPICAL ASPHALT PAVEMENT DETAIL

NTS



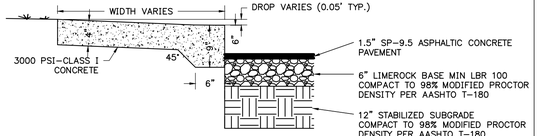
TYPICAL AT GRADE SIDEWALK DETAIL

N.T.S.



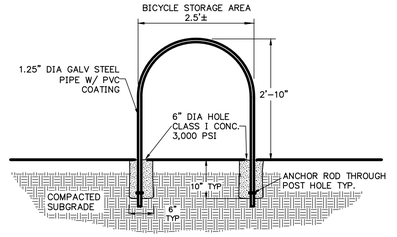
CONTRACTION (CONTROL) JOINT DETAIL

N.T.S.



TYPICAL STEP-UP SIDEWALK DETAIL

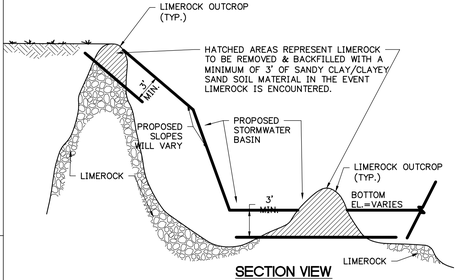
N.T.S.



NOTE:
U-RACKS SHALL BE SPACED @ 2.5' ON CENTER WITH 2.25' CLEAR @ SIDES.

BICYCLE U-RACK DETAIL

N.T.S.



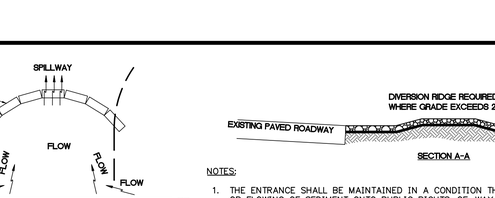
SECTION VIEW

LIMEROCK OUTCROP REMOVAL DETAIL

NTS

BASIN LIMEROCK OUTCROP CONSTRUCTION NOTES

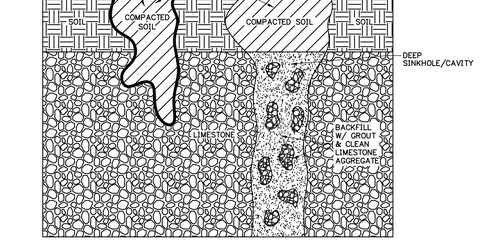
1. IN THE EVENT THAT LIMEROCK OUTCROP IS ENCOUNTERED DURING CONSTRUCTION OF THE RETENTION BASINS, THE FOLLOWING TREATMENT SHALL BE PERFORMED. THE LIMEROCK OUTCROP SHALL BE EXCAVATED TO AN ELEVATION OF THREE (3) FEET BELOW THE DESIGN BASIN BOTTOM. THE EXCAVATED AREA SHALL BE BACKFILLED TO THE DESIGN BASIN BOTTOM ELEVATION WITH CLAYEY-SAND/SANDY-CLAY (AASHTO SOIL GROUP - A2) SOILS. A MIXTURE OF THE BACKFILL MATERIAL SHALL BE PLACED IN SIX INCH LIFTS AND ROLLED WITH HEAVILY LOADED RUBBER TIRED EQUIPMENT. BOTH ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND THE ALACHUA COUNTY PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED WHEN LIMEROCK OUTCROPS ARE ENCOUNTERED AND PRIOR TO COMMENCING REMEDIAL ACTION.
2. IN THE EVENT THAT ANY KARST FEATURES SUCH AS SOLUTION CAVITIES, CHIMNEYS, OR SINKHOLES APPEAR IN THE RETENTION BASIN, THE FOLLOWING ACTIONS SHALL BE REQUIRED.
   A. THE CIVIL ENGINEER, THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, AND THE ALCHUA COUNTY PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED WHEN THE FEATURE IS ENCOUNTERED PRIOR TO REMEDIAL ACTION.
   B. A LICENSED GEOTEHCNICAL ENGINEERING FIRM SHALL BE RETAINED TO EVALUATE THE SIGNIFICANCE OF THE FEATURE AND TO DETERMINE THE REMEDIAL ACTION NECESSARY. SEE SHALLOW AND DEEP SINKHOLE/CAVITY MAINTENANCE REPAIR DETAIL.
   C. THE GEOTECHNICAL ENGINEERING FIRM SHALL BE REQUIRED TO MONITOR THE REMEDIAL WORK AND SEND A SUMMARY REPORT UPON REPAIR COMPLETION TO THE CIVIL ENGINEER, THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, AND THE ALACHUA COUNTY PUBLIC WORKS DEPARTMENT



1. *PROVIDE DETECTABLE WARNINGS IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) SECTION 705-DETECTABLE WARNINGS ON WALKING SURFACES AND THE 2017 FLORIDA BUILDING CODE, ACCESSIBILITY, CHAPTER 7, SECTION 705.*
2. *RAISED TRUNCATED DOMES SHALL HAVE A BASE DIAMETER FROM 0.9" MIN TO 1.4" MAX, A TOP DIAMETER FROM 50% TO 65% OF BASE DIAMETER, A HEIGHT OF 0.2 INCH (5 mm) NOMINAL, CENTER-TO-CENTER SPACING FROM 1.6" MIN TO 2.4" MAX, AND BASE-TO-BASE SPACING OF 0.65% MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.*
3. *SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.*
4. *ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES.*
5. *MATS ARE NOT ACCEPTABLE.*
6. *PROVIDE INTERLOCKING PAVERS AS FOLLOWS:*
   A - DETECTABLE WARNING SURFACE FOR THE RAMPS SHALL CONSIST OF INTERLOCKING 6" X 8" ADA DETECTABLE WARNING SURFACE PAVERS HAVING A MINIMUM DEPTH OF 2". CONCRETE PAVERS ARE TO MEET ASTM C902 CLASS SX TYPE 1; AND BRICK PAVERS ARE TO MEET ASTM C55, GRADE N, SOLID BRICK COLOR TO MEET ADA CONTRAST REQUIREMENTS.
   B - ALL UNITS SHALL BE SOUND AND FREE OF DEFECTS THAT WOULD INTERFERE WITH THE APPEARANCE OF PROPER PLACEMENT OF THE UNIT OR IMPAIR THE STRENGTH OR LONGEVITY OF THE FINAL STRUCTURE. ANY UNITS THAT ARE STRUCTURALLY DAMAGED DURING THE WORK SHALL BE IMMEDIATELY REMOVED AND REPLACED. THE PAVERS ARE TO BE LAID IN A TWO BY TWO BASKETWEAVE PATTERN, FLUSH WITH THE FINISH GRADE OF THE RAMP SURFACE, AND HAVE GAPS BETWEEN 1/16 AND 1/8 INCH. CUT PAVERS (MASONRY SAW ONLY) SHALL BE NO SMALLER THAN ONE-THIRD OF A WHOLE PAVER.
   C - MODIFY FORMWORK OR PROVIDE FORMED GROUT INFILL BEHIND CURVED DROP CURB SECTIONS TO ENSURE STRAIGHT EDGE RESTRAINT FOR PAVERS.
   D - CONCRETE EDGE RESTRAINT FOR WARNING AREA. MAXIMUM GAP OF 1/8" BETWEEN PAVERS AND EDGE. USE ½" RADIUS ALONG CONCRETE EDGES.
   E - WHEN PAVERS ABUT EITHER EARTH/DIRT OR PAVEMENT, A SIX INCH CONCRETE BAND SHALL BE INSTALLED. BAND SHALL BE WITHIN LIMITS OF THE WIDTH OF PROPOSED CONCRETE AND NOT EXTENDED AN ADDITIONAL SIX INCHES..
7. *ALL MATERIALS/METHODS TO BE UTILIZED SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER AND CITY OF ALACHUA PRIOR TO ORDERING THE MATERIALS/METHODS. FAILURE TO OBTAIN APPROVAL BEFORE ORDERING OR INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.*

403 ADA DETECTABLE WARNING

NTS



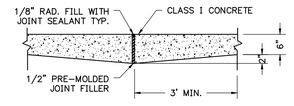
SECTION VIEW

SHALLOW AND DEEP SINKHOLE/CAVITY MAINTENANCE REPAIR DETAIL

NTS

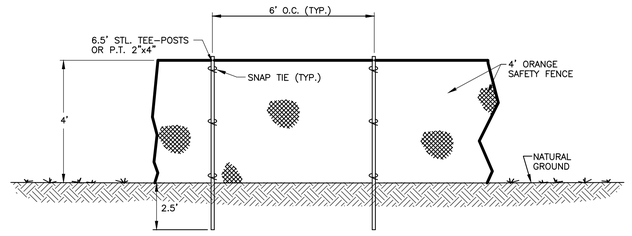
NOTES

1. IN THE EVENT THAT ANY KARST FEATURES SUCH AS SINKHOLES, SOLUTION CAVITIES, CHIMNEYS, ETC. ARE DISCOVERED DURING ROUTINE INSPECTIONS OF THE STORMWATER BASINS, THE FOLLOWING REMEDIATION PROCEDURE SHALL BE PERFORMED:
2. SHALLOW REPAIR (SEE DETAIL):
   IF THE COLLAPSE IS SHALLOW (<5' DEEP) AND THE VOIDS IN THE LIMESTONE ARE SMALL, THEN THE SINKHOLE CAN BE REPAIRED BY BACKFILLING WITH A LOWER-PERMEABILITY MATERIAL, SUCH AS CLAYEY-SAND OR CLAY. THE MATERIAL SHOULD BE COMPACTED AND THE REPAIR SHALL BE SLIGHTLY ABOVE THE ORIGINAL BOTTOM IN ORDER TO CREATE A SMALL MOUND TO ACCOUNT FOR SETTLING.
3. DEEP REPAIR (SEE DETAIL):
   IF THE COLLAPSE IS DEEP, THEN THE REPAIR SHALL BE MORE PERMANENT. THE COLLAPSE SHALL BE EXCAVATED TO THE LIMESTONE BEDROCK. THE VOID(S) IN THE BEDROCK SHALL BE PLUGGED WITH CLEAN GROUT. A LOW PERMEABILITY MATERIAL SHALL BE PLACED OVER THE CONCRETE PLUG. THE MATERIAL SHALL BE COMPACTED AND BROUGHT TO EXISTING BASIN BOTTOM. IN THE EVENT A GEOTECHNICAL ENGINEER IS CONSULTED ON THE DEEP REPAIR, THE REMEDIATION METHOD MAY BE ALTERED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATION.
4. NOTIFICATION:
   THE SUWANNE RIVER WATER MANAGEMENT DISTRICT (SRWMD) SHALL BE NOTIFIED OF ANY SINKHOLE DEVELOPMENT WITHIN 48 HOURS OF DISCOVERY AND THE PROPOSED METHOD BY WHICH THE SINKHOLE WILL BE REPAIRED SHALL BE PROVIDED TO SRWMD.



EXPANSION JOINT DETAIL

N.T.S.



TREE PROTECTION FENCING DETAIL

N.T.S.

NOTES:
1. NO GRADING WITHIN BARRIERS.
2. ANY ROOTS GREATER THAN 1" IN DIAMETER THAT ARE DAMAGED OR EXPOSED SHALL BE CLEANLY CUT AND COVERED OVER WITH SOIL.
3. TREE BARRICADES WILL BE CONSTRUCTED BEFORE ANY WORK BEGINS.
4. TREE BARRICADES WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
5. STORAGE OF DIRT OR MATERIALS SHALL NOT BE PERMITTED WITHIN TREE BARRICADES OR BEYOND THE CONSTRUCTION LIMITS.
6. TREE BARRICADES SHALL ENCLOSE THE ENTIRE AREA OF THE DRIP LINE OF TREES BEING SAVED.

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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SHEET TITLE: DETAILS AND NOTES

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

PROJECT NO: 0167-25-01

SHEET NO: C6.00

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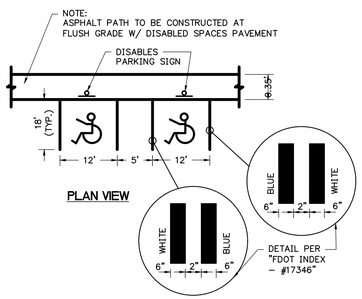

DETAIL OF DISABLED PARKING ACCESS

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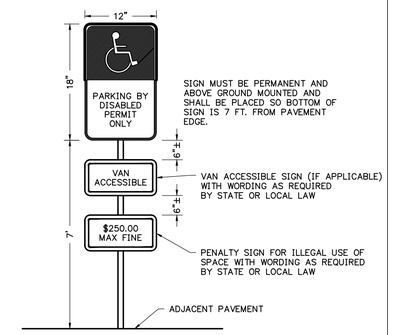
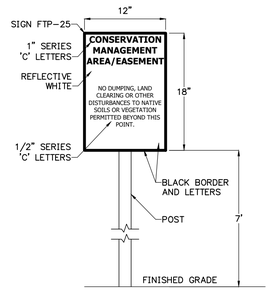


NOTE:
CONTRACTOR TO PROVIDE MOUNTING POLES, BRACKETS AND COMPLETELY INSTALL THESE AND ALL OTHER SIGNS IN ACCORDANCE WITH MUTCD AND FDOT STANDARDS (PER DESIGN DRAWINGS).

DISABLED PARKING SPACE SIGN DETAIL

N.T.S.

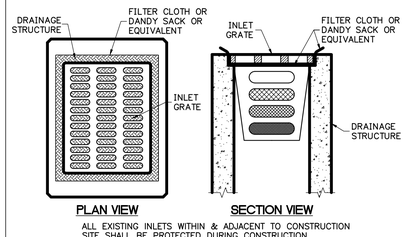


SIGN NOTES:

1. SIGN COMSTRUCTION, DESIGN AND PLACEMENT SHALL COMPLY WITH STATE AND LOCAL STATUTES.

CONSERVATION MANAGEMENT AREA SIGN DETAIL

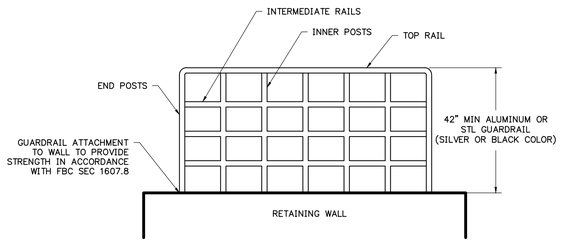
N.T.S.



ALL EXISTING INLETS WITHIN & ADJACENT TO CONSTRUCTION SITE SHALL BE PROTECTED DURING CONSTRUCTION.

INLET PROTECTION DETAIL

N.T.S.

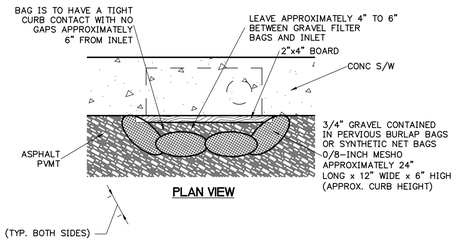


NOTES

1. GUAURDRAIL REQUIRED ON TOP OF ENTIRE LENGTH OF RETAINING WALL (557LF±).
2. RAILS & POSTS SHALL BE PROVIDED SO A SPHERE OF 4" IN DIAMETER MAY NOT PASS THROUGH THE GUARDRAIL AT ANY POINT PER FBC SECTION 1015.2.
3. GUARDS SHALL BE ATTACHED, ANCHORED, AND PROVIDE STRENGTH PER FBC SECTION 1607.8.
4. CONTRACTOR SHALL PROVIDE MANUFACTURER SHOP DRAWINGS WITH STRUCTURAL DESIGN DOCUMENTATION CONFORMING TO FBC SECTION 1607.8.

GUARDRAIL DETAIL

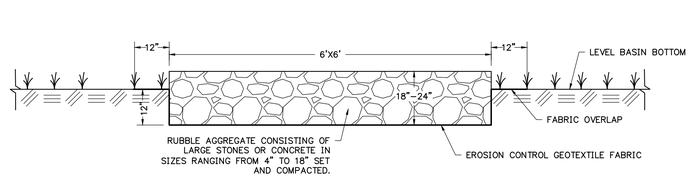
N.T.S.



NOTE: GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

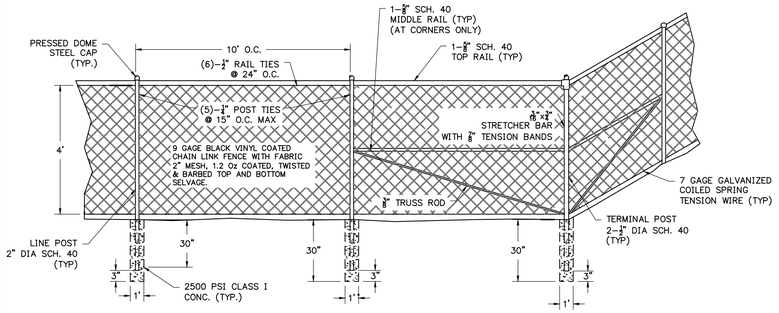
GRAVEL FILTER BAGS DETAIL

N.T.S.



EROSION CONTROL ENERGY DISSIPATING RUBBLE PAD

N.T.S.

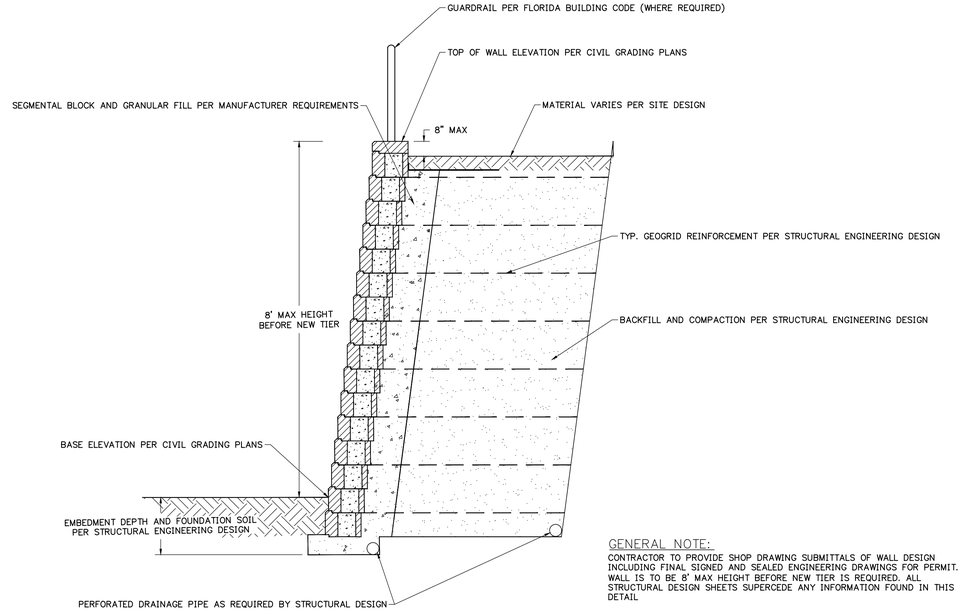


FENCING NOTES:

1. ALL FITTINGS SHALL BE MALLEABLE FITTINGS.
2. ALL TIES SHALL BE 9 GAGE ALUMINUM.
3. TOP & BOTTOM TENSION WIRE SHALL BE TIED TO EACH POST.
4. GATES, GATE POST AND BRACE ASSEMBLIES ARE NOT SHOWN.

4' BLACK VINYL COATED CHAIN LINK FENCE DETAIL

N.T.S.



GENERAL NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWING SUBMITTALS OF WALL DESIGN INCLUDING FINAL SIGNED AND SEALED ENGINEERING DRAWINGS FOR PERMIT. WALL IS TO BE 8' MAX HEIGHT BEFORE NEW TIER IS REQUIRED. ALL STRUCTURAL DESIGN SHEETS SUPERCEDE ANY INFORMATION FOUND IN THIS DETAIL

SEGMENTAL BLOCK RETAINING WALL DETAIL

N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: **JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925**

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SHEET TITLE: DETAILS AND NOTES

DATE: JULY 26

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: C6.01

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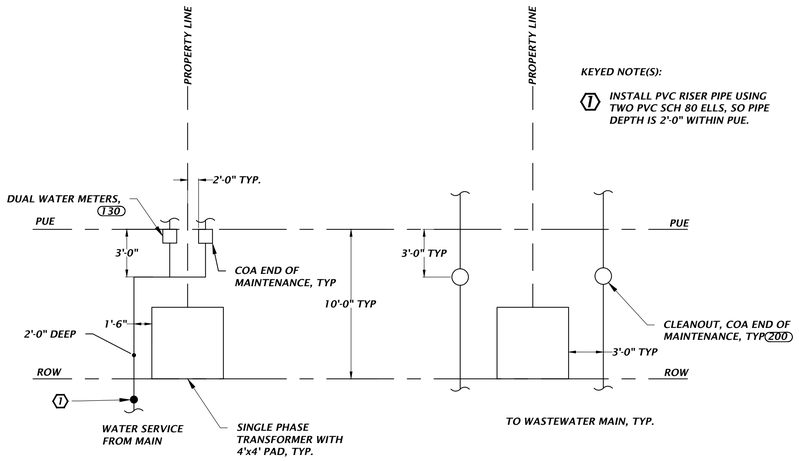

KEYED NOTE(S):

1 INSTALL PVC RISER PIPE USING TWO PVC SCH 80 ELLS, SO PIPE DEPTH IS 2'-0" WITHIN PUE.

328 TYPICAL ROUTING OF WATER AND GRAVITY WASTEWATER PIPING NEAR TRANSFORMER ADJACENT TO ROW

NTS

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SHEET TITLE: DETAILS AND NOTES

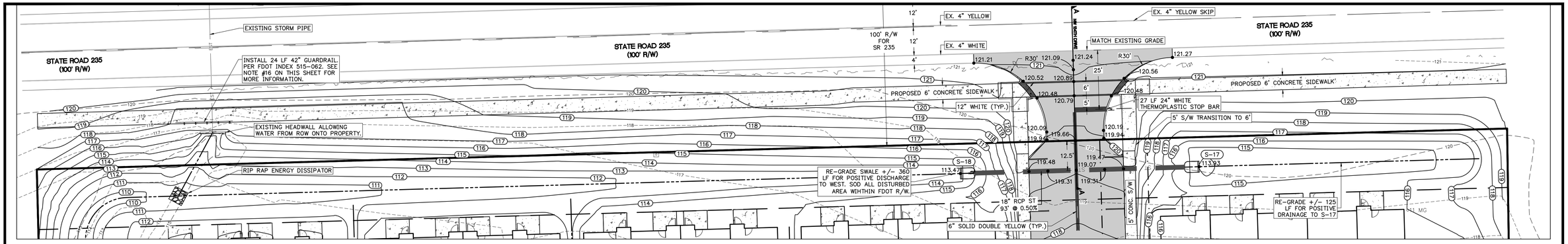
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26

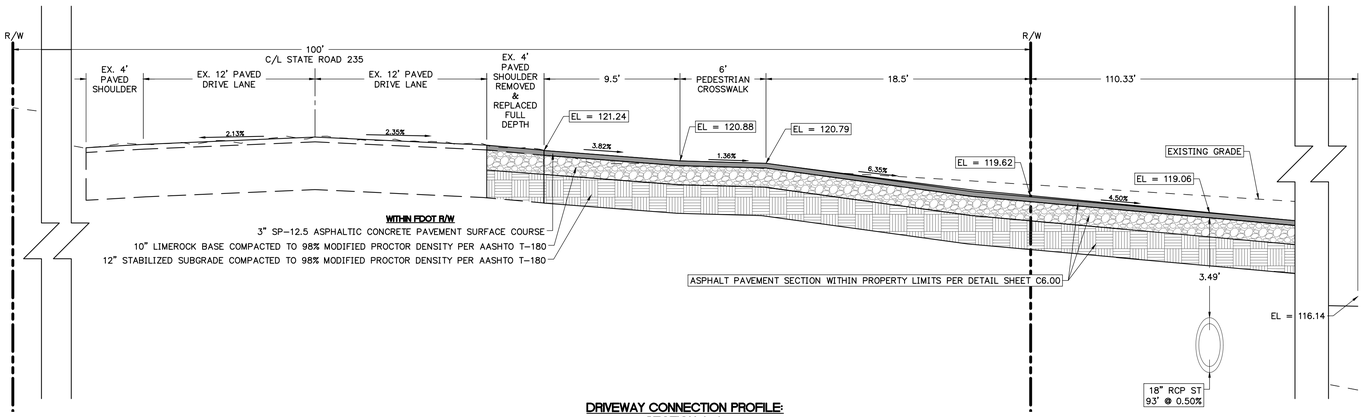
PROJECT NO: 0167-25-01

SHEET NO: C6.02



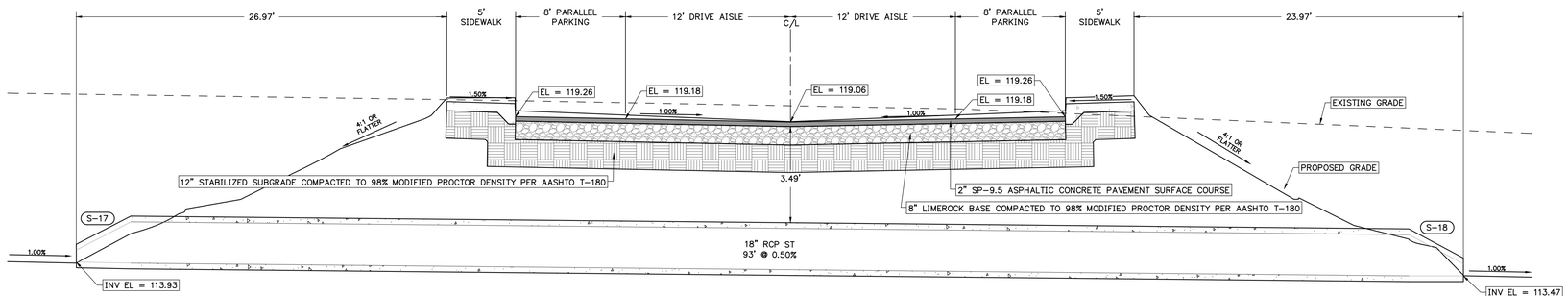
SR 235 DRIVEWAY CONNECTION DETAIL

SCALE: 1" = 20'



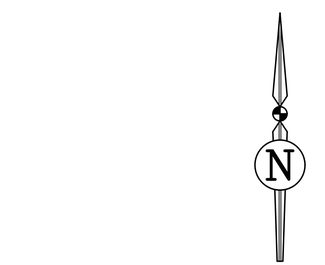
DRIVEWAY CONNECTION PROFILE:
SECTION A-A

HORIZONTAL: 1" = 5'
VERTICAL: 1" = 2.5'



STORM SEWER PROFILE: S-17 TO S-18

HORIZONTAL: 1" = 5'
VERTICAL: 1" = 2.5'



FDOT RIGHT-OF-WAY GENERAL NOTES

1. ALL WORK PERFORMED WITHIN THE DEPARTMENT'S RIGHT-OF-WAY SHALL CONFORM TO THE MOST CURRENT EDITION OF THE FOLLOWING PUBLICATIONS.
   - A. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (ENGLISH)
   - B. FDOT STANDARDS INDEX (ENGLISH)
   - C. FDOT PLANS PREP MANUAL
   - D. FDOT FLEXIBLE PAVEMENT DESIGN MANUAL FOR NEW CONSTRUCTION AND PAVEMENT REHABILITATION
2. SHOULD A CONFLICT ARISE BETWEEN THE DETAILS SHOWN IN THE PLANS AND THE DEPARTMENT OF TRANSPORTATION STANDARDS THE ENGINEER/APPLICANT SHALL IMMEDIATELY CONFER WITH THE DEPARTMENT'S ENGINEER IN ORDER TO RESOLVE THE DISCREPANCY.
3. ALL TRAFFIC STRIPING AND MARKINGS ARE TO BE LEAD-FEE NON-SOLVENT BASED THERMOPLASTIC.
4. REMOVAL OF EXISTING STRIPING SHALL BE ACCOMPLISHED USING THE "HYDRO-BLAST" METHOD. IF THIS PROCESS DAMAGES/SCARS PAVEMENT, THEN THE PAVEMENT SHALL BE MILLED AND RESURFACED PER FDOT STANDARDS.
5. ALL DIRECTIONAL ARROWS SHALL BE PLACED AS ONE SEGMENT.
6. ALIGNMENT OF PROPOSED PAVEMENT MARKINGS SHALL MATCH EXISTING PAVEMENT MARKINGS AT PAVEMENT MARKING LIMITS OF CONSTRUCTION.
7. ALL CURB AND GUTTER AND SIDEWALK WILL BE REMOVED AND REPLACED JOINT TO JOINT.
8. ALL DISTURBED AREA WITHIN THE DEPARTMENT'S RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION BY GRADING AND SODDING THE AREA DISTURBED (BERMUDA IN RURAL, CENTIPEDE IN UTILITY STRIPS).
9. BURNING OF ANY MATERIAL OR DEBRIS IS PROHIBITED IN FDOT RIGHT-OF-WAY.
10. ALL LANES MUST BE OPENED FOR TRAFFIC DURING AN EVACUATION NOTICE OF A HURRICANE OR OTHER CATASTROPHIC EVENT AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT.
11. PRIOR TO BEGINNING CONSTRUCTION, A LANE CLOSURE ANALYSIS (PER PLANS PREPARATION MANUAL 10.12.7) MUST BE PERFORMED AND SUBMITTED TO FDOT FOR REVIEW AND APPROVAL TO DETERMINE ALLOWABLE LANE CLOSURE HOURS.
12. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC PLAN AND SUBMIT TO FDOT PRIOR TO CONSTRUCTION COMMENCING.
13. CONTRACTOR SHALL SUBMIT RETRO REFLECTIVITY REPORT FOR STRIPING TO FDOT PRIOR TO COMMENCING STRIPING OPERATIONS.
14. BEFORE CONSTRUCTION IS TO BEGIN, THE CONTRACTOR SHALL DELIVER TO THE DEPARTMENT PROOF OF INSURANCE VERIFYING COVERAGE UNDER A LIABILITY INSURANCE POLICY ISSUED BY AN INSURANCE COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE OF FLORIDA NAMING ITSELF AS INSURED, AND THE DEPARTMENT AS AN ADDITIONAL NAMED INSURED, WHICH POLICY SHALL CONTAIN CONTRACTUAL ENDORSEMENT SPECIFICALLY COVERING THE LIABILITIES ARISING FROM THE INDEMNITY AGREEMENT.
   - A. THE POLICY SHALL PROVIDE PUBLIC LIABILITY INSURANCE, INCLUDING PROPERTY DAMAGE, IN THE AMOUNT OF $500,000 COMBINED SINGLE LIMIT FOR EACH OCCURRENCE.
   - B. THE ABOVE REQUIRED POLICY SHALL BE ENDORSED WITH A PROVISION REQUIRING THE INSURANCE COMPANY TO NOTIFY THE DEPARTMENT 30 DAYS PRIOR TO THE EFFECTIVE DATE OF CANCELLATION OR OF ANY MATERIAL CHANGE IN THE POLICY IF THE CHANGE OCCURS DURING THE CONSTRUCTION PERIOD.
   - C. THE APPLICANT SHALL PAY ALL PREMIUMS AND OTHER CHARGES DUE ON SAID POLICY AND KEEP SAID POLICY, OR A MATERIALLY IDENTICAL REPLACEMENT POLICY, IN FORCE TO INSURE THE ENTIRE PERIOD OF CONSTRUCTION OF THE IMPROVEMENTS.
15. THE GOVERNING PUBLICATIONS FOR MAINTENANCE OF TRAFFIC ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 600 AND THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST., SECTION 102, AND THE LATEST EDITION OF THE MUTCD.
16. SHIELD PEDESTRIAN DROP OFF HAZARD AND INSTALL 42" GUARDRAIL ALONG EDGE OF SIDEWALK WITHIN RIGHT-OF-WAY WHERE GRADING DOES NOT ALLOW FOR A CLEAR 1-FOOT WIDE GRADED AREA WITH A MAXIMUM 1:6 SLOPE. SEE FDOT INDEX 515-062 FOR GUARDRAIL DETAIL. POSTS MAY NEED TO VARY IN DEPTH AND SPACING TO AVOID UNDERGROUND PIPE.

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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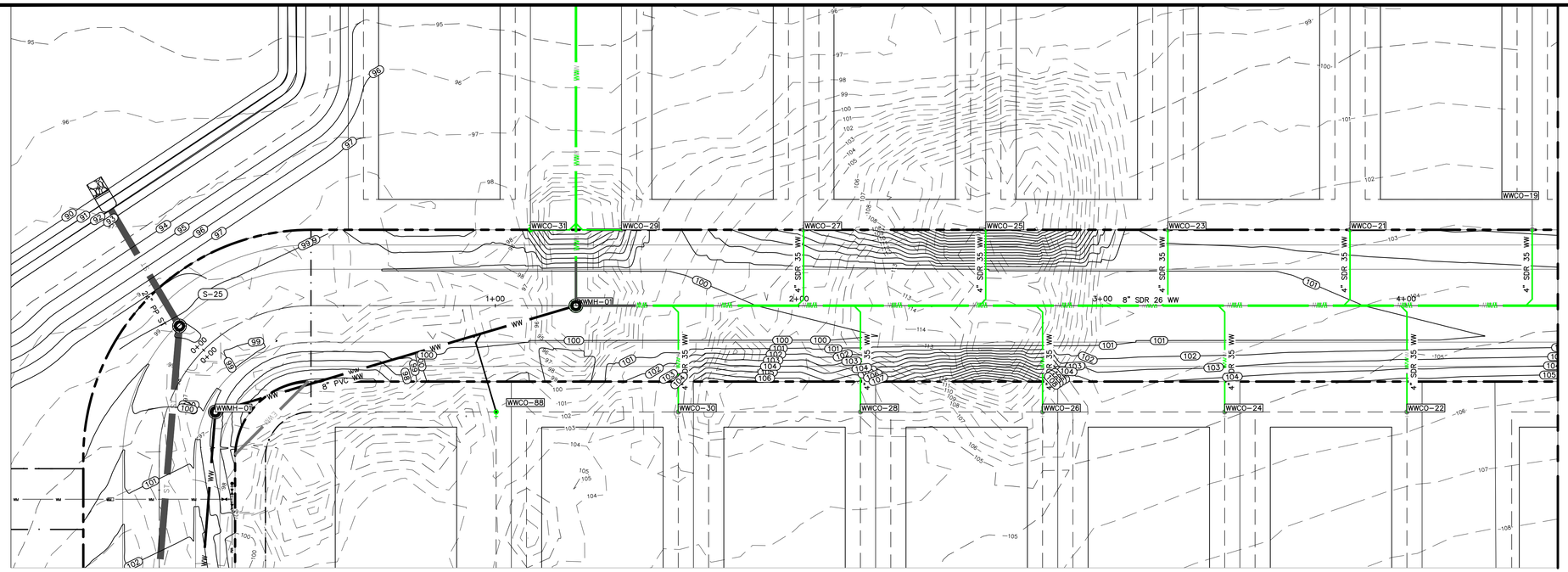
SHEET TITLE: FDOT DRAINAGE DETAILS AND NOTES

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

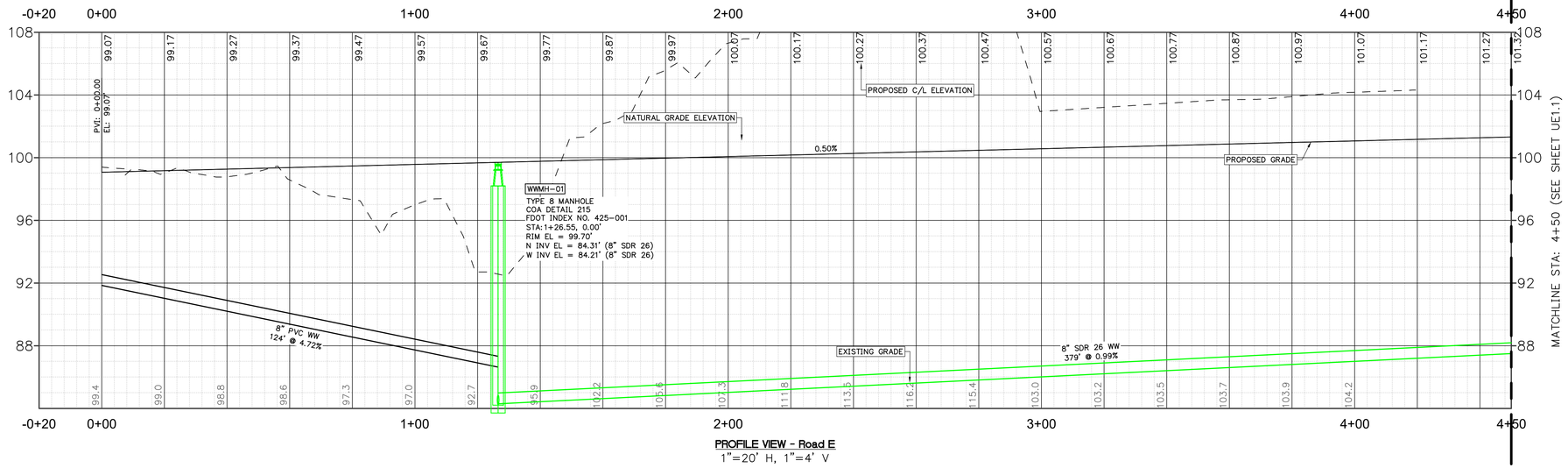
PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: JULY 26
PROJECT NO: 0167-25-01
SHEET NO: C6.03

J:\0167-25-001 - Tolosa North - Phase 1 & 2\Production\Civil\Sheets\C6.03 - FDOT Drainage Details and Notes.dwg, 7/9/2026 1:45:18 PM, Jack.C



PLAN VIEW
1" = 20'



PROFILE VIEW - Road E
1"=20' H, 1"=4' V

20 10 0 20 40 60
SCALE 1" = 20'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

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JACK CONSTANTINE CHARNAS LICENSE No. 96925 07/08/2026 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: UTILITY EXTENSION PLAN AND PROFILE

DATE: JULY 26

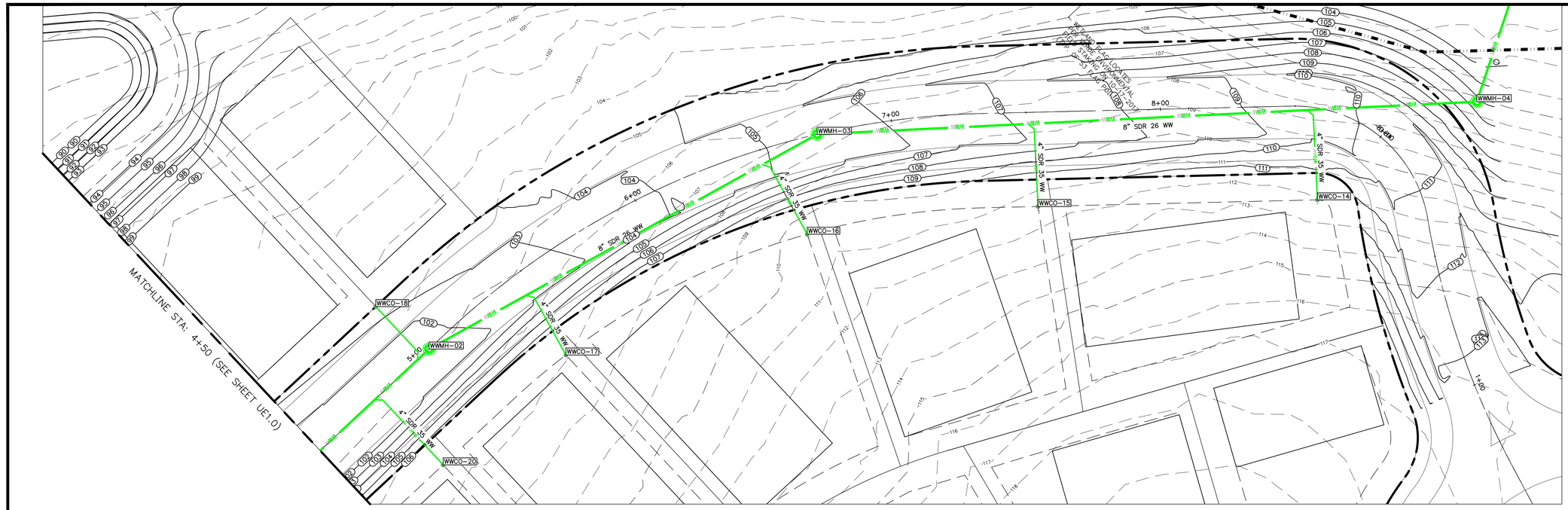
PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

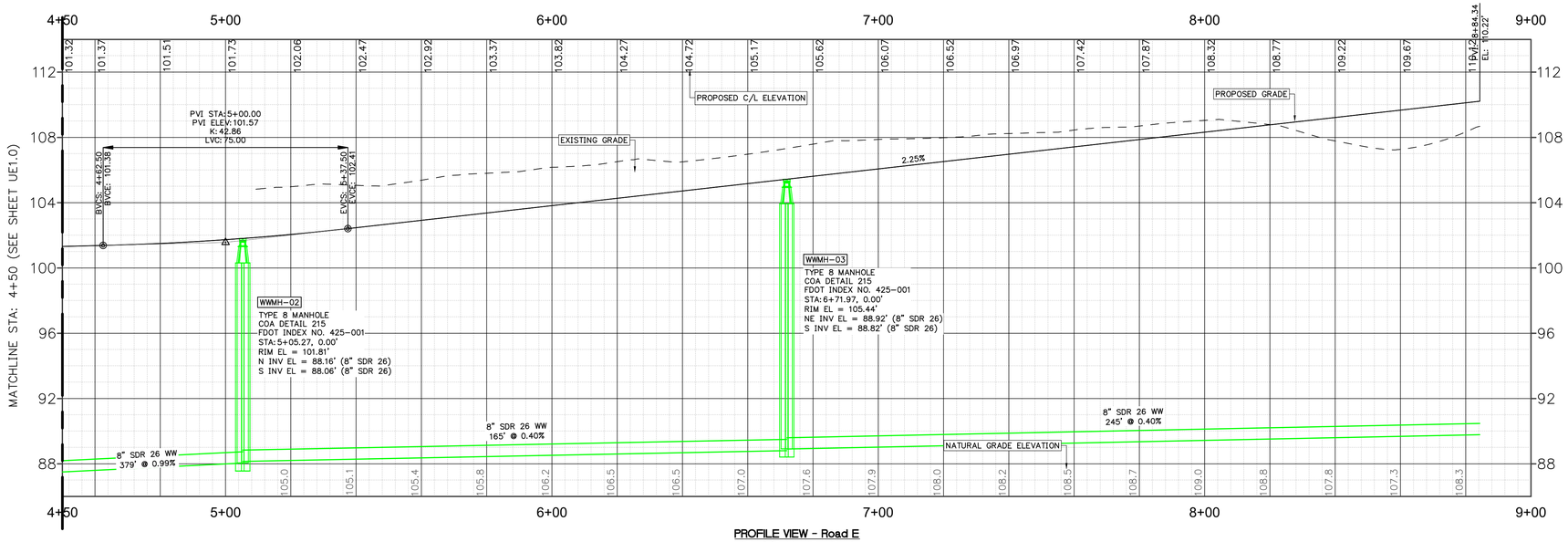
PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: UE1.0

J:\0623-25-001 - Tolosa South - Phase 1\Production\Civil\Sheets\CXX WW Connection P&P Tolosa North.dwg, 7/6/2026 2:02:23 PM, jack.C



PLAN VIEW
1" = 20'



PROFILE VIEW - Road E
1"=20' H, 1"=4' V

SCALE 1" = 20'

REVISIONS				
NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: JACK C. CHARNAS, P.E. FLORIDA LICENSE NO. 96925

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JACK CONSTANTINE CHARNAS LICENSE No. 96925 07/06/2026 STATE OF FLORIDA PROFESSIONAL ENGINEER

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SHEET TITLE: UTILITY EXTENSION PLAN AND PROFILE

DATE: JULY 26

PROJECT NO: 0167-25-01

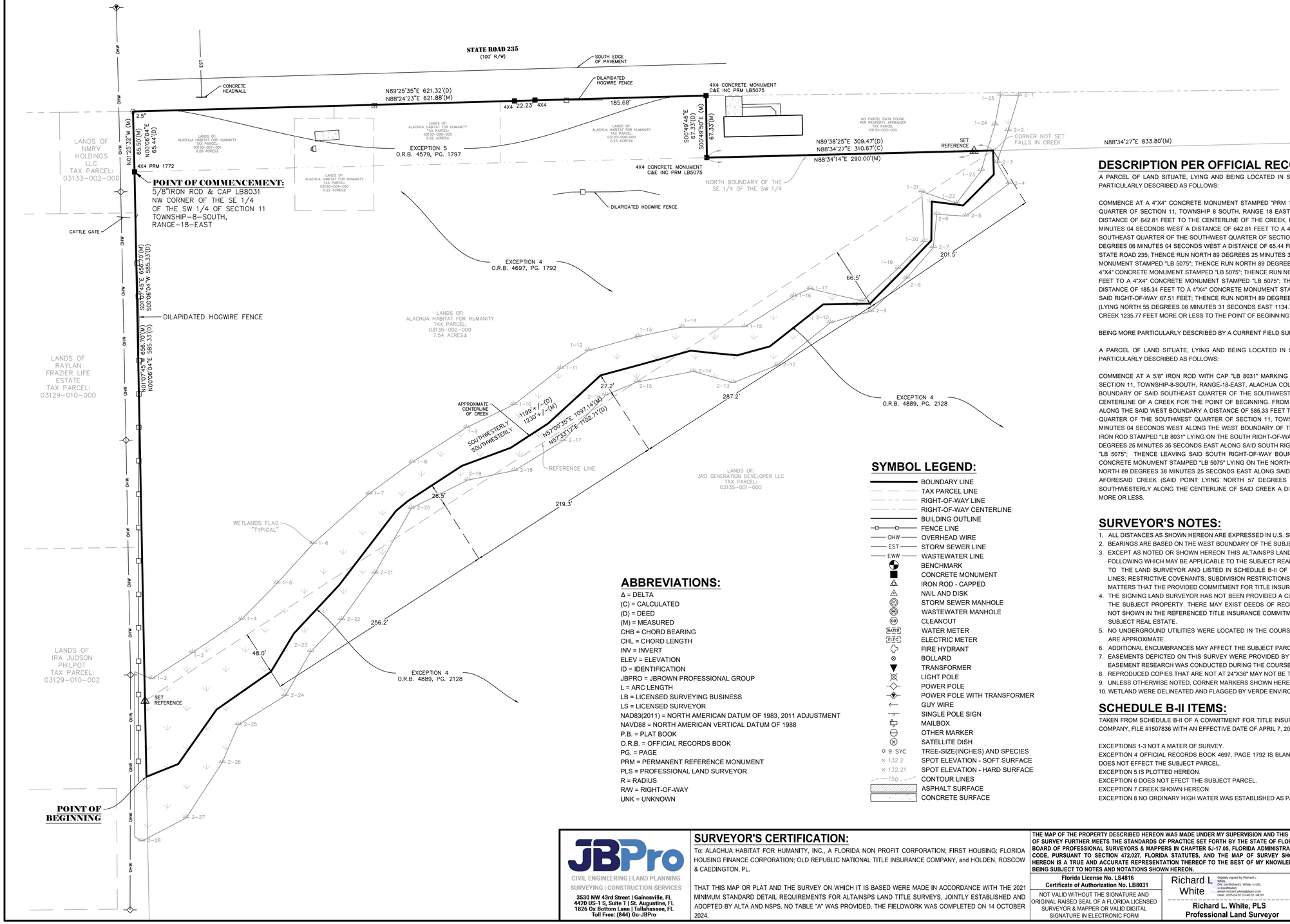
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

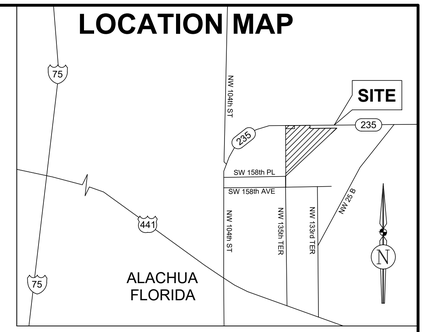
PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: UE1.1

ALTA/NSPS LAND TITLE SURVEY

IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA





DESCRIPTION PER OFFICIAL RECORDS BOOK 5186, PAGE 2940:

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST A DISTANCE OF 642.81 FEET TO THE CENTERLINE OF THE CREEK, BEING THE POINT OF BEGINNING. FROM THE POINT OF BEGINNING RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 642.81 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "PRM 1772" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA; THENCE RUN NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE RUN NORTH 89 DEGREES 25 MINUTES 36 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 217.75 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 28 MINUTES 49 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 195.78 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 00 MINUTES 46 SECONDS EAST ALONG SAID RIGHT-OF-WAY DISTANCE OF 22.46 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN NORTH 89 DEGREES 25 MINUTES 21 SECONDS EAST ALONG SAID RIGHT-OF-WAY A DISTANCE OF 185.34 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE RUN SOUTH 00 DEGREES 05 MINUTES 40 SECONDS WEST DEPARTING SAID RIGHT-OF-WAY 67.51 FEET; THENCE RUN NORTH 89 DEGREES 35 MINUTES 57 SECONDS EAST, 310.82 FEET TO THE CENTERLINE OF THE AFORESAID CREEK (LYING NORTH 55 DEGREES 06 MINUTES 31 SECONDS EAST 1134.73 FEET FROM THE POINT OF BEGINNING); THENCE CONTINUE ALONG THE CENTERLINE OF SAID CREEK 1235.77 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.52 ACRES, MORE OR LESS.

BEING MORE PARTICULARLY DESCRIBED BY A CURRENT FIELD SURVEY AS FOLLOWS:

A PARCEL OF LAND SITUATE, LYING AND BEING LOCATED IN SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 5/8" IRON ROD WITH CAP "LB 8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA AND RUN SOUTH 00 DEGREES 06 MINUTES 04 SECONDS EAST ALONG THE WEST BOUNDARY OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER A DISTANCE OF 585.33 FEET TO A 5/8" IRON ROD WITH CAP "LB 8031" LYING IN THE CENTERLINE OF A CREEK FOR THE POINT OF BEGINNING. FROM SAID POINT OF BEGINNING RUN THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST ALONG THE SAID WEST BOUNDARY A DISTANCE OF 585.33 FEET TO A 5/8" IRON ROD WITH CAP "LB 8031" MARKING THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP-8-SOUTH, RANGE-18-EAST, ALACHUA COUNTY, FLORIDA; THENCE NORTH 00 DEGREES 06 MINUTES 04 SECONDS WEST ALONG THE WEST BOUNDARY OF THE NORTHEAST QUARTER OF SAID SOUTHWEST QUARTER A DISTANCE OF 65.44 FEET TO A 5/8" IRON ROD STAMPED "LB 8031" LYING ON THE SOUTH RIGHT-OF-WAY BOUNDARY OF STATE ROAD 235; THENCE LEAVING SAID WEST BOUNDARY AND RUN NORTH 89 DEGREES 25 MINUTES 35 SECONDS EAST ALONG SAID SOUTH RIGHT-OF-WAY BOUNDARY A DISTANCE OF 621.32 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075"; THENCE LEAVING SAID SOUTH RIGHT-OF-WAY BOUNDARY AND RUN SOUTH 00 DEGREES 49 MINUTES 46 SECONDS EAST 67.33 FEET TO A 4"X4" CONCRETE MONUMENT STAMPED "LB 5075" LYING ON THE NORTH BOUNDARY OF THE AFORESAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH 89 DEGREES 38 MINUTES 25 SECONDS EAST ALONG SAID NORTH BOUNDARY A DISTANCE OF 309.47 FEET TO A POINT LYING NORTH 57 DEGREES 33 MINUTES 17 SECONDS EAST 1102.71 FEET FROM THE POINT OF BEGINNING); THENCE SOUTHWESTERLY ALONG THE CENTERLINE OF SAID CREEK A DISTANCE OF 1199 FEET MORE OR LESS TO THE POINT OF BEGINNING. CONTAINING 7.47 ACRES, MORE OR LESS.

SYMBOL LEGEND:

- BOUNDARY LINE
- TAX PARCEL LINE
- RIGHT-OF-WAY LINE
- RIGHT-OF-WAY CENTERLINE
- BUILDING OUTLINE
- FENCE LINE
- OHW — OVERHEAD WIRE
- EST — STORM SEWER LINE
- EWW — WASTEWATER LINE
- BENCHMARK
- CONCRETE MONUMENT
- IRON ROD - CAPPED
- NAIL AND DISK
- STORM SEWER MANHOLE
- WASTEWATER MANHOLE
- CLEANOUT
- WATER METER
- ELECTRIC METER
- FIRE HYDRANT
- BOLLARD
- TRANSFORMER
- LIGHT POLE
- POWER POLE
- POWER POLE WITH TRANSFORMER
- GUY WIRE
- SINGLE POLE SIGN
- MAILBOX
- OTHER MARKER
- SATELLITE DISH
- 9 SYC — TREE-SIZE(INCHES) AND SPECIES
- × 132.2 — SPOT ELEVATION - SOFT SURFACE
- × 132.21 — SPOT ELEVATION - HARD SURFACE
- 150 — CONTOUR LINES
- ASPHALT SURFACE
- CONCRETE SURFACE

ABBREVIATIONS:

Δ = DELTA
(C) = CALCULATED
(D) = DEED
(M) = MEASURED
CHB = CHORD BEARING
CHL = CHORD LENGTH
INV = INVERT
ELEV = ELEVATION
ID = IDENTIFICATION
JBPRO = JBROWN PROFESSIONAL GROUP
L = ARC LENGTH
LB = LICENSED SURVEYING BUSINESS
LS = LICENSED SURVEYOR
NAD83(2011) = NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT
NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
P.B. = PLAT BOOK
O.R.B. = OFFICIAL RECORDS BOOK
PG. = PAGE
PRM = PERMANENT REFERENCE MONUMENT
PLS = PROFESSIONAL LAND SURVEYOR
R = RADIUS
R/W = RIGHT-OF-WAY
UNK = UNKNOWN

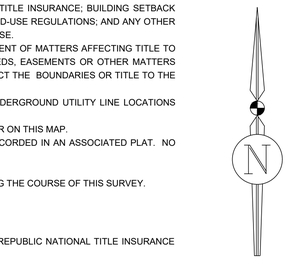
SURVEYOR'S NOTES:

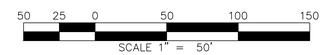
1. ALL DISTANCES AS SHOWN HEREON ARE EXPRESSED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
2. BEARINGS ARE BASED ON THE WEST BOUNDARY OF THE SUBJECT PARCEL.
3. EXCEPT AS NOTED OR SHOWN HEREON THIS ALTA/NSPS LAND TITLE SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, EXCEPT THOSE THAT WERE FURNISHED TO THE LAND SURVEYOR AND LISTED IN SCHEDULE B-II OF THE COMMITMENT FOR TITLE INSURANCE; BUILDING SETBACK LINES; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND-USE REGULATIONS; AND ANY OTHER MATTERS THAT THE PROVIDED COMMITMENT FOR TITLE INSURANCE DOES NOT DISCLOSE.
4. THE SIGNING LAND SURVEYOR HAS NOT BEEN PROVIDED A CURRENT TITLE COMMITMENT OF MATTERS AFFECTING TITLE TO THE SUBJECT PROPERTY. THERE MAY EXIST DEEDS OF RECORD, UNRECORDED DEEDS, EASEMENTS OR OTHER MATTERS NOT SHOWN IN THE REFERENCED TITLE INSURANCE COMMITMENT, THAT COULD AFFECT THE BOUNDARIES OR TITLE TO THE SUBJECT REAL ESTATE.
5. NO UNDERGROUND UTILITIES WERE LOCATED IN THE COURSE OF THIS SURVEY. UNDERGROUND UTILITY LINE LOCATIONS ARE APPROXIMATE.
6. ADDITIONAL ENCUMBRANCES MAY AFFECT THE SUBJECT PARCEL THAT DO NOT APPEAR ON THIS MAP.
7. EASEMENTS DEPICTED ON THIS SURVEY WERE PROVIDED BY THE CLIENT OR ARE RECORDED IN AN ASSOCIATED PLAT. NO EASEMENT RESEARCH WAS CONDUCTED DURING THE COURSE OF THIS SURVEY.
8. REPRODUCED COPIES THAT ARE NOT AT 24"X36" MAY NOT BE TO SCALE.
9. UNLESS OTHERWISE NOTED, CORNER MARKERS SHOWN HEREON WERE FOUND DURING THE COURSE OF THIS SURVEY.
10. WETLAND WERE DELINEATED AND FLAGGED BY VERDE ENVIRONMENTAL.

SCHEDULE B-II ITEMS:

TAKEN FROM SCHEDULE B-II OF A COMMITMENT FOR TITLE INSURANCE, ISSUED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, FILE #1507836 WITH AN EFFECTIVE DATE OF APRIL 7, 2024 AT 11:00 PM.

EXCEPTIONS 1-3 NOT A MATER OF SURVEY.
EXCEPTION 4 OFFICIAL RECORDS BOOK 4697, PAGE 1792 IS BLANKET IN NATURE AND OFFICIAL RECORD BOOK 4889, PAGE 2128 DOES NOT EFFECT THE SUBJECT PARCEL.
EXCEPTION 5 IS PLOTTED HEREON.
EXCEPTION 6 DOES NOT EFECT THE SUBJECT PARCEL.
EXCEPTION 7 CREEK SHOWN HEREON.
EXCEPTION 8 NO ORDINARY HIGH WATER WAS ESTABLISHED AS PART OF THIS SURVEY.





TOLOSA NORTH

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3530 NW 43rd Street | Gainesville, FL
4420 US-1 S, Suite 1 | St. Augustine, FL
1826 Ox Bottom Lane | Tallahassee, FL
Toll Free: (844) Go-JBPro

SURVEYOR'S CERTIFICATION:

To: ALACHUA HABITAT FOR HUMANITY, INC., A FLORIDA NON PROFIT CORPORATION; FIRST HOUSING; FLORIDA HOUSING FINANCE CORPORATION; OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, and HOLDEN, ROSCOW & CAEDINGTON, PL.

THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, NO TABLE "A" WAS PROVIDED. THE FIELDWORK WAS COMPLETED ON 14 OCTOBER 2024.

THE MAP OF THE PROPERTY DESCRIBED HEREON WAS MADE UNDER MY SUPERVISION AND THIS MAP OF SURVEY FURTHER MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE STATE OF FLORIDA BOARD OF PROFESSIONAL SURVEYORS & MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THE MAP OF SURVEY SHOWN HEREON IS A TRUE AND ACCURATE REPRESENTATION THEREOF TO THE BEST OF MY KNOWLEDGE, BEING SUBJECT TO NOTES AND NOTATIONS SHOWN HEREON.

Florida License No. LS4816
Certificate of Authorization No. LB8031

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR & MAPPER OR VALID DIGITAL SIGNATURE IN ELECTRONIC FORM

Richard L White
Digitally signed by Richard L. White
DN: cn=Richard L White, c=US, o=Unaffiliated, email=richard.white@jbpro.com
Date: 2025.04.02 10:48:02 -04'00'

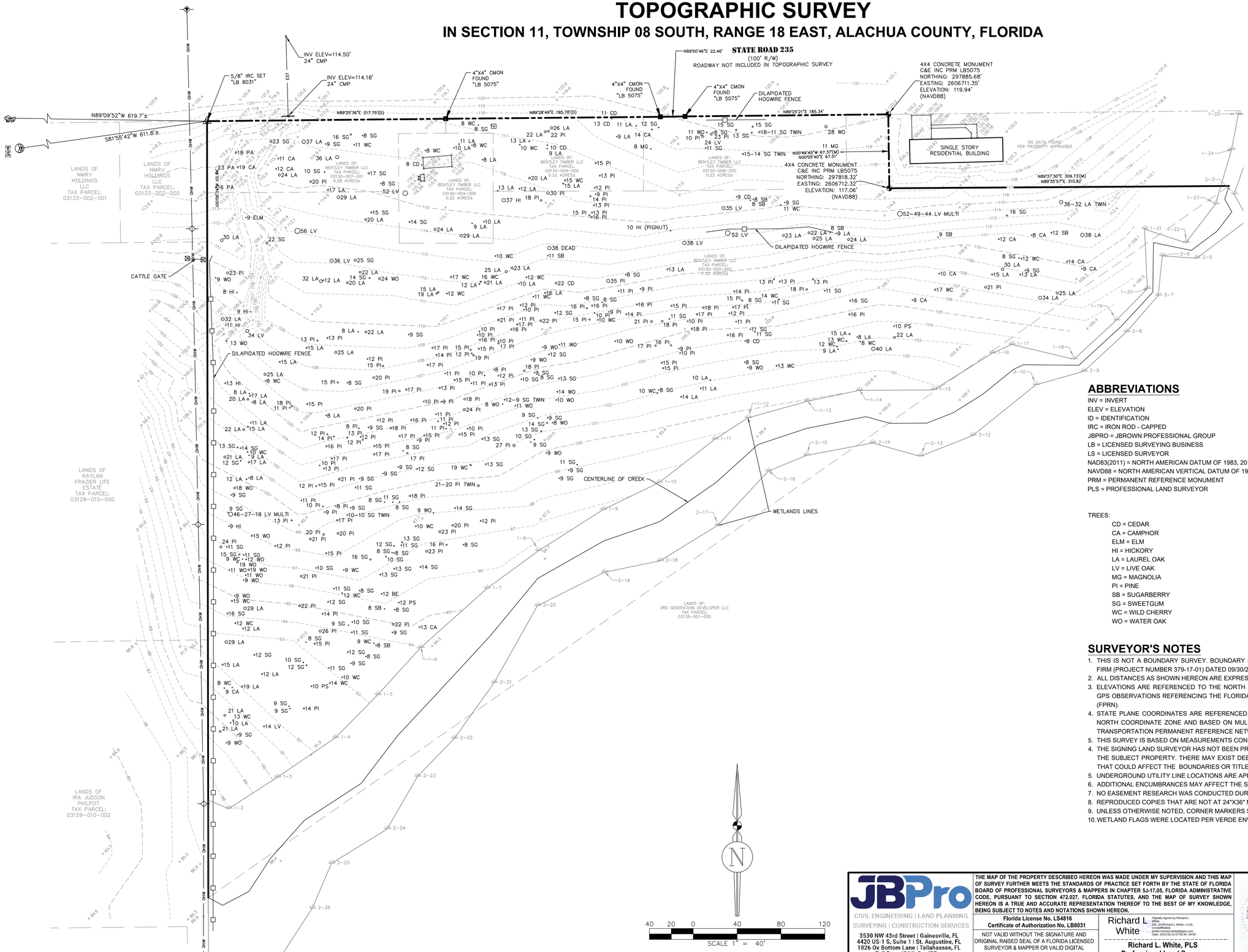
Richard L. White, PLS
Professional Land Surveyor

ALTA/NSPS LAND TITLE SURVEY

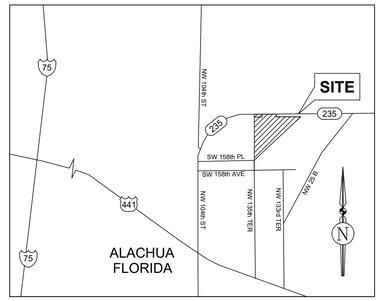
CERTIFIED TO:	SEE SURVEYOR'S CERTIFICATION AT LEFT
Scale:	1"=50'
Proj. No.	167.24.001
Drawn:	rlw
Checked:	R.White
Dwg. Name:	167.24.001.ALTA
Dwg. Date:	04.01.2025
Field Book:	60
Pages:	46 & 77
Sheet:	1 of 1

TOPOGRAPHIC SURVEY

IN SECTION 11, TOWNSHIP 08 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA



LOCATION MAP



ABBREVIATIONS

INV = INVERT
ELEV = ELEVATION
ID = IDENTIFICATION
IRC = IRON ROD - CAPPED
JBPRO = JBROWN PROFESSIONAL GROUP
LB = LICENSED SURVEYING BUSINESS
LS = LICENSED SURVEYOR
NAD83(2011) = NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT
NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
PRM = PERMANENT REFERENCE MONUMENT
PLS = PROFESSIONAL LAND SURVEYOR

TREES:
CD = CEDAR
CA = CAMPHOR
ELM = ELM
HI = HICKORY
LA = LAUREL OAK
LV = LIVE OAK
MG = MAGNOLIA
PI = PINE
SB = SUGARBERRY
SG = SWEETGUM
WC = WILD CHERRY
WO = WATER OAK

SYMBOL LEGEND

- BOUNDARY LINE
- TAX PARCEL LINE
- RIGHT-OF-WAY LINE
- BUILDING OUTLINE
- FENCE LINE
- OHW — OVERHEAD WIRE
- EST — STORM SEWER LINE
- BENCHMARK
- CONCRETE MONUMENT
- IRON ROD - CAPPED
- SANITARY VALVE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- POWER POLE
- CABLE TV SERVICE BOX
- 9 SYC — TREE-SIZE(INCHES) AND SPECIES
- × 132.2 — SPOT ELEVATION - SOFT SURFACE
- × 132.21 — SPOT ELEVATION - HARD SURFACE
- 150 — CONTOUR LINES
- CONCRETE SURFACE
- WETLAND FLAG

SURVEYOR'S NOTES

1. THIS IS NOT A BOUNDARY SURVEY. BOUNDARY SHOWN HEREON IS DERIVED FROM A PRIOR BOUNDARY SURVEY BY THIS FIRM (PROJECT NUMBER 379-17-01) DATED 09/30/2020.
2. ALL DISTANCES AS SHOWN HEREON ARE EXPRESSED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
3. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND BASED ON MULTIPLE GPS OBSERVATIONS REFERENCING THE FLORIDA DEPARTMENT OF TRANSPORTATION PERMANENT REFERENCE NETWORK (FPRN).
4. STATE PLANE COORDINATES ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT, FLORIDA NORTH COORDINATE ZONE AND BASED ON MULTIPLE GPS OBSERVATIONS REFERENCING THE FLORIDA DEPARTMENT OF TRANSPORTATION PERMANENT REFERENCE NETWORK (FPRN).
5. THIS SURVEY IS BASED ON MEASUREMENTS CONDUCTED ON 05/09/2024.
4. THE SIGNING LAND SURVEYOR HAS NOT BEEN PROVIDED A CURRENT TITLE COMMITMENT OF MATTERS AFFECTING TITLE TO THE SUBJECT PROPERTY. THERE MAY EXIST DEEDS OF RECORD, UNRECORDED DEEDS, EASEMENTS OR OTHER MATTERS, THAT COULD AFFECT THE BOUNDARIES OR TITLE TO THE SUBJECT REAL ESTATE.
5. UNDERGROUND UTILITY LINE LOCATIONS ARE APPROXIMATE.
6. ADDITIONAL ENCUMBRANCES MAY AFFECT THE SUBJECT PARCEL THAT DO NOT APPEAR ON THIS MAP.
7. NO EASEMENT RESEARCH WAS CONDUCTED DURING THE COURSE OF THIS SURVEY.
8. REPRODUCED COPIES THAT ARE NOT AT 24"X36" MAY NOT BE TO SCALE.
9. UNLESS OTHERWISE NOTED, CORNER MARKERS SHOWN HEREON WERE FOUND DURING THE COURSE OF THIS SURVEY.
10. WETLAND FLAGS WERE LOCATED PER VERDE ENVIRONMENTAL (FIELD STAKING ON 10-17-2017).

TOLOSA NORTH

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1826 Ox Bottom Lane | Tallahassee, FL
Toll Free: (844) Go-JBPro

THE MAP OF THE PROPERTY DESCRIBED HEREON WAS MADE UNDER MY SUPERVISION AND THIS MAP OF SURVEY FURTHER MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE STATE OF FLORIDA BOARD OF PROFESSIONAL SURVEYORS & MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THE MAP OF SURVEY SHOWN HEREON IS A TRUE AND ACCURATE REPRESENTATION THEREOF TO THE BEST OF MY KNOWLEDGE, BEING SUBJECT TO NOTES AND NOTATIONS SHOWN HEREON.

Florida License No. LS4816
Certificate of Authorization No. LB8031

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR & MAPPER OR VALID DIGITAL SIGNATURE IN ELECTRONIC FORM

Richard L White
Digitally signed by Richard L. White
DN: cn=Richard L White, c=US, o=Unaffiliated, email=richard.white@jbpro.com
Date: 2024.06.13 07:56:30 -04'00'

Richard L. White, PLS
Professional Land Surveyor

TOPOGRAPHIC SURVEY

CERTIFIED TO:
1. Habitat For Humanity

Scale:	1"=40'
Proj. No.:	167-24-01
Drawn:	A.Cortina
Checked:	R.White
Dwg. Name:	167-24-01-BTT
Dwg. Date:	05/13/2024
Field Book:	60
Pages:	46
Sheet:	1 of 1

LANDSCAPE ARCHITECT GENERAL NOTES:

SUMMARY, POINTS OF CONTACT, VERIFICATION, PROTECTION DURING CONSTRUCTION, AND REFERENCES.

A. SUMMARY: THE FOLLOWING ARE GENERAL NOTES PERTAINING TO JBPRO-PRODUCED LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS. SUPPLEMENTAL NOTES ARE PROVIDED FOR THE FOLLOWING BASED THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND SITE CONDITIONS.

1. TREE AND PLANT PROTECTION/TREE MITIGATION NOTES, DETAILS, AND PLAN DRAWINGS.
2. SOIL AMENDMENT AND LANDSCAPE NOTES, DETAILS, AND PLAN DRAWINGS.
3. ENHANCED HARDSCAPE NOTES, DRAWINGS, AND PLAN DETAILS.
4. LANDSCAPE LIGHTING NOTES, DETAILS, AND PLAN DRAWINGS.
5. IRRIGATION NOTES, DETAILS, AND PLAN DRAWINGS.

B. THE CONTRACTOR SHALL PROVIDE ALL PERMITTING APPLICATIONS AND FEES, LABOR, MATERIALS, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS AS SHOWN ON THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. THE LANDSCAPE ARCHITECT MAY OBSERVE THE WORK AT ANY TIME, AND S/HE MAY REMOVE SAMPLES OF MATERIALS TO VERIFY CONFORMITY TO SPECIFICATIONS.
2. UPON WRITTEN NOTICE OF THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO STANDARDS, SPECIFICATIONS, AND CODES WITHIN THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS, AND THE CONTRACTOR SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP AT THE SOONEST POSSIBLE IME THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS.
   a. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE COST OF TESTING MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.
   b. IN THE EVENT THAT CONSTRUCTION WORK DAMAGES EXISTING SOIL IN AREAS DESIGNATED FOR USE AS PLANTING SOIL, TO THE POINT WHERE THE SOIL IS NO LONGER SUITABLE TO SUPPORT THE PLANTS SPECIFIED, THE CONTRACTOR SHALL PROVIDE MODIFICATION OF THE DAMAGED SOIL UP TO AND INCLUDING REMOVAL AND REPLACEMENT WITH SOIL OF EQUAL QUALITY TO THE SOIL THAT EXISTED PRIOR TO CONSTRUCTION.
   c. THE CONTRACTOR SHALL PROTECT INSTALLED AND/OR MODIFIED PLANTING SOIL FROM DAMAGE INCLUDING CONTAMINATION AND OVER COMPACTION. UTILIZE FENCING AND MATTING AS REQUIRED OR DIRECTED TO PROTECT THE FINISHED SOIL WORK. TREAT, REPAIR OR REPLACE DAMAGED PLANTING SOIL IMMEDIATELY.
      1) EXAMPLES OF DAMAGE INCLUDE FURTHER COMPACTION, CONTAMINATION, GRADING, CREATION OF HARD PAN OR DRAINAGE PROBLEMS, AND LOSS OF THE "O" AND OR "A" SOIL HORIZONS.
3. THE GENERAL CONTRACTOR CAN REQUESTS A PRE-CONSTRUCTION CONFERENCE TO REVIEW THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS AT LEAST TEN (10) BUSINESS DAYS BEFORE BEGINNING WORK (I.E. THE INSTALLATION OF TREE AND PLANT PROTECTION FENCING) ON THE SITE.

C. POINTS OF CONTACT: THE GENERAL CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT THE FOLLOWING.

☐ 1.

POSITION	COMPANY NAME	TELEPHONE	EMAIL
PROJECT MANAGER			
SITE SUPERINTENDENT			
CONSULTING ARBORIST			

☐ 2.

PROJECT TASK(S)	COMPANY / FIRM NAME
CLEARING AND GRADING	
INSTALLATION / MAINTENANCE OF TREE PROTECTION FENCING	
PESTICIDE APPLICATION	
COMPOST SUPPLIER	
SOIL AMENDMENT(S) SUPPLIER(S)	
NURSERY(IES) / PLANT GROWER(S)	
LANDSCAPE INSTALLER	
IRRIGATION INSTALLER	
ANY OTHER COMPANY / FIRM THAT WILL EXCAVATE / TRENCH WITHIN PROJECT SITE	

3. THE LANDSCAPE ARCHITECT SHALL ONLY COMMUNICATE DIRECTLY TO THE OWNER, GENERAL CONTRACTOR'S PROJECT MANAGER (PM), AND/OR SUPERINTENDENT UNLESS OTHERWISE REQUESTED BY THE OWNER AND/OR GENERAL CONTRACTOR PM.

D. **VERIFICATION:** THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, CODES, ORDINANCES, AND REGULATIONS BEARING ON THE OPERATION OR CONDUCT OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, EXISTING VEGETATION TO REMAIN, SURFACE GRADES, AND SOIL CONDITIONS.
   a. VERIFY THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED.
   b. VERIFY ALL SURFACE AREAS TO BE FILLED WITH PLANTING SOIL ARE FREE OF CONSTRUCTION DEBRIS, REFUSE, COMPRESSIBLE OR BIODEGRADABLE MATERIALS, STONES GREATER THAN TWO INCHES (2") DIAMETER, SOIL CRUSTING FILMS OF SILT OR CLAY THAT REDUCES OR STOPS DRAINAGE FROM THE PLANTING SOIL INTO THE SUBSOIL; AND/OR STANDING WATER. REMOVE UNSUITABLE MATERIAL FROM THE SITE.
   c. VERIFY NO ADVERSE DRAINAGE CONDITIONS ARE PRESENT.
   d. VERIFY NO CONDITIONS ARE PRESENT WHICH ARE DETRIMENTAL TO PLANT GROWTH.
   e. VERIFY UTILITY WORK HAS BEEN COMPLETED PRIOR TO LANDSCAPE INSTALLATION.
   f. ALTHOUGH SIZES AND LOCATIONS OF PLANTS AND OR IRRIGATION EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, OBSTRUCTIONS, OR SITE CONDITIONS.
      1) THE LANDSCAPE ARCHITECT DRAWS IRRIGATION PIPING AND RELATED EQUIPMENT DIAGRAMMATICALLY. SCALED DIMENSIONS ARE APPROXIMATE ONLY.
      2) PIPING AND EQUIPMENT IS TO BE LOCATED WITHIN THE DESIGNATED PLANTING AREAS WHEREVER POSSIBLE UNLESS SPECIFICALLY DEFINED OR DIMENSIONED OTHERWISE
      3) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL THE WORK IN SUCH A MANNER THAT IT WILL BE IN CONFORMANCE TO SITE CONDITIONS, COMPLETE, AND IN GOOD WORKING ORDER.
      4) COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH PROTECTED OR PROPOSED TREE LOCATIONS.
   g. VERIFY IRRIGATION WORK, WHICH IS SHOWN TO BE INSTALLED BELOW PREPARED SOIL LEVELS, HAS BEEN COMPLETED PRIOR TO THE LANDSCAPE INSTALLATION.

☐ 2. AT ANY TIME PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY SUBMIT IN WRITING A LIST OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE PLANS AND THE ACTUAL CONDITIONS TO THE LANDSCAPE ARCHITECT.

☐ 3. AT ANY TIME PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY SUBMIT WRITING A LIST OF ANY CONDITIONS THAT MAY IMPACT THE SUCCESSFUL PROTECTION OF EXISTING VEGETATION, AMENDING OF SOIL, INSTALLATION OF NEW VEGETATION, INSTALLATION OF THE IRRIGATION SYSTEM, AND ANY OTHER PORTION OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.
   a. THE CONTRACTOR SHALL INCLUDE A DESCRIPTION OF ANY PROPOSED CHANGES TO WORK, SCHEDULE, AND COST.

☐ 4. THE CONTRACTOR SHALL INFORM THE LANDSCAPE ARCHITECT OF THE PROGRESS OF THE WORK SO THE LANDSCAPE ARCHITECT MAY OBSERVE KEY TIMES IN THE CONSTRUCTION PROCESS. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FOR THE FOLLOWING, AND MAINTAIN THE LANDSCAPE ARCHITECT OF CHANGES TO THE SCHEDULE:

ACTIVITY	DATE
INSTALLATION OF TREE PROTECTION FENCING	
PRUNING OF TREES TO REMAIN	
DELIVERY AND INSTALL OF SOIL MIXES / AMENDMENTS	
DELIVERY AND INSTALL OF LANDSCAPE MATERIAL	
INSTALL AND TEST OF IRRIGATION SYSTEM	
SUBSTANTIAL COMPLETION WALK-THROUGH OF SITE	

   a. THE FAILURE OF THE LANDSCAPE ARCHITECT TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION.

E. REFERENCES: THE FOLLOWING APPLIES TO REFERENCED STANDARDS, SPECIFICATIONS, AND CODES WITHIN THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.

1. IN THE EVENT THAT THE REQUIREMENTS OF THE REFERENCED STANDARDS, SPECIFICATIONS, AND CODES CONFLICT WITH THESE LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS, THE REQUIREMENTS OF THESE DETAILS AND DRAWINGS SHALL PREVAIL.
2. IN THE EVENT THAT THE REQUIREMENTS OF ANY OF THE REFERENCED STANDARDS, SPECIFICATIONS, AND CODES CONFLICT WITH EACH OTHER THE MORE STRINGENT REQUIREMENT SHALL PREVAIL.
3. WHEREVER REFERENCES ARE MADE TO STANDARDS, SPECIFICATIONS, AND CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS, SPECIFICATIONS, AND CODES CURRENT ON THE PERMITTED DATE OF THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS SHALL APPLY UNLESS OTHERWISE EXPRESSLY SET FORTH.
4. WEBSITES LISTED IN THE LIST OF REFERENCES BELOW MAY NOT BE THE MOST CURRENT EDITION OF THE PUBLICATIONS. THE LANDSCAPE ARCHITECT OF RECORD IS PROVIDING THEM TO ASSIST THE CONTRACTOR'S DUE DILIGENCE.
5. IN THE EVENT THE CONTRACTOR DISCOVERS ANY OF THE ABOVE CONDITIONS, IMMEDIATELY CONTACT THE LANDSCAPE ARCHITECT.

F. THE MOST CURRENT EDITION OF FOLLOWING STANDARDS, SPECIFICATIONS, AND CODES APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:

1. FOR THE PROTECTION OF EXISTING TREES AND OTHER PLANTS:
   a. *ANSI A300 (PART 5), TREE, SHRUB, AND OTHER WOOD PLANT MANAGEMENT - STANDARD PRACTICES (MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION*. TREE CARE INDUSTRY ASSOCIATION, INC., LONDONDERRY, NEW HAMPSHIRE.
   b. *STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY*. BY EDWARD F. GILMAN ET AL. PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA.
   c. *GLOSSARY OF ARBORICULTURAL TERMS*. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.
   d. *BEST MANAGEMENT PRACTICES - PRUNING*. SHARON J. LILLY, EDWARD F. GILMAN, AND E. THOMAS SMILEY. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.
   e. SEE SUPPLEMENTAL NOTES FOR TREE AND PLANT PROTECTION STARTING WITH SHEET LT-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.
2. FOR THE FURNISHING, DELIVERY, AND INSTALLATION OF PLANTING SOIL AND/OR THE MODIFICATION OF EXISTING SITE SOIL FOR USE AS PLANTING SOIL:
   a. *STANDARD SPECIFICATION FOR AGRICULTURAL LIMING MATERIALS, ASTM C602-20*. ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PENNSYLVANIA, AVAILABLE FOR PURCHASE ONLINE AT <https://www.astm.org/c0602-20.html>.
   b. "FINE AGGREGATE" IN STANDARD SPECIFICATION FOR CONCRETE AGGREGATES, ASTM C33/C33M-18. ASTM INTERNATIONAL, WEST CONSHOHOCKEN, PENNSYLVANIA, AVAILABLE FOR PURCHASE ONLINE AT <https://www.astm.org/c0033_c0033m-18.html>.
   c. Parts 613 to 617, "Soil Classifications," and Parts 618 to 625, "Soil Qualities," *NATIONAL SOIL SURVEY HANDBOOK, TITLE* 430. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. AVAILABLE ONLINE AT <https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=49659.wba>
   d. "TREE & SHRUB CLASS," "FLOWER & VEGETABLE GARDEN CLASS," AND "LAWNS," CONSUMER COMPOST USE PROGRAM. U.S. COMPOSTING COUNCIL. AVAILABLE ONLINE AT <https://www.compostingcouncil.org/page/CCUPMethodsAmounts>
   e. *METHODS OF SOIL ANALYSIS, PART 1: PHYSICAL AND MINERALOGICAL METHODS*. ARNOLD KLUTE, EDITOR. THE SOIL SCIENCE SOCIETY OF AMERICA, INC.
   f. *UP BY ROOTS: HEALTHY SOILS AND TREES IN THE BUILT ENVIRONMENT*. J. URBAN. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.
   g. TEST METHOD FOR THE EXAMINATION OF COMPOSTING AND COMPOST (TMECC). U.S. COMPOSTING COUNCIL. AVAILABLE ONLINE AT <https://www.compostingcouncil.org/page/tmecc>.
   h. *ELEMENTS OF THE NATURE AND PROPERTIES OF SOILS*. NYLE C. BRADY AND RAY R. WEIL. PEARSON EDUCATION, INC., UPPER SADDLE RIVER, NEW JERSEY.
3. FOR THE FURNISHING, DELIVERY, INSTALLATION, AND NAMING OF VEGETATION (ALSO KNOWN AS "LANDSCAPING"):
   a. *ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK*. AMERICAN HORTICULTURE INDUSTRY ASSOCIATION, COLUMBUS, OHIO. AVAILABLE ONLINE AT <www.americanhort.site-ym.com/resource/collection/38ED7535-9C88-45E5-AF44-01C26838AD0C/ANSI_Nursery_Stock_Standards_AmericanHort_2014.pdf>
   b. *ANSI A300 (PART 5), TREE, SHRUB, AND OTHER WOOD PLANT MANAGEMENT - STANDARD PRACTICES (MANAGEMENT OF TREES AND SHRUBS DURING SITE PLANNING, SITE DEVELOPMENT, AND CONSTRUCTION*. TREE CARE INDUSTRY ASSOCIATION, INC., LONDONDERRY, NEW HAMPSHIRE.
   c. *FLORIDA GRADES AND STANDARDS FOR NURSERY STOCK*. FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, TALLAHASSEE, FLORIDA. AVAILABLE ONLINE AT <www.ifas.ufl.edu/media/sfylifasufledu/hillsborough/docs/pdf/environmentalhort/grades-and-standards-for-nursery-plants-2022.pdf>
   d. *THE GERMPLASM RESOURCES INFORMATION NETWORK (GRIN)*, U.S. DEPARTMENT OF AGRICULTURE. AVAILABLE ONLINE AT <HTTP://WWW.ARS-GRIN.GOV/NPGS/SEARCHGRIN.HTML>
   e. *MANUAL OF WOODY LANDSCAPE PLANTS*. MICHAEL DIRR. STIPES PUBLISHING, CHAMPAIGN, ILLINOIS.
   f. *STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY*. BY EDWARD F. GILMAN ET AL. PUBLISHED BY URBAN TREE FOUNDATION, VISALIA, CALIFORNIA.
   g. *GLOSSARY OF ARBORICULTURAL TERMS*. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.
   h. *LANDSCAPING WITH CONIFERS AND GINKGO FOR THE SOUTHEAST*. BY TOM COX AND JOHN M. RUTER. UNIVERSITY OF FLORIDA PRESS, GAINESVILLE, FLORIDA.
   i. *BETROCK'S REFERENCE GUIDE TO FLORIDA LANDSCAPE PLANTS*. TIMOTHY K. BROSCHAT AND ALAN W. MEEROW. UNIVERSITY OF FLORIDA, GAINESVILLE, FLORIDA.
   j. *BEST MANAGEMENT PRACTICES - PRUNING*. SHARON J. LILLY, EDWARD F. GILMAN, AND E. THOMAS SMILEY. INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN, ILLINOIS.
   k. "LIST OF INVASIVE PLANT SPECIES." FLORIDA INVASIVE SPECIES COUNCIL (FISC). AVAILABLE ONLINE AT <https://floridainvasivespecies.org/plantlist.cfm>
   l. SEE SUPPLEMENTAL NOTES FOR LANDSCAPING STARTING WITH SHEET LP-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.
4. FOR THE FURNISHING, DELIVERY, AND INSTALLATION OF NECESSARY FOR THE INSTALLATION OF A LANDSCAPE IRRIGATION SYSTEM.
   a. *PROPOSED CONSTRUCTION BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS*. APPENDIX F, 2023 FLORIDA BUILDING CODE, PLUMBING. 8TH EDITION. AVAILABLE ONLINE AT <https://codes.iccsafe.org/content/FLPC2023P1/appendix-f-proposed-construction-building-codes-for-turf-and-landscape-irrigation-systems>
   b. RAIN BIRD LANDSCAPE IRRIGATION CATALOG. AVAILABLE ONLINE AT <https://www.rainbird.com/landscape/rain-bird-landscape-irrigation-catalog>
   c. HUNTER IRRIGATION PRODUCT CATALOG. AVAILABLE ONLINE AT <https://www.hunterindustries.com/product-catalog-and-parts-list>
   d. SEE SUPPLEMENTAL NOTES FOR IRRIGATION START ON SHEET LI-01 FOR MUNICIPAL LAND DEVELOPMENT CODE REQUIREMENTS.

G. PROTECTION DURING CONSTRUCTION: THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR REPLACE DAMAGED WORK IMMEDIATELY.

1. THE CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL TO STOP SOIL EROSION UNTIL THE SITE IS STABILIZED WITH MULCH, PINE STRAW, AND/OR ESTABLISHED PLANTINGS AND TURF.
2. DAMAGE DONE BY THE CONTRACTOR, OR ANY SUB-CONTRACTORS, TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING ROOTS, TRUNK OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR.

H. THE FOLLOWING ARE DEFINITIONS APPLICABLE TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS PER AUTHORITIES HAVING JURISDICTION:

1. REFERENCE: (INSERT LAND DEVELOPMENT CODE ARTICLE(S) APPLICABLE TO THE PROJECT)
   a. DEFINITIONS (E.G. SURVEYED TREE, PROTECTED TREE, HERITAGE TREE, ETC.)
   b. TREE MITIGATION
   c. TREE PROTECTION CREDIT CALCULATIONS
   d. LANDSCAPE REQUIREMENTS (INCLUDES PERIMETER BUFFERS, SITE, PARKING LOT/VEHICLE USE AREAS, AND BUILDING FACADES)
   e. LANDSCAPE LIGHTING
   f. SIGNAGE
   g. MISCELLANEOUS

☐ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

- - - END LANDSCAPE ARCHITECTURAL GENERAL NOTES - - -

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR
#1	2026-04-06	PER CITY COMMENTS	JPS	MJH
#2	2026-07-06	PER CITY COMMENTS	JPS	MJH

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032**

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL J. HANS, RLA ON THE DATE ADJACENT TO THE SEAL.

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REGISTERED LANDSCAPE ARCHITECT MICHAEL JARED HANS LA2032 STATE OF FLORIDA

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SHEET TITLE: LANDSCAPE ARCHITECT GENERAL NOTES

DATE: JULY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LG-01

SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR TREE & PLANT PROTECTION NOTES:

SUMMARY OF TREE AND PLANT PROTECTION AREA PRODUCT SPECIFICATION AND USES

A. SUMMARY: THE FOLLOWING ARE SUPPLEMENTAL NOTES PERTAINING TO JBPRO-PRODUCED TREE AND PLANT PROTECTION/TREE MITIGATION DETAILS AND DRAWINGS.

1. THE PURPOSE OF THESE NOTES IS TO PROVIDE REQUIREMENTS THAT REDUCE ACCIDENTAL TREE LOSS FROM CONSTRUCTION ACTIVITY THAT GENERATES ADDITIONAL TREE MITIGATION REQUIREMENTS FOR THE OWNER.
2. THE CONTRACTOR SHALL SAFEGUARD THE TREE AND PLANT PROTECTION AREA BEFORE AND DURING CONSTRUCTION FROM COMPACTION OF THE SOIL; DAMAGE TO TRUNKS, BARK, BRANCHES, LEAVES AND ROOTS OF ALL PLANTS; AND CONTAMINATION OF THE SOIL, BARK OR LEAVES WITH CONSTRUCTION MATERIALS, DEBRIS, SILT, FUELS, OILS, AND ANY CHEMICALS SUBSTANCE.
3. ANY TREES OR PLANTS DESIGNATED TO REMAIN AND WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE IN ACCORDANCE WITH THE AUTHORITY(IES) HAVING JURISDICTION TREE MITIGATION REQUIREMENTS, GENERALLY IN THE FORM OF NEW TREES OR FINANCIAL PAYMENT.
    a. THE LANDSCAPE ARCHITECT AND/OR CONSULTING ARBORIST SHALL ASSESS DAMAGED PLANTS.
    b. THE CONTRACTOR SHALL REPLACE ANY TREE OR PLANT WITH ASSESSED DAMAGE AFFECTING MORE THAN 25 % OF THE CROWN, 25% OF THE TRUNK CIRCUMFERENCE, OR ROOT PROTECTION AREA, OR DAMAGE OCCURS IN SUCH A MANNER THAT THE TREE COULD DEVELOP INTO A POTENTIAL HAZARD.
    c. ANY REMEDIAL WORK ON DAMAGED EXISTING PLANTS RECOMMENDED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST SHALL BE COMPLETED BY THE CONTRACTOR AT NO COST TO THE OWNER.
        1) REMEDIAL WORK SHALL INCLUDE BUT IS NOT LIMITED TO: SOIL COMPACTION REMEDIATION AND VERTICAL MULCHING, PRUNING AND OR CABLING, INSECT AND DISEASE CONTROL INCLUDING INJECTIONS, COMPENSATORY WATERING, ADDITIONAL MULCHING, AND COULD INCLUDE APPLICATION TREE GROWTH REGULATORS.

B. GENERAL REQUIREMENTS: THE CONTRACTOR SHALL PROVIDE THE FOLLOWING FOR PROTECTION OF EXISTING TREES AND OTHER PLANTS:

1. PROVIDE PRECONSTRUCTION EVALUATIONS OF EXISTING VEGETATION TO REMAIN.
2. PROVIDE MAINTENANCE OF REMAINING TREES AND PLANTS INCLUDING IRRIGATION DURING CONSTRUCTION.
3. PROVIDE NOTICE TO ANY SUBCONTRACTOR THE REQUIREMENT TO COMPLY WITH THE RESTRICTIONS ON WORK WITHIN THE DESIGNATED TREE AND PLANT PROTECTION AREAS.
4. PROVIDE TREE AND PLANT PROTECTION FENCING.
5. PROVIDE PROTECTION OF ROOT ZONES AND ABOVE GROUND TREE AND PLANTS.
6. PROVIDE PRUNING OF REMAINING TREES AND PLANTS.
7. PROVIDE FOR MODIFICATIONS TO THE SOIL WITHIN THE ROOT ZONE OF EXISTING TREES AND PLANTS.
8. PROVIDE INSECT AND DISEASE CONTROL OF REMAINING TREES AND PLANTS.
9. IMMEDIATELY CONTACT THE LANDSCAPE ARCHITECT AND/OR CONSULTING ARBORIST OF DAMAGE TO TREES AND PLANTS DUE TO CHEMICAL SPILLS, SOIL COMPACTION, OR PLANT STRUCTURAL DAMAGE.
10. REMOVE TREE PROTECTION FENCING AND OTHER PROTECTIONS FROM AROUND AND UNDER TREES AND PLANTS PRIOR TO THE FINAL HANDOVER OF THE PROJECT SITE.
11. CLEAN UP AND DISPOSAL OF ALL EXCESS AND SURPLUS MATERIAL.

B. BASIS OF DESIGN PRODUCTS FOR USE IN TREE AND PLANT PROTECTION.

1. WOOD MULCH (TREE PROTECTION):
    a. WOOD MULCH SHALL BE COARSE, GROUND, FROM TREE AND WOODY BRUSH SOURCES (E.G. HARDWOOD, OAK, CEDAR, OR PINE WOODS). AVOID PINE BARK MULCH CHIPS AND/OR NUGGETS. NON-ORGANIC SUBSTANCES AND RUBBER MULCH IS UNACCEPTABLE. THE MINIMUM RANGE OF FINE PARTICLES SHALL BE 3/8 INCH OR LESS IN SIZE AND A MAXIMUM SIZE OF INDIVIDUAL PIECES SHALL BE APPROXIMATELY 1 TO 1-1/2 INCH IN DIAMETER AND MAXIMUM LENGTH OF APPROXIMATELY FOUR TO EIGHT INCHES (4" TO 8"). NO MORE THAT 25% OF THE TOTAL VOLUME SHALL BE FINE PARTICLES AND NO MORE THAN 20% OF TOTAL VOLUME BE LARGE PIECES.

☐ b. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL, OR

    c. SUBMIT A WOOD MULCH SAMPLE TO THE OFFICES OF JBPRO FOR LANDSCAPE ARCHITECT FOR APPROVAL IN A ONE (1) GALLON CONTAINER.
        1) BECAUSE WOOD MULCH QUALITY CAN VARY SIGNIFICANTLY BETWEEN SUPPLIERS AND REGIONS, THE CONTRACTOR MAY SUBMIT A REQUEST TO THE LANDSCAPE ARCHITECT TO DEVIATE FROM THE ABOVE REQUIREMENTS TO PROVIDE ADEQUATE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS.
2. PLASTIC MESH TREE PROTECTION FENCING:
    a. PLASTIC MESH FENCE SHALL BE HEAVY DUTY ORANGE PLASTIC MESH FENCING FABRIC FORTY-EIGHT INCHES (48") WIDE. FENCING SHALL BE ATTACHED TO METAL "U" OR "T" POST DRIVEN INTO THE GROUND OF SUFFICIENT DEPTH TO HOLD THE FABRIC SOLIDLY IN PLACE WITH OUT SAGGING. THE FABRIC SHALL BE ATTACHED TO THE POST USING ATTACHMENT TIES OF SUFFICIENT NUMBER AND STRENGTH TO HOLD UP THE FABRIC WITHOUT SAGGING.
    b. AT ANY TIME, THE LANDSCAPE ARCHITECT MAY REQUEST ADDITIONAL POST, DEEPER POST DEPTHS AND OR ADDITIONAL FABRIC ATTACHMENTS IF THE FABRIC BEGINS TO SAG, LEAN, OR IS OTHERWISE DOES NOT PRESENT A SUFFICIENT BARRIER TO ACCESS.
3. TREE PROTECTION FENCING CHAIN LINK FENCE:
    a. CHAIN LINK FENCING FABRIC SIX FEET (6'-0") WIDE SET IN METAL FRAME PANELS ON MOVABLE CORE DRILLED CONCRETE BLOCKS OF SUFFICIENT SIZE TO HOLD THE FENCE ERECT IN AREAS OF EXISTING PAVING TO REMAIN.
    b. AT ANY TIME, THE LANDSCAPE ARCHITECT MAY REQUEST ADDITIONAL FRAMING IF THE FABRIC BEGINS TO SAG, LEAN, OR IS OTHERWISE DOES NOT PRESENT A SUFFICIENT BARRIER TO ACCESS.
4. GATES / CONTROLLABLE ACCESS POINTS:
    a. FOR EACH FENCE TYPE AND IN EACH SEPARATE FENCED AREA, PROVIDE A MINIMUM OF ONE (1) THREE FOOT (3'-0") WIDE LOCKABLE GATE OR CONTROLLABLE ACCESS POINT.

☐ b. SUBMIT A PLAN OF THE LOCATION OF THE GATES TO THE LANDSCAPE ARCHITECT FOR APPROVAL.

5. TREE PROTECTION SIGN
    a. PROVIDE A PVC SIGN OF 3-MM THICK FOAM BOARD OF SIZE ANSI A (8.5" x 11") MINIMUM, WHITE COLORED BACKGROUND WITH BLACK TWO INCH (2") HIGH OR LARGER LETTERS BLOCK LETTERS. THE SIGNS SHALL BE ATTACHED TO THE TREE PROTECTION FENCE EVERY FIFTY FEET (50') O.C. THE TREE PROTECTION SIGN SHALL READ "TREE AND PLANT PROTECTION AREA- KEEP OUT".
6. MATTING:
    a. MATTING FOR PROTECTION OF TREE ROOTS FROM VEHICLES AND CONSTRUCTION ACTIVITIES SHALL BE HEAVY DUTY MATTING DESIGNED FOR VEHICLE LOADING OVER TREE ROOTS.
    b. THE BASIS OF DESIGN IS AlturnaMATS® GROUND COVER MATS AS MANUFACTURED BY CHECKERS JUSTRITE SAFETY GROUP, <https://checkers.justrite.com/ground-protection/ground-protection-matting>, OR APPROVED EQUAL.

☐ c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.

    d. SUBMIT A PLAN AND SCHEDULE TO THE LANDSCAPE ARCHITECT SHOWING THE AREA(S)FOR MATTERING AND A SCHEDULE FOR APPROXIMATE START AND END DATES.
7. FILTER FABRIC:
    a. FILTER FABRIC SHALL BE NONWOVEN POLYPROPYLENE FIBERS, INERT TO BIOLOGICAL DEGRADATION AND RESISTANT OF NATURALLY OCCURRING CHEMICALS, ALKALIS AND ACIDS.
    b. MIRAFI® N-SERIES NEEDLE PUNCHED NONWOVEN GEOTEXTILE FABRIC AS MANUFACTURED BY TENCATE GEOSYNTHETICS, PENDERGRASS, GEORGIA, <http://www.tencate.com> OR APPROVED EQUAL.

☐ c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.

8. VOLUMETRIC SOIL MOISTURE READER
    a. THE VOLUMETRIC SOIL MOISTURE READER SHALL BE A PRECISION DIGITAL SOIL MOISTURE METER WITH ELECTRIC CONDUCTIVITY PROBE.
    b. MODEL DSMM500 BY GENERAL® SPECIALTY TOOLS AND INSTRUMENTS < https://generaltools.com/soil-moisture-meter>, OR APPROVED EQUIVALENT.

☐ c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.

9. AIR EXCAVATION TOOL
    a. AIR KNIFE OR "AIR-SPADE" AS MANUFACTURED BY AIRSPADE, A DIVISION OF GUARDAIR CORPORATION, 47 VETERANS DRIVE, CHICOPEE, MASSACHUSETTS 01022-1062 <https://www.airspade.com/>, OR APPROVED EQUIVALENT.

☐ b. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.

C. TREE AND PLANT PROTECTION AREA AND FENCELINE

1. WHERE NO LIMIT OF THE TREE AND PLANT PROTECTION AREA IS DEFINED ON THE DRAWINGS, THE LIMIT SHALL BE THE DRIP LINE (OUTER EDGE OF THE BRANCH CROWN) OF EACH TREE.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR CAN LAY OUT THE LIMITS OF THE TREE AND PLANT PROTECTION AREA, TREE AND PLANT PROTECTION FENCELINE, AND LIMITS OF ROOT PRUNING FOR THE LANDSCAPE ARCHITECT AND/OR CONSULTING ARBORIST TO APPROVE ON SITE.
    a. IF THE CONTRACTOR DOES NOT SEEK APPROVAL PRIOR TO CONSTRUCTION FOR THE FOR THE ABOVE LIMITS AND FENCING, THE LANDSCAPE ARCHITECT AND CONSULTING ARBORIST RESERVE THE RIGHT TO REQUIRE CHANGES.
    b. THE LANDSCAPE ARCHITECT AND THE CONSULTING ARBORIST RESERVE THE RIGHT TO INSPECT THE CONSTRUCTION SITE FOR TREE AND PLANT PROTECTION FENCING LOCATION AND MAINTENANCE.

☐ 3. DURING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FOR ANY REALIGNMENTS OF THE TREE AND PLANT PROTECTION FENCELINE THE CONTRACTOR ASSESSES NECESSARY FOR THE COMPLETION OF THE CONSTRUCTION PROJECT.
    a. THE CONTRACTOR CAN LAY OUT THE REVISED LIMITS OF THE TREE AND PLANT PROTECTION FENCELINE FOR THE LANDSCAPE ARCHITECT AND/OR CONSULTING ARBORIST TO APPROVE ON-SITE.
    b. IF THE CONTRACTOR DOES NOT SEEK APPROVAL PRIOR TO CONSTRUCTION FOR THE FOR THE ABOVE LIMITS AND FENCING, THE LANDSCAPE ARCHITECT AND CONSULTING ARBORIST RESERVE THE RIGHT TO REQUIRE CHANGES.

PART II. GENERAL REQUIREMENTS AND LIMITATION FOR OPERATIONS WITHIN THE TREE AND PLANT PROTECTION AREA

A. THE CONTRACTOR SHALL NOT ENGAGE IN ANY CONSTRUCTION ACTIVITY WITHIN THE TREE AND PLANT PROTECTION AREA WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT INCLUDING: OPERATING, MOVING OR STORING EQUIPMENT; STORING SUPPLIES OR MATERIALS; LOCATING TEMPORARY FACILITIES INCLUDING TRAILERS OR PORTABLE TOILETS AND SHALL NOT PERMIT EMPLOYEES TO TRAVERSE THE AREA TO ACCESS ADJACENT AREAS OF THE PROJECT OR USE THE AREA FOR LUNCH OR ANY OTHER WORK BREAKS.

1. PERMITTED ACTIVITY, IF ANY, WITHIN THE TREE AND PLANT PROTECTION AREA MAYBE INDICATED ON THE DRAWINGS ALONG WITH ANY REQUIRED REMEDIAL ACTIVITY AS LISTED BELOW.

☐ 2. IN THE EVENT THE CONTRACTOR ASSESSES CONSTRUCTION ACTIVITY IS UNAVOIDABLE WITHIN THE TREE AND PLANT PROTECTION AREA, SUBMIT A DETAILED WRITTEN PLAN OF ACTION FOR APPROVAL TO THE LANDSCAPE ARCHITECT. THE PLAN SHALL INCLUDE:

DESCRIPTION OF PROPOSED ACTIVITY	REASON FOR PROPOSED ACTIVITY	DURATION OF PROPOSED ACTIVITY	LIST REMEDIAL ACTIONS TO REDUCE RISK TO TREES

3. REMEDIAL ACTIONS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING:
    a. IN GENERAL, DEMOLITION AND EXCAVATION WITHIN THE DRIP LINE OF TREES AND SHRUBS SHALL PROCEED WITH EXTREME CARE EITHER BY THE USE OF HAND TOOLS, DIRECTIONAL BORING, AND/OR AIR KNIFE EXCAVATION WHERE INDICATED, OR WITH OTHER LOW IMPACT EQUIPMENT THAT WILL NOT CAUSE DAMAGE TO THE TREE, ROOTS, OR SOIL.
    b. WHEN ENCOUNTERED, EXPOSED ROOTS, ONE INCH (1") AND LARGER IN DIAMETER SHALL BE WORKED AROUND IN A MANNER THAT DOES NOT BREAK THE OUTER LAYER OF THE ROOT SURFACE (BARK). THESE ROOTS SHALL BE COVERED IN WOOD CHIPS AND SHALL BE MAINTAINED ABOVE PERMANENT WILT POINT AT ALL TIMES. ROOTS ONE INCH (1") AND LARGER IN DIAMETER SHALL NOT BE CUT WITH OUT THE APPROVAL OF LANDSCAPE ARCHITECT OR CONSULTING ARBORIST. EXCAVATION SHALL BE TUNNELED UNDER THESE ROOTS WITHOUT CUTTING THEM. IN THE AREAS WHERE ROOTS ARE ENCOUNTERED, WORK SHALL BE PERFORMED AND SCHEDULED TO CLOSE EXCAVATIONS AS QUICKLY AS POSSIBLE OVER EXPOSED ROOTS.
    c. TREE BRANCHES THAT INTERFERE WITH THE CONSTRUCTION MAY BE TIED BACK OR PRUNED TO CLEAR ONLY TO THE POINT NECESSARY TO COMPLETE THE WORK. OTHER BRANCHES SHALL ONLY BE REMOVED WHEN SPECIFICALLY INDICATED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST. TYING BACK OR TRIMMING OF ALL BRANCHES AND THE CUTTING OF ROOTS SHALL BE IN ACCORDANCE WITH ACCEPTED ARBORICULTURAL PRACTICES AND BE PERFORMED UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST.
4. MATTING: INSTALL TEMPORARY MATTING OVER THE WOOD CHIPS OR MULCH TO THE EXTENT INDICATED. DO NOT PERMIT FOOT TRAFFIC, SCAFFOLDING OR THE STORAGE OF MATERIALS WITHIN THE TREE AND PLANT PROTECTION AREA TO OCCUR OFF THE TEMPORARY MATTING.
    a. TRUNK PROTECTION: PROTECT THE TRUNK OF EACH TREE TO REMAIN BY COVERING IT WITH A RING OF EIGHT FOOT (8'-0") LONG TWO INCH (2'-0") x SIX INCH (6") PLANKS LOOSELY BANDED ONTO THE TREE WITH THREE (3) STEEL BANDS. STAPLE THE BANDS TO THE PLANKS AS NECESSARY TO HOLD THEM SECURELY IN PLACE. TRUNK PROTECTION MUST BY KEPT IN PLACE NO LONGER THAN TWELVE (12) MONTHS. IF CONSTRUCTION REQUIRES WORK NEAR A PARTICULAR TREE TO CONTINUE LONGER THAN TWELVE (12) MONTHS, THE LANDSCAPE ARCHITECT OR ARBORIST SHALL INSPECT THE STEEL BANDS SIX (6) MONTHS FOR LOOSENING IF THEY ARE FOUND TO HAVE BECOME TIGHT.
    b. AIR EXCAVATION TOOL: IF EXCAVATION FOR FOOTINGS OR UTILITIES IS REQUIRED WITHIN THE TREE AND PLANT PROTECTION AREA, AIR EXCAVATION TOOL TECHNIQUES SHALL BE USED WHERE PRACTICAL OR AS DESIGNED ON THE DRAWINGS.
    c. REMOVE THE WOOD CHIPS FROM AN AREA APPROXIMATELY EIGHTEEN INCHES (18") BEYOND THE LIMITS OF THE HOLE OR TRENCH TO BE EXCAVATED. COVER THE WOOD CHIPS FOR A DISTANCE OF NOT LESS THAN FIFTEEN FEET (15'-0") AROUND THE LIMIT OF THE EXCAVATION AREA WITH FILTER FABRIC OR PLASTIC SHEETING TO PROTECT THE WOOD CHIPS FROM SILT. MOUND THE WOOD CHIPS SO THAT THE PLASTIC SLOPES TOWARDS THE EXCAVATION.
    d. USING A SPRINKLER OR SOAKER HOSE, APPLY WATER SLOWLY TO THE AREA OF THE EXCAVATION FOR A PERIOD OF AT LEAST FOUR (4) HOURS, APPROXIMATELY TWELVE (12) HOURS PRIOR TO THE WORK SO THAT THE GROUND WATER LEVEL IS AT OR NEAR FIELD CAPACITY AT THE BEGINNING OF THE WORK. FOR EXCAVATIONS THAT GO BEYOND THE DAMP SOIL, REWET THE SOIL AS NECESSARY TO KEEP SOIL MOISTURE NEAR FIELD CAPACITY.
    e. USING AN AIR EXCAVATION TOOL SPECIFICALLY DESIGNED AND MANUFACTURED FOR THE INTENDED PURPOSE, AND AT PRESSURES RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT, FRACTURE THE EXISTING SOIL TO THE SHAPE AND THE DEPTHS REQUIRED. WORK AT RATES AND USING TECHNIQUES THAT DO NOT HARM TREE ROOTS. AIR PRESSURE SHALL BE A MAXIMUM OF NINETY TO ONE HUNDRED (90-100) PSI.
        1) USING A COMMERCIAL, HIGH-POWERED VACUUM TRUCK IF REQUIRED, REMOVE THE SOIL FROM THE EXCAVATION PRODUCED BY THE AIR EXCAVATION TOOL OPERATION. THE VACUUM TRUCK SHOULD GENERALLY OPERATE SIMULTANEOUSLY WITH THE HOSE OPERATOR, SUCH THAT THE SOIL PRODUCED IS PICKED UP FROM THE EXCAVATION HOLE, AND THE EXPOSED ROOTS CAN BE OBSERVED AND NOT DAMAGED BY THE ONGOING OPERATION. DO NOT DRIVE THE VACUUM TRUCK INTO THE TREE AND PLANT PROTECTION AREA UNLESS THE AREA IS PROTECTED FROM COMPACTION.
        2) REMOVE ALL EXCAVATED SOIL AND EXCAVATED WOOD CHIPS, AND CONTAMINATED SOIL AT THE END OF THE EXCAVATION.
        3) DO NOT LET THE ROOTS DRY OUT. MIST THE ROOTS SEVERAL TIMES DURING THE DAY. SCHEDULE THE WORK SO THAT FOUNDATIONS OR UTILITY WORK IS COMPLETED IMMEDIATELY AFTER THE EXCAVATION.
            i) IF THE EXCAVATED AREA MUST REMAIN OPEN OVER NIGHT, MIST THE ROOTS AND COVER THE EXCAVATION WITH BLACK PLASTIC.
        5) DISPOSE OF ALL SOIL IN A MANNER THAT MEETS LOCAL LAWS AND REGULATIONS.
        6) RESTORE SOIL WITHIN THE TRENCH AS SOON AS THE WORK IS COMPLETED. UTILIZE SOIL OF SIMILAR TEXTURE TO THE REMOVED SOIL AND LIGHTLY COMPACT WITH HAND TOOLS. LEAVE SOIL MOUNDED OVER THE TRENCH TO A HEIGHT OF APPROXIMATELY TEN PERCENT (10%) OF THE TRENCH DEPTH TO ACCOUNT FOR SETTLEMENT.
        7) RESTORE ANY GEOGRIDS, FILTER FABRIC, WOOD CHIPS OR MULCH AND OR MATTING THAT WAS PREVIOUSLY REQUIRED FOR THE AREA.

B. ROOT PRUNING OF REMAINING TREES AND PLANTS

1. PRIOR TO ANY EXCAVATING INTO THE EXISTING SOIL GRADE WITHIN TWENTY-FIVE FEET (25'-0") OF THE LIMIT OF THE TREE AND PLANT PROTECTION AREA, ROOT PRUNE ALL EXISTING TREES TO A DEPTH OF TWENTY-FOUR INCHES (24") BELOW EXISTING GRADE IN ALIGNMENTS FOLLOWING THE EDGES OF THE TREE AND PLANT PROTECTION AREA OR AS DIRECTED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST.
    a. USING A ROCK SAW, CHAIN TRENCHER OR SIMILAR TRENCHING DEVICE, MAKE A VERTICAL CUT WITHIN TWO FEET (2') OF THE LIMIT OF GRADING.
    b. AFTER COMPLETION OF THE CUT, MAKE CLEAN CUTS WITH A LOPPER, SAW OR PRUNER TO REMOVE ALL TORN ROOT ENDS ON THE TREE SIDE OF THE EXCAVATION, AND BACKFILL THE TRENCH IMMEDIATELY WITH EXISTING SOIL, FILLING ALL VOIDS.

C. TREE AND PLANT PROTECTION AREA SOIL MOISTURE WITHIN THE TREE AND PLANT PROTECTION AREA. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE VOLUMETRIC SOIL MOISTURE LEVELS WITHIN THE TREE AND PLANT PROTECTION AREA.

1. THE CONTRACTOR SHALL MEASURE VOLUMETRIC SOIL MOISTURE WITH A DIGITAL, ELECTRIC CONDUCTIVITY METER. THE METER SHALL BE THE DIGITAL SOIL MOISTURE METER, DSMM500 BY GENERAL SPECIALTY TOOLS AND INSTRUMENTS, OR APPROVED EQUIVALENT METER.
2. ALL SOILS WITHIN THE TREE AND PLANT PROTECTION AREA SHALL BE MAINTAINED ABOVE PERMANENT WILT POINT TO A DEPTH OF AT LEAST EIGHT INCHES (8").
3. NO SOIL WORK OR OTHER ACTIVITY SHALL BE PERMITTED WITHIN THE TREE AND PLANT PROTECTION AREA WHEN THE VOLUMETRIC SOIL MOISTURE IS ABOVE FIELD CAPACITY.
4. THE PERMANENT WILT POINT AND FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE SHALL BE DEFINED AS FOLLOWS (NUMBERS INDICATE PERCENTAGE VOLUMETRIC SOIL MOISTURE):

SOIL TYPE	PERMANENT WILT POINT	FIELD CAPACITY
SAND, LOAMY SAND, SANDY LOAM	5-8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14-25%	27-36%
CLAY LOAM, SILT LOAM	11-22%	31-36%
SILTY CLAY, SILTY CLAY LOAM	22-27%	38-41%

5. THE CONTRACTOR SHALL CONFIRM THE SOIL MOISTURE LEVELS WITH A MOISTURE METER. IF THE MOISTURE IS TOO HIGH, SUSPEND OPERATIONS WITH THE TREE AND PLANTE PROTECTION AREA UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

D. INSTALLATION OF GEOGRIDS, FILTER FABRIC, MATTING, WOOD CHIPS AND/OR MULCH WITHIN THE TREE AND PLANT PROTECTION AREA.

1. INSTALL GEOGRIDS, FILTER FABRIC, MATTING, WOOD CHIPS AND OR MULCH IN AREAS AND DEPTHS SHOWN ON THE PLANS AND DETAILS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. IN GENERAL IT IS THE INTENT OF THESE NOTES, PLANS, AND DETAILS TO PROVIDE THE FOLLOWING LEVELS OF PROTECTION:
    a. PROVIDE A MINIMUM OF FIVE INCHES (5") OF WOOD CHIPS OR MULCH OVER ALL AREAS WITHIN THE TREE AND PLANT PROTECTION AREA.
    b. PROVIDE A LAYER OF FILTER FABRIC UNDER THE FIVE INCHES (5") OF WOOD CHIPS OR MULCH AREAS WHERE FOOT TRAFFIC OR STORAGE OF LIGHTWEIGHT MATERIALS IS ANTICIPATED TO BE UNAVOIDABLE.
    c. PROVIDE A LAYER OF GEOGRIDS UNDER EIGHT INCHES (8") OF WOOD CHIPS OR MULCH AREAS WHERE OCCASIONAL LIGHT VEHICLE TRAFFIC IS ANTICIPATED TO BE UNAVOIDABLE.
    d. PROVIDE A LAYER OF GEOGRIDS UNDER EIGHT TO TWELVE INCHES (8"-12") OF WOOD CHIPS OR MULCH AND A LAYER OF MATTING OVER THE WOOD CHIPS OR MULCH AREAS WHERE HEAVY VEHICLE TRAFFIC IS UNAVOIDABLE.
2. IN THE ABOVE REQUIREMENTS, A LIGHT VEHICLE IS DEFINED AS A TRACK SKID STEER WITH A GROUND PRESSURE OF FOUR (4) PSI OR LIGHTER. A HEAVY VEHICLE IS ANY VEHICLE WITH A TIRE OR TRACK PRESSURE OF GREATER THAN FOUR (4) PSI. LIGHTWEIGHT MATERIALS ARE ANY PACKAGED MATERIALS THAT CAN BE PHYSICALLY MOVED BY HAND INTO THE LOCATION. BULK MATERIALS SUCH AS SOIL, OR AGGREGATE SHALL NEVER BE STORED WITHIN THE TREE AND PLANT PROTECTION AREA.

E. TREE REMOVAL WITHIN THE TREE AND PLANT PROTECTION AREA.

1. REMOVE ALL TREES INDICATED BY THE LANDSCAPE ARCHITECTURAL DRAWINGS IN A MANNER THAT WILL NOT DAMAGE ADJACENT TREES OR STRUCTURES OR COMPACTS THE SOIL.
2. REMOVE TREES THAT ARE ADJACENT TO TREES OR STRUCTURES TO REMAIN, IN SECTIONS, TO LIMIT THE OPPORTUNITY OF DAMAGE TO ADJACENT CROWNS, TRUNKS, GROUND-PLANE ELEMENTS AND STRUCTURES.
3. DO NOT DROP TREES WITH A SINGLE CUT UNLESS THE TREE WILL FALL IN AN AREA NOT INCLUDED IN THE TREE AND PLANT PROTECTION AREA. NO TREE TO BE REMOVED WITHIN FIFTY FEET (50'-0") OF THE TREE AND PLANT PROTECTION AREA SHALL BE PUSHED OVER OR UP-ROOTED USING A PIECE OF GRADING EQUIPMENT.
4. PROTECT ADJACENT PAVING, SOIL, TREES, SHRUBS, GROUND COVER PLANTINGS AND UNDERSTORY PLANTS TO REMAIN FROM DAMAGE DURING ALL TREE REMOVAL OPERATIONS, AND FROM CONSTRUCTION OPERATIONS. PROTECTION SHALL INCLUDE THE ROOT SYSTEM, TRUNK, LIMBS, AND CROWN FROM BREAKAGE OR SCARRING, AND THE SOIL FROM COMPACTION.
5. REMOVE STUMPS AND IMMEDIATE ROOT PLATE FROM EXISTING TREES TO BE REMOVED. GRIND TRUNK BASES AND LARGE BUTTRESS ROOTS TO A DEPTH OF THE LARGEST BUTTRESS ROOT OR AT LEAST EIGHTEEN INCHES (18") BELOW THE TOPMOST ROOTS WHICH EVER IS LESS AND OVER THE AREA OF THREE (3) TIMES THE TRUNK DIAMETER AT BREAST HEIGHT (DBH).
6. FOR TREES, WHERE THE STUMP WILL FALL UNDER NEW PAVED AREAS, GRIND ROOTS TO A TOTAL DEPTH OF INCHES (18") BELOW THE EXISTING GRADE. IF THE SIDES OF THE STUMP HOLE STILL HAVE GREATER THAN APPROXIMATELY TWENTY PERCENT (20%) WOOD VISIBLE, CONTINUE GRINDING OPERATION DEEPER AND OR WIDER UNTIL THE RESULTING HOLE HAS LESS THAN TWENTY PERCENT (20%) WOOD. REMOVE ALL WOOD CHIPS PRODUCED BY THE GRINDING OPERATION AND BACK FILL IN EIGHT INCH (8") LAYERS WITH CONTROLLED FILL OF A QUALITY ACCEPTABLE TO THE SITE ENGINEER FOR FILL MATERIAL UNDER STRUCTURES, COMPACTED TO NINETY-FIVE PERCENT (95%) OF THE MAXIMUM DRY DENSITY STANDARD PROCTOR. THE OWNER'S REPRESENTATIVE SHALL APPROVE EACH HOLE AT THE END OF THE GRINDING OPERATION.
7. IN AREAS WHERE THE TREE LOCATION IS TO BE A PLANTING BED OR LAWN, REMOVE ALL WOODCHIPS AND BACKFILL STUMP HOLES WITH PLANTING SOIL AS DEFINED IN SPECIFICATION SECTION PLANTING SOIL, IN MAXIMUM OF TWELVE INCH (12") LAYERS AND COMPACT TO EIGHTY TO EIGHTY-FIVE PERCENT (80-85%) OF THE MAXIMUM DRY DENSITY STANDARD PROCTOR.

F. PRUNING WITHIN THE TREE AND PLANT PROTECTION AREA.

1. IF THE CONSULTING ARBORIST PROVIDED A REPORT FOR THE DEVELOPMENT OF THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS, IMPLEMENT ALL PRUNING RECOMMENDATIONS FOUND IN THE ARBORIST REPORT WITHIN SIX (6) MONTHS OF THE ESTIMATED DATE OF SUBSTANTIAL COMPLETION.
2. PERFORM OTHER PRUNING TASK AS INDICATED ON THE DRAWINGS OR REQUESTED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST.
    a. PRUNE DEAD OR HAZARDOUS BRANCHES LARGER THAN TWO INCH (2") IN DIAMETER FROM ALL TREES TO REMAIN.
    b. PRUNE ANY LOW, HANGING BRANCHES AND VINES FROM EXISTING TREES AND SHRUBS THAT OVERHANG WALKS, STREETS AND DRIVES, OR PARKING AREAS AS FOLLOWS:
        1) WALKS - WITHIN EIGHT FEET (8') VERTICALLY OF THE PROPOSED WALK ELEVATION.
        2) PARKING AREAS - WITHIN TWELVE FEET (12') VERTICALLY OF THE PROPOSED PARKING SURFACE ELEVATION.
        3) STREETS AND DRIVES - WITHIN FOURTEEN FEET (14') VERTICALLY OF THE PROPOSED DRIVING SURFACE ELEVATION.
    2. WHERE TREE SPECIFIC DISEASE VECTORS REQUIRE, STERILIZE ALL PRUNING TOOLS BETWEEN THE WORK IN INDIVIDUAL TREES.

G. WATER WITHIN THE TREE AND PLANT PROTECTION AREA. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS TO BE PRESERVED DURING THE ENTIRE CONSTRUCTION PERIOD.

1. ADEQUATE WATER SHALL BE MAINTAINING SOIL MOISTURE ABOVE THE PERMANENT WILT POINT TO A DEPTH OF EIGHT INCHES (8") OR GREATER.
2. THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS SHOW THE LOCATION OF TEST SITES AROUND HERITAGE AND CHAMPION TREES, FREQUENCY OF TESTING SOIL MOISTURE, AND REPORTING DEADLINES.

☐ 3. THE CONTRACTOR SHALL SUBMIT RESULTS FOR SOIL MOISTURE CONTENT TESTING USING THE FOLLOWING FORMAT:

SITE #### / TREE ####	SOIL MOISTURE CONTENT RESULT	DATE / TIME

H. WEED REMOVAL WITHIN THE TREE AND PLANT PROTECTION AREA. DURING THE CONSTRUCTION PERIOD, CONTROL ANY PLANTS THAT SEED IN AND AROUND THE FENCED TREE AND PLANT PROTECTION AREA, AT LEAST ONCE EVERY THREE (3) MONTHS.

1. ALL PLANTS THAT ARE NOT SHOWN ON THE PLANTING PLAN OR ON THE TREE AND PLANT PROTECTION PLAN TO REMAIN SHALL BE CONSIDERED AS WEEDS.
2. AT THE END OF THE CONSTRUCTION PERIOD PROVIDE ONE FINAL WEEDING OF THE TREE AND PLANT PROTECTION AREA.

I. INSECT AND DISEASE CONTROL WITHIN THE TREE AND PLANT PROTECTION AREA. MONITOR ALL PLANTS TO REMAIN FOR DISEASE AND INSECT INFESTATIONS DURING THE ENTIRE CONSTRUCTION PERIOD. PROVIDE ALL DISEASE AND INSECT CONTROL REQUIRED TO KEEP THE PLANTS IN A HEAL

PROTECTED SITE TREE CREDITS - PHASE 1

Tree / Survey No.	Tree Status (Preserved / Removec	Tree Type (Common Name)	Note (Multi-stem, Nuisance, etc.)	DBH	Credit (Trees)
30036	Preserved	Camphor		9	1
30037	Preserved	Wild Cherry	Nuisance	8	0
30038	Preserved	Laurel Oak		19	3
30039	Preserved	Laurel Oak		15	3
30040	Preserved	Laurel Oak		21	6
30041	Preserved	Wild Cherry	Nuisance	13	0
30042	Preserved	Laurel Oak		10	3
30043	Preserved	Sweetgum		9	1
30044	Preserved	Water Oak		9	1
30046	Preserved	Laurel Oak		21	6
30152	Preserved	Live Oak		14	3
30153	Preserved	Sweetgum		9	1
30154	Preserved	Sweetgum		9	1
30155	Preserved	Pine		14	3
30156	Preserved	Wild Cherry	Nuisance	14	0
30157	Preserved	Wild Cherry	Nuisance	10	0
30158	Preserved	Sweetgum		9	1
30159	Preserved	Sweetgum		8	1
30160	Preserved	Wild Cherry	Nuisance	9	0
30161	Preserved	Sugarberry		8	1
30180	Preserved	Persimmon		10	3
30181	Preserved	Sweetgum		11	3
30182	Preserved	Sweetgum		12	3
30183	Preserved	Sweetgum		11	3
30184	Preserved	Sweetgum		9	1
30185	Preserved	Sweetgum		10	3
30263	Preserved	Camphor		9	1
30264	Preserved	Laurel Oak		25	6
30431	Preserved	Laurel Oak		10	3
30460	Preserved	Sweetgum		8	1
30461	Preserved	Water Oak		9	1
30462	Preserved	Wild Cherry	Nuisance	13	0
30473	Preserved	Wild Cherry	Nuisance	13	0
30474	Preserved	Laurel Oak		9	1
30475	Preserved	Wild Cherry	Nuisance	12	0
30476	Preserved	Wild Cherry	Nuisance	8	0
30477	Preserved	Laurel Oak		8	1

Per City of Alachua LDC Sec. 6.2.1(6)(c) - Tree protection and landscaping standards.

(c) When trees are removed with an approved tree removal permit for the construction of new residential dwellings or a substantially remodeled residential dwellings qualifying as housing sold to low- and moderate-income families, such trees will be replaced at a rate of 50 percent (one-half tree per tree removed). Projects certifying that 50 percent or more of the residential dwelling units qualify as housing sold to low- and moderate-income families will receive a tree credit for replacement of removed regulated trees at a replacement rate of 25 percent (one-quarter tree per tree removed). For the purposes of this subsection, the term "housing sold to low- and moderate-income families" means families earning less than 80 percent of the Alachua County median income. This project certfies as one where 50% or more residential dwelling units qualify as housing sold to low and moderate income families. Therefore;

Total Mitigation: 102 inches or 51 - 2" cal. trees.
Total Tree Credits: 65 trees.

TOTAL TREES REMOVED - PHASE 1

Tree / Survey No.	Tree Status (Preserved / Removed)	Tree Type (Common Name)	Note (Multi-stem, Nuisance, etc.)	DBH	Required Mitigation in inches:
7063	Removed	Pine		12	0
7065	Removed	Pine		17	0
7073	Removed	Pine		21	0
7086	Removed	Pine		15	0
7105	Removed	Pine		18	0
8041	Removed	Laurel Oak	Twin	15	1
8045	Removed	Sweetgum		10	1
8112	Removed	Laurel Oak		20	1
9002	Removed	Water Oak		16	1
9003	Removed	Water Oak		14	1
9008	Removed	Sweetgum		14	1
9009	Removed	Pine		14	0
9010	Removed	Pine		10	0
9011	Removed	Pine		11	0
9012	Removed	Laurel Oak		32	1
9013	Removed	Laurel Oak		12	1
9014	Removed	Unknown		13	1
9015	Removed	Wild Cherry	Nuissance	15	0
30000	Removed	Palm		23	1
30001	Removed	Palm		16	1
30002	Removed	Laurel Oak		30	1
30003	Removed	Pine		23	0
30004	Removed	Water Oak		9	0
30005	Removed	Hickory		11	1
30006	Removed	Water Oak		13	1
30007	Removed	Laurel Oak		32	1
30008	Removed	Hickory		13	1
30009	Removed	Sweetgum		14	1
30010	Removed	Sweetgum		13	1
30011	Removed	Sweetgum		12	1
30012	Removed	Laurel Oak		21	1
30013	Removed	Water Oak		18	1
30014	Removed	Sweetgum		9	0
30015	Removed	Live Oak	Multi-Trunked	46-27-18	1
30016	Removed	Sweetgum		9	0
30017	Removed	Hickory		9	0
30018	Removed	Sweetgum		11	1
30019	Removed	Pine		24	0
30020	Removed	Sweetgum		15	1
30021	Removed	Sweetgum		11	1
30022	Removed	Wild Cherry	Nuissance	9	0
30023	Removed	Water Oak		12	1
30024	Removed	Water Oak		19	1
30025	Removed	Water Oak		11	1
30026	Removed	Water Oak		19	1
30027	Removed	Water Oak		11	1
30028	Removed	Water Oak		9	0
30029	Removed	Water Oak		9	0
30030	Removed	Laurel Oak		29	1
30031	Removed	Wild Cherry	Nuissance	15	0
30032	Removed	Sweetgum		16	1
30033	Removed	Wild Cherry	Nuissance	12	0
30034	Removed	Laurel Oak		12	1
30035	Removed	Laurel Oak		29	1
30047	Removed	Camphor	Invasive	19	0
30048	Removed	Palm		18	1
30051	Removed	Camphor	Invasive	11	0
30052	Removed	Sweetgum		23	1
30053	Removed	Laurel Oak		37	1
30054	Removed	Sweetgum		9	0
30055	Removed	Laurel Oak		36	1
30060	Removed	Wild Cherry	Nuissance	11	0
30061	Removed	Sweetgum		16	1
30062	Removed	Sweetgum		8	0
30067	Removed	Wild Cherry	Nuissance	8	0
30068	Removed	Laurel Oak		10	1
30069	Removed	Laurel Oak		11	1
30070	Removed	Wild Cherry	Nuissance	8	0
30072	Removed	Wild Cherry	Nuissance	8	0
30073	Removed	Sweetgum		8	0
30074	Removed	Wild Cherry	Nuissance	10	0
30075	Removed	Laurel Oak		13	1
30076	Removed	Cedar		10	1
30077	Removed	Laurel Oak		9	0
30078	Removed	Laurel Oak		22	1
30079	Removed	Pine		22	0
30080	Removed	Laurel Oak		26	1
30081	Removed	Cedar		11	1
30082	Removed	Cedar		13	1
30083	Removed	Laurel Oak		9	0
30084	Removed	Laurel Oak		11	1
30085	Removed	Camphor	Invasive	14	0
30086	Removed	Sweetgum		12	1
30087	Removed	Magnolia		8	0
30088	Removed	Pine		10	0
30089	Removed	Live Oak		24	1
30090	Removed	Water Oak		11	1
30091	Removed	Pine		23	0
30092	Removed	Sweetgum		8	0
30093	Removed	Sweetgum		11	1
30094	Removed	Sweetgum		15	1
30095	Removed	Sweetgum	Twin	15-14	1
30096	Removed	Sweetgum		15	1
30097	Removed	Sweetgum		13	1
30098	Removed	Sweetgum	Twin	18-11	1
30099	Removed	Water Oak		28	1
30100	Removed	Magnolia		11	1
30101	Removed	Elm		9	0
30128	Removed	Live Oak		34	1
30129	Removed	Hickory		9	0
30130	Removed	Hickory		8	0
30134	Removed	Laurel Oak		8	0
30135	Removed	Laurel Oak		17	1
30136	Removed	Laurel Oak		20	1
30137	Removed	Laurel Oak		8	0
30138	Removed	Laurel Oak		11	1
30139	Removed	Laurel Oak		15	1
30140	Removed	Laurel Oak		22	1
30141	Removed	Wild Cherry	Nuissance	10	0
30142	Removed	Laurel Oak		9	0
30143	Removed	Laurel Oak		17	1
30144	Removed	Laurel Oak		8	0
30145	Removed	Laurel Oak		12	1
30146	Removed	Water Oak		15	1
30147	Removed	Pine		12	0
30148	Removed	Pine		21	0
30149	Removed	Pine		22	0
30150	Removed	Sweetgum		12	1
30151	Removed	Laurel Oak		12	1
30173	Removed	Sweetgum		12	1
30174	Removed	Pine		14	0
30175	Removed	Pine		26	0
30176	Removed	Pine		15	0
30177	Removed	Sweetgum		8	0
30178	Removed	Sweetgum		10	1
30179	Removed	Sweetgum		12	1
30236	Removed	Live Oak		38	1
30239	Removed	Live Oak		52	1
30240	Removed	Live Oak		35	1
30241	Removed	Cedar		9	0
30242	Removed	Sugarberry		8	0
30243	Removed	Sugarberry		8	0
30244	Removed	Wild Cherry	Nuissance	11	0
30245	Removed	Sweetgum		9	0
30246	Removed	Laurel Oak		23	1
30249	Removed	Laurel Oak		22	1
30250	Removed	Laurel Oak		25	1
30252	Removed	Sugarberry		8	0
30253	Removed	Laurel Oak		9	0
30255	Removed	Laurel Oak		24	1
30256	Removed	Live Oak	Multi-Trunked	52-49-44	1
30257	Removed	Sweetgum		16	1
30258	Removed	Laurel Oak	Twin	36-32	1
30259	Removed	Laurel Oak		38	1
30260	Removed	Sugarberry		12	0
30261	Removed	Camphor	Invasive	8	0
30262	Removed	Camphor	Invasive	14	0
30265	Removed	Laurel Oak		34	1
30266	Removed	Sweetgum		9	0
30267	Removed	Laurel Oak		13	1
30268	Removed	Wild Cherry	Nuissance	12	0
30269	Removed	Sweetgum		8	0
30270	Removed	Laurel Oak		30	1
30271	Removed	Laurel Oak		15	1
30272	Removed	Pine		21	0
30273	Removed	Camphor	Invasive	12	0
30429	Removed	Laurel Oak		14	1
30430	Removed	Laurel Oak		11	1
30433	Removed	Pine		10	0
30434	Removed	Pine		18	0
30435	Removed	Pine		17	0
30436	Removed	Pine		18	0
30437	Removed	Pine		16	0
30451	Removed	Pine		14	0
30452	Removed	Pine		15	0
30453	Removed	Pine		17	0
30454	Removed	Pine		12	0
30455	Removed	Pine		11	0
30456	Removed	Sweetgum		11	1
30457	Removed	Cedar		11	1
30458	Removed	Sweetgum		8	0
30459	Removed	Sweetgum		8	0
30463	Removed	Sweetgum		11	1
30464	Removed	Wild Cherry	Nuissance	14	0
30465	Removed	Pine		13	0
30466	Removed	Pine		13	0
30467	Removed	Pine		13	0
30468	Removed	Pine		18	0
30469	Removed	Sweetgum		11	1
30470	Removed	Sweetgum		16	1
30471	Removed	Pine		16	0
30472	Removed	Laurel Oak		15	1
30478	Removed	Laurel Oak		40	1
30479	Removed	Laurel Oak		22	1
30480	Removed	Persimmon		10	1
30481	Removed	Camphor	Invasive	9	0
30482	Removed	Wild Cherry	Nuissance	17	0
30483	Removed	Camphor	Invasive	10	0
30484	Removed	Sugarberry		9	0
30235	Removed	Laurel Oak		13	1
30237	Removed	Pignut Hickory		10	1
30419	Removed	Pine		18	0
30420	Removed	Sweetgum		11	1
30422	Removed	Pine		16	0
30423	Removed	Pine		9	0
30424	Removed	Pine		10	0
30425	Removed	Pine		15	0
30426	Removed	Pine		15	0
30432	Removed	Pine		15	0
			Total Mitigation Required (inches):		**102**

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR
#1	2026-04-06	PER CITY COMMENTS	JPS	MJH
#2	2026-07-06	PER CITY COMMENTS	JPS	MJH

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032**

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REGISTERED LANDSCAPE ARCHITECT MICHAEL JARED HANS LA2032 STATE OF FLORIDA

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Gainesville: (352) 375-8999 | St. Augustine: (904) 789-8999
Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: TREE MITIGATION DETAILS & CALCULATIONS

DATE: JULY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LT-02

PROTECTED SITE TREE CREDITS - PHASE 2

Tree / Survey No.	Tree Status (Preserved / Removed)	Tree Type (Common Name)	Note (Multi-stem, Nuisance, etc.)	DBH	Credit (Trees)
30162	Preserved	Pine		22	6
30163	Preserved	Sweetgum		9	1
30164	Preserved	Sweetgum		8	1
30165	Preserved	Persimmon		12	3
30166	Preserved	Boxelder		12	3
30167	Preserved	Sweetgum		8	1
30186	Preserved	Sugarberry		8	1
30187	Preserved	Camphor		13	3
30188	Preserved	Sweetgum		14	3
30317	Preserved	Pine		16	3
30319	Preserved	Pine		20	6
30320	Preserved	Sweetgum		8	1
30321	Preserved	Pine		12	3
30379	Preserved	Sweetgum		9	1
30380	Preserved	Sweetgum		10	3
30381	Preserved	Sweetgum		13	3
30382	Preserved	Water Oak		9	1
30383	Preserved	Sweetgum		9	1
30384	Preserved	Sweetgum		9	1
30385	Preserved	Sweetgum		11	3
30386	Preserved	Sweetgum		14	3
30387	Preserved	Water Oak		8	1
30388	Preserved	Sweetgum		9	1
30389	Preserved	Sweetgum		9	1
			Total Tree Credits (in trees):		**54**

Per City of Alachua LDC Sec. 6.2.1(6)(c) - Tree protection and landscaping standards.

(c) When trees are removed with an approved tree removal permit for the construction of new residential dwellings or a substantially remodeled residential dwellings qualifying as housing sold to low- and moderate-income families, such trees will be replaced at a rate of 50 percent (one-half tree per tree removed). Projects certifying that 50 percent or more of the residential dwelling units qualify as housing sold to low- and moderate-income families will receive a tree credit for replacement of removed regulated trees at a replacement rate of 25 percent (one-quarter tree per tree removed). For the purposes of this subsection, the term "housing sold to low- and moderate-income families" means families earning less than 80 percent of the Alachua County median income. This project certfies as one where 50% or more residential dwelling units qualify as housing sold to low and moderate income families. Therefore;

Total Mitigation: 68 inches or 34 - 2"
Total Tree Credits: 54 trees.

NOTE:

THERE IS A TOTAL OF 170 INCHES OF REQUIRED MITIGATION TREES FOR PHASE 1 + PHASE 2.

TOTAL TREES REMOVED - PHASE 2

Tree / Survey No.	Tree Status (Preserved / Removed)	Tree Type (Common Name)	Note (Multi-stem, Nuisance, etc.)	DBH	Required Mitigation in inches:
30049	Removed	Camphor	Invasive	12	0
30050	Removed	Laurel Oak		24	1
30056	Removed	Sweetgum		10	1
30057	Removed	Pine		20	0
30058	Removed	Laurel Oak		17	1
30059	Removed	Laurel Oak		29	1
30063	Removed	Sweetgum		17	1
30064	Removed	Sweetgum		8	0
30065	Removed	Live Oak		52	1
30066	Removed	Cedar		8	0
30071	Removed	Laurel Oak		8	0
30102	Removed	Sweetgum		22	1
30103	Removed	Live Oak		56	1
30104	Removed	Live Oak		36	1
30105	Removed	Laurel Oak		32	1
30106	Removed	Laurel Oak		12	1
30107	Removed	Laurel Oak		20	1
30108	Removed	Laurel Oak		22	1
30109	Removed	Sweetgum		25	1
30110	Removed	Laurel Oak		20	1
30111	Removed	Sweetgum		15	1
30112	Removed	Sweetgum		14	1
30113	Removed	Water Oak		24	1
30114	Removed	Sweetgum		14	1
30115	Removed	Laurel Oak		24	1
30116	Removed	Laurel Oak		29	1
30117	Removed	Laurel Oak		9	0
30118	Removed	Laurel Oak		10	1
30119	Removed	Hickory		37	1
30120	Removed	Laurel Oak		13	1
30121	Removed	Laurel Oak		12	1
30122	Removed	Laurel Oak		20	1
30123	Removed	Pine		18	0
30124	Removed	Pine		30	0
30125	Removed	Laurel Oak		15	1
30126	Removed	Wild Cherry	Nuissance	15	0
30127	Removed	DEAD	Dead	38	0
30131	Removed	Laurel Oak		15	1
30132	Removed	Laurel Oak		25	1
30133	Removed	Wild Cherry	Nuissance	8	0
30168	Removed	Wild Cherry	Nuissance	12	0
30169	Removed	Sweetgum		11	1
30170	Removed	Pine		13	0
30171	Removed	Pine		21	0
30172	Removed	Sweetgum		10	1
30189	Removed	Sweetgum		13	1
30190	Removed	Sweetgum		13	1
30191	Removed	Sweetgum		10	1
30192	Removed	Sweetgum		8	0
30193	Removed	Sweetgum		8	0
30194	Removed	Sweetgum		12	1
30195	Removed	Sweetgum		11	1
30196	Removed	Sweetgum		13	1
30197	Removed	Sweetgum		16	1
30198	Removed	Wild Cherry	Nuissance	9	0
30199	Removed	Pine		15	0
30200	Removed	Pine		20	0
30201	Removed	Pine		10	0
30202	Removed	Laurel Oak		15	1
30203	Removed	Pine		13	0
30204	Removed	Pine		13	0
30205	Removed	Laurel Oak		8	0
30206	Removed	Laurel Oak		22	1
30207	Removed	Sweetgum		9	0
30208	Removed	Laurel Oak		19	1
30209	Removed	Laurel Oak		15	1
30210	Removed	Wild Cherry	Nuissance	12	0
30211	Removed	Wild Cherry	Nuissance	17	0
30212	Removed	Wild Cherry	Nuissance	16	0
30213	Removed	Laurel Oak		12	1
30214	Removed	Laurel Oak		21	1
30215	Removed	Laurel Oak		25	1
30216	Removed	Laurel Oak		23	1
30217	Removed	Wild Cherry	Nuissance	10	0
30218	Removed	Wild Cherry	Nuissance	12	0
30219	Removed	Laurel Oak		10	1
30220	Removed	Wild Cherry	Nuissance	11	0
30221	Removed	Laurel Oak		16	1
30222	Removed	Cedar		22	1
30223	Removed	Sugarberry		11	1
30224	Removed	Pine		15	0
30225	Removed	Pine		13	0
30226	Removed	Pine		12	0
30227	Removed	Pine		9	0
30228	Removed	Pine		14	0
30229	Removed	Pine		13	0
30230	Removed	Pine		13	0
30231	Removed	Pine		16	0
30232	Removed	Pine		15	0
30233	Removed	Pine		35	0
30234	Removed	Sweetgum		8	0
30274	Removed	Pine		18	0
30275	Removed	Pine		11	0
30276	Removed	Pine		15	0
30277	Removed	Laurel Oak		8	0
30278	Removed	Pine		15	0
30279	Removed	Sweetgum		8	0
30280	Removed	Laurel Oak		25	1
30281	Removed	Pine		12	0
30282	Removed	Pine		15	0
30283	Removed	Pine		20	0
30284	Removed	Pine		20	0
30285	Removed	Pine		12	0
30286	Removed	Pine		14	0
30287	Removed	Pine		16	0
30288	Removed	Pine		17	0
30290	Removed	Pine		13	0
30291	Removed	Pine		15	0
30292	Removed	Pine		12	0
30293	Removed	Pine		11	0
30294	Removed	Pine		21	0
30295	Removed	Pine		10	0
30296	Removed	Pine		9	0
30297	Removed	Pine		8	0
30298	Removed	Pine		17	0
30299	Removed	Pine		20	0
30300	Removed	Sweetgum	Twin	10-10	1
30301	Removed	Sweetgum		9	0
30302	Removed	Sweetgum		11	1
30303	Removed	Pine		13	0
30304	Removed	Pine		8	0
30305	Removed	Pine		12	0
30306	Removed	Pine		12	0
30307	Removed	Pine		15	0
30308	Removed	Pine		17	0
30309	Removed	Sweetgum		9	0
30310	Removed	Sweetgum		9	0
30311	Removed	Sweetgum		8	0
30312	Removed	Sweetgum		8	0
30313	Removed	Sweetgum		11	1
30314	Removed	Pine		18	0
30315	Removed	Wild Cherry	Nuissance	10	0
30316	Removed	Pine		23	0
30318	Removed	Pine		23	0
30322	Removed	Sweetgum		14	1
30323	Removed	Water Oak		9	0
30324	Removed	Sweetgum		12	1
30325	Removed	Sweetgum		9	0
30326	Removed	Sweetgum		9	0
30327	Removed	Sweetgum		8	0
30328	Removed	Pine		17	0
30329	Removed	Pine		9	0
30330	Removed	Pine		15	0
30331	Removed	Pine		17	0
30332	Removed	Pine		18	0
30333	Removed	Pine		12	0
30334	Removed	Pine		19	0
30335	Removed	Pine		17	0
30336	Removed	Pine		16	0
30337	Removed	Pine		11	0
30338	Removed	Pine		12	0
30339	Removed	Pine		11	0
30340	Removed	Pine		11	0
30341	Removed	Pine		10	0
30342	Removed	Pine		9	0
30343	Removed	Pine		13	0
30344	Removed	Pine		17	0
30345	Removed	Pine		14	0
30346	Removed	Pine		17	0
30347	Removed	Pine		11	0
30348	Removed	Pine		15	0
30349	Removed	Pine		11	0
30350	Removed	Pine		15	0
30351	Removed	Pine		12	0
30352	Removed	Pine		19	0
30353	Removed	Pine		15	0
30354	Removed	Pine		16	0
30355	Removed	Pine		10	0
30356	Removed	Pine		10	0
30357	Removed	Pine		21	0
30358	Removed	Pine		17	0
30359	Removed	Pine		16	0
30360	Removed	Pine		17	0
30361	Removed	Pine		11	0
30362	Removed	Pine		10	0
30363	Removed	Pine		12	0
30364	Removed	Pine		10	0
30365	Removed	Pine		17	0
30366	Removed	Pine		8	0
30367	Removed	Pine		12	0
30368	Removed	Pine		13	0
30369	Removed	Pine		10	0
30370	Removed	Pine		18	0
30371	Removed	Pine		24	0
30372	Removed	Pine		10	0
30373	Removed	Pine		15	0
30374	Removed	Wild Cherry	Nuissance	19	0
30375	Removed	Pine	Twin	21-21	0
30376	Removed	Sweetgum		13	1
30377	Removed	Sweetgum		13	1
30378	Removed	Pine		27	0
30390	Removed	Water Oak		11	1
30391	Removed	Sweetgum	Twin	12-9	1
30392	Removed	Water Oak		8	0
30393	Removed	Sweetgum		10	1
30394	Removed	Pine		18	0
30395	Removed	Pine		22	0
30396	Removed	Sweetgum		12	1
30397	Removed	Water Oak		9	0
30398	Removed	Water Oak		9	0
30399	Removed	Sweetgum		9	0
30400	Removed	Sweetgum		8	0
30401	Removed	Water Oak		10	1
30402	Removed	Water Oak		14	1
30403	Removed	Sweetgum		13	1
30404	Removed	Sweetgum		12	1
30405	Removed	Water Oak		11	1
30406	Removed	Pine		16	0
30407	Removed	Pine		16	0
30408	Removed	Sweetgum		8	0
30409	Removed	Sweetgum		8	0
30410	Removed	Pine		10	0
30411	Removed	Pine		15	0
30412	Removed	Wild Cherry	Nuissance	10	0
30413	Removed	Pine		9	0
30414	Removed	Pine		14	0
30415	Removed	Pine		16	0
30416	Removed	Pine		11	0
30417	Removed	Pine		9	0
30418	Removed	Pine		21	0
30421	Removed	Pine		17	0
30427	Removed	Sweetgum		8	0
30428	Removed	Wild Cherry	Nuissance	10	0
30450	Removed	Water Oak		10	1
			Total Mitigation Required (inches):		68

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR
#1	2026-04-06	PER CITY COMMENTS	JPS	MJH
#2	2026-07-06	PER CITY COMMENTS	JPS	MJH

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032**

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SHEET TITLE: TREE MITIGATION DETAILS & CALCULATIONS

DATE: JULY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LT-03

W. STATE ROAD 235

PHASE 1 BOUNDARY

PHASE 2 BOUNDARY

APPROXIMATE LIMITS OF EXISTING TREE CANOPY, TYP.

TREE PROTECTION FENCE, TYP.

LIMITS OF UTILITY EASEMENT, TYP.

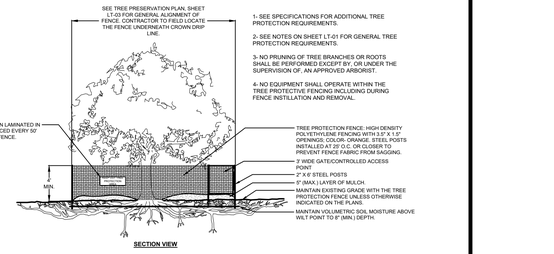
MATCHLINE TO SHEET LT-05

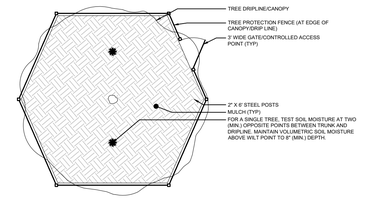
TREE AND PLANT PROTECTION LEGEND

NO/DBH/SP — POINT OF EXISTING TREE AND ESTIMATED CANOPY WITH SURVEY NUMBER (NO), TRUNK DIAMETER MEASURED AT BREAST HEIGHT (DBH) AND SPECIES (SP).

NO/DBH/SP — POINT OF TREE IDENTIFIED FOR REMOVAL WITH SURVEY NUMBER (NO), TRUNK DIAMETER MEASURED AT BREAST HEIGHT (DBH) AND SPECIES (SP).

TREE PROTECTION FENCE: PLASTIC MESH





#1 TREE PROTECTION FENCE (SINGLE TREE)

1- SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.

2- SEE NOTES ON SHEET LT-01 FOR GENERAL TREE PROTECTION REQUIREMENTS.

3- NO PRUNING OF TREE BRANCHES OR ROOTS SHALL BE PERFORMED EXCEPT BY, OR UNDER THE SUPERVISION OF, AN APPROVED ARBORIST.

4- NO EQUIPMENT SHALL OPERATE WITHIN THE TREE PROTECTIVE FENCING INCLUDING DURING FENCE INSTILLATION AND REMOVAL.

NORTH

0 40 80 120 160 feet

1" = 40'

REVISIONS

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REGISTERED LANDSCAPE ARCHITECT MICHAEL JARED HANS LA2032 STATE OF FLORIDA

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SHEET TITLE: TREE PROTECTION AND REMOVAL PLAN

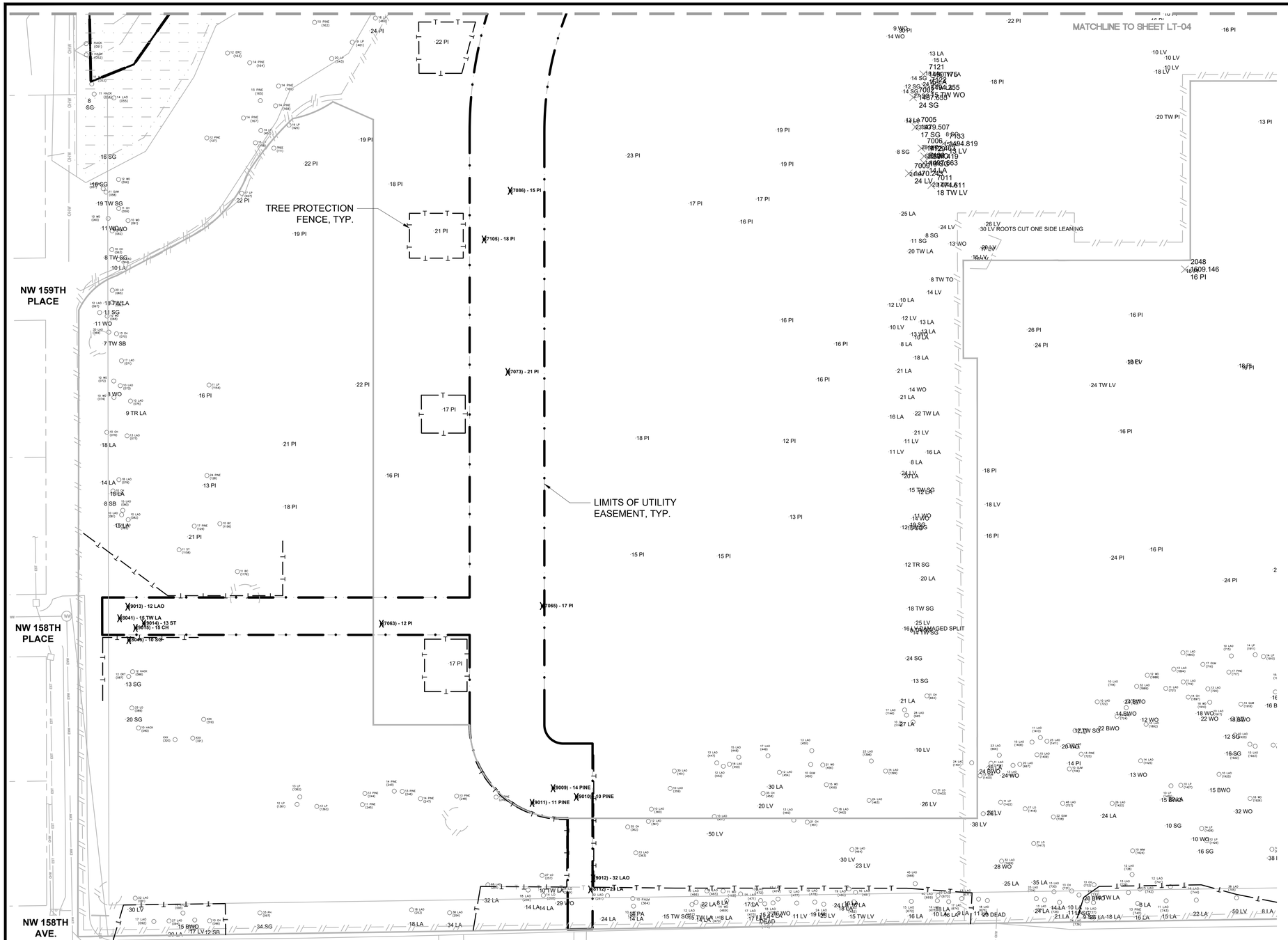
DATE: JULY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LT-04



TREE AND PLANT PROTECTION LEGEND

NO/DBH/SP — POINT OF EXISTING TREE AND ESTIMATED CANOPY WITH SURVEY NUMBER (NO), TRUNK DIAMETER MEASURED AT BREAST HEIGHT (DBH) AND SPECIES (SP).

NO/DBH/SP — POINT OF TREE IDENTIFIED FOR REMOVAL WITH SURVEY NUMBER (NO), TRUNK DIAMETER MEASURED AT BREAST HEIGHT (DBH) AND SPECIES (SP).

T — TREE PROTECTION FENCE: PLASTIC MESH

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR
#1	2026-04-06	PER CITY COMMENTS	JPS	MJH
#2	2026-07-06	PER CITY COMMENTS	JPS	MJH

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032**

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MICHAEL J. HANS, RLA ON THE DATE ADJACENT TO THE SEAL.

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SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR SOIL AMENDMENTS AND LANDSCAPE INSTALLATION:

PART I. DEFINITIONS AND BASIS OF DESIGN FOR SOIL AMENDMENT PRODUCTS.

A. DEFINITIONS: THE FOLLOWING PROVIDES SPECIFIC NOTES FOR EXISTING SOIL AND AMENDMENTS TO EXISTING SOIL PRIOR TO THE LANDSCAPE INSTALLATION. THE FOLLOWING DEFINITIONS SHALL APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:

1. ACCEPTABLE DRAINAGE: DRAINAGE RATE IS SUFFICIENT FOR THE PLANTS TO BE GROWN. TYPICAL RATES FOR INSTALLED PLANTING SOIL ARE BETWEEN ONE TO FIVE INCHES (1"-5") PER HOUR. IN NATURAL UNDISTURBED SOILS A MUCH LOWER DRAINAGE RATE, AS LOW AS ONE-EIGHTH INCH (1/8") PER HOUR CAN STILL SUPPORT GOOD PLANT GROWTH. WETLAND PLANTS CAN GROW ON TOP OF PERCHED WATER LAYERS OR EVEN WITHIN SEASONAL PERCHED WATER LAYERS BUT BECOME UNSTABLE IN HIGH WIND EVENTS.
2. AMENDMENT: MATERIAL INCORPORATED INTO THE SOIL TO MODIFY PROPERTIES OR FUNCTIONS, SUCH AS DRAINAGE, AGGREGATION AND SOIL STRUCTURE, WATER AND NUTRIENT RETENTION, POROSITY, INFILTRATION, DRAINAGE, AND ROOTING DEPTH. AMENDMENTS ARE CLASSIFIED AS ORGANIC OR INORGANIC.
3. AMENDMENT, INORGANIC: AMENDMENTS SUCH AS PERLITE, VERMICULITE, OR VOLCANIC GLASS USED FOR THEIR PHYSICAL AND CHEMICAL PROPERTIES; NOT BIOLOGICALLY ACTIVE.
4. AMENDMENT, NON-ORGANIC: BIOLOGICALLY ACTIVE AMENDMENTS SUCH AS MYCORRHIZAL ADDITIVES, COMPOST TEA, OR OTHER PRODUCTS.
5. CARBON DIOXIDE EVOLUTION RATE: A MEASUREMENT OF THE BIODEGRADATION RATE OF THE ORGANIC MATTER IN COMPOST BY MEASURING RESPIRATION RATE AT WHICH THE COMPOST SAMPLE IS RELEASING CARBON DIOXIDE (CO2) UNDER OPTIMIZED MOISTURE AND TEMPERATURE CONDITIONS.
6. COMPACTED SOIL: SOIL WHERE THE DENSITY OF THE SOIL IS GREATER THAT THE THRESHOLD FOR ROOT LIMITING.
7. COMPOST: WELL DECOMPOSED STABLE ORGANIC MATERIAL OF BLENDED AND GROUND LEAF, WOOD, AND OTHER PLANT BASED MATERIAL, COMPOSTED FOR A MINIMUM OF NINE (9) MONTHS AND AT TEMPERATURES SUFFICIENT TO BREAK DOWN ALL WOODY FIBERS, SEEDS AND LEAF STRUCTURES, FREE OF TOXIC MATERIAL AT LEVELS THAT ARE HARMFUL TO PLANTS OR HUMANS. SOURCE MATERIAL SHALL BE YARD WASTE TRIMMINGS BLENDED WITH OTHER PLANT OR MANURE BASED MATERIAL DESIGNED TO PRODUCE COMPOST HIGH IN FUNGAL MATERIAL.
8. COMPOST MATURITY: A PROCEDURE MEASURING A RATIO BETWEEN CARBON DIOXIDE (CO2) AND NITROGEN (N) PRODUCED BY DECOMPOSING ORGANIC MATERIAL. A C:N RATIO IS AN INDICATOR OF COMPOST STABILITY AND NITROGEN AVAILABILITY.
9. DRAINAGE: THE RATE AT WHICH SOIL WATER MOVES THROUGH THE SOIL TRANSITIONING THE SOIL FROM SATURATED CONDITION TO FIELD CAPACITY. MOST OFTEN EXPRESSED AS SATURATED HYDRAULIC CONDUCTIVITY (KSAT; UNITS ARE INCHES PER HOUR).
10. EXISTING SOIL: SURFACE SOIL IN THE AREAS DESIGNATED ON THE SOILS PLAN AS EXISTING SOIL, THAT IS NOT ALTERED, COMPACTED TO ROOT LIMITING DENSITY, GRADED OR CONTAMINATED BEFORE OR DURING THE CONSTRUCTION PROCESS AND CONSIDERED ACCEPTABLE FOR PLANTING AND LONG TERM HEALTH OF THE PLANTS SPECIFIED EITHER AS IT EXISTS OR WITH ONLY MINOR MODIFICATION.
11. FERTILIZER: INORGANIC AMENDMENT USED FOR THE PURPOSE OF ADJUSTING SOIL NUTRIENT COMPOSITION AND PH BALANCE.
12. FINE GRADING: THE FINAL GRADING OF THE SOIL TO ACHIEVE EXACT CONTOURS AND POSITIVE DRAINAGE, OFTEN ACCOMPLISHED BY HAND RAKES OR DRAG RAKES OTHER SUITABLE DEVICES.
13. FINISHED GRADE: SURFACE OR ELEVATION OF PLANTING SOIL AFTER FINAL GRADING AND TWELVE (12) MONTHS OF SETTLEMENT OF THE SOIL.
14. GRADED SOIL: SOIL WHERE THE A HORIZON HAS BEEN STRIPPED AND RELOCATED OR RE-SPREAD; CUTS AND FILLS DEEPER THAN TWELVE INCHES (12"), AND.
15. IMPORTED TOPSOIL: FERTILE, FRIABLE SOIL CONTAINING LESS THAN FIVE PERCENT (5%) TOTAL VOLUME OF THE COMBINATION OF SUBSOIL, REFUSE, ROOTS LARGER THAN ONE INCH (1") DIAMETER, HEAVY, STICKY OR STIFF CLAY, STONES LARGER THAN TWO INCHES (2") IN DIAMETER, NOXIOUS SEEDS, STICKS, BRUSH, LITTER, OR ANY SUBSTANCES DELETERIOUS TO PLANT GROWTH. THE PERCENT (%) OF THE ABOVE OBJECTS SHALL BE CONTROLLED BY SOURCE SELECTION AND NOT BY SCREENING THE SOIL.
16. INSTALLED SOIL: PLANTING SOIL AND EXISTING SITE SOIL THAT IS SPREAD AND OR GRADED TO FORM A PLANTING SOIL.
17. MINOR DISTURBANCE: MINOR GRADING AS PART OF AGRICULTURAL WORK THAT ONLY ADJUSTS THE A HORIZON SOIL, MINOR SURFACE COMPACTION IN THE TOP SIX INCHES (6") OF THE SOIL, APPLICATIONS OF FERTILIZERS, INSTALLATION OF UTILITY PIPES SMALLER THAN EIGHTEEN INCHES (18") IN DIAMETER THRU THE SOIL ZONE.
18. MIXED SOIL: MIXES OF EXISTING SOIL OR IMPORTED TOPSOIL, COARSE SAND, AND/OR COMPOST TO MAKE A NEW SOIL THAT MEETS THE PROJECT GOALS FOR THE INDICATED PLANTING AREA. THESE MIXED SOILS MAY BE MIXED OFF SITE OR ONSITE AND WILL VARY IN MIX COMPONENTS AND PROPORTIONS AS INDICATED.
19. PED: A CLUMP OR CLOD OF SOIL HELD TOGETHER BY A COMBINATION OF CLAY, ORGANIC MATTER, AND FUNGAL HYPHAE, RETAINING THE ORIGINAL STRUCTURE OF THE HARVESTED SOIL.
20. PLANTING SOIL: TOPSOIL, OR PLANTING SOIL MIXES WHICH ARE IMPORTED OR EXISTING AT THE SITE, OR MADE FROM COMPONENTS THAT EXIST AT THE SITE, OR ARE IMPORTED TO THE SITE.
21. POOR DRAINAGE: SOIL DRAINAGE THAT IS SLOWER THAN THAT TO WHICH THE PLANTS CAN ADAPT. GENERALLY, IF THE SOIL IS TURNING GREY IN COLOR, IT IS REASONABLE PREFERABLE TO EITHER TO PLANT MOISTURE ADAPTIVE PLANTS AT SMALLER SIZES THAT ARE YOUNG IN AGE WITH SHALLOW ROOT BALLS OR LOOK AT OPTIONS TO IMPROVE THE DRAINAGE
22. SCARIFY: LOOSENING AND ROUGHENING THE SURFACE OF SOIL AND SUB SOIL PRIOR TO ADDING ADDITIONAL SOIL ON TOP, AND FURTHER DEFINED IN THIS SPECIFICATION.
23. SOIL FRACTURING: DEEP LOOSENING THE SOIL TO THE DEPTHS SPECIFIED BY USING A BACKHOE.
24. SOIL HORIZONS: LAYERS OF SOIL VISIBLY SHARING PROPERTIES SUCH AS COLOR, TEXTURE, STRUCTURE, AND THICKNESS, AND SHARING TESTABLE PROPERTIES SUCH AS CHEMICAL AND MINERAL CONTENT, CONSISTENCE, AND REACTION.
25. SOIL HORIZON, 'O': LAYER OF PREDOMINATELY ORGANIC SOIL DERIVING FROM DEAD PLANT AND ANIMAL RESIDUE COMMON IN FORESTS AND GENERALLY ABSENT IN GRASSLANDS.
26. SOIL HORIZON, 'A': TOPMOST LAYER OF PREDOMINATELY MINERAL SOILS CONTAINING ENOUGH DECOMPOSED ORGANIC MATTER TO GIVE THE SOIL A DARKER COLOR THAN LOWER SOIL HORIZONS. GENERALLY REFERRED TO AS 'TOPSOIL' AND CONTAINS THE MAJORITY OF PLANT FEEDER ROOTS.
27. SOIL SALT: COMPOST SOLUBLE SALT MEASURES THE SALT CONTENT IN SOIL AND COMPOST MEASURED BY AN ELECTRICAL CONNECTIVITY TEST WITH RESULTING UNITS OF MILLIMHOS PER CENTIMETER (MMHO/CM). COMPOST SOLUBLE SALT LEVELS TYPICALLY RANGE FROM 1 TO 10 MMHOS/CM. HIGH SALINITY MAY BE TOXIC TO PLANTS. IDEAL SOLUBLE SALT LEVELS WILL DEPEND ON THE END USE OF THE COMPOST.
28. SOIL RIPPING: LOOSENING THE SOIL BY DRAGGING A RIPPING SHANK OR CHISEL THRU THE SOIL TO THE DEPTHS AND SPACING SPECIFIED.
29. SOIL TILLING: LOOSENING THE SURFACE OF THE SOIL TO THE DEPTHS SPECIFIED WITH A ROTARY TINE TILLING MACHINE, ROTO TILLER, (OR SPADE TILLER).
30. SOIL TRENCHING: CUTTING NARROW TRENCHES THRU THE SOIL AT THE DEPTHS AND SPACING SPECIFIED TO LOOSEN THE SOIL PROFILE.
31. SUBGRADE: SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER COMPLETING EXCAVATION, OR TOP SURFACE OF A FILL OR BACKFILL, BEFORE PLACING PLANTING SOIL.
32. TOPSOIL: SEE SOIL HORIZON, 'A'.
33. UNDISTURBED SOIL: SOILS WITH THE ORIGINAL 'A' HORIZON INTACT THAT HAVE NOT BEEN GRADED OR COMPACTED. SOILS MAY HAVE BEEN FARMED, SUBJECTED TO FIRE, OR LOGGED, BUT NOT GRADED.

B. BASIS OF DESIGN SOIL AMENDMENT PRODUCTS

1. IMPORTED TOPSOIL:
   a. IMPORTED TOPSOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. IMPORTED TOPSOIL SHALL NOT CONTAIN WEED SEEDS IN QUANTITIES THAT CAUSE NOTICEABLE WEED INFESTATIONS IN THE FINAL PLANTING BEDS.
   b. IMPORTED TOPSOIL SHALL BE A HARVESTED SOIL FROM FIELDS OR DEVELOPMENT SITES. THE ORGANIC CONTENT AND PARTICLE SIZE DISTRIBUTION SHALL BE THE RESULT OF NATURAL SOIL FORMATION. MANUFACTURED SOILS WHERE COARSE SAND, COMPOSTED ORGANIC MATERIAL OR CHEMICAL ADDITIVES HAS BEEN ADDED TO THE SOIL TO MEET THE REQUIREMENTS OF THESE NOTES SHALL NOT BE ACCEPTABLE. RETAINED SOIL PEDS SHALL BE THE SAME COLOR ON THE INSIDE AS IS VISIBLE ON THE OUTSIDE.
   c. IMPORTED TOPSOIL FOR PLANTING SOIL SHALL NOT HAVE BEEN SCREENED AND SHALL RETAIN SOIL PEDS OR CLODS LARGER THAN TWO INCHES (2") IN DIAMETER THROUGHOUT THE STOCKPILE AFTER HARVESTING.
2. COMPOST:
   a. COMPOST SHALL BE COMMERCIALLY PREPARED BY AN STA-CERTIFIED PRODUCER WHICH WILL PROVIDE A CURRENT TEST RESULT OF THEIR PRODUCT.
   b. A LIST OF STA-CERTIFIED COMPOST PRODUCERS CAN BE FOUND ONLINE AT <https://www.compostingcouncil.org/page/participants>.
      1) THE BASIS OF DESIGN PRODUCER IS INDIANHEAD BIOMASS, 2020 COUNTY ROAD 214, SAINT AUGUSTINE, FLORIDA, 32084-9210.
      2) THE POINT OF CONTACT IS JOE WILLIAMS AT (904) 806-0187.
   c. COMPOST SHALL COMPLY WITH THE FOLLOWING PARAMETERS:
      1) PH VALUE: 5.5 TO 8.0
      2) SOIL SALT (ELECTRICAL CONDUCTIVITY): MAX FIVE (5) DS/M (MMHOS/CM)
      3) MOISTURE CONTENT PERCENT (WET WEIGHT BASIS): THIRTY-SIXTY (30-60)
      4) PARTICLE SIZE (DRY WEIGHT BASIS): NINETY-EIGHT PERCENT (98%) PASS THROUGH THREE-QUARTER INCH (3/4") SCREEN OR SMEAR TEST.
      5) STABILITY CARBON DIOXIDE EVOLUTION RATE: LESS THAN TWO (<2) MG CO2-C/G OM/DAY.
      6) MATURITY TEST: GREATER THAN SIX (>6)
      7) PHYSICAL CONTAMINANTS (INERTS), %, DRY WEIGHT BASIS: LESS THAN ONE PERCENT (<1%).
      8) CHEMICAL CONTAMINANTS PER U.S. ENVIRONMENTAL PROTECTION AGENCY CLASS A STANDARD, 40 CFR §503.13, TABLES 1 AND 3 LEVELS.
      9) BIOLOGICAL CONTAMINANTS (SELECT PATHOGENS FECAL COLIFORM BACTERIA, OR SALMONELLA) PER U.S. EPA CLASS A STANDARD, 40 CFR § 503.32(A) LEVEL REQUIREMENTS.
   ☐ d. SUBMIT A ONE-HALF (1/2) GALLON SAMPLE FROM ALL COMPOST SOURCES WITH MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.
3. COARSE SAND
   a. COARSE SANDS SHALL BE CLEAN, SHARP, NATURAL COARSE SANDS FREE OF LIMESTONE, SHALE AND SLATE PARTICLES. MANUFACTURED COARSE SAND SHALL NOT BE PERMITTED.
      1) PH VALUE SHALL BE LOWER THAN 7.0.
   b. PROVIDE COARSE SAND WITH THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

SIEVE	PERCENT PASSING
3/8 INCH (9.5 MM)	100%
NO. 4 (4.75 MM)	95-100%
NO. 8 (2.36 MM)	80-100%
NO. 16 (1.18 MM)	50-85%
NO. 30 (0.60 MM)	25-60%
NO. 50 (0.30 MM)	10-30%
NO. 100 (0.15 MM)	2-10%
NO. 200 (0.75 MM)	2-5%

   ☐ c. SUBMIT A ONE-HALF (1/2) GALLON SAMPLE FROM ALL COARSE SAND SOURCES WITH MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.
4. LIME
   a. AGRICULTURAL LIMESTONE CONTAINING A MINIMUM EIGHTY PERCENT (80%) CALCIUM CARBONATE EQUIVALENT AND AS FOLLOWS:
   b. CLASS T WITH A MINIMUM NINETY-NINE PERCENT (99%) PASSING THROUGH NO. 8 (2.36-MM) SIEVE AND A MINIMUM SEVENTY-FIVE PERCENT (75%) PASSING THROUGH NO. 60 (0.25-MM) SIEVE.
   c. PROVIDE LIME IN FORM OF DOLOMITIC LIMESTONE.
   ☐ d. SUBMIT MANUFACTURER'S LITERATURE AND MATERIAL CERTIFICATION THAT THE PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT.
5. EXISTING SOIL
   a. PROTECT EXISTING SOIL FROM COMPACTION, CONTAMINATION, AND DEGRADATION DURING THE CONSTRUCTION PROCESS.
   b. UNLESS OTHERWISE INSTRUCTED, REMOVE ALL EXISTING PLANTS, ROOT THATCH, AND NON-SOIL DEBRIS FROM THE SURFACE OF THE SOIL USING EQUIPMENT THAT DOES NOT INCREASE COMPACTION OF SOIL TO ROOT LIMITING LEVELS.
   c. USE EXISTING SOIL SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. EXISTING SOIL SHALL NOT CONTAIN WEED SEEDS IN QUANTITIES THAT CAUSE NOTICEABLE WEED INFESTATIONS IN THE FINAL PLANTING BEDS.
   d. THE CONTRACTOR SHALL PAY FOR THE COLLECTION, SHIPPING, AND SUBMISSION OF THE EXISTING SOIL FOR TESTING BASED ON LOCATIONS IDENTIFIED IN THE LANDSCAPE ARCHITECTURAL DRAWINGS.
      1) THE BASIS OF DESIGN FOR SOIL TESTING IS PROVIDED THROUGH THE UNIVERSITY OF FLORIDA/INSTITUTE FOR FOOD AND AGRICULTURAL STUDIES (UF/IFAS) AGRICULTURAL EXTENSION SOIL TESTING LABORATORY, OR OTHER RECOGNIZED LABORATORY. A MAP OF TESTING LABORATORIES IS ONLINE AT: <https://sfyl.ifas.ufl.edu/find-your-local-office/>.
      2) THE BASIS OF DESIGN SOIL TEST IS THE UF/IFAS LANDSCAPE AND VEGETABLE GARDEN TEST FORM AVAILABLE ONLINE AT <https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf>.
         a) SELECT TEST "B".
   e. EXISTING SOIL SHALL BE TESTED BEFORE THE INSTALLATION OF THE IRRIGATION SYSTEM AND WITH ENOUGH TIME TO RECEIVE RESULTS TO AMEND SOILS AND INSTALL THE LANDSCAPING.
   f. THE TEST SHALL PROVIDE RESULTS FOR THE FOLLOWING:
      1) SOIL PH
      2) LIME REQUIREMENT
      3) MINERAL CONTENT (P, K, CA, MG, S, CU, MN, and ZN)
   g. IF THE CONTRACTOR STOCKPILES THE EXISTING TOPSOIL, THEN SUBMIT SAMPLES FOR TESTING AFTER DISTRIBUTING IT AROUND THE PROJECT SITE TO CONFIRM IT MEETS THE ABOVE CRITERIA AND IS ACCEPTABLE FOR USE.
   ☐ 1) THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN TO THE LANDSCAPE ARCHITECT FOR DISTRIBUTING AND TESTING THE STOCKPILED EXISTING SOIL.
   ☐ h. SUBMIT COPIES OF ALL SOIL TEST REPORT(S) OF EXISTING SOILS LISTED ABOVE TO THE LANDSCAPE ARCHITECT.
6. MIXED SOILS FOR PLANTING
   a. MIXED SOILS FOR TREES AND SHRUB BEDS SHALL BE DESIGNED FOR MODERATELY SLOW DRAINING.
      1) MIXED SOILS SHALL COMPRISE A COMBINATION OF IMPORTED TOPSOIL, COARSE SAND, AND COMPOST. THE APPROXIMATE MIX SHALL BE:

MIX COMPONENT	PERCENT BY MOIST VOLUME
IMPORTED TOP SOIL UNSCREENED	45-50%
COARSE SAND	40-45%
COMPOST	10%

   b. MIX THE COARSE SAND AND COMPOST TOGETHER FIRST AND THEN ADD TO THE TOPSOIL. MIX WITH A LOADER BUCKET TO LOOSELY INCORPORATE THE TOPSOIL INTO THE COARSE SAND/COMPOST MIX. DO NOT OVER MIX BY USING A SOIL BLENDING MACHINE. DO NOT SCREEN THE SOIL. CLUMPS OF SOIL, COMPOST, AND COARSE SAND WILL BE PERMITTED IN THE OVERALL MIX.
7. CHEMICAL ADJUSTMENT
   a. ADD ANY REQUIRED FERTILIZER AT RATES RECOMMENDED BY THE SOIL TEST RESULTS.
   ☐ 1) THE CONTRACTOR SHALL SUBMIT A WRITTEN DESCRIBING QUANTITIES AND APPLICATION METHODS FOR ADDING FERTILIZERS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
      2) AT FINAL GRADING, TILL SURFACE SOIL DOWN TO SIX INCHES (6") OR GREATER AFTER CHEMICAL ADJUSTMENTS HAVE BEEN APPLIED.
8. TUBULAR SOIL SAMPLER
   a. FOR SOIL TESTS, USE A TUBULAR SOIL SAMPLER (SOIL PROBE) PROVIDING FOR A SAMPLE MINIMUM OF SIX INCHES (6") IN DEPTH AND ONE-HALF INCH (1/2") IN DIAMETER.
   b. MODEL 013T, ITEM #76971, BY FORESTRY SUPPLIERS <https://www.forestry-suppliers.com/p/76971/43231/tubular-soil-sampler>, OR APPROVED EQUIVALENT.
9. SOIL COMPACTION TESTER
   a. FOR ASSESSING SOIL COMPACTION, USE A SPONTON® DIGITAL SOIL COMPACTION METER.
   b. MODEL 29360, AVAILABLE THROUGH FORESTRY SUPPLIERS <https://gemplers.com/products/spoton-digital-soil-compaction-meter>, OR APPROVED EQUIVALENT
   ☐ c. SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
10. DELIVERY, STORAGE, AND HANDLING OF SOIL AMENDMENT PRODUCTS
   a. DO NOT MIX, DELIVER, PLACE OR GRADE SOILS WHEN FROZEN OR WITH MOISTURE ABOVE FIELD CAPACITY (I.E. DURING RAIN EVENTS).
   b. PROTECT SOIL AND SOIL STOCKPILES, INCLUDING THE STOCKPILES AT THE SOIL BLENDER'S YARD, FROM WIND, RAIN AND WASHING THAT CAN ERODE SOIL OR SEPARATE FINES AND COARSE MATERIAL, AND CONTAMINATION BY CHEMICALS, DUST AND DEBRIS THAT MAY BE DETRIMENTAL TO PLANTS OR SOIL DRAINAGE. COVER STOCKPILES WITH PLASTIC SHEETING OR FABRIC AT THE END OF EACH WORKDAY.
   c. ALL MANUFACTURED PACKAGED PRODUCTS AND MATERIAL SHALL BE DELIVERED TO THE SITE IN UNOPENED CONTAINERS AND STORED IN A DRY ENCLOSED SPACE SUITABLE FOR THE MATERIAL AND MEETING ALL ENVIRONMENTAL REGULATIONS. BIOLOGICAL ADDITIVES SHALL BE PROTECTED FROM EXTREME COLD AND HEAT. ALL PRODUCTS SHALL BE FRESHLY MANUFACTURED AND DATED FOR THE YEAR IN WHICH THE PRODUCTS ARE TO BE USED.
   d. DELIVER ALL CHEMICAL AMENDMENTS IN ORIGINAL, UNOPENED CONTAINERS WITH ORIGINAL LABELS INTACT AND LEGIBLE, WHICH STATE THE GUARANTEED CHEMICAL ANALYSIS. STORE ALL CHEMICALS IN A WEATHER PROTECTED ENCLOSURE.

PART II. AMENDING SOIL

A. SITE PREPARATION

1. EXCAVATE TO THE PROPOSED SUBGRADE. MAINTAIN ALL REQUIRED ANGLES OF REPOSE OF THE ADJACENT MATERIALS AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY THIS SPECIFICATION. DO NOT OVER EXCAVATE COMPACTED SUBGRADES OF ADJACENT PAVEMENT OR STRUCTURES. MAINTAIN A SUPPORTING ONE-TO-ONE (1:1) RATIO SIDE SLOPE OF COMPACTED SUBGRADE MATERIAL ALONG THE EDGES OF ALL PAVING AND STRUCTURES WHERE THE BOTTOM OF THE PAVING OR STRUCTURE IS ABOVE THE BOTTOM ELEVATION OF THE EXCAVATED PLANTING AREA.
2. REMOVE ALL CONSTRUCTION DEBRIS AND MATERIAL INCLUDING ANY CONSTRUCTION MATERIALS FROM THE SUBGRADE.
3. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND COMPACTED AS REQUIRED. SUBGRADE ELEVATIONS SHALL SLOPE APPROXIMATELY PARALLEL TO THE FINISHED GRADE AND/OR TOWARD THE SUBSURFACE DRAIN LINES AS SHOWN ON THE DRAWINGS.
4. IN AREAS WHERE PLANTING SOIL IS TO BE SPREAD, CONFIRM SUBGRADE HAS BEEN SCARIFIED.
5. PROTECT ADJACENT WALLS, WALKS AND UTILITIES FROM DAMAGE OR STAINING BY THE SOIL. USE ONE-HALF INCH (1/2") PLYWOOD AND OR PLASTIC SHEETING TO COVER EXISTING CONCRETE, METAL AND MASONRY WORK, AND OTHER INSTALLED ITEMS.
   a. AT THE END OF EACH WORKING DAY, CLEAN OFF ANY SOIL SPILLED ON ANY PAVED SURFACE.

B. PLANTING SOIL

1. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING FOR FURNISHING, DELIVERY, AND INSTALLATION OF PLANTING SOIL AND/OR THE MODIFICATION OF EXISTING SITE SOIL FOR USE AS PLANTING SOIL.
   a. LOCATE, PURCHASE, DELIVER AND INSTALL IMPORTED PLANTING SOIL AND SOIL AMENDMENTS.
   b. HARVEST AND STOCKPILE EXISTING SITE SOILS SUITABLE FOR PLANTING SOIL.
   c. MODIFY EXISTING STOCKPILED SITE SOIL.
      1) MODIFY EXISTING SITE SOIL IN PLACE FOR USE AS PLANTING SOIL.
      2) INSTALL EXISTING OR MODIFIED EXISTING SOIL FOR USE AS PLANTING SOIL.
   d. LOCATE, PURCHASE, DELIVER AND INSTALL SUBSURFACE DRAIN LINES.
   e. FINE GRADE PLANTING SOIL.
   f. INSTALL COMPOST INTO PLANTING SOIL.
2. IMPORTED PLANTING TOP SOILS AND HARVESTED EXISTING SITE SOILS SHALL BE TESTED PRIOR TO DELIVERY BY THE UNIVERSITY OF FLORIDA/INSTITUTE FOR FOOD AND AGRICULTURAL STUDIES (UF/IFAS) ANALYTICAL SERVICES LABORATORIES, ATTN: EXTENSION SOIL TESTING LABORATORY, 2390 MOWRY ROAD/PO BOX 110740/WALLACE BUILDING 631, GAINESVILLE, FLORIDA 32611-0740.
   a. IMPORTED PLANTING TOP SOILS SHALL BE TESTED AT THEIR SOURCE PRIOR TO DELIVERY AND APPLICATION.
   b. STOCKPILED EXISTING SITE SOIL SHALL BE TESTED PRIOR TO APPLICATION
3. PROVIDE A MINIMUM OF 1-1/2 CUP SAMPLE FROM A HOLE DUG SIX INCHES (6") INTO THE GRADE, OR USE A SOIL PROBE TO TAKE A MINIMUM SIX-INCH-DEEP (6") AND ONE-HALF INCH (1/2") DIAMETER SAMPLE.
   a. PLACE THE SAMPE IN A ZIP-LOCK BAG AND ALLOW IT TO DRY BEFORE SEALING AND SHIPPING TO UF/IFAS.
   b. COMPLETE THE LANDSCAPE AND VEGETABLE GARDEN TEST FORM AVAILABLE ONLINE AT <https://edis.ifas.ufl.edu/pdffiles/SS/SS18700.pdf>.
      1) SELECT TEST "B".
      2) THE TEST SHALL PROVIDE RESULTS FOR THE FOLLOWING:
         a) SOIL PH
         b) LIME REQUIREMENT
         c) MINERAL CONTENT (P, K, CA, MG, S, CU, MN, and ZN)
☐ c. PROVIDE COPIES OF THE TEST RESULTS FOR IMPORTED PLANTING TOP SOILS AND HARVESTED EXISTING SITE SOILS TO THE LANDSCAPE ARCHITECT.

C. SOIL MOISTURE

1. PRIOR TO, DURING, AND AFTER PLANTING, THE CONTRACTOR SHALL MAINTAIN VOLUMETRIC SOIL MOISTURE LEVEL, IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, AT ABOVE PERMANENT WILT POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE: WITHIN THE FOLLOWING RANGES.

SOIL TYPE	PERMANENT WILT POINT	FIELD CAPACITY
SAND, LOAMY SAND, SANDY LOAM	5-8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14-25%	27-36%
CLAY LOAM, SILT LOAM	11-22%	31-36%
SILTY CLAY, SILTY CLAY LOAM	22-27%	38-41%

   a. IF THE MOISTURE IS FOUND TO BE TOO LOW, THE PLANTING HOLES SHALL BE FILLED WITH WATER AND ALLOWED TO DRAIN BEFORE STARTING ANY PLANTING OPERATIONS. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

D. PLANTING SOIL AND PLANTING SOIL MIX INSTALLATION

☐ 1. THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FIVE (5) BUSINESS DAYS PRIOR TO INSTALLING ANY SOILS FOR PLANTING.
   a. PRIOR TO INSTALLING ANY PLANTING SOIL FROM STOCKPILES OR PLANTING SOIL MIXES BLENDED OFF SITE, THE LANDSCAPE ARCHITECT SHALL APPROVE THE CONDITION OF THE SUBGRADE AND THE PREVIOUSLY INSTALLED SUBGRADE PREPARATION.
2. ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE PLANTING SOILS SHALL BE WIDE TRACK OR BALLOON TIRE MACHINES RATED WITH A GROUND PRESSURE OF FOUR (4) PSI OR LESS. ALL GRADING AND SOIL DELIVERY EQUIPMENT SHALL HAVE BUCKETS EQUIPPED WITH SIX INCH (6") LONG TEETH TO SCARIFY ANY SOIL THAT BECOMES COMPACTED.
3. IN AREAS OF SOIL INSTALLATION ABOVE EXISTING SUBSOIL, SCARIFY THE SUBGRADE MATERIAL PRIOR TO INSTALLING PLANTING SOIL.
   a. SCARIFY THE SUBSOIL OF THE SUBGRADE TO A DEPTH OF THREE TO SIX INCHES (3" TO 6") WITH THE TEETH OF THE BACKHOE OR LOADER BUCKET, TILLER, OR OTHER SUITABLE DEVICE.
   b. IMMEDIATELY INSTALL THE PLANTING SOIL. PROTECT THE LOOSENED AREA FROM TRAFFIC. DO NOT ALLOW THE LOOSENED SUBGRADE TO BECOME COMPACTED.
   c. IN THE EVENT THAT THE LOOSENED AREA BECOMES OVERLY COMPACTED, LOOSEN THE AREA AGAIN PRIOR TO INSTALLING THE PLANTING SOIL.
4. INSTALL THE PLANTING SOIL IN LIFTS OF EIGHTEEN INCH (12" TO 18") LIFTS TO THE REQUIRED DEPTHS. APPLY COMPACTING FORCES TO EACH LIFT AS REQUIRED TO ATTAIN THE REQUIRED COMPACTION. SCARIFY THE TOP OF EACH LIFT PRIOR TO ADDING MORE PLANTING SOIL BY DRAGGING THE TEETH OF A LOADER BUCKET OR BACKHOE ACROSS THE SOIL SURFACE TO ROUGHEN THE SURFACE.
5. PHASE WORK SUCH THAT EQUIPMENT TO DELIVER OR GRADE SOIL DOES NOT HAVE TO OPERATE OVER PREVIOUSLY INSTALLED PLANTING SOIL. WORK IN ROWS OF LIFTS THE WIDTH OF THE EXTENSION OF THE BUCKET ON THE LOADER. INSTALL ALL LIFTS IN ONE ROW BEFORE PROCEEDING TO THE NEXT. WORK OUT FROM THE FURTHEST PART OF EACH BED FROM THE SOIL DELIVERY POINT TO THE EDGE OF THE EACH BED AREA.
6. WHERE POSSIBLE PLACE LARGE TREES FIRST AND FILL PLANTING SOIL AROUND THE ROOT BALL.
7. INSTALLING SOIL WITH SOIL OR MULCH BLOWERS OR SOIL SLINGERS SHALL NOT BE PERMITTED DUE TO THE OVER MIXING AND SOIL PED BREAKDOWN CAUSE BY THIS TYPE OF EQUIPMENT.
8. WHERE TRAVEL OVER INSTALLED SOIL IS UNAVOIDABLE, LIMIT PATHS OF TRAFFIC TO REDUCE THE IMPACT OF COMPACTION IN PLANTING SOIL. EACH TIME EQUIPMENT PASSES OVER THE INSTALLED SOIL IT SHALL REVERSE OUT OF THE AREA ALONG THE SAME PATH WITH THE TEETH OF THE BUCKET DROPPED TO SCARIFY THE SOIL.
9. THE DEPTHS AND GRADES SHOWN ON THE DRAWINGS ARE THE FINAL GRADES AFTER SETTLEMENT AND SHRINKAGE OF THE COMPOST MATERIAL. THE CONTRACTOR SHALL INSTALL THE PLANTING SOIL AT A HIGHER LEVEL TO ANTICIPATE THIS REDUCTION OF PLANTING SOIL VOLUME. A MINIMUM SETTLEMENT OF APPROXIMATELY TEN TO FIFTEEN PERCENT (10% TO 15%) OF THE SOIL DEPTH IS EXPECTED. ALL GRADE INCREASES ARE ASSUMED TO BE AS MEASURED PRIOR TO THE ADDITION OF SURFACE COMPOST TILL LAYER, MULCH, OR SOD.

E. COMPACTION REQUIREMENTS FOR INSTALLED OR MODIFIED PLANTING SOIL

1. EXISTING SOIL THAT IS MODIFIED BY TILLING, RIPPING, OR FRACTURING SHALL HAVE A DENSITY TO THE DEPTH OF THE MODIFICATION, AFTER COMPLETION OF THE LOOSENING, SUCH THAT A PENETROMETER READS APPROXIMATELY SEVENTY-FIVE TO TWO-HUNDRED AND FIFTY (75 TO 250) PSI AT SOIL MOISTURE APPROXIMATELY THE MID-POINT BETWEEN WILTING POINT AND FIELD CAPACITY. THIS WILL BE APPROXIMATELY BETWEEN SEVENTY-FIVE AND EIGHTY-TWO PERCENT (75% AND 82%) OF MAXIMUM DRY DENSITY STANDARD PROCTOR.
2. INSTALLED PLANTING SOIL MIX AND RE-SPREAD EXISTING SOIL SHALL HAVE A SOIL DENSITY THROUGH THE REQUIRED DEPTH OF THE INSTALLED LAYERS OF SOIL, SUCH THAT THE PENETROMETER READS APPROXIMATELY SEVENTY-FIVE TO TWO-HUNDRED AND FIFTY (75 TO 250) PSI AT SO

SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR SOIL AMENDMENTS AND LANDSCAPE INSTALLATION (CONTINUED):

PART III. DEFINITIONS AND BASIS OF DESIGN FOR LANDSCAPE PRODUCTS.

A. DEFINITIONS: THE FOLLOWING PROVIDES SPECIFIC NOTES FOR VEGETATIVE (A.K.A. LANDSCAPE) INSTALLATION. THE FOLLOWING DEFINITIONS SHALL APPLY TO THESE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS:

1. BOXED TREES: A CONTAINER ROOT BALL PACKAGE MADE OF WOOD IN THE SHAPE OF A FOUR-SIDED BOX.
2. CALIPER: TRUNK CALIPER (A.K.A. TRUNK DIAMETER) IS MEASURED SIX INCHES (6") FROM THE GROUND ON TREES UP TO AND INCLUDING FOUR INCHES (4") IN CALIPER, AND TWELVE INCHES (12") ABOVE THE GROUND FOR LARGER TREES.
3. CLEAR TRUNK: AS APPLIED TO PALM TREES, A MEASUREMENT FROM THE TOP OF THE ROOT BALL TO THE POINT WHERE THE LOWEST UNTRIMMED LEAF'S PETIOLE DIVERGES FROM THE TRUNK.
4. CONTAINER PLANT: PLANTS THAT ARE GROWN IN AND/OR ARE CURRENTLY IN A CONTAINER INCLUDING BOXED TREES.
5. DEFECTIVE PLANT: ANY PLANT THAT FAILS TO MEET THE PLANT QUALITY REQUIREMENT OF THESE LANDSCAPE ARCHITECTURAL NOTES, PLAN AND DETAIL DRAWINGS.
6. DIAMETER AT BREAST HEIGHT (DBH): DIAMETER OF A TREE TRUNK AT BREAST HEIGHT, CONSIDERED FOUR-AND-ONE-HALF FOOT (4½') FROM THE GROUND. USED TO MEASURE EXISTING TREES ON A PROJECT SITE; THIS IS NOT AN APPROPRIATE METHOD FOR MEASURING NURSERY TREES.
7. DRIP LINE: IMAGINARY LINE DEFINED BY THE BRANCH SPREAD OF A SINGLE OR GROUP OF PLANTS PROJECTED ONTO THE GROUND; SPECIFICALLY APPLIED TO TREES.
8. FIELD GROWN TREES OF BALLED AND BURLAPPED (B&B): TREES GROWING IN FIELD SOIL FOR AT LEAST TWELVE (12) MONTHS PRIOR TO HARVEST.
9. FLORIDA-FRIENDLY LANDSCAPING (FFL)™: A FLORIDA-WIDE PROGRAM, BASED ON FLORIDA STATUTE 373.185, OF NINE (9) PRINCIPALS PROMOTING SUSTAINABLE ALTERNATIVES TO CONVENTIONAL LANDSCAPING, PROVIDING GUIDANCE ON LOW IMPACT, ENVIRONMENTALLY FRIENDLY, SCIENCE-BASED LANDSCAPE PRACTICES THAT USE LESS WATER AND REDUCE POLLUTANT LOADING TO STATE WATERS.
10. HARDENED OFF FIELD GROWN TREE: ROOTS GROWING THROUGH BURLAP INDICATE TREE HAS OVERCOME STRESS ASSOCIATED WITH DIGGING THE TREE. THIS TREE WILL NOT DIE DUE TO THE STRESS ASSOCIATED WITH DIGGING. IF THIS TREE DIES IN THE LANDSCAPE, IT IS THE RESPONSIBILITY OF THE PURCHASER OF THE TREE, NOT THE NURSERY.
11. HEALTHY: PLANTS THAT ARE GROWING IN A CONDITION THAT EXPRESSES LEAF SIZE, CROWN DENSITY, COLOR; AND WITH ANNUAL GROWTH RATES TYPICAL OF THE SPECIES AND CULTIVAR'S HORTICULTURAL DESCRIPTION, ADJUSTED FOR THE PLANTING SITE SOIL, DRAINAGE, AND WEATHER CONDITIONS.
12. INVASIVE PLANT: PLANT SPECIES, GENERALLY ALIEN TO THE STATE OF FLORIDA, WHOSE INTRODUCTION OR CONTINUED CULTIVATION DOES, OR IS LIKELY, TO CAUSE ECONOMIC OR ENVIRONMENTAL HARM OR HARM TO HUMAN HEALTH.
13. KINKED ROOT: A ROOT WITHIN THE ROOT PACKAGE THAT BENDS MORE THAN NINETY (90) DEGREES.
14. LANDSCAPE MAINTENANCE: ACTIONS THAT PRESERVE THE HEALTH OF PLANTS AFTER INSTALLATION AND AS DEFINED IN THIS SPECIFICATION.
15. MULCH: CAN BE WOOD CHIPS, BARK, STRAW, PINE NEEDLES, LEAVES, NON-ORGANIC SUBSTANCES, AND SHREDDED RUBBER APPLIED TO THE SOIL SURFACE AROUND PLANTS TO CREATE A FAVORABLE ENVIRONMENT FOR GROWTH BY RETAINING MOISTURE, SUPPRESSING WEEDS, REGULATING TEMPERATURE, AND ENRICHING SOIL.
16. MULCH, PINE STRAW: MULCH MADE FROM THE FRESH, UNDECOMPOSED PINE NEEDLES RAKED FROM A FOREST FLOOR.
17. MULCH, WOOD: MULCH MADE FROM GROUND TREES AND WOODY BRUSHES.
18. NORMAL: THE PREVAILING PROTOCOL OF INDUSTRY STANDARD(S).
19. REASONABLE AND REASONABLY: WHEN USED IN THIS SPECIFICATION RELATIVE TO PLANT QUALITY, IT IS INTENDED TO MEAN THAT THE CONDITIONS CITED WILL NOT AFFECT THE ESTABLISHMENT OR LONG-TERM STABILITY, HEALTH, OR GROWTH OF THE PLANT. THESE NOTES RECOGNIZES THAT NURSERIES CANNOT PRODUCE PLANTS FREE OF ALL DEFECTS, BUT THAT SOME ACCEPTED INDUSTRY PROTOCOLS AND STANDARDS RESULT IN PLANTS UNACCEPTABLE TO THIS PROJECT.
    a. WHEN REASONABLE OR REASONABLY IS USED IN RELATION TO OTHER ISSUES SUCH AS WEEDS, DISEASED, INSECTS, IT SHALL MEAN AT LEVELS LOW ENOUGH THAT NO TREATMENT WOULD BE REQUIRED WHEN APPLYING RECOGNIZED INTEGRATED PLANT MANAGEMENT PRACTICES.
    b. THESE NOTES RECOGNIZE SOME DECISIONS CANNOT BE TOTALLY BASED ON MEASURED FINDINGS AND THAT PROFESSIONAL JUDGMENT IS REQUIRED. IN CASES OF DIFFERING OPINION, THE LANDSCAPE ARCHITECT SHALL DETERMINE WHEN CONDITIONS ARE JUDGED AS REASONABLE.
20. REGENERATED PALMS: PALMS THAT HAVE BEEN COLLECTED/DUG AND MAINTAINED UNTIL NEW WHITE OR CREAMED COLORED ROOT GROWTH IS VISIBLE AROUND A MINIMUM OF SEVENTY-FIVE PERCENT (75%) OF THE PERIMETER OF THE ROOT BALL. THE NEW ROOTS ARE HELD WITHIN A CONTAINMENT BARRIER. ROOTS WHICH PENETRATE OR ESCAPE THE BARRIER CANNOT BE INCLUDED IN THIS PERCENTAGE.
21. ROOT BALL: THE MASS OF ROOTS INCLUDING ANY SOIL OR SUBSTRATE THAT IS SHIPPED WITH THE TREE WITHIN THE ROOT BALL PACKAGE.
22. ROOT BALL PACKAGE: THE MATERIAL THAT SURROUNDS THE ROOT BALL DURING SHIPPING. THE ROOT PACKAGE MAY INCLUDE THE MATERIAL IN WHICH THE PLANT WAS GROWN, OR NEW PACKAGING PLACED AROUND THE ROOT BALL FOR SHIPPING.
23. ROOT COLLAR (ROOT CROWN, ROOT FLARE, TRUNK FLARE, FLARE): THE REGION AT THE BASE OF THE TRUNK WHERE THE MAJORITY OF THE STRUCTURAL ROOTS JOIN THE PLANT STEM, USUALLY AT OR NEAR GROUND LEVEL.
24. SHRUB: WOODY PLANTS WITH A MATURE HEIGHT OF APPROXIMATELY LESS THAN FIFTEEN FEET (15').
25. SPADE HARVESTED AND TRANSPLANTED: FIELD GROWN TREES THAT ARE MECHANICALLY HARVESTED AND IMMEDIATELY TRANSPLANTED TO THE FINAL GROWING SITE WITHOUT BEING REMOVED FROM THE DIGGING MACHINE.
26. STEM: THE TRUNK OF THE TREE.
27. SUBSTANTIAL COMPLETION ACCEPTANCE: THE DATE AT THE END OF THE PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION WHERE THE LANDSCAPE ARCHITECT ACCEPTS THAT ALL WORK IN THESE SECTIONS IS COMPLETE AND THE WARRANTY PERIOD HAS BEGUN. THIS DATE MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.
28. STEM GIRDLING ROOT: ANY ROOT MORE THAN ONE-QUARTER INCH (¼") DIAMETER CURRENTLY TOUCHING THE TRUNK, OR WITH THE POTENTIAL TO TOUCH THE TRUNK, ABOVE THE ROOT COLLAR APPROXIMATELY TANGENT TO THE TRUNK CIRCUMFERENCE OR CIRCLING THE TRUNK. ROOTS SHALL BE CONSIDERED AS STEM GIRDLING THAT HAVE, OR ARE LIKELY TO HAVE IN THE FUTURE, ROOT TO TRUNK BARK CONTACT.
29. STRUCTURAL ROOT: ONE OF THE LARGEST ROOTS EMERGING FROM THE ROOT COLLAR.
30. TREE: SINGLE AND MULTI-STEMMED PLANTS WITH MATURE HEIGHT APPROXIMATELY GREATER THAN FIFTEEN FEET (15').
31. TREE, CANOPY: A TREE WITH A NORMAL OVERALL HEIGHT AT MATURITY OF THIRTY FEET (30') OR MORE.
32. TREE, CHAMPION: TREES IDENTIFIED BY THE FLORIDA DIVISION OF FORESTRY AS BEING THE LARGEST OF THEIR SPECIES WITHIN THE STATE OF FLORIDA, OR, BY THE AMERICAN FORESTRY ASSOCIATION, AS THE LARGEST OF THEIR SPECIES IN THE UNITED STATES.
33. TREE, HERITAGE: A REGULATED TREE WHOSE GROWTH (RECORDED BY DBH) REACHES A THRESHOLD TO QUALIFY IT, IF REMOVED, FOR ADDITIONAL MITIGATION.
34. TREE, MITIGATION: ONE OR MORE TREES SHOWN ON THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS REQUIRED TO REPLACE, IN QUANTITY AND/OR SIZE, TREES CUT DOWN FOR CONSTRUCTION.
35. TREE, NUISANCE: A SPECIES OF TREE A MUNICIPALITY DECLARES UNDESIRABLE. BY BEST PRACTICE, NUISANCE TREES ARE NOT CONSIDERED REGULATED TREES AND, THEREFORE, DO NOT REQUIRE MITIGATION IN THE FORM OF FEE OR REPLACEMENT.
36. TREE, REGULATED: SURVEY TREE WHOSE GROWTH (RECORDED BY DBH) REACHES A THRESHOLD TO QUALIFY IT, IF REMOVED, FOR MITIGATION, USUALLY IN THE FORM OF FEE OR NEW TREE PLANTINGS.
37. TREE, SURVEY: TREE RECORDED ON A TREE SURVEY WITH LOCATION, DBH, AND SPECIES.
38. TREE, UNDERSTORY: A TREE WITH A NORMAL HEIGHT AT MATURITY LESS THAN THIRTY FEET (30') AND GRATER THAN FIFTEEN FEET (15').

B. BASIS OF DESIGN LANDSCAPE PRODUCTS

1. PLANTS: GENERAL
    a. THE CONTRACTOR SHALL PROVIDE PLANTS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OR CULTIVARS AS SHOWN AND SCHEDULED IN THE LANDSCAPE ARCHITECTURAL PLAN AND DETAIL DRAWINGS.
    b. ALL PLANTS SHALL CONFORM TO THE LATEST EDITIONS OF THE *FLORIDA GRADES AND STANDARDS FOR NURSERY STOCK* AND *ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK* UNLESS MODIFIED BY PROVISIONS IN THESE NOTES, DETAILS, AND DRAWINGS.
    c. QUALITY PLANTS ARE OF HEALTHY STOCK, GROWN IN A NURSERY, AND REASONABLY FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. AT THE TIME OF PLANTING ALL PLANTS SHALL HAVE A ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY, AND HEALTH FOR THE EXPECTED LIFE OF THE PLANT.
    d. PLANTS LARGER THAN SPECIFIED MAY BE USED IF ACCEPTABLE TO THE LANDSCAPE ARCHITECT. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE, BUT LARGER PLANTS WILL BE UNACCEPTABLE IF THE RESULTING ROOT BALL CANNOT BE FIT INTO THE REQUIRED PLANTING SPACE.
    e. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE. THE MEASUREMENTS SPECIFIED ARE THE MINIMUM AND MAXIMUM SIZE ACCEPTABLE AND ARE THE MEASUREMENTS AFTER PRUNING, WHERE PRUNING IS REQUIRED.
    f. ALL PLANTS SHALL BE TRUE TO NAME AS ORDERED OR SHOWN ON PLANTING PLANS.
    g. ALL TREES SHALL COMPLY WITH FEDERAL AND STATE LAWS AND REGULATIONS REQUIRING OBSERVATION FOR PLANT DISEASE, PESTS, AND WEEDS. OBSERVATION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT OF PLANTS.
2. PLANTS: QUALITY ABOVE THE SOIL LINE
    a. PLANTS SHALL BE HEALTHY WITH THE COLOR, SHAPE, SIZE AND DISTRIBUTION OF TRUNK, STEMS, BRANCHES, BUDS AND LEAVES NORMAL TO THE PLANT TYPE SPECIFIED. TREE QUALITY ABOVE THE SOIL LINE SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS, TREE GRADE FLORIDA FANCY OR FLORIDA #1, AND THE FOLLOWING:
        1) TREES SHALL HAVE ONE CENTRAL LEADER. IF THE LEADER WAS HEADED, A NEW LEADER (WITH A LIVE TERMINAL BUD) AT LEAST ONE-HALF THE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT.
            a) ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS.
        2) ALL GRAFT UNIONS, WHERE APPLICABLE, SHALL BE COMPLETELY CLOSED WITHOUT THE VISIBLE SIGN OF GRAFT REJECTION. ALL GRAFTS SHALL BE VISIBLE ABOVE THE SOIL LINE.
        3) TRUNK CALIPER AND TAPER SHALL BE SUFFICIENT SO THAT THE LOWER FIVE FEET (5') OF THE TRUNK REMAINS VERTICAL WITHOUT A STAKE. AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT LEADER IN THE UPPER HALF OF THE TREE.
    b. CROWN: THE FORM AND DENSITY OF THE CROWN SHALL BE TYPICAL FOR A YOUNG SPECIMEN OF THE SPECIES OR CULTIVAR PRUNED TO A CENTRAL AND DOMINANT LEADER.
        1) CROWN SPECIFICATIONS DO NOT APPLY TO PLANTS THAT HAVE BEEN SPECIFICALLY TRAINED IN THE NURSERY AS TOPIARY, ESPALIER, MULTI-STEM, CLUMP, OR UNIQUE SELECTIONS SUCH AS CONTORTED OR WEEPING CULTIVARS.
    c. LEAVES: THE SIZE, COLOR, AND APPEARANCE OF LEAVES SHALL BE TYPICAL FOR THE TIME OF YEAR AND STAGE OF GROWTH OF THE SPECIES OR CULTIVAR. TREES SHALL NOT SHOW SIGNS OF PROLONGED MOISTURE STRESS OR OVER WATERING AS INDICATED BY WILTED, SHRIVELED, OR DEAD LEAVES.
    d. BRANCHES: SHOOT GROWTH (LENGTH AND DIAMETER) THROUGHOUT THE CROWN SHOULD BE APPROPRIATE FOR THE AGE AND SIZE OF THE SPECIES OR CULTIVAR. TREES SHALL NOT HAVE DEAD, DISEASED, BROKEN, DISTORTED, OR OTHERWISE INJURED BRANCHES.
        1) MAIN BRANCHES SHALL BE DISTRIBUTED ALONG THE CENTRAL LEADER NOT CLUSTERED TOGETHER. THEY SHALL FORM A BALANCED CROWN APPROPRIATE FOR THE CULTIVAR/SPECIES.
        2) BRANCH DIAMETER SHALL BE NO LARGER THAN TWO-THIRDS (ONE-HALF IS PREFERRED) THE DIAMETER OF THE CENTRAL LEADER MEASURED ONE-INCH (1") ABOVE THE BRANCH UNION.
        3) THE ATTACHMENT OF THE LARGEST BRANCHES (SCAFFOLD BRANCHES) SHALL BE FREE OF INCLUDED BARK.
    e. TRUNK: THE TREE TRUNK SHALL BE RELATIVELY STRAIGHT, VERTICAL, AND FREE OF WOUNDS THAT PENETRATE TO THE WOOD (PROPERLY MADE PRUNING CUTS, CLOSED OR NOT, ARE ACCEPTABLE AND ARE NOT CONSIDERED WOUNDS), SUNBURNED AREAS, CONKS (FUNGAL FRUITING BODIES), WOOD CRACKS, SAP LEAKAGE, SIGNS OF BORING INSECTS, GALLS, CANKERS, GIRDLING TIES, OR LESIONS (MECHANICAL INJURY).
    f. TEMPORARY BRANCHES, UNLESS OTHERWISE SPECIFIED, CAN BE PRESENT ALONG THE LOWER TRUNK BELOW THE LOWEST MAIN (SCAFFOLD) BRANCH, PARTICULARLY FOR TREES LESS THAN ONE INCH (1") IN CALIPER. THESE BRANCHES SHOULD BE NO GREATER THAN THREE-EIGHTHS INCH (3/8") DIAMETER. CLEAR TRUNK SHOULD BE NO MORE THAN FORTY PERCENT (40%) OF THE TOTAL HEIGHT OF THE TREE.
3. PLANTS: QUALITY AT OR BELOW THE SOIL LINE
    a. PLANT ROOTS SHALL BE NORMAL TO THE PLANT TYPE SPECIFIED. ROOT OBSERVATIONS SHALL TAKE PLACE WITHOUT IMPACTING TREE HEALTH. ROOT QUALITY AT OR BELOW THE SOIL LINE SHALL COMPLY WITH THE PROJECT ROOT ACCEPTANCE DETAILS AND THE FOLLOWING:
        1) THE ROOTS SHALL BE REASONABLY FREE OF SCRAPES, BROKEN OR SPLIT WOUND.
        2) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF INJURY FROM BIOTIC (E.G., INSECTS AND PATHOGENS) AND ABIOTIC (E.G., HERBICIDE TOXICITY AND SALT INJURY) AGENTS. WOUNDS RESULTING FROM ROOT PRUNING USED TO PRODUCE A HIGH-QUALITY ROOT SYSTEM ARE NOT CONSIDERED INJURIES.
        3) A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK (NOT CLUSTERED ON ONE SIDE) SHALL BE FOUND IN EACH PLANT. ROOT DISTRIBUTION SHALL BE UNIFORM THROUGHOUT THE ROOT BALL, AND GROWTH SHALL BE APPROPRIATE FOR THE SPECIES.
        4) PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK (J ROOTS) SHALL BE REJECTED.
        5) THE ROOT COLLAR SHALL BE WITHIN THE UPPER TWO INCHES (2") OF THE SUBSTRATE/SOIL. TWO (2) STRUCTURAL ROOTS SHALL REACH THE SIDE OF THE ROOT BALL NEAR THE TOP SURFACE OF THE ROOT BALL. THE GROWER MAY REQUEST A MODIFICATION TO THIS REQUIREMENT FOR SPECIES WITH ROOTS THAT RAPIDLY DESCEND, PROVIDED THAT THE GROWER REMOVES ALL STEM GIRDLING ROOTS ABOVE THE STRUCTURAL ROOTS ACROSS THE TOP OF THE ROOT BALL.
        6) THE ROOT SYSTEM SHALL BE REASONABLY FREE STEM GIRDLING ROOTS OVER THE ROOT COLLAR OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES.
        7) THE FINAL PLANT GROWER SHALL BE RESPONSIBLE TO HAVE DETERMINED THAT THE PLANTS HAVE BEEN ROOT PRUNED AT EACH STEP IN THE PLANT PRODUCTION PROCESS TO REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS, OR THAT THE PREVIOUS PRODUCTION SYSTEM USED PRACTICES THAT PRODUCE A ROOT SYSTEM THROUGHOUT THE ROOT BALL THAT MEETS THESE SPECIFICATIONS. REGARDLESS OF THE WORK OF PREVIOUS GROWERS, THE PLANT'S ROOT SYSTEM SHALL BE MODIFIED AT THE FINAL PRODUCTION STAGE, IF NEEDED, TO PRODUCE THE REQUIRED PLANT ROOT QUALITY.
        8) AT TIME OF OBSERVATIONS AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED, DISCOLORED, DISTORTED, OR DEAD ROOTS.
    ☐ b. THE CONTRACTOR SHALL SUBMIT THE FINAL PLANT GROWER'S PLANT QUALITY CERTIFICATIONS FOR EACH PLANT TYPE TO THE LANDSCAPE ARCHITECT. THE CERTIFICATION MUST STATE THAT EACH PLANT MEETS ALL THE ABOVE PLANT QUALITY REQUIREMENTS.
        1) THE GROWER'S CERTIFICATION OF PLANT QUALITY DOES NOT PROHIBIT THE LANDSCAPE ARCHITECT FROM OBSERVING ANY PLANT OR REJECTING THE PLANT IF IT IS FOUND TO NOT MEET THE SPECIFICATION REQUIREMENTS.
4. ROOT BALL PACKAGE OPTIONS. SPECIFIC ROOT BALL PACKAGES SHALL BE REQUIRED WHERE INDICATED ON THE PLANT LIST OR IN THIS SPECIFICATION. ANY TYPE OF ROOT BALL PACKAGES THAT IS NOT SPECIFICALLY DEFINED IN THESE NOTES OR DRAWINGS SHALL NOT BE PERMITTED. THE FOLLOWING ROOT BALL PACKAGES ARE PERMITTED:
    a. BALLED AND BURLAPPED PLANTS
        1) ALL BALLED AND BURLAPPED PLANTS SHALL BE FIELD GROWN, AND THE ROOT BALL PACKAGED IN A BURLAP AND TWINE AND/OR BURLAP AND WIRE BASKET PACKAGE.
        2) PLANTS SHALL BE HARVESTED WITH THE FOLLOWING MODIFICATIONS TO STANDARD NURSERY PRACTICES.
        3) PRIOR TO DIGGING ANY TREE THAT FAILS TO MEET THE REQUIREMENT FOR MAXIMUM SOIL AND ROOTS ABOVE THE ROOT COLLAR, CAREFULLY REMOVED THE SOIL FROM THE TOP OF THE ROOT BALL OF EACH PLANT, USING HAND TOOLS, WATER OR AN AIR SPADE, TO LOCATE THE ROOT COLLAR AND ATTAIN THE SOIL DEPTH OVER THE STRUCTURAL ROOTS REQUIREMENTS. REMOVE ALL STEM GIRDLING ROOTS ABOVE THE ROOT COLLAR. CARE MUST BE EXERCISED NOT TO DAMAGE THE SURFACE OF THE ROOT COLLAR AND THE TOP OF THE STRUCTURAL ROOTS.
        4) TREES SHALL BE DUG FOR A MINIMUM OF FOUR (4) WEEKS AND A MAXIMUM OF FIFTY-TWO (52) WEEKS PRIOR TO SHIPPING. TREES DUG FOUR TO FIFTY-TWO (4 TO 52) WEEKS PRIOR TO SHIPPING ARE DEFINED AS HARDENED OFF. DIGGING IS DEFINED AS CUTTING ALL ROOTS AND LIFTING THE TREE OUT OF THE GROUND AND EITHER MOVING IT TO A NEW LOCATION IN THE NURSERY OR PLACING IT BACK INTO THE SAME HOLE. TREES THAT ARE STORED OUT OF THE GROUND SHALL BE PLACED IN A HOLDING AREA PROTECTED FROM EXTREMES OF WIND AND SUN WITH THE ROOT BALL PROTECTED BY COVERING WITH MULCH OR STRAW AND IRRIGATED SUFFICIENTLY TO KEEP MOISTURE IN THE ROOT BALL ABOVE WILT POINT AND BELOW SATURATION
        5) IF WIRE BASKETS ARE USED TO SUPPORT THE ROOT BALL, A "LOW PROFILE" BASKET SHALL BE USED. A LOW-PROFILE BASKET IS DEFINED AS HAVING THE TOP OF THE HIGHEST LOOPS ON THE BASKET NO LESS THAN FOUR-INCHES (4") AND NO GREATER THAN EIGHT-INCHES (8") BELOW THE SHOULDER OF THE ROOT BALL PACKAGE.
            a) AT NURSERIES WHERE SANDY SOILS PREVENT THE USE OF "LOW PROFILE BASKETS", BASKETS THAT SUPPORT THE ENTIRE ROOT BALL, INCLUDING THE TOP, ARE ALLOWABLE.
        6) TWINE AND BURLAP USED FOR WRAPPING THE ROOT BALL PACKAGE SHALL BE NATURAL, BIODEGRADABLE MATERIAL. IF THE BURLAP DECOMPOSES AFTER DIGGING THE TREE, THEN THE ROOT BALL SHALL BE RE-WRAPPED PRIOR TO SHIPPING IF ROOTS HAVE NOT YET GROWN TO KEEP ROOT BALL INTACT DURING SHIPPING.
    c. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS
        1) CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE LANDSCAPE ARCHITECT.
        2) PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE CONTAINERS.
5. PALMS
    a. STANDARDS FOR PREPARING PALMS FOR TRANSPLANTING AND ESTABLISHMENT VARY BY SPECIES. GENERALLY, IN PREPARING PALM TREES FOR RELOCATION, ONLY REMOVE FRONDS THAT ARE COMPLETELY BROWN AND THAT HANG BELOW THE NINE (9) 'O'CLOCK OR THREE (3) 'O'CLOCK POSITION.
        1) ALL FRONDS CAN BE REMOVED ON SABAL PALMS.
    b. ALL REMAINING FRONDS ABOVE HORIZONTAL SHALL BE LIFTED UP AND TIED TOGETHER AROUND THE CROWN IN AN UPRIGHT POSITION. UP TO TWO-THIRDS (2/3) OF THE OLDEST LIVE FRONDS CAN BE REMOVED; DO NOT TIE TOO TIGHTLY, BIND OR INJURE THE BUD. JUTE BINDER TWINE SHALL BE USED IN TYING UP THE FRONDS; WIRE WILL NOT BE PERMITTED. FRONDS SHALL BE UNTIED IMMEDIATELY AFTER PLANTING.
    c. THE CONTRACTOR SHALL NOT FREE-FALL, DRAG, ROLL OR ABUSE THE TREE OR PUT A STRAIN ON THE CROWN (BUD AREA) AT ANY TIME. A PROTECTIVE DEVICE SHALL BE USED AROUND THE TRUNK OF THE TREE WHILE LIFTING AND RELOCATING SO AS NOT TO INJURE THE BUD, OR SCAR OR SKIN THE TRUNK IN ANY WAY.
6. BELOW GROUND ANCHORAGE SYSTEMS (TREE STAPLES), TREE GUYING MATERIAL AND STAKING
    a. THE USE OF WOOD TREE STAPLES IS THE PREFERRED SYSTEM OF JBPRO FOR SECURING MOST NEWLY PLANTED TREES. METAL TREE STAPLES ARE ACCEPTABLE.
    b. BASIS OF DESIGN FOR TREE STAPLES TO BE CONSTRUCTED OF TWO-BY-TWO (2x2) DIMENSIONAL UNTREATED WOOD SECURING (USING THREE-INCH (3") LONG SCREWS) HORIZONTAL PORTIONS TO FOUR-FEET (4') LONG VERTICAL STAKES DRIVEN STRAIGHT INTO THE GROUND OUTSIDE THE ROOT BALL.
    c. THE BASIS OF DESIGN FOR TREE GUYING IS ARBOR-TIE, FLAT WOVEN POLYPROPYLENE, THREE-QUARTERS INCH (3/4") WIDE, AND NINE HUNDRED (900) POUND BREAK STRENGTH. COLOR TO BE GREEN. MANUFACTURED BY DEEP ROOT PARTNERS, L.P. OR APPROVED EQUAL. AVAILABLE ONLINE AT <https://www.deeproot.com/products/arbortie/arbortie-green/#head>
    d. THE BASIS OF DESIGN FOR STAKING IS LODGEPOLE PINE STAKES FREE OF KNOTS AND OF DIAMETERS AND LENGTHS APPROPRIATE TO THE SIZE OF PLANT AS REQUIRED TO ADEQUATELY SUPPORT THE PLANT.
    ☐ e. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE METHOD FOR SECURING TREES, SUBMIT PRODUCT SPECIFICATIONS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
7. WOOD MULCH (PLANTING AREAS AND PATHWAYS)
    a. WOOD MULCH SHALL BE "WALK ON" GRADE (A.K.A. "PATHWAY" GRADE), COARSE, GROUND, FROM TREE AND WOODY BRUSH SOURCES. PINE BARK IS ACCEPTABLE IF IT IS SHREDDED AND MEETS THE FOLLOWING CRITERIA. THE SIZE RANGE SHALL BE A MINIMUM (LESS THAN TWENTY-FIVE PERCENT (25%) OR LESS OF VOLUME) FINE PARTICLES THREE-EIGHTHS-INCH (3/8") OR LESS IN SIZE, AND A MAXIMUM SIZE OF INDIVIDUAL PIECES (LARGEST TWENTY PERCENT (20%) OR LESS OF VOLUME) SHALL BE APPROXIMATELY ONE TO ONE-AND-ONE-HALF INCHES (1" TO 1½") IN DIAMETER AND MAXIMUM LENGTH APPROXIMATELY FOUR TO EIGHT INCHES (4" TO 8"). PIECES LARGER THAN EIGHT INCHES (8") LONG THAT ARE VISIBLE ON THE SURFACE OF THE MULCH AFTER INSTALLATION SHALL BE REMOVED. APPLY WOOD MULCH TO A DEPTH OF THREE INCHES (3") UNLESS SPECIFICALLY NOTED IN LANDSCAPE ARCHITECTURAL DETAILS.
    ☐ 1) SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL, OR
        2) SUBMIT A WOOD MULCH SAMPLE TO THE OFFICES OF JBPRO FOR LANDSCAPE ARCHITECT FOR APPROVAL IN A ONE (1) GALLON CONTAINER.
        a) BECAUSE WOOD MULCH QUALITY CAN VARY SIGNIFICANTLY BETWEEN SUPPLIERS AND REGIONS, THE CONTRACTOR MAY SUBMIT A REQUEST TO THE LANDSCAPE ARCHITECT TO DEVIATE FROM THE ABOVE REQUIREMENTS TO PROVIDE ADEQUATE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS.
8. PINE STRAW
    a. PINE STRAW MULCH SHALL BE COMPRISED OF PINE NEEDLES BETWEEN EIGHT INCHES AND SEVENTEEN INCHES (8" AND 17"). PINE STRAW MULCH SHOULD BE FREE OF PINE BARK, TWIGS, AND OTHER FOREST FLOOR DEBRIS. IN FLORIDA, PINE STRAW IS TYPICALLY GATHERED FROM LONGLEAF, SLASH, AND LOBLOLLY PINES. APPLY PINE STRAW MULCH TO A DEPTH OF THREE INCHES (3") UNLESS SPECIFICALLY NOTED IN LANDSCAPE ARCHITECTURAL DETAILS. HOWEVER, PINE STRAW MULCH READILY COMPACTS WITH TIME, AND MULTIPLE APPLICATIONS ARE NECESSARY TO ESTABLISH THE THREE INCH (3") DEPTH. MULTIPLE PINE STRAW MULCH APPLICATIONS MAY BE NECESSARY WITHIN A YEAR OF THE FIRST APPLICATION.
    ☐ 1) SUBMIT MANUFACTURER'S PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL, OR
        2) SUBMIT PINE STRAW MULCH SAMPLE TO THE OFFICES OF JBPRO FOR LANDSCAPE ARCHITECT FOR APPROVAL IN A ONE (1) GALLON CONTAINER.
        3) SUBMIT A SCHEDULE TO THE LANDSCAPE ARCHITECT FOR DELIVERING AND APPLYING FOLLOW-ON APPLICATIONS OF PINE STRAW MULCH WITHIN A YEAR OF THE FIRST APPLICATION.
9. TREE BARK PROTECTION
    a. TREE BARK PROTECTORS SHALL BE BLACK EXTRUDED RESIN MESH, FOUR INCHES (4") IN DIAMETER, FIVE FEET (5') LONG. THE BASIS OF DESIGN IS MANUFACTURED BY INDUSTRIAL NETTING, MINNEAPOLIS, MN, USA OR APPROVED EQUAL, AVAILABLE ONLINE AT <https://www.industrialnetting.com/tree-bark-protectors.html>.
    b. FASTEN THE SPLIT SIDE OF THE TREE BARK PROTECTOR TOGETHER IN THREE PLACES WITH BLACK PLASTIC TAPE.
    ☐ c. SUBMIT MANUFACTURERS' PRODUCT DATA TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
10. TREE WATERING BAGS
    a. IF IRRIGATION IS UNAVAILABLE FOR NEWLY PLANTED TREES, THE CONTRACTOR SHALL SUBMIT A PLAN FOR USING SLOW-RELEASE WATERING BAGS OR OTHER MEANS.
    b. WATER BAGS ARE ONLY FOR TREES BETWEEN ONE AND EIGHT INCHES (1" TO 8") TRUNK DIAMETER WITH BRANCHES AT LEAST TWENTY-FIVE INCHES (25") FROM THE GROUND.
    c. TREE WATERING BAGS SHOULD HOLD A MINIMUM OF TWENTY-FIVE (25) GALLONS OF WATER AND WITH A SLOW DRIP HOLE(S) WATER RELEASE SYSTEM, SPECIFICALLY DESIGNED TO WATER ESTABLISHING TREES. WATER SHOULD RELEASE OVER A SEVERAL DAY PERIOD, NOT WITHIN A FEW HOURS
    d. THE BASIS OF DESIGN FOR WATERING BAGS IS TREEGATOR® BRAND BAGS MANUFACTURED BY SPECTRUM PRODUCTS, INC., YOUNGSVILLE, NORTH CAROLINA 27596, AND AVAILABLE ONLINE AT <https://treegator.com/products/original/index.html>, OR APPROVED EQUAL.
    ☐ e. SUBMIT THE MANUFACTURER'S PRODUCT DATA FOR APPROVAL ALONG WITH A SCHEDULE FOR REFILLING THE WATERING BAGS.
    f. THE WATERING BAGS SHALL REMAIN THE PROPERTY OF THE OWNER AT THE COMPLETION OF THE WORK.
11. VOLUMETRIC SOIL MOISTURE READER
    a. THE VOLU

SUPPLEMENTAL LANDSCAPE ARCHITECT NOTES FOR SOIL AMENDMENTS AND LANDSCAPE INSTALLATION (CONTINUED):

F. INSTALLATION OF PLANTS: GENERAL

a. MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH OF THE ROOT COLLAR AND REMOVAL OF STEM GIRDLING ROOTS AND CIRCLING ROOTS MAY MAKE THE PLANT UNSTABLE OR STRESS THE PLANT TO THE POINT THAT THE LANDSCAPE ARCHITECT MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION.

b. MODIFICATIONS TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OR OTHER REQUIREMENTS RELATED TO THE PERMITTED ROOT BALL PACKAGE, SHALL NOT BE CONSIDERED AS GROUNDS TO MODIFY OR VOID ANY PLANT WARRANTY.

☐ c. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND UTILITY LINES OR OTHER BELOW GRADE FEATURES. SUBMIT A NOTIFICATION TO THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED IMMEDIATELY IN VIA TELEPHONE AND EMAIL WITH PHOTO.

d. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING. THE LANDSCAPE ARCHITECT MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES THE TREE UNSTABLE OR IF THE TREE IS UNHEALTHY.

e. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATIONS.

4. CONTAINER AND BOXED ROOT BALL SHAVING: THE OUTER SURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL BE PERFORMED USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS CAPABLE OF MAKING CLEAN CUTS ON THE ROOTS.

a. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH (1") OF ROOT MAT OR UP TO TWO INCHES (2") AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.

5. EXPOSED STEM TISSUE AFTER MODIFICATION: THE REQUIRED ROOT BALL MODIFICATIONS MAY RESULT IN STEM TISSUE THAT HAS NOT FORMED TRUNK BARK BEING EXPOSED ABOVE THE SOIL LINE. IF SUCH CONDITION OCCURS, WRAP THE EXPOSED PORTION OF THE STEM IN A PROTECTIVE WRAPPING WITH A WHITE FILTER FABRIC. SECURE THE FABRIC WITH BIODEGRADABLE MASKING TAPE. DO NOT USE STRING, TWINE, GREEN NURSERY TIES OR ANY OTHER MATERIAL THAT MAY GIRDLE THE TRUNK IF NOT REMOVED.

6. EXCAVATION OF THE PLANTING SPACE: USING HAND TOOLS OR TRACKED MINI-EXCAVATOR, EXCAVATE THE PLANTING HOLE INTO THE PLANTING SOIL TO THE DEPTH OF THE ROOT BALL MEASURED AFTER ANY ROOT BALL MODIFICATION TO CORRECT ROOT PROBLEMS, AND WIDE ENOUGH FOR WORKING ROOM AROUND THE ROOT BALL OR TO THE SIZE INDICATED ON THE DRAWING OR AS NOTED BELOW.

a. FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST TWELVE INCHES (12") OVER A DISTANCE OF MORE THAN TEN FEET (10') RADIUS FROM EACH TREE, OR FIVE FEET (5') RADIUS FROM EACH SHRUB, THE SOIL AROUND THE ROOT BALL SHALL BE LOOSENED AS DEFINED BELOW OR AS INDICATED ON THE LANDSCAPE ARCHITECTURAL DETAIL DRAWINGS.

1) THE AREA OF LOOSENING SHALL BE A MINIMUM OF THREE (3) TIMES THE DIAMETER OF THE ROOT BALL AT THE SURFACE SLOPING TO TWO (2) TIMES THE DIAMETER OF THE ROOT BALL AT THE DEPTH OF THE ROOT BALL.

2) LOOSENING IS DEFINED AS DIGGING INTO THE SOIL AND TURNING THE SOIL TO REDUCE THE COMPACTION. THE SOIL DOES NOT HAVE TO BE REMOVED FROM THE HOLE, JUST DUG, LIFTED AND TURNED. LIFTING AND TURNING MAY BE ACCOMPLISHED WITH A TRACKED MINI EXCAVATOR, OR HAND SHOVELS.

b. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSENED AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED.

c. THE MEASURING POINT FOR ROOT BALL DEPTH SHALL BE THE AVERAGE HEIGHT OF THE OUTER EDGE OF THE ROOT BALL AFTER ANY REQUIRED ROOT BALL MODIFICATION.

d. IF MOTORIZED EQUIPMENT IS USED TO DELIVER PLANTS TO THE PLANTING AREA OVER EXPOSED PLANTING BEDS OR USED TO LOOSEN THE SOIL OR DIG THE PLANTING HOLES, ALL SOIL THAT HAS BEEN DRIVEN OVER SHALL BE TILLED TO A DEPTH OF SIX INCHES (6").

7. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN TWELVE INCHES (12") OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND TAMP THE PLANTING SOIL IN LIFTS NOT TO EXCEED TWELVE INCHES (12").

8. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CENTER OF THE PLANTING HOLE. THE TREE GRAFT, IF APPLICABLE, SHALL BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE ROOT BALL.

9. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS EXCAVATED FOR THE PLANTING SPACE. SEE NOTES ON SOIL AMENDMENTS FOR REQUIREMENTS TO MODIFY THE SOIL WITHIN THE PLANTING BED.

10. BRACE ROOT BALL BY TAMPING PLANTING SOIL AROUND THE LOWER PORTION OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND THE BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS. LIGHTLY TAMP EACH LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKFILL, SUPPORT THE TREE AND ELIMINATE VOIDS. DO NOT OVER COMPACT THE BACKFILL OR USE MECHANICAL OR PNEUMATIC TAMPING EQUIPMENT. OVER COMPACTION SHALL BE DEFINED AS GREATER THAN EIGHTY-FIVE PERCENT (85%) OF MAXIMUM DRY DENSITY, STANDARD PROCTOR OR GREATER THAN TWO-HUNDRED AND FIFTY (250) PSI AS MEASURED BY A CONE PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS LOWER THAN FIELD CAPACITY.

a. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE POURED AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. IF THE SOIL IS ABOVE FIELD CAPACITY, ALLOW THE SOIL TO DRAIN TO BELOW FIELD CAPACITY BEFORE FINISHING THE PLANTING. AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.

11. WHERE INDICATED ON THE DRAWINGS, BUILD A FOUR INCH (4") HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE SAUCER.

12. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.

13. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING.

14. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.

G. PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS

1. BALLED AND BURLAPPED PLANTS

a. AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.

b. IF THE PLANT IS SHIPPED WITH A WIRE BASKET THAT DOES NOT MEET THE REQUIREMENTS OF A "LOW RISE" BASKET, REMOVE THE TOP SIX TO EIGHT INCHES (6" TO 8") OF THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE.

c. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE LANDSCAPE ARCHITECT OR CONSULTING ARBORIST.

2. CONTAINER (INCLUDES BOXED AND ABOVE-GROUND FABRIC CONTAINERS) PLANTS

a. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.

b. REMOVE THE CONTAINER.

c. PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS.

d. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS TO ROOT OBSERVATIONS DETAIL.

e. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS.

f. USING A HOSE, POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE FROM AROUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE ROOT BALL ABOVE THE TOP OF THE STRUCTURAL ROOTS.

H. GROUND COVER, PERENNIAL AND ANNUAL PLANTS

1. ENSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST TWELVE (12) HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.

2. ENSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.

3. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED. THE FIRST ROW OF ANNUAL FLOWER PLANTS SHALL BE 6 INCHES (6") FROM THE BED EDGE UNLESS OTHERWISE DIRECTED.

4. DIG PLANTING HOLES SUFFICIENTLY LARGE ENOUGH TO INSERT THE ROOT SYSTEM WITHOUT DEFORMING THE ROOTS. SET THE TOP OF THE ROOT SYSTEM AT THE GRADE OF THE SOIL.

5. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH.

a. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.

6. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.

7. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.

8. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH.

9. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

I. PALM PLANTING

1. PALM TREES SHALL BE PLACED AT GRADE MAKING SURE NOT TO PLANT THE TREE ANY DEEPER IN THE GROUND THAN THE PALM TREES ORIGINALLY STOOD.

2. THE TREES SHALL BE PLACED WITH THEIR VERTICAL AXIS IN A PLUMB POSITION.

3. ALL BACKFILL SHALL BE NATIVE SOIL EXCEPT IN CASES WHERE PLANTING IN ROCK. WATER-SETTLE THE BACK FILL.

4. DO NOT COVER ROOT BALL WITH MULCH OR TOPSOIL.

5. PROVIDE A WATERING BERM AT EACH PALM.

a. BERMS SHALL EXTEND A MINIMUM OF EIGHTEEN INCHES (18") OUT FROM THE TRUNK ALL AROUND AND SHALL BE A MINIMUM OF SIX INCHES (6") HIGH.

6. REMOVE TWINE WHICH TIES FRONDS TOGETHER AFTER PLACING PALM IN PLANTING HOLE AND SECURING IT IN THE UPRIGHT POSITION.

J. TREE STAPLING, STAKING, GUYING, AND BARK PROTECTION

1. DO NOT STAKE OR GUY TREES UNLESS THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.

a. THE LANDSCAPE ARCHITECT AND CONSULTING ARBORIST SHALL HAVE THE AUTHORITY TO REQUIRE TREES ARE STAPLED, STAKED, OR TO REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE.

b. TREES THAT REQUIRED HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE.

1) THE LANDSCAPE ARCHITECT MAY CHOOSE TO REJECT THESE TREES RATHER THAN UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE.

2. TREES THAT ARE GUYED SHALL HAVE THEIR GUYS AND STAKES REMOVED AFTER ONE FULL GROWING SEASON OR AT OTHER TIMES AS REQUIRED BY THE LANDSCAPE ARCHITECT.

☐a. THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE OWNER AND LANDSCAPE ARCHITECT FOR THE REMOVAL OF GUYS AND STAKES.

b. TREE GUYING SHALL UTILIZE THE TREE STAKING AND GUYING MATERIALS SPECIFIED. GUYING TO BE TIED IN SUCH A MANNER AS TO CREATE A MINIMUM TWELVE INCH (12") LOOP TO PREVENT GIRDLING.

c. PLANTS SHALL STAND PLUMB AFTER STAPLING, STAKING, OR GUYING UNLESS OTHERWISE SPECIFIED IN THESE DETAIL AND PLAN DRAWINGS.

d. FOR TREES PLANTED IN PLANTING MIX OVER WATERPROOFED MEMBRANE, USE DEAD MEN BURIED TWENTY-FOUR INCHES (24") TO THE TOP OF THE DEAD MAN, IN THE SOIL. TIE THE GUY TO THE DEAD MAN WITH A DOUBLE WRAP OF LINE AROUND THE DEAD MAN FOLLOWED BY A DOUBLE HALF HITCH. WHEN GUYS ARE REMOVED, LEAVE THE DEAD MEN IN PLACE AND CUT THE GUY TAPE TWELVE INCHES (12") ABOVE THE GROUND, LEAVING THE TAPE END COVERED IN MULCH.

e. STRAIGHTEN ALL TREES THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED.

f. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3. TREE BARK PROTECTORS SHALL INDICTED, AS NECESSARY, ON THESE DETAIL AND PLAN DRAWINGS.

K. INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

1. DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSPLANTING UNLESS SOIL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IS REQUIRED. APPLY CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT OR A CONSULTING ARBORIST.

2. THE CONTRACTOR SHALL APPLY CONTROLLED RELEASE FERTILIZERS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND STANDARD HORTICULTURAL PRACTICES.

L. PRUNING OF TREES AND SHRUBS

1. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS, AND THE CONTRACTOR SHALL CLEAN TOOLS, AFTER EVERY USE, IF NECESSARY, TO PREVENT THE SPREAD OF DISEASE BETWEEN TREES AND PLANTS.2. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS.

a. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.

b. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE LANDSCAPE ARCHITECT, PRESERVE OR CREATE A CENTRAL LEADER.

c. PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUNERS OR IF NEEDED, FROM A LADDER OR HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE. DO NOT CLIMB IN NEWLY PLANTED TREES. SMALL TREES CAN BE STRUCTURALLY PRUNED BY LAYING THEM OVER BEFORE PLANTING. PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPING.

d. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING THAT OCCURRED IN THE NURSERY OR AFTER.

3. NO TREE PAINT OR SEALANTS SHALL BE USED.

M. MULCHING OF PLANTS

1. APPLY THREE INCHES (3") OF MULCH OR PINE STRAW BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA.

a. INSTALL NO MORE THAN ONE INCH (1") OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO TWO INCHES (2") WHEN ABUTTING PAVEMENT.

2. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A FOUR FOOT (4') RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THESE DETAIL AND PLAN DRAWINGS.

3. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

N. PLANTING BED FINISHING

1. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.

2. SEPARATE THE EDGES OF PLANTING BEDS AND LAWN AREAS WITH A SMOOTH, FORMED EDGE CUT INTO THE TURF WITH THE BED MULCH LEVEL SLIGHTLY LOWER, ONE AND TWO INCHES (1" AND 2"), THAN THE ADJACENT TURF SOD OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.

3. BED EDGE LINES SHALL BE DEPICTED ON THE LANDSCAPE ARCHITECTURAL DETAILS AND DRAWINGS.

O. WATERING

1. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL PLANTS FROM THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR ADJUST FOR LESS WATER USING HOSES, SLOW-RELEASE WATERING BAGS, ETC. AS REQUIRED.

2. DAILY TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE THE ROOT BALL TO DETERMINE THE WATER CONTENT.

3. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT POINT AND BELOW FIELD CAPACITY.

P. CLEAN-UP

1. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK.

a. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.

2. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE LANDSCAPE ARCHITECT'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF ANY APPLICABLE WARRANTY PERIOD.

3. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER WORK AT THE SITE. D. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

Q. PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

1. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAINTAIN ALL PLANTS.

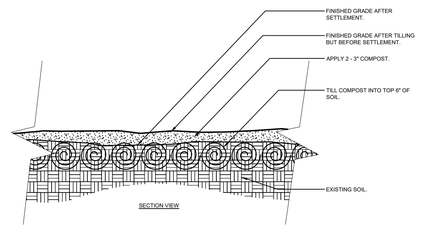
2. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAPLES AND/OR STAKES, TIGHTENING AND REPAIRING OF GUYS, REPAIRING AND REPLACING OF DAMAGED TREE WRAP MATERIAL, RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION.

a. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES.

b. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

☐ DENOTES GUIDELINES FOR CONTRACTOR SUBMITTAL TO LANDSCAPE ARCHITECT.

- - - END OF SOIL AMENDMENT AND LANDSCAPE INSTALLATION NOTES - - -



NOTES:
1- SEE PLANTING SOIL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

1 MODIFIED EXISTING SOIL - COMPACTED SURFACE SOIL
NTS

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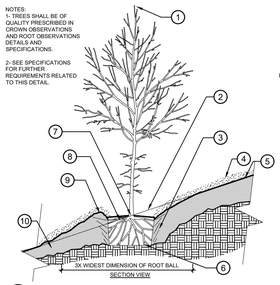
NOTES:
1- TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.

2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.



1. CENTRAL LEADER. (SEE CROWN OBSERVATIONS DETAIL).
2. ORIGINAL SLOPE SHOULD PASS THROUGH THE POINT WHERE THE TRUNK BASE MEETS SUBSTRATE/SOIL.
3. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WHEN SETTLE THE SOIL. WATER AROUND THE ROOT BALL TO.
4. 4" LAYER OF MULCH. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL. (SEE SPECIFICATIONS FOR MULCH).
5. ORIGINAL GRADE.
6. BOTTOM OF ROOT BALL RESTS ON EXISTING OR RECOMPACTED SOIL.
7. TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT EDITION FOR ROOT BALL SIZE.
8. ROOT BALL MODIFIED AS REQUIRED.
9. ROUND-TOPPED SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CENTERED ON THE DOWNHILL SIDE OF THE ROOT BALL FOR 240°. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.
10. MODIFIED SOIL. DEPTH VARIES. (SEE SOIL PREPARATION PLAN).

3 TREE ON SLOPE - UNMODIFIED SOIL SLOPE 5% (20:1) TO 50% (2:1)
NTS

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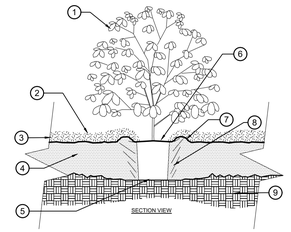

1. SHRUB
2. 4" LAYER OF MULCH. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL. (SEE SPECS FOR MULCH).
3. FINISHED GRADE.
4. MODIFIED SOIL. DEPTH VARIES. (SEE SPECS FOR SOIL MODIFICATION).
5. ROOT BALL RESTS ON EXISTING OR RECOMPACTED SOIL.
6. ROOT BALL.
7. 4" HIGH X 8" WIDE ROUND - TOPPED SOIL BERM ABOVE ROOT BALL SHALL BE CONSTRUCTED AROUND THE ROOT BALL. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.
8. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE SHRUB. DO NOT OVER COMPACT. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL.
9. EXISTING SOIL.

NOTES:
1- SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.

2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

5 SHRUB - MODIFIED SOIL
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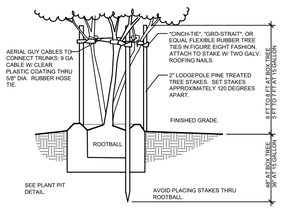
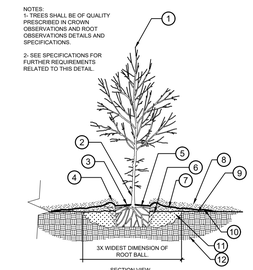


STAKING DETAIL

7 TREE PLANTING MULTI-STAKE
NTS

NOTES:
1- TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.

2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.



1. CENTRAL LEADER. (SEE CROWN OBSERVATIONS DETAIL).
2. TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT EDITION FOR ROOT BALL SIZE.
3. ROOT BALL MODIFIED AS REQUIRED.
4. ROUND-TOPPED SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CONSTRUCTED AROUND THE ROOT ALL. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.
5. ROOT BALL SURFACE SHALL BE POSITIONED TO BE ONE - QUARTER ABOVE FINISHED GRADE.
6. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL.
7. EXISTING SITE SOIL ADDED TO CREATE A SMOOTH TRANSITION FROM THE TOP OF THE RAISED ROOT BALL TO THE FINISHED GRADE AT A 15% MAX. SLOPE.
8. 4" LAYER OF MULCH. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL. (SEE SPECIFICATIONS FOR MULCH).
9. ORIGINAL GRADE.
10. FINISHED GRADE.
11. LOOSENED SOIL. DIG AND TURN THE SOIL TO REDUCE COMPACTION TO THE AREA AND DEPTH SHOWN.
12. EXISTING SOIL.

2 TREE W/ BERM (EXISTING SOIL NOT MODIFIED)
NTS

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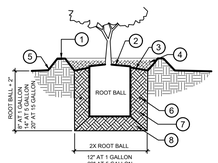
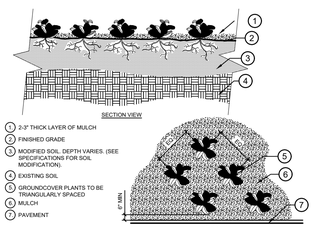


1. WATER WELL: 4" HIGH AT SHRUB, NO WATER WELL AT LAWN AREA.
2. SET ROOT BALL CROWN 1" HIGHER THAN SURROUNDING FINISHED GRADE.
3. SLOPE FINISHED GRADE AT BACKFILL AWAY FROM ROOT BALL.
4. MULCH TO 2" DEPTH AT WATER WELL.
5. FINISHED GRADE.
6. PLANT TABLETS AS NOTED OR SPECIFIED.
7. BACKFILL MIX. SEE NOTES AND SPECIFICAITONS.
8. NATIVE SOIL MIX FIRMLY COMPACTED.

12" AT 1 GALLON
22" AT 5 GALLON
32" AT 15 GALLON

4 SHRUB PLANTING
NTS



1. 2-3" THICK LAYER OF MULCH
2. FINISHED GRADE
3. MODIFIED SOIL. DEPTH VARIES. (SEE SPECIFICATIONS FOR SOIL MODIFICATION).
4. EXISTING SOIL
5. GROUNDCOVER PLANTS TO BE TRIANGULARLY SPACED
6. MULCH
7. PAVEMENT

NOTES:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2- SMALL ROOTS (1/4" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

6 GROUNDCOVER
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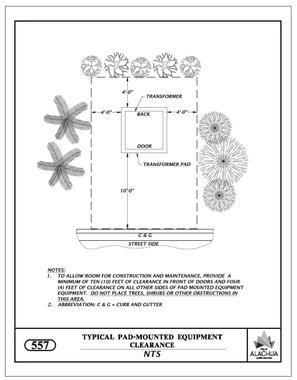
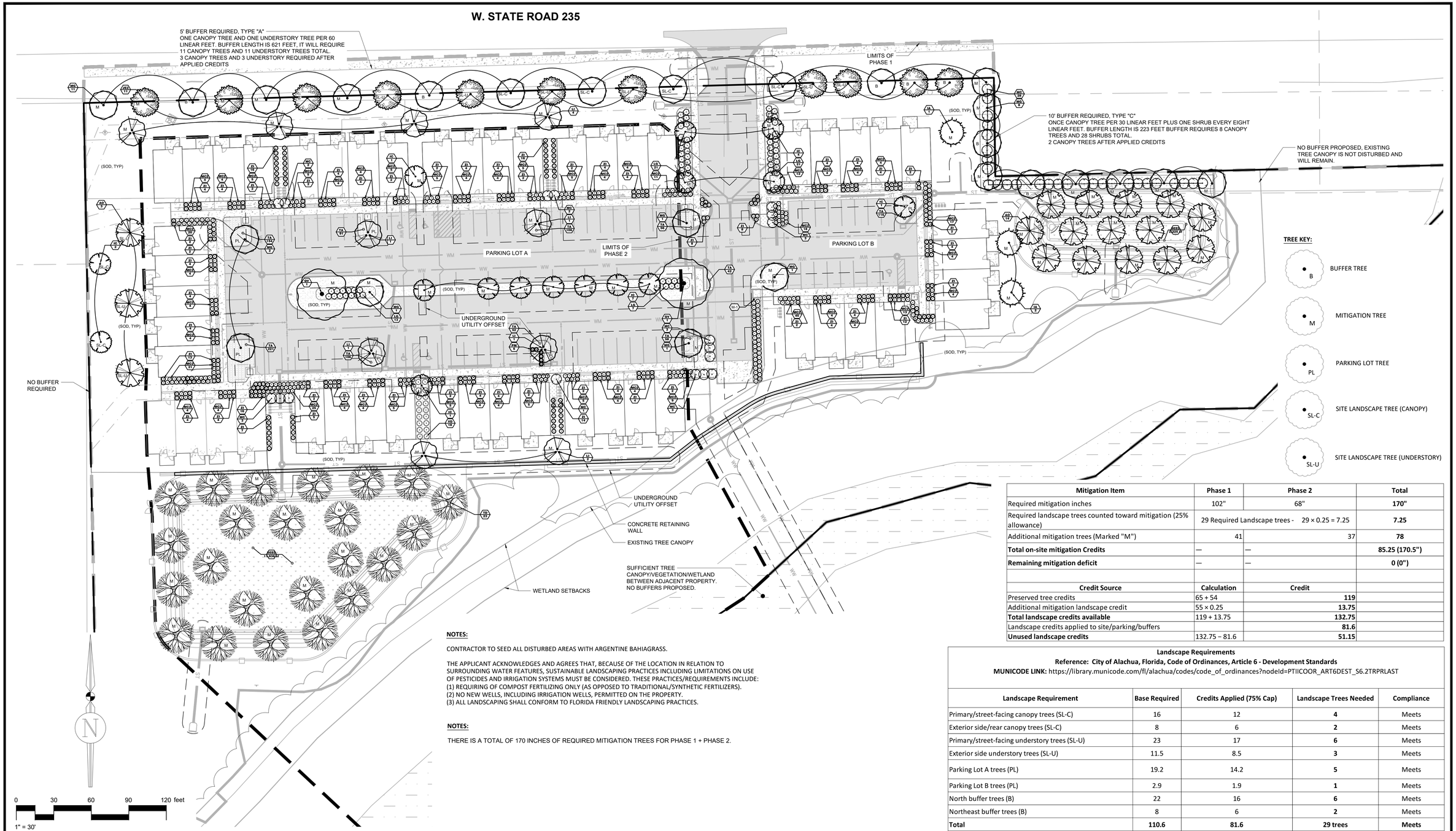


NOTES:
1. *TO ALLOW ROOM FOR CONSTRUCTION AND MAINTENANCE, PROVIDE A MINIMUM OF TEN (10) FEET OF CLEARANCE IN FRONT OF DOORS AND FOUR (4) FEET OF CLE



NOTES:

CONTRACTOR TO SEED ALL DISTURBED AREAS WITH ARGENTINE BAHIAGRASS.

THE APPLICANT ACKNOWLEDGES AND AGREES THAT, BECAUSE OF THE LOCATION IN RELATION TO SURROUNDING WATER FEATURES, SUSTAINABLE LANDSCAPING PRACTICES INCLUDING LIMITATIONS ON USE OF PESTICIDES AND IRRIGATION SYSTEMS MUST BE CONSIDERED. THESE PRACTICES/REQUIREMENTS INCLUDE:
(1) REQUIRING OF COMPOST FERTILIZING ONLY (AS OPPOSED TO TRADITIONAL/SYNTHETIC FERTILIZERS).
(2) NO NEW WELLS, INCLUDING IRRIGATION WELLS, PERMITTED ON THE PROPERTY.
(3) ALL LANDSCAPING SHALL CONFORM TO FLORIDA FRIENDLY LANDSCAPING PRACTICES.

NOTES:

THERE IS A TOTAL OF 170 INCHES OF REQUIRED MITIGATION TREES FOR PHASE 1 + PHASE 2.

Mitigation Item	Phase 1	Phase 2	Total
Required mitigation inches	102"	68"	**170"**
Required landscape trees counted toward mitigation (25% allowance)	29 Required Landscape trees -	29 × 0.25 = 7.25	**7.25**
Additional mitigation trees (Marked "M")	41	37	**78**
Total on-site mitigation Credits	—	—	**85.25 (170.5")**
Remaining mitigation deficit	—	—	**0 (0")**
Credit Source	**Calculation**	**Credit**	
Preserved tree credits	65 + 54	**119**	
Additional mitigation landscape credit	55 × 0.25	**13.75**	
Total landscape credits available	119 + 13.75	**132.75**	
Landscape credits applied to site/parking/buffers		**81.6**	
Unused landscape credits	132.75 – 81.6	**51.15**	

Landscape Requirements
Reference: City of Alachua, Florida, Code of Ordinances, Article 6 - Development Standards
MUNICODE LINK: https://library.municode.com/fl/alachua/codes/code_of_ordinances?nodeId=PTIICOOR_ART6DEST_S6.2TRPRLAST

Landscape Requirement	Base Required	Credits Applied (75% Cap)	Landscape Trees Needed	Compliance
Primary/street-facing canopy trees (SL-C)	16	12	**4**	Meets
Exterior side/rear canopy trees (SL-C)	8	6	**2**	Meets
Primary/street-facing understory trees (SL-U)	23	17	**6**	Meets
Exterior side understory trees (SL-U)	11.5	8.5	**3**	Meets
Parking Lot A trees (PL)	19.2	14.2	**5**	Meets
Parking Lot B trees (PL)	2.9	1.9	**1**	Meets
North buffer trees (B)	22	16	**6**	Meets
Northeast buffer trees (B)	8	6	**2**	Meets
Total	**110.6**	**81.6**	**29 trees**	**Meets**

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR
#1	2026-04-06	PER CITY COMMENTS	JPS	MJH
#2	2026-07-06	PER CITY COMMENTS	JPS	MJH

Michael J Hans
Digitally signed by Michael J Hans
DN: cn=Michael J Hans, o=JUS, ou=staffdesk, email=michael.hans@jbpro.com
Date: 2026.07.06 13:14:46 -04'00'

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032**

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REGISTERED LANDSCAPE ARCHITECT MICHAEL JARED HANS LA2032 STATE OF FLORIDA

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Toll Free: (844) Go-JBPro | E-mail: contact@jbpro.com

SHEET TITLE: LANDSCAPE PLAN

DATE: JULY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LP-04

PLANT SCHEDULE PHASE 1

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	CAL/HT	TREE TYPE	FL GRADE	QTY
TREES							
	AO	ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE	25 GAL. MIN.	2-IN / 10-FT (MIN.)	UNDERSTORY	FL #1	17
	IC	ILEX CASSINE / DAHOON HOLLY	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	7
	IA	ILEX OPACA / AMERICAN HOLLY	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	3
	JE2	JUNIPERUS VIRGINIANA / EASTERN REDCEDAR	25 GAL. MIN.	2-IN / 10-FT (MIN.)	UNDERSTORY	FL #1	11
	LI	LAGERSTROEMIA INDICA / CRAPE MYRTLE	25 GAL. MIN.	2-IN / 10-FT (MIN.)	UNDERSTORY	FL #1	4
	MG	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	22
	QV	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	1
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD/HEIGHT	SPACING	FL GRADE	QTY
SHRUBS							
	LG	LOROPETALUM CHINENSE / CHINESE FRINGE FLOWER	3 GAL.	2-FT	AS SHOWN	FL #1	42
	MC	MORELLA CERIFERA / WAX MYRTLE	7 GAL.	3-FT	AS SHOWN	FL #1	37
	MC2	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	1 GAL.	1-FT	AS SHOWN	FL #1	140
	ZI	ZAMIA INTEGRIFOLIA / COONTIE	3 GAL.	2-FT	AS SHOWN	FL #1	62
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	FL GRADE	QTY
GROUND COVERS							
	PA	PASPALUM NOTATUM `ARGENTINE` / ARGENTINE BAHIAGRASS	SOD	N/A	N/A	FL #1	385 SF
	SEED	PASPALUM NOTATUM 'ARGENTINE' / BAHIAGRASS	SEED	N/A	N/A	N/A	2,325 SF
	TA	TRACHELOSPERMUM ASIATICUM / ASIATIC JASMINE	1 GAL.	POT	N/A	FL #1	272

PLANT SCHEDULE PHASE 2

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	CAL/HT	TREE TYPE	FL GRADE	QTY
TREES							
	IC	ILEX CASSINE / DAHOON HOLLY	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	9
	LI	LAGERSTROEMIA INDICA / CRAPE MYRTLE	25 GAL. MIN.	2-IN / 10-FT (MIN.)	UNDERSTORY	FL #1	6
	MG	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	3
	QV	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	1
	TD	TAXODIUM DISTICHUM / BALD CYPRESS	25 GAL. MIN.	2-IN / 10-FT (MIN.)	CANOPY	FL #1	23
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD/HEIGHT	SPACING	FL GRADE	QTY
SHRUBS							
	LG	LOROPETALUM CHINENSE / CHINESE FRINGE FLOWER	3 GAL.	2-FT	AS SHOWN	FL #1	20
	MC	MORELLA CERIFERA / WAX MYRTLE	7 GAL.	3-FT	AS SHOWN	FL #1	8
	MC2	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	1 GAL.	1-FT	AS SHOWN	FL #1	205
	PM	PODOCARPUS MACROPHYLLUS / YEW PODOCARPUS	3 GAL.	2-FT	AS SHOWN	FL #1	6
	VD	VIBURNUM OBOVATUM 'DWARF WALTER'S' / DWARF WALTER'S VIBURNUM	3 GAL.	2-FT	AS SHOWN	FL #1	18
	ZI	ZAMIA INTEGRIFOLIA / COONTIE	3 GAL.	2-FT	AS SHOWN	FL #1	191
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONTAINER	SPREAD	SPACING	FL GRADE	QTY
GROUND COVERS							
	SEED	PASPALUM NOTATUM 'ARGENTINE' / BAHIAGRASS	SEED	N/A	N/A	N/A	11,936 SF
	TA	TRACHELOSPERMUM ASIATICUM / ASIATIC JASMINE	1 GAL.	POT	N/A	FL #1	730

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR
#1	2026-04-06	PER CITY COMMENTS	JPS	MJH
#2	2026-07-06	PER CITY COMMENTS	JPS	MJH

LANDSCAPE ARCHITECT OF RECORD: **MICHAEL J. HANS, R.L.A. FLORIDA LICENSE LA2032**

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SHEET TITLE: LANDSCAPE SCHEDULE

DATE: JULY 2026

PROJECT NO: 167-24-01

CLIENT: HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH
ALACHUA HABITAT

SHEET NO: LP-05

SCOPE NOTES - APPLIES TO ALL SHEETS

1.1 SCOPE OF COA/CONTRACTOR ELECTRICAL WORK: AT NO COST TO THE CITY, THE COA WILL PERFORM CERTAIN WORK ELEMENTS TO ASSIST CONTRACTOR IN CONSTRUCTING COMPLETE AND OPERATING ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

1.2 WORK DONE BY BOTH CONTRACTOR AND COA INCLUDES PRIMARY AND SECONDARY SERVICE.

1.3 CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR WORK RELATED TO THE STREET LIGHT SYSTEM.

1.4 COA WILL ORDER THE FOLLOWING PRODUCTS, WHICH SHALL BE PAID FOR BY THE CONTRACTOR: ALL PRIMARY CABLES, ALL SECONDARY CABLES, ALL TRANSFORMERS AND ALL MAKE-UP MATERIALS. ONCE ON SITE, THESE PRODUCTS WILL BE INSTALLED BY THE COA. ALL PRIMARY MAKEUP, ALL SECONDARY MAKEUP, CONNECTIONS AND TESTING WILL BE COMPLETED BY THE COA. ALL WORK DONE BY COA WILL BE BACKCHARGED TO THE CONTRACTOR.

1.5 CONTRACTOR SHALL FURNISH AND INSTALL ALL OTHER MATERIALS, INCLUDING, BUT NOT LIMITED TO ALL CONDUIT, ENCLOSURES, POLES, LUMINAIRES, TRANSFORMER PADS AND SWITCHGEAR BASES.

1.6 CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT FOR A COMPLETE UTILITY-GRADE UNDERGROUND RESIDENTIAL PRIMARY VOLTAGE DISTRIBUTION SYSTEM.

1.7 CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT FOR A COMPLETE UTILITY-GRADE UNDERGROUND RESIDENTIAL SECONDARY VOLTAGE DISTRIBUTION SYSTEM.

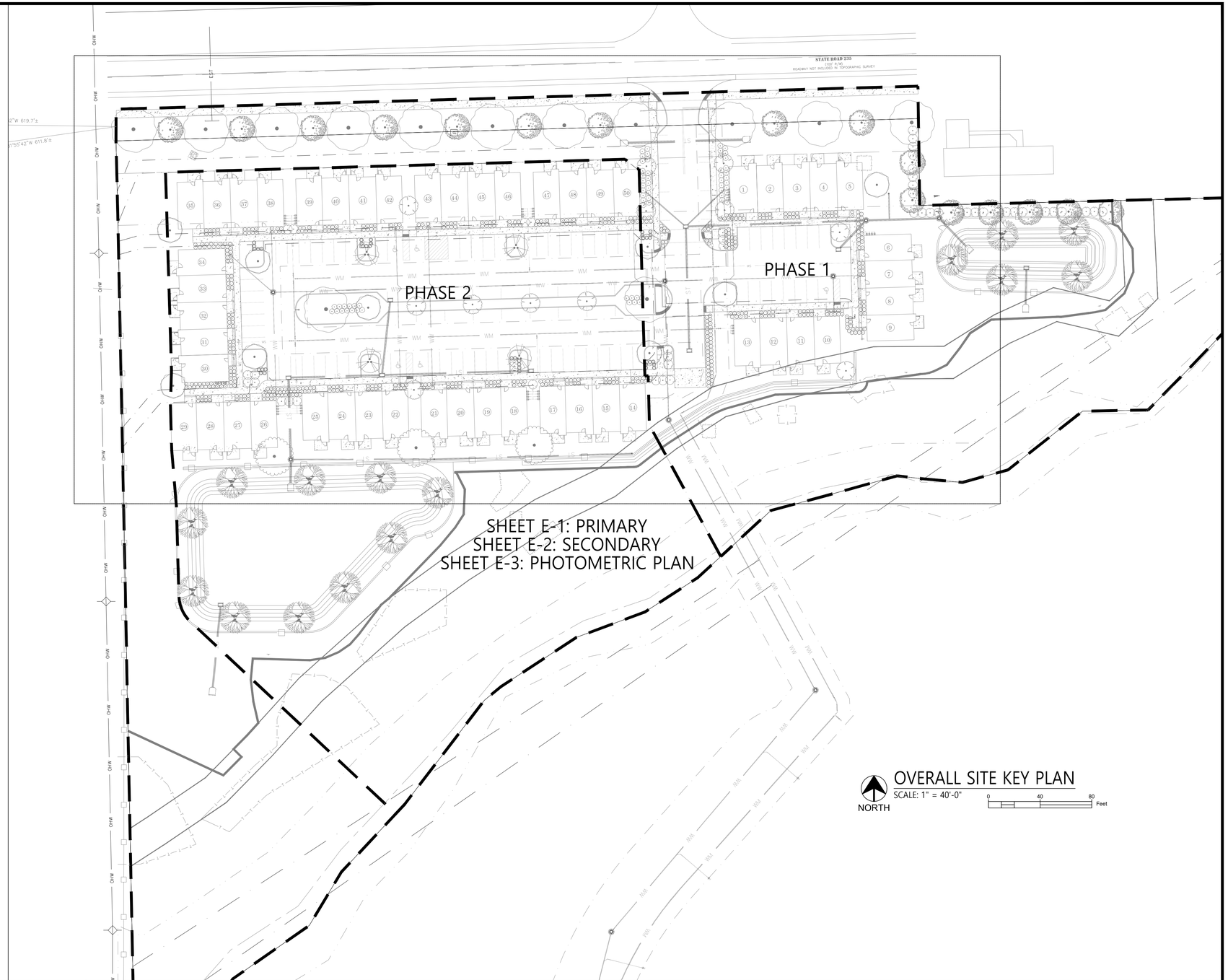
1.8 CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING, CONDUIT, POLES, LUMINAIRES AND EQUIPMENT TO CONSTRUCT A COMPLETE AND OPERATING UTILITY STREET-LIGHTING SYSTEM, WHICH WILL BE OWNED AND OPERATED BY COA.

1.9 "PROVIDE" MEANS TO FURNISH, INSTALL, CONNECT, ADJUST AND TEST, EXCEPT WHERE NOTED.

1.10 ALL PLANS AND SPECIFICATIONS MUST BE APPROVED BY THE COA ELECTRICAL DEPARTMENT PRIOR TO BID.

1.11 DEVELOPER SHALL BE BILLED FOR ALL COA LABOR AND EQUIPMENT PROCURED BY COA.

1.12 CONTRACTOR SHALL SCHEDULE AN ELECTRICAL COORDINATION MEETING AT START OF PROJECT. REQUIRED ATTENDEES INCLUDE CONTRACTOR, ELECTRICAL SUB-CONTRACTOR, ENGINEER OF RECORD, COA PROJECT MANAGER, AND COA ELECTRICAL STAFF.



OVERALL SITE KEY PLAN
SCALE: 1" = 40'-0"
0 40 80 Feet

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

Digitally signed by Kenneth W Hunter
Contact Info: FL PE #76961
Date: 2026.06.30 12:32:56-04'00'

ENGINEER OF RECORD: KENNETH W. HUNTER, P.E. FLORIDA LICENSE NO. 76961

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KENNETH W. HUNTER LICENSE No. 76961 STATE OF FLORIDA PROFESSIONAL ENGINEER

Hunter Design & CONSULTING

HUNTER DESIGN & CONSULTING
696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: **OVERALL SITE KEY PLAN**

DATE: **JUNE 2026**

PROJECT NO: **0167-25-01**

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: **E-0**

GENERAL NOTES

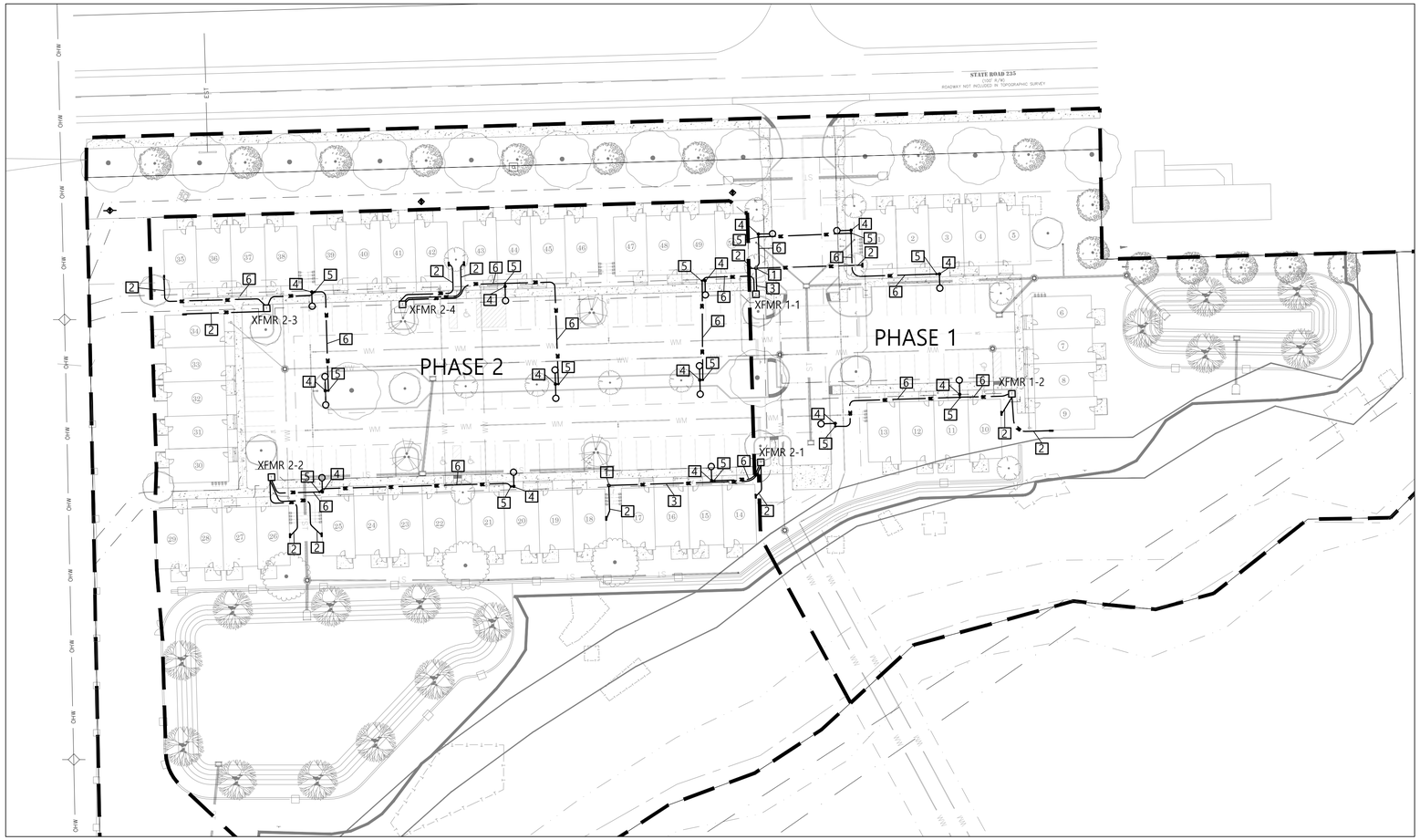
1. ALL PRIMARY SPLICES TO BE MADE WITH 15kV SUBMERSIBLE SPLICE KITS.
2. INSTALLATION SHALL BE COMPLETE TO CUSTOMER SERVICE LATERALS (BY OTHERS).
3. SEE TYPICAL CONDUIT TRENCH DETAIL FOR TRENCH REQUIREMENTS.
4. UNLESS OTHERWISE NOTED, ALL CONDUIT TO BE SCH 40 PVC.
5. PRIMARY CONDUIT ELBOWS SHALL BE LONG SWEEP ELLs, MINIMUM SIZES: 4" -> 36" RGS; 6" -> 60" RGS.
6. ENSURE THAT ALL ELECTRIC DISTRIBUTION COMPONENTS COMPLY WITH NEC AND CITY OF ALACHUA REGULATIONS, INCLUDING R.O.W. POINT OF INTERSECTION CLEAR LINE OF SITE, CLEARANCE SPECIFICATIONS FROM COMBUSTIBLE MATERIALS, VERTICAL ACCESS FOR INSTALLATION AND REMOVAL OF EQUIPMENT, WORKING SPACE, AND FIRE SAFETY REQUIREMENTS. ANY CONFLICTS OR INSTALLATIONS FAILING TO MEET NEC OR CITY REGULATIONS SHALL BE RELOCATED BY THE DEVELOPER TO A LOCATION APPROVED BY THE CITY.
7. LOT CORNERS & ROW LINE SHALL BE STAKED AND MARKED WITH FINAL GRADE AT TIME OF INFRASTRUCTURE WALK-THROUGH TO ENSURE ELECTRICAL CONNECTIONS ARE AT THE PROPER LOCATION AND ELEVATION.
8. CONDUIT SHALL NOT BE INSTALLED DEEPER THAN 48" BELOW GRADE WITHOUT APPROVAL FROM CITY OF ALACHUA.
9. CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS FOR ALL WORK WITHIN OR ON CITY OWNED AND MAINTAINED FACILITIES, ROW, OR EASEMENTS. AS-BUILT PLANS SHALL BE PER FDOT STANDARDS AND PROCEDURES AND BE PERFORMED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER.
10. ALL CABLES MUST BE TAGGED AND NUMBERED.
11. REFER TO CIVIL DRAWINGS FOR ALL ELEVATIONS AND GRADING.

PLAN NOTES

1	PROVIDE 22.5" X 14.5" X 17"D SECONDARY PEDESTAL. PROVIDE 6" GRAVEL BASE FOR ENCLOSURE. SEE DETAIL 503 SHEET E-5, AND APPROVED MATERIALS PAGE EE-6.00 SHEET E-6.
2	SECONDARY SERVICE LATERAL TO METER CENTER BY DEVELOPER.
3	3" CONDUIT w/ 350 KCMIL AL TRIPLEX FOR SECONDARY.
4	PROVIDE & INSTALL LED STREET LIGHT, 30FT TYPE 1 CONCRETE LIGHT POLE w/ 5FT BURIAL DEPTH, & 4FT MOUNTING ARM. SEE DETAIL 515 SHEET E-5, AND APPROVED MATERIALS PAGES AA-4.00 & L-10.75 SHEET E-6.
5	PROVIDE 10" DIA X 10"D STREET LIGHT PEDESTAL. INSTALL AT BASE OF LIGHT POLE. PROVIDE 6" GRAVEL BASE FOR PEDESTAL. PROVIDE WATERTIGHT INLINE FUSE @ 5A. CONNECT LIGHT POLE USING 1⅛ CU TRIPLEX, DIRECT-BURY RATED FROM PEDESTAL. SEE DETAIL 515 SHEET E-5, AND APPROVED MATERIALS PAGE EE-5.00 SHEET E-7.
6	ROUTE 1-½" CONDUIT w/ ⅝ AL TRIPLEX FROM SECONDARY PEDESTAL/TRANSFORMER TO PEDESTAL AT BASE OF LIGHT POLE FOR LIGHTING SERVICE.

ELECTRICAL LEGEND

- SECONDARY SERVICE PEDESTAL
- TRANSFORMER
- LIGHT POLE
- SECONDARY ELECTRIC



NORTH

SITE ELECTRICAL PLAN - SECONDARY

SCALE: 1" = 40'-0" 0 40 80 Feet

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: KENNETH W. HUNTER, P.E. FLORIDA LICENSE NO. 76961

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Hunter Design & CONSULTING

HUNTER DESIGN & CONSULTING
696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: SITE ELECTRICAL PLAN- SECONDARY

DATE: JUNE 2026

PROJECT NO: 0167-25-01

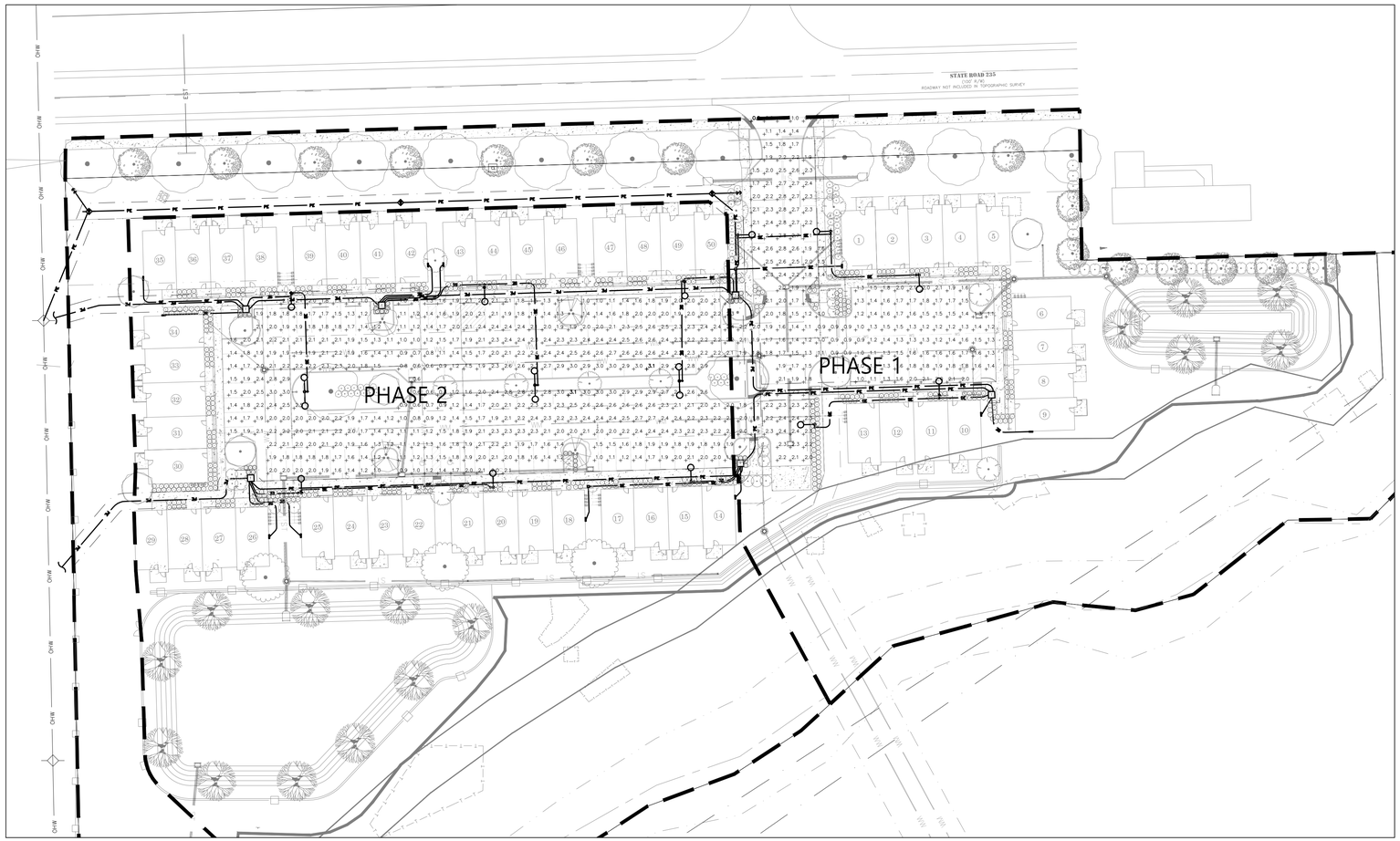
CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: E-2

GENERAL NOTES

1. HIGHLIGHTED POINTS REPRESENT MAXIMUM/MINIMUM VALUE FOR EACH AREA.
2. FIXTURES WILL BE CONTROLLED WITH PHOTOCELL AND OPERATE DUSK-TO-DAWN.
3. POLES SHALL BE LOCATED MINIMUM 24" BEHIND CURB.
4. THIS DRAWING IS NOT INTENDED TO CONSTITUTE A CONSTRUCTION DOCUMENT AND SHALL BE USED FOR PERMITTING PURPOSES ONLY.



NORTH

SITE PHOTOMETRIC PLAN
SCALE: 1" = 40'-0"
0 40 80 Feet

Photometric Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING AREA	+	1.9 fc	3.1 fc	0.5 fc	6.2:1	3.8:1

Luminaire Schedule								
Symbol	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Mounting Height
●—○	17	HOWARD LIGHTING PRODUCTS (BY CITY OF ALACHUA)	L402LC-80W-40K-T2-10-GR-M	100-277V 50/60Hz 80W 4000K	1	9274	0.81	25FT

REVISIONS

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696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: SITE PHOTOMETRIC PLAN

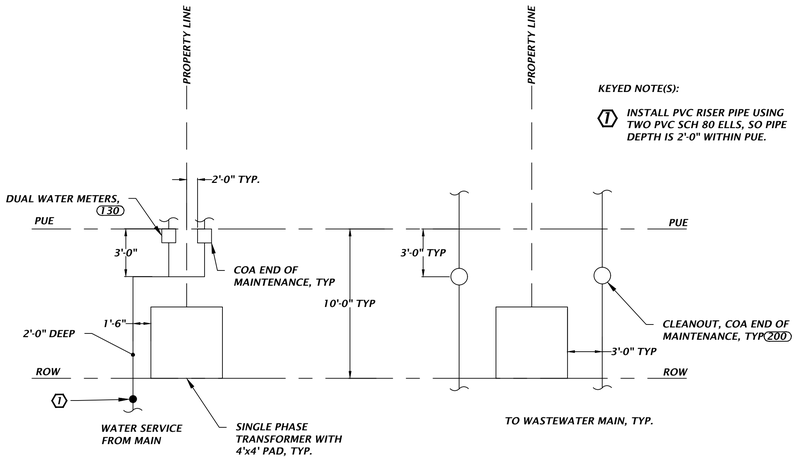
DATE: JUNE 2026

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

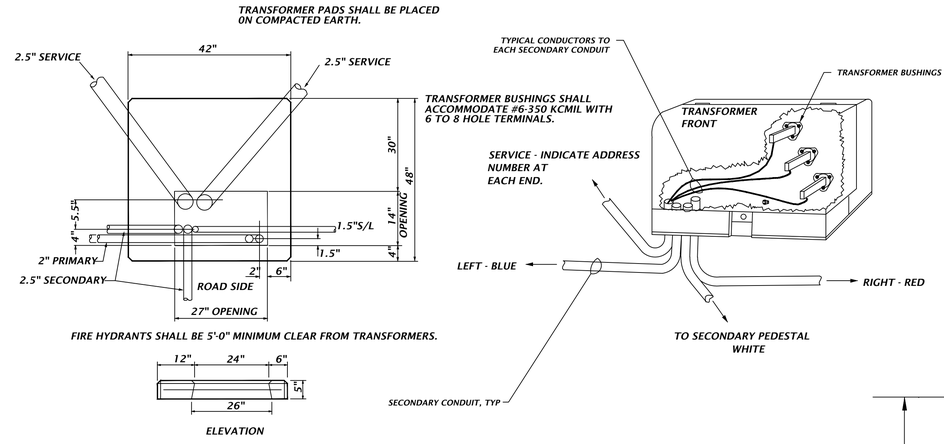
PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: E-3

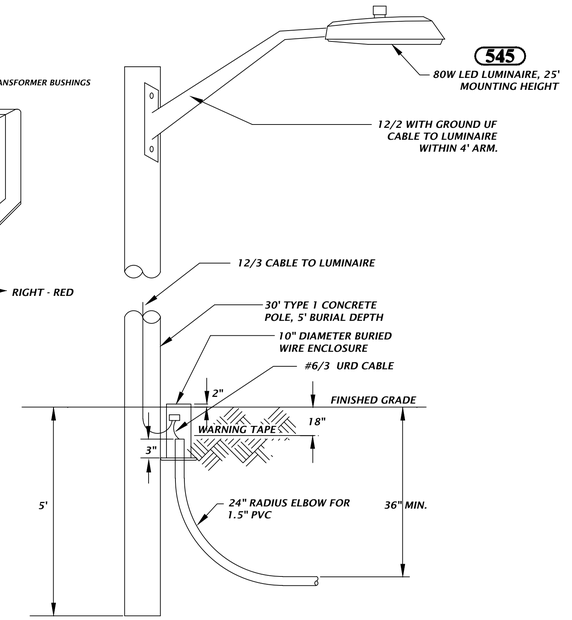


WATER SERVICE

WASTEWATER GRAVITY LATERALS



500 SINGLE PHASE TRANSFORMER AND PAD
NTS



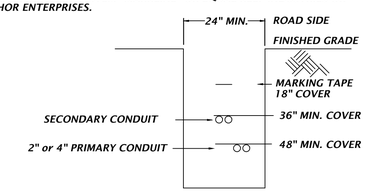
CONTRACTOR SHALL FURNISH AND INSTALL ALL POLE MOUNTED LIGHT FIXTURES, POLES, AND 10" DIAM. SECONDARY ENCLOSURES AS SHOWN ON THE DRAWINGS.

515 STREETLIGHT
NTS

TYPICAL ROUTING OF WATER AND GRAVITY WASTEWATER PIPING NEAR TRANSFORMER ADJACENT TO ROW
328
NTS

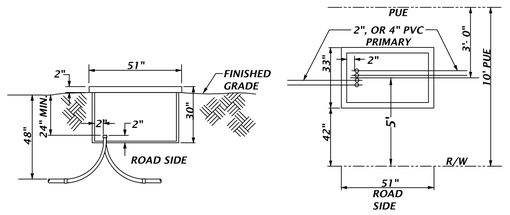
503 SERVICE ENCLOSURE
NTS

WARNING TAPE SHALL BE RED WITH CONTINUOUS BLACK MARKINGS "CAUTION CAUTION - CITY OF ALACHUA - ELECTRIC LINE BURIED BELOW SHALL BE ALLEN SYSTEM "MARKLINE" OR EQUAL REEF INDUSTRIES OR THOR ENTERPRISES.



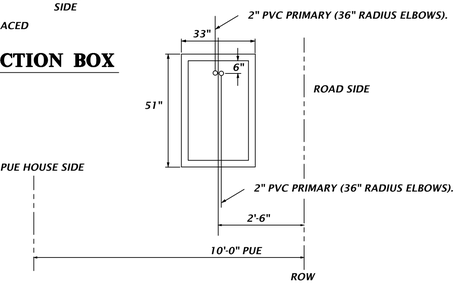
NOTE: CONTRACTOR SHALL CHECK FOR CONFLICTS AND MAKE ADJUSTMENTS AS NECESSARY. REFER TO THE OTHER UTILITY ALLOCATIONS AND LOCATIONS.

506 TYPICAL CONDUIT TRENCH
NTS



TRANSFORMER PADS SHALL BE PLACED 0N COMPACTED EARTH.

530 UNDERGROUND JUNCTION BOX
NTS



510 JUNCTION BOX, TYPE 2
NTS

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Hunter Design & CONSULTING

HUNTER DESIGN & CONSULTING
696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: ELECTRICAL CONSTRUCTION DETAILS

DATE: JUNE 2026

PROJECT NO: 0167-25-01

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: E-4

CITY OF ALACHUA

ELECTRIC SYSTEMS
APPROVED MATERIALS

ENCLOSURE, (HDPE) (SECONDARY PEDESTAL)

DESCRIPTION:
HIGH DENSITY POLYETHYLENE (HDPE)
ENCLOSURE w/HEX HEAD
BOLT (3/8-16 PENTA HEAD BOLT)
LID: HIGH DENSITY POLYETHYLENE
RECTANGULAR: VARIES
HARDWARE: STAINLESS STEEL

MANUFACTURER	CAT. NO.	STK. NO.
TOP: 12" x 16.5" - HEIGHT: 12"		
COMPLETE UNIT:		
PENCELL	PE14HDX00SP3	1562
LID ONLY:		
PENCELL	PE14-PL-X	1580
MANUFACTURER	**CAT. NO.**	**STK. NO.**
TOP: 22.5" x 14.5" - HEIGHT: 17"		
COMPLETE UNIT:		
PENCELL	PE20-HDX	1678
LID ONLY:		
PENCELL	PE20-PL-X	1582

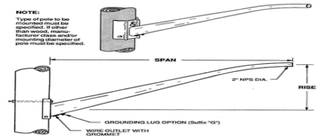
Revision: 8/13/2020

Page EE-6.00

CITY OF ALACHUA

ELECTRIC SYSTEMS
APPROVED MATERIALS

ARM, STREET LIGHT, ALUMINUM



DESCRIPTION:
STREET LIGHT ARM
LENGTH: VARIES
MATERIAL: ALUMINUM
ANSI CLASS E: FOR WOOD,
CONCRETE OR FIBERGLASS POLES
BRACKET: 12" SPACING
LUMINAIRE: 75 LBS (Max Working)

MANUFACTURER	CAT. NO.	STK. NO.
ARM: 4'-0" LENGTH - SPAN: 45" - RISE: 15"		
CURLEE	U2004515TFLG	1360
MANUFACTURER	**CAT. NO.**	**STK. NO.**
ARM: 8'-0" LENGTH - SPAN: 90" - RISE: 32"		
CURLEE	U2009032TFLG	1614
MANUFACTURER	**CAT. NO.**	**STK. NO.**
ARM: 12'-0" LENGTH - SPAN: 138" - RISE: 46"		
CURLEE	U20013846TFLG	PENDING

Revision Dates:
8/13/2020

Page AA-4.00

CITY OF ALACHUA

ELECTRIC SYSTEMS
APPROVED MATERIALS

LIGHT, STREET, LED 80W

DESCRIPTION:
LED STREET AND AREA LIGHT
Model: L402
Option: L
Power: 80W
Color: 40K
Distribution: T2
Control: 10
Finish: Grey
Driver: M

MANUFACTURER	CAT. NO.	STK. NO.
HOWARD LIGHTING (Only no substitutes)	L402SP40K10T2GRJMC	1813

Revision: 10/3/2018

Page L-10.75

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HUNTER DESIGN & CONSULTING
696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: **ELECTRICAL SYSTEMS APPROVED MATERIALS**

DATE: **JUNE 2026**

PROJECT NO: **0167-25-01**

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

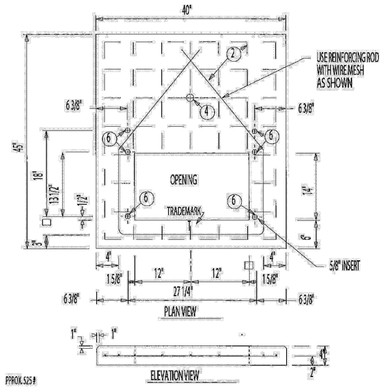
PROJECT: TOLOSA NORTH
PHASE 1 & 2

SHEET NO: **E-5**

CITY OF ALACHUA **ELECTRIC SYSTEMS**

APPROVED MATERIALS

PAD, SINGLE PHASE TRANSFORMER, 40x45x4, (25-167 KVA)



DESCRIPTION:
PRECAST CONCRETE PAD
FOR SINGLE TRANSFORMERS
MOUNTING: 25-167 KVA
CONCRETE: 5,000 psi @ 28 DAYS

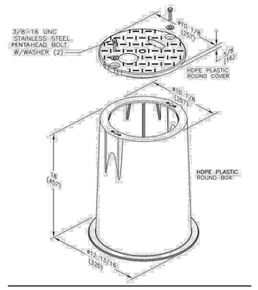
MANUFACTURER	CAT. NO.	STK. NO.
TRENWA	327703	1564
LINDSEY PRECAST	404504	

Revision: 8/14/2020 **Page PP-3.00**

CITY OF ALACHUA **ELECTRIC SYSTEMS**

APPROVED MATERIALS

ENCLOSURE, HDPE, 10" DIAMETER - STREET LIGHT PEDESTAL



DESCRIPTION:
HIGH DENSITY POLYETHYLENE
ENCLOSURE w/ 3/8-16 PENTA HEAD
BOLT
DIAMETER: 10" NOMINAL
HARDWARE: STAINLESS STEEL
LOGO "ELECTRIC"

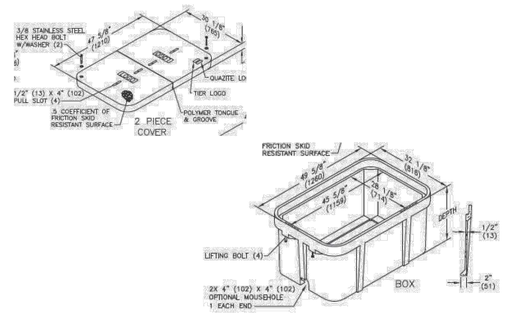
MANUFACTURER	CAT. NO.	STK. NO.
COMPLETE UNIT:		
PENCELL	PE10HDH00	1584
LID ONLY:		
PENCELL	PE10PL12-5P3	1585

Revision: 6/30/2026 **Page EE-5.00**

CITY OF ALACHUA **ELECTRIC SYSTEMS**

APPROVED MATERIALS

ENCLOSURE, (FRC), 48 X 30 X 18



DESCRIPTION:
MATERIALS: FIBERGLASS REINFORCED
POLYMER CONCRETE, BASE & LID
LID: (2) PIECE, STANDARD
(2) PENTA HEAD BOLTS (1/2")
HARDWARE: STAINLESS STEEL
LOAD CAPACITY: ANSI TIER 15(15K)
LOGO: "ELECTRIC"
GASKET: NONE
COLOR: TAN

MANUFACTURER	CAT. NO.	STK. NO.
HUBBELL (QUAZITE)	LID: PG3048HS0017P BOX: PG3048BA18	1610
HUBBELL (CDR/RFP)	LID: B14304818A BOX: C12304803A017	

Revision: 8/14/2020 **Page EE.8.00**

REVISIONS				
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HUNTER DESIGN & CONSULTING
696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: **ELECTRICAL SYSTEMS APPROVED MATERIALS**

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

DATE: **JUNE 2026**

PROJECT NO: **0167-25-01**

SHEET NO: **E-6**

UNIT LOAD CALCULATIONS

TYPICAL UNIT A

GENERAL LOADS	NOTES	LOAD	#	VA
LIGHTS/RECEPTACLES	3VA/SF	3	1508	4524
SMALL APPLIANCES		1500	3	4500
REFRIGERATOR		800	1	800
WATER HEATER		4500	1	4500
RANGE		9000	1	9000
MICROWAVE		1500	1	1500
DISPOSAL		850	1	850
DISHWASHER		1500	1	1500
WASHER		1500	1	1500
DRYER		5000	1	5000
EXHAUST FAN		70	3	210
AHU FAN		960	1	960
	CONNECTED LOAD			34844
	EFFECTIVE LOAD			19938

MECHANICAL LOADS	NOTES	LOAD	#	VA
HEAT PUMP		3744	1	3744
STRIP HEAT		4800	1	4800
	CONNECTED LOAD			8544
	EFFECTIVE LOAD			6864
	TOTAL CONNECTED LOAD			43388
	TOTAL EFFECTIVE LOAD			26802
	EFFECTIVE LOAD AMPS			112
	DESIGN RATING			150

UNIT LOAD CALCULATIONS

TYPICAL UNIT B

GENERAL LOADS	NOTES	LOAD	#	VA
LIGHTS/RECEPTACLES	3VA/SF	3	1601	4803
SMALL APPLIANCES		1500	3	4500
REFRIGERATOR		800	1	800
WATER HEATER		4500	1	4500
RANGE		9000	1	9000
MICROWAVE		1500	1	1500
DISPOSAL		850	1	850
DISHWASHER		1500	1	1500
WASHER		1500	1	1500
DRYER		5000	1	5000
EXHAUST FAN		70	1	70
AHU FAN		960	1	960
	CONNECTED LOAD			34983
	EFFECTIVE LOAD			19993

MECHANICAL LOADS	NOTES	LOAD	#	VA
HEAT PUMP		3744	1	3744
STRIP HEAT		4800	1	4800
	CONNECTED LOAD			8544
	EFFECTIVE LOAD			6864
	TOTAL CONNECTED LOAD			43527
	TOTAL EFFECTIVE LOAD			26857
	EFFECTIVE LOAD AMPS			112
	DESIGN RATING			150

UNIT LOAD CALCULATIONS

TYPICAL UNIT C

GENERAL LOADS	NOTES	LOAD	#	VA
LIGHTS/RECEPTACLES	3VA/SF	3	1583	4749
SMALL APPLIANCES		1500	3	4500
REFRIGERATOR		800	1	800
WATER HEATER		4500	1	4500
RANGE		9000	1	9000
MICROWAVE		1500	1	1500
DISPOSAL		850	1	850
DISHWASHER		1500	1	1500
WASHER		1500	1	1500
DRYER		5000	1	5000
EXHAUST FAN		70	1	70
AHU FAN		960	1	960
	CONNECTED LOAD			34929
	EFFECTIVE LOAD			19972

MECHANICAL LOADS	NOTES	LOAD	#	VA
HEAT PUMP		3744	1	3744
STRIP HEAT		4800	1	4800
	CONNECTED LOAD			8544
	EFFECTIVE LOAD			6864
	TOTAL CONNECTED LOAD			43473
	TOTAL EFFECTIVE LOAD			26836
	EFFECTIVE LOAD AMPS			112
	DESIGN RATING			150

UNIT LOAD CALCULATIONS

TYPICAL UNIT D

GENERAL LOADS	NOTES	LOAD	#	VA
LIGHTS/RECEPTACLES	3VA/SF	3	1524	4572
SMALL APPLIANCES		1500	3	4500
REFRIGERATOR		800	1	800
WATER HEATER		4500	1	4500
RANGE		9000	1	9000
MICROWAVE		1500	1	1500
DISPOSAL		850	1	850
DISHWASHER		1500	1	1500
WASHER		1500	1	1500
DRYER		5000	1	5000
EXHAUST FAN		70	3	210
AHU FAN		960	1	960
	CONNECTED LOAD			34892
	EFFECTIVE LOAD			19957

MECHANICAL LOADS	NOTES	LOAD	#	VA
HEAT PUMP		3744	1	3744
STRIP HEAT		4800	1	4800
	CONNECTED LOAD			8544
	EFFECTIVE LOAD			6864
	TOTAL CONNECTED LOAD			43436
	TOTAL EFFECTIVE LOAD			26821
	EFFECTIVE LOAD AMPS			112
	DESIGN RATING			150

4-UNIT BUILDING

METER CENTER

UNITS	LOAD	#	
TYPICAL UNIT A	43388	2	86776
TYPICAL UNIT B	43527	2	87054
	TOTAL CONNECTED LOAD		173830
	DEMAND FACTOR (NEC 220.84)		45%
	TOTAL EFFECTIVE LOAD		78224
HOUSE LOADS			1500
	TOTAL LOAD		79724
	METER CENTER LOAD AMPS 240V/1PH		332
	DESIGN RATING		400

5-UNIT BUILDING

METER CENTER

UNITS	LOAD	#	
TYPICAL UNIT A	43388	1	43388
TYPICAL UNIT B	43527	1	43527
TYPICAL UNIT C	43473	2	86946
TYPICAL UNIT D	43436	1	43436
	TOTAL CONNECTED LOAD		217297
	DEMAND FACTOR (NEC 220.84)		45%
	TOTAL EFFECTIVE LOAD		97784
HOUSE LOADS			1500
	TOTAL LOAD		99284
	METER CENTER LOAD AMPS 240V/1PH		414
	DESIGN RATING		600

TRANSFORMER LOADS

XFMR 1-1	NEC LOAD	#	
TYPICAL 5 UNIT BLDG	99284	1	99284
TYPICAL 4 UNIT BLDG	79724	1	79724
	TOTAL NEC LOAD		179007
	DESIGN RATING		75000

XFMR 1-2	NEC LOAD	#	
TYPICAL 4 UNIT BLDG	79724	2	159447
	TOTAL NEC LOAD		159447
	DESIGN RATING		75000

XFMR 2-1	NEC LOAD	#	
TYPICAL 4 UNIT BLDG	79724	2	159447
	TOTAL NEC LOAD		159447
	DESIGN RATING		75000

XFMR 2-2	NEC LOAD	#	
TYPICAL 4 UNIT BLDG	79724	2	159447
	TOTAL NEC LOAD		159447
	DESIGN RATING		75000

XFMR 2-3	NEC LOAD	#	
TYPICAL 5 UNIT BLDG	99284	1	99284
TYPICAL 4 UNIT BLDG	79724	1	79724
	TOTAL NEC LOAD		179007
	DESIGN RATING		75000

XFMR 2-4	NEC LOAD	#	
TYPICAL 4 UNIT BLDG	79724	2	159447
	TOTAL NEC LOAD		159447
	DESIGN RATING		75000

GENERAL NOTES

1. ALL LUGS SHALL BE COORDINATED WITH CONDUCTOR SIZES PRIOR TO ORDERING GEAR.
2. ALUMINUM SER CABLE (THREE CONDUCTOR W/ GROUND) MAY BE USED FOR PANEL FEEDERS FROM THE METER CENTERS.
3. DWELLING UNIT FEEDER AMPACITY SELECTED IN ACCORDANCE WITH 310.15(B)(7).
4. PANELS MAY BE SERIES RATED WHERE LISTED AS SUCH BY EQUIPMENT MANUFACTURER.
5. PROVIDE LABEL ON SWITCHGEAR TO MARK MAXIMUM AFC RATING AND DATE.

KEY TO POWER RISERS

[A] TWO SETS OF 2-1/2" CONDUITS WITH THREE 250 KCMIL XHHW AL IN EACH CONDUIT.

[B] 120/240V, 1PH, 400A MLO, 65,000 AIC METER CENTER w/ TYPE 1 SPD, FIVE 225A/1PH METER SOCKETS, FOUR 150A/2P TENANT BREAKERS, AND ONE 60A/2P TENANT BREAKER. TENANT BREAKERS SHALL BE LISTED AS SERVICE DISCONNECTS.

[C] 2 AWG COPPER. CONNECT TO BLDG STEEL, METAL WATER LINE, & TO CONCRETE ENCASED ELECTRODE PER NEC 250.50 & TO TWO 3/4" X 10FT COPPER-CLAD GROUND RODS DRIVEN 10FT APART.

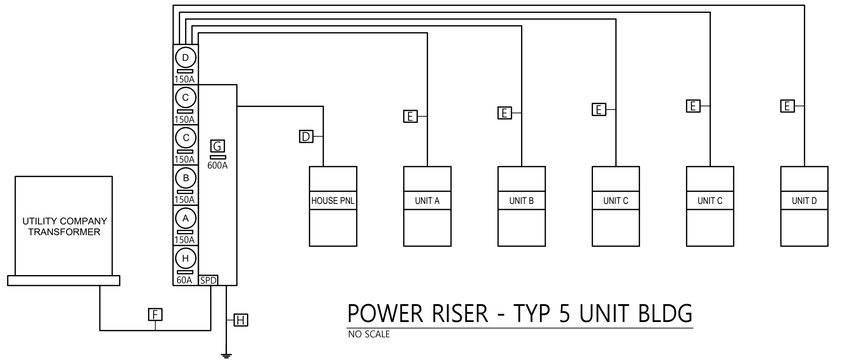
[D] THREE 6 AWG THWN CU & ONE 10 AWG CU GND IN 1"C.

[E] THREE 1/0 AWG XHHW AL & ONE 6 AWG CU GND IN 1-1/2"C.

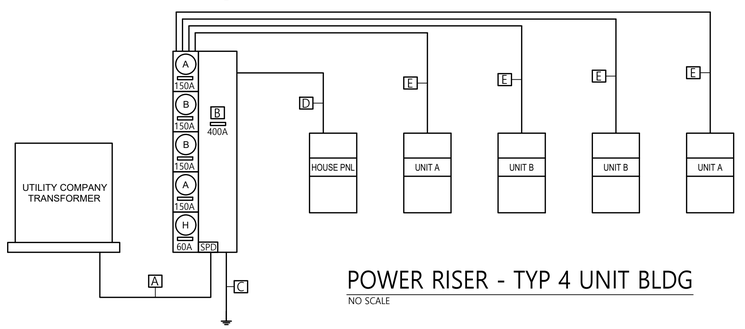
[F] TWO SETS OF 3" CONDUITS WITH THREE 500 KCMIL XHHW AL IN EACH CONDUIT.

[G] 120/240V, 1PH, 600A MLO, 65,000 AIC METER CENTER w/ TYPE 1 SPD, SIX 225A/1PH METER SOCKETS, FIVE 150A/2P TENANT BREAKERS, AND ONE 60A/2P TENANT BREAKER. TENANT BREAKERS SHALL BE LISTED AS SERVICE DISCONNECTS.

[H] 2/0 AWG COPPER. CONNECT TO BLDG STEEL, METAL WATER LINE, & TO CONCRETE ENCASED ELECTRODE PER NEC 250.50 & TO TWO 3/4" X 10FT COPPER-CLAD GROUND RODS DRIVEN 10FT APART.



POWER RISER - TYP 5 UNIT BLDG
NO SCALE



POWER RISER - TYP 4 UNIT BLDG
NO SCALE

REVISIONS

NO.	DATE	DESCRIPTION	DRWN	APPR

ENGINEER OF RECORD: **KENNETH W. HUNTER, P.E. FLORIDA LICENSE NO. 76961**

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY KENNETH HUNTER, PE ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

KENNETH W. HUNTER LICENSE No. 76961 STATE OF FLORIDA PROFESSIONAL ENGINEER

Hunter Design & CONSULTING

HUNTER DESIGN & CONSULTING
696 1ST AVE. N, SUITE 302,
ST. PETERSBURG, FL 33701

SHEET TITLE: **ELECTRICAL LOAD CALCULATIONS**

DATE: **JUNE 2026**

PROJECT NO: **0167-25-01**

CLIENT: ALACHUA HABITAT FOR HUMANITY
GAINESVILLE, FLORIDA

PROJECT: TOLOSA NORTH PHASE 1 & 2

SHEET NO: **E-7**

since Marshall took office. previously asked Marshall

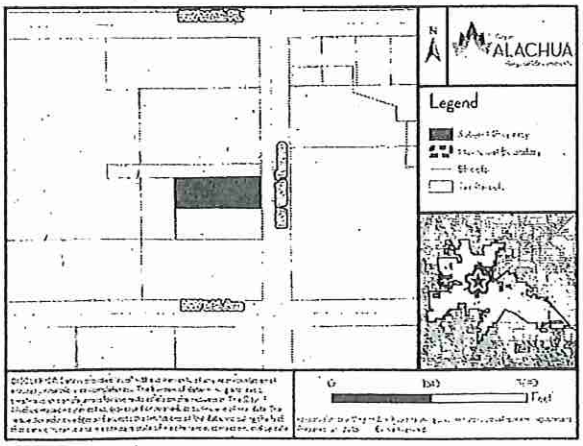
City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application No. PCA26-0003 | Certificate of Appropriateness

An application by Fla Homes, Inc., a Delaware corporation (agent), on behalf of Lioncrest Capitol, LLC, a Florida limited liability company (owner), for a certificate of appropriateness for the construction of a detached single-family residence in the City of Alachua Downtown Historic District located at 14620 Northwest 138 Terrace consisting of 0.13 acres; Tax Parcel 03392-002-002.



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. one week prior to the date of hearing. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

(Published: Alachua County Today - July 30, 2026)

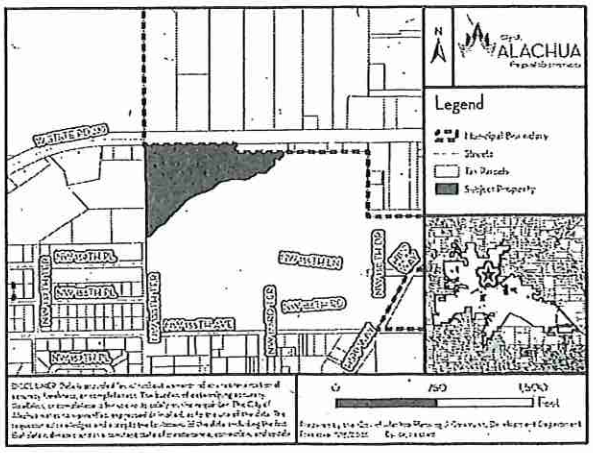
City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application No. PSP25-0006 | Tolosa North Site Plan Application

A request by JBrown Professional Group, Inc. (the "Applicant" & "Agent") on behalf of Alachua Habitat for Humanity, Inc. (the "Property Owner") for a site plan proposing the construction of 10 quadplex structures and two townhouse structures, for a total of 50 multifamily dwelling units, with associated site improvements on a ± 7.47-acre subject property generally located along the south of W State Road 235 and east of NW 135th Terrace (Tax Parcels: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000). FLU: Moderate Density Residential; Zoning: PD-R.



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application, staff report, and any related materials are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. one week prior to the date of hearing. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL, 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 1501 at least 48 hours prior to the public hearing.

(Published: Alachua County Today - July 30, 2026)

City of ALACHUA
the good life community

MAILED
JUL 2 7 2026

RODOLFO VALLADARES
CITY MANAGER

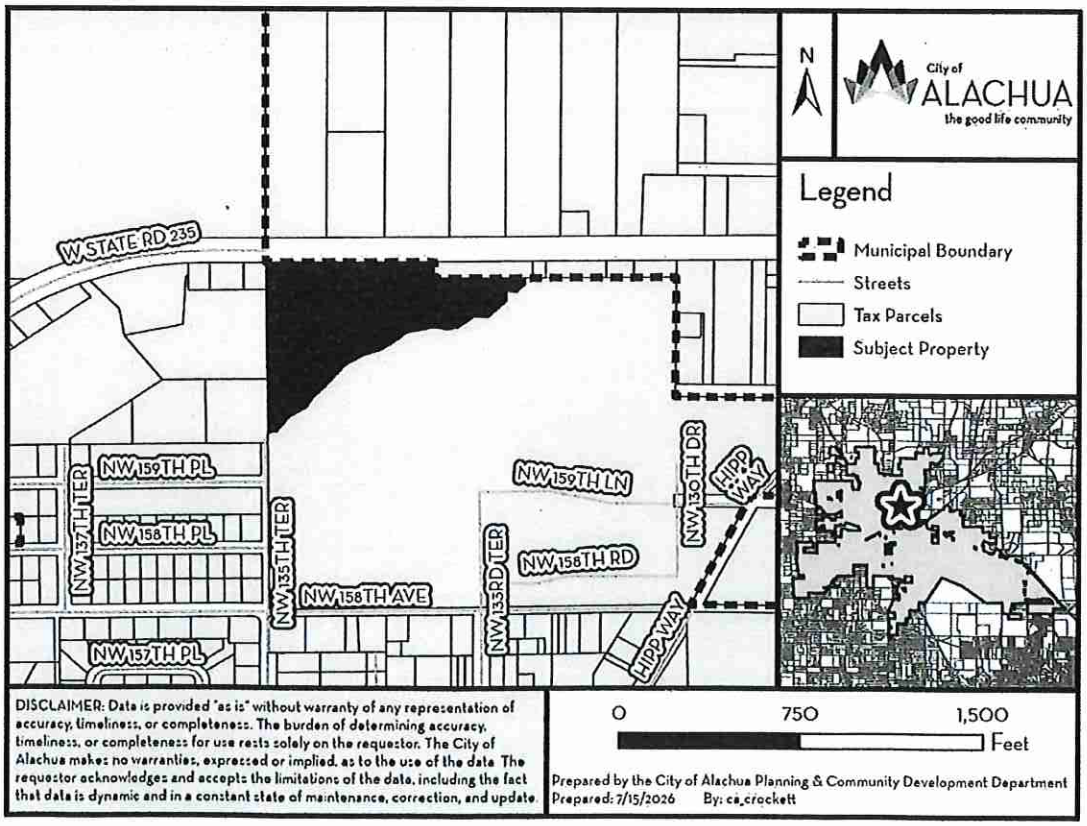
PLANNING & COMMUNITY DEVELOPMENT
BRYAN S. THOMAS, AICP

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on August 11, 2026, at 6:00 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following:

Application #: PSP26-0005 | Tolosa North Site Plan Application

A request by JBrown Professional Group, Inc. (the "Applicant" & "Agent") on behalf of Alachua Habitat for Humanity, Inc. (the "Property Owner") for a site plan proposing the constriction of 10 quadplex structures and two townhouse structures, for a total of 50 multifamily dwelling units, with associated site improvements on a ± 7.47-acre subject property generally located along the south of W State Road 235 and east of NW 135th Terrace (Tax Parcels: 03130-004-000; 03130-007-001; 03130-008-000; 03130-009-000; 03135-002-000). FLU: Moderate Density Residential; Zoning: PD-R.



PO Box 9
Alachua, Florida 32616-0009

"The Good Life Community"
www.cityofalachua.com

Phone: (386) 418-6121
Fax: (386) 418-6130

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JUL 2 7 2026

At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application, staff report, and any related materials are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. one week prior to the date of hearing. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 1501 at least 48 hours prior to the public hearing.

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03129-001-000
KOLOMYIKO IVAN
14317 NW 142ND AVE
ALACHUA, FL 32615

03129-010-000
FRAZIER & FORD & LEWIS
PO BOX 52
ALACHUA, FL 32616

03129-010-002
PHILPOT IRA JUDSON
25323 N COUNTY RD UNIT 1491
ALACHUA, FL 32615

03130-004-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-007-000
GARCIA ISRAEL JR & LYDIA JEANETTE
13508 W STATE RD 235
ALACHUA, FL 32615

03130-008-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-009-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-010-000
DASA & PATEL
12954 WEST STATE ROAD 235
ALACHUA, FL 32615

03130-012-000
LEMNAH WAUNITA
13220 W STATE ROAD 235
ALACHUA, FL 32615

03130-013-001
LEMNAH WAUNITA
13220 W STATE ROAD 235
ALACHUA, FL 32615

03129-004-000
CSL FLORIDA SYSTEM LLC
C/O CSL OHIO SYSTEM LLC 2101 RIVER
LITTLE ROCK, AR 72202

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03129-010-001
PHILPOT IRA JUDSON
25323 N COUNTY RD UNIT 1491
ALACHUA, FL 32615

03130-001-000
LEMNAH EULA W HEIRS
13220 W STATE ROAD 235
ALACHUA, FL 32615

03130-006-000
HARRIS MONICA KAY
13232 W STATE RD 235
ALACHUA, FL 32615

03130-007-001
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03130-008-002
SHETH VISVAMBHAR
PO BOX 2668
ALACHUA, FL 32616

03130-009-001
TAMBURINO DOMINIC & RELOMATEE
600 W OLYMPIC PL APT 709
SEATTLE, WA 98119

03130-011-000
RODRIGUEZ FERNANDO & NANCY B
13310 W STATE RD 235
ALACHUA, FL 32615

03130-013-000
BROMENSCHENKEL ASHLEY KRISTINE
13116 W STATE ROAD 235
ALACHUA, FL 32615

03131-001-000
WETHERINGTON KENNETH ELLIS
3730 SE 14TH TER
GAINESVILLE, FL 32641

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03131-001-000
WETHERINGTON KENNETH ELLIS
3730 SE 14TH TER
GAINESVILLE, FL 32641

03131-043-000
MARAF PROPERTY HOLDINGS LLC
2828 NW 142ND AVE
GAINESVILLE, FL 32609

03131-045-000
GARRISON BERNICE HEIRS
PO BOX 75
ALACHUA, FL 32616

03133-001-001
NMRV HOLDINGS LLC
10403 W STATE ROAD 235
ALACHUA, FL 32615

03133-002-001
NMRV HOLDINGS LLC
10403 W STATE ROAD 235
ALACHUA, FL 32615

03135-002-000
ALACHUA HABITAT FOR HUMANITY INC
2610 NW 43RD ST STE 2B
GAINESVILLE, FL 32606

03131-042-000
CAPOBIANCO CASSANDRA
13518 NW 158TH PL
ALACHUA, FL 32615

MAILED
JUL 27 2026

03131-044-000
JOINER TONIA Q
PO BOX 1536
ALACHUA, FL 32616

03133-000-000
SCHOOL BOARD OF ALACHUA COUNTY
620 E UNIV AVE MEBANE MIDDLE SCHO
GAINESVILLE, FL 32601

03133-002-000
NMRV HOLDINGS LLC
10403 W STATE ROAD 235
ALACHUA, FL 32615

03135-001-000
3RD GENERATION DEVELOPER LLC
C/O WILLIAM WESEMAN
1085 SW 175TH CT
NEWBERRY, FL 32669

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CITY MANAGER
MIKE DAROZA
PO BOX 9
ALACHUA, FL 32615

ASSISTANT DIRECTOR PLANNING
LINDA DIXON, AICP
PO BOX 115050
GAINESVILLE, FL 32611

TAMARA ROBBINS
PO BOX 2317
ALACHUA, FL 32616

JOSEPH & PHYLLIS STRICKLAND
14103 NW 156TH PLACE
ALACHUA, FL 32615

LYNN HORTON
19005 NW 138TH AVE
ALACHUA, FL 32615

PLANNER
CARSON CROCKET
15100 NW 142ND TERRACE
ALACHUA, FL 32615

COUNTY MANAGER
MICHELE L. LIEBERMAN
12 SE 1ST STREET
GAINESVILLE, FL 32601

MAILED
JUL 2 7 2026

ANTOINETTE ENDELICATO
5562 NW 93RD AVENUE
GAINESVILLE, FL 32653

LYNDA COON
7216 NW 126 AVENUE
ALACHUA, FL 32615

JEAN CALDERWOOD
14095 NW 174TH AVE
ALACHUA, FL 32615

DIRECTOR, ENVIRONMENTAL PROTECTION DEPARTMENT
STEPHEN HOFSTETTER
14 NE 1ST STREET
GAINESVILLE, FL 32601

Soorya Lindberg
16630 NW 173rd Terrace
Alachua, FL 32615

Constance Meyer
4720 NW 104th Lane
Gainesville, FL 32653

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AFFIDAVIT FOR POSTED LAND USE SIGN

I, Bennett Dunmyer, POSTED THE LAND USE SIGN(S)
(Print Name)

ON 07/22/26 FOR THE Tolosa North Site Plan Application
(Date) (Project name & type of action)

LAND USE ACTION AS PER ARTICLE 2.2.9(D) OF THE LAND DEVELOPMENT

REGULATIONS. THIS WILL BE INCLUDED IN THE STAFF REPORT.

(Signature)

Three
(Number of signs)

CITY OF ALACHUA

NOTICE OF LAND USE DEVELOPMENT ACTION

PUBLIC HEARING(S) ARE SCHEDULED TO CONSIDER THE FOLLOWING:

PROJECT NAME: Tolosa North **APPLICATION NO.:** PSP25-0006

APPLICATION TYPE: Site Plan **CURRENT ZONING:** PD-R

NATURE/SCOPE OF PROPOSAL: A request for a site plan proposing the construction of 10 quadplex structures and 2 townhouse structures, for a total of 50 multifamily dwelling units on the subject property, with associated site improvements.

DATE OF PUBLIC HEARING(S): August 11, 2026 **AT** 6:00 **PM**

_____ **AT** _____ **PM**

_____ **AT** _____ **PM**

LOCATION OF PUBLIC HEARING(S):
ALACHUA CITY HALL - 15100 NW 142ND TERRACE

FOR MORE INFORMATION CONTACT:
CITY OF ALACHUA PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

386-418-6121

planning@cityofalachua.com

ALL INTERESTED PARTIES MAY APPEAR AT THE PUBLIC HEARING(S) AND BE HEARD WITH RESPECT TO THE APPLICATION.COPIES OF THE APPLICATION, STAFF REPORT, AND RELATED MATERIALS ARE AVAILABLE FOR PUBLIC INSPECTION AT THE PLANNING & COMMUNITY DEVELOPMENT, 15100 NW 142ND TERRACE, ALACHUA, FLORIDA, ON ANY REGULAR BUSINESS DAY DURING NORMAL BUSINESS HOURS. WRITTEN COMMENTS MAY BE SENT TO: CITY OF ALACHUA, PLANNING & COMMUNITY DEVELOPMENT, P.O. BOX 9, ALACHUA FL 32616. NOTICE IS GIVEN PURSUANT TO SECTION 286.0105, FLORIDA STATUES, THAT, IN ORDER TO APPEAL ANY DECISION MADE AT THE PUBLIC HEARING(S), YOU WILL NEED A RECORD OF THE PROCEEDINGS, AND THAT, FOR SUCH PURPOSE, YOU MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS BASED. IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT, ANY PERSONS WITH A DISABILITY REQUIRING REASONABLE ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS MEETING SHOULD CALL THE CITY CLERK AT (386) 418-6100 x 1501 AT LEAST 48 HOURS PRIOR TO THE PUBLIC HEARING(S).

Posted Notice Location Map
PSP25-0006 | Tolosa North Site Plan

Pursuant to Section 2.2.9(D) of the City's Land Development Regulations, posted notice signs must be placed on the land that is the subject of the application, along each street which is adjacent to or runs through the land in a manner that makes them clearly visible. Signs shall be posted at regular intervals of not more than 400 feet when the land subject to the application has less than 1,500 feet of road frontage. When the land subject to the application has 1,500 feet or more of road frontage, signs shall be posted at intervals of not more than 1,320 feet.

Signs shall be inspected by the City subsequent to their posting. The applicant shall be responsible for ensuring that the posted notice is maintained on the land subject to the application until the completion of the final public hearing on the application.

SIGNS MUST BE REMOVED BY THE APPLICANT WITHIN TEN DAYS AFTER THE FINAL DECISION ON THE APPLICATION

N

0 75 150 300 Feet

Legend

Sign Locations

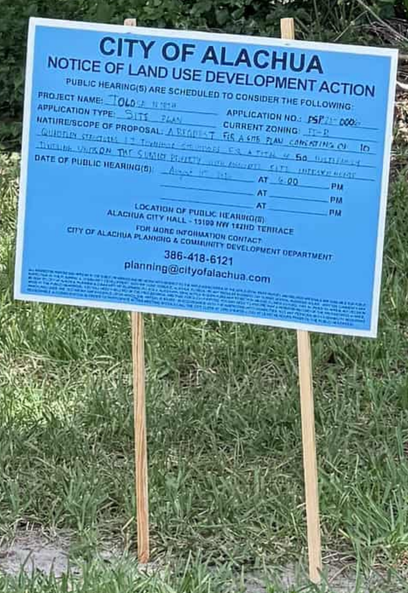
Prepared by the City of Alachua Planning & Community Development Department

Prepared: 7/15/2026 By: ca_crockett

DISCLAIMER: Data is provided "as is" without warranty of any representation of accuracy, timeliness, or completeness. The burden of determining accuracy, timeliness, or completeness for use rests solely on the requestor. The City of Alachua makes no warranties, expressed or implied, as to the use of the data. The requestor acknowledges and accepts the limitations of the data, including the fact that data is dynamic and in a constant state of maintenance, correction, and update.

CITY OF ALACHUA
NOTICE OF LAND USE DEVELOPMENT ACTION

CITY OF ALACHUA
NOTICE OF LAND USE DEVELOPMENT ACTION
PUBLIC HEARING(S) ARE SCHEDULED TO CONSIDER THE FOLLOWING:
PROJECT NAME: Tesla North
APPLICATION NO:
APPLICATION TYPE: Site Plan
CURRENT ZONING: PD-R
NATURE/SCOPE OF PROPOSAL:
DATE OF PUBLIC HEARING(S):
AT PM
AT PM
AT PM
LOCATION OF PUBLIC HEARING(S):
ALACHUA CITY HALL - 15100 NW 142ND TERRACE
FOR MORE INFORMATION CONTACT:
CITY OF ALACHUA PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT
386-418-6121
planning@cityofalachua.com


CITY OF ALACHUA
NOTICE OF LAND USE DEVELOPMENT ACTION
PUBLIC HEARING(S) ARE SCHEDULED TO CONSIDER THE FOLLOWING:
PROJECT NAME: TOLO
APPLICATION TYPE: SITE PLAN
APPLICATION NO.: PSP
NATURE/SCOPE OF PROPOSAL:
DATE OF PUBLIC HEARING(S):
AT 6:00 PM
AT PM
AT PM
LOCATION OF PUBLIC HEARING(S):
ALACHUA CITY HALL - 13109 NW 142ND TERRACE
FOR MORE INFORMATION CONTACT:
CITY OF ALACHUA PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT
386-418-6121
planning@cityofalachua.com

Carson J. Crockett, AICP
Principal Planner
Planning and Community Development Department

Carson J. Crockett, AICP is a Principal Planner for the City of Alachua. He supports the functions of the Planning and Community Development Department, assists in the development review process and regularly communicates with members of the public. Crockett holds a master's degree in Urban and Regional Planning from the University of Florida.

EDUCATION

University of Florida
Bachelor of Science in Sustainability and the Built Environment
Graduated: Apr 2022
Master of Urban and Regional Planning
Graduated: May 2023

St. Petersburg Collegiate High School
High School Diploma
Graduated: May 2019

WORK EXPERIENCE

City of Alachua, Florida | Principal Planner | Jul 2025-Present; Planner | Jun 2023-Jul 2025
15100 NW 142nd Ter, Alachua, Fl 32615 | (386) 418-6121

George F. Young, Inc. | Planning Intern | May-Aug 2021 and 2022
299 Dr. Martin Luther King Jr. St N, Saint Petersburg, Fl 33701 | (727) 822-4317

PROFESSIONAL ORGANIZATIONS

American Planning Association | San Felasco Section, Florida Chapter
Member | Nov 2020-Present
Student Planning Association | University of Florida
Member | Aug 2020-May 2023

CERTIFICATES AND OTHER SKILLS

AICP | Jun 2025-Present
ArcGIS Pro | Competent
ArcGIS Desktop | Competent
Microsoft Office Certified | Word PowerPoint | Excel
Robert's Rules of Order | Proficient
Public Speaking | Proficient