
JOINT APPLICATION FOR INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT/ AUTHORIZATION TO USE STATE-OWNED SUBMERGED LANDS/ FEDERAL DREDGE AND FILL PERMIT

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION/
WATER MANAGEMENT DISTRICTS/
U.S. ARMY CORPS OF ENGINEERS

Effective October 1, 2013



**US Army Corps
of Engineers®**

INSTRUCTIONS FOR USE OF THIS FORM:

This form is designed to assist you in submitting a complete application. All applications must include Section A-General Information for All Activities. Sections B through H list typical information that is needed based on the proposed activities, and are only required as applicable. Part 1-C of Section A will guide you to the correct sections needed based on your proposed activities. Applicants are advised to consult Chapter 62-330, F.A.C., and the Environmental Resource Permit Applicant’s Handbook Volumes I and II for information regarding the ERP permitting process and requirements while preparing their application. Internet addresses for Chapter 62-330, F.A.C. and the Applicant’s Handbook, Agency contact information, and additional instructions for this form can be found in Attachment 1.

What Sections of the Application Must I Fill Out?

Does the project involve....	Section							
	A- General Information	B- Single Family Projects	C- Wetlands and other Surface Waters	D- Structures or Works in Surface Waters	E- Stormwater Management System	F- State-owned Submerged Lands	G- Mitigation Banks	H- Mines
Fill in wetlands or waters for a single family residence?	X	X						
Docks, shoreline stabilization, seawalls associated with a single family residence?	X	X				X, if applicable		
Wetland impacts (other than associated with an individual residence)?	X		X					
Boating facilities, a marina, jetty, reef, or dredging?	X		X	X		X if applicable		
Any work on state owned submerged land?	X		X			X		
Construction of a stormwater management system?	X		X, if applicable		X			
Constructing a mitigation bank?	X		X		X, if applicable		X	
Creating a mine?	X		X, if applicable					X

Note- if you are required to provide Section B, then you do not have to provide any other Sections, unless the activities are on state-owned submerged lands. In that case, Section F will also be required.

If you have any questions, or would like assistance completing this form, please contact the staff of the nearest office of either the Florida Department of Environmental Protection (DEP) or a Water Management District (WMD) (see Attachment 2).

Section A: General Information for All Activities

PART 1: NAME, APPLICATION TYPE, LOCATION, AND DESCRIPTION OF ACTIVITY

A. Name of project, including phase if applicable: **Johns Lake Road**

B. This is for (check all that apply):

- Construction or operation of **new** works, activities and/ or a stormwater management system
- Conceptual Approval** of proposed works, activities and/ or a stormwater management system
- Modification or Alteration of **existing** works activities and / or a stormwater management system. Provide the existing DEP or WMD permit #, if known: Note: Minor modifications do not require completion of this form, and may instead be requested by letter.
- Maintenance or repair** of works, activities and/ or stormwater management system previously permitted by the DEP or WMD Provide existing permit #, if known:
- Abandonment or removal of works, activities and/ or stormwater management system Provide existing DEP or WMD permit #, if known:
- Operation of an **existing unpermitted** stormwater management system.
- Construction of additional phases of a permitted work, activity and/ or stormwater management system.
Provide the existing DEP or WMD permit #, if known:

C. **List the type of activities proposed. Check all that apply, and provide the supplemental information requested in each of the referenced application sections. Please also reference Applicant's Handbooks I and II for the type of information that may be needed.**

- Activities associated with one single-family residence, duplex, triplex, or quadruplex that do not qualify for an exemption or a Noticed General Permit: **Provide the information requested in Section B. Do not complete Section C.**
- Activities within wetlands or surface waters, or within 25 feet of a wetland or surface water, (not including the activities associated with an individual residence). *Examples include dredging, filling, outfall structures, docks, piers, over-water structures, shoreline stabilization, mitigation, reclamation, restoration/ enhancement.* **Provide the information requested in Section C.**
- Activities within navigable or flowing surface waters such as a multi-slip dock or marina, dry storage facility, dredging, bridge, breakwaters, reefs, or other offshore structures: **In addition to Section C, also provide the information requested in Section D.**
- Activities that are (or may be) located within, on or over state-owned submerged lands (See Chapter 18-21, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=18-21>): **In addition to Section B or C, also provide the information requested in Section F**

- Construction or alteration of a stormwater management system serving residential, commercial, transportation, industrial, agricultural, or other land uses, or a solid waste facility (excluding mines that are regulated by DEP). **Provide the information requested in Section E.**
- Creation or modification of Mitigation Bank (refer to Chapter 62-342, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-342>): **Provide the information requested in Section G.**
- Mines (as defined by in Section 2.0 of Applicant's Handbook Volume I) that are regulated by the DEP: **Provide the information requested in Section H.**
- Other, describe: Please contact the Agency to determine which additional sections of the application are needed. See Attachment 1 for Agency contacts.

D. Describe in general terms the proposed project, system, works, or other activities. For permit modifications, please briefly describe the changes requested to the permit: **Reconstruct & widen Johns Lake Road, Install stormwater collection system, Expand existing stormwater pond for treatment & attenuation.**

E. For activities in, on, or over wetlands or other surface waters, check the type of federal dredge and fill permit requested (if known): Individual Programmatic General permit #: SAJ
 General Nationwide permit #:NWP Not Applicable Not sure

F. Project/Activity Street/Road Address or other location (if applicable): **Johns Lake Road**
 City: **Clermont** County(ies)**Lake** Zip: **34711**

Note: For utility, road, or ditch/canal activities, provide a starting and ending point using street names and nearest house numbers or provide length of project in miles along named streets or highways.

G. Project location map and Section, Township, and Range information (use additional sheets if needed): **Please attach a location map showing the location and boundaries of the proposed activity in relation to major intersections or other landmarks. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it.**

Land Grant name, if applicable: **N/A**

Section(s): 33 Township: 22S Range: 26E

H. Latitude (DMS) **283130** Longitude (DMS) **-814256** (Taken from central location of the activity). Explain source for obtaining latitude and longitude (i.e. U.S.G.S. Quadrangle Map, GPS, online resource): **iTouchmap.com**

I. Tax Parcel Identification Number(s):

[Number may be obtained from property tax bill or from the county property appraiser's office; if on multiple parcels, provide multiple Tax Parcel Identification Numbers]

J. Directions to Site (from major roads; include distances and landmarks as applicable): **From the intersection of US 27 & Johns Lake Road travel east 4,250 feet to the project beginning.**

K. Project area or phase area: **9.39** acres

L. Name of waterbody(ies) (if known) in which activities will occur or into which the system will discharge:

Receiving Waterbody	Class Type	Outstanding Florida Water	Aquatic Preserve
Eagle Lake	III Fresh	no	no

The following questions (M-O) are not applicable to activities related to a single-family residence, including private single-family residential docks, piers, seawalls or boat ramps.

M. Is it part of a larger plan of development or sale? yes no

N. Impervious or semi-impervious area excluding wetlands and other surface waters (if applicable): **20.99** acres or square feet

O. Volume of water the system is capable of impounding (if applicable): **13.06** acre- feet.

PART 2: SUPPLEMENTAL INFORMATION, AND PERMIT HISTORY

A. Is this an application to modify an existing Environmental Resource Permit, or to construct or implement part of a multi-phase project, such as a project with a Conceptual Approval permit? Yes No *If you answered "yes", please provide permit numbers below:*

AGENCY	DATE	PERMIT/ APPLICATION NO.	PROJECT NAME

B. Indicate if there have been any **pre-application meeting(s)** or other discussions about the proposed project, system or activity. If so, please provide the date(s), location(s) of the meeting, and the name(s) of Agency staff that attended the meeting(s):

AGENCY	DATE	LOCATION	MEETING ATTENDEES
SJR	11- FEB- 13	Maitland	Sandy Joiner & Don Griffey
SJR	17- JUN- 13	Maitland	Margie Cook & Ani Yeargain

C. **Attach a depiction (plan and section views), which clearly shows the works or other activities proposed to be constructed.** Use multiple sheets, if necessary, a scale sufficient to show the location and type of works, and include a north arrow and a key to any symbols used. **Specific information to be included in the plans is based on the activities proposed and is further described in Sections B-H.**

However, supplemental information may be required based on the specific circumstances or location of the proposed works or other activities.

- D. Processing Fee: ***Please submit the application processing fee along with this application form and supplemental information.*** Processing fees vary based on the size of the activity, the type of permit applied for, and the reviewing Agency. Please reference Attachment 3 to determine the appropriate fee.

PART 3: APPLICANT AND ASSOCIATED PARTIES INFORMATION

Instructions: Permits are only issued to entities having sufficient real property interest as described in Section 4.2.3 (d) of Applicant's Handbook Volume I. Please attach evidence of sufficient real property interest over the land upon which the activities subject to the application will be conducted, including mitigation (if applicable). Refer to Section 4.2.3 (d) for acceptable ownership or real property interest documentation. For corporations, list a person who is a registered agent or officer of the corporation who has the legal authority to bind the corporation.

A. APPLICANT (ENTITY MUST HAVE SUFFICIENT REAL PROPERTY INTEREST)			
<input type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION			
Name: Last: Stivender, Jr.	First: Jim	Middle:	
Title: Public Works Director	Company: Lake County Public Works		
Address: 437 Ardice Avenue,			
City: Eustis	State: FL	Zip: 32726	
Home Telephone:		Work Telephone: 352-483-9000	
Cell Phone:		Fax: 352-483-9015	
E-mail Address: jstivender@lakecountyfl.gov			
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>			
B. LAND OWNER(S) (IF DIFFERENT OR IN ADDITION TO APPLICANT)			
<input type="checkbox"/> CHECK HERE IF LAND OWNER IS ALSO A CO-APPLICANT			
Name: Last:	First:	Middle:	
Title:	Company:		
Address:			
City:	State:	Zip:	
Home Telephone:		Work Telephone:	
Cell Phone:		Fax:	
E-mail Address:			
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>			
C. OPERATION AND MAINTENANCE ENTITY (see Applicant's Handbook I, Section 12.3)			
Entity Name:	Contact: Last: Stivender, Jr.	First: Jim	Middle:
Title:	Company: Lake County Public Works		
Address: 437 Ardice Avenue,			
City: Eustis	State: FL	Zip: 32726	
Home Telephone:		Work Telephone: 352-483-9000	
Cell Phone:		Fax: 352-483-9015	
E-mail Address: jstivender@lakecountyfl.gov			
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>			

D. CO-APPLICANT (IF DIFFERENT OR IN ADDITION TO APPLICANT AND OWNER)		
Name: Last:	First:	Middle:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	Fax:	
E-mail Address:		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>		
E. ENGINEERING CONSULTANT <input checked="" type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION		
Name: Last: Griffey	First: Donald	Middle: A
Title:	Company: Griffey Engineering, Inc.	
Address: 406 N Center St,		
City: Eustis	State: FL	Zip: 32726-3518
Home Telephone:	Work Telephone: 352-357-3528	
Cell Phone:	Fax: 352-357-3219	
E-mail Address: dag@griffeyengineering.com		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>		
F. ENVIRONMENTAL CONSULTANT <input checked="" type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION		
Name: Last: Imbruglia	First: Elaine	Middle:
Title:	Company: Modica and Associates	
Address: 302 Mohawk Road,		
City: Clermont	State: FL	Zip: 34715
Home Telephone:	Work Telephone: 352-394-2000	
Cell Phone:	Fax: 352-394-1159	
E-mail Address: eca@modica.cc		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>		
G. AGENT AUTHORIZED TO SECURE PERMIT (IF DIFFERENT FROM CONSULTANT) <input type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION		
Name: Last:	First:	Middle:
Title:	Company:	
Address:		
City:	State:	Zip:
Home Telephone:	Work Telephone:	
Cell Phone:	Fax:	
E-mail Address:		
Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>		

If necessary, please add additional pages for other contacts and property owners related to this project.

Additional Addresses

Applicant	
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Land Owner	
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Operation and Maintenance Entity	
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Engineering Consultant	
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Environmental Consultant	
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Agent	
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Compliance Entity	
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Consultant	
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PART 4: SIGNATURES AND AUTHORIZATION TO ACCESS PROPERTY

Instructions: For multiple applicants please provide a separate Part 4 for each applicant. For corporations, the application must be signed by a person authorized to bind the corporation. A person who has sufficient real property interest (see Section 4.2.3 (d) of Applicant's Handbook Volume I) is required in (B) to authorize access to the property, except when the applicant has the power of eminent domain.

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Jim Stivender, Jr.

Typed/Printed Name of Applicant or Applicant's Authorized Agent

Signature of Applicant or Applicant's Authorized Agent

Date

7/2/2014

Lake County Public Works Director

(Corporate Title if applicable)

B. CERTIFICATION OF SUFFICIENT REAL PROPERTY INTEREST AND AUTHORIZATION FOR STAFF TO ACCESS THE PROPERTY:

I certify that:

I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency and the U.S. Army Corps of Engineers to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, I agree to provide entry to the project site for such agents or personnel to monitor and inspect permitted work if a permit is granted.

OR

I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency and the U.S. Army Corps of Engineers to access, inspect, and sample the property as described above.

Jim Stivender, Jr.

Typed/Printed Name

Signature

Date

7/2/2014

Lake County Public Works Director

(Corporate Title if applicable)

SECTION E: SUPPLEMENTAL INFORMATION REQUIRED FOR WORKS OR OTHER ACTIVITIES INVOLVING A STORMWATER MANAGEMENT SYSTEM (OTHER THAN A SINGLE-FAMILY PROJECT)

Instructions: The information listed in the checklists below represents the level of information that is usually required to evaluate an application. Information can be provided within reports, plans and documents. The level of information required for a specific project will vary depending on the nature and location of the site and the activity proposed. Conceptual approvals generally do not require the same level of detail as a construction permit. However, providing a greater level of detail will reduce the need to submit additional information at a later date. If an item does not apply to your project, proceed to the next item. The supplemental information required by this section is in addition to the information required by Section A of the ERP application.

PART 1: STORMWATER MANAGEMENT SYSTEM SUMMARY

Provide drainage calculations, signed and sealed by an appropriate registered professional, and supporting documentation demonstrating that the proposed project meets the conditions for issuance under 62-330.301(1)(a),(b),(c),(e), F.A.C. The drainage calculations should include, but not necessarily be limited to, the following:

1. General Site Information:

- a. Provide pre-development and post-development drainage map(s), as appropriate, that include drainage patterns and basin boundaries with acreage served by each hydraulically separate system, showing the direction of flows, including any off-site runoff being routed through or around the system; topographic information; and connections between wetlands and other surface waters.
- b. Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions. Identify the wet season high water table elevations, soil profiles, and hydraulic conductivity. Include dates, datum, and methods used to determine these soil parameters.
- c. Identify the onsite hydrologic soil classification (e.g. Type A, B/D, D). Reference the source, such as the USDA/NRCS Soil Survey, used in estimating the onsite hydrologic soil classification. Provide maps, as appropriate, with the project limits delineated.
- d. Identify the seasonal high water or mean high tide elevation for receiving waters/wetlands into which runoff will be discharged. Include dates, datum, and methods used to determine these elevations.
- e. Identify the name of each receiving waterbody to which the proposed stormwater management system will discharge: Eagle Lake.
- f. Indicate the existing land use and land cover.
- g. Provide the acreage, and percentages of the total project, of the following:
 1. Impervious surfaces, excluding buildings, wetlands and other surface waters;
 2. Buildings;



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3. Pervious surfaces (green areas not including wetlands);
 4. Lakes, canals, retention areas, other open water areas; and
 5. Wetlands (Please refer to Section C to ensure consistency in wetland acreages).
- h. Provide the location and description of any nearby existing offsite features (such as wetland and other surface waters, stormwater management ponds, and building or other structures) which might be affected by or affect the proposed construction or development.

2. Water Quality Analysis:

- a. Provide a description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis.
- b. Is the receiving waterbody known to be impaired, and/or has an established Total Maximum Daily Load (TMDL) or Basin Management Action Plan (BMAP)? If so, please provide specific descriptions of all water quality parameters for which the waterbody is known to be impaired? For more information about water quality, impaired waters, and to determine whether a TMDL has been adopted in your project area, refer to: <http://waterwebprod.dep.state.fl.us/basin411/downloads/Florida-Adopted-TMDLs.pdf>. To determine whether a BMAP exists, or is being developed in your project area, refer to: <http://www.dep.state.fl.us/water/watersheds/bmap.htm#rad>.
 yes no don't know
 If yes, provide calculations demonstrating that the proposed project will not contribute to violations of state water quality standards in accordance with the applicable Applicant's Handbook, Vol. II.
- c. Does the project have a direct discharge to a Class I, Class II, Outstanding Florida Waters or Class III waters, which are approved, conditionally approved, restricted, or conditionally restricted for shellfish harvesting? *To determine whether your project is within, or will discharge to an OFW, or for more information about OFWs in general, refer to: <http://www.dep.state.fl.us/water/wqssp/ofw.htm>.*
 yes no don't know
 If yes, additional treatment in accordance with the applicable Applicant's Handbook, Vol. II, may be required.
- d. Provide construction plans and calculations that address the required treatment volume and recovery, as well as stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria in the applicable Applicant's Handbook, Vol. II.

Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, and justification for model selection.

3. Water Quantity Analysis:

Provide calculations and documentations demonstrating that the project, as proposed, meets the applicable design criteria as indicated in the applicable Applicant's Handbook, Vol. II. Typically, the information would include, at a minimum, but is not necessarily be limited to, the following:

- a. For projects requiring pre-development analysis, provide an analysis of the pre-development peak rate of discharge and / or volume of runoff, for all design storm events. Account for all onsite depressional storage and offsite contributing area. Please refer to the applicable Applicant's Handbook, Vol. II for the design storm event(s) that apply to your project.
- b. Provide an analysis of the post-development peak rate of discharge and / or volume of runoff for all applicable design storm events. Account for all onsite storage and offsite contributing area. Please refer to the applicable Applicant's Handbook, Vol. II for the design storm event(s) and criteria that apply to your project.

These analyses should include:

- Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basins in the pre-development and post-development condition;
- Design storms used including rainfall depth, duration, frequency, and distribution;
- Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);
- Stage-storage computations for any area such as a reservoir, closed basin, detention area, or channel, used in storage routing;
- Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;
- Flood routings through on-site conveyance and storage areas;
- Water surface profiles in the primary drainage system for each required design storm event(s);
- Runoff peak rates and volumes discharged from the site for each required design storm event(s);
- Design tailwater elevation(s) for each storm event at all points of discharge (include source or method of estimate); and
- Pump specifications and operating curves for range of possible operating conditions (if used in system).

Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, input and output data, justification for model selection, and, if necessary, a description of the program.

4. Floodplain Analysis (where applicable).

- a. If the project is in a known floodplain of a stream or other water course, identify the appropriate floodplain boundary and approximate flooding elevations of any lake, stream or other watercourse located on or adjacent to the site.
- b. For traversing works, in accordance with the applicable Applicant's Handbook, Vol. II, provide:

- Hydraulic calculations for all proposed traversing works; and
- Water surface profiles showing upstream impact of traversing works.
- c. For impacts to regulated floodplains, in accordance with the applicable Applicant's Handbook, Vol. II, provide:
 - Location and volume of encroachment within regulated floodplain(s); and
 - Plans and calculations for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.

PART 2: CONSTRUCTION PLANS

1. Provide clear, construction level detailed plans for the system. The plans must be signed and sealed by an appropriate registered professional as required by law. These plans should include cumulative information from all applicable sections; as well as the following:
 - a. Project area boundary and total area, including distances and orientation from roads or other landmark.
 - b. Existing topography extending at least 100 feet off the project area. All topography shall include location and description of benchmarks, reference to NGVD 1929 or NAVD 1988 along with the conversion factor.
 - c. Proposed site plan with acreage, including the following:
 - plan view of proposed development, including impervious surfaces and water management areas;
 - land cover and natural communities*;
 - wetlands and other surface waters*;
 - undisturbed uplands*;
 - aquatic communities*;
 - proposed buffers*;
 - proposed impacts to wetlands and other surface waters, and any proposed connections/outfalls to other surface waters or wetlands, (if applicable); and
 - onsite wetland mitigation areas*.

*Please refer to Section C.

 - For phased projects, provide a master development plan clearing delineating the limits of each phase of construction.
 - d. Paving, Grading, and Drainage Information, which includes, but not necessarily limited to, the following:
 - Existing topography;
 - Boundaries of wetlands and other surface waters and upland buffers (see Section C);
 - Plan view of proposed development;
 - Proposed elevations and/or profiles, including:
 - roadway, parking, and pavement grades;
 - floor slabs, walkways, and other paved surfaces;
 - earthwork grades for pervious landscaped areas; and
 - perimeter site grading, tying back into existing grades.

- Location of all water management areas, including elevations, dimensions, side slopes, and design water depths;
 - Location, size, and invert elevations of existing and proposed stormwater conveyance systems;
 - Vegetative cover plan for all on-site and off-site earth surfaces disturbed by construction; and
 - Rights-of-way and easements for the system, including all on-site and off-site areas to be reserved for water management purposes (including access), and rights-of-way and easements for the existing drainage system, if any.
- e. Stormwater detail information, including but not necessarily limited to, the following:
- Cross section of all stormwater management areas, including elevations, dimensions, side slopes, and proposed stabilization measures (with location of the cross section(s) shown on the corresponding plan view);
 - Detail of all proposed control structures, including elevations, dimensions, and skimmer, where applicable; and
 - Details of proposed stormwater management systems, such as underdrains, exfiltration trenches, vaults, and other proposed Best Management Practices (BMPs).
- f. Location and description of any nearby existing offsite features (such as wetland and other surface waters, stormwater management ponds, and building or other structures) which might be affected by or affect the proposed construction or development.

PART 3: CONSTRUCTION SCHEDULE AND TECHNIQUES

Provide a construction schedule, and a description of construction techniques, sequencing and equipment. This information should include, as applicable, the following.

- a. Access and staging of equipment;
- b. Location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all permanent control measures to be implemented in post-development conditions.
- c. The location of disposal site(s) for any excavated material, including temporary and permanent disposal sites.
- d. A demolition plan for any existing structures to be removed.
- e. Dewatering plan details. If dewatering is required, detail the dewatering proposal including the methods that are proposed to contain the discharge, methods of isolating dewatering areas, and indicate the period dewatering structures will be in place; **Note: a Consumptive Use or Water Use permit may be required for dewatering.**
- f. Methods for transporting equipment and materials to and from the work site. If barges are required for access, provide the low water depths and draft of the fully loaded barge;

PART 4: OPERATION AND MAINTENANCE AND LEGAL DOCUMENTATION:

- a. Describe the overall maintenance and operation schedule for the proposed system.
- b. Identify the entity (or entities) that will be responsible for operating and maintaining the system (or parts of the system) to demonstrate that the entity (or entities) meet(s) the requirements of section 12.3 of the Applicant's Handbook, Vol. I.

- If different from the permittee, provide a draft document enumerating the enforceable affirmative obligations on the entity to properly operate and maintain the system for its expected life, and documentation of the entity's financial responsibility for long-term maintenance.
- If the proposed operation and maintenance entity is not a property owner's association, provide proof of the existence of an entity, or the future acceptance of the system by an entity which will operate and maintain the system.
- c. Provide drafts of all proposed conservation easements, stormwater management system easements, draft property owner's association documents, and plats for the property containing the proposed system.
- d. Provide legal reservations for access to the treatment system for maintenance and operation by future maintenance entities for subdivided projects.
- e. Provide indication of how water and wastewater service will be supplied.
- f. Provide a copy of the boundary survey and/or legal description and acreage of the total land area of contiguous property owned/controlled the applicant.

PART 5: WATER USE

- a. Describe how irrigation will be provided to the project. Will the surface water system be used for water supply, including landscape irrigation, or recreation?
- b. If a Consumptive Use or Water Use permit has been issued for the project, state the permit number:
- c. If a Consumptive Use or Water Use permit has not been issued for the project, indicate if such a permit will be required. yes no don't know
If yes, please indicate when the application for a permit will be submitted:
- d. Indicate how any existing wells located within the project site will be utilized or abandoned.

PART 6: SPECIAL BASIN INFORMATION

Is your project within a special basin as described in the applicable Applicant's Handbook, Vol. II?

yes no don't know

If yes, please demonstrate that the project will meet the applicable special basin criteria. **See Stormwater Calculations**

Fee Receipt

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

P. O. Box 1429
Palatka, FL 32178-1429

RECEIPT #:	59239	Date:	Jul 4, 2014
RECEIVED FROM:	Online Transaction	By:	System Generated
THE SUM OF:	\$ 490.00		

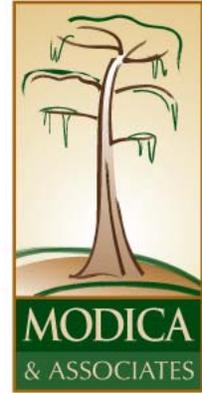
FOR: Application Fee

FEE DETAIL INFORMATION

Online	OnLine-202368735-297033	\$ 490.00
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November 1, 2012

Mr. Don Griffey, P.E.
Griffey Engineering, Inc.
406 North Center Street
Eustis, Florida 32726



PROJECT: Johns Lake Road Widening
RE: Archaeological & Cultural Resource Impact Analysis

ENVIRONMENTAL
PLANNING
DESIGN &
PERMITTING

Dear Mr. Griffey:

Modica & Associates, Inc. reviewed the above referenced project site located on and adjacent to Johns Lake Road in Section 33, Township 22 South, and Range 26 East in Lake County, Florida, for the purpose of preliminarily determining potential impacts of the proposed project on archaeological, historical and cultural resources.

Reasonably ascertainable historic aerial imagery reviewed as part of the subject assessment depicts the project corridor and vicinity in its native vegetative condition (xeric sandhill or scrub) in 1941. By the time of the 1958 imagery, citrus agriculture dominates the landscape. Citrus agriculture remains dominant until the 1999 imagery, at which time an obvious transition to low density residential is evident. Historic imagery is enclosed for your reference (**Appendix A**).

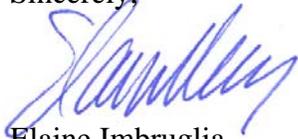
At the present time, the project corridor is predominantly situated in a rural residential landscape. The majority of the private properties which adjoin Johns Lake Road and the associated right-of-way consist of low-density single family residential properties. Community facilities identified within or in close proximity to the project corridor include Clermont Children's Academy, located in the southwestern region of the project corridor, and Grand Highway Baptist Church, located in the north-central region of the project corridor. Both facilities are depicted on the enclosed Cultural Resources Map.

The Florida Department of State, Division of Historic Resources (DHR), State Historic Preservation Office (SHPO) was contacted in an effort to identify historic properties within the proposal's area of potential effect (**Exhibit B**). Modica & Associates discussed the submitted request for historic and cultural resources along the Johns Lake Road right-of-way with SHPO staff on September 10, 2012 and again on October 4, 2012. Staff with SHPO indicated that unless the proposed project would receive federal funding, that they would not

provide a written determination on this matter until the project has been submitted to a state agency for review (i.e. St. Johns River Water Management District; SJRWMD), or if there is a local ordinance that requires SHPO review. Modica & Associates confirmed that federal funding was not anticipated for the Johns Lake Road Widening project, and there is not a local ordinance that requires SHPO coordination prior to permit application submittals. Therefore, SHPO was unable to provide a written determination to our request. However, SHPO staff did state that because the project site has been disturbed by past roadway development, the likelihood that historic and cultural resources would be present or would require detailed investigation would be relatively low. It is recommended that SHPO be contacted directly upon application submittal to SJRWMD, to ensure that enough time is allowed to address this element if necessary.

Please contact me if you have any questions or require further information.

Sincerely,



Elaine Imbruglia
President

Enclosure

APPENDIX A



Historical Aerial Photo
2006

**JOHNS LAKE RD
CLERMONT, FL 347**

Target Site: 28.525128 -81.713134; Job Number: LA-664



1 inch equals 750 feet

FIRSTSEARCH



Historical Aerial Photo
1999

**JOHNS LAKE RD
CLERMONT, FL 347**

Target Site: 28.525128 -81.713134; Job Number: LA-664



1 inch equals 750 feet



Historical Aerial Photo
1983

**JOHNS LAKE RD
CLERMONT, FL 347**



FIRSTSEARCH

Target Site: 28.525128 -81.713134; Job Number: LA-664

1 inch equals 750 feet



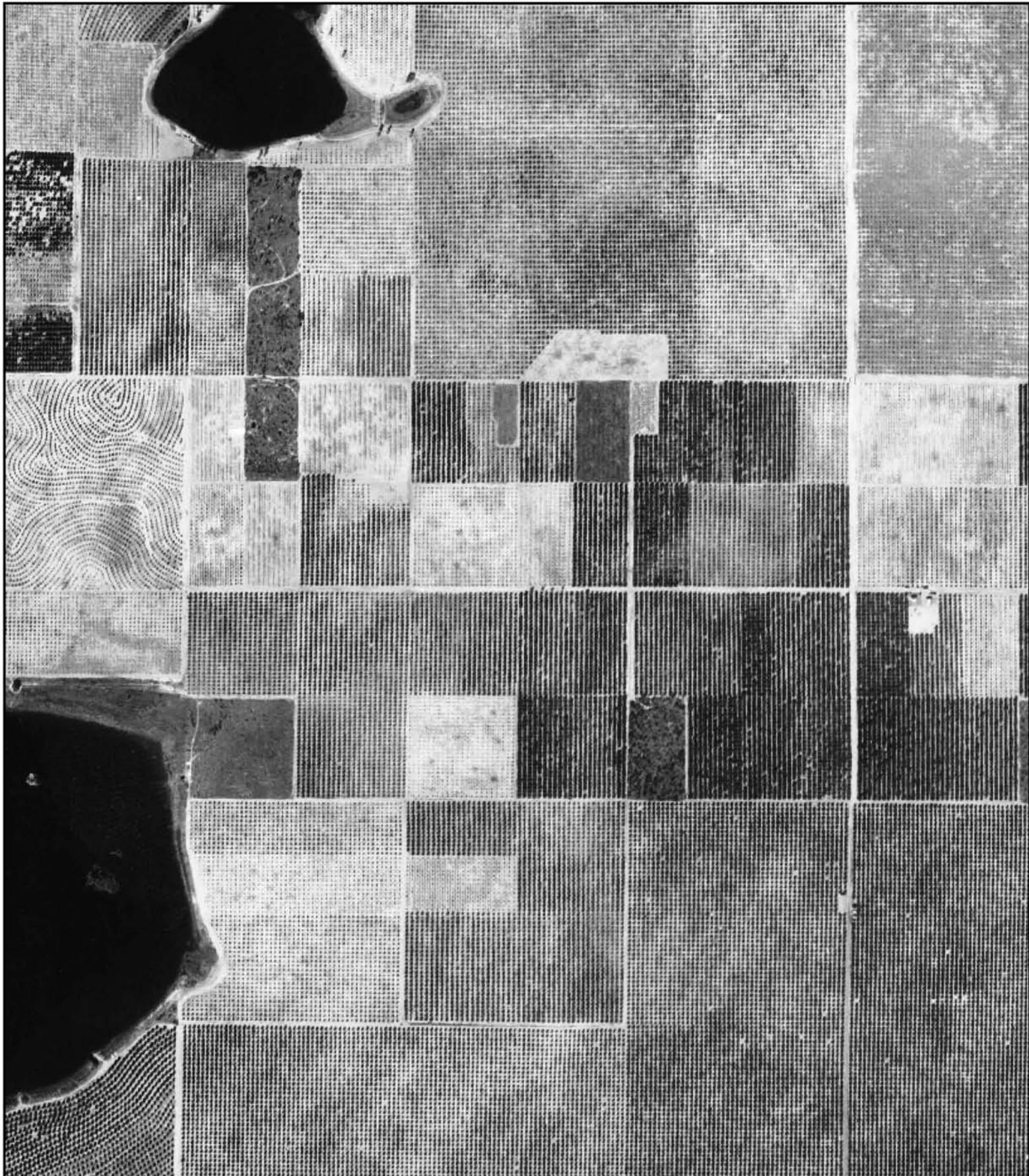
Historical Aerial Photo
1972

**JOHNS LAKE RD
CLERMONT, FL 347**

Target Site: 28.525128 -81.713134; Job Number: LA-664



1 inch equals 750 feet



Historical Aerial Photo
1958

**JOHNS LAKE RD
CLERMONT, FL 347**



FIRSTSEARCH

Target Site: 28.525128 -81.713134; Job Number: LA-664

1 inch equals 750 feet



Historical Aerial Photo
1941

**JOHNS LAKE RD
CLERMONT, FL 347**



Target Site: 28.525128 -81.713134; Job Number: LA-664

1 inch equals 750 feet

APPENDIX B

kdpeterson@dos.state.fl.us

July 31, 2012

Ms. Katie Peterson
Division of Historical Resources
500 S. Bronough Street
Tallahassee, Florida 32399-0250

**PROJ: Johns Lake Road Widening
Section 33, Township 22 South, and Range 26
Lake County, Florida**
RE: Request for SHPO Consultation

Dear Ms. Peterson:

Lake County is conducting a feasibility study to assess potential impacts associated with a proposed project involving widening of an existing road. Johns Lake Road is located in Section 33, Township 22 South, Range 26, Lake County, Florida. The proposed project will involve clearing and paving associated with widening the existing road way, as well as construction of stormwater management infrastructure.

The enclosed maps and figures depict the proposal's area of potential effect for all construction activities. Lake County requests the assistance of your office in identifying historic properties that are listed or eligible for listing on the National Register of Historic Places and that may be affected by the project.

Please provide any recommendations you may have to mitigate or avoid impacts to properties that may be affected. We would greatly appreciate a response within 30 days. If you need any further information or wish to discuss the project, please contact me at 352-394-2000.

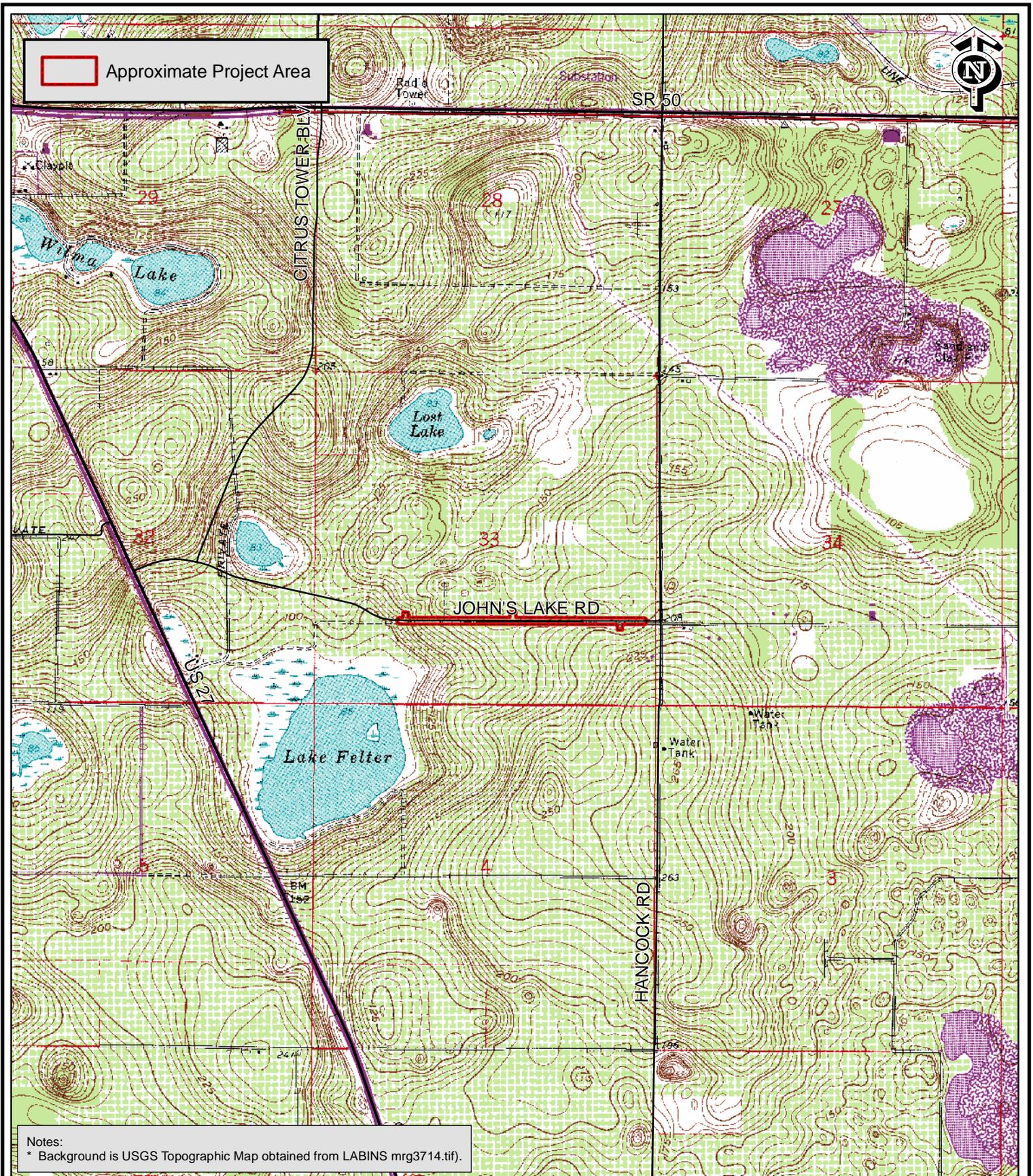
Sincerely,



Laura Vedral Mills
Project Manager



ENVIRONMENTAL
PLANNING
DESIGN &
PERMITTING



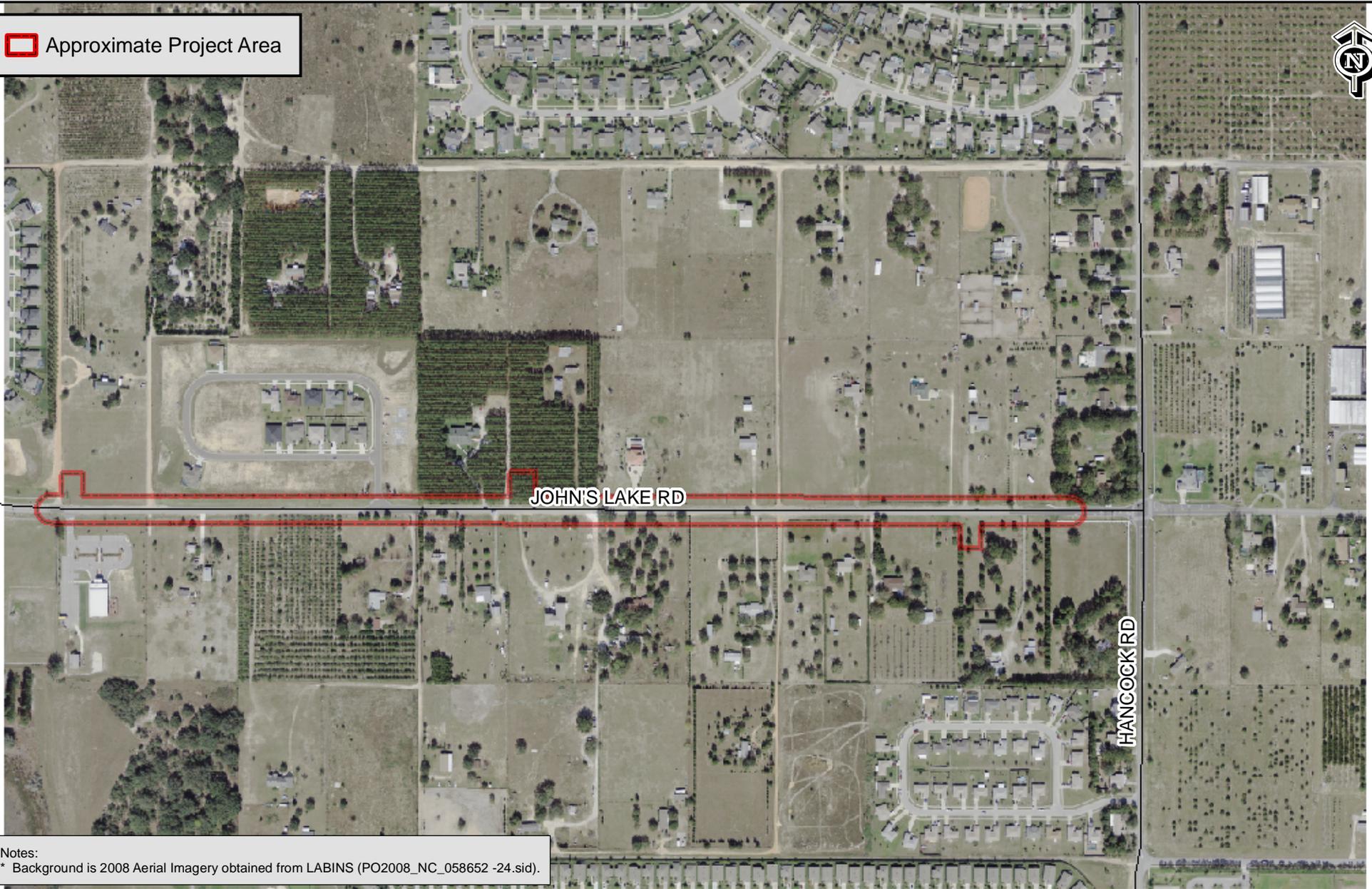
Johns Lake Road Widening Project

Figure 1 - USGS 7.5' Topographic Quadrangle - Clermont East
 Section 33, T22S, R26E
 Lake County, Florida



Modica & Associates, Inc.
 Environmental Planning, Design & Permitting
 302 Mohawk Road
 Clermont, FL 34715
 Phone: (352) 394-2000
 Fax: (352) 394-1159
 Email: Environmental@Modica.cc
www.ModicaAndAssociates.com

 Approximate Project Area



JOHN'S LAKE RD

HANCOCK RD

Notes:
* Background is 2008 Aerial Imagery obtained from LABINS (PO2008_NC_058652 -24.sid).

Johns Lake Road Widening Project

Figure 2 - 2008 Aerial Photography
Section 33, T22S, R26E
Lake County, Florida



Modica & Associates, Inc.
Environmental Planning, Design & Permitting
302 Mohawk Road
Clermont, FL 34715
Phone: (352) 394-2000
Fax: (352) 394-1159
Email: Environmental@Modica.com
www.ModicaAndAssociates.com



December 30, 2013
Project No.: CPGT-12-0062

To: Griffey Engineering, Inc.
406 N. Center Street
Eustis, Florida 32726

Attention: Mr. Don Griffey, P.E.

Subject: Report of Geotechnical Engineering Services
Proposed Stormwater Management System
Final Selected Location
John's Lake Road Widening Project
Clermont, Lake County, Florida

Dear Mr. Griffey:

Pursuant to your request and authorization, Andreyev Engineering, Inc. (AEI) has completed a subsurface exploration program and geotechnical engineering evaluation for the above referenced project. The purpose of this study was to obtain geotechnical data at the above referenced site to assist in the design/permitting of the proposed stormwater management system. Presented herein are the results of our findings together with our conclusions and recommendations.

SITE LOCATION AND PROJECT DESCRIPTION

The subject site is located on the north side of John's Lake Road approximately 650 to 1000 feet east with the intersection of Eagle Lake Drive in Clermont, Lake County, Florida (Section 33, Township 22 South, Range 26 East). Please refer to the attached **Figure 1** (USGS Quadrangle Map) which shows the location of the subject site.

The final selection of the projects' stormwater management system consists of permitting an existing stormwater retention pond to store and infiltrate the additional stormwater runoff that will be generated from the planned road widening. The existing stormwater retention system is a dry bottom pond.

REVIEW OF AVAILABLE PUBLISHED INFORMATION

U.S.G.S. Topographic Map

According to the information presented on the U.S.G.S. Topographic Map presented as **Figure 1** in this report, the predevelopment ground surface elevation of the site ranges from approximately 100 to 125 feet, NGVD. The ground surface within the vicinity of the site generally slopes to the west-southwest. The closest off site water body is Lake Felter which is located several hundred

feet south-southwest of the site. The water surface elevation of Lake Felter is 85 feet, NGVD as shown on the U.S.G.S. Map.

N.R.C.S. Soil Survey Map

The N.R.C.S. Soil Survey Map of the site is presented as **Figure 2** in this report. According to this map, there are two (2) soil map units identified within the site. General information regarding the mapped soil units for the project site is provided in the following table.

Soil Unit #	Name	High Water Table Depth (feet)	General Soil Profile
8	Candler Sand, 0 to 5% slopes	>6.0	0-95” Fine Sand, Sand 95”-99” Sandy Loam, Sandy Clay Loam
9	Candler Sand, 5 to 12% slopes	> 6.0	0-95” Fine Sand, Sand 95”-99” Sandy Loam, Sandy Clay Loam

SCOPE OF FIELD EXPLORATION

The scope of our field exploration included project coordination, subsurface exploration, collection of representative soil samples, measuring the depth to groundwater, and performing constant head field permeability tests. The subsurface exploration program for this study consisted of drilling three (3) auger borings each to a depth of 20 feet below existing grade. The borings were drilled at the bottom level of the existing pond. The auger borings were conducted in general accordance with the procedures of ASTM D-1452. Representative samples of each soil strata were collected from the auger flights and were then packaged and sealed for transportation to our laboratory for further examination and visual classification.

The locations where the borings were drilled are presented on the attached **Figure 3**. Please note that survey control was not provided for our field investigation. Therefore, the indicated boring locations should be considered approximate.

Additionally, we performed three (3) constant head field permeability tests to assess the hydraulic conductivity of the soils below the bottom of existing pond. The results of the tests are presented adjacent to the soil profiles on the attached **Figure 4**.

LABORATORY TESTING PROGRAM

Soil samples collected from the auger borings were returned to our laboratory facility where they were visually classified by an AEI geotechnical engineer. The samples were classified in general accordance with the Unified Soil Classification System (USCS). The soil classifications are included in the legend on the attached **Figure 4**.

SOIL AND GROUNDWATER CONDITIONS

Subsoil Stratigraphy

The borings disclosed relatively homogeneous soil conditions within the explored depth of 20 feet below existing pond bottom elevation. From the existing grade to the maximum boring depth of 20 feet, the soils consist of light brown to orange brown to brown fine sand (SP materials).

Please refer to the soil profiles on the attached **Figure 4** for specific boring data. The information presented on the soil profiles represent the subsurface conditions encountered at the specific boring locations. Accordingly, the materials away from the boring locations may vary from those encountered in the borings. The strata boundaries presented on the soil profiles have been approximated. The actual boundaries may be gradual or otherwise not clearly defined.

Groundwater Table

At the time of drilling on December 14, 2013 the groundwater table was not encountered within the explored depth of 20 feet. Fluctuation of the groundwater table should be anticipated throughout the year due to variations in seasonal rainfall. Based on the time of year, the measured groundwater level, and the amount of rainfall received to date it is our opinion that the normal wet season high groundwater table will be greater than a depth of 20 feet below the existing grades at the boring locations.

EVALUATION AND RECOMMENDATIONS

Pond Design Recommendations

The subsoil's beneath the existing pond bottom consist of very well draining fine sand to the maximum explored depth of 20 feet. The horizontal coefficient of permeability obtained from the field permeability tests ranged from 31.8 to 48.8 feet per day. Furthermore, the groundwater table was not encountered within 20 feet of the existing pond bottom. Based on the results of our findings, we did not encounter any conditions that would impede stormwater infiltration in a timely manner and in our opinion the site is considered conducive to successful performance of a dry bottom pond. The following table presents our recommended aquifer parameters to be used in the design of the proposed retention pond.

Depth to Bottom of Aquifer (feet)*	Average Unsaturated Vertical Hydraulic Conductivity (ft./day)	Average Horizontal Hydraulic Conductivity (ft./day)	Depth to Normal Wet Season High Groundwater Table (feet)	Soil Storage Coefficient
20.0	17	39	19.9**	0.25

*- Referenced from existing pond bottom elevation

** - Actual value is greater

Please note that the recommended hydraulic conductivity values presented in the above table do not include a factor of safety.

Excavations

All excavations should be constructed in accordance with applicable local, state and federal regulations including those outlined by the Occupational Safety and Health Administration (OSHA). It is the contractor's sole responsibility for designing and constructing safe and stable excavations. Excavations should be sloped, benched or braced as required to maintain stability of the excavation sides and bottoms. Excavations should take into account loads resulting from equipment, fill stockpiles and existing construction. Any shoring needed to maintain a safe excavation should be designed by a professional engineer registered in the State of Florida in accordance with local, state and federal guidelines.

LIMITATIONS OF REPORT

The analyses and recommendations submitted in this report are based upon the data obtained from the soil boring performed at the location indicated, and do not reflect any variations which may occur beyond the boring. If any variations become evident during the course of construction, or if the pond location changes, a re-evaluation of the recommendations contained in this report will be necessary after we have had an opportunity to observe and evaluate the characteristics of the conditions encountered. Shifting or moving the pond location will require additional evaluation.

GENERAL CONDITIONS

This report has been prepared for the exclusive use of Griffey Engineering, Inc. and its designers, based on our understanding of the project as stated in the section entitled "Site Location and Project Description". The recommendations presented in this report have been prepared in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made as to the professional advice presented herein. Statements regarding all geotechnical recommendations are for use by the designers and are not intended for use by potential contractors.

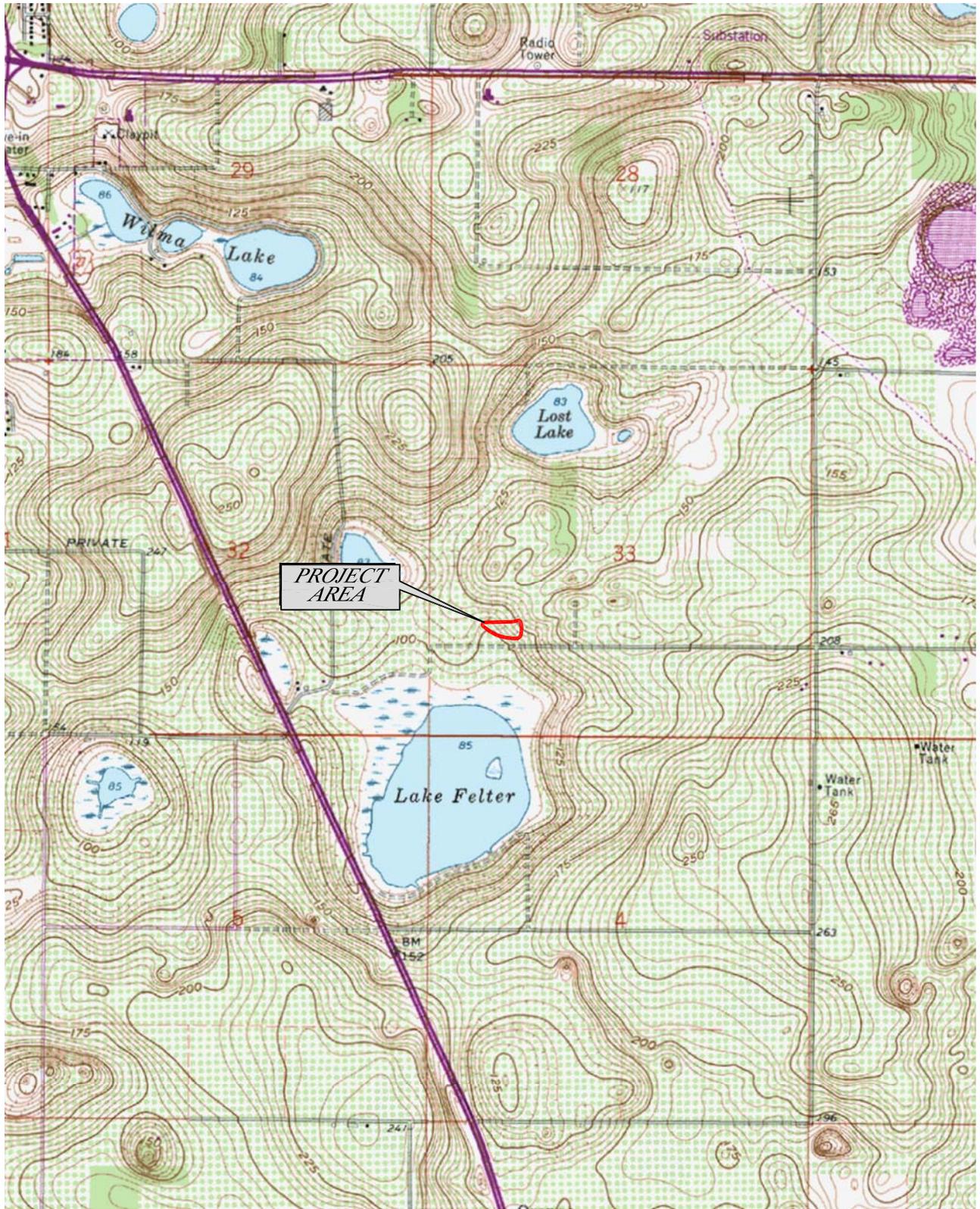
CLOSURE

AEI appreciates the opportunity to provide our services for this project, and we trust that the information herein is sufficient for your immediate needs. Should you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned at 352-241-0508.

Sincerely,
ANDREYEV ENGINEERING, INC.



Ed Miguens, P.E.
Vice President
Florida Registration No.: 47535



REFERENCE:
 U.S.G.S. CLERMONT EAST, FLA.
 QUADRANGLE MAP
 DATED 1962
 PHOTOREVISED 1980
 SECTION 33
 TOWNSHIP 22 SOUTH
 RANGE 26 EAST



**Andreyev
 Engineering,
 Inc.**

GEOTECHNICAL INVESTIGATION
**PROPOSED STORMWATER
 MANAGEMENT SYSTEM**
FINAL SELECTED LOCATION
 JOHNS LAKE ROAD WIDENING PROJECT
 CLERMONT, LAKE COUNTY, FL

APPROXIMATE SCALE:
 1" = 2000'

DATE: 01/02/14

ENGINEER: EM

PN: CPGT-12-0062

DRAWN BY: DLS

U.S.G.S. TOPOGRAPHIC MAP

FIGURE 1



REFERENCE:
N.R.C.S. WEB SOIL SURVEY

LEGEND:

- 8 CANDLER SAND
0 TO 5 % SLOPES
- 9 CANDLER SAND
5 TO 12 % SLOPES



**Andreyev
Engineering,
Inc.**

APPROXIMATE SCALE:
1" = 300'

DATE: 01/02/14

ENGINEER: EM

PN: CPGT-12-0062

DRAWN BY: DLS

GEOTECHNICAL INVESTIGATION
**PROPOSED STORMWATER
MANAGEMENT SYSTEM
FINAL SELECTED LOCATION**
JOHNS LAKE ROAD WIDENING PROJECT
CLERMONT, LAKE COUNTY, FL

N.R.C.S. SOIL SURVEY MAP

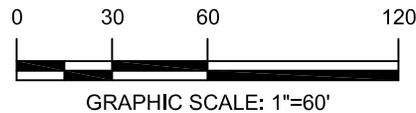
FIGURE 2



LEGEND:

— APPROXIMATE BOUNDARY OF POND

● APPROXIMATE LOCATION OF AUGER BORING



**Andreyev
Engineering,
Inc.**

GEOTECHNICAL INVESTIGATION
**PROPOSED STORMWATER
 MANAGEMENT SYSTEM
 FINAL SELECTED LOCATION**
 JOHNS LAKE ROAD WIDENING PROJECT
 CLERMONT, LAKE COUNTY, FL

APPROXIMATE SCALE:

1" = 60'

DATE: 01/02/14

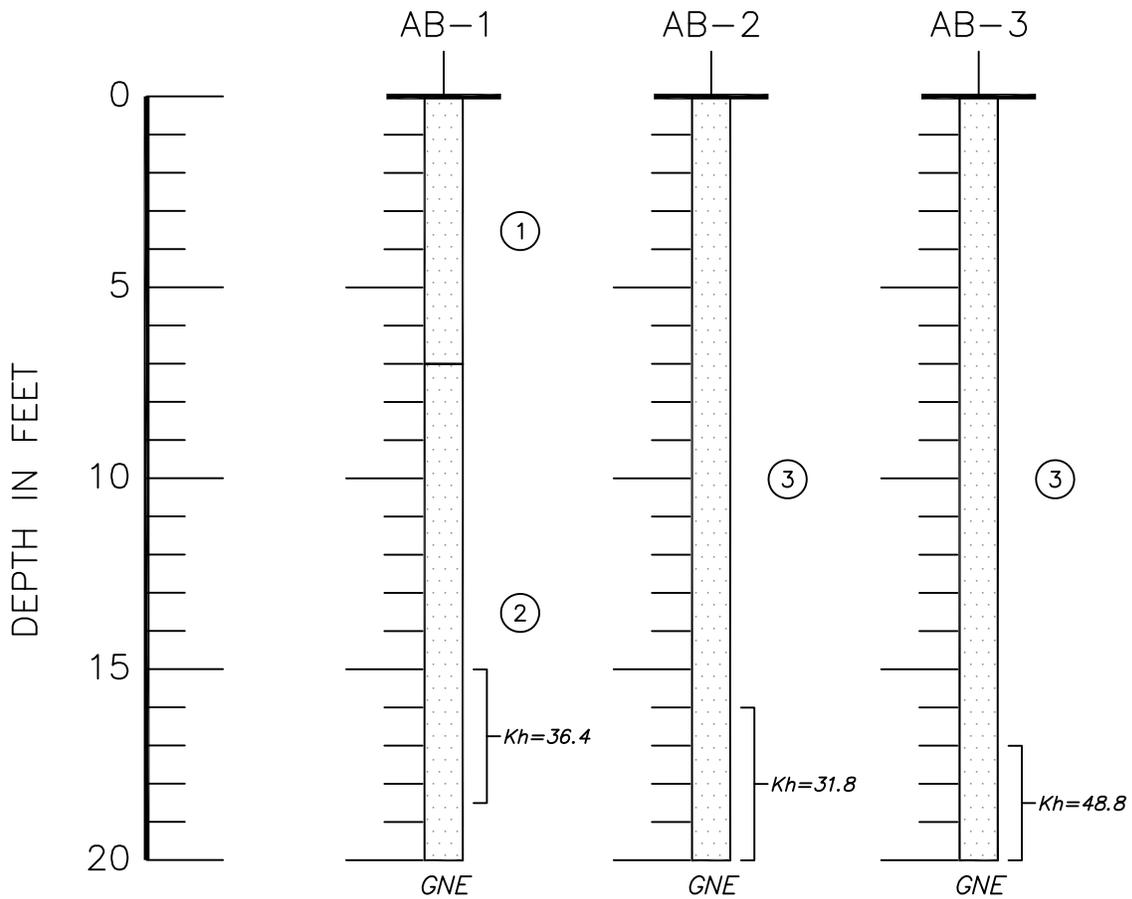
ENGINEER: EM

PN: CPGT-12-0062

DRAWN BY: DLS

BORING LOCATION PLAN

FIGURE 3



LEGEND:

- ① BROWN FINE SAND (SP)
- ② LIGHT BROWN FINE SAND (SP)
- ③ ORANGE-BROWN FINE SAND (SP)

(SP) UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL

GNE GROUNDWATER NOT ENCOUNTERED

Kh HORIZONTAL COEFFICIENT OF PERMEABILITY, IN FEET PER DAY

 Andreyev Engineering, Inc.		GEOTECHNICAL INVESTIGATION PROPOSED STORMWATER MANAGEMENT SYSTEM FINAL SELECTED LOCATION JOHNS LAKE ROAD WIDENING PROJECT CLERMONT, LAKE COUNTY, FL	
		SOIL PROFILES	
APPROXIMATE SCALE: 1"=5'	DATE: 01/02/14	ENGINEER: EM	FIGURE 4
	PN: CPGT-12-0062	DRAWN BY: DLS	



JOHNS LAKE ROAD
Project Area = 9.39 Ac.

Johns Lake Road

Hancock Road



GENERAL NOTES

- A. ALL MATERIALS, INSTALLATION, TESTING, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF LAKE COUNTY, FLORIDA AND THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND F.D.O.T. DESIGN STANDARDS, LATEST EDITION WITH THE EXCEPTION OF TRAFFIC MARKINGS. ALL TRAFFIC STRIPING AND MARKINGS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF LAKE COUNTY, THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION F.D.O.T. DESIGN STANDARDS, LATEST EDITIONS. WHERE THE SPECIFICATIONS CONFLICT, THE MAXIMUM REQUIREMENTS OF EITHER SPECIFICATION SHALL APPLY, UNLESS OTHERWISE DIRECTED BY THE DIRECTOR OF ENGINEERING.
- B. ALL PROPOSED ELEVATIONS ARE SHOWN WITH A BORDER. (i.e.: XX.XX). ALL OTHER SPOT ELEVATIONS SHOWN ARE EXISTING NAVD 1988 DATUM.
- C. PAVEMENT SHALL MEAN ALL ASPHALT AND BASE ASSOCIATED WITH A DRIVING SURFACE AS SHOWN ON THE CONSTRUCTION PLANS.
- D. PAVEMENT REMOVAL SHALL BE REQUIRED ON ALL SIDE STREETS AND DRIVEWAYS THAT ARE WITHIN THE LIMITS OF THE PROPOSED EDGE OF PAVEMENT OF COUNTY ROAD, AND CONSTRUCTED PER THE CROSS SECTION SHOWN ON THE CONSTRUCTION PLANS MATCHING EXISTING WIDTH AND ELEVATION UNLESS OTHERWISE NOTED.
- E. A CONSTANT SLOPE SHALL BE MAINTAINED BETWEEN DESIGNATED AREAS OF CUT AND FILL.
- F. ALL FILL EXCLUDING SUB GRADE AND/OR SUBBASE PLACED WITHIN PROPOSED ROAD RIGHT-OF-WAY OR EASEMENT SHALL BE COMPACTED AS FOLLOWS:
- ROADWAY SHOULDERS (BEYOND THE STABILIZED SHOULDER) 95% MAXIMUM DENSITY, AASHTO T-180, SIX (6") INCHES TYPE B STABILIZATION, MINIMUM 40 LBR SHALL BE REQUIRED.
- ROADWAY AREAS (UNDER PAVEMENT AND STABILIZED SHOULDERS) 98% MAXIMUM DENSITY, AASHTO T-180.
- FILL VOLUMES SHOWN DO NOT HAVE A COMPACTION MULTIPLIER FACTORED. THE CONTRACTOR SHALL DETERMINE A COMPACTION FACTOR AND APPLY IT FOR FINAL FILL PLACEMENT VOLUMES. FOR SUBGRADE AND/OR SUBBASE REQUIREMENTS, PLEASE REFER TO SPECIFIC CROSS SECTION.
- G. UNLESS NOTED OTHERWISE, THE ESTABLISHED CLEAR ZONE IS TEN (10) FEET FROM NEW EDGE OF TRAVEL WAY. ALL ABOVE GROUND STRUCTURES SUCH AS MAIL BOXES, TRAFFIC CONTROL SIGNS, STREET SIGNS, FENCES, ETC., ARE TO BE REMOVED AND REPLACED OUTSIDE OF THE CLEAR ZONE. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF REMOVAL AND REPLACEMENT OF THESE STRUCTURES. DAILY ACCESS TO MAILBOXES SHALL BE MAINTAINED. ALL FENCES ARE TO BE RELOCATED TO THE RIGHT-OF-WAY LINE. THE DIRECTOR OF ENGINEERING MAY WAIVE SOME OF THESE REQUIREMENTS, IF NECESSARY.
- H. ALL WORK SHALL BE PERFORMED IN SUCH A MANNER THAT WILL SUCCESSFULLY ACCOMPLISH THE INTENDED DESIGN WITH MINIMAL IMPACT TO EXISTING CONDITIONS. ANY CONSTRUCTION ACTIVITY PERFORMED WITHOUT PRIOR WRITTEN APPROVAL FROM THE DIRECTOR OF ENGINEERING THAT IS DEEMED EXCESSIVELY DISRUPTIVE TO EXISTING CONDITIONS OF THE SURROUNDING AREA AND/OR SIGNIFICANTLY DEVIATES FROM THE LIMITS OF CONSTRUCTION AS SET FORTH BY THESE CONSTRUCTION PLANS SHALL BE CONSIDERED AS PART OF THE ORIGINAL WORK AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN TO RESTORE THE DISTURBED AREA(S).
- I. APPARENT ERRORS, DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION WITHIN A REASONABLE TIME FRAME, LESS THAN 48 HOURS AFTER DISCOVERED. ADVANTAGE WILL NOT BE TAKEN OF APPARENT ERROR OR OMISSION IN THE DRAWINGS OR SPECIFICATIONS, AND THE ENGINEER SHALL BE PERMITTED TO MAKE CORRECTIONS AND INTERPRETATIONS AS MAY BE DEEMED NECESSARY FOR FULFILLMENT OF THE INTENT OF THE DESIGN.
- J. CONTRACTOR SHALL VERIFY ALL EXISTING ROADWAY CROSS-SLOPES.
- K. THE CLOSURE OF JOHNS LAKE ROAD DURING CONSTRUCTION IS PROHIBITED. BOTH LANES OF JOHNS LAKE ROAD SHALL BE ACCESSIBLE WHEN CONSTRUCTION IS NOT ACTIVE.

PUBLIC NOTIFICATION

- A. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO ALL RESIDENCES ADJACENT TO THE PROJECT LIMITS. WITHIN A MINIMUM OF 14 CALENDAR DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PROVIDE TO THE COUNTY A COPY OF THE NOTIFICATION WITH A LIST OF THE PARTIES CONTACTED. THIS NOTICE SHALL INCLUDE, AT A MINIMUM, THE ANTICIPATED CONSTRUCTION SCHEDULE, MAINTENANCE OF TRAFFIC PLAN AND ANY IMPACTS, PERMANENT OR TEMPORARY, TO THE SUBJECT RESIDENCE AND ITS ADJACENT AREA. CONTRACTOR SHALL PROVIDE CONTACT INFO INCLUDING NAME OF PROJECT MANAGER AND TELEPHONE NUMBER.
- B. CONTRACTOR SHALL ALSO INSTALL PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGNS (PCMS, F.D.O.T. INDEX 670) ON COUNTY ROAD IF IMPACTED BY CONSTRUCTION, ONE (1) WEEK PRIOR TO CONSTRUCTION IN ORDER TO INFORM RESIDENTS AND ROADWAY USERS OF THE IMPENDING CONSTRUCTION. THE PCMS SHALL DISPLAY LANE CLOSURE INFORMATION INCLUDING BUT NOT LIMITED TO ANTICIPATED LANES TO BE CLOSED, EXTENT OF LANE CLOSURE (I.E. "NEXT 3 MILES"), DAILY HOURS OF CLOSURE, AND TEMPORARY SPEED RESTRICTIONS.

STRIPING & SIGNING

- A. ALL STRIPING SHALL BE LEAD AND SOLVENT FREE THERMOPLASTIC, UNLESS NOTED OTHERWISE.
- B. STRIPING SHALL CONFORM TO M.U.T.C.D., LATEST EDITION, F.D.O.T., AND LAKE COUNTY SPECIFICATIONS. WHERE THE SPECIFICATIONS CONFLICT, THE MAXIMUM REQUIREMENTS SHALL APPLY UNLESS OTHERWISE DIRECTED BY THE DIRECTOR OF ENGINEERING.
- C. STRIPING SHALL BE REFLECTORIZED.
- D. ALL CENTERLINE STRIPING SHALL HAVE REFLECTIVE RAISED PAVEMENT MARKINGS (RPM'S) PER F.D.O.T. STANDARDS INDEX 17352, UNLESS NOTED OTHERWISE.
- E. ALL TRAFFIC CONTROL SIGNS THAT ARE DISTURBED SHALL BE REPLACED.
- F. ALL STRIPING, SIGNING, AND SIGNAL WORK SHALL BE COORDINATED WITH LAKE COUNTY TRAFFIC OPERATIONS. CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS (352) 742-1766 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY STRIPING, SIGNING, OR SIGNAL WORK.
- G. ALL PAVEMENT MARKING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS INCLUDING BUT NOT LIMITED TO "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DESIGN STANDARDS" AND THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
- H. A NO-PASSING STUDY SHALL BE USED TO ESTABLISH LIMITS ON THE ROADWAY WHICH WOULD PERMIT THE PASSING DRIVER THE NECESSARY SIGHT DISTANCE AT THE CRITICAL POSITION (PASSING AND PASSED VEHICLE ABREAST) TO ALLOW SAFE COMPLETION OF THE PASSING MANEUVER. THE NO-PASSING STUDY SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER (PE), TAKING THE RESPONSIBILITY FOR THE STUDY RECOMMENDATIONS AND CONCLUSIONS. THE PLAN SHALL SHOW THE ROAD MARKINGS PATTERN THAT REPRESENTS THE RESULTS OF THE NO-PASSING STUDY.
- I. THE CONTRACTOR SHALL SELF INSPECT ALL ROAD MARKINGS USING THE MAY 27, 2005 FLORIDA METHOD OF TEST FOR TRAFFIC STRIPING RETRO REFLECTIVITY DESIGNATION: FM 5-579 OR THE LATEST EDITIONS NOW IN FORCE OR HEREAFTER ADOPTED; TO TEST AND CERTIFY WIDTH, THICKNESS, COLOR AND RETRO REFLECTIVITY. THE RESULTS SHALL BE SUBMITTED TO THE COUNTY BY THE CONTRACTOR, AND COUNTY RESERVES THE RIGHT TO VERIFY ALL TEST RESULTS. THE COUNTY'S TEST SHALL BE FINAL AND BINDING.
- J. ALL SIGNS AND SIGNAL EQUIPMENT TO BE REMOVED ARE THE PROPERTY OF LAKE COUNTY. THESE ITEMS SHALL BE RETURNED TO LAKE COUNTY TRAFFIC OPERATIONS OR DISPOSED OF BY THE CONTRACTOR AT LAKE COUNTY TRAFFIC OPERATIONS' DIRECTION.
- K. ALL MATERIALS AND HARDWARE SHALL BE F.D.O.T. APPROVED AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS PRIOR TO INSTALLATION.

CALL BEFORE YOU DIG:

Sunshine State One Call
11 Plantation Road
DeBary, FL 32713
Admin: (800) 638-4097
Locates: 811 or (800) 432-4770



DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELUSTA, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082	JOHNS LAKE ROAD IMPROVEMENTS			SHEET NO.
07-10-2013	DAG/DMK 30% PLANS			ROAD NO.	COUNTY	CITY	
11-14-2013	DAG/DMK 60% PLANS	2-1158	LAKE	CLERMONT	C2		
03-28-2014	DAG/DMK 90% PLANS						
07-01-2014	DAG/DMK 100% PLANS						

DRIVEWAYS

- A. DRIVEWAYS SHALL BE PAVED WITHIN THE RIGHT-OF-WAY.
- B. SINGLE RESIDENTIAL DRIVES SHALL MATCH EXISTING WIDTH AND BE A MINIMUM OF 10.0' WIDE WITH AN 8.0' RADIUS OR 4' x 8' WEDGE (18' ADJACENT TO DRIVEWAY).
- C. DRIVEWAYS SHALL NOT EXCEED 14% SLOPE.
- D. CONCRETE APRONS SHALL BE CONSTRUCTED AT EXISTING CONCRETE DRIVEWAYS. CONCRETE SHALL BE A MINIMUM OF SIX (6) INCHES THICK, 3,000 P.S.I. WITH 6 x 6 10 /10 WWM.
- E. DRIVEWAY LOCATIONS AND WIDTHS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED AS DIRECTED BY THE DIRECTOR OF ENGINEERING.

SURVEY

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONTROL AND BENCHMARK DATA BEFORE CONSTRUCTION. DISCREPANCIES IN DATA SHALL BE BROUGHT TO THE ATTENTION OF THE LAKE COUNTY SURVEY MANAGER AT (352) 483-9085.
- B. ALL (P.R.M.'s) IRONS AND MONUMENTS SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
- C. PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED THE COUNTY SURVEYOR SHALL BE IMMEDIATELY NOTIFIED.
- D. AT THE COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL PROVIDED A CERTIFIED RECORD SURVEY OF THE INSTALLED IMPROVEMENTS.

TRAFFIC CONTROLS

- A. EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.
- B. CONTRACTOR SHALL SUBMIT DETAILED MAINTENANCE OF TRAFFIC PLANS FOR REVIEW AND APPROVAL. ALL ROADS SHALL BE OPEN TO TRAFFIC WITH NO PERMANENT LANE CLOSURES ALLOWED. CONTRACTOR SHALL CONFORM TO THE LATEST EDITIONS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 600 - 660 AS APPLICABLE.
- C. ANY TEMPORARY ROAD CLOSURE REQUIRES AUTHORIZATION REQUEST MADE TO LAKE COUNTY ROAD OPERATIONS AT (352) 742-0478 AND WITH AT LEAST THREE (3) DAYS NOTICE PRIOR TO CLOSURE. CONTRACTOR MUST SUPPLY A DETOUR PLAN WHEN REQUESTING CLOSURE. NO CLOSURE SHALL TAKE PLACE WITHOUT APPROVAL OF THE DETOUR PLAN. CONTRACTOR SHALL SUPPLY ALL SIGNAGE ASSOCIATED WITH CLOSURE AND DETOUR.
- D. IF EXISTING VEHICLE DETECTION LOOPS ARE DAMAGED DURING CONSTRUCTION, CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY DETECTION LOOPS.

DRAINAGE

- A. IN ALL PONDS THAT REQUIRE FILL, THE CONTRACTOR SHALL USE WELL GRADED SAND FILL NO MORE THAN 10% PASSING #200 SIEVE MATERIAL IN THE POND BANKS AND BOTTOM. AT NO TIME SHALL CLAYS/CLAYEY SOILS BE USED UNLESS AUTHORIZED BY THE DIRECTOR OF ENGINEERING OR HIS DESIGNEE. THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY CONSTRUCTION INSPECTOR 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY POND CONSTRUCTION TO COORDINATE THE INSPECTION OF THE PROPOSED CONSTRUCTION PRACTICES AND MATERIALS TO BE USED.
- B. ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES WITHIN THE RIGHT-OF-WAY SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING HS-20 LOADING REQUIREMENTS.
- C. UNLESS OTHERWISE NOTED, ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL PIPES, PIPE END TREATMENTS, AND DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION IN A DRY CONDITION OR AS APPROVED BY THE DIRECTOR OF ENGINEERING.
- E. CONSTRUCT ALL MITERED END SECTIONS PER F.D.O.T. DESIGN STANDARDS INDEX No. 272.
- F. ALL ROADWAY CROSSINGS FOR PROPOSED STORM WATER SYSTEMS SHALL BE REPAIRED PER THE DETAIL SHOWN ON THE CONSTRUCTION PLANS.

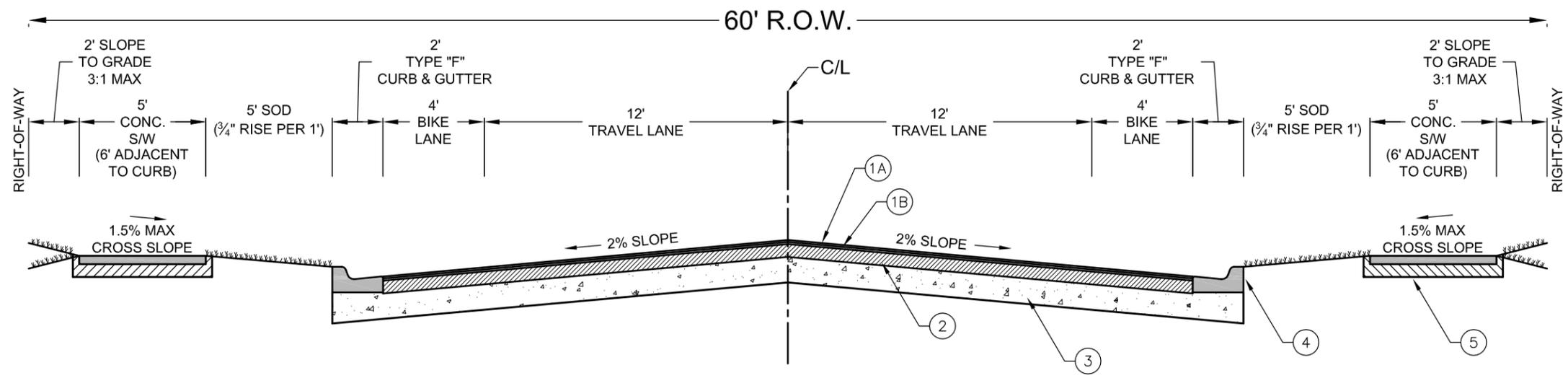
UTILITIES

- A. THE UTILITIES SHOWN IN THE CONSTRUCTION PLANS MAY NOT BE ALL OF THE UTILITIES ON SITE. UNLESS OTHERWISE NOTED, THE LOCATION OF UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. CALL SUNSHINE STATE 1-CALL OF FLORIDA, INC. @ 1-800-432-4770 TO CONFIRM UTILITY LOCATIONS.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITIES PRIOR TO CONSTRUCTION AND COORDINATING UTILITY RELOCATION WITH THE PROJECT CONSTRUCTION.

TREES AND LANDSCAPING

- A. ALL TREES ARE TO REMAIN UNLESS OTHERWISE NOTED IN THE PLANS.
- B. CONTRACTOR SHALL REPLACE LANDSCAPING THAT IS REMOVED OR DESTROYED WITHIN THE LIMITS OF CONSTRUCTION.
- C. REPLACED LANDSCAPING SHALL BE PLACED OFF OF THE RIGHT-OF-WAY. CONTRACTOR SHALL OBTAIN PERMISSION FROM PROPERTY OWNER PRIOR TO INSTALLING NEW LANDSCAPING OFF OF THE RIGHT-OF-WAY.
- D. TREES SHALL BE TRIMMED TO RIGHT-OF-WAY LINE OR WITHIN 8' OF EOP TO A HEIGHT OF 18', WHICHEVER IS LESS.

DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELSTON, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082	JOHNS LAKE ROAD IMPROVEMENTS			NOTES AND INFORMATION	SHEET NO.
07-10-2013	DAG/DMK 30% PLANS			ROAD NO.	COUNTY	CITY		
11-14-2013	DAG/DMK 60% PLANS			2-1158	LAKE	CLERMONT		
03-28-2014	DAG/DMK 90% PLANS							
07-01-2014	DAG/DMK 100% PLANS							



TYPICAL CROSS-SECTION

N.T.S.

KEY	THICKNESS	SPECIFICATIONS
1A	1.0"	SP-9.5 OVERLAY
1B	1.5"	SP-12.5 STRUCTURAL COURSE
2	10"	LIMEROCK - 98% COMPACTION, A.A.S.H.T.O. T-180 PRIME & SAND, LBR 100, IN TWO LIFTS
3	12"	98% DENSITY, TYPE B STABILIZED SUBGRADE, LBR 40
4	-	TYPE "F" CURB AND GUTTER
5	6"	COMPACTED BASE, MIN. 95% AASHTO T-99

- NOTE: 1. ALL STRIPING TO BE THERMOPLASTIC.
 2. SOD ALL DISTURBED AREAS.
 3. FINISH GRADE OF SHOULDER TO BE 3" BELOW EDGE OF PAVEMENT TO ALLOW FOR SOD.
 4. BACK SLOPE (n:1) VARIES. 3:1 MAXIMUM.
 5. SIDEWALKS TO BE MIN. 3,000 PSI FIBER REINF. CONC. AND MEET COMMERCIAL GRADE MIX STANDARDS. SIDEWALKS TO BE 4" THICK, 6" THICK AT ALL DRIVEWAYS
 6. SIDEWALKS TO BE 6' WIDE WHEN ADJACENT TO CURB.

TYPICAL SECTION NOTES:

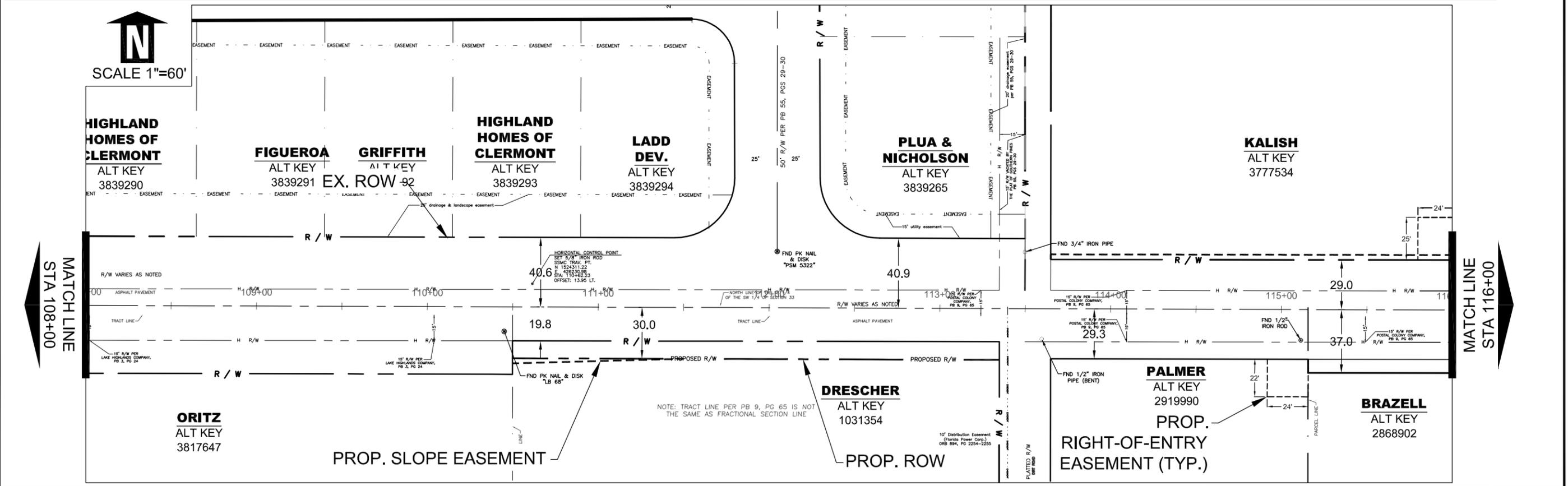
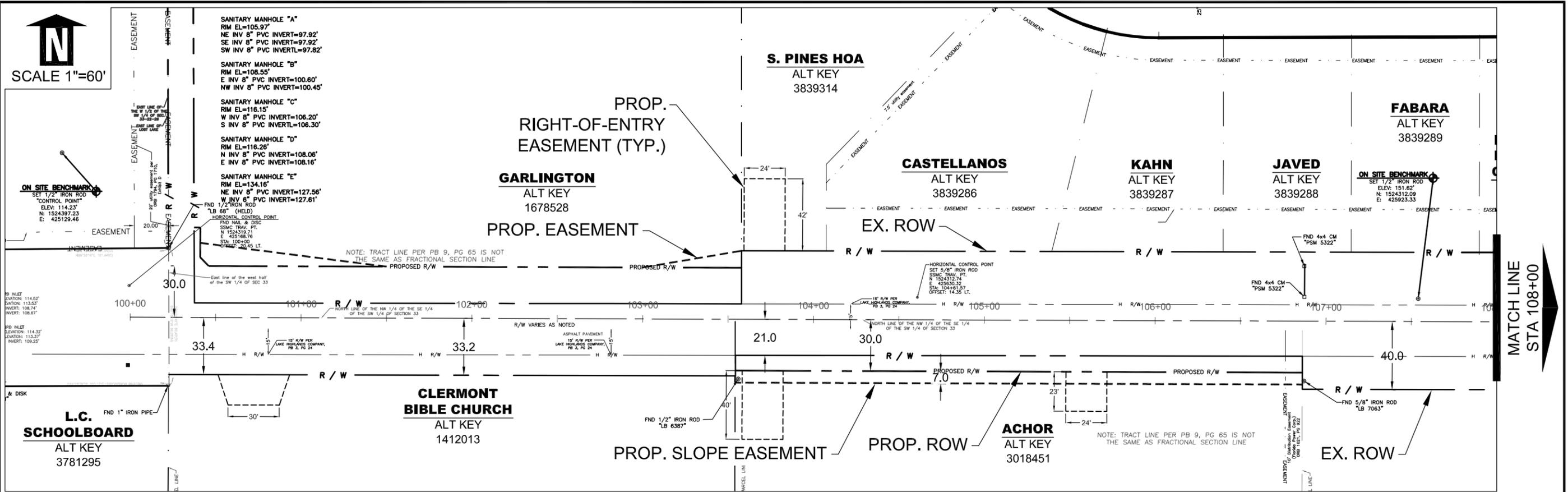
ALL ASPHALT SHALL COMPLY WITH THE LATEST EDITION OF FDOT SPECIFICATIONS SECT. 334 HOT MIX ASPHALT FOR LAP (OFF-SYSTEM).

ALL FILL WITHIN RIGHT-OF-WAY, EXCLUDING SUB GRADE AND/OR SUBBASE, SHALL BE COMPACTED AS FOLLOWS:

ROADWAY SHOULDERS (BEYOND THE STABILIZED SHOULDER) 95% MAXIMUM DENSITY, AASHTO T-180, SIX (6") INCHES TYPE B STABILIZATION, MINIMUM 40 LBR SHALL BE REQUIRED.

ROADWAY AREAS (UNDER PAVEMENT AND STABILIZED SHOULDERS) 98% MAXIMUM DENSITY, AASHTO T-180.

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">DATE</th> <th style="text-align: left;">DAG/DMK</th> <th style="text-align: left;">PLANS</th> </tr> <tr> <td>07-10-2013</td> <td>DAG/DMK</td> <td>30% PLANS</td> </tr> <tr> <td>11-14-2013</td> <td>DAG/DMK</td> <td>60% PLANS</td> </tr> <tr> <td>03-28-2014</td> <td>DAG/DMK</td> <td>90% PLANS</td> </tr> <tr> <td>07-01-2014</td> <td>DAG/DMK</td> <td>100% PLANS</td> </tr> </table>	DATE	DAG/DMK	PLANS	07-10-2013	DAG/DMK	30% PLANS	11-14-2013	DAG/DMK	60% PLANS	03-28-2014	DAG/DMK	90% PLANS	07-01-2014	DAG/DMK	100% PLANS	<p>Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799</p>	<p>GRIFFEY ENGINEERING 406 N. CENTER STREET ELSTON, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082</p>	<p>JOHNS LAKE ROAD IMPROVEMENTS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">ROAD NO.</th> <th style="text-align: left;">COUNTY</th> <th style="text-align: left;">CITY</th> </tr> <tr> <td>2-1158</td> <td>LAKE</td> <td>CLERMONT</td> </tr> </table>	ROAD NO.	COUNTY	CITY	2-1158	LAKE	CLERMONT	<h2 style="margin: 0;">TYPICAL SECTION</h2>	<p>SHEET NO. C4</p>
DATE	DAG/DMK	PLANS																								
07-10-2013	DAG/DMK	30% PLANS																								
11-14-2013	DAG/DMK	60% PLANS																								
03-28-2014	DAG/DMK	90% PLANS																								
07-01-2014	DAG/DMK	100% PLANS																								
ROAD NO.	COUNTY	CITY																								
2-1158	LAKE	CLERMONT																								



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-24-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

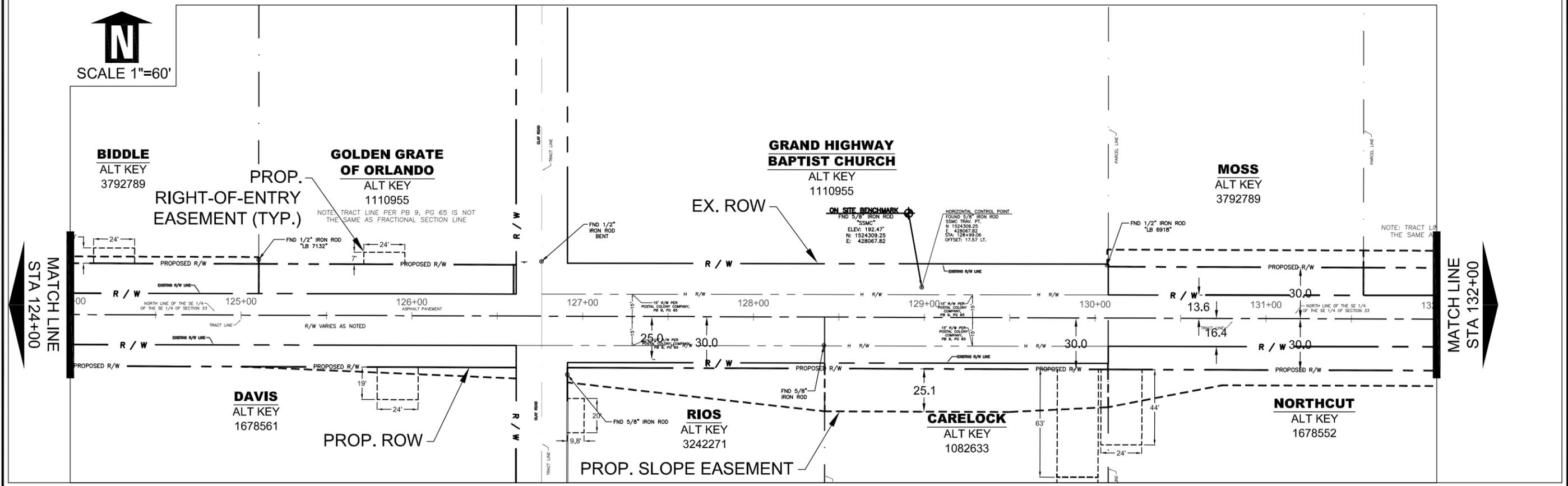
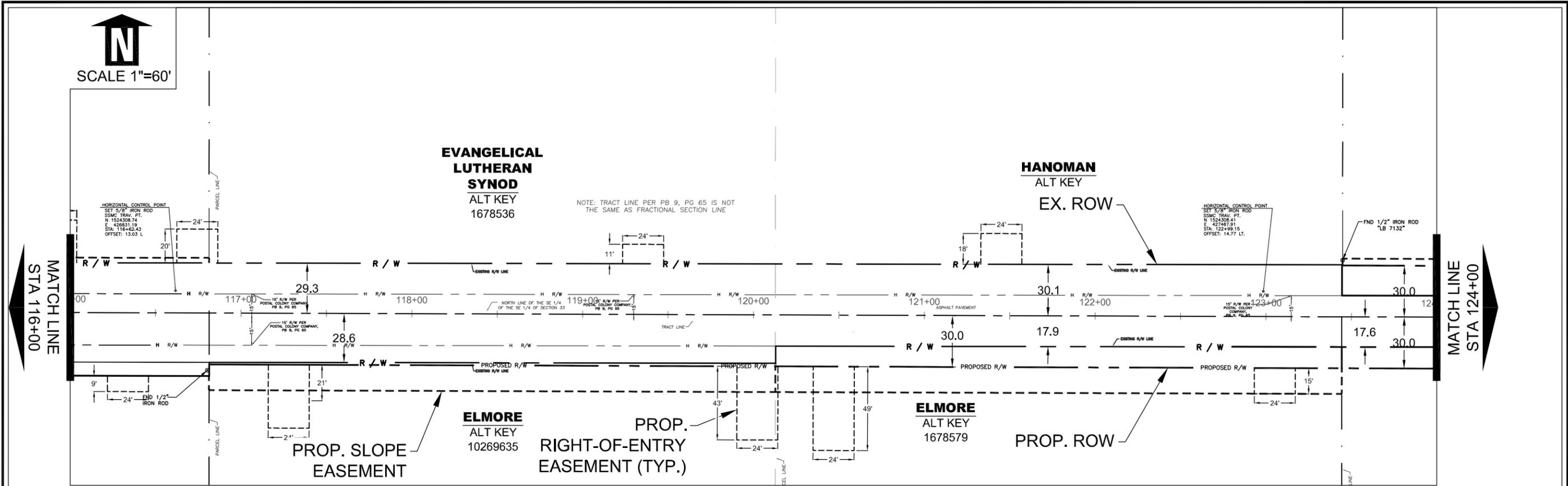
Engineer of Record:
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FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

ROW MAP

SHEET NO.
C5



DATE	REVISION	DESCRIPTION
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

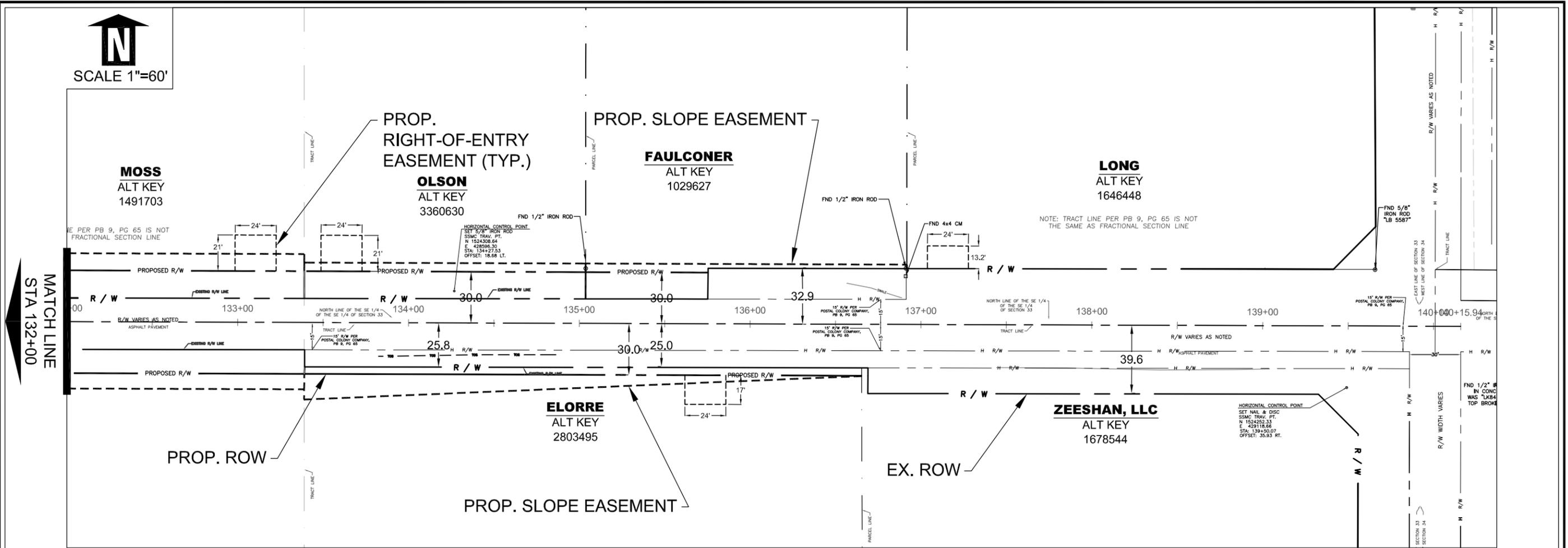
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

ROW MAP

SHEET NO.
C6



DATE	REVISIONS
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

Engineer of Record:
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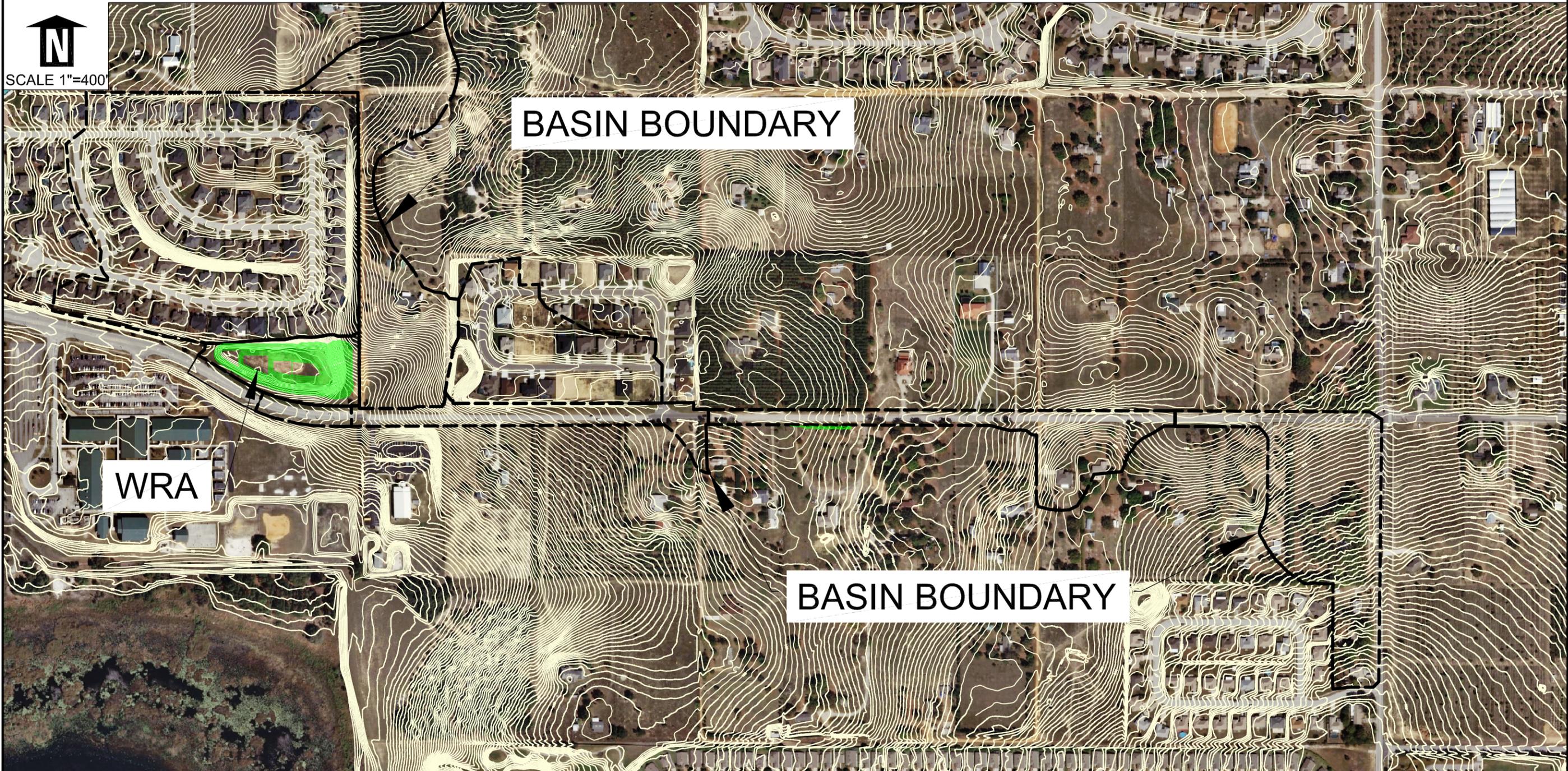
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

ROW MAP

SHEET NO.
C7

N
SCALE 1"=400'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

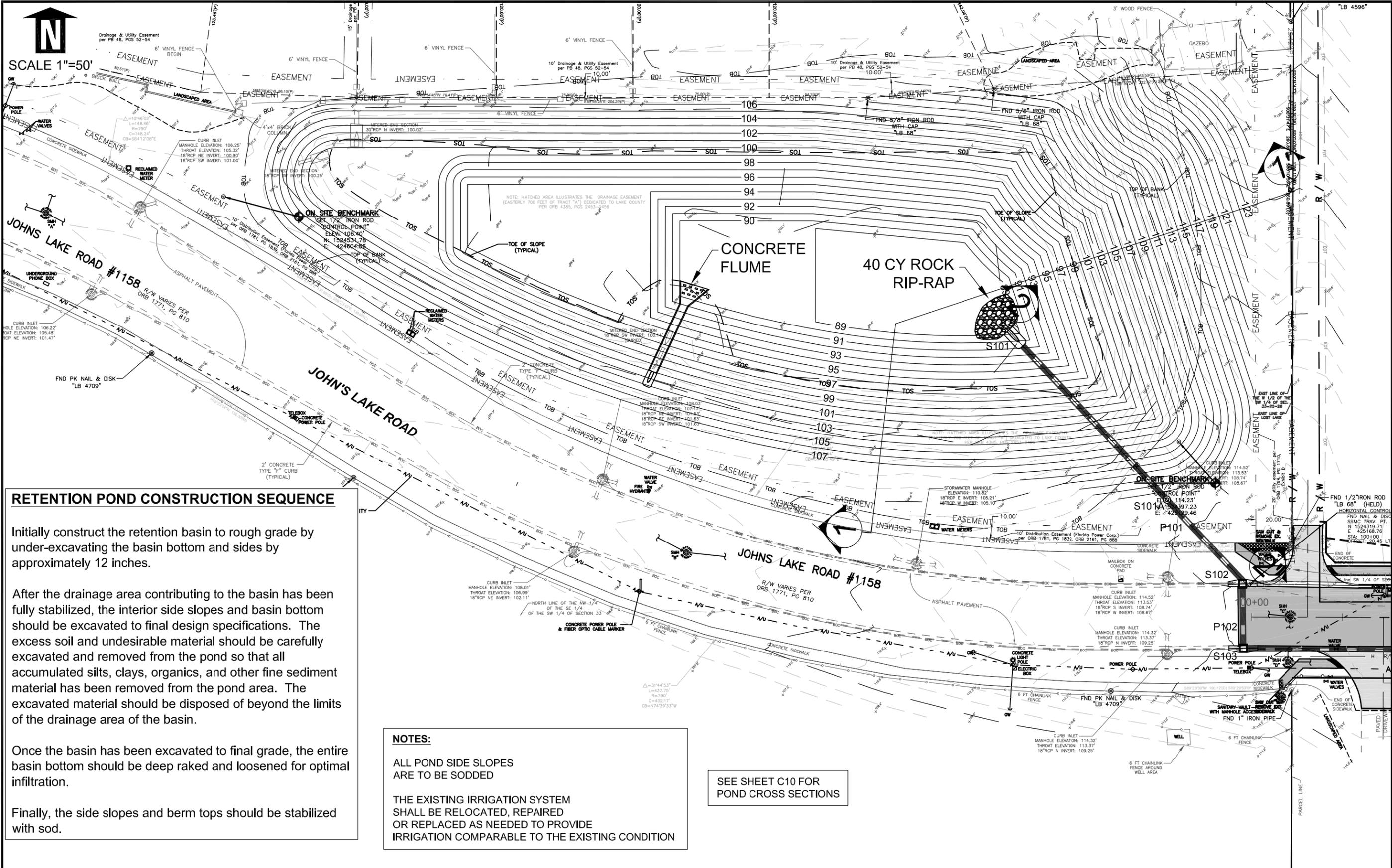
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

DRAINAGE - POST DEVELOPMENT

SHEET NO.
C8



RETENTION POND CONSTRUCTION SEQUENCE

Initially construct the retention basin to rough grade by under-excavating the basin bottom and sides by approximately 12 inches.

After the drainage area contributing to the basin has been fully stabilized, the interior side slopes and basin bottom should be excavated to final design specifications. The excess soil and undesirable material should be carefully excavated and removed from the pond so that all accumulated silts, clays, organics, and other fine sediment material has been removed from the pond area. The excavated material should be disposed of beyond the limits of the drainage area of the basin.

Once the basin has been excavated to final grade, the entire basin bottom should be deep raked and loosened for optimal infiltration.

Finally, the side slopes and berm tops should be stabilized with sod.

NOTES:

ALL POND SIDE SLOPES ARE TO BE SODDED

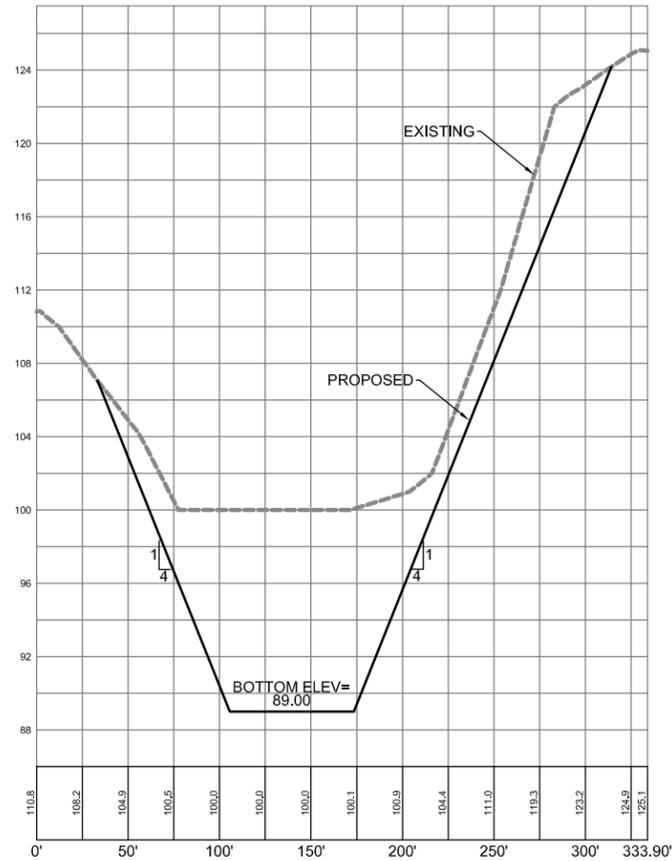
THE EXISTING IRRIGATION SYSTEM SHALL BE RELOCATED, REPAIRED OR REPLACED AS NEEDED TO PROVIDE IRRIGATION COMPARABLE TO THE EXISTING CONDITION

SEE SHEET C10 FOR POND CROSS SECTIONS

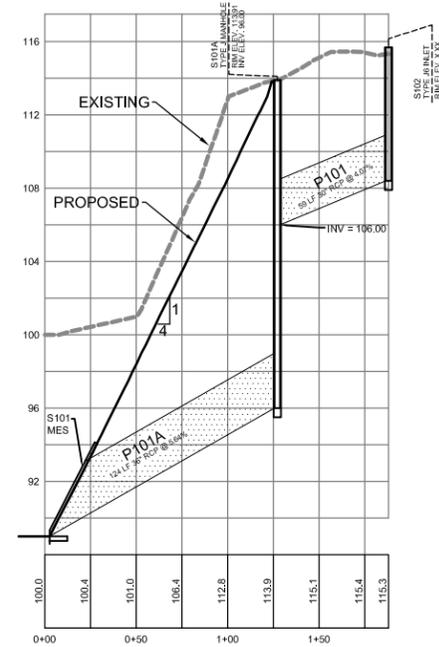
DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELUSTA, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082	JOHNS LAKE ROAD IMPROVEMENTS			SHEET NO. C9	
07-10-2013	DAG/DMK 30% PLANS			ROAD NO.	COUNTY	CITY		STORMWATER RETENTION POND
11-14-2013	DAG/DMK 60% PLANS			2-1158	LAKE	CLERMONT		
03-28-2014	DAG/DMK 90% PLANS							
07-01-2014	DAG/DMK 100% PLANS							

CROSS-SECTION
 HORIZONTAL 1"= 100'
 VERTICAL 1"= 10'

WRA CROSS-SECTION 1-1'



OUTFLOW CROSS SECTION 2-2'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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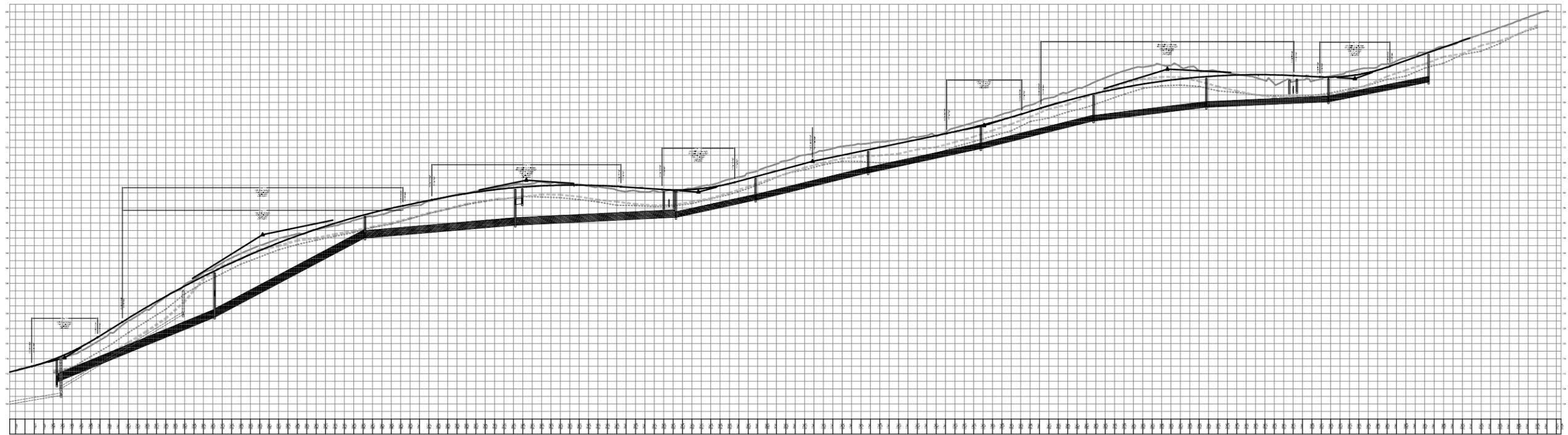
GRIFFEY ENGINEERING
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 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

STORMWATER RETENTION POND
 CROSS SECTIONS

SHEET NO.
 C10

—PROFILE—
 HORIZONTAL 1"=300'
 VERTICAL 1"=30'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

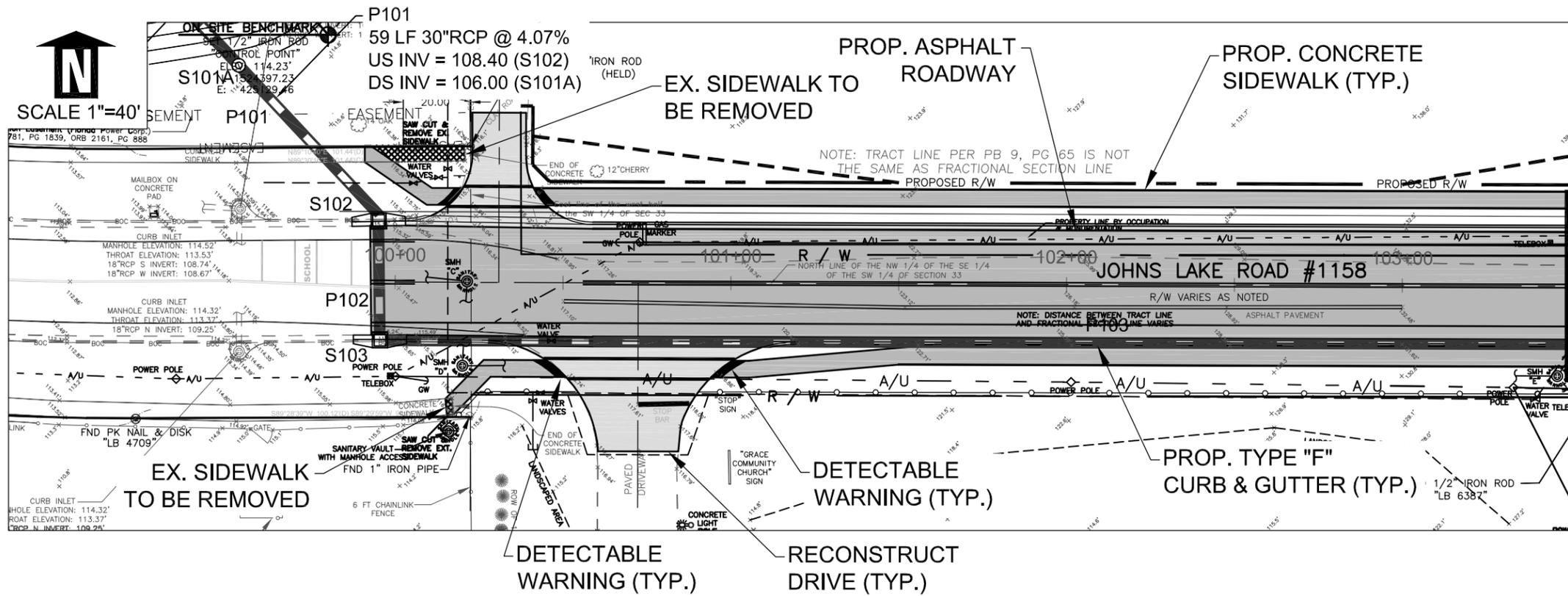
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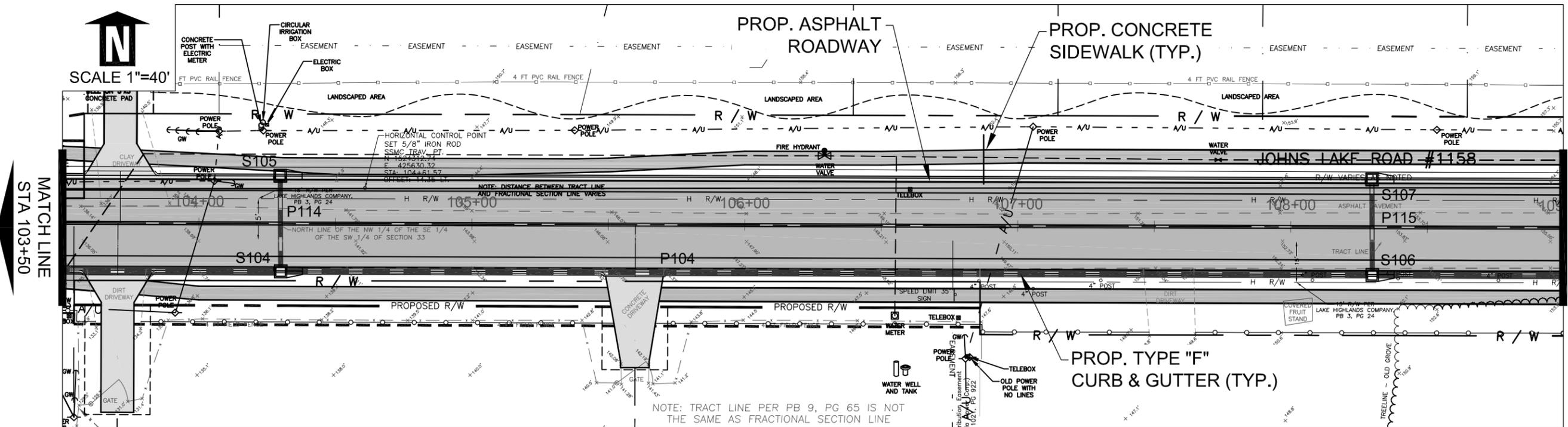
JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

OVERALL PROFILE

SHEET NO.
C11



MATCH LINE
STA 103+50



MATCH LINE
STA 103+50

MATCH LINE
STA 109+00

DATE	REVISIONS
07-10-2013	DAG/DMK 30% PLANS
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03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

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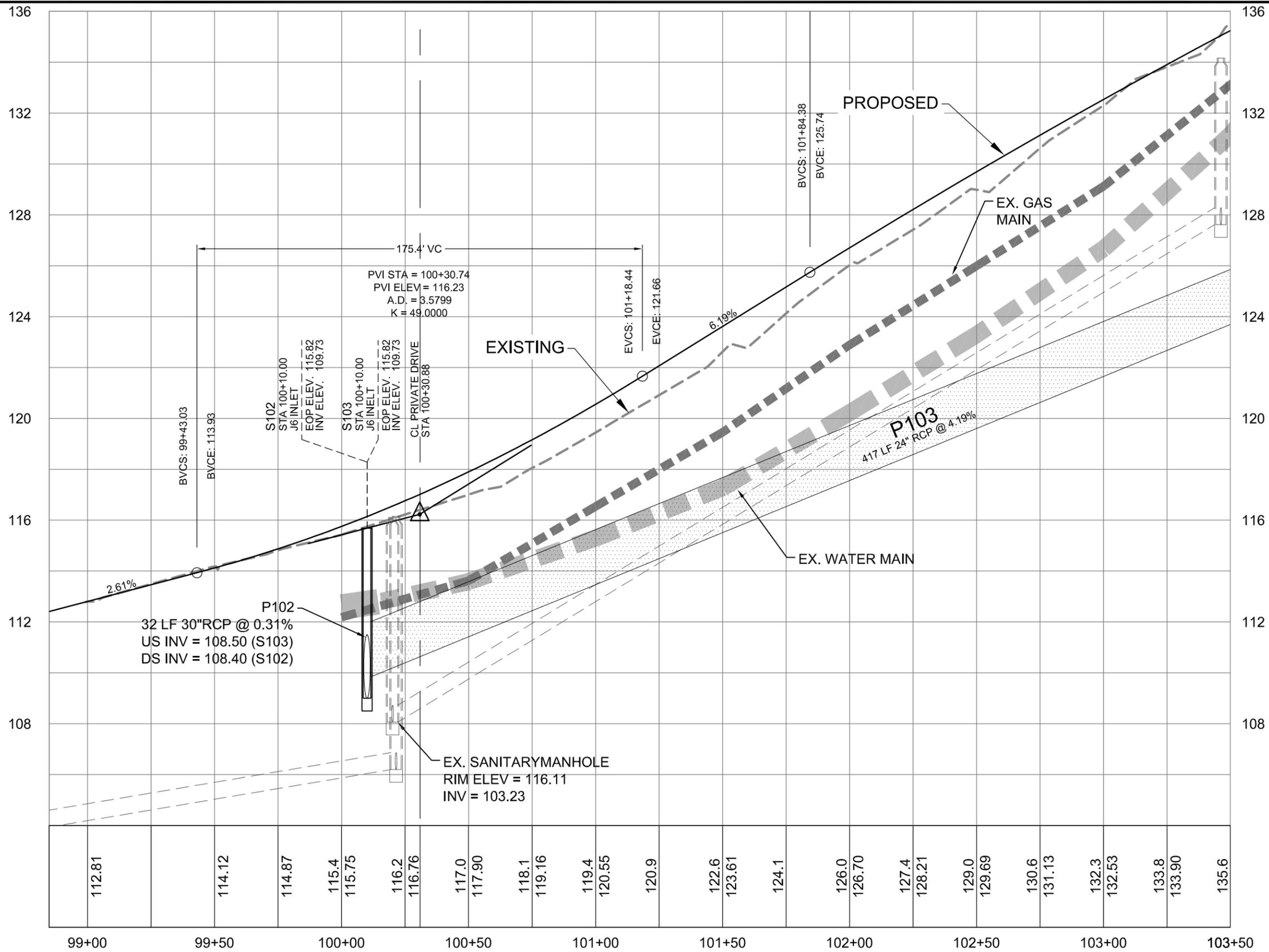
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

SHEET NO.
C12

PROFILE
HORIZONTAL 1"= 40'
VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

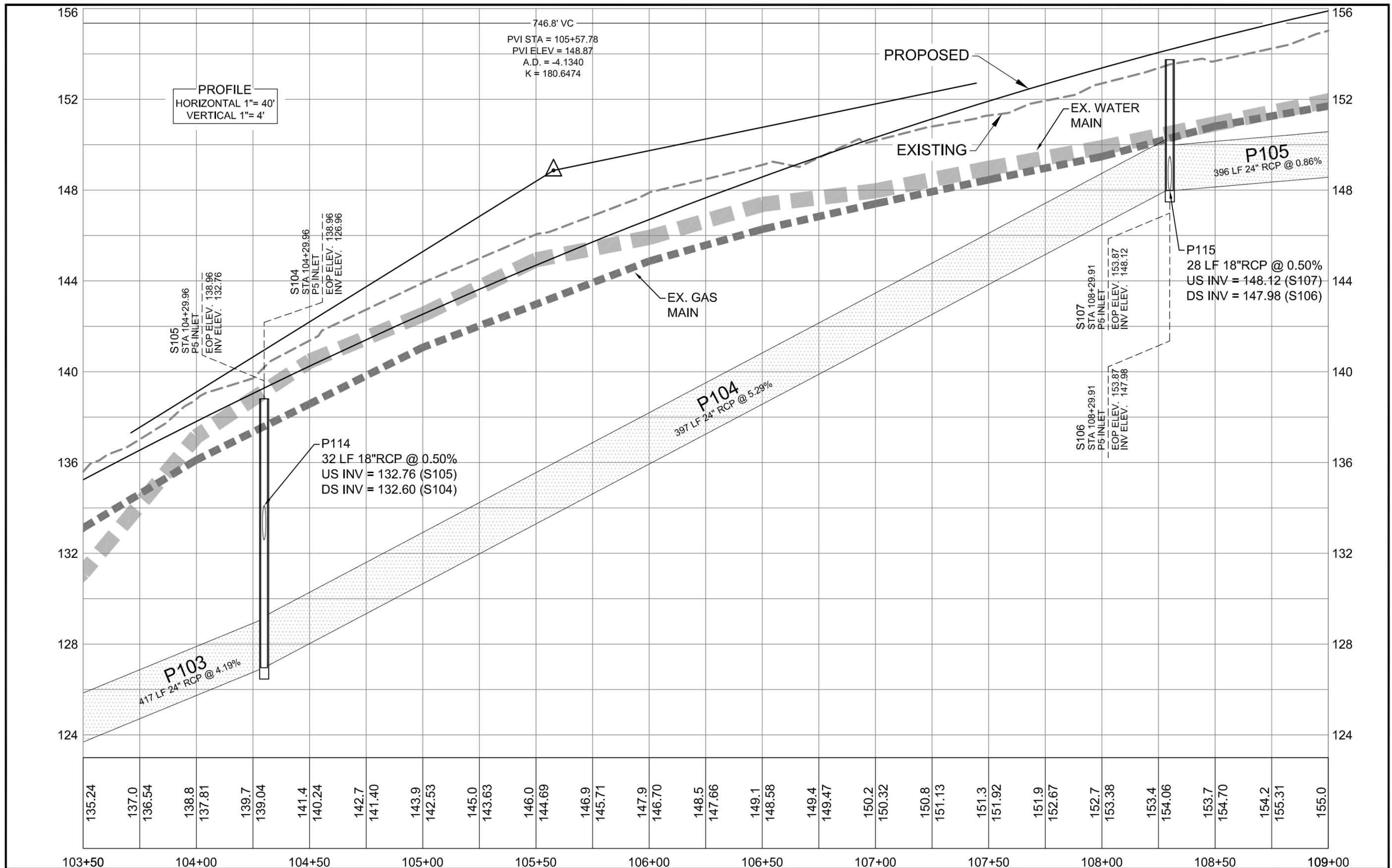
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

SHEET NO.
C13



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

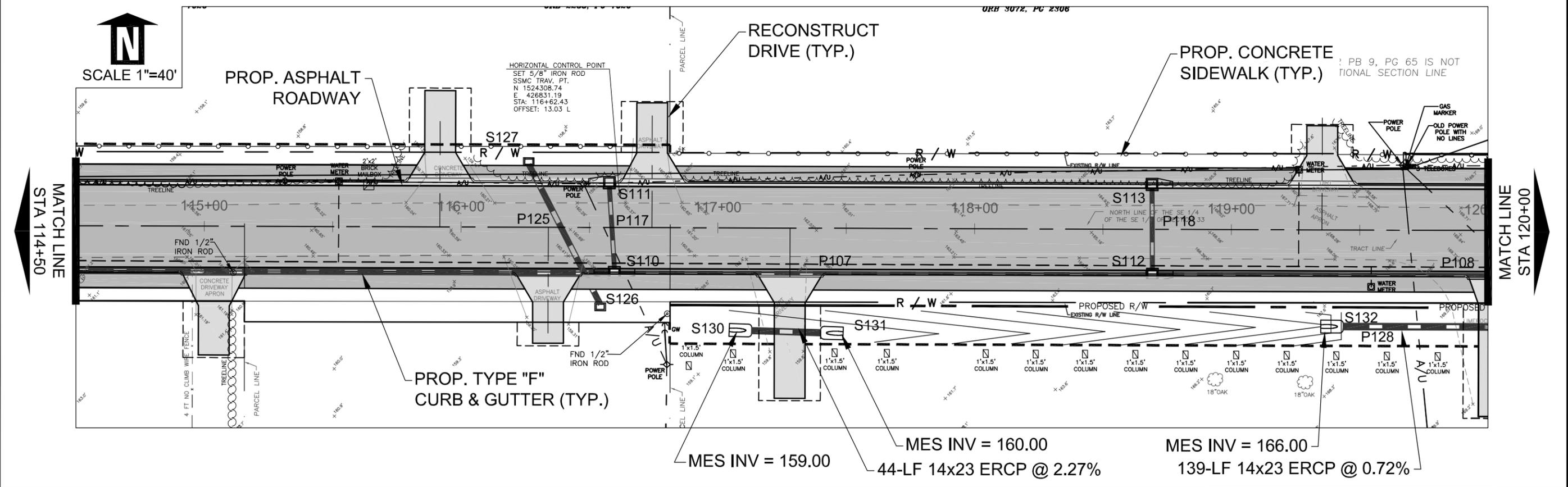
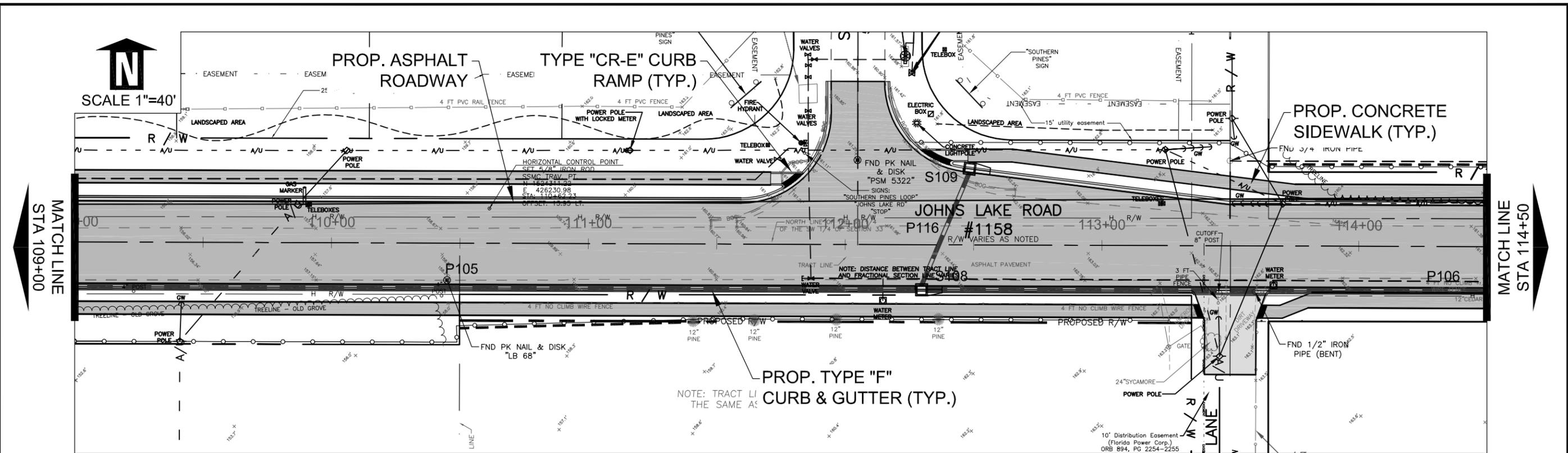
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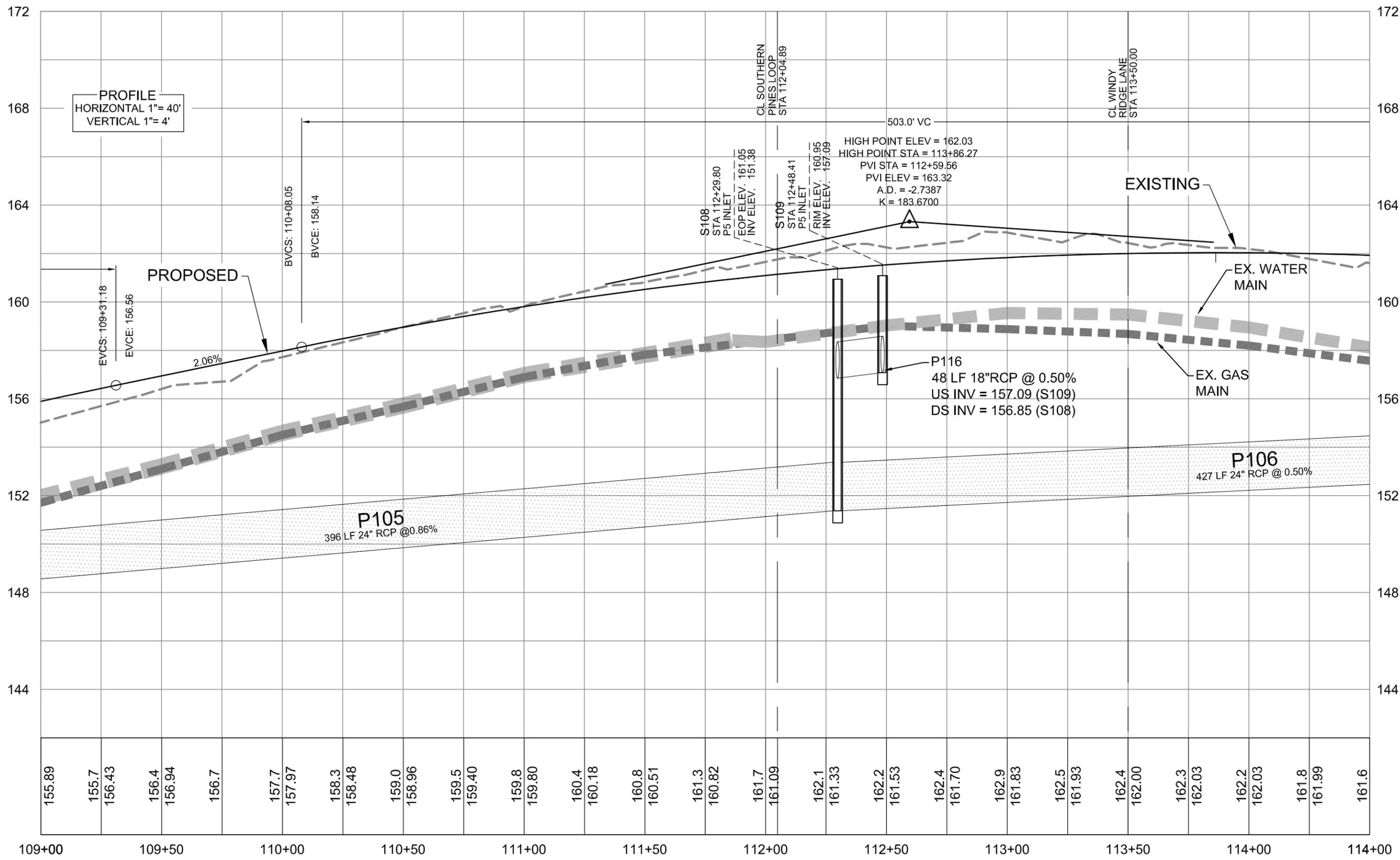
JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

SHEET NO.
C14



DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELUSTIS, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082		JOHNS LAKE ROAD IMPROVEMENTS			SHEET NO. C15	
07-10-2013	DAG/DMK								30% PLANS
11-14-2013	DAG/DMK				60% PLANS	2-1158 LAKE CLERMONT			
03-28-2014	DAG/DMK				90% PLANS	PLAN & PROFILE			
07-01-2014	DAG/DMK				100% PLANS				



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

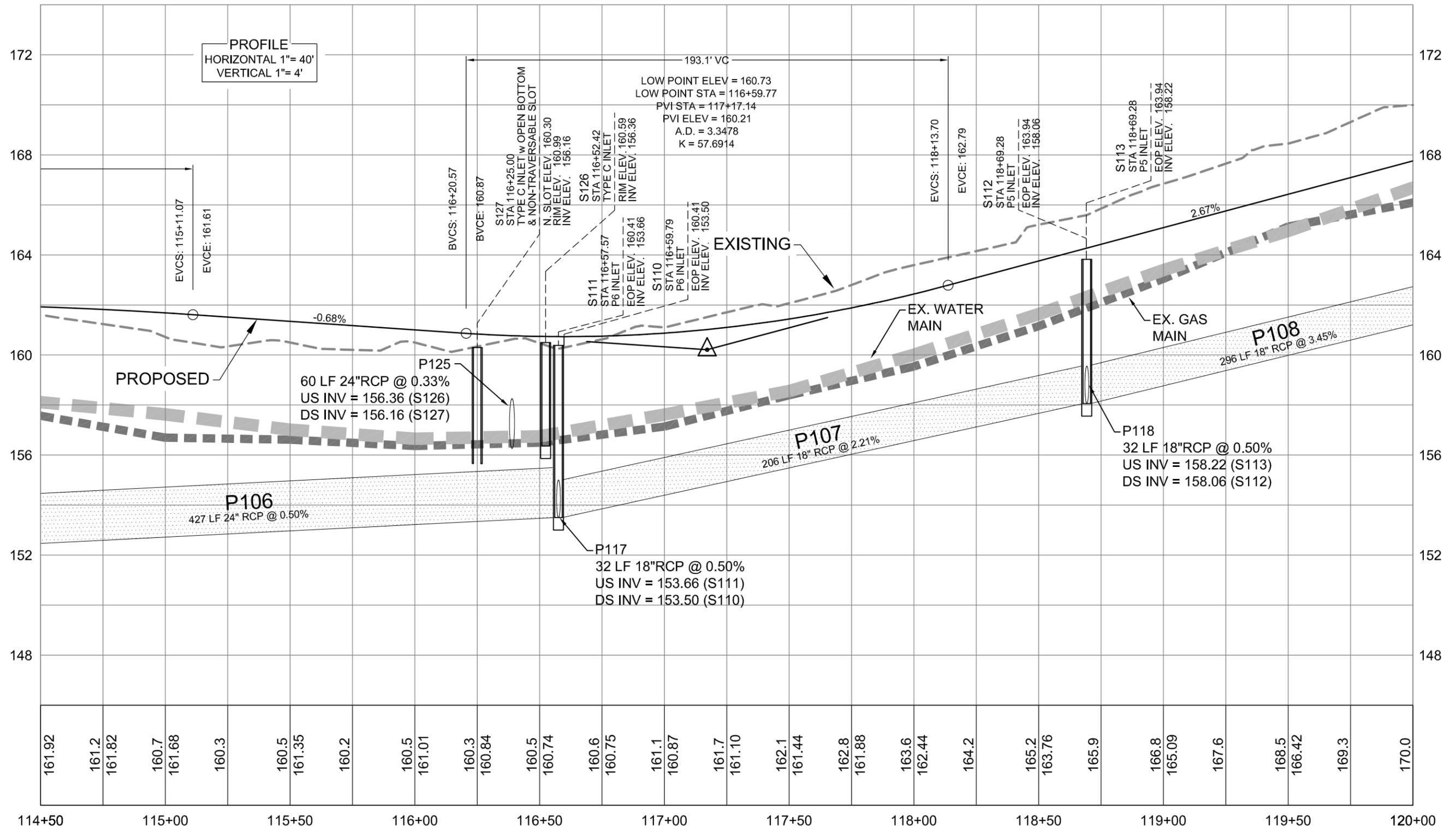
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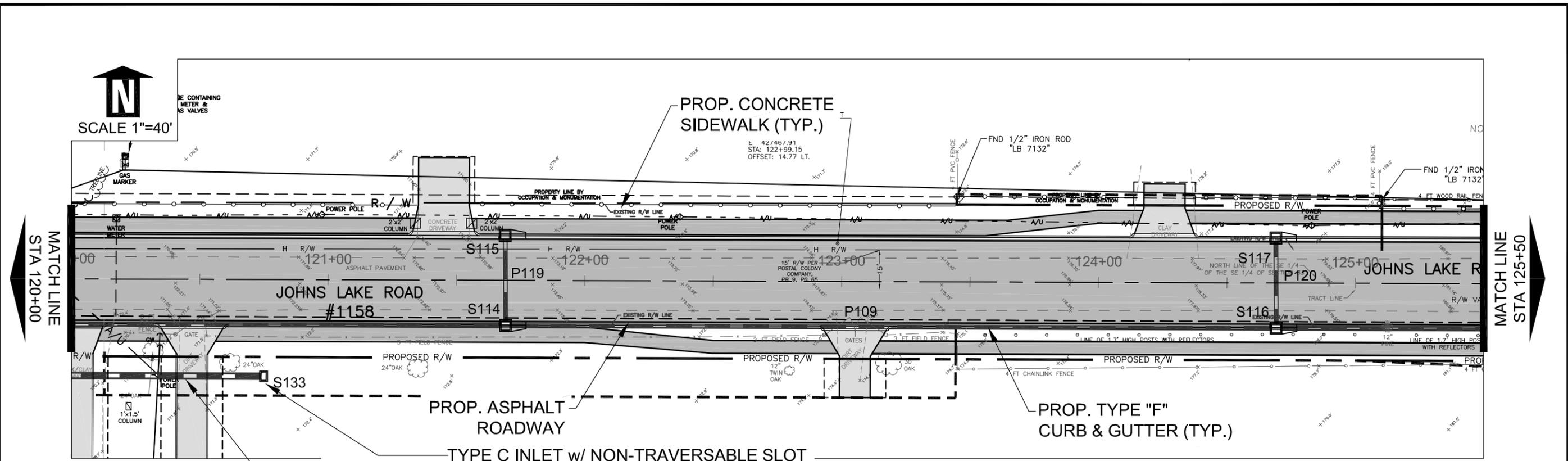
JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

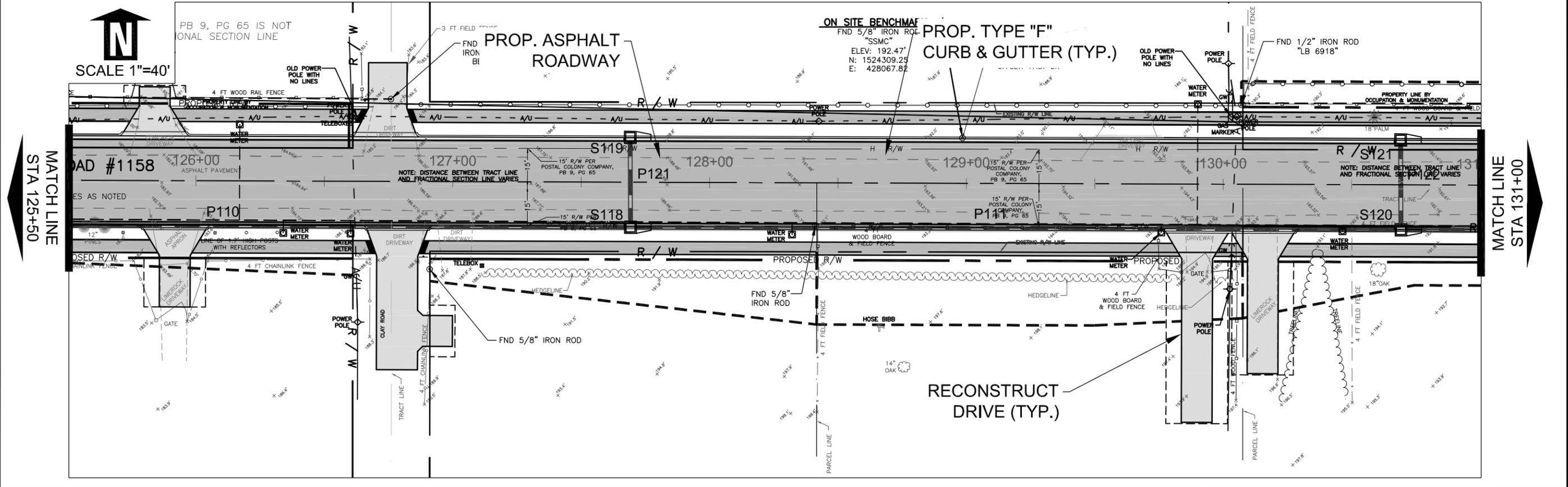
SHEET NO.
C16



DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELSTON, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082	JOHNS LAKE ROAD IMPROVEMENTS			PLAN & PROFILE	SHEET NO.
07-10-2013	DAG/DMK 30% PLANS			ROAD NO.	COUNTY	CITY		
11-14-2013	DAG/DMK 60% PLANS			2-1158	LAKE	CLERMONT		
03-28-2014	DAG/DMK 90% PLANS							
07-01-2014	DAG/DMK 100% PLANS							



139-LF 14x23 ERCP @ 0.72% E. SLOT ELEV. 170.00, RIM ELEV. 171.50, INV. ELEV. 167.00



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

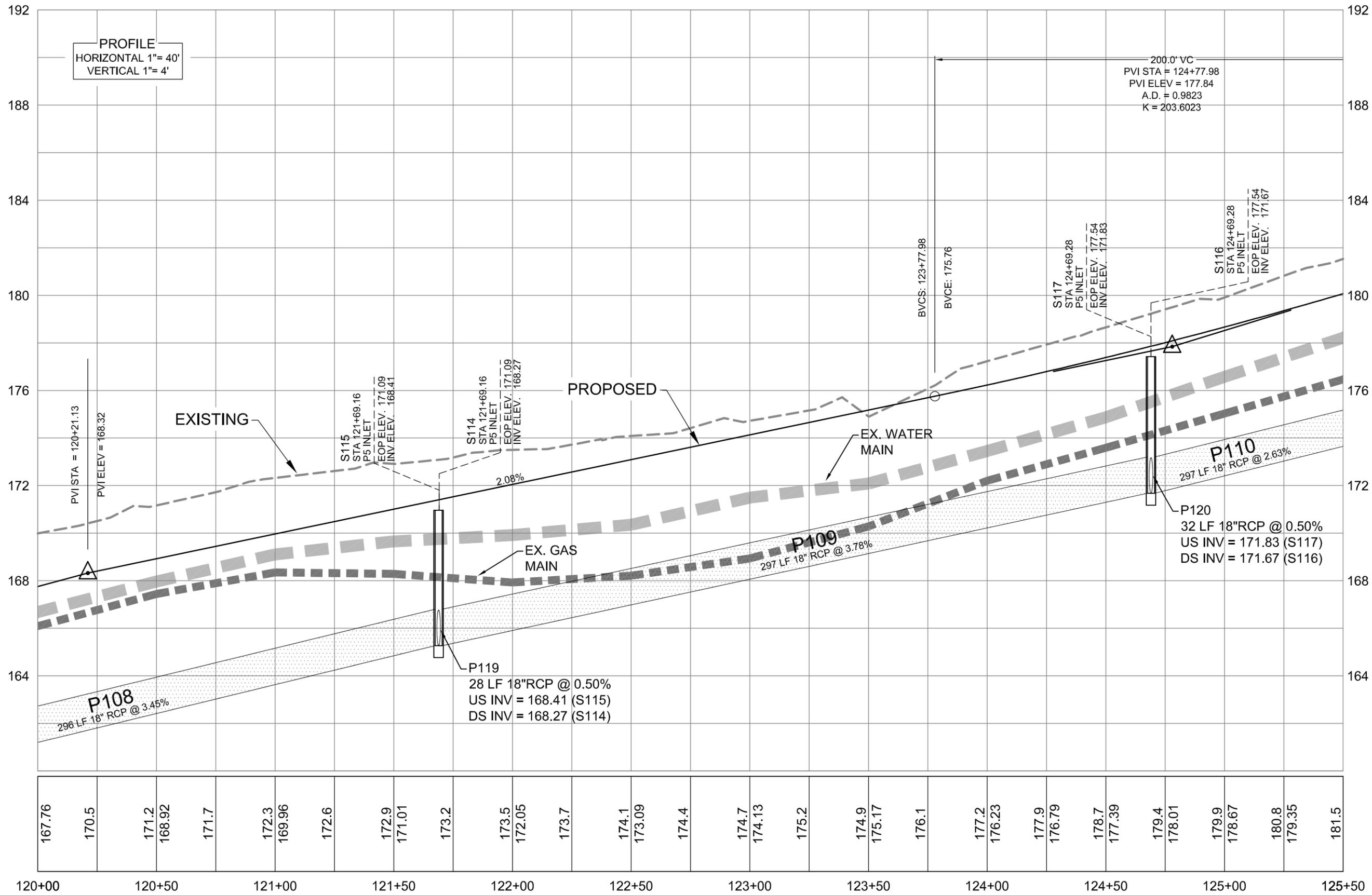
Engineer of Record:
DONALD A. GRIFFEY, P.E.
 PE No. 036799

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 406 N. CENTER STREET
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 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

SHEET NO.
C18



DATE	REVISION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

Engineer of Record:
DONALD A. GRIFFEY, P.E.
PE No. 036799

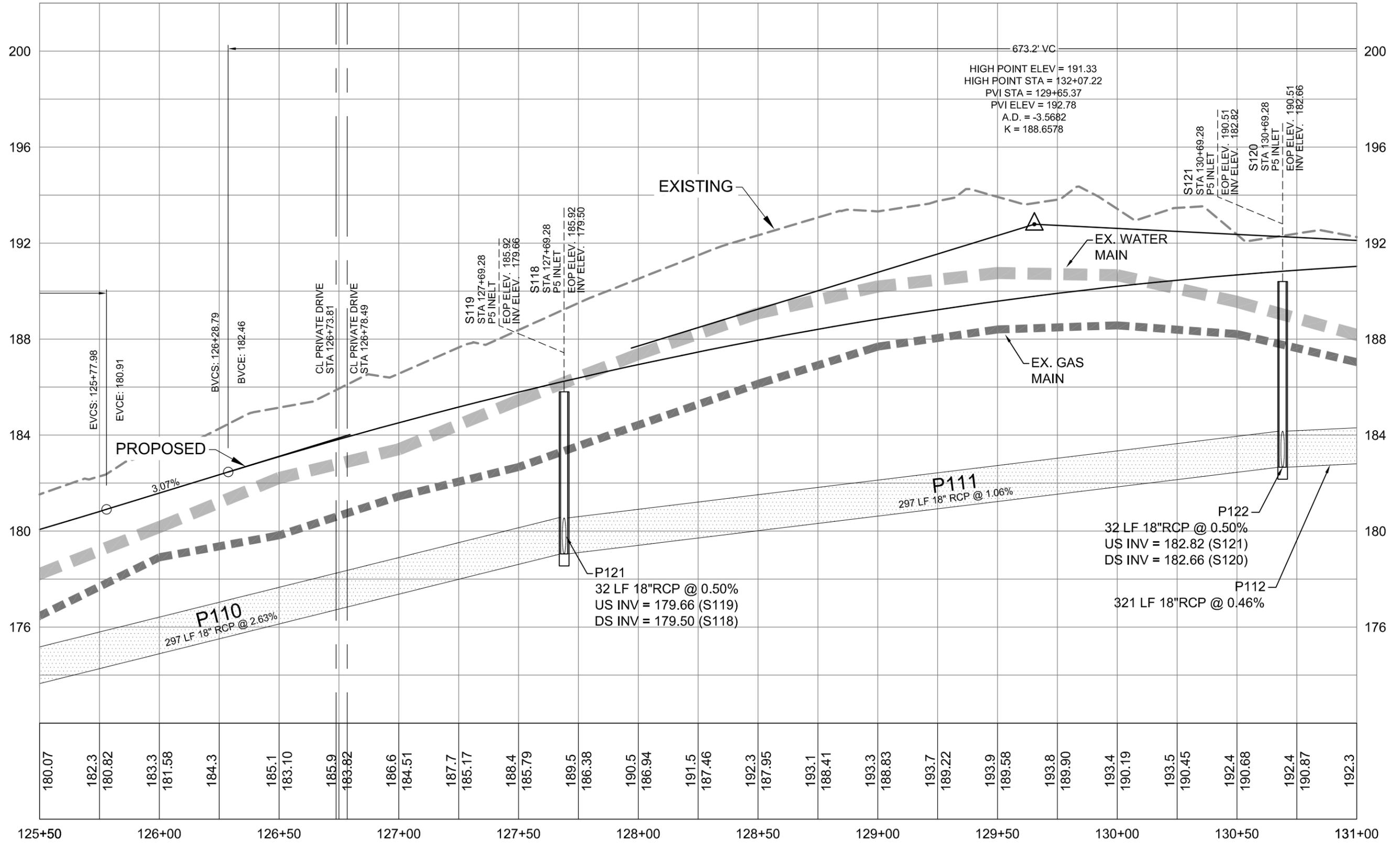
GRIFFEY ENGINEERING
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ELUSTA, FLORIDA 32726
PHONE (352) 357-3528
FAX (352) 357-3219
FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

SHEET NO.
C19

PROFILE
 HORIZONTAL 1" = 40'
 VERTICAL 1" = 4'



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

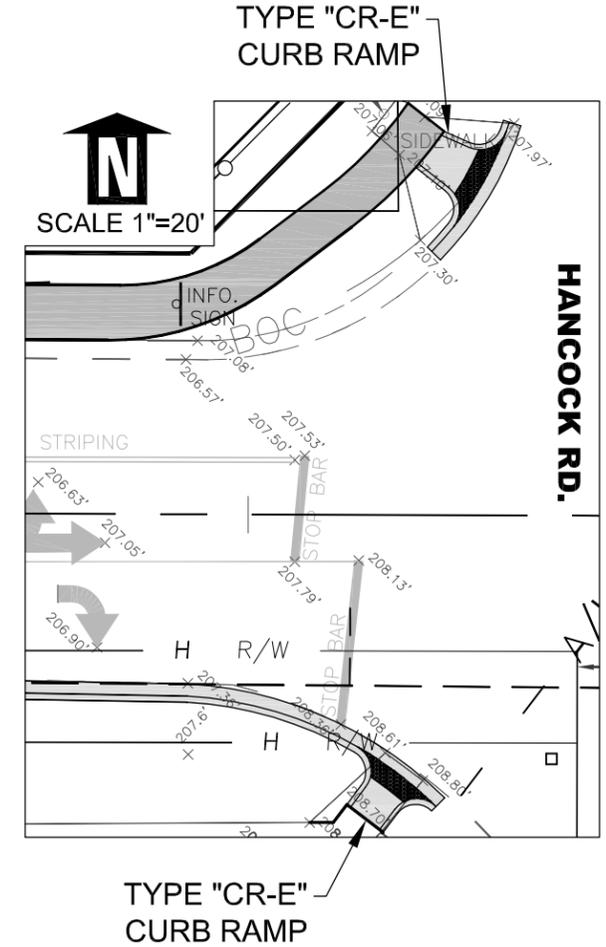
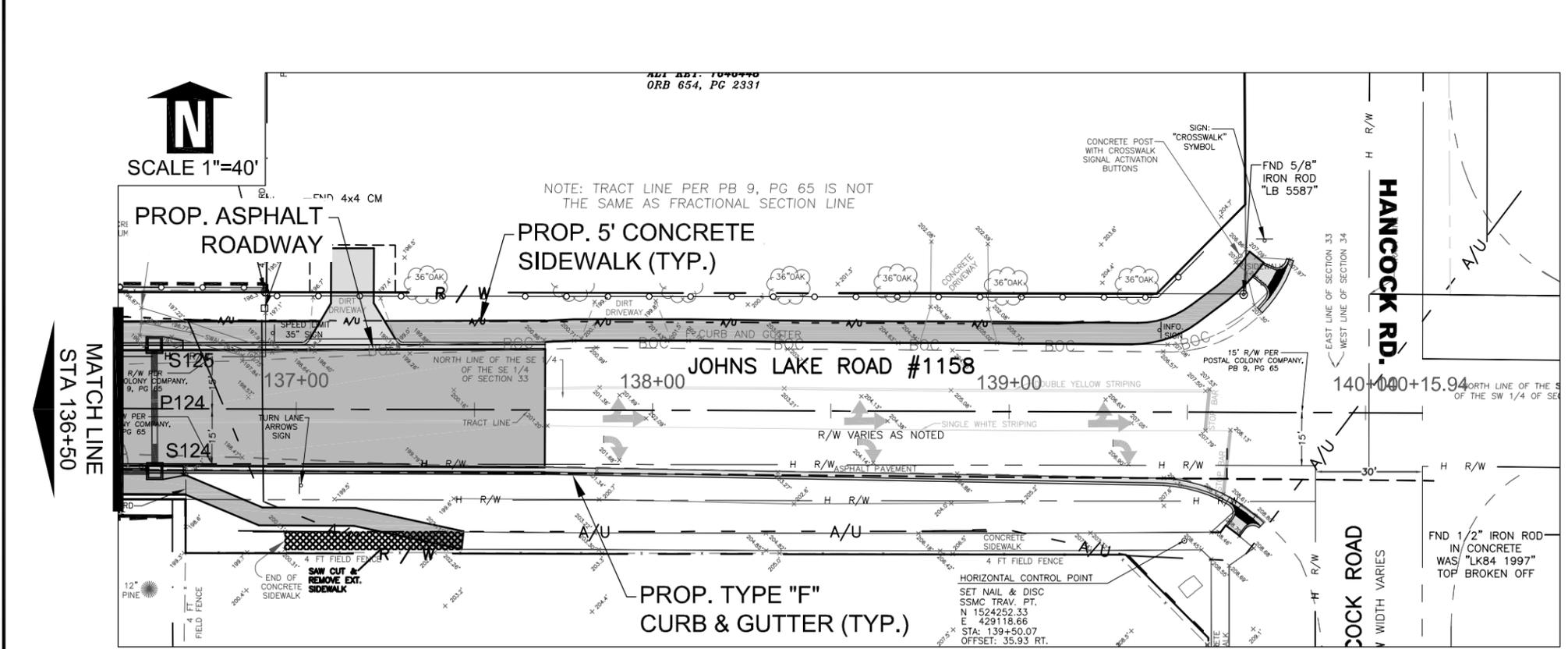
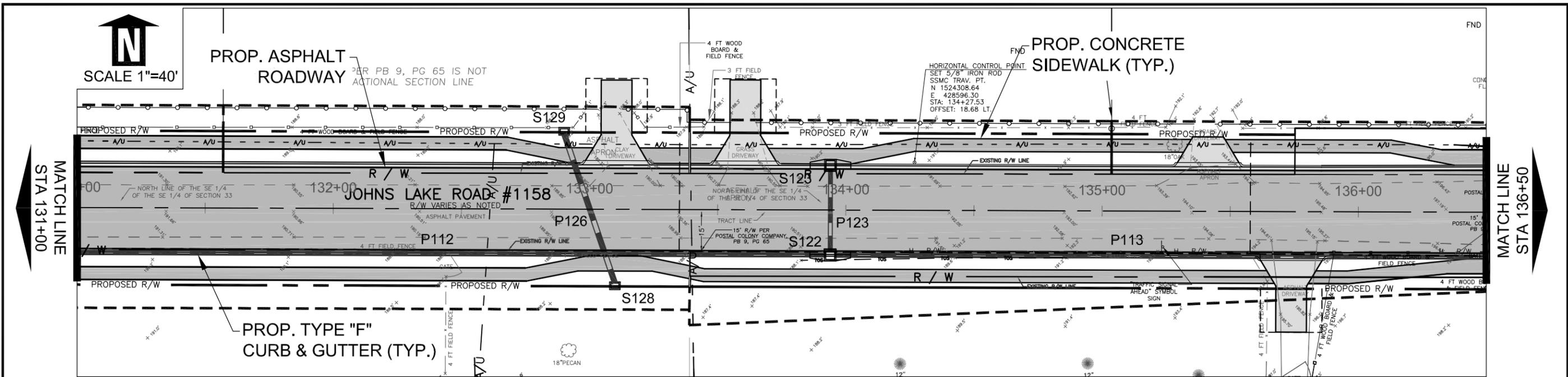
Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

GRIFFEY ENGINEERING
 406 N. CENTER STREET
 ELSTON, FLORIDA 32726
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 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

SHEET NO.
C20



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

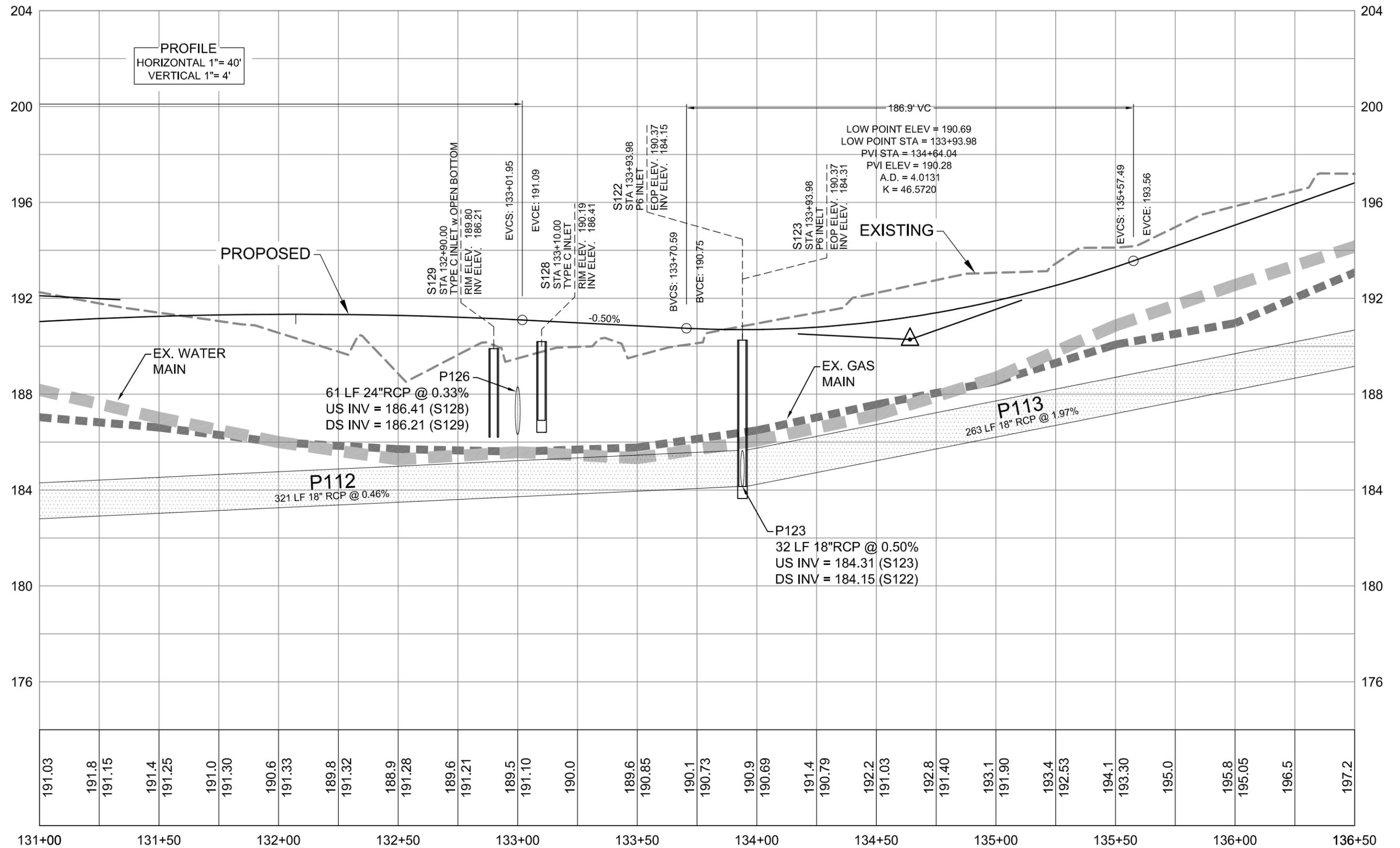
Engineer of Record:
DONALD A. GRIFFEY, P.E.
 PE No. 036799

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 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

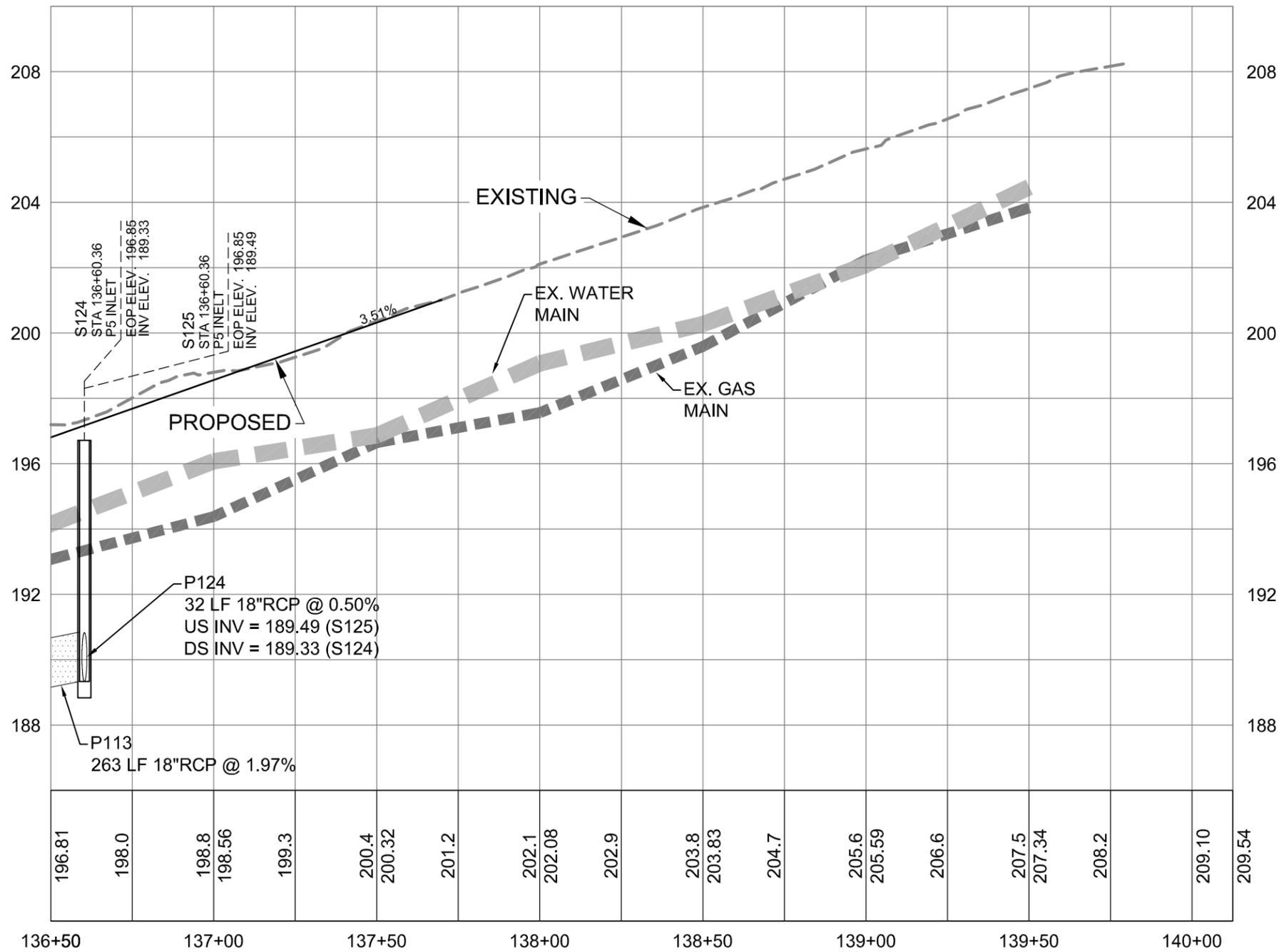
PLAN & PROFILE

SHEET NO.
C21



DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELUSTIS, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082	JOHNS LAKE ROAD IMPROVEMENTS			PLAN & PROFILE C22	SHEET NO.	
07-10-2013	DAG/DMK 30% PLANS			ROAD NO.	COUNTY	CITY			C22
11-14-2013	DAG/DMK 60% PLANS			2-1158	LAKE	CLERMONT			
03-28-2014	DAG/DMK 90% PLANS								

PROFILE
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
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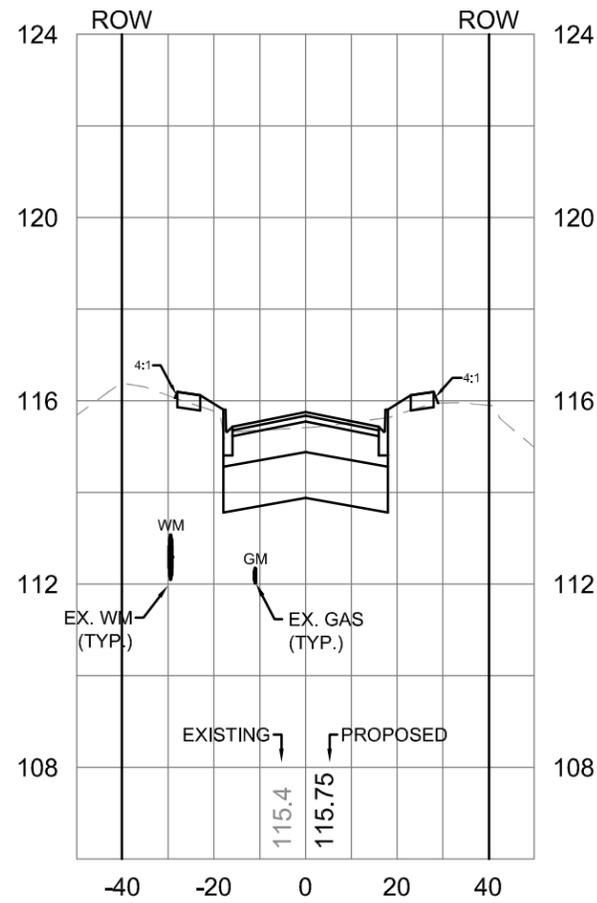
JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

PLAN & PROFILE

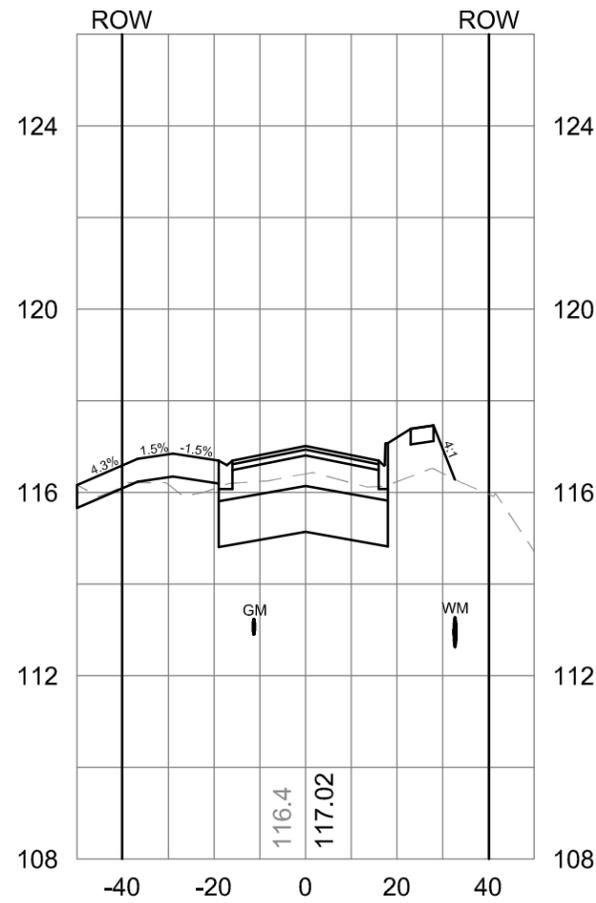
SHEET NO.
C23

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'

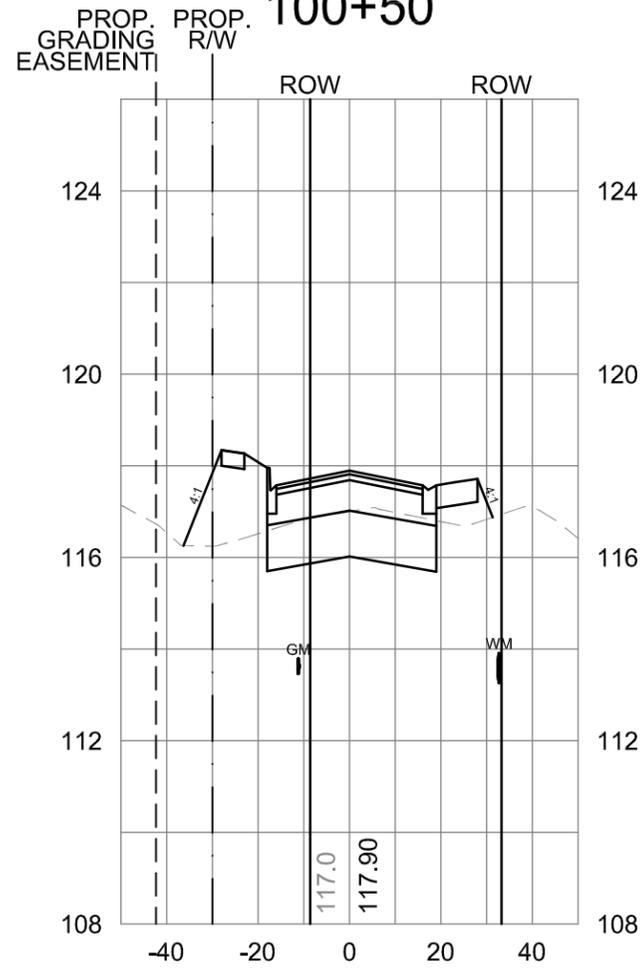
100+00



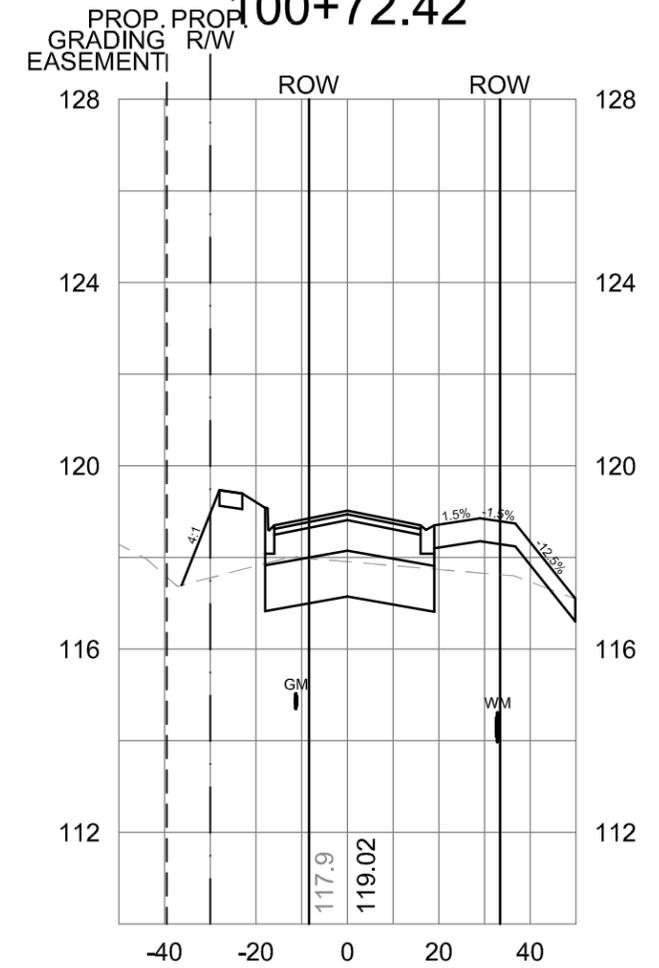
100+30.88



100+50



100+72.42



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

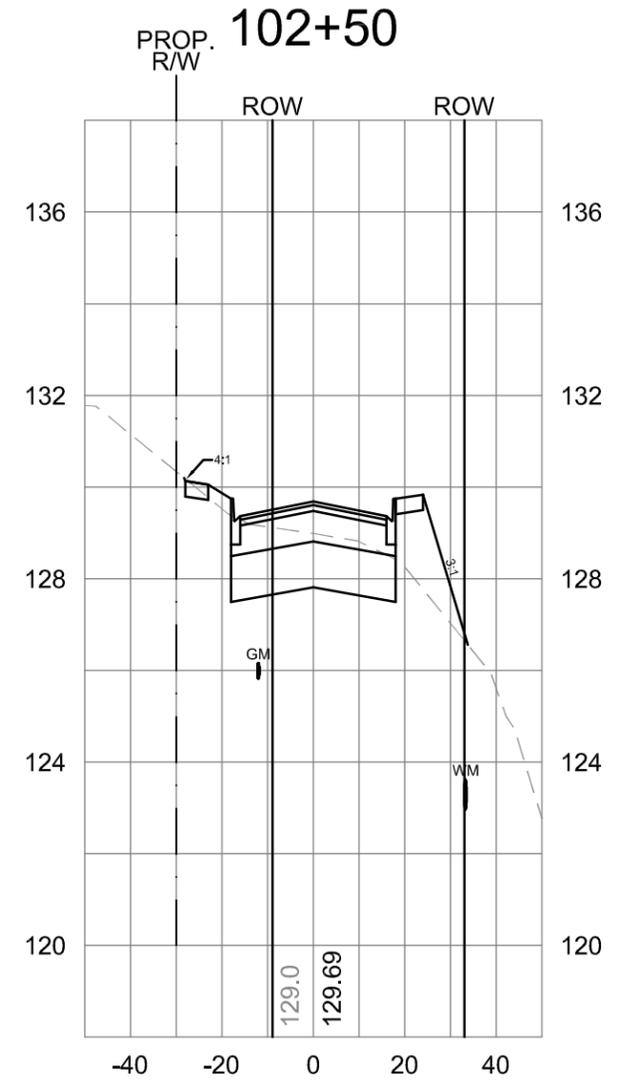
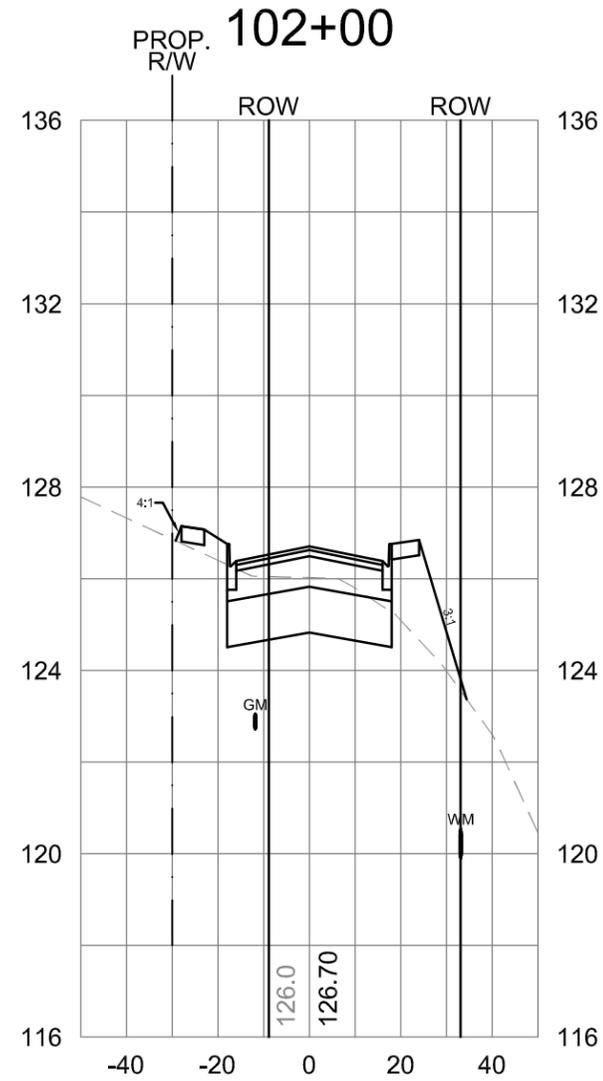
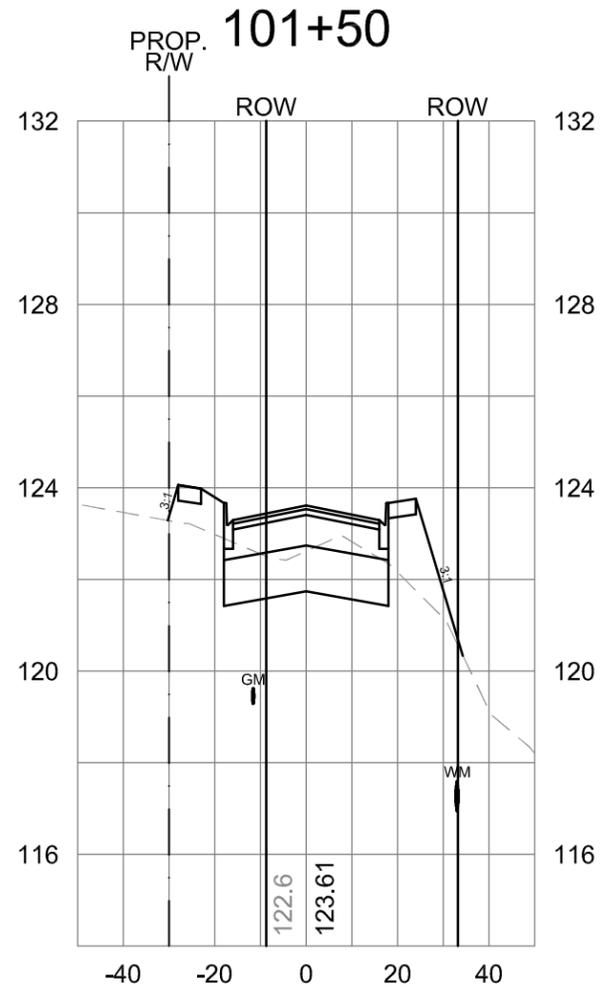
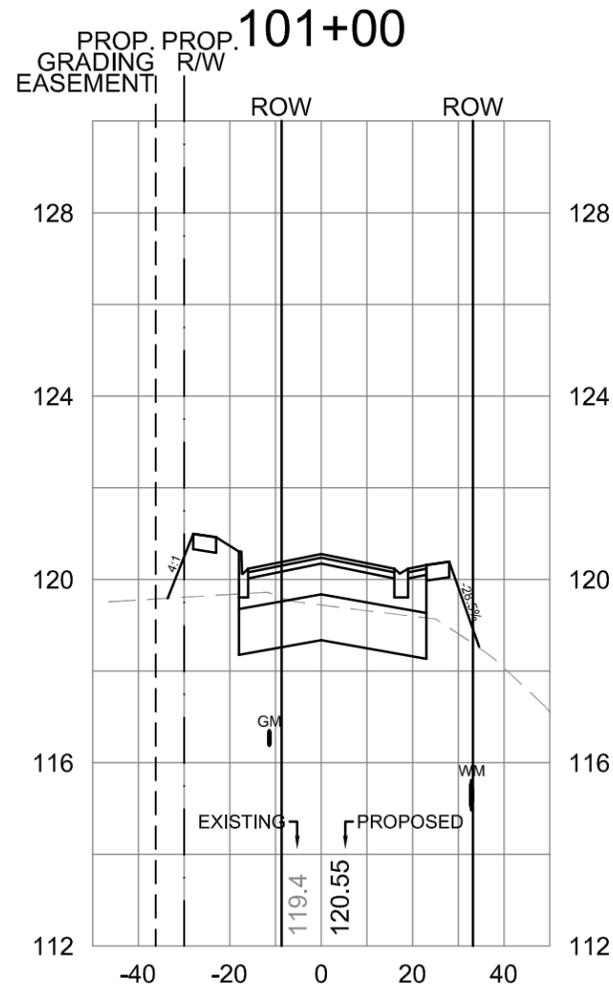
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 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
C24

CROSS-SECTION
HORIZONTAL 1"= 40'
VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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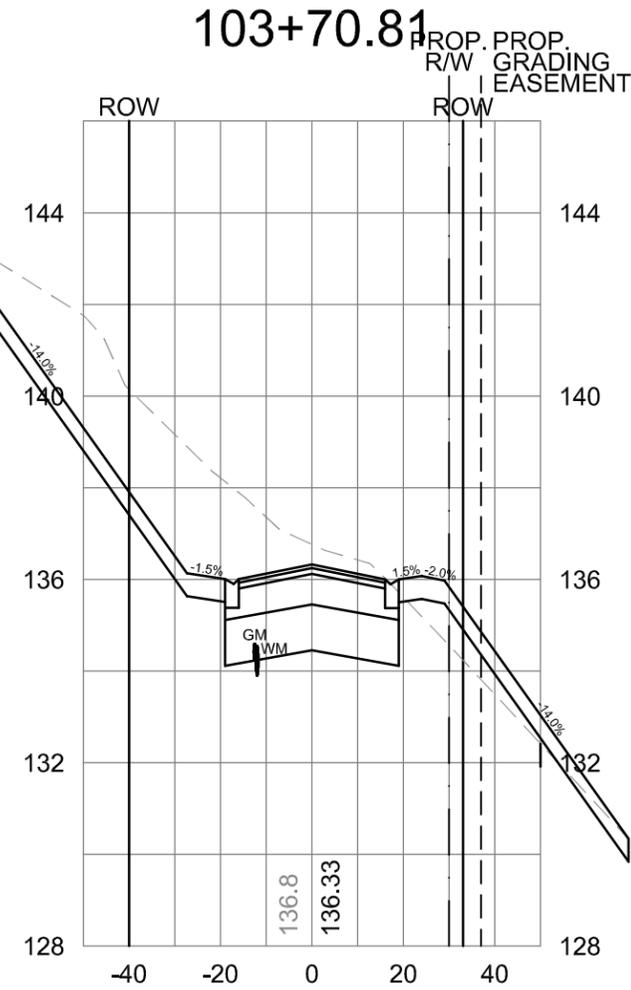
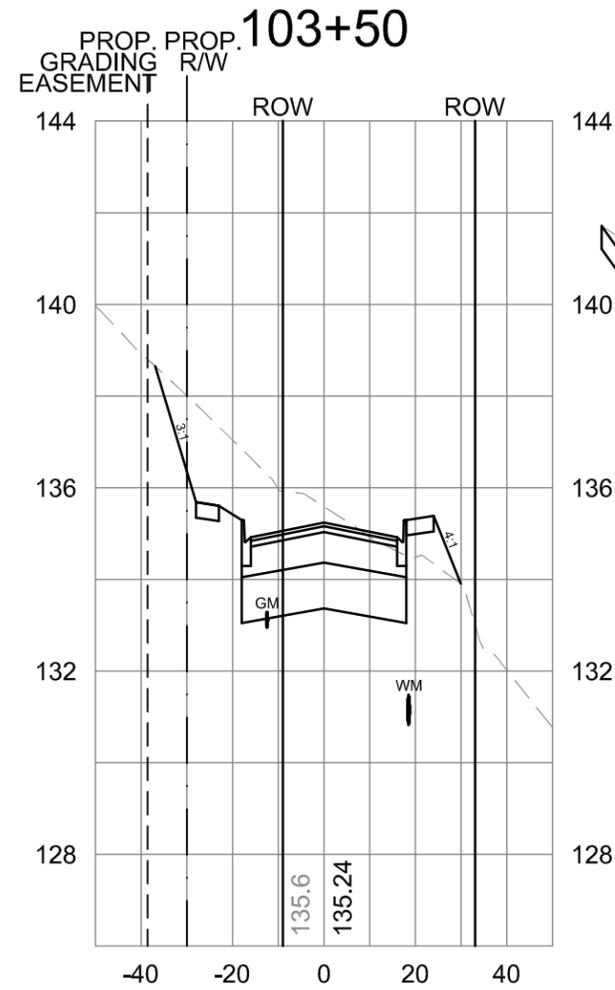
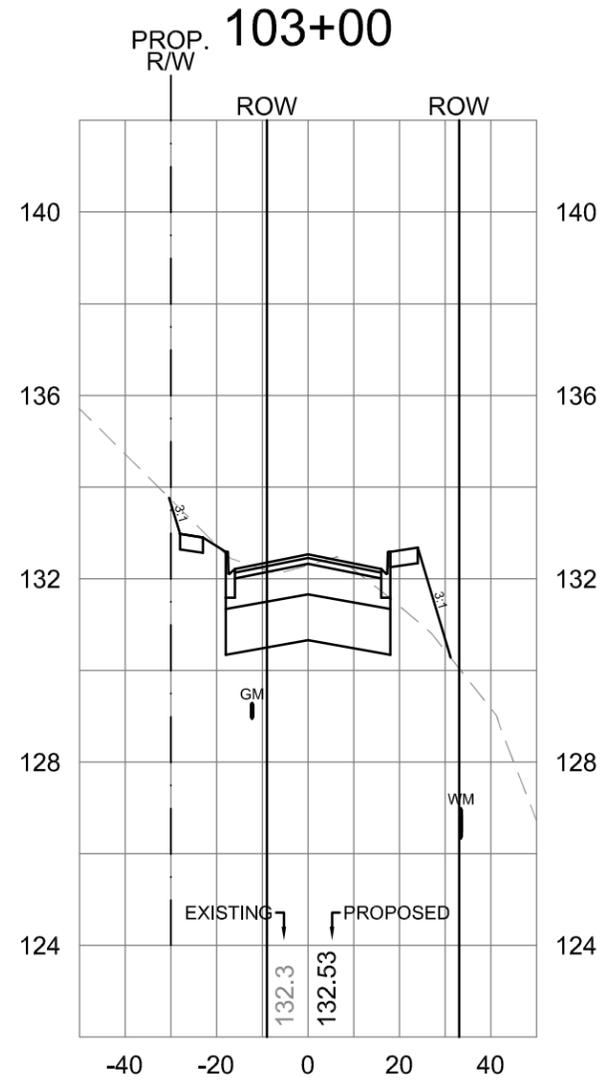
JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
C25

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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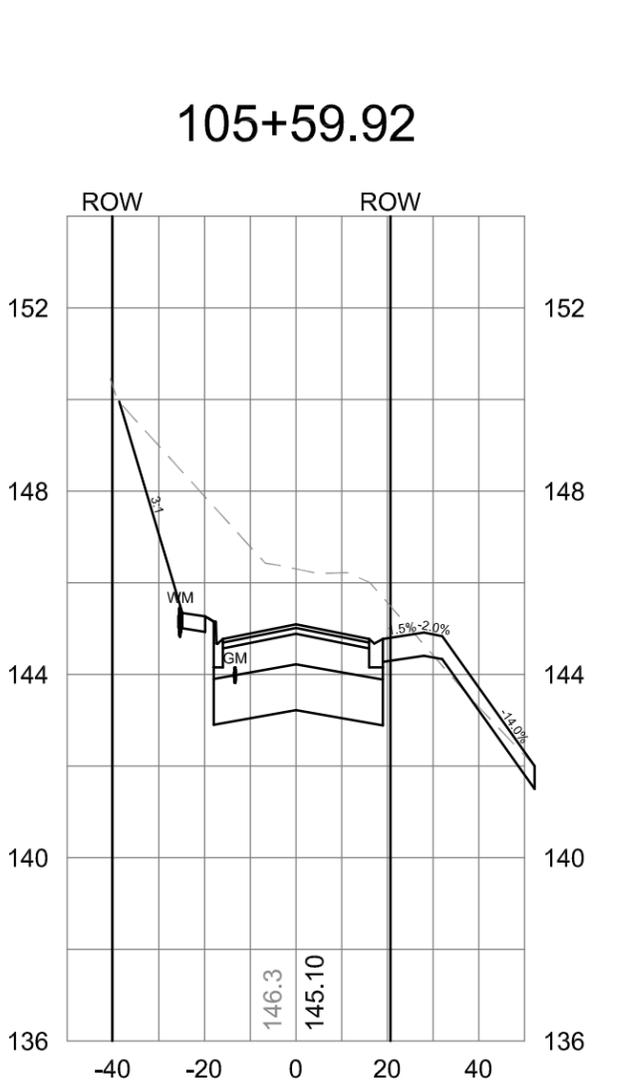
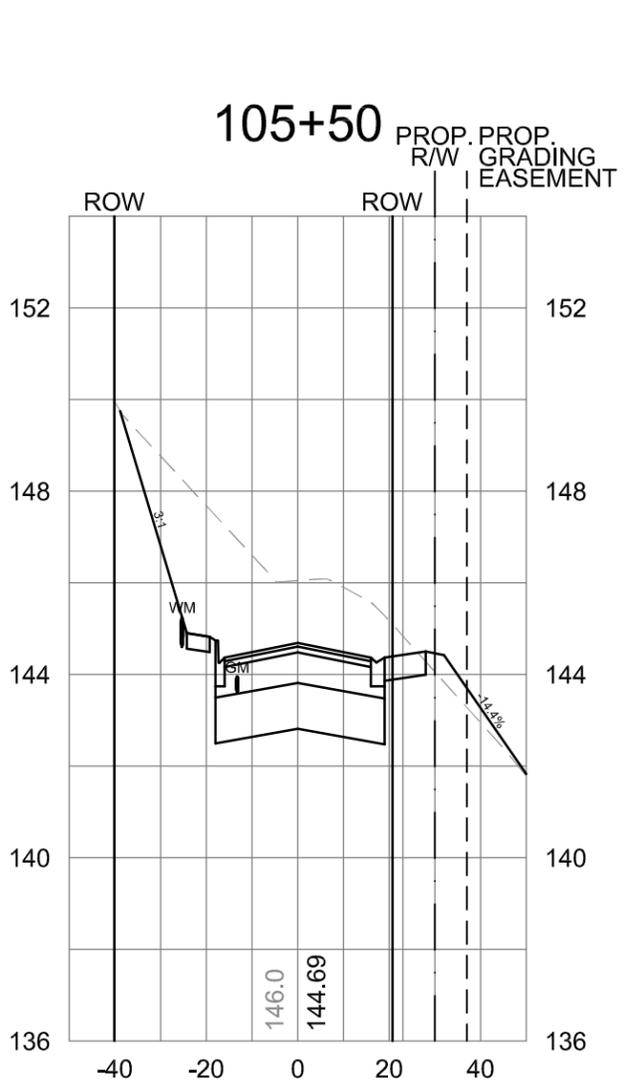
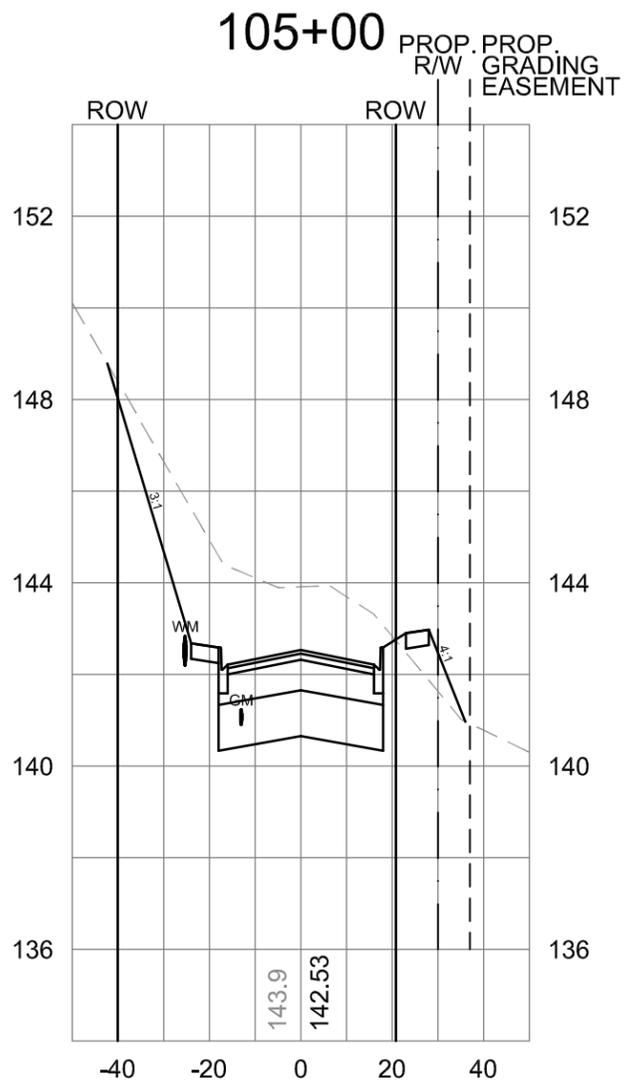
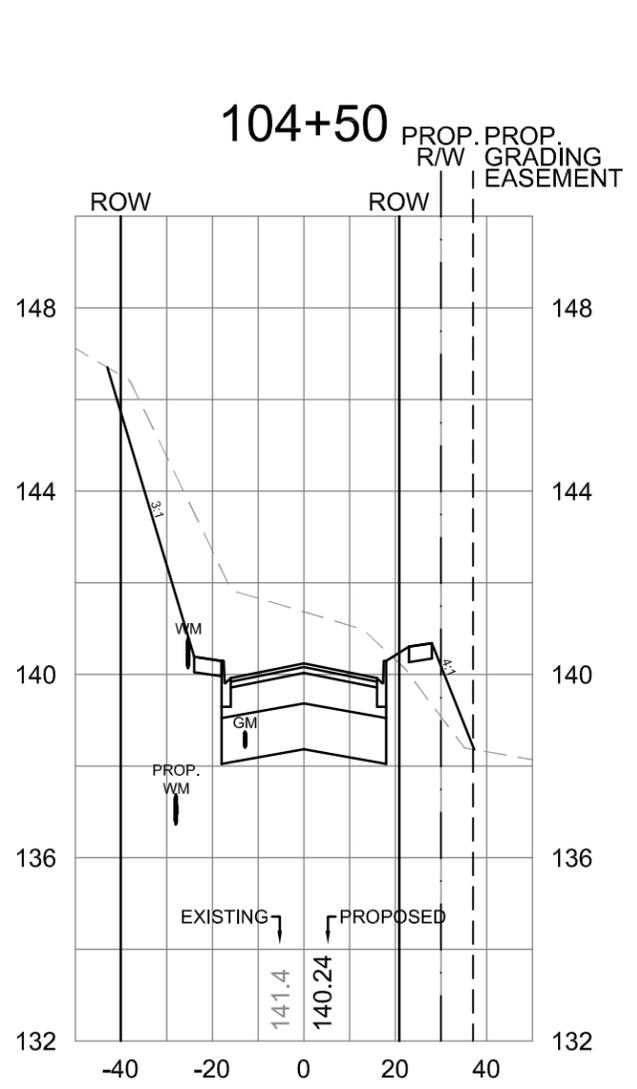
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 ELUSTIS, FLORIDA 32726
 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C26

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

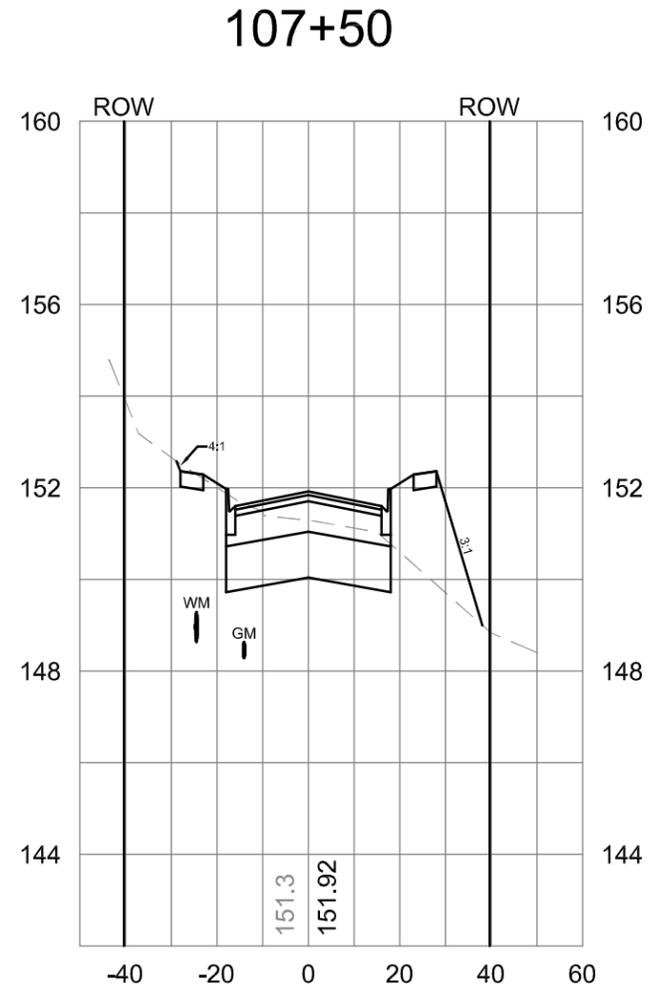
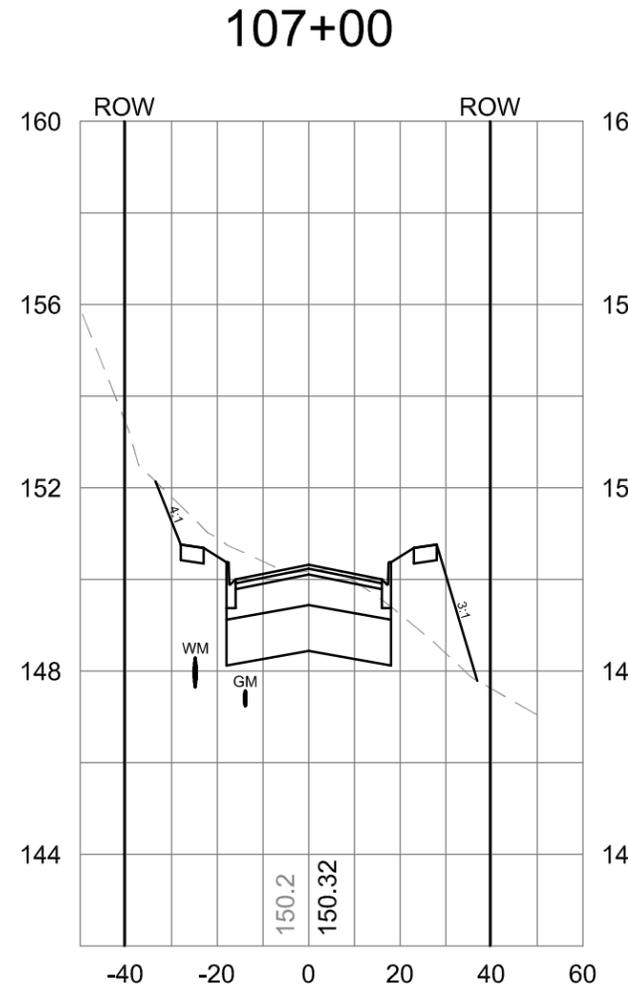
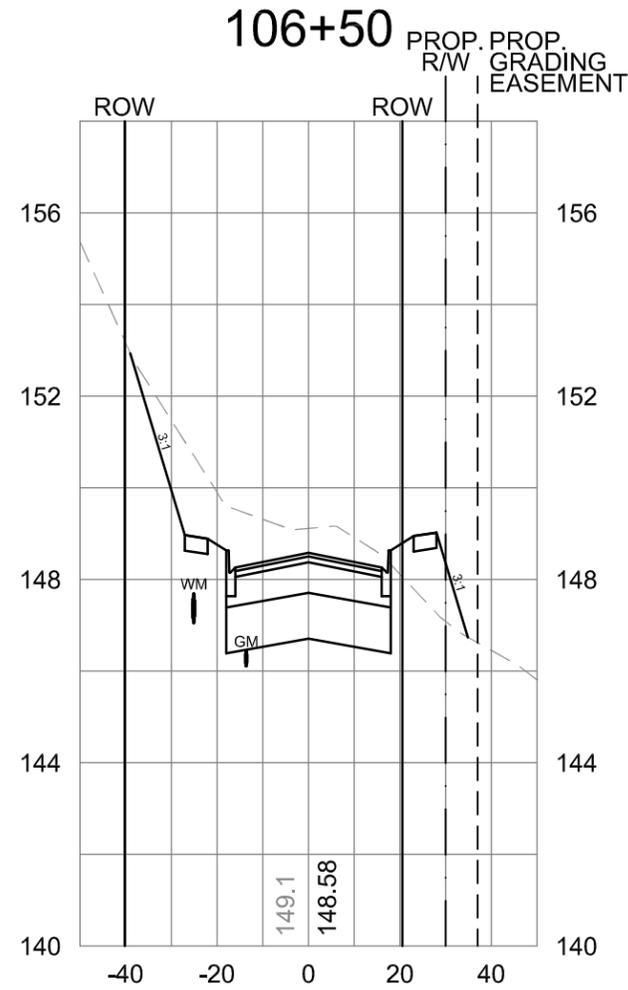
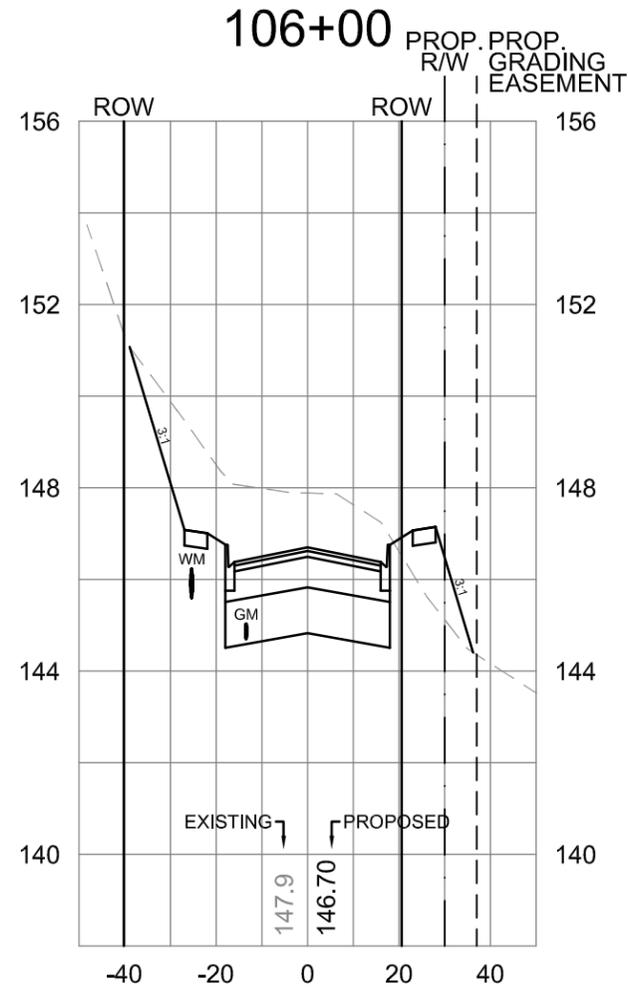
GRIFFEY ENGINEERING
 406 N. CENTER STREET
 ELUSTIS, FLORIDA 32726
 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS
 ROAD NO. 2-1158
 COUNTY LAKE
 CITY CLERMONT

CROSS SECTIONS

SHEET NO.
 C27

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

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 406 N. CENTER STREET
 ELUSTIS, FLORIDA 32726
 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

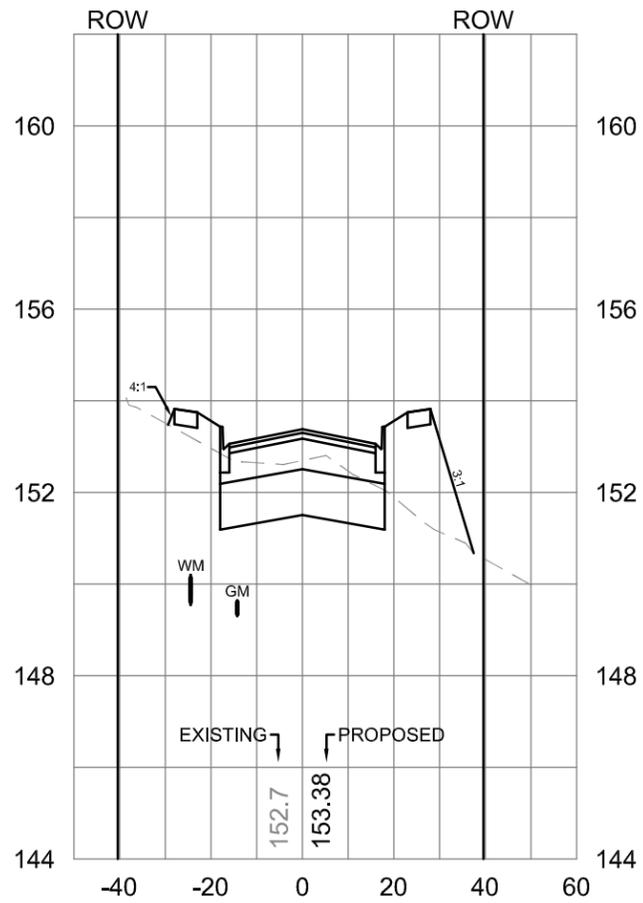
JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

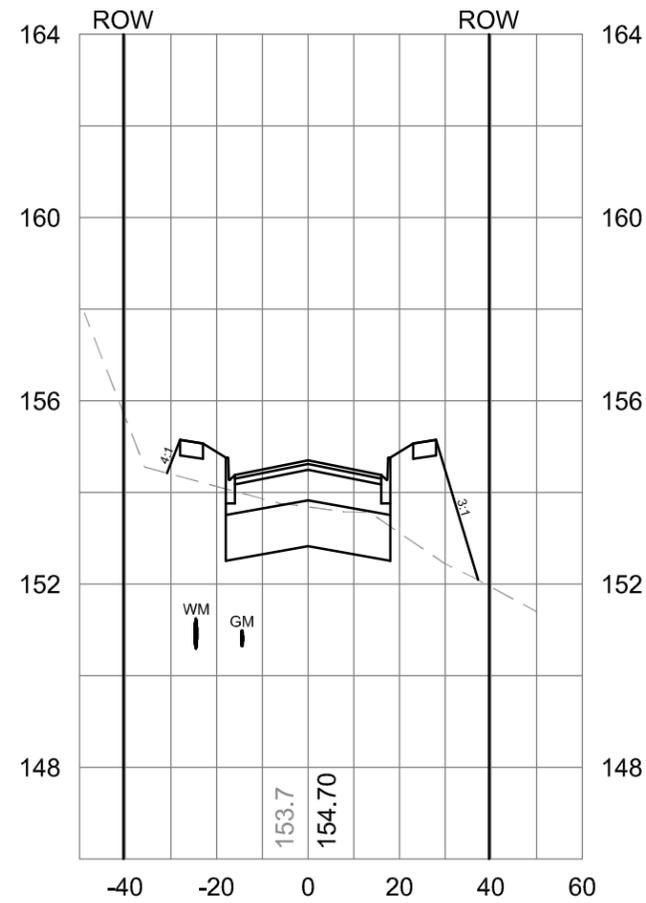
SHEET NO.
 C28

CROSS-SECTION
HORIZONTAL 1"= 40'
VERTICAL 1"= 4'

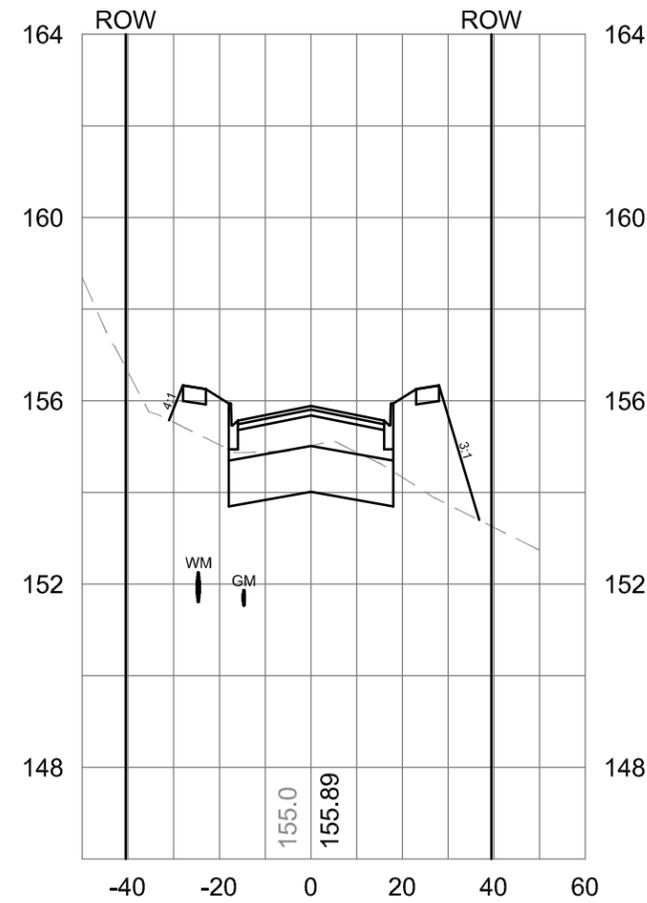
108+00



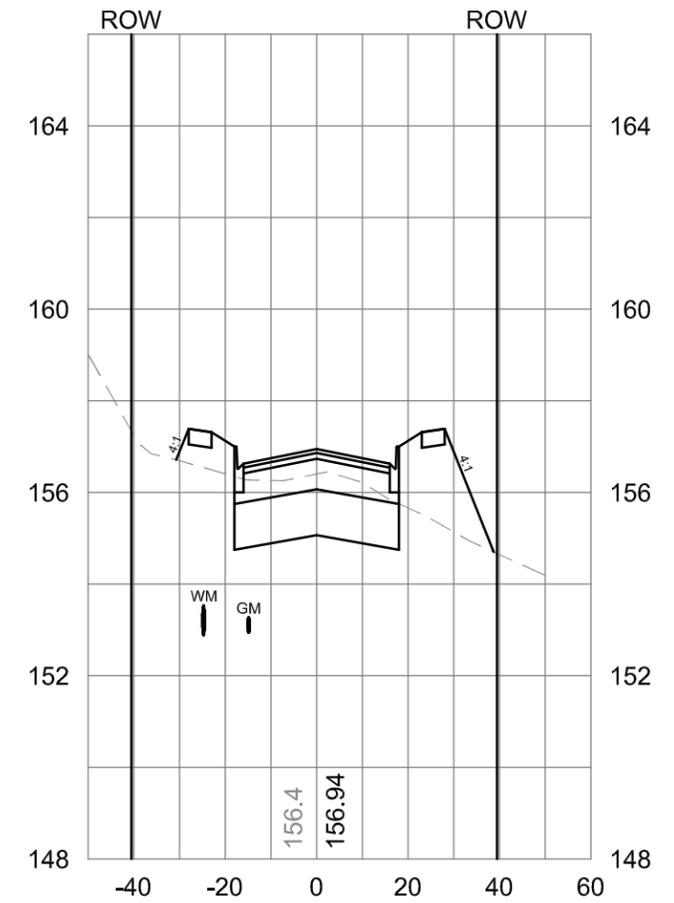
108+50



109+00



109+50



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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JOHNS LAKE ROAD IMPROVEMENTS

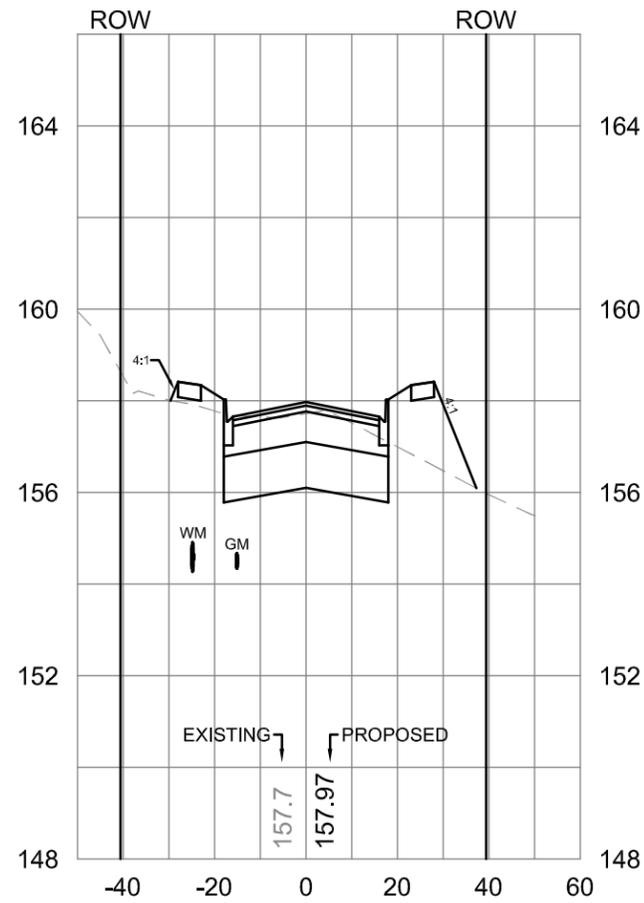
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

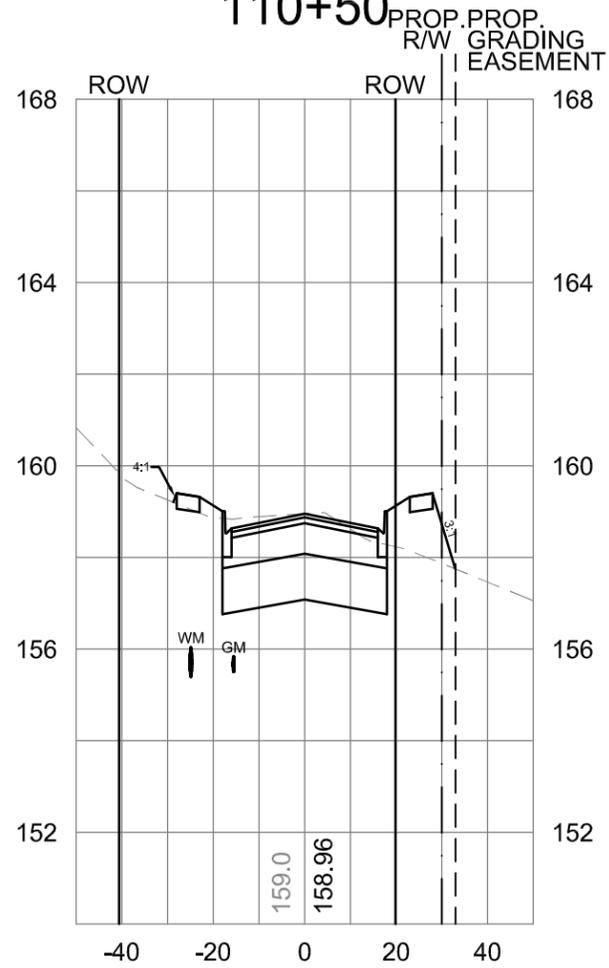
SHEET NO.
C29

CROSS-SECTION
HORIZONTAL 1"= 40'
VERTICAL 1"= 4'

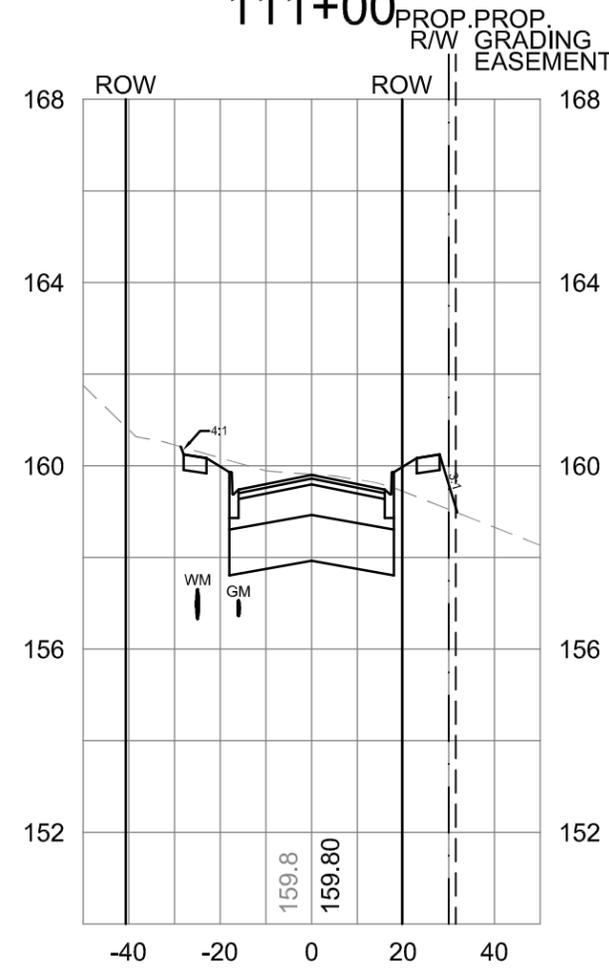
110+00



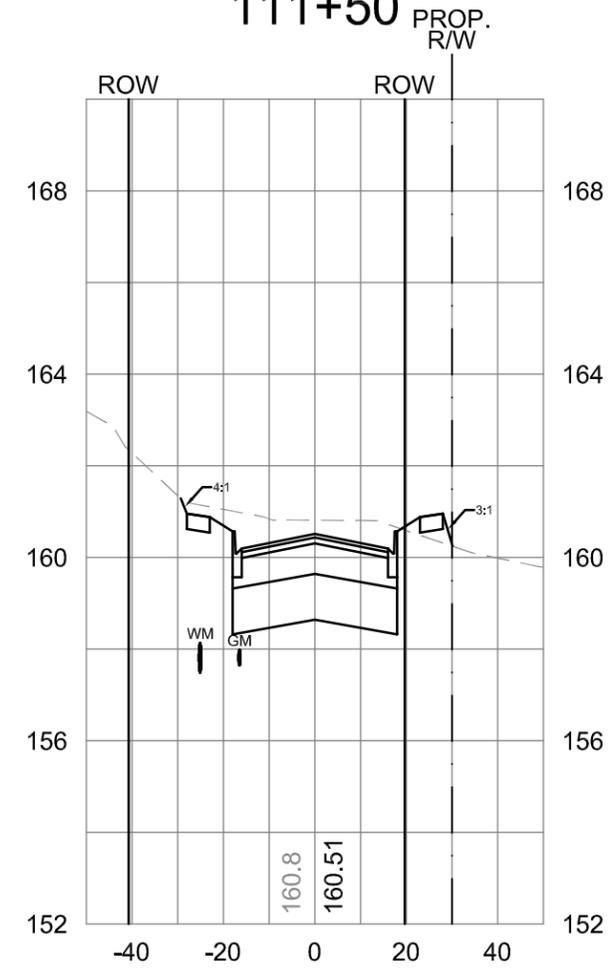
110+50



111+00



111+50



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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JOHNS LAKE ROAD IMPROVEMENTS

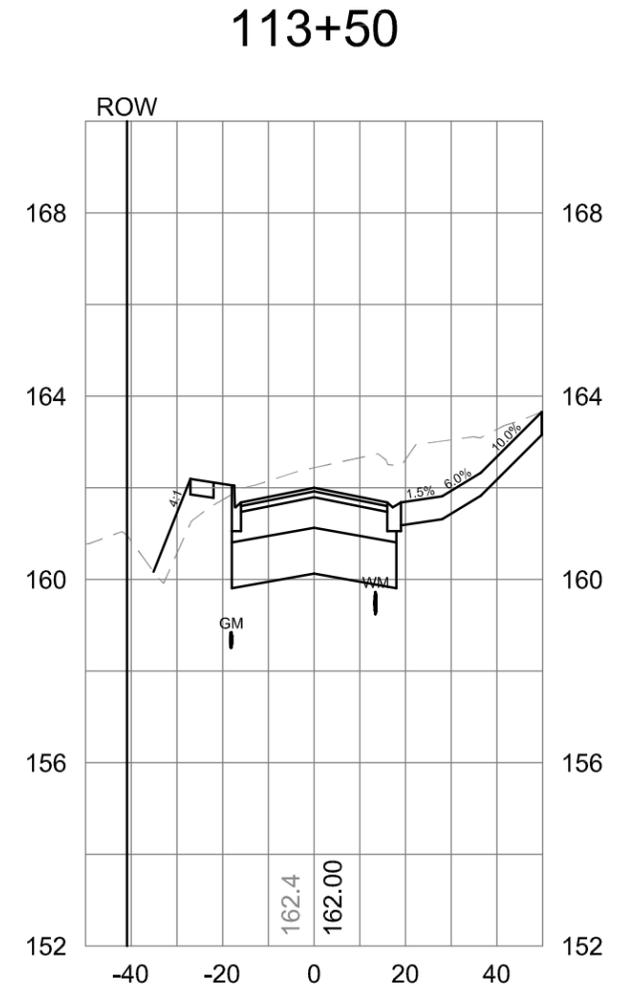
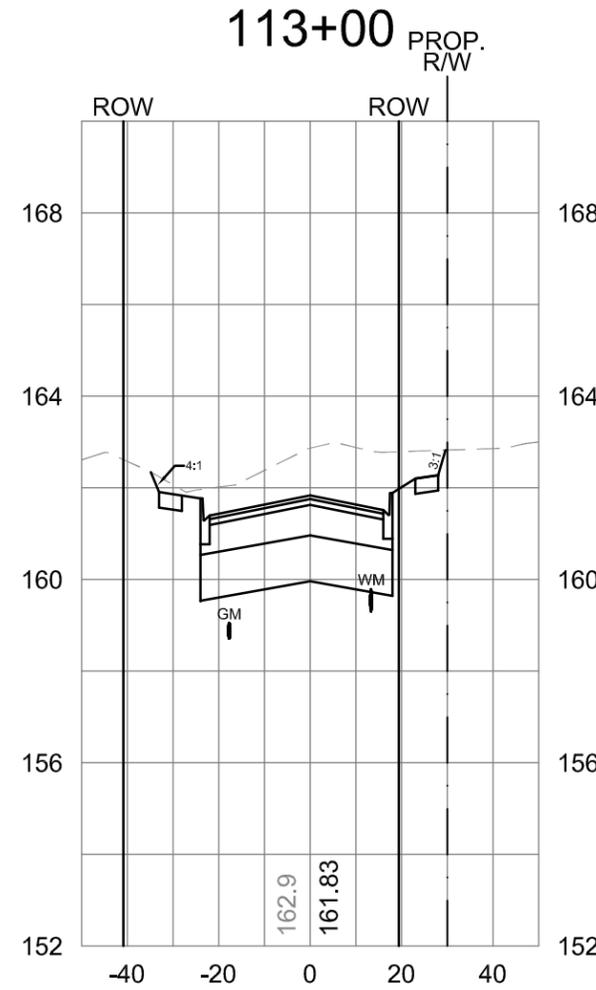
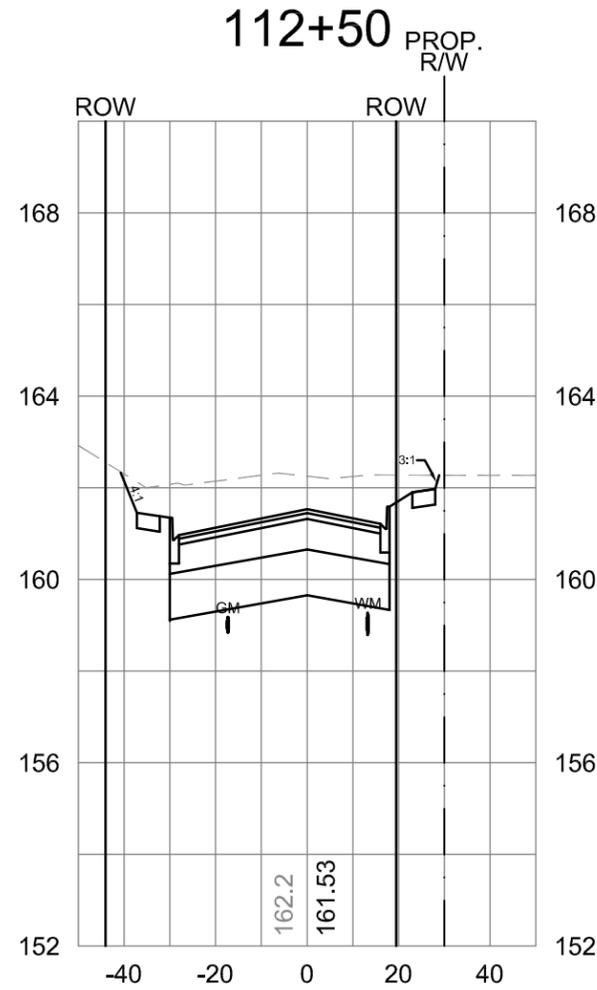
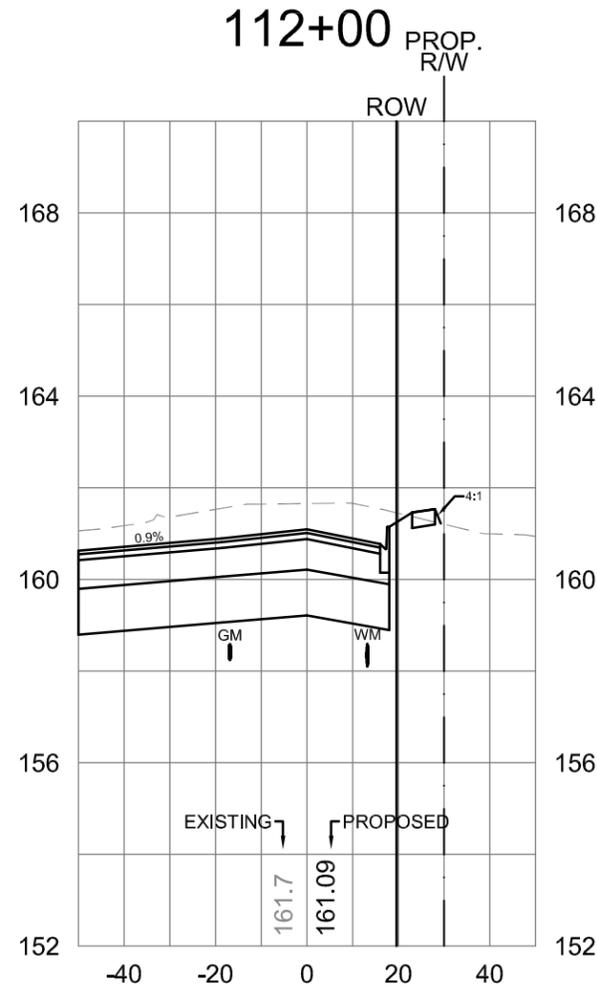
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.

C30

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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 PE No. 036799

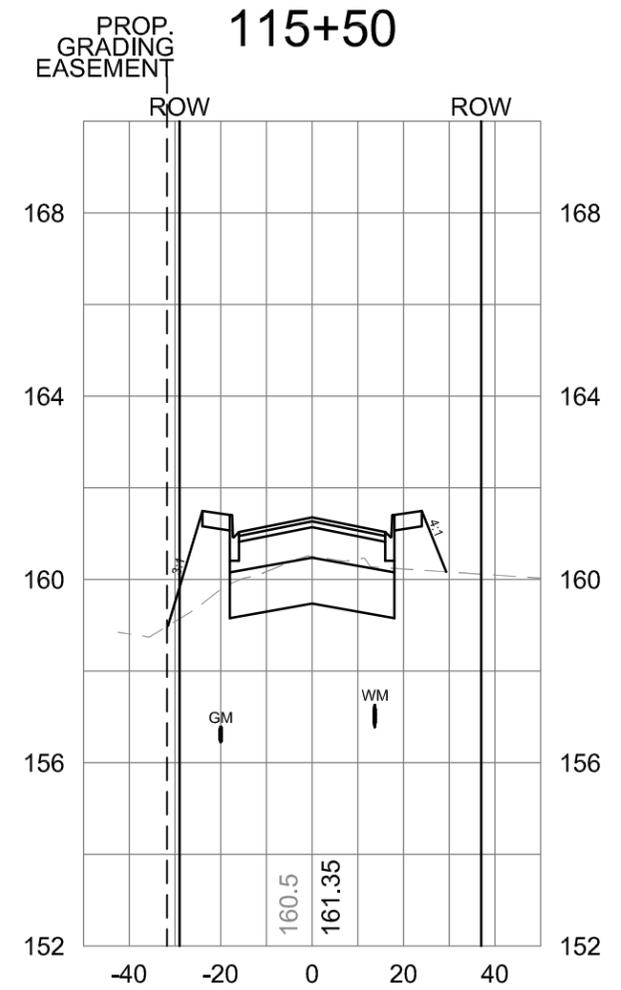
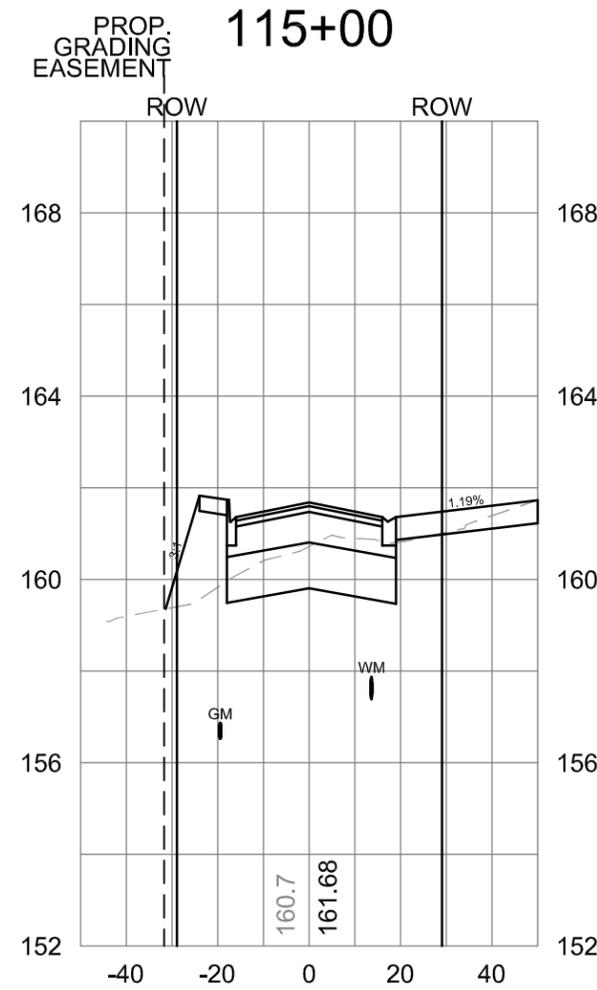
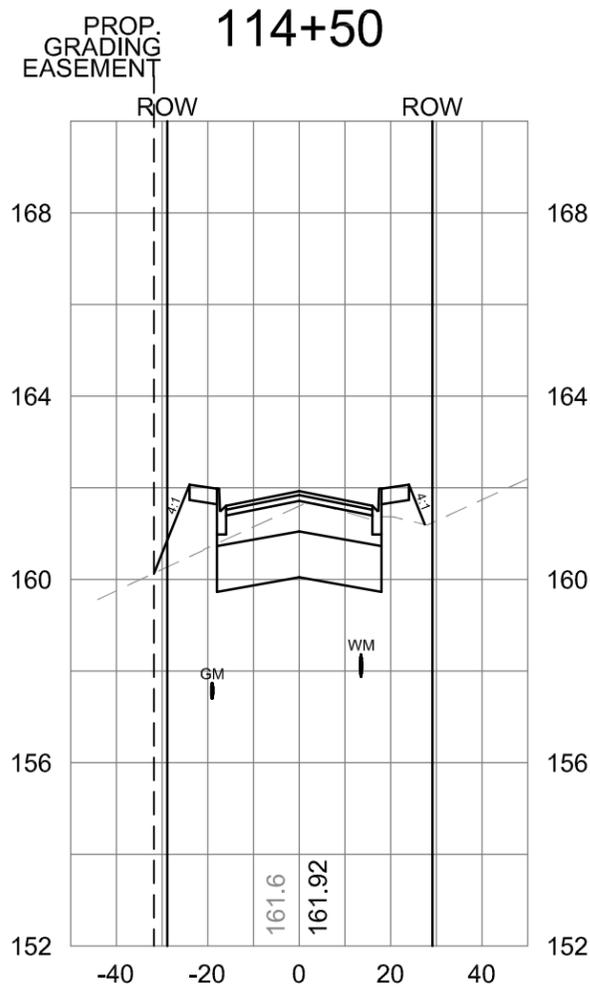
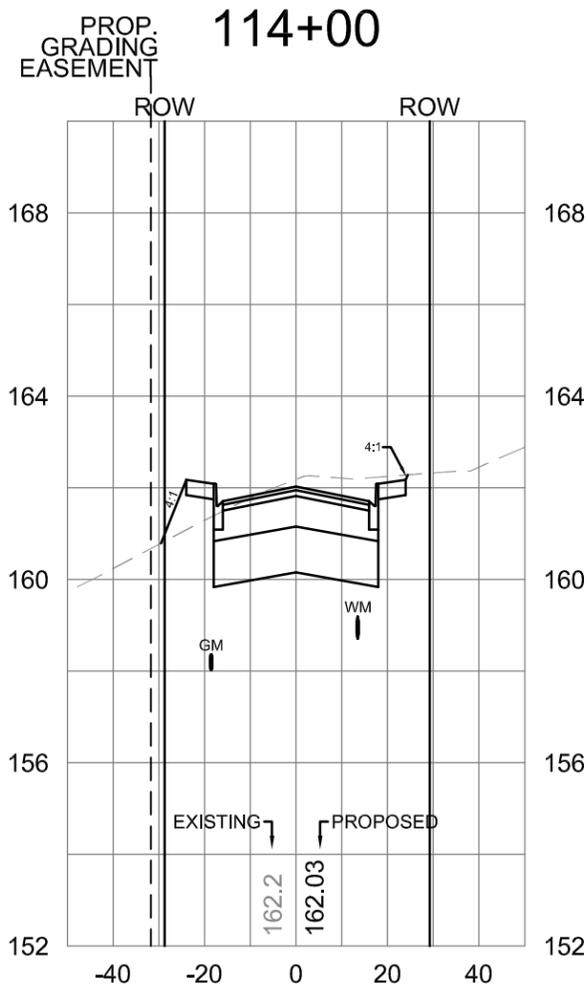
GRIFFEY ENGINEERING
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 PHONE (352) 357-3528
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 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C31

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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JOHNS LAKE ROAD IMPROVEMENTS

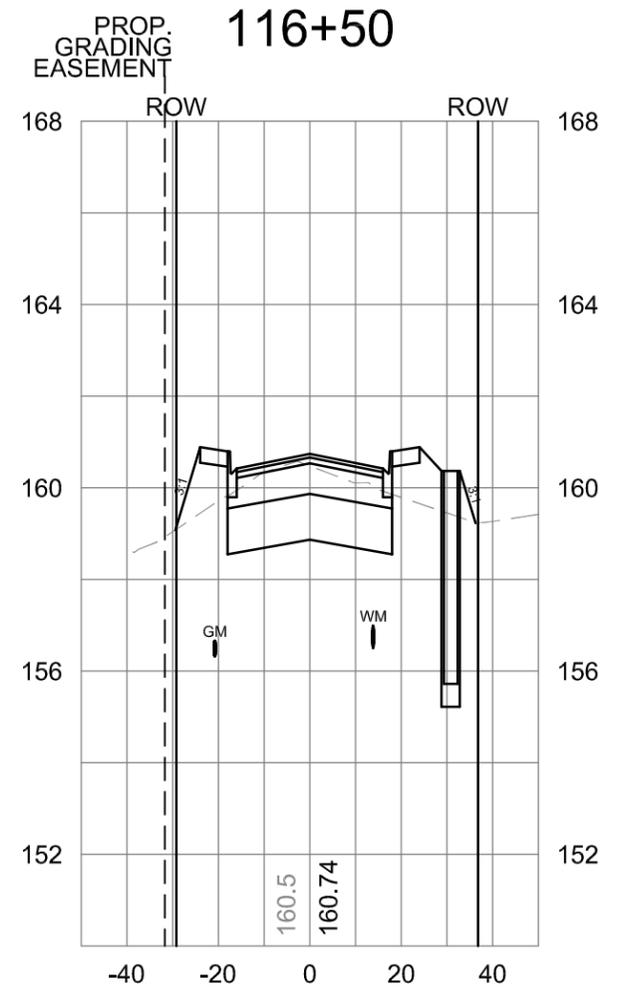
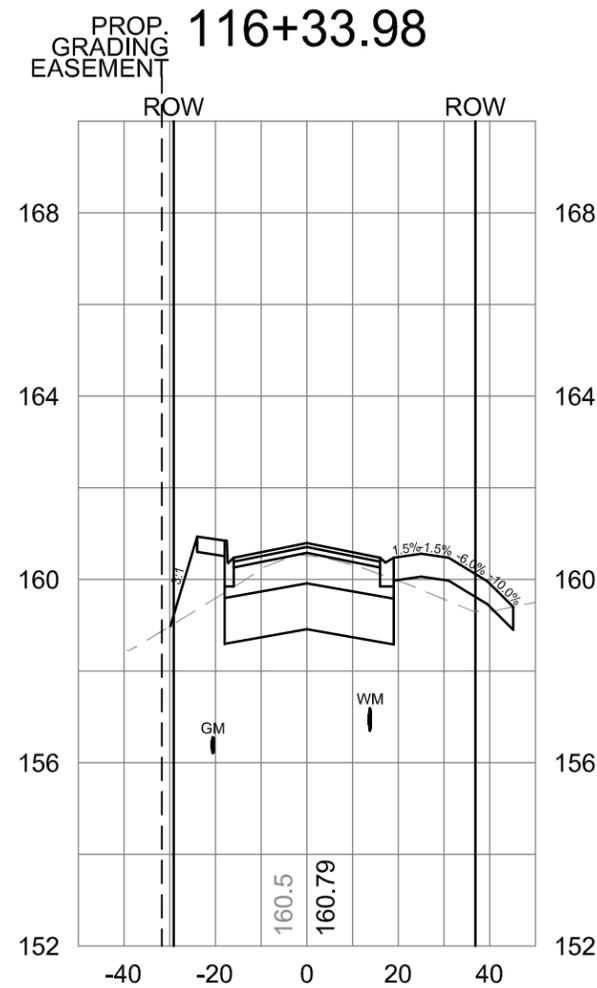
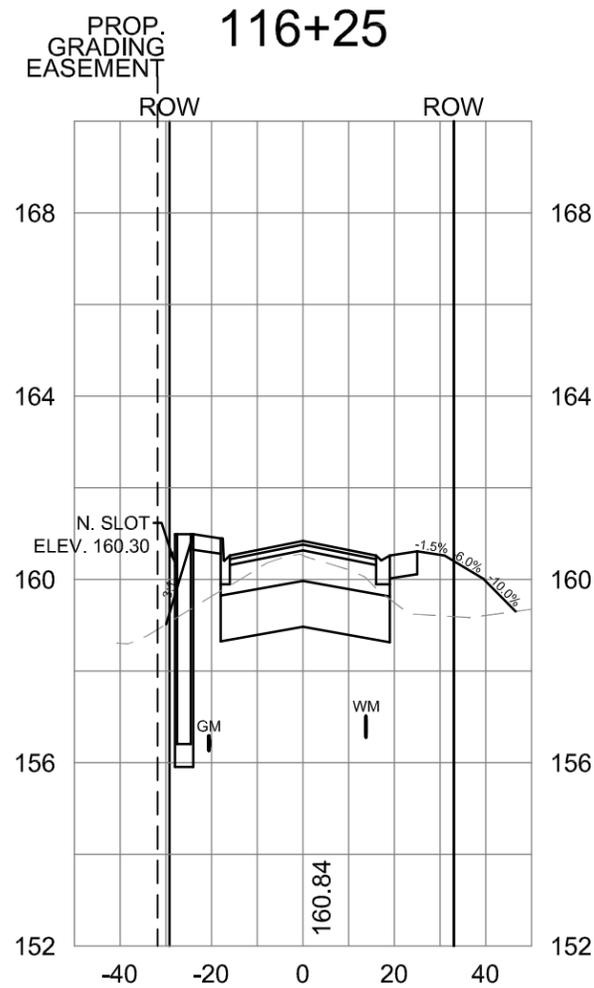
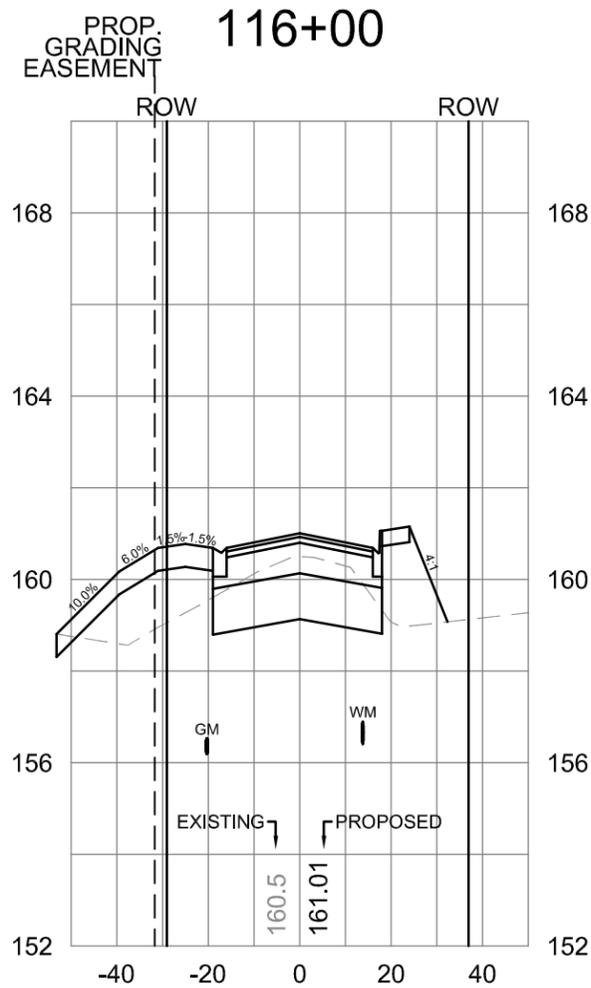
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.

C32

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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 PE No. 036799

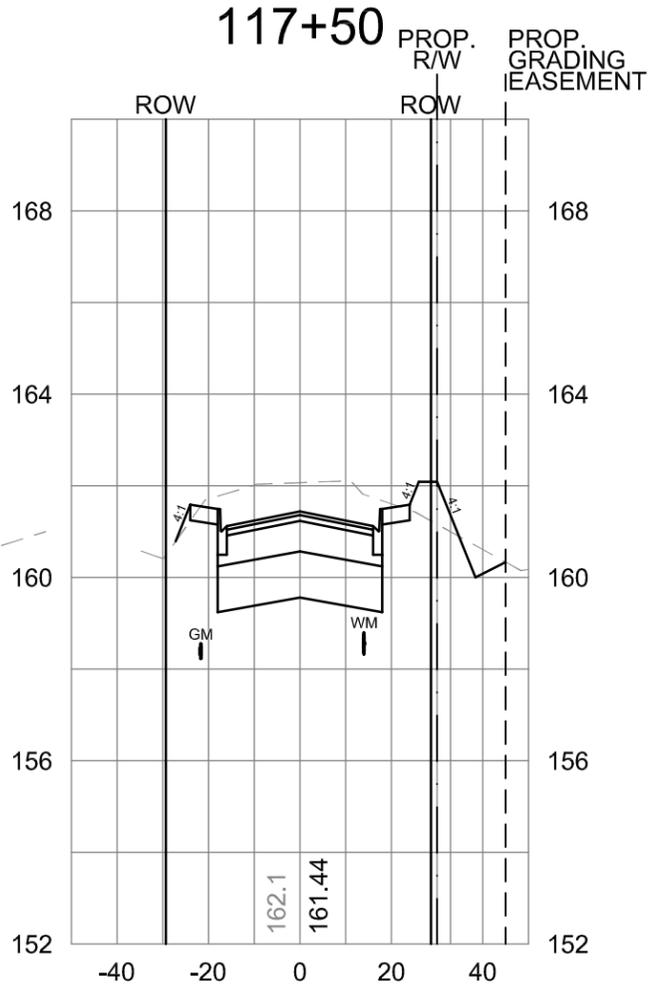
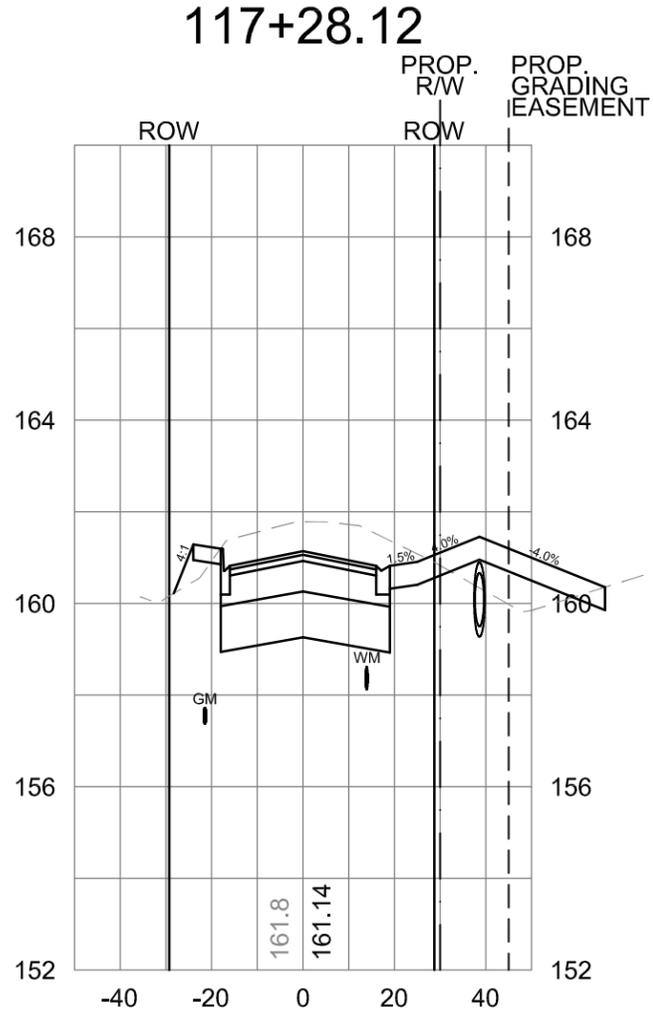
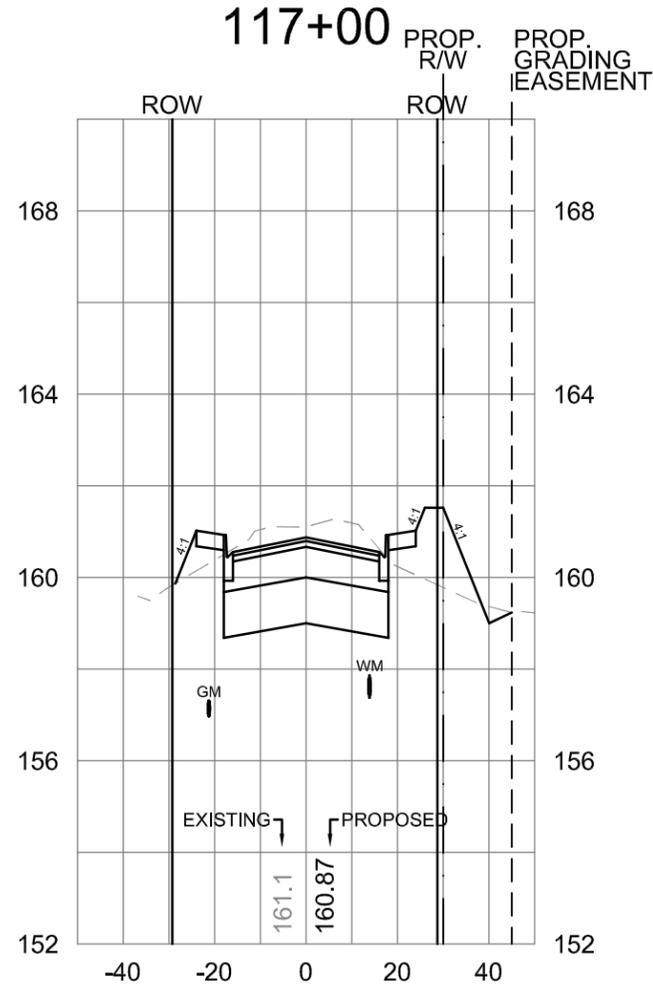
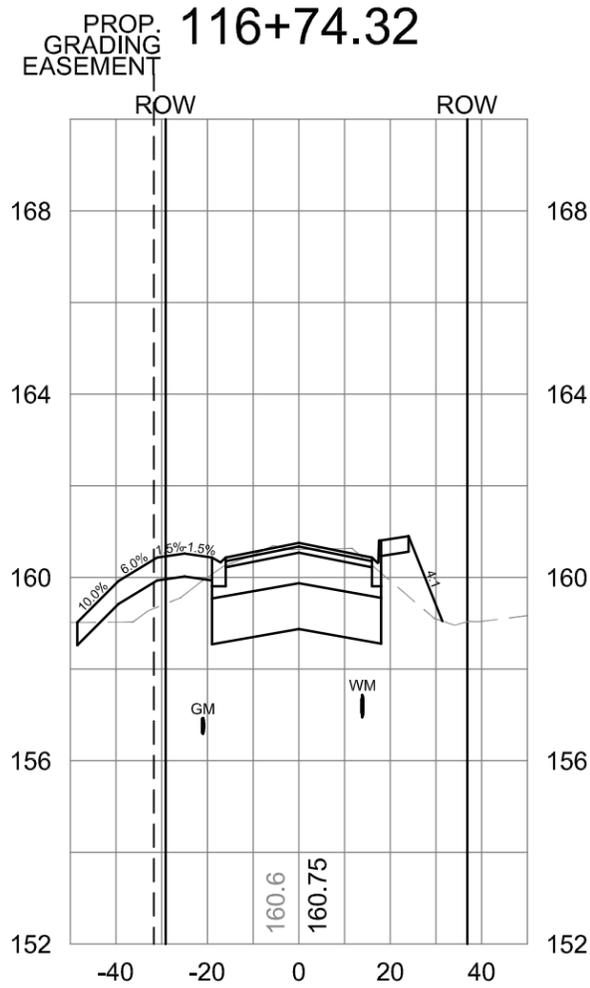
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 EUSTIS, FLORIDA 32726
 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C33

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

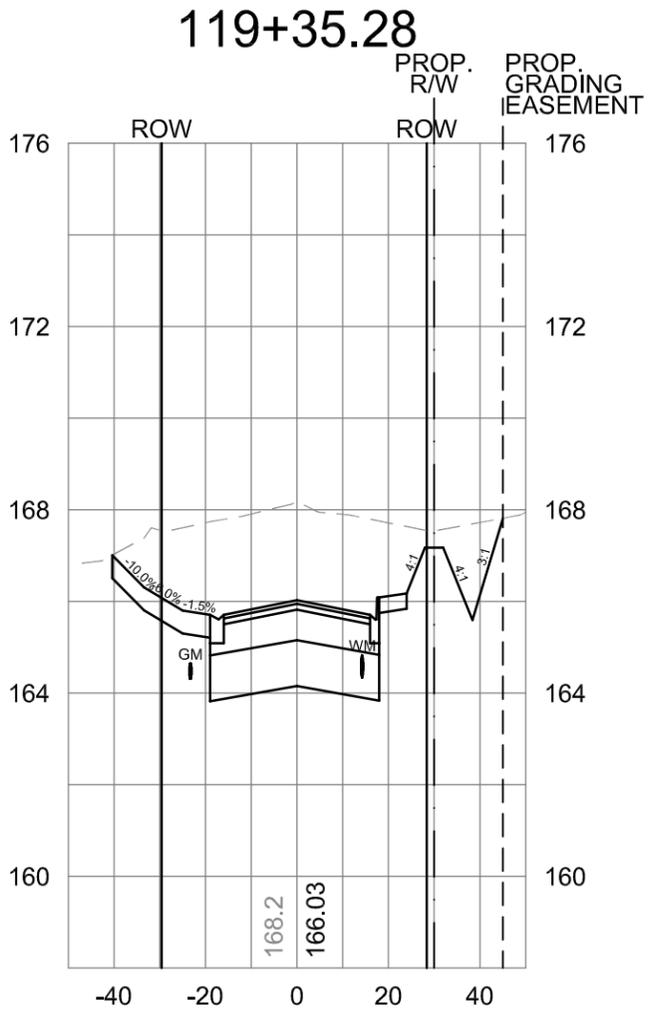
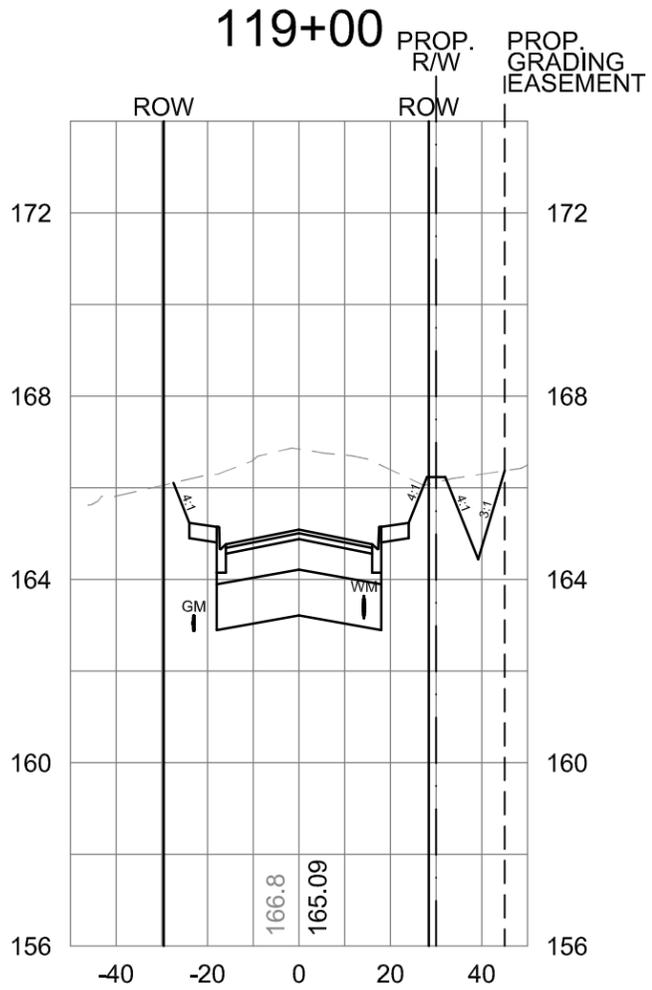
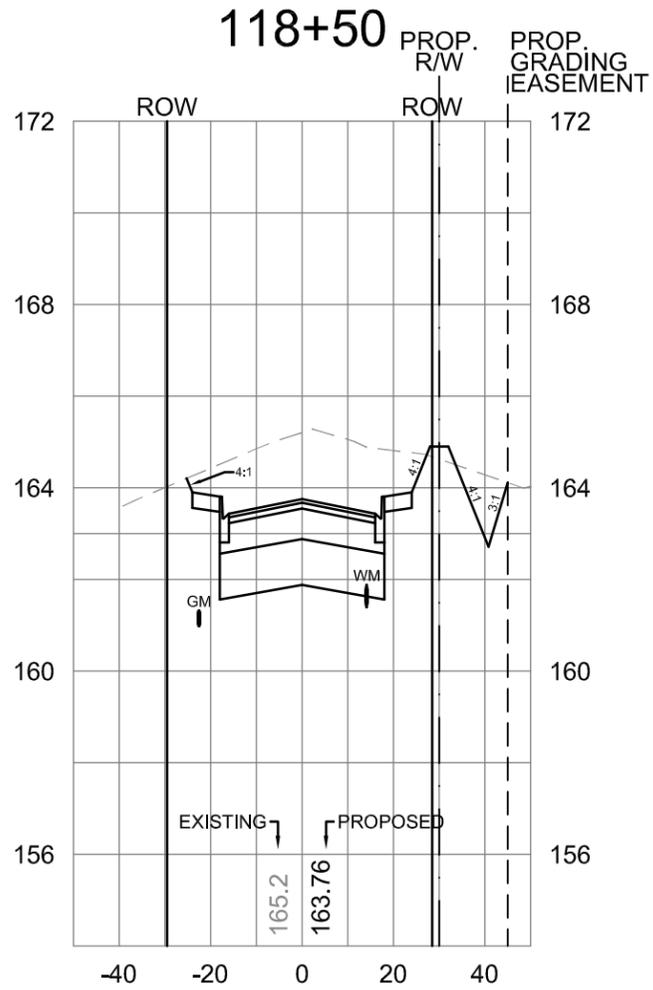
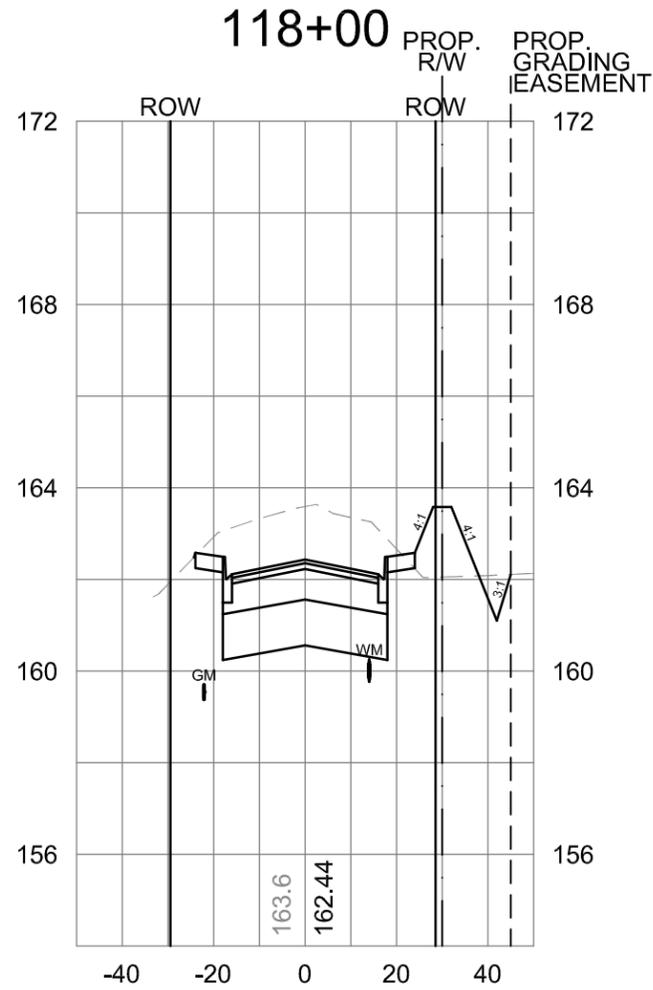
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 FAX (352) 357-3219
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C34

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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 PE No. 036799

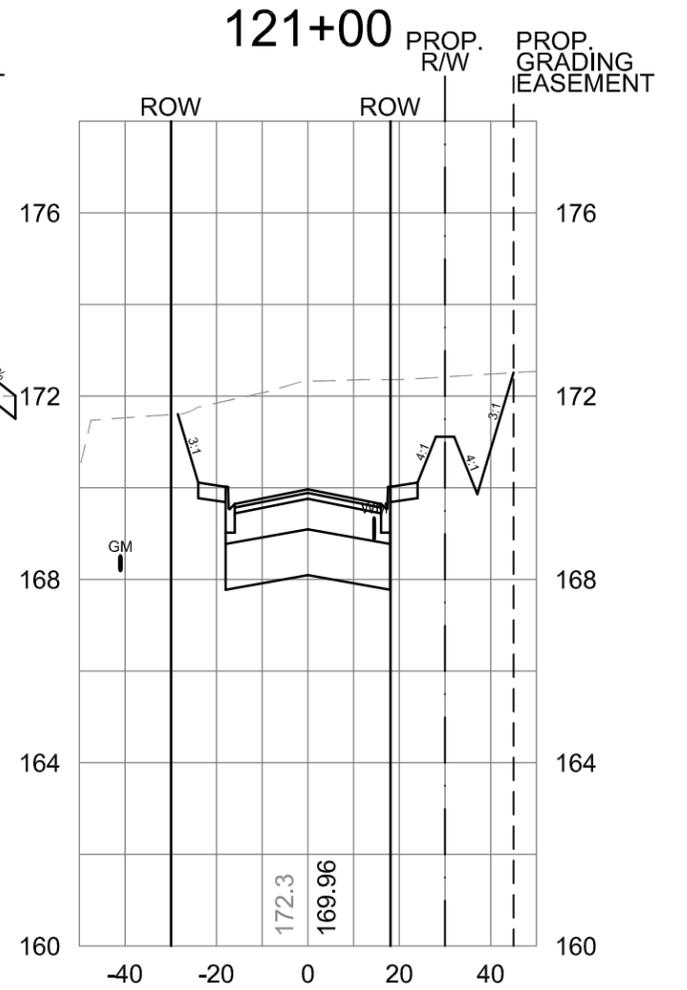
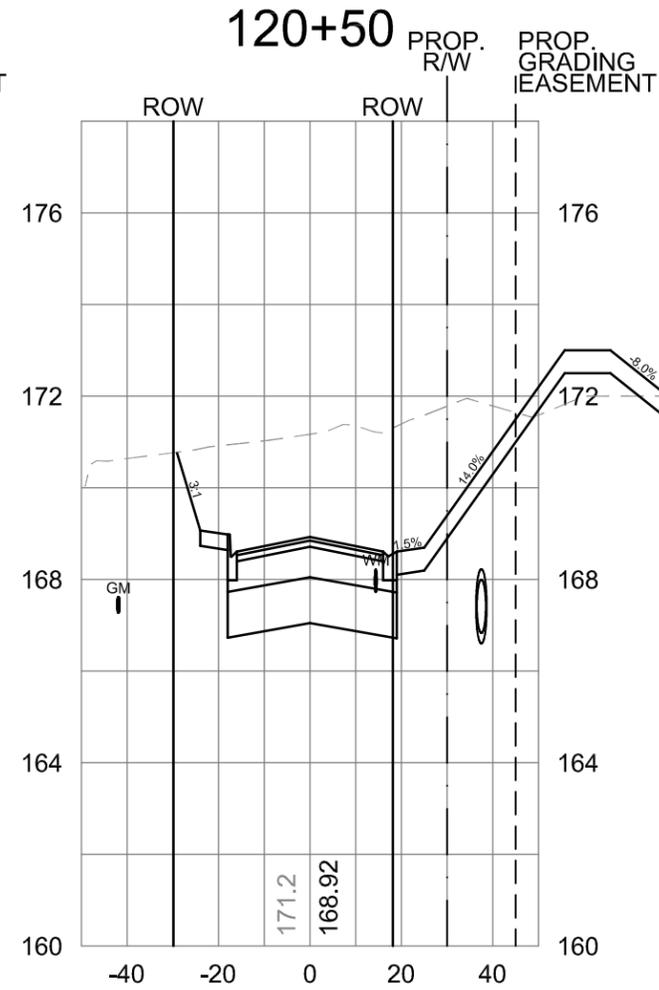
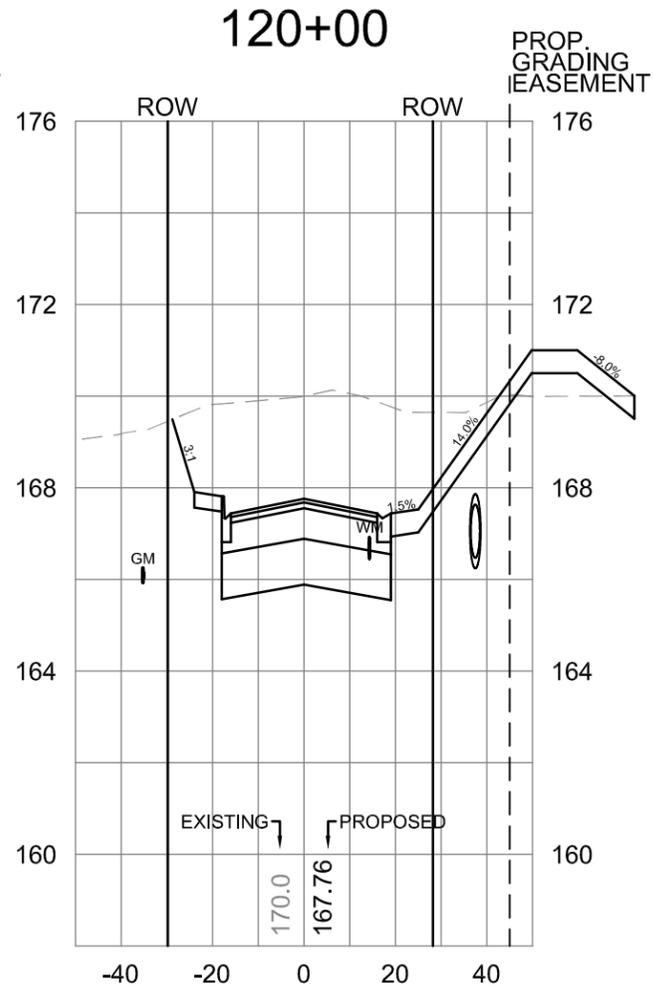
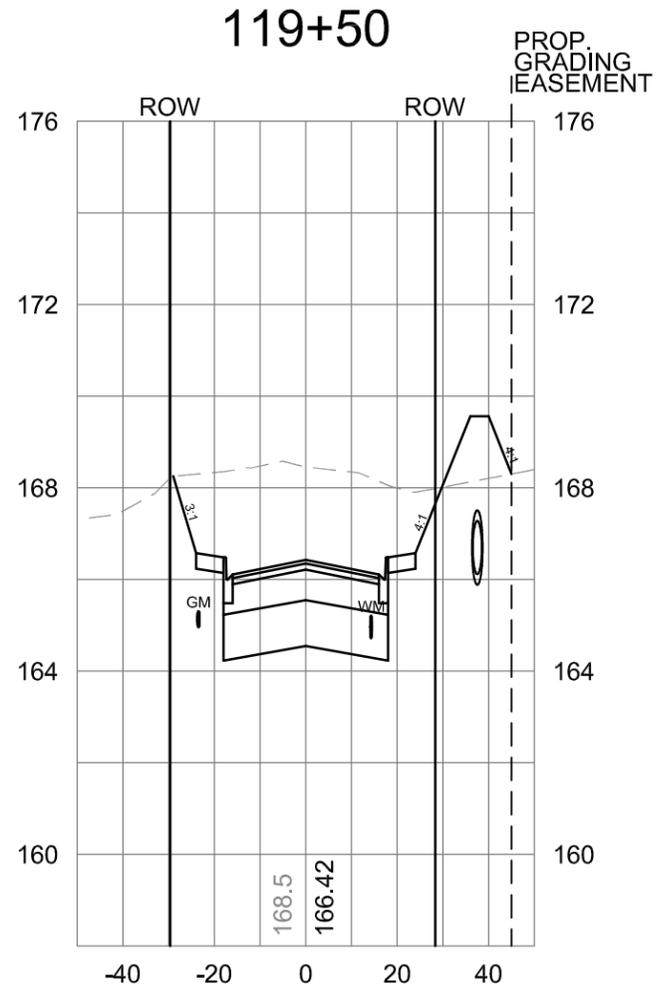
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 FAX (352) 357-3219
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C35

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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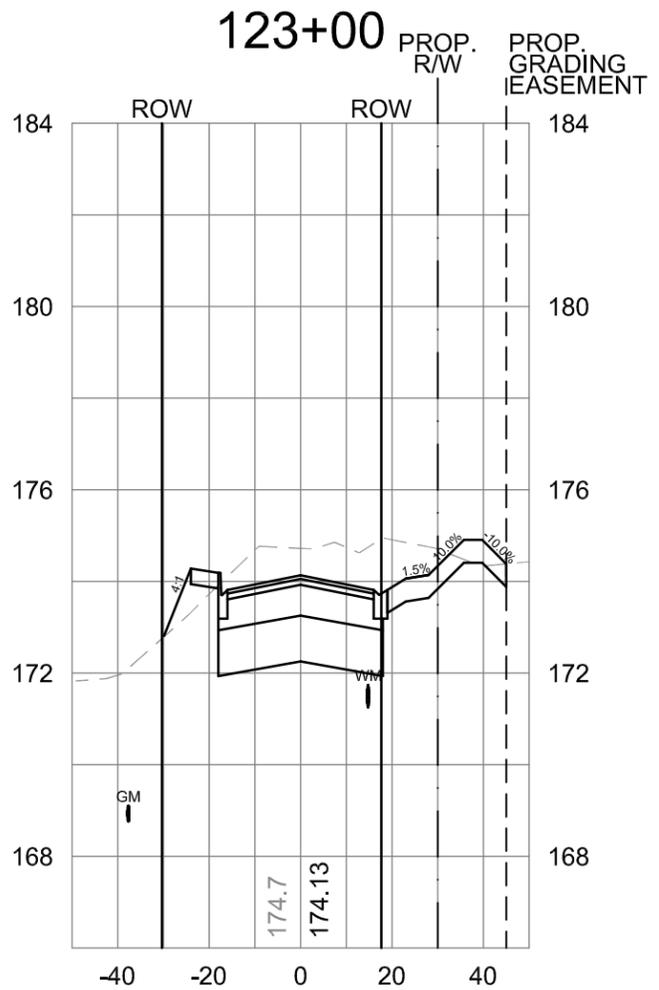
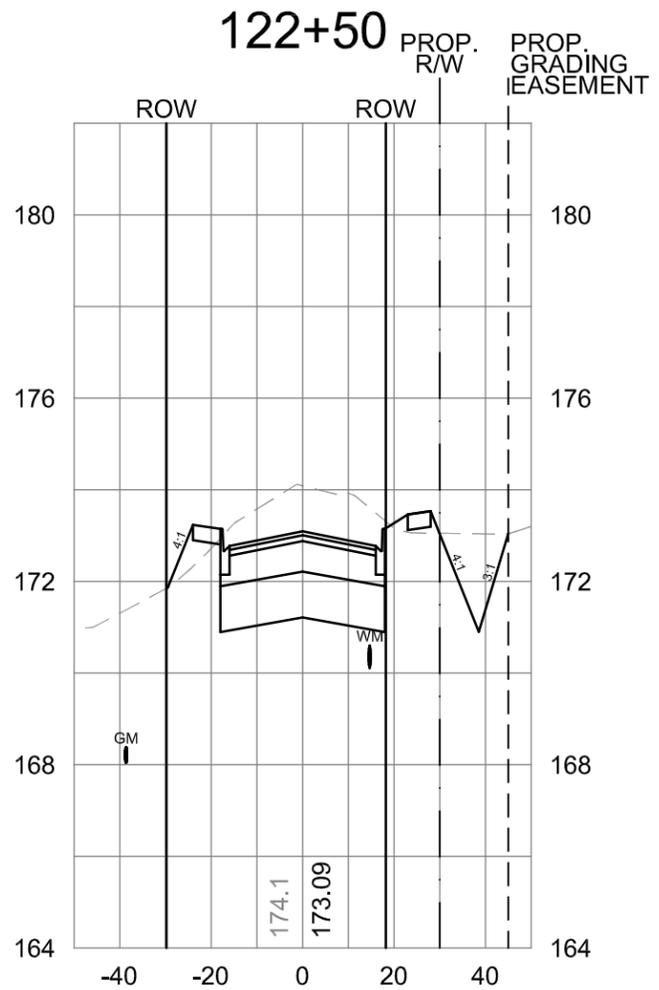
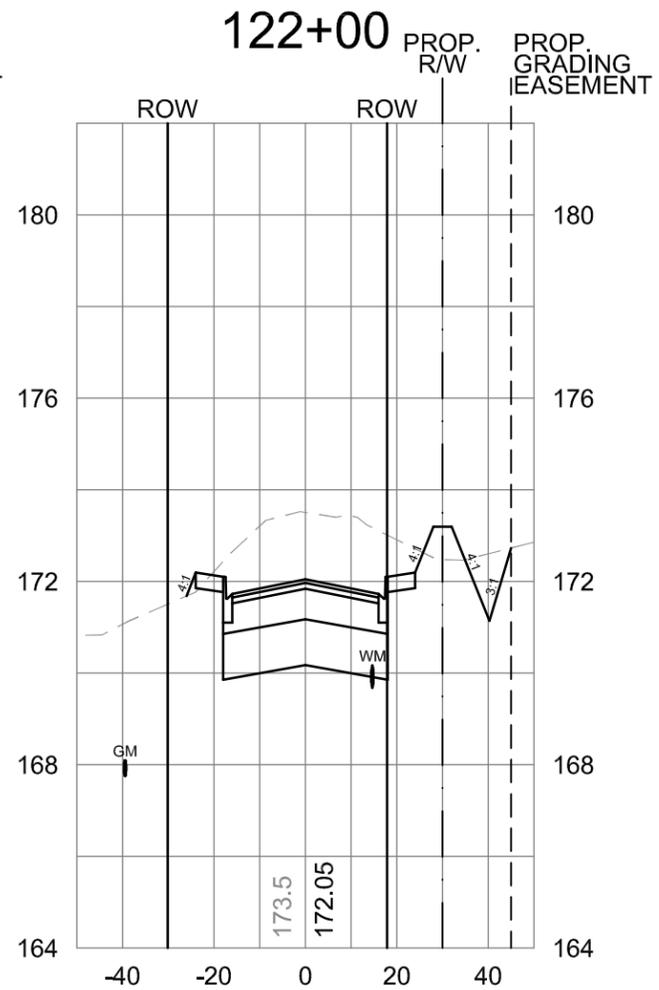
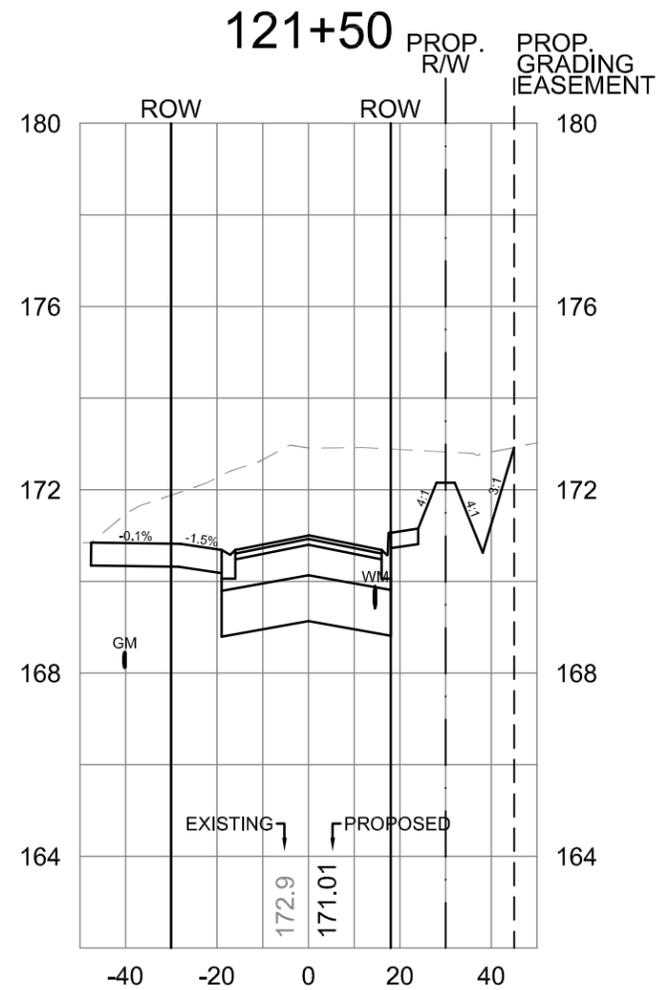
JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
C36

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESCRIPTION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

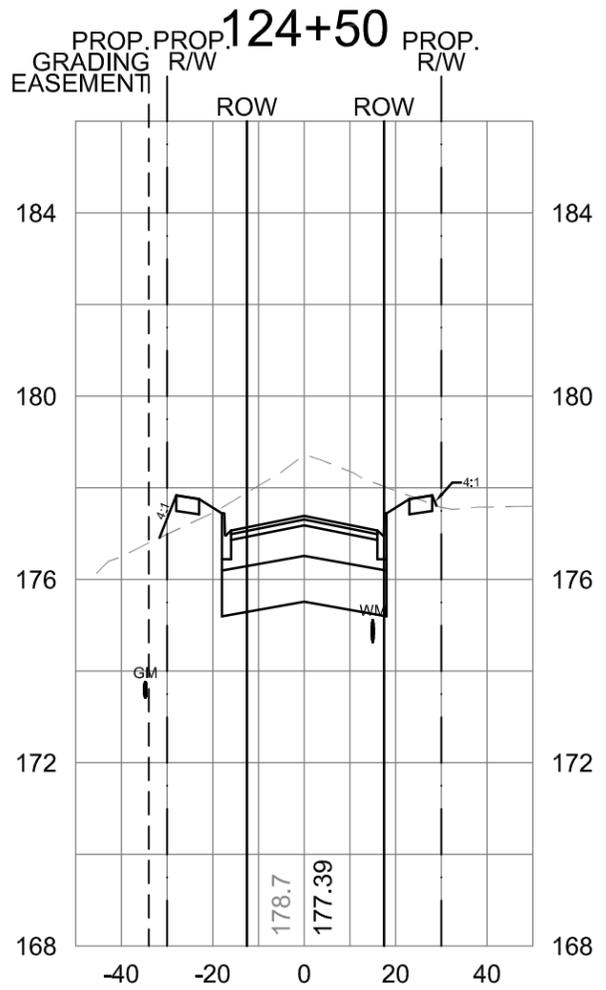
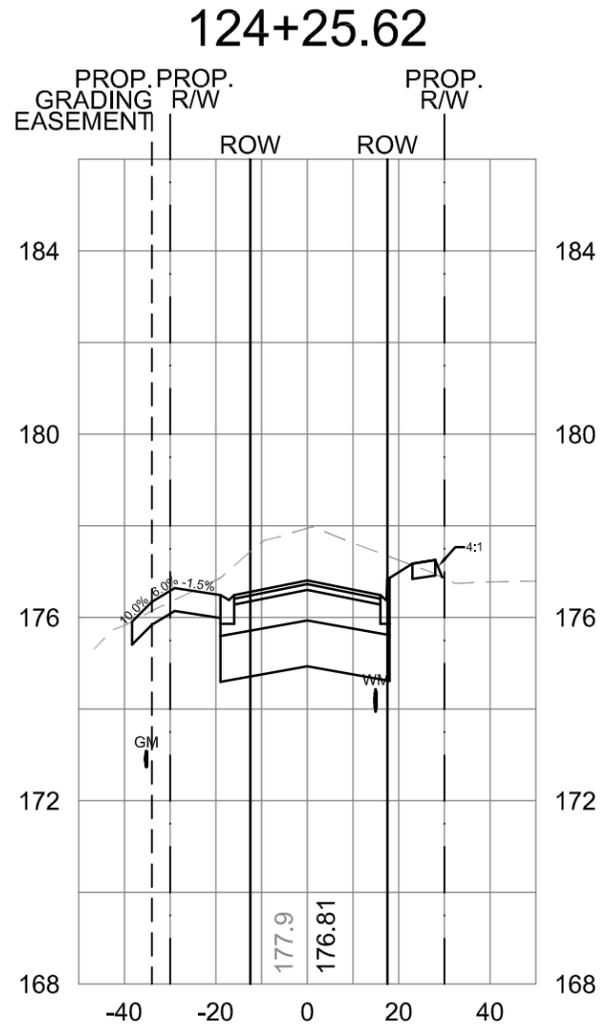
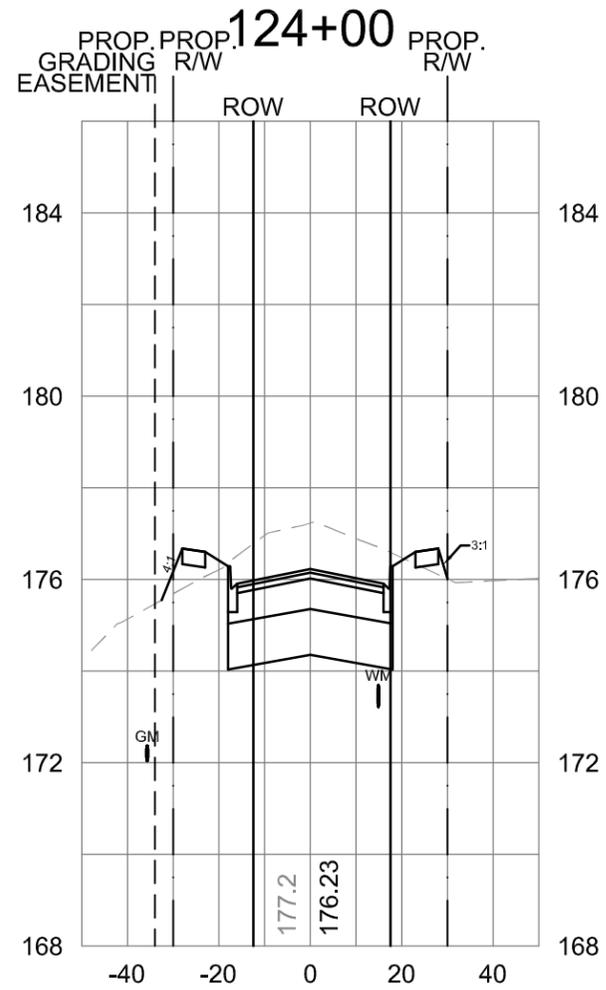
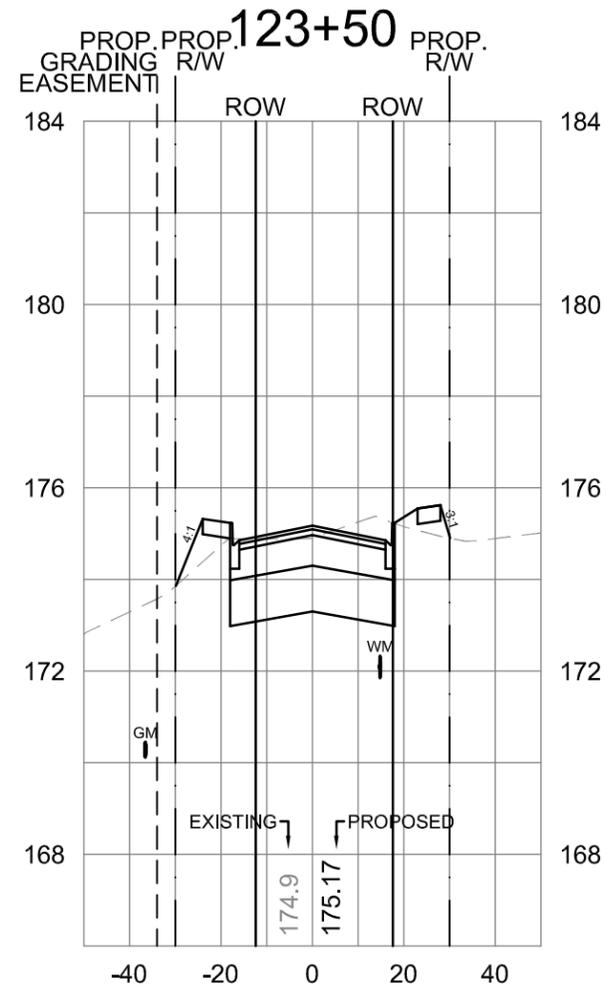
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 FAX (352) 357-3219
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
C37

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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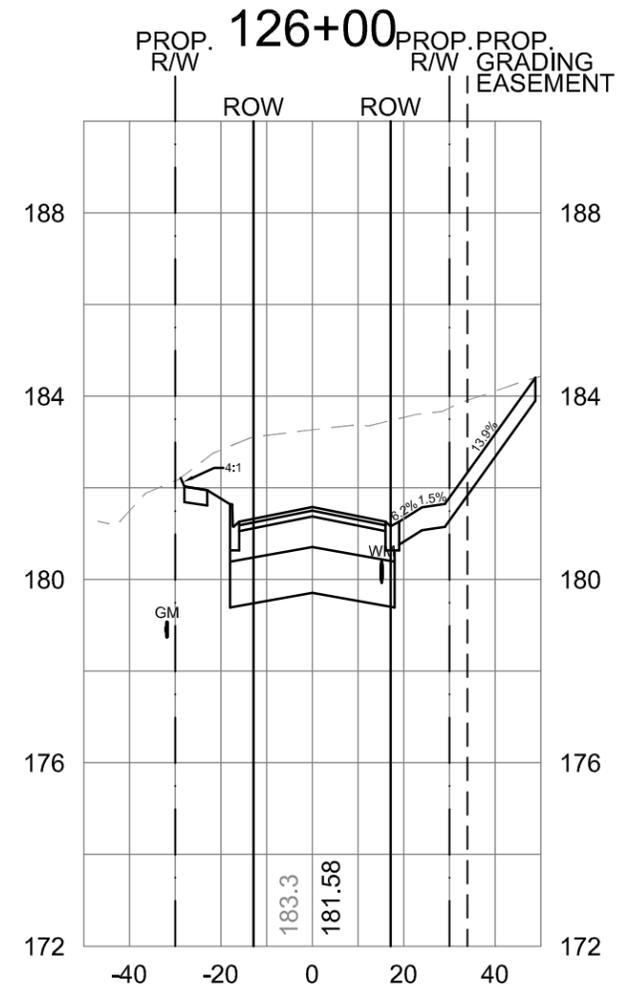
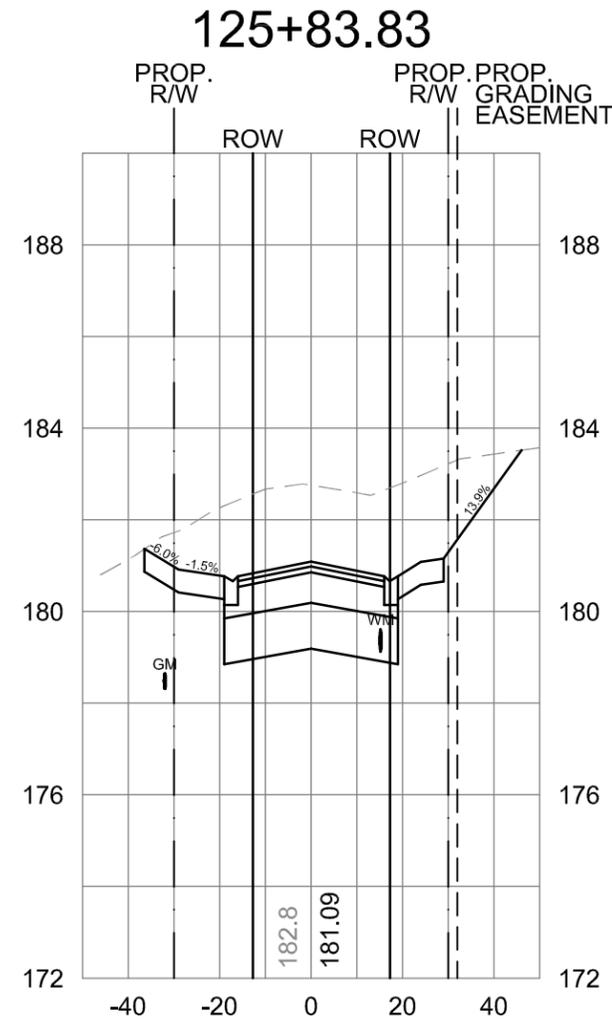
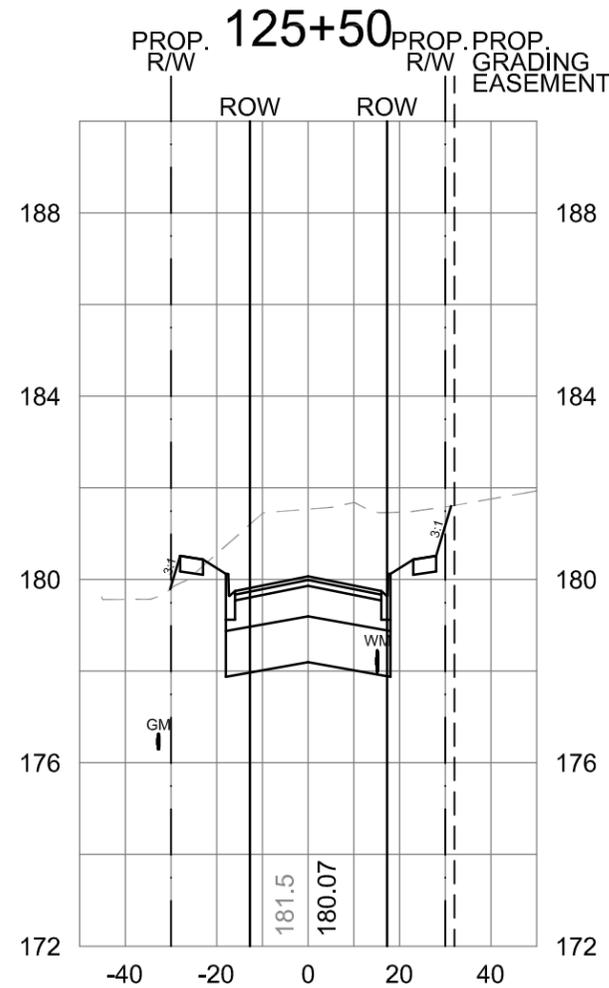
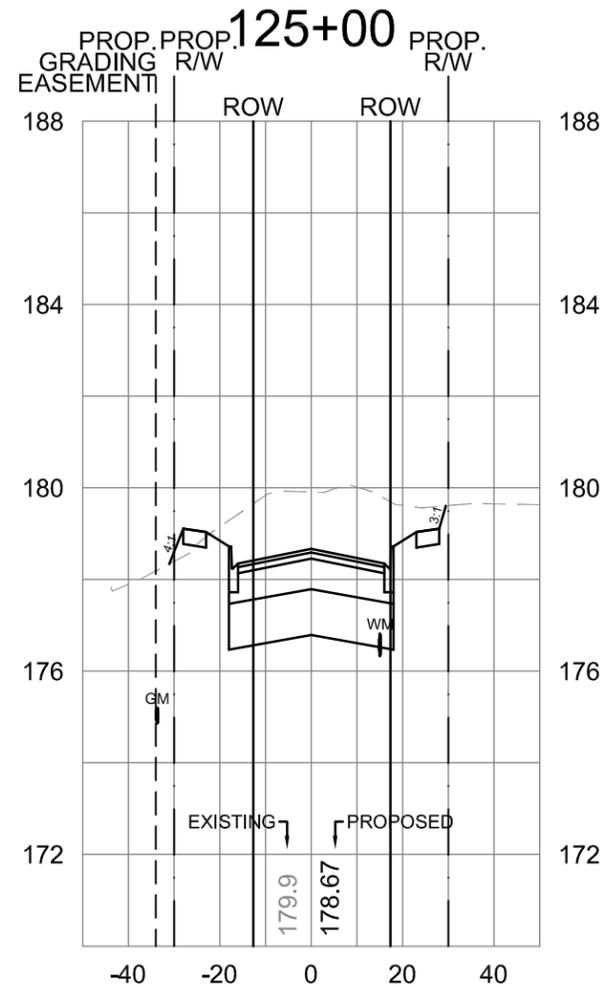
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C38

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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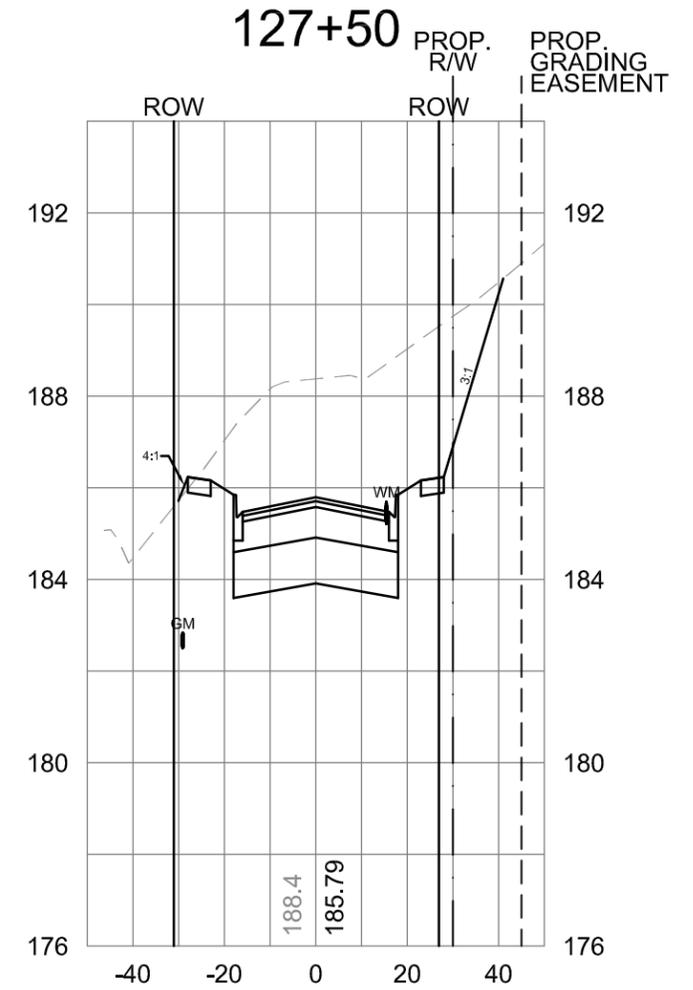
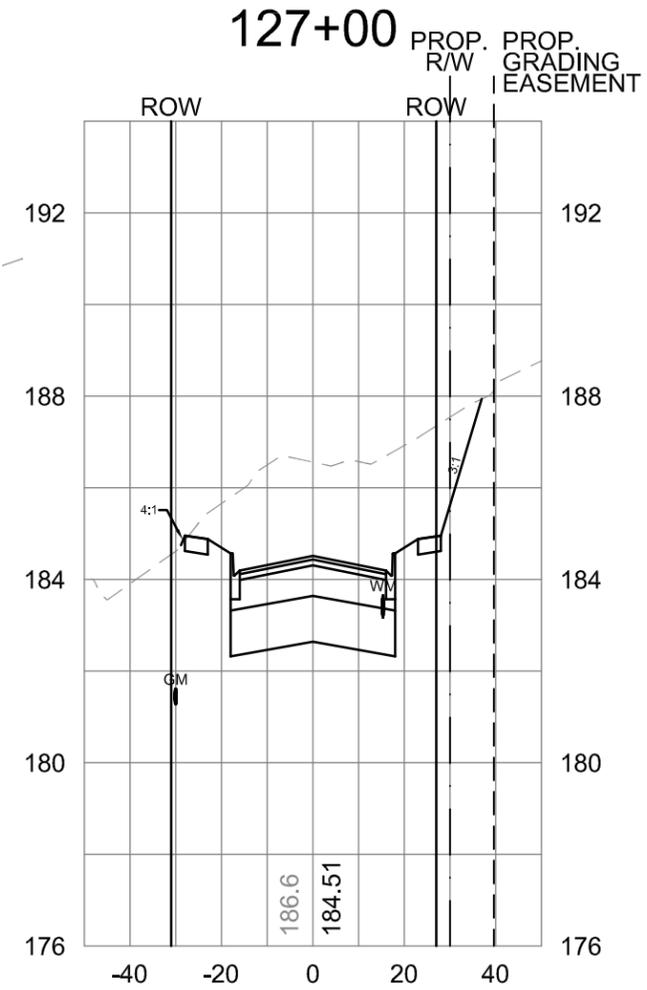
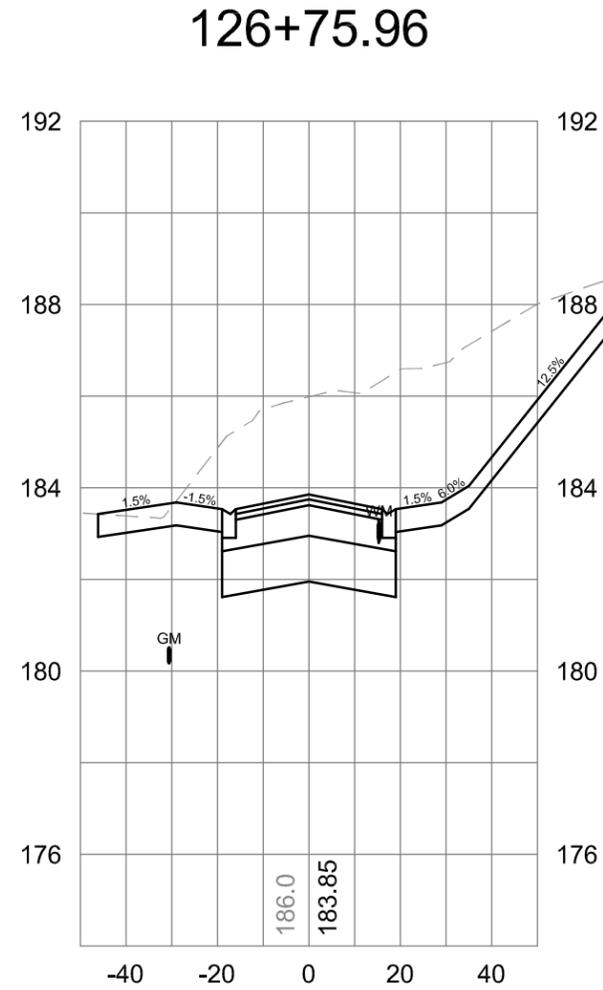
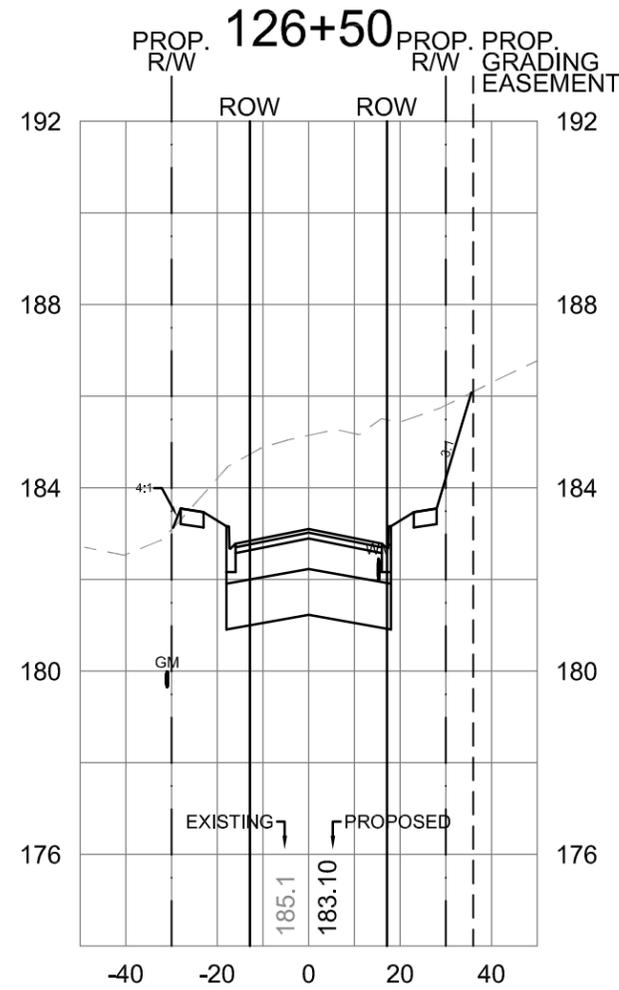
JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C39

CROSS-SECTION
HORIZONTAL 1"= 40'
VERTICAL 1"= 4'



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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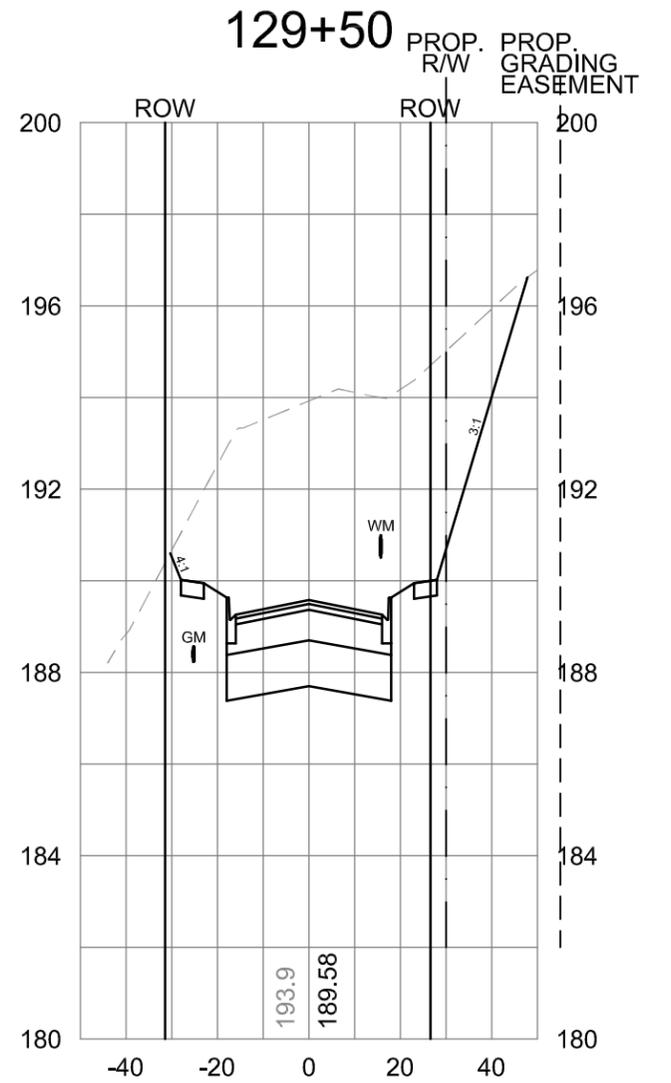
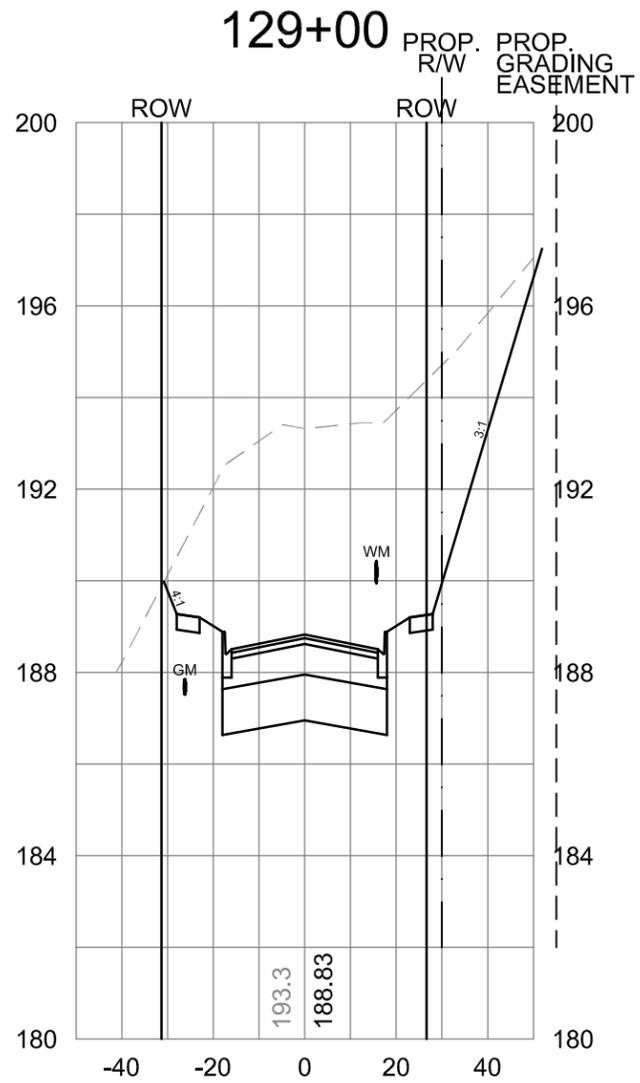
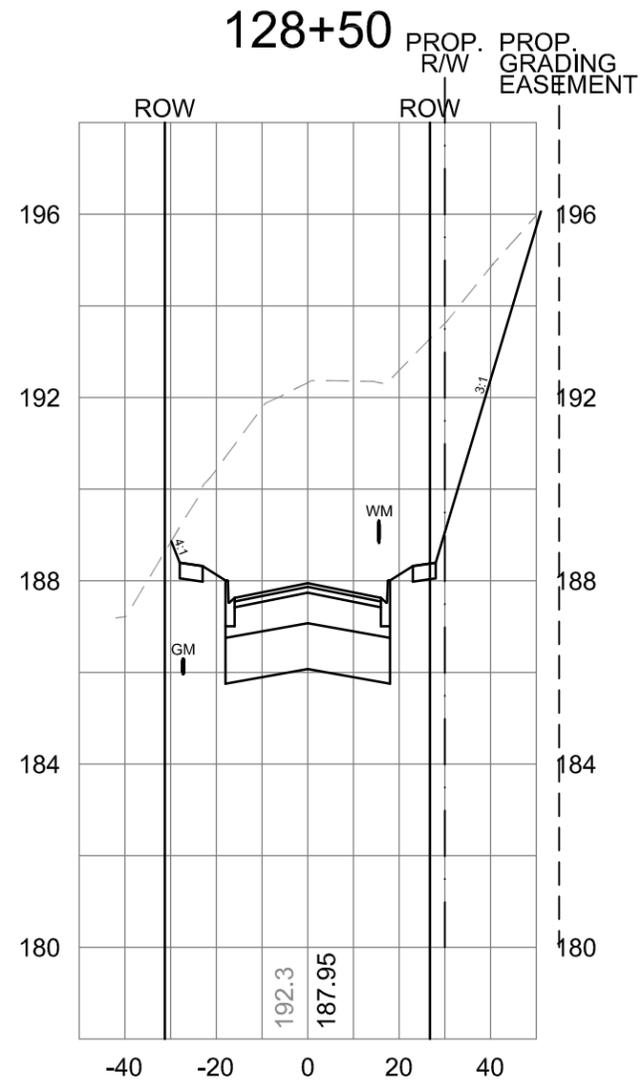
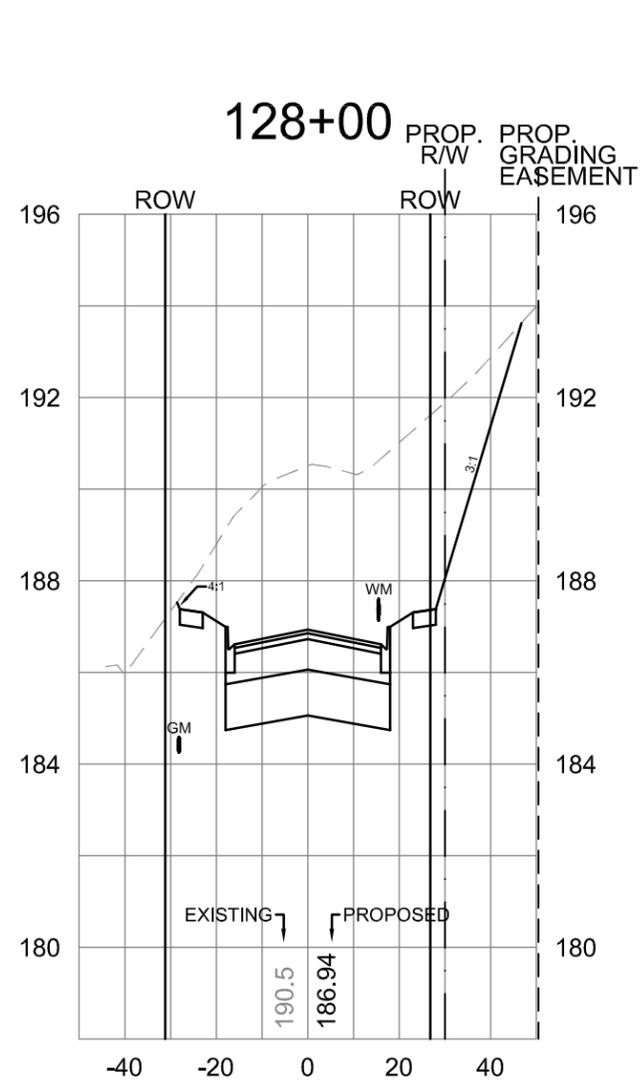
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406 N. CENTER STREET
ELUSTIS, FLORIDA 32726
PHONE (352) 357-3528
FAX (352) 357-3219
FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
C40

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

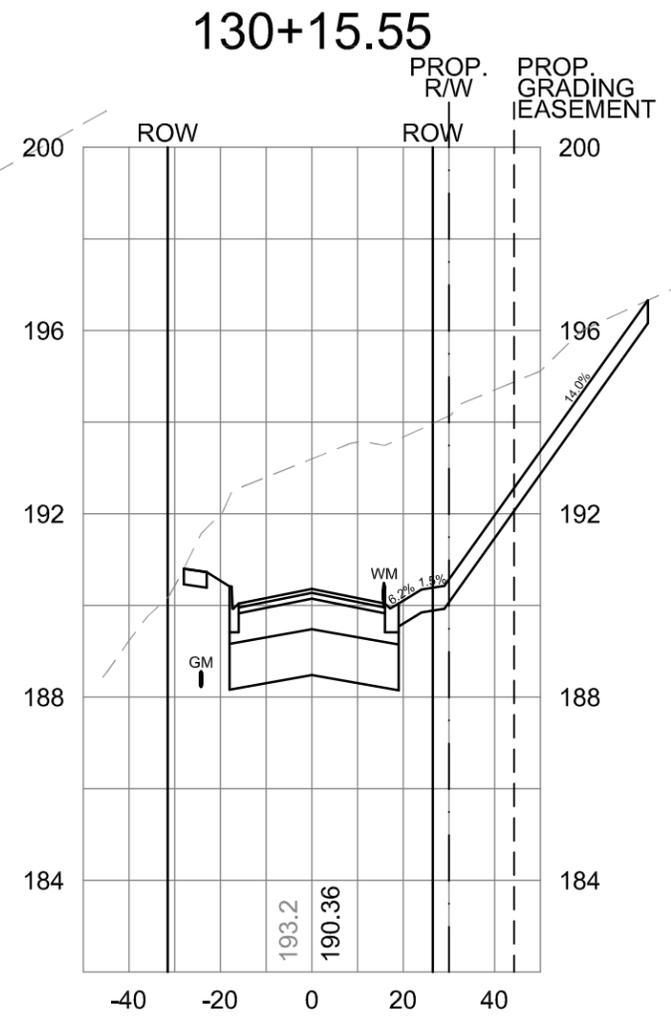
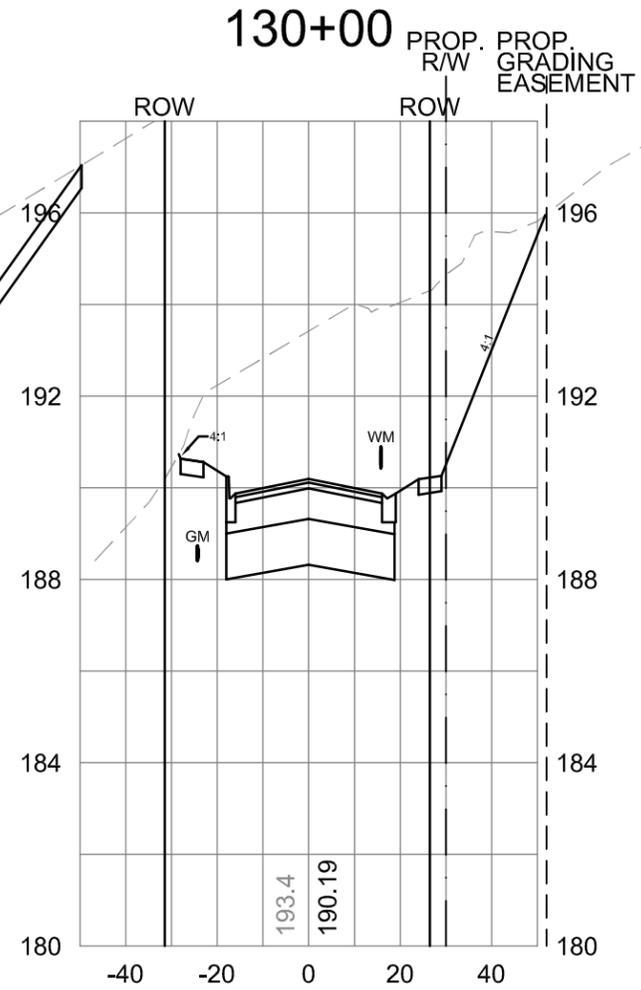
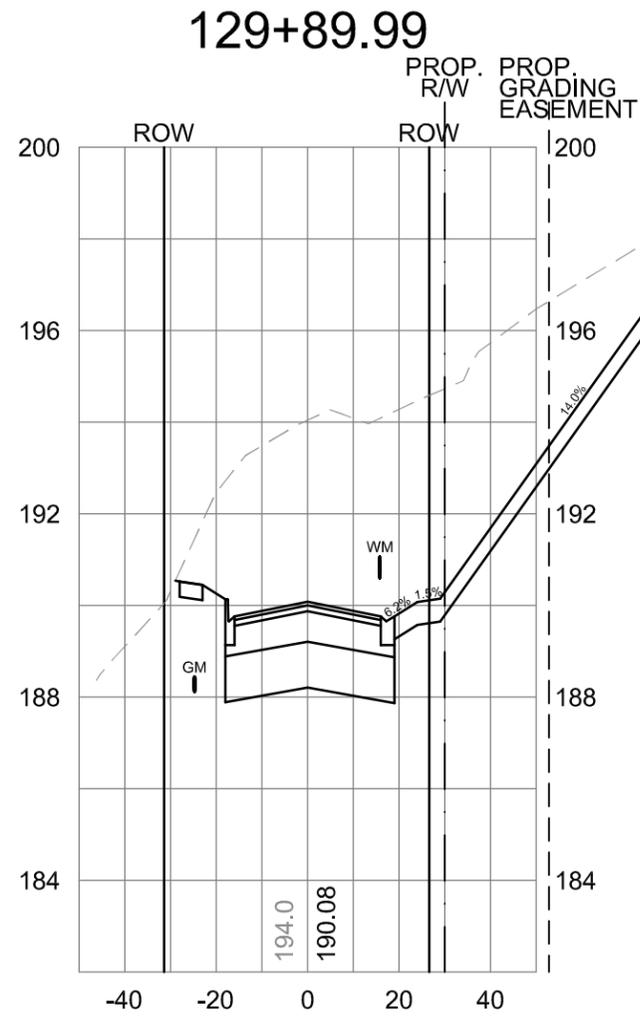
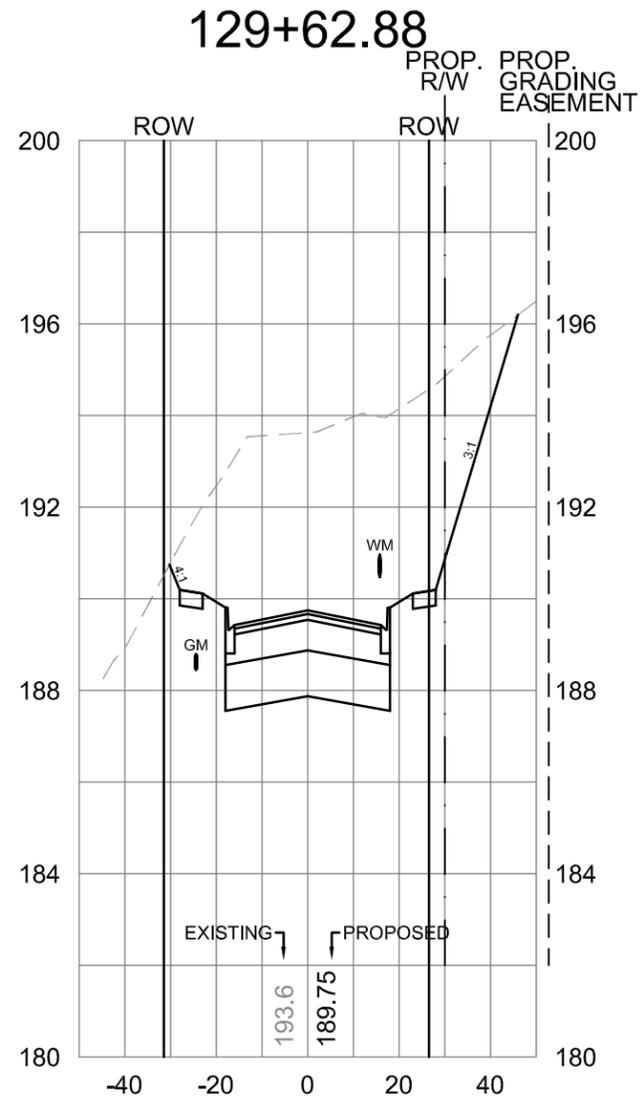
GRIFFEY ENGINEERING
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 ELUSTIS, FLORIDA 32726
 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS
 ROAD NO. 2-1158
 COUNTY LAKE
 CITY CLERMONT

CROSS SECTIONS

SHEET NO.
 C41

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
 DONALD A. GRIFFEY, P.E.
 PE No. 036799

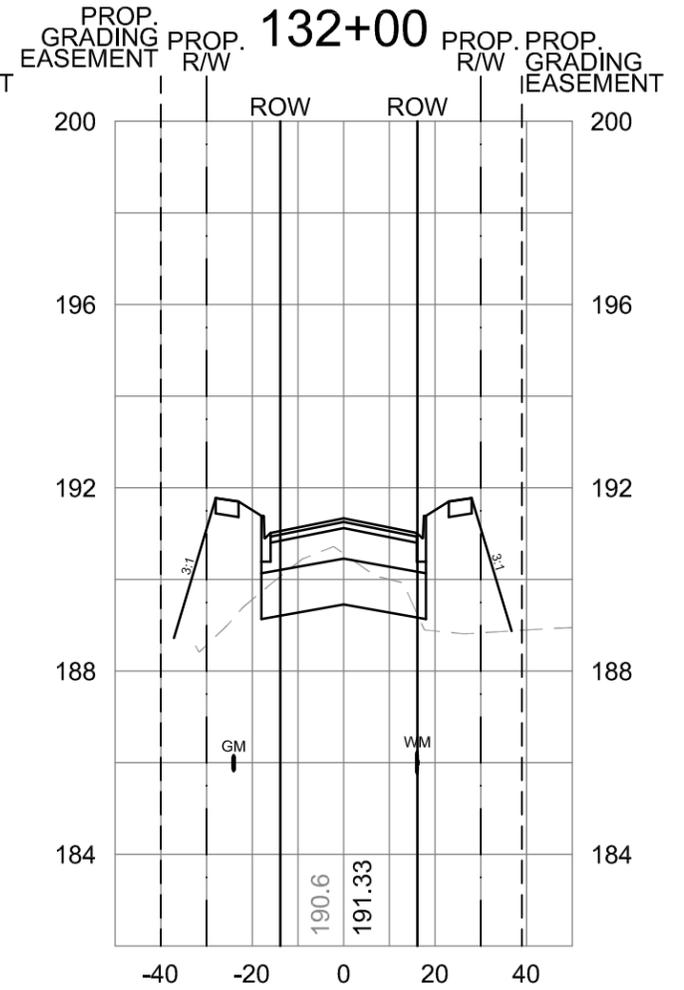
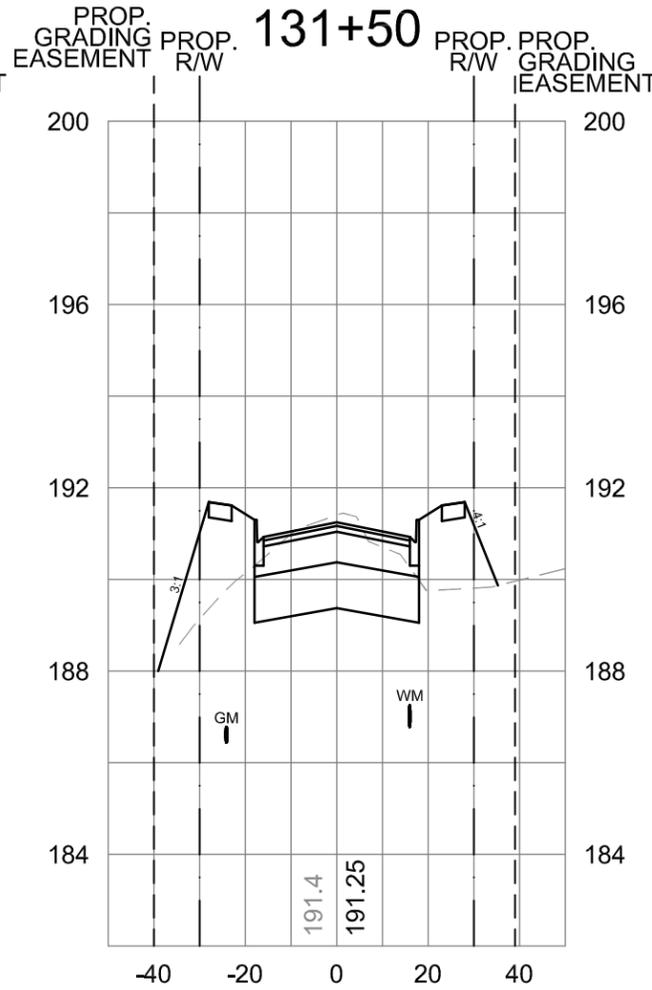
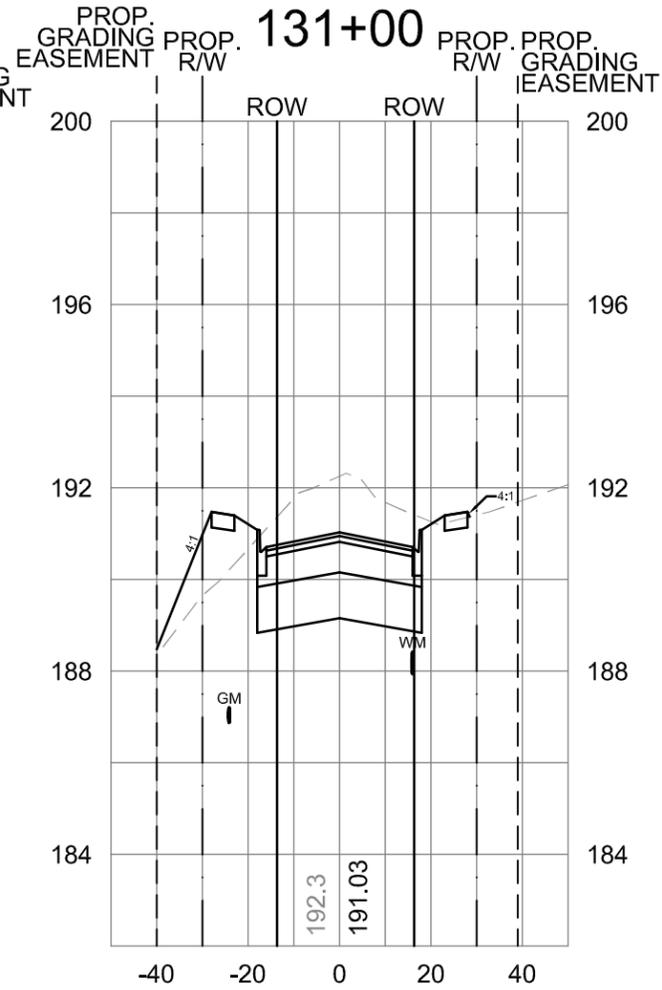
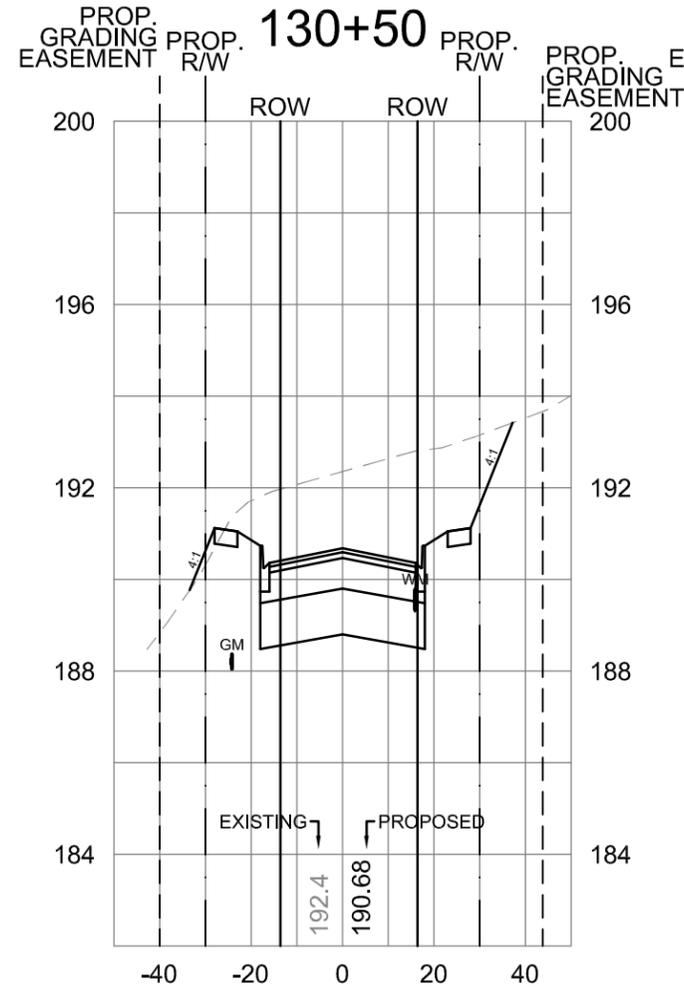
GRIFFEY ENGINEERING
 406 N. CENTER STREET
 ELSTON, FLORIDA 32726
 PHONE (352) 357-3528
 FAX (352) 357-3219
 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C42

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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 PE No. 036799

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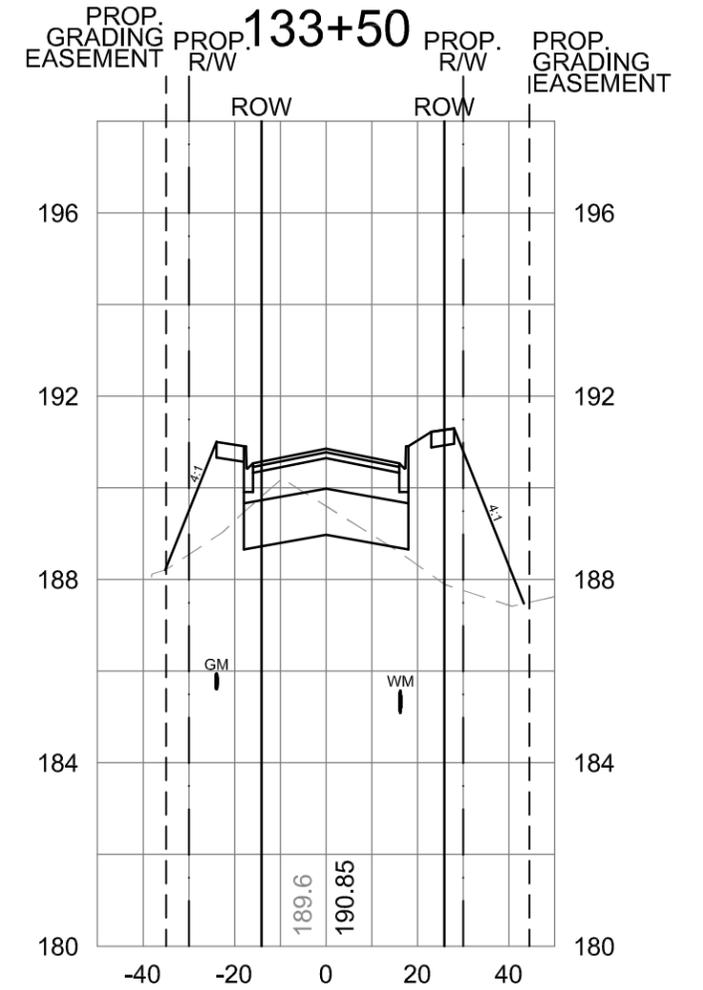
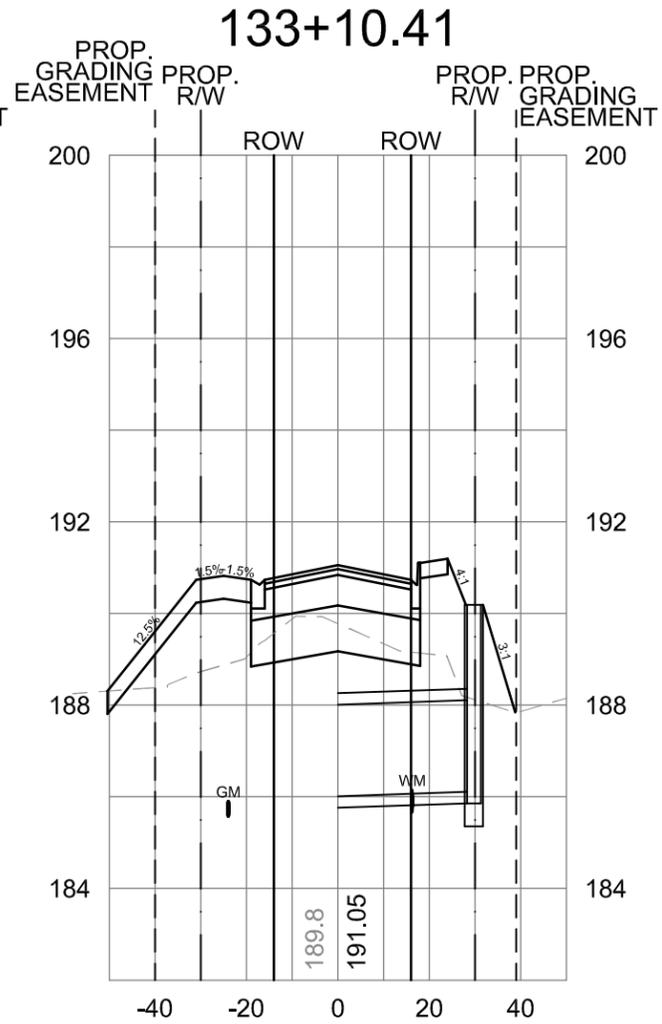
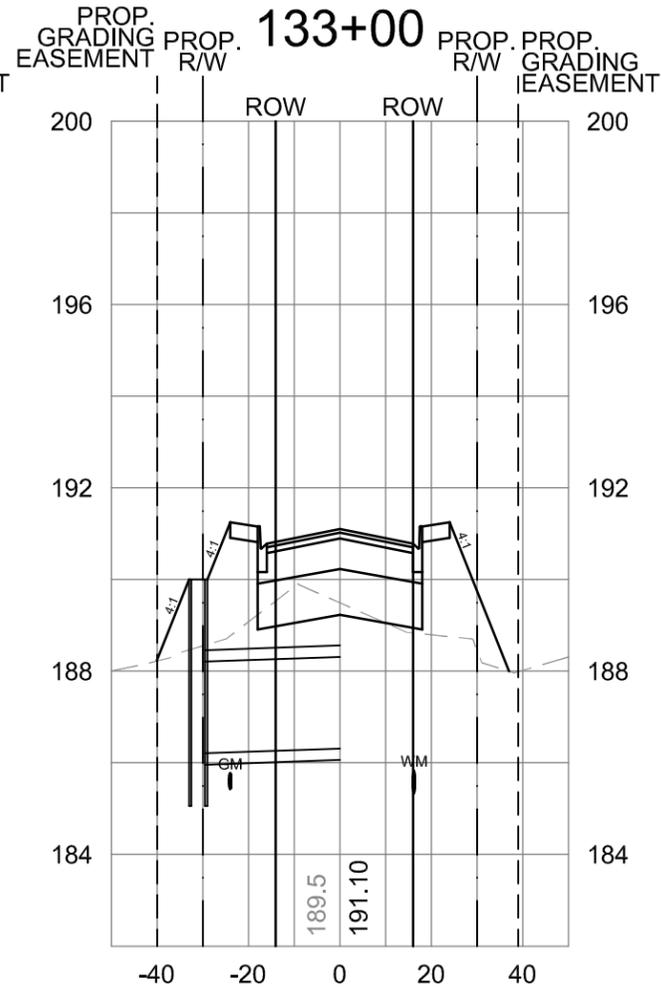
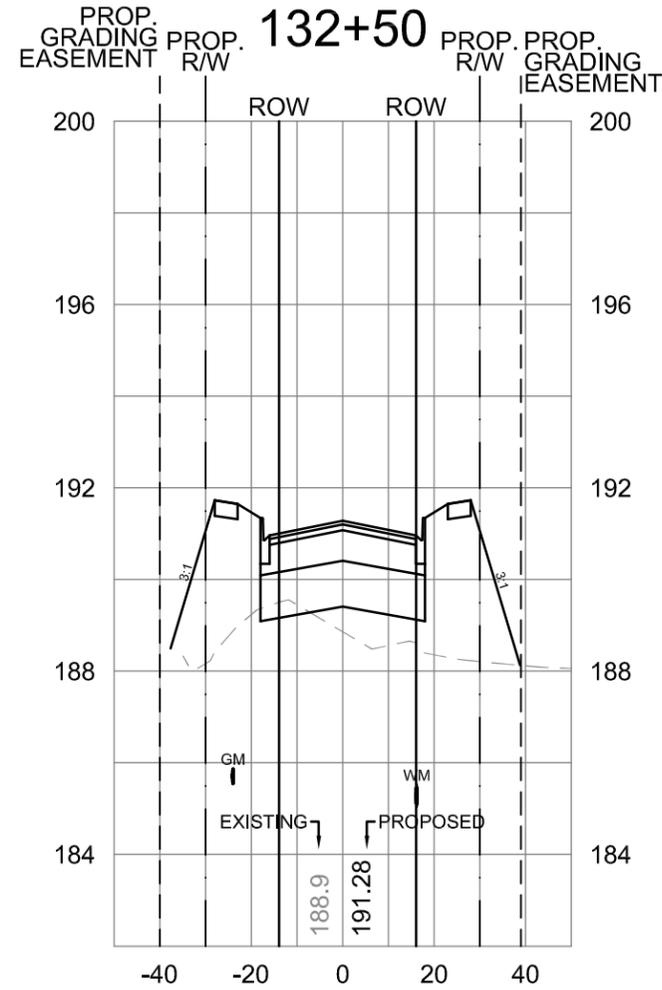
JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C43

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	DESIGNER	PLANS
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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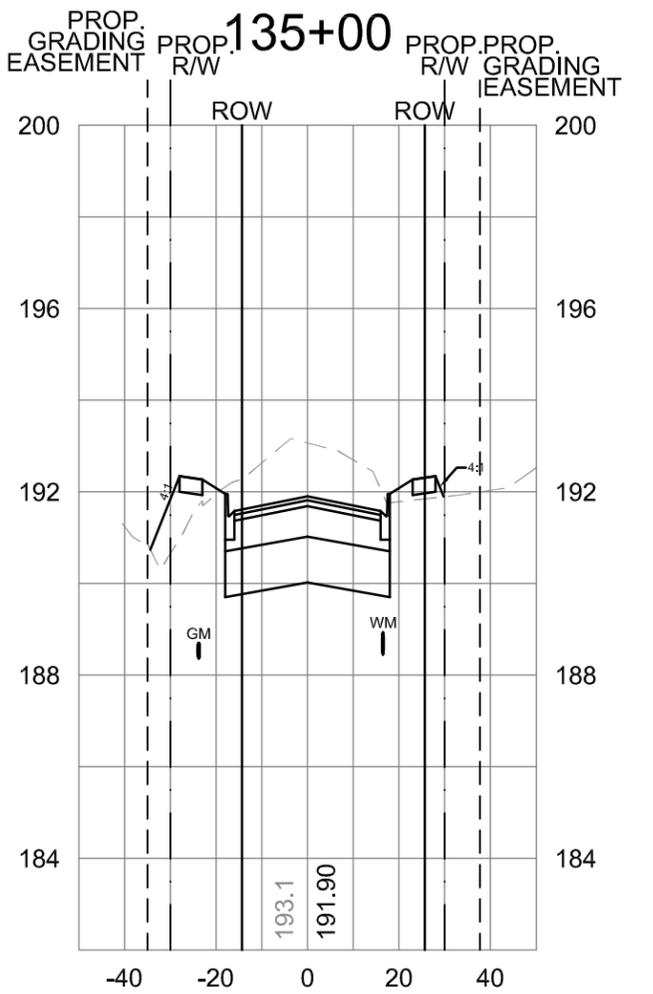
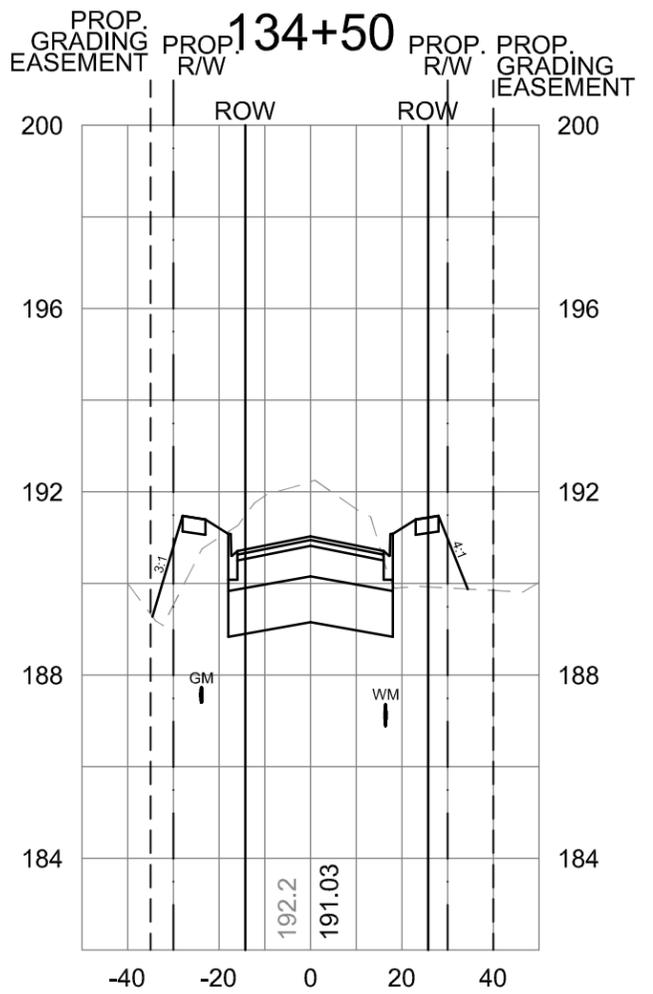
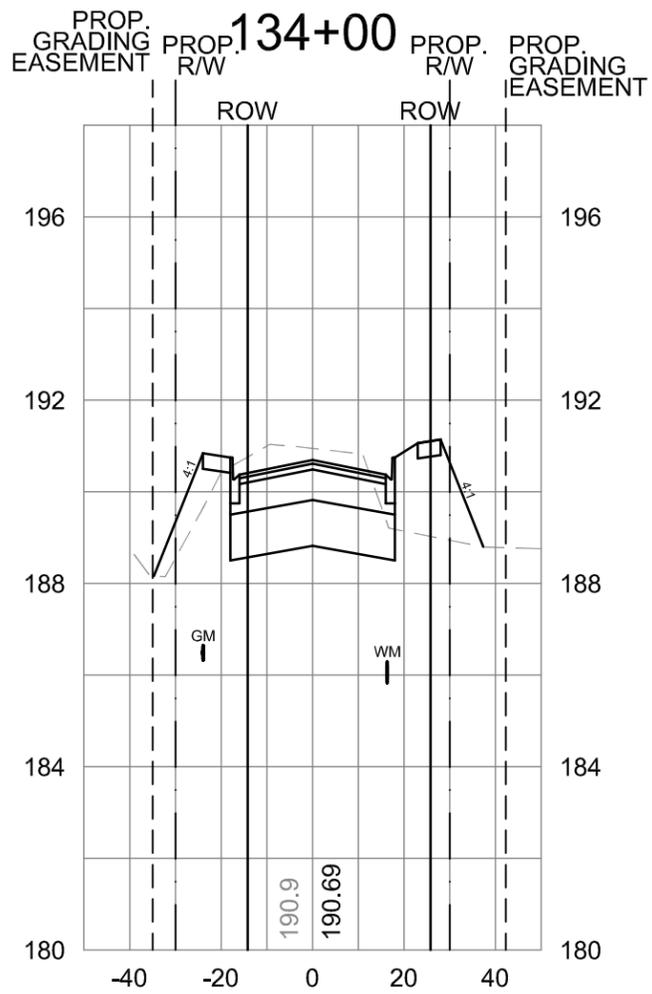
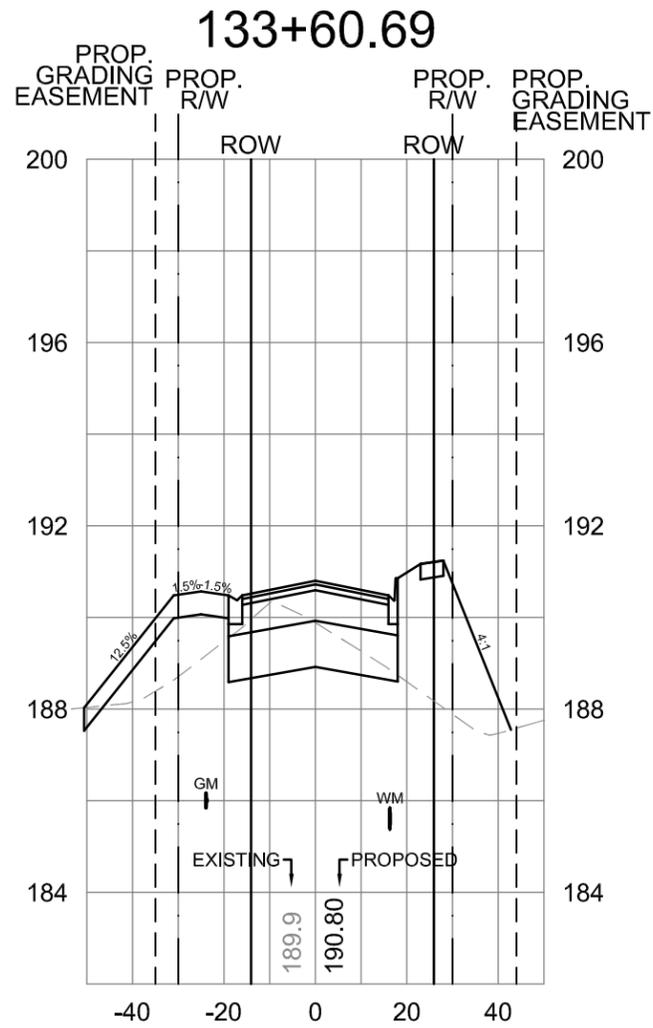
JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C44

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	REVISION	DESCRIPTION
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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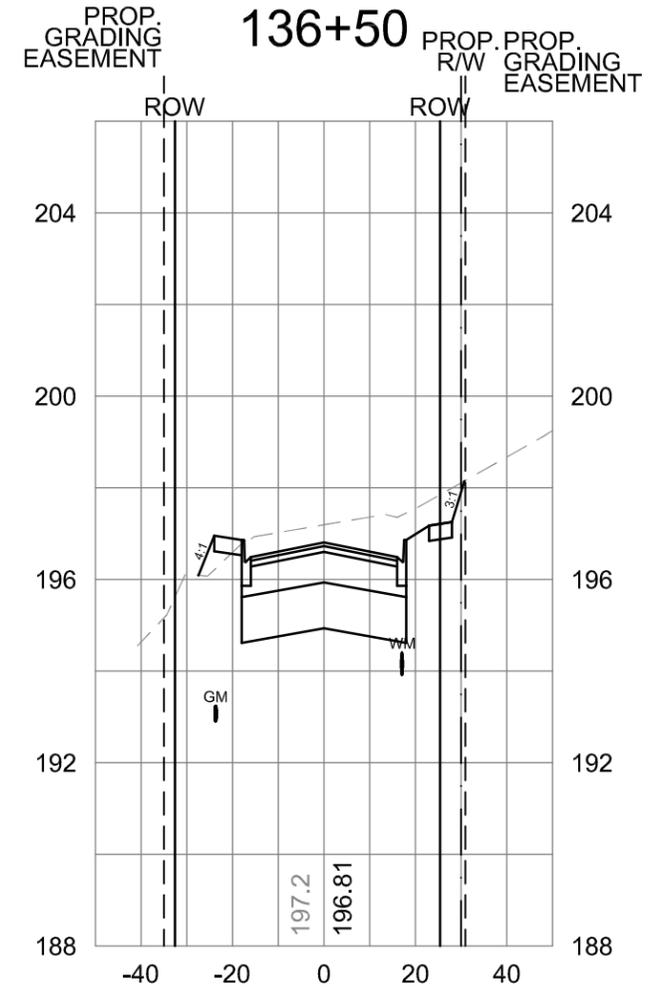
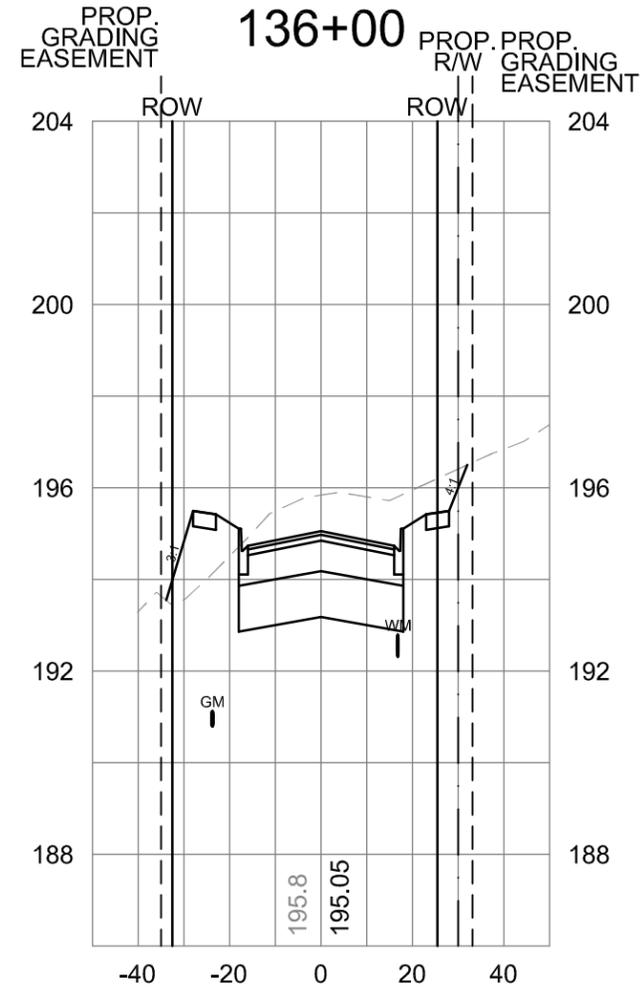
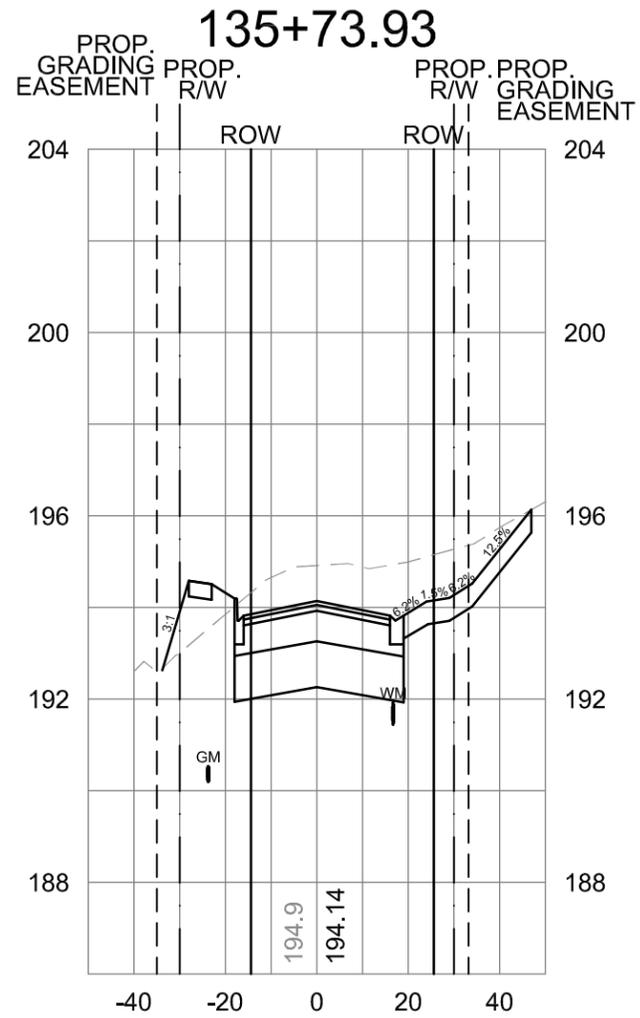
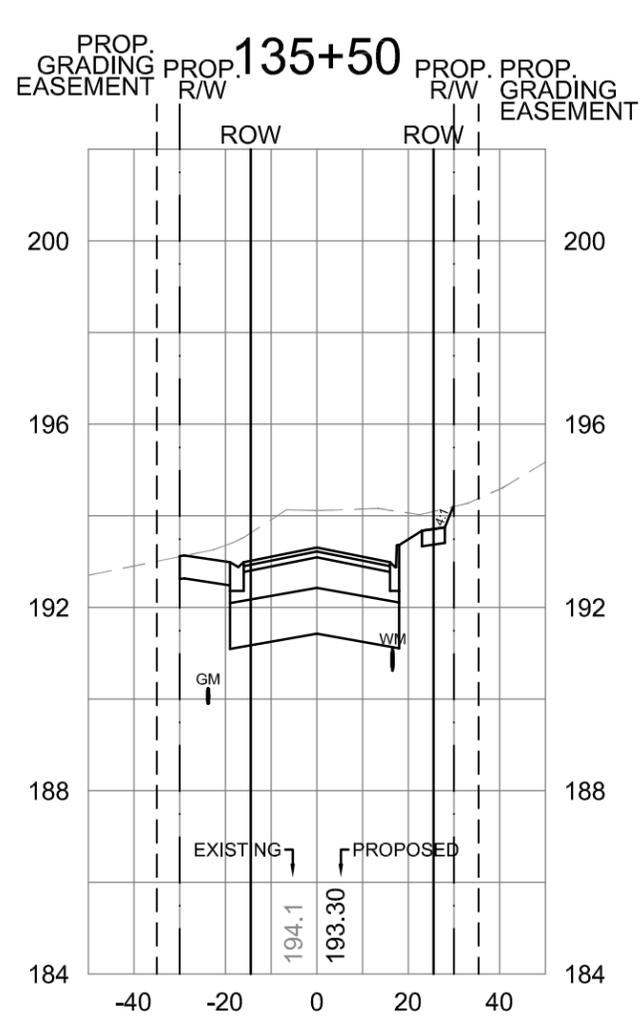
JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
 C45

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'



DATE	REVISION
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

Engineer of Record:
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 PE No. 036799

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JOHNS LAKE ROAD IMPROVEMENTS

ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

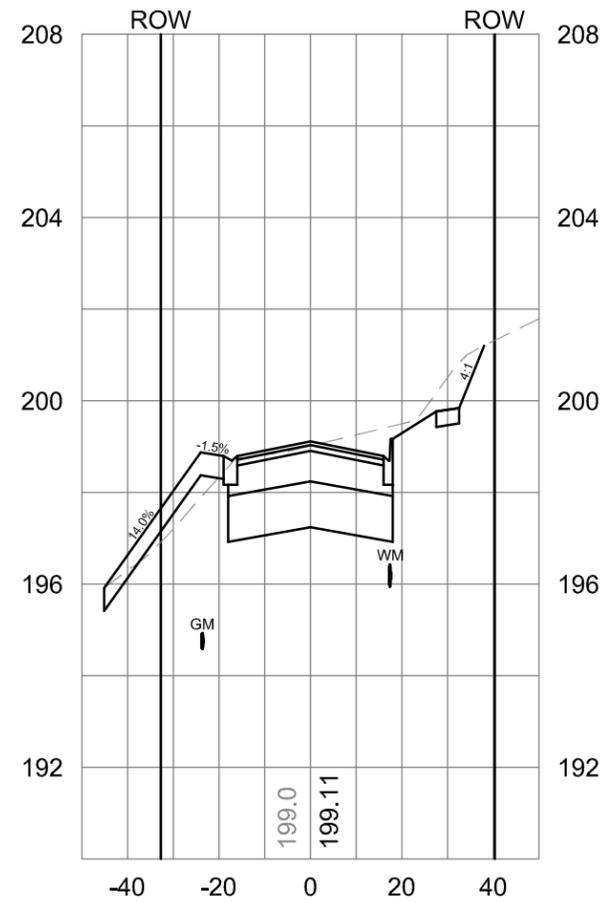
SHEET NO.
 C46

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'

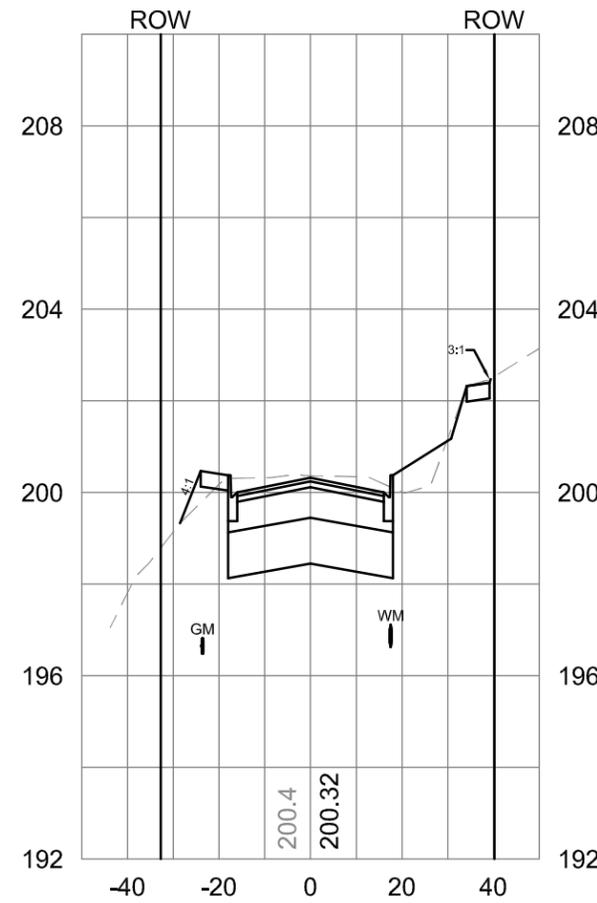
137+00



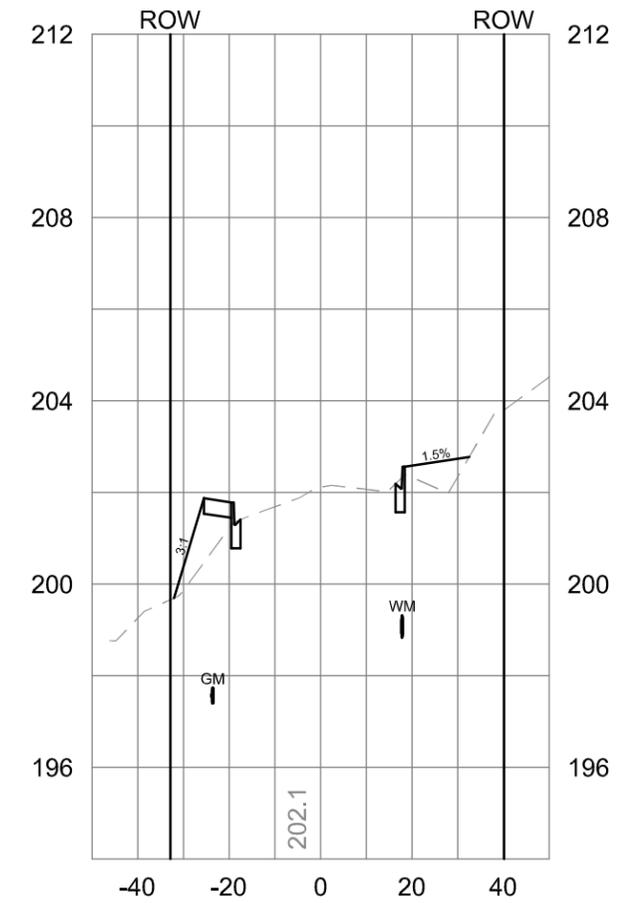
137+15.66



137+50



138+00



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

Engineer of Record:
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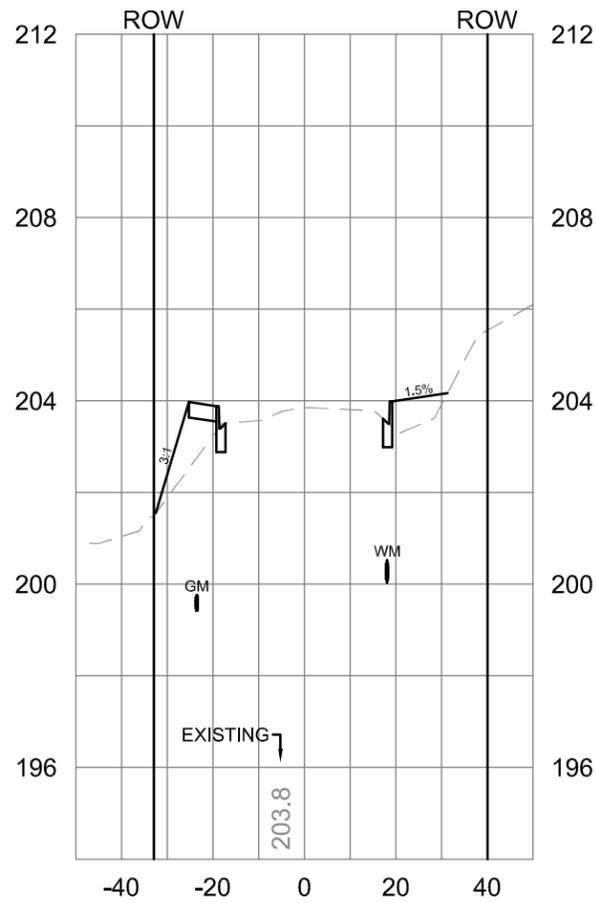
JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

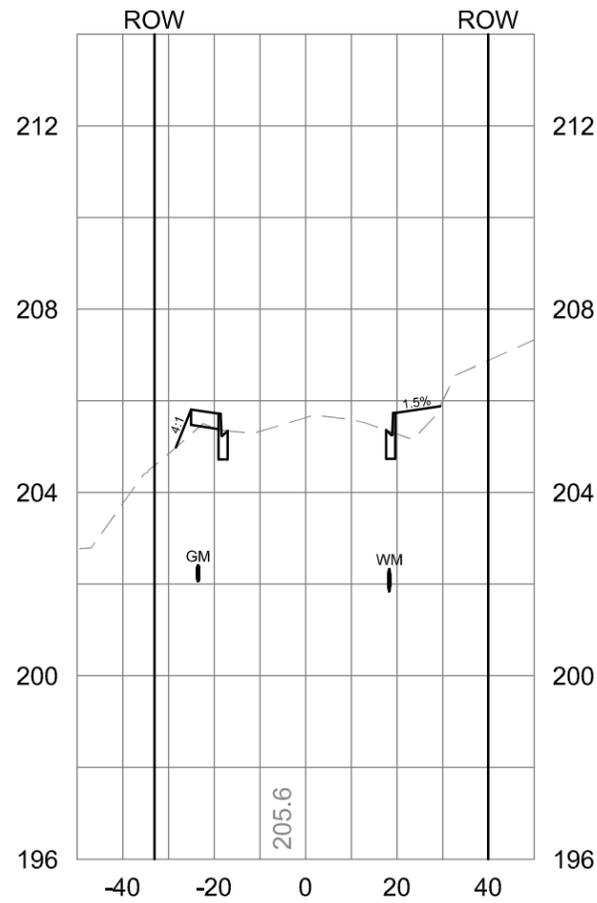
SHEET NO.
 C47

CROSS-SECTION
 HORIZONTAL 1"= 40'
 VERTICAL 1"= 4'

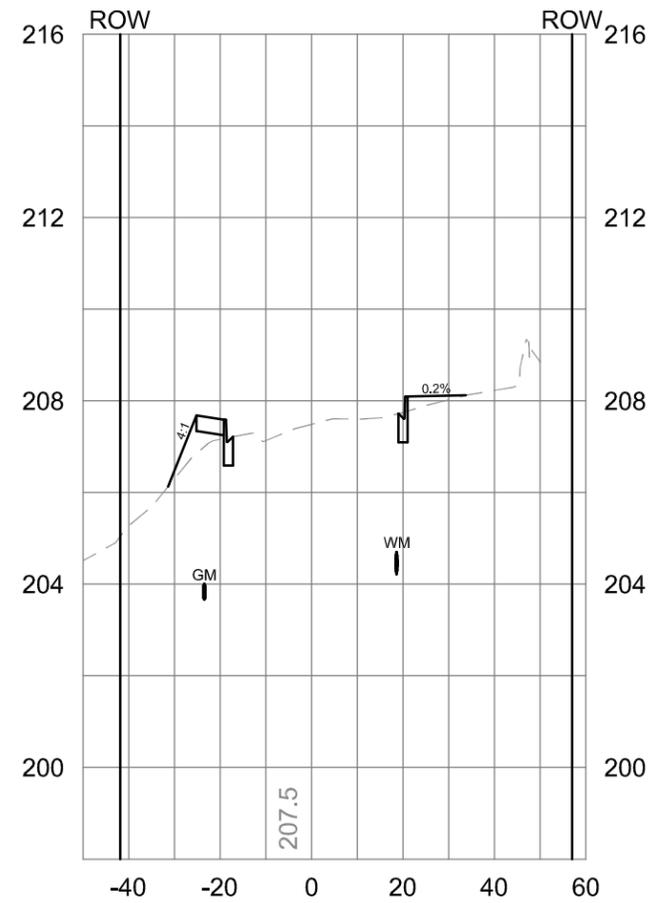
138+50



139+00



139+50



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

CROSS SECTIONS

SHEET NO.
C48

NPDES NOTES:

THE PROJECT SHALL OBTAIN COVERAGE UNDER AN NPDES STORMWATER PERMIT. CONTRACTOR SHALL BECOME FAMILIAR WITH THE NPDES PERMIT REQUIREMENTS, DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND FILE A NOTICE OF INTENT (NOI) WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). INFORMATION REGARDING THE FDEP NPDES PROGRAM CAN BE OBTAINED AT:

WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES/

OR BY CALLING THE FDEP NPDES STORMWATER SECTION AT (850) 92-9904.

LOCATION:

SITE LOCATION: JOHNS LAKE ROAD
SEC 33 TWP 22S RNG 26E

LAT/LONG: 28°31'30.0606" N / 81°42'55.584" W

OUTFALL LOCATION: EAGLE LAKE

CONSTRUCTION SEQUENCE:

1. INSTALL SILT FENCE AND TURBIDITY BARRIER AS REQUIRED
2. STOCKPILE TOPSOIL IF REQUIRED
3. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
4. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICAL
5. FINAL GRADING
6. SOD AS SPECIFIED
7. REMOVE ACCUMULATED SEDIMENT FROM BASINS
8. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY BMP MEASURES

SOIL TYPES:

- 8 - CANDLER SAND, 0 TO 5 PERCENT SLOPES
- 9 - CANDLER SAND, 5 TO 12 PERCENT SLOPES

DEWATERING METHODS AND LOCATIONS:

DEWATERING SHALL BE UTILIZED ONLY IF NECESSARY BY MEANS OF A WELL POINT SYSTEM. DISCHARGE FROM THE WELL POINT SYSTEM SHALL BE DIRECTED TO THE PROPOSED DRAINAGE STRUCTURES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR WELL POINT SYSTEM PRIOR TO CONSTRUCTION.

PERMANENT EROSION CONTROL MEASURES (BMP'S):

PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED UNLESS OTHERWISE NOTED FOR SOD ON THE APPROVED PLANS.

INSPECTIONS:

- A. CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AFTER EACH RAINFALL GREATER THAN 0.5 INCHES. A RAIN GAGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNTS.
- B. ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS OR SOMEONE APPOINTED BY THE SUPERINTENDENT. AT LEAST ONCE AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.
- C. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OR REPORTED.
- D. BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- E. THE SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- F. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- G. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION CONTROL PLANS OR STORMWATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

H. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ON-SITE IN GOOD WORKING ORDER AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORTS.

ADDITIONAL NOTES:

A. NON-STORMWATER DISCHARGES:

IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

1. PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
2. UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORMWATER DISCHARGES WILL BE DIRECTED TO THE PROPOSED DRAINAGE STRUCTURES/SWALES.

B. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL IF IT BECOMES NECESSARY TO MEET THE STATE AND LOCAL STANDARDS.

OPERATION & MAINTENANCE:

MAINTENANCE OF THE STORMWATER TREATMENT SYSTEM SHALL BE PERFORMED ON AN AS-NEEDED BASIS. MAINTENANCE SHALL INCLUDE AT LEAST THE FOLLOWING:

1. REMOVAL OF TRASH AND DEBRIS.
2. INSPECTION OF INLETS AND OUTLETS.
3. REMOVAL OF SEDIMENTS OR VEGETATION WHEN THE STORAGE VOLUME OR CONVEYANCE CAPACITY OF THE STORMWATER MANAGEMENT SYSTEM IS BELOW DESIGN LEVELS.
4. STABILIZATION AND RESTORATION OF ERODED AREAS.
5. MOWING AND REMOVAL OF GRASS CLIPPINGS. AERATION, TILLING, OR REPLACEMENT OF TOPSOIL AS NEEDED TO RESTORE THE PERCOLATION CAPABILITY OF THE SYSTEM. IF TILLING OR REPLACEMENT OF THE TOPSOIL IS UTILIZED, VEGETATION MUST BE REESTABLISHED WITHIN 60 DAYS OF DISTURBANCE OF THE TOPSOIL.

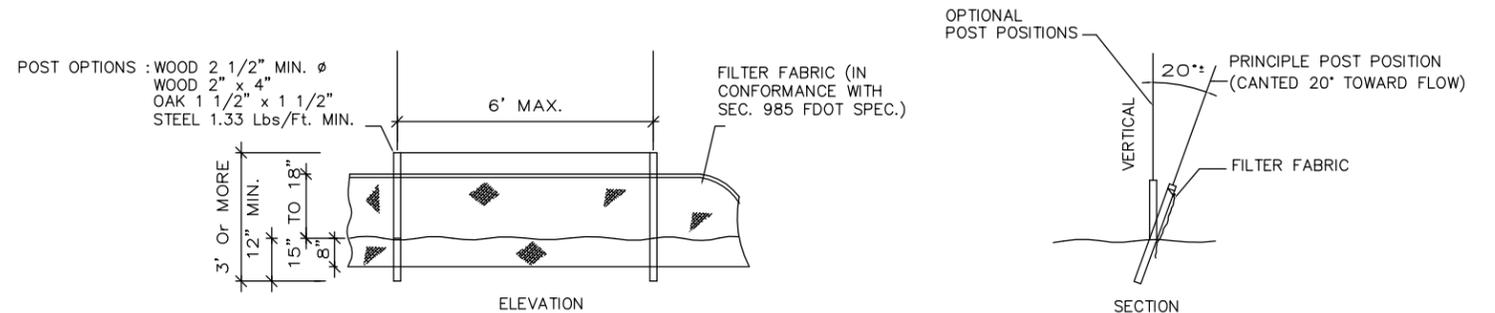
CONTROL OF WIND EROSION

1. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.
2. AS REQUIRED AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.
3. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE EXCEPT. THE MINIMUM HEIGHT SHALL BE 4 FEET.

IN ADDITION TO THOSE RESPONSIBILITIES OUTLINED WITHIN THE CONSTRUCTION PLANS AND DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING MEASURES:

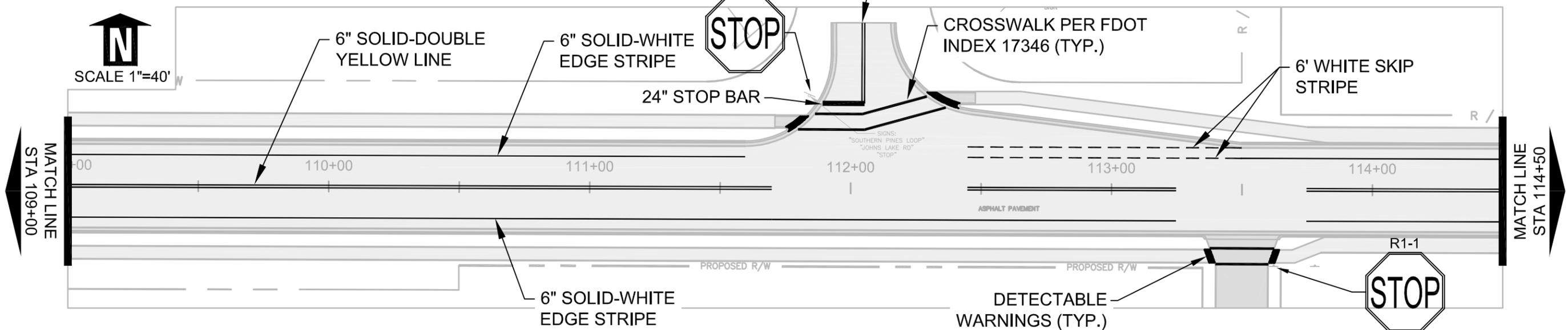
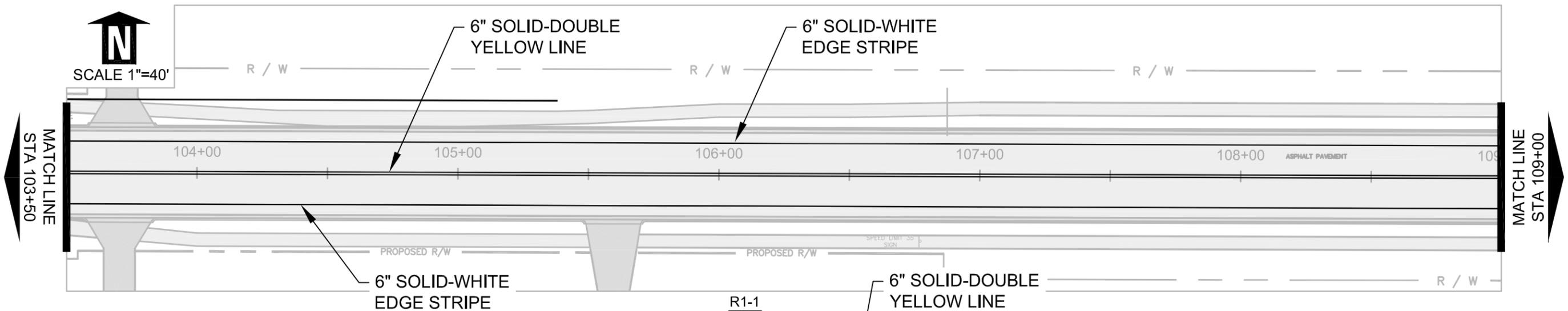
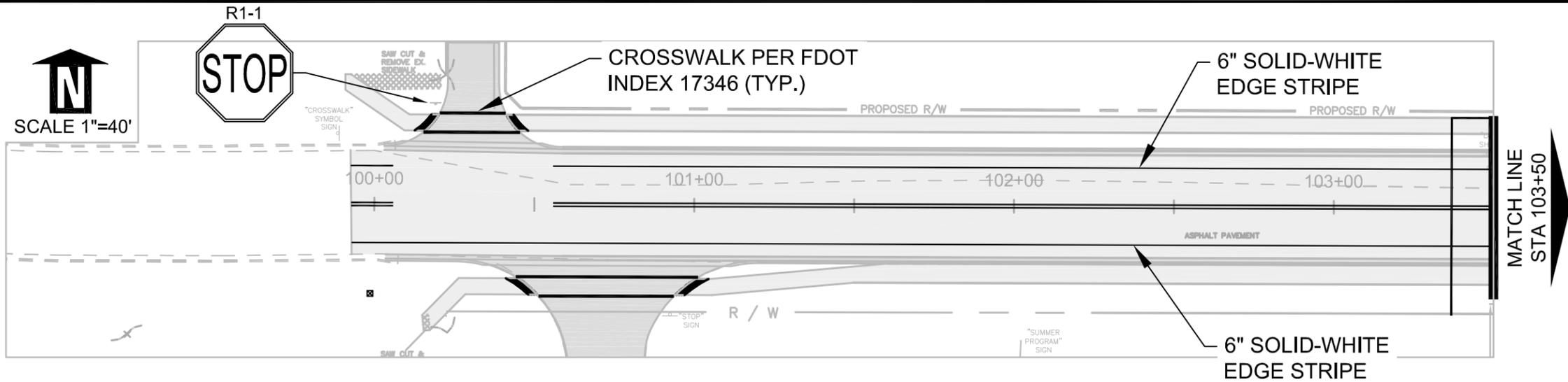
1. PROJECT SCHEDULE WITH EROSION AND SEDIMENT CONTROL INSTALLATION AND MAINTENANCE TIED TO SPECIFIC DATES OR CONSTRUCTION ACTIVITIES.
2. ALTERATIONS TO THE DESIGN EROSION AND SEDIMENT CONTROLS DUE TO DIFFERENCES BETWEEN THE DESIGN PLANS AND ANTICIPATED CONSTRUCTION PHASING AND THE CONTRACTOR'S CONSTRUCTION METHODS.
3. NAME AND PHONE NUMBER OF CONTRACTOR'S REPRESENTATIVE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL INSTALLATION AND MAINTENANCE ON A 24-HOUR BASIS.
4. THE CONTRACTOR WILL FURNISH, INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE, ALL NECESSARY EROSION CONTROL. THE CONTRACTOR WILL FURNISH AND INSTALL ALL NECESSARY PERMANENT EROSION CONTROLS.
5. THE DEVELOPMENT OF THE APPLICABLE BMP'S TO ENSURE THE CONTROL OF OFF-SITE TRACKING SPILLAGE, SANITARY WASTE, FERTILIZERS & PESTICIDES, SOLID WASTE DISPOSAL, AND NON-STORMWATER DISCHARGES & HAZARDOUS WASTE. WHEN THE CONTRACTOR ENCOUNTERS A SPILL, CONSTRUCTION WILL STOP AND WORK WILL NOT RESUME UNTIL DIRECTED BY THE PROJECT ENGINEER. DISPOSITION OF HAZARDOUS WASTE WILL BE MADE IN ACCORDANCE WITH ANY REQUIREMENTS AND REGULATIONS OF ANY LOCAL, STATE, OR FEDERAL AGENCY HAVING JURISDICTION.

THE CONTRACTOR IS ADVISED THAT THE CONTRACT DRAWINGS ONLY INDICATE EROSION, SEDIMENT, AND TURBIDITY CONTROLS AT LOCATIONS DETERMINED IN THE DESIGN PROCESS. HOWEVER, THE CONTRACTOR IS REQUIRED TO PROVIDE ANY ADDITIONAL CONTROLS NECESSARY TO PREVENT THE POSSIBILITY OF SILTING ANY ADJACENT LOWLAND PARCEL OR RECEIVING WATER.



SILT FENCE

DATE		Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELSTON, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 8082	JOHNS LAKE ROAD IMPROVEMENTS			SHEET NO. C49	
07-10-2013	DAG/DMK 30% PLANS			ROAD NO.	COUNTY	CITY		EROSION & SEDIMENT CONTROL
11-14-2013	DAG/DMK 60% PLANS			2-1158	LAKE	CLERMONT		
03-28-2014	DAG/DMK 90% PLANS							
07-01-2014	DAG/DMK 100% PLANS							



DATE	REVISION	DESCRIPTION
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

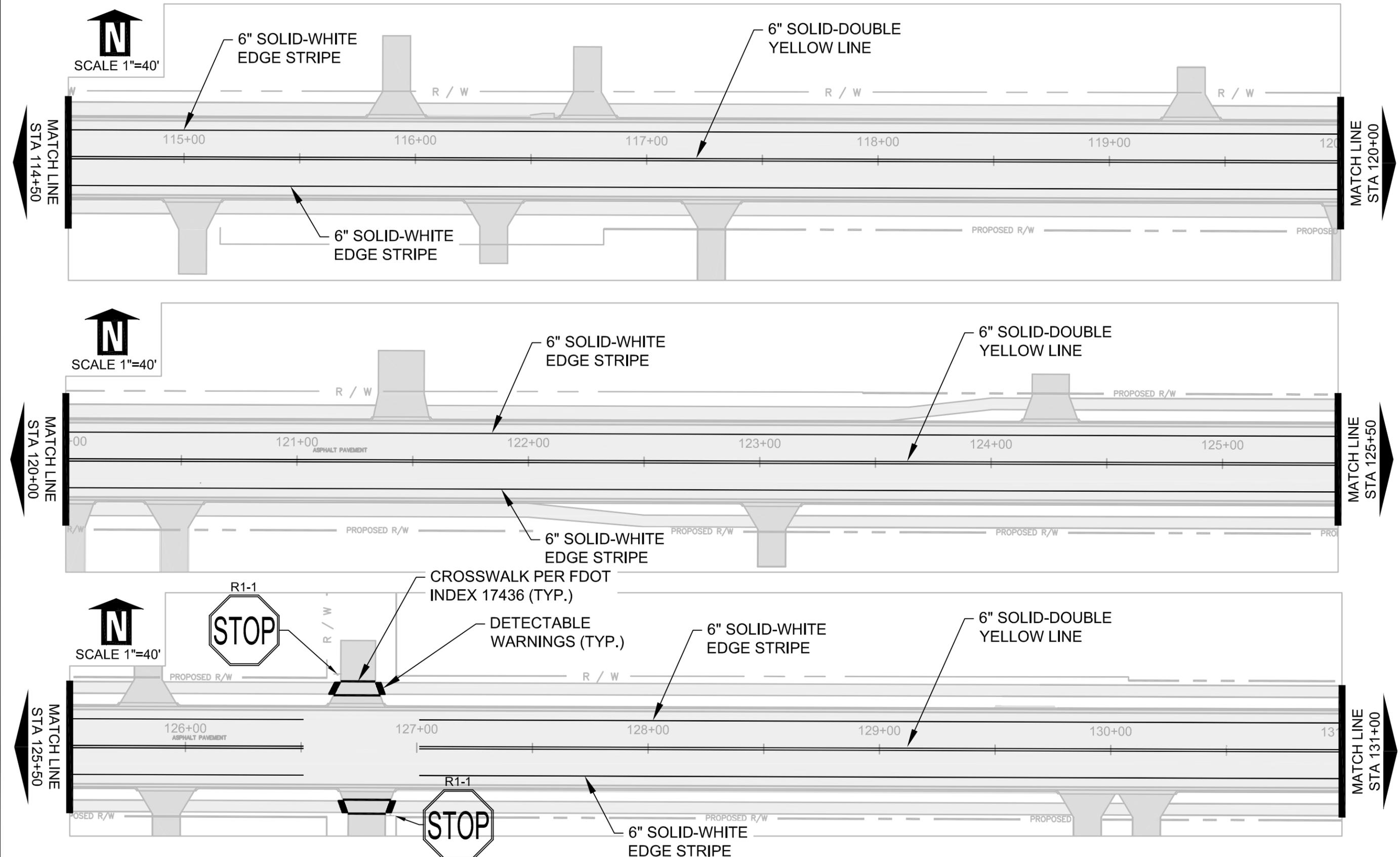
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

SIGNAGE & STRIPING PLAN

SHEET NO.
C50



DATE	BY	DESCRIPTION
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

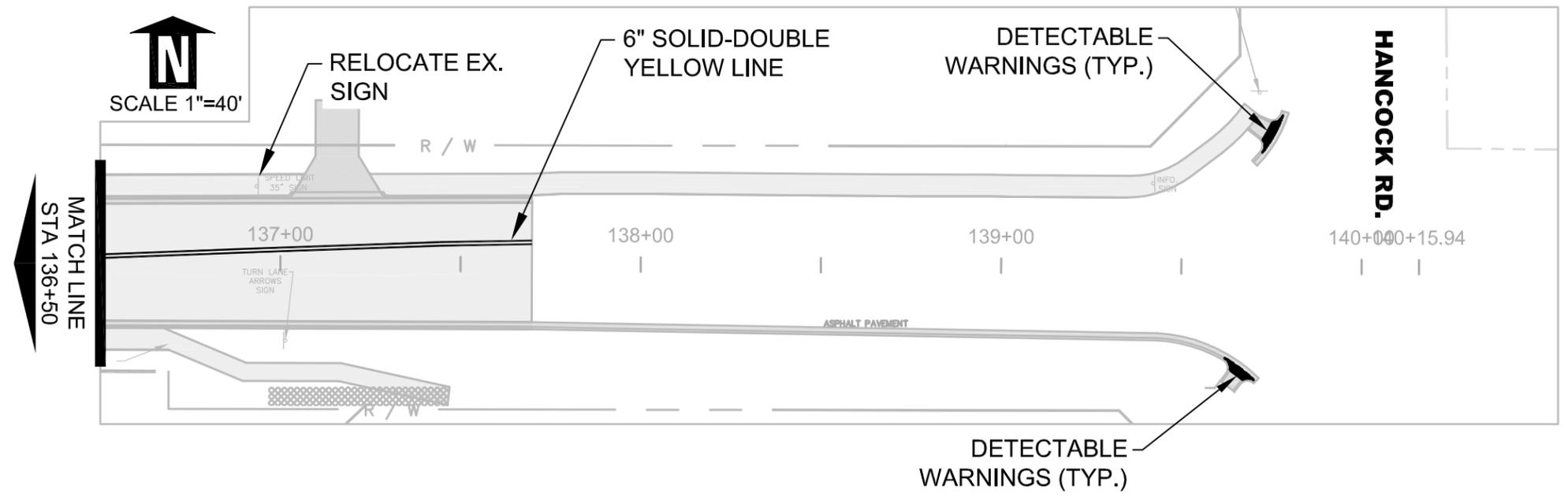
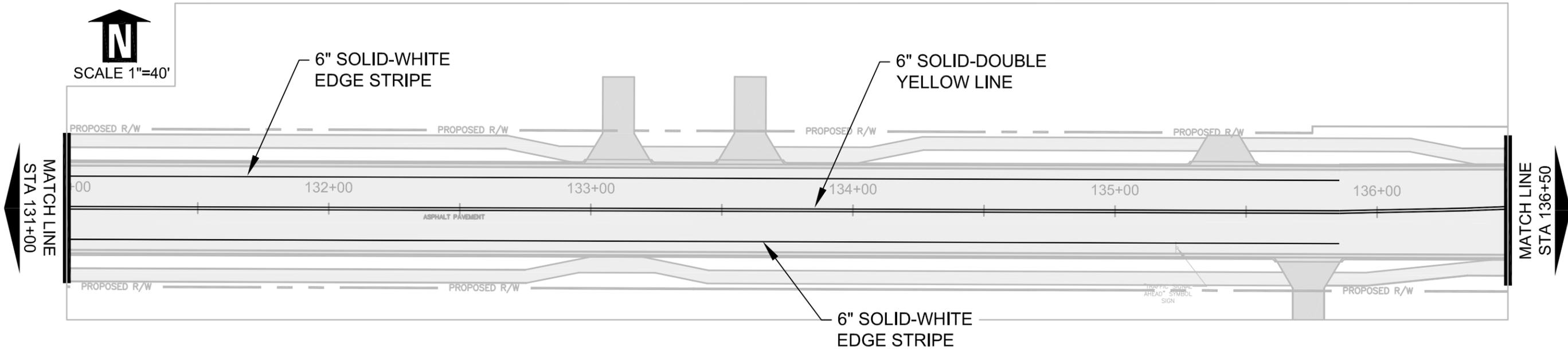
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

SIGNAGE & STRIPING PLAN

SHEET NO.
C51



DATE	DESIGNER	PERCENT
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

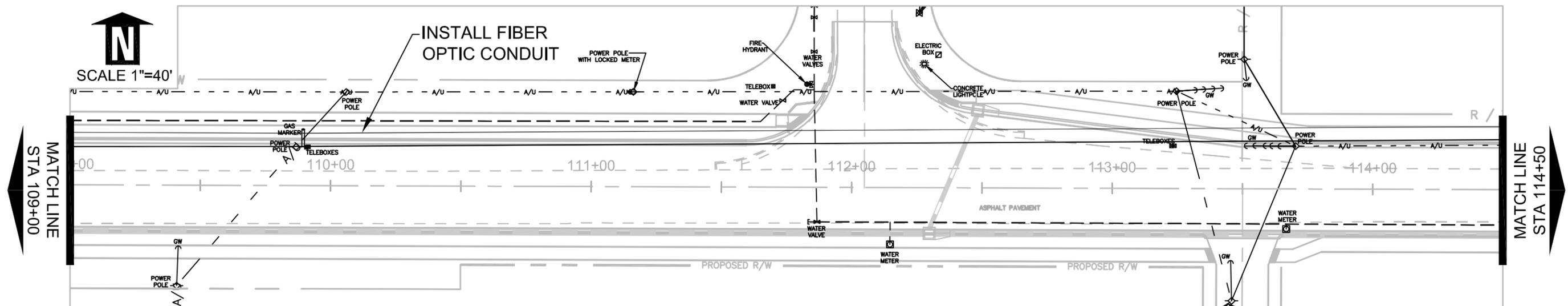
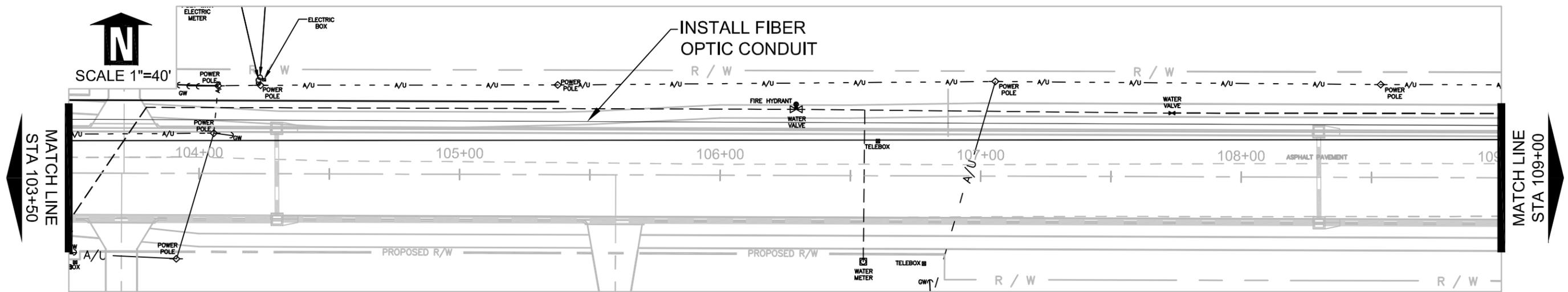
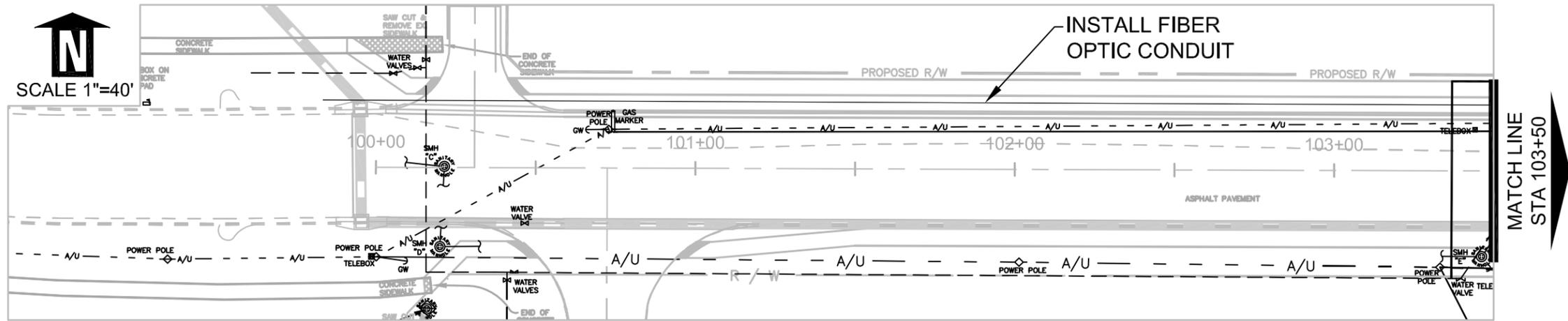
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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

SIGNAGE & STRIPING PLAN

SHEET NO.
C52



DATE	REVISIONS
07-10-2013	DAG/DMK 30% PLANS
11-14-2013	DAG/DMK 60% PLANS
03-28-2014	DAG/DMK 90% PLANS
07-01-2014	DAG/DMK 100% PLANS

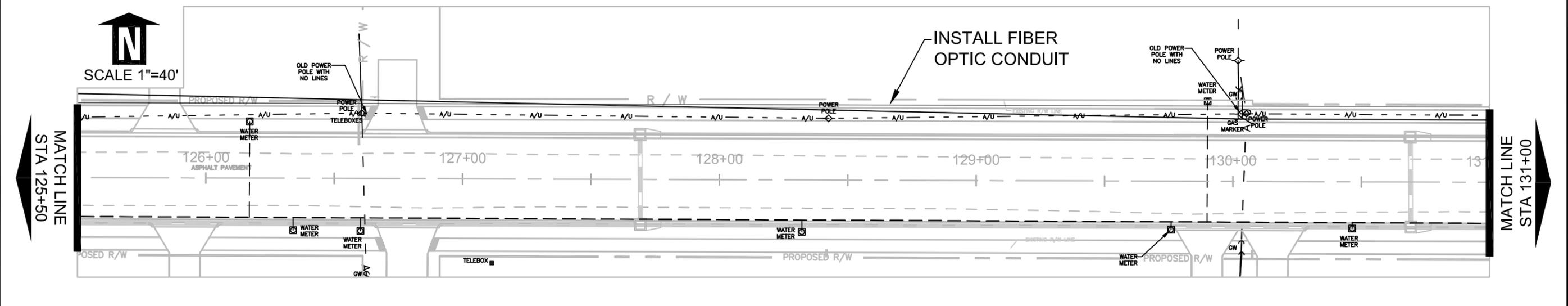
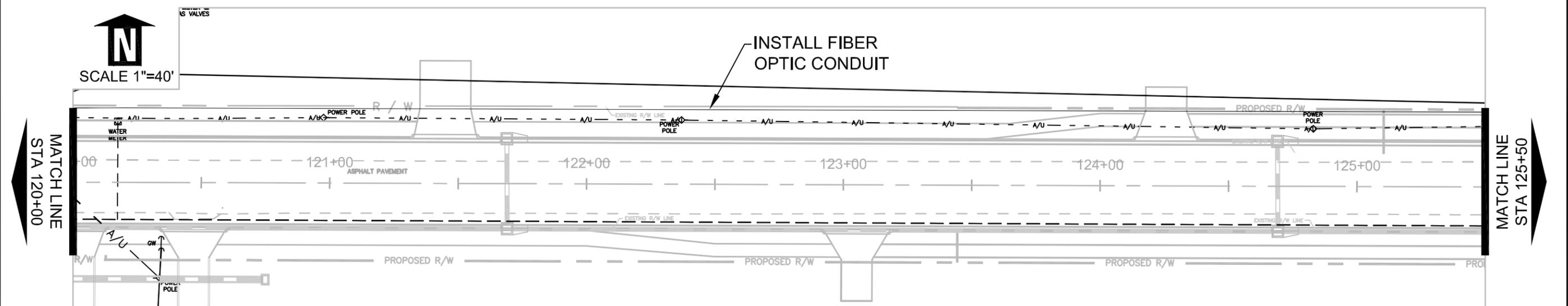
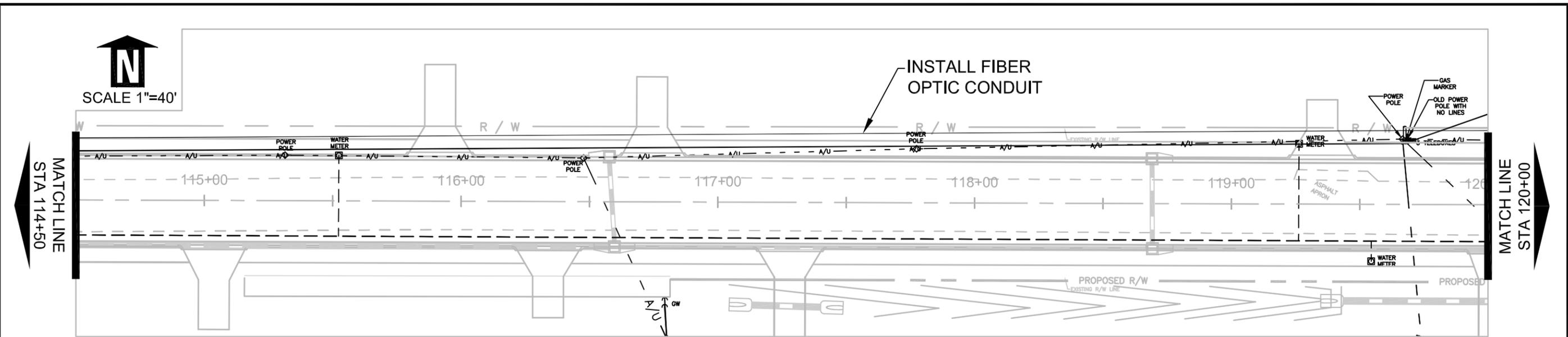
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FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

UTILITY PLAN

SHEET NO.
C53



DATE	BY	DESCRIPTION
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

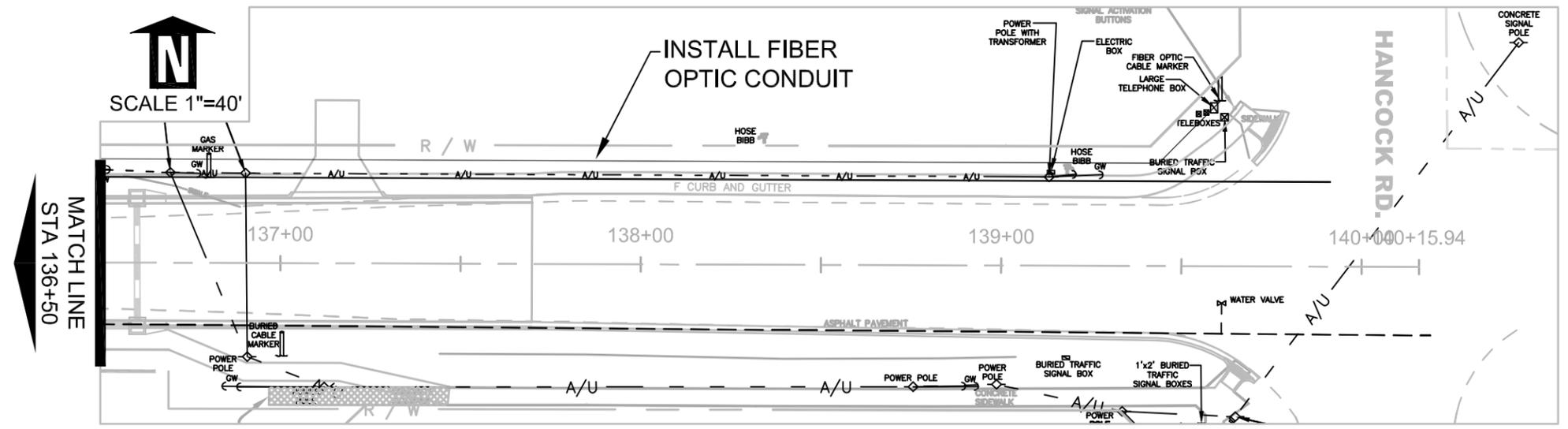
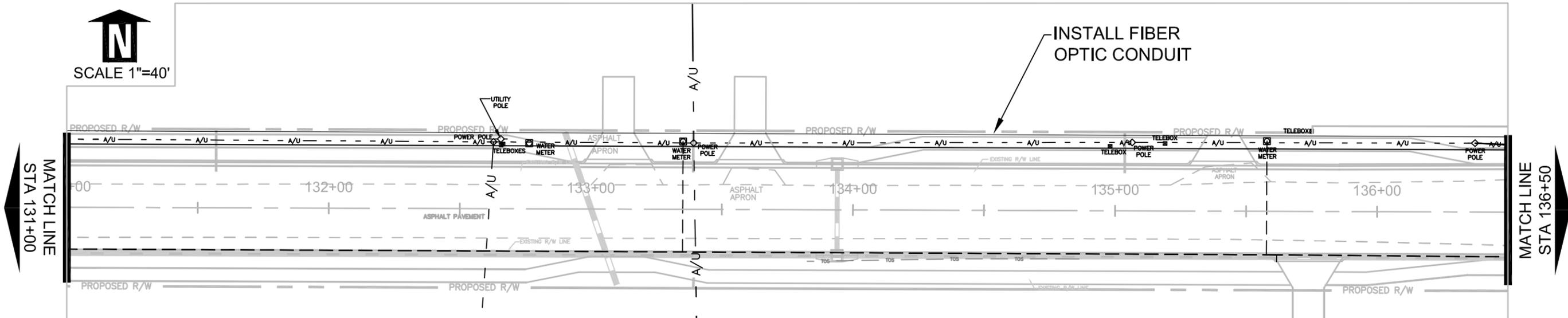
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 FLORIDA CERT. OF AUTH # 8082

JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

UTILITY PLAN

SHEET NO.
C54



DATE	REVISION	DESCRIPTION
07-10-2013	DAG/DMK	30% PLANS
11-14-2013	DAG/DMK	60% PLANS
03-28-2014	DAG/DMK	90% PLANS
07-01-2014	DAG/DMK	100% PLANS

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JOHNS LAKE ROAD IMPROVEMENTS		
ROAD NO.	COUNTY	CITY
2-1158	LAKE	CLERMONT

UTILITY PLAN

SHEET NO.
C55

MAINTENANCE OF TRAFFIC NOTES:

1. THE CLOSURE OF JOHNS LAKE ROAD DURING CONSTRUCTION IS PROHIBITED.
2. BOTH LANES OF JOHNS LAKE ROAD SHALL BE ACCESSIBLE WHEN CONSTRUCTION IS NOT ACTIVE.
3. NIGHT TIME CONSTRUCTION IS PROHIBITED.
4. ALL MAINTENANCE OF TRAFFIC (M.O.T.) SHALL BE PER FDOT DESIGN STANDARDS, INCLUDING FDOT INDEX SERIES 600, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), LATEST EDITION.
5. THE REGULATORY SPEED IN WORK ZONES SHALL BE THE POSTED SPEED LIMIT.

Table I Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Type I or Type II Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II Taper Length - Shoulder

Speed (mph)	R _s (ft)			Notes
	8' SMdr.	10' SMdr.	12' SMdr.	
25	28	35	42	L _s = WS ² / 60
30	40	50	60	
35	55	68	82	L _s = WS
40	72	90	107	
45	120	150	180	L _s = WS
50	133	167	200	
55	147	183	220	L _s = WS
60	160	200	240	
65	173	217	260	L _s = WS
70	187	233	280	

SYMBOLS

- Work Area
- Sign With 18" x 18" (Min.) Orange Flag And Type B Light
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

GENERAL NOTES

1. When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index No. 603.
2. SHOULDER WORK sign may be used as an alternate to the WORKER sign only on the side where the shoulder work is being performed.
3. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
4. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
 - a. Work operations are 60 minutes or less.
 - b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRoACH THE AREA CLoSER THAN 15' BUT NOT CLoSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION: 07/01/12 | DESCRIPTION: FDOT 2014 DESIGN STANDARDS | TWO-LANE, TWO-WAY, WORK ON SHOULDER | INDEX NO. 602 | SHEET NO. 1 of 1

Table I Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Type I or Type II Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25 to 45	20	50	20	50
50 to 70	20	50	20	100

Table II Buffer Space

Speed (mph)	Dist. (ft.)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the opposite lane open to traffic.
2. Additional one-way control may be effected by the following means:
 1. Flag-carrying vehicle;
 2. Official vehicle;
 3. Pilot vehicles;
 4. Traffic signals.
3. The ONE-LANE ROAD signs are to be fully covered and the FLAGGER signs either removed or fully covered when no work is being performed and the highway is open to two-way traffic.
4. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
5. The two channelizing devices directly in front of the work area and the one channelizing device directly at the end of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
6. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. ROAD WORK AHEAD and the BE PREPARED TO STOP signs may be omitted if all of the following conditions are met:
 - a. Work operations are 60 minutes or less.
 - b. Speed limit is 45 mph or less.
 - c. No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space.
 - d. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
 - e. Volume and complexity of the roadway has been considered.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRoACH THE AREA BETWEEN THE CENTERLINE AND A LINE OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION: 07/01/09 | DESCRIPTION: FDOT 2014 DESIGN STANDARDS | TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY | INDEX NO. 603 | SHEET NO. 1 of 2

Table I Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Type I or Type II Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II Buffer Space

Speed (mph)	Dist. (ft.)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

GENERAL NOTES

1. AFAD's shall only be used in situations where there is only one lane of approaching traffic in the direction to be controlled.
2. When used at nighttime, the AFAD flagging station shall be illuminated.
3. When the AFAD is not in use, it shall be moved outside the clear zone or be shielded by a barrier or crash cushion and the signs associated with the AFAD shall be removed or covered.
4. Duration Notes shown on sheet 1 of 2 do not apply when AFAD are used.
5. Only qualified flaggers who have been trained in the operation of the AFAD may operate the AFAD. When in use, each AFAD must be in view of and attended at all times by the flagger operating the device. Use two flaggers and one of the following methods in the deployment of AFAD:
 - Method 1: Place an AFAD at each end of the temporary traffic control zone.
 - Method 2: Place an AFAD at one end of the temporary traffic control zone and a flagger at the opposite end.

DURATION NOTES

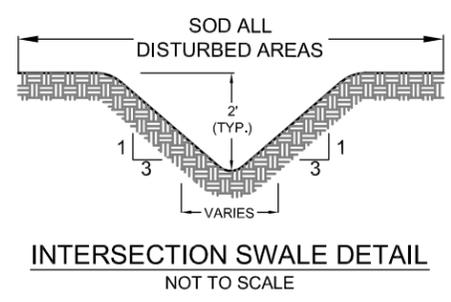
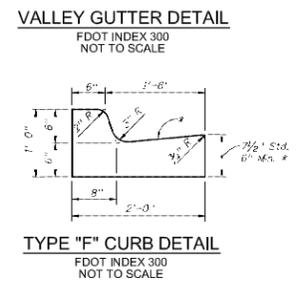
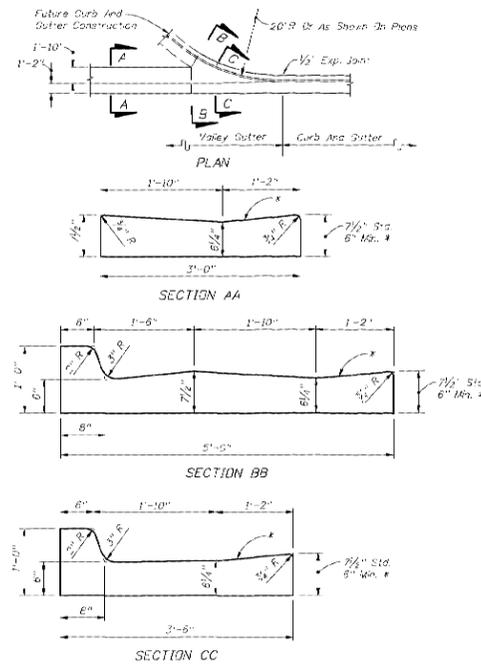
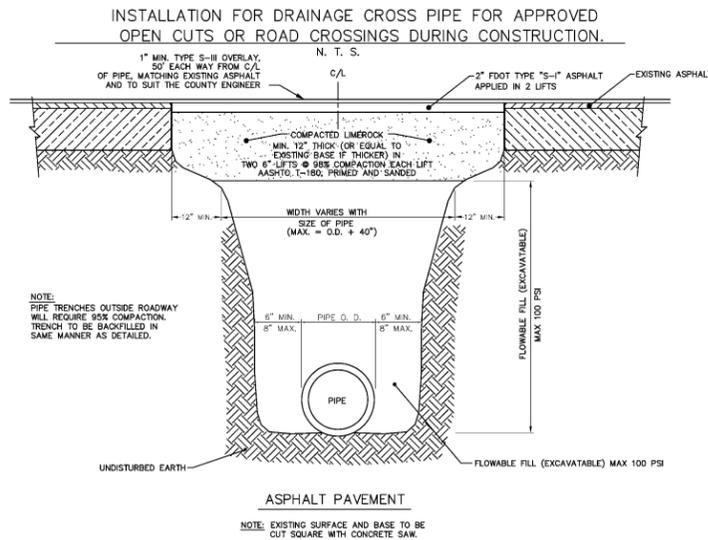
1. A single flagger may simultaneously operate two AFAD (Method 1) or may operate a single AFAD on one end of the temporary traffic control zone while being the flagger at the opposite end of the temporary traffic control zone (Method 2) if all four of the following conditions are present:
 - a. The flagger has an unobstructed view of the AFAD(s);
 - b. The flagger has an unobstructed view of approaching traffic in both directions; and
 - c. For Method 1, the AFAD's are less than 800 ft apart. For Method 2, the AFAD and the flagger are less than 800 ft apart.
 - d. Ensure two trained flaggers are available on-site to provide normal flagging operations should an AFAD malfunction.

CONDITIONS

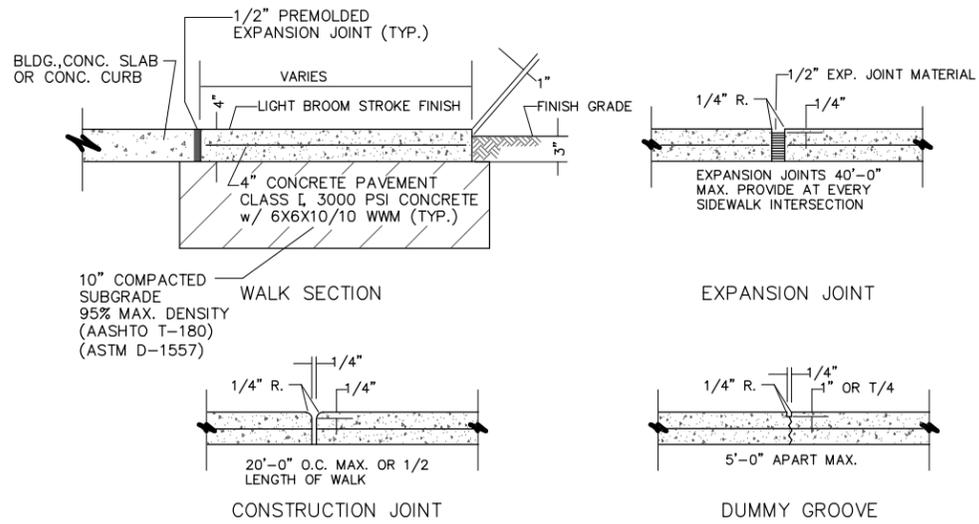
WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRoACH THE AREA CLoSER THAN 15' BUT NOT CLoSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION: 07/01/10 | DESCRIPTION: FDOT 2014 DESIGN STANDARDS | TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY | INDEX NO. 603 | SHEET NO. 2 of 2

DATE 03-28-2014 07-01-2014	DAG/DMK DAG/DMK	90% PLANS 100% PLANS	Engineer of Record: DONALD A. GRIFFEY, P.E. PE No. 036799	GRIFFEY ENGINEERING 406 N. CENTER STREET ELUSTA, FLORIDA 32726 PHONE (352) 357-3528 FAX (352) 357-3219 FLORIDA CERT. OF AUTH # 0802	JOHNS LAKE ROAD IMPROVEMENTS ROAD NO. 2-1158 COUNTY LAKE CITY CLERMONT	MAINTENANCE OF TRAFFIC	SHEET NO. C56
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DETECTABLE WARNINGS SHALL BE CAST-IN-PLACE OR LIQUID APPLIED. ROWS OF DOMES SHALL BE ALIGNED WITH CENTERLINE OF RAMP.



TYPICAL SIDEWALK DETAILS
N.T.S.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum Water Main
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Alternate 3 ft. minimum Water Main
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum Water Main

