PART H

TECHNICAL PROVISIONS

TP 101 - Mobilization

MOBILIZATION

Mobilization shall include all items detailed in Article 101 of the Standard Specifications, the Special Provisions and on the plans, except as directed by the Engineer.

Preservation of Property Corners including all items detailed in Section 7-11 of the Standard Specifications shall be included in the contract price for mobilization.

Basis of Payment

The work and incidental costs covered under Mobilization will be paid for at the contract lump sum price and will be paid in partial payments in accordance with the following:

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum Price for the Items*
5	25
10	50
25	75
50	100

*Partial payments as detailed above will be limited to 10% of the original Contract amount for the roadway pay items. Any amount of mobilization in excess of 10% of the roadway pay items will be paid upon completion of all work.

Payment shall be made under:

Pay Item:		
101-1	Mobilization	Lump Sum

PART H

TECHNICAL PROVISIONS

TP 102 – Maintenance of Traffic

MAINTENANCE OF TRAFFIC

All Maintenance of Traffic work shall conform to the requirements of Section 102 of the Standard Specifications, Index 600 of the FDOT Design Standards, the plans, and/or as herein modified, except as directed by the Engineer.

The road shall be kept open to two-way traffic on a paved surface during construction except when full closures are allowed by the plans or by the Engineer. The Contractor shall not be permitted to isolate residences or places of business. Access shall be provided to all residences and all places of business whenever construction interferes with the existing means of access.

The Contractor shall furnish, erect and maintain all necessary traffic control devices, including flagmen and pilot cars, in accordance with the *Manual of Uniform Traffic Control Devices for Streets and Highways,* published by the U.S. Department of Transportation, Federal Highway Administration. The Contractor shall provide and maintain in a safe condition the entire project limits included, but not limited to pre-existing conditions, driving lanes, temporary approaches, crossings, and intersections with trails, roads, streets, business parking lots, residences, garages and completed work. The Contractor shall take all necessary precautions for the protection of the work and the safety of the public in accordance with Section 102.

The Contractor shall present his signed and sealed Maintenance of Traffic Plan that is approved by Orange County Traffic Engineering to the Engineer at the preconstruction conference, and shall be fully and solely responsible for the adequacy of the Maintenance of Traffic plan regardless of the source. The plan shall be signed and sealed by a professional engineer licensed in the State of Florida.

The Contractor shall be responsible for installation of signs for all business along the project corridor. Signs should be manufactured and installed in accordance with FDOT design standards. No special compensation will be made to the contractor to defray costs of any of the work or delays for complying with the requirements of installing business signs, but such costs shall be considered as having been included in the price stipulated for the Maintenance of Traffic pay item.

Basis of Payment

All materials, work and incidental costs related to Maintenance of Traffic will be paid for at the contract lump sum price. All material, labor and equipment necessary for the construction and maintenance of the entire project limits included, but not limited to pre-existing conditions, driving lanes, temporary approaches, crossings, intersections with trails, roads, streets, business parking lots, residences, garages, temporary driving lanes, side streets, driveway connections, and completed work, as may be directed by the Engineer shall be included in the contract price.

Payment shall be made under:

Pay Item:

102-1	Maintenance of Traffic	- Lump Sum

PART H

TECHNICAL PROVISIONS

TP 104 - Prevention, Control and Abatement of Erosion and Water Pollution

PREVENTION, CONTROL and ABATEMENT of EROSION and WATER POLLUTION

Prevention, control and abatement of erosion and water pollution shall conform to the requirements of Section 104 of the Standard Specifications, National Pollution Discharge Elimination System (NPDES) requirements, except as modified by these Technical Provisions or as directed by the Engineer.

The Contractor shall present at the Preconstruction Conference its Storm Water Pollution Prevention Plan (SWPPP) and a separate schedule to manage erosion and water pollution. This schedule shall include a complete outline of the proposed construction of all erosion and pollution control and abatement items required.

The Contractor shall be responsible for the preparation and submittal of the Notice of Intent (NOI) and Notice of Termination (NOT) to the Florida Department of Environmental Protection (FDEP) and shall obtain the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

Basis of Payment

All work and incidental costs required to comply with the articles of this specification will be paid at the contract lump sum price for Prevention, Control and Abatement of Erosion and Water Pollution.

Payment will be made under:

Pay Item:		
104-1	Prevention, Control and Abatement of Erosion and Water Pollution	Lump Sum

PART H

TECHNICAL PROVISIONS

TP 104a-1 – Dewatering / Flow Diversion

DEWATERING / FLOW DIVERSION

Provide **bypass pumping, well point dewatering, and flow diversion** as required to install sheet pile, concrete ditch pavement, riprap and permanent turf reinforcement matting.

Due to the potential for ground water contamination, dewatering shall be performed in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit No. FLG830000.

Dewatering shall be allowed for construction of structures after acceptance by the Engineer and Orange County Environmental Protection Department.

BASIS OF PAYMENT

The quantity to be paid for under this section shall be lump sum, which will include but is not limited to containment of contamination, treatment, monitoring, discharge, etc., all in accordance with EPA General Permit No. FLG830000.

Payment for bypass pumping, flow diversion, and dewatering, including but not limited to containing, treating, monitoring and discharge of surface water and groundwater shall be made in accordance with the Bid Item Schedule under:

Pay Item:

104a-1	Dewatering / Flow Diversion	Lump Sum

PART H

TECHNICAL PROVISIONS

TP 110 – Clearing and Grubbing

CLEARING AND GRUBBING

All clearing and grubbing shall be performed in accordance with the requirements of Section 110 of the Standard Specifications, except as directed by the Engineer.

Scope of work to include but not be limited to, the removal of all rigid, asphalt pavement, Portland cement concrete pavement, curb, curb and gutter, ditch pavement, sidewalk, driveway aprons, concrete slabs, concrete structures, brick, fences, gravity walls, retaining walls, pipes, etc.

Clearing and Grubbing shall also include the removal of existing pavement and base course and backfilling with suitable material, as shown in the construction plans. Removal of the existing roadway shall also include the proper disposal of the removed materials as specified above.

Basis of Payment

All work and incidental costs required to perform clearing and grubbing as herein specified will be paid for at the contract lump sum price.

Payment shall be made under:

Pay Item:		
110-1-1	Clearing and Grubbing	Lump Sum

PART H

TECHNICAL PROVISIONS

TP 120

EXCAVATION, EMBANKMENT AND GRADING

All excavation and embankment work shall conform to the requirements of Section 120 of the "Standard Specifications", and the provisions of this section, except as directed by the Engineer.

Basis of Payment

Payment shall constitute full compensation for all work described herein and in the Special Provisions and shall include the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in its original position and that is excavated below the finished grading template. Work under this pay item shall also include the excavation of all suitable material within the specified limits as necessary to excavate the unsuitable material. The bottom of the finished grading template shall be considered to be the top of the of the channel slope and maintenance berm. Payment shall also include the provision, placement, shaping, and compaction of suitable backfill material to replace the removed unsuitable material up to the original grade line.

Excavation, Embankment and Grading will be paid for at the contract lump sum price.

Payment shall constitute full compensation for all work described herein and in the Special Provisions and shall include grading of shoulders, graded road connections, slopes, compaction, final dressing, subsoil excavation, replacement material and all work required for completing the project that is not paid for under the other pay items. Also included are removals and off-site disposal or on-site utilization of all materials, structures, abandoned utilities and obstructions as directed by the Engineer.

Payment shall be made under:

Item 120-9 Excavation Embankment and Grading	Lump Sum (LS)

PART H
TECHNICAL PROVISIONS

TP 455 SHEET PILE

MATERIAL SPECIFICATION

Steel sheet pile shall be in accordance with the requirements of Section 455 of the Standard Specifications, except as directed by the Engineer.

METHOD OF MEASUREMENT

Quantities measured for payment under this Section shall be the area in square feet of steel sheet pile wall installed in place, completed and accepted. Measurements shall be from the top of pile elevation to bottom of pile elevation and beginning and end wall limits.

BASIS OF PAYMENT

Sheet Pile will be paid for at the contract unit price, completed and accepted. The unit price shall include all hardware and appurtenances necessary for installation. Payments shall be full compensation for all work and materials described herein, including (in whatever material is encountered), dewatering, removing subsurface obstacles encountered during the driving process, backfilling with select material, any necessary compacting around the steel sheet pile wall, disposing of surplus materials, and other works as may be required for an acceptable installation. Payment shall include preformed holes, coating, and concrete cap complete and installed as shown in the plans.

Payment shall be made under:

Item No. 455-133-3 Sheet Piling Steel, Furnish & Install Permanent - Per Square Foot (SF)

TP 524 - Concrete Ditch and Slope Pavement

CONCRETE DITCH AND SLOPE PAVEMENT

Work specified in this Section consists of the construction of Concrete Ditch and Slope Pavement in the flow channel of drainage ditches and on roadway slopes. Work shall conform to the requirements of Section 524 of the Standard Specifications, except as directed by the Engineer.

Materials

Class NS concrete meeting the requirements of Section 347 shall be used.

Construction Joints

Metal keyways shall be installed at all construction joints in pavement 6-inches and greater in thickness. Concrete thickness shall be increased by 2-inches for a minimum distance of 6-inches either side of construction joints.

Method of Measurement

The quantities to be paid for under this Section shall be the area in square yards of Concrete Ditch and Slope Pavement completed and accepted. No deduction shall be made for any areas occupied by manholes, inlets, or other drainage structures or by public utility appurtenances within the pavement area.

Basis of Payment

Payments shall constitute full compensation for furnishing all materials and completing all work described herein or shown on the plans, including all disposal of surplus material; furnishing and placing of all concrete; reinforcing steel and any other necessary fittings as shown in the plans, required for acceptable construction, or as directed by the Engineer.

Unless specifically noted on the plans for an item to be paid under the Concrete Slope Pavement pay item, the payment shall be made under Concrete Ditch Pavement pay item.

Payment shall be made under:

Pay Item:		
524-1	Concrete Ditch Pavement	Per Square Yard

TP 530 - Riprap (Rubble)

RIPRAP (RUBBLE)

Constructing Riprap (Rubble) shall conform to the requirements of Section 530 of the Standard Specifications, except as directed by the Engineer.

Method of Measurement

Quantities measured for payment under this Section shall be the in place tons of riprap (rubble). This price shall include the filter fabric and bedding stone placed under the riprap.

Basis of Payment

Rubble riprap will be paid for at the contract unit price, completed and accepted. Payment shall be full compensation for all work described herein and shall include all materials, bedding stone, filter fabric, hauling, excavation and backfill.

Payment shall be made under:

Pay Item:

530-3-3	Riprap-Rubble, Bank and Shore	Per Ton (TN)

PART H
TECHNICAL PROVISIONS

TP 550 FENCING

FENCING

Installation of metal fence shall conform to the requirements of Section 550 of the "Standard Specifications" and Florida Department of Transportation Index No. 550-002, except as directed by the Engineer.

Method of Measurement

Quantities measured for payment under this Section shall be the length in feet of fence, as measured along the bottom of the fabric and out-to-out of end posts, and the number of fence gates each.

Basis of Payment

Fencing and gates will be paid for at the contract unit prices, completed and accepted. Electrical grounds, corner post assemblies, and pull and end post assemblies shall be included in the unit price. Payment shall be full compensation for work specified, including all materials, labor and appurtenances.

Payment shall be made under:

Item No. 550-10-220	Fencing Type “B”, 6-ft	-per linear foot (LF)

TP 570 - Performance Turf

PERFORMANCE TURF

The Contractor shall establish a stand of grass in all areas designated on the plans and disturbed by construction in accordance with Chapter 15, Environmental Control, Article XVII, Fertilizer Management Ordinance of the Orange County Code; Sections 162 and 570 of the Standard Specifications, except as directed by the Engineer.
Work under this Section shall include all seeding, mulching, sodding, fertilizing and watering necessary to provide routine maintenance of the grassed area until the work is accepted by the Engineer.
There must be at least 90% coverage of healthy grass prior to acceptance by the Engineer. The Engineer, at any time, may require replanting of any areas in which the establishment of the grass stand does not appear to be developing satisfactorily.
The Contractor shall mow grassed areas twice monthly, or as required by the Engineer, until final acceptance of the work.

Seeding and Mulching

Grass seed shall be common Bermuda and Bahia. In addition, brown top-millet will be included during summer months and annual rye in the winter months. All seed shall meet the requirements of the State Department of Agriculture.

Sodding

Sodding shall be Bahia. It may be placed in rolls or as individual pieces. In established areas, replacement sod shall be of the same type as the existing sod, unless otherwise approved by the Engineer.

Fertilizers

Fertilize as necessary based on soil testing performed in accordance with Section 162. For fertilizer rates and application times follow Chapter 15 Environmental Control, Article XVII Fertilizer Management Ordinance of the Orange County Code.

Method of Measurement

Payment shall be calculated based on the quantity in square yards as specified in the completed and accepted plans. The cost of establishing grass in other areas disturbed by construction activities shall be borne by the Contractor.

TP 570 - Performance Turf

Basis of Payment

Payment shall be paid for at the contract unit price per square yard. Payment shall constitute full compensation for furnishing all materials and completing all the work specified herein, including ground preparation, fertilizing, seeding, mulching, sodding, watering, mowing and complete maintenance of the grassed area until final completion and acceptance by the Engineer.

Payment shall be made under:

Pay Item:		
570-1	Performance Turf	Per Square Yard

TP 571 – Plastic Erosion Mat

Plastic Erosion Mat

Installing Plastic Erosion Mat shall conform to the requirements of Section 571 of the Standard Specifications, except as directed by the Engineer.

Method of Measurement

Quantities measured for payment under this Section will be the surface area of plastic erosion mat installed and accepted in square yards with no allowance for overlaps.

Basis of Payment

Payment shall be paid for at the contract unit price per square yard. Payment shall constitute full compensation for furnishing, handling, placement of plastic erosion mat, all labor, equipment and miscellaneous materials necessary for a complete and accepted installation.

Payment shall be made under:

Pay Item:		
571-1-13	Plastic Erosion Mat, TRM, Type 3	Per Square Yard

PART H

TECHNICAL PROVISIONS

TP 900-1- As Built Plans

AS-BUILT PLANS

The As-Built Plans shall incorporate all the changes made to the red line As-Built plans. They shall show locations and elevations of paving, swales, ditches, pipe inverts and structures constructed, and all relocated or reset property corners, section corners and 1/4 section corners.

Upon the completion of the project, the Contractor shall submit to the County one (1) set of paper Full Size Drawings with Statement of Certifications, certifying that the project was constructed according to the Construction Plans and Specifications, and that the AS BUILT PLANS are correct representation of what was constructed. The plans shall delineate all red line information contained on the As-Built Plans.

The Contractor shall include the Statement of Certification on either the cover sheet certifying all of the sheets or certify each individual sheet. The Statement of Certifications shall be signed and sealed by a Professional Engineer and/or a Professional Surveyor and Mapper, both registered in the State of Florida.

Basis of Payment

As-Built Plans will be paid for at the contract lump sum price, completed and accepted.

Payment shall be made under:

Pay Item:

900-1	As-Built Plans	Lump Sum

TP 900-2 Indemnification

INDEMNIFICATION

The Contractor shall indemnify, defend, and hold harmless the COUNTY and all its officers, agents, and employees, from all claims, losses, damages, costs, charges, or expenses arising out of any acts, action, neglect, or omission by the Contractor during the performance of the Contract, whether direct or indirect, and whether to any person or property to which the COUNTY or said parties may be subject, except that neither the Contractor nor any of its subcontractors are liable under this Section for damages arising out of the injury or damage to persons or property directly caused or resulting from the sole negligence of the COUNTY or any of its officers, agents, or employees.

Payment shall be made under:

Pay Item:		
900-2	Indemnification	Lump Sum

PART H
TECHNICAL PROVISIONS

For

WINTER PARK PINES OUTFALL CANAL E-03-H IMPROVEMENTS
FROM FORSYTH ROAD TO THE CRANE STRAND CANAL
ORANGE COUNTY, FLORIDA

Geotechnical Report

Geotechnical Investigation Report
Winter Park Pines Outfall Canal E-03-H
Orange County, Florida
performed by:
Antillian Engineering Associates, Inc.
March 3rd, 2016

GEOTECHNICAL INVESTIGATION REPORT
WINTER PARK PINES OUTFALL CANAL E-03-H
ORANGE COUNTY, FLORIDA

AEA PROJECT No. 201504-5

Antillian Engineering Associates, Inc.
3331 Bartlett Boulevard
Orlando, Florida 32811
(407) 422-1441

ANTILLIAN
ENGINEERING ASSOCIATES, INC.

March 3, 2016

CDM Smith
2301 Maitland Center Parkway, Suite 300
Maitland, Florida 32751

Attention: Alyson Byrne, P.E.

Reference: Geotechnical Investigation Report
Winter Park Pines Outfall Canal E-03-H Improvements
Orange County, Florida
AEA Project No. 201504-5

Dear Ms. Byrne:

Antillian Engineering Associates, Inc. has completed a geotechnical engineering investigation for planned improvements to Section E-03-H of the Winter Park Pines Outfall Canal in Orange County, Florida. The work was authorized under Orange County Continuing Contract Y15-900-B, and was done in general accordance with the scope of services presented in our proposal dated August 4, 2015. This report presents the results of the investigation, assessments of the encountered subsurface conditions as they relate to planned channel improvements, and other concerns as appropriate.

It has been our pleasure to serve CDM Smith and Orange County on this project. Please call if you have any questions or if you need additional information.

ANTILLIAN ENGINEERING ASSOCIATES, INC.
State of Florida Authorization No. EB 6685

PETER GREGORY SUAH LICENSE No. 46910 STATE OF FLORIDA PROFESSIONAL ENGINEER

Peter G. Suah, P.E.
Principal Engineer
Florida Registration No. 46910

Attachments: Figures
Appendix A: Field and Laboratory Investigations
Appendix B: Important Information About This Geotechnical Engineering Report
Appendix C: Constraints and Restrictions

PROJECT DESCRIPTION

The Orange County Public Works Department is planning to repair a deteriorated part of Winter Park Pines Outfall Canal E-03-H as part of a county-wide program of stormwater rehabilitation projects. This project will address a section of channel about 1,000 feet east of Forsyth Road, where the bottom has been severely scoured and the side slopes have been eroded. Its approximate location is shown on Figure 1. The proposed improvements are intended to restore and stabilize the channel bottom and side slopes to maintain flow capacity, prevent further deterioration, and minimize the potential for transport of sediments downstream.

Overall project design was by CDM Smith of Maitland, Florida. CDM Smith's scope of work was to provide Orange County with an analysis for alternative channel improvements. CDM Smith retained Antillian Engineering Associates, Inc. to conduct a geotechnical engineering investigation to provide information to support the alternatives analysis, and to provide geotechnical engineering evaluations and recommendations for design of the preferred alternative.

AVAILABLE INFORMATION

The United States Geological Survey ("USGS") quadrangle topographic map of the area and the United States Department of Agriculture ("USDA") Natural Resources Conservation Service ("NRCS") Soil Survey of Orange County, Florida were reviewed to obtain general information about the project vicinity. CDM Smith furnished preliminary project information and a preliminary topographic survey by Southeastern Surveying dated October 2, 2015 that was also examined for additional information.

The USGS map (reproduced as Figure 1) showed the project area on a broad, level plain with ground surface elevations mapped near the Elevation 90 feet NGVD (El. 90) contour. The map also showed that land usage near the project area was residential.

The NRCS Soil Survey map (reproduced as Figure 2) identified the predominant soil types as "Urban land complex" derivatives of Pomello fine sand and Smyrna fine sand. The "Urban land complex" designation was used in areas where the natural soils had been modified by urban development or covered by streets, buildings and other urban facilities to the extent that they were barely discernible. These soil units were described as being nearly level to gently sloping and poorly drained to moderately well drained, with seasonal high groundwater levels reported to range from about a foot to more than six feet below the natural ground surface in undrained areas.

The preliminary information furnished by CDM Smith indicated that severe scour along a section of the channel bottom had created an abrupt change in the bottom profile which resulted in a hydraulic drop. Energy of the water falling over this drop has reportedly scoured an area immediately downstream, to form a circular pool. The adjacent side slopes of the channel have also been eroded.

The preliminary topographic survey sheet covered a section of channel about 390 feet long, based on the scale bar provided on that drawing. The channel was oriented in a west-to-east alignment. Spot elevations and contours indicated that the ground surface on the northern bank of the surveyed section of channel ranged from near Elevation 85 feet NAVD88 (El. 85) at the western end to about El. 79 near the eastern end. Ground surface elevations on the southern bank ranged from El. 88 near the western end to about El. 83 near the eastern end.

The bank on the northern side was narrow to non-existent, while the southern bank was about 30 feet wide. Contour lines indicated that the ground surface on both banks sloped downward toward the southeast, which caused the top of the northern bank to slope toward the channel, and the top of the southern bank to slope away from the channel. Spacings between the contour lines indicated that the northern side slope of the channel was steeper than the southern side slope. Channel bottom elevations ranged from about El. 75 near the western end of the surveyed section to about El. 66 near the eastern end, indicating that the flow direction in the channel was west-to-east.

The scoured area was plotted as a steeply-sided, approximately elliptically-shaped feature that was almost as wide as the channel. This feature was about 40 feet long (measured along the channel alignment) and about 30 feet wide. Its upstream edge was plotted about 195 feet east of the western end of the surveyed section. A vestige of the northern bank appeared to remain just downstream of the scoured area.

Closer examination of the contour lines along the channel bottom revealed that the spacing between the El. 75 and El. 74 contour lines was about 100 feet. However, the spacings to subsequent contour lines were about 20 feet (El. 73), about 45 feet (El. 72), about 30 feet (El. 71) and about six feet to the El. 70 contour line. That line was plotted at the upstream edge of the scoured area. The channel bottom plunged to El. 62 about a foot east of the edge, remained at that elevation for about 30 feet, and then rose to near El. 66 over a distance of about 10 feet. The channel bottom remained near El. 66 for the remainder of the surveyed section, i.e., for a distance of about 150 feet. Notes on the drawing indicated water surface elevations of “72.8 on 10/1/15” upstream of the scoured area and “67.7 on 10/1/15” downstream of the scoured area.

[END OF SECTION]

FIELD INVESTIGATION

A site visit was conducted to prepare for the field investigation program and to observe existing field conditions. Test boring locations were established by our field representative at locations on the channel banks that were accessible to the drill rig. Survey stakes, paint marks and available aerial imagery were used to establish the boring locations, which were staked for underground utility location and marking as required by Florida Statutes, and to facilitate identification by the field crew. Approximate boring locations are shown on Figure 3.

Two test borings, designated "B-1" and "B-2," were drilled to investigate the subsurface conditions beside the scoured area. Each borehole was advanced by continuous split-spoon soil sampling and mud rotary drilling methods to a depth of 25 feet below the ground surface on the channel banks. The Standard Penetration Test ("SPT") was conducted with the split-spoon sampling in accordance with ASTM D 1586. Testing and sampling were conducted continuously from the ground surface to a depth of ten feet, and then to the indicated completion depth at two-and-a-half-foot intervals, instead of the five-foot intervals originally proposed, in order to obtain more subsurface information.

Sampler penetration resistance expressed in hammer blows per foot (the "SPT N-value"), soils recovered in each sampler and other notable conditions were logged by the field crew. The depth to groundwater in each borehole was measured and recorded on the field logs. Representative soil samples were sealed in clean, airtight containers and transported to our Orlando office for further examination and testing. At the completion of drilling and testing, the boreholes were backfilled with soil cuttings. The stakes were left in place for the project surveyor to locate.

The bottom of the scoured area was probed at approximate five-foot intervals to explore the presence and depth of near-surface, loose/soft sediments and/or organic soils. These probes were conducted by manually pushing a smooth, one-quarter-inch-diameter, steel rod with a blunt tip into the soil until the underlying sandy soil (which is more resistant to penetration) was encountered. This non-standardized method is customary in Florida because the difference in resistance between loose, soft or organic soils and the underlying sand is distinct, even to a less-experienced operator. The method is efficient and reliable, and yields information that is appropriate for estimating depths of soft, loose or organic materials to be removed during remedial earthwork. The depth at which the probe encountered resistant soil at each location was recorded as the depth of soft/loose sediments; the water depth was also recorded. No soil samples were obtained from the scoured area.

LABORATORY TESTING

Recovered soil samples were examined in our office by a geotechnical engineer who confirmed the descriptions on the field logs, classified the soils visually in accordance with the Unified Soil Classification System (ASTM D 2488) and developed a representation of the soil stratigraphy at each boring location. Representative soil samples were selected for laboratory testing, which consisted of four percent fines tests, one organic content test and one natural moisture content test. Test results are presented on the boring logs and the Summary of Laboratory Test Results sheet in Appendix A.

SURFACE CONDITIONS

The E-03-H section was an unlined, trapezoidal, open channel about 15 feet deep that extended eastward from Forsyth Road for a distance of about 2,500 feet. The channel was bordered on both sides by single-family homes. At the time of our field investigation, the water in the channel was about a foot deep, and it was flowing from west to east. The scoured area was observed about 1,000 feet east of Forsyth Road. It was nearly circular with steep sides, and was estimated to be about 30 feet in diameter. The flow in the channel cascaded over a ledge about three feet high at the eastern edge of the scoured area. The pool below was circular, about 20 feet in diameter, and appeared to have been formed by the flow cascading over the ledge. The water depth in the pool was not measured. Downstream of the pool, it was estimated to be about two feet deep.

The southern channel bank was broad, flat and well defined. Its side slope was inclined steeply at near 1 Horizontal to 1.5 Vertical and appeared to be steeper near the scoured area. Ground cover on the southern bank and side slope was well-maintained turf and low weeds.

The northern channel bank was narrow and poorly defined, and the side slope appeared to be steeper than the side slope on the southern bank. It was eroded to near-vertical at the scoured area. Ground cover was dense, low shrubs and weeds. Several large trees on the northern bank overhung the channel. The soil in the northern side slope had been exposed at a few locations. The uppermost soil was gray sand that extended to about mid-slope. Beneath the gray sand was very dark brown sand that extended to near the bottom of the side slope. Dark yellowish brown, moderately cemented to strongly cemented ("hardpan-type") soil was observed near the bottom of the slope, and on the channel bottom. This soil extended below the water surface, so its thickness could not be observed.

SUBSURFACE CONDITIONS

The stratigraphy, soil types and groundwater levels described below are based on the results of the field and laboratory testing programs. SPT N-values were used as empirical indications of soil condition. Unified Soil Classification System group names and group symbols were used for soil classification. The descriptions below are general and describe the major soil types that were encountered. Detailed subsurface characteristics at each boring location are shown on the boring logs and on the Summary of Laboratory Test Results sheet and chart in Appendix A.

The uppermost soils were dark brown, gray, light gray and white fine sands that contained silt. Encountered thicknesses were about four feet and seven feet. SPT N-values were between 7 blows per foot (bpf) and 12 bpf with most values lower than 10 bpf, indicating that these soils were loose to medium dense but mostly loose. Percent fines testing of one sample indicated a fines content (fraction by dry weight passing the U.S. Standard No. 200 sieve) of 1 percent. Based on visual examination and laboratory testing, these soils were classified as fine sand (SP) and sand with silt (SP-SM).

Beneath the uppermost loose sands were very dark brown and very dark gray fine sands that contained more silt. Encountered thicknesses were about two feet and about five feet. SPT N-values were between 14 bpf and 20 bpf, indicating that these soils were medium dense. These soils were classified visually as sand with silt (SP-SM) and silty sand (SM).

Beneath the medium dense sands were dark yellowish brown, black and yellowish brown fine sands that contained silt. Encountered thicknesses were about 13 feet in B-1 and about 19 feet in B-2. Actual thicknesses could not be confirmed because each boring was terminated in these soils without penetrating them completely. SPT N-values ranged from 27 bpf and 86 bpf with most values between 30 bpf and 50 bpf indicating that these soils were medium dense to very dense, but mostly dense. Percent fines testing of three samples indicated fines contents between 11 percent and 18 percent. Additional laboratory testing of a sample from B-2 indicated an organic content of 9 percent and a moisture content of 11 percent. Based on visual examination and laboratory testing, these soils were classified as sand with silt (SP-SM) and silty sand (SM).

Groundwater was encountered in the boreholes about 20 feet below the existing ground surface on the channel banks.

The loose/soft sediments measured by manual probing in the scoured area were about an inch thick.

[END OF SECTION]

GENERAL COMMENTS ON RECOMMENDATIONS

The following recommendations are based on a review of the available information, the field and laboratory test results and our experience with similar projects and subsurface conditions. Soils are natural materials, so variations in composition and other physical characteristics are normal and should be expected. Because of natural variations in depth, composition and consistency of soils and the spacing between the borings drilled for this investigation, unsuitable materials and other soils not encountered by the borings may exist between boring locations, and should be anticipated. If subsurface conditions encountered during construction differ significantly from those encountered in the borings, those conditions should be reported to us for our observation and comment.

If plans for the proposed improvements change from those discussed in this report, we request the opportunity to review our preliminary recommendations and amend them as needed to accommodate those changes. We recommend a review of the project plans and specifications by this office to ensure that the geotechnical engineering recommendations contained in this report are properly interpreted and presented in these documents.

It was our understanding from CDM Smith that the channel bottom and the scoured area would be restored by backfilling, and that the channel cross-section would then be restored and stabilized. The preliminary recommendations presented in the following sections of this report are based on our understanding that typical earthwork techniques will be used to restore the channel bottom and side slopes, and that either a flexible or rigid channel lining would be used for stabilization.

GENERAL ASSESSMENT OF ENCOUNTERED CONDITIONS

As discussed in the SUBSURFACE CONDITIONS section of this report, the uppermost soils encountered in the borings were mostly loose, fine sands that extended to depths of about four feet and about seven feet, followed by medium dense to very dense silty sands, and sands with silt to a depth of 25 feet below the ground surface on the channel banks. Soils exposed at corresponding elevations in the channel side slopes were characterized as cemented. Loose/soft sediments in the bottom of the scoured area were about an inch thick. Groundwater was encountered in the boreholes at a depth of about 20 feet below the ground surface on the channel banks.

Compilation of the subsurface information with the surface observations and topographical survey suggested that the medium dense to very dense silty sands and sands with silt were probably cemented in their undisturbed condition, and extended to depths that corresponded to elevations below the channel bottom just upstream of the scoured area. Groundwater depths in the borings corresponded to elevations below the water surface in the channel, indicating an apparent absence of seepage in the channel side slopes.

Closer examination of the probably cemented soils revealed that the soils in the zone near and below the channel bottom were generally less dense than the soils in the zone just above the channel bottom. The soils in the lower layer also appeared to contain less fines. Although the amount of field

and laboratory testing was limited, it would appear that the soils near and below the channel bottom may be less cemented than the soils above, and as such may be more susceptible to erosion. However, the overall susceptibility of these soils to erosion is probably still low, as evidenced by the thin layer of loose/soft sediments encountered in the bottom of the scoured area.

The scoured area was the only visibly distressed area along Section E-03-H. Elsewhere, the channel side slopes appeared to be stable. Based on those observations, and the assessment of the subsurface conditions discussed above, it is our professional opinion that the scoured area was not caused by inherent instability of the channel slopes. Cemented soils generally have high shear strength, so the presence of such soils in the lower portions of the side slopes (where rotational failure surfaces typically emerge) and the apparent absence of seepage in the side slopes may have compensated for the destabilizing influences of steep inclination, water in the channel and trees on the banks. The apparently lesser relative cementation of the lowermost soils in the channel banks is probably not significant in this situation.

It would appear that the scoured area was initiated by an isolated event not specifically related to conventional open-channel design. Based on the very limited scope of this investigation, it is our professional opinion that two initiating mechanisms are possible. The first is an apparent variation in the channel bottom profile, which could have led to non-uniform, highly erosive flow conditions in that specific location. The second is a small, sinkhole feature. Either mechanism, if undetected or left unattended for an extended period of time could lead to the formation of the scoured area under the action of water cascading freely over the ledge. Given enough time, even cemented soils can be eroded.

We recommend investigations of the soil conditions in a non-eroded part of section E-03-H, to assess the uniformity of the soil conditions and the potential for soils that may be more prone to scour. In addition, we recommend detailed modeling of channel flow to assess channel scour under certain flow conditions, if the County thinks the resulting information would be helpful in addressing the observed scour and erosion and preventing future recurrence.

PRELIMINARY RECOMMENDATIONS

As mentioned, planned channel improvements include filling the scoured area and the channel bottom, and then restoring and stabilizing the channel cross-section. The soils encountered in the borings are suitable for construction of this approach. Other materials (such as cementitious slurries) may also be considered. Geotechnical engineering recommendations for the preferred alternative will be provided once Orange County selects that alternative.

Typical site preparation should include removing vegetation, trees, roots, stumps, topsoil, soft sediments and debris within the channel to expose clean, undisturbed soils. Organic soils are unsuitable for the proposed improvements. Any other organic materials should be completely removed from the channel banks and from beneath the proposed work areas where encountered, and replaced with suitable, compacted fill. Backfilling the scoured area and channel bottom would

require lowering the groundwater and by-pass pumping surface water around the work area to facilitate construction in the dry. All backfill and fill along the channel bottom should be densified. Existing channel slopes should be benched to facilitate the placement and compaction of backfill.

It is anticipated that conventional construction equipment would be able to excavate, grade and shape the uppermost sandy soils. Depending on the planned depth of excavation, some dense to very dense sands may be encountered. These soils will likely reduce the efficiency of typical excavating equipment. The contractor should anticipate occasionally difficult excavation and should select equipment that can continue to operate effectively when such conditions are encountered during construction. The contractor should also expect large roots in areas where trees are present.

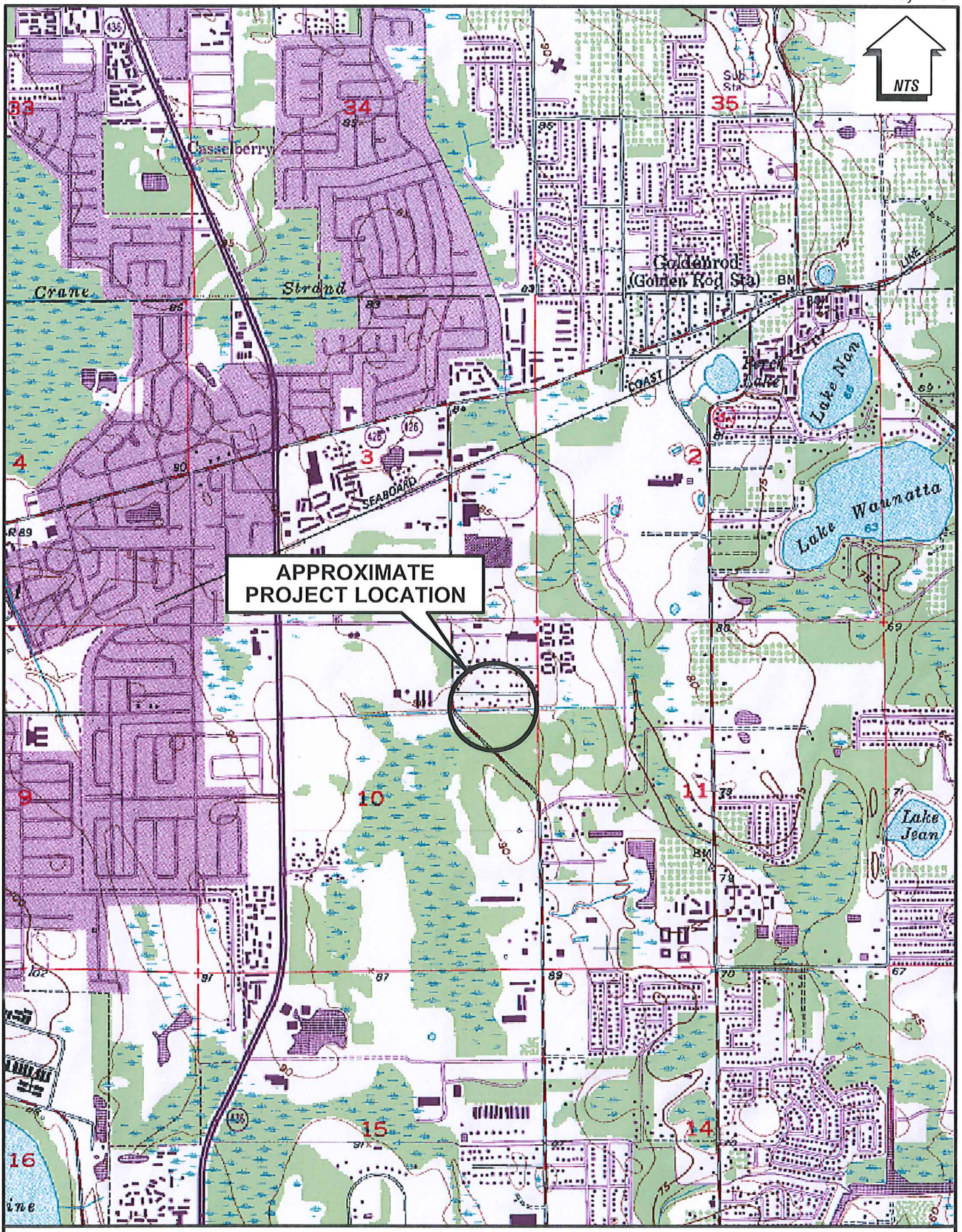
The two main classifications of open-channel linings are flexible (grasses, natural vegetation, rip-rap, gabions or turf-reinforcement mats) and rigid (concrete, asphalt, soil-cement, grouted rip-rap and articulated concrete blocks). The choice of the appropriate lining is dependent upon channel geometry and flow, as well as the velocity and shear stress limitations of the soils.

LIMITATIONS

This report presents a preliminary evaluation of the subsurface conditions on the basis of accepted geotechnical procedures for site characterization. The recovered soil samples were not examined or tested in any way for chemical composition or environmental hazards. The investigation was confined to the zone of soil which is likely to be affected by the proposed construction, and did not address the potential of surface expression of deep geologic activity such as sinkholes. This type of evaluation requires a more extensive range of services than those performed for this study.

Because of the natural limitations inherent in working with the subsurface, a geotechnical engineer cannot predict and address all possible problems. During construction, geotechnical issues not addressed in this report may arise. The bulletin “Important Information About This Geotechnical Engineering Report” published by the Geoprofessional Business Association (GBA) is presented in Appendix B to help explain the nature of geotechnical issues. Additional information is presented in Appendix C to discuss the potential concerns and the basic limitations of a typical geotechnical investigation report.

FIGURES



SITE LOCATION MAP

201504-5	WINTER PARK PINES OUTFALL CANAL (E-03-H) IMPROVEMENTS	FIG. 1

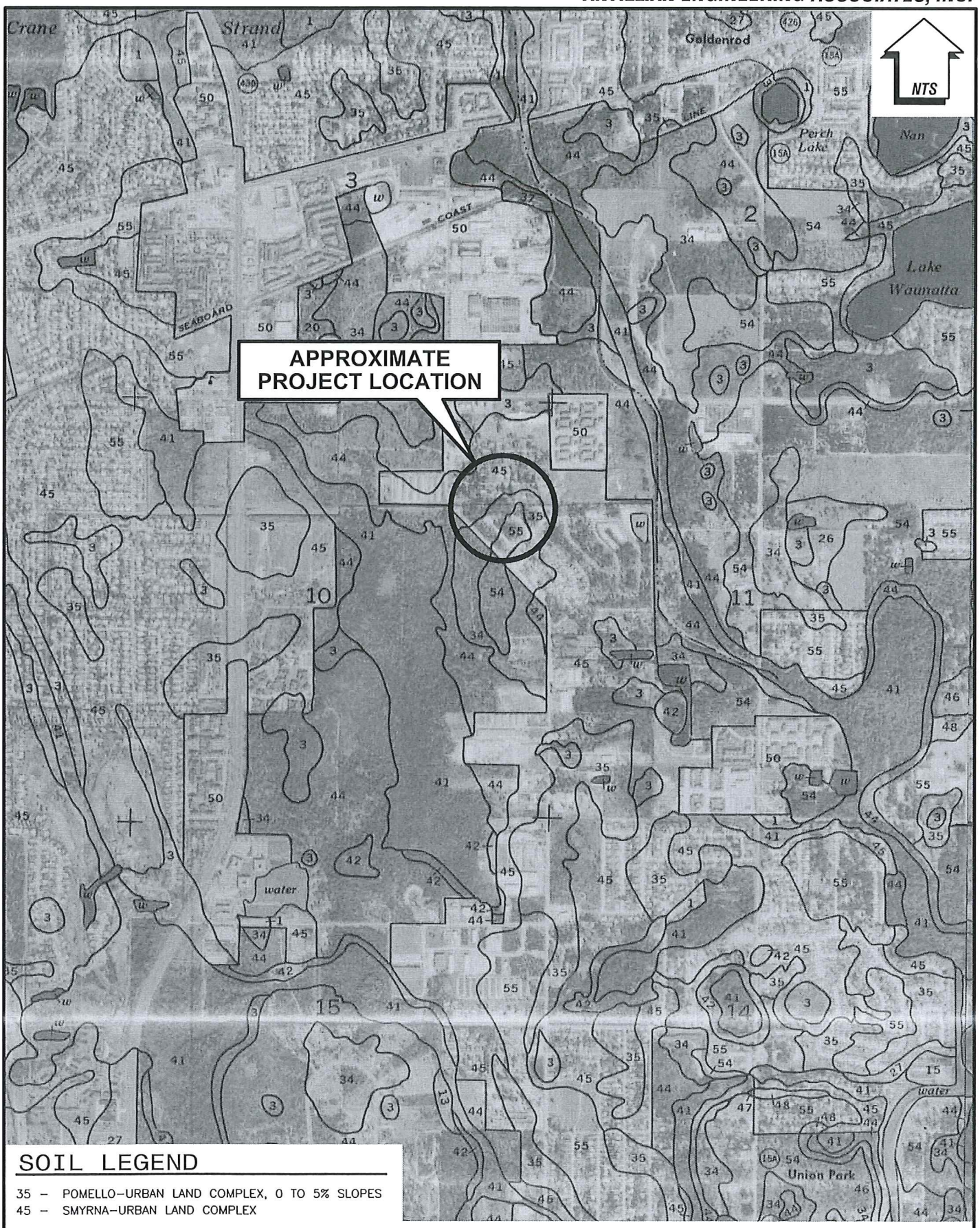


Figure developed from UDSA SCS Soil Survey of Orange County, Florida, issued August, 1989

USDA SCS SOIL SURVEY MAP

201504-5	WINTER PARK PINES OUTFALL CANAL (E-03-H) IMPROVEMENTS	FIG. 2

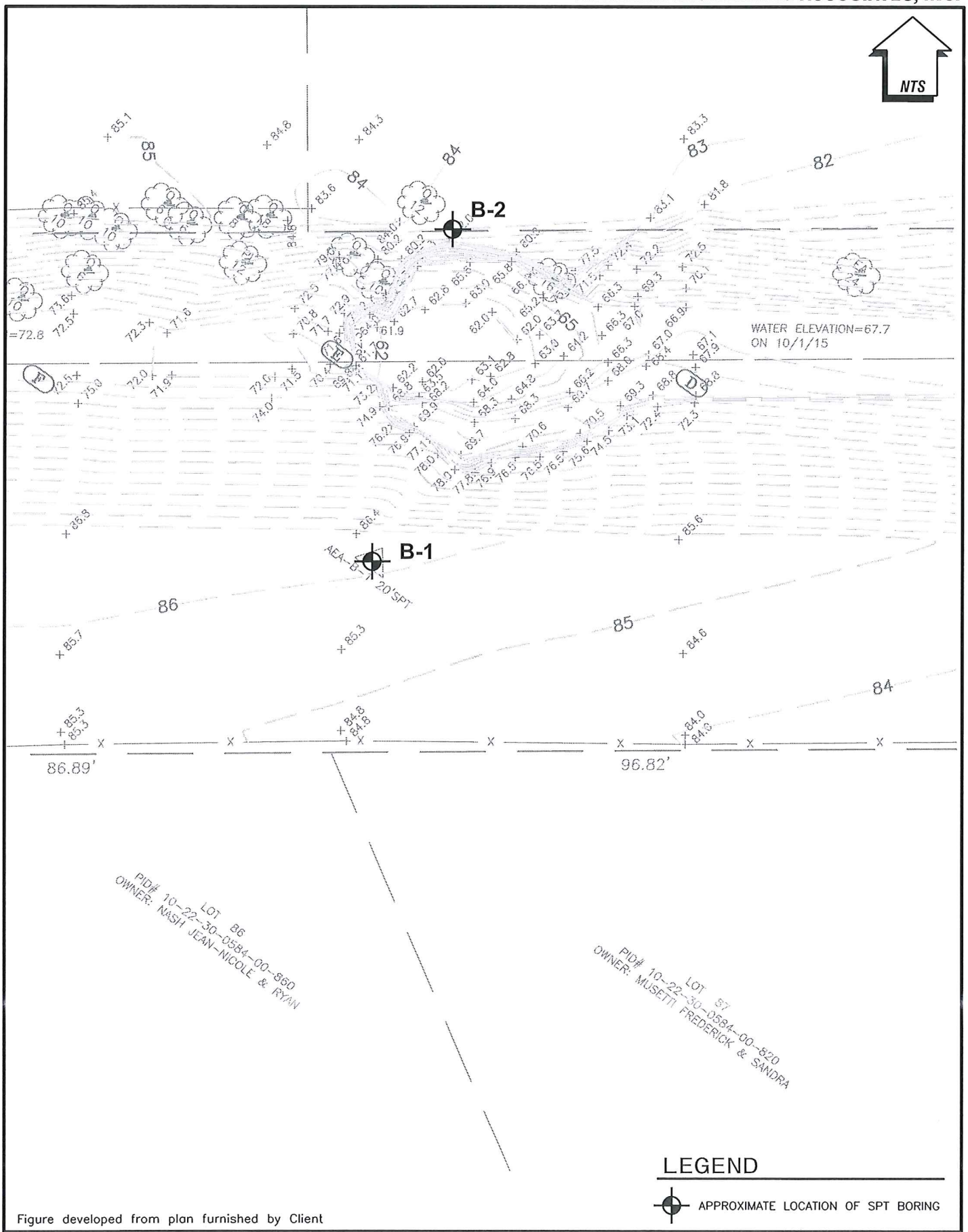


Figure developed from plan furnished by Client

EXPLORATION LOCATION PLAN

201504-5	WINTER PARK PINES OUTFALL CANAL (E-03-H) IMPROVEMENTS	FIG. 3

APPENDIX A

ANTILLIAN ENGINEERING ASSOCIATES, INC.
3331 Bartlett Boulevard Orlando, Florida 32811
Tel (407) 422-1441 Fax (407) 422-2226

KEY TO BORING LOGS

SYMBOLS

10	SPT N-Value (number of blows a 140-lb weight falling 30 inches required to drive a Standard Split-Spoon sampler one foot into otherwise undisturbed soil)
WR	Penetration of sampler under weight of drill rods
WH	Penetration of sampler under weight of drill rods and hammer
SS	Split Spoon sample
ST	Undisturbed thin-walled Shelby Tube sample
	Observed change in soil type
	Unobserved change in soil type
▽	Estimated seasonal high groundwater level
▼	Encountered groundwater level

SOIL CONSISTENCY

(Based on empirical correlation with SPT N-Value)

GRANULAR SOILS

Very Loose - Less Than 4 blows/ft.
Loose - 4 to 10 blows/ft.
Medium Dense - 10 to 30 blows/ft.
Dense - 30 to 50 blows/ft.
Very Dense - More Than 50 blows/ft.

FINE-GRAINED SOILS

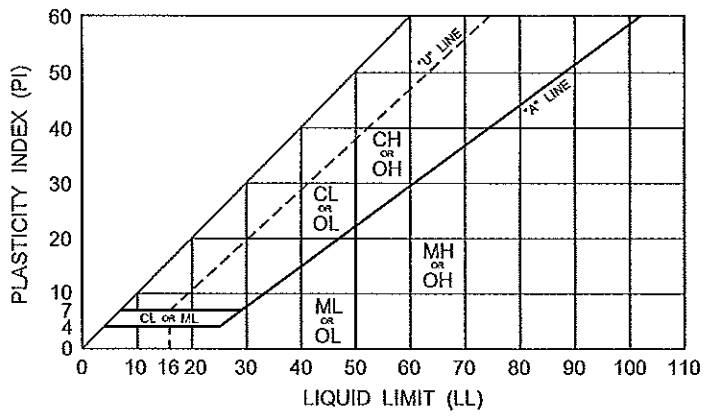
Very Soft - Less Than 2 blows/ft.
Soft - 2 to 4 blows/ft.
Firm - 4 to 8 blows/ft.
Stiff - 8 to 15 blows/ft.
Very Stiff - 15 to 30 blows/ft.
Hard - More Than 30 blows/ft.

UNIFIED SOILS CLASSIFICATION SYSTEM ASTM D 2487

(Based on material passing the 3-inch (75-mm) sieve)

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS More than 50% passing No. 200 sieve	SILTS AND CLAYS Liquid limit 50% or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays or high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
HIGHLY ORGANIC SOILS			Pt	Peat, muck and other highly organic soils

PLASTICITY CHART



ANTILLIAN ENGINEERING ASSOCIATES, INC.

LOG OF BORING B-1

SHEET 1 OF 1

PROJECT NO:	**201504-5**	SURFACE ELEVATION:	**86.2**
PROJECT:	**Winter Park Pines Outfall Canal (E-03-H)**	GROUNDWATER DEPTH:	**20.0**
DATE:	**10/1/15**	COMPLETION DEPTH:	**25.0**
LOCATION:	**See Figure 3**	DRILLING METHOD:	**Mud Rotary**

DEPTH, ft.	SAMPLES	SPT N-VALUE (bpf)	SAMPLE TYPE	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	- 200	MC %	LL	PI	OC %
0											
		7	SS	Loose, dark brown fine SAND with silt (SP-SM)							
		12	SS	Medium dense, gray fine SAND (SP)	2.5		1				
		9	SS	- loose, white							
5		8	SS								
		19	SS	Medium dense, very dark brown silty fine SAND (SM)	7.0						
		20	SS								
10											
					12.0						
		46	SS	Dense, dark yellowish brown silty fine SAND (SM)							
15		86	SS	- very dense			18				
					18.0						
		41	SS	Dense, yellowish brown fine SAND with silt (SP-SM)	▼						
20		45	SS								
		29	SS	- medium dense							
25					25.0						

ANTILLIAN ENGINEERING ASSOCIATES, INC.

LOG OF BORING B-2

SHEET 1 OF 1

PROJECT NO:	**201504-5**	SURFACE ELEVATION:	**84.6**
PROJECT:	**Winter Park Pines Outfall Canal (E-03-H)**	GROUNDWATER DEPTH:	**20.0**
DATE:	**10/5/15**	COMPLETION DEPTH:	**25.0**
LOCATION:	**See Figure 3**	DRILLING METHOD:	**Mud Rotary**

DEPTH, ft.	SAMPLES	SPT N-VALUE (bpf)	SAMPLE TYPE	DESCRIPTION	STRATUM EL / DEPTH	SYMBOL	- 200	MC %	LL	PI	OC %
0											
		8	SS	Loose, white fine SAND (SP)							
		9	SS								
		14	SS	Medium dense, very dark gray fine SAND with silt (SP-SM)	4.0						
5		39	SS	Dense, black silty fine SAND (SM)	5.5		14				
		55	SS	- very dense				11			8.8
		52	SS								
10		36	SS	- dense, dark yellowish brown							
		44	SS								
15		27	SS	Medium dense, yellowish brown fine SAND with silt (SP-SM)	16.0						
		38	SS	- dense	▼		11				
20		54	SS	- very dense							
		77	SS								
25					25.0						

Project: **Winter Park Pines Outfall Canal (E-03-H)** Job Number: **201504-5** Sheet **1** of **1**

Manager: _____ Client: _____ Project Description: _____

Location: **See Figure 3**

Boring / Depth	Sample Description	#4	#10	#40	#60	#100	Fines #200	Water Content	LL	PI	Organic Content	k (ft/day)		AASHTO	USCS
B-1 2.5	Gray sand						1.3								SP
B-1 16.0	Dark yellowish brown silty sand						17.9								SM
B-2 5.5	Black silty sand						13.8								SM
B-2 7.0	Black silty sand							11			8.8				SM
B-2 18.5	Yellowish brown sand with silt						11.4								SP-SM

Summary Of Laboratory Test Results

ANTILLIAN
ENGINEERING ASSOCIATES, INC.

APPENDIX B

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical- engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply this report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by*: the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold- prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical- engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you GBC-Member geotechnical engineer for more information.

GEOTECHNICAL BUSINESS COUNCIL
of the Geoprofessional Business Association

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

APPENDIX C

ANTILLIAN ENGINEERING ASSOCIATES, INC.
CONSTRAINTS AND RESTRICTIONS

WARRANTY

Antillian Engineering Associates, Inc. has prepared this report for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

UNANTICIPATED SOIL CONDITIONS

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings.

CHANGED CONDITIONS

We recommend that the specifications for the project require that the contractor immediately notify Antillian Engineering Associates, Inc., as well as the owner, when subsurface conditions are encountered that are different from those present in this report.

No claim by the contractor for any conditions differing from those anticipated in the plans, specifications, and those found in this report, should be allowed unless the contractor notifies the owner and Antillian Engineering Associates, Inc. of such changed conditions. Further, we recommend that all foundation work and site improvements be observed by a representative of Antillian Engineering Associates, Inc. to monitor field conditions and changes, to verify design assumptions and to evaluate and recommend any appropriate modifications to this report.

MISINTERPRETATION OF SOIL ENGINEERING REPORT

Antillian Engineering Associates, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If the conclusions or recommendations based upon the data presented are made by others, those conclusions or recommendations are not the responsibility of Antillian Engineering Associates, Inc..

CHANGED STRUCTURE OR LOCATION

This report was prepared in order to aid in the evaluation of this project and to assist the architect or engineer in the design of this project. If any changes in the design or location of the structure as outlined in this report are planned, or if any structures are included or added that are not discussed in the report, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions modified or approved by Antillian Engineering Associates, Inc..

USE OF REPORT BY BIDDERS

Bidders who are examining the report prior to submission of a bid are cautioned that this report was prepared as an aid to the designers of the project and it may affect actual construction operations.

Bidders are urged to make their own soil borings, test pits, test caissons or other investigations to determine those conditions that may affect construction operations. Antillian Engineering Associates, Inc. cannot be responsible for any interpretations made from this report or the attached boring logs with regard to their adequacy in reflecting subsurface conditions which will affect construction operations.

STRATA CHANGES

Strata changes are indicated by a definite line on the boring logs which accompany this report. However, the actual change in the ground may be more gradual. Where changes occur between soil samples, the location of the change must necessarily be estimated using all available information and may not be shown at the exact depth.

OBSERVATIONS DURING DRILLING

Attempts are made to detect and/or identify occurrences during drilling and sampling, such as: water level, boulders, zones of lost circulation, relative ease or resistance to drilling progress, unusual sample recovery, variation of driving resistance, obstructions, etc.; however, lack of mention does not preclude their presence.

WATER LEVELS

Water level readings have been made in the drill holes during drilling and they indicate normally occurring conditions. Water levels may not have been stabilized at the last reading. This data has been reviewed and interpretations made in this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, tides, and other factors not evident at the time measurements were made and reported. Since the probability of such variations is anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based upon such assumptions of variations.

LOCATION OF BURIED OBJECTS

All users of this report are cautioned that there was no requirement for Antillian Engineering Associates, Inc. to attempt to locate any man-made buried objects during the course of this exploration and that no attempt was made by Antillian Engineering Associates, Inc. to locate any such buried objects. Antillian Engineering Associates, Inc. cannot be responsible for any buried man-made objects which are subsequently encountered during construction that are not discussed within the text of this report.

TIME

This report reflects the soil conditions at the time of investigation. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.

PART H
TECHNICAL PROVISIONS

For

WINTER PARK PINES OUTFALL CANAL E-03-H IMPROVEMENTS
FROM FORSYTH ROAD TO THE CRANE STRAND CANAL
ORANGE COUNTY, FLORIDA

APPROVED PERMITS

APPROVED PERMIT FOR:

ST JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD)

St. Johns River
Water Management District
Ann B. Shortelle, Ph.D., Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
On the Internet at www.sjrwmd.com.

February 15, 2017

Michael Drozeck
Orange County Public Works Department Stormwater Management Division
4200 S John Young Pkwy
Orlando, FL 32839-8659

SUBJECT: 148628-1
Winter Park Pines Canal E-03-H Improvements

Dear Sir/Madam:

Enclosed is your individual permit issued by the St. Johns River Water Management District on February 15, 2017. This permit is a legal document and should be kept with your other important documents. Permit issuance does not relieve you from the responsibility of obtaining any necessary permits from any federal, state, or local agencies for your project.

Technical Staff Report:
If you wish to review a copy of the Technical Staff Report (TSR) that provides the District's staff analysis of your permit application, you may view the TSR by going to the Permitting section of the District's website at www.sjrwmd.com/permitting. Using the "search applications and permits" feature, you can use your permit number or project name to find information about the permit. When you see the results of your search, click on the permit number and then on the TSR folder.

Noticing Your Permit:
For noticing instructions, please refer to the noticing materials in this package regarding closing the point of entry for someone to challenge the issuance of your permit. Please note that if a timely petition for administrative hearing is filed, your permit will become non-final and any activities that you choose to undertake pursuant to your permit will be at your own risk.

Compliance with Permit Conditions:
To submit your required permit compliance information, go to the District's website at www.sjrwmd.com/permitting. Under the "Apply for a permit or submit compliance data" section, click to sign-in to your existing account or to create a new account. Select the "Compliance Submittal" tab, enter your permit number, and select "No Specific Date" for the Compliance Due Date Range. You will then be able to view all the compliance submittal requirements for your project. Select the compliance item that you are ready to submit and then attach the appropriate information or form. The forms to comply with your permit conditions are available at www.sjrwmd.com/permitting under the section "Handbooks, forms, fees, final orders". Click on forms to view all permit compliance forms, then scroll to the ERP application forms section and select the applicable compliance forms. Alternatively, if you have difficulty finding forms or need

copies of the appropriate forms, please contact the Bureau of Regulatory Support at (386) 329-4570.

Transferring Your Permit:
Your permit requires you to notify the District within 30 days of any change in ownership or control of the project or activity covered by the permit, or within 30 days of any change in ownership or control of the real property on which the permitted project or activity is located or occurs. You will need to provide the District with the information specified in rule 62-330.340, Florida Administrative Code (F.A.C.). Generally, this will require you to complete and submit Form 62-330.340(1), "Request to Transfer Permit," available at http://www.sjrwmd.com/permitting/permitforms.html.

Please note that a permittee is liable for compliance with the permit before the permit is transferred. The District, therefore, recommends that you request a permit transfer in advance in accordance with the applicable rules. You are encouraged to contact District staff for assistance with this process.

Thank you and please let us know if you have additional questions. For general questions contact e-permit@sjrwmd.com or (386) 329-4570.

Sincerely,

M. Daniels

Margaret Daniels, Office Director
Office of Business and Administrative Services
St. Johns River Water Management District
4049 Reid Street
Palatka, FL 32177-2529
(386) 329-4570

Enclosures: Permit

cc: District Permit File

Jane Williams
Ste 400
2180 W First St
Fort Myers, FL 33901-3217

Brendan Brown
CDM Smith
Ste 300
2301 Maitland Center Pkwy
Maitland, FL 32751-7422

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO: 148628-1 **DATE ISSUED:** February 15, 2017

PROJECT NAME: Winter Park Pines Canal E-03-H Improvements

A PERMIT AUTHORIZING:
Authorization of a Stormwater Management System for Winter Park Pines Canal E-03-H Improvements, a 0.59 - acre project to be constructed and operated as per plans received by the District on January 25, 2017.

LOCATION:
Section(s): 10, 11 Township(s): 22S Range(s): 30E
Orange County

Receiving Water Body:

Name	Class
Crane Strand Canal	III Fresh

ISSUED TO:
Orange County Public Works Department Stormwater Management Division
4200 S John Young Pkwy
Orlando, FL 32839-8659

The permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to the permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

PERMIT IS CONDITIONED UPON:

See conditions on attached “Exhibit A”, dated February 15, 2017

AUTHORIZED BY: St. Johns River Water Management District
Division of Regulatory, Engineering and Environmental Services

By: 

John Juilianna
Regulatory Coordinator

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 148628-1
Winter Park Pines Canal E-03-H Improvements
DATED February 15, 2017

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the District a fully executed Form 62-330.350(1), "Construction Commencement Notice,"[10-1-13], incorporated by reference herein (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), indicating the expected start and completion dates. A copy of this form may be obtained from the District, as described in subsection 62-330.010(5), F.A.C. If available, an District website that fulfills this notification requirement may be used in lieu of the form.

5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:

    a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

    b. For all other activities — "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].

    c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:

    a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

    b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:

    a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;

    b. Convey to the permittee or create in the permittee any interest in real property;

    c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

    d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the District in writing:

    a. Immediately if any previously submitted information is discovered to be inaccurate; and

    b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

19. This permit for construction will expire five years from the date of issuance.

20. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection, including the date of the inspection, the name and contact information of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours. If at any time the system is not functioning as designed and permitted, then within 30 days the entity shall submit a report electronically or in writing to the District using Form 62-330.311(1), "Operation and Maintenance Inspection Certification," describing the remedial actions taken to resolve the failure or deviation.

21. The proposed activity must be constructed as per the plans received by the District on January 25, 2017.

Notice Of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-six (26) days of the District depositing the notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 4 below.

2. Please be advised that if you wish to dispute this District decision, mediation may be available and that choosing mediation does not affect your right to an administrative hearing. If you wish to request mediation, you must do so in a timely-filed petition. If all parties, including the District, agree to the details of the mediation procedure, in writing, within 10 days after the time period stated in the announcement for election of an administrative remedy under Sections 120.569 and 120.57, Florida Statutes, the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, shall be tolled to allow mediation of the disputed District decision. The mediation must be concluded within 60 days of the date of the parties' written agreement, or such other timeframe agreed to by the parties in writing. Any mediation agreement must include provisions for selecting a mediator, a statement that each party shall be responsible for paying its pro-rata share of the costs and fees associated with mediation, and the mediating parties' understanding regarding the confidentiality of discussions and documents introduced during mediation. If mediation results in settlement of the administrative dispute, the District will enter a final order consistent with the settlement agreement. If mediation terminates without settlement of the dispute, the District will notify all the parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Florida Statutes, is resumed. Even if a party chooses not to engage in formal mediation, or if formal mediation does not result in a settlement agreement, the District will remain willing to engage in informal settlement discussions.

3. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.

Notice Of Rights

4. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8:00 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at *sjrwmd.com*. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.

5. Failure to file a petition for an administrative hearing within the requisite timeframe shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).

6. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.

7. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.

8. A District action is considered rendered, as referred to in paragraph no. 7 above, after it is signed on behalf of the District and filed by the District Clerk.

9. Failure to observe the relevant timeframes for filing a petition for judicial review as described in paragraph no. 7 above will result in waiver of that right to review.

Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent to the permittee:

Michael Drozeck
Orange County Public Works Department Stormwater Management Division
4200 S John Young Pkwy
Orlando, FL 32839-8659

This 15th day of February, 2017.

M. Daniels

Margaret Daniels, Office Director
Office of Business and Administrative Services
St. Johns River Water Management District
4049 Reid Street
Palatka, FL 32177-2529
(386) 329-4570

Permit Number: 148628-1

NOTICING INFORMATION

Dear Permittee:

Please be advised that the St. Johns River Water Management District will not publish a notice in the newspaper advising the public that it has issued a permit for this project.

Newspaper publication, using the District's notice form, notifies members of the public of their right to challenge the issuance of the permit. If proper notice is given by newspaper publication, then there is a 21-day time limit for someone to file a petition for an administrative hearing to challenge the issuance of the permit.

To close the point of entry for filing a petition, you may publish (at your own expense) a one-time notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice to close the point of entry, the time to challenge the issuance of your permit will not expire and someone could file a petition even after your project is constructed.

A copy of the notice form and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit of publication. In that event, it is important that you either submit a scanned copy of the affidavit by emailing it to *compliancesupport@sjrwmd.com* (preferred method) **or** send a copy of the original affidavit to:

Margaret Daniels, Office Director
Office of Business and Administrative Services
4049 Reid Street
Palatka, FL 32177

If you have any questions, please contact the Office of Business and Administrative Services at (386) 329-4570.

Sincerely,

M. Daniels

Margaret Daniels, Office Director
Office of Business and Administrative Services

NOTICE OF AGENCY ACTION TAKEN BY THE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following permit was issued on _____:

(Name and address of applicant)_____
permit#_____. The project is located in _____County, Section _____, Township _____ South, Range _____ East. The permit authorizes a surface water management system on _____ acres for _____ known as _____. The receiving water body is _____.

A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P.O. Box 1429, Palatka FL 32178-1429 (4049 Reid St, Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28-106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., may be available and choosing mediation does not affect your right to an administrative hearing.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at www.sjrwmd.com. These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile (fax) is prohibited and shall not constitute filing.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, please visit http://www.sjrwmd.com/nor_dec/ to read the complete Notice of Rights to determine any legal rights you may have concerning the District's decision(s) on the permit application(s) described above. You can also request the Notice of Rights by contacting the Director of Regulatory Support, 4049 Reid St., Palatka, FL 32177-2529, tele. no. (386)329-4570.

NEWSPAPER ADVERTISING

ALACHUA
The Alachua County Record, Legal Advertising
P. O. Box 806
Gainesville, FL 32602
352-377-2444/ fax 352-338-1986

BAKER
Baker County Press, Legal Advertising
P. O. Box 598
Maclenny, FL 32063
904-259-2400/ fax 904-259-6502

BRADFORD
Bradford County Telegraph, Legal Advertising
P. O. Drawer A
Starke, FL 32901
904-964-6305/ fax 904-964-8628

BREVARD
Florida Today, Legal Advertising
P. O. Box 419000
Melbourne, FL 32941-9000
321-242-3832/ fax 321-242-6618

CLAY
Clay Today, Legal Advertising
1560 Kinsley Ave., Suite 1
Orange Park, FL 32073
904-264-3200/ fax 904-264-3285

DUVAL
Daily Record, Legal Advertising
P. O. Box 1769
Jacksonville, FL 32201
904-356-2466 / fax 904-353-2628

FLAGLER
Flagler Tribune, c/o News Journal
P. O. Box 2831
Daytona Beach, FL 32120-2831
386- 681-2322

INDIAN RIVER
Vero Beach Press Journal, Legal Advertising
P. O. Box 1268
Vero Beach, FL 32961-1268
772-221-4282/ fax 772-978-2340

LAKE
Daily Commercial, Legal Advertising
P. O. Drawer 490007
Leesburg, FL 34749
352-365-8235/fax 352-365-1951

MARION
Ocala Star Banner, Legal Advertising
2121 SW 19th Avenue Road
Ocala, FL 34474
352-867-4010/fax 352-867-4126

NASSAU
News-Leader, Legal Advertising
P. O. Box 766
Fernandina Beach, FL 32035
904-261-3696/fax 904-261-3698

OKEECHOBEE
Okeechobee News, Legal Advertising
P. O. Box 639
Okeechobee, FL 34973-0639
863-763-3134/fax 863-763-5901

ORANGE
Sentinel Communications, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

OSCEOLA
Little Sentinel, Legal Advertising
633 N. Orange Avenue
Orlando, FL 32801
407-420-5160/ fax 407-420-5011

PUTNAM
Palatka Daily News, Legal Advertising
P. O. Box 777
Palatka, FL 32178
386-312-5200/ fax 386-312-5209

ST. JOHNS
St. Augustine Record, Legal Advertising
P. O. Box 1630
St. Augustine, FL 32085
904-819-3436

SEMINOLE
Seminole Herald, Legal Advertising
300 North French Avenue
Sanford, FL 32771
407-323-9408

VOLUSIA
News Journal Corporation, Legal Advertising
P. O. Box 2831
Daytona Beach, FL 32120-2831
(386) 681-2322