



DREDGED MATERIAL MANAGEMENT AREA M-8 CONSTRUCTION ST. LUCIE COUNTY, FLORIDA

APPENDIX B

Permits



10151 Deerwood Park Blvd
Bldg 300, Suite 300
Jacksonville, Florida 32256
Certificate of Authorization #4815
Phone: (904) 731-7040
Fax: (904) 731-9847
www.TaylorEngineering.com
(Taylor Engineering Contract No. C2016-053)



Florida Department of Environmental Protection

SOUTHEAST DISTRICT OFFICE
3301 GUN CLUB ROAD, MSC 7210-1
WEST PALM BEACH, FL 33406
561-681-6600

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

Project Name: FIND DMMA M-8

Permittee/Authorized Entity:
Florida Inland Navigation District
c/o Mark Crosley
1314 Marcinski Road
Jupiter, FL 33477-9427
Email: mcrosley@aicw.org

Authorized Agents:	
Taylor Engineering, Inc.	Taylor Engineering, Inc.
c/o Bill Alej	c/o Christopher Ellis
Email: baley@taylorengeering.com	cellis@taylorengeering.com

Environmental Resource Permit - Granted

State-owned Submerged Lands Authorization – Granted

**U.S. Army Corps of Engineers Authorization – Separate Corps Authorization
Required**

Permit No.: 56-0356316-001

Permit Issuance Date: August 31, 2017

Permit Construction Phase Expiration Date: August 31, 2022

**Consolidated Environmental Resource Permit
and
State-owned Submerged Lands Authorization**

Permit No.: 56-0356316-001

PROJECT LOCATION

The activities authorized by this Permit is located at 10315 South Indian River Drive (S.R. 707), vacant lots Parcel ID 3529-701-0006-000-7; 3529-701-0011-000-5; 3529-701-0008-000-1, Ft. Pierce (Section 29, Township 36 South, Range 41 East), in St. Lucie County (Latitude N 27° 18' 44.62", Longitude W 80° 15' 44.03"). A portion of the project will occur along the banks of the Indian River, Jensen Beach to Jupiter Inlet Aquatic Preserve, Outstanding Florida Waters, Class III Waters.

PROJECT DESCRIPTION

The proposed project involves the construction of a 13.68-acre Dredged Material Management Area (DMMA) within a 20.3-acre upland site to provide for long-term storage capacity for the management of approximately 79,500 cubic yards of sediments dredged from the Intracoastal Waterway (ICWW), extending from Bear Point (Cut SL-5, Station 77+90; ICWW mile 227.27) southward 12.91 miles to the St. Lucie/Martin County line (Cut SL-6, Station 373+40; ICWW mile 240.18). Dredged sediment-laden material from the ICWW will be dewatered in the proposed basin and the decanted water will be discharged back into the ICWW channel boundaries via the construction of three 4 ft by 4 ft metal box weirs. The project will also include the construction and operation of a stormwater management system designed to meet Outstanding Florida Waters (OFW) criteria.

This permit authorizes 0.002-acres (105 ft²) of impacts below the mean high-water line of the Indian River Lagoon associated with the placement of riprap along the shoreline to dissipate energy of water discharging via the emergency overflow structure for storm water management. This project proposes no other permanent impacts to jurisdictional wetlands or other surface waters. No submerged resources or submerged grass-beds are located in the area of the proposed in-water work; therefore, there will be no adverse impacts to these resources. Mitigation is not required.

The attached standard manatee conditions (version 2011) shall be adhered to during all in-water work. Prior to construction commencement, weighted floating turbidity curtains, extending to within one- foot from the submerged bottom shall be utilized around the project area to ensure that any turbidity resulting from construction activities will be contained within the project boundaries. All water bodies, including any adjacent submerged aquatic vegetation outside the specific limits of construction authorized by this permit shall be protected from erosion, siltation, sedimentation, and/or scouring.

DMMA/SURFACE WATER MANAGEMENT SYSTEM

The proposed 20.3-acre containment basin is designed with a final dike crest elevation of 38.6 feet-NAVD (North American Vertical Datum), which includes 2-ft of freeboard and 2-ft of ponding depth, an approximate basin bottom elevation of 25.8 feet NAVD, side slopes of 3H:1V, 12 feet wide dike crest, stability shelves, berms, access ramps and three 4 feet x 4 feet metal box weirs (36-ft design crest length) allowing the release of clarified effluent from the containment basin under the dike via two culverts connected by a common manifold. During dredging and

dewatering operations, the return water pipeline will connect to this manifold and transport the clarified effluent to the ICWW.

The proposed stormwater management system is designed to meet Outstanding Florida Waters (OFW) criteria. The majority of the on-site rainfall will be contained within the DMMA basin. Runoff from the dike crest, outside slopes and perimeter road will be capture and infiltrate via the proposed dry retention system; with only stormwater runoff in excess of the permitted design will be discharged along the western shoreline of the Indian River. For runoff in excess of the design storm, the ditch crest is designed at 7.00 feet-NAVD with an emergency overflow structure to release stormwater at 6.00 – 6.25 feet-NAVD.

Discharge Information:

Any stormwater discharges will be to the Jensen Beach to Jupiter Inlet Aquatic Preserve. Stormwater in excess of the permitted design capacity will discharge via an emergency overflow structure along the western shoreline of the Indian River.

AUTHORIZATIONS

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

The activity is located on sovereignty submerged lands owned by the State of Florida. It therefore also requires authorization from the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Section 253.77, F.S.

As staff to the Board of Trustees under Sections 253.002, F.S., the Department has determined that the activity qualifies for and requires a Letter of Consent, as long as the work performed is located within the boundaries as described and is consistent with the terms and conditions herein.

During the term of this Letter of Consent you shall maintain satisfactory evidence of sufficient upland interest as required by paragraph 18-21.004(3)(b), Florida Administrative Code. If such interest is terminated or the Board of Trustees determines that such interest did not exist on the date of issuance of this Letter of Consent, this Letter of Consent may be terminated by the Board of Trustees at its sole option. If the Board of Trustees terminates this Letter of Consent, you agree not to assert a claim or defense against the Board of Trustees arising out of this Letter of Consent.

Federal Authorization

Your proposed activity as outlined on your notice and attached drawings does not qualify for Federal authorization pursuant to the State Programmatic General Permit and a separate permit or authorization may be required from the Corps. A copy of your permit application has been forwarded to the Corps for their review. The Corps will issue their authorization directly to you or contact you if additional information is needed. If you have not heard from the Corps within 30 days from the date your application was received at the local FDEP Office, contact the Corps at

the Cocoa Beach Regulatory Field Office at (321) 504-3771, for status and further information. Failure to obtain Corps authorization prior to construction could subject you to federal enforcement action by that agency.

Authority for review - an agreement with the USACOE entitled "Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection, or Duly Authorized Designee, State Programmatic General Permit", Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Coastal Zone Management

Issuance of this authorization also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

Water Quality Certification

This permit also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

Other Authorizations

You are advised that authorizations or permits for this activity may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

PERMIT/SOVEREIGNTY SUBMERGED LANDS CONDITIONS

The activities described must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The Special Consent Conditions**
- **The General Conditions for Sovereignty Submerged Lands Authorization X**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. If you are using a contractor, the contractor also should read and understand these conditions and drawings prior to beginning any activity. Failure to comply with these conditions, including any mitigation requirements, shall be grounds for the Department to revoke the permit and authorization and to take appropriate enforcement action.

Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit and sovereignty submerged lands authorization, as described.

SPECIFIC CONDITIONS- PROJECT FORMS & ATTACHMENTS

(1) The attached project drawings (sheets 1 through 28); The “Florida EPPC's 2015 Invasive Plant Species List” which can be downloaded at <http://www.fleppc.org/list/2015FLEPPCLIST-LARGEFORMAT-FINAL.pdf>; and DEP forms 62-330.310(3), 62-330.310(1); 62-330.310(2); 62-330.340(1); and 62-330.350(1), which may be downloaded at <http://www.dep.state.fl.us/water/wetlands/erp/forms.htm> become part of this permit. If the permittee does not have access to the Internet, please contact the Department at (561) 681-6600 to request the aforementioned forms and/or document(s).

SPECIFIC CONDITIONS - PRIOR TO CONSTRUCTION

(2) After selection of the contractor to perform the authorized activities and prior to the initiation of any work authorized by this permit, the permittee (or authorized agent) and the contractor shall attend a pre-construction conference with a representative of the Department. It shall be the responsibility of the permittee to contact this project’s Compliance Project Manager, Steven Fazekas, by email Steven.Fazekas@dep.state.fl.us, or by phone (561) 681-6627, to schedule the pre-construction conference. If the assigned Compliance Project Manager cannot be reached, the permittee shall contact the ERP Program Compliance/Enforcement section by phone (561) 681-6600, to schedule the pre-construction conference.

SPECIFIC CONDITIONS – CONSTRUCTION ACTIVITIES

(3) The surface water management system shall be constructed and operated as depicted in the attached drawings.

(4) Prior to the initiation of any work authorized by this permit, floating turbidity curtains with weighted skirts that extend to within one foot of the bottom shall be placed around the project site, and shall be maintained and remain in place for the duration of the project construction to ensure that turbid discharges do not occur outside the boundaries of the floating turbidity screens. Additionally, staked erosion control devices shall be placed around the upland project area and any upland staging areas. All submerged resources, and surface waters outside the specific limits of construction authorized by this permit shall be protected from erosion, siltation, sedimentation, and/or scouring. Staked erosion control devices shall also be maintained and shall remain in place for the duration of the project construction to ensure that turbid discharges into wetlands or surface waters do not occur. The permittee shall be responsible for ensuring that turbidity control devices are inspected daily and maintained in good working order during all phases of construction authorized by this permit until all areas that were disturbed during construction are sufficiently stabilized to prevent turbid discharges

SPECIFIC CONDITIONS – OPERATION AND MAINTENANCE ACTIVITIES

(5) Florida Inland Navigation District (FIND) shall be responsible for the operation and maintenance of the stormwater management system.

SPECIFIC CONDITIONS – MANATEE CONDITIONS

(6) The permittee shall comply with the standard manatee protection construction conditions listed in the attached “2011 Standard Manatee Conditions for In-Water Work”.

(7) When installing riprap splash guard or drainage units within waters of the state, it is important to ensure that manatees do not become entrapped or injured during installation and while work is completed. At least one observer shall be onsite at all times during all construction activities. Observer(s) shall be dedicated to the task of watching for manatees during the in-water construction work and must have prior on-the-job experience as a dedicated manatee observer. Work must not be performed after dusk or before dawn, when the possibility of spotting manatees is negligible. If a manatee becomes entrapped during installations, the area shall be opened up to allow the manatee to leave of its own volition. It shall not be herded or harassed into leaving the area.

GENERAL CONDITIONS FOR INDIVIDUAL PERMITS

The following general conditions are binding on all individual permits issued under chapter 62-330, F.A.C., except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate project-specific conditions.

(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 Agency 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 Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," [October 1, 2013], which is incorporated by reference in paragraph 62-330.350(1)(d), F.A.C., indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C. If available, an Agency 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 Agency in writing of changes required by any other regulatory agency 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 Agency 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 Agency 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, Agency 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 Agency 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 subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

SPECIAL CONSENT CONDITIONS

1) The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.

2) Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.

3) Applicant binds itself and its successors and assigns to abide by the provisions and conditions set forth in the authorization. If the applicant or its successors or assigns fails or refuses to comply with the provisions and conditions of the authorization, the authorization may be terminated by the Board of Trustees after written notice to the applicant or its successors or assigns. Upon receipt of such notice, the applicant or its successors or assigns will have thirty (30) days in which to correct the violations. Failure to correct the violations within this period will result in the automatic revocation of this authorization.

4) All costs incurred by the Board of Trustees in enforcing the terms and conditions of the authorization will be paid by the applicant. Any notice required by law will be made by certified mail at the address shown on page one of the authorization. The applicant will notify the Board of Trustees in writing of any change of address at least ten days before the change becomes effective.

5) This authorization does not allow any activity prohibited in a conservation easement or restrictive covenant that prohibits the activity.

GENERAL CONDITIONS FOR SOVEREIGNTY SUBMERGED LANDS AUTHORIZATION

Any use of sovereignty submerged lands is subject to the following general conditions are binding upon the applicant and are enforceable under Chapter 253, F.S. and Chapter 258, F.S.

(1) Sovereignty submerged lands may be used only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use will constitute a violation. Violation of the authorization will result in suspension or revocation of the applicant's use of the sovereignty submerged lands unless cured to the satisfaction of the Board of Trustees.

(2) Authorization under Rule 18-21.005, F.A.C., conveys no title to sovereignty submerged lands or water column, nor does it constitute recognition or acknowledgment of any other person's title to such land or water.

(3) Authorizations under Rule 18-21.005, F.A.C., may be modified, suspended or revoked in accordance with its terms or the remedies provided in Sections 253.04, F.S. and Chapter 18-14, F.A.C.

(4) Structures or activities will be constructed and used to avoid or minimize adverse impacts to resources.

(5) Construction, use, or operation of the structure or activity will not adversely affect any species which is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C.

(6) Structures or activities will not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity will be modified in accordance with the court's decision.

(7) Structures or activities will not create a navigational hazard.

(8) Structures will be maintained in a functional condition and will be repaired or removed if they become dilapidated to such an extent that they are no longer functional.

(9) Structures or activities will be constructed, operated, and maintained solely for water dependent purposes.

(10) The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.

(11) Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.

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(14) This authorization does not allow any activity prohibited in a conservation easement or restrictive covenant that prohibits the activity.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Diane Pupa
Program Administrator – Permitting and Waste Cleanup
Southeast District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

FDEP – Diane Pupa, Monica Sovacool, Cindy Lott, Indar Jagnarine, Steven Fazekas
Linda Knoeck, USACOE- Palm Beach Gardens, linda.c.knoeck@usace.army.mil
Denise Rach, FFWCC, Bureau of Imperiled Species Management, denise.rach@myfwc.com
Bill Aley, Taylor Engineering, Inc., baley@taylorengineering.com
Christopher Ellis, Taylor Engineering, Inc., cellis@taylorengineering.com

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

	<u>August 31, 2017</u>
Clerk	Date

Attachments:

Project Drawings and Design Specs., 28 pages

Standard Manatee Conditions for In-Water Work, 2011, can be downloaded at

http://myfwc.com/media/415448/Manatee_StdCondIn_waterWork.pdf

Florida EPPC's 2015 Invasive Plant Species List, 6 pages, can be downloaded at

<http://www.fleppc.org/list/2015FLEPPCLIST-LARGEFORMAT-FINAL.pdf>

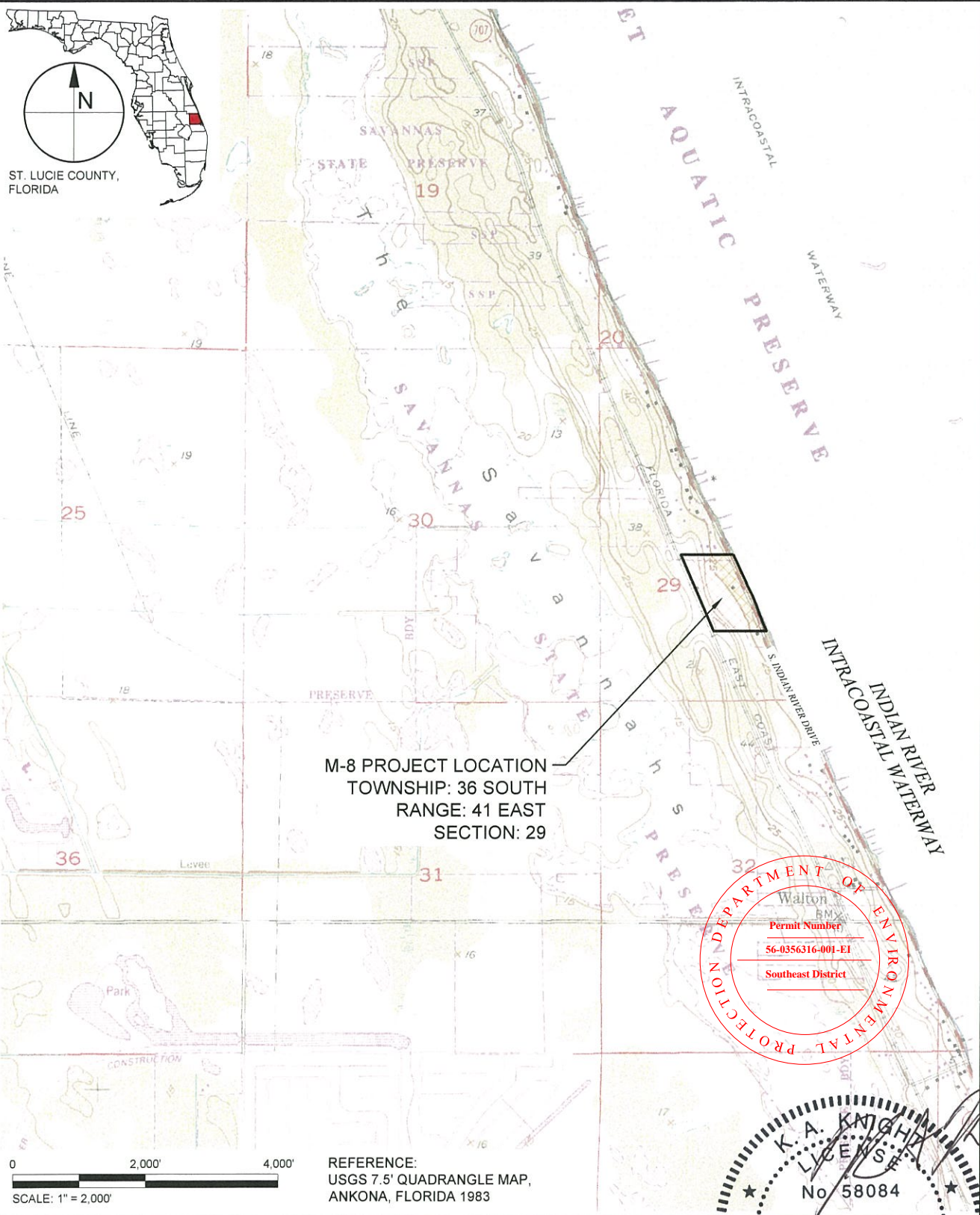
As-built Certification and Request for Conversion to Operational Phase Form 62-330.310(1)*

Request for Transfer to the Perpetual Operation Entity Form 62-330.310(2)*

Request to Transfer Permit Form 62-330.340(1)*

Commencement Notice Form 62-330.350(1)*

*Can be downloaded at: <http://www.dep.state.fl.us/water/wetlands/erp/forms.htm>



REBECCA JOHNSON X:\SVP\PROJECTS\2016-053 FND DMAA M-8\PERMIT\2016-053-P-LOCATION.DWG 7/26/2017 3:20:34 PM



TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

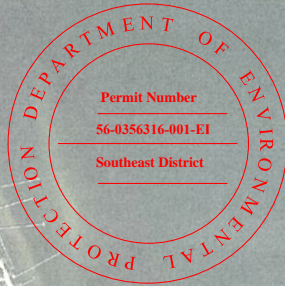
FIGURE 1
LOCATION MAP
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT C2016-053	DRAWN BY RLJ	SHEET 1 of 29	DATE JULY 2017	ENGINEER K.A. KNIGHT # 58084	DATE
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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



ST. LUCIE COUNTY,
FLORIDA



INDIAN RIVER
INTRACOASTAL WATERWAY

M-8 PROJECT LOCATION
TOWNSHIP: 36 SOUTH
RANGE: 41 EAST
SECTION: 29



S INDIAN RIVER DRIVE (S.R. 707)
F.E.C. RAILROAD

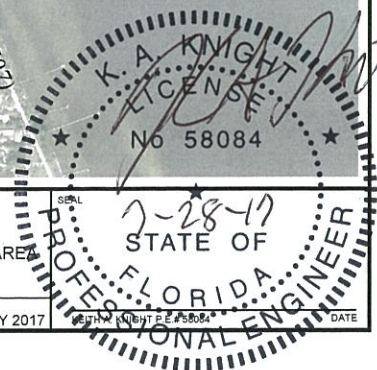
REFERENCES:
AERIAL REFERENCE: 2016 FDOT
0 1,000' 2,000'
SCALE: 1" = 1,000'



TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 2
VICINITY MAP
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

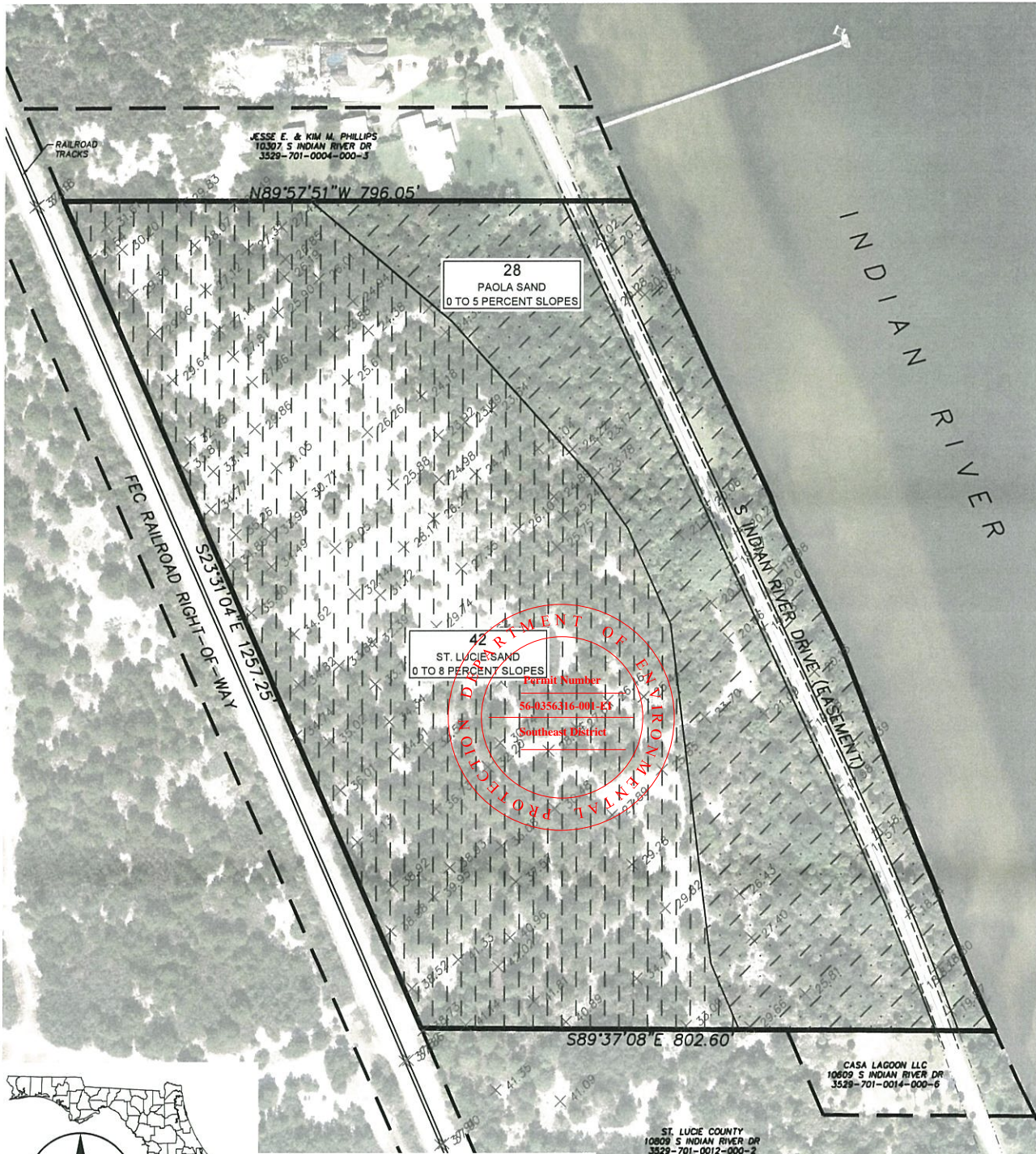
PROJECT C2016-053	DRAWN BY RLJ	SHEET 2 of 29	DATE JULY 2017	DATE
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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

REEBECCA JOHNSON X:\GIS\PROJECTS\2016-053 FND DMAA M-8 PERMIT\2016-053 P-NCRS MAP DWG 7/26/2017 3:20:48 PM



ST. LUCIE COUNTY,
FLORIDA

REFERENCES:
AERIAL REFERENCE: 2016 FDOT
SURVEY REFERENCE: WHIDDEN SURVEYING & MAPPING, INC..



TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

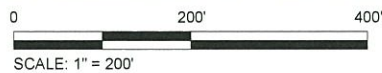
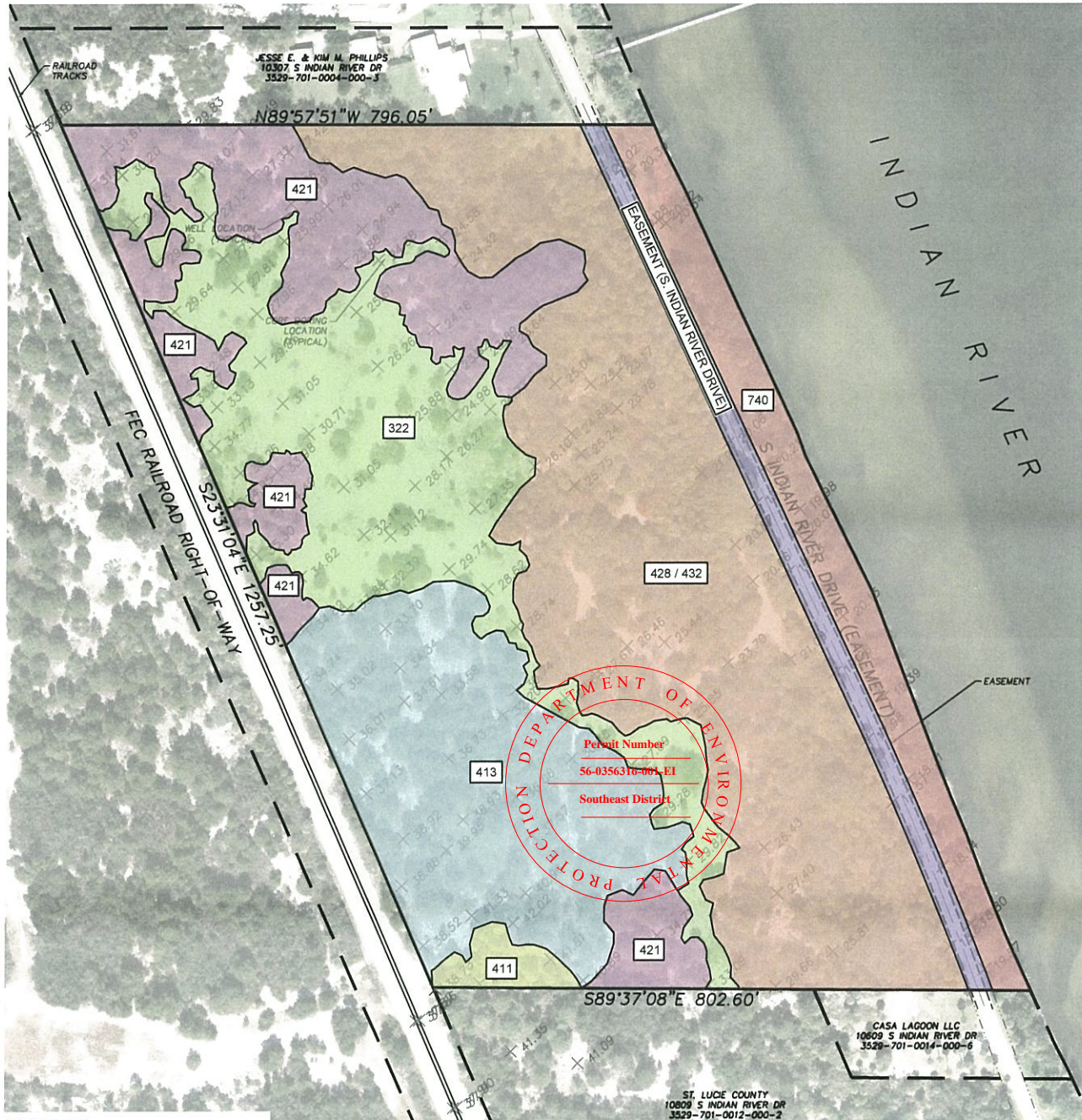
FIGURE 3
NCRS SOILS MAP
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT C2016-053	DRAWN BY RLJ	SHEET 3 of 29	DATE JULY 2017	DATE
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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

REBECCA JOHNSON X:\GIS\PROJECTS\C2016-053_FLD\DMMA\PERMIT\C2016-053-F-FLUCCS_MAP.DWG 7/26/2017 3:20:54 PM



REFERENCES:
AERIAL: 2016 FDOT
SURVEY: WHIDDEN SURVEYING & MAPPING, INC..

LEGEND

- PROPERTY LINE (20.4 ACRES)
- EASEMENT (0.87 ACRE)
- COASTAL SCRUB - 322 (4.19 ACRES)
- PINE FLATWOODS - 411 (3.24 ACRES)
- SAND PINE - 413 (3.21 ACRES)
- XERIC OAK - 421 (3.21 ACRES)
- CABBAGE PALM / SAND LIVE OAK - 428 / 432 (7.56 ACRES)
- DISTURBED LAND - 740 (1.49 ACRES)



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FIGURE 4
EXISTING FLUCCS MAP
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT: C2016-053 DRAWN BY: RLJ SHEET: 4 of 29 DATE: JULY 2017

SEAL

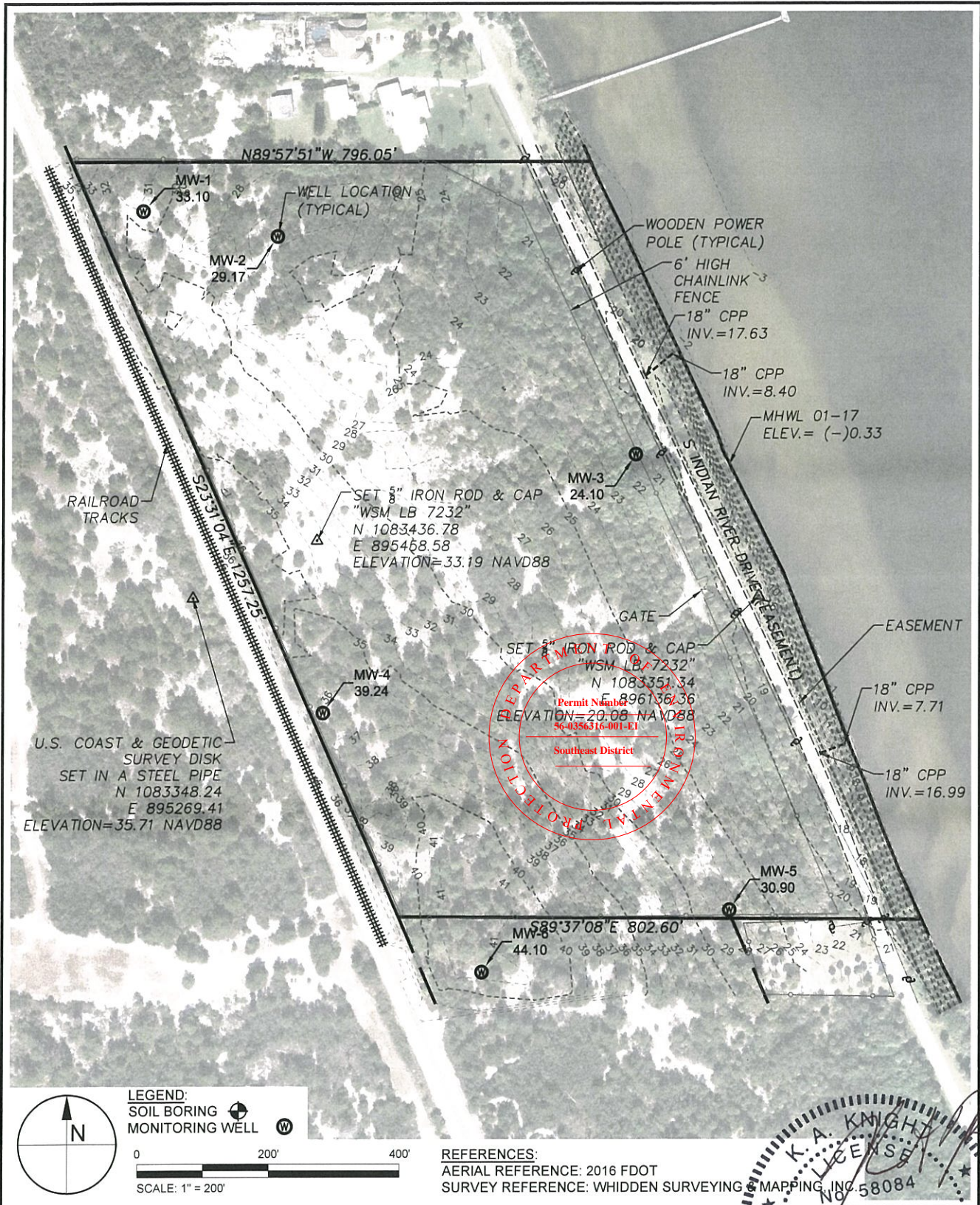




FIGURE 5
FLOOD ZONE MAP
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	DRAWN BY	SHEET	DATE
2016-052	DL	5 of 20	JULY 2017

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



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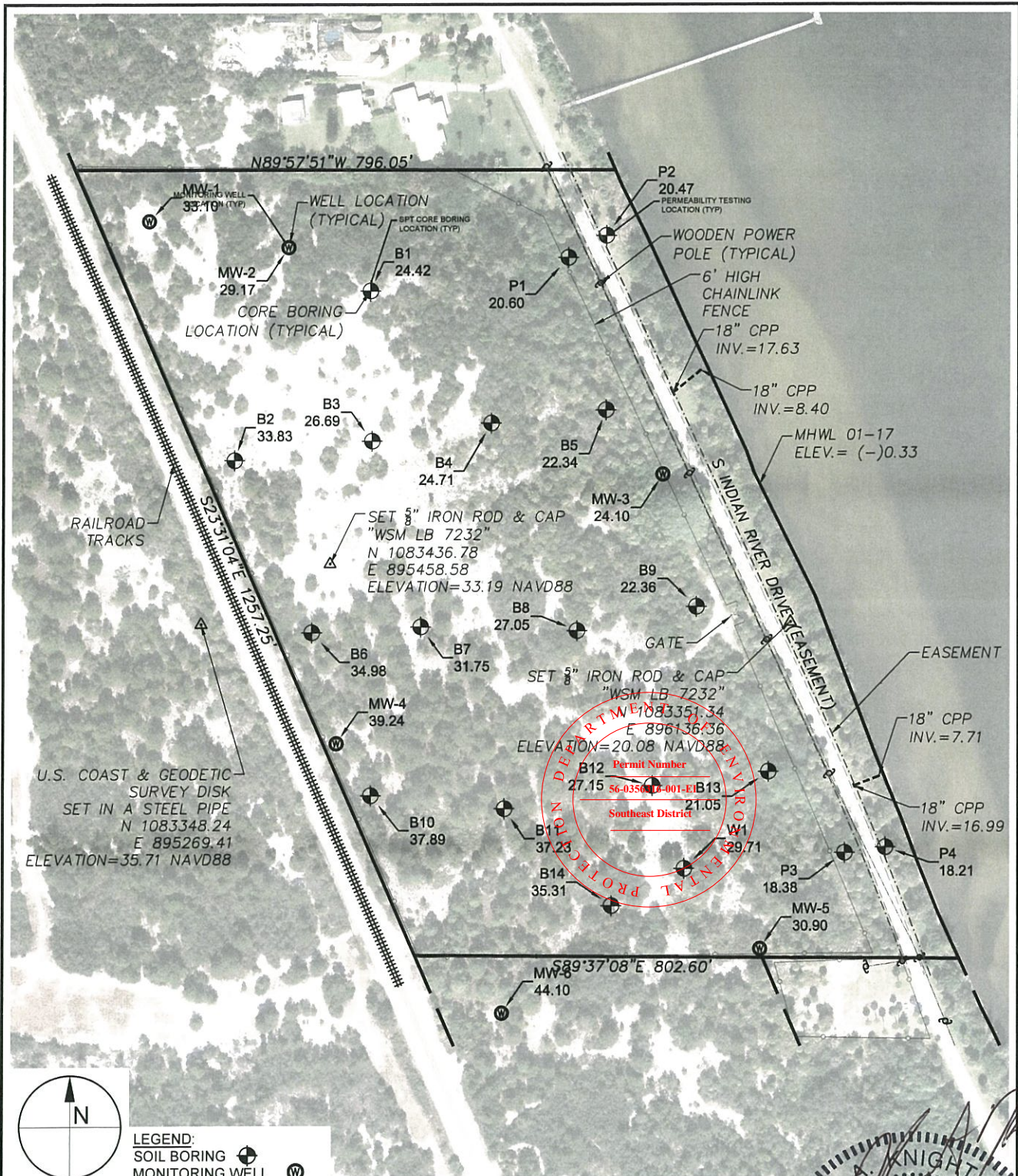
TAYLOR ENGINEERING INC.
 10151 DEERWOOD PARK BLVD
 BLDG 300, SUITE 300
 JACKSONVILLE, FLORIDA 32256
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FIGURE 6
EXISTING CONDITIONS
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053	DRAWN BY	RLJ	SHEET	6 of 29	DATE	JULY 2017
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K.A. KNIGHT
 LICENSE
 NO. 58084
 7-28-17
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



LEGEND:
 SOIL BORING
 MONITORING WELL

SCALE: 1" = 5,000'

REFERENCES:
 AERIAL REFERENCE: 2016 FDOT
 SURVEY REFERENCE: WHIDDEN SURVEYING & MAPPING, INC..
 GEOTECHNICAL REFERENCE: ELLIS & ASSOCIATES, INC.

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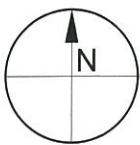
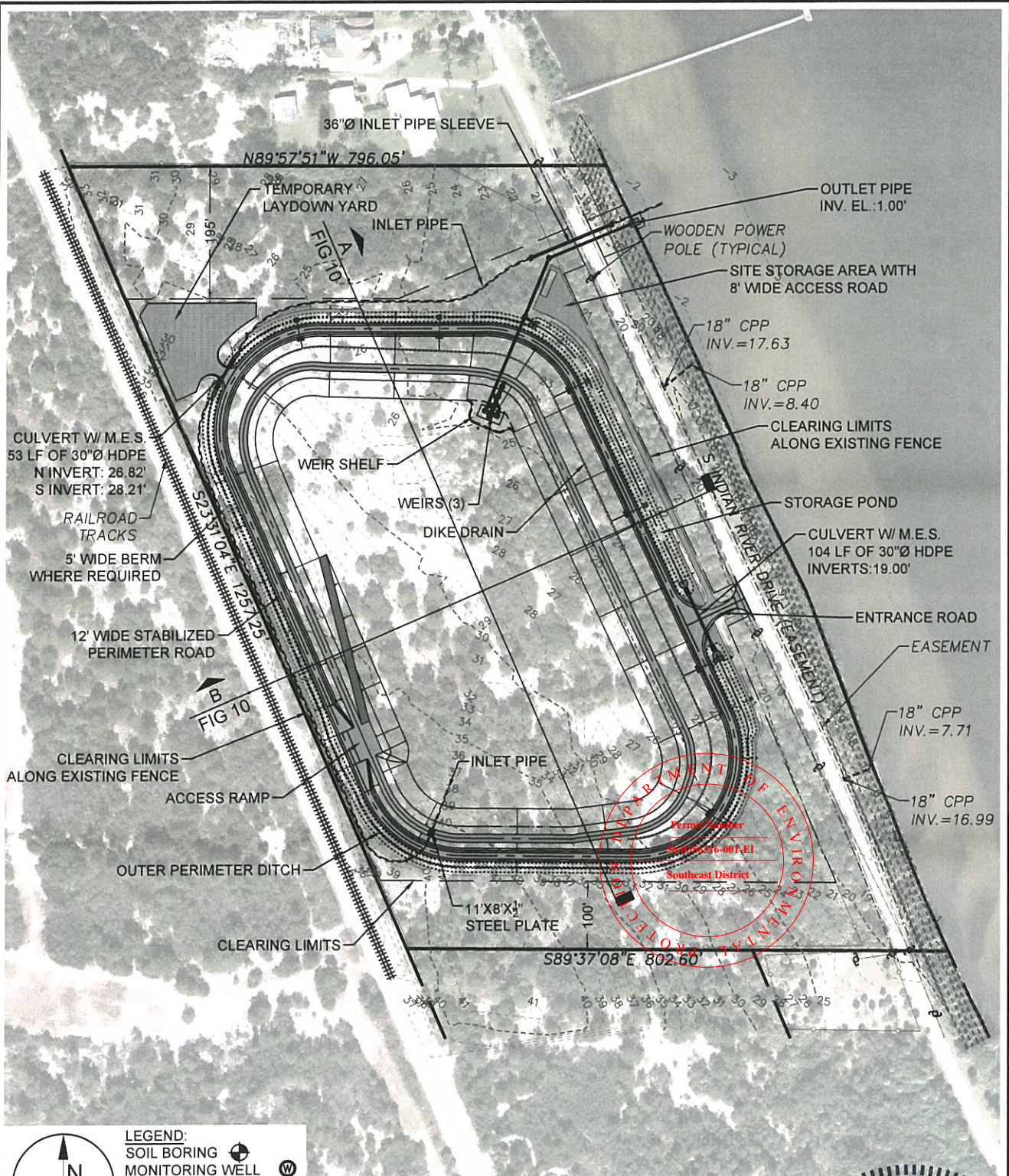
FIGURE 7
 SPT CORE BORING & MONITORING WELL LOCATIONS
 F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
 ST. LUCIE COUNTY, FLORIDA

PROJECT	DRAWN BY	SHEET	DATE
C2016-053	RLJ	7 of 29	JULY 2017

PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 K.A. KNIGHTS
 LICENSE
 No 58084
 2-28-17

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LEGEND:
 SOIL BORING
 MONITORING WELL

REFERENCES:

1. AERIAL: FDOT 2016
2. GEOTECHNICAL: ELLIS & ASSOCIATES, INC.
3. SURVEY & TOPOGRAPHICAL: WHIDDEN SURVEYING & MAPPING, INC.

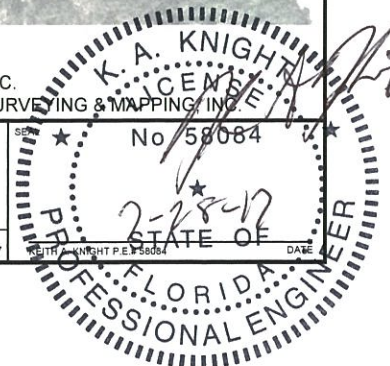


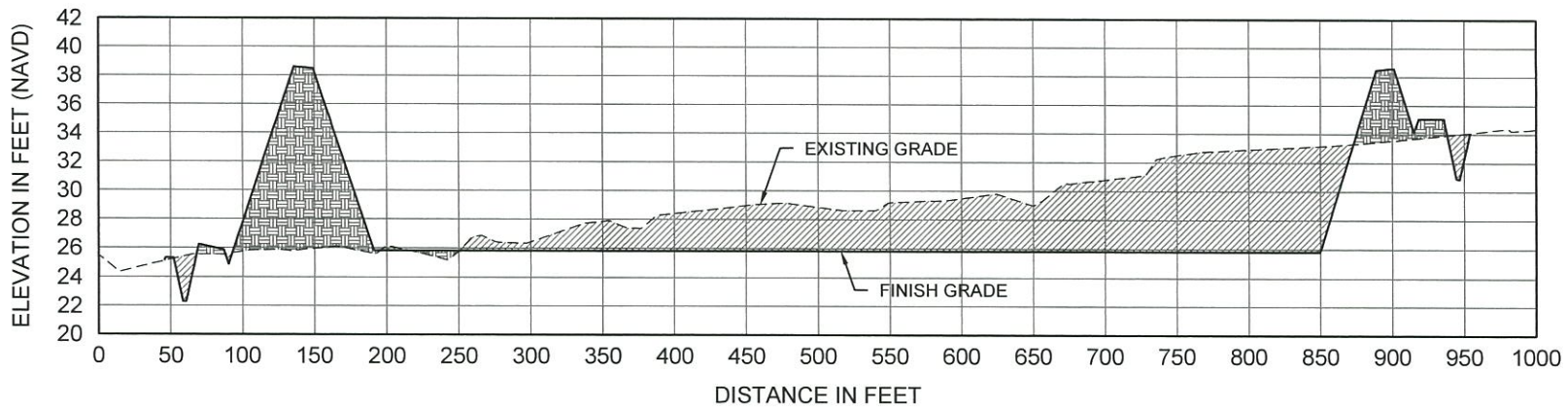
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 BLDG 300, SUITE 300
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 CERTIFICATE OF AUTHORIZATION # 4815

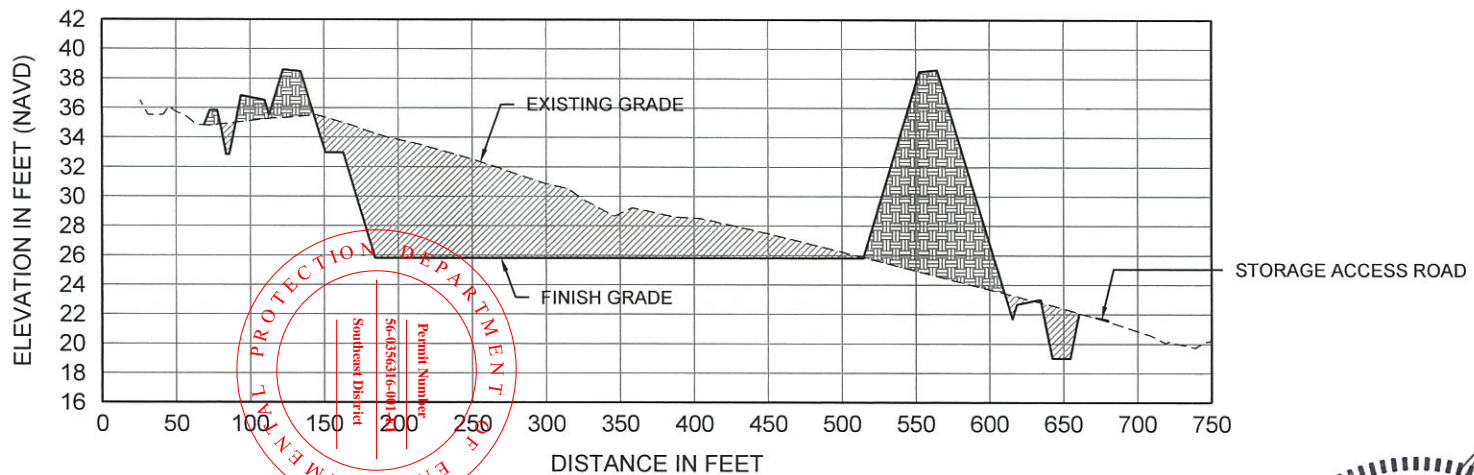
FIGURE 9
 SITE PLAN
 F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
 ST. LUCIE COUNTY, FLORIDA

PROJECT C2016-053	DRAWN BY RLJ	SHEET 9 of 29	DATE JULY 2017
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A
FIG 9
DMMA CROSS SECTION
SCALE: 1" = 120'
V-SCALE: 1" = 12'



B
FIG 9
DMMA CROSS SECTION
SCALE: 1" = 120'
V-SCALE: 1" = 12'

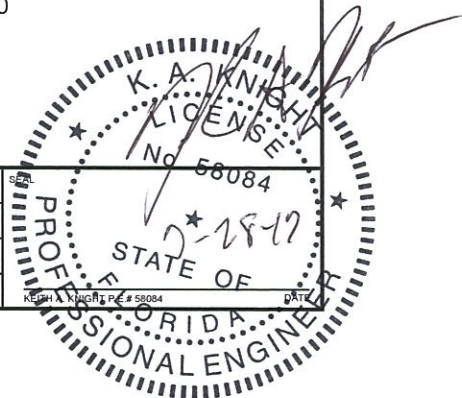


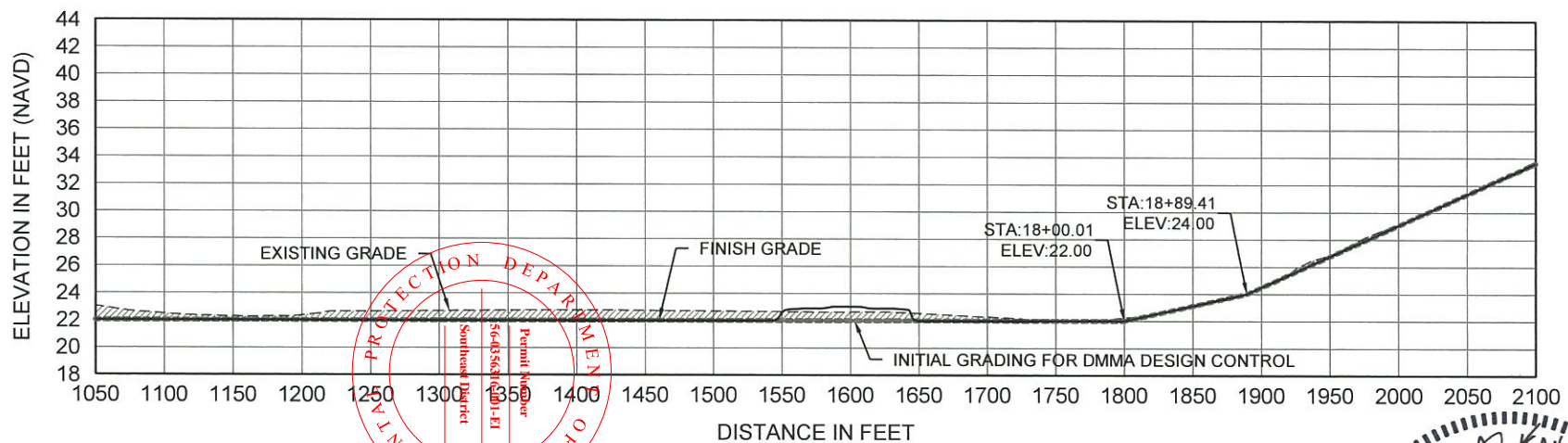
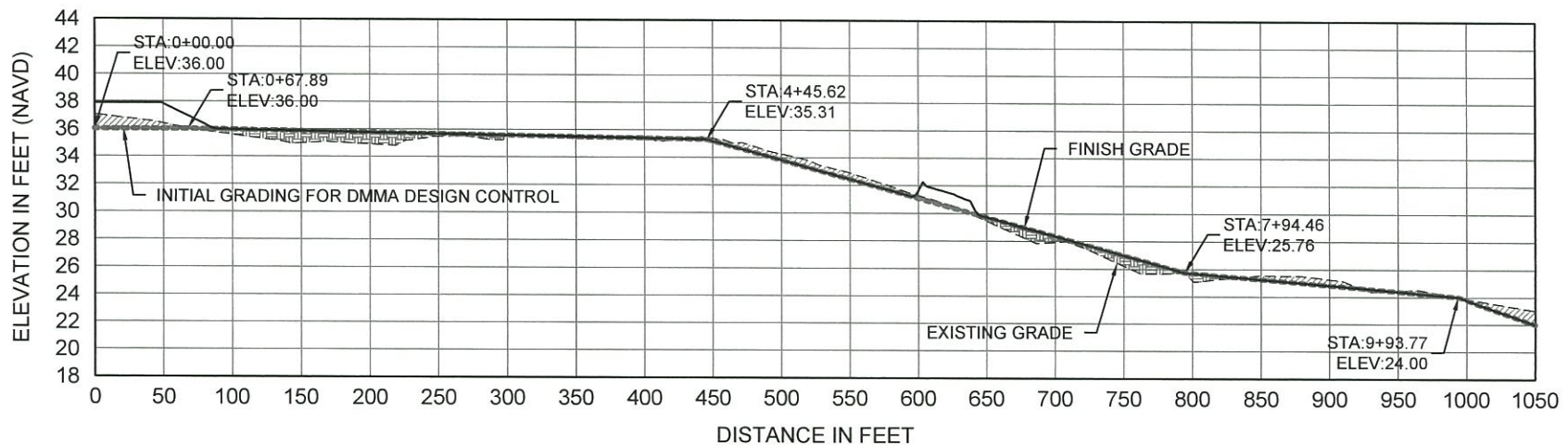
TAYLOR ENGINEERING INC.

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JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 10
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	10 of 29
DATE	JULY 2017





DMMA DESIGN CONTROL PROFILE

SCALE: 1" = 120'
V-SCALE: 1" = 12'



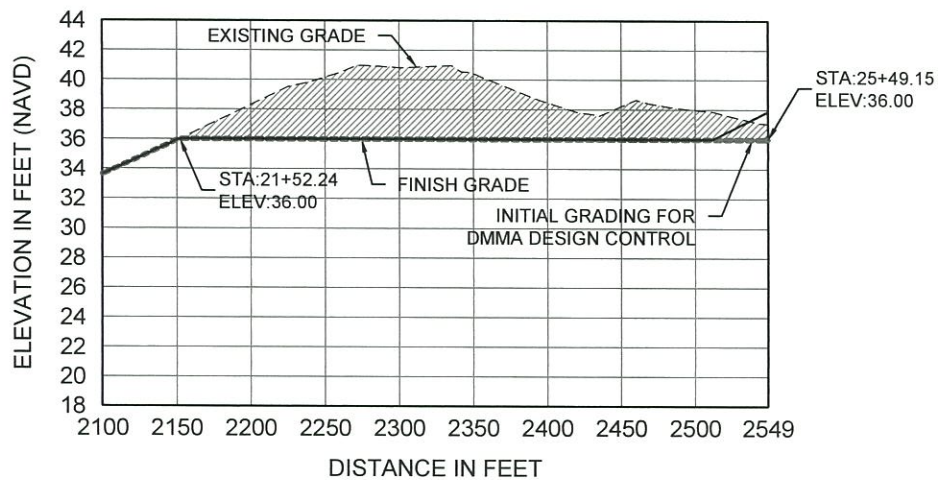
TAYLOR ENGINEERING INC.

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FIGURE 11
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	11 of 29
DATE	JULY 2017





DMMA DESIGN CONTROL PROFILE

SCALE: 1" = 120'
V-SCALE: 1" = 12'



TAYLOR ENGINEERING INC.

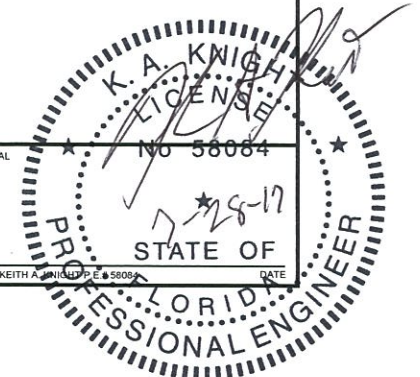
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
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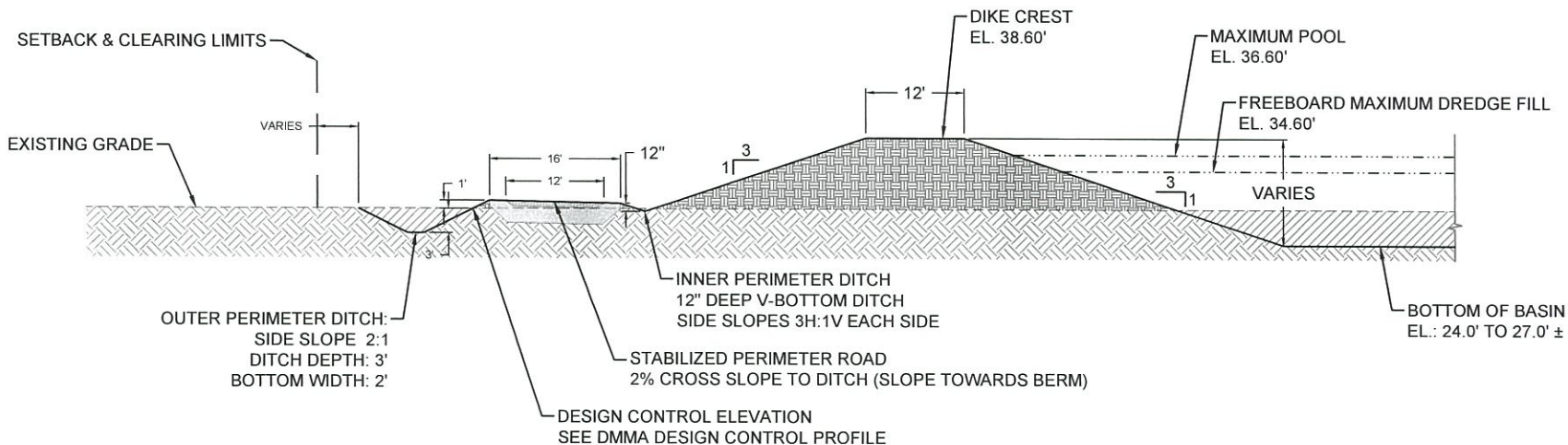
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 12
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
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DATE	JULY 2017

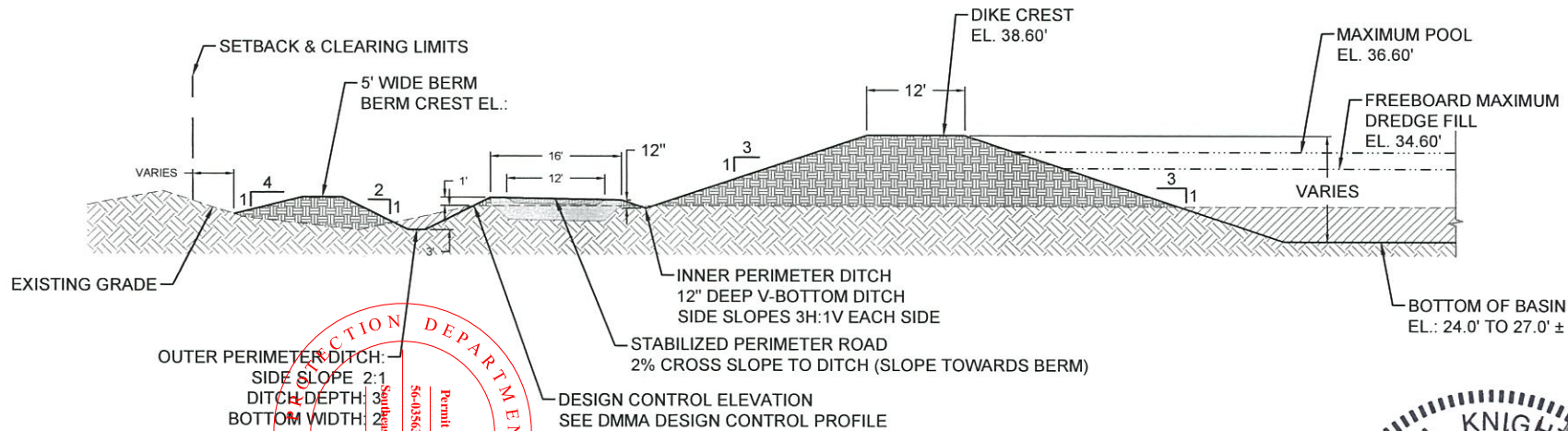
SEAL	KEITH A. KNIGHT, P.E. #58084
DATE	7-28-17





TYPICAL DIKE SECTION (NO BERM REQUIRED)

SCALE: 1" = 20'



TYPICAL DIKE SECTION (BERM REQUIRED)

SCALE: 1" = 20'

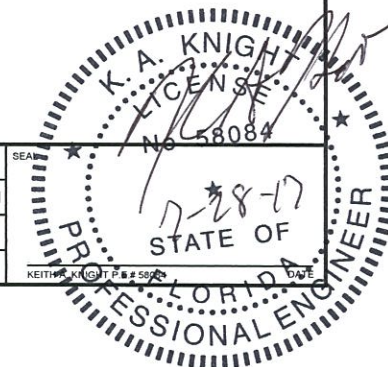


TAYLOR ENGINEERING INC.

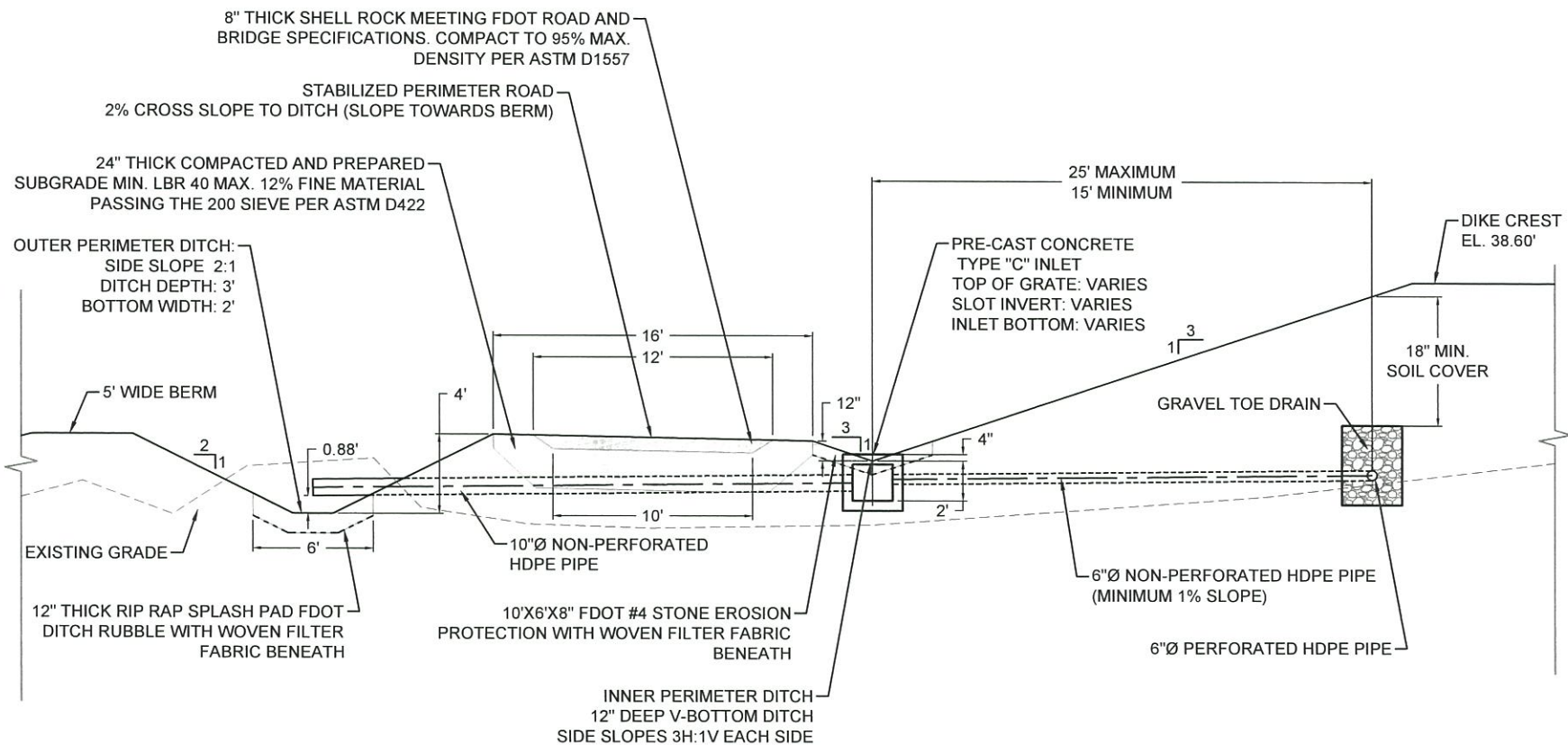
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 13
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	13 of 29
DATE	JULY 2017



REBECCA JOHNSON X.SYD/PROJECTS/C2016-053.FIN.DMA.M-8.PERM/C2016-053-P-SECTION-DETAILS.DWG 7/28/2017 3:21:54 PM



TYPICAL DIKE DRAIN AND STABILIZED ROAD DETAIL SECTION

SCALE 1" = 8'



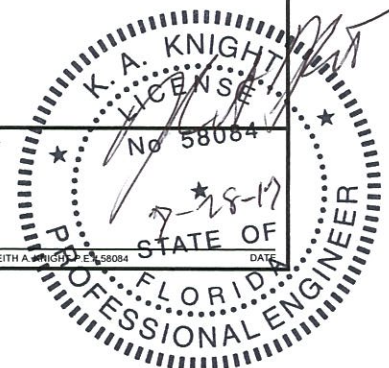
TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD
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JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

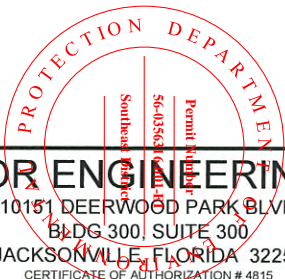
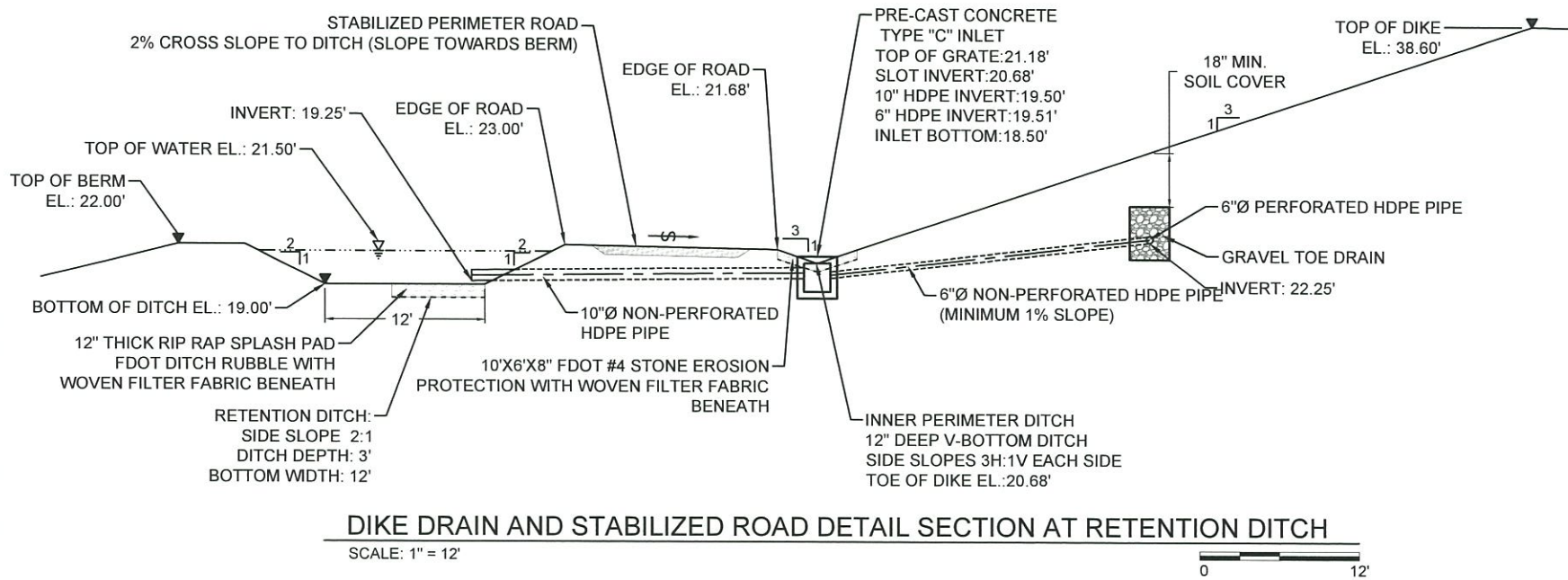
FIGURE 14
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	14 of 29
DATE	JULY 2017

SEAL	KEITH A. KNIGHT P.E. # 58084
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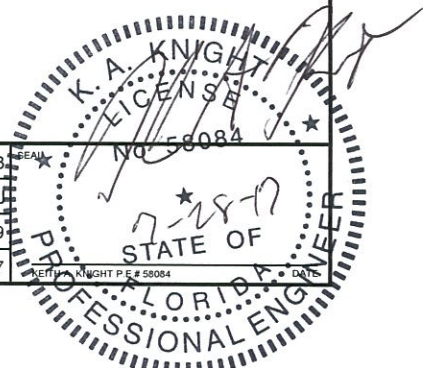
PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



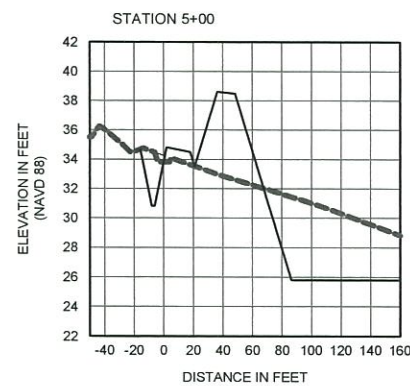
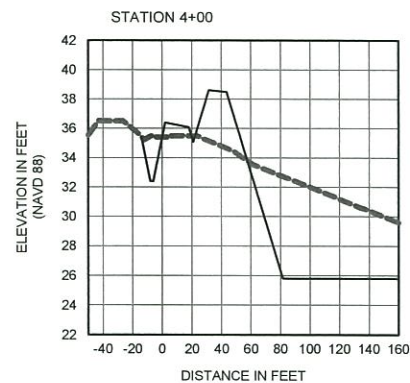
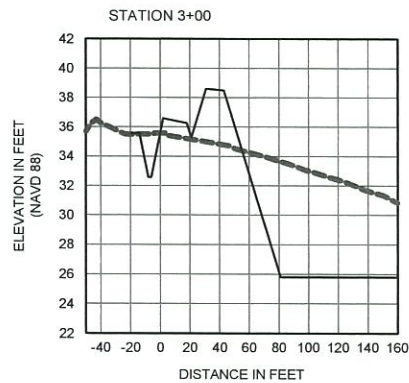
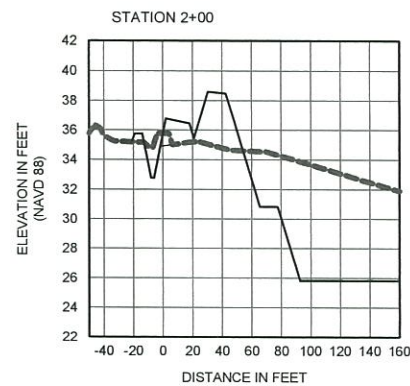
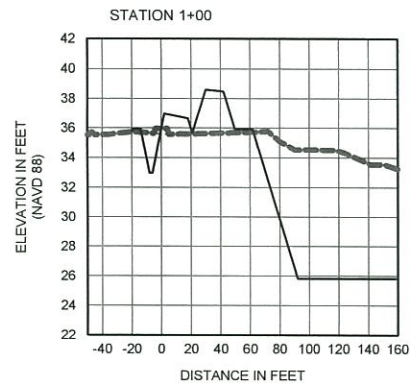
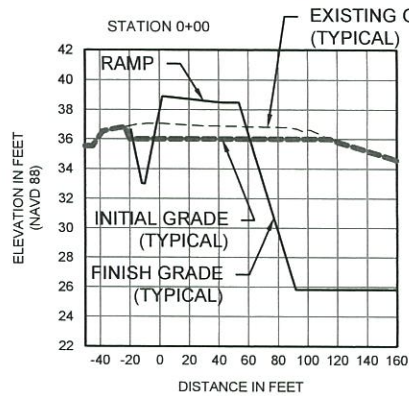
TAYLOR ENGINEERING INC.
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FIGURE 15
TYPICAL RETENTION DITCH SECTION DETAIL
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	15 of 29
DATE	JULY 2017



PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



DMMA DIKE SECTIONS

SCALE: 1" = 120'

V-SCALE: 1" = 10'

No. 58084

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	16 of 29
DATE	JULY 2017

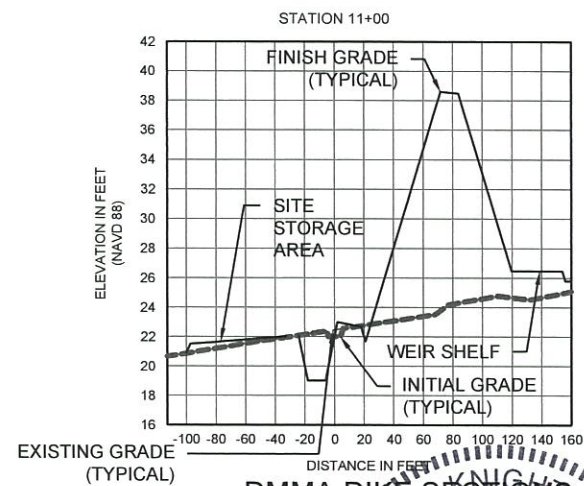
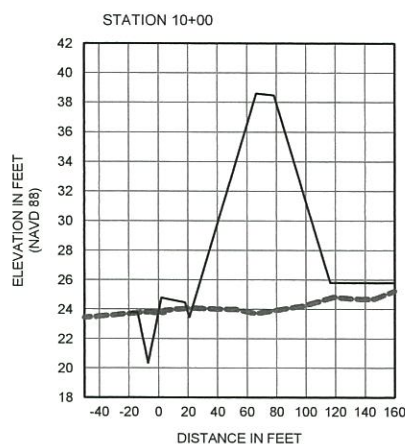
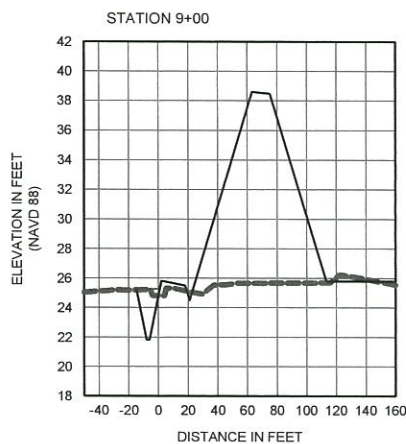
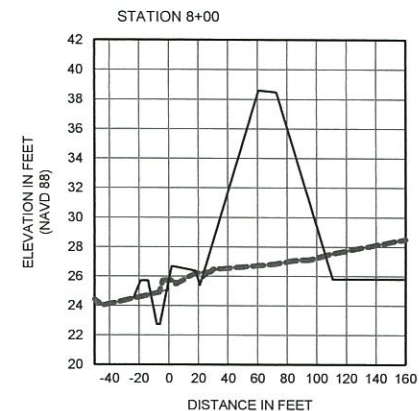
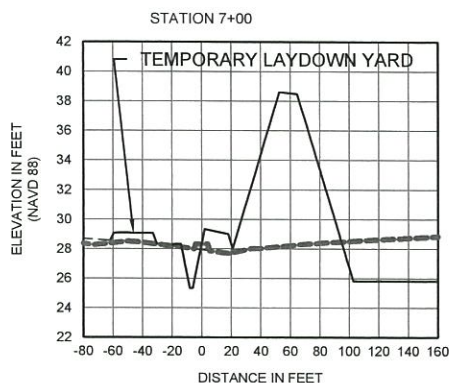
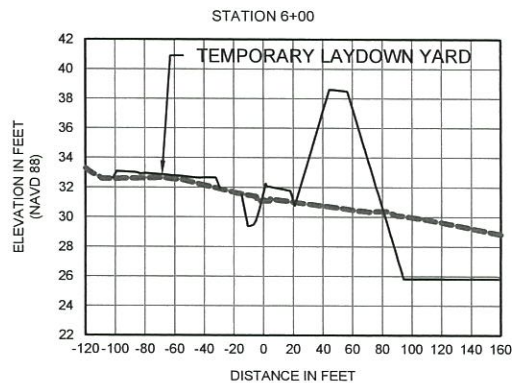
KNIGHT
17-28-17
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
KEITH A. KNIGHT, P.E. #60084

TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256

CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 16
DMMA DIKE SECTIONS
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA



DMMA DIKE SECTIONS

SCALE: 1" = 40' H
V-SCALE: 1" = 12'

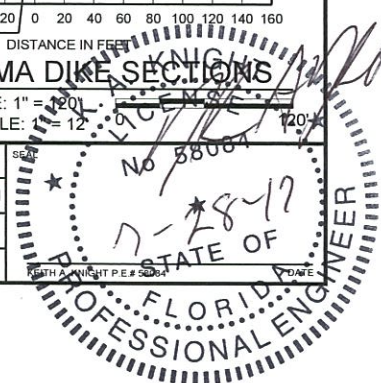


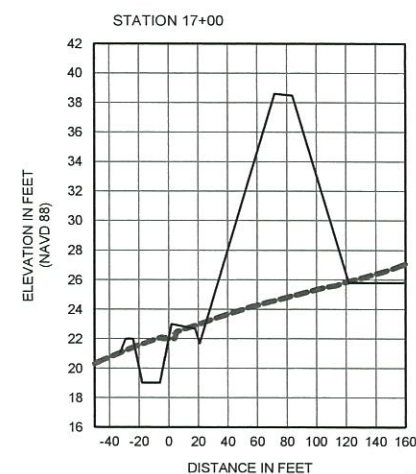
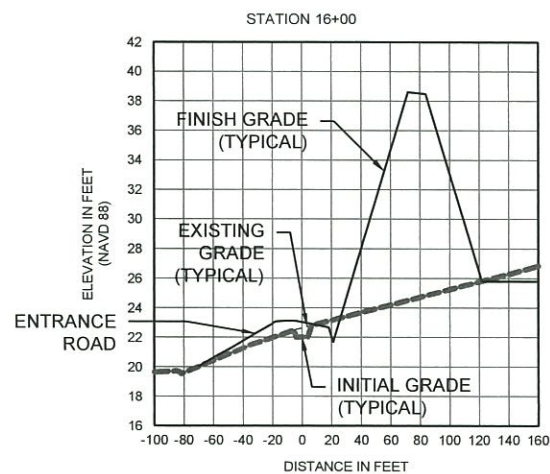
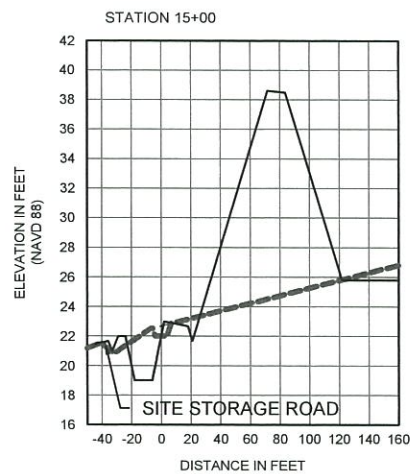
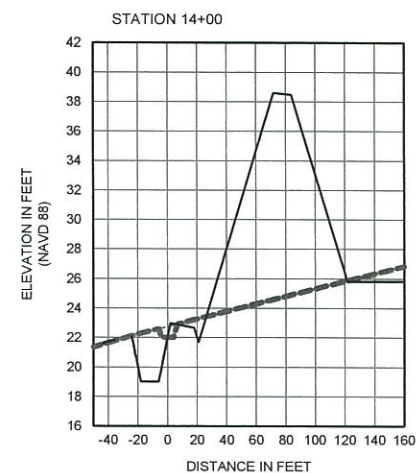
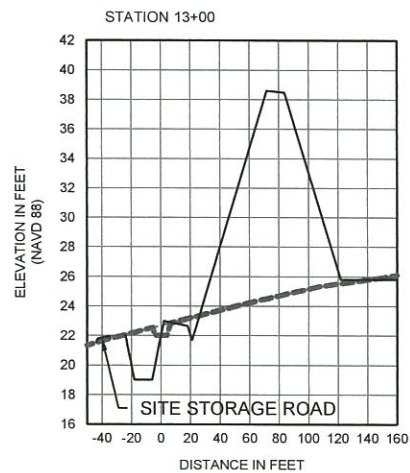
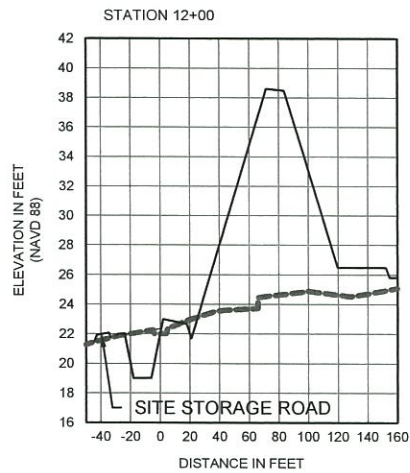
TAYLOR ENGINEERING INC.

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JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 17
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT C2016-053
DRAWN BY RLJ
SHEET 17 of 29
DATE JULY 2017





DMMA DIKE SECTIONS

SCALE: 1" = 120'
V-SCALE: 1" = 12'

TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD
BLDG 300 SUITE 300
JACKSONVILLE, FLORIDA 32256
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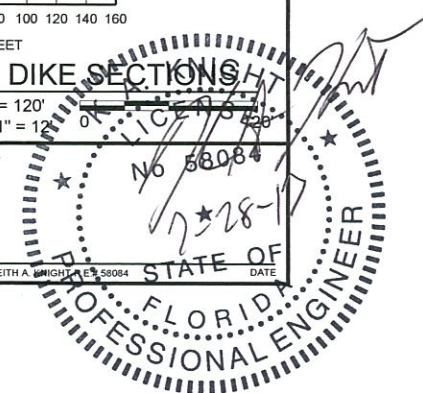
FIGURE 18
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

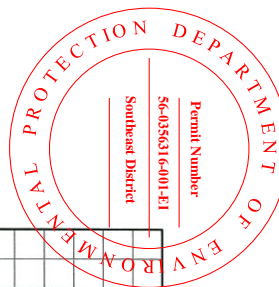
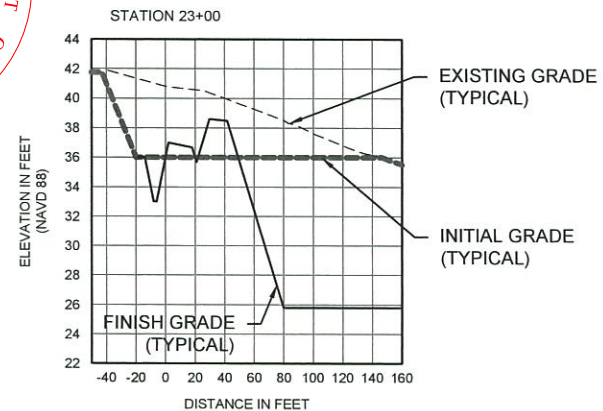
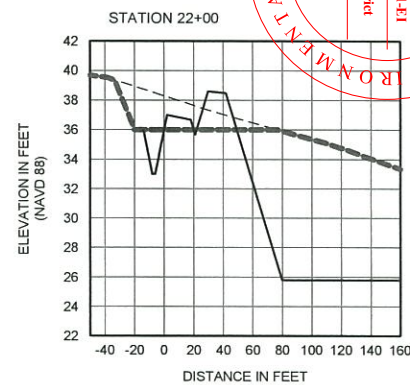
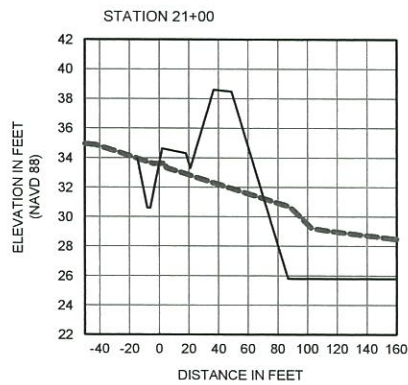
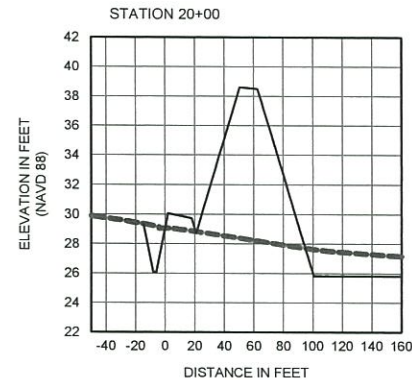
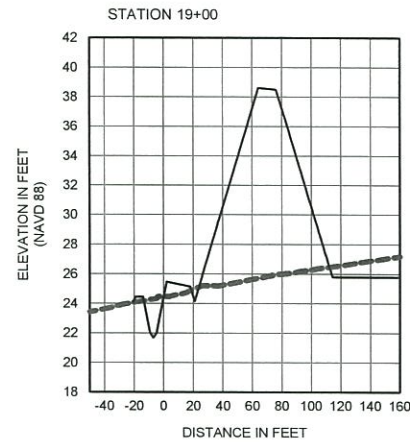
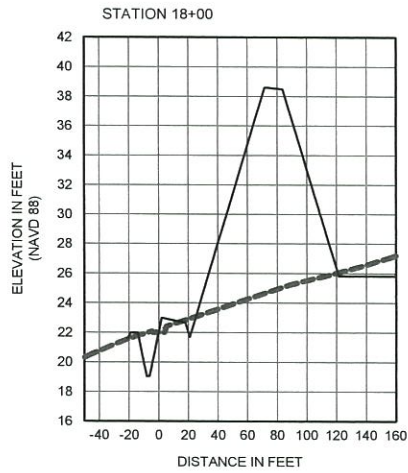
PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	18 of 29
DATE	JULY 2017

SEAL	KEITH A. WRIGHT, P.E. 58084
DATE	

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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.





DMMA DIKE SECTIONS

SCALE: 1" = 120'
V-SCALE: 1" = 12'

SEAL

No. 58084
7/28/17
DATE

KEITH A. MCGLOTHLIN, P.E. No. 58084

STATE OF FLORIDA

PROFESSIONAL ENGINEER

DATE

DATE

DATE

DATE

DATE

DATE

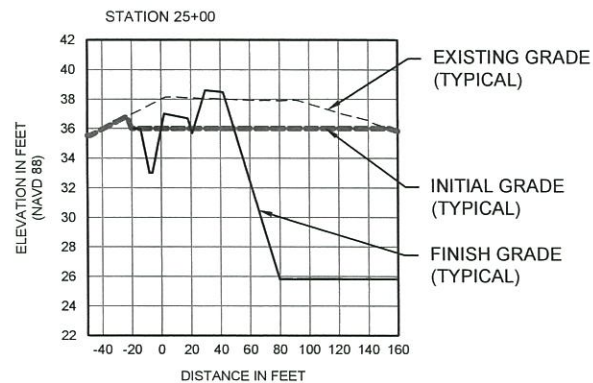
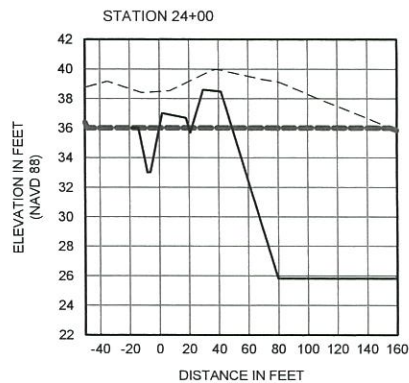
DATE

TAYLOR ENGINEERING INC.

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JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 19
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT C2016-053
DRAWN BY RLJ
SHEET 19 of 29
DATE JULY 2017



DMMA DIKE SECTIONS

SCALE: 1" = 120'
V-SCALE: 1" = 12'

SEAL
K. A. KNIGHT
No. 58084
17-28-17

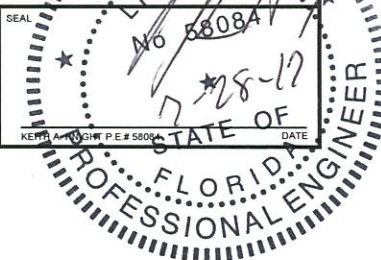


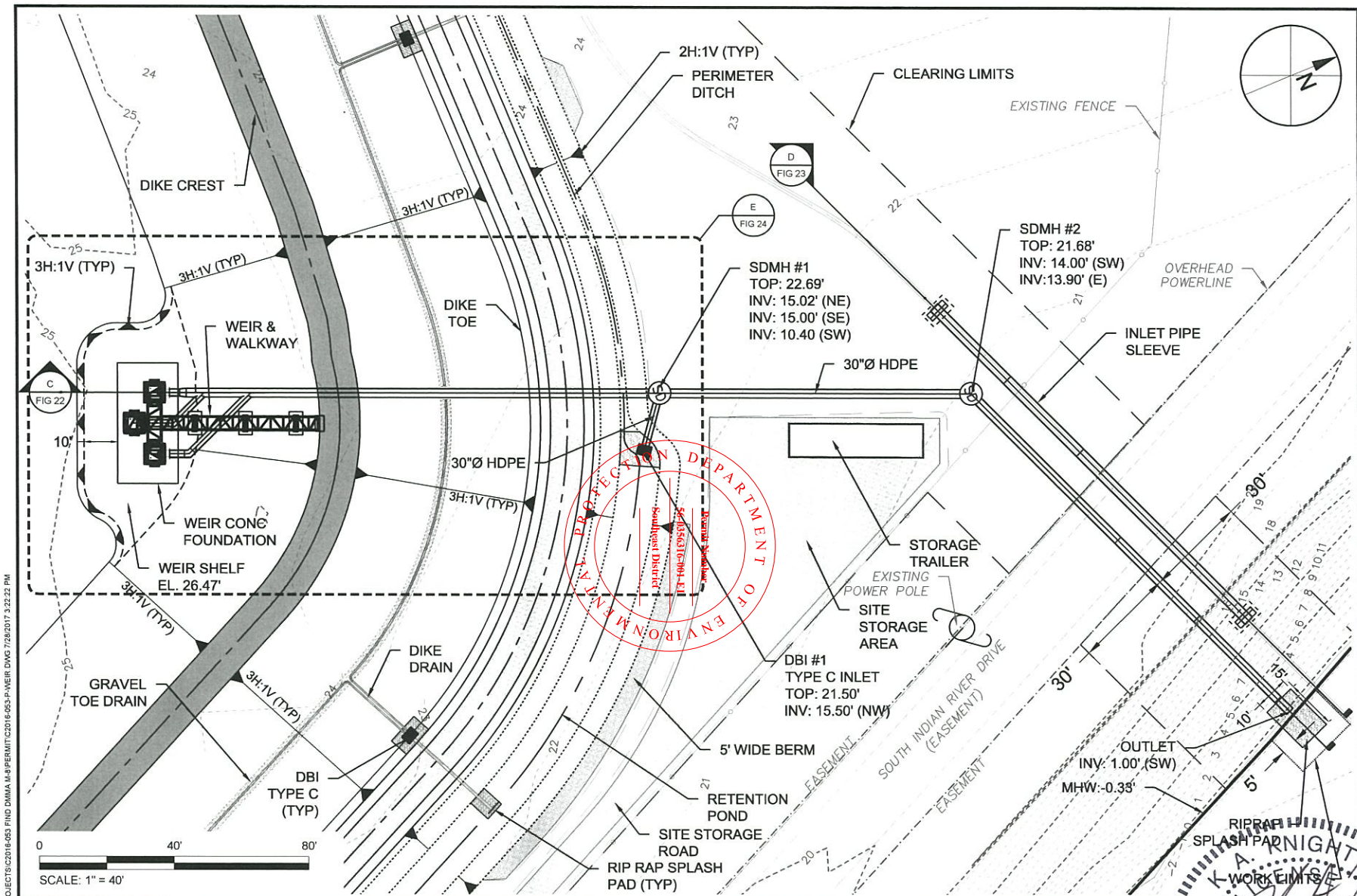
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10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 20
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	20 of 29
DATE	JULY 2017





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BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 21
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	21 of 29
DATE	JULY 2017

SEAL

No 58084

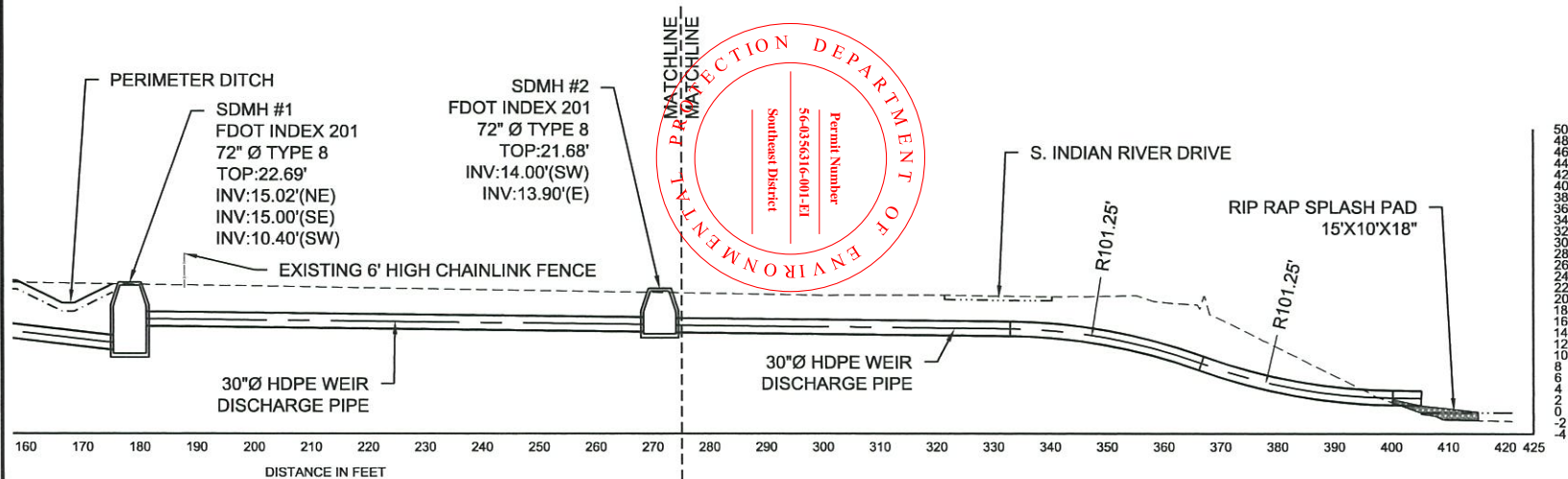
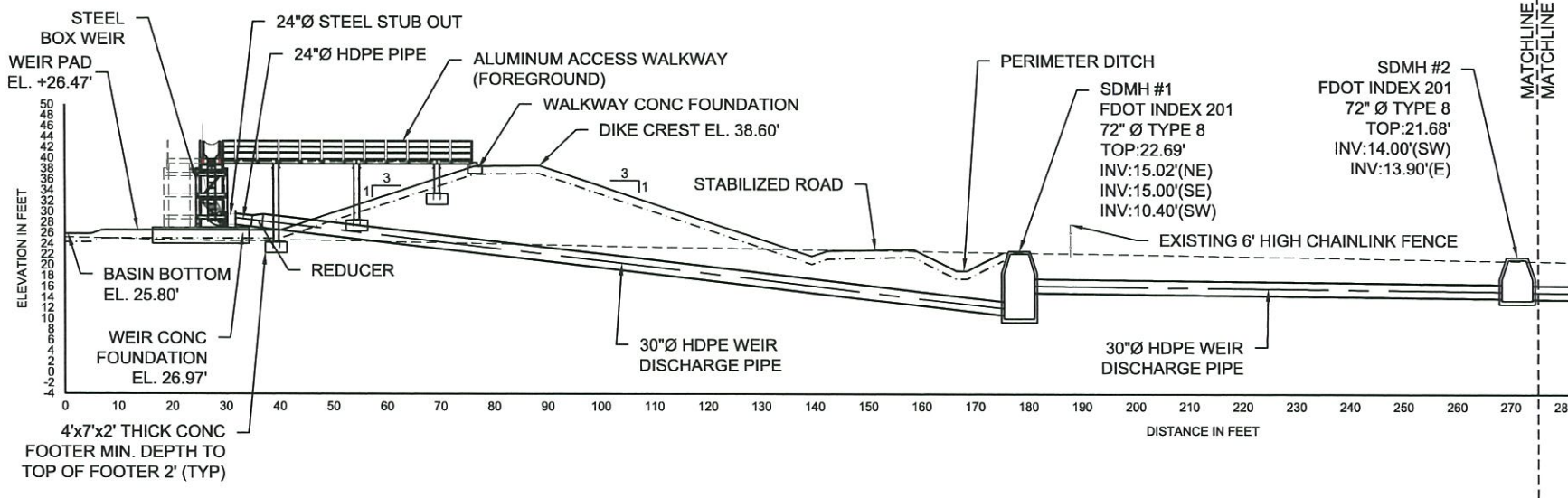
2-28-17

STATE OF

KEITH A. KNIGHT D. 58084

DATE

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



OUTFLOW PIPE PROFILE

SCALE: 1" = 30'



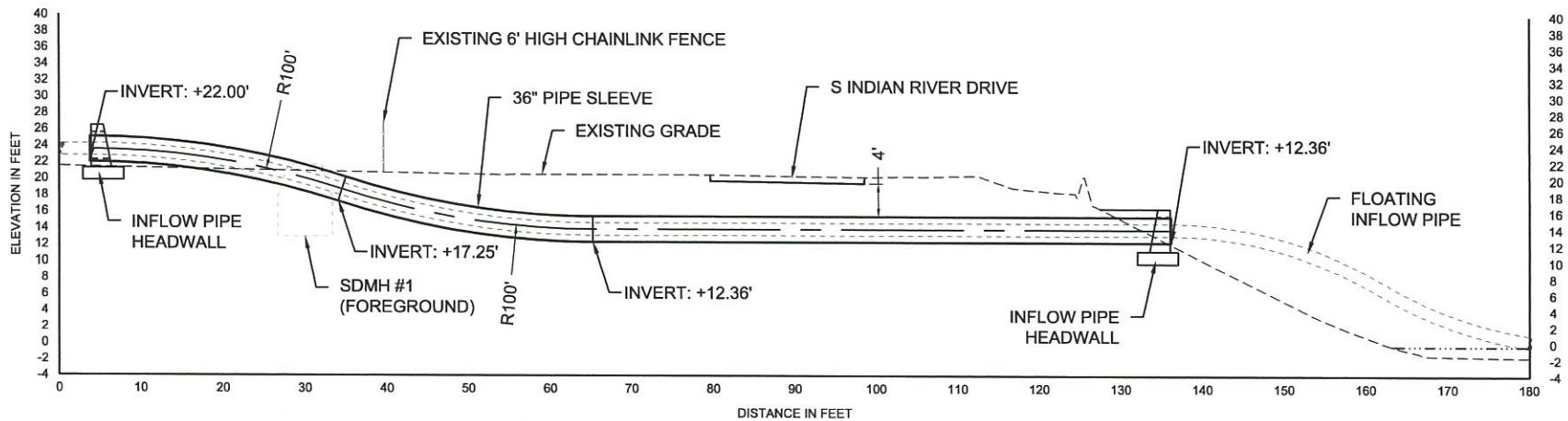
TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4615

FIGURE 22
OUTFLOW PIPE PROFILE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

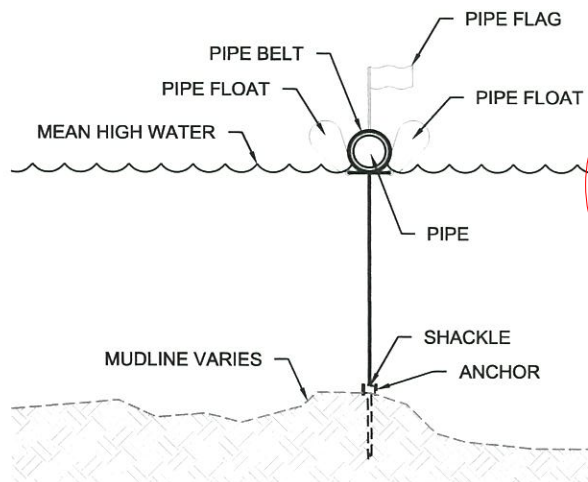
PROJECT C2016-053
DRAWN BY RLJ
SHEET 22 of 29
DATE JULY 2017

SEAL
K. A. KNIGHT
No 58084
7-28-17

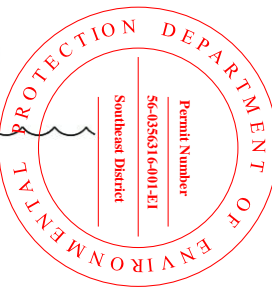
STATE OF FLORIDA
PROFESSIONAL ENGINEER



D
FIG 21
INFLOW PIPE SLEEVE PROFILE
SCALE: 1" = 20'



FLOATING PIPELINE DETAIL
NOT TO SCALE



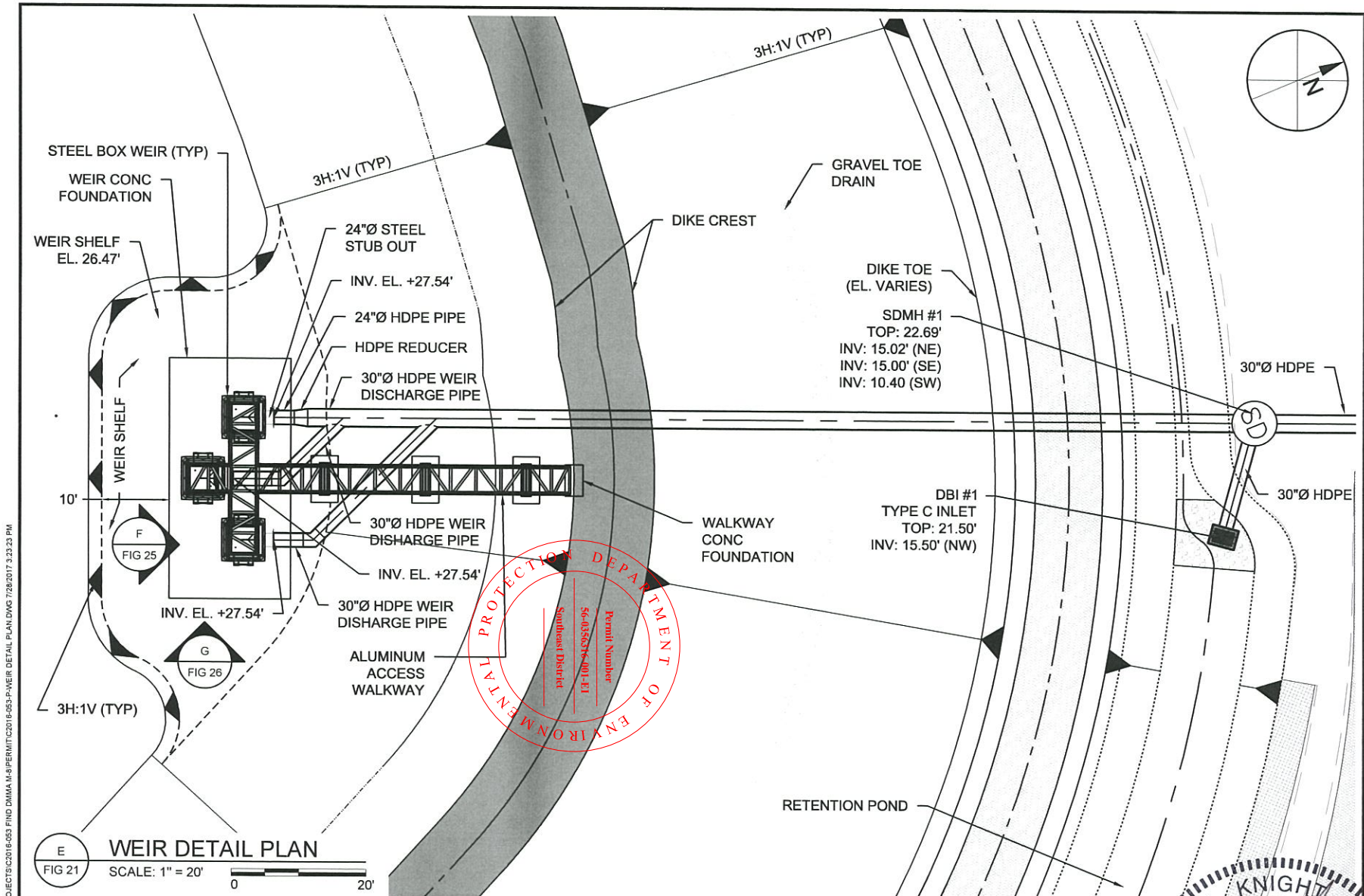
TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 23
INFLOW PIPE SLEEVE PROFILE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	23 of 29
DATE	JULY 2017





REBECCA JOHNSON X:\SYS\PROJECTS\2016-053 FIND DMM M-8 PERMIT\2016-053-P-WEIR DETAIL PLAN.DWG 7/28/2017 3:23:23 PM

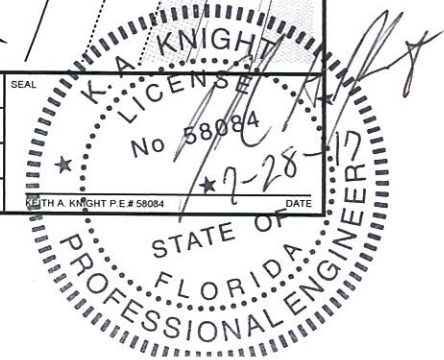
TAYLOR ENGINEERING INC.
 10151 DEERWOOD PARK BLVD
 BLDG 300, SUITE 300
 JACKSONVILLE, FLORIDA 32256
 CERTIFICATE OF AUTHORIZATION # 4815

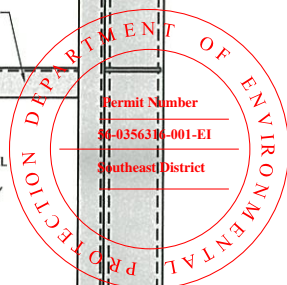
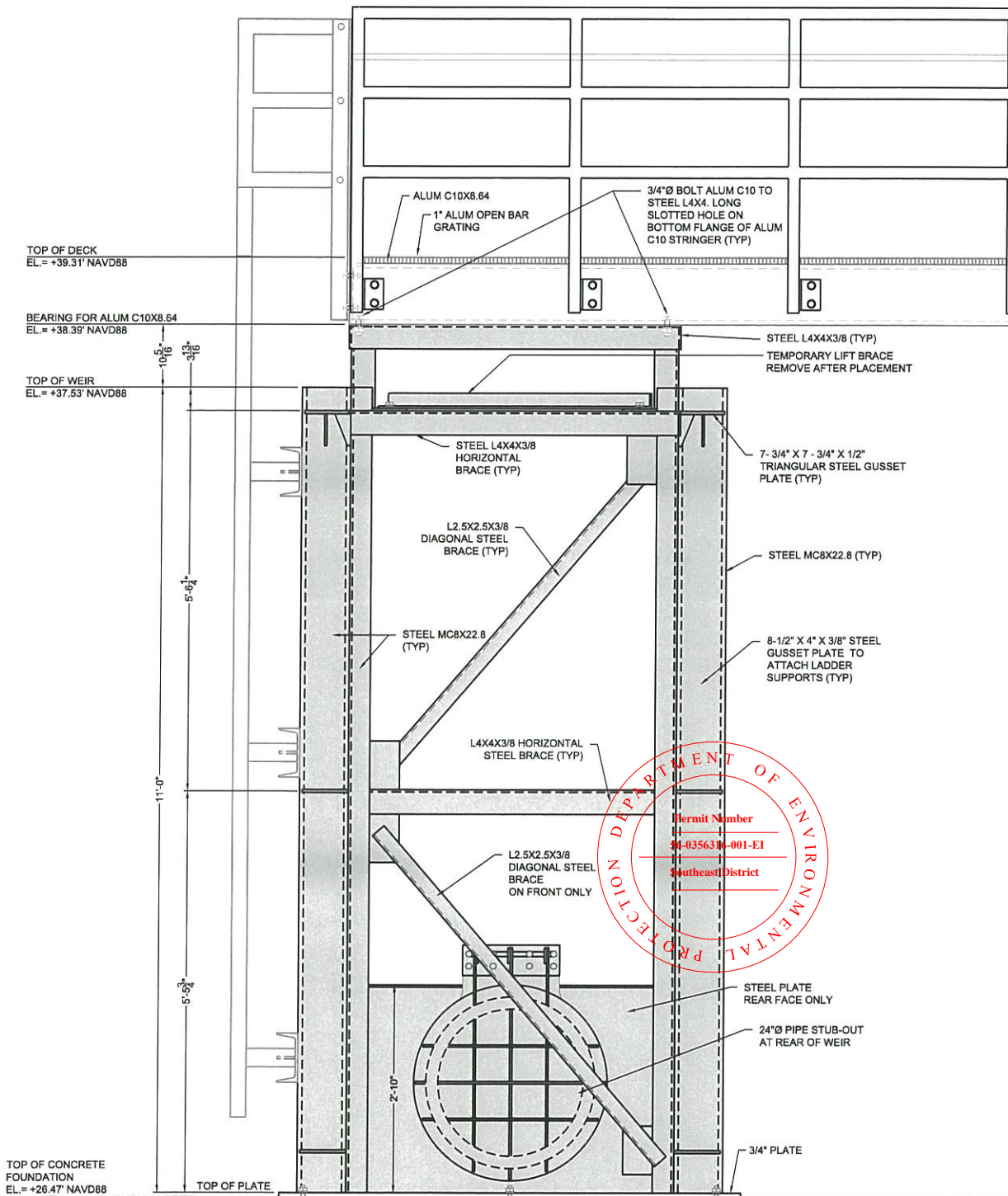
FIGURE 24
 WEIR DETAIL PLAN
 F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
 ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	24 of 29
DATE	JULY 2017

SEAL	K. A. KNIGHT
LICENSE	No 58084
DATE	7-28-17

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.





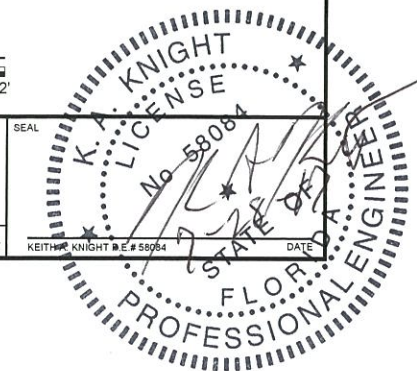
WEIR FRONT TYPICAL ELEVATION



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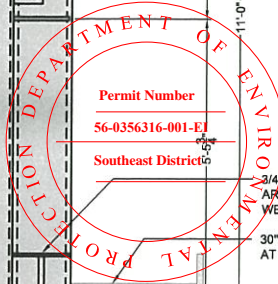
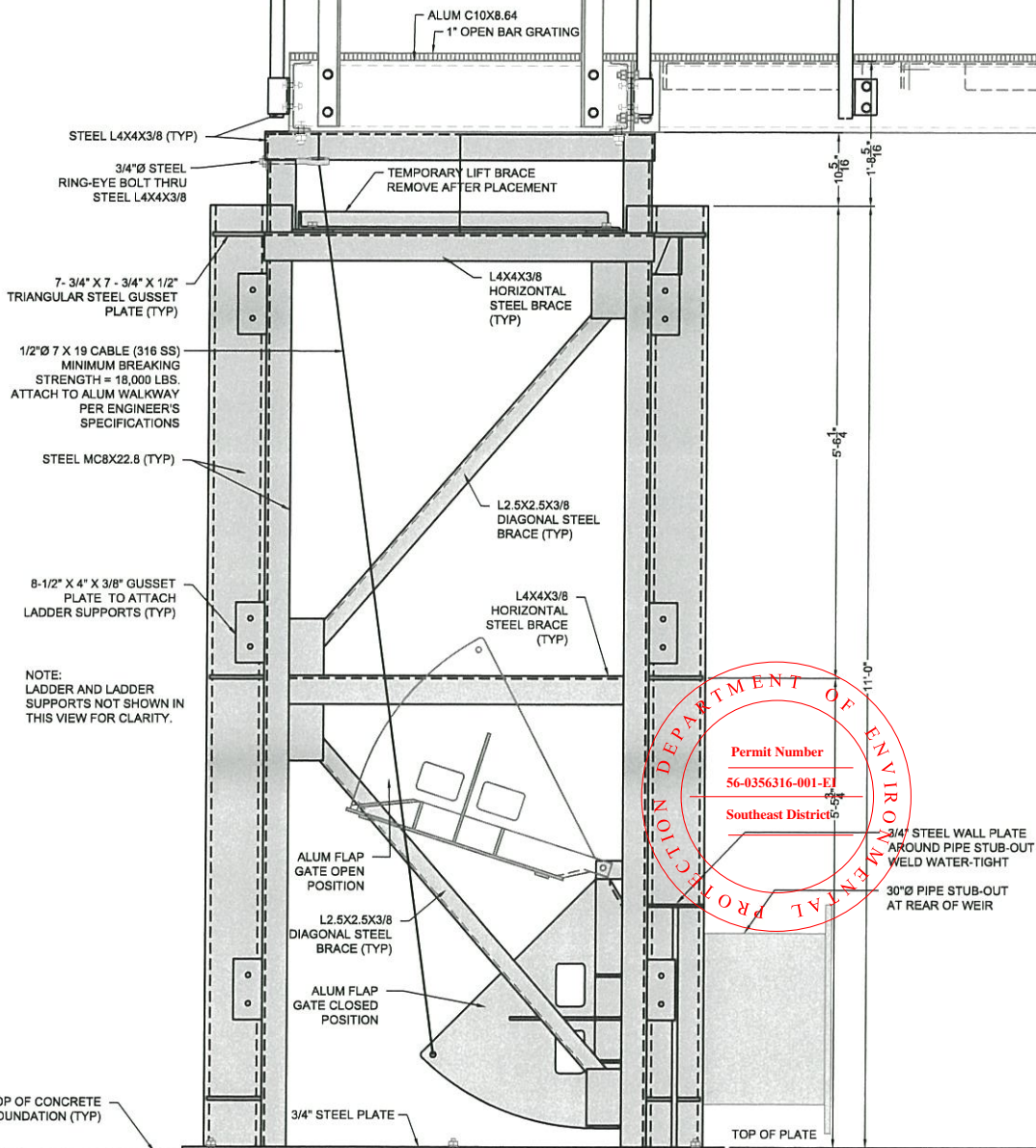
FIGURE 25
 STEEL WEIR TYPICAL FRONT ELEVATION DETAIL
 F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
 ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053	DRAWN BY	RLJ	SHEET	25 of 29	DATE	JULY 2017
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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



WEIR SIDE TYPICAL ELEVATION

SCALE: 1/2" = 1'



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CERTIFICATE OF AUTHORIZATION # 4815

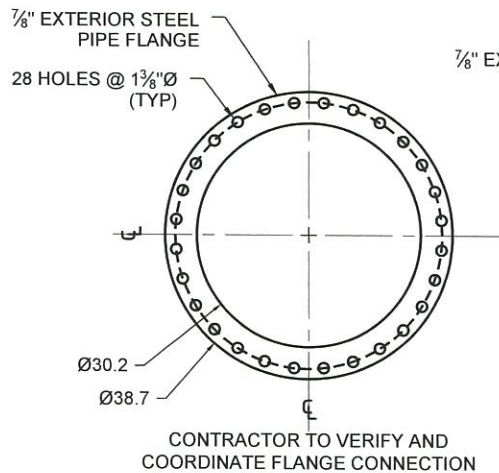
FIGURE 26
STEEL WEIR TYPICAL SIDE ELEVATION DETAIL
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT C2016-053 DRAWN BY RLJ SHEET 26 of 29 DATE JULY 2017

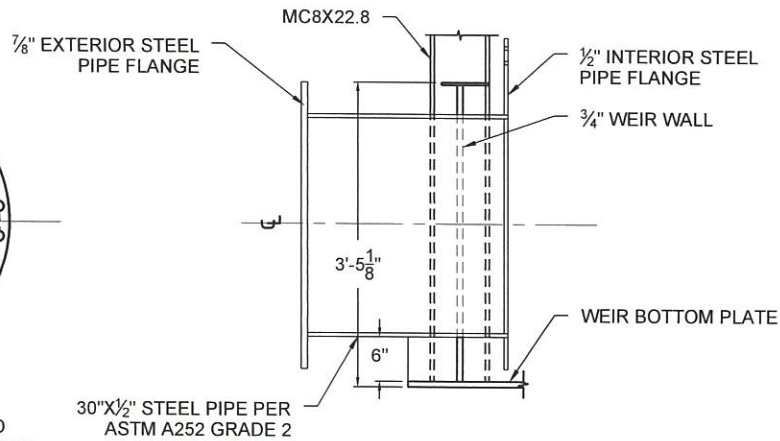


PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

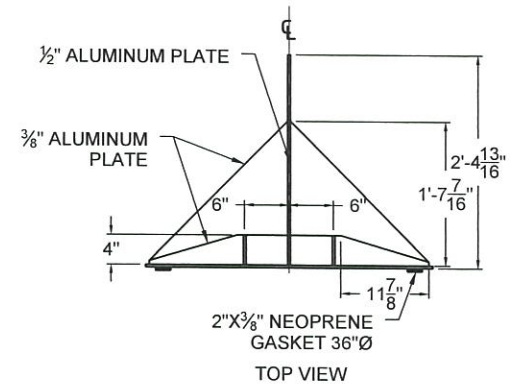
7-28-17



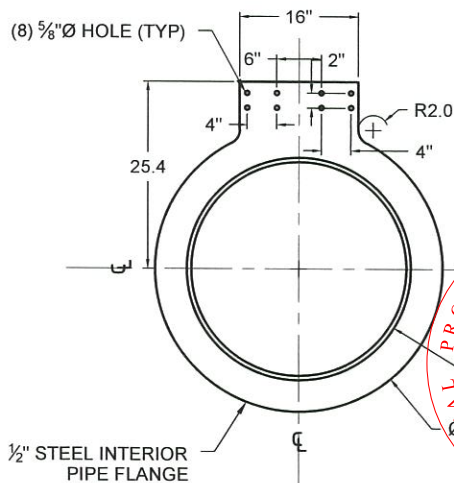
EXTERIOR STEEL PIPE FLANGE
SCALE: 1" = 2'



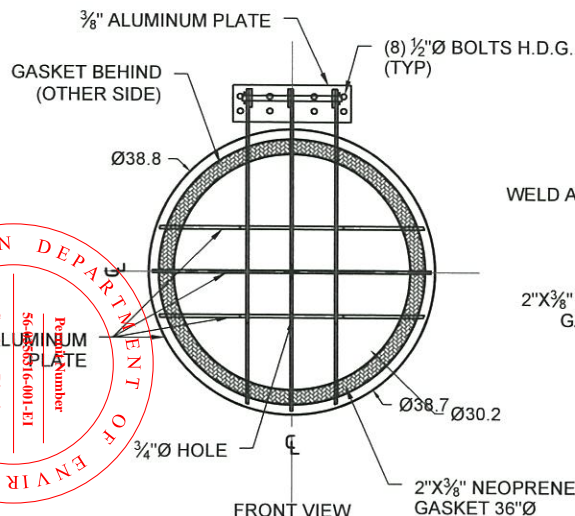
FLANGED STEEL PIPE STUB
SCALE: 1" = 2'



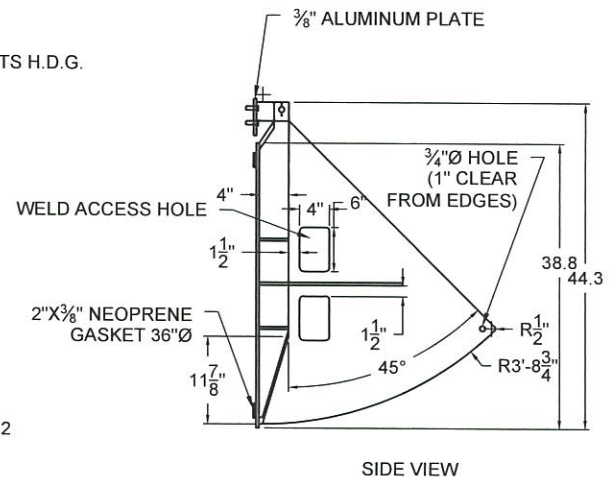
ALUMINUM FLAP GATE
SCALE: 1" = 2'



INTERIOR STEEL PIPE FLANGE
SCALE: 1" = 2'



ALUMINUM FLAP GATE
SCALE: 1" = 2'



ALUMINUM FLAP GATE
SCALE: 1" = 2'

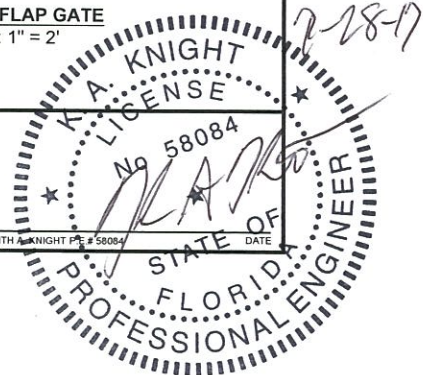


TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

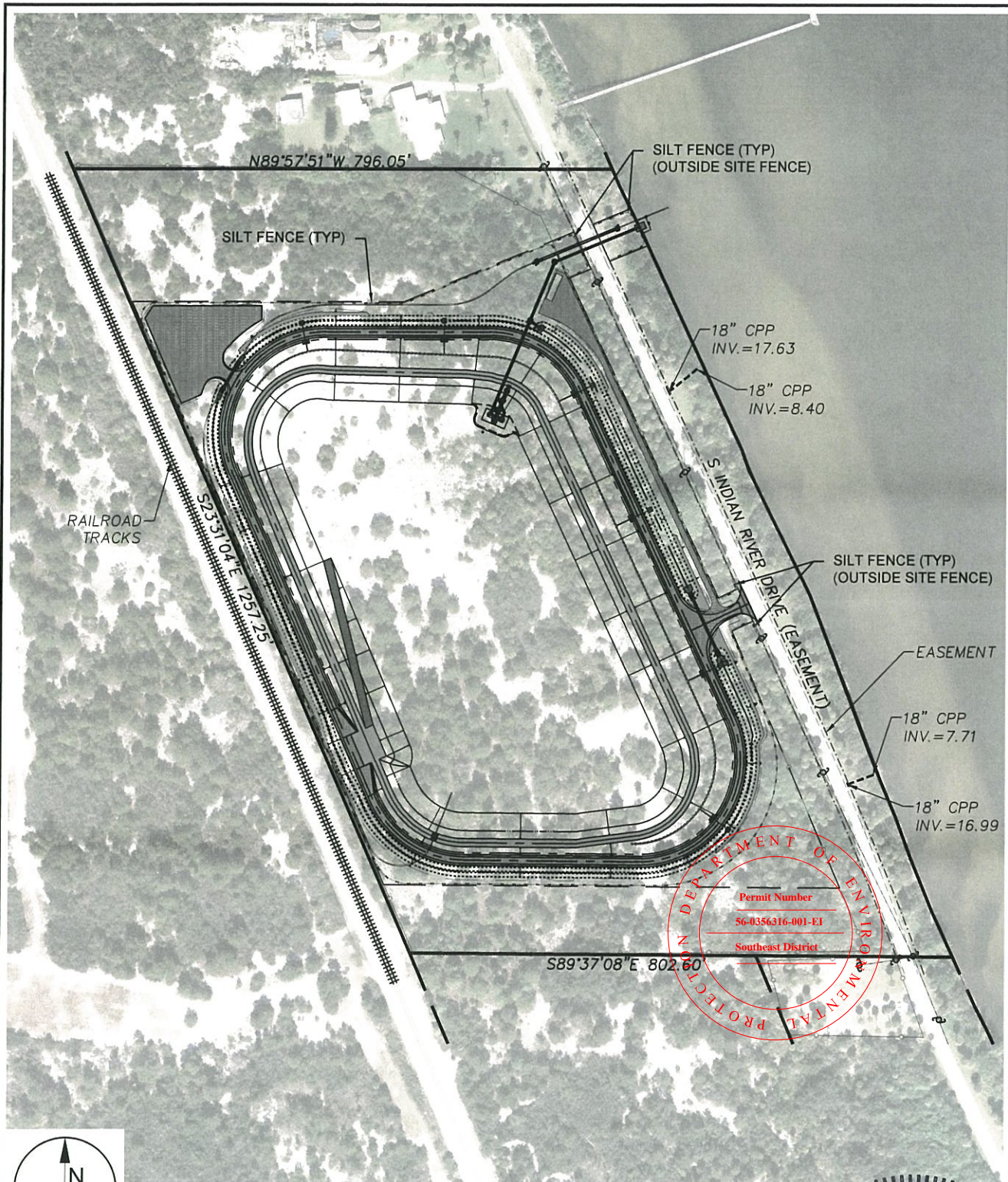
FIGURE 27
FIGURE TITLE
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	27 of 29
DATE	JULY 2017

SEAL
K. A. KNIGHT
LICENSE
No 58084
DATE
KEITH A. KNIGHT P.E. #58084



REBECCA JOHNSON X:\SYS\PROJECTS\2016-053 F.I.N.D. M-8 DREDGE MATERIAL MGMT. AREA\PERMIT\2016-053-P-EROSION.DWG 7/26/2017 3:24:07 PM



0 200' 400'
SCALE: 1" = 200'

REFERENCES:

1. AERIAL: FDOT 2016
2. GEOTECHNICAL: ELLIS & ASSOCIATES, INC.
3. SURVEY & TOPOGRAPHICAL: WHIDDEN SURVEYING & MAPPING, INC.



TAYLOR ENGINEERING INC.

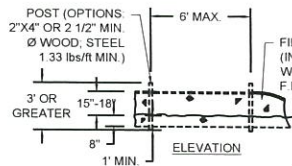
10151 DEERWOOD PARK BLVD
BLDG 300, SUITE 300
JACKSONVILLE, FLORIDA 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 28
EROSION CONTROL PLAN
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

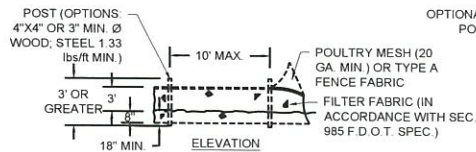
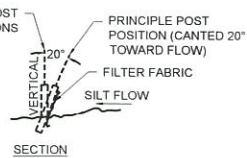
PROJECT	DRAWN BY	SHEET	DATE
C2016-053	RLJ	28 of 29	JULY 2017



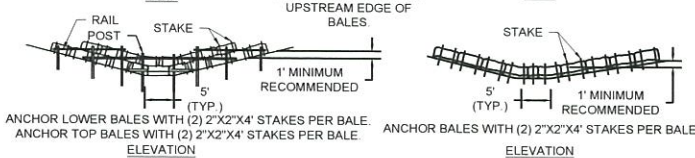
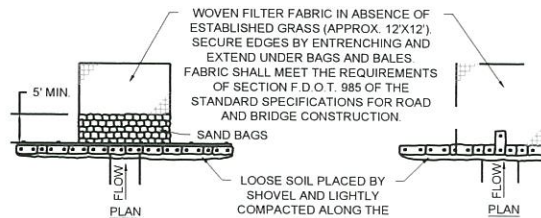
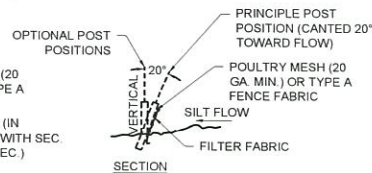
PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



TYPE III SILT FENCE



TYPE IV SILT FENCE

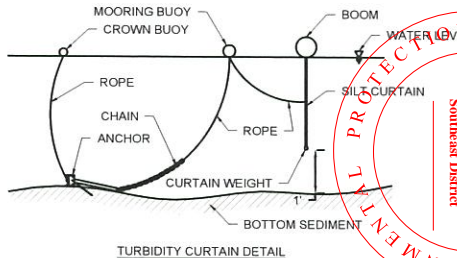


APPLICATION AND SPACING OF TYPES I & TYPES II HAY BALE BARRIERS SHALL BE IN ACCORDANCE WITH SHEET 1 OF 3, F.D.O.T. INDEX NO. 102

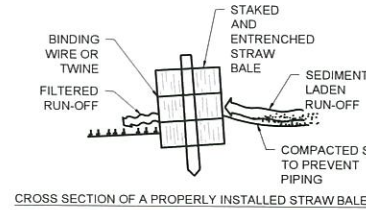
TYPE II

TYPICAL STRAW BALE DETAIL

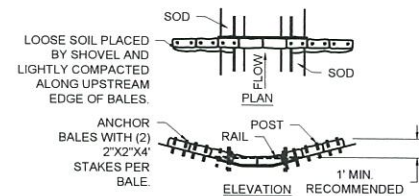
TYPE I



TURBIDITY CURTAIN DETAIL

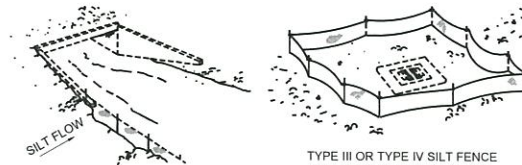


CROSS SECTION OF A PROPERLY INSTALLED STRAW BALE

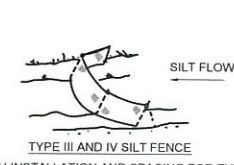


SPACING: BALE BARRIERS FOR PAVED DITCHES SHOULD BE SPACED IN ACCORDANCE WITH CHART I, SHEET 1 OF 3, INDEX NO. 102 OF THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS.

STRAW BALE BARRIER FOR PAVED DITCH



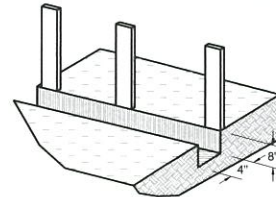
TYPE III OR TYPE IV SILT FENCE



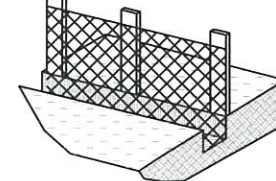
TYPE III AND IV SILT FENCE
DITCH INSTALLATION AND SPACING FOR TYPE III & TYPE IV FENCE TO BE IN ACCORDANCE WITH SHEET 1 OF 3, OF THE F.D.O.T. INDEX NO. 102

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

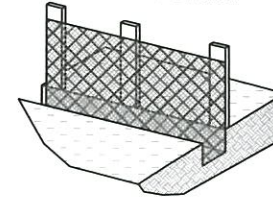
1. SET POSTS AND EXCAVATE A 8"x4" TRENCH UP SLOPE ALONG THE LINE OF POSTS.



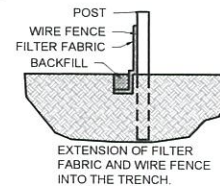
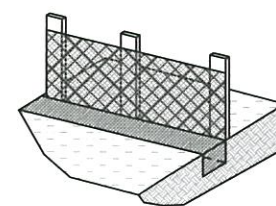
2. STAPLE WIRE FENCING TO THE POSTS.



3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND FILTER FABRIC AND WIRE FENCE INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SILT FENCE INSTALLATION DETAILS

TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD.
BLDG. 300, SUITE 300
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 29
EROSION CONTROL DETAILS
F.I.N.D. M-8 DREDGE MATERIAL MANAGEMENT AREA
ST. LUCIE COUNTY, FLORIDA

PROJECT	C2016-053
DRAWN BY	RLJ
SHEET	29 of 29
DATE	JULY 2017

