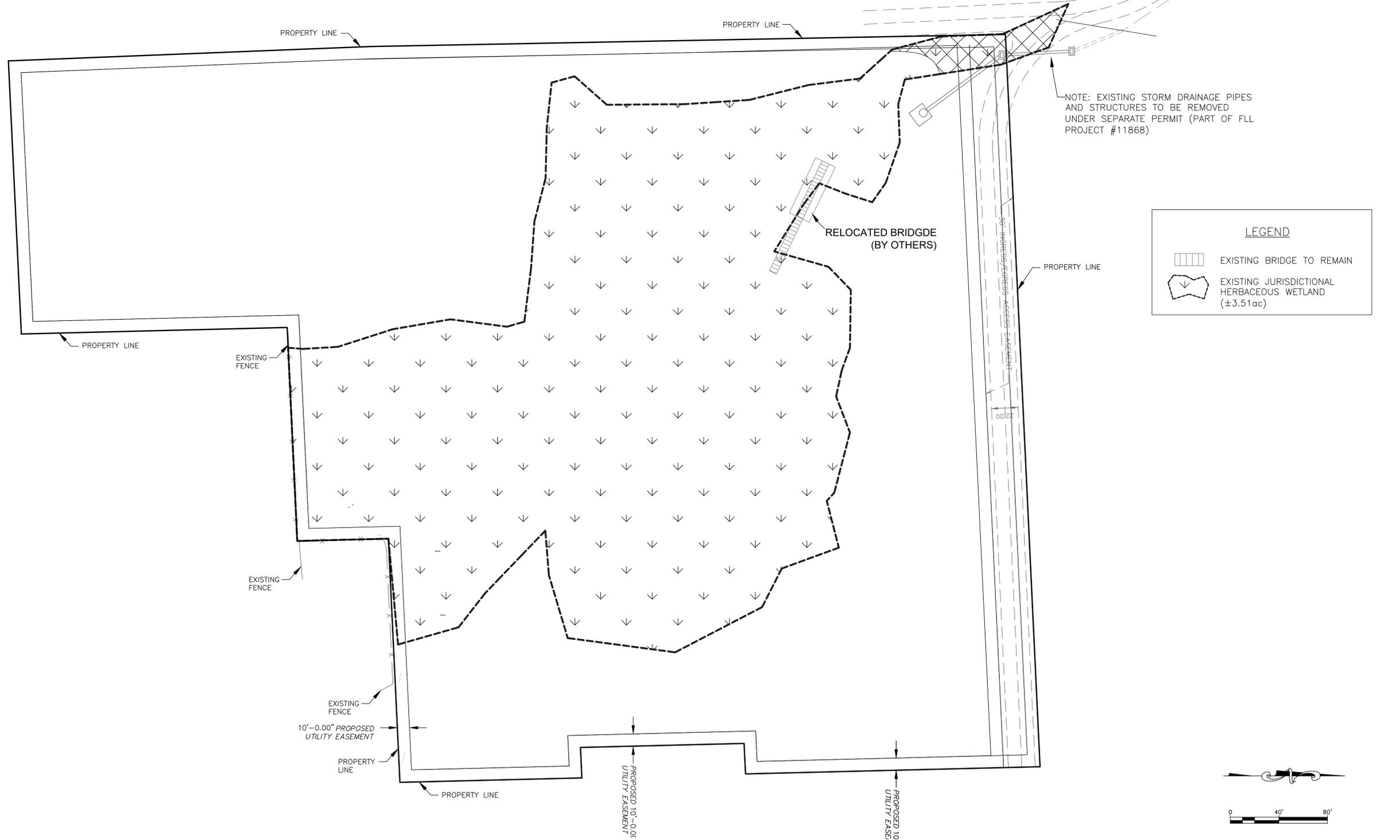


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 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0200114

THE Chappell GROUP INC.
 714 East McNab Road
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 TEL: 954.782.1908
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- Mitigation Design & Monitoring
- TSE Species Surveys
- Phase I ESAs

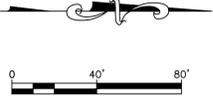
INTERSTATE 95 (S.R. 9)



LEGEND

- EXISTING BRIDGE TO REMAIN
- EXISTING JURISDICTIONAL HERBACEOUS WETLAND (±3.51ac)

NOTE: EXISTING STORM DRAINAGE PIPES AND STRUCTURES TO BE REMOVED UNDER SEPARATE PERMIT (PART OF FLL PROJECT #11868)



ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

DRAWN BY: DATE: 8/6/2019
 L.C./M.N. W.R./M.N. VERT. SCALE: 1"=2'
 HORIZ. SCALE: 1"=40'
 CHECKED BY: A.G.
 FIELD BOOK:

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 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

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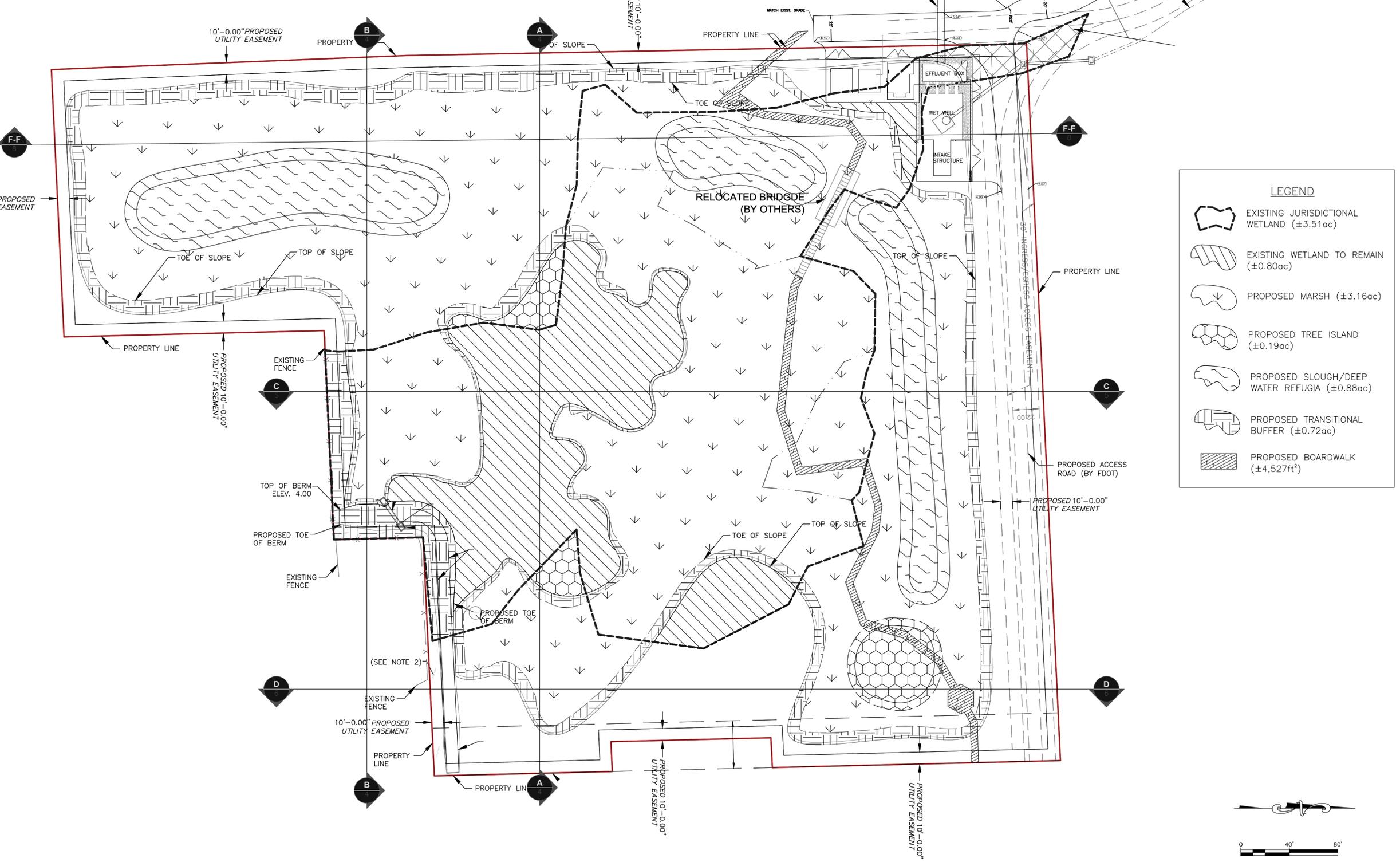
PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 EXISTING CONDITIONS

SHEET NO.	1
TOTAL:	12
CAD FILE:	11419-004-SITE
DRAWING FILE NO.	4-135-81

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LEGEND

- EXISTING JURISDICTIONAL WETLAND (±3.51ac)
- EXISTING WETLAND TO REMAIN (±0.80ac)
- PROPOSED MARSH (±3.16ac)
- PROPOSED TREE ISLAND (±0.19ac)
- PROPOSED SLOUGH/DEEP WATER REFUGIA (±0.88ac)
- PROPOSED TRANSITIONAL BUFFER (±0.72ac)
- PROPOSED BOARDWALK (±4,527ft²)

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DATE: 8/6/2019
 L.C./M.N.
 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=4'
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 FIELD BOOK:

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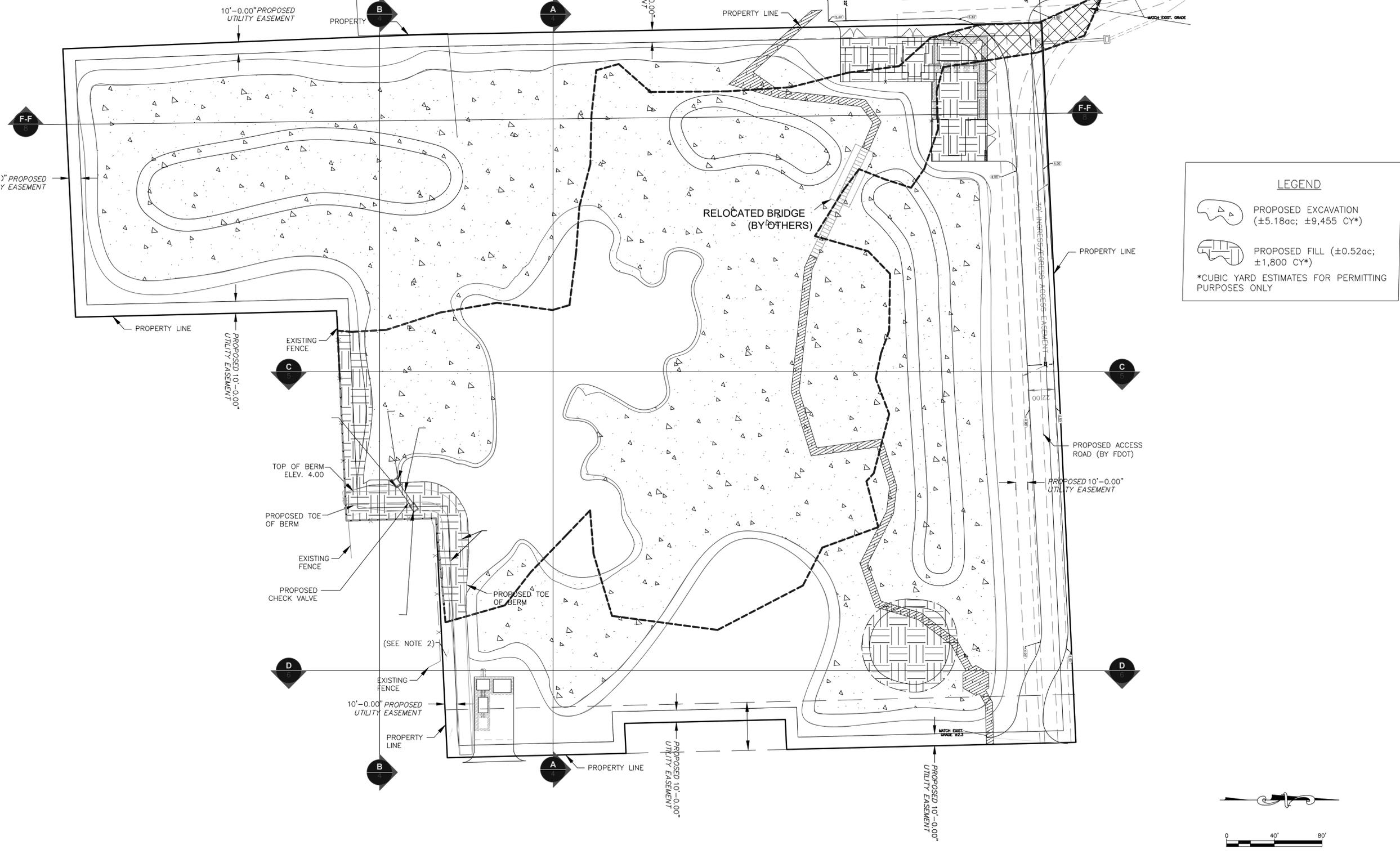
REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
PROPOSED CONDITIONS

SHEET NO. **2**
 TOTAL: 12
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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LEGEND

- PROPOSED EXCAVATION (±5.18ac; ±9,455 CY*)
- PROPOSED FILL (±0.52ac; ±1,800 CY*)

*CUBIC YARD ESTIMATES FOR PERMITTING PURPOSES ONLY

ENGINEER: PATRICK J. GIBNEY
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 FAX: 954-739-8409

DRAWN BY: DATE: 8/6/2019
 L.C./M.N. 8/6/2019
 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=40'
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

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REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
DREDGE & FILL

SHEET NO. **3**
 TOTAL: 12
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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ENGINEER: PATRICK J. GIBNEY
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 DATE: 10/26/2018
 TEL: 954-739-8400
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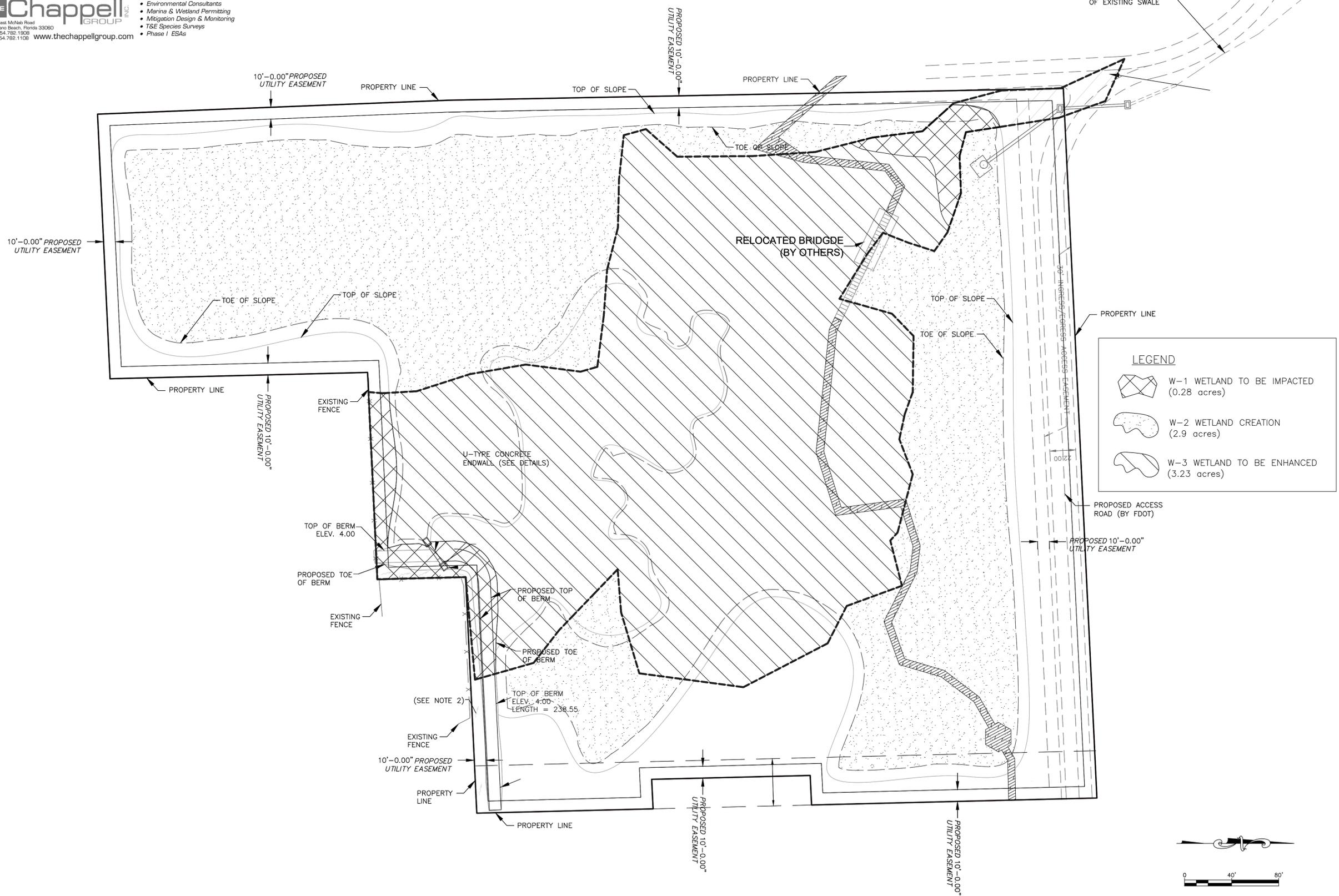
DATE: 8/6/2019
 L.C./M.N.:
 DESIGNED BY: SCALE: 1"=2'-0"
 W.R./M.N.: VERT: 1"=40'
 CHECKED BY: HOF: 1"=40'
 A.G.:
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 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

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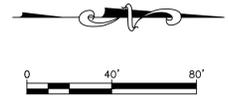
PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 WETLAND ASSESSMENT AREAS

SHEET NO. 4
 TOTAL: 12
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81



LEGEND

- W-1 WETLAND TO BE IMPACTED (0.28 acres)
- W-2 WETLAND CREATION (2.9 acres)
- W-3 WETLAND TO BE ENHANCED (3.23 acres)



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DRAWN BY: L.C./M.N. DATE: 8/6/2019
 DESIGNED BY: W.B./M.N. SCALE: VERT 1"=2'
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 FIELD BOOK:

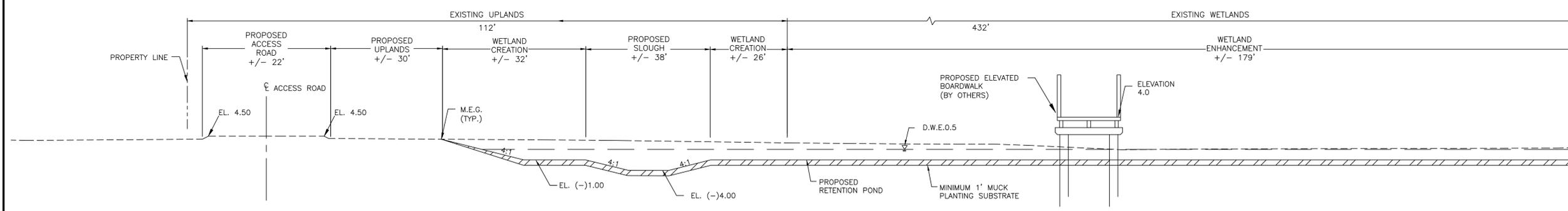
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 100 North Andrews Avenue, Fort Lauderdale, Florida 33301



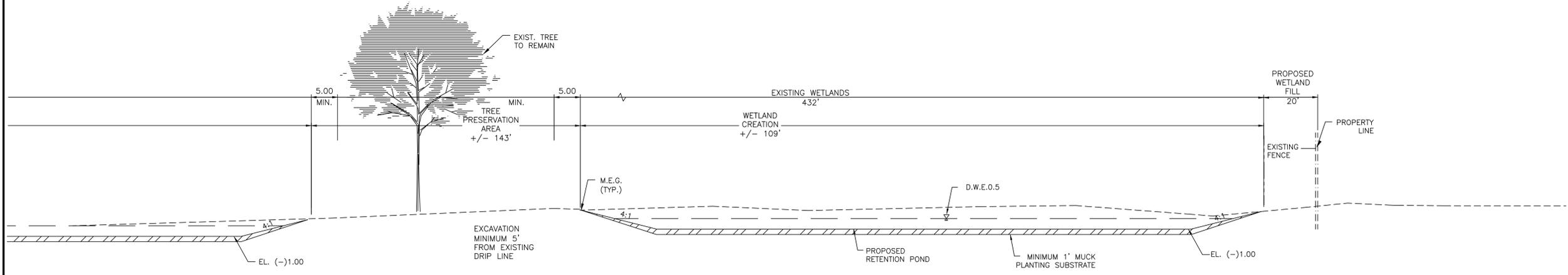
NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 SECTION C

SHEET NO. **6**
 TOTAL: 12
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81



SECTION C-C



SECTION C-C CONT.

NOTE: ELEVATIONS SHOWN IN NAVD88



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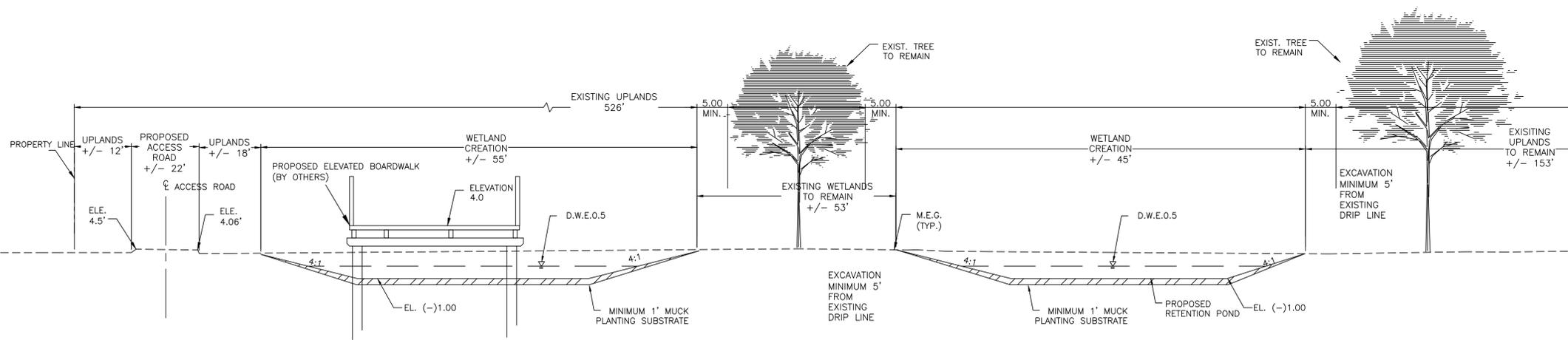
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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0200114

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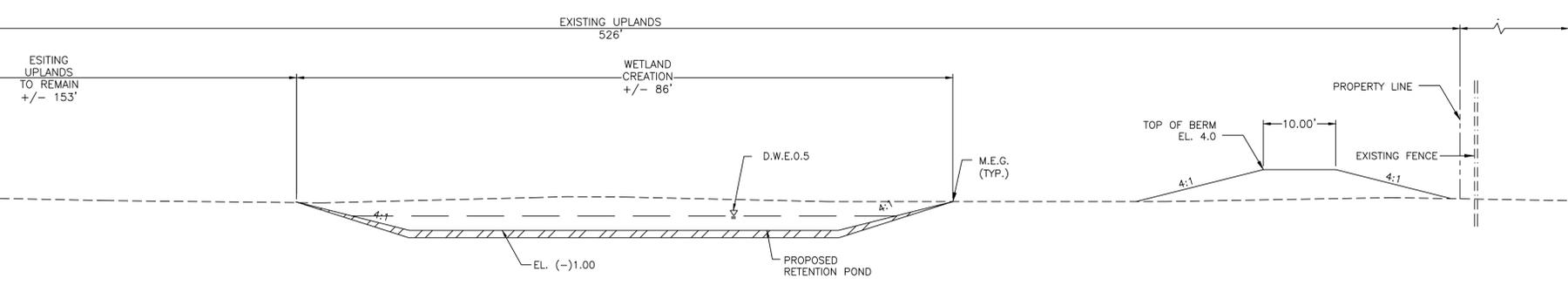
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- Phase I ESAs

ENGINEER: PATRICK J. GIBNEY
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 DATE: 10/26/2018
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 DATE: 8/6/2019
 DESIGNED BY: W.B./M.N.
 CHECKED BY: A.G.
 VERT. SCALE: 1"=2'
 HOR. SCALE: 1"=40'
 FIELD BOOK:

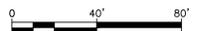


SECTION D-D



SECTION D-D CONT.

NOTE: ELEVATIONS SHOWN IN NAVD88



CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
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 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTION D

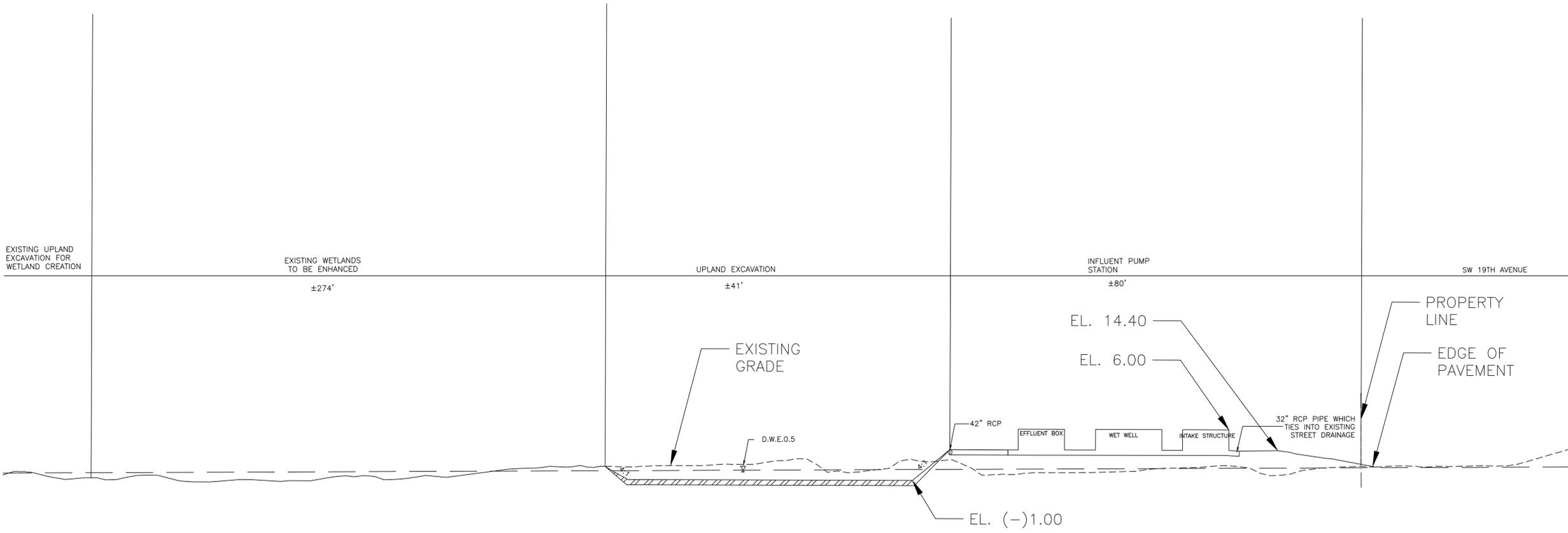
SHEET NO.	7
TOTAL:	12
CAD FILE:	11419-004-SITE
DRAWING FILE NO.	4-135-81

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- Phase I ESAs



SECTION E-E

NOTE: ELEVATIONS SHOWN IN NAVD88



ENGINEER: PATRICK J. GIBNEY
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 DATE: 10/26/2018
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 FAX: 954-739-6409

DRAWN BY: L.C./M.N. DATE: 8/6/2019
 DESIGNED BY: W.R./M.N. SCALE: VERT 1"=2', HOR 1"=40'
 CHECKED BY: A.G.
 FIELD BOOK:

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 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY / CHKD

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTION E

SHEET NO. **8**
 TOTAL: 12
 CAD FILE: 11419-004-SITE
 DRAWING FILE NO. 4-135-81

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ENGINEER:
 PATRICK J. GIBNEY
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 DATE: 10/26/2018
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 FAX: 954-739-8409

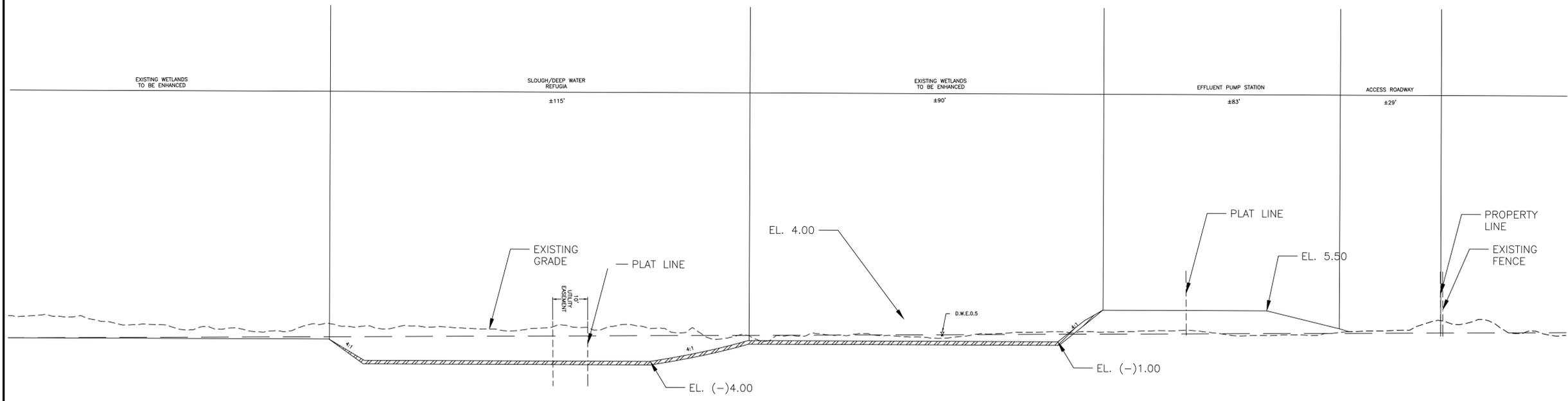
DRAWN BY:
 L.C./M.N.
 DATE: 8/6/2019
 DESIGNED BY:
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 CHECKED BY:
 A.G.
 FIELD BOOK:
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 HOR 1"=40'

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NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTION F

SHEET NO.
9
 TOTAL: 12
 CAD FILE:
 11419-004-SITE
 DRAWING FILE NO.
 4-135-81



SECTION F-F

NOTE: ELEVATIONS SHOWN IN NAVD88



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- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- TSE Species Surveys
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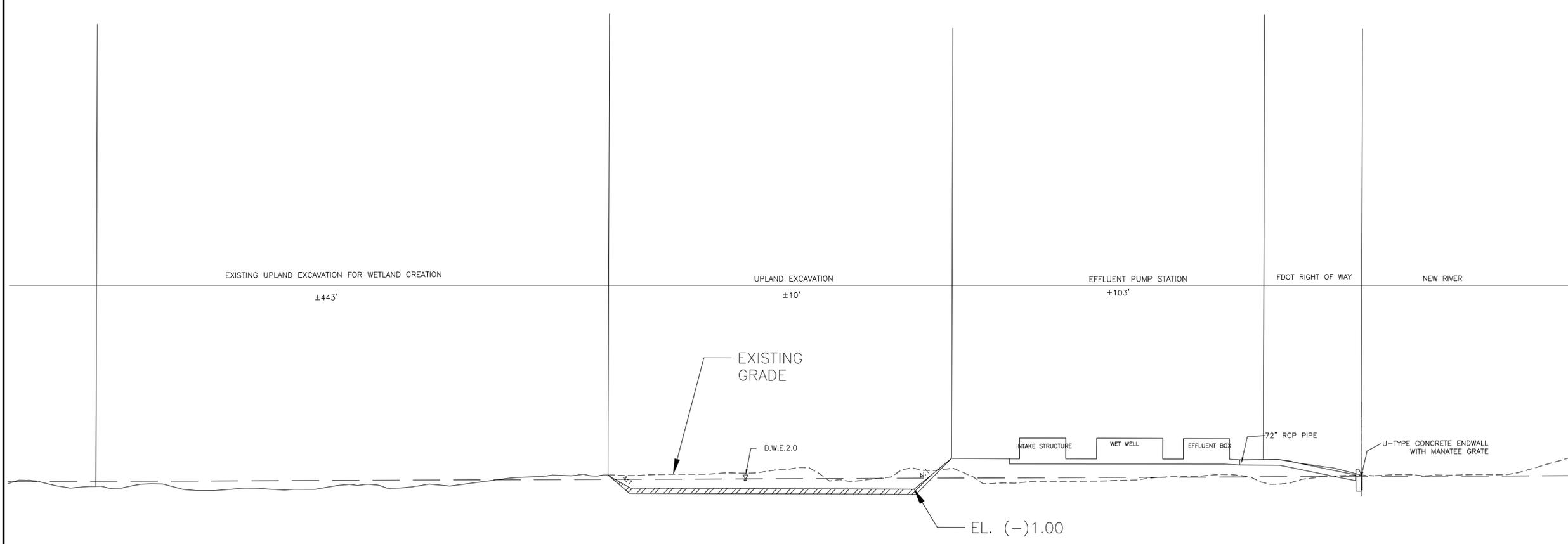
ENGINEER:
 PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
 TEL: 954-739-8600
 FAX: 954-739-8409

DRAWN BY:
 L.C./M.N. 8/6/2019
 DESIGNED BY: SCALE:
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOR 1"=40'
 A.G.
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100 North Andrews Avenue, Fort Lauderdale, Florida 33301



SECTION G-G

NOTE: ELEVATIONS SHOWN IN NAVD88

REVISIONS		DESCRIPTION
NO.	DATE	BY / CHKD

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
SECTION G

SHEET NO.
10
 TOTAL: 12
 CAD FILE:
 11419-004-SITE
 DRAWING FILE NO.
 4-135-81



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- Phase I ESAs

PLANTING PLAN

MARSH (± 3.16 ac)

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Pontedaria cordata</i>	Pickerelweed	3' o/c	5,000	BR	1.0' - 2.0' NAVD
<i>Sagittaria latifolia</i>	Duck potato	3' o/c	5,000	BR	1.0' - 2.0' NAVD
<i>Sagittaria lancifolia</i>	Arrow arum	3' o/c	1,040	BR	1.0' - 1.5' NAVD
<i>Thalia geniculata</i>	Fireflag	3' o/c	1,050	BR	1.0' - 2.0' NAVD
<i>Crinum americanum</i>	Swamp lily	3' o/c	3,200	BR	1.5' - 2.0' NAVD
Subtotal			15,290		

TRANSITIONAL BUFFER (± 0.72 ac)

TREES

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Taxodium distichum</i>	Bald cypress	10' o/c	80	7gal	2.5' - 3.0' NAVD
<i>Annona glabra</i>	Pond apple	10' o/c	35	3gal	2.5' - 3.5' NAVD
<i>Swietenia mahagoni</i>	Mahogany	10' o/c	20	7gal	2.5' - 4.0' NAVD
<i>Platanus occidentalis</i>	Buttonwood	10' o/c	15	7gal	2.5' - 3.5' NAVD
<i>Sabal palmetto</i>	Cabbage palm	10' o/c	150	8-10'	2.5' - 4.0' NAVD
Subtotal			300		

SHRUBS & GROUNDCOVERS

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Tripsacum dactyloides</i>	Fakahatchee grass	4' o/c	200	1gal	3.5' - 4.0' NAVD
<i>Spartina bakeri</i>	Sand cordgrass	4' o/c	200	1gal	2.5' - 4.0' NAVD
<i>Hamelia patens</i>	Firebush	4' o/c	630	1gal	2.5' - 4.0' NAVD
<i>Psychotria nervosa</i>	Wild coffee	4' o/c	630	1gal	2.5' - 4.0' NAVD
<i>Muhlenbergia capillaris</i>	Muhly grass	4' o/c	300	LN	2.5' - 4.0' NAVD
Subtotal			1,960		

TOTAL 2,260

SIZE ABBREVIATIONS

- BR = Bare root
- LN = Liner
- 1gal = 1 gallon
- 8-10' = 8-10' in height

SLOUGH (± 0.88ac)

<i>Scirpus californicus</i>	Giant bulrush	3' o/c	1,060	BR	1.0' - (-) 4.0' NAVD
<i>Nymphaea odorata</i>	White water lily	3' o/c	3,200	BR	1.5' - (-) 4.0' NAVD
Subtotal			4,260		

TREE ISLAND (± 0.925 ac)

TREES

EXISTING TREES TO REMAIN ON TREE ISLANDS AND SUPPLEMENTAL PLANTINGS TO BE DONE WITH RELOCATED TREES

SHRUBS & GROUNDCOVERS

SPECIES	COMMON NAME	SPACING	QUANTITY	SIZE	ELEVATION
<i>Chrysobalanus icaco</i>	Cocoplum	4' o/c	850	1gal	2.5' - 4.0' NAVD
<i>Tripsacum dactyloides</i>	Fakahatchee grass	4' o/c	200	1gal	≥3.5' NAVD
<i>Hamelia patens</i>	Firebush	4' o/c	850	1gal	2.5' - 4.0' NAVD
<i>Psychotria nervosa</i>	Wild coffee	4' o/c	620	1gal	2.5' - 4.0' NAVD
Subtotal			2,520		



MITIGATION SIGNAGE (TYP.)

ENGINEER: PATRICK J. GIBNEY
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 DATE: 10/26/2018
 TEL: 954-739-8400
 FAX: 954-739-8409

DRAWN BY: DATE: 8/6/2019
 L.C./M.N. 8/6/2019
 DESIGNED BY: SCALE: 1"=2'
 W.R./M.N. VERT 1"=2'
 CHECKED BY: HOF 1"=40'
 A.G.
 FIELD BOOK:

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 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 PLANTING PLAN

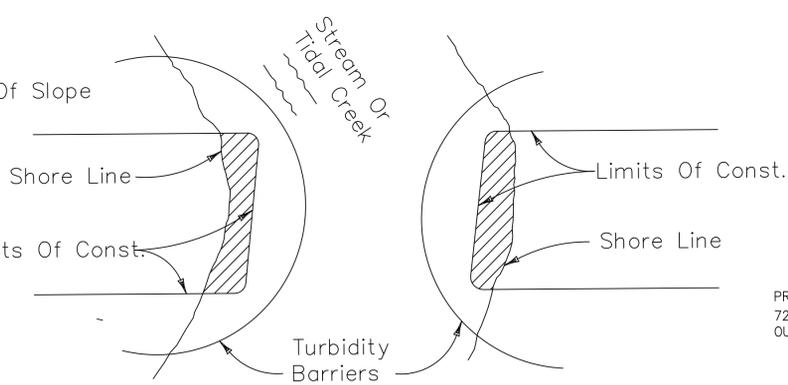
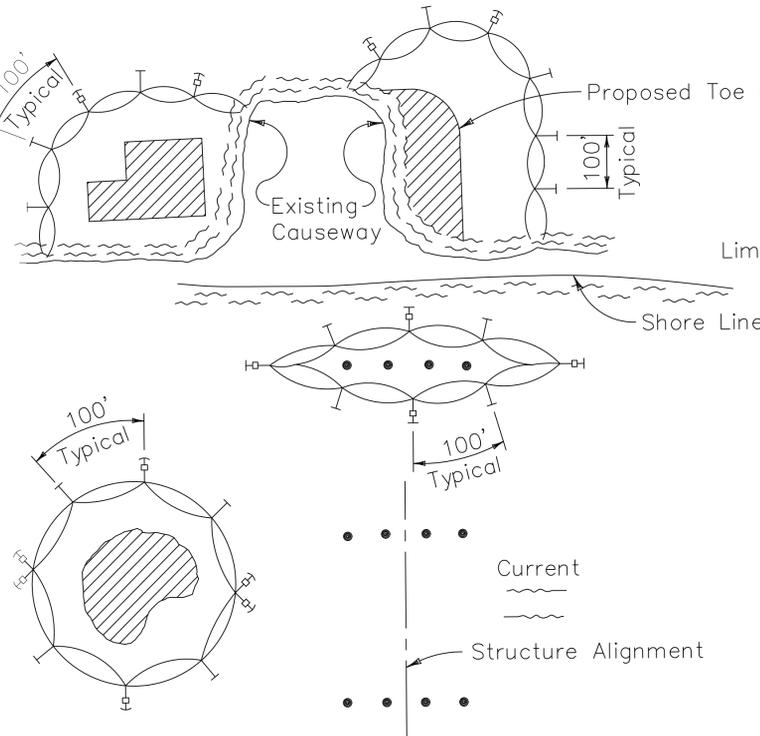
SHEET NO.
11
 TOTAL: 12
 CAD FILE:
 11419-004-SITE
 DRAWING FILE NO.
 4-135-81

CRAVEN + THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 3583 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-8409 TEL: (954) 739-8400
 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 0200114

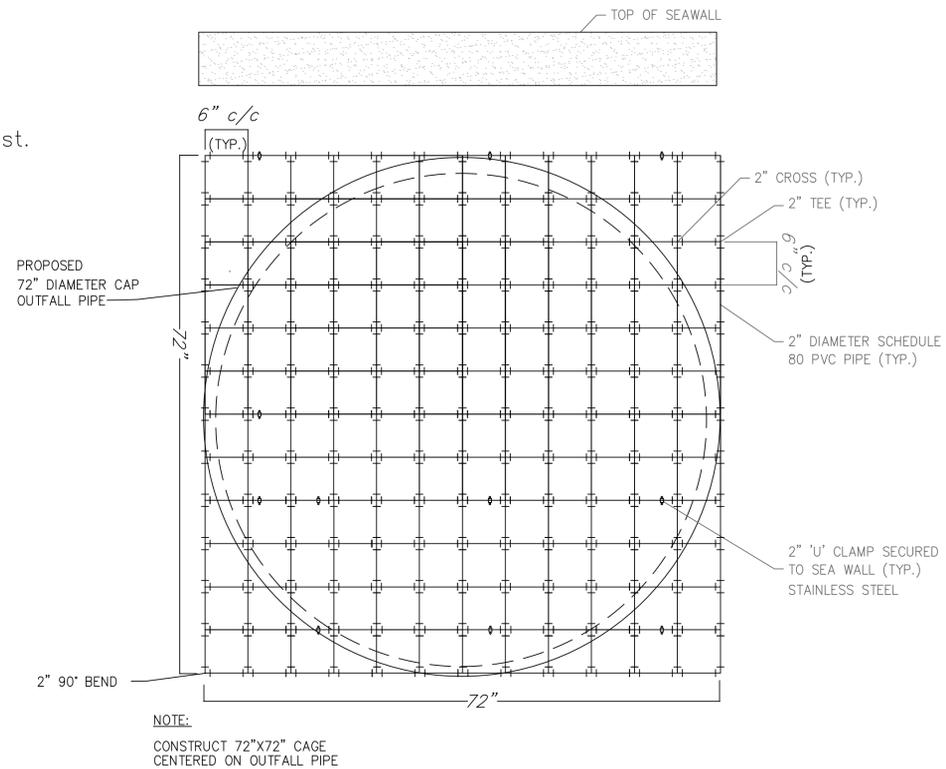
THE Chappell GROUP INC.
 714 East McNab Road
 Pompano Beach, Florida 33060
 TEL: 954.782.1909
 FAX: 954.782.1108 www.thechappellgroup.com

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

TURBIDITY BARRIER APPLICATIONS



Note:
 Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



NOTE:
 CONSTRUCT 72"X72" CAGE
 CENTERED ON OUTFALL PIPE

MANATEE EXCLUDER DETAIL
 N.T.S.

LEGEND

- Pile Locations
- ▨ Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.

ENGINEER: PATRICK J. GIBNEY
 REG. NO. 48428
 DATE: 10/26/2018
TEL: 954-739-8400
FAX: 954-739-8409

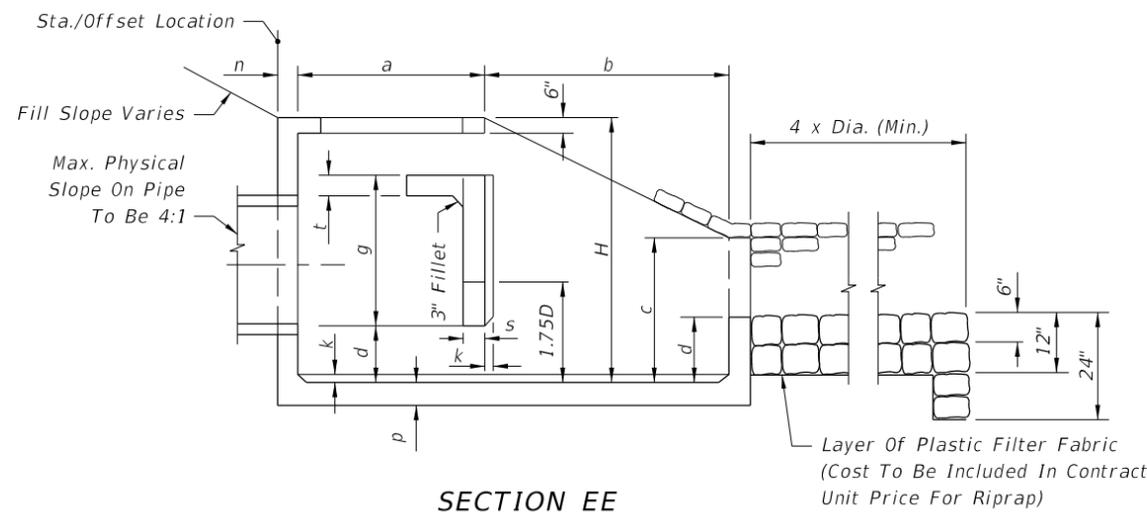
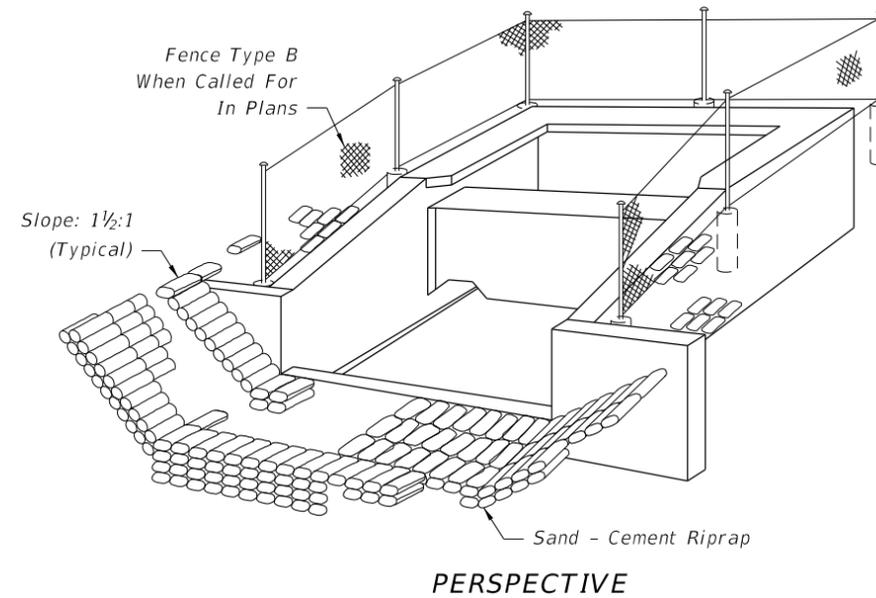
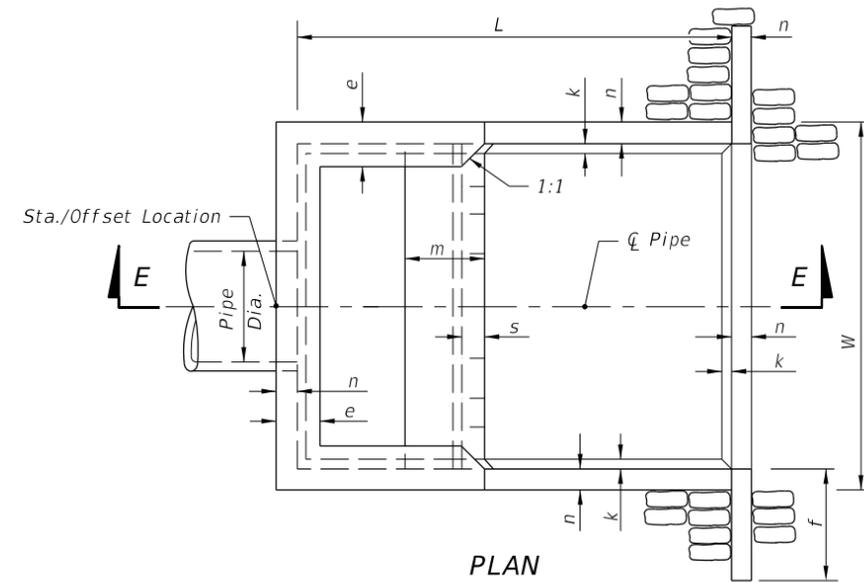
DRAWN BY: L.C./M.N. 8/6/2019
DESIGNED BY: W.B./M.N. VERT 1"=2'
CHECKED BY: A.G. HOF 1"=40'
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHKD	DESCRIPTION

PROJECT # 11419
RIVER OAKS PRESERVE
ENVIRONMENTAL
SITE PLAN
EROSION CONTROL

SHEET NO.
12
TOTAL: 12
CAD FILE: 11419-004-SITE
DRAWING FILE NO. 4-135-81



GENERAL NOTES

1. U-type concrete endwall energy dissipators are intended for use outside the clear zone.
2. Chamfer all exposed edges $\frac{3}{4}$ ".
3. Concrete shall be Class I, except ASTM C478 (4000 psi) concrete may be substituted for precast items manufactured in plants meeting the requirements of Section 449 of the Specifications.
4. Reinforcing steel shall have 2" min. cover.
5. Endwall to be paid for under the contract unit price for Class I Concrete (Endwalls), CY and Reinforcing Steel (Roadway), LB. Riprap to be paid for under the contract unit price for Riprap (Sand-Cement) (Roadway), CY. Cost of plastic filter fabric to be included in the contract unit price for riprap.
6. Fencing, when called for in the plans, to be paid for under the contract unit price for Fencing, Type B, LF. See Index No. 802 for details of Type B fencing.

Pipe Size		Q (Max) (cfs)	Dimensions															Concrete Class I (CY)	Reinf. Steel (lb)	Sand-Cement Riprap (Nom.) (CY)	
Dia. (in)	Area (SF)		Feet - Inches										Inches								
			W	H	L	a	b	c	d	e	f	g	m	n	p	s	t				k
30	4.91	59	9-0	6-3	10-8	4-7	6-1	3-4	1-4	1-2	2-6	3-0	1-11	6	6½	7	7	3	6.72	736	10.6
36	7.07	85	10-5	7-3	12-4	5-3	7-1	3-10	1-7	1-3	3-0	3-6	2-3	7	7½	8	8	3	10.34	1,072	13.6
42	9.62	115	11-10	8-0	14-0	6-0	8-0	4-5	1-9	1-6	3-0	3-11	2-6	8	8½	9	8	4	14.82	1,429	17.5
48	12.57	151	13-3	9-0	15-8	6-9	8-11	4-11	2-0	1-7	3-0	4-5	2-10	9	9½	10	8	4	20.36	2,000	22.1
54	15.90	191	14-8	9-9	17-4	7-4	10-0	5-5	2-2	1-10	3-0	4-11	3-0	10	10½	10	8	4	27.19	2,659	27.2
60	13.63	236	16-1	10-9	19-0	8-0	11-0	5-11	2-5	1-11	3-0	5-4	3-4	11	11½	11	8	6	34.49	3,552	32.5
66	23.76	285	17-3	11-6	20-6	8-8	11-10	6-5	2-7	2-1	3-0	5-9	3-7	12	12½	12	8	6	42.82	4,472	38.3
72	28.27	339	18-6	12-3	22-0	9-3	12-9	6-11	2-9	2-3	3-0	6-2	3-9	12	12½	12	8	6	50.68	5,426	44.5

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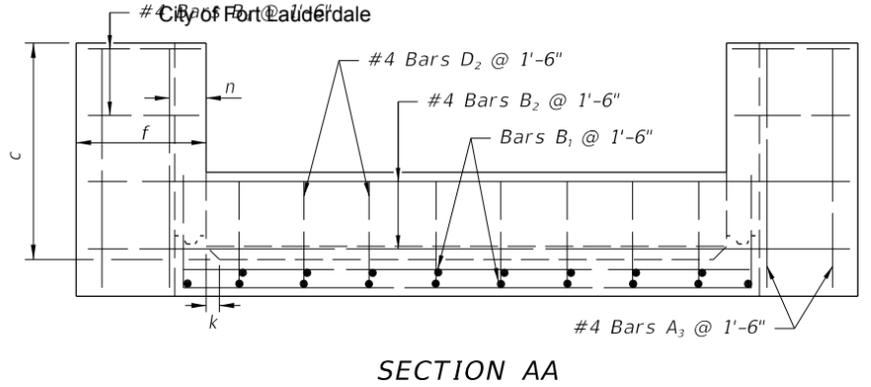
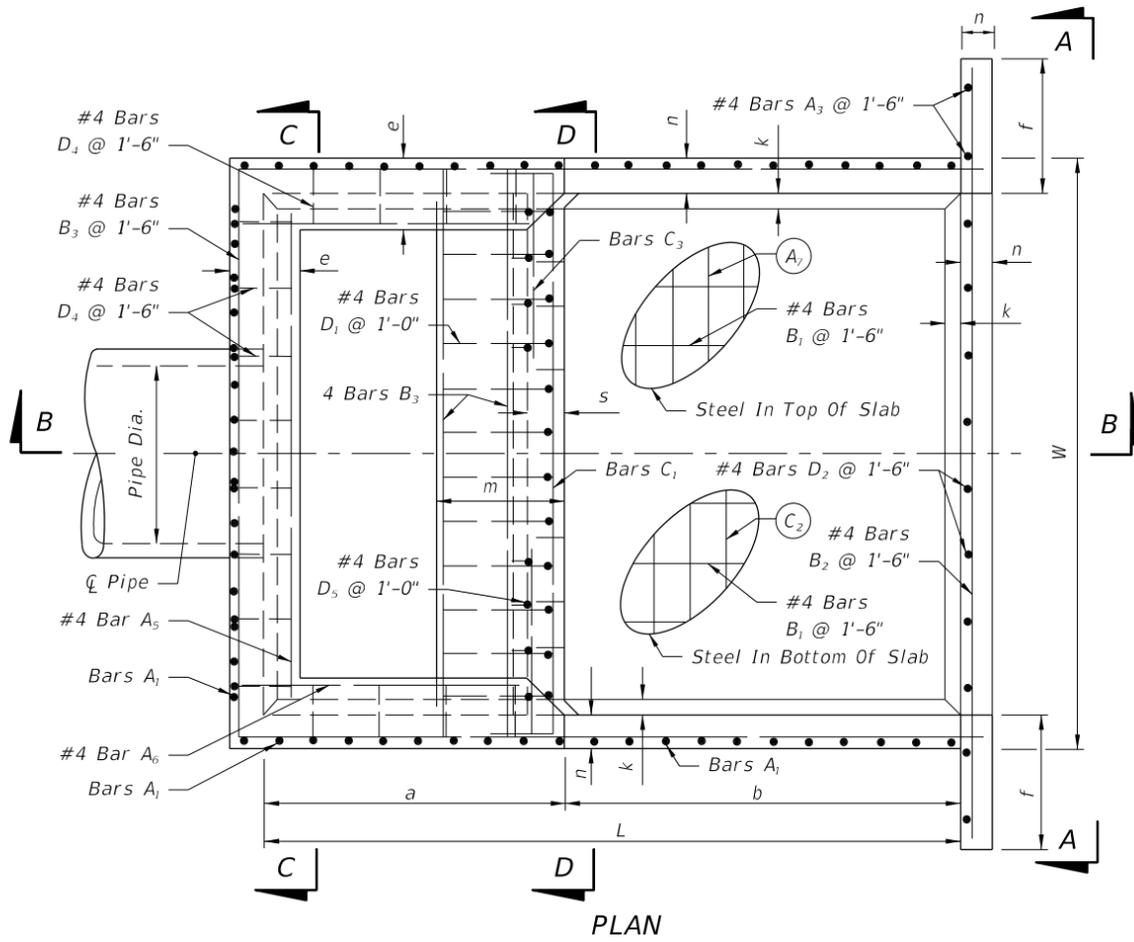
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FY 2017-18
DESIGN STANDARDS

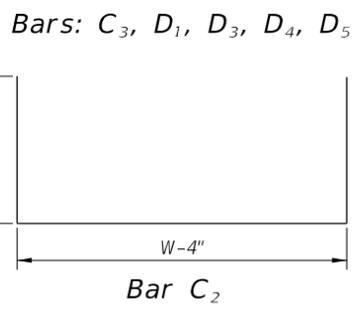
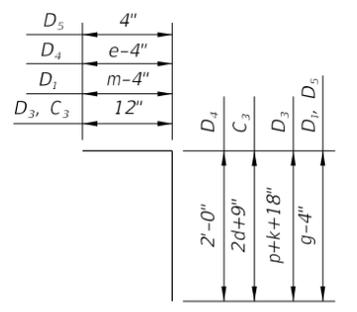
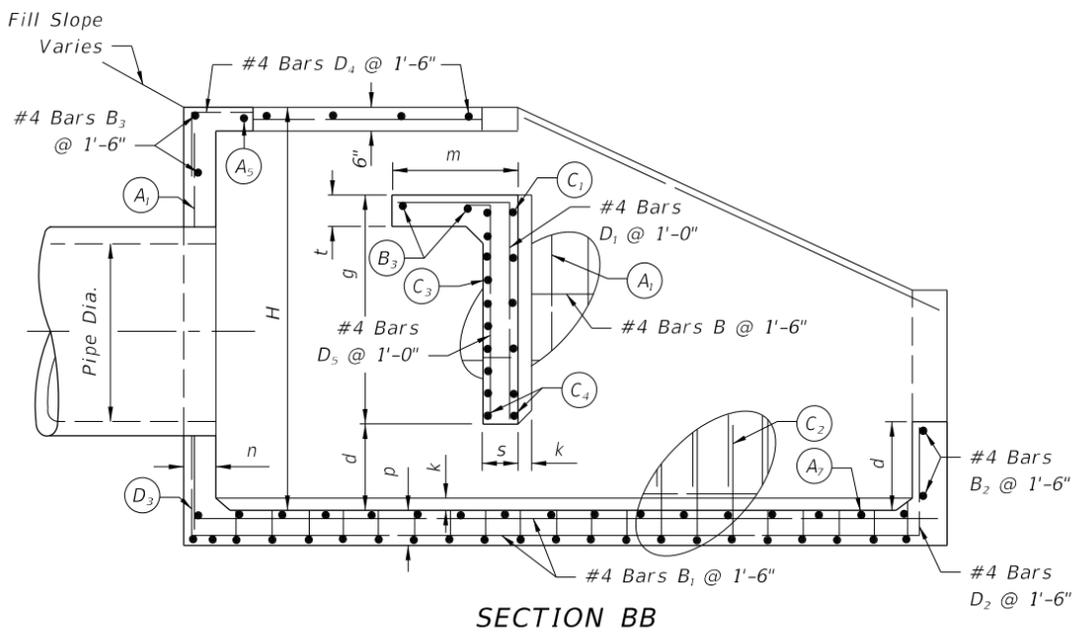
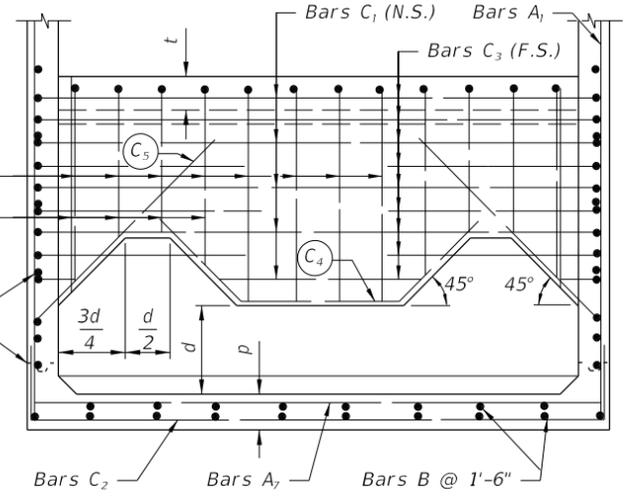
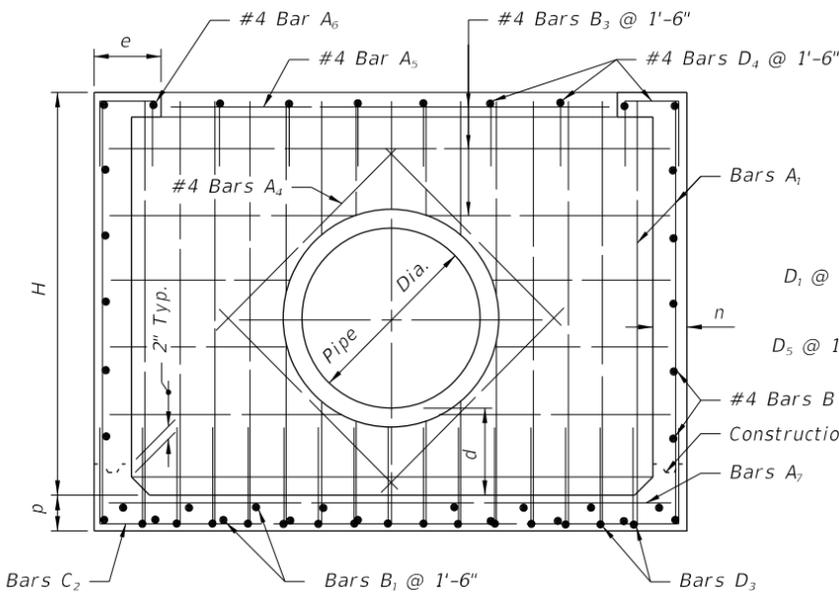
U-TYPE CONCRETE ENDWALL
ENERGY DISSIPATOR 30" TO 72" PIPE

INDEX NO. CAM	SHEET NO.
204	10 of 2

Page 13 of 42



Note: Bars C₄ & C₅ (N.S. & F.S.) equivalent in size to C₃ (cut and bend as required)



Note: All bar dimensions are out to out.

Pipe Size	A ₁		A ₇		C ₁		C ₂		C ₃		D ₃	
	Size (No.)	Spacing (Ft.-In.)										
30"	4	0-9½	4	1-6	5	0-11	4	0-9½	5	0-5½	4	0-9½
36"	5	1-0	4	1-6	5	0-10	5	1-0	5	0-5	5	1-0
42"	5	0-11	4	1-6	6	1-1	5	0-11	6	0-6½	5	0-11
48"	5	0-9½	4	1-0	6	1-0	5	0-9½	6	0-6	5	0-9½
54"	5	0-8½	4	0-10	7	1-1	5	0-8½	7	0-6½	5	0-8½
60"	6	0-10	5	1-1	7	1-0	6	0-10	7	0-6	6	0-10
66"	6	0-8½	5	0-11½	7	0-11	6	0-8½	7	0-5½	6	0-8½
72"	6	0-7½	5	0-10	7	0-10	6	0-7½	7	0-5	6	0-7½

Note: Bars A₂, A₃, A₄, A₅, A₆, B₁, B₂, B₃, B₄, B are straight bars.

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U-TYPE CONCRETE ENDWALL ENERGY DISSIPATOR 30" TO 72" PIPE

INDEX NO. CAM	SHEET #
204	2 of 2

SFWMD Special Conditions

1. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.
2. Measures shall be taken during construction to insure that sedimentation and/or turbidity problems are not created in the receiving water.
3. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
4. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.
5. The conditions outlined in the Broward County Specific Conditions section, except where language specifically relates to Broward County Code, are incorporated into these SFWMD Special Conditions.
6. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
7. Operation of the surface water management system shall be the responsibility of permittee.
8. All terms, conditions, and exhibits previously stipulated by SFWMD Permit # 06-XXXXX-S/P will apply to this license unless specifically modified.
9. This permit expires on December 18, 2020.
10. If 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, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The Permittee or other designee should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at 850-245-6333 or 800-847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources.

In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, Florida Statutes.

Broward County General Conditions:

1. The terms, conditions, requirements, limitations and restrictions set forth herein are accepted by the licensee and enforceable by EPGMD pursuant to this chapter. EPGMD will review this license periodically and may revoke the license, initiate administrative and/or judicial action for any violation of the conditions by the licensee, its agents, employees, servants or representatives or principals.
2. This license is valid only for the specific uses set forth in the license application, and any deviation from the approved uses may constitute grounds for revocation and enforcement action by EPGMD.
3. In the event the licensee is temporarily unable to comply with any of the conditions of the license, the licensee shall notify EPGMD within twelve (12) hours. Within five (5) working days of the event, the licensee shall submit a written report to EPGMD that describes the incident, its cause, the measures being taken to correct the problem and prevent its reoccurrence, the owner's intention toward repair, replacement, and reconstruction of destroyed facilities, and a schedule of action leading toward operation within the license conditions.
4. The issuance of this license does not convey any vested rights or exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights, or any violations of federal, state or local laws or regulations.
5. This license must be available for inspection on the licensee's premises during the entire life of the license.
6. By accepting this license, the licensee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, that are submitted to EPGMD, may be used by EPGMD as evidence in any enforcement proceeding arising under Chapter 27, except where such use is prohibited by § 403.111, F.S.
7. The licensee agrees to comply with Chapter 27, as amended.
8. Any new owner of a licensed facility shall apply by letter for a transfer of license within thirty (30) days after sale or legal transfer. The transferor shall remain liable for performance in accordance with the license until the transferee applies for, and is granted the transfer of license. The transferee shall also be liable for performance in accordance with the license.
9. The licensee, by acceptance of this license, specifically agrees to allow access to the licensed source at reasonable times by EPGMD personnel for the purposes of inspection and testing to determine compliance with this license and this Chapter 27.
10. This license does not constitute a waiver or approval of any other license that may be required for other aspects of the total project.
11. If the licensee wishes to renew a license or extend its term, the licensee shall make application sixty (60) days prior to its expiration. Expired licenses are not renewable.
12. In addition to the general conditions set forth above, each license issued by EPGMD shall contain specific conditions determined by site conditions and requirements pursuant to the regulations as determined by the director of EPGMD. The licensee agrees that specific conditions are enforceable by EPGMD for any violation thereof.
13. Enforcement of the terms and provisions of this license shall be at the reasonable discretion of EPD, and any forbearance on behalf of EPD to exercise its rights hereunder in the event of any breach by the licensee, shall not be deemed or construed to be a waiver of EPD's rights hereunder.

Broward County Specific Conditions

1. The licensee shall allow authorized personnel of the Environmental Licensing and Building Permitting Division (ELBPD), municipality or local water control district to conduct such inspections at reasonable hours, as are necessary to determine compliance with the requirements of the license and the approved plans and specifications.
2. The responsible entity shall agree to maintain the operating efficiency of the water management works. Except in cases where the responsible entity is a governmental agency, the agreement shall further require that if the water management works is not adequately maintained, the County may undertake the required work and bill all associated costs to the responsible entity. If the payment for such obligations is not satisfied within 30 days, said obligation shall become a lien against the property associated with the water management works. Where ownership of the water management works is separate from property ownership, the ELBPD shall require these agreements to be recorded.
3. The licensee shall prosecute the work authorized in a manner so as to minimize any adverse impact of the works on fish, wildlife, natural environmental values, and water quality. The licensee shall institute necessary measures during the construction period, including fill compaction of any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters. Any erosion, shoaling or deleterious discharges due to permitted actions will be corrected promptly at no expense to the County.
4. The licensee shall comply with all applicable local land use and subdivision regulations and other local requirements. In addition, the licensee shall obtain all necessary Federal, State, local and special district authorizations prior to the start of any construction alteration of works authorized by this license.
5. Offsite discharges during construction and development shall be made only through the facilities authorized by this license. Water discharged from the project shall be through structures having a mechanism for regulating upstream water stages. Stages may be subject to operating schedules satisfactory to the appropriate regulatory agency.
6. The licensee shall hold and save the County harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by the license.
7. The license does not convey property rights nor any rights or privileges other than those specified therein.
8. No construction authorized by the license shall commence until a responsible entity acceptable to the ELBPD has been established and has agreed to operate and maintain the efficiency of the system. The entity must be provided with sufficient ownership so that it has control over all water management facilities authorized therein. Upon receipt of written evidence of the satisfaction of this condition, the ELBPD will issue authorization to commence the construction.
9. No beautification, or erection of any structure that will prohibit or limit access of maintenance equipment or vehicles in the right-of-way or easements will be allowed.
10. Any license which grants any entity the permission to place a structure on property which is owned by Broward County or upon which Broward County has an easement shall be construed to create a revocable license for that structure to remain on the property. Broward County may require removal of such a structure at no cost to the County.
11. The area under license will be maintained in a safe and operating condition at all times. Equipment will be promptly removed from the right-of-way or easement and the right-of-way or easement will be restored to its original or better condition within a reasonable time on termination of the authorized use.

12. The ELBPD will be notified, as required in the license or as indicated on the approved plans, to coordinate and schedule inspections.
13. The operation or construction will be in accordance with the approved details and plans submitted with the application. Any modification must be submitted to the ELBPD in writing and receive prior approval.
14. Monitoring may be required for sites with high pollutant generating potential, such as industrial sites, Class I and II solid waste disposal sites, and projects discharging to areas identified in Section 27-200 (b) (1) (o). Such monitoring will be under the cognizance of the ELBPD.
15. Upon completion of the construction of a surface water management system or phase thereof licensed by the ELBPD, it is a requirement of the issuance of the license, and hence transfer of operation and maintenance responsibility, that a Florida Registered Professional Engineer certify that the surface water management system was indeed constructed as licensed. Certified record drawings shall accompany the certification. Suggested wording for this is as follows:
- I HEREBY CERTIFY TO THE CONSTRUCTION COMPLETION OF ALL THE COMPONENTS OF THE SURFACE WATER MANAGEMENT FACILITIES FOR THE ABOVE REFERENCES PROJECT AND THAT THEY HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE BROWARD COUNTY ELBPD, AND HEREBY AFFIX MY SEAL THIS _____ DAY OF _____, 20____.
- _____
(SEAL)
16. Water management areas shall be legally reserved to the operation entity and for that purpose by dedication on the plat, deed restrictions, easements, etc., so that subsequent owners or others may not remove such areas from their intended use. Management areas, including maintenance easements, shall be connected to a public road or other location from which operation and maintenance access is legally and physically available.
17. The licensee shall notify the ELBPD in writing within twenty-four (24) hours of the start, finish, suspension, and/or abandonment of any construction or alteration of works authorized by this license.
18. A prorated share of surface water management retention/detention areas, sufficient to provide the required flood protection and water quality treatment, must be provided prior to occupancy of any building or residence.
19. The operation license shall be valid for a specific period of time not to exceed five (5) years from the date the license is transferred to the operation phase. The operation license shall be renewed in accordance with Section 27 - 198 (d) (2) of the Article.
20. The ELBPD reserves the right to require additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
21. This permit does not constitute the approval required by Section 27-353(i), Broward County Code, to conduct dewatering operations at or within one-quarter mile radius of a contaminated site. Please contact the Pollution Prevention Division at (954) 519-1260 for further information.

22. The licensee shall keep a log of the operation and maintenance schedule for all components of the surface water management system.
23. The surface water management system must be inspected by the Surface Water Management Section to verify compliance with Specific Condition No. 15 of the license. In accordance with the Broward County Natural Resource Protection Code, Article I, Sec. 27-66 (f), the County agency or municipal agency charged with issuing a certificate of occupancy (CO) shall not issue a CO until notified of the Broward County ELBPD approval. Partial certifications will be handled in accordance with Specific Condition No. 18.
24. The licensee is advised that he/she is required to submit a Storm Water Notice of Intent (NOI) application at least 48 hours prior to the commencement of construction to the Florida Department of Environmental Protection, NPDES Stormwater Notices Center, MS #3585 at 2600 Blair Stone Road - Tallahassee, Florida 32399-2400.
25. Prior to the commencement of construction of a future phase(s), a license modification will be required.

***SPECIFIC CONDITIONS from the
AQUATIC AND WETLAND RESOURCES PROGRAM:***

A. STANDARD CONDITIONS

1. Any project caused environmental problem(s) shall be immediately reported to the Department's Environmental Response Line at 954-519-1499.
2. **All project generated solid waste and/or spoil material must be disposed of in a suitable approved manner at an upland location and shall not be left in the water.**
3. Spoil generated from the excavation authorized by this license must be placed on an upland site and contained in such a manner as to prevent erosion into wetlands or other surface waters.
4. This license does not authorize mangrove trimming, alteration or removal, as defined in the 1996 Mangrove Trimming and Preservation Act, nor does it authorize any mangrove impacts due to construction activities. Unauthorized activities will result in enforcement action.
5. The maximum over-water area of the new boardwalk shall be 6' x 3117' (108,493 square feet) and shall be set at elevation 5.5 NGVD.
6. The licensee shall ensure that turbidity curtains surround all project areas, including all active work sites, and any previously worked sites that could continue to emit a turbid discharge.
7. Turbidity screens or equivalent shall be properly employed and maintained as necessary during construction activities so that turbidity levels do not exceed 29 NTU's above natural background 50 feet downstream of point of discharge. If turbidity levels exceed these limits, project activities shall immediately cease, and work shall not resume until turbidity levels drop to within these limits [62-302.530(69) FAC].
8. Turbidity levels shall be monitored and recorded if a visible turbidity plume is observed leaving the site during construction activities. If monitoring reveals that turbidity levels exceed 29 NTU's above natural background 50 feet downstream of the point of discharge, project activities shall immediately cease, and work shall not resume until turbidity levels drop to within these limits [62-302.530(69) FAC].
9. If an observable turbidity plume is visible leaving the site, the licensee shall:
 - a. Immediately cease all work contributing to the water quality violation. Operations may not resume until the Department gives authorization to do so.
 - b. Notify the Development and Environmental Regulation Division (954) 519-1230 within 24 hours of the time the first violation is detected.
 - c. Stabilize all exposed material contributing to the water quality violation. Modify the work procedures that were responsible for the violation, and install more turbidity containment devices and/or repair any non-functioning turbidity containment devices. If required by the Department, a turbidity monitoring program shall be initiated.
10. Any water bodies or wetlands to be filled pursuant to this license must be filled only with rock, soil or muck, as appropriate and depicted on the attached drawings. Fill material which includes clean debris as defined in Section 27-214 is not authorized by this license. **Use as fill of any materials other than rock, soil or muck shall constitute a violation of this license.**

11. All construction related equipment and materials shall be stored or stockpiled outside the wetland boundary.
12. If the approved license drawings and/or license attachments/plans conflict with the specific conditions, then the specific conditions shall prevail.
13. **This license does not eliminate the necessity to obtain any required federal, state, local or special district authorizations prior to the start of any activity approved by this license.**

B. CONSTRUCTION CONDITIONS

1. If the approved license drawings and/or license attachments/plans conflict with the specific conditions, then the specific conditions shall prevail.
2. **Demolition and construction related debris must be disposed of at an approved upland location and may not be left in the water or wetland areas.**
3. Any wetland areas or water bodies which are adjacent to the specific limits of construction authorized by this license shall be protected from erosion, sedimentation, siltation, scouring, excess turbidity or dewatering.
4. This license does not eliminate the necessity to obtain any required federal, state, local or special district authorizations prior to the start of any activity approved by this license.
5. Please be advised that applicants with projects 1 acre or greater in size are required to submit a Storm Water Notice of Intent application 48 hours prior to the commencement of construction to the Florida Department of Environmental Protection, NPDES Stormwater Notices Center, MS #2510, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In addition, please submit a Stormwater Pollution Prevention Plan to the appropriate local jurisdiction (Broward County Water Resources Division, Drainage District, or municipality) showing all Best Management Practices to be implemented during the construction of the project. The plan must be on a 24" X 36" drawing.

C. MITIGATION CONDITIONS

1. Impacts to 0.16 acres of herbaceous wetlands (UMAM Functional Loss = 0.08) is offset by the creation of 4.18 acres of herbaceous wetlands (Functional Gain value = 1.56), 0.84 acre of forested wetland enhancement (Functional Gain value = 0.07), 0.08 acre of transitional wetland creation (Functional Gain value = 0.03) and 2.44 acres of herbaceous wetlands restoration (Functional Gain value = 0.20). Total proposed functional loss = 0.08 UMAM units and total proposed mitigation functional value – 1.78 functional units.
2. Long-term management and maintenance of the Stormwater Park mitigation shall be the perpetual responsibility of the City of Fort Lauderdale. The conservation areas shall be the perpetual responsibility of the City of Fort Lauderdale and may in no way be altered from their natural or licensed state as documented in this license, with the exception of restoration activities. Activities prohibited within the conservation area(s) include, but are not limited to: construction or placement of soil or other substances such as trash; removal or destruction of trees, shrubs or other vegetation (with the exception of exotic/nuisance vegetation) removal; excavation, dredging, or removal of soil material; diking or fencing; and any other activities detrimental to drainage, flood control, water conservation, erosion control or fish and wildlife habitat conservation or preservation.

3. A maintenance program shall be implemented in accordance with Exhibit No. _____ for the preserved/restored/enhanced/created wetland/upland areas on a regular basis to ensure the integrity and viability of those areas as licensed. Maintenance shall be conducted in perpetuity to ensure that the conservation area is maintained free from Category 1 exotic vegetation (as defined by the Florida Exotic Pest Plant Council at the time of license issuance) immediately following a maintenance activity. Coverage of exotic and nuisance plant species shall not exceed [2%] of total cover between maintenance activities. In addition, the licensee shall manage the conservation areas such that exotic/nuisance plant species do not dominate any one section of those areas.
4. Construction and installation of the Areas shall be in accordance with plans dated 06/30/15 (attached) and associated information.
5. Upon completion of the Areas, the following documentation shall be submitted to the Department: (1) certification of elevations in relation to design; (2) verification of actual acreage' and (3) the time-zero monitoring report. This documentation is required **within 30 days of completion** of the Areas and **prior** to any Certificate of Occupancy being issued for any structure on the site/phase.
6. All exotic and nuisance vegetation shall be treated or removed from the Areas. Less than **2 %** coverage will be allowed if dispersed throughout the Areas and not concentrated in any particular location. Exotic and nuisance species include but are not limited to: melaleuca, Australian pine, Brazilian pepper, bischofia, torpedo grass, primrose willow, cattail, air potato, and Syngonium.
7. In order to assure that the Area(s) become self-sustaining, the following criteria shall be met:
 - a) A minimum of 80% coverage by desirable wetland species after a two (2) year period and demonstration of persistence for three (3) additional years.
 - b) Less than **2%** coverage by invasive exotic and undesirable species is allowable if plants are dispersed and not concentrated in any particular area. Exotic and undesirable species include, but are not limited to, melaleuca, Australian pine, Brazilian pepper, bischofia, torpedo grass, primrose willow, cattail, air potato, and Syngonium. Treatment efforts should be tailored to prevent these species from becoming reproductively mature.
 - c) A minimum of 80% survival of each planted species shall be maintained each quarter. An exception to this condition may be allowed where species composition, density of planted and recruitment species, the overall wetland condition, as characterized by the growth rates and viability of the Areas are of higher quality, as determined by the Department.
 - d) Hydrologic conditions and soil characteristics are in general conformity to those specified in plans. Data from the permanent surveyed staff gauges must be collected every two weeks and submitted with the quarterly monitoring reports.
 - e) Any preserved or planted species shall be maintained as to exhibit new growth and/or propagation, viability, and overall health. Existing desirable wetland plant species shall not be injured or killed. Any plants that are severely damaged or killed will be replaced on a plant-for-plant basis for shrubs and groundcovers and on an inch-for-inch basis for trees.
8. The Area(s) shall be monitored and reports submitted quarterly for five (5) years describing in detail the condition of the Areas relative to the reference wetland and the criteria listed above (C. 7.a-f).
9. Should the Department determine that the Areas are not achieving the listed criteria during some portion of the monitoring period, the licensee shall determine the reasons for failure and prepare plans that demonstrate clearly how the problem(s) will be corrected and submit such plans

immediately to the Department for approval. Those plans shall be implemented within 30 days from the Departments written approval.

10. The Department must be notified of any change of consultant/contractor during the construction and mitigation monitoring phases of this project.

D. A COPY OF THIS LICENSE SHALL BE KEPT ON SITE DURING ALL PHASES OF LICENSED CONSTRUCTION.

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336

Panama City Field Office – (850) 769-0552

South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.



ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

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- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

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North Florida Field Office – (904) 731-3336

Panama City Field Office – (850) 769-0552

South Florida Field Office – (772) 562-3909

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

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LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

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- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

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USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

- North Florida ES Office – (904) 731-3336**
- Panama City ES Office – (850) 769-0552**
- South Florida ES Office – (772) 562-3909**

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Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

LEGAL STATUS: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.



August 12, 2013

ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!



Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK 2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC

U.S. Army Corps of Engineers Jacksonville District's Programmatic Biological Opinion (JaxBO) Project Design Criteria (PDCs) for In-Water Activities

November 20, 2017

- 1) **(AP.7.) Education and Observation:** The permittee must ensure that all personnel associated with the project are instructed about the potential presence of species protected under the ESA and the Marine Mammal Protection Act (MMPA). All on-site project personnel are responsible for observing water-related activities for the presence of protected species. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing ESA-listed species or marine mammals. To determine which species may be found in the project area, please review the relevant Protected Species List at:
http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/index.html
- 2) **(AP.8.) Reporting** of interactions with protected species:
 - a) Any collision(s) with and/or injury to any sea turtle, sawfish, whale, or sturgeon occurring during the construction of a project, shall be reported immediately to NMFS's Protected Resources Division (PRD) at (1-727-824-5312) or by email to takereport.nmfs@noaa.gov and SAJ-RD-Enforcement@usace.army.mil.
 - b) Smalltooth sawfish: Report sightings to 1-844-SAWFISH or email Sawfish@MyFWC.com
 - c) Sturgeon: Report dead sturgeon to 1-844-STURG 911 (1-844-788-7491) or email nmfs.ser.sturgeonnetwork@noaa.gov
 - d) Sea turtles and marine mammals: Report stranded, injured, or dead animals to 1-877-WHALE HELP (1-877-942-5343).
 - e) North Atlantic right whale: Report injured, dead, or entangled right whales to the USCG via VHF Channel 16.
- 3) **(AP.9.) Vessel Traffic and Construction Equipment:** All vessel operators must watch for and avoid collision with species protected under the ESA and MMPA. Vessel operators must avoid potential interactions with protected species and operate in accordance with the following protective measures:
 - a) *Construction Equipment:*
 - i) All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while operating in water depths where the draft of the vessel provides less than a 4-foot (ft) clearance from the bottom, and in all depths after a protected species has been observed in and has departed the area.
 - ii) All vessels will follow marked channels and/or routes using the maximum water depth whenever possible.
 - iii) Operation of any mechanical construction equipment, including vessels, shall cease immediately if a listed species is observed within a 50-ft radius of

- construction equipment and shall not resume until the species has departed the area of its own volition.
- iv) If the detection of species is not possible during certain weather conditions (e.g., fog, rain, wind), then in-water operations will cease until weather conditions improve and detection is again feasible.
- b) *All Vessels:*
- i) Sea turtles: Maintain a minimum distance of 150 ft.
 - ii) North Atlantic right whale: Maintain a minimum 1,500-ft distance (500 yards).
 - iii) Vessels 65 ft in length or longer must comply with the Right Whale Ship Strike Reduction Rule (50 CFR 224.105) which includes reducing speeds to 10 knots or less in Seasonal Management Areas (<http://www.fisheries.noaa.gov/pr/shipstrike/>).
 - iv) Mariners shall check various communication media for general information regarding avoiding ship strikes and specific information regarding right whale sightings in the area. These include NOAA weather radio, USCG NAVTEX broadcasts, and Notices to Mariners.
 - v) Marine mammals (i.e., dolphins, whales [other than North Atlantic right whales], and porpoises): Maintain a minimum distance of 300 ft.
 - vi) When these animals are sighted while the vessel is underway (e.g., bow-riding), attempt to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until they have left the area.
 - vii) Reduce speed to 10 knots or less when mother/calf pairs or groups of marine mammals are observed, when safety permits.
- 4) **(AP.10.) Turbidity Control Measures during Construction:** Turbidity must be monitored and controlled. Prior to initiating any of the work covered under this Opinion, the Permittee shall install turbidity curtains as described below. In some instances, the use of turbidity curtains may be waived by the USACE project manager if the project is deemed too minimal to generate turbidity (e.g., certain ATON installation, scientific survey device placement, marine debris removal) or if the current is too strong for the curtains to stay in place. Turbidity curtains specifications:
- a) Install floating turbidity barriers with weighted skirts that extend to within 1 ft of the bottom around all work areas that are in, or adjacent to, surface waters.
 - b) Use these turbidity barriers throughout construction to control erosion and siltation and ensure that turbidity levels within the project area do not exceed background conditions.
 - c) Position turbidity barriers in a way that does not block species' entry to or exit from designated critical habitat.
 - d) Monitor and maintain turbidity barriers in place until the authorized work has been completed and the water quality in the project area has returned to background conditions.
 - e) In the range of ESA-listed corals (St. Lucie Inlet, Martin County south to the Dry Tortugas and the U.S. Caribbean) and Johnson's seagrass (Turkey Creek/Palm

Bay south to central Biscayne Bay in the lagoon systems on the east coast of Florida):

- i) Projects that include upland earth moving (e.g., grading to install a building or parking lot associated with a dock and seawall project), must install sediment control barriers to prevent any upland sediments from reaching estuarine or marine waters.
 - ii) The turbidity curtain requirement cannot be waived for any project that moves or removes sediment (e.g., dredging, auger to create a pile, trenching to install a cableline). If turbidity curtains are not feasible in an area based on site conditions such as water current, high wave action, or stormy conditions, the project must undergo individual Section 7 consultation and is not covered under this Programmatic Opinion.
- 5) **(AP.11.) Entanglement:** All turbidity curtains and other in-water equipment must be properly secured with materials that reduce the risk of entanglement of marine species (described below). Turbidity curtains likewise must be made of materials that reduce the risk of entanglement of marine species.
- a) In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) must be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, must be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line is allowed in the water.
 - b) Turbidity curtains and other in-water equipment must be placed in a manner that does not entrap species within the construction area or block access for them to navigate around the construction area.



River Oaks
Onsite Wetland Preserve Monitoring and Maintenance Plan
TCG Project No. 14-0083.001

The proposed onsite wetland preserve plan includes the construction and operation of a surface water management system through the filling of 0.28 acres of existing wetlands to create a portion of the transitional buffer (0.23 acres) and filling in a portion for the proposed pumphouse on the northwestern portion of the property (0.05 acres). Additionally, the proposed plan includes the enhancement of 3.23 acres of existing wetlands and the creation of an additional 2.9 acres of wetlands through the excavation of uplands into a freshwater marsh system. The mitigation component demonstrates avoidance and minimization of wetland impacts to the greatest extent possible by exceeding the required mitigation for impacting 0.28 acres of existing wetlands. The proposed wetland will result in various sub-habitats including freshwater herbaceous marsh, slough, open water and tree islands. These sub-habitats will also be surrounded by both transitional buffer areas, minimizing potential secondary impacts and providing additional habitat components within the conservation area. Overall, the proposed wetland preserve area will result in a high quality, diverse wetland system to offset impacts to an existing, low quality wetland system.

1. During construction of the onsite wetland preserve area, and upon the final grading, the site will be reviewed by an appropriate environmental professional to determine if the wetland restoration has been established based on the design criteria and if the appropriate water depths have been established pursuant to the proposed water table hydrograph. This assessment will also review potential water quality problems such as high levels of turbidity and make recommendations for corrective action. Upon completion of the earthwork, as-built surveys will be reviewed by an appropriate environmental profession before planting activities commence.
2. During the planting process, an appropriate environmental professional will be available to assist, direct, and facilitate the planting process in order to make sure that the appropriate design criteria are met. Upon completion of the planting, a time zero report will be completed to determine if the appropriate quantities of plant material have been established. The Time Zero report will be submitted within 30 days of completion.
3. The quantitative monitoring of the wetland preserve area will include three (3) random one meter quadrat samples along three (3) permanent transects to determine the percent aerial coverage and survival rate of installed and naturally recruited herbaceous and woody species. Percent coverage in selected locations will be determined and survival rate will be established. Monitoring transects will be set to include portions of each proposed habitat type within the area; transitional buffer, marsh, slough and tree island. A permanent stake will be installed at each permanent transect to ensure accurate reporting of the percent aerial coverage and survivability.
4. Panoramic photographic locations will be established to provide supplemental data for the annual monitoring reports. Photographic stations and the location of the monitoring transects are shown on the monitoring plan.

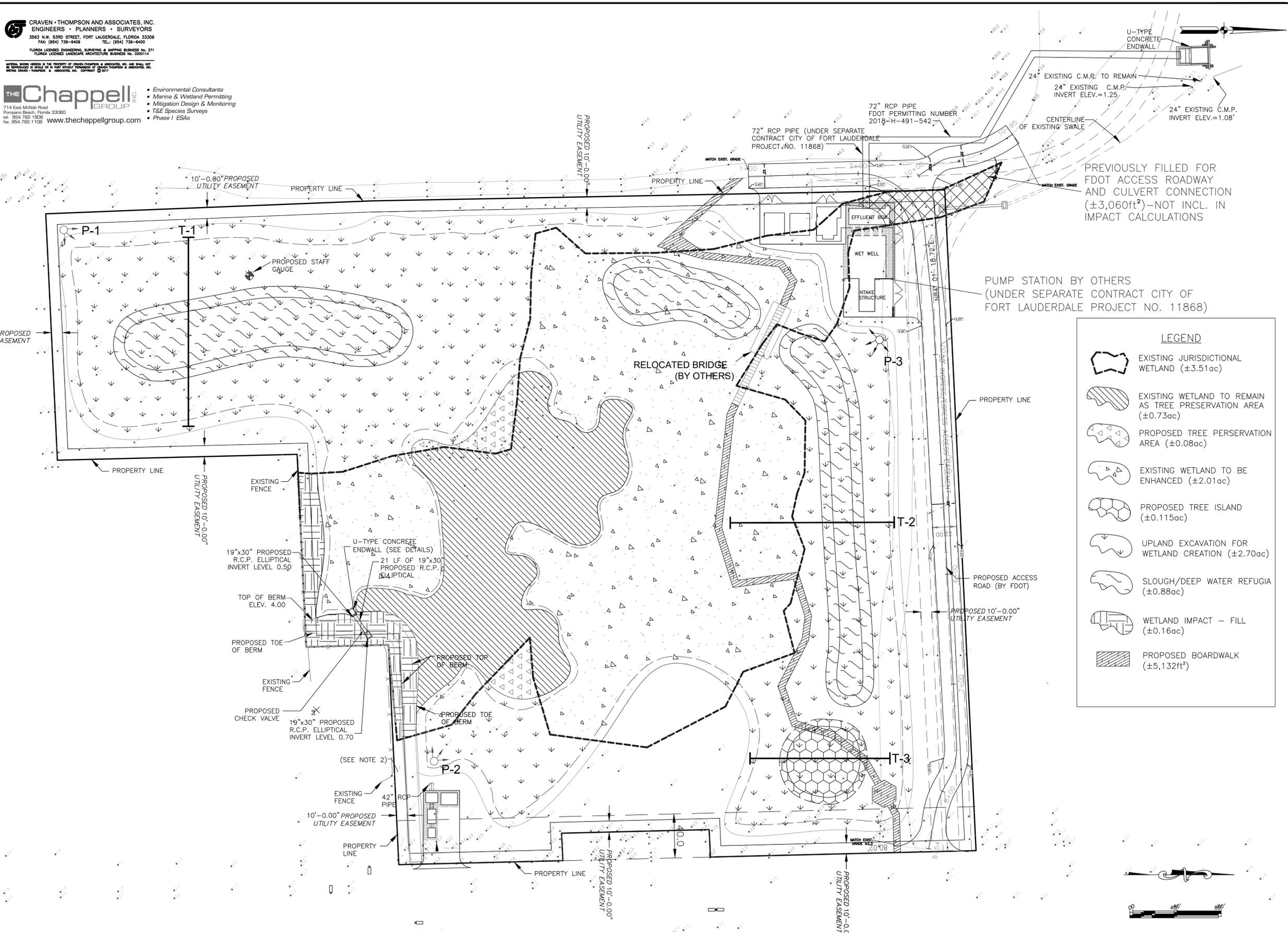


5. One (1) staff gauge will be placed within the onsite wetland preserve area as depicted in the monitoring plan. The staff gauge will be recorded at each annual monitoring period. In addition to annual recordation of water levels, additional readings will be taken during maintenance visits to obtain sufficient data for an accurate hydrograph. An annual hydrograph will be prepared based upon the data gathered and rainfall data sets.
6. Incidental observations of fish and wildlife will be recorded on each monitoring event.
7. Quantitative monitoring will be completed annually for five years. A total of 5 reports plus the time zero report will be submitted to the ACOE.
8. Measurable success criteria shall include 80% survivorship of installed material and 80% coverage by native wetland plant species within the first two years of the monitoring period. In addition, $\leq 2\%$ coverage by nuisance/exotic species will be maintained within the wetland preserve area. If the required survival rate and/or percent coverage is not achieved in the first two (2) years, then corrective action will be taken to achieve these requirements. Additional material will be planted within the mitigation using the same species type(s), spacing, and sizes as those permitted. Nuisance/exotic species will be maintained within the area and cannot exceed 2% coverage within the wetland preserve area. Maintenance will be performed as needed to ensure that this requirement is achieved.
9. Maintenance will be conducted on a quarterly or "as needed" basis, depending on the needs of the wetland area as determined through the ongoing monitoring effort. Species to be eradicated include cattail, primrose willow, melaleuca, Brazilian pepper, torpedo grass, Australian pine, shoe-button ardisia, earleaf acacia, schefflera and any other exotic/nuisance species as listed by Florida Exotic Pest Plant Council (EPPC). Trash and unnatural debris will be removed as needed.
10. Upon completion of the five (5) year monitoring and maintenance program, the managing entity will be responsible for the ongoing and perpetual maintenance of the wetland mitigation area.

CRAVEN • THOMPSON AND ASSOCIATES, INC.
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 FAX: (954) 739-6409 TEL: (954) 739-6400
 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000114

THE Chappell GROUP INC.
 714 East McNeil Road
 Pompano Beach, Florida 33060
 tel: 954-782-1100 fax: 954-782-1108 www.thechappellgroup.com

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- TSE Species Surveys
- Phase I ESAs



LEGEND

- EXISTING JURISDICTIONAL WETLAND (±3.51ac)
- EXISTING WETLAND TO REMAIN AS TREE PRESERVATION AREA (±0.73ac)
- PROPOSED TREE PRESERVATION AREA (±0.08ac)
- EXISTING WETLAND TO BE ENHANCED (±2.01ac)
- PROPOSED TREE ISLAND (±0.115ac)
- UPLAND EXCAVATION FOR WETLAND CREATION (±2.70ac)
- SLOUGH/DEEP WATER REFUGIA (±0.88ac)
- WETLAND IMPACT - FILL (±0.16ac)
- PROPOSED BOARDWALK (±5,132ft²)

ENGINEER: PATRICK J. GIBNEY
 DATE: 10/28/2018
 TEL: 954-739-6400
 FAX: 954-739-6409

DATE: 5/15/2019
 L.C./M.N. SCALE: 1"=2'
 W.R./M.N. VERT SCALE: 1"=40'
 CHECKED BY: A.G.
 FIELD BOOK:

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS	
NO.	DESCRIPTION

PROJECT # 11419
 RIVER OAKS PRESERVE
 ENVIRONMENTAL
 SITE PLAN
 MONITORING PLAN

TOTAL:	1
CAD FILE:	11419-004-SITE
DRAWING FILE NO.:	4-135-B1

Prepared by:
 Permittee: _____
 Address: _____

 Phone: _____

NOTICE OF DEPARTMENT OF THE ARMY PERMIT

TAKE NOTICE the U.S. Army Corps of Engineers (Corps) has issued Department of the Army Permit SAJ-2006-06782 to City of Fort Lauderdale (Permittee) on August 21, 2019, authorizing impacts to waters of the United States (including wetlands) in accordance with Section 404 of the Clean Water Act on a parcel of land known as Folio/Parcel ID: 504216000170, 504216000160, 504216000141, 504216000200, and 504216460010 encompassing 8.41 acres located within a portion of Section 16 , Township 50 south, Range 42 east, Fort Lauderdale, Broward County, Florida.

Within 30 days of any transfer of interest or control of that portion of the premises containing the area authorized to be filled (or any portion thereof), the Permittee must notify the Corps in writing of the property transfer by submitting the completed permit transfer page of the permit. Notification of the transfer does not by itself constitute a permit transfer. Therefore, purchasers of that portion of the premises containing the area authorized to be filled (or any portion thereof) are notified that it is unlawful for any person to construct, alter, operate, maintain, remove or abandon any works, including dredging or filling, without first having obtained a permit from the Corps in the purchaser's name.

The subject Permit concerns only that portion of the property determined to fall within the jurisdiction of the Corps and this notice is applicable only to those portions of the subject property containing areas authorized to be filled and wetland mitigation/conservation areas subject to the Permit.

Conditions of the Permit: The Permit is subject to General Conditions and Special Conditions which may affect the use of the subject property. Accordingly, interested parties should closely examine the entire Permit, all associated applications, and any subsequent modifications.

To obtain a copy of the permit in its entirety submit a written request to:
 U.S. Army Corps of Engineers
 Regulatory Division - Special Projects & Enforcement Branch
 Post Office Box 4970
 Jacksonville, Florida 32232-0019

Questions regarding compliance with these conditions should be directed to:
 U.S. Army Corps of Engineers
 Enforcement Section
 Post Office Box 4970
 Jacksonville, Florida 32232-0019

Conflict Between Notice and Permit

This Notice of Permit is not a complete summary of the Permit. Provisions in this Notice of Permit shall not be used in interpreting the Permit provisions. In the event of conflict between this Notice of Permit and the Permit, the Permit shall control.

This Notice is Not an Encumbrance

This Notice is for informational purposes only. It is not intended to be a lien, encumbrance, or cloud on the title of the premises.

Release

This Notice may not be released or removed from the public records without the prior written consent of the Corps.

This Notice of Permit is executed on this 21 day of August, 2019. This document is being submitted for recordation in the Public Records of Broward County, Florida as part of the requirement imposed by Department of the Army Permit No SAJ-2006-06782 issued by the Corps.

Permittee:

Address: _____

Phone: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____, who is personally known to me or has produced _____ as identification.

(seal) Notary Public

Print

My Commission Expires_____

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineering drawings to the U.S. Army Corps of Engineers, Enforcement Section, 4400 PGA Boulevard, Suite 500, Palm Beach Gardens, Florida, 33410. For electronic mail saj-rd-enforcement@usace.army.mil (not to exceed 10 MB). If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-3131.

1. Department of the Army Permit Number: SAJ-2006-06782(SP-PWB)

2. Permittee Information:

Name: _____

Address: _____

3. Project Site Identification (physical location/address):

4. As-Built Certification: I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled, and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer

Name (Please type)

(FL, PR, or VI) Reg. Number

Company Name

City

State

ZIP

(Affix Seal)

Date

Telephone Number

ADDENDUM NO. 2

ITB No. 12242-493

TITLE: River Oaks Preserve Project P11419

ISSUED: September 5, 2019

This addendum is being issued to make the following change(s):

- 1. ADD:**
Attached River Oaks Preserve Drawings To Scale.

All other terms, conditions, and specifications remain unchanged.

(Penelope Burger)
(Procurement Administrator)

Company Name: _____
(please print)

Bidder's Signature: _____

Date: _____