

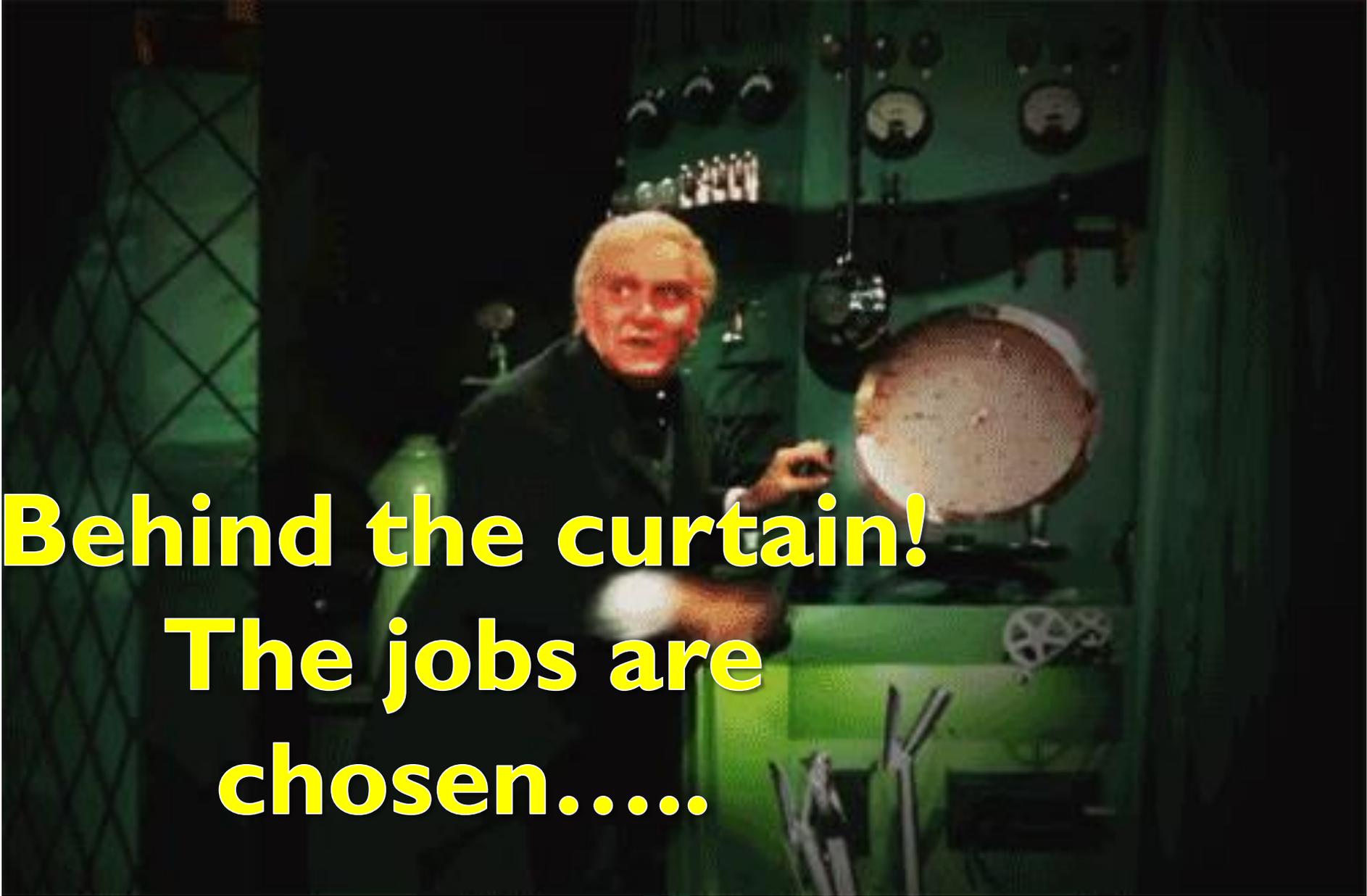


# Construction Environmental Compliance

Sara Stevenson – DC Environmental Administrator  
Syeda Zehra Zaidi – DC Environmental Administrator

District 1 Construction



A man with short, light-colored hair, wearing a dark suit, stands in a green control room. He is looking towards the camera with a slight smile. The room is filled with various instruments, including a large globe on the right, several gauges and dials on the wall, and a control panel with a film reel icon. The lighting is dramatic, with the man's face highlighted against the darker background.

**Behind the curtain!  
The jobs are  
chosen.....**

## MPO- TIP - or Other Entity

- A “Need” for a project is determined, maybe a new road or road improvement project
- THE Need now described in a Technical Report Project is sent to Programming
- IF the Need is Warranted then it is sent to Planning to meet more criteria
- IF the Project is Needed, Warranted and Feasible it is sent to PD&E
- IF it successfully completes the PD&E Review, it will go to Design and then on to CONSTRUCTION!!



## PD&E

**During the PD&E Phase the project is reviewed thoroughly for environmental conditions:**

- **What habitat(s) does the project lie in or adjacent to?**
- **How large and how long is the project, what is scope of work and is there any ROW Acquisition?**
- **Is the proposed work very difficult or is it resurfacing?**
- **Are there many or any Environmental concerns?**

**This Phase in design time allows for many subject matter experts to give comments**



## NEPA and SHPO Review

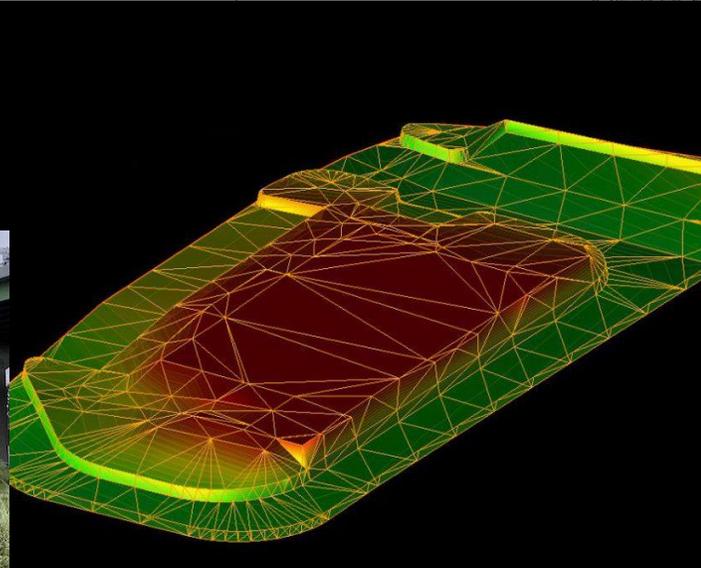
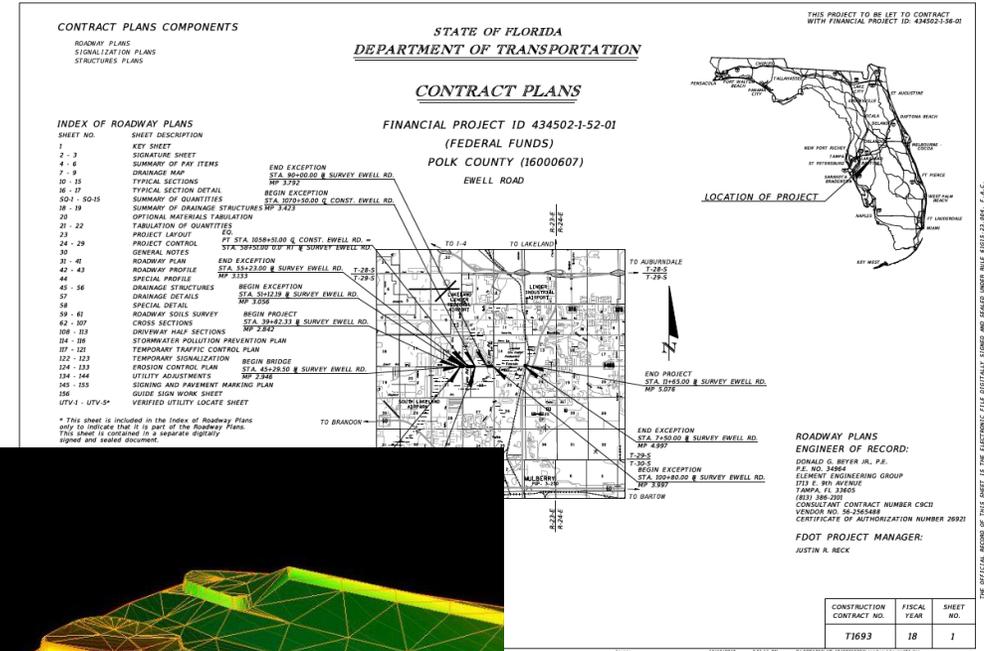
Federal Law and Spec 7-1.4 require that a review is done for the project to address environmental concerns such as:

- Wetland Impacts
- Cultural and Historic Preservation
- Threatened, Endangered and Imperiled Species review
- All Permitting associated with findings

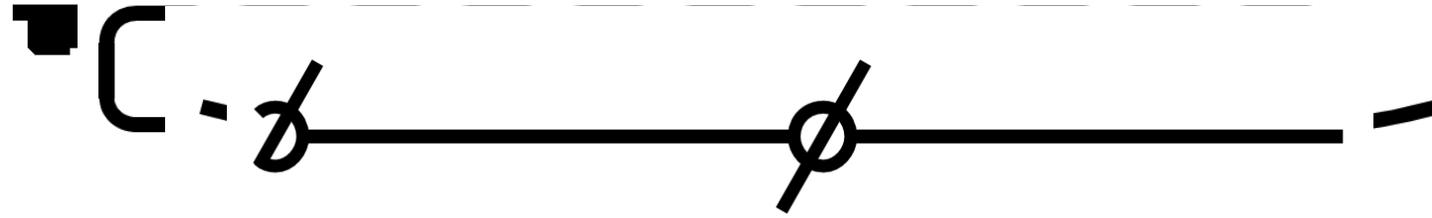


# Highlights.....

- Erosion Control & SWPPP
  - Plans
  - Design
  - Construction



# Design



- Erosion Control Pay Items
  - Sediment Barrier (aka Silt Fence).....104-10-3
  - Inlet Protection System.....104-18
  - Soil Tracking Prevention Device.....104-15
  - Floating Turbidity Barrier.....104-11
  - Staked Turbidity Barrier.....104-12



# Plans

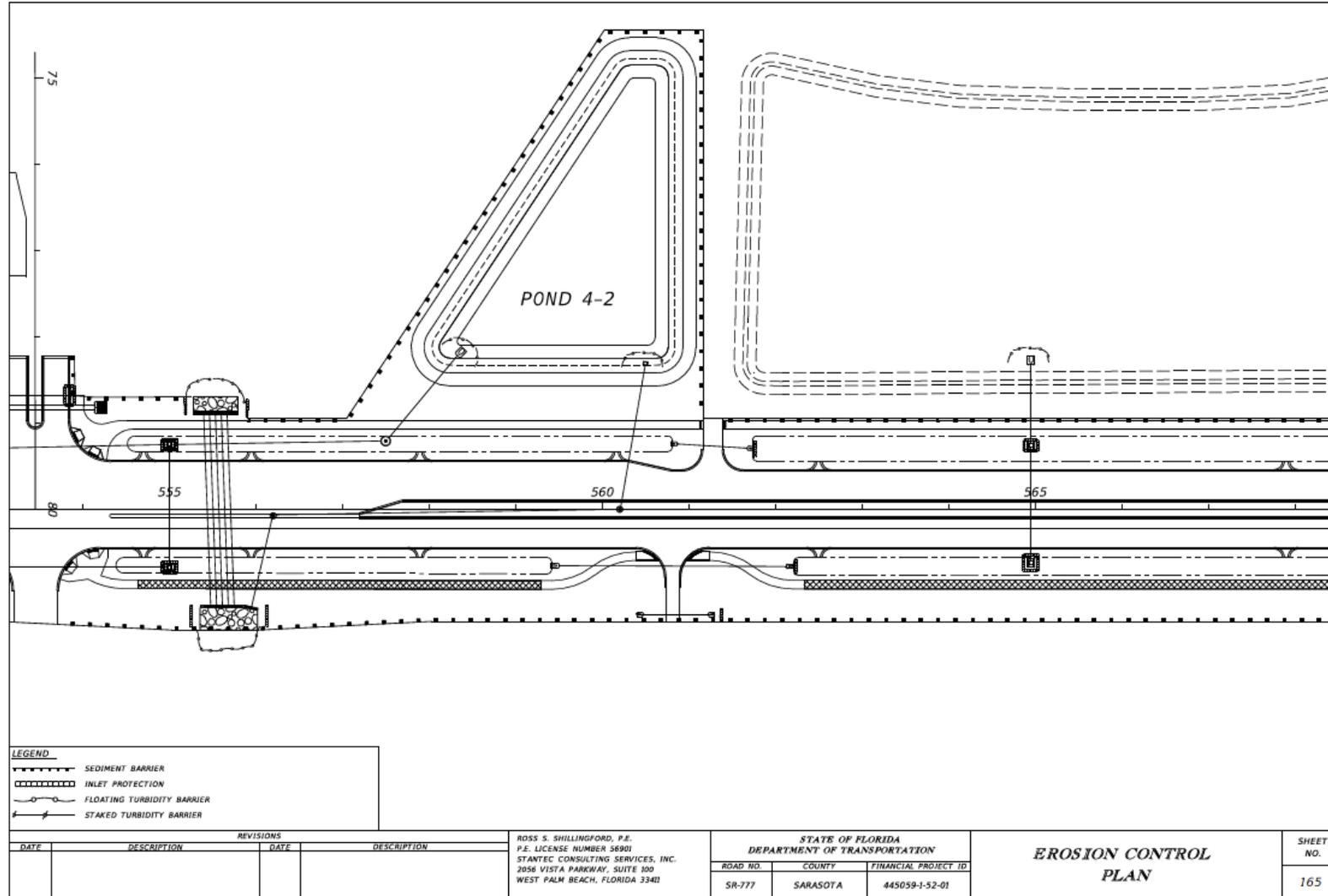
- Erosion Control Plans Example

SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES														
LOCATION  STA. TO STA.	SIDE	AREA ID	SEDIMENT BARRIER		FLOATING TURBIDITY BARRIER		STAKED TURBIDITY BARRIER		SOIL TRACKING PREVENTION DEVICE		INLET PROTECTION SYSTEM		DESIGN NOTES	CONSTRUCTION REMARKS
			0104 10 3		0104 11		0104 12		0104 15		0104 18			
			LF		LF		LF		EA		EA			
			P	F	P	F	P	F	P	F	P	F		
389+54.66 TO 391+17.17	LT.	63509	160.6											
391+17.17 TO 391+67.62	LT.	63190	50.4											
392+02.27 TO 393+20.43	LT.	63508	118.2											
393+47.62 TO 395+45.99	LT.	63504	198.4											
395+95.41 TO 398+07.67	LT.	63191	212.3											
398+39.33 TO 402+22.22	LT.	63503	382.9											
402+45.01 TO 404+55.99	LT.	63192	211.0											
404+87.75 TO 406+27.92	LT.	63502	140.2											
406+62.26 TO 412+42.71	LT.	63205	580.5											
413+28.33 TO 413+65.73	LT.	63206	37.4											
413+90.72 TO 421+24.53	LT.	63193	733.8											
421+45.81 TO 421+72.50	LT.	63500	26.7											
421+94.44 TO 430+35.93	LT.	63501	848.1											
430+35.93 TO 431+38.59	LT.	63207	153.8											
431+38.59 TO 432+23.29	LT.	63208	113.8											
433+95.95 TO 434+64.76	LT.	63210	68.9											
434+64.76 TO 435+16.48	LT.	63209	87.1											
435+16.48 TO 437+08.16	LT.	63194	191.7											
437+34.67 TO 439+65.61	LT.	63499	230.9											
440+80.61 TO 441+41.65	LT.	63483	61.0											
441+64.97 TO 452+61.00	LT.	63498	1096.0											
308+18.63 TO 308+57.28	LT.	63196			38.6									
339+10.10 TO 339+34.75	LT.	63211			24.6									
376+04.26 TO 376+37.69	LT.	63200			33.4									
406+27.92 TO 406+62.26	LT.	63204			34.3									
307+60.99 TO 308+18.63	LT.	63199				57.6								
308+57.28 TO 308+88.99	LT.	63197				31.7								
338+54.70 TO 339+10.10	LT.	63213				55.2								
339+34.75 TO 339+95.44	LT.	63212				60.5								
375+24.52 TO 376+04.26	LT.	63203				79.7								
376+37.69 TO 376+76.32	LT.	63201				38.6								
306+77.59 TO 455+00.00	LT.								3					
306+70.65 TO 306+70.65	LT.	63215									1			
307+43.56 TO 307+43.56	LT.	63218									1			
316+00.00 TO 316+00.00	LT.	63479									1			



# Plans....cont.

- Erosion Control Plans Example



# Plans

## • SWPPP Example – Standard Sheets

THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS PROVIDED TO ASSIST THE CONTRACTOR IN DEVELOPING THE REQUIRED SITE SPECIFIC EROSION CONTROL PLAN AND OTHER ITEMS NECESSARY TO OBTAIN COVERAGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERIC PERMIT (CGP). REFER TO THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL FOR ADDITIONAL REQUIREMENTS.

**1.0 SITE DESCRIPTION:**

**(1.A.) NATURE OF CONSTRUCTION ACTIVITY:**

THE PROJECT IS THE RECONSTRUCTION OF A STORMWATER MANAGEMENT FACILITY IN POLK COUNTY WHICH SERVES STATE ROAD 35/700 (US98) FROM SOUTH OF BROOKS STREET TO SOUTH OF COMBEE ROAD. THIS INVOLVES THE RECONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY AND DESILTING OF THE EXISTING STORM DRAIN SYSTEM. THE PROJECT EXTENDS A DISTANCE OF 0.424 MILES.

**(1.B.) INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:**

IN THE CONTRACTOR'S SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, PREPARE A DETAILED CONSTRUCTION SCHEDULE TO INDICATE DATES OF MAJOR GRADING ACTIVITIES AND SEQUENCES OF TEMPORARY AND PERMANENT SOIL DISTURBING ACTIVITIES ON ALL PORTIONS OF THE PROJECT. FOR ADDITIONAL INFORMATION, REFER TO SECTION 4.7 OF THE NPDES CGP.

**LIST OF INTENDED ACTIVITIES:**

**(1.B.1.)** FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS PRIOR TO CLEARING AND GRUBBING OR ANY OTHER CONSTRUCTION ACTIVITIES. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED.

**(1.B.2.)** TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM SEASONAL CHANGES OR WEATHER EVENTS.

**(1.B.3.)** THE CONTRACTOR WILL PROVIDE POLLUTION CONTROL BY IMPLEMENTING DUST CONTROL DURING ALL PHASES OF CONSTRUCTION.

**(1.B.4.)** OFFSITE RUNOFF SHOULD BE DIVERTED AWAY OR THROUGH THE CONSTRUCTION AREA, IF POSSIBLE. THIS ADDITIONAL FLOW, IF NOT DIVERTED, CAN ADD VOLUME AND SIZE TO STRUCTURAL PRACTICES, REQUIRING MORE FREQUENT MAINTENANCE AND LIMITING EFFECTIVENESS OF EROSION AND SEDIMENT CONTROLS.

**(1.C.) PROJECT AREA ESTIMATES:**

TOTAL SITE AREA: 6.85 ACRES.  
TOTAL AREA TO BE DISTURBED: 1.90 ACRES.

**(1.D.) RUNOFF DATA:**

RUNOFF COEFFICIENTS BEFORE C<sub>w</sub> (B), DURING C<sub>w</sub> (D) AND AFTER C<sub>w</sub> (A) CONSTRUCTION.

RUNOFF COEFFICIENTS FOR:  
GRASSED SHOULDERS ADJACENT TO ROADWAY: C=0.35  
IMPERVIOUS ROADWAYS AND PAVED SHOULDER: C=0.95  
DISTURBED AREAS, EXPOSED SOIL, ETC., DURING CONSTRUCTION: C=0.40

WEIGHTED RUN-OFF COEFFICIENT:  
BEFORE: C<sub>w</sub> (B) = 0.66      DURING: C<sub>w</sub> (D) = 0.68      AFTER: C<sub>w</sub> (A) = 0.65

THE RUN-OFF COEFFICIENT C<sub>w</sub> (D), IS CALCULATED ASSUMING THAT THE MAXIMUM ALLOWABLE AREA OF SOIL IS DISTURBED DURING CONSTRUCTION AND THE REMAINING AMOUNT IS THE EXISTING IMPERVIOUS AND GRASSED SHOULDER AREAS.

**SOIL DATA:**

IN GENERAL, THE SOILS ARE:

SOIL TYPE	HYDROLOGIC GROUP	DEPTH TO SHWE
11 - ARENTS-WATER COMPLEX (5.3%)		0.0' - 3.5'
16 - URBAN LAND (86.5%)		
53 - MYAKKA-IMMOKLEE-URBAN LAND COMPLEX (7.0%)	A/B/D	0.0' - 1.5'
63 - TAVARES-URBAN LAND COMPLEX (1.2%)	A	3.5' - 6.0'

REFERENCE: USDA SOIL SURVEY OF POLK COUNTY FLORIDA

**OUTFALL INFORMATION:**

THERE IS 1 OUTFALL.

THE OUTFALLS DISCHARGE INTO THE FOLLOWING BASINS:

BASIN	WBID	PARAMETER(S) OF CONCERN FOR 303(d) LISTING NUTRIENTS (CHLOROPHYLL-A)
SARASOTA BAY - PEACE - MYAKKA	1549A	

**OUTFALL LOCATIONS: (TEMPORARY AND PERMANENT)**

DESCRIPTION	DRAINAGE AREA	LATITUDE	LONGITUDE	RECEIVING WATERBODY
(a) POND 9	15.4 AC	N28°00'08"	W81°54'13"	POLK COUNTY REGIONAL DRAINAGE FACILITY

THIS FACILITY DOES DISCHARGE TO WATERS LISTED ON THE ADOPTED FDEP VERIFIED LIST OR ADOPTED TMDL FOR IMPAIRMENT DUE TO TOTAL SUSPENDED SOLID, TURBIDITY, NUTRIENTS, DISSOLVED OXYGEN, OR FECAL COLIFORM.

WETLAND AND/OR SURFACE WATER IMPACTS SHALL BE LIMITED TO THE AREAS DESCRIBED IN THE APPROVED PERMITS FOR THE PROJECT.

**(1.E.) SITE MAP:**

THE SITE MAP SHALL BE COMPRISED OF THE CONSTRUCTION PLANS AND THE CONTRACTOR'S SITE-SPECIFIC EROSION AND SEDIMENT CONTROL PLAN.

**(1.F.) STORMWATER MANAGEMENT (EXISTING/PROPOSED)**

**(1.F.1.)** EXISTING DRAINAGE FLOWS ARE TYPICALLY FROM EAST TO WEST TOWARDS THE POLK COUNTY REGIONAL DRAINAGE FACILITY. THE CROSS SECTION SHEETS AND PLAN-PROFILE SHEETS PROVIDE THE APPROXIMATE SLOPE, AREAS OF SOIL DISTURBANCE AND AREAS TO BE STABILIZED. UNLESS OTHERWISE APPROVED BY THE PERMITS, THE CONSTRUCTION ACTIVITIES SHALL NOT MODIFY OR AFFECT THE EXISTING OFFSITE FLOW PATTERNS.

**(1.F.2.)** THE PROPOSED SEDIMENT BASINS, CONTAINMENT SYSTEMS AND/OR STORMWATER MANAGEMENT FACILITIES SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND USED DURING CONSTRUCTION OF THE ROADWAY. THE OUTFALL STRUCTURES ARE TO BE PROTECTED WHEN TEMPORARY SEDIMENT BASINS, CONTAINMENT SYSTEMS OR PERMANENT STORMWATER MANAGEMENT FACILITIES ARE USED FOR EROSION AND SEDIMENT CONTROL TO PREVENT DOWNSTREAM SEDIMENTATION.

**2. CONTROLS:**

**(2.A.) SEDIMENT AND EROSION CONTROLS**

**(2.A.1.)** PER SECTION 5.4 OF THE NPDES CGP, STABILIZATION SHALL TAKE PLACE AS SOON AS PRACTICAL IN PORTIONS OF THE PROJECT WHERE CONSTRUCTION ACTIVITIES HAVE CEASED, BUT NO LATER THAN 7 DAYS AFTER ANY CONSTRUCTION ACTIVITY CEASES EITHER TEMPORARILY OR PERMANENTLY.

**(2.A.2.)** SEDIMENT BARRIERS SHALL BE USED AROUND THE PERIMETER OF STOCKPILE AREAS.

REVISIONS		ENGINEER OF RECORD: SERGIO FIGUEROA, P.E. P.E. LICENSE NUMBER 74608 FLORIDA DEPARTMENT OF TRANSPORTATION 801 N. BROADWAY AVENUE BARTOW, FL 33830-3809	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STORMWATER POLLUTION PREVENTION PLAN	SHEET NO. 27
DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			SR 35/700	POLK	439801-1-52-01		



# Plans

## • SWPPP Example – Standard Sheets

(2.A.3.) STRUCTURAL PRACTICES		IN THE CONTRACTOR'S SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES MAY INCLUDE THE FOLLOWING, AS APPROVED BY THE ENGINEER:		(2.D.2.a.) LOADED HAUL TRUCKS ARE TO BE COVERED BY A TARPAULIN.	
TEMPORARY DEVICES:		* SILT FENCE		(2.D.2.b.) REMOVING EXCESS DIRT FROM ROADS DAILY.	
* STAKED TURBIDITY BARRIERS				(2.D.2.c.) USING WATER TRUCKS DURING DUST-GENERATING ACTIVITIES.	
* SOIL TRACKING PREVENTION DEVICES AT CONSTRUCTION ENTRANCES/EXITS				(2.D.2.d.) SEDIMENT CONTROL MAY BE ACCOMPLISHED BY USING STREET OR VACUUM SWEEPERS.	
* FLOATING TURBIDITY BARRIERS					
* INLET PROTECTION SYSTEMS INCLUDING SYNTHETIC BALES AND SANDBAGS					
* SEDIMENT BASIN/CONTAINMENT SYSTEMS					
* CHEMICAL TREATMENTS SUCH AS POLYACRYLAMIDES AND ALUM					
PERMANENT:		* STORMWATER PONDS			
* SOD (MAY ALSO BE USED FOR TEMPORARY CONTROLS)					
* VELOCITY DISSIPATION DEVICES SUCH AS RIPRAP OR OTHERS					
(2.B.) WATER QUALITY MONITORING					
(2.B.1.)		WATER QUALITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIAL CONDITIONS OF ANY ENVIRONMENTAL PERMIT, OR BY THE CONTRACTOR UPON THE OBSERVATION THAT WATER QUALITY STANDARDS MAY BE VIOLATED BY THE CONTRACTOR'S ACTIVITIES. MONITORING LOCATIONS MAY BE SPECIFIED IN THE ENVIRONMENTAL PERMIT OR MAY BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.		3. MAINTENANCE	
(2.B.2.)		THE ENGINEER WILL BE RESPONSIBLE FOR MONITORING ANY ACTIVITIES FOR VIOLATION OF WATER QUALITY STANDARDS AS THEY RELATE TO TURBIDITY (NO GREATER THAN 29 NEPHELOMETRIC TURBIDITY UNITS (NTUs) ABOVE BACKGROUND OR GREATER THAN 0 NTUs ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OUTSTANDING FLORIDA WATERS (OFWS)).		MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVE EROSION AND SEDIMENT CONTROL DEVICES WHEN NOTICE OF TERMINATION IS MAILED. REMOVE AND PROPERLY DISPOSE OF SEDIMENT BUILDUP THROUGH THE LIFE OF THE INSTALLED EROSION AND SEDIMENT CONTROL DEVICES.	
(2.B.3.)		IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHALL BE STOPPED IMMEDIATELY. THE ENVIRONMENTAL PERMIT CONDITIONS FOLLOWED AND EROSION AND SEDIMENT CONTROL DEVICES REEVALUATED AND APPROVED BY THE ENGINEER PRIOR TO ANY CONTINUATION OF ACTIVITY. MONITORING ACTIVITIES AND TURBIDITY READINGS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION REPORT AND CONTINUED UNTIL TURBIDITY READINGS FALL BELOW AN ACCEPTABLE LEVEL (LESS THAN 29 NTUs ABOVE BACKGROUND OR LESS THAN 0 NTUs ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFWS).		(3.A.) IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF NOTICE.	
(2.B.4.)		WATER QUALITY MONITORING MAY BE CONDUCTED DURING ANY PHASE OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.		(3.B.) SEDIMENT BARRIERS SHALL BE REPLACED WHEN IT IS NO LONGER EFFECTIVE OR AS DIRECTED BY THE ENGINEER.	
(2.C.) DEWATERING CONTROLS		THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN SHALL INCLUDE A DESCRIPTION OF THE BMPs THAT WILL BE USED TO ENSURE THAT DISCHARGES OF NONCONTAMINATED GROUND WATER FROM DEWATERING OPERATIONS DO NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF STATE WATER QUALITY STANDARDS.		(3.C.) STABILIZED CONSTRUCTION ENTRANCES SHALL BE MAINTAINED TO PREVENT CLOGGING OF ROCK BEDDING WHICH MAY IMPEDE THE USEFULNESS OF THE STRUCTURE.	
(2.D.) OTHER CONTROLS				(3.D.) REMOVE SEDIMENT FROM SEDIMENT BASINS WHEN IT BECOMES MORE THAN HALF THE AVAILABLE VOLUME.	
(2.D.1.)		THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN SHALL IDENTIFY CHEMICAL AND FUEL STORAGE AREAS, MEANS OF MINIMIZING EXPOSURE TO STORMWATER, AND SPILL PREVENTION.		4. INSPECTION, TRACKING, AND REPORTING	
(2.D.2.)		OFFSITE VEHICLE TRACKING & GENERATION OF DUST		INSTALL AND MAINTAIN RAIN GAUGES ON THE PROJECT SITE AND RECORD RAINFALL.	
		IN THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.		(4.A.) SUBMIT A WEEKLY REPORT TO THE DEPARTMENT DOCUMENTING THE DAILY INSPECTIONS AND MAINTENANCE OR REPAIRS TO THE EROSION AND SEDIMENT CONTROL DEVICES. MAINTAIN ALL REQUIRED REPORTS AND COMPLETE ALL SWPPP INSPECTION FORMS.	
				(4.B.) PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION, MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL COSTS OF THE EROSION AND SEDIMENT CONTROL DEVICES.	
				(4.C.) USE THE SWPPP CONSTRUCTION INSPECTION REPORT FORM # 650-040-03, FOR DAILY INSPECTIONS.	
				5. NON-STORMWATER DISCHARGES	
				THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES AND DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION. THE PLAN SHALL INCLUDE PROCEDURES FOR SPILL CONTAINMENT, REPORTING AND RESPONSES. THE PLAN SHALL SPECIFY WHAT MANAGEMENT PRACTICES AND CONTAINMENT METHODS WILL BE USED TO PREVENT POTENTIAL POLLUTANTS (FUEL, LUBRICANTS, HERBICIDES, ETC.) FROM SPILLING ONTO THE SOIL OR INTO THE SURFACE WATERS. IF A SPILL DOES OCCUR OR IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE DISTRICT CONTAMINATION IMPACT COORDINATOR AT 863-519-2300 AND THE ENGINEER. IF A RELEASE CONTAINING HAZARDOUS SUBSTANCES OCCURS, CONTACT THE FLORIDA STATE WATCH OFFICE AT 800-320-0519 OR 850-413-9911 PER SECTION 9.2 OF THE CGP.	

REVISIONS				ENGINEER OF RECORD: SERGIO FIGUEROA, P.E. P.E. LICENSE NUMBER 74608 FLORIDA DEPARTMENT OF TRANSPORTATION 801 N. BROADWAY AVENUE BARTOW, FL 33830-3809	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STORMWATER POLLUTION PREVENTION PLAN	SHEET NO. 28
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 35/700	POLK	439801-152-01		



# Plans

- SWPPP Example – Quad Map



REVISIONS		ENGINEER OF RECORD: SERGIO FIGUEROA, P.E. P.E. LICENSE NUMBER 74608 FLORIDA DEPARTMENT OF TRANSPORTATION 801 N. BROADWAY AVENUE BARTOW, FL 33830-3809	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STORMWATER POLLUTION PREVENTION PLAN	SHEET NO.  26
DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
			SR 35/700	POLK	439801-1-52-01		



# Design

## • SWPPP Sheets – Sheet 1

THIS FACILITY [DOES/DOES NOT] DISCHARGE TO WATERS LISTED ON THE ADOPTED FDEP VERIFIED LIST OR ADOPTED TMDL FOR IMPAIRMENT DUE TO TOTAL SUSPENDED SOLID, TURBIDITY, NUTRIENTS, DISSOLVED OXYGEN, OR FECAL COLIFORM.

(c)	2 - 10' X 8' CBC	3.53 AC	N 27°23' 14"	W 82°16' 06"	LAKE OKEECHOBEE
(d)	2 - 24" RCP	4.51 AC	N 27°23' 14"	W 82°15' 39"	LAKE OKEECHOBEE

THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS PROVIDED TO ASSIST THE CONTRACTOR IN DEVELOPING THE REQUIRED SITE SPECIFIC EROSION CONTROL PLAN AND OTHER ITEMS NECESSARY TO OBTAIN COVERAGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERIC PERMIT (CGP). REFER TO THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL FOR ADDITIONAL REQUIREMENTS.

### I.D. SITE DESCRIPTION:

#### (I.A.) NATURE OF CONSTRUCTION ACTIVITY:

THE PROJECT IS THE ROADWAY OF ROADWAY IN COUNTY. THIS INVOLVES CONSTRUCTING ROADWAY SURFACE, CURB AND GUTTER, SIDEWALK, STORMWATER MANAGEMENT FACILITIES, ETC. THE PROJECT EXTENDS A DISTANCE OF 6.73 MILES.

#### (I.B.) INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE CONTRACTOR'S SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, PREPARE A DETAILED CONSTRUCTION SCHEDULE TO INDICATE DATES OF MAJOR GRADING ACTIVITIES AND SEQUENCES OF TEMPORARY AND PERMANENT SOIL DISTURBING ACTIVITIES ON ALL PORTIONS OF THE PROJECT. FOR ADDITIONAL INFORMATION, REFER TO SECTION 4.7 OF THE NPDES CGP.

#### LIST OF INTENDED ACTIVITIES:

- (I.B.1.) FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS PRIOR TO CLEARING AND GRUBBING OR ANY OTHER CONSTRUCTION ACTIVITIES. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED.
- (I.B.2.) TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM SEASONAL CHANGES OR WEATHER EVENTS.
- (I.B.3.) THE CONTRACTOR WILL PROVIDE POLLUTION CONTROL BY IMPLEMENTING DUST CONTROL DURING ALL PHASES OF CONSTRUCTION.
- (I.B.4.) OFFSITE RUNOFF SHOULD BE DIVERTED AWAY OR THROUGH THE CONSTRUCTION AREA, IF POSSIBLE. THIS ADDITIONAL FLOW, IF NOT DIVERTED, CAN ADD VOLUME AND SIZE TO STRUCTURAL PRACTICES, REQUIRING MORE FREQUENT MAINTENANCE AND LIMITING EFFECTIVENESS OF EROSION AND SEDIMENT CONTROLS.

#### (I.C.) PROJECT AREA ESTIMATES:

TOTAL SITE AREA: 80.00 ACRES.  
TOTAL AREA TO BE DISTURBED: 4.70 ACRES.

#### (I.D.) RUNOFF DATA:

RUNOFF COEFFICIENTS BEFORE Cw (B), DURING Cw (D) AND AFTER Cw (A) CONSTRUCTION.

RUNOFF COEFFICIENTS FOR:  
GRASSED SHOULDERS ADJACENT TO ROADWAY: C=0.35  
IMPERVIOUS ROADWAYS AND PAVED SHOULDER: C=0.95  
DISTURBED AREAS, EXPOSED SOIL, ETC., DURING CONSTRUCTION: C=0.40

WEIGHTED RUN-OFF COEFFICIENT:  
BEFORE: Cw (B) = 0.58 DURING: Cw (D) = 0.59 AFTER: Cw (A) = 0.58

THE RUN-OFF COEFFICIENT Cw (D), IS CALCULATED ASSUMING THAT THE MAXIMUM ALLOWABLE AREA OF SOIL IS DISTURBED DURING CONSTRUCTION AND THE REMAINING AMOUNT IS THE EXISTING IMPERVIOUS AND GRASSED SHOULDER AREAS.

#### SOIL DATA:

[DELETE IF NO SURVEY IS INCLUDED]. THE RESULTS OF THE SOIL BORINGS ALONG THE ROADWAY ARE SHOWN IN THE ROADWAY SOIL SURVEY SHEETS. THE RESULTS OF SOIL BORINGS DONE IN THE PONDS ARE SHOWN ON THE POND DETAIL SHEETS. THE SHEET NUMBERS FOR THESE ARE IDENTIFIED ON THE KEY SHEET OF THESE CONSTRUCTION PLANS. IN GENERAL, THE SOILS ARE:

SOIL TYPE	HYDROLOGIC GROUP	DEPTH TO SHWE
4 - WAVELAND-POMELLO-MYAKKA (49%)	B/C/D	0.0' - 3.5'
5 - MYAKKA-WAVELAND-CASSIA (41%)	B/C/D	0.0' - 5.0'
8 - DELRAY-FLORIDANA (10%)	B/D	0.0' - 1.0'

REFERENCE: USDA SOIL SURVEY OF COUNTY FLORIDA

#### OUTFALL INFORMATION:

THERE ARE 2 OUTFALLS.

THE OUTFALLS DISCHARGE INTO THE FOLLOWING BASINS:

BASIN	WBID	PARAMETER(S) OF CONCERN FOR 303(b) LISTING
(c)	2 - 10' X 8' CBC	3.53 AC
(d)	2 - 24" RCP	4.51 AC

#### OUTFALL LOCATIONS: (TEMPORARY AND PERMANENT)

DESCRIPTION	DRAINAGE AREA	LATITUDE	LONGITUDE	RECEIVING WATERBODY
(a) 1 - 30" RCP	1.25 AC	N 27°23' 40"	W 82°17' 41"	PEACE RIVER
(b) 1 - 24" CMP	2.98 AC	N 27°23' 15"	W 82°16' 47"	PEACE RIVER
(c) 2 - 10' X 8' CBC	3.53 AC	N 27°23' 14"	W 82°16' 06"	LAKE OKEECHOBEE
(d) 2 - 24" RCP	4.51 AC	N 27°23' 14"	W 82°15' 39"	LAKE OKEECHOBEE

THIS FACILITY [DOES/DOES NOT] DISCHARGE TO WATERS LISTED ON THE ADOPTED FDEP VERIFIED LIST OR ADOPTED TMDL FOR IMPAIRMENT DUE TO TOTAL SUSPENDED SOLID, TURBIDITY, NUTRIENTS, DISSOLVED OXYGEN, OR FECAL COLIFORM.

WETLAND AND/OR SURFACE WATER IMPACTS SHALL BE LIMITED TO THE AREAS DESCRIBED IN THE APPROVED PERMITS FOR THE PROJECT.

#### (I.E.) SITE MAP:

THE SITE MAP SHALL BE COMPRISED OF THE CONSTRUCTION PLANS AND THE CONTRACTOR'S SITE-SPECIFIC EROSION AND SEDIMENT CONTROL PLAN.

#### (I.F.) STORMWATER MANAGEMENT (EXISTING/PROPOSED)

(I.F.1.) EXISTING DRAINAGE FLOWS ARE TYPICALLY [PROJECT SPECIFIC, I.E. FROM SOUTH TO NORTH TOWARDS LAKE OKEECHOBEE]. THE CROSS SECTION SHEETS AND PLAN-PROFILE SHEETS PROVIDE THE APPROXIMATE SLOPE, AREAS OF SOIL DISTURBANCE AND AREAS TO BE STABILIZED. UNLESS OTHERWISE APPROVED BY THE PERMITS, THE CONSTRUCTION ACTIVITIES SHALL NOT MODIFY OR AFFECT THE EXISTING OFFSITE FLOW PATTERNS.

(I.F.2.) THE PROPOSED SEDIMENT BASINS, CONTAINMENT SYSTEMS AND/OR STORMWATER MANAGEMENT FACILITIES SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND USED DURING CONSTRUCTION OF THE ROADWAY. THE OUTFALL STRUCTURES ARE TO BE PROTECTED WHEN TEMPORARY SEDIMENT BASINS, CONTAINMENT SYSTEMS OR PERMANENT STORMWATER MANAGEMENT FACILITIES ARE USED FOR EROSION AND SEDIMENT CONTROL TO PREVENT DOWNSTREAM SEDIMENTATION.

#### 2. CONTROLS:

#### SOIL DATA:

[DELETE IF NO SURVEY IS INCLUDED]. THE RESULTS OF THE SOIL BORINGS ALONG THE ROADWAY ARE SHOWN IN THE ROADWAY SOIL SURVEY SHEETS. THE RESULTS OF SOIL BORINGS DONE IN THE PONDS ARE SHOWN ON THE POND DETAIL SHEETS.

EXISTING DRAINAGE FLOWS ARE TYPICALLY [PROJECT SPECIFIC, I.E. FROM SOUTH TO NORTH TOWARDS LAKE OKEECHOBEE]. THE CROSS SECTION SHEETS AND PLAN-PROFILE SHEETS PROVIDE THE APPROXIMATE SLOPE, AREAS OF SOIL DISTURBANCE AND AREAS TO BE STABILIZED. UNLESS OTHERWISE APPROVED BY THE PERMITS, THE CONSTRUCTION ACTIVITIES SHALL NOT MODIFY OR AFFECT THE EXISTING OFFSITE FLOW PATTERNS.

5 - MYAKKA-WAVELAND-CASSIA (41%)	B/C/D	0.0' - 5.0'
8 - DELRAY-FLORIDANA (10%)	B/D	0.0' - 1.0'

REFERENCE: USDA SOIL SURVEY OF COUNTY FLORIDA

2 Original Surface Area	31.11 ac
3 Disturbed Area	4.70 ac
4 Final Surface Area	31.27 ac

Beginning Station	500+31.20 ft
Ending Station	329+99.34 ft

Project Length in feet	35,513.82 ft
Project Length in miles	6.73 miles
Project Area (R/W to R/W)	80.00 acres

Disturbed Area	4.70 acres
----------------	------------

#### Runoff Coefficients (C):

Cw(B)	0.58
-------	------

Cw(D)	0.59
-------	------

Cw(A)	0.58
-------	------

#### NOTES:

BLUE = Input Data

- Project Area = Project Area (R/W to R/W)
- Original Surface Area = Original Impervious Pavement
- Disturbed Area = Soil Subject to Being Disturbed
- Final Surface Area = Final Impervious Pavement
- Cw(D) is approximate - varies during construction

REVISIONS	
DATE	DESCRIPTION

# Design

## • SWPPP Sheets – Sheet 2

### (2.A.3.) STRUCTURAL PRACTICES

IN THE CONTRACTOR'S SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES MAY INCLUDE THE FOLLOWING, AS APPROVED BY THE ENGINEER:

#### TEMPORARY DEVICES:

- SILT FENCE
- STAKED TURBIDITY BARRIERS

(2.D.2.a.) LOADED HAUL TRUCKS ARE TO BE COVERED BY A TARPULIN.

(2.D.2.b.) REMOVING EXCESS DIRT FROM ROADS DAILY.

(2.D.2.c.) USING WATER TRUCKS DURING DUST-GENERATING ACTIVITIES.

(2.D.2.d.) SEDIMENT CONTROL MAY BE ACCOMPLISHED BY USING STREET OR VACUUM SWEEPERS.

### 3. MAINTENANCE

MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVE EROSION AND SEDIMENT CONTROL

PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION, MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL COSTS OF THE EROSION AND SEDIMENT CONTROL DEVICES.

- STORMWATER PONDS
- SOD (MAY ALSO BE USED FOR TEMPORARY CONTROLS)
- VELOCITY DISSIPATION DEVICES SUCH AS RIPRAP OR OTHERS

### (2.B.) WATER QUALITY MONITORING

(2.B.1.) WATER QUALITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIAL CONDITIONS OF ANY ENVIRONMENTAL PERMIT, OR BY THE CONTRACTOR UPON THE OBSERVATION THAT WATER QUALITY STANDARDS MAY BE VIOLATED BY THE CONTRACTOR'S ACTIVITIES. MONITORING LOCATIONS MAY BE SPECIFIED IN THE ENVIRONMENTAL PERMIT OR MAY BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

(2.B.2.) THE ENGINEER WILL BE RESPONSIBLE FOR MONITORING ANY ACTIVITIES FOR VIOLATION OF WATER QUALITY STANDARDS AS THEY RELATE TO TURBIDITY (NO GREATER THAN 29 NEPHELOMETRIC TURBIDITY UNITS (NTUs) ABOVE BACKGROUND OR GREATER THAN 0 NTUs ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OUTSTANDING FLORIDA WATERS (OFWS)).

(2.B.3.) IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHALL BE STOPPED IMMEDIATELY. THE ENVIRONMENTAL PERMIT CONDITIONS FOLLOWED AND EROSION AND SEDIMENT CONTROL DEVICES REEVALUATED AND APPROVED BY THE ENGINEER PRIOR TO ANY CONTINUATION OF ACTIVITY. MONITORING ACTIVITIES AND TURBIDITY READINGS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION REPORT AND CONTINUED UNTIL TURBIDITY READINGS FALL BELOW AN ACCEPTABLE LEVEL (LESS THAN 29 NTUs ABOVE BACKGROUND OR LESS THAN 0 NTUs ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFWS).

(2.B.4.) WATER QUALITY MONITORING MAY BE CONDUCTED DURING ANY PHASE OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.

### (2.C.) DEWATERING CONTROLS

THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN SHALL INCLUDE A DESCRIPTION OF THE BMPs THAT WILL BE USED TO ENSURE THAT DISCHARGES OF NONCONTAMINATED GROUND WATER FROM DEWATERING OPERATIONS DO NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF STATE WATER QUALITY STANDARDS.

### (2.D.) OTHER CONTROLS

(2.D.1.) THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN SHALL IDENTIFY CHEMICAL AND FUEL STORAGE AREAS, MEANS OF MINIMIZING EXPOSURE TO STORMWATER, AND SPILL PREVENTION.

(2.D.2.) OFFSITE VEHICLE TRACKING & GENERATION OF DUST

IN THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

(3.D.) REMOVE SEDIMENT FROM SEDIMENT BASINS WHEN IT BECOMES MORE THAN HALF THE AVAILABLE VOLUME.

### 4. INSPECTION, TRACKING, AND REPORTING

INSTALL AND MAINTAIN RAIN GAUGES ON THE PROJECT SITE AND RECORD RAINFALL.

(4.A.) SUBMIT A WEEKLY REPORT TO THE DEPARTMENT DOCUMENTING THE DAILY INSPECTIONS AND MAINTENANCE OR REPAIRS TO THE EROSION AND SEDIMENT CONTROL DEVICES. MAINTAIN ALL REQUIRED REPORTS AND COMPLETE ALL SWPPP INSPECTION FORMS.

(4.B.) PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION, MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL COSTS OF THE EROSION AND SEDIMENT CONTROL DEVICES.

(4.C.) USE THE SWPPP CONSTRUCTION INSPECTION REPORT FORM # 650-040-03, FOR DAILY INSPECTIONS.

### 5. NON-STORMWATER DISCHARGES

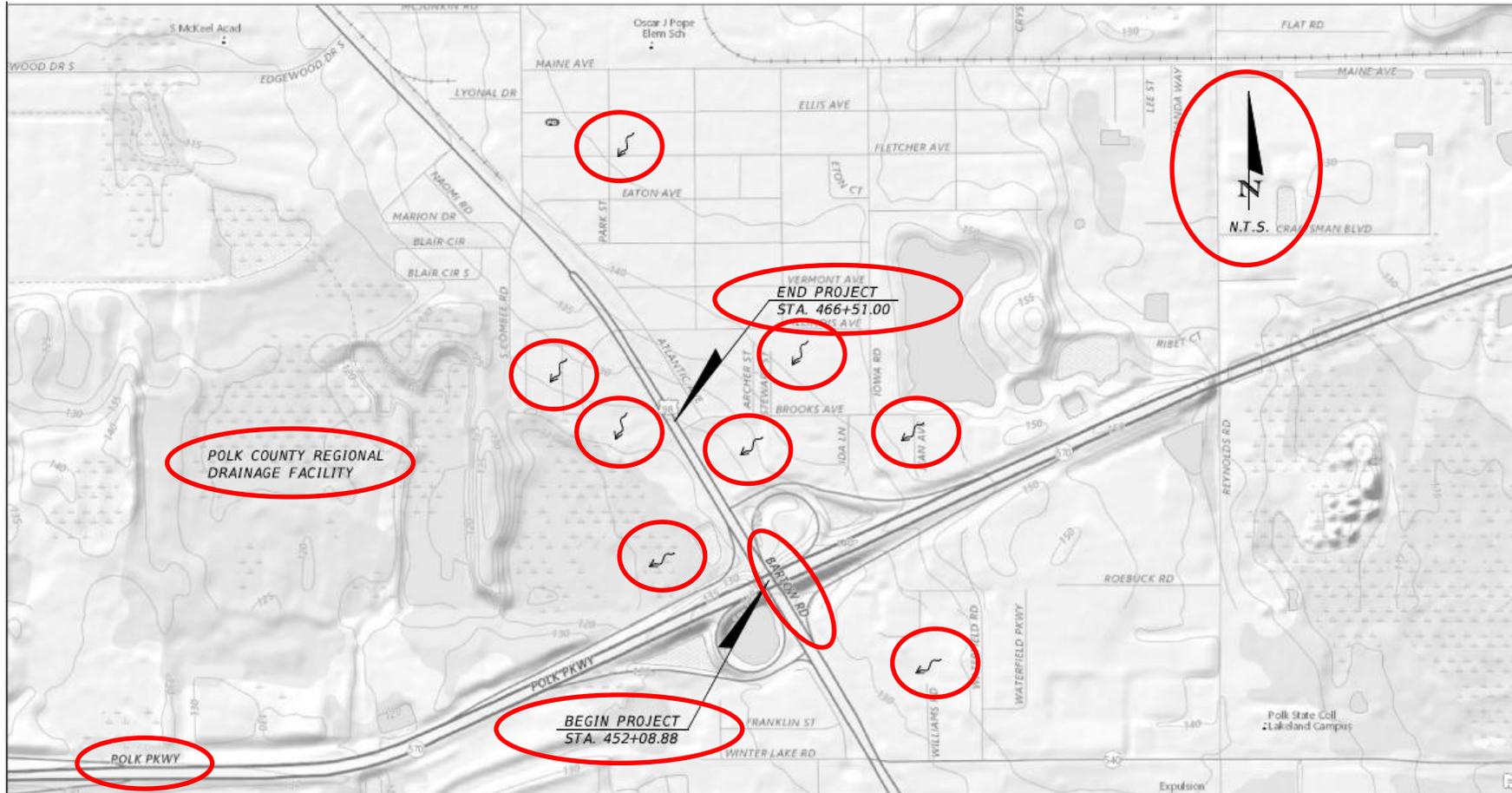
THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES AND DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION. THE PLAN SHALL INCLUDE PROCEDURES FOR SPILL CONTAINMENT, REPORTING AND RESPONSES. THE PLAN SHALL SPECIFY WHAT MANAGEMENT PRACTICES AND CONTAINMENT METHODS WILL BE USED TO PREVENT POTENTIAL POLLUTANTS (FUEL, LUBRICANTS, HERBICIDES, ETC.) FROM SPILLING ONTO THE SOIL OR INTO THE SURFACE WATERS. IF A SPILL DOES OCCUR OR IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE DISTRICT CONTAMINATION IMPACT COORDINATOR AT 863-519-2300 AND THE ENGINEER. IF A RELEASE CONTAINING HAZARDOUS SUBSTANCES OCCURS, CONTACT THE FLORIDA STATE WATCH OFFICE AT 800-320-0519 OR 850-413-9911 PER SECTION 9.2 OF THE CGP.

REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		SHEET NO.
DATE	DESCRIPTION	ROAD NO.	COUNTY	



# Design

- SWPPP Sheets – Sheet 3 (Quad Map)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ENGINEER OF RECORD:  
 SERGIO FIGUEROA, P.E.  
 P.E. LICENSE NUMBER 74608  
 FLORIDA DEPARTMENT OF TRANSPORTATION  
 801 N. BROADWAY AVENUE  
 BARTOW, FL 33830-3809

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 35/700	POLK	439801-1-52-01

**STORMWATER POLLUTION  
PREVENTION PLAN**

SHEET NO.
26



# Construction

- Coordinate with Construction Office
  - Pass the Torch Meeting
  - Pre-construction Meeting
- Erosion Control Changes by Contractor, need S&S and resubmit to WMD
- Examples
  - The Good
  - The Bad



# Construction

- Examples



The Good

The Bad

# Construction

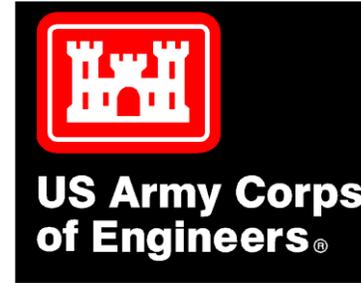
- Examples



The Good  
Improvement  
needed

# Permitting Agencies

- US Army Corp of Engineers (USACE)
- US Coast Guard (USCG)
- US Fish and Wildlife Service (USFWS)
- Southwest Florida Water Management District (SFWMD)
- South Florida Water Management District (SFWMD)
- National Pollution Discharge Elimination System (NPDES)
- Florida Department of Environmental Protection (FDEP)
- FDEP Wild and Scenic Rivers
- Florida Fish and Wildlife Conservation Commission (FWC)

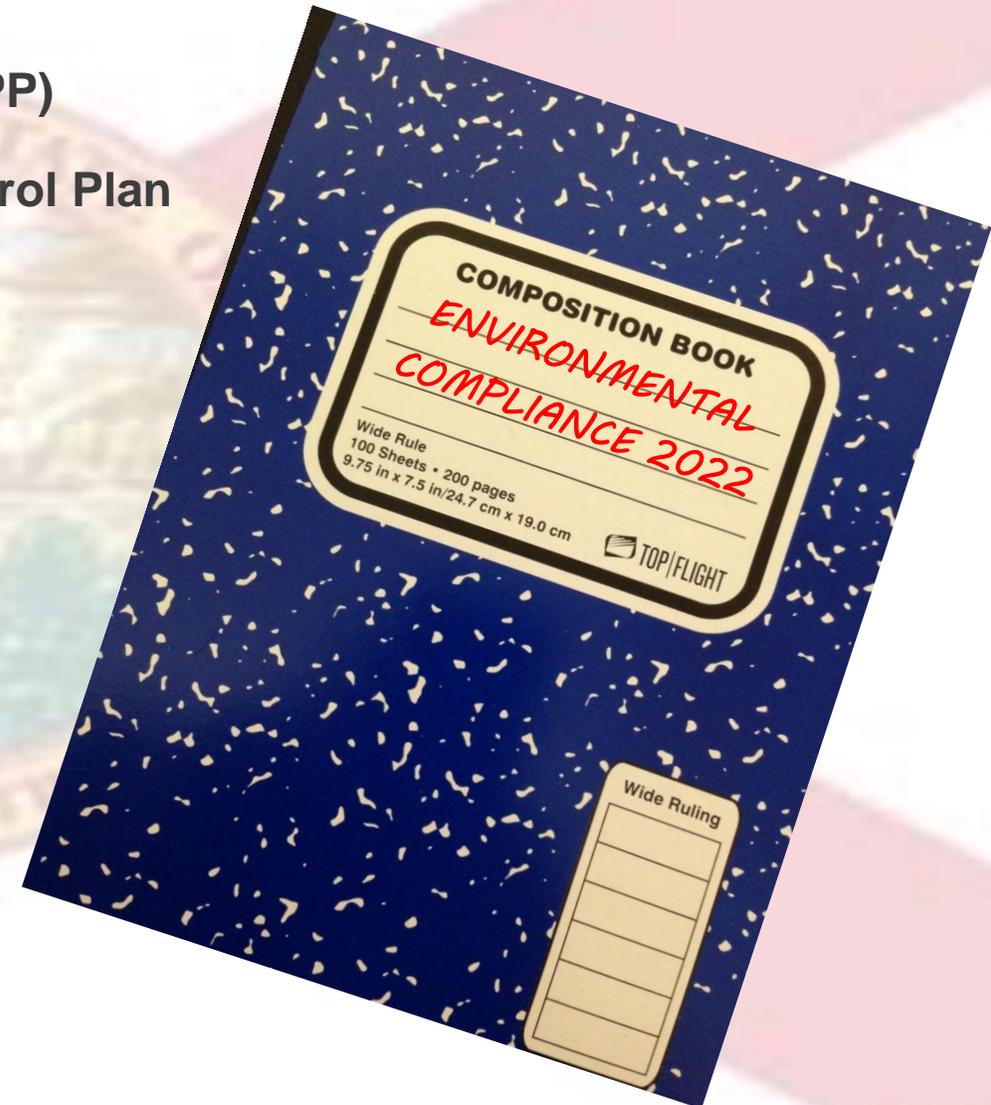


## SWFWMD/SFWMD COMPLIANCE

- Sometimes WMD will attend a pre-construction meeting
- Permittee to submit “Construction Commencement Notice” to the agency at least 48 hours prior to beginning the authorized activities unless an NPDES Notice of Intent (NOI) to use Construction Generic Permit (CGP) is submitted to DEP
- Submit Erosion and Sediment Control Plan for approval to FDOT (always) and WMD (if asked)
- Keep a complete copy of the permit on the work site
- Delineate all wetlands, and Other Surface Water (OSW) prior to construction
- Submit a Dewatering plan and Turbidity monitoring plan to the district before any dewatering
- Comply with all general and special conditions of the permit
- Submit Closeout documents

# FDEP COMPLIANCE

- Prepare Storm Water Pollution Prevention Plan (SWPPP)
- Prepare Site-specific Erosion and Sedimentation Control Plan (ESCP)
- Contractor/Subcontractor certification form
- Delegation of Authority form (if required)
- Contractor to submit NPDES NOI and fees at least 48 hours prior to any work
- Keep NOI and ESCP on-site at a visible location
- Submit SWPPP reports weekly and after 0.5" of rain.
- Submit Closeout documents



# ACOE COMPLIANCE

- **Submit Notice of Commencement within 10 days of starting work**
- **Monitor and Report any TED (USFWS)**
- **Educate workers about the TED on job site (USFWS)**
- **Post TED species guidance poster on-site at a visible location**
- **Comply with all general and specific conditions of the permit**
- **Submit Closeout documents**



# Construction Environmental Compliance For Closing Permits

- Achieve final stabilization i.e., sod cover with a density of at least 70%
- Submit NPDES **NOT** within 14 calendar days
- Restore temporary wetland impacts to existing conditions (elevation) and revegetate
- As-builts need to be signed and sealed by the Construction Engineer and sent to **WMD** (within 30 days or for **ACOE** (8.5 x 11) 60 days)
- Submit Transfer to Operation Entity within 30 days i.e., to Steven Kelly in D1.
- Submit a Monitoring report for any endangered species requested (eastern indigo snake, crested caracara, etc. )

# Erosion & Sedimentation Control Plan (ESCP)

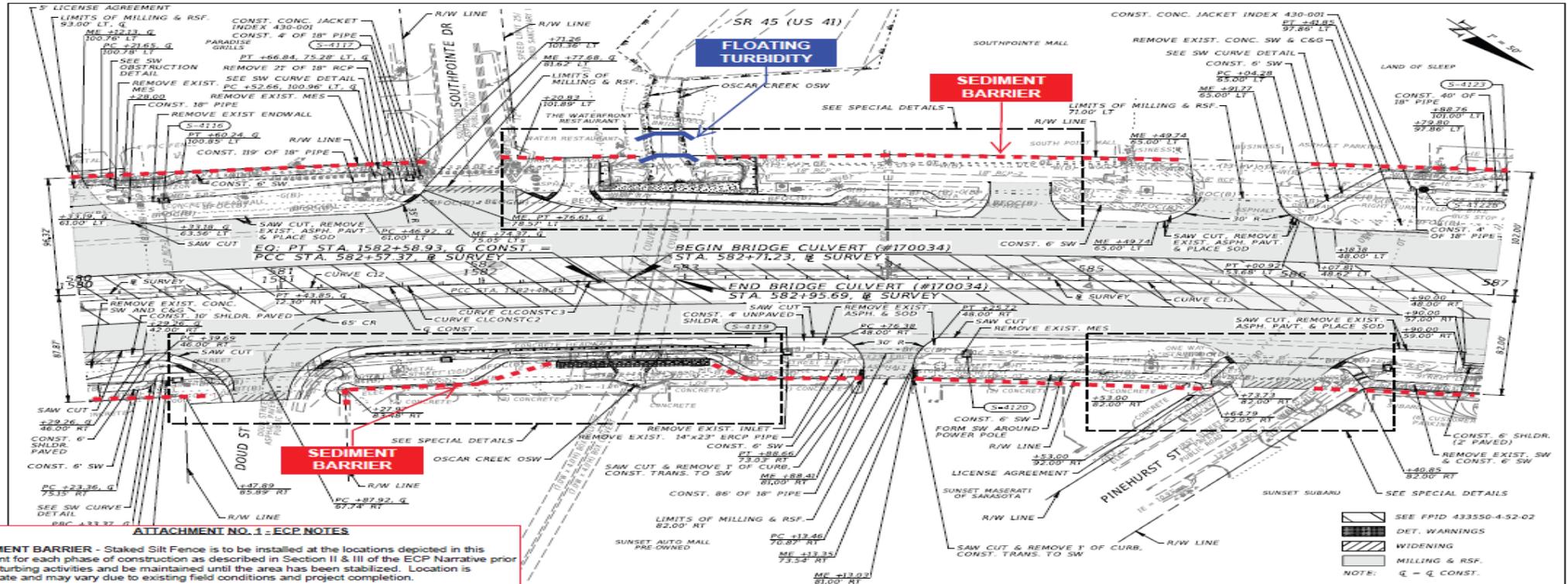
To be submitted for approval to Environmental Administrator before any soil disturbing activity

- Site-specific illustrated plan showing the location of Best Management Practices (BMPs) (including SWPPP sheets)
- A Construction Narrative for ESCP, District 1 provides a Fillable Narrative Form for this.
- Spill Reporting and Containment Plan
- Staging Area Clearance Request Letter for Department of Environmental Management Office (DEMO) (if staging areas are located outside of the existing right-of-way)
- **Dewatering Plan**
- Notice of Intent NPDES
- Contractor/Sub Contractor Certification (65004007 form)
- Stormwater Inspector's certification
- Delegation of Authority Letter (if required)



# Site Specific Illustrated Plan showing BMPs

T1191 EROSION CONTROL PLAN - ATTACHMENT 2 - BOX CULVERT EXTENSION ONSITE DEWATERING PLAN DETAIL AT OSCAR CREEK



**ATTACHMENT NO. 1 - ECP NOTES**

**A. SEDIMENT BARRIER** - Staked Silt Fence is to be installed at the locations depicted in this attachment for each phase of construction as described in Section II & III of the ECP Narrative prior to soil disturbing activities and be maintained until the area has been stabilized. Location is approximate and may vary due to existing field conditions and project completion.

**B. FLOATING TURBIDITY BARRIER** - Floating Turbidity Barrier will be installed at the locations depicted in this attachment and as described in Section II & III of the ECP Narrative prior to soil disturbing activities and will be maintained until stabilization is achieved.

**C. INLET PROTECTION** - Inlet Protection Systems will be installed and maintained at all existing and proposed inlets shown on Plan Sheets 28-38 (433550-4-52-01) and 9-19 (433550-4-52-02) for each phase of construction as described in Section II & III of the ECP Narrative prior to the start of soil disturbing activities and be maintained as needed until stabilization is achieved. Drainage structures will be checked regularly and cleaned prior to final inspection as needed.

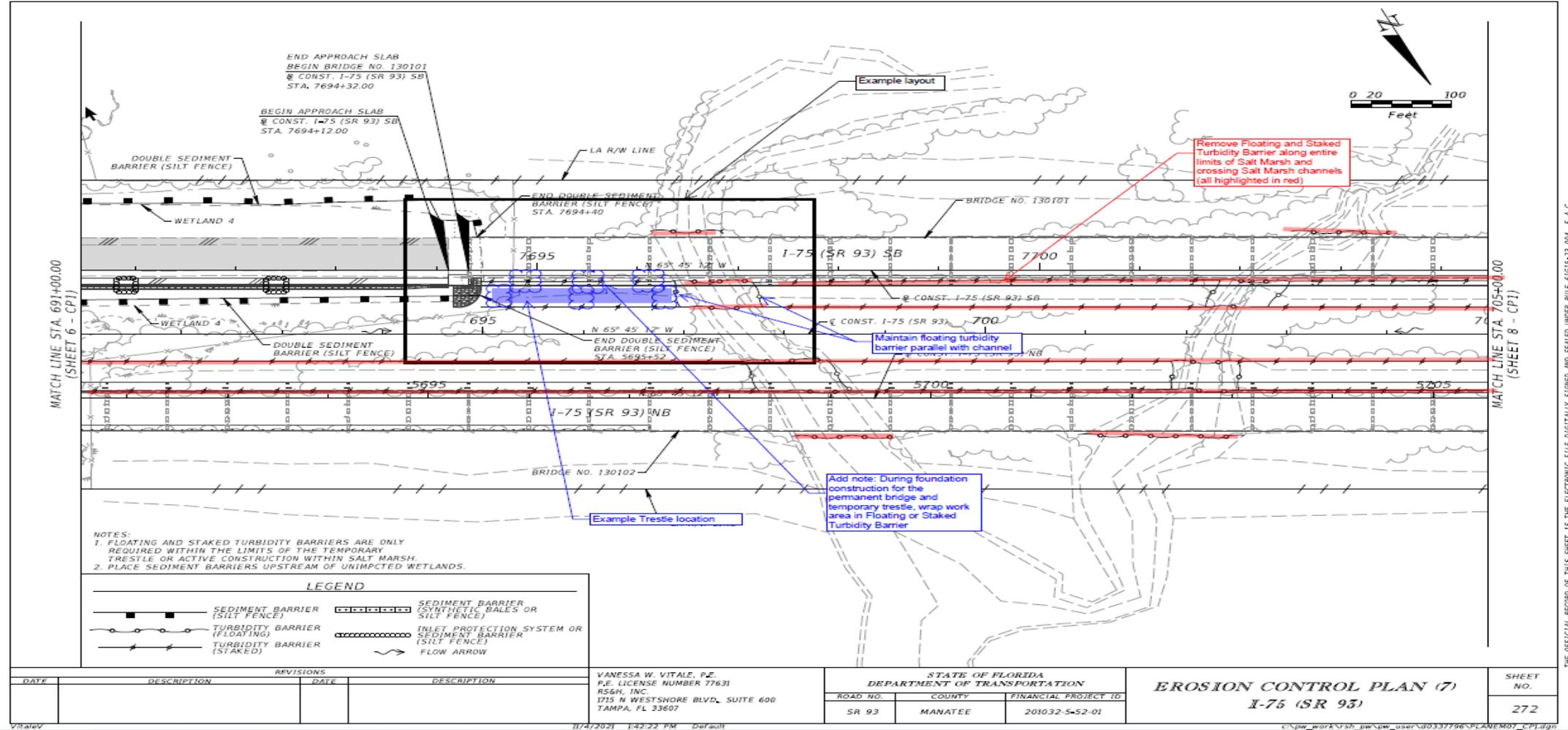
**NOTE: SEE SECTIONS II AND III OF THE EROSION CONTROL PLAN NARRATIVE FOR ADDITIONAL DEVICE INFORMATION**

RICHARD C. ENDRZEJEWSKI, P.E. P.E. LICENSE NUMBER 70853 ELEMENT ENGINEERING GROUP 713 E. 9th AVENUE TAMPA, FL 33605 3/28/2023 4:48:23 PM Default	STATE OF FLORIDA		ROADWAY PLAN	SHEET NO. 35
	DEPARTMENT OF TRANSPORTATION			
ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
SR 45	SARASOTA	433550-4-52-01		



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61S04-02.004, F.A.C.

# Site Specific Illustrated Plan showing BMPs



# District 1 Construction Fillable Narrative for ESCP

## Erosion and Sedimentation Control Plan (ESCP)

Date:

FPID:

Contract No. :

County:

Project Description:

Submitted by CONTRACTOR (Name, address, phone):

Submitted to:

Florida Department of Transportation

*A checked box indicates each component has been read and understood.*

THE CONTRACTOR will apply the Erosion and Sedimentation Control Plan that is displayed on the attached plan set. Recommended Best Management Practices (BMPs) will be used for erosion, sedimentation, and pollution controls. **FDOT Spec 104-5**

The estimated length of time erosion control devices will be in operation is  days. **FDOT Spec 104-5**

THE CONTRACTOR will be utilizing the locations specified in the attached plan set to install the erosion control measures throughout the project. THE CONTRACTOR will install additional measures not specified in these plan sheets if the approved measures are not performing as needed to comply with Federal and State Stormwater Regulation, any applicable permits issued for this project, or when directed to by the Engineer. **FDOT Spec 104-5**

THE CONTRACTOR will install erosion control measures prior to starting any earthwork activities and will leave these measures in place until after construction is complete or permanent stabilization has been established. All ditch bottom inlets, culverts, or any other water control structures on the job will have erosion control devices installed prior to the project commencing or any maintenance work occurring. All other erosion control devices will be installed prior to any earthmoving or earth disturbing work. **FDOT Spec 104-6**

Should dewatering activity become necessary, THE CONTRACTOR will apply for, obtain, and comply with all permits for this activity. **FDOT Specs 7-2.1 and 455-28**

THE CONTRACTOR will permanently stabilize any earthwork within 7 days of finishing earthwork operations in

THE CONTRACTOR will identify and protect all wetlands within or outside of project boundaries that could be impacted by this work. The wetlands will have wire reinforced back/double-rowed staked silt fences or staked turbidity barriers installed around them prior to the project commencing or any maintenance activity occurring. **FDOT Spec 104-6**

THE CONTRACTOR will repair or replace any sod, landscaping, or structure that is damaged during work on this project. **FDOT Spec 7-11.1**

THE CONTRACTOR will repair or replace any sod, landscaping, or structure that is damaged during work on this project. **FDOT Spec 7-11.1**

THE CONTRACTOR will be staging on-site within the boundaries of the job (*staging area location(s) indicated on attached*).

THE CONTRACTOR has selected and been approved by a private property owner to use offsite property as a staging area. **FDOT Spec 7-1.4** *The Federal Endangered Species Act requires the Department investigate any potential impact to a threatened or endangered species prior to initiating activity performed in conjunction with a highway construction project. A field review should be requested from the Environmental Management Office (EMO) by submitting the attached Staging Area Clearance Request. This review can take up to 30 days and no work or use of the property can take place prior to approval.*

THE CONTRACTOR does not anticipate any discovery of hazardous materials or spill on the job site, but in the event a hazardous material is discovered, or a spill occurs, THE CONTRACTOR will follow and administer the following plan:

- THE CONTRACTOR will ensure the protection of environmental resources at the site during and after construction activities through compliance with environmental regulations and by practicing proper handling and storage procedures. THE CONTRACTOR will perform all work so that pollution of or damage to air, surface water, groundwater and land is minimized or within reasonable limits or limits established by any applicable federal, state and local laws and regulations. **FDOT SPEC 110-9.5**
- If contamination that was not previously marked in the plan sheets is discovered during construction, the FDOT's District Environmental Management Office will be contacted immediately. Contamination includes, but is not limited to: asbestos containing materials, petroleum products, orphaned tanks, and other potentially hazardous chemical substances. This also includes new spills or releases, of reportable quantity, that occur within the project limits during construction. The District Contamination Impact Coordinator is Nikki Vallandingham ([Danielle.Vallandingham@dot.state.fl.us](mailto:Danielle.Vallandingham@dot.state.fl.us) or 863-519-2375). **FDOT SPEC 110-6.5**

THE CONTRACTOR will comply with all conditions associated with any permits on this project. Should a Threatened or Endangered Species be known to exist or be encountered on this job, THE CONTRACTOR will cease



# Spill Reporting and Containment Plan

## Containment and Spill Prevention Plan

Project Name \_\_\_\_\_

Location \_\_\_\_\_

Emergency Phone ( \_\_\_ ) \_\_\_ - \_\_\_\_\_

Construction Work: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

This Containment and Spill Plan is designed to handle the requirements for this project location and types of hazardous substances. The plan should be updated if the work or substance inventory changes.

### Spill Prevention

The following are general requirements for any hazardous substances stored and used at this facility.

#### General Requirements

- Ensure all hazardous substances are properly labeled.
- Store, dispense, and/or use hazardous substances in a way that prevents releases.
- Provide secondary containment when working on and removing materials from a bridge
- Provide secondary containment storing hazardous substances in bulk quantities (~55 g).
- Maintain good housekeeping practices for all chemical materials at the facility.
- Routine/Daily checks in the hazardous substance storage area to be performed by \_\_\_\_\_
- Monthly inspections of the hazardous substance storage area, secondary containment, and annular space (interior cavity of double wall tank) on any stored substances (paint, solvent etc.) or Above-ground Storage Tanks (AST) need to be logged in this plan. See Appendix A - Inspection Log.

### Spill Containment

The general spill response procedure on this project is to

1. Stop the source of the spill,
2. Contain any spilled material
3. Report spill to District One Contamination Coordinator Jeff James 863- \_\_\_\_\_
4. Clean up the spill in a timely manner to prevent accidental injury, off site migrations or other damage.

Small spills will be contained by site personnel if they are able to do so without risking injury. Spill kits are located at the following location(s). See attached site map:

### Emergency Procedures:

## Containment and Spill Prevention Plan

(Secondary) ( \_\_\_ ) \_\_\_ - \_\_\_\_\_

(After Hours Emergency Contact) ( \_\_\_ ) \_\_\_ - \_\_\_\_\_

### • In the event of a large spill, a properly trained employee should:

- Assess the area for any immediate dangers to health or safety (i.e. a wrecked car on fire). If any dangers are present, move away from the area, **call 911**.
- Notify the primary and/or secondary contact from the list above and then continue your spill response. The primary contact should assess additional notification requirements.
- Retrieve the spill kit from the closest location.
- Assess the size of the leak and any immediate threat of the spill reaching the floor/storm drains or permeable surfaces in the area. If there is an immediate threat and there are no safety concerns, then attempt to block the spill from coming in contact with the floor/storm drain or permeable surface. If no drain covers are available, then try to use absorbent (cat litter) and/or sock booms or rags to stop the spill from getting into the drains or to any permeable surfaces.
- If the spill can be contained with absorbent booms, deploy them around the spill. Use the booms to direct the spill away from any immediate hazards (i.e. a wrecked car).
- If there is no immediate threat to the floor/storm drains or permeable surfaces, or after controlling the spill, try to plug or stop the leak, if possible. If applicable, put on protective gear (gloves, goggles, protective clothing, etc.) and plug the leak.
- Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the spill cleanup contractor and dispatch them to clean up the spill or commence spill cleanup procedures.

Spill cleanup for large spills should be handled by the Spill Cleanup Contractor  
 Company Name \_\_\_\_\_ 24-Hour Phone ( ) \_\_\_\_\_

### Spill Reporting

If a hazardous substance spill exceeds 25 gallons or if any amount has been released to soil, surface water, or storm drains, notify the following agencies:

Nikki Vallandingham, District Contamination (FDOT) 863 519- 2375

National Response Center (NRC) (800) 424-8802

Florida State Warning Point (SWP) (800) 320-0519



# Staging Area Clearance Request Letter for DEMO

*(Put this form on your Company's letterhead stationery along with the information requested)*

*(Please Note! Legible maps MUST be received before a field review will be performed! This letter must be emailed directly to the recipient emails listed at the top; response time for FDOT does not begin until the correct persons have been directly notified and all attachments are provided.)*

(Date)

Sent via email to: [Kristin.Caruso@dot.state.fl.us](mailto:Kristin.Caruso@dot.state.fl.us)  
[Jonathon.Bennett@dot.state.fl.us](mailto:Jonathon.Bennett@dot.state.fl.us)

Florida Department of Transportation District  
Environmental Management Office Post Office Box 1249  
Bartow, Florida 33831

Attention: Kristin Caruso

Subject: **New Staging Area/Borrow Pit/Mixture Plant/Construction Field Office**  
Project Name: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx  
Financial Project ID: xxxxxxxx-x-xx-xx  
Contract Number: xxxxxx

We propose to establish an off-site area for project activity in conjunction with construction of the above-referenced Department of Transportation project. We understand that the Florida Department of Transportation, District One, will review this proposed area for involvement with protected species and wetlands and that use of the proposed off-site area is dependent on the outcome of this review.

The proposed site is owned by (Name of Property Owner), and is located as follows:

Township: ..... Range: .....  
Section: ..... County: .....  
City: .....  
Description of Off-Site Activity: .....

Attached: County map AND Plat map (with parcel #) of the site showing an outline of the activity location.

Please initiate a field review of this site to determine the possible impact of our operation on any endangered or threatened species which might be located in this area. (The contractor's representative) will be available to meet you on site at your earliest convenience. (Construction Company name) requests the use of this proposed off-site area by (Date) but understands that it may take the FDOT District One up to 30 days to complete the review and clearance of this site(s).

Please contact us at (contractor's phone number) to answer any questions with regard to this request, and to establish a meeting time for a field review.

Sincerely,

*(Put this form on your Company's letterhead stationery along with the information requested)*

Attachments

Cc: Project Administrator  
Environmental Administrator (pick from: Sara Stevenson  
Syeda Zaidi)

District Materials Engineer (Sam Joseph, P.E.)  
Construction Engineer (pick from: Bartow Ops- Kevin Morrissey, P.E.  
Heartland Ops- Leighton Elliot, P.E.  
Manatee Ops- Alex Adames, P.E.  
Ft. Myers Ops- Jerry Byrne, P.E.  
Interstate/Push Button- Kati Sherrard, P.E.)



# Contractor/Sub Contractor Certification (65004007 form)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

650-040-07  
CONSTRUCTION  
04/18

## CONTRACTOR/SUBCONTRACTOR CERTIFICATION NPDES GENERIC PERMIT FOR STORM WATER DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES

Financial Project #

"I certify under penalty of law that I understand and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."

[Signature Line]

Signature of Contractor/Subcontractor

[Date Line]

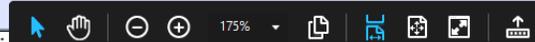
Date

[Name and Title Line]

Name and Title

[Name of Contracting or Subcontracting Firm Line]

Name of Contracting or Subcontracting Firm



# Delegation of Authority Letter (if required)

## Delegation of Authority

Attach this letter to relevant documentation or add a note identifying previously submitted material.

From: \_\_\_\_\_  
Legal Business Name of company whose officer is signing this letter

\_\_\_\_\_

Business Address

\_\_\_\_\_

City, State, Zip Code

To:

Dear Sir or Madam:

\_\_\_\_\_, \_\_\_\_\_, is an  
Name of Designee Title

authorized signatory of \_\_\_\_\_  
Legal Name of Owner or Operator (the Permittee/Applicant)

(hereinafter the Owner or Operator) with authority to execute and deliver all documents and instruments required in connection with environmental matters for the \_\_\_\_\_  
State of incorporation of the Owner or Operator

\_\_\_\_\_ including and without limitation permit  
Owner or Operator Legal Entity Type (e.g., corporation or limited liability company)

applications and financial assurance documents for the Owner or Operator. Any attachments to this letter are true and current.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



# Dewatering Permit NPDES (Short Term/Temporary)

Short Term/ Temporary Dewatering is only permitted under the NPDES when the dewatering box is checked.

H. Construction Period:		Start Date: 7/11/22	Completion Date: 11/14/23
<b>VI. DEWATERING INFORMATION:</b>			
A. Will dewatering operations be performed as part of the construction activities?		<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <b>If yes, complete</b>
below. If no, skip this part and go to Part VII.			
B. Is the project site currently identified as contaminated, or is there a site within 500 feet of the dewatering project identified as contaminated by a DEP or EPA cleanup/restoration program? You may use the Quick Link to DEP's Contamination Locator Map (CLM) and DEP's Institutional Controls Registry (ICR) Web Viewer to determine cleanup restoration status. You may access the CLM at: <a href="http://webapps.dep.state.fl.us/DepCleanup/welcome.do">http://webapps.dep.state.fl.us/DepCleanup/welcome.do</a> or			
DEP Form 62-621.300(4)(b) Effective Date: 02/2015		Page 2 of 6	
		<p style="text-align: right;"><b>Received</b> <b>07/01/2022</b> <b>FL Department of</b> <b>Environmental Protection</b> <b>NPDES Stormwater Notices Cent</b></p>	
<p><a href="http://ca.dep.state.fl.us/mapdirect/?focus=contamlocator">http://ca.dep.state.fl.us/mapdirect/?focus=contamlocator</a>. The ICR may be accessed at:  <a href="http://www.dep.state.fl.us/waste/categories/brownfields/pages/ICR.htm">http://www.dep.state.fl.us/waste/categories/brownfields/pages/ICR.htm</a>, or  <a href="http://ca.dep.state.fl.us/mapdirect/?focus=icr">http://ca.dep.state.fl.us/mapdirect/?focus=icr</a></p> <p><input type="checkbox"/> YES Continue to VI.C, below.  <input checked="" type="checkbox"/> NO Continue to Part VII.</p>			



# NPDES – Facility ID 10 No Dewatering



## FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**Ron DeSantis**  
Governor

**Jeanette Nuñez**  
Lt. Governor

**Shawn Hamilton**  
Secretary

March 16, 2022

[Redacted]

13350 Rickenbacker Pkwy  
Fort Myers, FL 33913 8847

**RE: Facility ID: FLR10VA80-001**

US 17 Repaving Project  
County: Charlotte

Dear Permittee:

# NPDES – Facility ID 20 Dewatering



FLORIDA DEPARTMENT OF  
Environmental Protection

I

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**Ron DeSantis**  
Governor

**Jeanette Nuñez**  
Lt. Governor

**Shawn Hamilton**  
Secretary

---

December 10, 2021



14600 SW 136th St  
Miami, FL 33186 6762

**RE: Facility ID: FLR20FA10-001**

EIT28 - River Road  
County: Sarasota



## Dewatering Permit Water Management District

- Will your dewatering project operate for less than 90 days?
- Is the maximum daily pumpage less than 5 million gallons per day?
- Is the maximum total project pumpage less than 100 million gallons?
- Will all discharges be retained on the project site? Please note that discharge to an adjacent canal or storm sewer whose outfall is not within the project boundary is considered offsite.
- Is your project greater than 1,000 feet of a wetland?

**If Your Answer is Yes to any of the above please apply for a dewatering permit from your Water Management District. (SWFWMD/SFWMD)**





# OFF ROW Staging Area

## North Elevation

☀ 199°S (T) ● 27°53'38"N, 81°29'54"W ±13ft ▲ 117ft

## North East Elevation

☀ 245°SW (T) ● 27°53'38"N, 81°29'54"W ±13ft ▲ 117ft



EFR  
FDOT D1

Rattlesnake Rd  
07 May 2022, 12:09:31



EFR  
FDOT D1

Rattlesnake Rd  
07 May 2022, 12:09:05

# Offices and Staging

- Comply with Land Development Code in the county or city in which it lies.
- Must be restored to as it was to meet NOT conditions.

## HOW IS THIS RESTORED?



# Staging Area or Interchange Hotel and Strip Center?



# Borrow Pit



☉ 228°SW (T) ☉ 28°1'6"N, 81°39'11"W ±16ft ▲ 125ft



## 1099 Clubhouse Rd Winter Haven FL

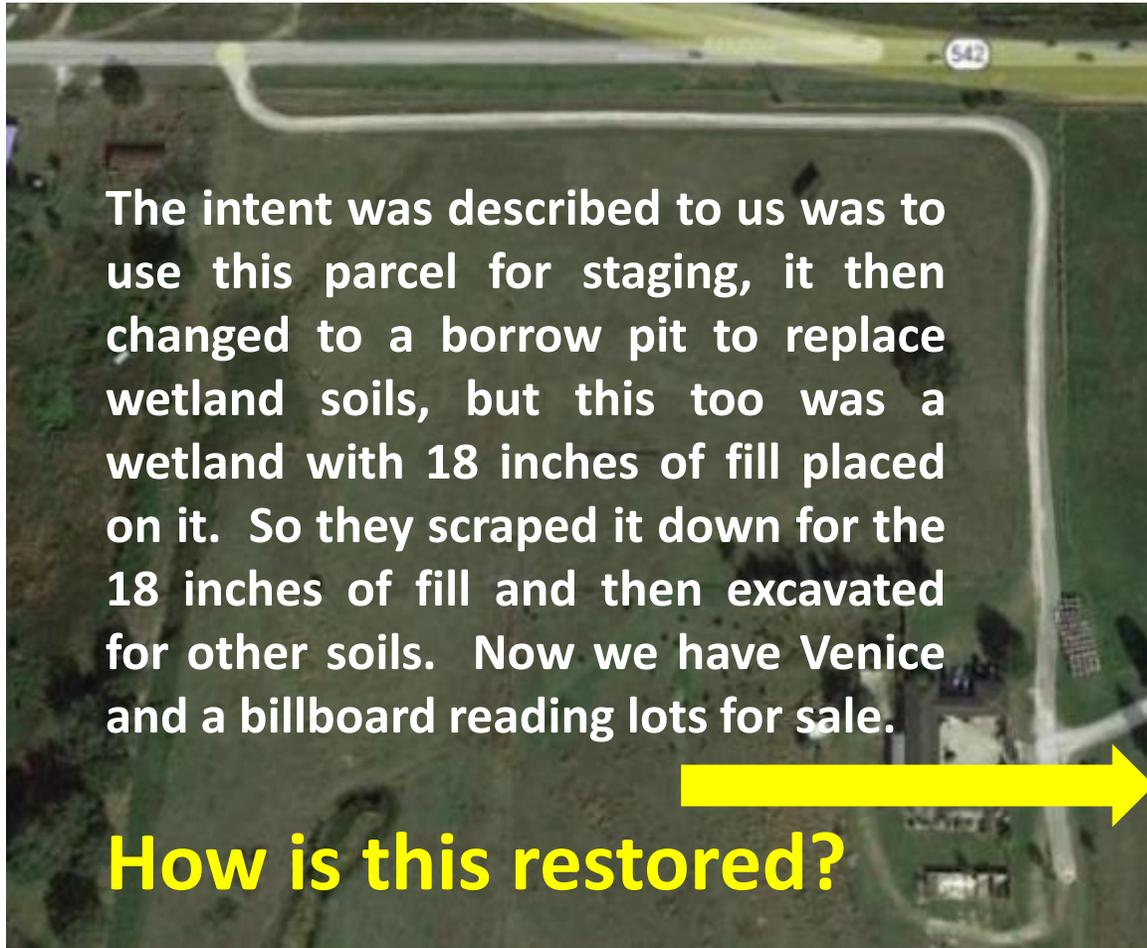
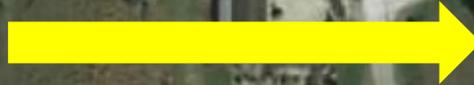
☉ 302°NW (T) ☉ 28°1'6"N, 81°39'13"W ±16ft ▲ 111ft



## Borrow Pit with Canals Constructed

The intent was described to us was to use this parcel for staging, it then changed to a borrow pit to replace wetland soils, but this too was a wetland with 18 inches of fill placed on it. So they scraped it down for the 18 inches of fill and then excavated for other soils. Now we have Venice and a billboard reading lots for sale.

**How is this restored?**



# Environmental Construction Compliance - Job Board

- Permits (NPDES, WMD, ACOE)
- Threatened Endangered Species poster
- Rain gauge



# Concrete Washout Best Management Objective

- to collect and retain all the concrete washout water and solids in leakproof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters or into the groundwater,
- A washout pit made with a plastic lining, can be dug into the ground or built above grade. The plastic lining should be free of tears or holes that would allow the wash water to escape
- Concrete washout facilities, should be placed in locations that provide convenient access to concrete trucks, preferably near the area where concrete is being poured. However, they should not be placed within 50 feet of storm drains, open ditches, or water bodies.



# Almost Overflowing with Wash Water.



## Concrete Washout Best Management Practice

- Concrete washout facilities should be inspected daily and after heavy rains to check for leaks, identify any plastic linings and sidewalls that have been damaged by construction activities, and check if they have been filled to over 75% capacity.
- <https://www.fox13now.com/news/local-news/udot-warns-humans-pets-to-stay-out-of-stream-following-concrete-spill>



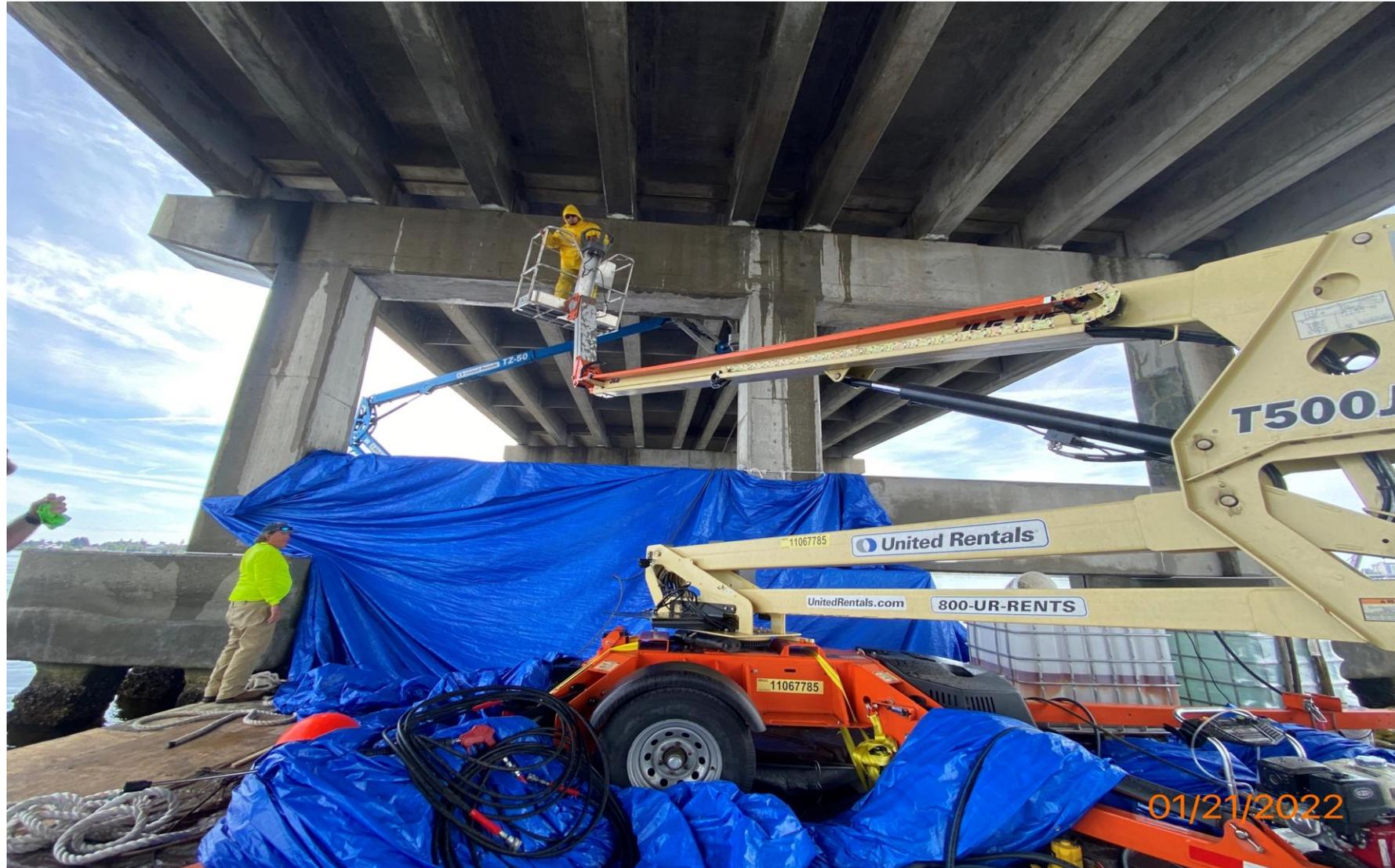
Extracting the concrete solids or gelled wash water.

## Fuel Tank Secondary Containment

- Use a sump as a secondary containment
- The Visqueen lining used often requires frequent inspection and maintenance



# Bridge Rehab and Repair Project



# Clearing Areas Near Streams?



# Keeping Flow Throughs Clean



# Stabilizing Slopes and Cleared Areas



# Drilled Shafts



# Turbid Off-site Discharge



# Problem Solved



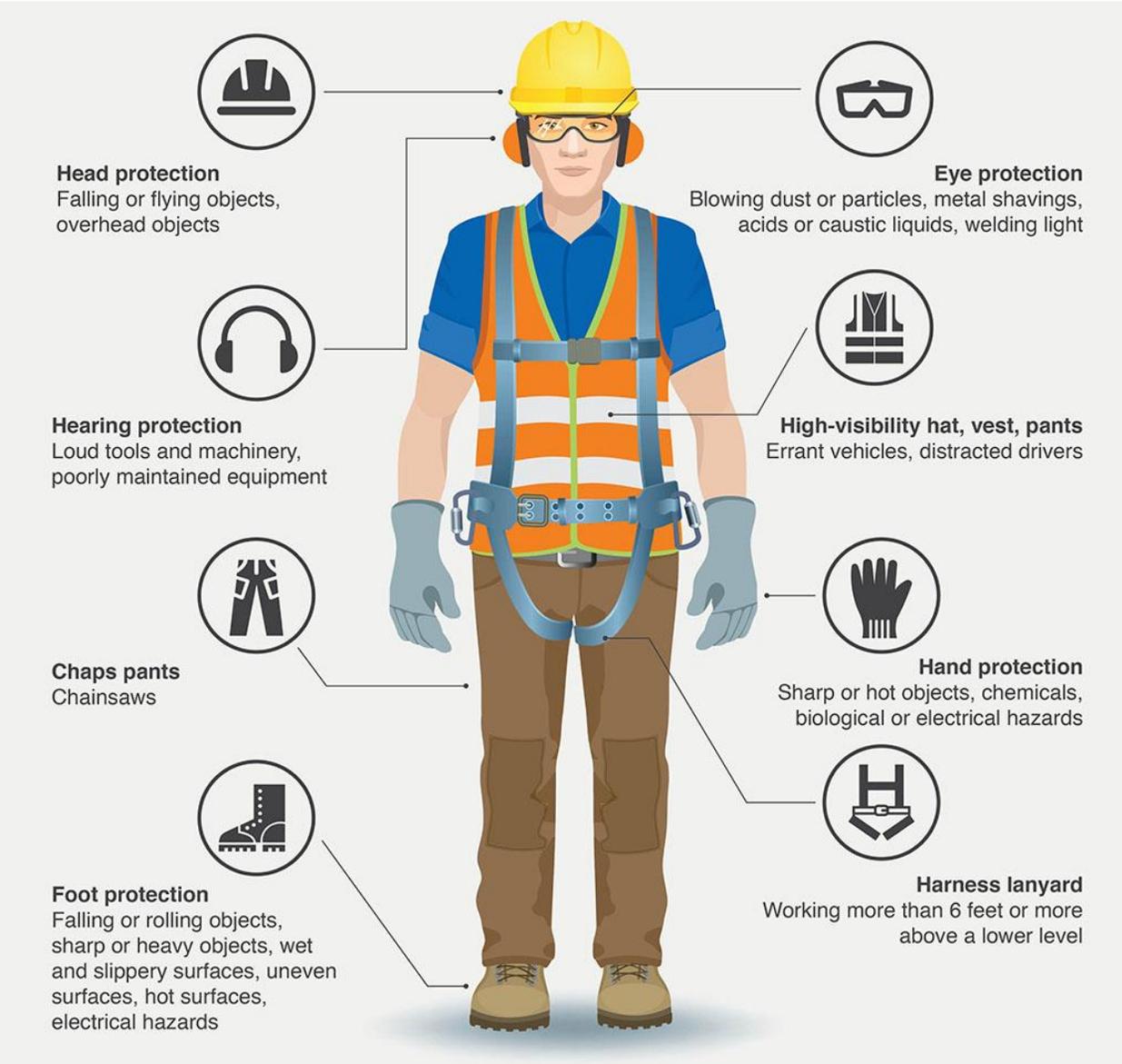
# Contamination – Can Happen Any Time!



# Safety Comes First Always!



**KEEP SAFE.  
KEEP TRAINING  
KEEP CERTIFIED**



# Inspection Criteria

- ☑ Permits and TED species posters on board
- ☑ Delineation of wetlands and surface water
- ☑ Quality of water in water bodies
- ☑ Quality of water leaving the project-Discharge Point
- ☑ Waterflows and wildlife crossings
- ☑ Functionality of BMPs
- ☑ SWPPP reports and turbidity monitoring log if required
- ☑ Concrete washouts / Storage of fuels and chemicals
- ☑ Staging Areas and Borrow pits
- ☑ New or Existing species and habitat
- ☑ Exclusionary Gopher Tortoise fence
- ☑ Sod Establishment and weeds



## SOD and SEED Varieties of Florida



## Approved Year Round FDOT Sod

- Bahia
- Bermuda
- Zoysia

**Seeds Don't Germinate easily in South Florida –  
You won't be able to apply for NOT until you  
have 80% full grass coverage!**

**Job stays open, Contractor will have to maintain  
the job site (moving and litter removal) till final  
acceptance.**



# Temporary/Seasonal Approved FDOT Seeds (Dies in Summer)



Florida Winter Rye



Florida Brown Millet



# Faces of Death



# SOIL PROFILE



## **Section 7-1.4 Compliance with Federal Endangered Species**

- **If you encounter protected species during construction, stop all work in the area call the Environmental Administrator (EA), and Send a picture**
- **We then coordinate with DEMO to conduct a survey or relocation**
- **If you find a dead protected species, let your EA know right away. They need to be reported (picture with day, time, and location)**
- **Check with our EA or DEMO for maternity dates and or nest occupancy protection dates**
- **If unforeseen Gopher Tortoise burrow appears in ROW contact EA for further instruction**

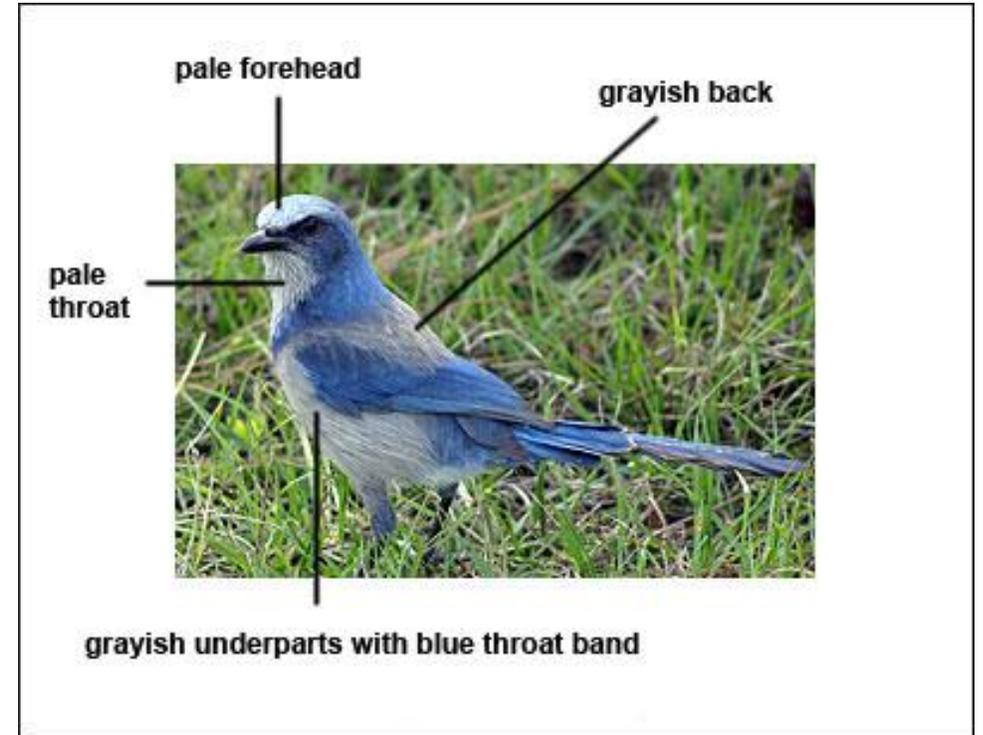


## Section 7-1.4 Compliance with Federal Endangered Species Act



## Section 7-1.4 Compliance with Federal Endangered Species

- Audubon's Crested Caracara
- Florida Scrub Jay
- Piping Plover
- Wood Stork
- Eastern Indigo Snake
- Sea Turtles
- Sand Skink and Blue-tailed Mole Skink
- Florida Panther
- West Indian Manatee
- Gulf Sturgeon
- Florida Bonneted Bats



**All Threatened and Endangered  
Animals**

# Threatened Endangered Species (TED) Poster

## Attention Builders!

### Got Gophers? Get Permits.

Before you begin clearing for a building project, you must obtain a permit from the Florida Fish and Wildlife Conservation Commission (FWC) if either gopher tortoises or their burrows are present on the development site.



Gopher Tortoise



Gopher Tortoise Burrow

The gopher tortoise is protected under Florida law, Chapter 68A-27 of the Florida Administrative Code. Protect yourself and this imperiled species. Learn more at [MyFWC.com/GopherTortoise](http://MyFWC.com/GopherTortoise) or contact the nearest office of the FWC.

Northwest Region  
3911 Highway 2321

Southwest Region  
3900 Drane Field Road



**ATTENTION:**  
THREATENED EASTERN INDIGO  
SNAKES MAY BE PRESENT ON  
THIS SITE!!!

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

- Cease clearing activities and allow the 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 U.S. Fish and Wildlife Service (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.

#### 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

**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.

# Consider Night-Time Work



# Difference

Don't



# ME WHEN I TRY TO DO SOMETHING GOOD



# er Tortoise!

will sink!



K Found this guy walking around our backyard today .

Did you throw it in the water!?!?!?

That's a tortoise not a turtle. It can't swim

# West Indian Manatee



# Threatened Endangered Species (TED) Poster



# Threatened Endangered Species (TED) Poster

# NO FOOD OR DRINK IN DUMPSTER



**IT IS ILLEGAL TO FEED BEARS (F.A.C. 68A-4.001)**  
**TO REPORT BEAR ACTIVITY CALL FWC 850-265-3676**



# Endangered Plants of La Florida

## Protecting Florida's Natives Plants

- La Florida, as it was named by Spanish explorer Ponce De Leon, in the early 1500s, means Land of the Flowers –

*We certainly do attempt to live up to the name!*

- Threatened by sea-level rise, urban sprawl, and loss of natural fires.
- The list of All Threatened and Endangered Plants is

<https://ecos.fws.gov/ecp/report/species-listings-by-tax-group?statusCategory=Listed&groupName=All%20Plants>



# FLORIDA JUJUBE - Florida ziziphus (*Ziziphus celata*)

The Florida Jujube (*Ziziphus celata*) is a shrub that can grow 6 feet tall. It is nearly extinct. This plant is endemic to central Florida. Jujube prefers to grow in open sunny areas prone to fire.



**Florida Jujube**



**Endangered Plant Scrub Ziziphus on ROW protected by Iron Bollards, the location is top secret...**

## OKEECHOBEE GOURD—*CUCURBITA OKEECHOBENSIS* BAILEY

- This endangered native gourd is an annual climbing vine growing abundantly in heavy tangled woods along the southeastern shore of Lake Okeechobee. It uses its tendrils to climb into low-growing trees.
- The Okeechobee gourd persisted around Native American villages with the Seminole pumpkin, *C. moschata*, which is edible. The Okeechobee gourd's bitterness precluded its use for food. It may, however, have been used as a ball, rattle, or ceremonial cup.



## The Scrub Lupine

- **It is the only upright pink flowering lupine in the state of Florida**
- **The Flower colors go from pale pink to light purple**
- **This is a somewhat small plant growing up to about 3 feet**
- **The plant flowers and bears fruit in June**
- **A distinctive feature of the plant is its furry leaves and stems**



## The Paw Paw - *Asimina tetramera*

- A tree or a shrub, either way, the pawpaw is a flowering fruit plant of legendary proportions.
- There are stories told about it, songs written about it and it is one of the most sought-after trees on this Continent.
- The Paw Paw tree/shrub has the largest edible fruit in North America.
- The Paw Paw has been eaten for hundreds of years by the First people to inhabit this country, American Natives and when the Spanish landed in the 1500s, they were met by a People who already knew the value of the tree.



## Weed and Exotics Alert

Invasive plants degrade and diminish Florida's conservation lands and waterways.

- **Australian Pine Tree**
  - **Melaleuca Tree**
  - **Brazilian Pepper Tree**
  - **Beach Naupaka**
  - **Chinese Tallow Tree**
  - **Tropical Soda Apple**
  - **Cogon Grass**
  - **Creeping Signal Grass**
  - **Lygodium Climbing Fern**
  - **Shoebuttton ardesia**
- 
- **Giant salvinia**
  - **Hydrilla**
  - **Water-hyacinth**
  - **Water-lettuce**
  - **Water-spinach**
  - **Wild taro**



## Weed Alerts - Cogon grass



# Weed Alerts - *Lygodium Japonicum* Old World Climbing Vine



## Weed Alerts – Tropical Soda Apple

Its fruit is poisonous to humans – Do Not Eat.



# SOD Full of Weed – Bidens Alba



## Exotic Plants- Brazilian Pepper



**THANK YOU**  
**For Doing Your Part!**



# Questions??

