320 Stormwater Pollution Prevention Plan (SWPPP)

Modification for Non-Conventional Projects:

Delete FDM 320 and see RFP for requirements.

320.1 General

The Stormwater Pollution Prevention Plan (SWPPP) sheets document the designer's site evaluation and selection of control measures and other items to comply with the terms and conditions of the State of Florida Department of Environmental Protection (DEP) Generic Permit for Stormwater Discharges from Large and Small Construction Activities (DEP Generic Permit) discussed in *FDM 251*.

For an example of SWPPP sheets on a major reconstruction project, see *Exhibit 320-1*. Additional guidance for developing a SWPPP may be found in the DEP SWPPP template, found on the DEP web page at:

http://www.dep.state.fl.us/water/stormwater/npdes/swppp.htm

320.2 Narrative Description

The SWPPP sheets include a narrative that refers to other documents such as the <u>Standard Specifications</u> or the <u>Standard Plans</u> as necessary. Use the following outline to prepare the narrative:

- (1) Site Description
 - (a) A Description of the Construction Activity
 - (b) Sequence of Major Soil Disturbing Activities
 - (c) Area Estimates (The total project area and the area expected to be disturbed.)
 - (d) Runoff Data consisting of:
 - i. Rational runoff coefficient before, during, and after construction,
 - ii. The size of the drainage area for each outfall,
 - iii. The location of each outfall, in terms of latitude and longitude (to the nearest 15 seconds),

- iv. Existing data describing the soil or the quality of discharge from the site
- (e) Site Map (Include a narrative as described in *FDM 320.3*)
- (f) Receiving Waters (The name of the receiving waters for each outfall and the wetland area on the site.)
- (2) Controls
 - (a) Erosion and Sediment Controls
 - i. Stabilization Practices
 - ii. Structural Practices
 - (b) Stormwater Management
 - (c) Other Controls
 - i. Waste Disposal
 - ii. Off-Site Vehicle Tracking & Generation of Dust
 - iii. State or Local Regulations
 - iv. Application of Fertilizers and Pesticides
 - v. Toxic Substances
 - (d) State and Local Plans
- (3) Maintenance
- (4) Inspection
- (5) Non-Stormwater Discharges

The sheets may also include supplemental design details and plan views of the location of the controls. Additional information for preparing the SWPPP sheets can be found in the **State of Florida Erosion and Sediment Control Designer and Reviewer Manual**.

320.3 Site Map

Show the following information on a site map:

- (1) Drainage patterns
- (2) Approximate slopes
- (3) Areas of soil disturbance
- (4) Areas that are not to be disturbed
- (5) Locations of controls identified in the plan
- (6) Areas that are to be stabilized against erosion
- (7) Surface waters (including wetlands)

(8) Locations where stormwater is discharged to a surface water

The above information is typically shown on other sheets within a set of construction plans. Prepare a narrative description of the site map which identifies the construction plan sheets where the site map information required by the DEP Generic Permit can be found.

The locations of the temporary controls may be shown on SWPPP sheets, Erosion Control sheets, Plan-Profile sheets, or Temporary Traffic Control (TTC) Plan sheets. For projects where plan view sheets are not available, summarize the locations of the controls in a tabular format.

If an optional Drainage Map is included in the construction plans, then the drainage patterns will be shown on it. If the Drainage Map is not included, prepare a topographic map (for example, a USGS quadrangle map) showing contour lines. This map will supplement the construction plan sheets that show the other site map requirements. The supplemental site map may use photography (aerial or other). Include this supplemental map in the SWPPP sheets.

320.4 Controls

The SWPPP must include a description of the controls that will be implemented at the construction site. For each of the major activities identified in *Part 1.b* of the *Narrative*, describe the timing of the implementation of control measures during the construction process. Also describe the stormwater management measures that will be installed during construction to control pollutants in the stormwater discharges that will occur after construction.

Details should be prepared for all controls that are not detailed in the <u>State of Florida Erosion and Sediment Control Designer and Reviewer Manual</u>. The details should show the work intended, where and how the control is to be placed, and any other special design details. Any Technical Special Provisions required by the erosion control items of work should be prepared for the specification package.

The narrative for some of the other controls will be supplied by the contractor at the preconstruction conference. A plan for off-site vehicle tracking is an exception and must be included in the SWPPP prepared during design.

Any Water Management District or Local Water Management District permits obtained in connection with the project should be noted.

320.5 Maintenance, Inspection and Non-Stormwater Discharges

Include a description of any maintenance requirements that are not stated in the standard specifications. Include the inspection requirements, which will be either requirements of the DEP or the applicable requirements of another regulatory agency, whichever is more stringent. If special procedures have been developed to minimize turbidity associated with normal construction dewatering, include a description of those procedures.

Special monitoring requirements described in the DEP Generic Permit may apply where the project discharges to waters listed in **Section 303(d)** of the **Clean Water Act**. Consult with the district environmental permitting staff to determine if the monitoring requirements apply. If applicable, describe the special monitoring requirements in the inspection section of the narrative.

THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN CONTAINS REFERENCES TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (CALLED THE KEY SHEET) CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN REQUIRED BY SPECIFICATION SECTION 104, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1.0 SITE DESCRIPTION:

1.A. NATURE OF CONSTRUCTION ACTIVITY:

THE PROJECT IS THE RECONSTRUCTION OF SR 007 (JAMES BOND BOULEVARD) TO A MAJOR URBAN ROADWAY. THIS INVOLVES CONSTRUCTING A ROADWAY SURFACE, CURB AND GUTTER, SIDEWALK, UNDERGROUND STORM DRAIN SYSTEMS, AND STORMWATER MANAGEMENT FACILITIES. THE PROJECT EXTENDS FROM NORTH OF PAUL RUSSELL ROAD TO PERKINS STREET, A DISTANCE OF APPROXIMATELY 1.1 MILES.

1.B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

- 1. CLEARING AND GRUBBING, EARTHWORK, AND STORM DRAIN CONSTRUCTION FOR THE OUTFALL FROM THE PONDS.
- 2. CLEARING AND GRUBBING, EARTHWORK FOR POND CONSTRUCTION.
- 3. STORM DRAIN AND ROADWAY UNDERDRAIN CONSTRUCTION. CONSTRUCT THE STORM DRAIN PIPE IN THE UPSTREAM DIRECTION.
- 4. EARTHWORK ASSOCIATED WITH THE CONSTRUCTION OF ROADWAY, GRAVITY WALL, CURB, SUBGRADE, BASE, PAVEMENT, AND SIDEWALK.
- 5. CONSTRUCT UNDERDRAIN IN POND BOTTOM.
- 1.C. AREA ESTIMATES:

TOTAL SITE AREA: 19.6 ACRES. TOTAL AREA TO BE DISTURBED: 19.6 ACRES.

DESCRIPTION

1.D. RUNOFF DATA:

RUNOFF COEFFICIENTS: BEFORE: 0.62 DURING: VARIES FROM 0.62 TO 0.76 AFTER: 0.76

SOILS DATA: THE RESULTS OF THE SOIL BORINGS ALONG THE ROADWAY ARE SHOWN IN THE ROADWAY SOIL SURVEY SHEET(S). THE RESULTS OF SOIL BORINGS DONE IN THE PONDS ARE SHOWN ON THE POND DETAIL SHEETS. THE NUMBERS FOR THESE ARE IDENTIFIED ON THE KEY SHEET OF THESE CONSTRUCTION PLANS. IN GENERAL, THE SOILS ARE CLAYEY SANDS.

OUTFALL INFORMATION:

THERE ARE 4 OUTFALLS.

#1 DESCRIPTION: EXISTING POND AT LAURA LEE.

LOCATION: LATITUDE 30° 24' 30"N. LONGITUDE, 84° 16' 45"W. EST. DRAINAGE AREA SIZE: 13.6 ACRES. RECEIVING WATER NAME: NOT APPLICABLE.

#2 DESCRIPTION: POND 1. THIS DISCHARGES TO THE STORM DRAIN SYSTEM THAT RUNS UNDER ORANGE AVENUE. THIS SYSTEM IN TURN DISCHARGES TO THE BOX CULVERT AT STA. 531+00.

LOCATION: LATITUDE 30° 24' 45"N, LONGITUDE 84° 17' 00"W. EST. DRAINAGE AREA SIZE: 7.3 ACRES. RECEIVING WATER NAME: EAST DITCH.

#3 DESCRIPTION: BOX CULVERT AT STA. 531+00.

LOCATION: LATITUDE 30° 24' 45"N, LONGITUDE 84° 17' 00"W EST. DRAINAGE AREA SIZE: 4.2 SQUARE MILES. RECEIVING WATER NAME: EAST DITCH.

#4 DESCRIPTION: POND 2. THIS DISCHARGES TO THE SR 007 STORM DRAIN SYSTEM THAT DRAINS TO THE BOX CULVERT AT STA. 531+00.

LOCATION: LATITUDE 30° 25' 00"N, LONGITUDE 84° 17' 00"W. EST. DRAINAGE AREA SIZE: 15.4 ACRES. RECEIVING WATER NAME: EAST DITCH.

1.E. SITE MAP:

THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE KEY SHEET OF THESE CONSTRUCTION PLANS.

* DRAINAGE PATTERNS: THE DRAINAGE BASIN DIVIDES AND FLOW DIRECTIONS ARE SHOWN ON THE DRAINAGE MAPS. THE BACK OF SIDEWALK PROFILE SHEETS SHOW OVERLAND FLOW DIRECTION AT THE RIGHT OF WAY LINE. THE ARROWS ABOVE AND BELOW THE PROFILE REPRESENT THE FLOW DIRECTION AT THE LEFT AND RIGHT PROPERTY LINE, RESPECTIVELY. ARROWS POINTING TO THE PROFILE INDICATE RUNOFF COMING TO THE SITE. POINTING AWAY FROM THE SITE INDICATE RUNOFF LEAVING THE SITE.

- * APPROXIMATE SLOPES: THE SLOPES OF THE SITE CAN BE SEEN IN THE CROSS SECTION SHEETS AND THE PLAN-PROFILE SHEETS. THERE ARE POND CROSS SECTIONS LOCATED WITH THE POND DETAIL SHEETS.
- * AREAS OF SOIL DISTURBANCE: THE AREAS TO BE DISTURBED ARE INDICATED ON THE PLAN-PROFILE SHEETS, THE CROSS SECTION SHEETS, AND THE POND DETAIL SHEETS. ANY AREAS WHERE PERMANENT FEATURES ARE SHOWN TO BE CONSTRUCTED ABOVE OR BELOW GROUND WILL BE DISTURBED.
- * AREAS NOT TO BE DISTURBED: ESSENTIALLY THE WHOLE PROJECT WILL BE DISTURBED DURING CONSTRUCTION.
- * LOCATIONS OF TEMPORARY CONTROLS: THESE ARE SHOWN ON THE EROSION CONTROL SHEETS EXCEPT FOR THE CONTROLS ASSOCIATED WITH THE BOX CULVERT REPLACEMENT WHICH ARE SHOWN ON THE BOX CULVERT CONSTRUCTION DETAIL SHEET. TABLES PROVIDING SUMMARIES OF TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS ARE PROVIDED IN THE SUMMARY OF QUANTITY SHEETS.
- * LOCATIONS OF PERMANENT CONTROLS: THE STORMWATER PONDS ARE THE PRIMARY PERMANENT STORMWATER MANAGEMENT CONTROLS. THESE ARE SHOWN ON THE POND DETAIL SHEETS.
- * AREAS TO BE STABILIZED: TEMPORARY STABILIZATION PRACTICES ARE SHOWN IN THE SAME LOCATION AS THE TEMPORARY CONTROLS MENTIONED ABOVE. PERMANENT STABILIZATION IS SHOWN ON THE TYPICAL SECTION SHEETS, THE PLAN-PROFILE SHEETS AND THE POND DETAIL SHEETS.
- * SURFACE WATERS: THE ONLY SURFACE WATER WITHIN THE SITE IS THE EAST DITCH, WHICH FLOWS THROUGH THE CULVERT AT STATION 531+00. THIS IS LOCATED ON THE PLAN-PROFILE SHEETS AND THE BOX CULVERT CONSTRUCTION DETAIL SHEET.
- * DISCHARGE POINTS TO SURFACE WATERS: THERE IS ONLY ONE. THIS IS SHOWN ON THE PLAN-PROFILE SHEETS AT THE EAST DITCH (CULVERT AT STATION 531+00).
 - 1.F. RECEIVING WATERS:

SEE ITEM 1.D FOR THE OUTFALL LOCATIONS AND RECEIVING WATER NAMES. THERE ARE NO WETLAND AREAS ON THE PROJECT SITE.

> Exhibit 320-1 Date: 1/1/18

REVISIONS STATE OF FLORIDA LUKE S. WALKER, P.E. DESCRIPTION P.E. NO.: 99991 DEPARTMENT OF TRANSPORTATION ROADWAY ENGINEERS, INC. FINANCIAL PROJECT ID ROAD NO. COUNTY 123 MAIN STREET

CERTIFICATE OF AUTHORIZATION: 12345

TALLAHASSEE, FL 32301

123456-1-52-01

BAY

SR 22

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO.

THIS EXHIBIT IS AN EXAMPLE NARRATIVE OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR A MAJOR RECONSTRUCTION PROJECT. ACTUAL PROJECT CONDITIONS OFTEN DICTATE DIFFERENT APPROACHES THAN SHOWN HERE. THE ENGINEER IS RESPONSIBLE FOR DEVELOPING A SITE SPECIFIC SWPPP THAT COMPLIES WITH THE FDOT DESIGN MANUAL.

2.0 CONTROLS:

2.A. EROSION AND SEDIMENT CONTROLS:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THE CONTRACTOR'S PROPOSED TEMPORARY TRAFFIC CONTROL (TTC) PLAN. THE FOLLOWING RECOMMENDED GUIDELINES ARE BASED ON THE TEMPORARY TRAFFIC CONTROL PLAN OUTLINED IN THE CONSTRUCTION PLANS. WHERE FOLLOWING THE TEMPORARY TRAFFIC CONTROL PLAN OUTLINED IN THESE CONSTRUCTION PLANS, THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE SEDIMENT AND EROSION CONTROL PLAN, SUBJECT TO APPROVAL BY THE ENGINEER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATIONS, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

PHASE I OF TEMPORARY TRAFFIC CONTROL PLANS.

ROADWAY, STATION 501+10 TO 520+40 RIGHT: IMMEDIATELY AFTER CONSTRUCTING THE TEMPORARY PAVEMENT, STABILIZE THE ENTIRE AREA BETWEEN THE TEMPORARY PAVEMENT AND THE RIGHT OF WAY LINE USING TEMPORARY SOD.

OUTFALL OF POND 1:

CONSTRUCT THE OUTFALL PIPE FROM S-106 TOWARDS THE POND. THE CONTRACTOR SHALL HAVE INLET PROTECTION AVAILABLE AT ALL TIMES DURING THE PIPE CONSTRUCTION TO SUBSTANTIALLY BLOCK RUNOFF IN THE TRENCH FROM ENTERING THE PIPE. CONSTRUCT PIPE TO THE POND AND CONSTRUCT THE OUTLET STRUCTURE OF THE POND.

POND 1 CONSTRUCTION:

CLEAR AND GRUB THE POND SITE. INITIALLY EXCAVATE THE POND ENOUGH TO CONSTRUCT SEDIMENT BARRIERS AS DETAILED IN THE TTC PLAN. THEN EXCAVATE THE POND TO APPROXIMATE PROPOSED DIMENSIONS. TURF ALL DISTURBED AREAS OF THE POND SITE ABOVE ELEVATION 51.0. FINAL GRADING WILL BE DONE AT THE END OF PHASE TWO OF THE TTC PLAN.

ROADWAY, STATION 510+10 TO 523+70 LEFT:

CONSTRUCT THE STORM DRAIN FROM THE POND TO THE ROADWAY AND THEN IN THE UPSTREAM DIRECTION ALONG THE LEFT SIDE OF THE PROJECT. DURING THE SUBSOIL EXCAVATION, AND CONSTRUCTION OF THE ROADWAY UNDERDRAIN, STORM DRAIN, AND WALL, USE S-19 AS THE PRIMARY INLET FOR CONVEYANCE TO THE POND. STAGE CONSTRUCTION OF THE INLET AS DETAILED IN THE TTC PLAN.

ROADWAY, STATION 501+10 TO 510+40 LEFT:

DURING THE SUBSOIL EXCAVATION ,AND CONSTRUCTION OF THE UNDERDRAIN, STORM DRAIN, AND WALL USE S-12 AS THE PRIMARY INLET FOR CONVEYANCE TO THE LAURA LEE POND. S-12 SHOULD BE CONSTRUCTED BEFORE DISTURBING SOIL UPSTREAM. STAGE CONSTRUCTON AND PROTECT THE INLET AS DETAILED IN THE TTC PLAN.

PHASE II OF THE TEMPORARY TRAFFIC CONTROL PLAN:

ROADWAY, STATION 510+10 TO 523+10 RIGHT:

DURING THE SUBSOIL EXCAVATION AND CONSTRUCTION OF THE ROADWAY UNDERDRAIN AND STORM DRAIN, USE S-20 AS THE PRIMARY INLET FOR CONVEYANCE TO POND 1. STAGE CONSTRUCTION AND PROTECT THE INLET IN A MANNER SIMILAR TO S-19 IN PHASE I OF THE TTC PLAN.

ROADWAY, STATION 501+10 TO 510+40 RIGHT:

DURING THE SUBSOIL EXCAVATION AND CONSTRUCTION OF THE UNDERDRAIN, STORM DRAIN, AND WALLS, USE S-10 AS THE PRIMARY INLET FOR CONVEYANCE TO THE LAURA LEE POND. STAGE CONSTRUCTOIN AND PROTECT THE INLET IN A MANNER SIMILAR TO S-12 IN PHASE I OF THE TTC PLAN.

POND 1 CONSTRUCTION:

AFTER ENTIRE BASIN IS PERMANENTLY STABILIZED, CONSTRUCT UNDERDRAIN IN THE POND BOTTOM.

2.A.1 STABILIZATION PRACTICES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

STABILIZATION. THE DEP GENERIC PERMIT SPECIFIES 7 DAYS, BUT STRICTER REQUIREMENTS FROM OTHER PERMITTING AGENCIES WILL OFTEN APPLY AND SHOULD BE NOTED. FOR EXAMPLE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT HAS A 7 DAY LIMIT IN 40C-42 F.A.C.

TEMPORARY:

- * ARTIFICIAL COVERINGS IN ACCORDANCE WITH SPECIFICATION SECTION
- * TURF AND SOD IN ACCORDANCE WITH SPECIFICATION SECTION 104.

PERMANENT:

- * ASPHALT OR CONCRETE SURFACE.
- * SOD IN ACCORDANCE WITH SPECIFICATION SECTION 570.

2.A.2 STRUCTURAL PRACTICES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL 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 SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

TEMPORARY:

- * SEDIMENT BARRIERS IN ACCORDANCE WITH DESIGN SPECIFICATION SECTION 104, AND FDEP EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL
- * INLET PROTECTION IN ACCORDANCE WITH FDEP EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, AND SPECIAL DETAILS SHOWN IN THE TTC PLAN.
- * SEDIMENT CONTAINMENT SYSTEM: THE PERMANENT STORMWATER PONDS WILL BE TEMPORARILY MODIFIED ACCORDING TO THE DETAILS IN THE TTC PLAN.

PERMANENT:

- * STORMWATER PONDS.
- * SOD.

2.B STORMWATER MANAGEMENT:

SEVERAL STORM DRAIN SYSTEMS WILL BE CONSTRUCTED TO CONVEY RUNOFF TO THREE (3) STORMWATER RETENTION / DETENTION PONDS. THE FACILITIES HAVE BEEN PERMITTED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND THE CITY OF NARCOOSSEE AND COMPLY WITH APPLICABLE DESIGN STANDARDS.

> Exhibit 320-1 Date: 1/1/18

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UKE S. WALKER, P.E. P.E. NO.: 99991 ROADWAY ENGINEERS, INC. 123 MAIN STREET TALLAHASSEE, FL 32301 CERTIFICATE OF AUTHORIZATION: 12345

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION COUNTY FINANCIAL PROJECT ID ROAD NO. SR 22 BAY123456-1-52-01

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO.

2

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THIS EXHIBIT IS AN EXAMPLE NARRATIVE OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR A MAJOR RECONSTRUCTION PROJECT. ACTUAL PROJECT CONDITIONS OFTEN DICTATE DIFFERENT APPROACHES THAN SHOWN HERE. THE ENGINEER IS RESPONSIBLE FOR DEVELOPING A SITE SPECIFIC SWPPP THAT COMPLIES WITH THE FDOT DESIGN MANUAL.

2.C OTHER CONTROLS.

2.C.1 WASTE DISPOSAL:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

- * PROVIDING LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES.
- * DISPOSING OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
- * DISPOSING OF SOLID MATERIALS INCLUDING BUILDING AND CONSTRUCTION MATERIALS OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS, OR

2.C.2 OFF-SITE VEHICLE TRACKING & DUST CONTROL:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL 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.

- * COVERING LOADED HAUL TRUCKS WITH TARPAULINS.
- * REMOVING EXCESS DIRT FROM ROADS DAILY.
- * STABILIZING CONSTRUCTION ENTRANCES ACCORDING TO THE FDEP EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL.
- * USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND MILLING OPERATIONS.
- 2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER. OR SEPTIC TANK REGULATIONS:

IN THE SPECIFICATION SECTION 104, EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

2.C.4 FERTILIZERS AND PESTICIDES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES. THE PROPOSED PROCEDURES SHALL COMPLY WITH APPLICABLE SUBSECTIONS OF SECTION 982 OF THE SPECIFICATIONS.

2.C.5 TOXIC SUBSTANCES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

- 2.D.4 APPROVED STATE AND LOCAL PLANS AND PERMITS:
- * FDEP RULE CHAPTER 62-25 F.A.C.
- * CITY OF NARCOOSSEE ENVIRONMENTAL MANAGEMENT ORDINANCE NUMBER 90-0-0044AA.

3.0 MAINTENANCE:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM. COMPLY WITH THE FOLLOWING:

- * SILT FENCE: MAINTAIN PER SPECIFICATION SECTION 104. THE CONTRACTOR SHOULD ANTICIPATE REPLACING SILT FENCE ON 12 MONTH INTERVALS.
- * SEDIMENT BARRIERS : REMOVE SEDIMENT AS PER MANUFACTURER'S RECOMMENDATIONS OR WHEN WATER PONDS IN UNACCEPTABLE AMOUNTS
- * PONDS ONE AND TWO: THE PONDS ARE TEMPORARY SEDIMENT BASINS UNTIL THE AREAS THAT DRAIN TO THEM ARE STABILIZED, SO UNTIL THEN, REMOVE SEDIMENT FROM THE POND WHEN IT BECOMES 1.5' DEEP AT ANY POINT.

4.0 INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

- * POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.
- * POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM DRAIN SYSTEMS.
- * DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- * AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
- * STRUCTURAL CONTROLS.
- * STORMWATER MANAGEMENT SYSTEMS.
- * LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE ENGINEER.

5.0 NON-STORMWATER DISCHARGES:

IN THE SPECIFICATION SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES. IF THE CONTRACTOR ENCOUNTERS CONTAMINATED SOIL OR GROUNDWATER. CONTACT DAVE LETTERMAN, DISTRICT HAZARDOUS MATERIALS COORDINATOR AT (305)

> Exhibit 320-1 Date: 1/1/18

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DATE	DESCRIPTION	DATE	DESCRIPTION	LUKE S. W. P.E. NO.: 99	
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VALKER, P.E. 99991 ENGINEERS, INC. STREET SEE, FL 32301 CERTIFICATE OF AUTHORIZATION: 12345

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID BAY123456-1-52-01 SR 22

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO.

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