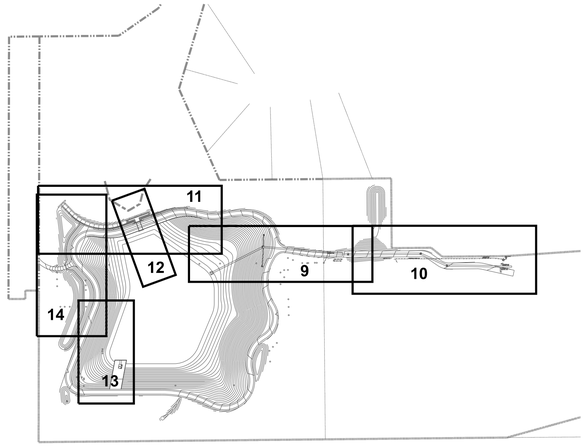
MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT
PHASE II - WEST STORMWATER FACILITY

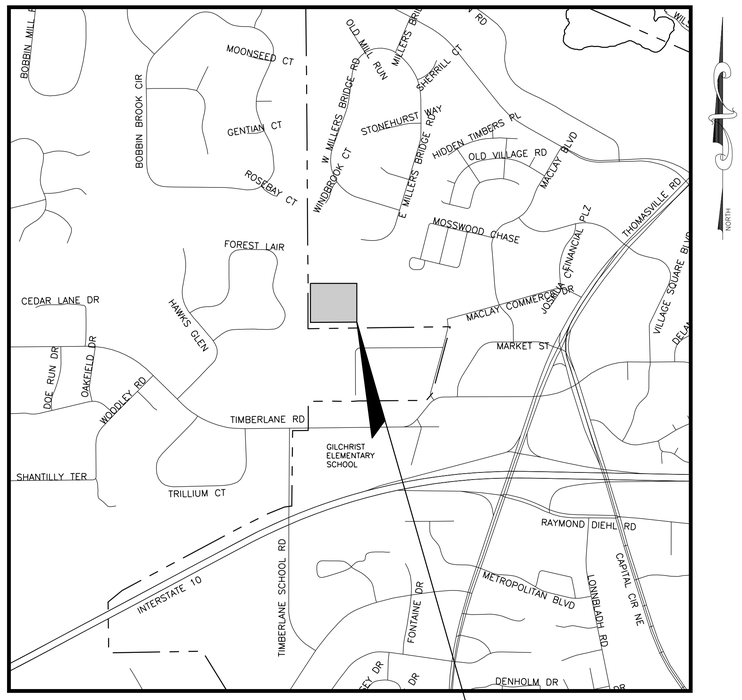
PLANS PREPARED FOR:



PLAN AND PROFILE KEY MAP

CITY OF TALLAHASSEE

UNDERGROUND UTILITIES AND PUBLIC INFRASTRUCTURE DEPARTMENT
STORMWATER MANAGEMENT
C.O.T. WORK ORDER NO. 16128



LOCATION MAP
1" = 1000'

PROJECT LOCATION

NORTH AMERICAN VERTICAL DATUM OF 1988

INDEX OF SHEETS

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FY 2020-2021 AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION JANUARY 2020 EDITION, AS AMENDED BY CONTRACT DOCUMENTS.

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	11/17/20 - per WMD #1	RBG	11/17/20
2	12/10/20 - per CITY - rev. walls, grading, pavement, vegetation, and fence	RBG	12/10/20

PLANS PREPARED BY:

SINGHOFEN & ASSOCIATES, INC.
Stormwater Management and Civil Engineering

11723 Orpington Street, Suite 100
Orlando, Florida 32817
Phone (407) 679-3001 Fax (407) 679-2691
DBPR No. 5112

ENGINEER OF RECORD:

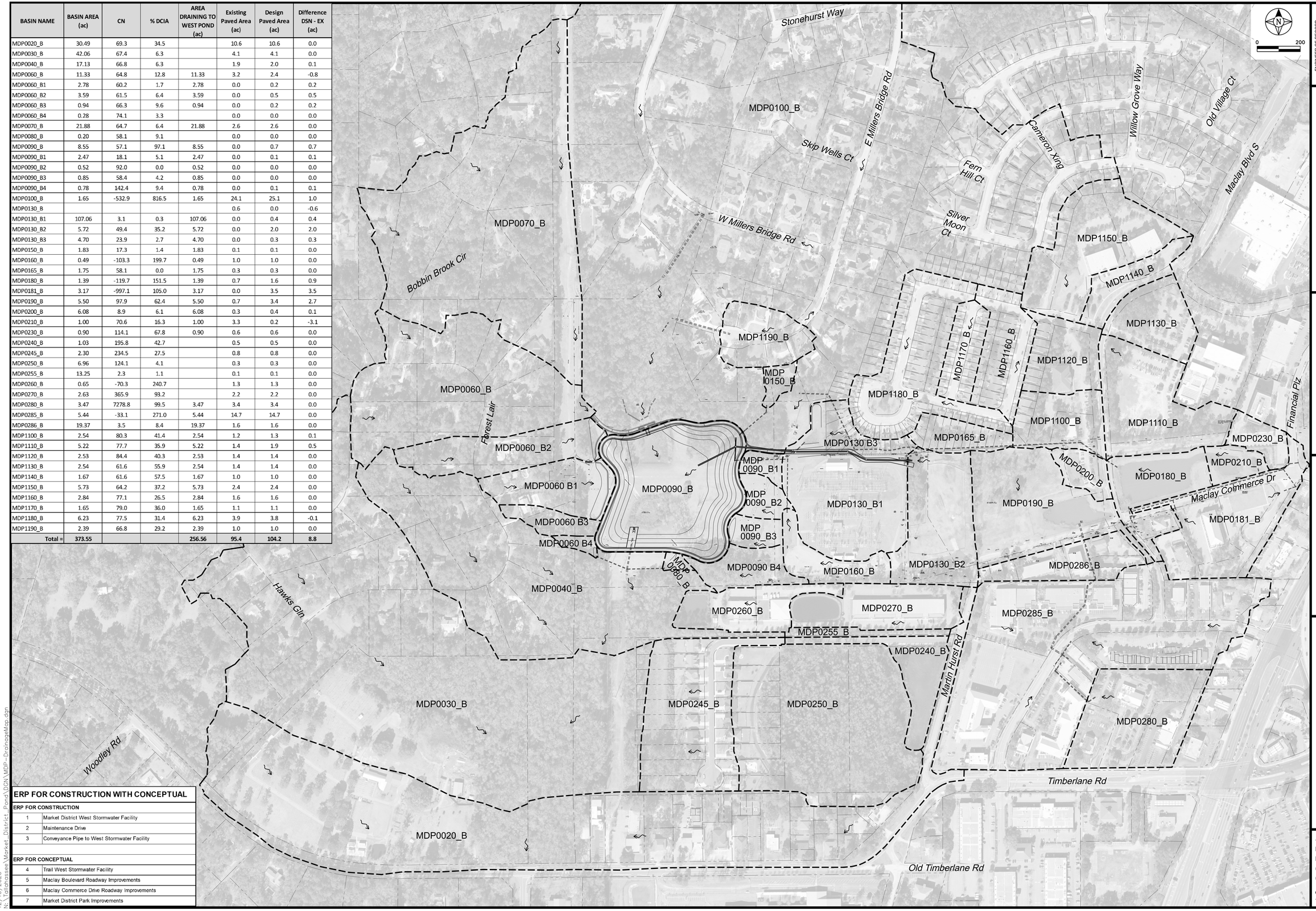
ROBERT B. GAYLORD

P.E. NO.: 51373

IFB 009-21-RM
ADDENDUM NO. 2

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT, PHASE II - WEST STORMWATER FACILITY

BASIN NAME	BASIN AREA (ac)	CN	% DCIA	AREA DRAINING TO WEST POND (ac)	Existing Paved Area (ac)	Design Paved Area (ac)	Difference DSN - EX (ac)
MDP0020_B	30.49	69.3	34.5		10.6	10.6	0.0
MDP0030_B	42.06	67.4	6.3		4.1	4.1	0.0
MDP0040_B	17.13	66.8	6.3		1.9	2.0	0.1
MDP0060_B	11.33	64.8	12.8	11.33	3.2	2.4	-0.8
MDP0060_B1	2.78	60.2	1.7	2.78	0.0	0.2	0.2
MDP0060_B2	3.59	61.5	6.4	3.59	0.0	0.5	0.5
MDP0060_B3	0.94	66.3	9.6	0.94	0.0	0.2	0.2
MDP0060_B4	0.28	74.1	3.3		0.0	0.0	0.0
MDP0070_B	21.88	64.7	6.4	21.88	2.6	2.6	0.0
MDP0080_B	0.20	58.1	9.1		0.0	0.0	0.0
MDP0090_B	8.55	57.1	97.1	8.55	0.0	0.7	0.7
MDP0090_B1	2.47	18.1	5.1	2.47	0.0	0.1	0.1
MDP0090_B2	0.52	92.0	0.0	0.52	0.0	0.0	0.0
MDP0090_B3	0.85	58.4	4.2	0.85	0.0	0.0	0.0
MDP0090_B4	0.78	142.4	9.4	0.78	0.0	0.1	0.1
MDP0100_B	1.65	-532.9	816.5	1.65	24.1	25.1	1.0
MDP0130_B					0.6	0.0	-0.6
MDP0130_B1	107.06	3.1	0.3	107.06	0.0	0.4	0.4
MDP0130_B2	5.72	49.4	35.2	5.72	0.0	2.0	2.0
MDP0130_B3	4.70	23.9	2.7	4.70	0.0	0.3	0.3
MDP0150_B	1.83	17.3	1.4	1.83	0.1	0.1	0.0
MDP0160_B	0.49	-103.3	199.7	0.49	1.0	1.0	0.0
MDP0165_B	1.75	58.1	0.0	1.75	0.3	0.3	0.0
MDP0180_B	1.39	-119.7	151.5	1.39	0.7	1.6	0.9
MDP0181_B	3.17	-997.1	105.0	3.17	0.0	3.5	3.5
MDP0190_B	5.50	97.9	62.4	5.50	0.7	3.4	2.7
MDP0200_B	6.08	8.9	6.1	6.08	0.3	0.4	0.1
MDP0210_B	1.00	70.6	16.3	1.00	3.3	0.2	-3.1
MDP0230_B	0.90	114.1	67.8	0.90	0.6	0.6	0.0
MDP0240_B	1.03	195.8	42.7		0.5	0.5	0.0
MDP0245_B	2.30	234.5	27.5		0.8	0.8	0.0
MDP0250_B	6.96	124.1	4.1		0.3	0.3	0.0
MDP0255_B	13.25	2.3	1.1		0.1	0.1	0.0
MDP0260_B	0.65	-70.3	240.7		1.3	1.3	0.0
MDP0270_B	2.63	365.9	93.2		2.2	2.2	0.0
MDP0280_B	3.47	7278.8	99.5	3.47	3.4	3.4	0.0
MDP0285_B	5.44	-33.1	271.0	5.44	14.7	14.7	0.0
MDP0286_B	19.37	3.5	8.4	19.37	1.6	1.6	0.0
MDP1100_B	2.54	80.3	41.4	2.54	1.2	1.3	0.1
MDP1110_B	5.22	77.7	35.9	5.22	1.4	1.9	0.5
MDP1120_B	2.53	84.4	40.3	2.53	1.4	1.4	0.0
MDP1130_B	2.54	61.6	55.9	2.54	1.4	1.4	0.0
MDP1140_B	1.67	61.6	57.5	1.67	1.0	1.0	0.0
MDP1150_B	5.73	64.2	37.2	5.73	2.4	2.4	0.0
MDP1160_B	2.84	77.1	26.5	2.84	1.6	1.6	0.0
MDP1170_B	1.65	79.0	36.0	1.65	1.1	1.1	0.0
MDP1180_B	6.23	77.5	31.4	6.23	3.9	3.8	-0.1
MDP1190_B	2.39	66.8	29.2	2.39	1.0	1.0	0.0
Total =	373.55			256.56	95.4	104.2	8.8



ERP FOR CONSTRUCTION WITH CONCEPTUAL

ERP FOR CONSTRUCTION	
1	Market District West Stormwater Facility
2	Maintenance Drive
3	Conveyance Pipe to West Stormwater Facility
ERP FOR CONCEPTUAL	
4	Trail West Stormwater Facility
5	Maclay Boulevard Roadway Improvements
6	Maclay Commerce Drive Roadway Improvements
7	Market District Park Improvements

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: wells, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

DRAINAGE MAP

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-3591
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 2

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-DrainageMap.dgn

GENERAL NOTES:

1. THE CONTRACTOR SHALL HAVE ALL REQUIRED PERMITS IN-HAND PRIOR TO BEGINNING CONSTRUCTION, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS OBTAINED BY THE CITY AND THOSE PERMITS OBTAINED BY THE CONTRACTOR.

2. AT LEAST THREE CALENDAR DAYS PRIOR TO THE PRECONSTRUCTION CONFERENCE; THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A TENTATIVE BASE CONSTRUCTION SCHEDULE, A PRECONSTRUCTION SURVEY, A TRAFFIC CONTROL PLAN, AND A SEDIMENT AND EROSION CONTROL PLAN. NO WORK SHALL BEGIN PRIOR TO APPROVAL OF THE CONSTRUCTION SCHEDULE, PRECONSTRUCTION SURVEY, TRAFFIC CONTROL PLAN, AND SEDIMENT AND EROSION CONTROL PLAN.

3. THE CONSTRUCTION SCHEDULE SHALL DESCRIBE IN DETAIL HOW THE CONSTRUCTION IS TO BE PHASED, ESTABLISH START AND FINISH DATES FOR ALL SIGNIFICANT CONSTRUCTION ACTIVITIES, AND IDENTIFY ALL CONTROLLING ITEMS OF WORK. THE SCHEDULE IS TO BE APPROVED BY THE ENGINEER, AND SHALL BE UPDATED ON A MONTHLY BASIS TO REFLECT ACTUAL WORK PROGRESS. THE UPDATED SCHEDULE SHALL BE SUBMITTED TO THE ENGINEER NO LATER THAN THREE DAYS PRIOR TO EACH SCHEDULED MONTHLY PROGRESS MEETING. PAYMENT FOR PREPARING, UPDATING AND SUBMITTING THE SCHEDULE SHALL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.

4. THE PRECONSTRUCTION SURVEY SHALL VERIFY THE CONTROL POINTS AND BENCH MARK ELEVATIONS PROVIDED BY THE ENGINEER AND SHALL ALSO ESTABLISH THE LOCATION AND DESCRIPTION OF ALL ADDITIONAL REFERENCE POINTS AND THE LOCATIONS, DESCRIPTIONS, AND ELEVATIONS OF ALL ADDITIONAL BENCHMARKS TO BE USED IN CONSTRUCTING THE PROJECT. THE SURVEY SHALL BE SIGNED AND SEALED BY A PROFESSIONAL SURVEYOR AND MAPPER REGISTERED IN THE STATE OF FLORIDA. SIGNIFICANT INCONSISTENCIES BETWEEN THE FIELD NOTES AND THE CONTROL POINTS AND BENCH MARK ELEVATIONS PROVIDED BY THE ENGINEER SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO ISSUANCE OF THE NOTICE TO PROCEED. PAYMENT SHALL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.

5. THE GEOTECHNICAL INFORMATION SHOWN ON THE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THIS INFORMATION MAY NOT ACCURATELY REFLECT ACTUAL SOIL CONDITIONS AS TO THE DEPTH, EXTENT OR CHARACTER OF THE MATERIAL TO BE ENCOUNTERED IN CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE SUCH EXAMINATION OF THE SITE OF THE WORK AS MAY BE NECESSARY TO DETERMINE THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.

6. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING ALL PROPERTY CORNERS AND MONUMENTS SHOWN ON THE DRAWINGS OR FOUND DURING CONSTRUCTION. IF A PROPERTY CORNER OR MONUMENT IS DESTROYED OR DISTURBED, THE CONTRACTOR WILL HAVE IT REPLACED AND CERTIFIED BY A PROFESSIONAL SURVEYOR AND MAPPER REGISTERED IN THE STATE OF FLORIDA. ALL COSTS FOR PRESERVING, REPLACING AND CERTIFYING PROPERTY CORNERS AND MONUMENTS WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.

7. ANY NATIONAL GEODETIC SURVEY MONUMENT WITHIN THE LIMITS OF CONSTRUCTION MUST BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND:

   FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
   BUREAU OF SURVEY AND MAPPING
   3900 COMMONWEALTH BLVD.
   TALLAHASSEE, FLORIDA 32399-3000
   (850) 245-2118
   public.services@dep.state.fl.us

8. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON INFORMATION PROVIDED BY THE UTILITY OWNERS, AVAILABLE RECORDS, AND SURVEYED FIELD INFORMATION. THE INFORMATION MAY NOT REFLECT ACTUAL CONDITIONS, INCLUDE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED, OR SHOW THE UTILITIES IN THE CORRECT HORIZONTAL OR VERTICAL LOCATIONS. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS NECESSARY TO ESTABLISH THEIR LOCATIONS AND AVOID DAMAGE. THE FOLLOWING UTILITIES SHOULD BE CONTACTED FOR INFORMATION CONCERNING TYPE AND LOCATION OF THEIR FACILITIES. THE LIST MAY NOT INCLUDE ALL UTILITIES IN THE AREA.

SUNSHINE STATE ONE-CALL OF FLORIDA	811 OR 800-432-4770 (5 DAYS NOTIFICATION PRIOR TO CONSTRUCTION)
CITY OF TALLAHASSEE/ELECTRICAL UTILITY	850-891-5105
CITY OF TALLAHASSEE/GAS UTILITY	850-891-5689
CITY OF TALLAHASSEE/WATER UTILITY	850-891-6144
CITY OF TALLAHASSEE/SEWER UTILITY	850-891-6144
COMCAST (CABLE TELEVISION)	850-815-7831
CENTURYLINK (TELEPHONE)	850-599-1479
AT&T (COMMUNICATIONS)	813-342-0512
SOUTHERN LIGHT (COMMUNICATIONS)	850-544-1400

9. PRIOR TO ANY SCHEDULED INTERRUPTION OF UTILITY SERVICE, THE CONTRACTOR SHALL COORDINATE SUCH INTERRUPTION WITH THE UTILITY PROVIDER AND SHALL PROVIDE A MINIMUM 24-HOUR NOTICE TO THE AFFECTED PARTIES. IN THE CASE OF A WATER MAIN SHUT DOWN, A MINIMUM 24-HOUR NOTICE ALSO SHALL BE PROVIDED TO THE TALLAHASSEE FIRE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ELECTRIC UTILITY A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES.

10. THE CONTRACTOR SHALL NOTIFY THE GAS UTILITY (850-891-5100) A MINIMUM OF TWO WORKING DAYS PRIOR TO ANY EXCAVATION IN THE VICINITY OF GAS MAINS, AS REQUIRED BY CHAPTER 77-153 OF THE FLORIDA STATUTES. A GAS DEPARTMENT INSPECTOR WILL BE ON SITE WHEN WORK ACTIVITIES TAKE PLACE NEAR GAS MAINS. A MINIMUM OF 72 HOURS NOTICE SHALL BE PROVIDED FOR ANY REQUEST FOR GAS MAIN EXPOSURE OR ADJUSTMENT.

11. ALL UTILITIES IN CONFLICT WITH CONSTRUCTION ARE TO BE ADJUSTED OR RELOCATED BY OTHERS UNLESS NOTED OTHERWISE ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.

12. WHERE THE REQUIRED MINIMUM SEPARATION BETWEEN UTILITIES IS SPECIFIED, THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

13. LIMITS OF CONSTRUCTION ARE DEFINED IN THE PLANS AND CONSIST OF ROADWAY RIGHTS-OF-WAY, CITY OF TALLAHASSEE PROPERTIES, DRAINAGE RIGHTS-OF-WAY, PERMANENT DRAINAGE AND/OR UTILITY EASEMENTS, AND TEMPORARY CONSTRUCTION EASEMENTS.

14. NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT.

15. ALL EXISTING DRAINAGE STRUCTURES AND PIPES, PAVEMENT, SIDEWALKS, CURBS, ETC., WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER. ALL DRAINAGE STRUCTURES, PIPES, PAVEMENT, SIDEWALKS, CURBS, ETC., THAT ARE TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND IF DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED WITH THE SAME TYPE AND MATERIAL AT NO COST TO THE CITY.

16. ALL STORM MANHOLES OR STRUCTURES DESIGNATED TO BE ABANDONED IN PLACE SHALL BE REMOVED TO A MINIMUM OF THREE FEET BELOW GRADE AND FILLED WITH COMPACTED SAND.

17. EXISTING CONCRETE AND ASPHALTIC CONCRETE DRIVEWAYS AND SIDEWALKS SHALL BE SAW-CUT AS REQUIRED FOR CONSTRUCTION.

18. ALL SIDEWALKS AND CURB RAMPS REMOVED DURING CONSTRUCTION SHALL BE RECONSTRUCTED TO MEET CURRENT ADA STANDARDS.

19. THE CONTRACTOR SHALL PUT FORTH EVERY REASONABLE EFFORT TO MINIMIZE DISRUPTION AND DISTURBANCE OF ADJACENT PROPERTIES. ACCESS BY PROPERTY OWNERS AND RESIDENTS TO THEIR PROPERTY SHALL BE MAINTAINED AT ALL TIMES. ANY BARRICADING OF ACCESS MUST BE COORDINATED WITH THE AFFECTED PROPERTY OWNERS AND RESIDENTS.

20. ALL FENCES IN CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND REPLACED IN THEIR ORIGINAL LOCATIONS OR IN OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR MAY, AT HIS OPTION, USE NEW FENCING MATERIAL OF THE SAME TYPE THAT WAS REMOVED OR REUSE THE FENCING MATERIAL THAT WAS REMOVED IF IT IS UNDAMAGED BY CONSTRUCTION ACTIVITIES. ALL FENCES DAMAGED BY CONSTRUCTION ACTIVITIES ARE TO BE REPLACED WITH NEW FENCING MATERIAL OF THE SAME TYPE THAT WAS REMOVED.

21. THE CONTRACTOR SHALL EXERCISE DUE CARE IN THE REMOVAL OF EXISTING FENCES TO MAINTAIN SECURITY AT THE AFFECTED PROPERTIES AND TO ENSURE THE SAFETY OF PETS, ANIMALS AND CHILDREN. IF IN THE OPINION OF THE ENGINEER, REMOVAL OF A FENCE WILL RESULT IN AN UNACCEPTABLE REDUCTION IN SECURITY OR SAFETY, THE CONTRACTOR SHALL INSTALL A TEMPORARY FENCE AS DIRECTED BY THE ENGINEER PRIOR TO REMOVAL OF THE EXISTING FENCE. THE TEMPORARY FENCE SHALL REMAIN IN PLACE UNTIL THE PERMANENT FENCE IS INSTALLED.

22. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL TREES AND LANDSCAPING ON ADJACENT PROPERTIES, AND WILL BE SOLELY LIABLE FOR DAMAGE TO VEGETATION ON PROPERTIES ADJACENT TO CONSTRUCTION WORK ZONES. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION THAT ARE NOT IDENTIFIED ON THE PLANS TO BE REMOVED SHALL BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE. TREE PROTECTION BARRICADES SHALL BE INSTALLED AND MAINTAINED AROUND ALL TREES THAT ARE TO BE PROTECTED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.

23. THE CONTRACTOR SHALL NOT DISTURB GRASSING OR LANDSCAPING OUTSIDE CONSTRUCTION WORK ZONES. THE CONTRACTOR SHALL BE SOLELY LIABLE FOR DAMAGE TO VEGETATION OUTSIDE CONSTRUCTION WORK ZONES AND SHALL RESTORE AT NO COST TO THE CITY ANY AREAS THAT ARE DAMAGED INCLUDING AREAS WITHIN THE LIMITS OF CONSTRUCTION OR ON ADJACENT PROPERTIES USING, TO THE EXTENT PRACTICABLE, THE SAME TYPES AND SIZES OF PLANT MATERIAL THAT EXISTED PRIOR TO CONSTRUCTION.

24. THE LOCATION AND CONSTRUCTION OF MAILBOXES SHALL BE IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE UNITED STATES POSTAL SERVICE. WHEN A MAILBOX IN CONFLICT WITH CONSTRUCTION IS REMOVED, THE CONTRACTOR SHALL FURNISH AND INSTALL A TEMPORARY MAILBOX AND SHALL MAINTAIN THE TEMPORARY MAILBOX UNTIL A NEW MAILBOX IS INSTALLED. THE CONTRACTOR SHALL CONSTRUCT A NEW MAILBOX TO MATCH, AS CLOSE AS PRACTICABLE, THE LOCATION, TYPE, SIZE, MATERIAL, AND COLOR OF THE ORIGINAL MAILBOX. IN LIEU OF CONSTRUCTING A NEW MAILBOX, THE EXISTING MAILBOX MAY BE REUSED IF IT MEETS THE RULES AND REGULATIONS OF THE UNITED STATES POSTAL SERVICE AND IS FUNCTIONALLY SOUND.

25. DISTURBED AREAS SHALL BE COMPACTED (AT A MINIMUM) EQUAL TO ADJACENT UNDISTURBED GROUND EXCEPT WHEN OTHERWISE SPECIFIED.

26. PROPERTIES ADJACENT TO WORK ZONES SHALL BE GRADED TO DRAIN WITHIN THE LIMITS OF CONSTRUCTION.

27. ALL DISTURBED AREAS WITHIN CONSTRUCTION WORK ZONES ARE TO BE GRASSED EXCEPT FOR AREAS THAT ARE LANDSCAPED, PAVED, OR BELOW NORMAL WATER LEVEL. EXISTING GRASSED AREAS SHALL BE REPLANTED WITH SOD OF THE SAME GRASS TYPE AS EXISTING, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. CENTIPEDE SOD WILL BE USED FOR DISTURBED AREAS NOT CURRENTLY GRASSED. REINFORCEMENT MAT SHALL BE INSTALLED BENEATH SOD PLACED ON SLOPES OF 1V:2H OR STEEPER, AND THE SOD SHALL BE STAPLED. COSTS FOR REINFORCEMENT MAT, STAPLING, FERTILIZING, AND WATERING SHALL BE INCLUDED IN THE UNIT PRICE OF THE PAY ITEM FOR PERFORMANCE TURF.

28. PRIOR TO REQUESTING A FINAL INSPECTION, THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOUR COMPLETE SETS OF CERTIFIED AS-BUILT RECORD DRAWINGS AND TWO COPIES OF THE DIGITAL FILES ON CD-ROM DISKS.

SUPPLEMENTAL GENERAL NOTES:

1. A.D. PLATT AND ASSOCIATES, INC. (850-385-1036), PROVIDED THE TOPOGRAPHY, BENCHMARKS, RIGHTS-OF-WAY AND UTILITY LOCATION INFORMATION SHOWN ON THE CONSTRUCTION DRAWINGS. ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

2. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL VALVE BOXES ON GAS AND WATER MAINS WITHIN THE LIMITS OF CONSTRUCTION THAT ARE TO REMAIN IN SERVICE. PRIOR TO COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES WITHIN CONSTRUCTION AREAS SO THE TOPS ARE FLUSH WITH FINISHED PAVEMENT OR WITH FINISHED GRADE IN UNPAVED AREAS.

3. THE ELECTRICAL ACCESS PATH BETWEEN MACLAY ROAD AND THE WEST POND SHALL NOT BE USED AS A CONSTRUCTION HAUL ROUTE OR AS A ROUTE FOR THE MOVEMENT OF CONSTRUCTION PERSONNEL, EQUIPMENT, AND/OR MATERIALS. AN EXCEPTION MAY BE MADE BY THE ENGINEER DURING CONSTRUCTION OF THE 48” RCP BETWEEN DRAINAGE STRUCTURES S-10 AND S-2 AND CONSTRUCTION OF DRAINAGE STRUCTURES S-6 AND S-4.

4. THE CONTRACTOR SHALL MAINTAIN THE DRIVABILITY OF ALL ADJACENT PUBLIC STREETS UNTIL FINAL ACCEPTANCE. PATCHES AND REPAIRS SHALL BE MADE AS NECESSARY TO RESTORE PAVEMENT TO A SUITABLE DRIVING SURFACE ON ALL PUBLIC STREETS THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS.

SUPPLEMENTAL GENERAL NOTES - STORMWATER CONSTRUCTION:

1. IF THE PLANS DO NOT DESIGNATE A TYPE OF PIPE, EITHER STEEL REINFORCED CONCRETE PIPE (MINIMUM CLASS III) IN ACCORDANCE WITH STANDARD SPECIFICATION 449-4 OR FLORIDA DEPARTMENT OF TRANSPORTATION APPROVED POLYPROPYLENE PIPE MAY BE USED. NON-REINFORCED CONCRETE PIPE MAY NOT BE USED. WHEN THE PLANS DESIGNATE A TYPE OF PIPE, THE CONTRACTOR MAY USE ONLY THE TYPE DESIGNATED. THE CONTRACTOR SHALL NOT USE A TYPE OF PIPE NOT DESIGNATED ON THE DRAWINGS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER. POLYPROPYLENE PIPE MAY NOT TO BE USED FOR OPEN-ENDED PIPE RUNS, SUCH AS PIPES CONNECTING TO DITCHES OR PONDS. ON OPEN-ENDED PIPE RUNS, STEEL REINFORCED CONCRETE PIPE SHALL BE USED FOR THE ENTIRE RUN OF PIPE FROM THE OPEN END TO THE NEAREST DRAINAGE STRUCTURE. ALL PIPES SHALL BE CUT FLUSH WITH THE INSIDE OF DRAINAGE STRUCTURES.

2. ALL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING SELECT MATERIAL FOR THE SOIL ENVELOPE AS SHOWN ON THE STORM DRAIN PIPE INSTALLATION DETAIL. BACKFILL AROUND POLYPROPYLENE PIPE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER’S SPECIFICATIONS.

3. ALL JOINTS OF CONCRETE PIPES, CULVERTS, AND STORM DRAINS SHALL HAVE A FILTER FABRIC JACKET AS DETAILED ON STANDARD PLANS INDEX 430-001, UNLESS NOTED OTHERWISE ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.

4. ALL PIPE CULVERTS AND STORM DRAINS 48-INCHES OR LESS IN DIAMETER SHALL BE VIDEO TAPED IN ACCORDANCE WITH SECTION 430-4.8 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

5. UNLESS NOTED OTHERWISE IN THE PLANS, THE CONTRACTOR SHALL TAKE OWNERSHIP OF ALL EXCAVATED MATERIALS NOT SUITABLE FOR BACKFILLING AND OF ALL EXCAVATED SUITABLE MATERIALS THAT ARE NOT REQUIRED FOR BACKFILLING OR FOR OTHER USE ON SITE AND SHALL DISPOSE OF THE MATERIALS OUTSIDE THE PROJECT LIMITS AT NO ADDITIONAL COST TO THE CITY.

6. ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING HS-20 LOADING REQUIREMENTS UNLESS OTHERWISE SHOWN ON THE PLANS.

7. ALL STORM DRAIN COVERS SHALL BE TYPE USF TJ (U.S. FOUNDRY NO. 8017195), NPR15-728 (EJ GROUP COVER NO. 3062A2), OR APPROVED EQUAL.

8. ALL TYPE J STRUCTURE BOTTOMS SHALL HAVE A MINIMUM 6’-0” WALL HEIGHT WHEN POSSIBLE.

9. ALL GRATES SHALL BE CHAINED AND LOCKED IN ACCORDANCE WITH STANDARD PLANS INDEX 425-001. COST OF EYEBOLTS AND CHAIN SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STRUCTURES.

10. UTILITIES IN CONFLICT WITH THE INSTALLATION OF A NEW STORM DRAIN ARE TO BE ADJUSTED OR RELOCATED TO ELIMINATE THE CONFLICT. IF THE CONFLICT CANNOT BE REASONABLY AVOIDED, A CONFLICT STRUCTURE WITH ACCESS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD PLANS INDEX 425-080 WITH THE EXCEPTION THAT FOR UTILITY CONFLICT CONDITION II (PRESSURE OR FLUID CARRIER INSTALLATIONS), A CARRIER PIPE IS NOT REQUIRED IF DUCTILE IRON PIPE IS USED FOR THE UTILITY AND NO PIPE JOINTS ARE LOCATED WITHIN THE CONFLICT STRUCTURE. “NOTCHING” OF A STORM DRAIN PIPE OR STRUCTURE TO ACCOMMODATE A UTILITY SHALL NOT BE ALLOWED. NO UTILITY SHALL BE INSTALLED THROUGH ANY PORTION OF A STORM DRAIN PIPE WITHOUT A CONFLICT STRUCTURE.

SUPPLEMENTAL GENERAL NOTES - TRAFFIC CONTROL:

1. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN THAT DESCRIBES THE MEASURES TO BE EMPLOYED DURING CONSTRUCTION TO WARN MOTORISTS AND PEDESTRIANS OF HAZARDS, TO ADVISE MOTORISTS OF THE PROPER TRAVEL PATH THROUGH OR AROUND THE WORK AREA, TO DELINEATE AREAS WHERE TRAFFIC SHOULD NOT OPERATE, AND TO SEPARATE AND PROTECT MOTORISTS, PEDESTRIANS, AND THE WORK FORCE DURING ALL PHASES OF THE WORK. THE PLAN SHALL ALSO CONSIDER ACCESS TO BUSINESSES WITHIN THE CONSTRUCTION AREA AND PROVIDE BUSINESS ENTRANCE SIGNS TO ROUTE MOTORISTS TO DESIGNATED PARKING AREAS. THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE TRAFFIC CONTROL PLAN FROM THE CITY OF TALLAHASSEE TRAFFIC ENGINEERING PRIOR TO BEGINNING CONSTRUCTION. PAYMENT FOR PREPARING AND SUBMITTING THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION.

2. ACCESS TO BUSINESS AND RESIDENTIAL DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.

3. NO ROADWAYS (INCLUDING COUNTY ROADS) SHALL BE CLOSED WITHOUT PRIOR APPROVAL OF CITY OF TALLAHASSEE TRAFFIC ENGINEERING.

4. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND/OR THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS.

5. ALL TRAFFIC CONTROL DEVICES SHALL BE IN PLACE BEFORE THE START OF CONSTRUCTION ON AFFECTED ROADWAYS.

6. WARNING LIGHTS SHALL BE USED ON BARRICADES DURING HOURS OF DARKNESS IN ACCORDANCE WITH STANDARD PLANS INDEX 102-600.

SUPPLEMENTAL GENERAL NOTES - SEDIMENT AND EROSION CONTROL:

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PREVENTION, CONTROL, AND ABATEMENT OF EROSION, WATER POLLUTION, AND THE TRANSPORTATION OF ERODED MATERIALS OFF SITE.

2. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A SEDIMENT AND EROSION CONTROL PLAN TO ACCOMPANY THE STORMWATER POLLUTION PREVENTION PLAN AND THE SEDIMENT AND EROSION CONTROL PLAN INCLUDED IN THESE PLANS. THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE "FLORIDA EROSION AND SEDIMENT CONTROL MANUAL" AND SHALL BE SPECIFIC TO THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION TO BE EMPLOYED BY THE CONTRACTOR AND SHALL IDENTIFY THE TYPES AND LOCATIONS OF CONTROLS THAT ARE TO BE IMPLEMENTED DURING EACH PHASE OF CONSTRUCTION AS SHOWN ON THE APPROVED CONSTRUCTION SCHEDULE TO MINIMIZE EROSION, PREVENT THE TRANSFER OF ERODED MATERIALS ONTO ANY OFF SITE PARCEL OR INTO ANY RECEIVING WATER, AND PREVENT VIOLATING STATE AND/OR FEDERAL PERMIT REQUIREMENTS. PAYMENT FOR PREPARING AND SUBMITTING THE SEDIMENT AND EROSION CONTROL PLAN AND FOR ANY MODIFICATIONS TO THE SEDIMENT AND EROSION CONTROL PLAN DURING CONSTRUCTION WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION. THE SEDIMENT AND EROSION CONTROL PLAN SHALL DESCRIBE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS FOR EACH PHASE OF CONSTRUCTION OPERATIONS OR ACTIVITIES:
   - A. TYPES AND LOCATIONS OF ALL EROSION CONTROL DEVICES
   - B. ESTIMATED TIME EROSION CONTROL DEVICES WILL BE IN OPERATION
   - C. METHODS FOR CONTAINMENT OR REMOVAL OF ERODED MATERIALS FROM DISCHARGES RELATED TO DEWATERING OPERATIONS
   - D. METHODS FOR CONTAINMENT OR REMOVAL OF POLLUTANTS OR HAZARDOUS WASTES
   - E. METHODS FOR MAINTENANCE OF EROSION CONTROL DEVICES
   - F. SCHEDULES FOR MONITORING AND MAINTAINING EROSION CONTROL DEVICES
   - G. NAME AND PHONE NUMBERS OF PERSON RESPONSIBLE FOR MONITORING AND MAINTAINING EROSION CONTROL DEVICES

3. NO CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL THE SEDIMENT AND EROSION CONTROL PLAN HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER.

4. THE CONTRACTOR SHALL UPDATE THE SEDIMENT AND EROSION CONTROL PLAN WHENEVER THERE IS A CHANGE IN CONSTRUCTION SEQUENCE OR ACTIVITIES THAT HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS OFF SITE OR INTO ANY RECEIVING WATER AND SHALL SUBMIT THE UPDATED PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER.

5. EROSION AND SEDIMENT CONTROLS SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION AND SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL.

6. FIELD CONDITIONS MAY REQUIRE THE USE OF ADDITIONAL TYPES AND QUANTITIES OF SEDIMENT AND EROSION CONTROL DEVICES DURING CONSTRUCTION AS DETERMINED BY THE CONTRACTOR, THE ENVIRONMENTAL INSPECTOR, OR THE ENGINEER.

7. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROL DEVICES PRIOR TO SUSPENSION OF WORK ACTIVITIES EACH DAY, IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL TO ENSURE THAT THE DEVICES ARE PROPERLY LOCATED AND MAINTAINED FOR EFFECTIVENESS. ANY REQUIRED REMEDIAL ACTION SHALL BE PERFORMED IMMEDIATELY.

8. SEDIMENT TRAPPED BY THE EROSION CONTROL DEVICES IS TO BE REMOVED BY THE CONTRACTOR AFTER EACH RAIN STORM.

9. THE AMOUNT OF AREA DISTURBED AT ONE TIME SHALL BE LIMITED TO THE MINIMUM NECESSARY TO ADEQUATELY IMPLEMENT THE WORK. CONSTRUCTION OPERATIONS SHALL BE CONTROLLED TO MINIMIZE UNPROTECTED AREAS EXPOSED TO WEATHER, AND AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED.

10. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN LOCATIONS WHERE IT COULD BE WASHED AWAY BY HIGH WATER OR BY STORMWATER RUNOFF, AND STOCKPILES SHALL BE COVERED OR ENCIRCLED WITH SEDIMENT CONTAINMENT DEVICES.

11. DURING THE INSTALLATION OF STORM DRAIN OR UTILITY PIPING, SYNTHETIC BALE BARRIERS SHALL BE PLACED BELOW THE WORK ZONES TO AID IN CONTROLLING THE TRANSFER OF ERODED MATERIAL OFF SITE.

12. NEW AND EXISTING DRAINAGE STRUCTURES SHALL BE PROTECTED FROM SILTATION DURING CONSTRUCTION. BARRIERS SHALL BE PLACED AROUND ALL INCOMPLETE STORMWATER INLETS AND MANHOLES DURING CONSTRUCTION. CURB INLET FILTERS SHALL BE PLACED ACROSS THE THROATS OF ALL EXISTING AND COMPLETED CURB INLETS.

13. EXISTING FLOW CAPACITY SHALL BE MAINTAINED IN THE DRAINAGE SYSTEMS TO CONVEY RUNOFF FROM RAIN STORMS THAT OCCUR DURING CONSTRUCTION. EXISTING DRAINAGE PIPES THAT ARE NOTED TO BE PLUGGED OR REMOVED SHALL REMAIN IN SERVICE UNTIL FLOWS CAN BE DIVERTED TO THE NEW DRAINAGE SYSTEM. WHERE NEW PIPES ARE TO BE INSTALLED IN CLOSE PROXIMITY TO EXISTING PIPES THAT ARE TO BE REMOVED, PROVISIONS SHALL BE MADE TO DIVERT FLOWS FROM THE EXISTING PIPES TO THE NEW PIPES PRIOR TO RAIN STORMS. TEMPORARY PIPES SHALL BE PLACED FOR THIS PURPOSE PRIOR TO SUSPENSION OF WORK ACTIVITIES EACH DAY.

14. NO MORE THAN 500 FEET OF STORM DRAIN OR UTILITY PIPING SHALL BE INSTALLED WITHOUT BACKFILLING AND COMPACTING THE PIPE TRENCH.

15. STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE, BUT IN NO CASE MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THOSE PORTIONS OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

16. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL DISTURBED LAND AREAS SHALL BE COMPLETED IMMEDIATELY AFTER FINAL GRADING. WHEN IT IS NOT POSSIBLE TO PERMANENTLY PROTECT A DISTURBED AREA IMMEDIATELY AFTER GRADING OPERATIONS, TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED. ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.

17. THE CONTRACTOR SHALL OBTAIN AN ENVIRONMENTAL MANAGEMENT PERMIT FROM THE CITY OF TALLAHASSEE GROWTH MANAGEMENT DEPARTMENT FOR ALL STOCKPILE AND CONSTRUCTION STAGING AREAS LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION.

SUPPLEMENTAL GENERAL NOTES - TREE PROTECTION:

1. BARRICADE FENCING SHALL BE INSTALLED AT OR NEAR THE CRITICAL PROTECTION ZONE OF EACH TREE TO BE PROTECTED PRIOR TO INITIATION OF ANY CONSTRUCTION ACTIVITY, AND THE FENCING SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

2. ALL ROOTS 3/4" IN DIAMETER AND LARGER OF TREES TO BE PROTECTED OR PRESERVED THAT ARE EXPOSED DURING TRENCHING AND EXCAVATION SHALL BE CLEANLY CUT WITH A HANDSAW AND COVERED IMMEDIATELY WITH SOIL OR KEPT MOISTENED WITH WET BURLAP OR PEAT MOSS UNTIL THE TRENCH CAN BE FILLED. WHEN IT IS NOT POSSIBLE TO BACKFILL IN THE SAME DAY, THE ROOTS SHALL BE FRESHLY CUT WITH A HANDSAW A REASONABLE DISTANCE FROM THE ORIGINAL CUT AND BACKFILLED IMMEDIATELY TO AVOID SOIL OR ROOT DEHYDRATION.

SUPPLEMENTAL INFORMATION – PRECAST CONCRETE BOX CULVERT:

1. CONTRACTOR SHALL DESIGN, DETAIL AND CONSTRUCT THE PRECAST BOX CULVERT IN ACCORDANCE WITH THE FOLLOWING:
   - A. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STRUCTURES MANUAL, DATED JANUARY 2020.
   - B. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.
   - C. FDOT DESIGN MANUAL, CHAPTER 265.
   - D. FDOT STANDARD PLANS, INDEX 400-291.
   - E. FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 410.
   - F. SUBSURFACE EXPLORATION AND GEOTECHNICAL ANALYSIS COMPLETED BY ALPHA GEOTECHNICAL AND TESTING SERVICES, INC., DATED SEPTEMBER 2020.

2. ENVIRONMENTAL CLASSIFICATION:
   - A. CONCRETE – EXTREMELY AGGRESSIVE
   - B. STEEL – EXTREMELY AGGRESSIVE

3. DESIGN METHODOLOGY:
   - A. LOAD AND RESISTANCE FACTOR DESIGN (LRFD).

4. DESIGN LOADINGS:
   - A. REINFORCED CONCRETE: 150 PCF
   - B. LIVE LOAD: HL-93
   - C. LIVE LOAD SURCHARGE: 200 PSF

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-General.dgn

ENGINEER OF RECORD
Signature
Date

ORIGINAL 11/12/2020
REVISIONS:
1 11/17/20 – per WMD #1
2 12/10/20 – per CITY: walls, grading, pv'mt, fence, plantings
3
4
5

SHEET
GENERAL NOTES

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

GENERAL PAY ITEM NOTES:

1. NO SEPARATE PAYMENT WILL BE MADE FOR DEWATERING. THE COSTS FOR DEWATERING SHALL BE INCLUDED IN THE UNIT PRICES FOR ANY ITEMS REQUIRING DEWATERING.

2. NO SEPARATE PAYMENT WILL BE MADE FOR FILTER FABRIC. THE COSTS FOR FILTER FABRIC SHALL BE INCLUDED IN THE UNIT PRICES FOR ANY ITEMS REQUIRING FILTER FABRIC.

3. NO SEPARATE PAYMENT WILL BE MADE FOR VIDEO TAPING PIPE CULVERTS. THE COSTS FOR VIDEO TAPING ARE INCLUDED IN THE UNIT PRICES FOR PIPE CULVERT.

4. ADDITIONAL QUANTITIES OF EROSION CONTROL AND/OR TREE PROTECTION ITEMS MAY BE NECESSARY AS DETERMINED DURING CONSTRUCTION BY THE CONTRACTOR, THE ENVIRONMENTAL INSPECTOR, OR BY THE ENGINEER AND MUST BE APPROVED BY THE ENGINEER.

5. UNIT PRICES FOR PIPES, CULVERTS, SEWER PIPE AND WATER MAIN INCLUDE THE COSTS FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVAL OF 1.5 INCH MINIMUM THICKNESS OF ASPHALT PAVEMENT MILLINGS OR FINE TYPE SP ASPHALTIC CONCRETE AT THE GROUND SURFACE OF ALL PIPE AND BOX CULVERT TRENCHES IN PAVED AREAS FOR THE PURPOSE OF SEDIMENT AND EROSION CONTROL UNTIL THE FINAL PAVEMENT IS PLACED.

STORMWATER PAY ITEM NOTES:

101-1: MOBILIZATION
THE UNIT PRICE ALSO INCLUDES ALL COSTS FOR PREPARATION OF AN APPROVED CONSTRUCTION PROGRESS SCHEDULE, AN APPROVED EROSION CONTROL PLAN, AN APPROVED TRAFFIC CONTROL PLAN, AN APPROVED DEWATERING PLAN, THE PRECONSTRUCTION SURVEY, PREPARING AND SUBMITTING APPROVED SHOP DRAWINGS, AND FURNISHING, INSTALLING, AND REMOVING THE PROJECT SIGNS.

102-70: TEMPORARY BARRICADE FENCE (ORANGE)
THE UNIT PRICE CONSTITUTES FULL COMPENSATION FOR ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF TEMPORARY BARRICADE FENCE. THIS ITEM IS TO BE USED FOR PEDESTRIAN SAFETY, TREE PROTECTION, OR AS DIRECTED BY THE ENGINEER.

104-14: STORMWATER POLLUTION PREVENTION
THE UNIT PRICE CONSTITUTES FULL COMPENSATION FOR ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED TO PREVENT THE OFF-SITE TRANSPORT OF SEDIMENT, INCLUDING SEDIMENT BARRIERS, SEDIMENT BASINS, AND CONTAINMENT SYSTEMS AS SHOWN ON THE PLANS AND/OR DESCRIBED IN THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL. THE PRICE ALSO INCLUDES THE PERIODIC REMOVAL AND DISPOSAL OF ACCUMULATED SEDIMENT, AND REMOVAL AND DISPOSAL OFF-SITE OF EROSION AND SEDIMENT CONTROL MATERIALS, INCLUDING ROCK AND RUBBLE RIPRAP, AT COMPLETION OF CONSTRUCTION, FURNISHING AND PLACING SUITABLE MATERIAL AS REQUIRED TO FILL SEDIMENT SUMPS, ANY PERMITS AND FEES REQUIRED FOR OFF-SITE DISPOSAL, AND TURBIDITY MONITORING IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS. THE UNIT PRICE ALSO INCLUDES ALL COSTS FOR FURNISHING AND INSTALLING SILTSOXX FILTER SOCK AS SHOWN ON THE PLANS AND FOR LEAVING IT IN PLACE AT COMPLETION OF CONSTRUCTION.

104-15: SOIL TRACKING PREVENTION DEVICE
THE UNIT PRICE CONSTITUTES FULL COMPENSATION FOR ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION AND MAINTENANCE OF SOIL TRACKING PREVENTION DEVICES AS SHOWN ON THE PLANS AND/OR DESCRIBED IN THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, INCLUDING EXCAVATION, GRADING, FILTER FABRIC, AND ROCK. THE PRICE ALSO INCLUDES REMOVAL AND DISPOSAL OFF-SITE OF ALL MATERIALS AT COMPLETION OF CONSTRUCTION, AND FURNISHING AND PLACING SUITABLE MATERIAL AS REQUIRED TO REPLACE EXCAVATED MATERIAL.

110-1-1: CLEARING AND GRUBBING
THE UNIT PRICE ALSO INCLUDES REMOVAL AND DISPOSAL OF ASPHALT, BASE, SUB-BASE, CURBS, SIDEWALKS, DRIVEWAYS, DRAINAGE STRUCTURES, PIPES, FENCES, SANITARY SEWER PIPES & STRUCTURES, AND ALL OTHER STRUCTURES AND OBSTRUCTIONS NECESSARY TO BE REMOVED AND FOR WHICH OTHER ITEMS OF THE CONTRACT DO NOT SPECIFY THE REMOVAL THEREOF. PARTIAL PAYMENTS WILL BE BASED UPON THE ESTIMATED TOTAL VALUE OF WORK COMPLETED TO THE DATE OF THE ESTIMATE AS DETERMINED BY THE ENGINEER. ALL PARTIAL ESTIMATES AND PAYMENTS ARE SUBJECT TO CORRECTION IN SUBSEQUENT ESTIMATES AND PAYMENT. THE UNIT PRICE ALSO INCLUDES ALL COSTS FOR REMOVAL OF EXISTING FENCES AND RELOCATION OR REPLACEMENT WITH NEW FENCE OR WITH THE FENCING MATERIAL THAT WAS REMOVED IF IT IS UNDAMAGED.

120-1 AND 120-6: REGULAR EXCAVATION AND EMBANKMENT
FINAL PAY QUANTITY WILL BE PLAN QUANTITY WITH NO CONSIDERATION FOR SPECIFICATION TOLERANCES. THE UNIT PRICE ALSO INCLUDES ALL COSTS FOR TURBIDITY MONITORING IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS, ALL COSTS FOR MAINTENANCE OF TRAFFIC FOR THE DURATION OF THE CONSTRUCTION CONTRACT, AND ALL COSTS FOR PATCHES AND REPAIRS NECESSARY TO RESTORE PAVEMENT TO A SUITABLE DRIVING SURFACE ON ALL PUBLIC STREETS THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS.

120-75: CLAY POND LINER
FINAL PAY QUANTITY WILL BE PLAN QUANTITY WITH NO CONSIDERATION FOR SPECIFICATION TOLERANCES. THE UNIT PRICE ALSO INCLUDES ALL COSTS FOR TURBIDITY MONITORING IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS.

410-70-1212: PRECAST CONCRETE BOX CULVERT, 12' X 12'
THE UNIT PRICE ALSO INCLUDES PAYMENT FOR SHEETING AND/OR SHORING, DEWATERING, FILTER FABRIC, FURNISHING, PLACING AND COMPACTING SELECT BEDDING MATERIAL, AND FURNISHING SELECT MATERIAL FOR BACKFILL WHEN SUITABLE MATERIAL IS NOT AVAILABLE ON SITE.

425-2-62, 425-2-91, AND 425-2-92: MANHOLES, TYPE P-8, >10' DEEP, TYPE J-8, <=10' DEEP, AND TYPE J-8, >10' DEEP
UNLESS OTHERWISE NOTED IN THE PLANS, THE UNIT PRICES ALSO INCLUDE ALL COSTS FOR FURNISHING AND INSTALLING TWO-PIECE COVERS AND FRAMES WITH 3'-0" OPENINGS WHEN THE DEPTH OF THE STRUCTURE EXCEEDS 5'-0".

425-2-95: CONTROL STRUCTURE S-20, >10' DEEP
THE UNIT PRICE CONSTITUTES FULL COMPENSATION FOR ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT CONTROL STRUCTURE S-20, INCLUDING EXCAVATION, DEWATERING, BOXING, FURNISHING AND INSTALLING STRUCURE S-20, FURNISHING AND INSTALLING TWO-PIECE COVERS AND FRAMES WITH 3'-0" OPENINGS, FURNISHING AND PLACING FLOWABLE FILL AND NS CONCRETE FILL, FURNISHING, PLACING AND COMPACTING SELECT BEDDING MATERIAL, AND FURNISHING SELECT MATERIAL FOR BACKFILL WHEN SUITABLE MATERIAL IS NOT AVAILABLE ON SITE.

QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS						DITCH BOTTOM INLETS			MANHOLES			CONTROL STRUCTURE	MES		REMARKS
											C	E	E-J	P-8	J-8	J-8				
						18"	24"	30"	48"	54"	12'x12'	<10'	<10'	>10'	>10'	<10'	>10'	>10'	48"	54"	
P	S-2	20+65.24	N/A	PLUG, PIPE	1				212												TEMP. PIPE PLUG
F																					
P	S-4	18+48.65	N/A	MH, PIPE	1				91								1				
F																					
P	S-6	17+54.37	N/A	MH, PIPE	1				236								1				
F																					
P	S-8	15+13.35	N/A	MH, PIPE	1				274								1				
F																					
P	S-10	12+33.10	N/A	MH, PIPE	1				183								1				
F																					
P	S-12	12+01.43	RT.	MH, PIPE	1	59									1						CONNECT EXISTING PIPE
F																					
P	S-14	12+31.29	LT.	MH, PIPE	1			34								1					CONNECT EXISTING PIPE
F																					
P	S-16	10+48.81	N/A	MES	1														1		
F																					
P	S-20	109+75.80	RT.	CONTROL STRUCTURE	1					15								1			CONNECT EXISTING PIPE
F																					
P	S-22	111+28.44	LT.	INLET								1									RISER w/ SLOT
F																					
GRADE TOTALS				PLAN QUANTITY	1	59	0	34	996	15	0	1	0	0	1	1	4	1	1	0	
				FINAL QUANTITY																	

430-175-118, 430-175-130, 430-175-148, AND 430-175-154: PIPE CULVERT, CONC (CLASS III), ROUND, 18", 30", 48", AND 54"
THE UNIT PRICES ALSO INCLUDE PAYMENT FOR SHEETING AND/OR SHORING, DEWATERING, FILTER FABRIC, FURNISHING, PLACING AND COMPACTING SELECT BEDDING MATERIAL, AND FURNISHING SELECT MATERIAL FOR BACKFILL WHEN SUITABLE MATERIAL IS NOT AVAILABLE ON SITE.

430-832-3: MASONRY PIPE PLUG (42" TO 48" PIPE)
THE UNIT PRICE CONSTITUTES FULL COMPENSATION FOR ALL LABOR AND MATERIALS REQUIRED TO INSTALL MASONRY PLUGS IN PIPES.

519-2: POURED GROUT
THE UNIT PRICE CONSTITUTES FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE PLACEMENT OF GROUT BY POUR AS DESIGNATED ON THE PLANS.

530-3-4: RIPRAP, RUBBLE, F&I, DITCH LINING
THE UNIT PRICES CONSTITUTE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO INSTALL RUBBLE RIPRAP, INCLUDING FILTER FABRIC AND BEDDING STONE.

531-76, 531-77: GABION MAT AND GABION BASKET
THE UNIT PRICES CONSTITUTE FULL COMPENSATION FOR ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT GABION MATS AND GABION BASKETS, INCLUDING EXCAVATION, FOUNDATION PREPARATION, FURNISHING AND INSTALLING FILTER FABRIC, FURNISHING, ASSEMBLING AND INSTALLING GABION MAT AND GABION BASKETS, FURNISHING AND PLACING STONE FILL, CLOSING AND LACING THE BASKETS, AND PLACING, COMPACTING AND FURNISHING SELECT MATERIAL FOR BACKFILL WHEN SUITABLE MATERIAL IS NOT AVAILABLE ON SITE.

570-1-1: PERFORMANCE TURF, SEED AND MULCH
THE UNIT PRICES CONSTITUTE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED FOR ESTABLISHING A STAND OF GRASS BY SEEDING AND MULCHING IN ACCORDANCE WITH SECTION 570 OF THE STANDARD SPECIFICATIONS, INCLUDING FURNISHING AND APPLYING SEED, MULCH, FERTILIZER, AND WATER. THE UNIT PRICES ALSO INCLUDE MAINTENANCE, INCLUDING LITTER REMOVAL AND MOWING UNTIL FINAL ACCEPTANCE.

570-1-22: PERFORMANCE TURF, SOD, CENTIPEDE
THE UNIT PRICES CONSTITUTE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED FOR ESTABLISHING A STAND OF GRASS BY SODDING IN ACCORDANCE WITH SECTION 570 OF THE STANDARD SPECIFICATIONS, INCLUDING FURNISHING AND PLACING SOD, PEGGING WHEN SPECIFIED IN THE PLANS, AND FURNISHING AND APPLYING FERTILIZER AND WATER. THE UNIT PRICES ALSO INCLUDE AND MAINTENANCE, INCLUDING LITTER REMOVAL AND MOWING UNTIL FINAL ACCEPTANCE.

573-1: HYDROSEEDNG, WILDFLOWER MIX
THE UNIT PRICES CONSTITUTE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED FOR ESTABLISHING A STAND OF WILDFLOWER PLANTS BY HYDROSEEDING IN ACCORDANCE WITH SECTION 570 OF THE STANDARD SPECIFICATIONS, INCLUDING FURNISHING AND APPLYING MULCH, SEED, FERTILIZER, TACKIFIER, AND DYE. THE UNIT PRICES ALSO INCLUDE MAINTENANCE AND LITTER REMOVAL UNTIL FINAL ACCEPTANCE.

SUMMARY OF EARTHWORK

DESCRIPTION	REGULAR EXCAVATION ITEM 120-1 (CY)	EMBANKMENT ITEM 120-6 (CY)	NATURAL CLAY POND LINER ITEM 120-75 (CY)	SELECT BACKFILL GABION GRAVITY WALL (CY)
Inflow Conveyance Channel	3	1,601		1,059
Pond / Maintenance Drive / Bioswale	95,687	9,047		
Clay Liner	8,133		8,494	
TOTALS =	103,823	10,648	8,494	1,059

Notes:
1. CALCULATED QUANTITIES ARE IN PLACE WITH NO FILL OR TRUCK ADJUSTMENTS APPLIED.
2. FINAL PAY QUANTITIES WILL BE PLAN QUANTITIES WITH NO CONSIDERATION FOR SPECIFICATION TOLERANCES.
3. THE CALCULATED QUANTITY OF SELECT BACKFILL IS PROVIDED FOR INFORMATIONAL PURPOSES. PAYMENT FOR SELECT BACKFILL IS INCLUDED IN THE CONTRACT UNIT PRICE FOR PAY ITEM NUMBER 531-77 FOR GABION BASKETS.

SUMMARY OF GABION MAT AND GABION BASKETS

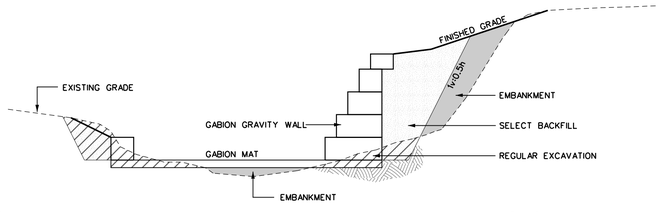
DESCRIPTION	GABION MAT, 12" THICK ITEM 531-76 (CY)	GABION BASKETS ITEM 531-77 (CY)
Inflow Conveyance Channel	293	935
Exfiltration Trench	0	212
TOTALS =	293	1,147

NOTES:
1. Quantities include 10% for overfill.

SUMMARY OF PERFORMANCE TURF

DESCRIPTION	SEED AND MULCH ITEM 570-1-1 (SY)	SOD, CENTIPEDE ITEM 570-1-22 (SY)	HYDROSEED, WILDFLOWER MIX ITEM 573-1 (SY)
Maintenance and Access Drive Perimeters		2337	
Platform @ S-20	390		
Disturbed Areas East of Sta. 402+25	5400		
S-22 Swale System		198	
Existing inlet, East (Sta. 108+40)		205	
Disturbed Areas Remaining			30,224
TOTALS =	5,790	2,740	30,224

NOTES:
1. WILDFLOWER MIX SHALL BE "MEADOW MIX" BY ERNST SEEDS, ITEM NO. ERNMX-601 OR APPROVED EQUAL.
2. AREAS EXCLUDE WATER, PAVEMENT, GABIONS, AND BIOSWALES.



LEGEND

REGULAR EXCAVATION - EXCAVATION BELOW THE ORIGINAL GROUND LINE AS NECESSARY FOR CONSTRUCTION OF THE DITCH, GABION BASKETS, AND GABION MATS, AND FOR PLACEMENT OF SELECT BACKFILL BEHIND THE GABION WALLS TO THE LIMITS SHOWN.

EMBANKMENT - COMPACTED FILL MATERIAL PLACED ABOVE THE ORIGINAL GROUND LINE AS NEEDED TO CONSTRUCT THE GABION BASKETS, AND GABION MATS.

SELECT BACKFILL - SELECT MATERIAL PLACED AND COMPACTED BEHIND THE GABION BASKETS. (SEE SUPPLEMENTAL SPECIFICATIONS FOR MATERIAL AND COMPACTION REQUIREMENTS.)

NOTES

1. PAYMENT FOR REGULAR EXCAVATION (ITEM 120-1) AND EMBANKMENT (ITEM 120-6) WILL BE AS SHOWN IN THIS DETAIL.
2. SELECT BACKFILL SHALL BE PLACED BEHIND THE GABIONS TO THE LIMITS SHOWN AND TO A BACK SLOPE OF 1v:0.5h, AT THE CONTRACTOR'S OPTION, SELECT MATERIAL MAY BE USED AS EMBANKMENT BEYOND THE LIMITS SHOWN FOR GABION CONSTRUCTION AT NO ADJUSTMENT IN THE CONTRACT UNIT PRICE FOR EMBANKMENT.
3. THE QUANTITIES FOR REGULAR EXCAVATION, EMBANKMENT, AND SELECT BACKFILL WERE CALCULATED TO THE BOTTOM WIDTHS SHOWN AND A BACK SLOPE OF 1v:0.5h FOR THE SELECT BACKFILL BEHIND THE GABIONS. NO ADJUSTMENT IN THE QUANTITIES OF EXCAVATION, EMBANKMENT, OR SELECT BACKFILL WILL BE MADE FOR EXCAVATION BEYOND BOTTOM WIDTHS SHOWN OR BEYOND A 1v:0.5h BACK SLOPE AS REQUIRED FOR TRENCH STABILITY.

EARTHWORK PAYMENT DEFINITION FOR GABION CONSTRUCTION
NTS

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET
SUMMARY OF QUANTITIES AND PAY ITEM NOTES

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT
PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
PH: (407) 679-3001
FAX: (407) 679-3691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR
SHEET 4

12/10/2020
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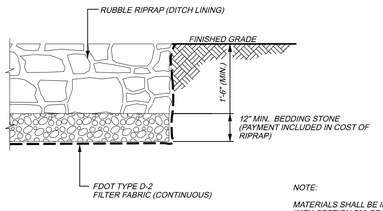
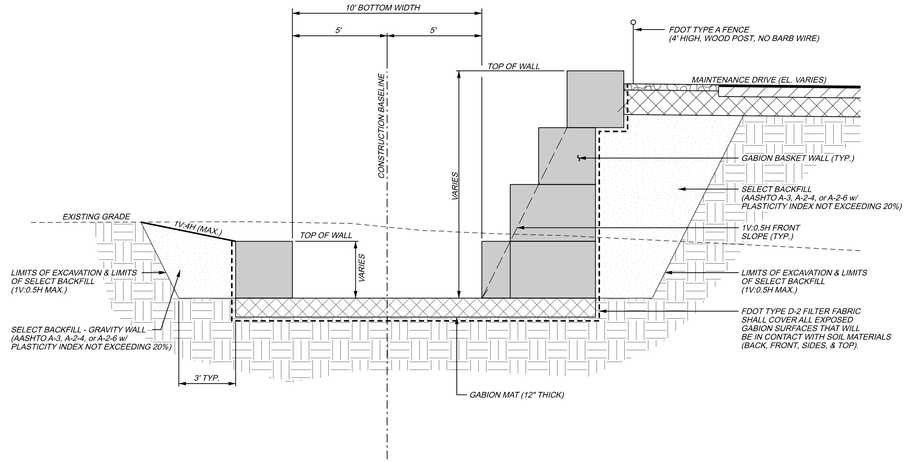


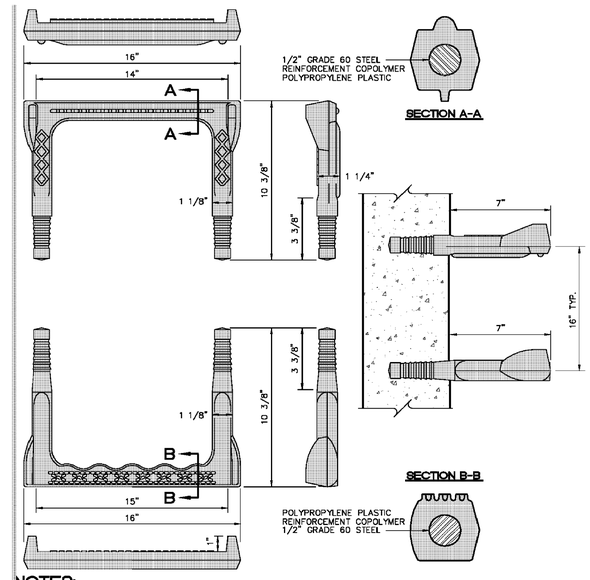
NOTE:

MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 530 OF THE STANDARD SPECIFICATIONS

RUBBLE RIPRAP DETAIL
N.T.S



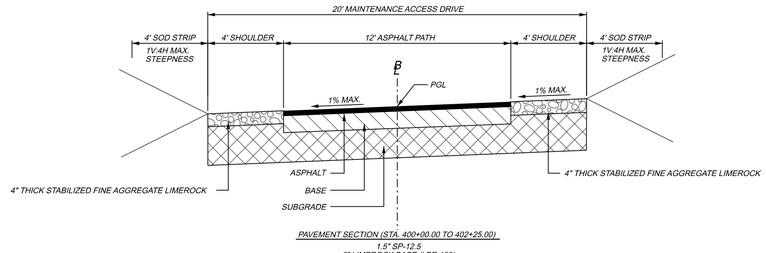
INFLOW CONVEYANCE CHANNEL TYPICAL SECTION
SCALE: 1"=4'



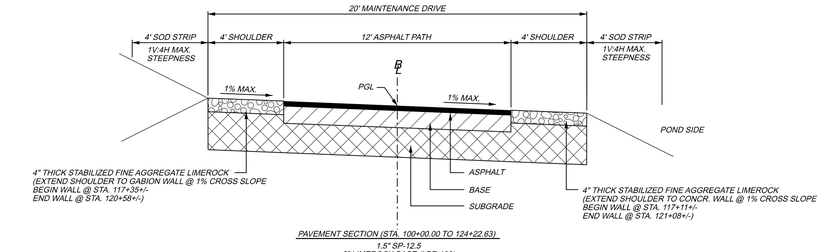
NOTES:

1. Step design, installation, and material shall meet the requirements of ASTM C478
2. Plastic material consists of super high impact resistant copolymer polypropylene and conform to specific requirements as detailed in ASTM D4101.
3. Reinforcing steel shall be 1/2" rebar, grade 60 and meet the requirements of ASTM A615.
4. Step width and spacing to be consistant with the latest requirements of OSHA.

STRUCTURE ACCESS STEP DETAIL
N.T.S.



PAVEMENT SECTION (STA. 400+00.00 TO 402+25.00)
1.5" SP-12.5
6" LIMEROCK BASE (LBR 100)
12" TYPE B STABILIZED SUBGRADE (LBR 40)

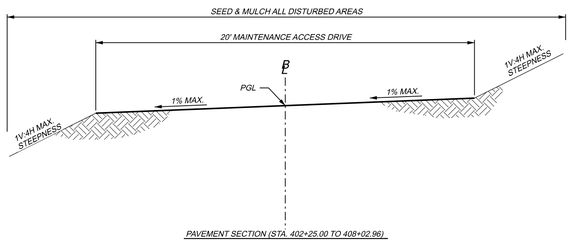


PAVEMENT SECTION (STA. 100+00.00 TO 124+22.63)
1.5" SP-12.5
6" LIMEROCK BASE (LBR 100)
12" TYPE B STABILIZED SUBGRADE (LBR 40)

NOTES:

1. SURFACE WATER RUNOFF SHALL BE NOT ALLOWED TO FLOW ACROSS ROCK PATH AND BELOW SOD. CONTRACTOR SHALL PLACE SOD LEVEL WITH THE EDGE OF THE ROCK PATH.
2. SHOULDER AND OVERLOOKS (STABILIZED FINE AGGREGATE LIMEROCK) SHALL BE CONSTRUCTED WITH LIMEROCK AND STABILIZER SOLUTIONS, INC., OR APPROVED EQUAL. CONSTRUCT IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS. LIMEROCK GRADATION REQUIREMENTS SHALL BE AS FOLLOWS:

U.S. Sieve No.	Percent Passing by Weight
# 1/2"	95 – 100
# 3/8"	90 – 100
# 4	65 – 80
# 8	48 – 63
# 16	40 – 49
# 30	30 – 40
# 50	20 – 27
# 100	10 – 18
# 200	10 - 12



PAVEMENT SECTION (STA. 402+25.00 TO 408+02.96)

MAINTENANCE DRIVE TYPICAL SECTIONS
N.T.S.

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per MMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

TYPICAL SECTIONS & DETAILS

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 5

12/10/2020
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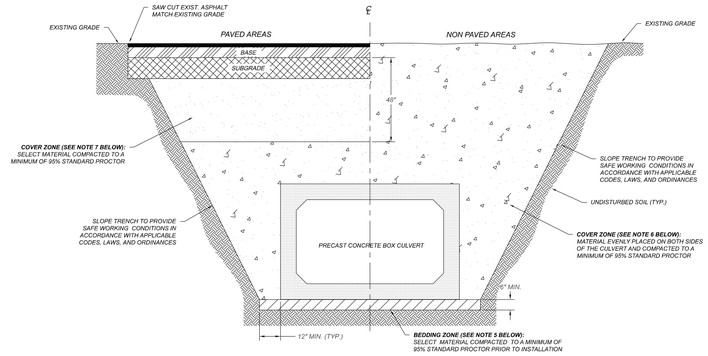


NOTES:

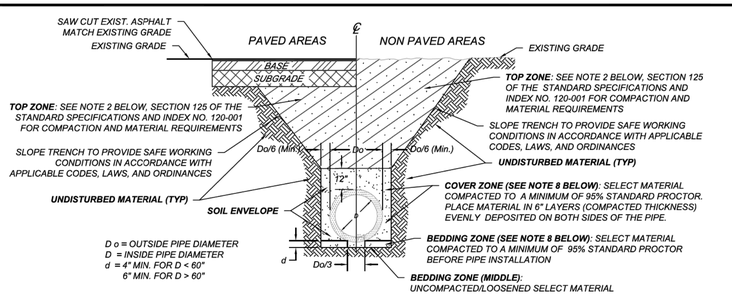
1. EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH ARTICLE 125-4 OF THE STANDARD SPECIFICATIONS.
2. EXCAVATE TRENCHES TO A MINIMUM DEPTH OF SIX INCHES BELOW THE BOTTOM OF THE BOX CULVERT AND TO A MINIMUM WIDTH OF TWELVE INCHES BEYOND EACH SIDE. IF THE TRENCH IS OVEREXCAVATED, BACKFILL AND RECOMPACT TO MATCH SURROUNDING DENSITY. MUCK AND ORGANIC MATERIAL SHALL NOT BE ALLOWED AS BACKFILL IN OVEREXCAVATED AREAS.
3. BOX CULVERTS ARE TO BE INSTALLED IN DRY TRENCHES TO THE EXTENT PRACTICABLE. METHODS OF DEWATERING SHALL BE APPROVED BY THE ENGINEER.
4. BACKFILL SHALL BE PLACED IN LIFTS THIN ENOUGH TO ALLOW COMPACTION TO BE ACHIEVED. LIFTS IN EXCESS OF TWELVE INCHES, MEASURED LOOSE, SHALL NOT BE ALLOWED.
5. THE BEDDING ZONE SHALL CONSIST OF SELECT MATERIAL IN ACCORDANCE WITH STANDARD PLANS INDEX NO. 120-001 WITH NOT MORE THAN 15% FINES PASSING THE NO. 200 U.S. STANDARD SIEVE, OR SHALL BE OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. COARSE AGGREGATE MAY BE USED UNDER WET CONDITIONS WHERE MECHANICAL TAMPERS WOULD NOT BE EFFECTIVE. COARSE AGGREGATE MUST MEET THE SIZE REQUIREMENTS SPECIFIED IN SUBARTICLE 125-8.3.4 AND MUST BE FULLY WRAPPED WITH A LAYER OF TYPE D-4 FILTER FABRIC. DO NOT PLACE COARSE AGGREGATE WITHIN 4 FEET OF THE ENDS OF THE TRENCH. USE NORMALLY ACCEPTED BACKFILL AT THE ENDS.
6. THE COVER ZONE SHALL CONSIST OF SOILS CLASSIFIED AS SELECT OR PLASTIC ON STANDARD PLANS INDEX NO. 120-001. PLASTIC SOILS SHALL NOT BE PLACED WITHIN FOUR FEET OF THE BASE IN PAVED AREAS. IF PLASTIC SOILS ARE USED, THEY SHALL BE PLACED UNIFORMLY THROUGHOUT THE TRENCH RATHER THAN FULL DEPTH FOR SHORT DISTANCES.
7. MATERIALS PLACED WITHIN FOUR FEET OF THE BOTTOM OF THE BASE IN PAVED AREAS SHALL BE SELECT AS CLASSIFIED ON STANDARD PLANS INDEX NO. 120-001.
8. HIGH PLASTIC AND/OR MUCK MATERIAL WILL NOT BE ALLOWED IN NON-PAVED AREAS UNLESS SPECIFICALLY SHOWN OTHERWISE IN THE PLANS OR SPECIFICATIONS (E.G., LITTORAL SHELVES AND WETLAND RESTORATION AREAS).
9. IF A BOX CULVERT IS WITHIN FIVE FEET OF ANY BUILDING OR STRUCTURE, COMPACT TO 100% STANDARD PROCTOR FOR A DISTANCE ALONG THE TRENCH OF AT LEAST THREE FEET FROM THE OUTSIDE FACE OF THE BUILDING OR STRUCTURE.
10. BEFORE PLACING SOD IN GRASSED AREAS, PROVIDE A THREE-INCH MINIMUM THICK LAYER OF TOPSOIL THAT IS SUFFICIENTLY LOOSE TO PROMOTE ROOT GROWTH.
11. COSTS FOR ALL BEDDING ZONE AND COVER ZONE MATERIAL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR FURNISHING AND INSTALLING PRECAST CONCRETE BOX CULVERT.

PRECAST CONCRETE BOX CULVERT INSTALLATION

N.T.S.

PRECAST CONCRETE
BOX CULVERT INSTALLATION

CITY OF TALLAHASSEE
STORMWATER MANAGEMENT
300 South Adams Street, B-35, Tallahassee, Florida 32301



NOTES:

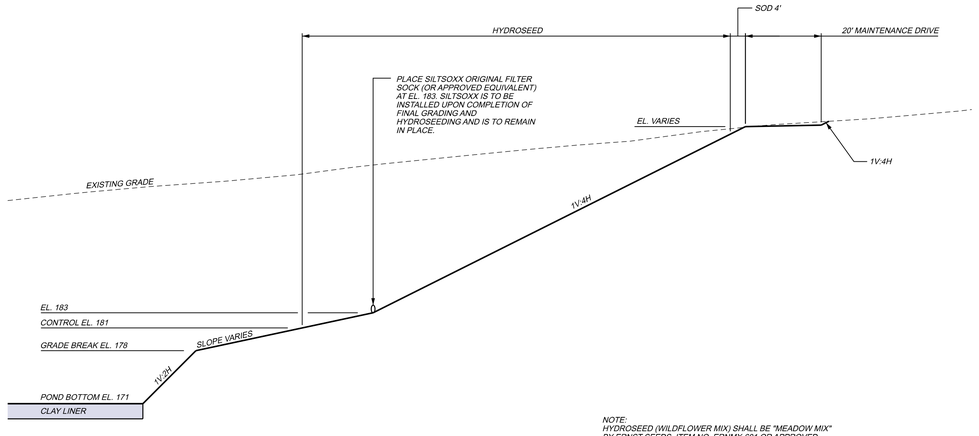
1. THE SOIL ENVELOPE SHALL USE MATERIAL MEETING AASHTO CLASSIFICATION OF A-1 SAND, A-3, OR A-2-4. FOR REINFORCED CONCRETE PIPE WITH DIAMETERS 30-INCHES OR GREATER, THE CONTRACTOR MAY CHOOSE TO REDUCE THE COVER ZONE TO THE SPRINGLINE OF THE PIPE. COST FOR SELECT MATERIAL FOR THE SOIL ENVELOPE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES ASSOCIATED WITH THIS WORK.
2. THE TOP ZONE SHALL USE MATERIAL AS DEFINED IN INDEX NO. 120-001. NO A-4 MATERIAL SHALL BE PLACED BELOW THE WATER LEVEL. IF PLACED BELOW THE WATER LEVEL, A-2-4 MATERIAL MUST BE NONPLASTIC AND CONTAIN LESS THAN 15% PASSING THE NO. 200 SEIVE. IN PAVED AREAS HIGH PLASTIC AND/OR MUCK MATERIALS WILL NOT BE ALLOWED AS BACKFILL. IN NON-PAVED AREAS MUCK MATERIAL WILL NOT BE ALLOWED AS BACKFILL, UNLESS SPECIFICALLY SHOWN OTHERWISE IN THE PLANS OR SPECIFICATIONS, (E.G., LITTORAL SHELVES AND WETLAND RESTORATION AREAS).
3. TRENCHES ARE TO BE EXCAVATED IN ACCORDANCE WITH SUBARTICLE 125-4.4 OF THE STANDARD SPECIFICATIONS.
4. IF THE TRENCH IS OVEREXCAVATED, BACKFILL AND RECOMPACT IN ACCORDANCE WITH SECTION 125-9.2.1. MUCK AND ORGANIC MATERIAL SHALL NOT BE ALLOWED AS BACKFILL IN OVEREXCAVATED AREAS.
5. HAND DIG FOR BELL JOINTS. BEARING FROM JOINT TO JOINT WILL NOT BE ALLOWED.
6. PIPES ARE TO BE INSTALLED IN DRY TRENCHES. OPEN TRENCH PUMPING FOR DEWATERING SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. BACKFILL SHALL BE PLACED IN LIFTS THIN ENOUGH TO ALLOW COMPACTION TO BE ACHIEVED. LIFTS IN EXCESS OF TWELVE INCHES, MEASURED LOOSE, SHALL NOT BE ALLOWED.
8. IF THE PIPE IS BENEATH OR WITHIN 5-FEET OF ANY BUILDING, COMPACT TO 100% STANDARD PROCTOR. IF THE PIPE IS NEAR ANY STRUCTURE, COMPACT TO 100% STANDARD PROCTOR FOR A DISTANCE OF AT LEAST ONE PIPE DIAMETER, BUT NOT LESS THAN THREE FEET FROM THE OUTSIDE FACE OF THE STRUCTURE.
9. BEFORE PLACING SOD IN GRASSED AREAS, PROVIDE A THREE-INCH MINIMUM THICK LAYER OF TOPSOIL THAT IS SUFFICIENTLY LOOSE TO PROMOTE ROOT GROWTH.

STORM DRAIN PIPE INSTALLATION

N.T.S.

STORM DRAIN
PIPE INSTALLATION

CITY OF TALLAHASSEE
STORMWATER MANAGEMENT
300 South Adams Street, B-35, Tallahassee, Florida 32301



NOTE:
HYDROSEED (WILDFLOWER MIX) SHALL BE "MEADOW MIX" BY ERNST SEEDS, ITEM NO. ERNMX-801 OR APPROVED EQUAL.

POND TYPICAL SECTION

N.T.S.

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

TYPICAL SECTIONS & DETAILS

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 6

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-TypicalSections2.dgn

THE ELECTRICAL ACCESS PATH BETWEEN MACLAY ROAD AND THE WEST POND SHALL NOT BE USED AS A CONSTRUCTION HAUL ROUTE OR AS A ROUTE FOR THE MOVEMENT OF CONSTRUCTION PERSONNEL, EQUIPMENT, AND/OR MATERIALS. AN EXCEPTION MAY BE MADE BY THE ENGINEER DURING CONSTRUCTION OF THE 48" RCP BETWEEN DRAINAGE STRUCTURES S-10 AND S-3 AND CONSTRUCTION OF DRAINAGE STRUCTURES S-6 AND S-4.
BEGIN INFLOW CONVEYANCE CHANNEL CONSTRUCTION BASELINE STA. 200+00.00 N = 549,033.2137 E = 2,043,976.4627
BEGIN INFLOW CONVEYANCE CULVERT CONSTRUCTION BASELINE STA. 300+00.00 N = 548,993.7771 E = 2,044,227.9138
INFLOW CONVEYANCE CHANNEL
P.I. INFLOW CONVEYANCE CHANNEL CONSTRUCTION BASELINE STA. 202+97.07 = INFLOW CONVEYANCE CULVERT CONSTRUCTION BASELINE STA. 300+28.46 N = 548,989.8396 E = 2,044,256.5995
N70° 03' 25"E, 157.46'
END INFLOW CONVEYANCE CHANNEL CONSTRUCTION BASELINE STA. 204+90.00 N=549,011.6510 E=2,044,422.1220
S44° 07' 04"E, 65.47'
PROPERTY BOUNDARY
EXISTING PIPE TO REMAIN
BIO-SWALE
MAINTENANCE DRIVE
S19° 56' 35"E, 150.00'
N56° 54' 42"E, 22.97'
END ELECTRICAL ACCESS PATH STA. 501+36.90 N = 548,827.6352 E = 2,044,037.6743
BEGIN ELECTRICAL ACCESS PATH STA. 500+00.00 N = 548,828.0746 E = 2,043,914.4275
ELECTRICAL ACCESS PATH
GABION TRENCH DRAIN
END INFLOW CONVEYANCE CULVERT CONSTRUCTION BASELINE STA. 301+50.00 N = 548,852.7724 E = 2,044,279.0769
BEGIN INFLOW CONVEYANCE PIPE CONSTRUCTION BASELINE STA. 10+00.00 N = 548,768.9353 E = 2,044,446.2890
NEW MES
REMOVE EXISTING PIPE
REMOVE EXISTING PIPE & STRUCTURE
SITE BENCHMARK 1
SITE BENCHMARK 2
INFLOW CONVEYANCE PIPE
NEW MANHOLE
S85° 09' 40"E 280.25'
MAINTENANCE ACCESS DRIVE
NEW PIPE
N89° 40' 21"E 241.02'
S65° 35' 08"E 84.28'
S89° 01' 39"E 254.34'
EXISTING PIPE TO BE PLUGGED
EXISTING PIPE TO REMAIN (LOCATION APPROXIMATE)
ESMT
END INFLOW CONVEYANCE PIPE CONSTRUCTION BASELINE STA. 21+00.00 N=548,808.6341 E=2,045,511.8178
CONST. FDOT PIPE PLUG
MARKET DISTRICT STORMWATER FACILITY
POND CONTROL ELEV. = 181.0
CONTROL STRUCTURE
ELECTRICAL SUBSTATION (DO NOT ENTER OR DISTURB)
REFER TO STORMWATER FACILITY LAYOUT PLAN FOR MAINTENANCE DRIVE BASELINE GEOMETRY

Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Delta	Tangent Length
C15	150.00	172.33	S77° 01' 49.79"E	65° 49' 31"	97.09
C16	175.00	92.68	N85° 13' 45.95"E	30° 20' 43"	47.46
C21	81.18	113.93	S82° 53' 06.94"E	80° 24' 23"	68.61

SITE BENCHMARK 1
Fnd. A.D.PLATT TRAVERSE NAIL
N = 548,736.5234
E = 2,044,302.1909
Z = 195.32

SITE BENCHMARK 2
Fnd. A.D.PLATT TRAVERSE NAIL
N = 548,718.5602
E = 2,044,755.4109
Z = 211.88

ELECTRICAL ACCESS PATH PGL

Station (ft)	Baseline Elevation (ft)	Station Difference (ft)	Elevation Difference (ft)	Percent Grade (%)
500+00.00	208.0			
		29.30	-1.0	-3.41%
500+29.30	207.0			
		14.07	-1.0	-7.11%
500+43.37	206.0			
		83.53	-9.5	-11.39%
501+26.90	196.5			
		10.00	-0.1	1.00%
501+36.90	196.4			

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1 11/17/20 – per WMD #1
2 12/10/20 – per CITY: walls, grading, pv'mt, fence, plantings
3
4
5

SHEET
PROJECT LAYOUT PLAN

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
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JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 7

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-LayoutPlan.dgn

SITE BENCHMARK 1

Fnd. A.D.PLATT TRAVERSE NAIL
N = 548,736.5234
E = 2,044,302.1909
Z = 195.32

SITE BENCHMARK 2

Fnd. A.D.PLATT TRAVERSE NAIL
N = 548,718.5602
E = 2,044,755.4109
Z = 211.88

NOTE:
THE ELECTRICAL ACCESS PATH BETWEEN MACLAY ROAD AND THE WEST POND SHALL NOT BE USED AS A CONSTRUCTION HAUL ROUTE OR AS A ROUTE FOR THE MOVEMENT OF CONSTRUCTION PERSONNEL, EQUIPMENT, AND/OR MATERIALS. AN EXCEPTION MAY BE MADE BY THE ENGINEER DURING CONSTRUCTION OF THE 48" RCP BETWEEN DRAINAGE STRUCTURES S-10 AND S-2 AND CONSTRUCTION OF DRAINAGE STRUCTURES S-6 AND S-4.

Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Delta	Tangent Length
C1	100.00	37.13	S19° 20' 42.78"W	21° 16' 24"	18.78
C2	150.00	162.59	S1° 04' 14.67"E	62° 06' 19"	90.32
C3	75.00	120.21	S13° 47' 38.88"W	91° 50' 06"	77.44
C4	100.00	134.68	S21° 07' 39.61"W	77° 10' 05"	79.78
C5	90.00	212.83	S50° 17' 18.05"W	135° 29' 22"	219.93
C6	350.00	171.24	N75° 59' 00.55"W	28° 01' 59"	87.37
C7	50.00	97.72	N34° 00' 30.16"W	111° 59' 00"	74.10
C8	95.00	108.01	N10° 35' 17.65"W	65° 08' 35"	60.69
C9	60.00	149.65	N28° 17' 35.98"E	142° 54' 22"	178.83
C10	190.00	98.45	N84° 54' 05.81"E	29° 41' 22"	50.36
C11	150.00	86.42	N86° 33' 42.14"E	33° 00' 35"	44.45
C12	150.00	68.55	N89° 58' 26.99"E	26° 11' 05"	34.89
C13	290.37	72.58	N84° 02' 33.02"E	14° 19' 17"	36.48
C14	100.00	170.18	S40° 02' 38.85"E	97° 30' 19"	114.04
C15	150.00	172.33	S77° 01' 49.79"E	65° 49' 31"	97.09
C16	175.00	92.68	N85° 13' 45.95"E	30° 20' 43"	47.46
C17	388.15	61.21	S85° 48' 34.18"E	9° 02' 10"	30.67
C18	52.50	31.84	S72° 57' 09.18"E	34° 45' 00"	16.43
C19	52.50	32.06	S73° 04' 18.63"E	34° 59' 19"	16.55
C20	100.00	22.91	S84° 00' 05.22"E	13° 07' 45"	11.51
C21	81.18	113.93	S82° 53' 06.94"E	80° 24' 23"	68.61

MAINTENANCE ACCESS DRIVE PGL

Station (ft)	Baseline Elevation (ft)	Station Difference (ft)	Elevation Difference (ft)	Percent Grade (%)
400+00.00	206.00			
		10.00	0.1	1.00%
400+10.00	206.10			
		232.47	9.4	4.04%
402+42.47	215.50			
		198.42	4.5	2.27%
404+40.89	220.00			
		145.57	1.0	0.69%
405+86.46	221.00			
		142.31	1.0	0.70%
407+28.77	222.00			
		74.19	0.0	0.00%
408+02.96	222.00			

MAINTENANCE DRIVE PGL

Station (ft)	Baseline Elevation (ft)	Station Difference (ft)	Elevation Difference (ft)	Percent Grade (%)
100+00.00	206.0			
		37.13	0.0	0.00%
100+37.13	206.0			
		193.99	4.0	2.06%
102+31.12	210.0			
		287.45	-5.0	-1.74%
105+18.57	205.0			
		276.74	-9.5	-3.43%
107+95.31	195.5			
		279.18	0.0	0.00%
110+74.49	195.5			
		118.42	2.5	2.11%
111+92.91	198.0			
		271.28	-2.9	-1.07%
114+64.19	195.1			
		108.95	0.9	0.83%
115+73.14	196.0			
		74.42	1.0	1.34%
116+47.56	197.0			
		191.57	-3.0	-1.57%
118+39.13	194.0			
		100.00	0.0	0.00%
119+39.13	194.0			
		451.94	12.0	2.66%
123+91.07	206.0			
		31.56	0.0	0.00%
124+22.63	206.0			

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1 11/17/20 – per WMD #1
2 12/10/20 – per CITY: walls, grading, pv'mt, fence, plantings
3
4
5

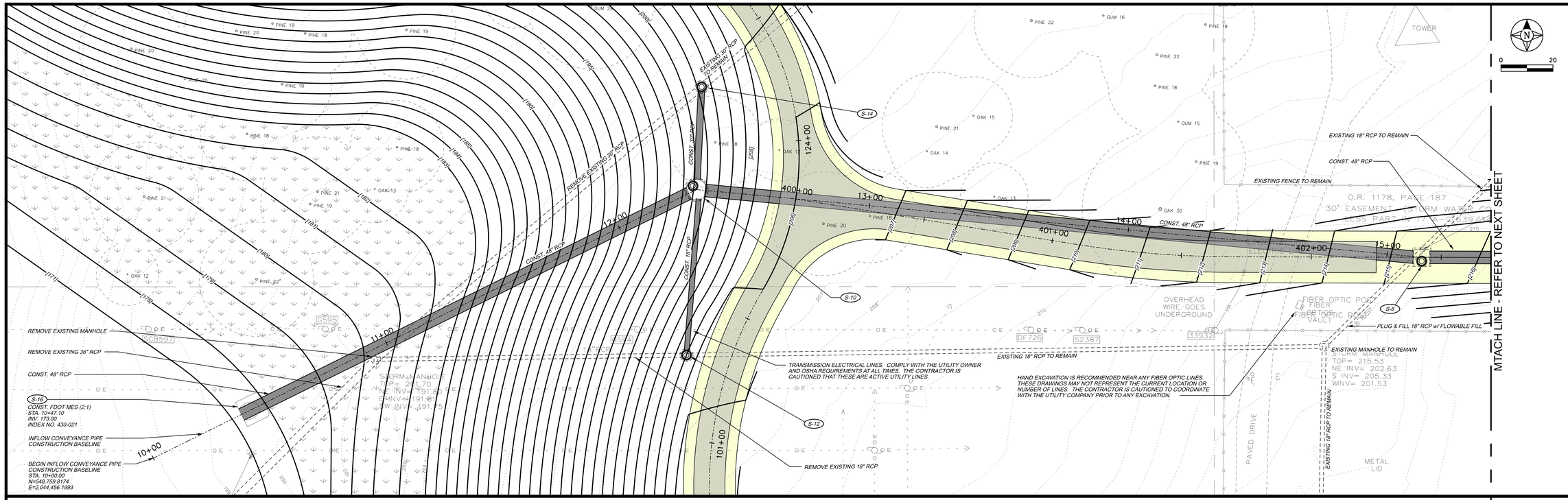
SHEET
STORMWATER FACILITY LAYOUT PLAN

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Ph: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-LayoutPondPlan.dgn



ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020

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1. 11/17/20 – per WMD #1
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3.
4.
5.

SHEET

PLAN & PROFILE (INFLOW CONVEYANCE PIPE)

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

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DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 9

12/10/2020
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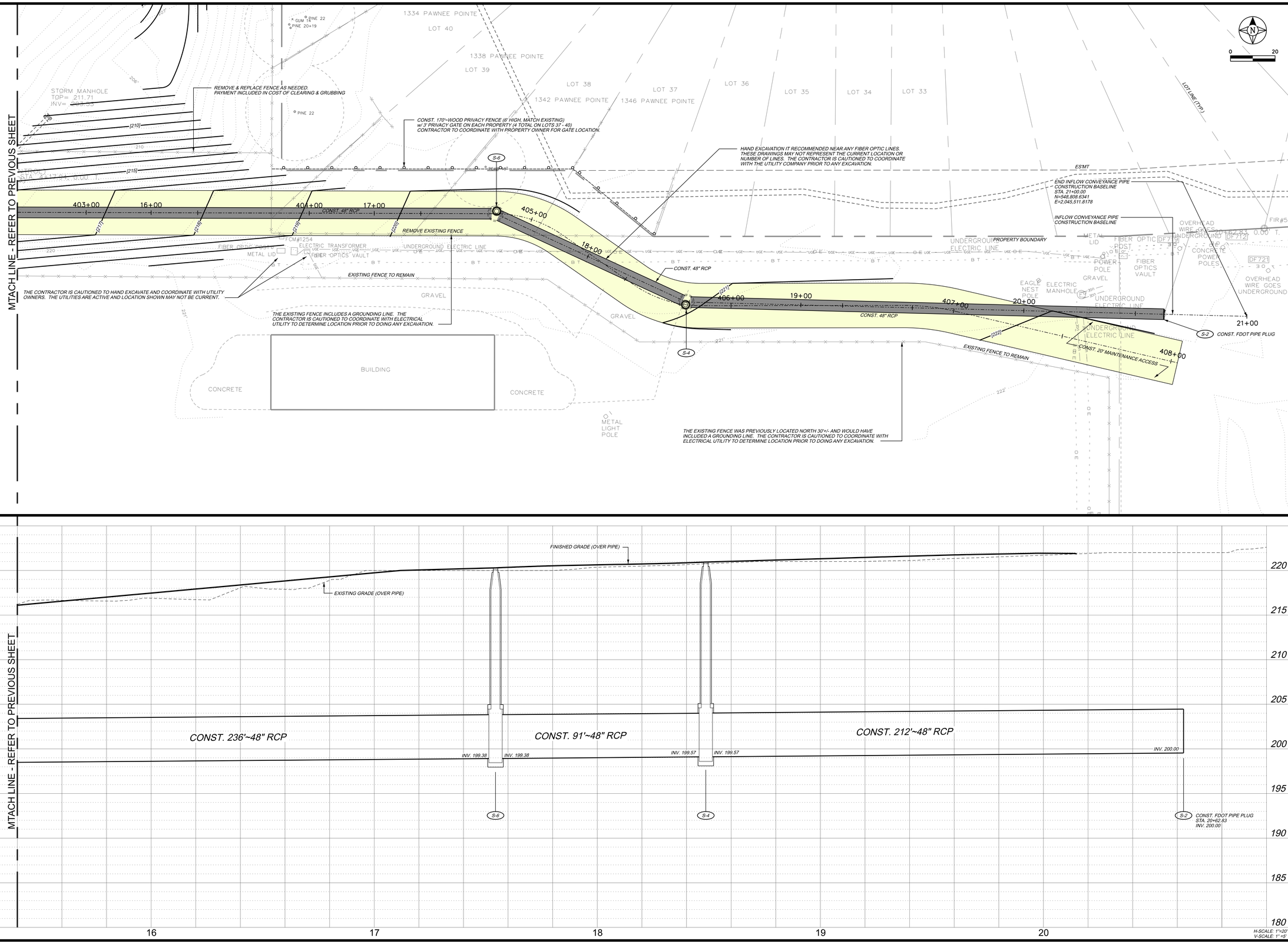

ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

PLAN & PROFILE (INFLOW CONVEYANCE PIPE)

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
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JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 10

12/10/2020
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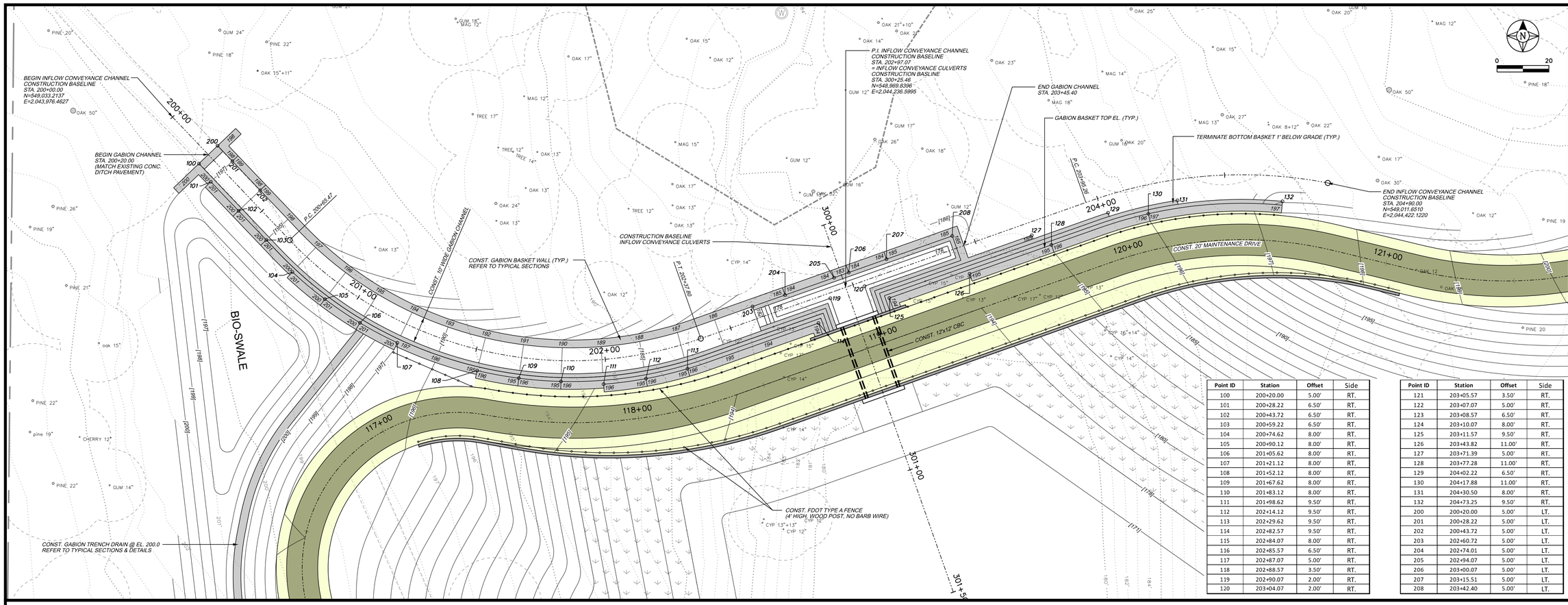
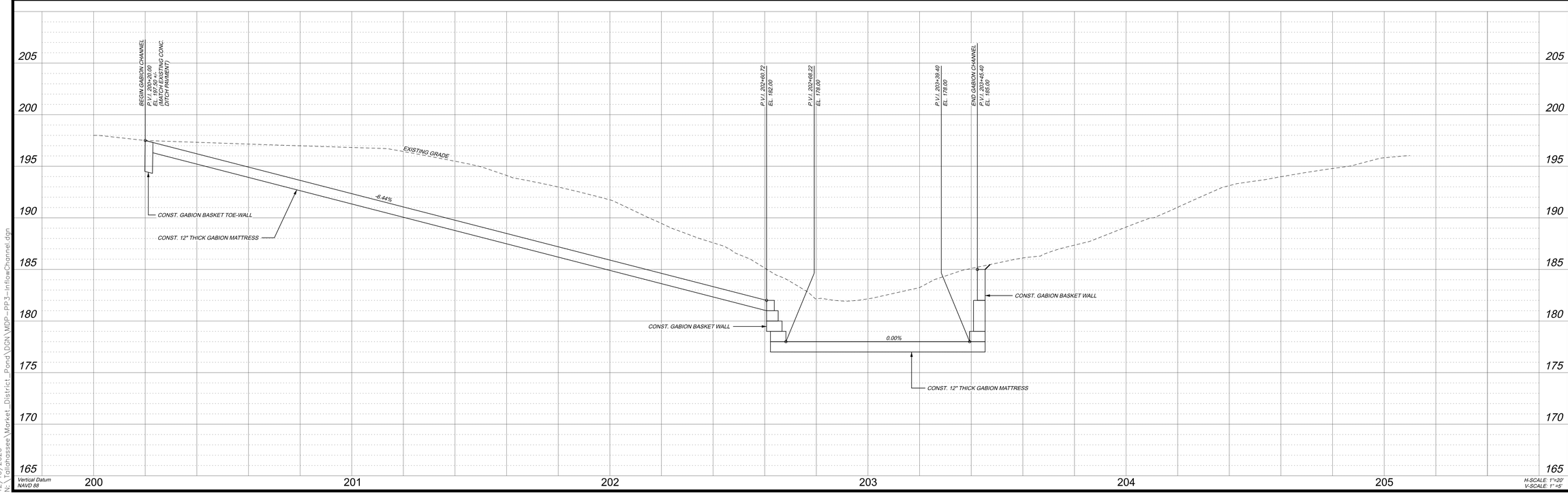


Point ID	Station	Offset	Side
100	200+20.00	5.00'	RT.
101	200+28.22	6.50'	RT.
102	200+43.72	6.50'	RT.
103	200+59.22	6.50'	RT.
104	200+74.62	8.00'	RT.
105	200+90.12	8.00'	RT.
106	201+05.62	8.00'	RT.
107	201+21.12	8.00'	RT.
108	201+52.12	8.00'	RT.
109	201+67.62	8.00'	RT.
110	201+83.12	8.00'	RT.
111	201+98.62	9.50'	RT.
112	202+14.12	9.50'	RT.
113	202+29.62	9.50'	RT.
114	202+82.57	9.50'	RT.
115	202+84.07	8.00'	RT.
116	202+85.57	6.50'	RT.
117	202+87.07	5.00'	RT.
118	202+88.57	3.50'	RT.
119	202+90.07	2.00'	RT.
120	203+04.07	2.00'	RT.

Point ID	Station	Offset	Side
121	203+05.57	3.50'	RT.
122	203+07.07	5.00'	RT.
123	203+08.57	6.50'	RT.
124	203+10.07	8.00'	RT.
125	203+11.57	9.50'	RT.
126	203+43.82	11.00'	RT.
127	203+71.39	5.00'	RT.
128	203+77.28	11.00'	RT.
129	204+02.22	6.50'	RT.
130	204+17.88	11.00'	RT.
131	204+30.50	8.00'	RT.
132	204+73.25	9.50'	RT.
200	200+20.00	5.00'	LT.
201	200+28.22	5.00'	LT.
202	200+43.72	5.00'	LT.
203	202+60.72	5.00'	LT.
204	202+74.01	5.00'	LT.
205	202+94.07	5.00'	LT.
206	203+00.07	5.00'	LT.
207	203+15.51	5.00'	LT.
208	203+42.40	5.00'	LT.



ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

PLAN & PROFILE INFLOW CONVEYANCE CHANNEL

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
PH: (407) 679-3001
FAX: (407) 679-2691
DBPR No. 5112

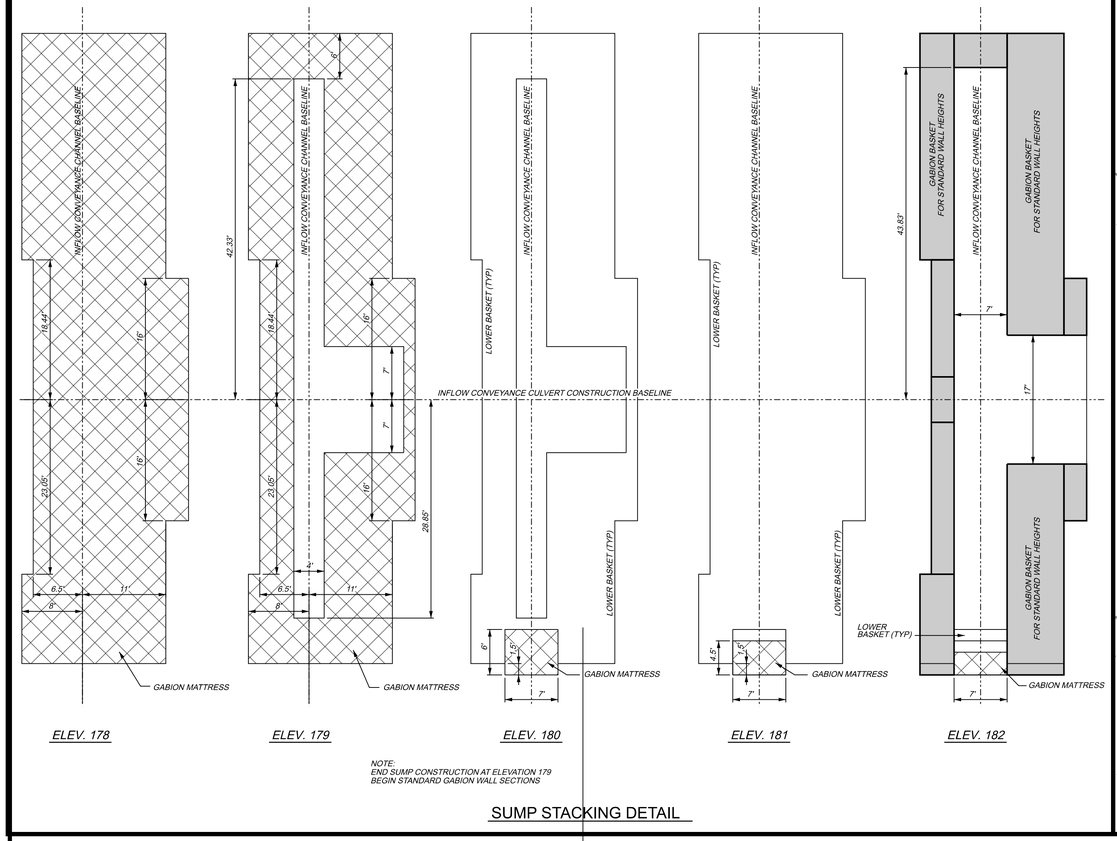
JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 11

Vertical Datum NAVD 88

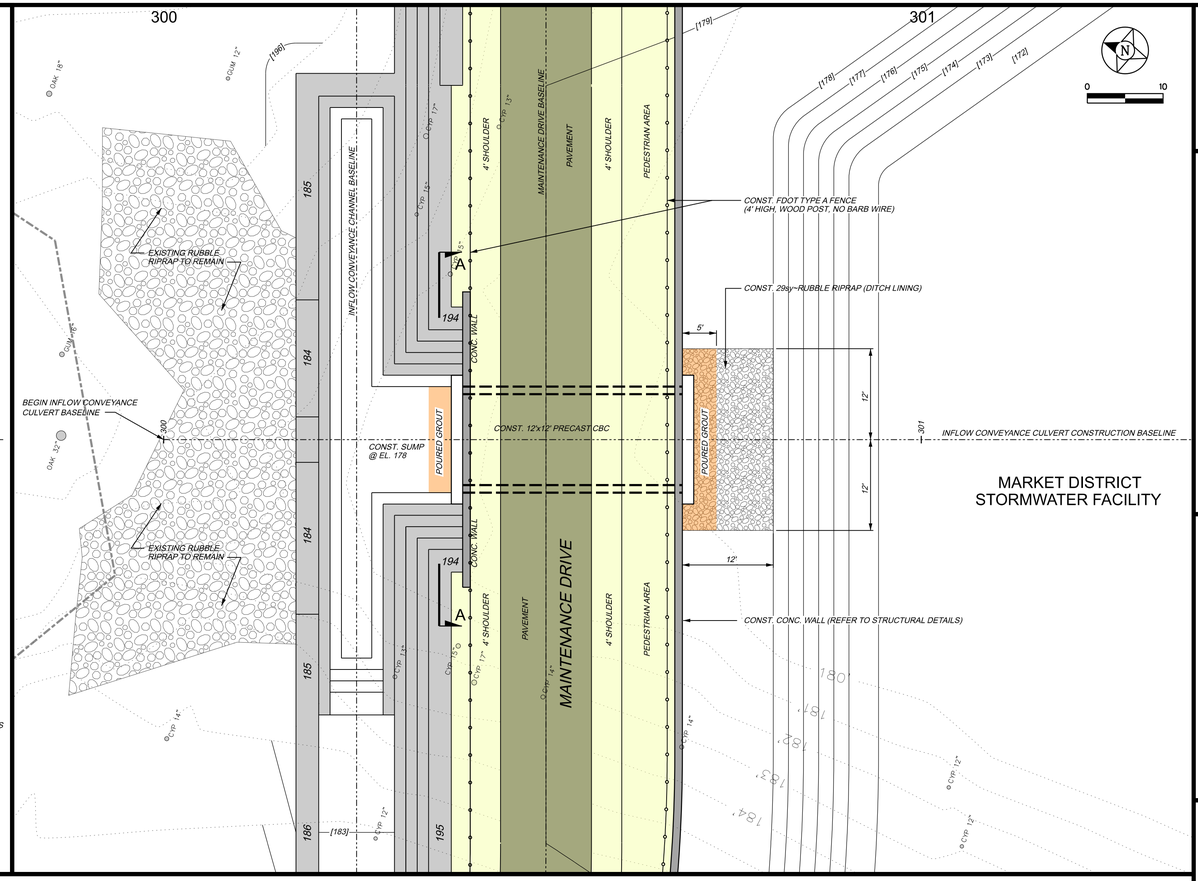
H-SCALE: 1"=20'
V-SCALE: 1"=5'

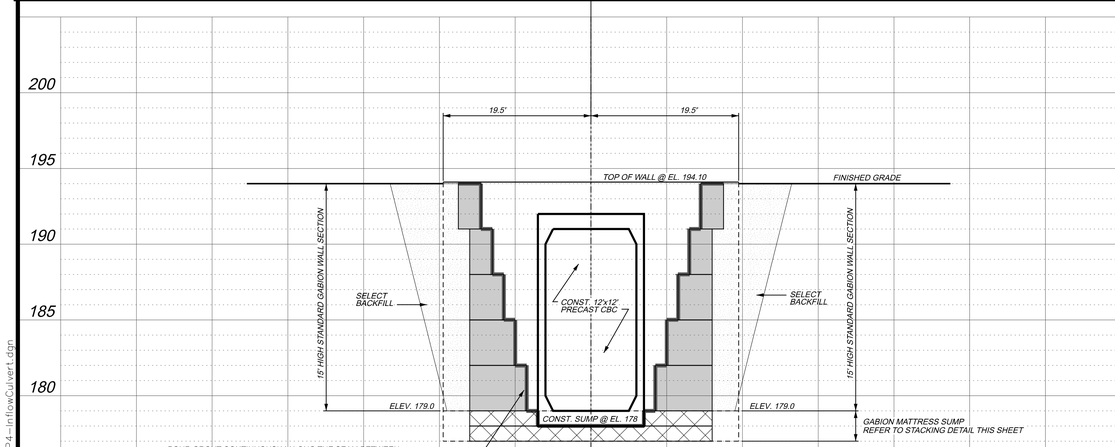
12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-PP3-InflowChannel.dgn



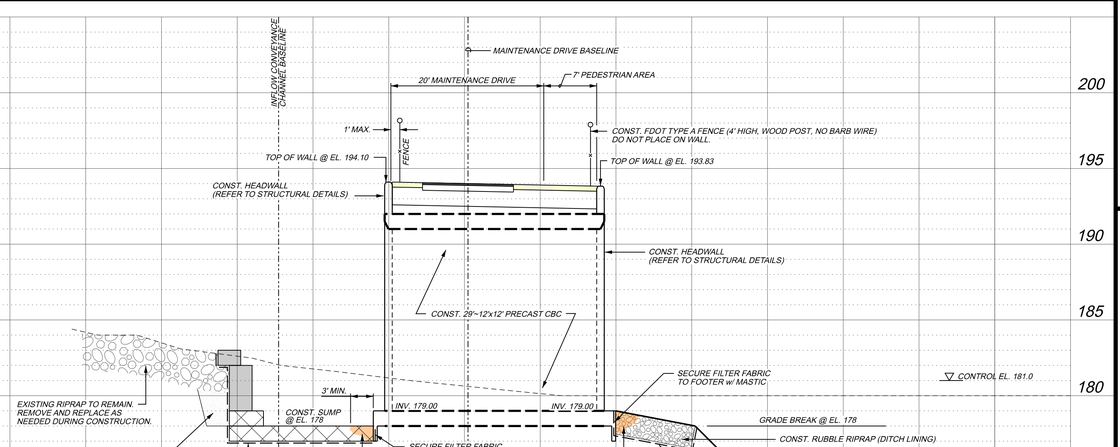
NOTE:
END SUMP CONSTRUCTION AT ELEVATION 179
BEGIN STANDARD GABION WALL SECTIONS

SUMP STACKING DETAIL





SECTION A-A



Vertical Datum
NAVD 88

H-SCALE: 1"=10'
V-SCALE: 1"=5'

ENGINEER OF RECORD
Signature
Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET
PLAN & PROFILE
INFLOW CONVEYANCE
BOX CULVERT

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
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Orlando, Florida 32817
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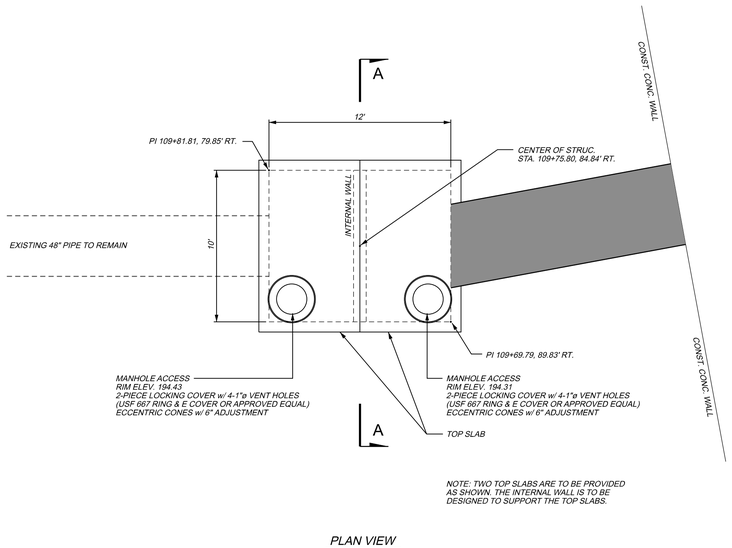
Fax: (407) 679-3691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

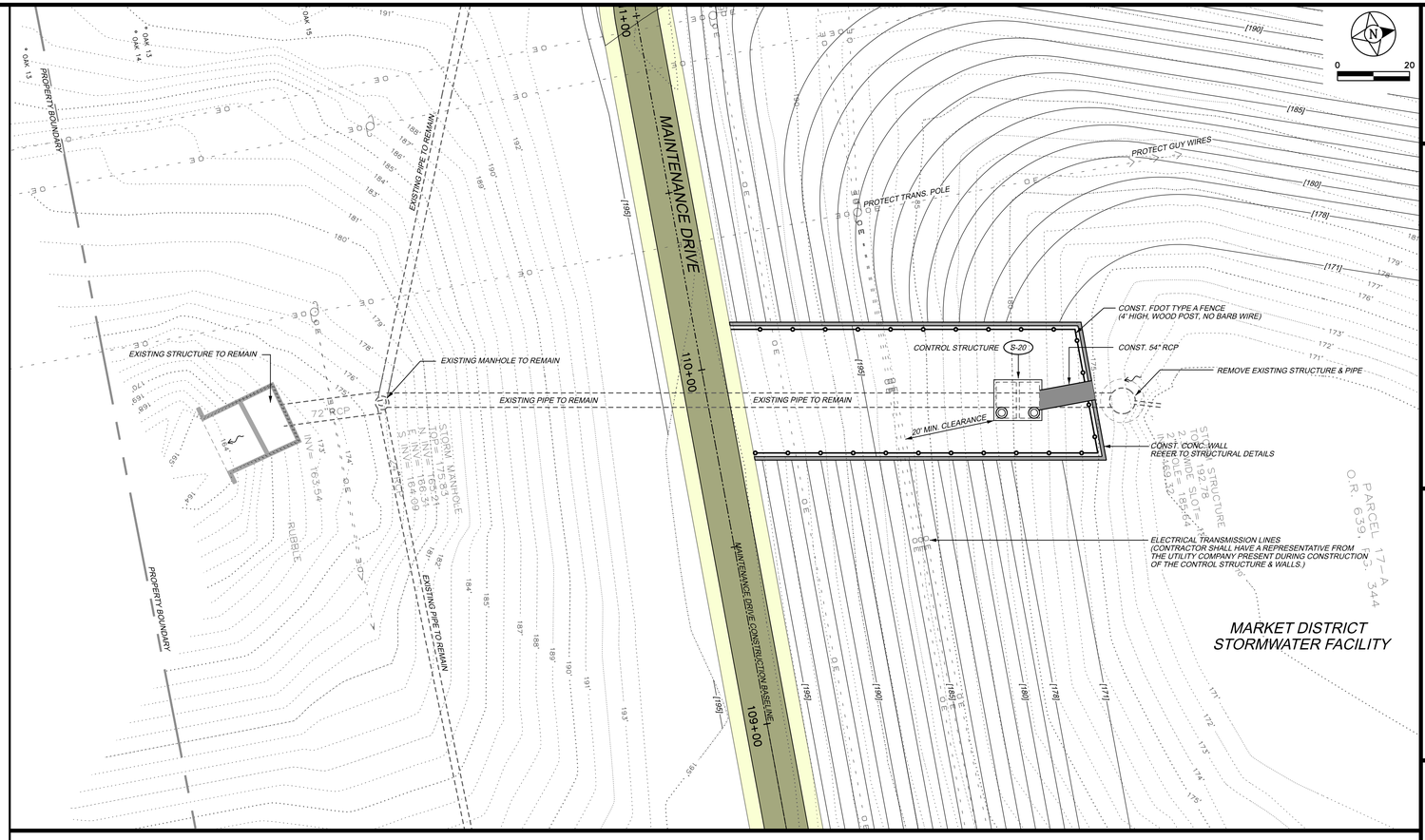
SHEET 12

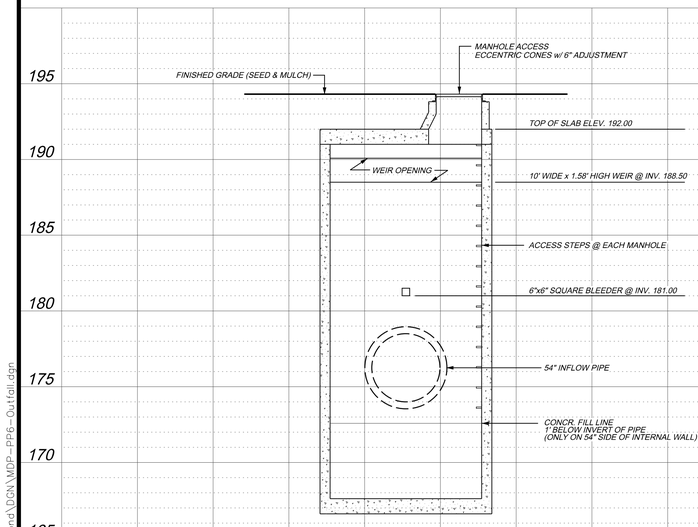
12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-PP4-InflowCulvert.dgn



NOTE: TWO TOP SLABS ARE TO BE PROVIDED AS SHOWN. THE INTERNAL WALL IS TO BE DESIGNED TO SUPPORT THE TOP SLABS.

PLAN VIEW

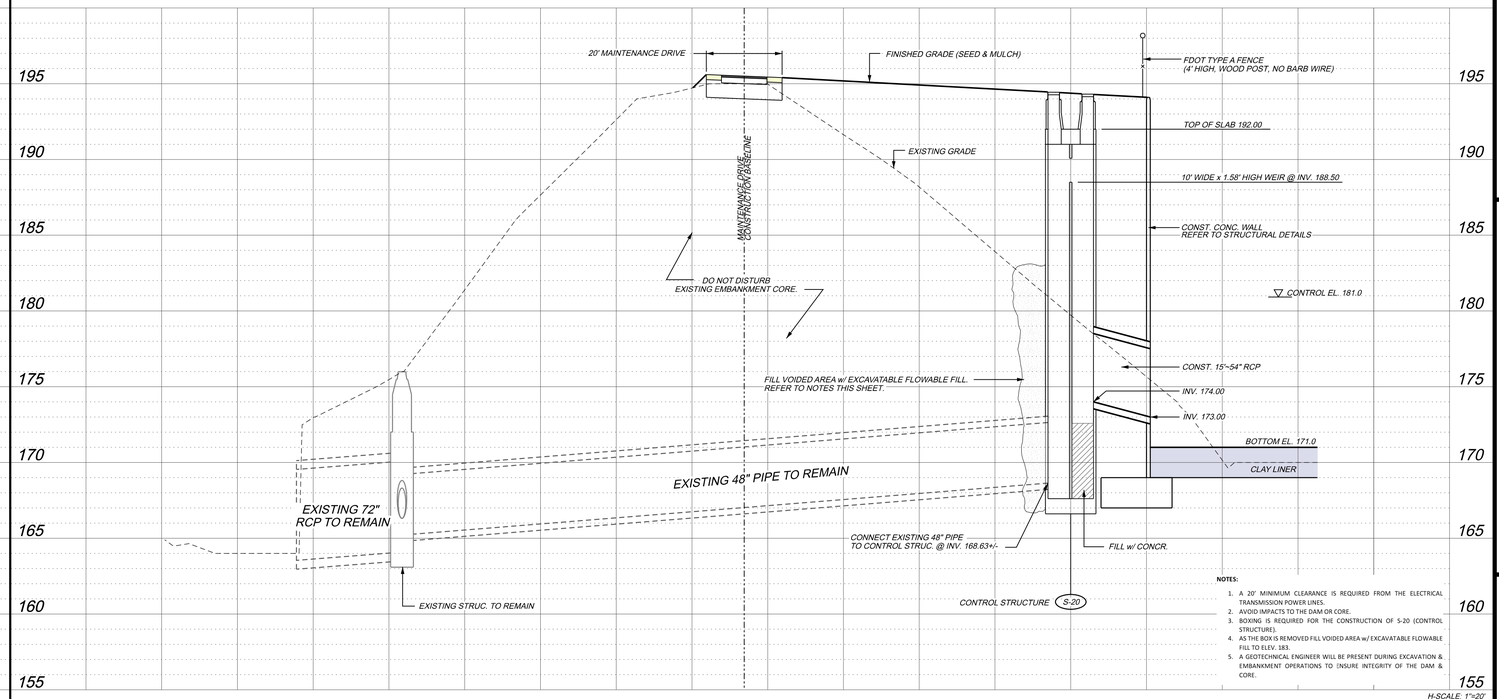




SECTION A-A

STRUCTURE S-20 DETAILS

1"=5'



NOTES:

1. A 20' MINIMUM CLEARANCE IS REQUIRED FROM THE ELECTRICAL TRANSMISSION POWER LINES.
2. AVOID IMPACTS TO THE DAM OR CORE.
3. BOXING IS REQUIRED FOR THE CONSTRUCTION OF S-20 (CONTROL STRUCTURE).
4. AS THE BOX IS REMOVED FILL VOIDED AREA w/ EXCAVATABLE FLOWABLE FILL TO ELEV. 183.
5. A GEOTECHNICAL ENGINEER WILL BE PRESENT DURING EXCAVATION & EMBANKMENT OPERATIONS TO INSURE INTEGRITY OF THE DAM & CORE.

Vertical Datum
NAVD 88

H-SCALE: 1"=20'
V-SCALE: 1"=5'

ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

PLAN & PROFILE
OUTFALL CONVEYANCE SYSTEM

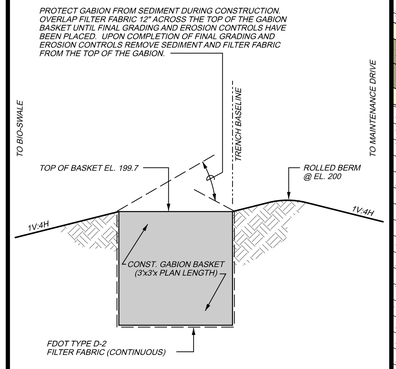
MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
PH: (407) 679-3001
FAX: (407) 679-3691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

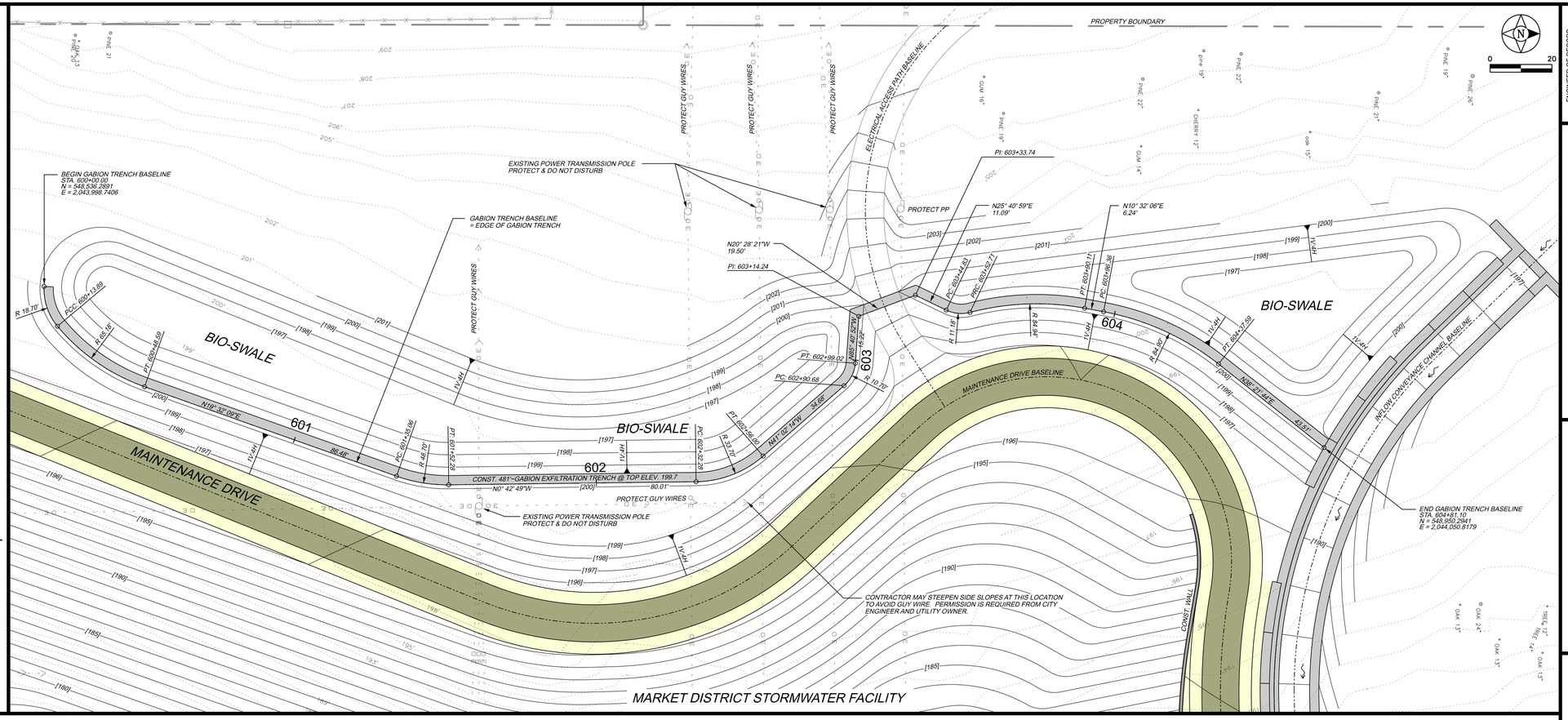
SHEET 13

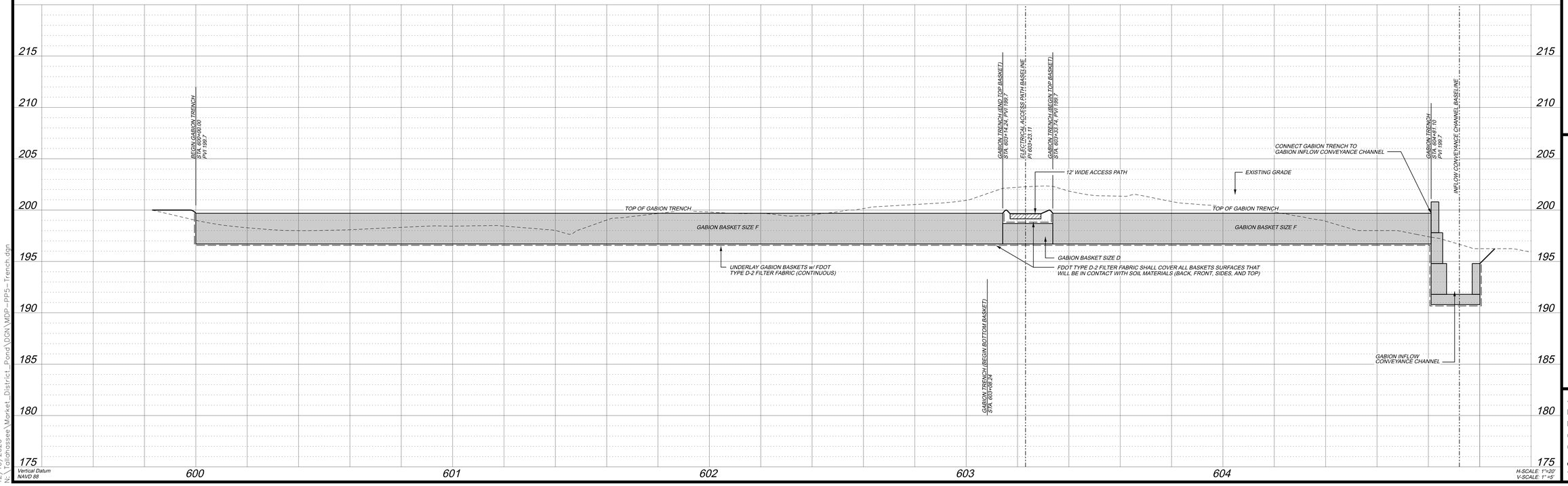
12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-PP6-Outfall.dgn



GABION EXFILTRATION TRENCH DETAIL

1" = 2'





ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
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3.
4.
5.

SHEET

PLAN & PROFILE GABION EXFILTRATION TRENCH

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

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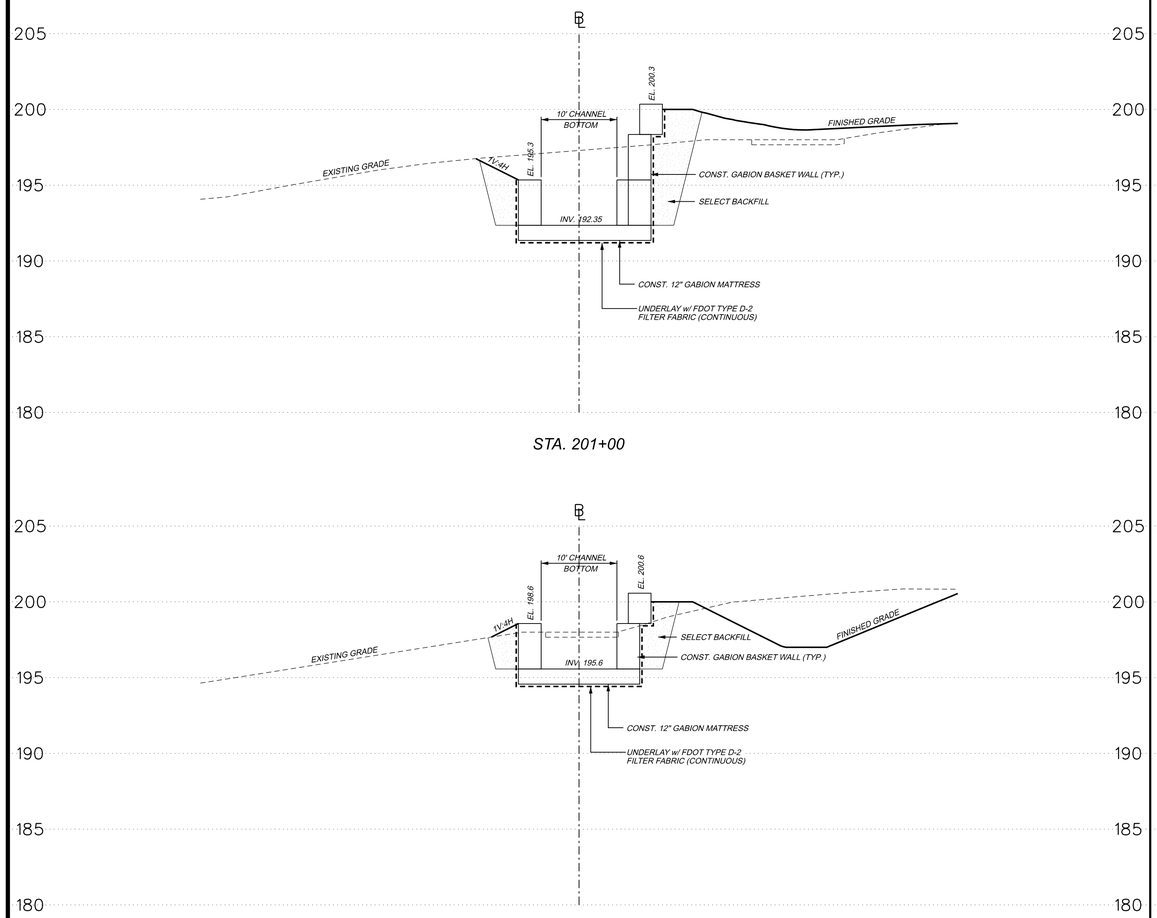
QC CLR

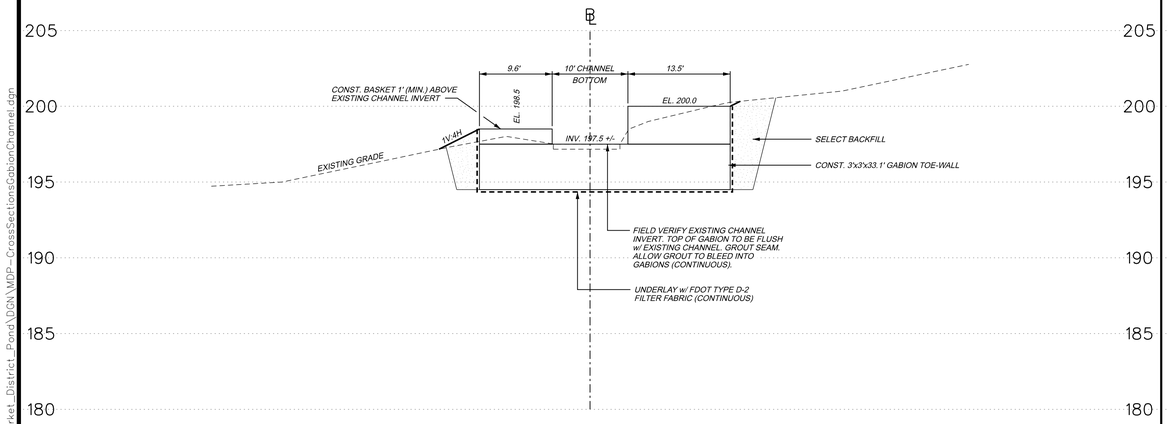
SHEET 14

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-PP5-Trench.dgn



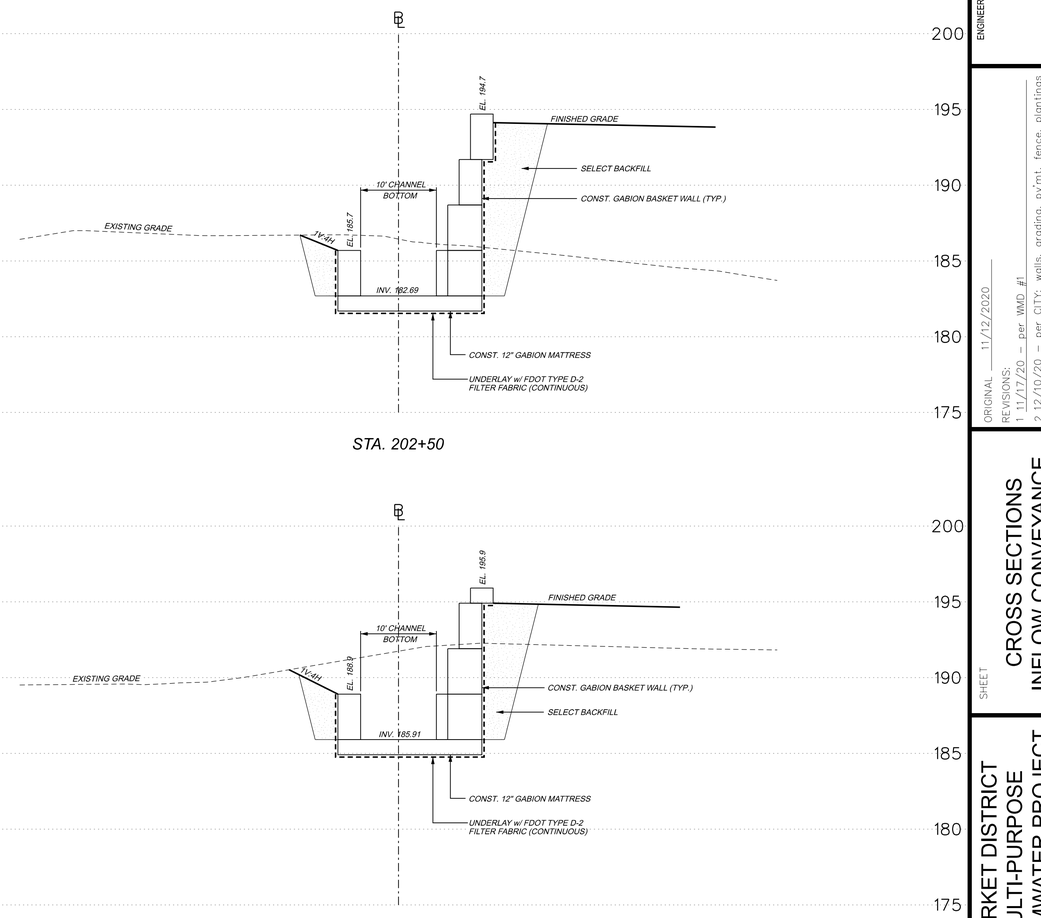
STA. 201+00

STA. 200+50



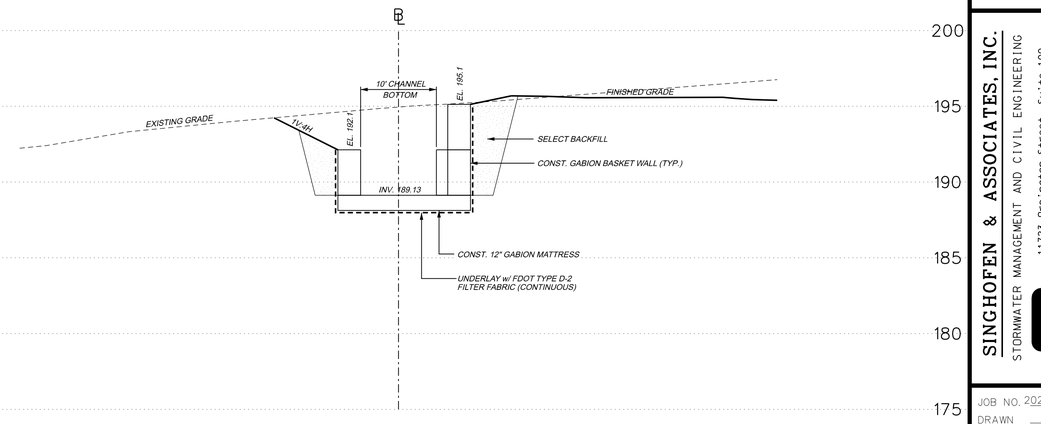
STA. 200+20

HSCALE: 1" = 10'
VSCALE: 1" = 5'



STA. 202+50

STA. 202+00



STA. 201+50

HSCALE: 1" = 10'
VSCALE: 1" = 5'

ENGINEER OF RECORD

Signature

Date

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

CROSS SECTIONS
INFLOW CONVEYANCE
CHANNEL

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
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JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 15

12/10/2020
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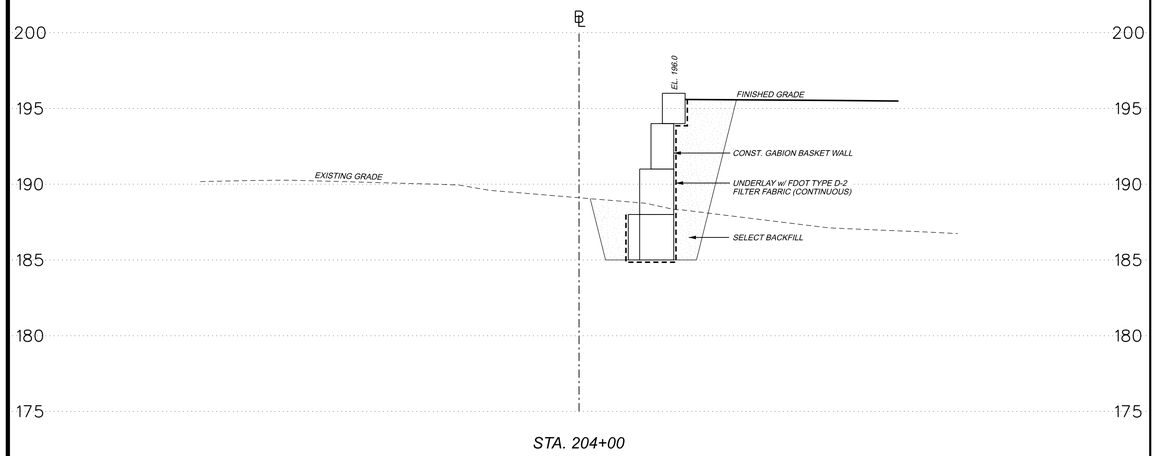

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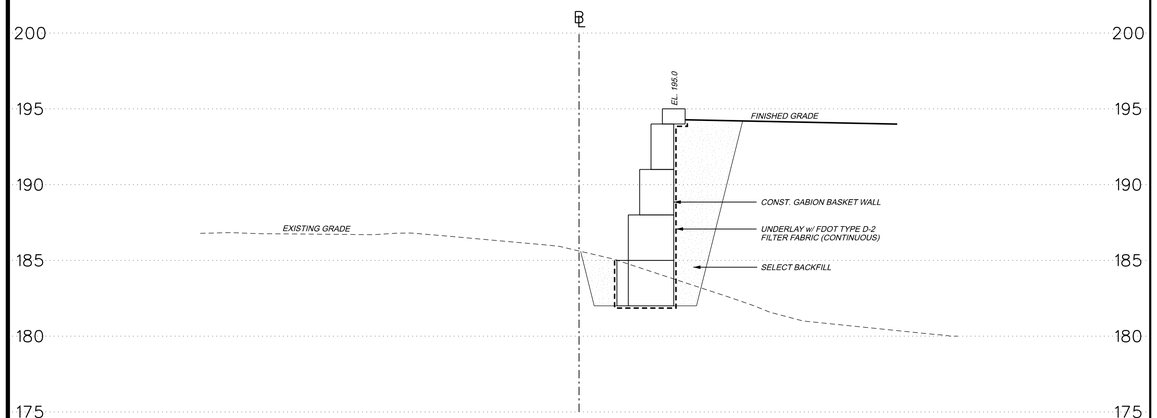

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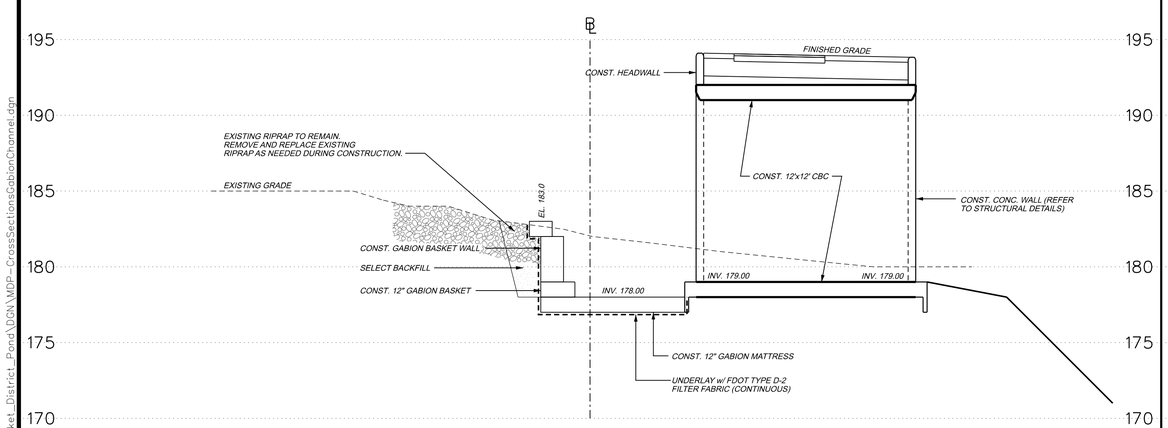
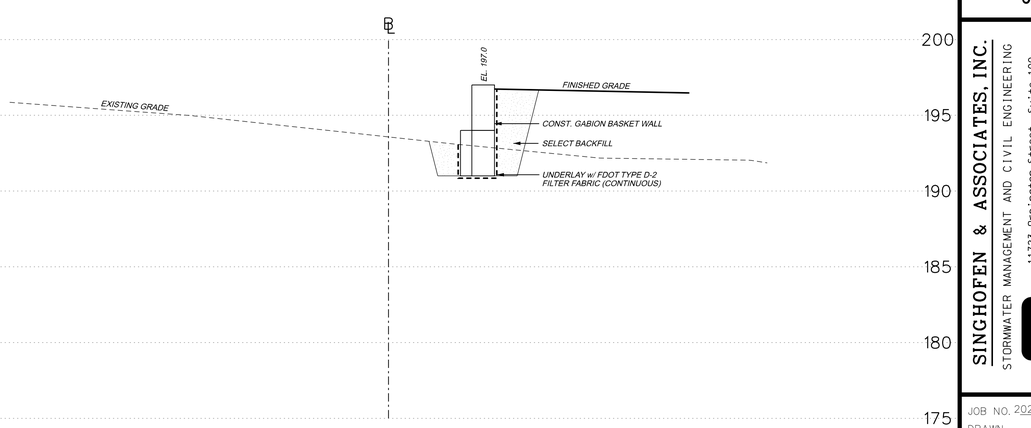


STA. 203+00

HSCALE: 1" = 10'
VSCALE: 1" = 5'



STA. 204+50

HSCALE: 1" = 10'
VSCALE: 1" = 5'

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020

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SHEET

CROSS SECTIONS INFLOW CONVEYANCE CHANNEL

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Phn: (407) 679-3001
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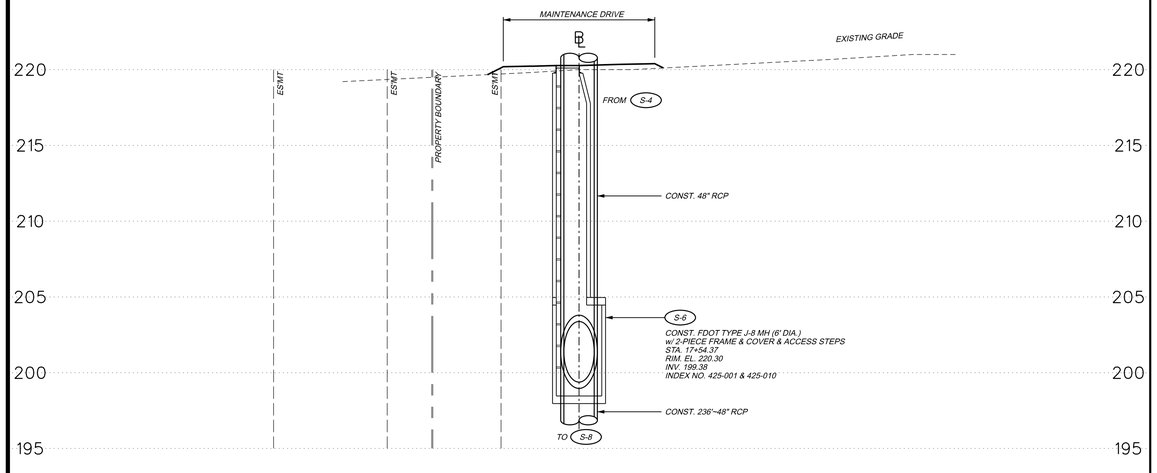
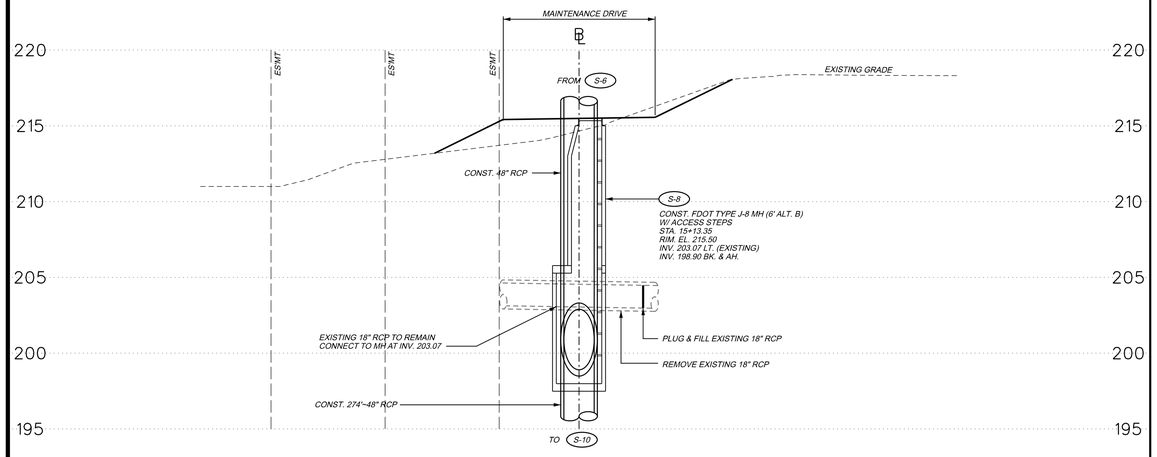
DBPR No. 5112

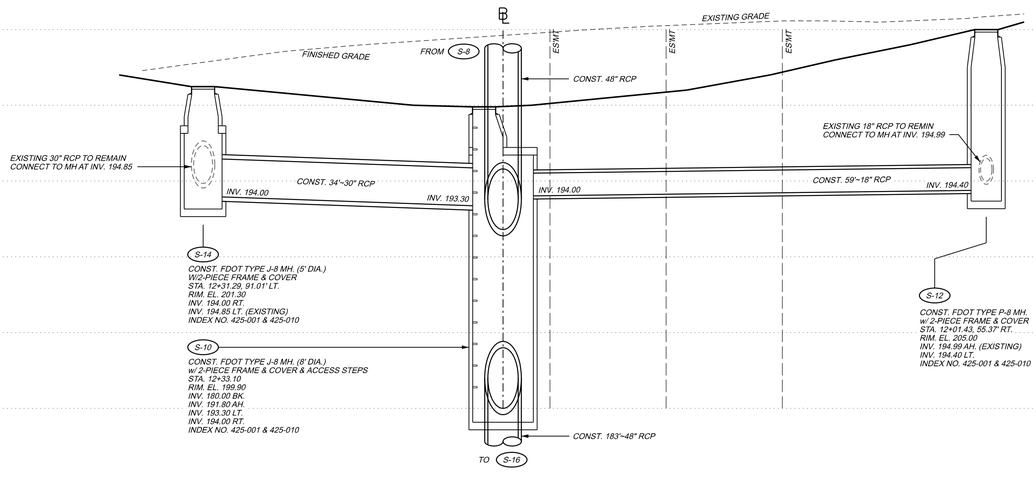
JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 16

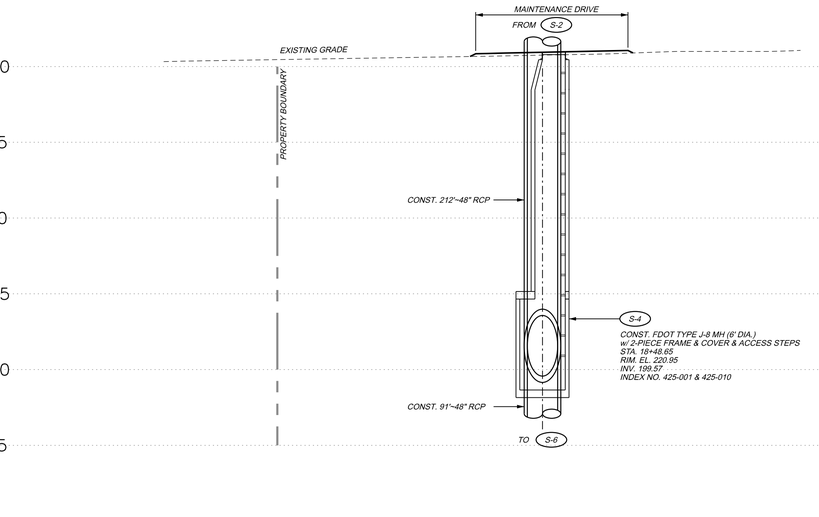
12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-CrossSectionsGabionChannel.dgn







HSCALE: 1" = 10'
VSCALE: 1" = 5'



HSCALE: 1" = 10'
VSCALE: 1" = 5'

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per MMD #1
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SHEET

DRAINAGE STRUCTURES

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

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DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 17

12/10/2020
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THE ELECTRICAL ACCESS PATH BETWEEN BAILEY ROAD AND THE WEST POND SHALL NOT BE USED AS A CONSTRUCTION HAUL ROUTE OR AS A ROUTE FOR THE MOVEMENT OF CONSTRUCTION PERSONNEL, EQUIPMENT, AND/OR MATERIALS. AN EXCEPTION MAY BE MADE BY THE ENGINEER DURING CONSTRUCTION OF THE 48" RCP BETWEEN DRAINAGE STRUCTURES S-10 AND S-2 AND CONSTRUCTION OF DRAINAGE STRUCTURES S-6 AND S-4.

EXISTING CONCRETE DITCH TO REMAIN

CONST. GABION SUMP

JURISDICTIONAL LINE

MAINTENANCE DRIVE

CONST. GABION INFLOW CONVEYANCE CHANNEL

CONST. PRECAST CBI

CONST. WALL

BIO-SWALE

MAINTENANCE DRIVE CONSTRUCTION BASELINE

ELECTRICAL ACCESS PATH

LITTORAL ZONE FROM ELEV. 178 TO 183 (TYP.)
TRANSITION TO FLATTER SIDE SLOPES.
LITTORAL PLANTING NOT IN CONTRACT.

NO PARKING OR EQUIPMENT STORAGE ALLOWED

EXISTING 30" RCP TO REMAIN

S-14 CONST. MANHOLE

S-10 CONST. MANHOLE

REMOVE EXISTING PIPE

CONST. 48" PIPE

EXISTING 18" RCP TO REMAIN

PROTECT GUY WIRE (TYP.)

S-12 CONST. MANHOLE

CONST. FDOT MES S-16

REMOVE EXISTING PIPE & STRUCTURE

REMOVE EXISTING PIPE

BOTTOM EL. 171

CONST. GABION TRENCH
REFER TO PLAN & PROFILE
GABION EXFILTRATION TRENCH

EXISTING POWER TRANSMISSION POLE
PROTECT & DO NOT DISTURB (TYP.)

1V:4H

1V:2H

REMOVE EXISTING STRUCTURE

S-20 CONST. CONTROL STRUCTURE

TAPER GRADES TO AVOID IMPACT
TO POWER POLES & GUY WIRES

PROTECT TREE

REMOVE EXISTING CONC. PVMT
EXISTING DITCH TO REMAIN
RESHAPE w/ 4' BOTTOM WIDTH &
1V:4H SIDE SLOPES
SOD ALL DISTURBED AREAS

277'~EMERGENCY OVERFLOW @ ELEV. 195.5

EXISTING 48" PIPE TO REMAIN

S-22
REMOVE EXISTING INLET TOP
CONST. FDOT TYPE C RISER w/ SLOT
GRATE ELEV. 193.50
6" SLOT @ ELEV. 192.83 FACING NORTH

EXISTING 24" RCP TO REMAIN

EXISTING 72" RCP TO REMAIN

EXISTING STRUCTURE TO REMAIN

EXISTING INLET TO REMAIN

REMOVE EXISTING CONC. PVMT
EXISTING DITCH TO REMAIN
RESHAPE w/ 4' BOTTOM WIDTH & 1V:4H SIDE SLOPES
SOD ALL DISTURBED AREAS WITHIN LIMITS OF EXISTING DAM

PROTECT CELL TOWER
& FACILITIES

REMOVE EXISTING SAND FILTERS
BACKFILL w/ NATIVE SOILS & 6" OF TOP SOIL
(PAYMENT INCLUDED IN PRICE OF EMBANKMENT)

EXISTING INLET TO REMAIN

EXISTING FENCE TO REMAIN

EXISTING PIPE TO REMAIN

CONST. 48" PIPE

S-8 CONST. MANHOLE

EXISTING FENCE TO REMAIN

EXISTING PIPE TO BE PLUGGED

EXISTING MANHOLE TO REMAIN

EXISTING POWER TRANSMISSION POLE
PROTECT & DO NOT DISTURB (TYP.)

ELECTRICAL SUBSTATION
(DO NOT ENTER OR DISTURB)

EXISTING POWER TRANSMISSION POLE
PROTECT & DO NOT DISTURB (TYP.)

PROTECT GUY WIRE (TYP.)

EXISTING OVERHEAD ELECTRIC (TYP.)

EXISTING FENCE TO REMAIN

PROTECT TREE

NO PARKING OR EQUIPMENT STORAGE ALLOWED

PAVED AREA

NOTES:
THIS SITE GRADING HAS MULTIPLE GRADE TRANSITIONS.
THE CONTRACTOR TO OBTAIN LATEST CADD FILE FROM ENGINEER FOR SITE GRADING.
THE CONTRACTOR TO REVIEW FILE FOR ERRORS, OMISSIONS, OR CLARIFICATIONS PRIOR TO STARTING WORK.
MAXIMUM SIDE SLOPES 1V:4H, UNLESS NOTED OTHERWISE.

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

STORMWATER FACILITY SITE GRADING PLAN

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Phn: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 18

12/10/2020
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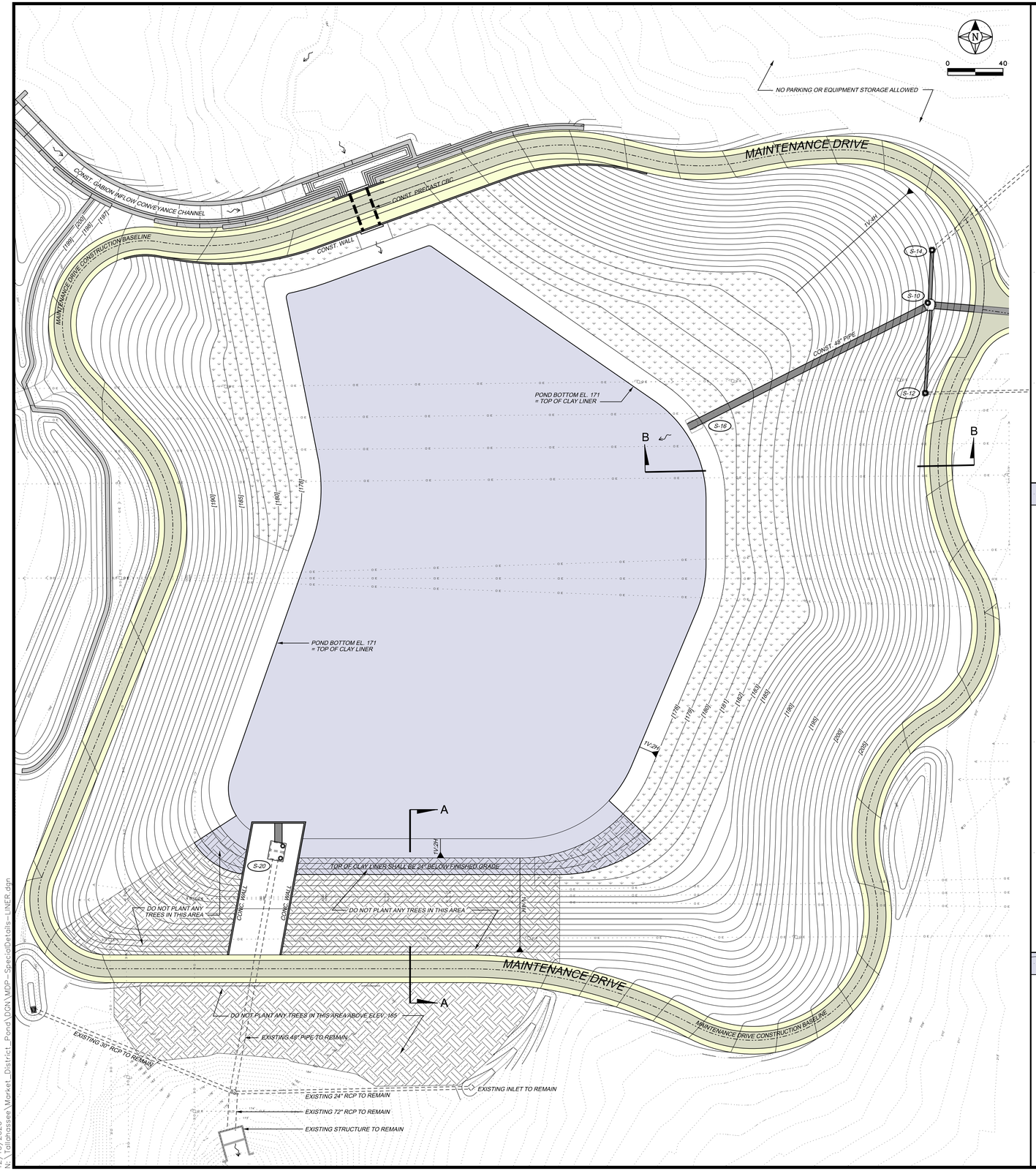
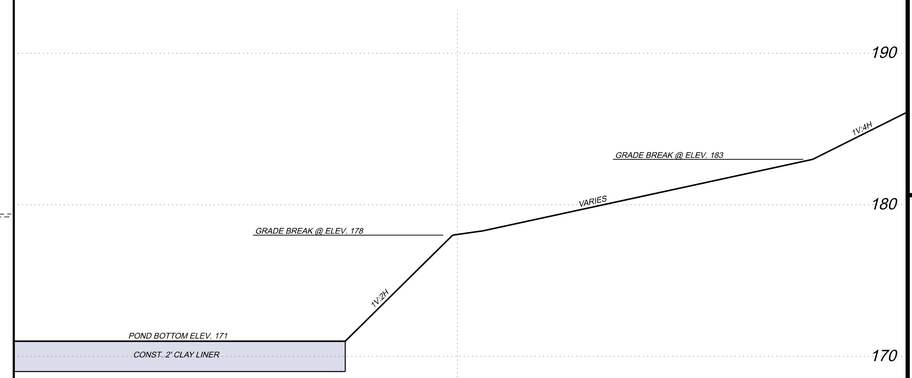


CONSTRUCTION REQUIREMENTS

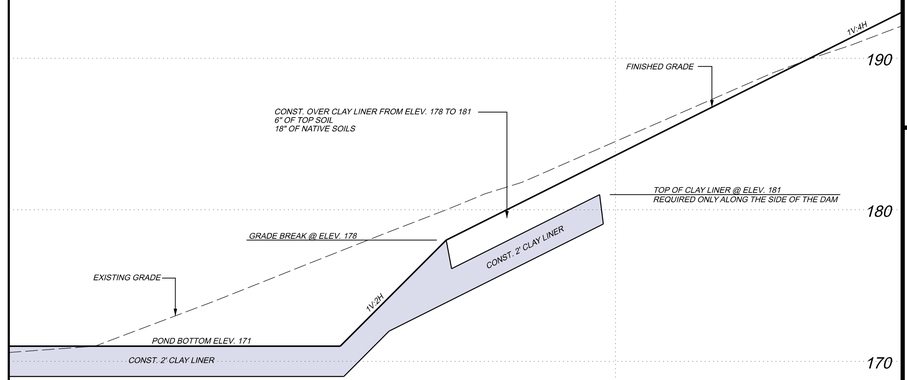
CLAY LINER CONSTRUCTION

1. OVEREXCAVATE POND BOTTOM TO CONSTRUCTION 2-FOOT CLAY LINER.
2. OVEREXCAVATE SIDE SLOPES AS SHOWN ON THE CROSS SECTION TO CONSTRUCT 2-FOOT CLAY LINER WITH 18-INCH NATIVE SOILS AND 6-INCH TOPSOIL.
3. AFTER EXCAVATION, THE EXCAVATED SURFACE (BOTTOM OF CLAY LINER) SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE SOIL'S MODIFIED PROCTOR DRY DENSITY FOR A DEPTH OF AT LEAST 12 INCHES BELOW THE EXCAVATION SURFACE.
4. THE SOILS USED AS BACKFILL FOR THE CLAY LINER SHALL BE **PLASTIC CLAYEY FINE SAND (SC / A-2-7), CLAYEY SAND (SC / A-7-6), OR A SANDY CLAY (CL / A-7-6)** WITH A PLASTICITY INDEX (PI) GREATER THAN 10 AND LIQUID LIMIT GREATER THAN 30.
5. THE FILL SOILS SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 98% OF THE SOIL'S STANDARD PROCTOR DRY DENSITY USING LIFTS NOT TO EXCEED NINE (9) INCHES OF LOOSE SOIL.



SECTION B-B

HSCALE: 1" = 10'
VSCALE: 1" = 5'



SECTION A-A

HSCALE: 1" = 10'
VSCALE: 1" = 5'

ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

SPECIAL DETAILS STORMWATER FACILITY CLAY LINER

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
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Fax: (407) 679-2691
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 19

12/10/2020
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THE FOLLOWING NARRATIVE IS THE STORMWATER POLLUTION PREVENTION PLAN AND CONTAINS REFERENCES TO THE **FDOT STANDARD SPECIFICATIONS**, **STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL**, AND OTHER SHEETS OF THESE CONSTRUCTION DOCUMENTS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (CALLED THE COVER 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
* REPORTS OF INSPECTION MADE DURING CONSTRUCTION.

1. SITE DESCRIPTION

1.A NATURE OF CONSTRUCTION ACTIVITY

THE SUBJECT SITE IS LOCATED IN SECTION 19, TOWNSHIP 1 NORTH, RANGE 1 EAST WITHIN LEON COUNTY, FLORIDA. THE PROJECT INCLUDES CHANNEL IMPROVEMENTS, SLOPE GRADING, AND THE INSTALLATION OF CONCRETE BOX CULVERT ALONG A 1,550 LINEAR FOOT SEGMENT OF THE MCCORD POND DRAINAGE DITCH.

1.B SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES

* SITE PREPARATION
  A) INSTALL TEMPORARY BARRICADE FENCE AS DIRECTED BY THE ENGINEER.
  B) INSTALL MATERIALS FOR PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION (INCLUDES SEDIMENT BARRIERS AND SEDIMENT BASIN(S)).

* TEMPORARY SEDIMENT BASIN(S)
  A) CONSTRUCT SEDIMENT BASIN(S) AT LOCATION(S) DETERMINED BY THE CONTRACTOR.
  B) REMOVAL AND DISPOSAL OF SEDIMENT CAPTURED BY THE SEDIMENT BASIN(S). SHALL BE PERFORMED PERIODICALLY OR AS DIRECTED BY THE ENGINEER TO PREVENT SEDIMENT FROM BEING TRANSPORTED DOWNSTREAM.
  C) REMOVAL OF THE SEDIMENT BASIN(S) IS THE LAST PHASE OF CONSTRUCTION.

* PROGRESSION OF WORK
  A) EACH WORK AREA SHALL BE ISOLATED AND COMPLETED PRIOR TO PROCEEDING TO THE NEXT WORK AREA.

* FINAL SITE WORK:
  A) CLEAN ALL WORK AREAS.
  B) SOD ALL AREAS NOT PREVIOUSLY SODDED.
  C) REMOVE SEDIMENT CAPTURED BY SEDIMENT BARRIERS AND SEDIMENT BASIN(S).
  D) REMOVE SEDIMENT BARRIERS AND SEDIMENT BASIN(S).
  E) REMOVE MATERIALS FOR PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION.

1.C AREA ESTIMATES

ALL ESTIMATES ARE BASED ON AREAS LIKELY TO BE IMPACTED BY CONSTRUCTION ACTIVITY. THE TOTAL ESTIMATED IMPACTS COVER 1.6 ACRES.

1.D STORMWATER DATA

THIS IS A STORMWATER RETROFIT PROJECT. NO CHANGES TO THE EXISTING DRAINAGE ARE PROPOSED.

1.E SITE MAP

THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAP. 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.

1.F RECEIVING WATERS/WETLAND AREAS

THE EXISTING AND DESIGN POND WITHIN THE PROJECT AREA FLOWS SOUTH FROM MARKET DISTRICT TOWARDS BETTON ROAD TOWARDS TIMBERLAND ROAD AND EVENTUALLY TO LAKE JACKSON. THE OUTFALL FOR THE POND (EXISTING AND DESIGN) OCCURS AT LATITUDE 30° 30' 26" N, LONGITUDE 84° 15' 35" W.

2. CONTROLS

2.A EROSION AND SEDIMENT CONTROLS

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION AS WELL AS THE TRANSPORT OF ERODED MATERIALS OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ANY AND ALL SEDIMENT CONTROL DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACT DRAWINGS ONLY INDICATE EROSION, SEDIMENT, AND TURBIDITY CONTROLS AT LOCATIONS DETERMINED IN THE DESIGN PROCESS AND USED FOR ESTIMATING BID QUANTITIES AND IS PROVIDED FOR GUIDANCE IN PREPARATION OF A SEQUENCE OF CONSTRUCTION/EROSION CONTROL PLAN. THE LOCATIONS AND TYPES OF ENVIRONMENTAL CONTROL FEATURES SHOWN MAY NOT ADEQUATELY PREVENT EROSION OR THE TRANSPORTATION OF ERODED MATERIAL OFF-SITE DURING EACH PHASE OF CONSTRUCTION. SUPPLEMENTARY SEDIMENT AND EROSION CONTROL DEVICES MAY BE REQUIRED TO ACCOMMODATE THE CONTRACTOR'S PHASING OF CONSTRUCTION ACTIVITIES.

PRIOR TO THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A DETAILED EROSION CONTROL PLAN WHICH WILL BE CONSIDERED THE FIRST FORMAL UPDATE OF THE SWPPP, TO SPECIFICALLY ADDRESS THE CONTRACTOR'S MEANS, METHODS, AND PHASING OF CONSTRUCTION ACTIVITIES. THE EROSION CONTROL PLAN WILL PROVIDE THE NAME AND PHONE NUMBER OF THE CONTRACTOR'S REPRESENTATIVE RESPONSIBLE ON A 24-HOUR BASIS FOR EROSION AND SEDIMENT CONTROL INSTALLATION AND MAINTENANCE. THE CONTRACTOR IS REQUIRED TO UPDATE THE SWPPP AS REQUIRED TO REFLECT ANY ADDITIONAL CONTROLS NECESSARY TO PREVENT THE POSSIBILITY OF SILTING ANY ADJACENT LOWLAND PARCEL OR RECEIVING WATER, OR OTHERWISE VIOLATING ANY LOCAL, STATE, OR FEDERAL PERMIT REQUIREMENTS.

2.A.1 STABILIZATION PRACTICES

A. THE CONTRACTOR WILL FURNISH, INSTALL, MAINTAIN, AND, WHEN APPROPRIATE, REMOVE ALL NECESSARY EROSION AND SEDIMENT CONTROLS.
B. EROSION AND SEDIMENT CONTROLS WILL BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL DEVICES WILL BE EMPLOYED AS A PERIMETER OF DEFENSE AGAINST ANY TRANSPORT OF SILT OFF SITE.
C. THE AMOUNT OF AREA DISTURBED AT ONE TIME WILL BE LIMITED TO THE MINIMUM NECESSARY TO ADEQUATELY IMPLEMENT THE WORK. CONSTRUCTION OPERATIONS WILL BE CONTROLLED TO MINIMIZE UNPROTECTED ERODIBLE AREAS EXPOSED TO WEATHER, AND AREAS OUTSIDE THE LIMITS OF CONSTRUCTION WILL NOT BE DISTURBED.
D. EXCAVATED MATERIAL WILL NOT BE DEPOSITED IN LOCATIONS WHERE IT COULD BE WASHED AWAY BY HIGH WATER OR STORMWATER RUNOFF, AND STOCKPILES WILL BE COVERED OR ENCIRCLED WITH SEDIMENT CONTAINMENT DEVICES. NEW AND EXISTING STRUCTURES WILL BE PROTECTED FROM SILTATION DURING CONSTRUCTION.
E. STABILIZATION MEASURES WILL BE INITIATED FOR EROSION AND SEDIMENTATION CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THE PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
F. PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREAS WILL BE COMPLETED IMMEDIATELY AFTER FINAL GRADING. WHEN IT IS NOT POSSIBLE TO PERMANENTLY PROTECT A DISTURBED AREA IMMEDIATELY AFTER GRADING OPERATIONS, TEMPORARY EROSION CONTROL MEASURES WILL BE INSTALLED. ALL TEMPORARY PROTECTION WILL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.

2.A.2 STRUCTURAL PRACTICES

SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE CONTRACTOR WILL MAINTAIN EXISTING FLOW CAPACITY DURING HEAVY STORM EVENTS. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

* SEDIMENT BARRIERS AND SEDIMENT BASIN(S).
* INLET PROTECTION IN ACCORDANCE WITH STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL.

2.B STORMWATER MANAGEMENT

REFER TO CONSTRUCTION PLANS FOR CONVEYANCE OF STORMWATER RUNOFF.

2.C OTHER CONTROLS

2.C.1 WASTE DISPOSAL

TO BE DEVELOPED AS PART OF THE CONTRACTOR'S EROSION CONTROL PLAN.

2.C.2 OFF-SITE VEHICLE TRACKING AND DUST CONTROL

TO BE DEVELOPED AS PART OF THE CONTRACTOR'S EROSION CONTROL PLAN. ALL PAVED AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE SWEPT AND KEPT CLEAN DAILY.

2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANKS

TO BE DEVELOPED AS PART OF THE CONTRACTOR'S EROSION CONTROL PLAN.

2.C.4 FERTILIZERS AND PESTICIDES

TO BE DEVELOPED AS PART OF THE CONTRACTOR'S EROSION CONTROL PLAN.

2.C.5 NON STORMWATER DISCHARGES AND HAZARDOUS WASTE

IF THE CONTRACTOR ENCOUNTERS A SPILL, CONSTRUCTION WILL STOP AND WORK WILL NOT RESUME UNTIL DIRECTED BY THE ENGINEER. DISPOSITION OF HAZARDOUS WASTE WILL BE MADE IN ACCORDANCE WITH THE REQUIREMENTS AND REGULATIONS OF ANY LOCAL, STATE, OR FEDERAL AGENCY WITH JURISDICTION.

3.0 CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

REFER TO PERMITS.

4.0 INSPECTION AND MAINTENANCE PROCEDURES

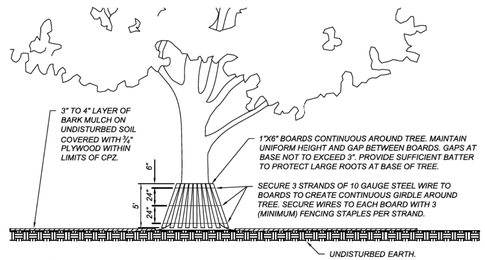
4.A ALL EROSION AND SEDIMENT CONTROLS WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND AFTER EACH RAINFALL EVENT OF ONE INCH OR GREATER.
4.B EROSION AND SEDIMENT CONTROLS IN ACTIVE WORK ZONES WILL BE INSPECTED AT THE END OF EACH WORKDAY TO ASSURE THAT THEY HAVE NOT BEEN DISTURBED BY CONSTRUCTION ACTIVITIES.
4.C ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF IDENTIFYING THE NEED FOR REPAIR.
4.D SYNTHETIC HAY OR STRAW BALE BARRIERS WILL BE INSPECTED TO IDENTIFY DAMAGED BALES AND EROSION UNDER OR AROUND THE BALES. SEDIMENT WILL BE REMOVED AFTER EACH RAINFALL AND WILL NOT EXCEED A DEPTH OF ONE-HALF THE HEIGHT OF THE BARRIER.
4.E SILT FENCE WILL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL FOR DEPTH OF SEDIMENT, TEARS, AND ATTACHMENT TO POSTS, AND TO SEE THAT THE POSTS ARE FIRMLY EMBEDDED. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
4.F SEDIMENT BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT. BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REDUCES STORAGE VOLUME OF THE BASIN BY 10 PERCENT.
4.G THE CONTRACTOR WILL USE A MAINTENANCE INSPECTION REPORT FORM ACCEPTABLE TO THE ENGINEER TO REPORT ALL INSPECTION FINDINGS AND CORRECTIVE ACTIONS TAKEN AS A RESULT OF THE INSPECTION. THE CONTRACTOR WILL SIGN EACH REPORT AND SUBMIT A COPY TO THE ENGINEER.
4.H THE CONTRACTOR IS REQUIRED TO SWEEP THE STREETS WITHIN EACH ACTIVE WORK ZONE AT THE END OF EACH WORK DAY AND AFTER RAINFALL EVENTS.

5.0 NON-STORMWATER DISCHARGES

THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED TO OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

A. UNCONTAMINATED GROUNDWATER FROM DEWATERING OPERATIONS.

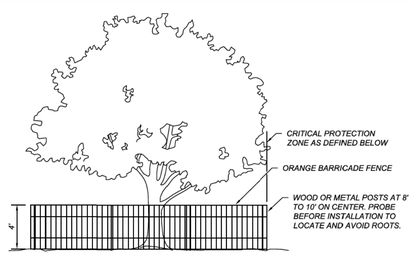
ALL NON-STORMWATER DISCHARGES WILL BE DIRECTED TO SEDIMENT BASINS PRIOR TO DISCHARGE.



NOTE:

TRUNK PROTECTION SHALL BE PROVIDED WHEN CONSTRUCTION ACTIVITIES ARE REQUIRED WITHIN THE CRITICAL PROTECTION ZONE (CPZ) OF AN EXISTING TREE THAT IS TO REMAIN. THE CPZ IS THE AREA SURROUNDING A TREE WITHIN A CIRCLE DESCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT.

TRUNK PROTECTION
N.T.S.



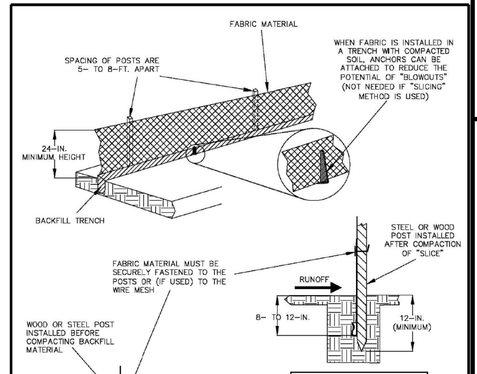
NOTE:

TREE PROTECTION BARRICADES ARE TO PREVENT DISTURBANCE WITHIN THE CRITICAL PROTECTION ZONE (CPZ) OF EXISTING TREES THAT ARE TO REMAIN. THE CPZ IS THE AREA SURROUNDING A TREE WITHIN A CIRCLE DESCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT. THE AREA WITHIN THE BARRICADE IS NOT TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT.

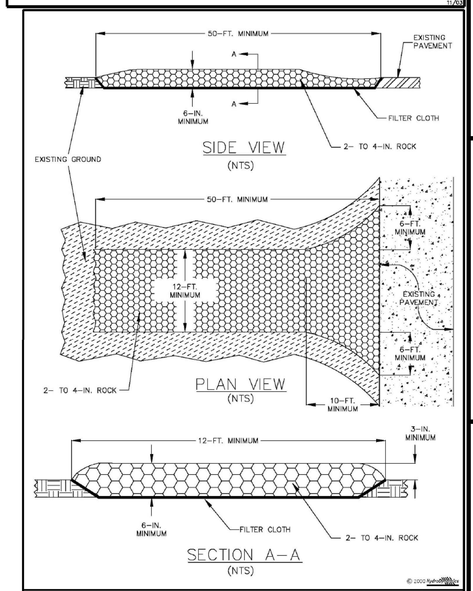
TREE PROTECTION BARRICADE
N.T.S.

CITY OF TALLAHASSEE
STORMWATER MANAGEMENT
300 South Adams Street, B-35, Tallahassee, Florida 32301

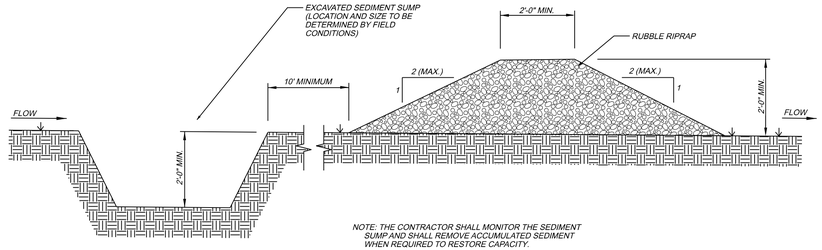
TREE PROTECTION



SILT FENCE BARRIER INSTALLATION



SOIL TRACKING PREVENTION DEVICE



NOTE: THE CONTRACTOR SHALL MONITOR THE SEDIMENT SUMP AND SHALL REMOVE ACCUMULATED SEDIMENT WHEN REQUIRED TO RESTORE CAPACITY.

SEDIMENT BASIN
NTS

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per MMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET
STORMWATER POLLUTION PREVENTION & TREE PROTECTION NOTES & DETAILS

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
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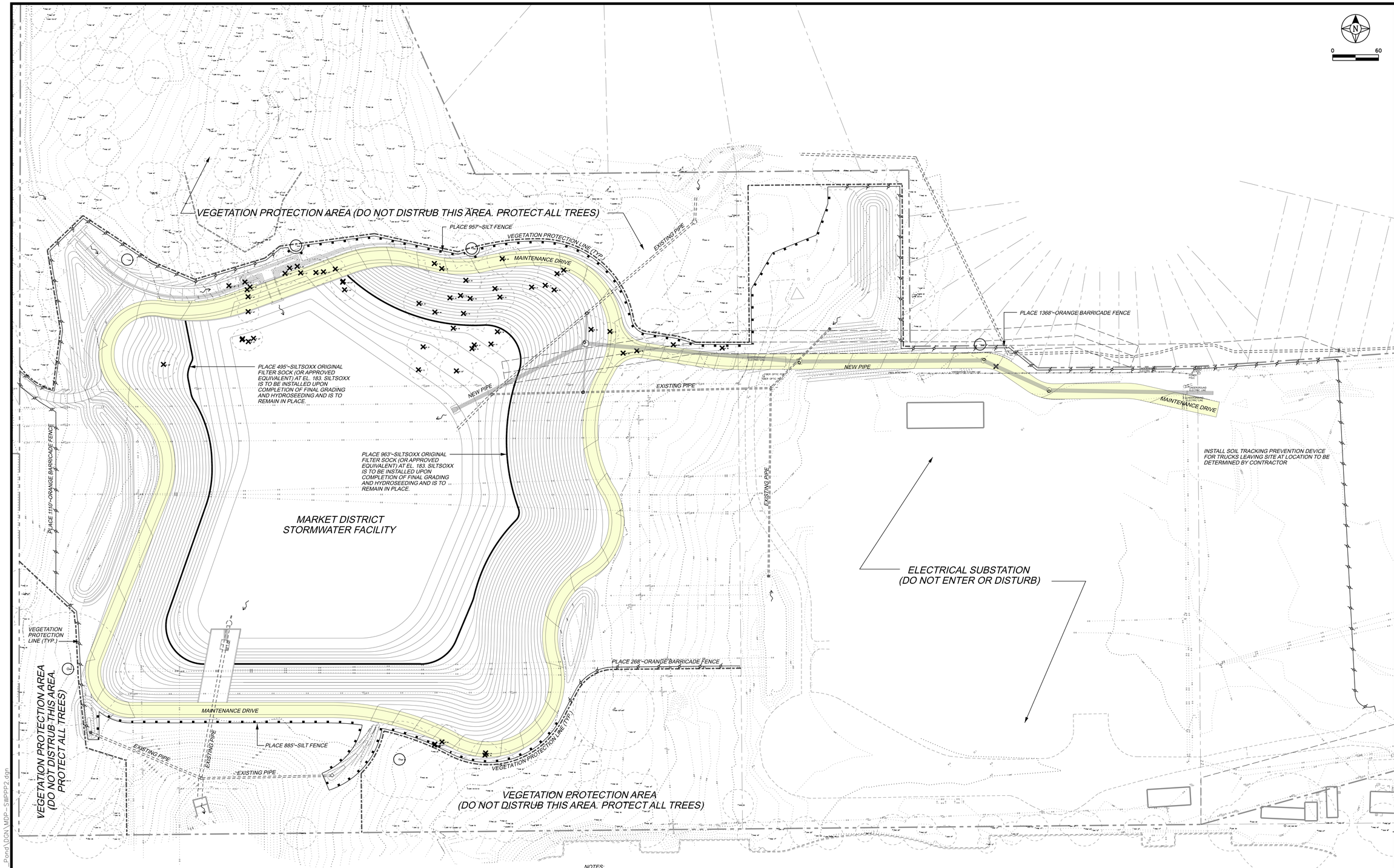
Ph: (407) 679-3001
Fax: (407) 679-2631
DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 20

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-SWPPP1.dgn



THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AN EROSION CONTROL PLAN BASED ON THEIR PROPOSED MEANS AND METHODS. THE ITEMS SHOWN ON THIS SHEET ARE INTENDED TO PROVIDE A GENERIC PLAN FOR CONTROLLING SEDIMENT ON THE WORK SITE.

NOTES:

1. USE CARE WHEN REMOVING TREES NEAR EXISTING TRANSMISSION LINES, POLES, AND GUY WIRES TO PREVENT DAMAGE AND COMPLY WITH ALL SAFETY REQUIREMENTS. A REPRESENTATIVE FROM THE UTILITY COMPANY IS REQUIRED TO BE PRESENT DURING TREE REMOVAL OPERATIONS NEAR ELECTRICAL TRANSMISSION SYSTEMS.
2. HYDROSEED ALL DISTURBED AREAS ABOVE EL. 181, UNLESS NOTED OTHERWISE.
3. HYDROSEED (WILDFLOWER MIX) SHALL BE "MEADOW MIX" BY ERNST SEEDS, ITEM NO. ERNMX-601 OR APPROVED EQUAL.

LEGEND

- 28"LRLK — TREE SIZE, DESIGNATION, & CPZ
- TREE REMOVAL
- REQUIRES CERTIFIED ARBORIST SERVICES

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020

REVISIONS:
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SHEET STORMWATER POLLUTION PREVENTION PLAN LAYOUT & TREE PROTECTION/REMOVAL PLAN

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
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Ph: (407) 679-3001
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JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET 21

12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-SWPPP2.dgn

EXISTING CONCRETE DITCH TO REMAIN

CONST. 357'-FDOT TYPE A FENCE (4' HIGH, WOOD POST, NO BARB WIRE)

CONST. GABION SUMP

CONST. GABION INFLOW CONVEYANCE CHANNEL

CONST. PRECAST CBC

CONST. WALL

CONST. 391'-FDOT TYPE A FENCE (4' HIGH, WOOD POST, NO BARB WIRE)

BIO-SWALE

MAINTENANCE DRIVE CONSTRUCTION BASELINE

MAINTENANCE DRIVE

EXISTING 30" RCP TO REMAIN

S-14

S-10

NO WATER ACCESS SIGN (TYP.)

EXISTING INLET TO REMAIN

EXISTING FENCE TO REMAIN

EXISTING PIPE TO REMAIN

CONST. 48" PIPE

REMOVE EXISTING PIPE

CONST. 48" PIPE

REMOVE EXISTING PIPE

S-8

S-16

S-12

EXISTING 18" RCP TO REMAIN

PROTECT GUY WIRE (TYP.)

EXISTING PIPE TO BE PLUGGED

EXISTING MANHOLE TO REMAIN

ELECTRICAL ACCESS PATH

BIO-SWALE

CONST. GABION TRENCH
REFER TO PLAN & PROFILE
GABION EXFILTRATION TRENCH

EXISTING POWER TRANSMISSION POLE
PROTECT & DO NOT DISTURB (TYP.)

REMOVE EXISTING PIPE & STRUCTURE

REMOVE EXISTING PIPE

EXISTING 18" RCP TO REMAIN

EXISTING FENCE TO REMAIN

ELECTRICAL SUBSTATION
(DO NOT ENTER OR DISTURB)

CONST. 226'-FDOT TYPE A FENCE (4' HIGH, WOOD POST, NO BARB WIRE)

S-20

CONST. WALL

EXISTING 48" RCP TO REMAIN

PROTECT TREE

EXISTING DITCH TO REMAIN

EXISTING INLET TO REMAIN

NO WATER ACCESS SIGN (TYP.)

MAINTENANCE DRIVE

MAINTENANCE DRIVE CONSTRUCTION BASELINE

EXISTING 30" RCP TO REMAIN

EXISTING 48" PIPE TO REMAIN

EXISTING 24" RCP TO REMAIN

EXISTING 72" RCP TO REMAIN

EXISTING STRUCTURE TO REMAIN

EXISTING DITCH TO REMAIN

EXISTING INLET TO REMAIN

BIO-SWALE

EXISTING OVERHEAD ELECTRIC (TYP.)

PROTECT TREE

EXISTING FENCE TO REMAIN

BIO-SWALE

STORMWATER TREATMENT

VIEW BEST ENJOYED BY PEOPLE AND PETS FROM A DISTANCE.

NO PETS OR PEOPLE ALLOWED IN WATER.

CITY OF TALLAHASSEE

Talgov.com/stormwater

SIGNS SHALL BE INSTALLED AND MOUNTED PER CITY STANDARDS. A MINIMUM OF 4 SIGNS ARE REQUIRED. COST INCLUDED IN THE PAY ITEM STORMWATER POLLUTION PREVENTION.

NO WATER ACCESS SIGN

0 40

ENGINEER OF RECORD

Signature Date

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

FENCING PLAN

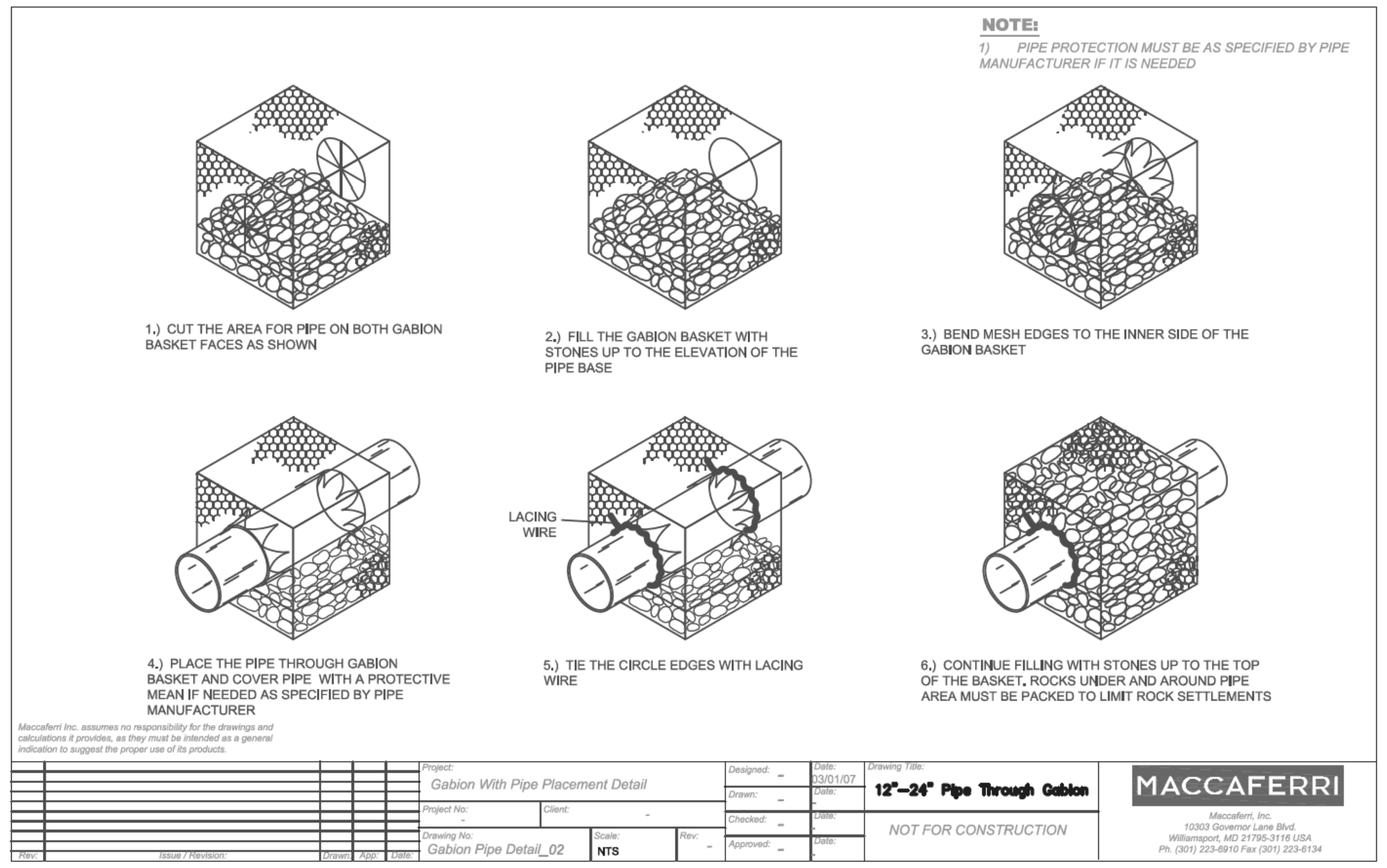
MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

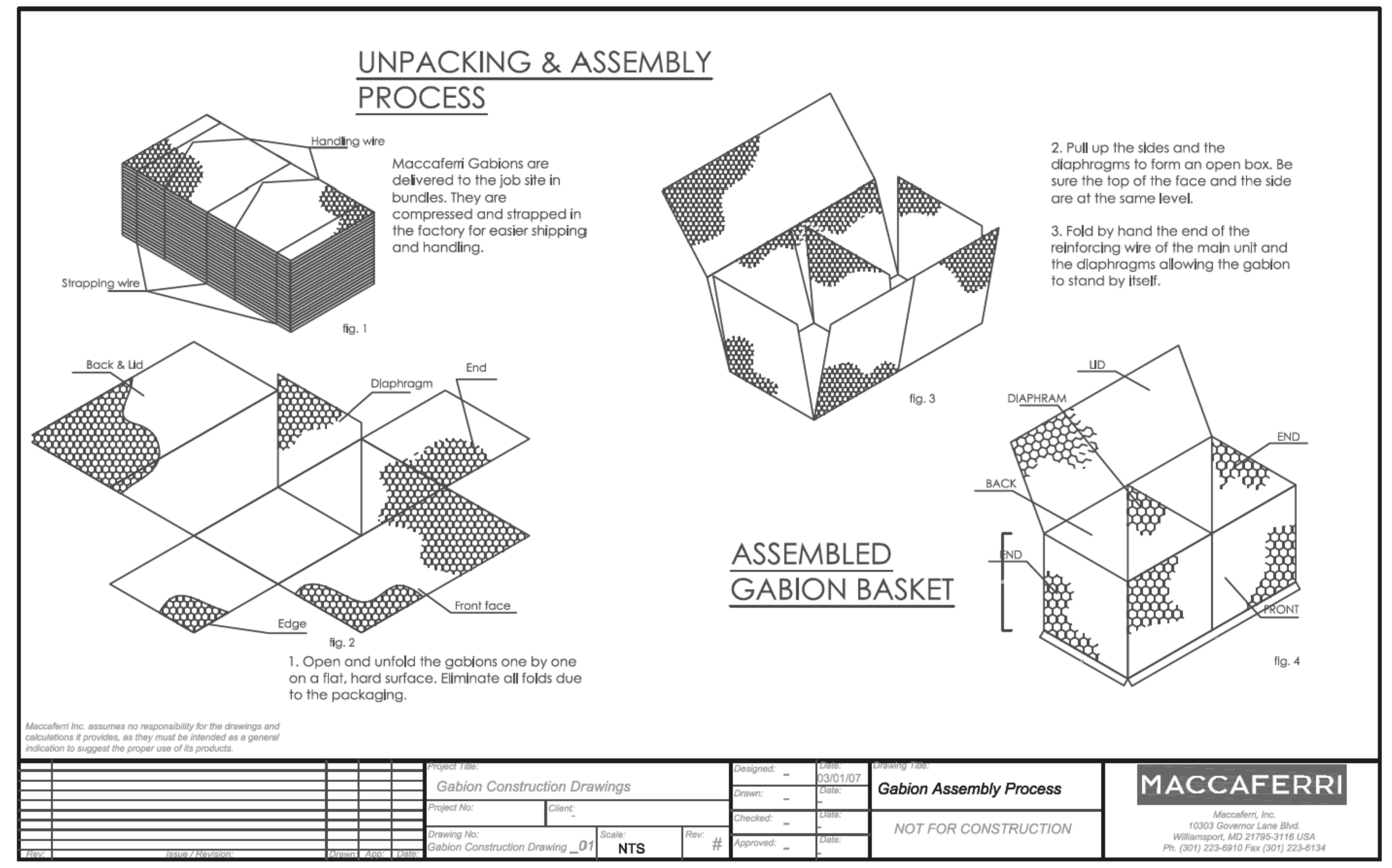
SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
Phn: (407) 679-3001
Fax: (407) 679-2691
DBPR No. 5112

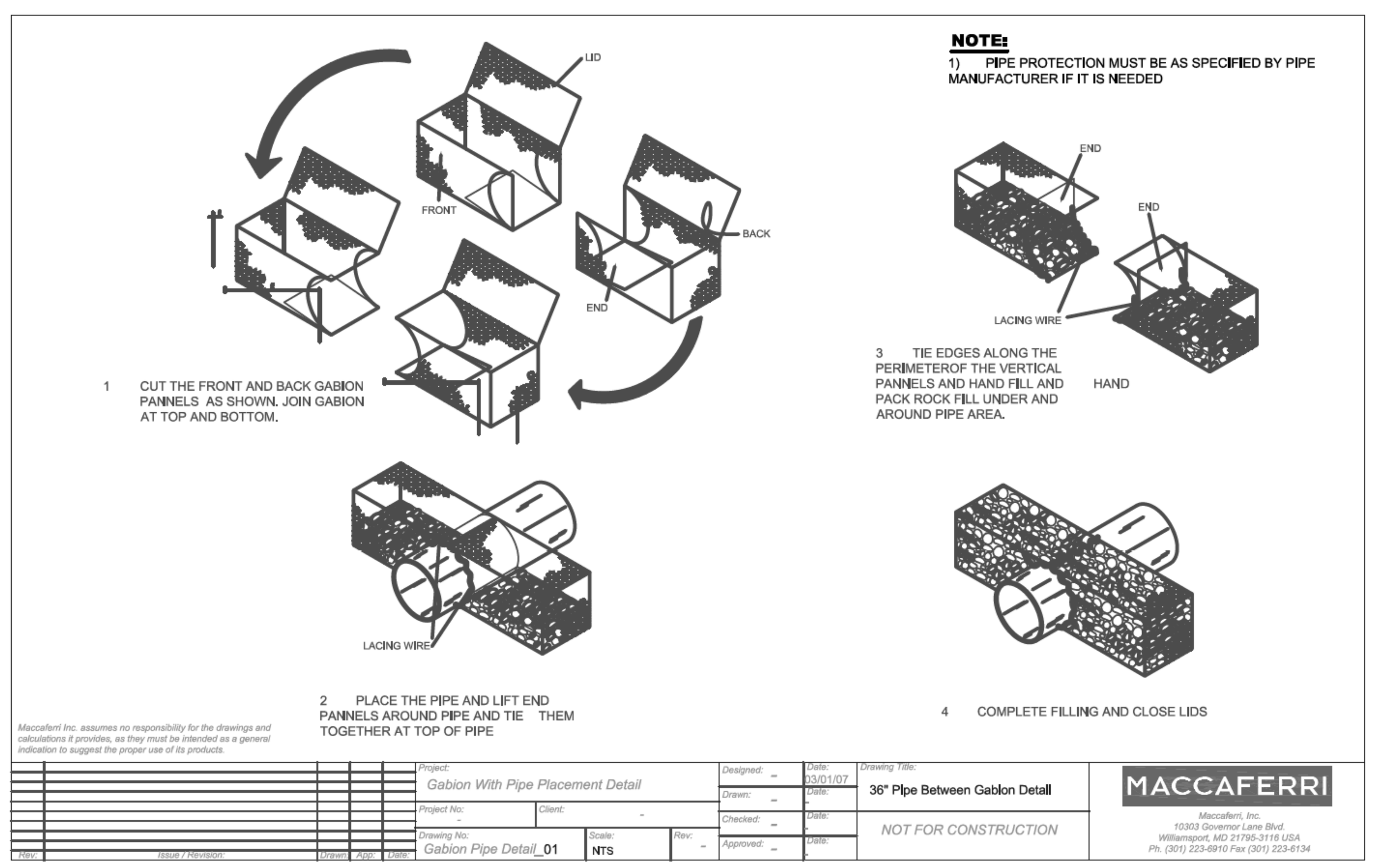
JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

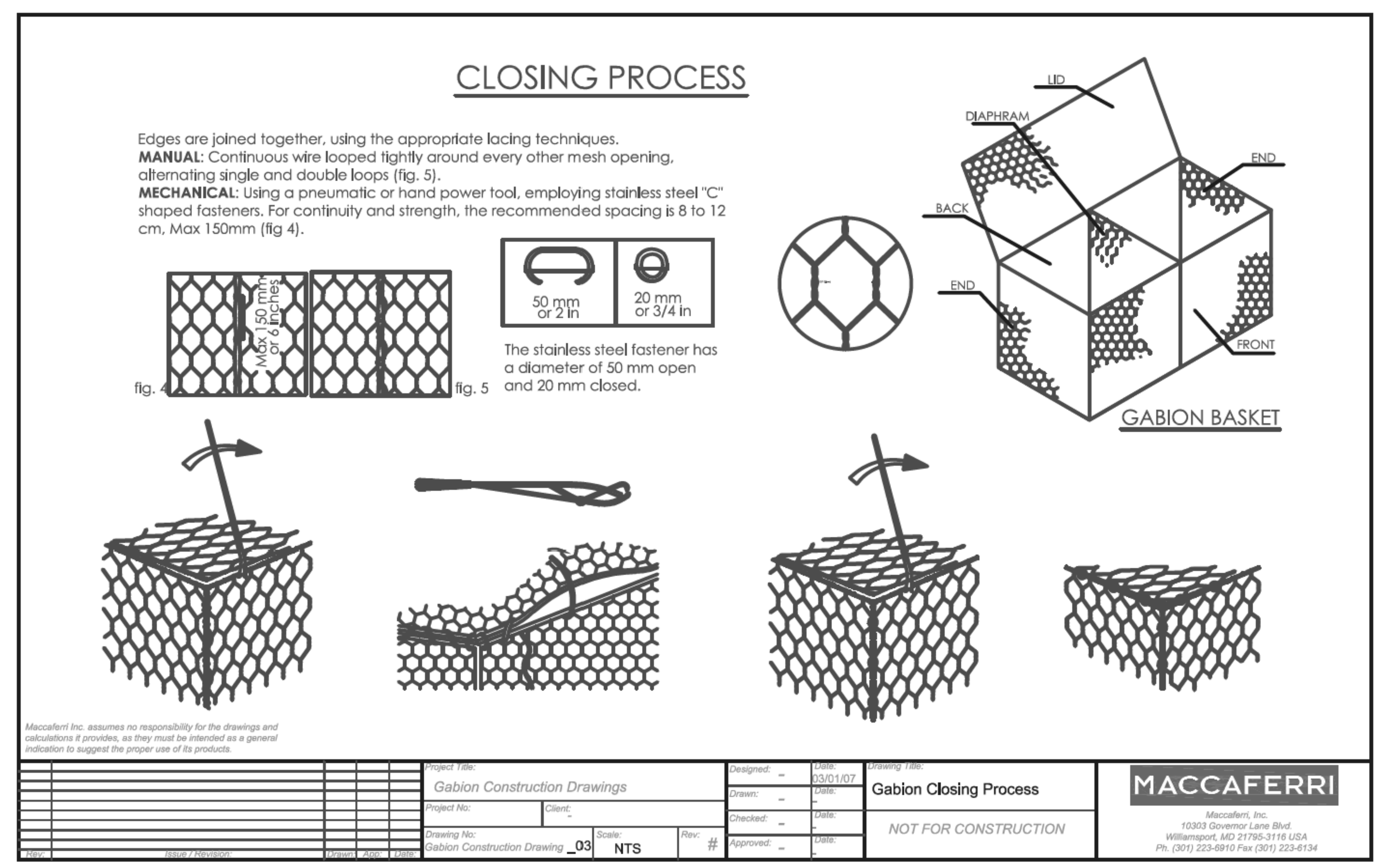
SHEET 22

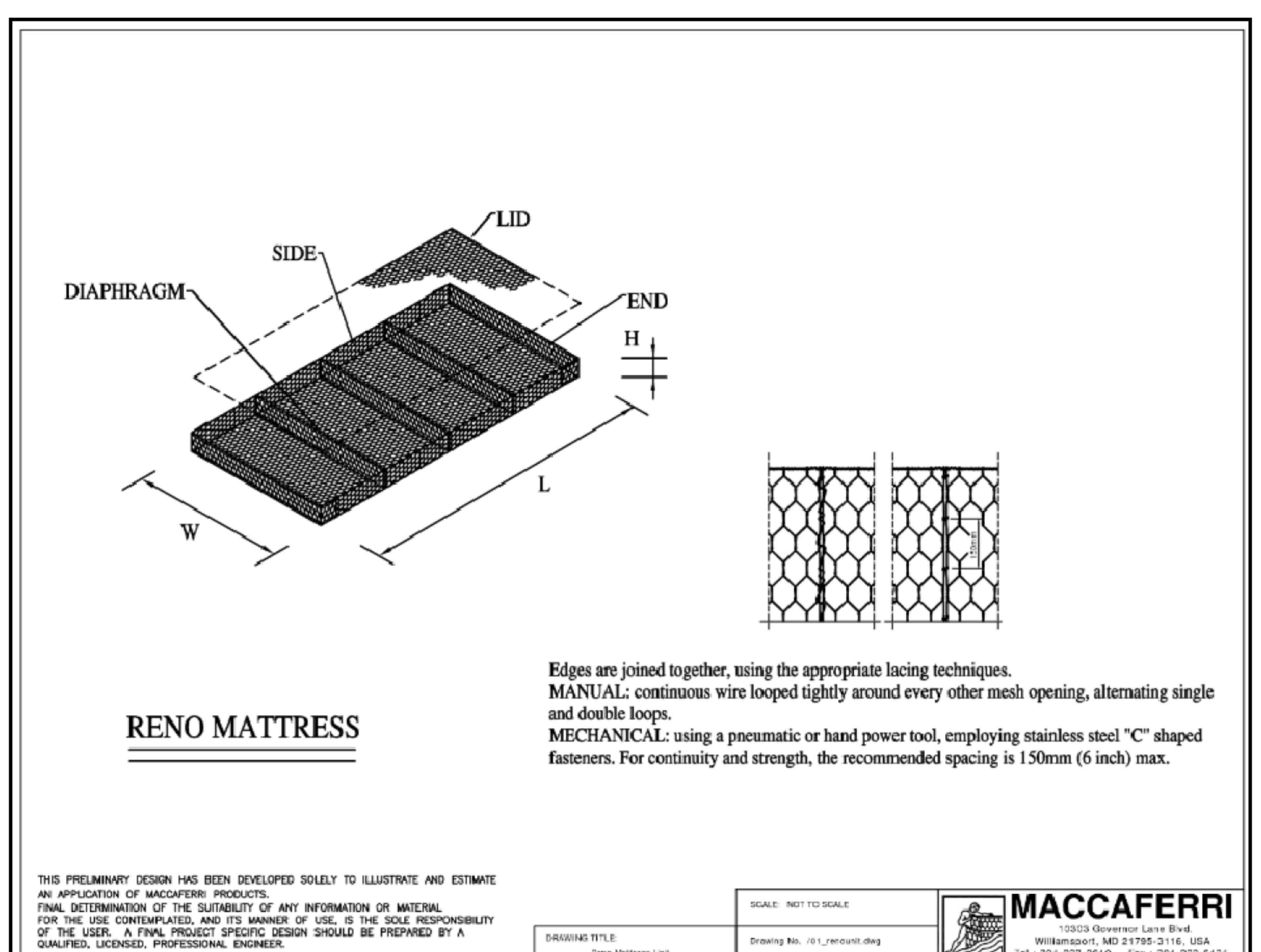
12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-BarrierPlan.dgn

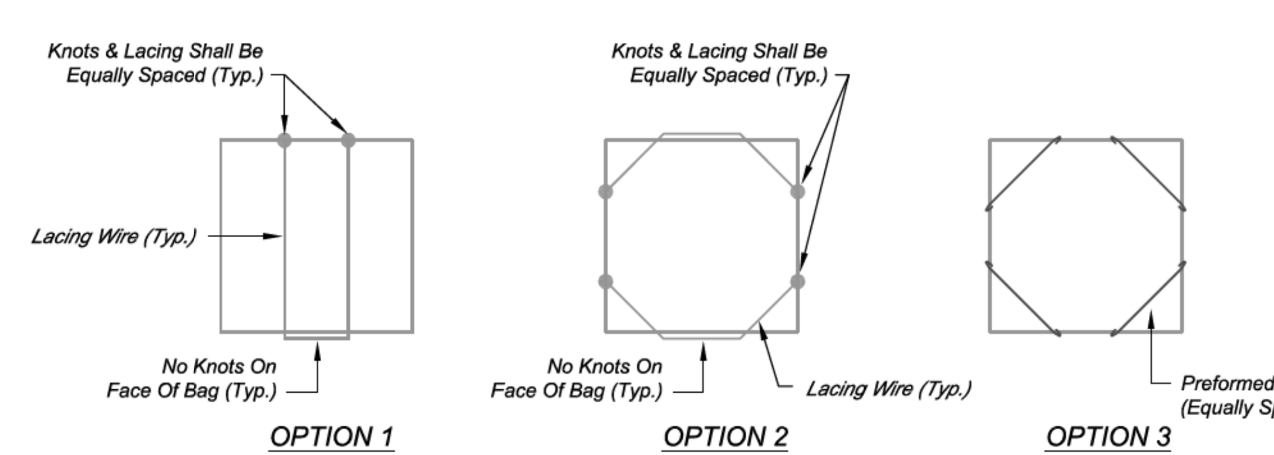




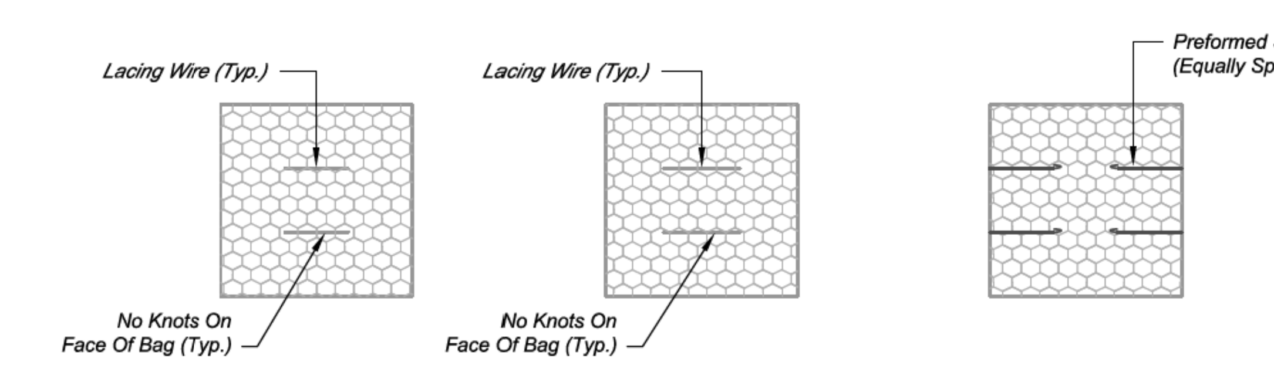








PLAN VIEW - SINGLE GABION CELL



FRONT VIEW - SINGLE GABION CELL

NOTES:

OPTION 1 AND 2:
THESE OPTIONS SHOW A SINGLE CONNECTING WIRE THAT EMBRACES 3 MESH OPENINGS OF THE FRONT PANEL. THE ENDS OF THE TIES MUST BE SECURED BY TYING THEM WITH ROLLING HITCH KNOTS TO THE MESH WIRES RATHER THAN ONTO THEMSELVES. CROSS TIES MUST BE PLACED IN 12" LIFTS AND CENTERED ON THE FRONT PANELS. TIES MUST BE CONSISTENT AND UNIFORM IN LOCATION ACROSS ADJACENT BASKETS.

OPTION 3:
THIS OPTION IS SHOWING THE USE OF PREFORMED STIFFENERS (SUCH AS MACAFERRI'S MACTIES) AS AN ALTERNATE METHOD TO THE CONNECTING WIRES. CROSS TIES MUST BE PLACED IN 12" LIFTS AND CENTERED ON THE FRONT PANELS.

INTERNAL CONNECTION - CROSS TIES

NTS

GABION CONSTRUCTION NOTES

1. GABION BASKET ASSEMBLY:
EACH BASKET UNIT SHALL BE OPENED AND UNFOLDED ON A FLAT HARD SURFACE, AND ANY SHIPPING FOLDS SHALL BE REMOVED. THE SIDES, ENDS, AND DIAPHRAGMS SHALL BE LIFTED INTO A VERTICAL POSITION TO FORM AN OPEN BOX SHAPE. THE CONTRACTOR SHALL ENSURE THAT ALL PANELS ARE IN THE CORRECT POSITION AND THE TOPS OF ALL SIDES ARE ALIGNED. THE BACK AND FRONT PANEL SHALL BE CONNECTED TO END PANELS AND CENTER DIAPHRAGMS. THE FOUR CORNERS OF THE UNIT SHALL BE CONNECTED FIRST, FOLLOWED BY CONNECTING THE INTERNAL DIAPHRAGMS TO THE OUTSIDE WALLS. ALL CONNECTIONS SHALL BE ACCOMPLISHED USING LACING WIRE OR MECHANICAL FASTENERS. THE PROCEDURE FOR USING LACING WIRE SHALL CONSIST OF CUTTING A LENGTH OF WIRE APPROXIMATELY 1.5 TIMES THE LENGTH OF THE EDGE TO BE LACED. THE MESH PANELS SHALL BE PULLED TIGHTLY TOGETHER DURING THE TYING OPERATION. FOR VERTICAL JOINTS, STARTING AT THE BOTTOM OF THE PANEL, LACING WIRE SHALL BE TWISTED AND WRAPPED TWO TIMES AROUND THE BOTTOM EDGE AND THEN LACING SHALL PROCEED WITH ALTERNATING DOUBLE AND SINGLE LOOPS THROUGH EVERY MESH OPENING. EACH LOOP SHALL BE PULLED TIGHT. THE END OF THE LACING WIRE SHALL BE SECURED TO THE WIRE MESH BY LOOPING AND/OR TWISTING THE WIRE ONTO THE MESH TO PREVENT LOOSENING. IF MECHANICAL FASTENERS ARE USED, THEY SHALL BE APPLIED USING PNEUMATIC POWER TOOLS AT INTERVALS NOT TO EXCEED 6 INCHES, WITH NO LESS THAN THREE FASTENERS PER FOOT ON ANY GIVEN VERTICAL OR HORIZONTAL SEAM. WHEN CLOSED, THE FREE ENDS OF THE FASTENER SHALL OVERLAP A MINIMUM OF 1 INCH.

2. FOUNDATION PREPARATION:
AFTER EXCAVATION TO THE LIMITS SHOWN ON PLANS, ALL REMAINING LOOSE OR OTHERWISE UNSUITABLE MATERIALS AND ANY BURIED DEBRIS PROTRUDING FROM THE SURFACE THAT MIGHT IMPEDE THE PROPER INSTALLATION AND FINAL APPEARANCE OF THE GABIONS OR GABION MATS SHALL BE REMOVED. ALL DEPRESSIONS SHALL BE CAREFULLY BACKFILLED USING SUITABLE MATERIALS AND THE SURFACE OF THE AREA SHALL BE COMPACTED. FILTER FABRIC SHALL BE PLACED ON THE PREPARED FOUNDATION IMMEDIATELY PRIOR TO PLACING THE BASKET UNITS.

3. FILTER FABRIC PLACEMENT:
FILTER FABRIC SHALL BE PLACED UNIFORMLY ON THE PREPARED FOUNDATION TO COMPLETELY COVER ALL SURFACES WHERE GABIO0N BASKETS WILL BE IN CONTACT WITH SOIL. EDGES OF THE FILTER FABRIC SHALL OVERLAP A MINIMUM OF 24 INCHES, AND FOLDS AND EXCESSIVE WRINKLES SHALL BE ELIMINATED. SUFFICIENT FILTER FABRIC SHALL BE PROVIDED FOR EXTENDING THE FABRIC ALONG THE BACK AND SIDE SURFACES OF BASKETS WHERE BACKFILL IS TO BE PLACED AND FOR COVERING THE FIRST 24 INCHES OF COMPACTED BACKFILL UNDER THE REINFORCEMENT PANELS ON MSE GABION WALLS.

4. GABION INSTALLATION:
THE INITIAL LINE OF BASKET UNITS SHALL BE PLACED ON THE FILTER FABRIC ON THE PREPARED FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. ALL ADJOINING EMPTY BASKETS MUST BE SECURELY JOINED TOGETHER ALONG THE VERTICAL AND TOP EDGES OF THEIR CONTACT SURFACES USING THE SAME CONNECTING PROCEDURE DESCRIBED FOR ASSEMBLING THE BASKET UNITS. AFTER THE ADJOINING EMPTY BASKET UNITS ARE SET TO LINE AND GRADE AND COMMON SIDES WITH ADJACENT UNITS ARE THOROUGHLY FASTENED TOGETHER, THEY MAY BE PLACED IN TENSION AND STRETCHED TO REMOVE ANY KINKS FROM THE MESH AND TO OBTAIN A UNIFORM ALIGNMENT. THE STRETCHING OF EMPTY BASKET UNITS SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO PREVENT ANY POSSIBLE UNRAVELING. ON MSE GABION WALLS, 24 INCHES OF FILTER FABRIC SHALL BE FOLDED ONTO THE COMPACTED BACKFILL BEHIND THE GABION BASKETS AND THE REINFORCEMENT PANEL ATTACHED TO THE GABION BASKETS SHALL THEN BE PLACED ON THE FILTER FABRIC AND COMPACTED BACKFILL. THE REINFORCEMENT PANELS SHALL BE ATTACHED TO EACH OTHER WITH LACING WIRE OR MECHANICAL FASTENERS AT A POINT APPROXIMATELY THREE FEET BEHIND THE BACK PANEL OF THE GABION BASKETS. EACH UPPER LAYER OF GABION BASKETS SHALL BE SECURELY JOINED TOGETHER WHEN EMPTY ALONG THE VERTICAL AND TOP EDGES OF THEIR CONTACT SURFACES AND SHALL BE CONNECTED TO THE TOP OF THE LOWER LAYER OF FILLED BASKETS ALONG THE FRONT AND BACK EDGES OF THE CONTACT SURFACE USING THE SAME CONNECTING PROCEDURES DESCRIBED FOR ASSEMBLING THE BASKET UNITS.

5. FILLING GABIONS:
THE BASKETS SHALL BE CAREFULLY FILLED BY PLACING THE STONES BY HAND OR MACHINE SO AS NOT TO DAMAGE THE WIRE COATING, TO ASSURE A MINIMUM OF VOIDS BETWEEN THE STONES, TO GIVE A NEAT, SMOOTH AND COMPACT APPEARANCE, AND TO MAINTAIN ALIGNMENT THROUGHOUT THE FILLING PROCESS. CELLS SHALL BE FILLED IN STAGES CONSISTING OF COURSES OF A MAXIMUM THICKNESS OF 12 INCHES SO THAT LOCAL DEFORMATION OR BULGING MAY BE AVOIDED. AT NO TIME SHALL ANY CELL BE FILLED TO A DEPTH EXCEEDING 12 INCHES ABOVE THE DEPTH OF AN ADJOINING CELL. BASKETS SHALL BE UNIFORMLY OVERFILLED BY 1 TO 2 INCHES TO ALLOW FOR SETTLEMENT OF THE STONE FILL.

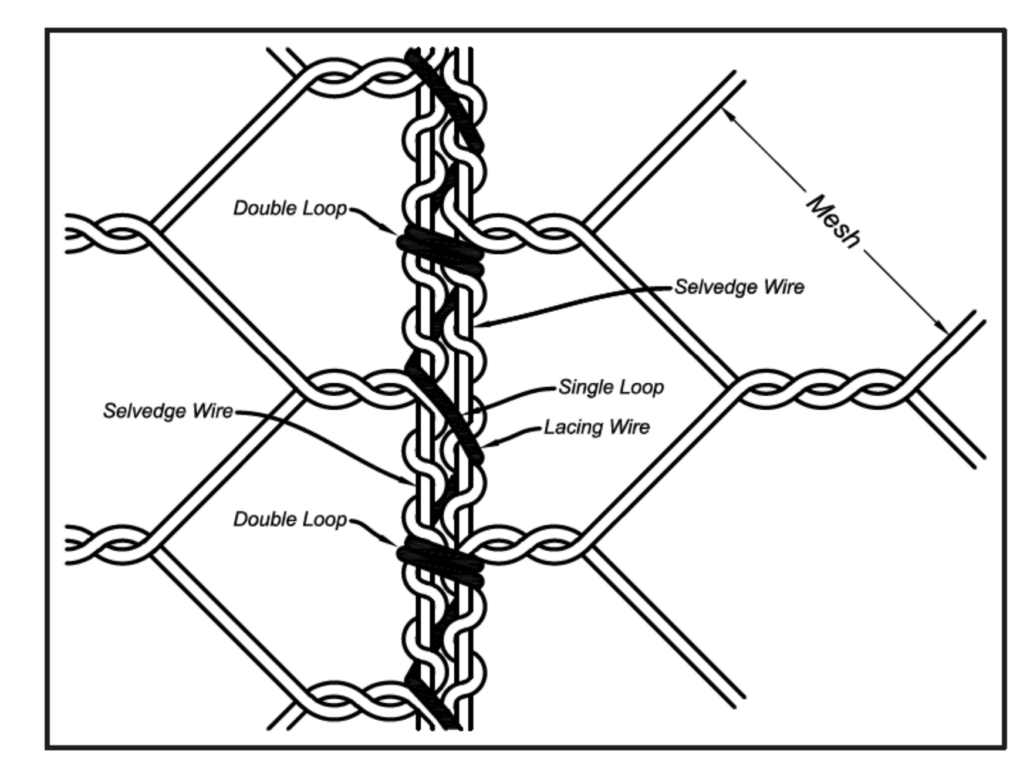
6. CONNECTING WIRES OR PREFORMED STIFFENERS:
ALL 2-FOOT AND 3-FOOT HIGH BASKETS SHALL HAVE CROSS TIES (CONNECTING WIRES OR PREFORMED STIFFENERS) INSTALLED AFTER THE PLACEMENT OF EACH 12-INCH DEEP LAYER OF STONE FILL. CONNECTING WIRES ARE TO BE FABRICATED USING LACING WIRE TO CONNECT THE EXPOSED FACE OF EACH CELL TO THE OPPOSITE SIDE OR TO AN ADJACENT CELL. AN EXPOSED FACE IS ANY SIDE OF A BASKET UNIT THAT WILL BE EXPOSED OR UNSUPPORTED AFTER THE INSTALLATION IS COMPLETED. CONNECTING WIRES SHALL BE LOOPED AROUND THREE MESH OPENINGS AT EACH BASKET FACE. EACH CONNECTING WIRE TERMINAL SHALL BE DOUBLE LOOPED AROUND THE MESH AND SECURELY TIED TO ITSELF TO PREVENT LOOSENING. IF USED, PREFORMED STIFFENERS SHALL BE INSTALLED AT 45-DEGREE ANGLES FROM THE EXPOSED FACE TO THE ADJACENT SIDE, EXTENDING AN EQUAL DISTANCE ALONG EACH SIDE TO BE BRACED. REFER TO DETAILS IN THE PLANS FOR CONNECTING WIRES AND PREFORMED STIFFENER OPTIONS.

7. PLACING BACKFILL:
THE FILTER FABRIC SHALL BE PULLED TIGHTLY BEHIND THE GABION BASKETS. FILTER FABRIC ON ADJACENT BASKETS SHALL OVERLAP A MINIMUM OF 24 INCHES. SIMULTANEOUSLY WITH FILLING THE BASKETS, BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED BEHIND THE GABION BASKETS TO THE SAME LEVEL AS THE FILLED BASKETS.

8. CLOSING GABIONS:
AFTER THE BASKET IS COMPLETELY FILLED, THE LID SHALL BE STRETCHED TIGHT OVER THE STONE FILL USING APPROPRIATE CLOSING TOOLS, UNTIL THE LID MEETS THE PERIMETER EDGES OF THE FRONT AND END PANELS. THE LID SHALL THEN BE TIGHTLY FASTENED ALONG ALL EDGES, ENDS, AND INTERNAL CELL DIAPHRAGMS WITH LACING WIRE OR WITH MECHANICAL FASTENERS. LIDS COVERING A SINGLE CELL OF A GABION MAT SHALL BE FASTENED WITH LACING WIRE. LIDS MADE FROM ROLLS OF MESH MATERIAL COVERING MULTIPLE CELLS OF GABION MAT MAY BE CLOSED USING MECHANICAL FASTENERS. MECHANICAL FASTENERS SHALL NOT BE USED WHEN TYING ACROSS MORE THAN THREE SELVEDGE WIRES. THE SPACING BETWEEN MECHANICAL FASTENERS SHALL NOT EXCEED FOUR INCHES. LACING WIRE MUST BE USED WHEN TYING ACROSS FOUR OR MORE SELVEDGE WIRES. WHEN LACING WIRE IS USED, IT SHALL BE CONTINUOUS STITCHED AND LOOPED TIGHTLY AROUND EVERY OTHER MESH OPENING ALTERNATING SINGLE AND DOUBLE LOOPS. SPECIAL CARE SHALL BE TAKEN TO SEE THAT ALL PROJECTIONS OR WIRE ENDS ARE TURNED INTO THE BASKETS TO AVOID PROTRUSIONS.

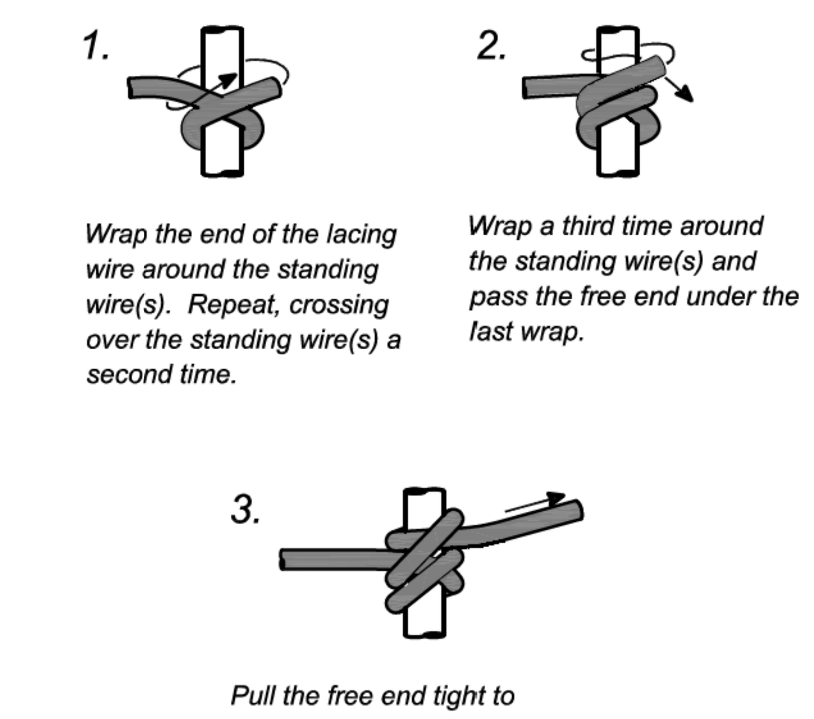
9. CUTTING GABIONS:
WHERE A COMPLETE BASKET UNIT CANNOT BE INSTALLED BECAUSE OF SPACE LIMITATIONS OR WHERE MODIFICATION OF A BASKET UNIT IS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, THE UNIT SHALL BE CUT, FOLDED, OR OVERLAPPED AND SECURELY CONNECTED. THE MESH MUST BE CLEANLY CUT, AND THE SURPLUS MESH MUST BE FOLDED BACK OR OVERLAPPED SO THAT IT CAN BE SECURELY FASTENED TOGETHER WITH LACING WIRE OR ALTERNATIVE WIRE FASTENERS. ALL RESHAPED BASKETS SHALL BE ASSEMBLED, INSTALLED, FILLED, AND CLOSED AS SPECIFIED ABOVE.

10. GROUTING SEAMS:
CONTRACTOR SHALL GROUT SEAMS AT ALL LOCATIONS WHERE GABIONS CONTACT CONCRETE SURFACES. CONCRETE GROUT SHALL BE PLACED BETWEEN GABIONS AND FILTER FABRIC. FILTER FABRIC SHALL BE SECURED TO CONCRETE SURFACES WITH MASTIC PRIOR TO PLACING GABIONS AND GROUT.



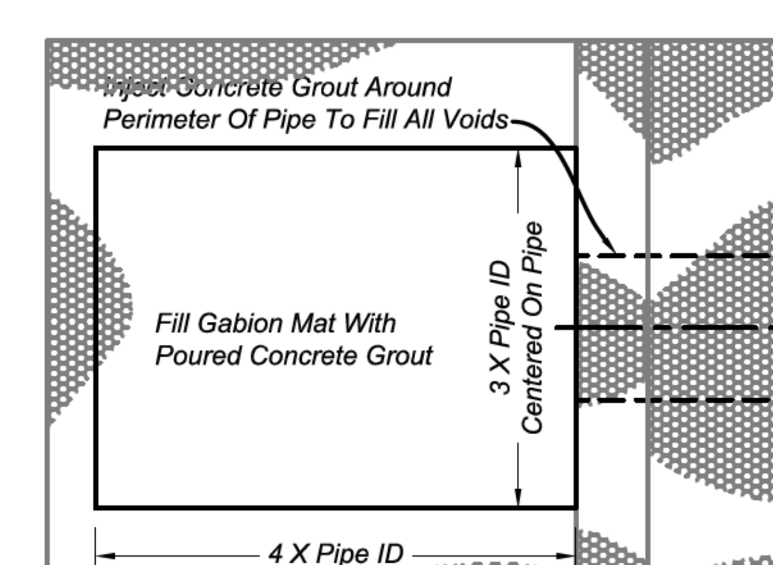
TYPICAL GABION WIRE DIAGRAM

NTS

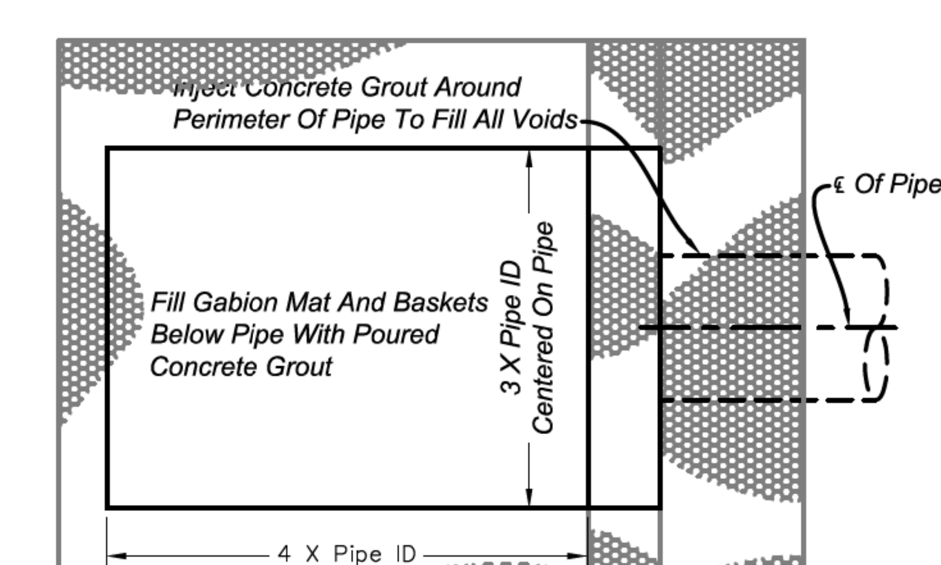


ROLLING HITCH KNOT DIAGRAM

NTS



PIPE IN BOTTOM ROW OF GABION BASKETS



PIPE ABOVE BOTTOM ROW OF GABION BASKETS

NOTE: IF THE DISTANCE TO GABION BASKETS OPPOSITE THE PIPE DISCHARGE IS LESS THAN 4 TIMES THE INTERNAL DIAMETER OF THE PIPE, THE BOTTOM ROW OF GABION BASKETS OPPOSITE THE PIPE DISCHARGE SHALL ALSO BE FILLED WITH POURED CONCRETE GROUT TO THE WIDTH OF THE GROUTED AREA OF THE GABION MAT.

GROUT AT DISCHARGE OF PIPES THROUGH GABIONS

NTS

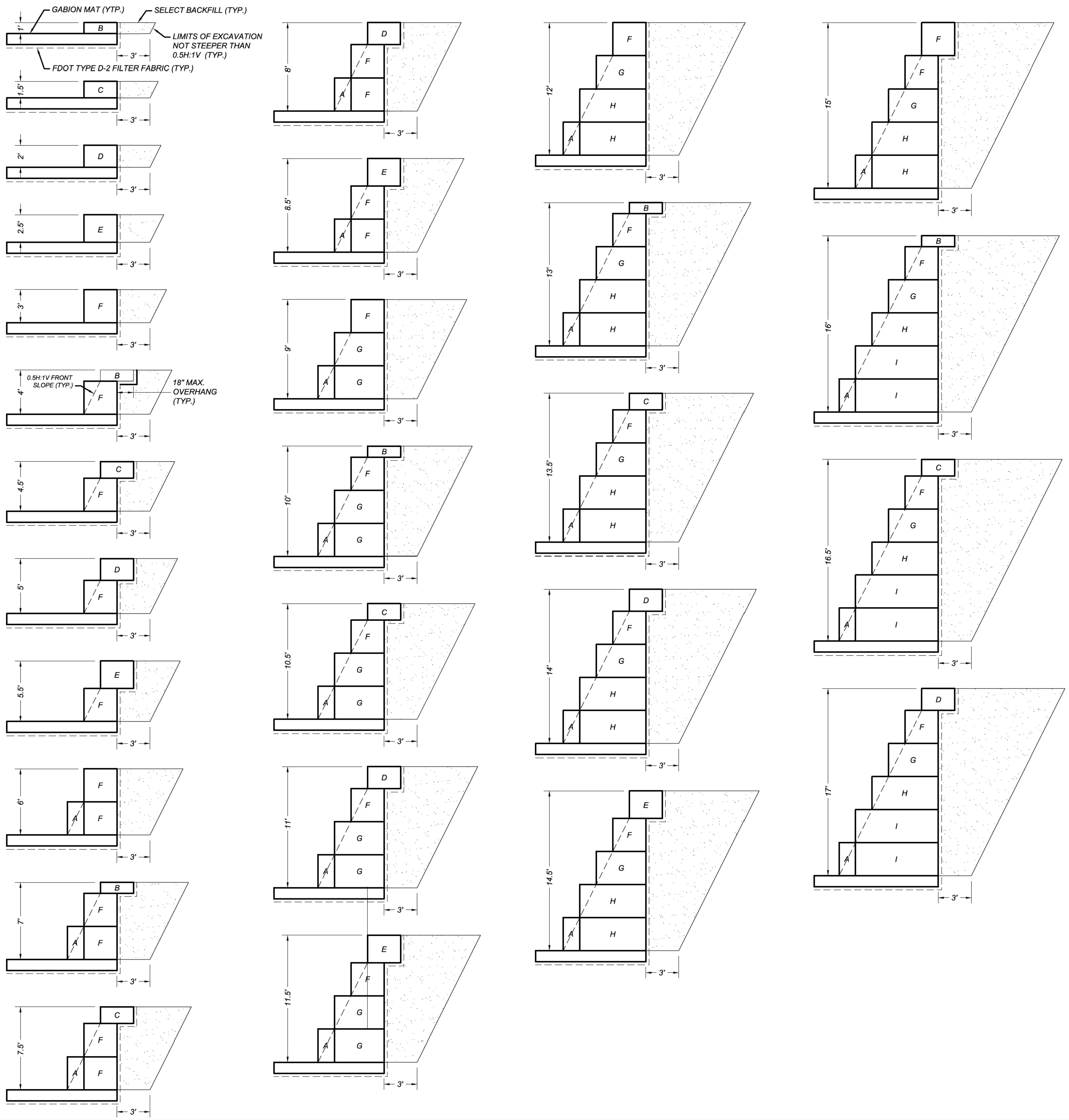
ORIGINAL APRIL 1, 2019
REVISIONS:
1.
2.
3.
4.
5.

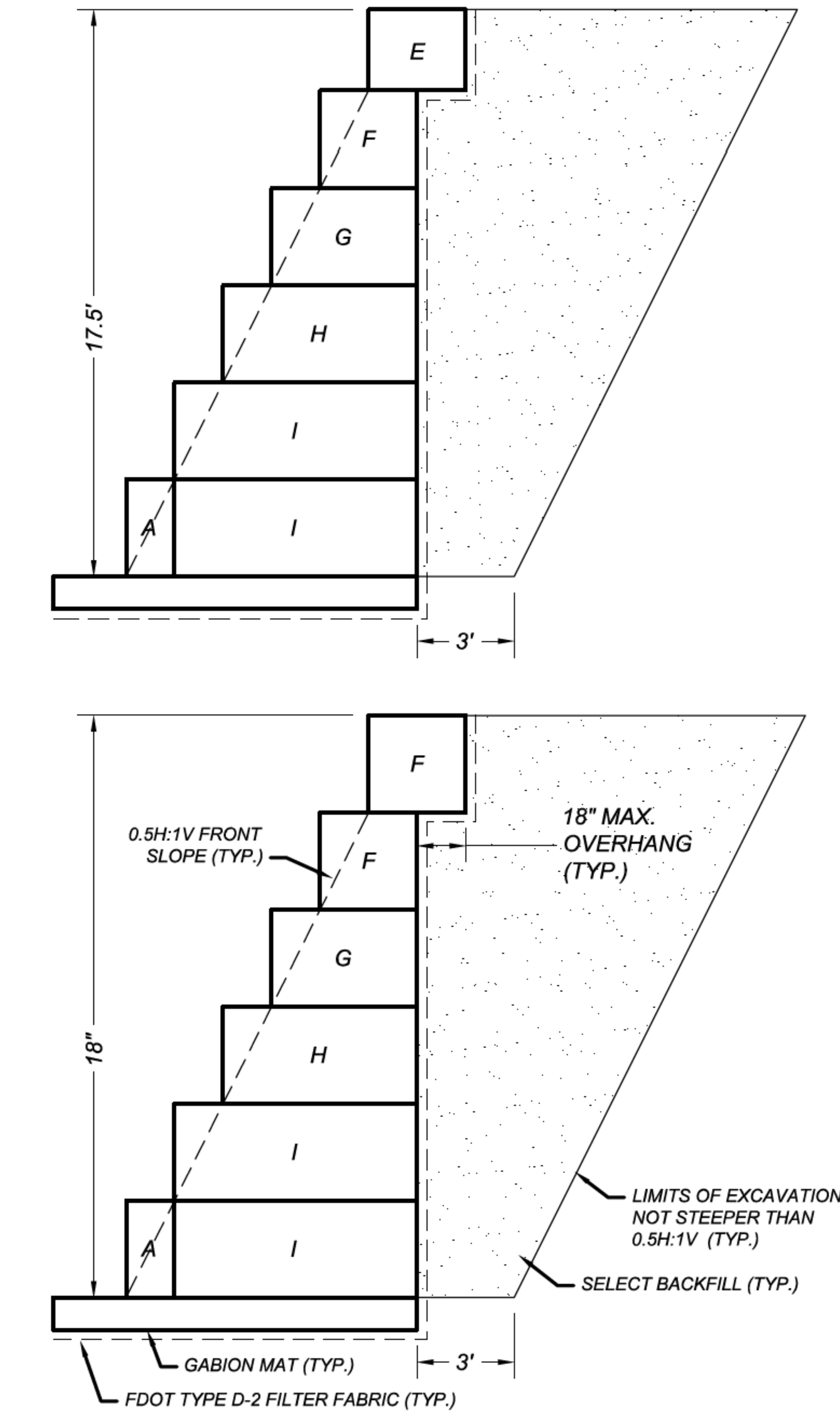
MISCELLANEOUS DETAILS AND CONSTRUCTION NOTES

STANDARD DETAILS FOR GABION CONSTRUCTION

CITY OF TALLAHASSEE
UNDERGROUND UTILITIES DEPARTMENT
STORMWATER MANAGEMENT
300 South Adams Street, B-35, Tallahassee, Florida 32301

JOB NO. N/A
DRAWN RJM
DESIGNED RJM
CHECKED JAS
QC JAS





SIZE DESIGNATIONS FOR GABION BASKETS

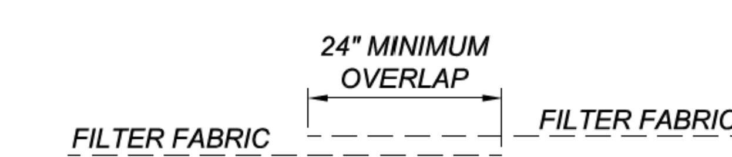
Designation	Width (ft)	Height (ft)	Length (ft)
A	1.5	3.0	Field Determine
B	3.0	1.0	Field Determine
C	3.0	1.5	Field Determine
D	3.0	2.0	Field Determine
E	3.0	2.5	Field Determine
F	3.0	3.0	Field Determine
G	4.5	3.0	3.0
H	6.0	3.0	3.0
I	7.5	3.0	3.0

GENERAL NOTES

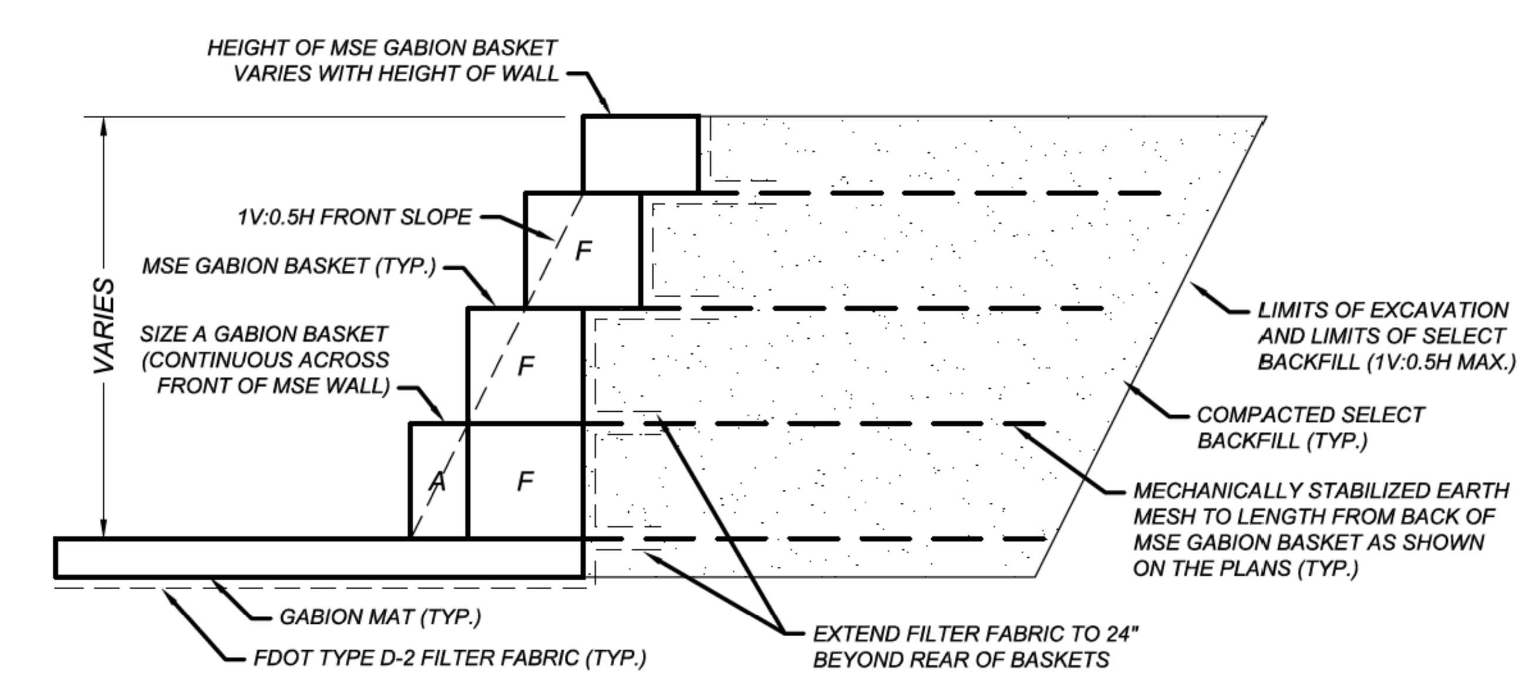
1. SELECT BACKFILL SHALL COMPLY WITH SECTION 902-2.1 OF THE STANDARD SPECIFICATIONS AND SHALL BE FREE OF PLASTICS.
2. STACKED BASKETS SHALL BE STAGGERED ACROSS SEAMS.

FILTER FABRIC REQUIREMENTS

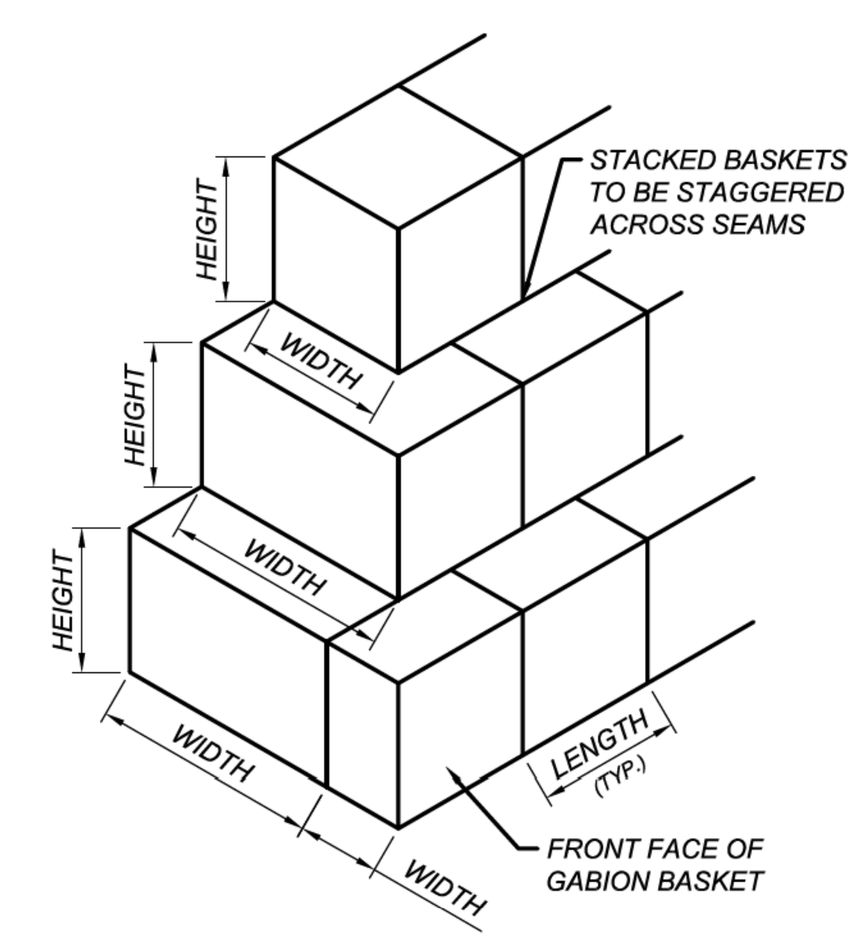
1. FILTER FABRIC SHALL BE FDOT TYPE D-2.
2. FILTER FABRIC SHALL COVER ALL BASKET SURFACES THAT WILL BE IN CONTACT WITH SOIL MATERIALS.
3. FILTER FABRIC SHALL BE PRESSED TIGHTLY AGAINST GABION BASKETS.
4. DO NOT TIE OR SECURE FILTER FABRIC TO GABION BASKETS.
5. FILTER FABRIC SHALL OVERLAP A MINIMUM OF 24".
6. AVOID TEARING FILTER FABRIC.



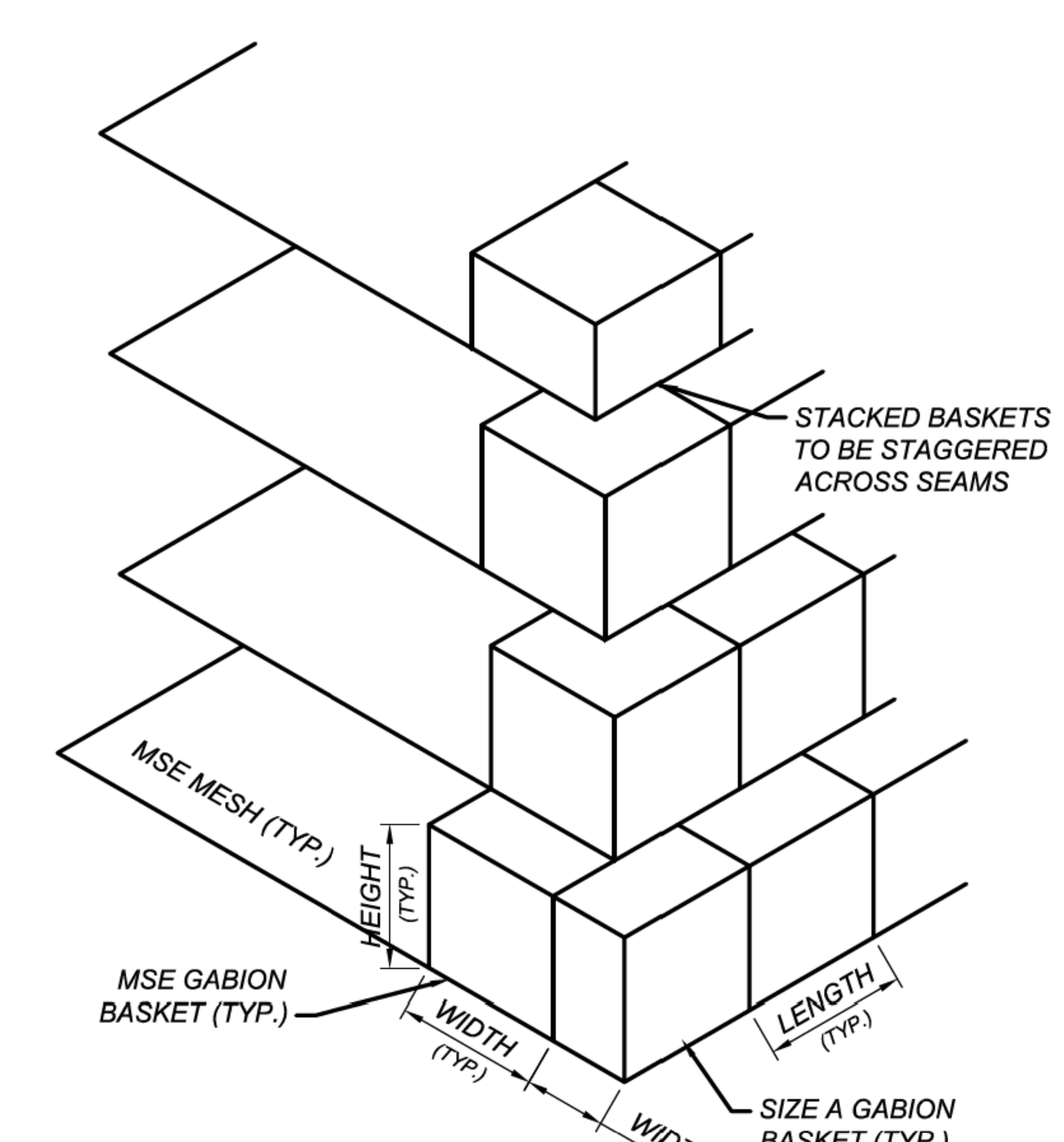
FILTER FABRIC OVERLAP DETAIL



MSE GABION WALL INSTALLATION



GABION BASKET STACKING DIAGRAM



MSE GABION WALL STACKING DIAGRAM

ORIGINAL APRIL 1, 2019
REVISIONS:
1
2
3
4
5

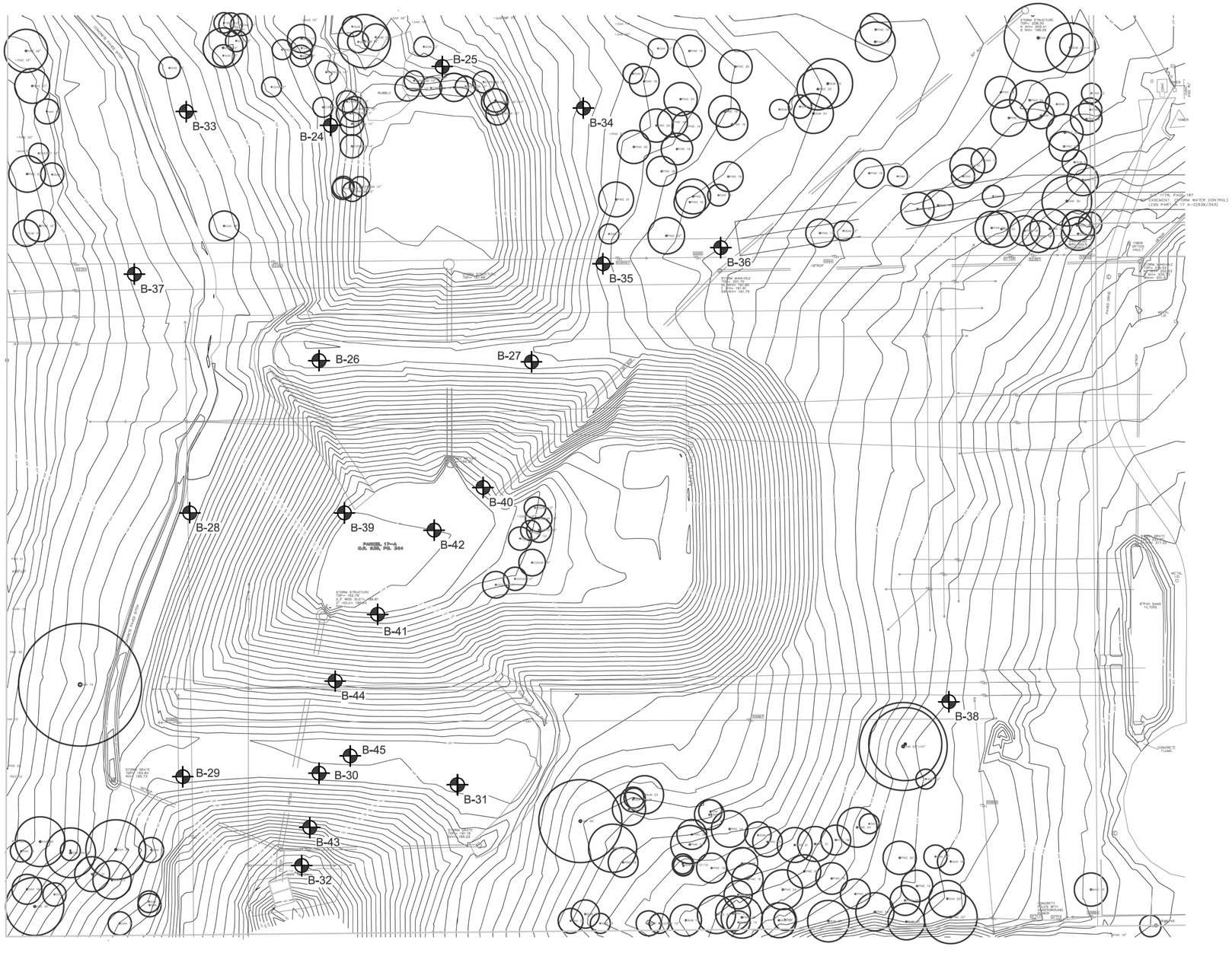
TYPICAL GABION BASKET CONFIGURATIONS BY HEIGHT OF WALL

STANDARD DETAILS FOR GABION CONSTRUCTION

CITY OF TALLAHASSEE
UNDERGROUND UTILITIES DEPARTMENT
STORMWATER MANAGEMENT
300 South Adams Street, B-35, Tallahassee, Florida 32301

JOB NO. N/A
DRAWN RJM
DESIGNED RJM
CHECKED JAS
QC JAS

Boring Locations



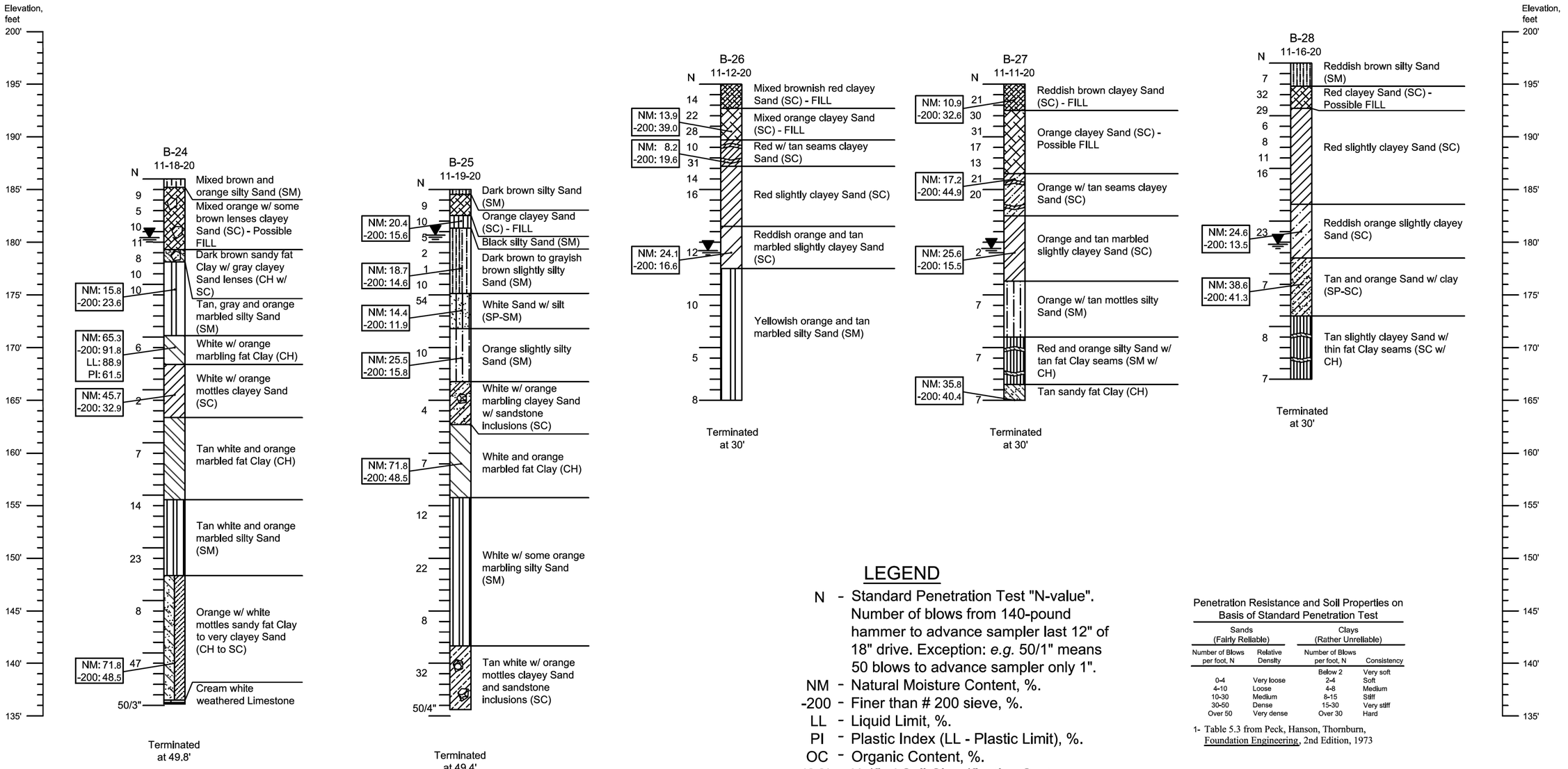
Drawing Source:
Singhofen & Associates

0 50 100
Scale, ft
(approximate)

File: 16-3028 singhofen market district fig 1

SHEET 25	***Alpha Geotechnical and Testing Services, Inc.*** ***Certificate of Authorization 00007967*** 4778-A Woodlane Circle Tallahassee, FL 32303 (850) 514-4171 *www.alpha-geotech.com*	Subsurface Investigation for Market District Storm Water Management Facility, Tallahassee, FL	Stephen P. Shanley, PE FL #40653 December 9, 2020	STEPHEN P. SHANLEY LICENSE No. 40653 STATE OF FLORIDA PROFESSIONAL ENGINEER

Soil Boring Profiles



LEGEND

- N - Standard Penetration Test "N-value". Number of blows from 140-pound hammer to advance sampler last 12" of 18" drive. Exception: *e.g.* 50/1" means 50 blows to advance sampler only 1".
- NM - Natural Moisture Content, %.
- -200 - Finer than # 200 sieve, %.
- LL - Liquid Limit, %.
- PI - Plastic Index (LL - Plastic Limit), %.
- OC - Organic Content, %.
- (SC) - Unified Soil Classification System, clayey sand (typical).
- ▼ - Groundwater level, if present.

Penetration Resistance and Soil Properties on Basis of Standard Penetration Test

Sands (Fairly Reliable)		Clays (Rather Unreliable)	
Number of Blows per foot, N	Relative Density	Number of Blows per foot, N	Consistency
		Below 2	Very soft
0-4	Very loose	2-4	Soft
4-10	Loose	4-8	Medium
10-30	Medium	8-15	Stiff
30-50	Dense	15-30	Very stiff
Over 50	Very dense	Over 30	Hard

1- Table 5.3 from Peck, Hanson, Thornburn, Foundation Engineering, 2nd Edition, 1973

NOTES

1) Although the borings represent the subsurface conditions at their respective locations, it should be understood that significant differences could exist between borings.

2) Borings were conducted with a Simco model 2800 drill rig in accordance with the ASTM D 1586 (the Standard Penetration Test).

File: 16-3028 singhofen market district fig 2

Alpha Geotechnical and Testing Services, Inc.
Certificate of Authorization 00007967
4778-A Woodlane Circle
Tallahassee, FL 32303
(850) 514-4171 *www.alpha-geotech.com*

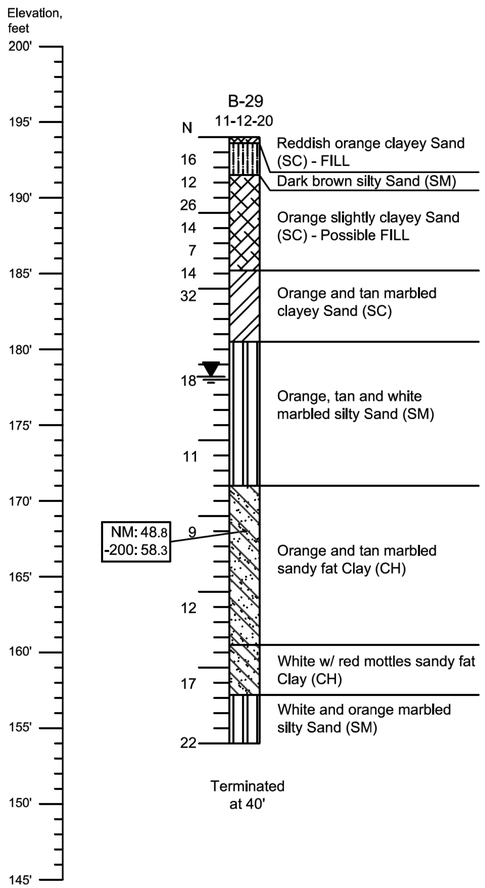
Stephen P. Shanley, PE
FL #40653
December 9, 2020

STEPHEN P. SHANLEY LICENSE No. 40653 STATE OF FLORIDA PROFESSIONAL ENGINEER

Subsurface Investigation for
Market District
Storm Water Management Facility,
Tallahassee, FL

SHEET
26

Soil Boring Profiles



B-29
11-12-20

N	
16	Reddish orange clayey Sand (SC) - FILL
12	Dark brown silty Sand (SM)
26	Orange slightly clayey Sand (SC) - Possible FILL
14	
7	
14	
32	Orange and tan marbled clayey Sand (SC)
18	Orange, tan and white marbled silty Sand (SM)
11	
NM: 48.8, -200: 58.3 — 9	Orange and tan marbled sandy fat Clay (CH)
12	
17	White w/ red mottles sandy fat Clay (CH)
22	White and orange marbled silty Sand (SM)

Terminated at 40'

B-30
11-10-19

N	
NM: 14.3, -200: 35.9 — 7	Reddish brown silty Sand (SM)
7	Mixed orange clayey Sand (SC) - FILL
7	
NM: 18.5, -200: 23.6, OC: 3.9 — 3	Mixed gray silty Sand w/ some root matter (SM) - FILL
2	
3	
NM: 16.8, -200: 30.3 — 3	
NM: 23.8, -200: 43.8, LL: 37.8, PI: 20.1 — 3	Mixed orange clayey Sand (SC) - FILL
17	
NM: 24.3, -200: 32.2 — 1	Tan and orange clayey Sand w/ brown silty Sand inclusions (SC w/ SM) - Possible FILL
NM: 69.2, -200: 79.4 — 11	Grayish white and orange marbled sandy fat Clay (CH)
NM: 70.7, -200: 56.6, LL: 48.9, PI: 22.9 — 21	
NM: 25.6, -200: 23.0 — 23	Tan white w/ orange mottles silty Sand (SM)

Terminated at 40'

B-31
11-16-20

N	
13	Dark brown silty Sand (SM)
16	Mixed orange clayey Sand (SC) - FILL
13	
4	
5	Orange slightly clayey Sand (SC) - Possible FILL
9	
8	
9	Orange and white marbled silty Sand (SM)
NM: 26.3, -200: 12.9 — 10	
8	
9	White w/ tan and orange marbling fat Clay (CH)
13	
23	White and orange marbled silty Sand (SM)

Terminated at 40'

B-32
11-20-20

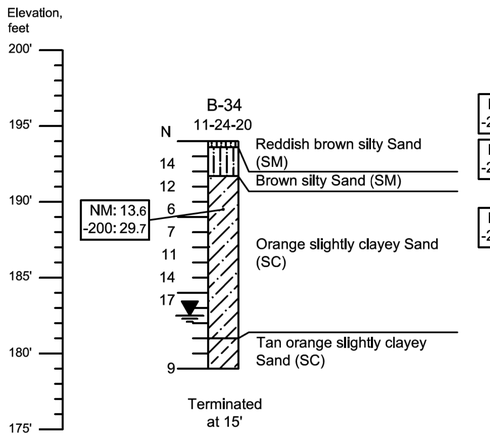
N	
2	Gray silty Sand (SM)
2	
2	Black silty Sand (SM)
NM: 17.9, -200: 7.9 — 14	White w/ gray marbling Sand (SP)
20	
32	Tan and brownish red marbled sandy fat Clay (CH)
NM: 76.5, -200: 94.1 — 11	
18	Tan white silty Sand (SM)
15	

Terminated at 25'

B-33
11-25-20

N	
9	Brown very silty Sand (SM)
11	Black silty Sand (SM) - FILL
NM: 34.1, -200: 22.6, OC: 14.6 — 8	
9	Gray silty Sand w/ root and wood matter (SM) - FILL
2	
1	
2	
5	Orange Sand w/ silt (SP-SM)

Terminated at 15'



B-34
11-24-20

N	
14	Reddish brown silty Sand (SM)
12	Brown silty Sand (SM)
NM: 13.6, -200: 29.7 — 6	
7	Orange slightly clayey Sand (SC)
11	
14	
17	
9	Tan orange slightly clayey Sand (SC)

Terminated at 15'

B-35
11-24-20

N	
NM: 16.4, -200: 25.9 — 24	Reddish brown silty Sand (SM)
21	Red clayey Sand (SC)
NM: 15.8, -200: 25.4 — 21	Orange slightly clayey Sand (SC)
9	
10	
NM: 13.8, -200: 19.7 — 16	Reddish orange slightly clayey Sand (SC)
15	
13	Tan Sand w/ silt (SP-SM)
12	

Terminated at 20'

NOTES

1) Although the borings represent the subsurface conditions at their respective locations, it should be understood that significant differences could exist between borings.
2) Borings were conducted with a Simco model 2800 drill rig in accordance with the ASTM D 1586 (the Standard Penetration Test).

Penetration Resistance and Soil Properties on Basis of Standard Penetration Test

Sands (Fairly Reliable)		Clays (Rather Unreliable)	
Number of Blows per foot, N	Relative Density	Number of Blows per foot, N	Consistency
		Below 2	Very soft
0-4	Very loose	2-4	Soft
4-10	Loose	4-8	Medium
10-30	Medium	8-15	Stiff
30-50	Dense	15-30	Very stiff
Over 50	Very dense	Over 30	Hard

1- Table 5.3 from Peck, Hanson, Thornburn, Foundation Engineering, 2nd Edition, 1973

LEGEND

- N - Standard Penetration Test "N-value". Number of blows from 140-pound hammer to advance sampler last 12" of 18" drive.
- NM - Natural Moisture Content, %.
- -200 - Finer than # 200 sieve, %.
- LL - Liquid Limit, %.
- PI - Plastic Index (LL - Plastic Limit), %.
- OC - Organic Content, %.
- (SC) - Unified Soil Classification System, clayey sand (typical).
- ▼ - Groundwater level, if present.

STEPHEN P. SHANLEY LICENSE No. 40653 STATE OF FLORIDA PROFESSIONAL ENGINEER

Alpha Geotechnical and Testing Services, Inc.
Certificate of Authorization 00007967
4778-A Woodlane Circle
Tallahassee, FL 32303
(850) 514-4171 *www.alpha-geotech.com*

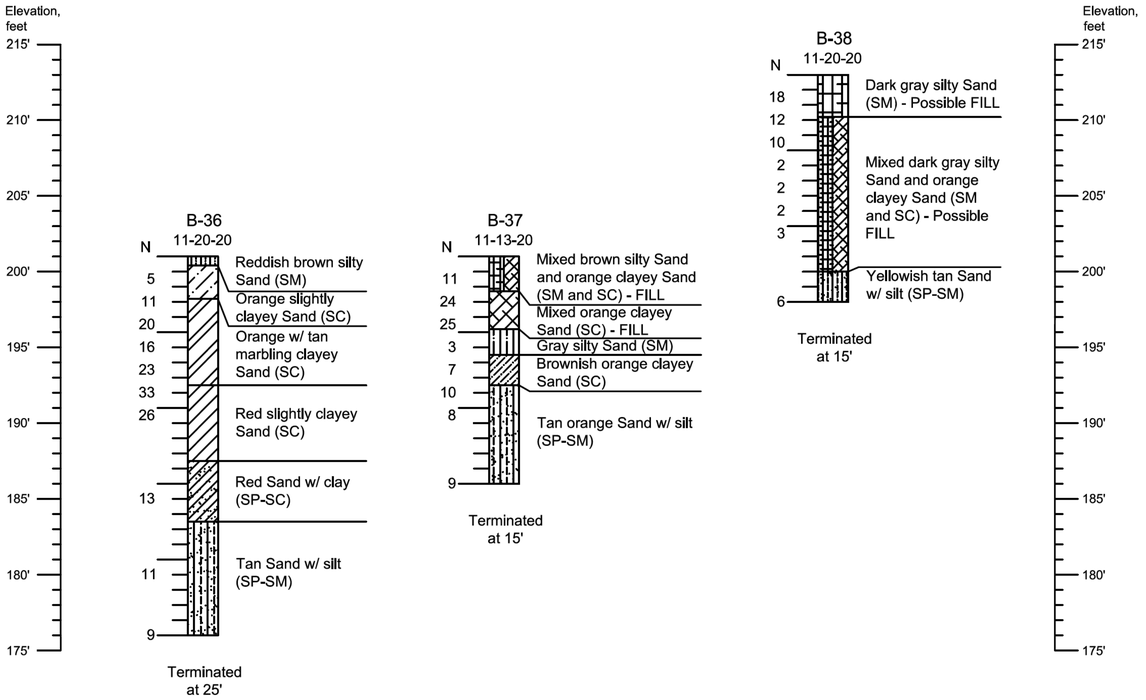
Stephen P. Shanley, PE
FL #40653
December 9, 2020

Subsurface Investigation for
Market District
Storm Water Management Facility,
Tallahassee, FL

SHEET 27

File: 16-3028 slnghofen market district fig 3

Soil Boring Profiles



NOTES

1) Although the borings represent the subsurface conditions at their respective locations, it should be understood that significant differences could exist between borings.

2) Borings B-36 through B-38 were conducted with a Simco model 2800 drill rig in accordance with the ASTM D 1586 (the Standard Penetration Test). Test bores B-39 through B-45 were done with hand operated augers in accord with ASTM D 1452.

Penetration Resistance and Soil Properties on Basis of Standard Penetration Test

Sands (Fairly Reliable)		Clays (Rather Unreliable)	
Number of Blows per foot, N	Relative Density	Number of Blows per foot, N	Consistency
		Below 2	Very soft
0-4	Very loose	2-4	Soft
4-10	Loose	4-8	Medium
10-30	Medium	8-15	Stiff
30-50	Dense	15-30	Very stiff
Over 50	Very dense	Over 30	Hard

1- Table 5.3 from Peck, Hanson, Thornburn, Foundation Engineering, 2nd Edition, 1973

LEGEND

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- NM - Natural Moisture Content, %.
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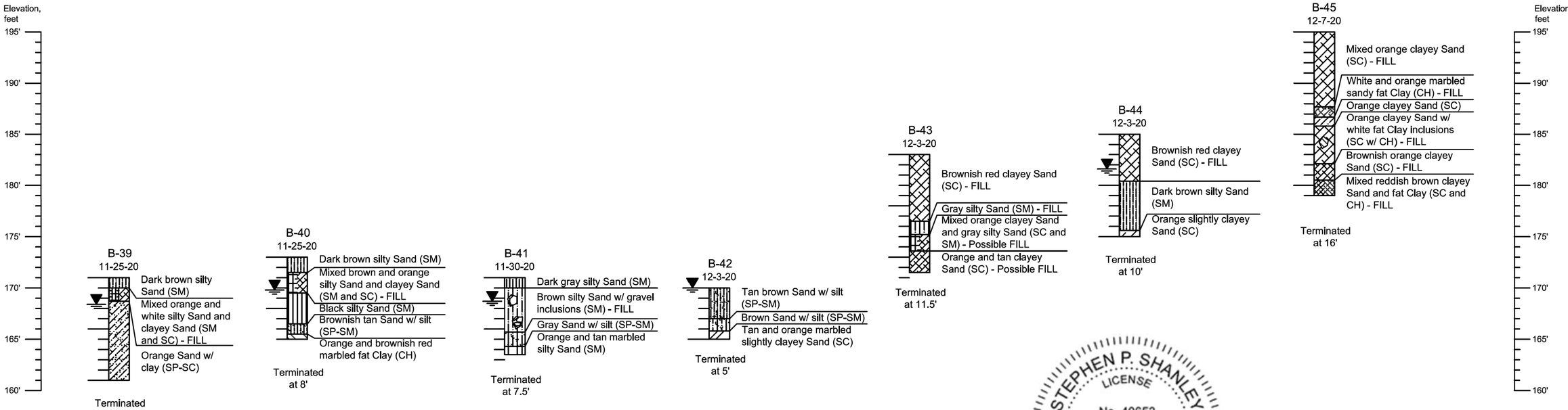
- LL - Liquid Limit, %.
- PI - Plastic Index (LL - Plastic Limit), %.
- OC - Organic Content, %.
- (SC) - Unified Soil Classification System, clayey sand (typical).
- ▼ - Groundwater level, if present.



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Subsurface Investigation for
Market District
Storm Water Management Facility,
Tallahassee, FL

SHEET 28

File: 16-3028 singhofen market district fig 4

Florida Environmental & Land Services Inc.
221-4 DELTA COURT
TALLAHASSEE, FL 32303
(850) 385-6255

PROJECT: Market District Multi-Purpose Stormwater Project Phase II (West Pond)
LEON COUNTY, FLORIDA

TITLE: Figure - Bioswale 1

DATE:	BY:	CHECK:	FELSI PROJECT #
12/9/2020	NC	EP	20-1805

N
0 3 6 12 18 Feet

Florida Environmental & Land Services Inc.
221-4 DELTA COURT
TALLAHASSEE, FL 32303
(850) 385-6255

PROJECT: Market District Multi-Purpose Stormwater Project Phase II (West Pond)
LEON COUNTY, FLORIDA

TITLE: Figure - Bioswale 2

DATE:	BY:	CHECK:	FELSI PROJECT #
12/9/2020	NC	EP	20-1805

N
0 5 10 20 30 Feet

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET
PLANTING PLAN

MARKET DISTRICT
MULTI-PURPOSE
STORMWATER PROJECT
PHASE II - WEST
STORMWATER FACILITY

SINGHOFEN & ASSOCIATES, INC.
STORMWATER MANAGEMENT AND CIVIL ENGINEERING
11723 Orpington Street, Suite 100
Orlando, Florida 32817
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DBPR No. 5112

JOB NO. 2020-028.10
DRAWN BJG
DESIGNED RBG
CHECKED RBG
QC CLR

SHEET L-1

12/10/2020
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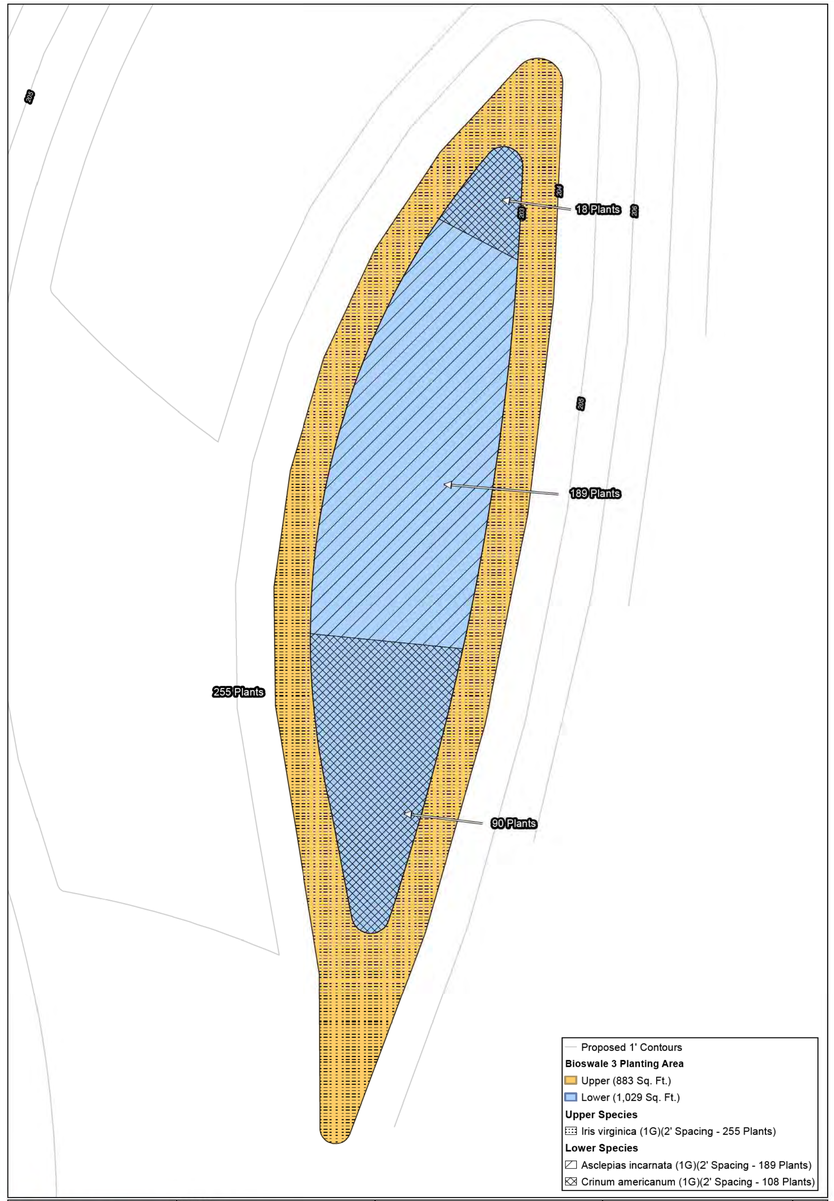


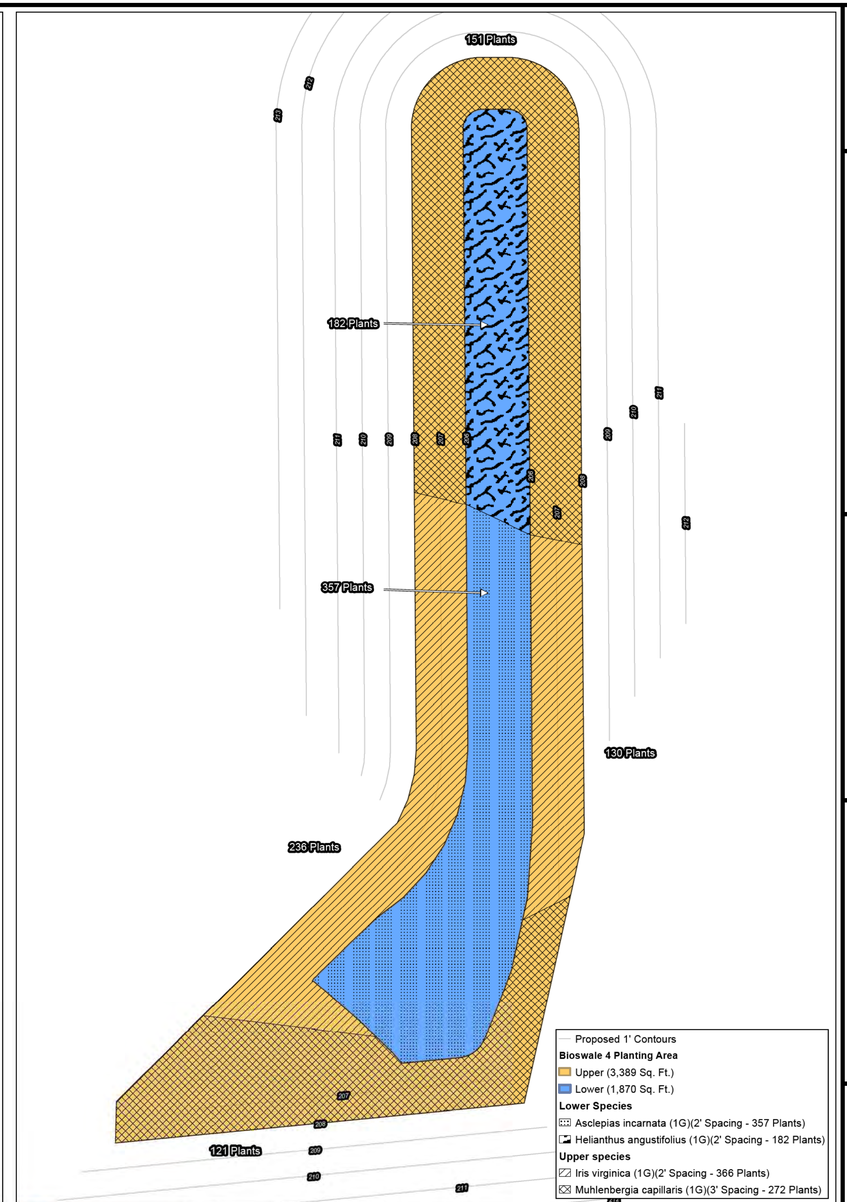
Florida Environmental & Land Services Inc.
221-4 DELTA COURT
TALLAHASSEE, FL 32303
(850) 385-6255

PROJECT: Market District Multi-Purpose Stormwater Project Phase II (West Pond)
LEON COUNTY, FLORIDA

TITLE: Figure - Bioswale 3

DATE:	BY:	CHECK:	FELSI PROJECT #
12/9/2020	NC	EP	20-1805

N
0 2 4 8 12 Feet



Florida Environmental & Land Services Inc.
221-4 DELTA COURT
TALLAHASSEE, FL 32303
(850) 385-6255

PROJECT: Market District Multi-Purpose Stormwater Project Phase II (West Pond)
LEON COUNTY, FLORIDA

TITLE: Figure - Bioswale 4

DATE:	BY:	CHECK:	FELSI PROJECT #
12/9/2020	NC	EP	20-1805

N
0 3 6 12 18 Feet

ENGINEER OF RECORD
Signature Date

ORIGINAL 11/12/2020
REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: wells, grading, p/mt, fence, plantings
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SHEET
PLANTING PLAN

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CHECKED RBG
QC CLR

SHEET L-2

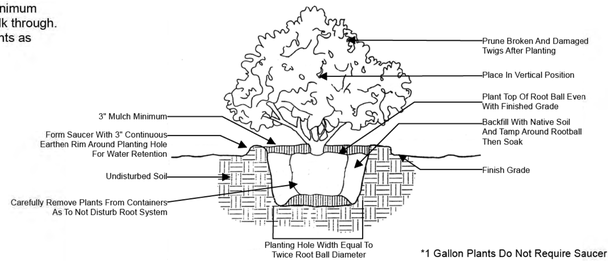
12/10/2020
N:\Tallahassee\Market_District_Pond\DGN\MDP-PlantingPlans.dgn

Landscape Notes:

1. Landscape contractor shall verify all quantities and shall notify project manager of any discrepancies.
2. The landscape contractor shall verify the locations of and mark all utilities prior to construction. Excavation within 5' of any utility shall be accomplished by hand. Locations of any conflicts shall be brought to the attention of the project manager. In field adjustments will be made as needed.
3. All nursery grown plants shall be as specified in the planting schedule. The landscape contractor shall supply all plant materials, as specified in the planting plans. The plants shall meet the minimum size specified. Spacing should be according to the plan.
4. Substitution of appropriate plant material due to lack of commercial availability of equivalent size or species is acceptable upon approval by the project manager. If plant material is not available as specified or in the quantity necessary to perform the work, the Contractor shall submit alternate species to the project manager or designee for review and approval.
5. Plant spacing will be in a triangular pattern to better mimic a more natural appearance.
6. All plant material shall be Florida No 1 grade or better as set forth in "Grades and Standards for Nursery Plants" current version. All plant materials shall be inspected upon delivery to the site. Any material that appears stressed defoliated, unhealthy or does not meet size specifications will be rejected and must be replaced at the expense of the contractor.
7. Planted areas shall have a 3" layer of pine straw mulch. Included in the price of the plants.
8. Any invasive species observed within the planting areas are required to be removed prior to planting of the areas.
9. The landscape contractor will notify the project manager a minimum of two working days prior to completion to schedule a final walk through.
10. Landscape contractor shall provide water to the installed plants as needed during the warranty period.

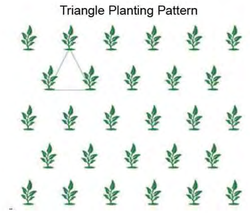
Market District Bioswale Planting

	Plants									Planting Materials
Scientific Name	**Asclepias incarnata**	**Baccharis halimifolia**	**Crinum americanum**	**Helianthus angustifolius**	**Iris virginica**	**Itea virginica**	**Muhlenbergia capillaris**	**Osmundastrum cinnamomeum**	**Sabal Minor**	**Mulch (3" wetted depth)**
Common Name	Swamp Milkweed	Grounsel Tree	String Lily	Swamp Sunflower	Blue Flag Iris	Virginia Willlow	Muhly Grass	Cinnamon Fern	Dwarf Palmetto	Pine Straw Mulch
Spacing	2'	6'	2'	2'	2'	4'	3'	2'	5'	N/A
Size	1 gallon	7 gallon	1 gallon	1 gallon	1 gallon	3 gallon	1 gallon	1 gallon	7 gallon	35-40 ft³ Bales
Bioswale 1 Quantities		4			209		200	34	5	91
Bioswale 2 Quantities	827					65	441			173
Bioswale 3 Quantities	189		108		255					46
Bioswale 4 Quantities	357			182	366		272			126
Project Total	1373	4	108	182	830	65	913	34	5	436



*1 Gallon Plants Do Not Require Saucer

Triangle Planting Pattern



Florida Environmental & Land Services Inc. 221-4 DELTA COURT TALLAHASSEE, FL 32303 (850) 385-6255	PROJECT: **Market District** **Multi-Purpose Stormwater Project** **Phase II (West Pond)** **LEON COUNTY, FLORIDA**	TITLE: **Planting Plan Details** DATE: **12/10/2020** PROJECT #: **20-1805**	*Normal Water Level Elevation - 181.0'

ENGINEER OF RECORD

Signature _____ Date _____

ORIGINAL 11/12/2020

REVISIONS:
1. 11/17/20 – per WMD #1
2. 12/10/20 – per CITY: walls, grading, p/mt, fence, plantings
3.
4.
5.

SHEET

PLANTING PLAN

MARKET DISTRICT
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QC CLR

SHEET L-3

12/10/2020
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LIST OF SHEETS

QUANTITIES NOTE

1. ALL QUANTITIES SHOWN IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. FINAL REBAR COUNTS, LENGTHS, AND WEIGHTS AS WELL AS FINAL CONCRETE VOLUMES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

GENERAL NOTES

1. THE GOVERNING CODE FOR THIS PROJECT IS THE FLORIDA BUILDING CODE, 6th EDITION (2017). THIS CODE PRESCRIBES WHICH EDITION OF EACH REFERENCE STANDARD APPLIES TO THIS PROJECT. UNLESS OTHERWISE NOTED, ALL WORK AND MATERIALS SHALL CONFORM WITH THE BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL, STATE, AND LOCAL CODES, STANDARDS, REGULATIONS, AND LAWS.

2. THE CONTRACTOR SHALL COORDINATE ALL CONTRACT DOCUMENTS WITH FIELD CONDITIONS, DIMENSIONS, AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS, USE ONLY PRINTED DIMENSIONS. REPORT ANY DISCREPANCIES OR FIELD CONDITIONS ENCOUNTERED IN CONFLICT WITH THE DRAWINGS IN WRITING TO THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH WORK. DO NOT CHANGE THE SIZE OR LOCATION OF STRUCTURAL MEMBERS WITHOUT WRITTEN INSTRUCTIONS FROM THE ARCHITECT OR ENGINEER OF RECORD.

3. THE STRUCTURE SHOWN IN THESE DRAWINGS IS SELF-SUPPORTING ONLY IN ITS COMPLETED FORM. THE DESIGN, ADEQUACY, SAFETY, AND STABILITY OF ERECTION BRACING, FORMWORK, SHORING, AND TEMPORARY SUPPORTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

4. DETAILS LABELED AS "TYPICAL" APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED, WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION.

5. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTY, HIS OWN WORK, AND THE GENERAL PUBLIC FROM HARM. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS AND METHODS, AND JOBSITE SAFETY INCLUDING ALL OSHA REQUIREMENTS. THE STRUCTURAL ENGINEER OF RECORD HAS NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION PERSONNEL RELATED TO THEIR WORK OR ANY HEALTH OR SAFETY PRECAUTIONS.

6. GEOTECHNICAL BORING PROFILES INCLUDED ON THIS SHEET ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. REFERENCE GEOTECHNICAL REPORT FOR ALL GEOTECHNICAL DESIGN INFORMATION AND CONSTRUCTION REQUIREMENTS.

ASSUMED SOIL PROPERTIES & SUPERIMPOSED LOADS

MOIST UNIT WEIGHT	= 125 PCF
ANGLE OF INTERNAL FRICTION	= 30°
ACTIVER PRESSURE COEFFICIENT	= 0.33
PASSIVE PRESSURE COEFFICIENT	= 3.00
COHESION	= 0 PSF
SURCHARGE	= 250 PSF
SOIL CLASSIFICATION	= SLIGHTLY AGGRESSIVE

WIND LOAD DESIGN CRITERIA (PER ASCE 7-10) FOR INFORMATIONAL PURPOSES ONLY

1. WIND SPEED (ASD/ULT) = 120 MPH / 93 MPH
2. RISK CATEGORY = II
3. EXPOSURE = B
4. ENCLOSURE CLASSIFICATION = N/A

EARTHWORK FOR STRUCTURES

1. FOUNDATION DESIGN, SOIL PREPARATION AND COMPACTION ARE BASED ON GEOTECHNICAL INVESTIGATION, DATA AND RECOMMENDATIONS IN FILE NO. 16-3028 BY ALPHA GEOTECHNICAL AND TESTING SERVICES, INC. DATED DECEMBER 9, 2020. ALL FOOTINGS SHALL BEAR ON COMPACTED FILL OR NATURAL SOIL PREPARED PER THE GEOTECHNICAL REPORT TO PROVIDE AND ALLOWABLE SOIL BEARING CAPACITY OF 2,600 PSF.

2. ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2,500 PSF ON UNDISTURBED SOILS OR COMPACTED STRUCTURAL FILL. CONTRACTOR SHALL OBTAIN THE SERVICES OF A QUALIFIED GEOTECHNICAL ENGINEER TO PERFORM ALL NECESSARY TESTING, VERIFY THE BEARING CAPACITY OF THE SOILS, AND MAKE RECOMMENDATIONS FOR SITE PREPARATION.

3. UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, ALL SOIL BELOW SLABS ON GRADE AND FOOTINGS SHALL BE COMPACTED TO A DEPTH OF 12 INCHES AT OPTIMUM MOISTURE CONTENT TO 95% OF THE MODIFIED PROCTOR, ASTM D1557. FILL SHALL BE PLACED AND COMPACTED IN LIFTS NO GREATER THAN 12 INCHES.

4. PROVIDE DENSITY TESTS IN COMPACTED SUBGRADE AND FOR EACH LIFT OF FILL AS FOLLOWS:
   A. FOR EVERY 300 LINEAR FT OF STRIP FOOTING OR GRADE BEAM

FORMWORK

1. DESIGN, ERECTION, AND REMOVAL OF FORMWORK, AND SHORING AND RESHORING IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

2. CONSTRUCTION, ERECTION, AND REMOVAL OF FORMWORK SHALL BE IN ACCORDANCE WITH ACI 301 AND 347.

REINFORCEMENT

1. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE BILLET STEEL CONFORMING TO ASTM A615, GRADE 60, WITH THE FOLLOWING MINIMUM SPLICE LENGTH.
   A. CONCRETE REINFORCEMENT = SEE PROVIDED LAP SCHEDULE
   B. MASONRY REINFORCEMENT = 48 BAR DIAMETERS U.N.O.

2. PROVIDE ADDITIONAL HORIZONTAL CORNER BARS TO MATCH MAIN HORIZONTAL REINFORCING STEEL AT ALL BEAMS, OR WALL INTERSECTIONS, CORNERS AND OTHER CONCRETE DIRECTIONAL CHANGES, INCLUDING FOOTINGS.

3. ALL BENDS, AND 90° AND 180° HOOKED BARS SHALL BE FABRICATED IN ACCORDANCE WITH ACI AND AS INDICATED IN THE STANDARD DETAILS.

4. REINFORCING SHALL BE ACCURATELY PLACED, RIGIDLY SUPPORTED AND FIRMLY TIED IN PLACE, WITH APPROPRIATE BAR SUPPORTS AND SPACERS.

CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL COMPLY WITH ACI 301 AND 318 AND CRSI STANDARDS.

2. PROVIDE STRUCTURAL CONCRETE WITH A MINIMUM ULTIMATE COMPRESSIVE DESIGN STRENGTH IN 28 DAYS OF:
   A. FOOTINGS 5,500 PSI NW FDOT CLASS IV
   B. END WALLS 5,500 PSI NW FDOT CLASS IV

3. ALL CONCRETE SHALL BE NORMAL WEIGHT (NW), U.O.N. WITH A DESIGN UNIT WEIGHT OF 145 PCF.

4. CONTRACTOR SHALL MAKE SETS OF FOUR ACCEPTANCE CYLINDERS FOR STRENGTH TESTING FOR EACH 50 CUBIC YARDS OF CONCRETE PLACED. CYLINDERS SHALL BE MADE IN ACCORDANCE WITH ASTM C31 AND C172. TESTING SHALL BE PERFORMED BY AN ACI CERTIFIED TESTING LABORATORY AND SHALL BE PAID FOR BY THE CONTRACTOR. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF ANY TEST NOT MEETING THE REQUIREMENTS OF THE SPECIFIED TESTS. COPIES OF REPORTS DOCUMENTING THE TEST RESULTS SHALL BE MAINTAINED BY THE CONTRACTOR AND MADE AVAILABLE UPON REQUEST.

1. PROVIDE COVER OVER REINFORCING STEEL AS FOLLOWS:
   A. FOOTINGS 3"
   B. WALLS 2"

2. CURE ALL CONCRETE SURFACES FOR A PERIOD OF SEVEN DAYS UNTIL AVERAGE COMPRESSIVE STRENGTH HAS REACHED 70% OF THE SPECIFIED 28 DAY STRENGTH. CURING SHALL BE BY PONDING, MOIST CURING WITH SAND OR ABSORPTIVE MATS KEPT CONTINUOUSLY WET, CONTINUOUS APPLICATION OF STEAM (NOT EXCEEDING 105° F) OR MIST SPRAY, WATERPROOF CURING PAPER, OR LIQUID MEMBRANE FORMING CURING COMPOUND. SELECTION OF CURING METHOD SHALL BE COMPATIBLE WITH THE FINISH TO BE APPLIED TO THE CONCRETE SURFACE.

3. IN WALL CONSTRUCTION, CONCRETE SHALL BE PLACED IN A CONTINUOUS OPERATION IN LIFTS NOT TO EXCEED FOUR FEET. EACH LIFT SHALL BE CONSOLIDATED BY INTERNAL VIBRATION PRIOR TO CONTINUING TO THE NEXT LIFT. CONCRETE SHALL BE PLACED THROUGH VERTICAL, FLEXIBLE TRUNKS OR SHOOTS THAT CAN EXTEND TO THE BOTTOM OF THE FORMS. THE TRUNK SHALL BE LIFTED AS THE CONCRETE RISES. THE CONCRETE SHALL NOT FREE FALL.

CHEMICAL ADHESIVES FOR ANCHOR BOLTS/RODS AND REINFORCING BARS

1. USE AN EPOXY, ACRYLIC OR POLYESTER RESIN ADHESIVE SYSTEM SUCH AS:

   A. SET-XP MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. INSTALLED PER ICC-ES REPORT NO. 2508.
   B. HIT-HY 150 MANUFACTURED BY HILTI CORPORATION, INSTALLED PER ICC-ES REPORT NO. 3013.

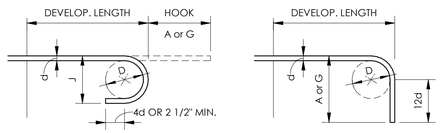
2. CHEMICALLY ADHERED ANCHOR BOLTS, RODS OR REBAR SHALL NOT BE USED AS SUSTITUTES FOR CAST-IN-PLACE ANCHOR BOLTS, RODS OR REBAR UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER.

3. IF ANCHOR LOCATIONS CONFLICT WITH REINFORCING STEEL OR OTHER EMBEDDED ITEM, NOTIFY THE ENGINEER. DO NOT CUT REINFORCING STEEL OR EMBEDDED ITEMS, OR REDUCE THE SPECFIED EMBEDMENT DEPTHS WITHOUT PRIOR APPROVAL.

REBAR LAP SPLICE LENGTHS

BAR SIZE	f'c = 3,000 PSI		f'c = 4,000 PSI		f'c = 5,000 PSI	
	CLASS A	CLASS B	CLASS A	CLASS B	CLASS A	CLASS B
#3	16"	21"	14"	18"	13"	17"
#4	22"	28"	19"	25"	17"	22"
#5	27"	36"	24"	31"	21"	28"
#6	33"	43"	28"	37"	25"	33"
#7	48"	62"	42"	54"	37"	48"
#8	55"	71"	47"	62"	42"	55"
#9	62"	80"	54"	70"	48"	62"
#10	70"	90"	60"	78"	54"	70"
#11	77"	100"	67"	87"	60"	78"

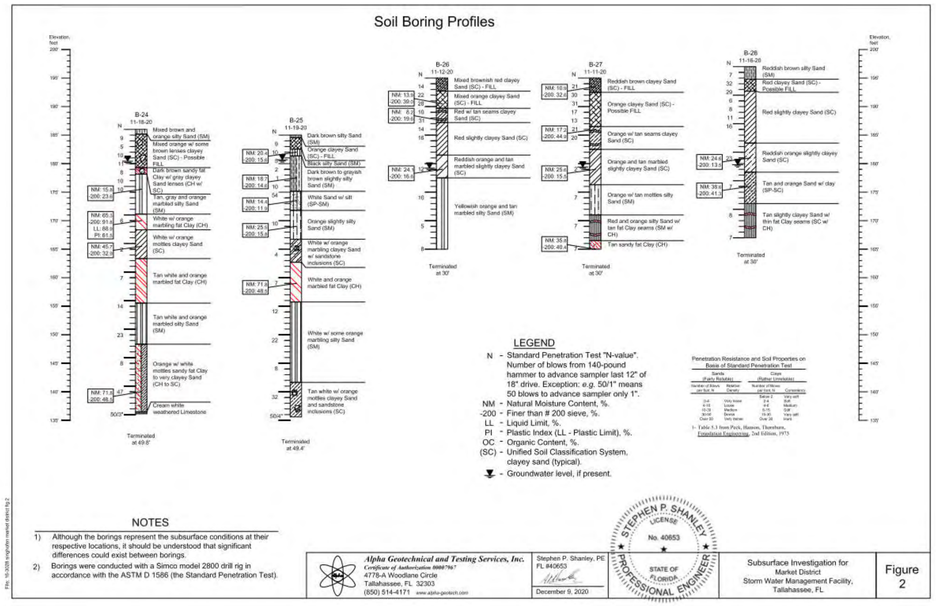
REBAR LAP SPLICE NOTES:
1. CLASS B SPLICES SHALL BE PROVIDED FOR ALL COLUMN REINFORCING STEEL.
2. CLASS A SPLICES ARE ALLOWED FOR CONTINUOUS REINFORCING STEEL IF NO MORE THAN 50% OF THE STEEL IS LAPPED AT THE SAME LOCATION.
3. IF THE DESIGN CONCRETE STRENGTH FOR THE PROJECT IS NOT LISTED ABOVE, THE LAP SPLICE LENGTH ASSOCIATED WITH THE NEXT CONCRETE STRENGTH BELOW THE DESIGN CONCRETE STRENGTH SHALL BE USED.

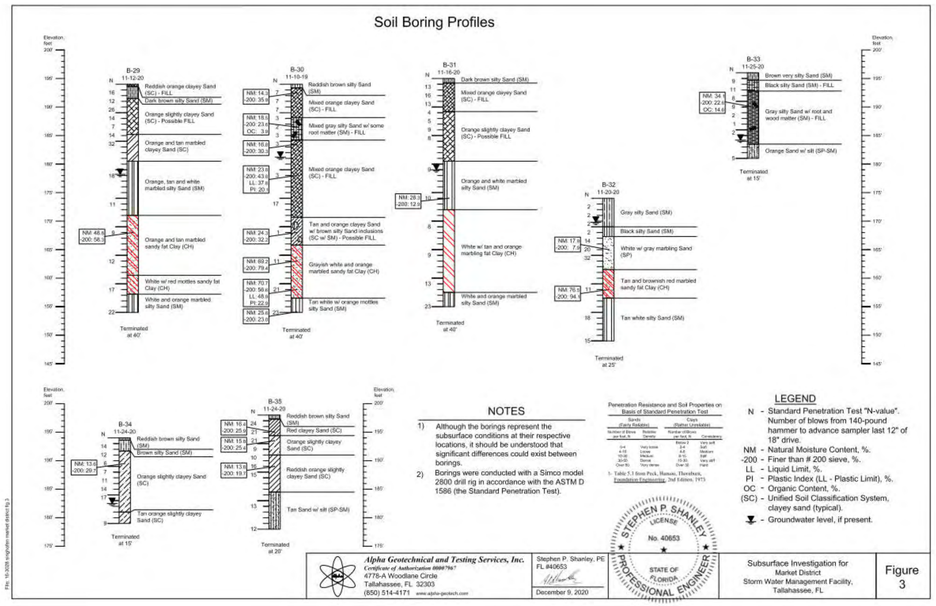


180° HOOK 90° HOOK

BAR SIZE	PIN Ø D	STD. HOOK DIMENSIONS		90° HK.	DEVELOP. LENGTHS		
		180° HOOK			CONC. COMP. STRENGTH		
		A or G	J	A or G	3,000 PSI	4,000 PSI	5,000 PSI
#3	2 1/4"	0'-5"	0'-3"	0'-6"	6"	6"	6"
#4	3"	0'-6"	0'-4"	0'-8"	8"	7"	6"
#5	3 3/4"	0'-7"	0'-5"	0'-10"	10"	9"	8"
#6	4 1/2"	0'-8"	0'-6"	1'-0"	12"	10"	9"
#7	5 1/4"	0'-10"	0'-7"	1'-2"	14"	12"	11"
#8	6"	0'-11"	0'-8"	1'-4"	16"	14"	12"
#9	9 1/2"	1'-3"	0'-11 3/4"	1'-8"	18"	15"	14"
#10	10 3/4"	1'-5"	1'-1 1/4"	1'-10"	20"	17"	15"
#11	12"	1'-7"	1'-2 3/4"	2'-1"	22"	19"	17"

REBAR STANDARD HOOK NOTES:
1. D = FINISHED BEND DIAMETERS
2. REFER TO ACI 315 FOR ALTERNATE BEND PATTERN DIMENSIONS AND REQUIREMENTS.
3. ASTM A767 REQUIRES THAT BARS BENT COLD PRIOR TO HOT DIP GALVANIZING MUST BE FABRICATED TO A MINIMUM BEND DIAMETER EQUAL TO 7 INCHES FOR #7 BAR AND 8 INCHES FOR #8 BAR.
4. IF THE DESIGN CONCRETE STRENGTH FOR THE PROJECT IS NOT LISTED ABOVE, THE DEVELOPMENT LENGTH ASSOCIATED WITH THE NEXT CONCRETE STRENGTH BELOW THE DESIGN CONCRETE STRENGTH SHALL BE USED.





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PROJECT

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

PROJECT LOCATION

Tallahassee, Florida

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

ISSUE DATE

December 10, 2020

PROJECT NUMBER

20285

PROJECT PHASE

Construction Documents

DRAWN BY	DESIGNED BY
B. Kever	B. Kever

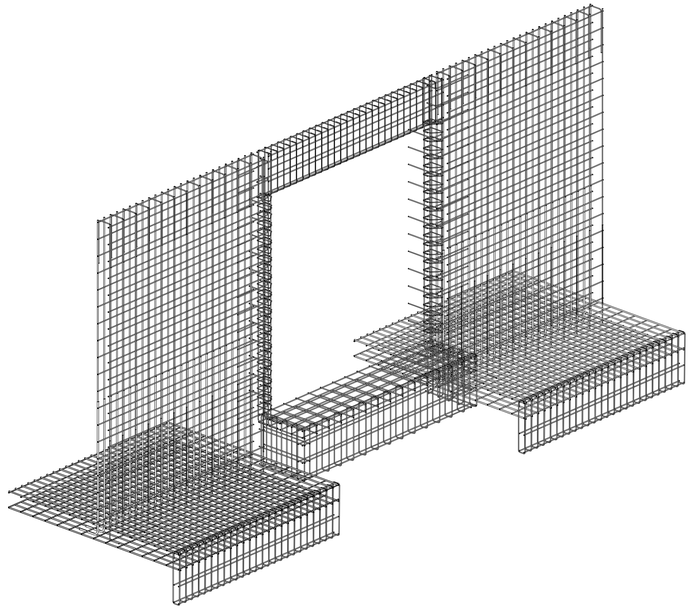
ENGINEERING SEAL

Brian E. Kever, P.E.
Florida P.E. No. 65627

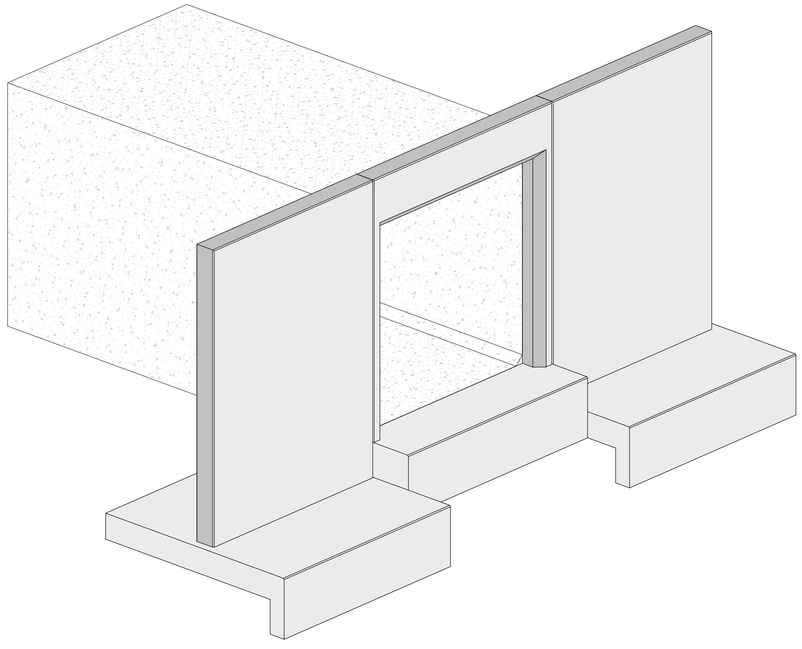
SHEET TITLE

General Notes & Geotechnical Information

S-1



2 S-2 ENDWALL REBAR 3D VIEW
Scale:



1 S-2 ENDWALL 3D VIEW
Scale:

ESTIMATED ENDWALL FOOTING QUANTITIES			
Ftg. Location	Est. Conc. Vol.	Est. Reinf. Wt.	Description
Apron	3.75 CY	362 lbf	Footing in Front of Culvert
Retaining Wall	20.34 CY	3,963 lbf	Wingwall Footings
TOTAL	24.09 CY	4,324 lbf	

ESTIMATED ENDWALL WALL QUANTITIES			
Wall Location	Est. Conc. Vol.	Est. Reinf. Wt.	Description
Culvert Opening	2.94 CY	399 lbf	Wall around Culvert Opening
Wingwalls	19.78 CY	3,540 lbf	Wingwalls
TOTAL	22.72 CY	3,938 lbf	

QUANTITIES NOTE

1. ALL QUANTITIES SHOWN IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. FINAL REBAR COUNTS, LENGTHS, AND WEIGHTS AS WELL AS FINAL CONCRETE VOLUMES ARE THE RESPONSIBILITY OF THE CONTRACTOR

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PROJECT PHASE

Construction Documents

DRAWN BY Author

DESIGNED BY Designer

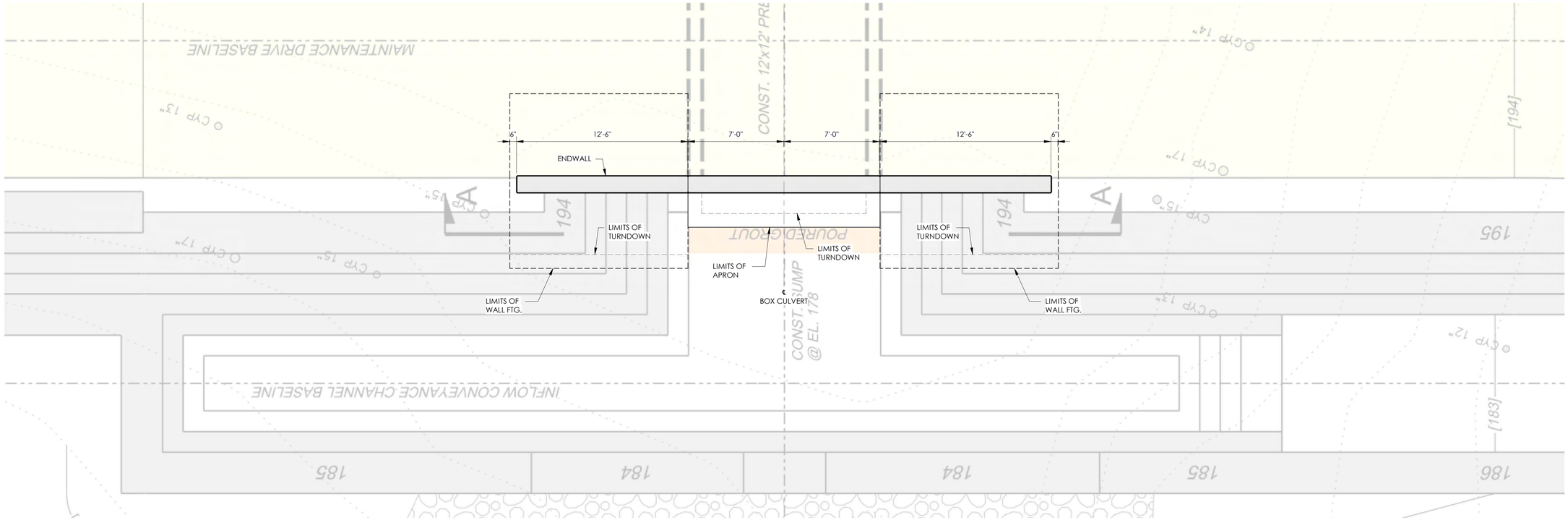
ENGINEERING SEAL

Brian E. Kever, P.E.
Florida P.E. No. 65627

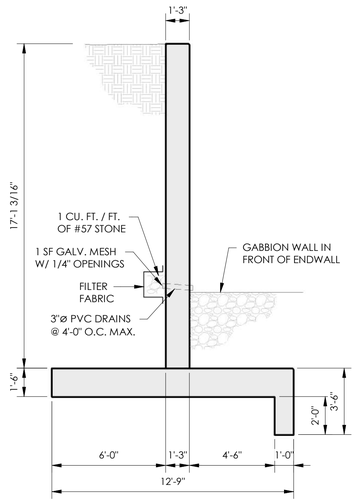
SHEET TITLE

Endwall 3D Views & Overall Quantities

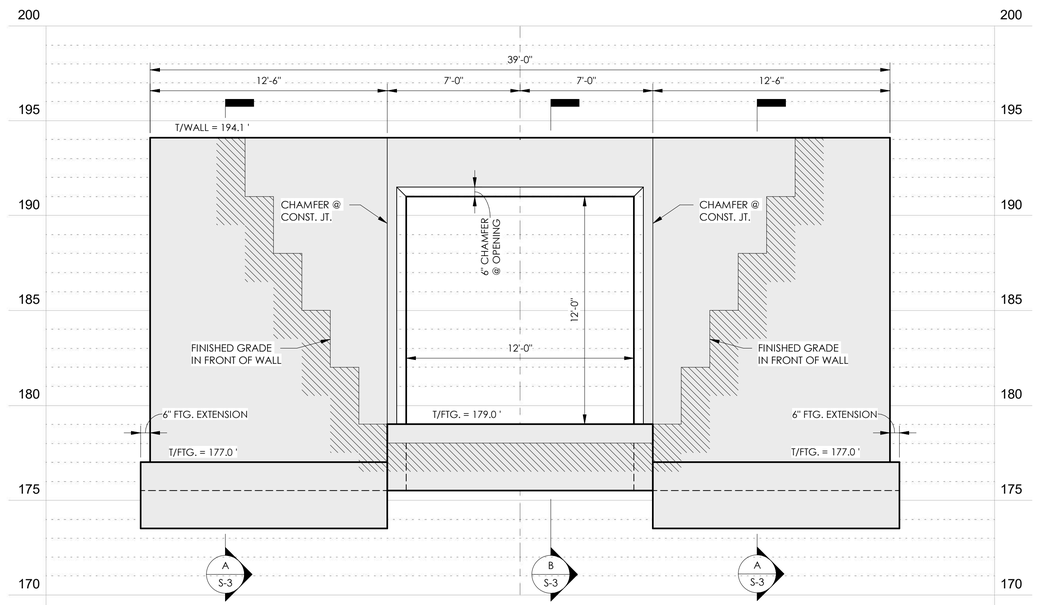
S-2



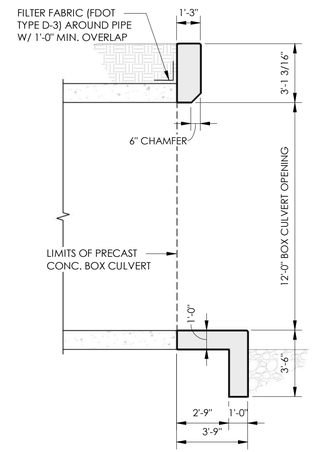
1 S-3 RETAINING WALL PLAN
Scale: 1/4" = 1'-0"



A S-3 TYPICAL WALL SECTION
Scale: 1/4" = 1'-0"



2 S-3 RETAINING WALL PROFILE
Scale: 1/4" = 1'-0"



B S-3 SECTION @ BOX CULVERT
Scale: 1/4" = 1'-0"

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PROJECT
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PROJECT PHASE
Construction Documents

DRAWN BY	DESIGNED BY
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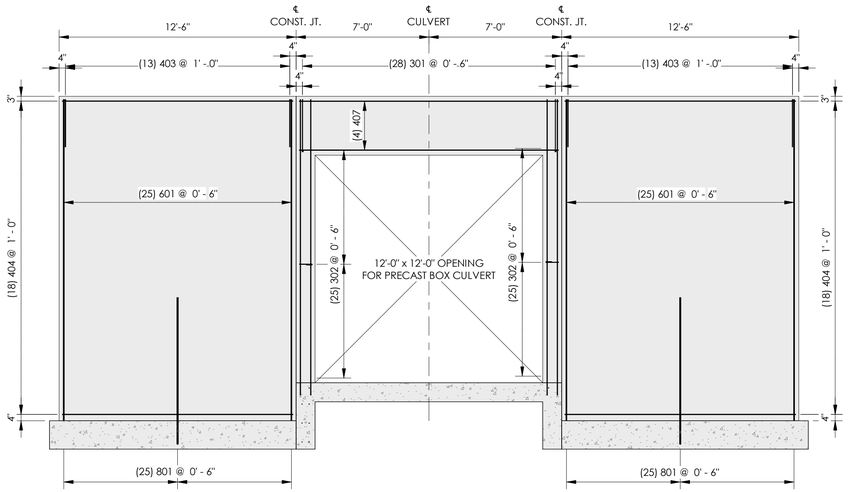
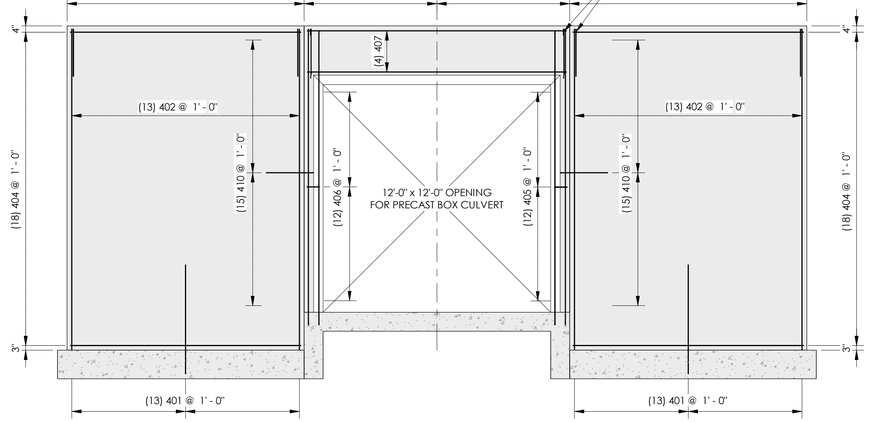
Florida P.E. No. 65627

SHEET TITLE
Endwall Plan & Profile

S-3

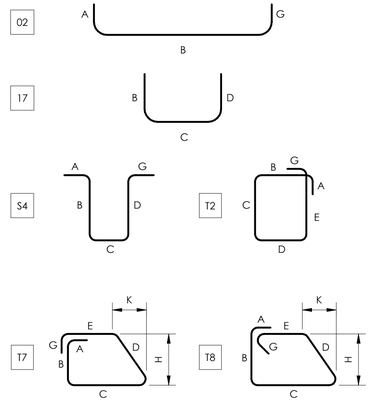


1 S-4 WALL BACK FACE REINFORCEMENT
Scale: 1/4" = 1'-0"

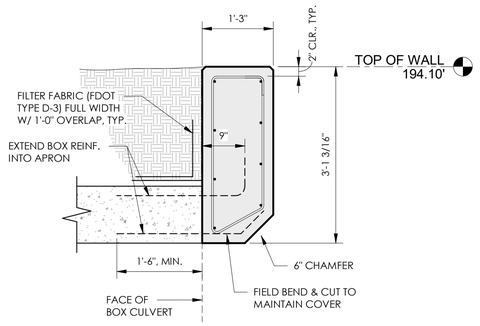


2 S-4 WALL FRONT FACE REINFORCEMENT
Scale: 1/4" = 1'-0"

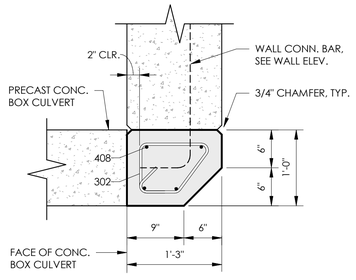
WALL REINFORCEMENT SCHEDULE														
Mark	Size	Quantity	Unit Length	Total Length	Shape	A	B	C	D	E	F	G	H	K
301	#3	28	7' - 5"	207' - 8"	T7	0' - 4"	0' - 11"	2' - 9"	1' - 0"	2' - 4"	0' - 0"	0' - 4"	0' - 11"	0' - 5"
302	#3	50	3' - 4"	166' - 8"	T8	0' - 4"	0' - 8"	0' - 11"	0' - 9"	0' - 6"	0' - 8"	0' - 4"	0' - 2"	0' - 5"
401	#4	26	6' - 4"	164' - 8"	02 Dowel	0' - 8"	5' - 9"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
402	#4	26	16' - 11"	439' - 10"	00	0' - 0"	16' - 11"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
403	#4	26	5' - 8"	147' - 4"	17	0' - 0"	2' - 6"	0' - 11"	2' - 6"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
404	#4	72	12' - 2"	876' - 0"	00	0' - 0"	12' - 2"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
405	#4	12	2' - 4"	28' - 0"	02 Dowel	0' - 8"	1' - 9"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
406	#4	12	2' - 3"	27' - 0"	02 Dowel	0' - 8"	1' - 8"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
407	#4	8	13' - 8"	109' - 4"	00	0' - 0"	13' - 8"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
409	#4	2	16' - 1"	32' - 2"	02 Dowel	0' - 8"	15' - 6"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
410	#4	30	3' - 1"	92' - 6"	02 Dowel	0' - 8"	2' - 6"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
408	#4	6	16' - 2"	97' - 0"	02 Dowel	0' - 8"	15' - 7"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
601	#6	50	16' - 11"	845' - 10"	00	0' - 0"	16' - 11"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
801	#8	50	8' - 10"	441' - 8"	02 Dowel	1' - 4"	7' - 9"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"	0' - 0"



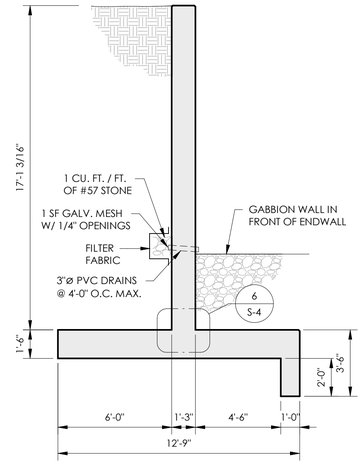
A S-4 WALL BAR BEND DIAGRAMS
Scale: 1" = 1'-0"



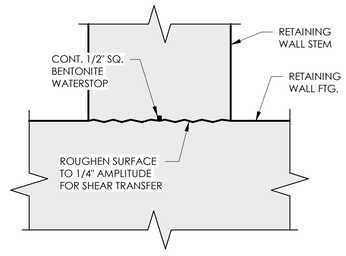
3 S-4 OPENING HEADER SECTION
Scale: 3/4" = 1'-0"



4 S-4 COLUMN PIER
Scale: 1" = 1'-0"



5 S-4 TYPICAL WALL DIMENSIONS
Scale: 1/4" = 1'-0"



6 S-4 TYPICAL WALL - FOOTING INTERFACE
Scale: 1 1/2" = 1'-0"

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PROJECT

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

PROJECT LOCATION

Tallahassee, Florida

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

ISSUE DATE

December 10, 2020

PROJECT NUMBER

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PROJECT PHASE

Construction Documents

DRAWN BY	DESIGNED BY
B. Kever	B. Kever

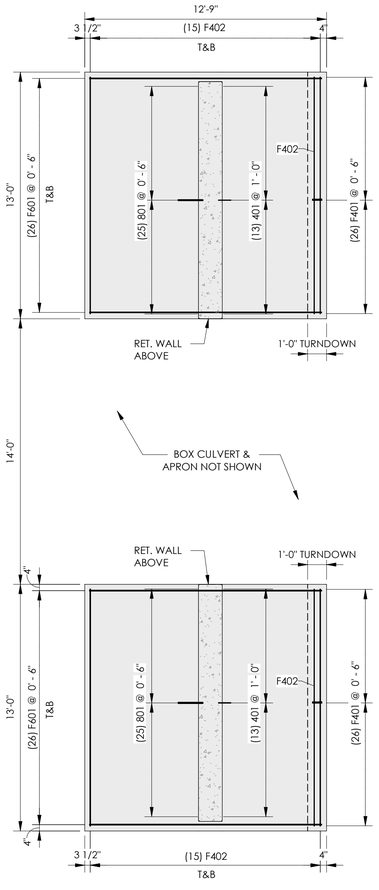
ENGINEERING SEAL

Brian E. Kever, P.E.
Florida P.E. No. 65627

SHEET TITLE

Endwall Wall Reinforcement

S-4

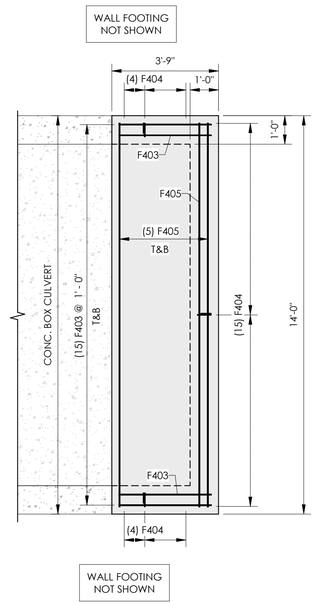


1 S-5 FOOTING REINFORCEMENT
Scale: 1/4" = 1'-0"

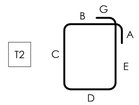
NOTE:
WALL DOWELS SHOWN ON FOUNDATION PLAN FOR LOCATION PURPOSES.

FOOTING REINFORCEMENT SCHEDULE

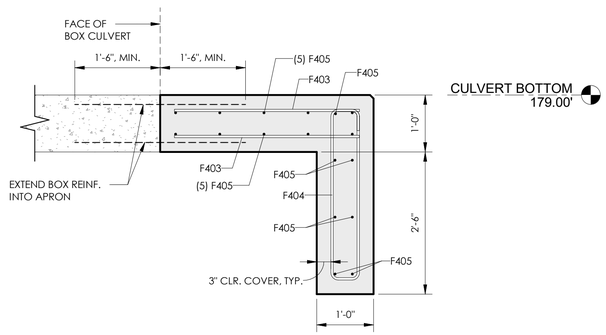
Mark	Size	Quantity	Unit Length	Total Length	Shape	A	B	C	D	E	G
F401	#4	52	7' - 4"	381' - 4"	T2	0' - 5"	3' - 0"	0' - 6"	3' - 0"	0' - 6"	0' - 5"
F402	#4	100	12' - 6"	1250' - 0"	00	0' - 0"	12' - 6"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
F403	#4	44	3' - 3"	143' - 0"	00	0' - 0"	3' - 3"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
F404	#4	23	7' - 4"	168' - 8"	T2	0' - 5"	0' - 6"	3' - 0"	0' - 6"	3' - 0"	0' - 5"
F405	#4	17	13' - 6"	229' - 6"	00	0' - 0"	13' - 6"	0' - 0"	0' - 0"	0' - 0"	0' - 0"
F601	#6	156	12' - 3"	1911' - 0"	00	0' - 0"	12' - 3"	0' - 0"	0' - 0"	0' - 0"	0' - 0"



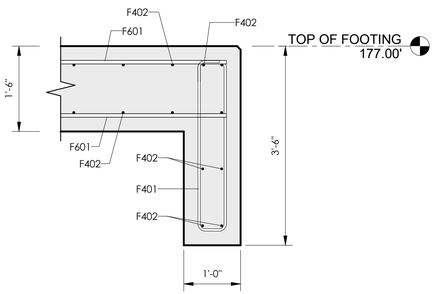
2 S-5 APRON REINFORCEMENT
Scale: 3/8" = 1'-0"



A S-5 FTG. BAR BEND DIAGRAMS
Scale: 1" = 1'-0"



3 S-5 OPENING APRON SECTION
Scale: 3/4" = 1'-0"



4 S-5 RETAINING WALL FOOTING TOE
Scale: 3/4" = 1'-0"

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PROJECT
MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

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Construction Documents

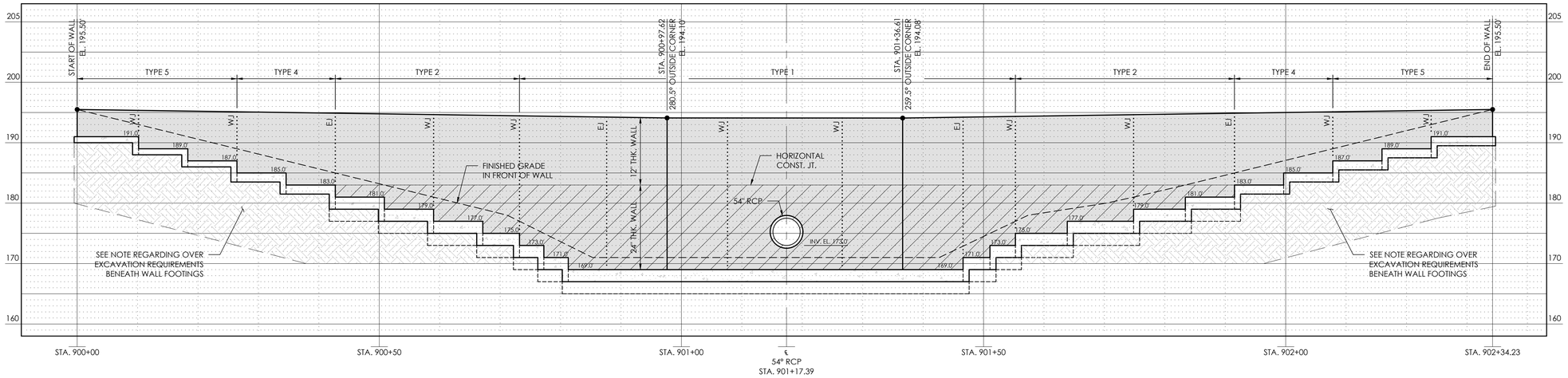
DRAWN BY	DESIGNED BY
B. Kever	B. Kever

ENGINEERING SEAL

Brian E. Kever, P.E.
Florida P.E. No. 65627

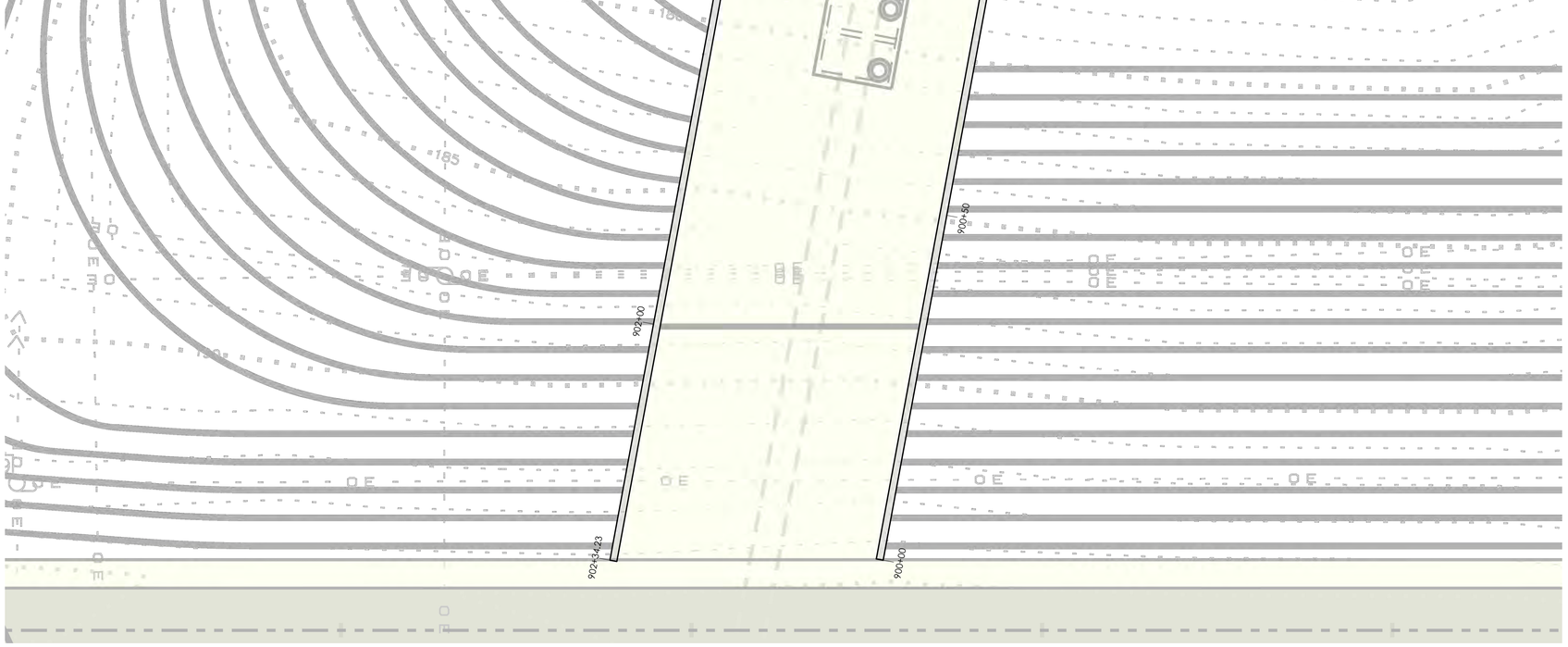
SHEET TITLE
Endwall Foundation Reinforcement

S-5



A S-6 SOUTH RETAINING WALL PROFILE

VERT. SCALE: 1" = 10'-0"
HORIZ. SCALE: 1" = 10'-0"



B S-6 SOUTH RETAINING WALL PLAN

SCALE: 1" = 10'-0"

SOUTH WALL - MATERIAL QUANTITY ESTIMATE				
WALL MARK	MATERIAL			
	WALL CONC.	WALL REINF.	FOOTING CONC.	FOOTING REINF.
TYPE 1	129.5 CY	25,670 LBS	157.8 CY	26,830 LBS
TYPE 2	60.4 CY	12,170 LBS	109.1 CY	11,610 LBS
TYPE 4	15.0 CY	2,460 LBS	19.4 CY	1,970 LBS
TYPE 5	13.7 CY	2,280 LBS	21.7 CY	2,150 LBS

QUANTITY ESTIMATE NOTE:
THIS TABLE PROVIDES ESTIMATED QUANTITIES FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING QUANTITIES PER THE REQUIREMENTS DETAILED IN THESE CONSTRUCTION DOCUMENTS. A 1.125 MULTIPLIER HAS BEEN APPLIED TO THESE TABULATED VALUES FOR CONSTRUCTION CONTENGENCY.

PLAN & PROFILE NOTES:

1. SOIL BENEATH FOOTINGS SHALL BE UNDERCUT TO ELEVATION 170', OR A MAXIMUM OF 10'-0" BELOW THE BOTTOM OF FOOTING, AND BACK-FILLED IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED IN SECTION 5.3 OF THE GEOTECHNICAL REPORT. THIS UNDERCUTTING SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE WALL AND INCLUDED IN THE UNIT PRICES FOR THE WALL.
2. PROVIDE SAN DIEGO WOOD PLANK (PATTERN 16919) FORMLINER BY FITZGERALD FORMLINERS, OR EQUAL, ON ALL EXPOSED FACES OF RETAINING WALL. THE THICKNESS OF WALLS SHOWN IS THE STRUCTURAL THICKNESS AND SHALL BE INCREASED AS NECESSARY TO ACCOMMODATE THE REVEAL DEPTH OF THE FORMLINER.
3. ALL STATIONING, DIMENSIONS, AND CURVE DATA IS GIVEN BASED ON THE EXPOSED FACE OF THE RETAINING WALL.
4. SEE DETAILS FOR WALL JOINT INFORMATION.

FOOTING STEP / WALL JOINT LAYOUT			
STATION	FOOTING STEPS		WALL STEM JOINT TYPE
	HIGH T/FTG.	LOW T/FTG.	
900+10.17	191.0'	189.0'	W.J.
900+18.31	189.0'	187.0'	-
900+26.44	187.0'	185.0'	W.J.
900+34.58	185.0'	183.0'	-
900+42.71	183.0'	181.0'	E.J.
900+50.84	181.0'	179.0'	-
900+58.98	179.0'	177.0'	W.J.
900+67.12	177.0'	175.0'	-
900+73.20	175.0'	173.0'	W.J.
900+77.23	173.0'	171.0'	-
900+81.27	171.0'	169.0'	-
900+87.62	-	-	E.J.
901+07.62	-	-	W.J.
901+26.61	-	-	W.J.
901+46.61	171.0'	169.0'	E.J.
901+51.06	173.0'	171.0'	-
901+55.27	175.0'	173.0'	W.J.
901+63.85	177.0'	175.0'	-
901+74.82	179.0'	177.0'	W.J.
901+83.39	181.0'	179.0'	-
901+91.52	183.0'	181.0'	E.J.
901+99.66	185.0'	183.0'	-
902+07.79	187.0'	185.0'	W.J.
902+15.93	189.0'	187.0'	-
902+24.06	191.0'	189.0'	W.J.

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PROJECT

MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

PROJECT LOCATION

Tallahassee, Florida

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

ISSUE DATE

December 10, 2020

PROJECT NUMBER

20285

PROJECT PHASE

Construction Documents

DRAWN BY

B. Kever

DESIGNED BY

B. Kever

ENGINEERING SEAL

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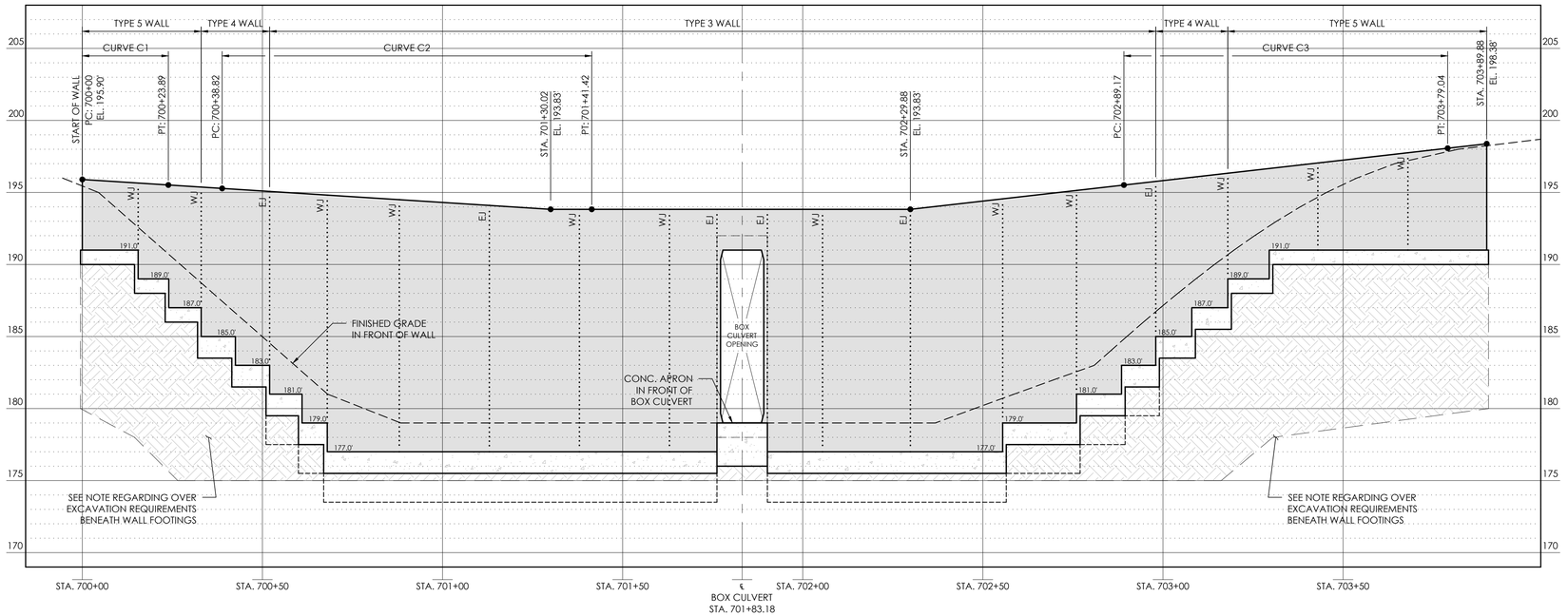
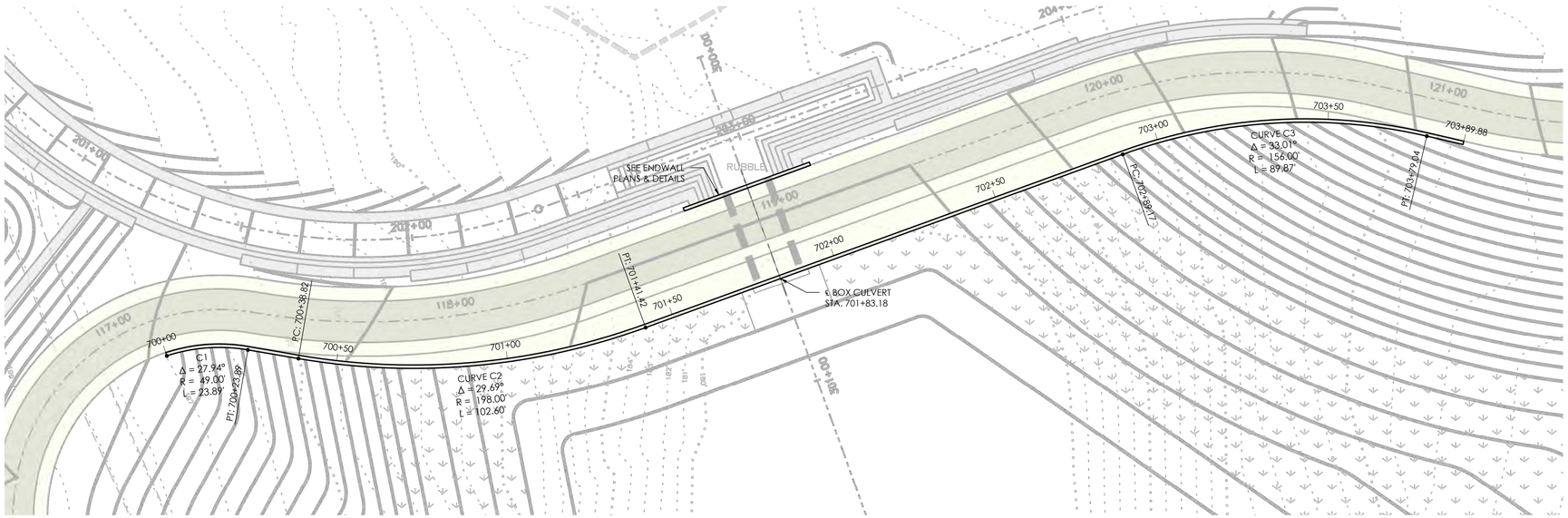
SHEET TITLE

South Retaining Wall Plan & Profile

S-6



A S-7 NORTH RETAINING WALL PROFILE
VERT. SCALE: 1" = 5'-0"
HORIZ. SCALE: 1" = 20'-0"



B S-7 NORTH RETAINING WALL PLAN
SCALE: 1" = 20'-0"

NORTH WALL - MATERIAL QUANTITY ESTIMATE				
WALL MARK	MATERIAL			
	WALL CONC.	WALL REINF.	FOOTING CONC.	FOOTING REINF.
TYPE 3	201.3 CY	39,380 LBS	217.6 CY	21,920 LBS
TYPE 4	17.3 CY	2,950 LBS	21.5 CY	2,190 LBS
TYPE 5	28.6 CY	4,520 LBS	41.3 CY	4,080 LBS

QUANTITY ESTIMATE NOTE:
THIS TABLE PROVIDES ESTIMATED QUANTITIES FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING QUANTITIES PER THE REQUIREMENTS DETAILED IN THESE CONSTRUCTION DOCUMENTS. A 1.125 MULTIPLIER HAS BEEN APPLIED TO THESE TABULATED VALUES FOR CONSTRUCTION CONTENGENCY.

PLAN & PROFILE NOTES:
1. THE SOIL BENEATH FOOTINGS SHALL BE UNDERCUT TO ELEVATION 175', OR A MAXIMUM OF 10'-0" BELOW THE BOTTOM OF FOOTING, AND BACK-FILLED IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED IN SECTION 5.3 OF THE GEOTECHNICAL REPORT. THIS UNDERCUTTING SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE WALL AND INCLUDED IN THE UNIT PRICES FOR THE WALL.
2. PROVIDE SAN DIEGO WOOD PLANK (PATTERN 16919) FORMLINER BY FITZGERALD FORMLINERS, OR EQUAL, ON ALL EXPOSED FACES OF RETAINING WALL. THE THICKNESS OF WALLS SHOWN IS THE STRUCTURAL THICKNESS AND SHALL BE INCREASED AS NECESSARY TO ACCOMMODATE THE REVEAL DEPTH OF THE FORMLINER.
3. ALL STATIONING, DIMENSIONS, AND CURVE DATA IS GIVEN BASED ON THE EXPOSED FACE OF THE RETAINING WALL.
4. EXPANSION JOINTS TO EITHER SIDE OF BOX CULVERT ARE NOT SHOWN IN THE TABLE BELOW.
5. SEE DETAILS FOR WALL JOINT INFORMATION.

FOOTING STEP / WALL JOINT LAYOUT			
STATION	FOOTING STEPS		WALL STEM JOINT TYPE
	HIGH T/FTG.	LOW T/FTG.	
700+15.50	191.0'	189.0'	W.J.
700+24	189.0'	187.0'	-
700+33	187.0'	185.0'	W.J.
700+42.5	185.0'	183.0'	-
700+52	183.0'	181.0'	E.J.
700+61	181.0'	179.0'	-
700+68	179.0'	177.0'	W.J.
700+88	-	-	W.J.
701+13	-	-	E.J.
701+38	-	-	W.J.
701+63	-	-	W.J.
702+05.5	-	-	W.J.
702+29.88	-	-	E.J.
702+55.5	179.0'	177.0'	W.J.
702+76	181.0'	179.0'	W.J.
702+88.5	183.0'	181.0'	-
702+98	185.0'	183.0'	E.J.
703+08	187.0'	185.0'	-
703+18	189.0'	187.0'	W.J.
703+29.5	191.0'	189.0'	-
703+43	-	-	W.J.
703+68	-	-	W.J.

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PROJECT
MARKET DISTRICT MULTI-PURPOSE STORMWATER PROJECT PHASE II - WEST STORMWATER FACILITY

PROJECT LOCATION
Tallahassee, Florida

REVISION SCHEDULE
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ISSUE DATE
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PROJECT PHASE
Construction Documents

DRAWN BY
B. Kever

DESIGNED BY
B. Kever

ENGINEERING SEAL

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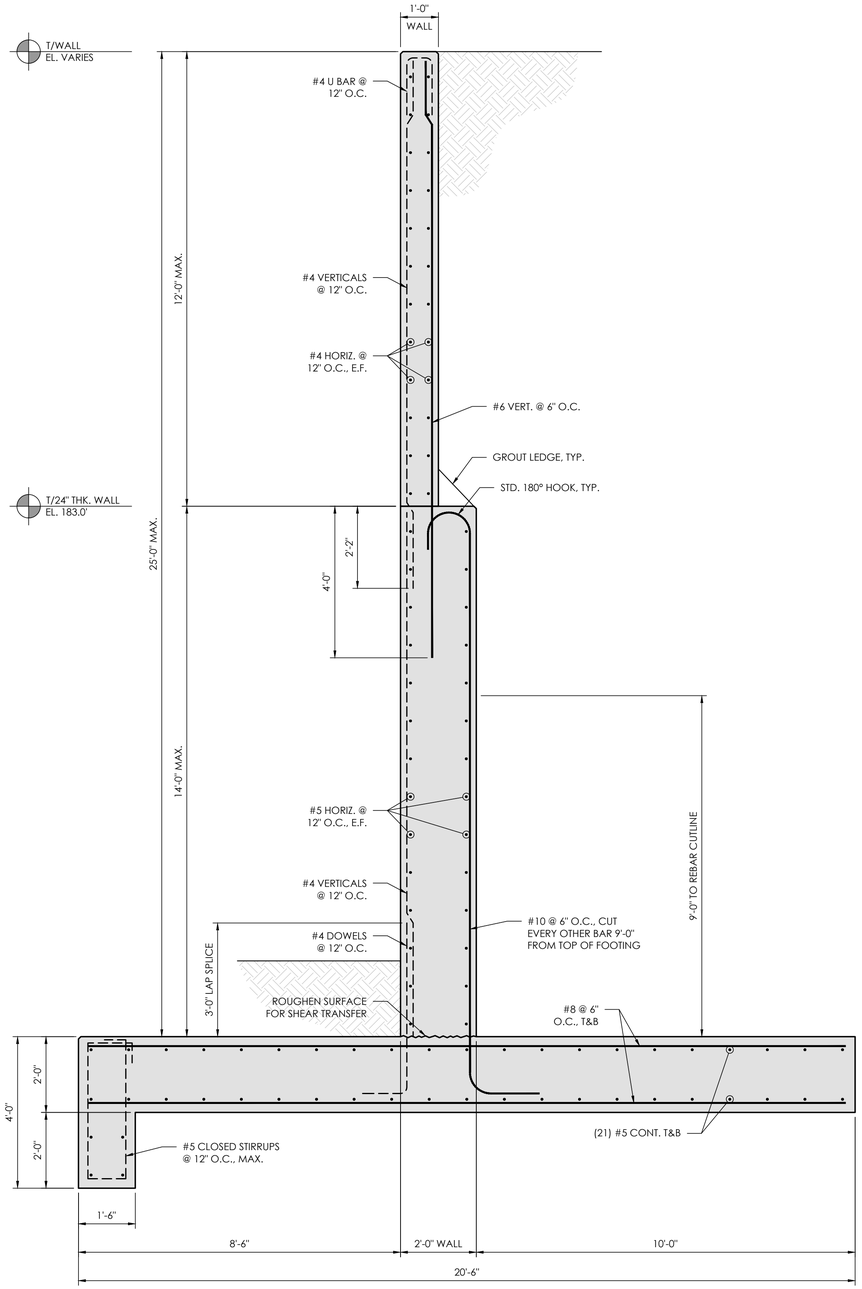
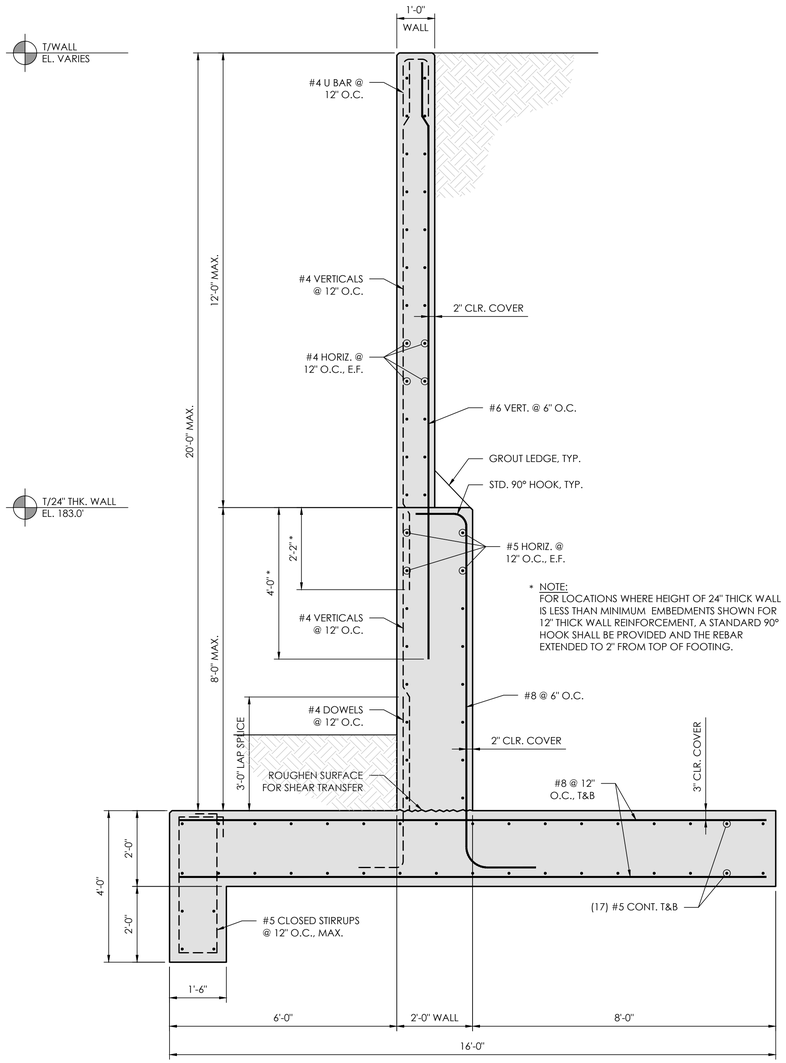
SHEET TITLE
North Retaining Wall Plan & Profile

S-7



A S-8 TYPE 1 WALL SECTION
SCALE: 1/2" = 1'-0"



B S-8 TYPE 2 WALL SECTION
SCALE: 1/2" = 1'-0"

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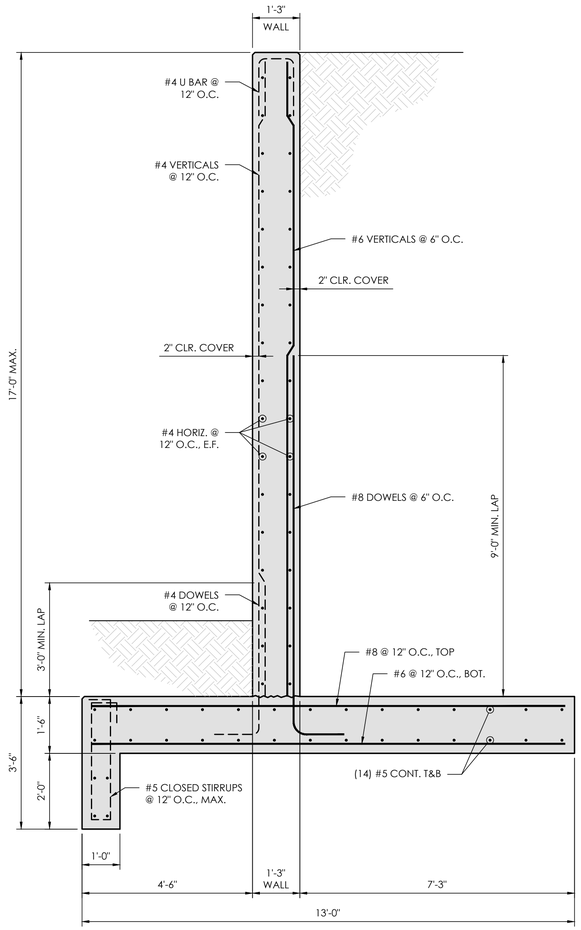
Florida P.E. No. 65627

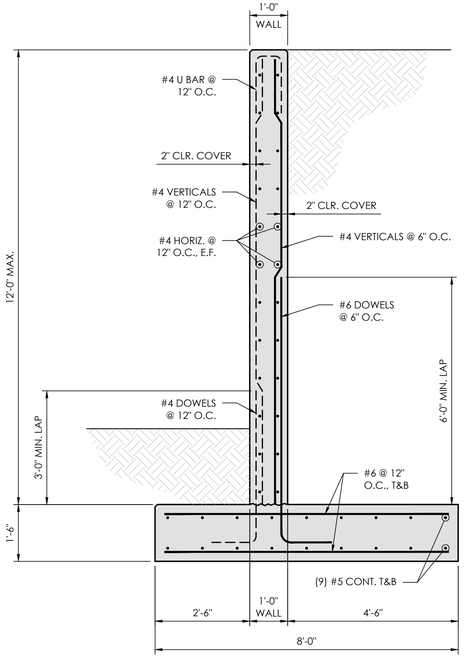
SHEET TITLE

Retaining Wall Sections

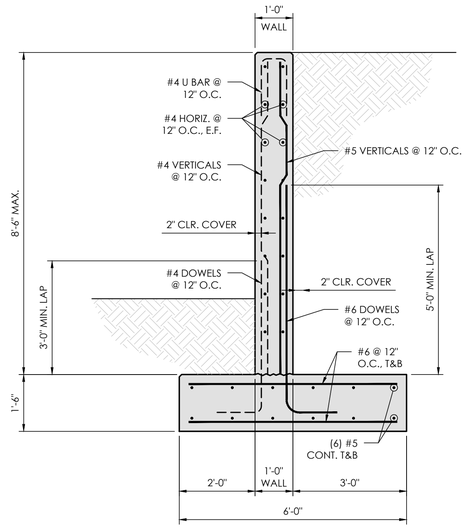
S-8



A S-9 TYPE 3 WALL SECTION
SCALE: 1/2" = 1'-0"



B S-9 TYPE 4 WALL SECTION
SCALE: 1/2" = 1'-0"



C S-9 TYPE 5 WALL SECTION
SCALE: 1/2" = 1'-0"

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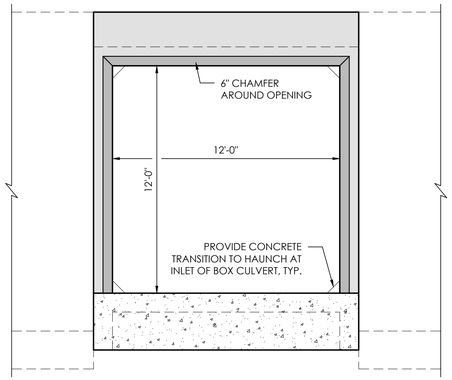
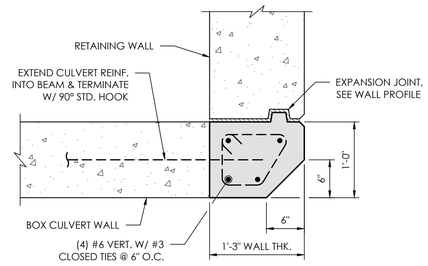
SHEET TITLE

Retaining Wall Sections

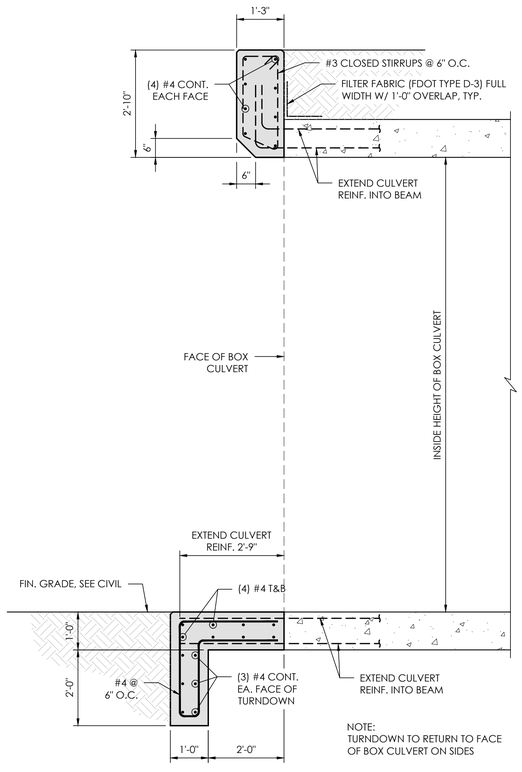
S-9



A S-10 WALL ELEV. @ BOX CULVERT
SCALE: 1/2" = 1'-0"



B S-10 BOX CULVERT COL. SECTION
SCALE: 1/2" = 1'-0"



C S-10 TYP. SECTION THRU OPENING
SCALE: 1/2" = 1'-0"

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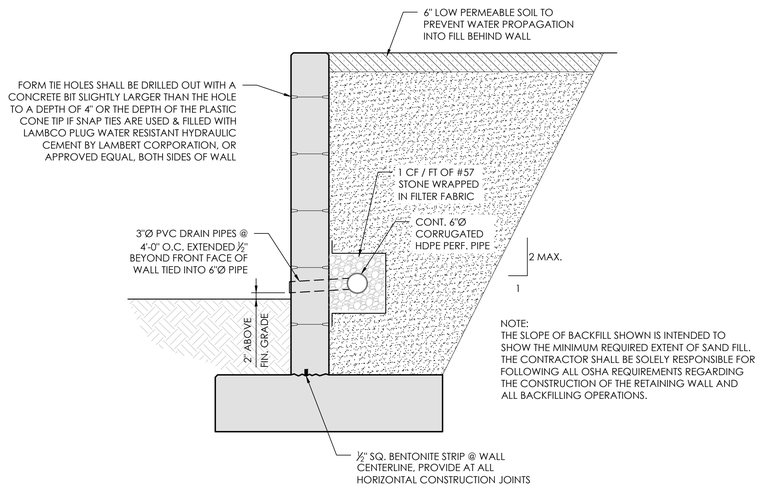
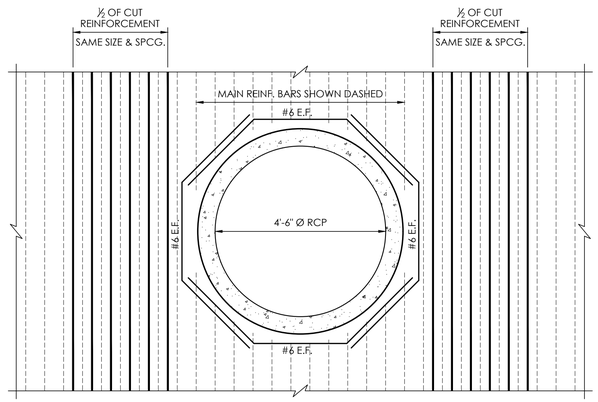
SHEET TITLE
Retaining Wall Details at Box Culvert

S-10

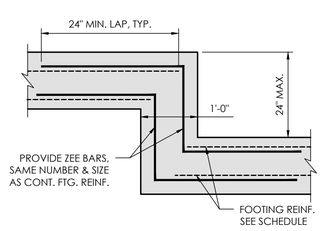


NOTE:
THE SLOPE OF BACKFILL SHOWN IS INTENDED TO SHOW THE MINIMUM REQUIRED EXTENT OF SAND FILL. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FOLLOWING ALL OSHA REQUIREMENTS REGARDING THE CONSTRUCTION OF THE RETAINING WALL AND ALL BACKFILLING OPERATIONS.

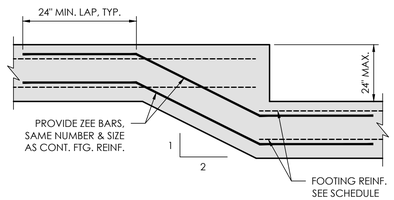
A S-11 TYP. WALL CONST. DETAILS
SCALE: 1/2" = 1'-0"



B S-11 WALL REINF. @ RCP
SCALE: 1/2" = 1'-0"

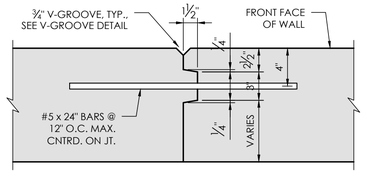


WALL FOOTING STEP

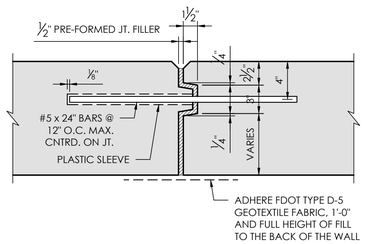


ALTERNATE WALL FOOTING STEP

C S-11 FOOTING STEP DETAILS
SCALE: 3/4" = 1'-0"



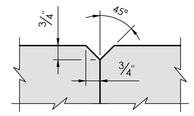
TYPICAL WALL CONTROL JOINT (WJ)



TYPICAL EXPANSION JOINT (EJ)

WALL JOINT NOTES:
1. KEY TO STOP AT TOP OF FOOTING & 6" FROM TOP OF WALL. JOINT ACROSS FOOTING AND TOP OF WALL TO BE A STRAIGHT LINE.
2. STAY IN PLACE PLASTIC PREFORMED BOND BREAKERS ARE PERMITTED TO FORM JOINTS.

D S-11 TYPICAL WALL JOINTS
SCALE: 1 1/2" = 1'-0"



E S-11 TYP. V-GROOVE JOINT
SCALE: 3" = 1'-0"

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SHEET TITLE
Miscellaneous Details

S-11