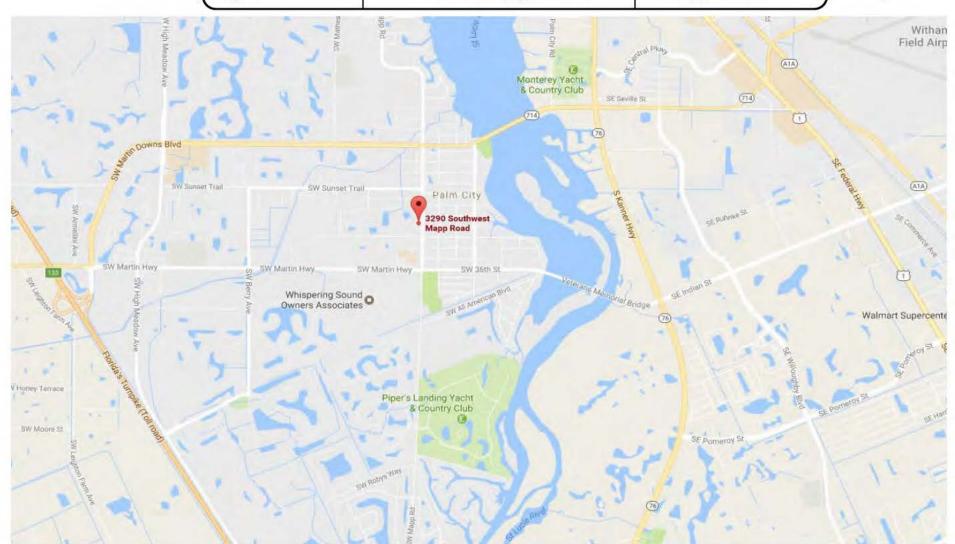


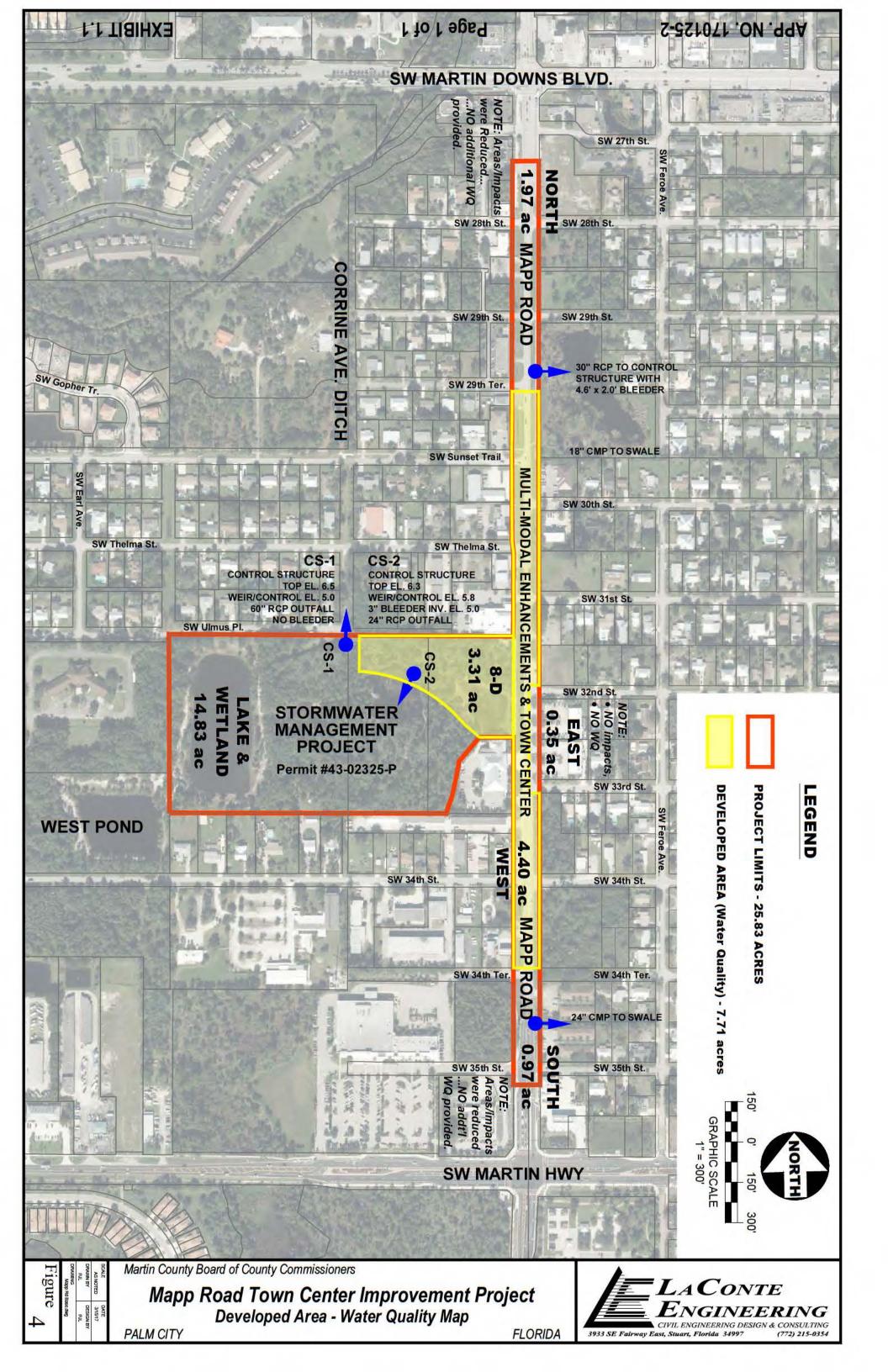
Environmental Assessment

Mapp Road Town Center Palm City, Martin County, FL

Property Location

Project: 3290 SW Mapp Road 3/9/2017

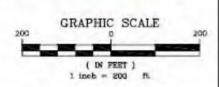






Note

For assessment purposes only. This is not a survey. Wetland delineation has not been verified by a state or federal agency. The points represent GPS waypoints as flagged by Crossroads Environmental.





Pen sen

Mapp Road Town Center

Martin County, Florida

DRAVING

Wetland Delineation

J.Rodriguez

SCALE-200 BATE-07/22/08 REVISION

1 of 1



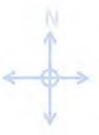
Environmental Assessment

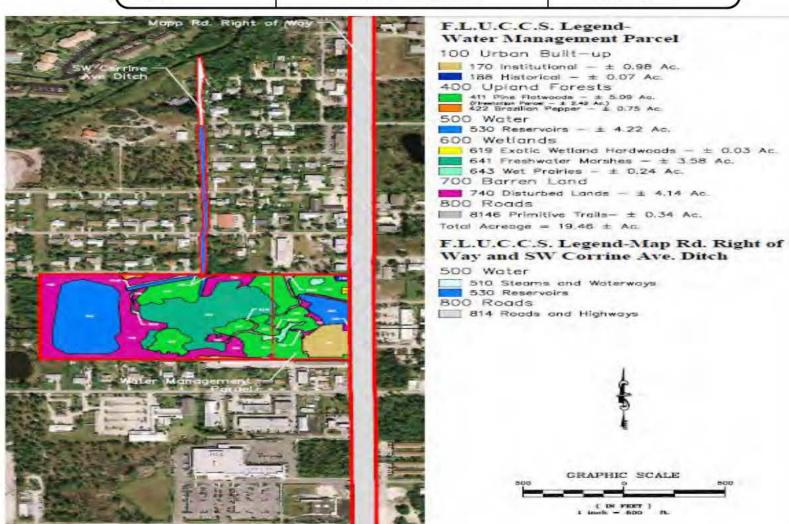
Mapp Road Town Center Palm City, Martin County, FL

FLUCCS Map (Part I)

Project: 3290 SW Mapp Road

3/9/2017







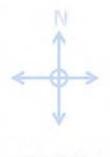
Environmental Assessment

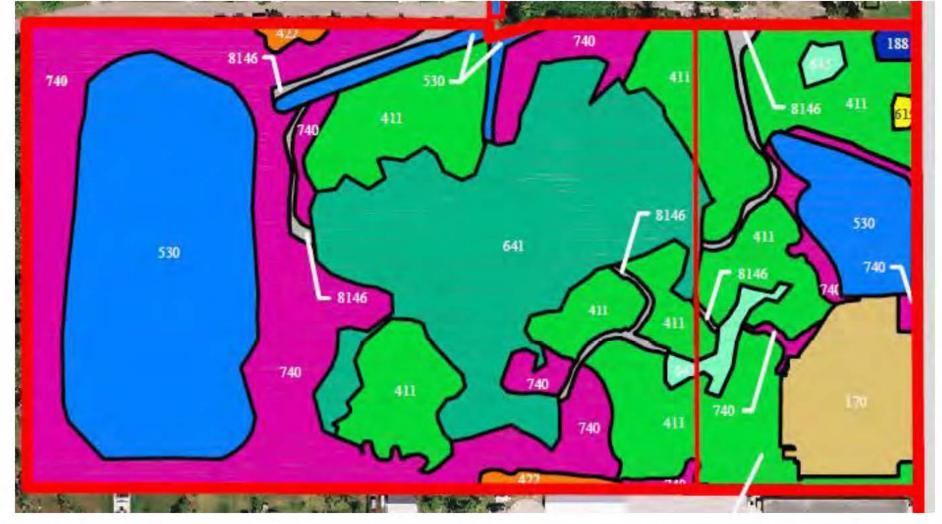
Mapp Road Town Center Palm City, Martin County, FL

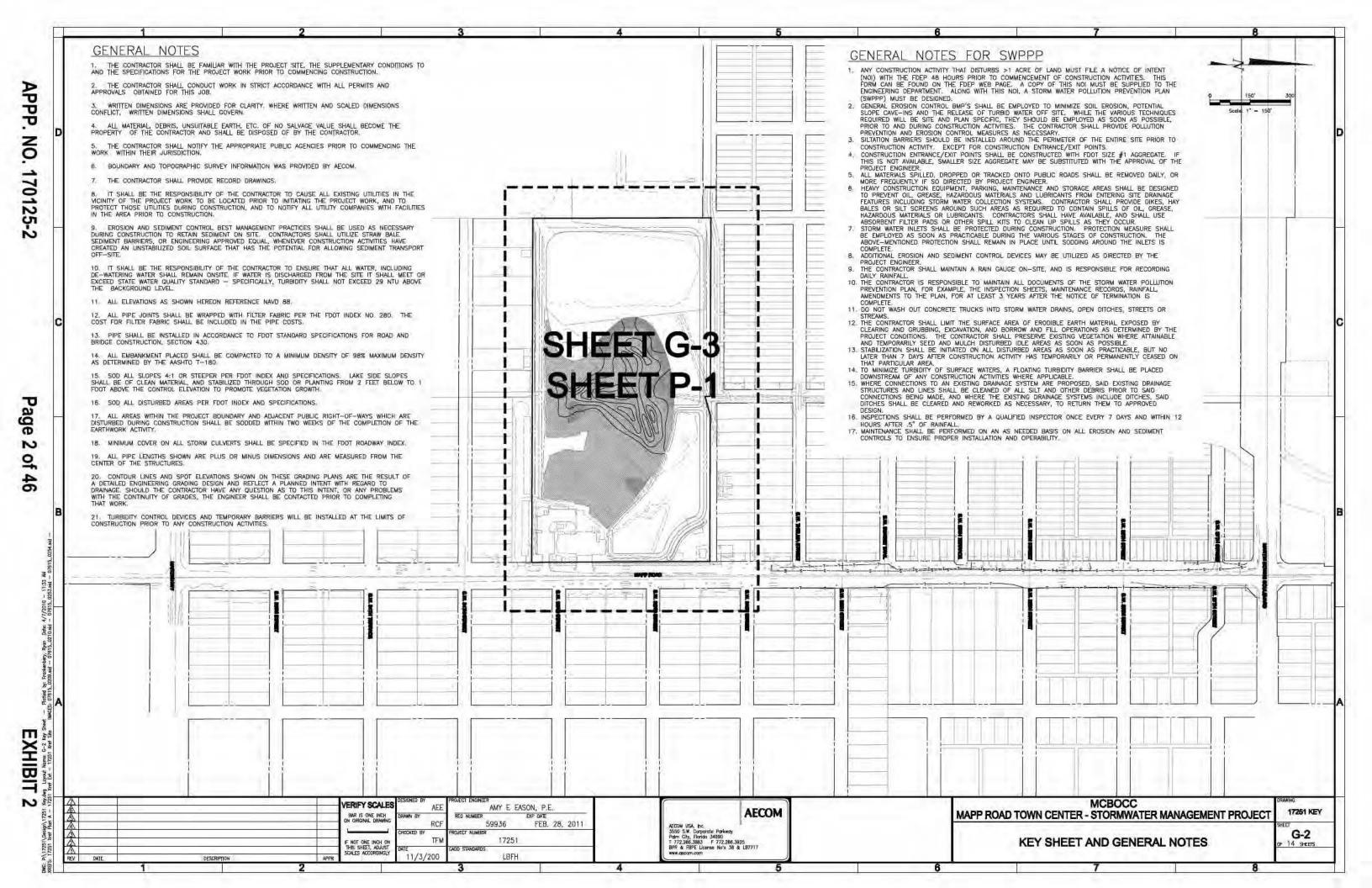
FLUCCS Map (Part II)

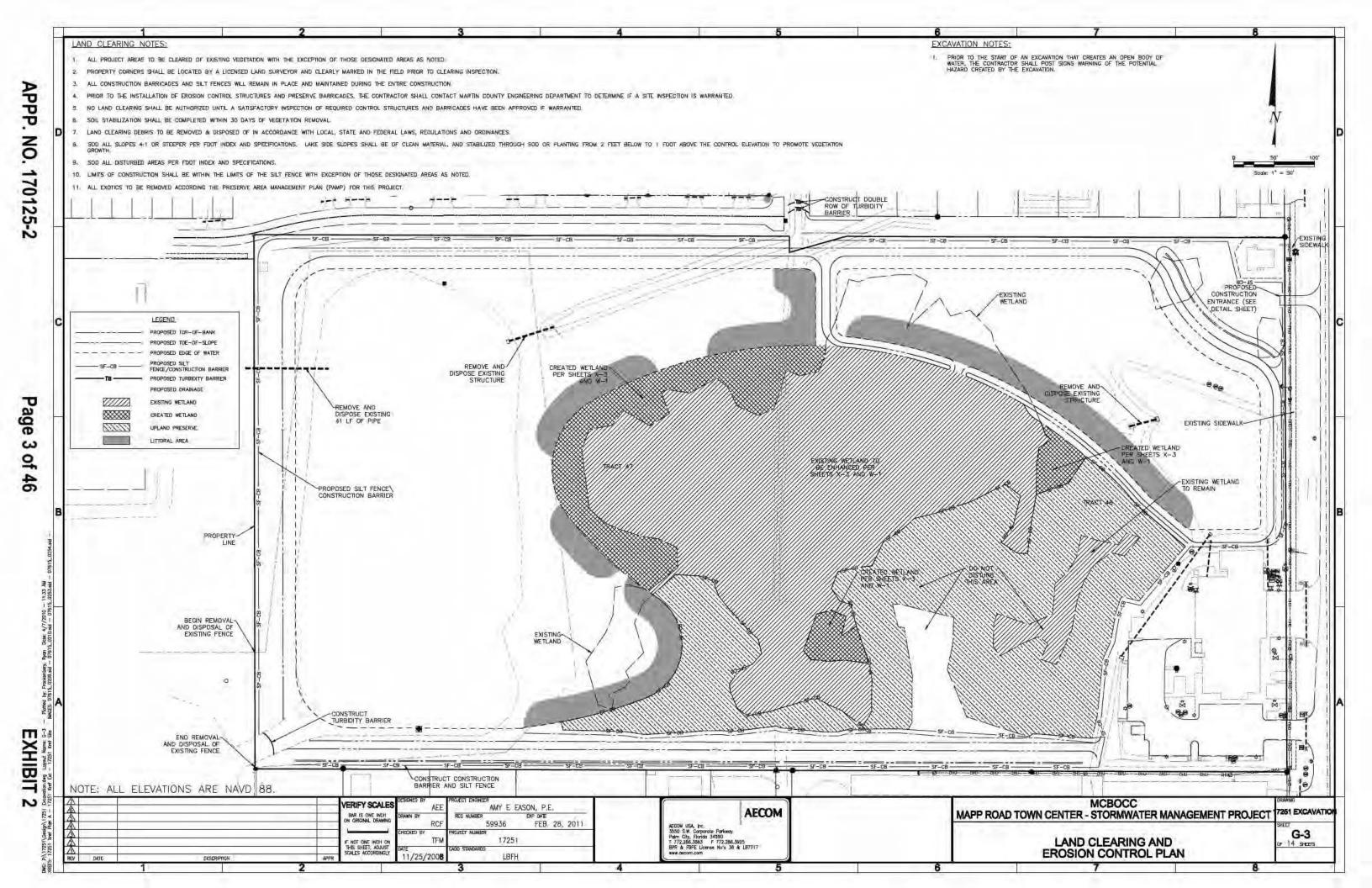
Project: 3290 SW Mapp Road 3/9

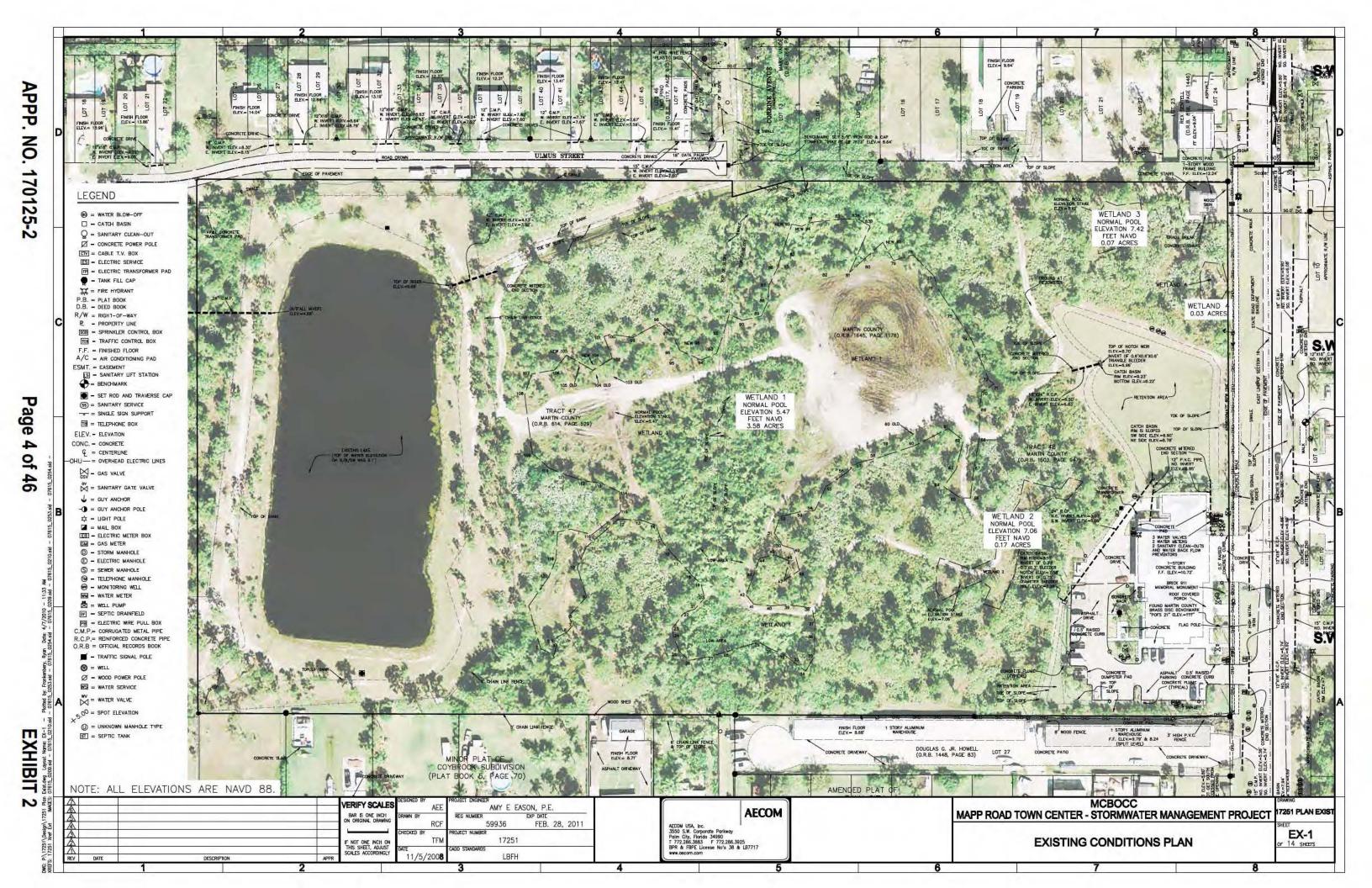
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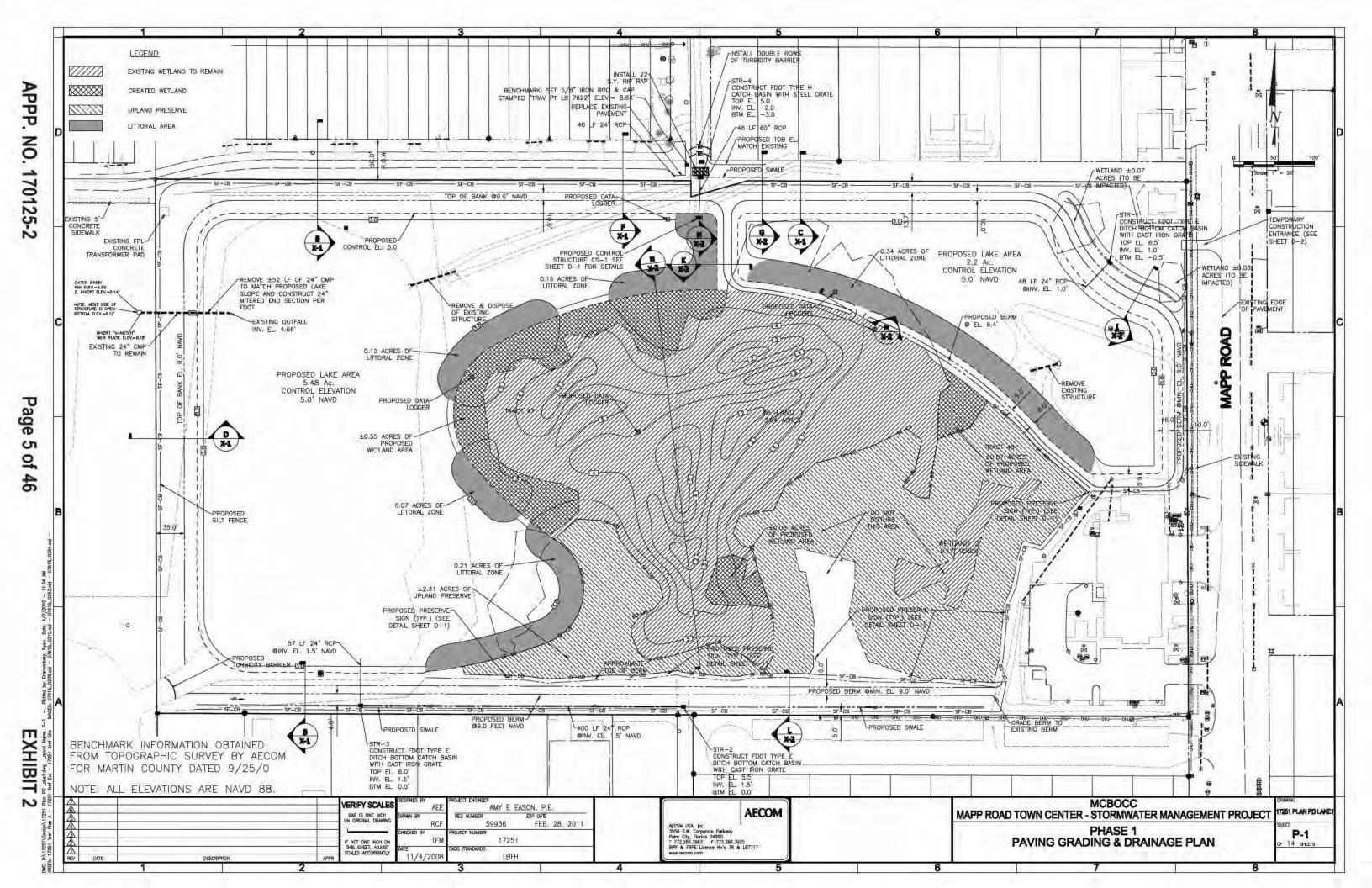


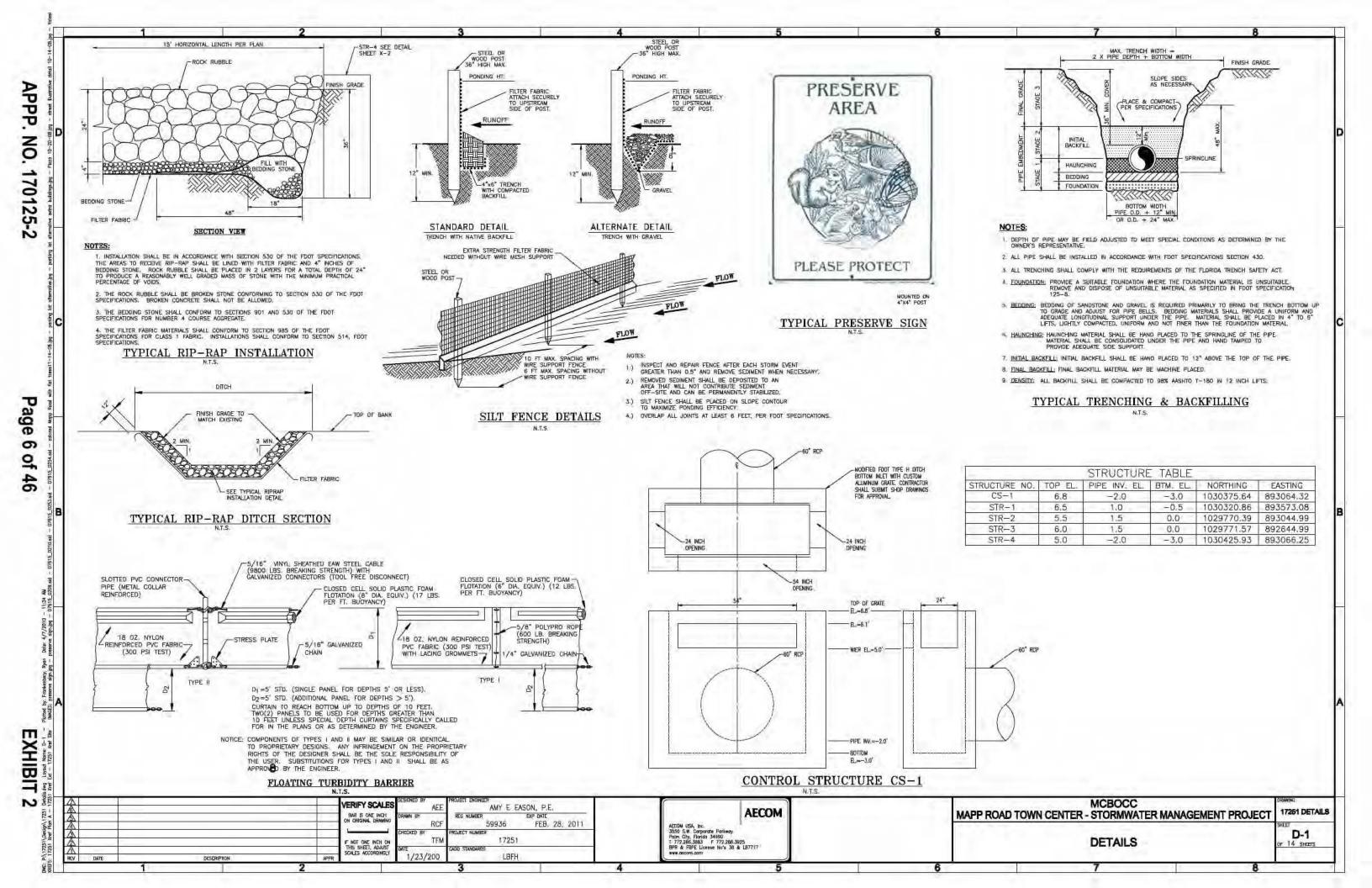


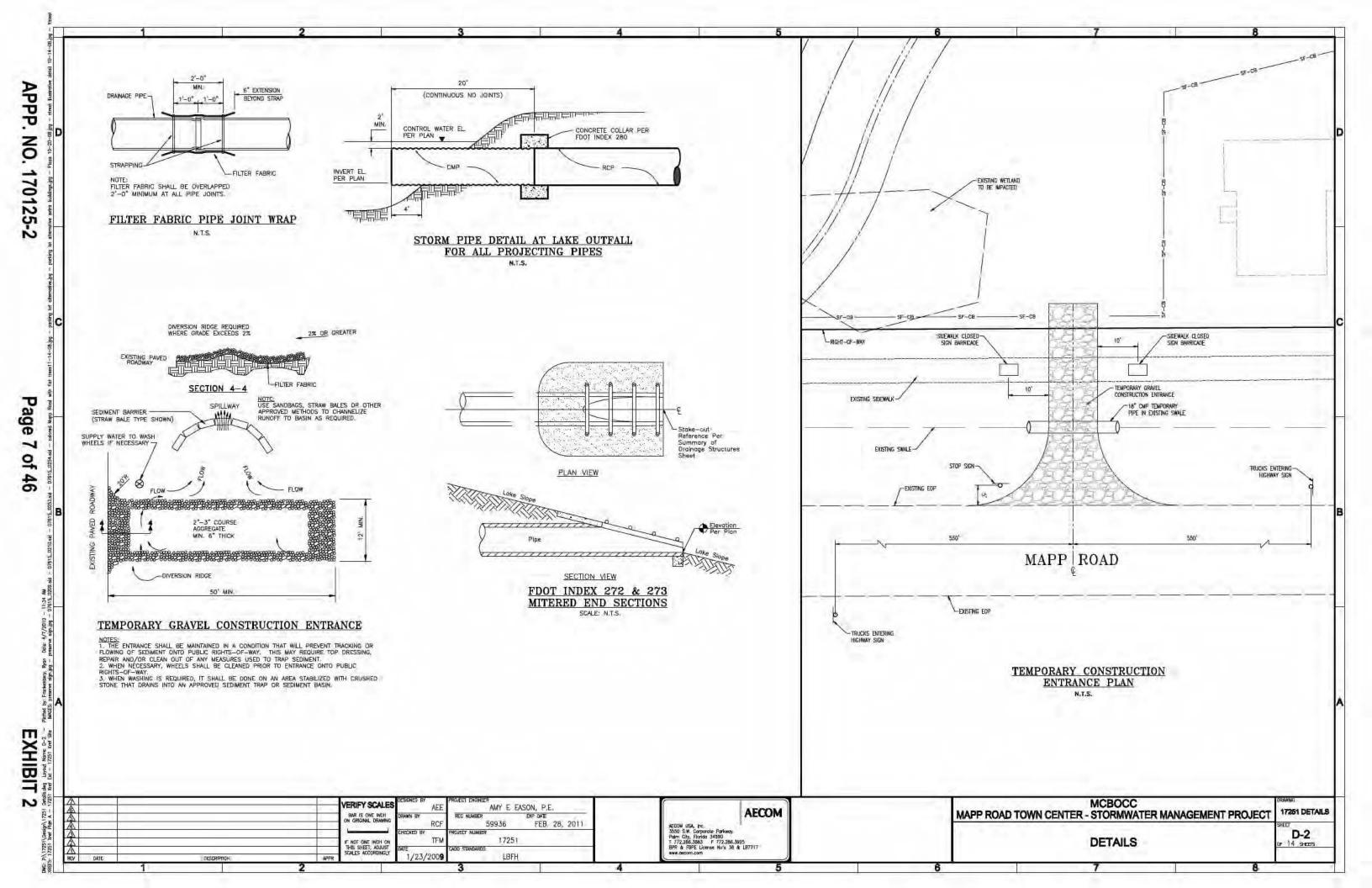


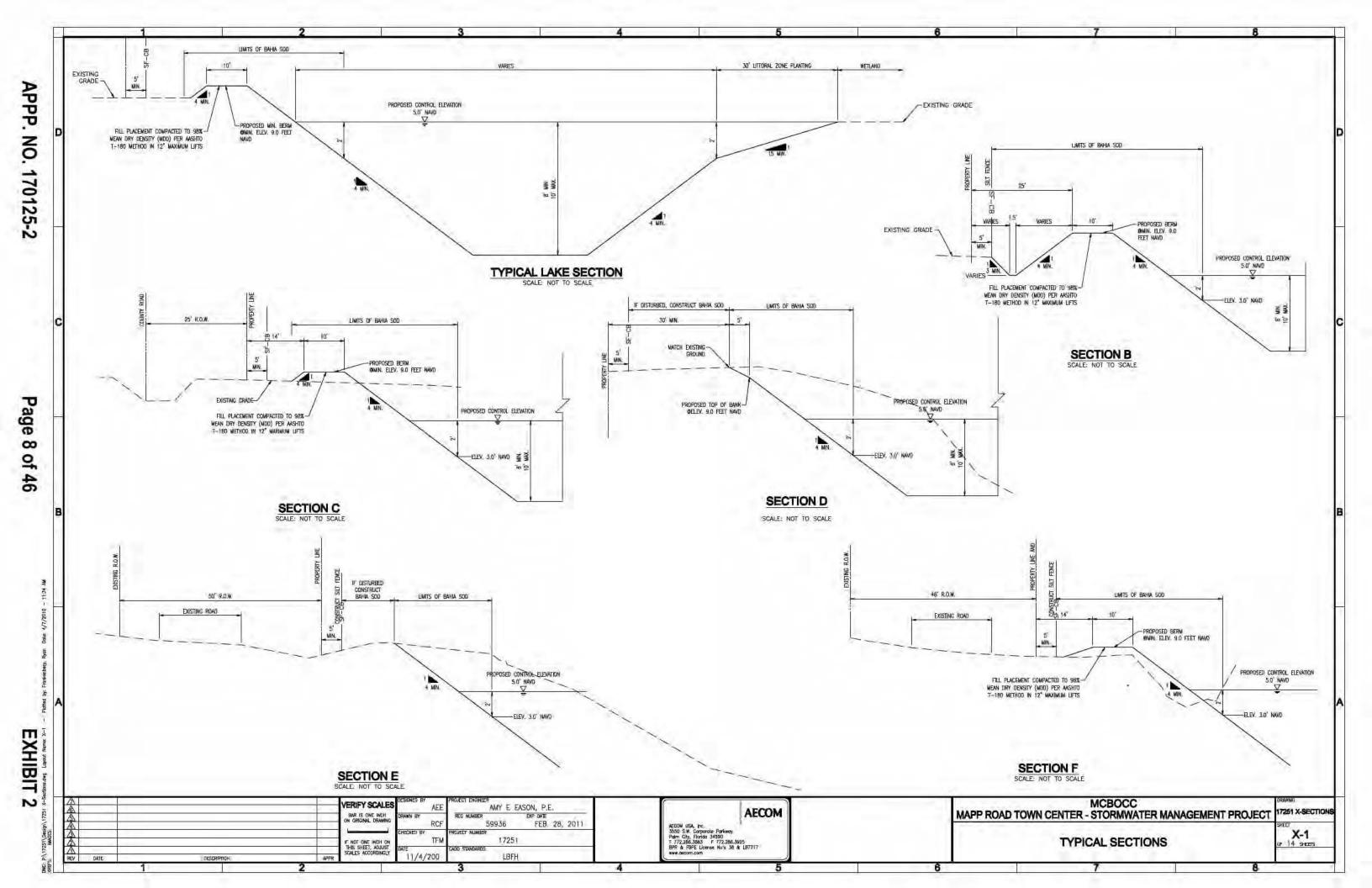


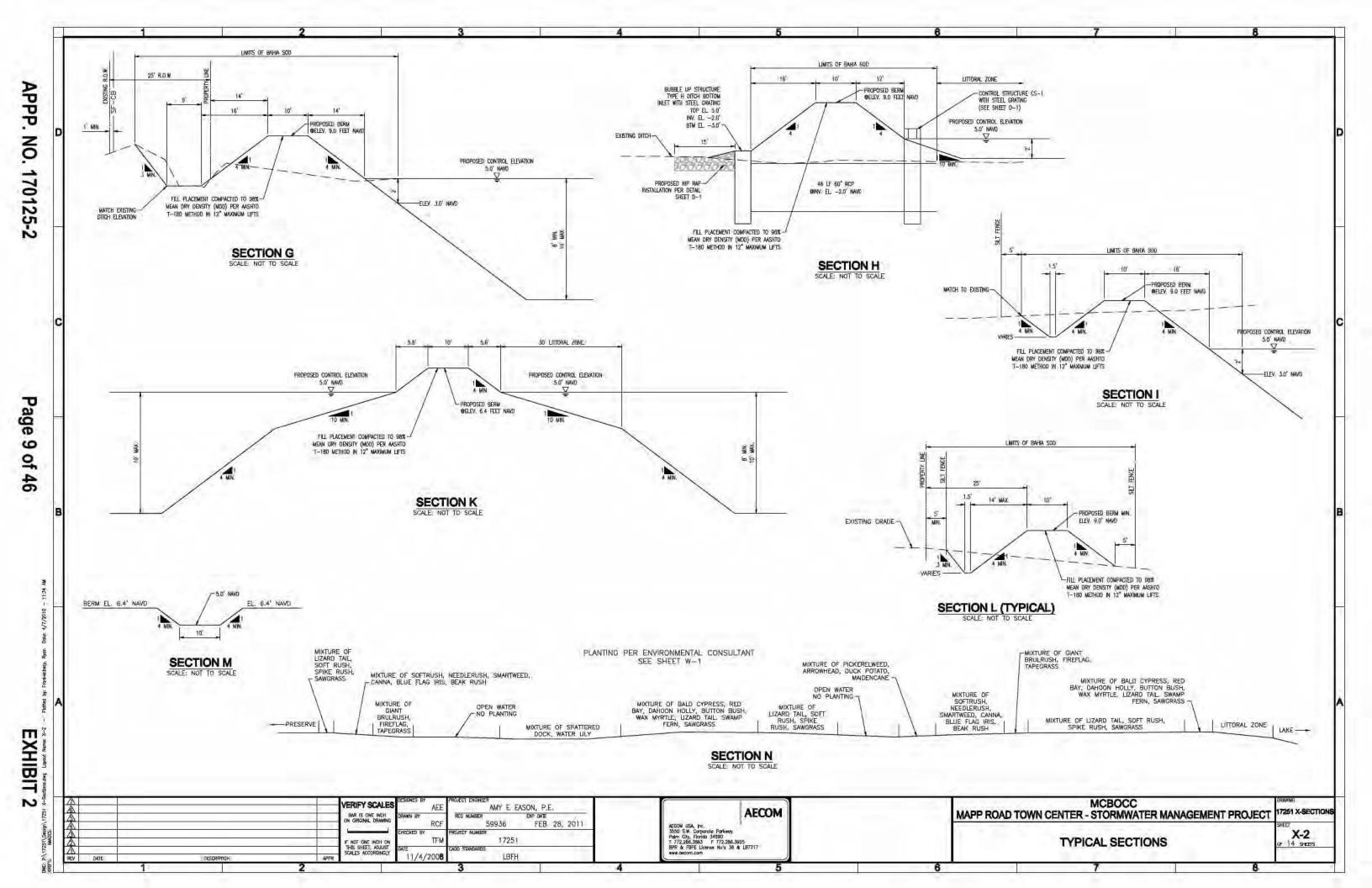












SUPPLEMENTARY CONDITIONS

SCOPE OF WORK: THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, SUPERVISION, TRANSPORTATION AND INCIDENTALS NECESSARY TO CONSTRUCT THE PAYING, DRAINAGE, UTILITIES AND ASSOCIATED IMPROVEMENTS, IN ACCORDANCE WITH THE PROVISIONS OF THESE SUPPLEMENTARY CONDITIONS, SPECIFICATIONS AND THE DRAWINGS, ENTITLED, "CONSTRUCTION PLANS & SPECIFICATIONS FOR MOBOOC MAPP ROAD TOWN CENTER — STORWATER MANAGEMENT PROJECT", SHEETS G-1 THROUGH SP-1, PREPARED BY ASSOCIATIONS OF MACROSINESS OF THE PAY ASSOCIATIONS OF THE STORY OF THE PAY ASSOCIATION AECOM USA, Inc., 3550 SW CORPORATE PKWY, PALM CITY, FLORIDA 34990. (772) 286-3883.

IT IS THE OBJECTIVE OF THESE DOCUMENTS TO ASSURE THE TOTAL COMPLETION OF THE WORK REQUIRED TO PROVIDE GRADING & DRAINAGE IMPROVEMENTS FOR MAPP ROAD TOWN CENTER STORMINATER IMPROVEMENTS PROJECT.

LOCATION: THE PROJECT IS LOCATED ON MAPP ROAD BETWEEN MARTIN DOWNS BLVD, AND SW MARTIN HICHWAY (714) IN MARTIN COUNTY, SECTIONS 18, TOWNSHIP 38S, RANGE 41E.

PERMITS AND LICENSES: CONSTRUCTION PERMITS FOR CERTAIN ELEMENTS OF THE PROJECT WORK HAVE BEEN OBTAINED OR APPLIED FOR BY THE OWNER, AND THE DESIGN AND CONSTRUCTION REQUIREMENTS OF THE PROJECT REFLECT CONSTRAINTS AND CONDITIONS IMPOSED BY THESE PERMITS. THESE INCLUDE SPWMD ENVIRONMENTAL RESOURCE PERMIT AND DEWATERING PERMIT.

THE CONTRACTOR SHALL PERFORM HIS WORK AND SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PERMITS AND APPROVALS. THE CONTRACTOR SHALL SECURE ALL WORK PERMITS, APPROVALS OR LICENSES REQUIRED TO PERFORM THE WORK, AND HE SHALL PERFORM THE WORK IN STRICT ACCORDANCE WITH THOSE PERMITS, APPROVALS OR LICENSES.

REFERENCE TO OTHER DOCUMENTS: FOR BREVITY, REFERENCE MAY BE MADE TO OTHER SPECIFICATIONS OR COCUMENTS WHICH WILL BE USED TO SPECIFY OR CONTROL THE MATERIALS PLACED IN THE WORK, THE CONSTRUCTION METHODS TO BE USED, THE TOLERANCES THAT WILL BE ACCEPTABLE, AND CONTRACTUAL OR LEGAL OBLIGATIONS. THE SPECIFICATIONS OR DOCUMENTS SHALL INCLUDE:

- "FLORIDA DEPARTMENT DE TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007," PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE: "FOOT SPECIFICATIONS."
- "ROADWAY AND TRAFFIC DESIGN STANDARDS "JANUARY, 2010" PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE "FDOT INDEX" OR "FDOT STANDARDS."
- 3 "AMERICAN SOCIETY FOR TESTING AND MATERIALS SPECIFICATIONS", LATEST EDITION REFERENCE SHALL BE MADE: "ASTM."
- 4. "MARTIN COUNTY LAND DEVELOPMENT CODE", LATEST EDITION, REFERENCE SHALL BE MADE AS "COUNTY SPECIFICATIONS" OR "MARTIN COUNTY SPECIFICATIONS"

BY REFERENCE, THE DOCUMENTS CITED ABOVE ARE MADE PART OF THESE SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE COPIES OF EACH IN HIS POSSESSION FOR USE THROUGHOUT THE BIDDING AND CONSTRUCTION OF THIS PROJECT WORK AND/OR BE FAMILIAR WITH THE APPLICABLE SECTIONS OF EACH DOCUMENT AND BE ABLE TO VERITY THAT ALL MATERIALS AND CONSTRUCTION METHODS ARE IN CONFORMANCE WITH THESE DOCUMENTS AND SPECIFICATIONS.

OWNER-ENGINEER RELATIONSHIP, ANY AGREEMENT BETWEEN OWNER AND ENGINEER SHALL NOT BE CONSTRUED TO PROVIDE ANY OBLIGATION FROM THE ENGINEER TO ANY THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, ARCHITECTS, OTHER ENGINEERS, ANY CONTRACTORS (GENERAL OR SUB), NOR TO ANY SUCCESSORS TO THE OWNER. THE RIGHTS UNDER ANY AGREEMENT BETWEEN OWNER AND ENGINEER INURE ONLY TO THOSE TWO PARTIES.

ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS: PRIOR TO INITIATION OF THE WORK, THE CONTRACTOR SHALL CHECK DIMENSIONS, GRADES, ELEVATIONS AND THE SUMMARY OF ESTIMATED QUANTITIES SHOWN ON THE DRAWINGS AND BID FORM TO ASSURE HIMSELF THAT THEY ARE CORRECT AND THAT THE WORN DAN BE ACCOMPUSHED AS INTENDED. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION WHICH HE MIGHT DISCOVER, BUT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY. WHO WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS ENGINEER DEEMS NECESSARY FOR REFLECTING THE ACTUAL SPIRIT AND INTENT OF THE DRAWINGS AND SPECIFICATIONS.

SOIL AND SUB-SOIL CONDITIONS: IT IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR TO:

- PLACE HIS OWN INTERPRETATION ON ANY AND ALL SOIL AND SUB-SUIL DATA PORTRAYED ON THE DRAWINGS
- PERFORM HIS OWN SOIL AND SUB-SOIL INVESTIGATION TO DETERMINE THE NATURE, CHARACTER, LOCATION AND EXTENT OF ALL SOIL AND SUB-SOIL CONDITIONS THAT MAY AFFECT HIS WORK, AND
- INCLUDE IN HIS CONTRACT PRICE CONSIDERATION FOR ALL WORK NECESSARY TO ASSURE THAT THE SOIL AND SUB-SOIL CONDITIONS WILL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND THE APPLICABLE REGULATIONS OF MARTIN COUNTY.

ESTIMATED QUANTITIES: THE QUANTITIES ESTIMATED FOR VARIOUS ITEMS OF WORK ARE ONLY ESTIMATES, AND MAY NOT REFLECT ALL THE ITEMS OF WORK OR THE FINAL QUANTITIES RECEOR TO COMPLETE THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DO ALL WORK AND TO FURNISH AND INSTALL ALL IMPROVEMENTS SHOWN ON THE DRAWINGS, WHETHER OR NOT THEY ARE SHOWN IN THE ESTIMATED QUANTITIES, OR WHETHER THE FINAL QUANTITIES ARE MORE OR LESS THAN THOSE ESTIMATED.

HORIZONTAL AND VERTICAL CONTROL. THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS IN THE LOCATIONS SHOWN ON THE DEAMINGS, AND SHALL USE AS HORIZONTAL CONTROL POINTS THE EXISTING PROPERTY CORNERS AS SHOWN ON THE PLAN SHEET. THE HORIZONTAL CONTROL POINTS WERE PROVIDED BY AECON USA, INC. (772) 256-383, VEXTICAL CONTROL BENCHMARKS SHALL BE PROVIDED AT THE SITE, FOR USE IN EXTRABLISHING THE NECESSARY ELEVATIONS AND GRADES AT THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL CONTROL POINTS AND TO RE-ESTABLISH SAID POINTS AS NECESSARY. REMAINING HORIZONTAL AND VERTICAL CONTROL POINTS AND TO RE-ESTABLISH THE CONTRACTOR IN ACCORDANCE WITH THE PLANS AND DETAILS.

COORDINATION OF WORK WITH OTHERS: THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OR IMPROVEMENTS OF OTHERS WITH REGARD TO NEW CONSTRUCTION, OR FOR THE NEED OF REMOVAL RELOCATION OR ALTERATION OF ANY EXISTING IRRIGATION AND DRAINAGE FACILITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE OWNER, HIS CONTRACTORS, SUBCONTRACTORS OR AGENTS.

IEMPORARY LITLLITIES: ALL ARRANGEMENTS AND COSTS FOR TEMPORARY POWER, WATER AND WASTEWATER FACILITIES DURING CONSTRUCTION SHALL BE RESPONSIBILITY OF THE CONTRACTOR.

OBSERVING THE WORK: THE PROGRESS AND QUALITY OF THE WORK WILL BE OBSERVED BY THE OWNER'S ENGINEER OR ENGINEER'S APPOINTED EMPLOYEE NO OBSERVER IS AUTHORIZED TO CHANGE MAY PROVISIONS OF THE SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION OF THE OWNER'S ENGINEER, NOR SHALL THE PRESENCE NOR THE ASSENCE OF AN OBSERVER RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

CONSTRUCTION DEWATERING MAY REQUIRE A SHORT OR LONG — TERM DEWATERING PERMIT FROM THE SFWMD. IF DEWATERING IS TO TAKE PLACE THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FOR HIS WORK.

THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS MOTICE PRIOR TO REQUIRED INSPECTIONS, AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

THE CONTRACTOR SHALL ALSO GIVE NOTICE TO APPROPRIATE GOVERNMENT AGENCIES PRIOR TO WORK IN A PUBLIC RIGHT OF WAY, THIS INCLUDES, BUT IS NOT UMITED TO, FOOT AND MARTIN COUNTY

- PRIOR TO ANY DEMATION FROM THE DRAWINGS; PRIOR TO PLACEMENT OF ROADWAY BASE MATERIAL, CONCRETE OR ASPHALTIC CONCRETE. UPON COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION WITH THE CONTRACTOR OR HIS REPRESENTATIVE.

RESTORATION OF DAMAGED STRUCTURES OR UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES. STRUCTURES, COURTENANT, APPURTEDANCES OF RECUITIES, OTHER THAN THOSE TO BE PAIR FOR UNDER THIS CONTRACT, WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

FINAL CLEANUP: UPON COMPLETION OF THE WORK BUT BEFORE FINAL PAYMENT WILL BE MADE, THE THE OWNER SHALL CLEAR AND REMOVE FROM THE PROJECT AREA, ALL FALSE WORK, EQUIPMENT, SUPPLIES AND DISCARGED MATERIALS, RUBBISH AND TEMPORARY STRUCTURES WHICH RESULT FROM THE WORK LINDER THIS AGREEMENT, AND SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY WHICH HAS BEEN DAMAGED

CLURANTY: ALL MATERIALS AND THE INSTALLATION THEREOF WHICH ARE FURNISHED AND INSTALLED BY THE CONTRACTOR, UNDER THE TERMS OF THE AGENETAL BE QUARANTEED BY THE CONTRACTOR AGAINST DEFECTIVE WORKMANSHIP, MECHANICAL AND PHYSICAL DEFECTS, LEARAGE, BREAKAGE, AND OTHER DAMAGES AND FAILURE UNDER NORMAL DEPERTION FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL PRYMENT, SAID DATE TO CONSTITUTE THE COMMENCEMENT OF THE ONE (1) YEAR PROMITE ONE OF THE ONE (1) YEAR PROMITE OF THE ONE (1) YEAR WARRANTY PERIOD.

ALL MATERIALS AND INSTALLATIONS PROVING TO BE DEFECTIVE WITHIN THE SPECIFIED PERIOD OF THE GUARANTY SHALL BE REPLACED, WITHOUT COST TO THE OWNER, BY THE CONTRACTOR, THE PERIOD OF GUARANTY OF EACH SUCH REPLACEMENT SHALL BE FROM AND AFTER THE DATE IN INSTALLATION THEREOF.

TECHNICAL SPECIFICATIONS

MATERIALS, CONSTRUCTION METHODS, TESTING AND TOLERANCES FOR ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, AND WITH THE SPECIFICATIONS REFERENCED UNDER THE "SUPPLEMENTARY CONDITIONS." IN THE EVENT OF CONFLICT THE MORE STRINGENT PROVISION SHALL APPLY.

- MOBILIZATION/DEMOBILIZATION: THE WORK SPECIFIED IN THIS SECTION CONSISTS OF THE FREEDRAL OF WORK AND OPERATIONS IN MOBILIZING FOR BEGINNING WORK ON THE PROJECT, INCLUDING, BUT NOT LIMITED TO, THOSE OPERATIONS INCCESSARY FOR THE MOVEMENT OF PERSONNEL EQUIPMENT, SUPPLIES AND INCIDENTALS TO THE PROJECT SITE, AND FOR THE ESTABLISHMENT OF TEMPORARY OFFICES, BUILDINGS, SAFETY EQUIPMENT AND FIRST AD SUPPLIES, SANTRAY AND OTHER FACILITIES, AS REQUIRED BY THESE SPECIFICATIONS, THE SPECIAL PROVISIONS, AND STATE AND LOCAL LAWS AND REGULATIONS. ALL COSTS FOR BONDS, PERMITS AND ANY REQUIRED INSURANCE, AND ANY OTHER PRECONSTRUCTION EXPENSE INCCESSARY FOR THE START OF THE WORK, AS WELL THE COST OF THE BUILDING OF THE ARMYLL TIME START OF THE WORK, AS WELL THE COST OF THE
- CONSTRUCTION SURVEYING: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLANS, AS OUTLINED IN THE "SUPPLEMENTARY CONDITIONS," THE ENGINEER SHALL PROVIDE BASIC REPERDINCE POINTS FOR HORIZONTAL CONTROL AND BENCHMARKS IN THE VICINITY OF THE WORK, ALL OTHER CONSTRUCTION STAKING FOR BOTH HORIZONTAL AND VERTICAL CONTROL NEEDED BY THE CONTRACTOR. FOR CONTROL OF HIS WORK SHALL BE PERFORMED BY THE CONTRACTOR.
- CLEARING AND GRUBBING: CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE LIMITS
 OF THE PROJECT AS SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO. THE AREAS OF CONSTRUCTION
 FOR THE DN SITE IMPROVEMENTS AND OTT SITE IMPROVEMENTS IN ACCORDANCE WITH SECTION 110, DOT
 SPECIFICATION, AND SHALL CONSIST OF THE COMPLICE REMOVAL AND DISPOSAL OF REES, BRUSH, STUMPS,
 ROOTS, GRASS, WEEDS, RUBBISH, IGNLESS OTHERWISE SHOWN OF PLANS) AND ALL OTHER OBSTRUCTIONS TO
 A DEPTH OF 18 INCHES BELDW NATURAL GROUND OR DESIGN GRADE, WHICHEVER IS LOWER, ALSO, THE
 REMOVAL AND DISPOSAL OF ALL STRUCTURES AND ALL DEMOLITOR AND DISPOSAL OF ALL STRUCTURES.

ALL MATERIAL SHALL BE REMOVED FROM THE SITE OF THE PROJECT, AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, REGIONAL, STATE AND FEDERAL LAWS, REGULATIONS OR DROINANCES.

<u>EARTHWORK AND GRADING</u> SHALL BE PERFORMED AS REQUIRED TO ATTAIN THE FINAL GRADES, TYPICAL SECTIONS AND ELEVATIONS AND TO ACCOMPLISH THE OBJECTIVES SHOWN ON THE PLANS FOR THE AREAS TO BE SOODED OF LANDSCAPED. MATERIALS AND CONSTRUCTION METHODS SHALL MEET THE REQUIREMENTS OF SECTION 120, FDOT SPECIFICATIONS. ANY PLASTIC OR ORGANIC MATERIAL WITHIN 36" OF THE FINISHED GRADE OF THE AREA SHALL BE REMOVED AND REPLACED WITH A-3 MATERIAL

ALL CLEAN EXCESS MATERIAL SUITABLE FOR FILL RESULTING FROM THE EXCAVATION SHALL BE-INCORPORATED INTO THE ON SITE FILLING OR REMOVED AND DISPOSED BY THE CONTRACTOR,

ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

- ORAINAGE IMPROVEMENTS: CONSTRUCTION OF DRAINAGE FEATURES SHALL BE AT THE LOCATIONS AND TO THE ELEVATIONS SHOWN ON THE PLANS, AND IN ACCORDANCE WITH THESE SPECIFICATIONS FDOT SPECIFICATIONS AND MARTIN COUNTY SPECIFICATIONS.
 - ALL LABOR, MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS OF MARTIN COUNTY AND FDOT SPECIFICATIONS. THE CONTRACTOR SHALL PROVICE ALL MATERIALS AND LABOR NEEDED TO COMPLETE THAT PROJECT WORK FOR DRAINAGE IMPROVEMENTS AT THE LOCATIONS, SIZE AND TYPE SHOWN ON THE PLANS FOR THE FOLLOWING ITEMS.

TRENCH EXCAVATION AND BACKFILLING OPERATIONS SHALL MEET THE REQUIREMENTS OF FOOT SPECIFICATIONS, SECTION 125. PARTICULAR EMPHASIS IS GIVEN TO ARTICLE 125.8.3, BACKFILLING OPERATIONS. THE CONTRACTOR SHALL PROVIDE FOR THE NECESSARY DENSITY TESTS TO COMPLY WITH THIS SECTION, PIPE TRENCH SHALL BE DRY WHILE PIPE IS BEING LAID AND "BEDDED" AS PER DETAIL AND FDOT SECTION 430.

THE CONTRACTOR SHALL COMPLY TO CHAPTER 90-96, LAWS OF FLORIDA, WHICH REQUIRES THE CONTRACTOR PERFORMING TRENCH EXCAVATION IN EXCESS OF 5 FEET DEEP COMPLY WITH ALL APPLICABLE TRENCH SAFETY STANDARDS AND SHORING REQUIREMENTS AS SET FORTH IN THE OCCUPATIONAL SAFETY MAD HEALTH ADMINISTRATIONS EXCAVATION SAFETY STANDARDS, 29 C.F.R. 19926.650 SUBPART P AND INCORPORATED AS THE STATE OF FLORIDA STANDARD, AS REVISED OR UPDATED,

- REINFORCED CONCRETE PIPE (RCP)

 RCP SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATIONS C-76, CLASS III,
 WALL THICKNESS "P. LATEST REVISION. AND AS MODIFIED BY SECTION 941 OF FOOT STANDARD.

 SPECIFICATIONS, LATEST REVISION. GASKETS FOR PIPE JOINTS SHALL CONFORM TO FOOT
- CORRUGATED METAL PIPE (CMP)
 ALL CAP SHALL BE ALUMINUM ALLOY ROUND PIPE HELICALLY WOUND CORRUGATED PIPE CONFORMING TO AASHTO-M 196-74 AND FDOT SECTION 945.

FEB. 28: 2011

D. TYPE "MODIFIED C", "O", "E", AND "H" INLETS PRE-CAST CONCRETE CATCH BASINS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS C-476 AND FLOT STANDARD SPECIFICATION 423, CONCRETE FOR PRE-CAST BASINS SHALL HAVE A MINIMUM COMPRESIVE STRENGTH OF 4,000 PSI AT 28 DAYS.

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURES

IN VERTICAL DISTRIBUTION OF DENSITY TESTING — NUCLEAR DENSITY COMPACTION TESTS ARE TO BE TAKEN ON EVERY LIFT PLACED (12" MAXIMUM THICKNESS), STARTING WITH THE SOIL AT THE SPRINGLINE OF UTILITY OR AT BASE OF ANY STRUCTURE, AND PROCEEDING UPWARD TO GRADE, AT THE LOCATIONS DEFINED IN ITEM 3 BELOW. IF THICKER LIFTS ARE APPROVED AND IMPLEMENTED, DENSITY TESTING SHALL BE PERFORMED VIA "DIG DOWNS" TO SUFFICIENT DEPTH TO TEST EACH 12 INCHES FOR THE FULL THICKNESS OF LIFT.

HORIZONTAL DISTRIBUTION OF DENSITY TESTING — DENSITY TESTING SHALL BE PERFORMED AT THE FOLLOWING MINIMUM LOCATIONS/HORIZONTAL SPACING PER THE VERTICAL DISTRIBUTION NOTED IN ITEM 2 ABOVE:

GI PIPE TRENCHES — TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF A PIPE INSTALLATION, AND BETWEEN BEACH SET OF STRUCTURES SEPARATED BY LESS THAN 300 FEET AT LEAST ONE TEST SHALL BE PERFORMED FOR EVERY 12 INCHES, STATING WITH THE FIRST TEST PERFORMED AT SPRINGLINE (COVERING THE 12" LAYER BELOW SPRINGLINE ELEVATION)

b. STRUCTURES — TESTS SHALL BE PERFORMED AT EACH MANHOLE OR DRAINAGE STRUCTURE AT LEAST ONE TEST SHALL BE PERFORMED FOR EVERY 12 INCHES, STARTING WITH THE FIRST TEST PERFORMED AT BASE OF STRUCTURE (COVERING THE 12" LAYER-BELOW BASE ELEVATION). TESTS SHOULD ALTERNATE FROM CORNER TO CORNER OR SIDE TO SIDE AROUND STRUCTURE WITH EACH 12 INCH INCREMENT.

- EROSION AND SEDIMENTATION CONTROL. HAY BALES, SILT FENCE, AND TURBIDITY BARRIERS SHALL RE PLACED AS REQUIRED TO PROHIBIT TURBID WATERS AND/OR EROSION FROM LEAVING THE SITE. CONSTRACTOR SHALL BE RESPONSIBLE FOR ALL
- 7 SOD SOO SHALL BE PLACED IN CONFORMATION TO FOOT SECTION 570, 571 AND 981.
- TRAFFIC CONTROL. THE INSTALLATION OF ALL TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND MARTIN COUNTY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL DEWATERING REQUIREMENTS AND GOVERNMENTAL REGULATIONS PRIOR TO COMMENCEMENT OF WORK INCLUDING BUT NOT LIMITED TO NECESSARY PUMPING, METHODS OF DRAINAGE, REMOVAL OF WATER AND PERMITTING.

THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DEWATERING INCLIDING COSTS OF DAMAGE TO PROPERTY CAUSED BY DEWATERING. THE CONTRACTOR SHALL PROVIDE ALL MERCESSARY FACILITIES TO PROVIDE AND MAINTAIN PROPER EQUIPMENT AND FACILITIES TO REMOVE ALL WATER ENTERING EXCAVATIONS, AND SHALL KEEP SUCH EXCAVATIONS DRY SO AS TO OBTAIN A SATISFACTORY UNDISTURBED SUBGRADE FOUNDATION CONDITION UNTIL THE FILLS, STRUCTURES OR PIPES TO BE GUILT THEREON HAVE BEEN COMPLETED TO SUCH EXTENT THAT THEY WILL NOT BE FLOAT OR OTHERWISE DAMAGED BY ALLOWING WATER LEVELS TO RETURN TO NATURAL LEVELS.

DEWATERING SHALL AT TIMES BE CONDUCTED IN SUCH A MANNER AS TO PRESERVE THE UNDISTURBED BEARING CAPACITY OF THE SUBGRADE SOILS AT PROPOSED BOTTOM OF EXCAVATION AND TO PRESERVE THE INTEGRITY OF ADJACENT STRUCTURES, WELL OR SUMP INSTALLATION SHALL BE CONSTRUCTED WITH PROPER SAND FILTERS TO PREVENT DRAWING OF FINER CRAINED SOIL FROM THE SURROUNDING GROUND.

EXISTING UTILITIES, STRUCTURES AND FACILITIES SHOWN ON THE DRAWINGS WERE LOCATED AS ACCURATELY AS POSSIBLE FROM THE RECORDS EXAMINED. NO GLURANTEE IS MADE THAT ALL EXISTING FACILITIES ARE SHOWN OR THAT THOSE SHOWN ARE EXTIRELY ACCURATE. THE CONTRACTOR SHALL ASSURE HIMSELF OF THE ACTUAL LOCATION OF THE UTILITIES, STRUCTURES OR FACILITIES PRICK TO PERFORMANCE OF ANY WORK IN THE VICINITY. THE UTILITY COMPANIES OR UTILITY AGENCIES WILL COOPERATE WITH THE CONTRACTOR IN LOCATION UNDERFROUND UTILITIES THAT MAY BE SUBJECT TO DAMAGE OR INTERRUPTION OF SERVICES DURING THE CONTRACTOR'S OPERATIONS. PRIOR TO START OF THE WORK, THE CONTRACTOR SHALL REQUEST FACILITIES IN THE VICINITY. THE OWNER WILL ASSUME NO LOBBITY FOR CAMAGES SUSTAINED OR COSTS INCURRED BECAUSE OF THE COMPACTOR'S OPERATION IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, OR TO THE TEMPORARY BRACING AND SHORING, OF SAME. IN THE EVENT THAT IT IS NECESSARY TO SHORE ARE ON THE METHOD USED FOR ANY SUCH WORK.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING LITILITIES, STRUCTURES, EQUIPMENT, APPURTEMANCES OR WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

RECORD DRAWINGS

AFTER COMPLETION OF THE CONTRACT WORK, BUT PRIOR TO SUBMITTAL OF THE REQUEST FOR FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE OWNER OF THE IMPROVEMENTS. THE RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF MARTIN COUNTY, AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE

THE FINAL LOCATION, BY REFERENCE TO AT LEAST TWO COMPLETED VISIBLE IMPROVEMENTS OR OTHER PERMANENT POINTS, OF ALL ROAD AND DRAINAGE ELEMENTS, AND SHALL INCLUIDE ELEVATIONS OF PERMINENT POINTS IN THE PAYEMENT AND ORNAINES IMPROVEMENTS, ALL REVSIONS TO THE ORIGINAL PLANS, VERIFICATION OF ALL DESIGN DIMENSIONS AND ELEVATIONS, LOCATION AND ELEVATIONS AND ALL OTHER INFORMATION NECESSARY TO HORIZONTALLY AND VERTICALLY LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS CONTRACT.

DRAWINGS SHALL INCLUDE:
A. ANY CHANGES OR VERIFICATIONS GET MARKED
B. MARK OUT ALL "PROPOSED" OR "CONSTRUCTS"
C. DRAW IN A DETAIL BOX OF ANY SUBSTANTIAL CHANGES

THE CONTRACTOR SHALL PROVIDE FIVE SETS OF RECORD DRAWING PRINTS, ONE SET OF MYLARS, ONE BECTRONIC SET ON CD (PDF OR DWG) AND ONE COPY OF CERTIFIED FIELD NOTES TO THE OWNER THAT ARE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. PAYMENT FOR THE RECORD DRAWINGS SHALL BE ON A LIMP SUM BASIS.

CALL 48 HOURS BEFORE YOU DIG IN FLORIDA 1-800-432-4770 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

MCBOCC

MAPP ROAD TOWN CENTER - STORMWATER MANAGEMENT PROJECT

7251 SPECIFICATIO

AMY E EASON, P.E. REG NUMBER RCF 59936 IF NOT ONE MICH ON THIS SHEET, ADJUST SCALES ACCORDINGLY CADIO STANDARDS 11/4/2008

AECOM AECOM USA, Inc. 3550 S.W. Corporate Parkway Palm. City, Flenda 34890 T 772,266,3883 F 772,286,3925 BPR & FBPE License No's 30 & LB7717

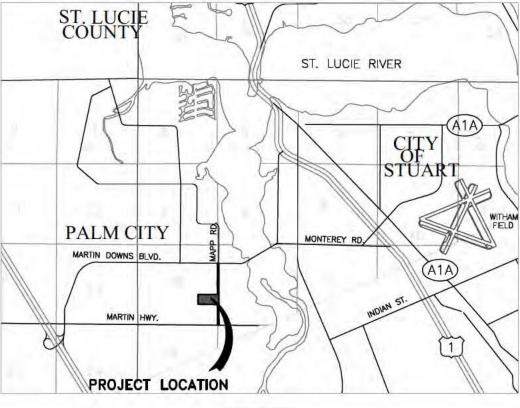
SPECIFICATIONS

CONSTRUCTION PLANS AND SPECIFICATIONS FOR

Martin County Board of County Commissioners MAPP ROAD TOWN CENTER - WATER QUALITY CONTROL STRUCTURE

SECTION 18, TOWNSHIP 38S, RANGE 41E
MARTIN COUNTY, FLORIDA





	SHEET LIST TABLE
Sheet Number	Sheet Title
1	COVER
2	PLAN
3	DETAILS
4	NOTES - QUANTITIES
5	SPECIFICATIONS



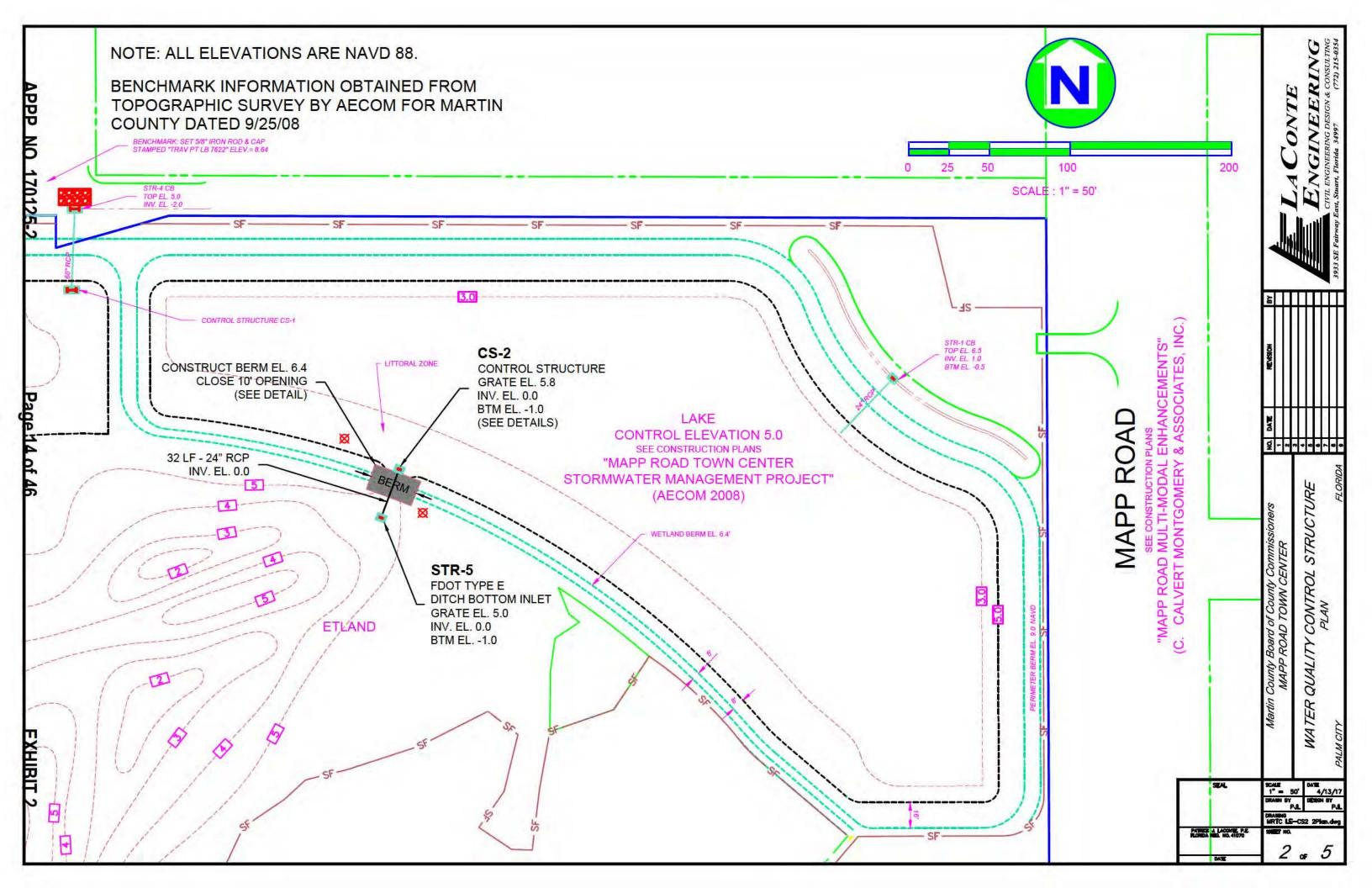
BOARD OF COUNTY COMMISSIONERS

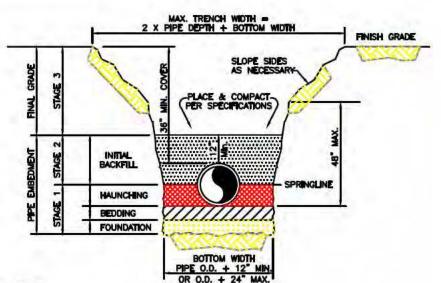
DOUG SMITH DISTRICT
ED FIELDING DISTRICT
HAROLD JENKINS DISTRICT
SARAH HEARD DISTRICT

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8				3933 SE Fairway East, Stuart, Florida 34997 (77

SEAL	SCALE N.T.S.	DATE 4/13/1
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	DRANGIO MRTC LE-CS	2 1Cover .de
PATRICK J. LACONTE, P.E. PLONIDA RIEG. HO. 41070	SHET NO.	
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NOTES:

- DEPTH OF PIPE MAY BE FIELD ADJUSTED TO MEET SPECIAL CONDITIONS AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
- 2. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH FOOT SPECIFICATIONS SECTION 430.
- 3. ALL TRENCHING SHALL COMPLY WITH THE REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
- 4. FOUNDATION: PROVIDE A SUITABLE FOUNDATION WHERE THE FOUNDATION MATERIAL IS UNSUITABLE.
 REMOVE AND DISPOSE OF UNSUITABLE MATERIAL AS SPECIFIED IN FDOT SPECIFICATION
 125-8.
- 5, <u>BEDDING</u>: BEDDING OF SANDSTONE AND GRAVEL IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE AND ADJUST FOR PIPE BELLS. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE. MATERIAL SHALL BE PLACED IN 4" TO 6" LIFTS, LIGHTLY COMPACTED, UNIFORM AND NOT FINER THAN THE FOUNDATION MATERIAL.
- 6, <u>Haunching</u>: Haunching naterial shall be hand placed to the springline of the PIPE.

 MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO

 PROVIDE ADEQUATE SIDE SUPPORT.
- 7. INITIAL BACKFILL: INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF THE PIPE.
- 8. FINAL BACKFILL: FINAL BACKFILL MATERIAL MAY BE MACHINE PLACED.
- 9. DENSITY: ALL BACKFILL SHALL BE COMPACTED TO 98% AASHTO T-180 IN 12 INCH LIFTS.

TYPICAL TRENCHING & BACKFILLING N.T.S.

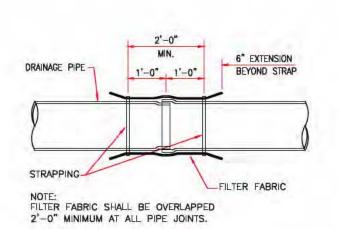
COMPACT TO 98% MEAN DRY DENSITY (MDD) PER AASHTO T-180 METHOD IN 12" MAXIMUM LIFTS LIMITS OF BAHIA SOD 5' 11.5 30' LITTORAL ZONE 5.6' CS-2 CONTROL STRUCTURE STR-5 FDOT TYPE E DITCH GRATE EL. 5.8 BOTTOM INLET GRATE EL. 5.0 CONTROL EL. 5.0 EL. 4.5-CONSTRUCT BERM TOP EL 6.4-32 LF 24" RCP INV. EL. 0.0

FILL BERM

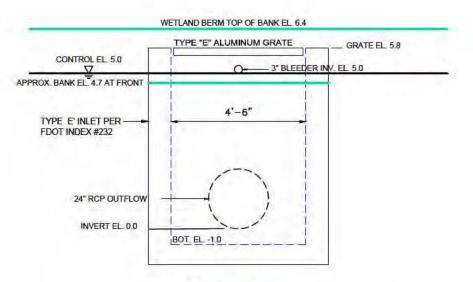
BERM & CONTROL STRUCTURE DETAIL

SCALE: NOT TO SCALE

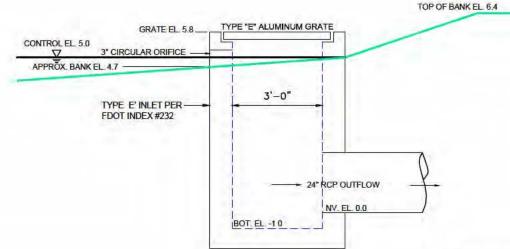
STRUCTURE TABLE					
STRUCTURE NO.	GRATE EL.	PIPE INV. EL.	BTM. EL.	NORTHING	EASTING
CS-2	5.8	0.0	-1.0	1030264.54	893267.21
STR-5	5.0	0.0	-1.0	1030234.57	893256.00



FILTER FABRIC PIPE JOINT WRAP



SIDE SECTION



FRONT SECTION

FC LE - CS2 3Details.

3

5

GINEERING

ONTE

N - N m + m m - m

STRUCI

CONTROL

QUALITY

CS-2 CONTROL STRUCTURE DETAIL%%

GENERAL NOTES:

- 1, STATION NG AND OFFSETS REFER TO THE CENTERLINE OF CONSTRUCTION, UNLESS OTHERWISE NOTED.
- 2. ALL RETURN RADII DIMENSIONS, STATIONS, OFFSETS, AND ELEVATIONS REFER TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
- 3. B M. DATUM IS NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 4. ANY EXISTING SECTION CORNER, QUARTER SECTION CORNER AND SURVEY CONTROL MONUMENTS WITH N THE L MITS OF CONSTRUCTION SHALL BE PROTECTED. IF A MONUMENT IS IN DANGER OF BEING DISTURBED, THE CONTRACTOR SHALL HAVE A PROFESSIONAL LAND SURVEYOR REFERENCE IT PRIOR TO CONSTRUCTION, AND RESET IT AFTER CONSTRUCTION.
- 5. ANY PUBLIC LAND CORNER WITH N THE L MITS OF CONSTRUCTION SHALL BE PROTECTED. F A CORNER MONUMENT IS IN DANGER OF BEING DISTURBED, AND HAS NOT BEEN PROPERLY REFERENCED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER. WITHOUT DELAY, BY TELEPHONE.
- 6. ANY NAVO 88 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A MONUMENT IS IN DANGER OF BEING DISTURBED, THE CONTRACTOR SHOULD NOT FY:

MARK MAINTENANCE SECTION GEODETIC INFORMATION CENTER ATTN: N/CG-162 ROCKVILLE, MARYLAND 20852 TELEPHONE: 301-443-8319

- 7. NO CONSTRUCTION SHALL COMMENCE UNTIL ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN SECURED AND THE CONTRACTOR IS ISSUED A "NOTICE TO PROCEED" FROM THE OWNER
- 8. CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES AS INDICATED IN FDOT STANDARD INDEXES 100, 101, 102, 103, 104 AND 105 WHERE NECESSARY IN ORDER TO COMPLY WITH ALL STATE LOCAL AND INDES WATER QUALITY STANDARDS
- 9. CONTRACTOR SHALL MAINTAIN TWO D RECTIONS OF TRAFFIC AT ALL TIMES DURING CONSTRUCTION IN ACCORDANCE WITH FDOT INDEX NOS. 600 THRU 660 AND SHALL PROVIDE ALL BARRICADES, LIGHTING, SIGNAGE AND FLAGMEN AS NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC IN THE AREA OF THE WORK. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH CURRENT FDOT ROADWAY & TRAFFIC DESIGN STANDARDS AND SPEC FICATIONS AND THE MANUAL ON UN FORM TRAFFIC CONTROL DEVICES (MUTCD).
- 10. EXIST NG DRAINAGE STRUCTURES, PIPES AND UT LITIES WITHIN THE L MITS OF CONSTRUCTION SHALL REMA N, UNLESS OTHERWISE NOTED.
- 11. DURING CONSTRUCTION, SHOULD ANY DRAINAGE STRUCTURES (INCLUDING PIPES) BE FOUND THAT ARE NOT SHOWN ON THE PLANS, NOT FY THE ENGINEER IMMEDIATELY.
- 12. EXIST NG UTILITIES ARE TO BE ADJUSTED OR RELOCATED BY OTHERS AS DIRECTED BY THE ENGINEER, UNLESS OTHERWISE NOTED.
- 13. THE LOCATION OF UT LITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONS BLE TO VERIFY IF "OTHER" UTILITIES (NOT SHOWN ON THE PLANS) EXIST WITH IN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE ENGINEER AND NOTIFY THE RESPECTIVE UT LITY OWNER(S) TO RESOLVE UT LITY CONFLICTS AND UTILITY ADJUSTMENTS, AS REQUIRED.
- 14. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD OR UNDERGROUND UT LITIES.
- 15. CONTRACTOR SHALL NOT FY SUNSHINE STATE "ONE CALL" (1-800-432-4770) AND ALL AFFECTED UTILITIES 48 HOURS IN ADVANCE OF ANY CONSTRUCTION SO THAT A COMPANY REPRESENTATIVE MAY BE PRESENT.
- 16 WHEN UTLITY POLES ARE IN AREAS OF EXCAVATIONS. CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION OF FIVE (5) FEET BETWEEN THE POLE AND ANY EXCAVATION
- 17. NTERSECTING ROADS AND DRIVEWAYS SHALL BE GRADED AS DIRECTED BY THE ENGINEER, UNLESS OTHERWISE NOTED ON THE PLANS.
- 18. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES MAY EXTEND INTO THE COMPACTED SUBGRADE PORTION OF THE ROAD BED. EXTREME CAUTION WILL BE NECESSARY DURING COMPACTION OPERATIONS IN THESE LOCATIONS.
- 19. CONCRETE P PE CULVERT (R.C.P.) SHALL BE CLASS III, WALL B UNLESS OTHERWISE NOTED.
- 20. ALL STORM STRUCTURE TOPS SHALL BE ADJUSTED AT TIME OF FINAL PAVEMENT CONSTRUCTION. FINAL ADJUSTMENT OF ALL TOPS SHALL BE THE RESPONSIBILITY OF THE UNDERGROUND CONTRACTOR.
- 21. THE LENGTHS OF PIPE SHOWN HEREON HAVE BEEN DETERM NED BY CALCULATING THE DISTANCE BETWEEN THE "CENTERL NE" OF THE INLETS AND/OR MANHOLES.
- 22. CONTRACTOR SHALL EXERCISE CAUTION WHILE REMOVING AND/OR RELOCATING EXISTING SIGNS IN ORDER TO PREVENT ANY UNNECESSARY DAMAGE TO THE SIGNS. SIGNS WHICH ARE DAMAGED BEYOND USE, AS DETERM NED BY THE ENG NEER, SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- 23. THE CONTRACTOR SHALL BE RESPONS BLE FOR DOCUMENTING THE EXISTING PAVEMENT MARKINGS BEFORE RESURFACING WORK IS STARTED AND THIS INFORMATION SHALL BE USED IN CONJUNCTION WITH TEMPORARY STRIPING AND FINISHED STRIPING.
- 24. EXCAVATED SOILS AND EXISTING ROCK BASE MAY BE USED FOR EMBANKMENT CONSTRUCTION PROVIDED THAT THE MATERIAL IS CLEAN FILL, FREE OF ORGANIC MATERIALS, ROOTS OR OTHER DELETERIOUS MATERIALS, AND CONFORMS WITH FDOT SPEC FICATIONS AND FDOT STANDARD INDEX 505.
- 25. ANY BORROW MATERIAL REQUIRED FOR THE PROJECT SHALL BE FURNISHED BY THE CONTRACTOR FROM AREAS PROVIDED BY HIM, AND THE COST OF FURNISHING SUCH MATERIAL SHALL BE INCLUDED IN THE CONTRACT PRICE FOR EMBANKMENT (COMPACTED IN PLACE).
- 26. ALL MUCK AND PLASTIC MATERIAL WITH N THE L MITS OF CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT STANDARD INDEX 500.
- 27. NONE OF THE EXISTING BASE THAT IS REMOVED DURING CONSTRUCTION SHALL BE USED IN THE CONSTRUCTION OF THE PROPOSED BASE, UNLESS AUTHORIZED BY THE ENGINEER.
- 28. ALL VEGETATION, DEBRIS, PAVEMENT, CONCRETE OR OTHER UNSUITABLE MATERIALS SHALL BE LEGALLY DISPOSED OF OFF-SITE IN AN AREA PROVIDED BY THE CONTRACTOR.
- 29. THE CONTRACTOR SHALL NOT STOCKP LE MATERIAL NOR ENCROACH UPON THE EXISTING SURROUNDING WETLANDS. CONTRACTOR IS TO INSTALL SILT FENCES AND OTHER BEST MANAGMENT PRACTICES TO MINIMIZE WETLAND MPACTS. THESE MEASURES SHALL BE INSPECTED BY THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND THE ENGINEER PRIOR TO COMMENCEMENT OF WORK
- 30. ALL STR PING SHALL BE ACCORDANCE WITH FDOT STANDARDS.
- 31. PAVEMENT MARKING AND GEOMETRICS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONRTOL DEVICES FOR STREETS AND HIGHWAYS.
- 32. GRATES WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL COMPLY WITH FDOT SPECIFICATION NDEX No. 232.
- 33. ALL CONSTRUCTION WITH N THE FOOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH CURRENT FOOT ROADWAY AND TRAFFIC DESIGN SATANDARDS AND SPEC FICATIONS AND THE MANUAL ON UN FORM TRAFFIC CONTROL DEVICES (MUTCD).

	SUMMARY OF QUANTITI	ES	
PAY ITEM	DESCRIPTION	UNIT	QTY.
120-6	Embankment	CY	7
425-1-561	Inlets, Ditch Bottom, Type E (<10')	EA	1
425-1-561	Inlets, Ditch Bottom, Modified Type E (<10')	EA	1
430-174-1	Pipe Culvert, RCP, Round, 24"	LF	32



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SEAL SCALE 1"= 50" 3/29/17
DRAWN BY PJL DESIGN BY PJL
DRAWING MRTC LE-CS2 4Notes.dwg
PATRICK 2 LACONTE, P.E. FLORIDA REG. NO. 41070

4 OF 5

SUPPLEMENTARY CONDITIONS

SCOPE OF WORK: THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, SUPERVISION, TRANSPORTATION AND INCIDENTALS NECESSARY TO CONSTRUCT THE PAVING, DRAINAGE, UTILITIES AND ASSOCIATED IMPROVEMENTS, IN ACCORDANCE WITH THE PROVISIONS OF THESE SUPPLEMENTARY CONDITIONS, SPECIFICATIONS AND THE DRAWNINGS, ENTITLED, "CONSTRUCTION PLANS & SPECIFICATIONS FOR MCBOCC MAPP ROAD TOWN CENTER - STORMWATER MANAGEMENT PROJECT," SPECIFICATIONS FOR MCBOCC MAPP ROAD TOWN CENTER - STORMWATER MANAGEMENT PROJECT, 208, 3883

TIT IS THE OBJECTIVE OF THESE DOCUMENTS TO ASSURE THE TOTAL COMPLETION OF THE WORK REQUIRED TO PROVIDE GRADING & DRAINAGE IMPROVEMENTS FOR MAPP ROAD TOWN CENTER STORMWATER IMPROVEMENTS PROJECT.

LOCATION: THE PROJECT IS LOCATED ON MAPP ROAD BETWEEN MARTIN DOWNS BLVD. AND SW MARTIN HIGHWAY (714) IN MARTIN COUNTY, SECTIONS 18, TOWNSHIP 38S, RANGE 41E.

PERMITS AND LICENSES: CONSTRUCTION PERMITS FOR CERTAIN ELEMENTS OF THE PROJECT WORK HAVE BEEN OBTAINED OR APPLIED FOR BY THE OWNER, AND THE DESIGN AND CONSTRUCTION REQUIREMENTS OF THE PROJECT REFLECT CONSTRAINTS AND CONDITIONS IMPOSED BY THESE PERMITS. THESE INCLUDE SFWMD ENVIROMENTAL RESOURCE PERMIT AND DEWATERING PERMIT.

THE CONTRACTOR SHALL PERFORM HIS WORK AND SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PERMITS AND APPROVALS. THE CONTRACTOR SHALL SECURE ALL WORK PERMITS, APPROVALS OR LICENSES REQUIRED TO PERFORM THE WORK, AND HE SHALL PERFORM THE WORK IN STRICT ACCORDANCE WITH THOSE PERMITS, APPROVALS OR LICENSES.

REFERENCE TO OTHER DOCUMENTS: FOR BREVITY, REFERENCE MAY BE MADE TO OTHER SPECIFICATIONS OR DOCUMENTS WHICH WILL BE USED TO SPECIFY OR CONTROL THE MATERIALS PLACED IN THE WORK, THE CONSTRUCTION METHODS TO BE USED, THE TOLERANCES THAT WILL BE ACCEPTABLE, AND CONTRACTUAL OR LEGAL OBLIGATIONS. THE SPECIFICATIONS OR DOCUMENTS SHALL INCLUDE:

- "FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017," PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION, REFERENCE SHALL BE MADE: "FDOT SPECIFICATIONS."
- "FY 2016-17 DESIGN STANDARDS" PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE "FDOT INDEX" OR "FDOT STANDARDS."
- 3. "AMERICAN SOCIETY FOR TESTING AND MATERIALS SPECIFICATIONS", LATEST EDITION REFERENCE SHALL BE MADE: "ASTM."
- "MARTIN COUNTY LAND DEVELOPMENT CODE", LATEST EDITION. REFERENCE SHALL BE MADE AS "COUNTY SPECIFICATIONS" OR "MARTIN COUNTY SPECIFICATIONS"

BY REFERENCE, THE DOCUMENTS CITED ABOVE ARE MADE PART OF THESE SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE COPIES OF EACH IN HIS POSSESSION FOR USE THROUGHOUT THE BIDDING AND CONSTRUCTION OF THIS PROJECT WORK AND/OR BE FAMILIAR WITH THE APPLICABLE SECTIONS OF EACH DOCUMENT AND BE ABLE TO VERITY THAT ALL MATERIALS AND CONSTRUCTION METHODS ARE IN CONFORMANCE WITH THESE DOCUMENTS AND SPECIFICATIONS.

ADDITIONALLY, THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL OTHER APPLICABLE LOCAL, REGIONAL, STATE AND FEDERAL LAWS, REGULATIONS AND CODES, ESPECIALLY OSHA STANDARD 29 CFR, SECTION 1926.650 SUBPART P, WHICH IS PART OF THE TRENCH SAFETY ACT AS PART OF LAWS OF FLORIDA, CHAPTER 90-96.

CONTRACT ISSUES

OWNER-ENGINEER RELATIONSHIP: ANY AGREEMENT BETWEEN OWNER AND ENGINEER SHALL NOT BE CONSTRUED TO PROVIDE ANY OBLIGATION FROM THE ENGINEER TO ANY THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, ARCHITECTS, OTHER ENGINEERS, ANY CONTRACTORS (GENERAL OR SUB), NOR TO ANY SUCCESSORS TO THE OWNER. THE RIGHTS UNDER ANY AGREEMENT BETWEEN OWNER AND ENGINEER INURE ONLY TO THOSE TWO PARTIES.

THE DRAWINGS

ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS: PRIOR TO INITIATION OF THE WORK, THE CONTRACTOR SHALL CHECK DIMENSIONS, GRADES, ELEVATIONS AND THE SUMMARY OF ESTIMATED QUANTITIES SHOWN ON THE DRAWINGS AND BID FORM TO ASSURE HIMSELF THAT THEY ARE CORRECT AND THAT THE WORK CAN BE ACCOMPLISHED AS INTENDED. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION WHICH HE MIGHT DISCOVER, BUT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY, WHO WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS ENGINEER DEEMS NECESSARY FOR REFLECTING THE ACTUAL SPIRIT AND INTENT OF THE DRAWINGS AND SPECIFICATIONS.

- 1. PLACE HIS OWN INTERPRETATION ON ANY AND ALL SOIL AND SUB-SOIL DATA PORTRAYED ON THE DRAWINGS.
- 2. PERFORM HIS OWN SOIL AND SUB-SOIL INVESTIGATION TO DETERMINE THE NATURE, CHARACTER, LOCATION AND EXTENT OF ALL SOIL AND SUB-SOIL CONDITIONS THAT MAY AFFECT HIS WORK; AND
- INCLUDE IN HIS CONTRACT PRICE CONSIDERATION FOR ALL WORK NECESSARY TO ASSURE THAT THE SOIL AND SUB-SOIL
 CONDITIONS WILL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND THE APPLICABLE REGULATIONS OF MARTIN
 COLINTY

THE WORK

ESTIMATED QUANTITIES: THE QUANTITIES ESTIMATED FOR VARIOUS ITEMS OF WORK ARE ONLY ESTIMATES, AND MAY NOT REFLECT ALL THE ITEMS OF WORK OR THE FINAL QUANTITIES NEEDED TO COMPLETE THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DO ALL WORK AND TO FURNISH AND INSTALL ALL IMPROVEMENTS SHOWN ON THE DRAWINGS, WHETHER OR NOT THEY ARE SHOWN IN THE ESTIMATED QUANTITIES, OR WHETHER THE FINAL QUANTITIES ARE MORE OR LESS THAN THOSE ESTIMATED.

HORIZONTAL AND VERTICAL CONTROL: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS IN THE LOCATIONS SHOWN ON THE DRAWINGS, AND SHALL USE AS HORIZONTAL CONTROL POINTS THE EXISTING PROPERTY CORNERS AS SHOWN ON THE PLAN SHEET. THE HORIZONTAL CONTROL POINTS WERE PROVIDED BY AECOM USA, INC. (772) 286-3883. VERTICAL CONTROL, BENCHMARKS SHALL BE PROVIDED AT THE SITE, FOR USE IN ESTABLISHING THE NECESSARY ELEVATIONS AND GRADES AT THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL CONTROL POINTS AND TO RE-ESTABLISH SAID POINTS AS NECESSARY, REMAINING HORIZONTAL AND VERTICAL CONTROL WORK SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS AND DETAILS.

COORDINATION OF WORK WITH OTHERS: THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OR IMPROVEMENTS OF OTHERS WITH REGARD TO NEW CONSTRUCTION, OR FOR THE NEED OF REMOVAL, RELOCATION OR ALTERATION OF ANY EXISTING IRRIGATION AND DRAINAGE FACILITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE OWNER, HIS CONTRACTORS, SUBCONTRACTORS OR AGENTS.

TEMPORARY UTILITIES: ALL ARRANGEMENTS AND COSTS FOR TEMPORARY POWER, WATER AND WASTEWATER FACILITIES DURING CONSTRUCTION SHALL BE RESPONSIBILITY OF THE CONTRACTOR.

OBSERVING THE WORK: THE PROGRESS AND QUALITY OF THE WORK WILL BE OBSERVED BY THE OWNER'S ENGINEER OR ENGINEER'S APPOINTED EMPLOYEE. NO OBSERVER IS AUTHORIZED TO CHANGE ANY PROVISIONS OF THE SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION OF THE OWNER'S ENGINEER'S NOR SHALL THE PRESENCE NOR THE ABSENCE OF AN OBSERVER RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

DEWATERING

CONSTRUCTION DEWATERING MAY REQUIRE A SHORT OR LONG - TERM DEWATERING PERMIT FROM THE SFWMD. IF DEWATERING IS TO TAKE PLACE THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FOR HIS WORK. THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS NOTICE PRIOR TO REQUIRED INSPECTIONS, AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

THE CONTRACTOR SHALL ALSO GIVE NOTICE TO APPROPRIATE GOVERNMENT AGENCIES PRIOR TO WORK IN A PUBLIC RIGHT OF WAY. THIS INCLUDES, BUT IS NOT LIMITED TO, FOOT AND MARTIN COUNTY

IN ADDITION TO THE REQUIREMENTS PREVIOUSLY REFERENCED, THE FOLLOWING MINIMUM CONSTRUCTION CONTROL CHECKPOINTS SHALL BE ADHERED TO, AND THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE FOR OBSERVATION:

- PRIOR TO ANY DEVIATION FROM THE DRAWINGS;
- PRIOR TO PLACEMENT OF ROADWAY BASE MATERIAL, CONCRETE OR ASPHALTIC CONCRETE.
- UPON COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION WITH THE CONTRACTOR OR HIS

TESTING: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE INDEPENDENT TESTING LABORATORY DESIGNATED BY THE OWNER, THE TESTING AND RETESTING NECESSARY TO ASSURE THAT THE WORK HAS BEEN PERFORMED IN STRICT COMPLIANCE WITH THE SPECIFICATIONS. ANY RETESTS REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR. THE NAME OF OWNER'S TESTING LABORATORY SHALL BE SUPPLIED AT THE PRECONSTRUCTION MEETING.

RESTORATION OF DAMAGED STRUCTURES OR UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES, STRUCTURES, EQUIPMENT, APPURTENANCES OR FACILITIES, OTHER THAN THOSE TO BE PAID FOR UNDER THIS CONTRACT, WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

FINAL CLEANUP: UPON COMPLETION OF THE WORK BUT BEFORE FINAL PAYMENT WILL BE MADE, THE THE OWNER SHALL CLEAR AND REMOVE FROM THE PROJECT AREA, ALL FALSE WORK, EQUIPMENT, SURPLUS AND DISCARDED MATERIALS, RUBBISH AND TEMPORARY STRUCTURES WHICH RESULT FROM THE WORK UNDER THIS AGREEMENT, AND SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY WHICH HAS BEEN DAMAGED DURING THE PROSECUTION OF THE WORK.

GUARANTY: ALL MATERIALS AND THE INSTALLATION THEREOF WHICH ARE FURNISHED AND INSTALLED BY THE CONTRACTOR, UNDER THE TERMS OF THE AGREEMENT, SHALL BE GUARANTEED BY THE CONTRACTOR AGAINST DEFECTIVE WORKMANSHIP, MECHANICAL AND PHYSICAL DEFECTS, LEAKAGE, BREAKAGE, AND OTHER DAMAGES AND FAILURE UNDER NORMAL OPERATION FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL PAYMENT, SAID DATE TO CONSTITUTE THE COMMENCEMENT OF THE ONE (1) YEAR WARRANTY PERIOD.

ALL MATERIALS AND INSTALLATIONS PROVING TO BE DEFECTIVE WITHIN THE SPECIFIED PERIOD OF THE GUARANTY SHALL BE REPLACED, WITHOUT COST TO THE OWNER, BY THE CONTRACTOR. THE PERIOD OF GUARANTY OF EACH SUCH REPLACEMENT SHALL BE FROM AND AFTER THE DATE IN INSTALLATION THEREOF.

TECHNICAL SPECIFICATIONS

MATERIALS, CONSTRUCTION METHODS, TESTING AND TOLERANCES FOR ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, AND WITH THE SPECIFICATIONS REFERENCED UNDER THE "SUPPLEMENTARY CONDITIONS." IN THE EVENT OF CONFLICT, THE MORE STRINGENT PROVISION SHALL APPLY.

- 1. MOBILIZATION/DEMOBILIZATION: THE WORK SPECIFIED IN THIS SECTION CONSISTS OF THE PREPARATORY WORK AND OPERATIONS IN MOBILIZING FOR BEGINNING WORK ON THE PROJECT, INCLUDING, BUT NOT LIMITED TO, THOSE OPERATIONS NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES AND INCIDENTALS TO THE PROJECT SITE, AND FOR THE ESTABLISHMENT OF TEMPORARY OFFICES, BUILDINGS, SAFETY EQUIPMENT AND FIRST AID SUPPLIES, SANITARY AND OTHER FACILITIES, AS REQUIRED BY THESE SPECIFICATIONS, THE SPECIAL PROVISIONS, AND STATE AND LOCAL LAWS AND REGULATIONS. ALL COSTS FOR BONDS, PERMITS AND ANY REQUIRED INSURANCE, AND ANY OTHER PRECONSTRUCTION EXPENSE NECESSARY FOR THE START OF THE WORK, AS WELL THE COST OF THE REMOVAL OF THE ABOVE ITEMS. SHALL ALSO BE INCLUDED IN THIS SECTION.
- 2. CONSTRUCTION SURVEYING: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLANS. AS OUTLINED IN THE "SUPPLEMENTARY CONDITIONS," THE ENGINEER SHALL PROVIDE BASIC REFERENCE POINTS FOR HORIZONTAL CONTROL AND BENCHMARKS IN THE VICINITY OF THE WORK. ALL OTHER CONSTRUCTION STAKING FOR BOTH HORIZONTAL AND VERTICAL CONTROL NEEDED BY THE CONTRACTOR FOR CONTROL OF HIS WORK SHALL BE PERFORMED BY THE CONTRACTOR.
- CLEARING AND GRUBBING: CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE LIMITS OF THE PROJECT AS SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO, THE AREAS OF CONSTRUCTION FOR THE ON SITE IMPROVEMENTS AND OFF SITE IMPROVEMENTS IN ACCORDANCE WITH SECTION 110, DOT SPECIFICATION, AND SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH, (UNLESS OTHERWISE SHOWN ON PLANS) AND ALL OTHER OBSTRUCTIONS TO A DEPTH OF 18 INCHES BELOW NATURAL GROUND OR DESIGN GRADE, WHICHEVER IS LOWER. ALSO, THE REMOVAL AND DISPOSAL OF ALL STRUCTURES AND ALL DEMOLITION PRODUCT AND DEBRIS.

ALL MATERIAL SHALL BE REMOVED FROM THE SITE OF THE PROJECT, AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, REGIONAL, STATE AND FEDERAL LAWS, REGULATIONS OR ORDINANCES.

4. <u>EARTHWORK AND GRADING</u>: EARTHWORK AND GRADING SHALL BE PERFORMED AS REQUIRED TO ATTAIN THE FINAL GRADES, TYPICAL SECTIONS AND ELEVATIONS AND TO ACCOMPLISH THE OBJECTIVES SHOWN ON THE PLANS FOR THE AREAS TO BE SODDED OR LANDSCAPED. MATERIALS AND CONSTRUCTION METHODS SHALL MEET THE REQUIREMENTS OF SECTION 120, FDOT SPECIFICATIONS.

ANY PLASTIC OR ORGANIC MATERIAL WITHIN 36" OF THE FINISHED GRADE OF THE AREA SHALL BE REMOVED AND REPLACED WITH A-3 MATERIAL.

ALL CLEAN EXCESS MATERIAL SUITABLE FOR FILL RESULTING FROM THE EXCAVATION SHALL BE INCORPORATED INTO THE ON SITE FILLING OR REMOVED AND DISPOSED BY THE CONTRACTOR, ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

- <u>DRAINAGE IMPROVEMENTS:</u> CONSTRUCTION OF DRAINAGE FEATURES SHALL BE AT THE LOCATIONS AND TO THE ELEVATIONS SHOWN ON THE PLANS, AND IN ACCORDANCE WITH THESE SPECIFICATIONS FDOT SPECIFICATIONS AND MARTIN COUNTY SPECIFICATIONS.
 - A. ALL LABOR, MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS OF MARTIN COUNTY AND FDOT SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NEEDED TO COMPLETE THAT PROJECT WORK FOR DRAINAGE IMPROVEMENTS AT THE LOCATIONS, SIZE AND TYPE SHOWN ON THE PLANS FOR THE FOLLOWING ITEMS.

TRENCH EXCAVATION AND BACKFILLING OPERATIONS SHALL MEET THE REQUIREMENTS OF FDOT SPECIFICATIONS, SECTION 125. PARTICULAR EMPHASIS IS GIVEN TO ARTICLE 125.8.3, BACKFILLING OPERATIONS. THE CONTRACTOR SHALL PROVIDE FOR THE NECESSARY DENSITY TESTS TO COMPLY WITH THIS SECTION. PIPE TRENCH SHALL BE DRY WHILE PIPE IS BEING LAID AND "BEDDED" AS PER DETAIL AND FDOT SECTION 430.

THE CONTRACTOR SHALL COMPLY TO CHAPTER 90-96, LAWS OF FLORIDA, WHICH REQUIRES THE CONTRACTOR PERFORMING TRENCH EXCAVATION IN EXCESS OF 5 FEET DEEP COMPLY WITH ALL APPLICABLE TRENCH SAFETY STANDARDS AND SHORING REQUIREMENTS AS SET FORTH IN THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS EXCAVATION SAFETY STANDARDS, 29 C.F.R. 19926.650 SUBPART P AND INCORPORATED AS THE STATE OF FLORIDA STANDARD, AS REVISED OR UPDATED.

- B. REINFORCED CONCRETE PIPE (RCP): RCP SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATIONS C-76, CLASS III, WALL THICKNESS "B", LATEST REVISION, AND AS MODIFIED BY SECTION 941 OF FDOT STANDARD SPECIFICATIONS, LATEST REVISION. GASKETS FOR PIPE JOINTS SHALL CONFORM TO FDOT SECTION 942.
- C. CORRUGATED METAL PIPE (CMP): ALL CAP SHALL BE ALUMINUM ALLOY ROUND PIPE HELICALLY WOUND CORRUGATED PIPE CONFORMING TO AASHTO-M 196-74 AND FDOT SECTION 945.

D. TYPE "MODIFIED C", "D", "E", AND "H" INLETS

PRE-CAST CONCRETE CATCH BASINS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS C-478
AND FOOT STANDARD SPECIFICATION 425. CONCRETE FOR PRE-CAST BASINS SHALL HAVE A MINIMUM
COMPRESIVE STRENGTH OF 4.000 PSI AT 28 DAYS.

E. SHOP DRAWINGS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURES

F. TESTING

1. VERTICAL DISTRIBUTION OF DENSITY TEST NG - NUCLEAR DENSITY COMPACTION TESTS ARE TO BE TAKEN ON EVERY LIFT PLACED (12" MAX MUM THICKNESS), START NG WITH THE SO L AT THE SPR NGL NE OF UT LITY OR AT BASE OF ANY STRUCTURE, AND PROCEEDING UPWARD TO GRADE, AT THE LOCATIONS DEF NED IN ITEM 3 BELOW. IF THICKRER L FTS ARE APPROVED AND MPLEMENTED, DENSITY TEST NG SHALL BE PERFORMED VIA "DIG DOWNS" TO SUFFICIENT DEPTH TO TEST EACH 12 NCHES FOR THE FULL THICKNESS OF LIFT.

2. HORIZONTAL DISTR BUTION OF DENSITY TESTING - DENSITY TEST NG SHALL BE PERFORMED AT THE FOLLOWING MIN MUM LOCATIONS/HORIZONTAL SPACING PER THE VERTICAL DISTRIBUTION NOTED IN ITEM 2 ABOVE:

a. <u>PIPE TRENCHES</u> - TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITH N EACH 300 FOOT NTERVAL (MAX MUM) ALONG THE LENGTH OF A P PE NSTALLATION, AND BETWEEN EACH SET OF STRUCTURES SEPARATED BY LESS THAN 300 FEET. AT LEAST ONE TEST SHALL BE PERFORMED FOR EVERY 12 NCHES, STARTING WITH THE FIRST TEST PERFORMED AT SPRINGLINE (COVER NG THE 12" LAYER BELOW SPRINGL NE FLEVATION).

b. <u>STRUCTURES</u> - TESTS SHALL BE PERFORMED AT EACH MANHOLE OR DRA NAGE STRUCTURE. AT LEAST ONE TEST SHALL BE PERFORMED FOR EVERY 12 NCHES, START NG WITH THE FIRST TEST PERFORMED AT BASE OF STRUCTURE (COVERING THE 12" LAYER BELOW BASE ELEVATION). TESTS SHOULD ALTERNATE FROM CORNER TO CORNER OR S DE TO S DE AROUND STRUCTURE WITH EACH 12 INCH NCREMENT.

- EROSION AND SEDIMENTATION CONTROL. HAY BALES, SILT FENCE, AND TURBIDITY BARRIERS SHALL BE PLACED AS REQUIRED
 TO PROHIBIT TURBID WATERS AND/OR EROSION FROM LEAVING THE SITE. CONSTRACTOR SHALL BE RESPONSIBLE FOR ALL
 SEDIMENTATION AND EROSION MEASURES.
- 7. SOD SOD SHALL BE PLACED IN CONFORMATION TO FDOT SECTION 570, 571 AND 981.
- TRAFFIC CONTROL. THE INSTALLATION OF ALL TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE MANUAL OF UNIFORM
 TRAFFIC CONTROL DEVICES, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND MARTIN COUNTY.

9. DEWATERING

THE CONTRACTOR SHALL BE RESPONS BLE FOR DETERMINING ALL DEWATERING REQUIREMENTS AND GOVERNMENTAL REGULATIONS PRIOR TO COMMENCEMENT OF WORK NCLUDING BUT NOT L MITED TO NECESSARY PUMPING, METHODS OF DRAINAGE, REMOVAL OF WATER AND PERMITTING.

THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DEWATER NG NCLUDING COSTS OF DAMAGE TO PROPERTY CAUSED BY DEWATER NG. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY FACILITIES TO PROVIDE AND MAINTAIN PROPER EQUIPMENT AND FACILITIES TO REMOVE ALL WATER ENTERING EXCAVATIONS, AND SHALL KEEP SUCH EXCAVATIONS DRY SO AS TO OBTAIN A SATISFACTORY UNDISTURBED SUBGRADE FOUNDATION CONDITION UNTIL THE FLLS, STRUCTURES OR PIPES TO BE BUILT THEREON HAVE BEEN COMPLETED TO SUCH EXTENT THAT THEY WILL NOT BE FLOAT OR OTHERWISE DAMAGED BY ALLOWING WATER LEVELS TO RETURN TO NATURAL LEVELS.

DEWATERING SHALL AT TIMES BE CONDUCTED IN SUCH A MANNER AS TO PRESERVE THE UNDISTURBED BEARING CAPACITY OF THE SUBGRADE SO LS AT PROPOSED BOTTOM OF EXCAVATION AND TO PRESERVE THE INTEGRITY OF ADJACENT STRUCTURES. WELL OR SUMP INSTALLATION SHALL BE CONSTRUCTED WITH PROPER SAND FILTERS TO PREVENT DRAWING OF FINER GRAINED SOIL FROM THE SURROUNDING GROUND.

10. EXISTING UTILITIES AND STRUCTURES

EXISTING UT LITIES, STRUCTURES AND FACILITIES SHOWN ON THE DRAWINGS WERE LOCATED AS ACCURATELY AS POSS BLE FROM THE RECORDS EXAMINED. NO GUARANTEE IS MADE THAT ALL EXISTING FAC LITIES ARE SHOWN OR THAT THOSE SHOWN ARE ENTIRELY ACCURATE. THE CONTRACTOR SHALL ASSURE HIMSELF OF THE ACTUAL LOCATION OF THE UTILITIES, STRUCTURES OR FAC LITIES PRIOR TO PERFORMANCE OF ANY WORK IN THE VICINITY. THE UTILITY COMPAN ES OR UTILITY AGENCES WILL COOPERATE WITH THE CONTRACTOR IN LOCATING UNDERGROUND UTILITIES THAT MAY BE SUBJECT TO DAMAGE OR INTERRUPTION OF SERVICES DUR NO THE CONTRACTOR'S OPERATIONS, PRIOR TO START OF THE WORK, THE CONTRACTOR SHALL REQUEST EACH UT LITY AGENCY TO ADVISE HIM OF THE LOCATION OF THE FAC LITIES IN THE VICINITY. THE OWNER WILL ASSUME NO LIAB LITY FOR DAMAGES SUSTAINED OR COSTS INCURRED BECAUSE OF THE CONTRACTOR'S OPERATION IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, OR TO THE TEMPORARY BRAC NG AND SHOR NG OF SAME. IN THE EVENT THAT IT IS NECESSARY TO SHORE, BRACE OR SWING A UT LITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHOULD BE CONTACTED AND THE PERMISSION SECURED AS TO THE METHOD USED FOR ANY SUCH WORK.

11. RESTORATION OF DAMAGED STRUCTURES OR UTILITIES

IT SHALL BE THE RESPONS BILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES, STRUCTURES, EQUIPMENT, APPURTENANCES OR WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION. AT NO COST TO THE OWNER.

RECORD DRAWINGS

AFTER COMPLETION OF THE CONTRACT WORK, BUT PRIOR TO SUBMITTAL OF THE REQUEST FOR FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE OWNER OF THE IMPROVEMENTS. THE RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF MARTIN COUNTY, AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

THE FINAL LOCATION, BY REFERENCE TO AT LEAST TWO COMPLETED VISIBLE IMPROVEMENTS OR OTHER PERMANENT POINTS, OF ALL ROAD AND DRAINAGE ELEMENTS, AND SHALL INCLUDE ELEVATIONS OF PERTINENT POINTS IN THE PAVEMENT AND DRAINAGE IMPROVEMENTS, ALL REVISIONS TO THE ORIGINAL PLANS, VERIFICATION OF ALL DESIGN DIMENSIONS AND ELEVATIONS, LOCATION AND ELEVATIONS AND ALL OTHER INFORMATION NECESSARY TO HORIZONTALLY AND VERTICALLY LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS CONTRACT.

DRAWINGS SHALL INCLUDE:

- A. ANY CHANGES OR VERIFICATIONS GET MARKED
 B. MARK OUT ALL "PROPOSED" OR "CONSTRUCTS"
- C. DRAW IN A DETAIL BOX OF ANY SUBSTANTIAL CHANGES

THE CONTRACTOR SHALL PROVIDE FIVE SETS OF RECORD DRAWING PRINTS, ONE SET OF MYLARS, ONE ELECTRONIC SET ON CO (PDF OR DWG) AND ONE COPY OF CERTIFIED FIELD NOTES TO THE OWNER THAT ARE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. PAYMENT FOR THE RECORD DRAWINGS SHALL BE ON A LUMP SUM BASIS.

CALL 48 HOURS BEFORE
YOU DIG IN FLORIDA
1-800-432-4770
IT'S THE LAM
SUMSHINE STATE ONE CALL
OF PLORIDA, SIC.

ENGINEE CIVIL ENGINEER DESIGN & 3933 SE Fairway East, Stuart, Florida 34997

2

CONTROL STRUCTURE

MAPP ROAD TOWN CENTA 4 TER QUALITY CONTROL S SPECIFICATIONS

SCALE DATE
1"= 50" 3/29/17

DRAWN BY PJL

DRAWING
MRTC LE-CS2 4Notes.dw

DRAWING MRTC LE-CS2 4Notes.

P.E. SHEET NO.

5 OF

BOARD OF COUNTY COMMISSIONERS:

ANNE SCOTT COMMISSIONER
JOHN HADDOX COMMISSIONER
SARAH HEARD COMMISSIONER
ED FIELDING COMMISSIONER
DOUG SMITH COMMISSIONER

CONSTRUCTION PLANS FOR MAPP ROAD MULTI-MODAL ENHANCEMENTS FROM SW MARTIN HWY. TO SW MARTIN DOWNS BLVD.

FUNDED BY MARTIN COUNTY IN PART WITH FDOT'S LOCAL AGENCY PROGRAM GRANT FM # 435413-1-58-01



END PROJECT
BE STA 129+47.76
BEGIN PROJECT
BE STA 161+20

INDEX OF SHEETS

HEET NO.	SHEET CONTENTS
1	COVER SHEET
2	TYPICAL SECTIONS
3	SUMMARY OF QUANTITIES . GENERAL NOTES
4	HORIZONTAL & VERTICAL CONTROL PLAN
5	PLAN LAYOUT KEY SHEET
6-12	ROADWAY PLAN & PROFILE
13	DRAINAGE STRUCTURE TABLE & DETAILS
14-22	ROADWAY CROSS SECTIONS
23-25	EROSION CONTROL PLAN
26-29	SIGNING & PAVEMENT MARKING PLANS

ST. LICIE CO.

MARTIN CO. 1 -13

ST. LICIE RIVER

ST. LIC

LOCATION MAP W E

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS, LATEST EDITION.

GOVERNING SPECIFICATIONS:

FOOT DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM, 2016 EDITION

THE FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, 2016 EDITION.

THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS (GREENBOOK), MAY 2013 EDITION.

THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), 2009 EDITION.

AND THE MARTIN COUNTY STANDARD DETAILS FOR ROAD AND SITE CONSTRUCTION AND PUBLIC FACILITIES, LATEST EDITION.



CALL 2 FULL BUSINESS DAYS BEFORE YOU DIG IN FLORIDA 1-800-432-4770

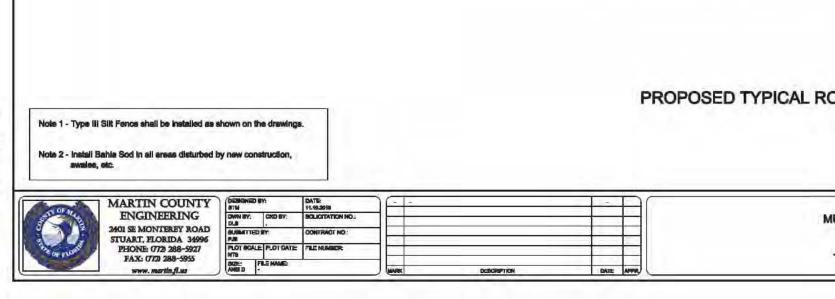
> IT'S THE LAW! SUNSHINE STATE ONE CALL OF FLORIDA, INC.

C. CALVERT MONTGOMERY & ASSOCIATES, INC.

CONSULTING ENGINEERS
959 S. FEDERAL HWY. - STUART, FLORIDA
(561) 287-3636

	REVISI	ONS	
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-			+
MARK	DESCRIPTION	DATE	APP

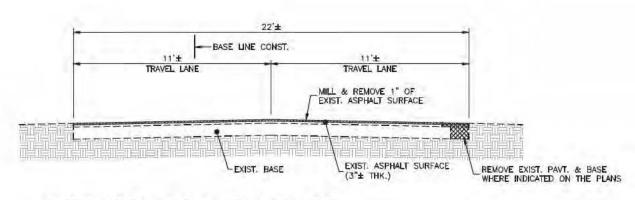
SIDEWALK



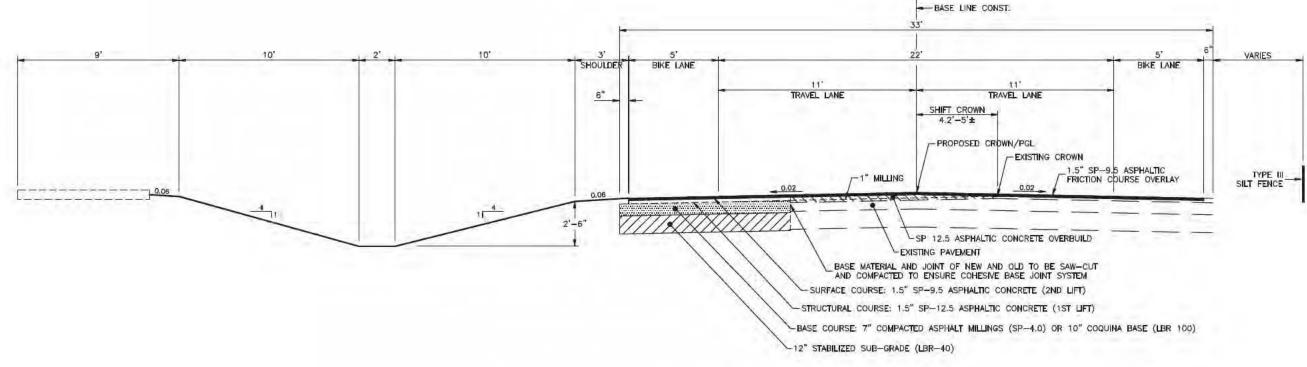
PARALLEL STREET & PARKING

ULTIMATE SECTION

PARALLEL PARKING STALL



EXISTING ROADWAY SECTION, TYP.



5.5' PLANTER STRIP

INLET

PROPOSED TYPICAL ROADWAY SECTION

SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

TYPICAL SECTIONS

P.O. BOX 92...959 S. FEDERAL HWY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580



IDENTIFICATION

	SUMMARY OF QUANTITIE				
PAY ITEM NO.	DESCRIPTION	UNIT	TO PLAN	TAL FINAL	REF
101- 1A	Mobilization	LS	1		
101- 18	Construction Video - Pre Construction & Post Construction	LS	1	-	
101-99	Survey Staking & As-Built Survey	LS	1		
102- 1	Maintenance of Traffic	LS	1		
104-2A	Sediment & Erosion Control	LS	1		
110- 1- 1	Clearing & Grubbing	LS	1		
110-4-	Removal of Exist. Conc. Pavt.	SY	857		
120- 1	Regular Excavation	CY	1,079		
120- 6	Embankment	CY	2,988		
160- 4-	Type B Stabilization	SY	2,723		
285-704-	Base Course for Pavernent Widening - 7" Compacted Ashalt Millings	SY	1,884		
285-709-	Base Course for Pavement Widening - 10" Coquina (LBR 100)	SY	839		
327-70-1	Milling Exist Pavement (1" Avg Depth)	SY	13,167		
334- 1-13	SP-12.5 Asphaltic Conc. (Traffic C) (Overbuild)	TN	937		
334- 1-13A	SP-12.5 Asphaltic Conc. (Traffic C) (1.5")	TN	201		
337- 7-42	SP-9.5 Asphaltic Conc. (Traffic C) (1.5")	TN	1,286		
350- 3- 5	Plain Cement Conc Pavt, 8" Thick	SY	146		
425- 1-351	Inlets, Curb Type P-5 (<10')	EA	2		
425- 1-521	Inlets, Ditch Battom, Type C (<10')	EA	12		
425- 1-541	Inlets, Ditch Bottom, Type D (<10')	EA	6		
425- 3-41	Manhole, Drainage, P-7 (<10')	EA	16		
425- 5-	Manhole (Adjust)	EA	10		
425- 6-	Valve Box (Adjust)	EA	5		
425-11-	Modify Exist Drainage Struct	EA	2		u
430-174-115	Pipe Culvert, RCP, Round, 15"	LF	92		
430-174-118	Pipe Culvert, CMP, Round, 18*	LF	10		
430-174-118A	Pipe Culvert, RCP, Round, 18"	LF	849		
430-174-124	Pipe Culvert, RCP, Round, 24"	LF	946		
430-175-215	Pipe Culvert, RCP, Elliptical, 12" x 18"	LF	26		
430-175-218	Pipe Culvert, RCP, Elliptical, 14" x 23"	LF	1,631		
430-175-224	Pipe Culvert, RCP, Elliptical, 19" x 30"	LF	528		
430-982-125	MES, RCP, Round, 18* CD (4:1)	EA	1		
430-982-625	MES, RCP, Elliptical, 14" x 23" CD (4:1)	EA	6		
430-982-629	MES, RCP, Elliptical, 19" x 30" CD (4:1)	EA	1		
430-984-123	MES, RCP, Round, 15" SD (4:1)	EA	2		
430-984-125	MES, RCP, Round, 18" SD (4:1)	EA	9		
430-984-129	MES, RCP, Round, 24" SD (4:1)	EA	1		
430-984-623	MES, RCP, Elliptical, 12" x 18" SD (4:1)	EA	1		
430-984-625	MES, RCP, Elliptical, 14" x 23" SD (4:1)	EA	2		
430-984-629	MES, RCP, Elliptical, 19" x 30" SD (4:1)	EA	3		
520- 1-10	Conc. Curb & Guitter, Type F	LF	639		
522- 1-	Sidewalk Concrete, 4" Thick	SY	582		
523- 1- 1A	Raised Crosswalk (Speed Table)	EA	1		
527- 2-	Detectable Warnings	SF	302		
570- 1- 2	Performance Turf (Sod) (Bahla)	SY	12,173		
660- 2-102	Loop Assembly, F & I, Type B	EA	2		
700- 1-11	Single Post Sign F & I <12 s.f.	EA	10		
700- 1-50	Single Post Sign (Relocate)	EA	9		
700- 1-50A	Single Post Sign (w/Flasher) (Relocate)	EA	2		
700- 3-501	Street Name Plaque, F & I	EA	13		
708- 3	Retro-Reflective Pavement Markers	EA	400		
711-11-121	Thermoplastic (Std) (White) (Solid) (6")	LF	5,631		
711-11-123	Thermoplastic (Std) (White) (Solid) (12")	LF	742		
711-11-125	Thermoplastic (Std) (White) (Solid) (24°)	LF	220		
711-11-141	Thermoplastic (Std) (White) (2'4' Skip) (6")	LF	132		
711-11-180	Thermoplastic (Std) (White) (Message) (School)	EA	3		
711-11-160A	Thermoplastic (Std) (White) (Message) (Bike)	EA	16		
711-11-170	Thermoplastic (Std) (White) (Arrow)	EA	20		
711-11-221	Thermoplastic (Std) (Yellow) (Solid) (6*) Thermoplastic (Std) (Vellow) (Solid) (48*)	LF	6,488		
		1 1 2			

PAY ITEM FOOT NOTES

110- 1- 1 INCLUDES REMOVAL OF ASPHALT PAVT & BASE (879 SY), PIPES, BASINS & MITERED ENDS

REMOVAL OF CONC. CURB & GUTTER TYPE F 61 SY REMOVAL OF CONC. SIDEWALK, 4" REMOVAL OF CONG. SIDEWALK, 6" 354 SY

706- 3 RPM's REQUIRED PER FDOT STANDARD INDEX 17352.

NOTE: THE COST OF TEMPORARY PAINTED PAVEMENT MARKINGS IS INCLUDED IN THE COST FOR THERMO-PLASTIC PAVEMENT MARKINGS.

GENERAL NOTES

- 1. ANY SURVEY MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED.
- IF IN DANGER OF DAMAGE, THE PROJECT ENGINEER SHOULD NOTIFY: NATIONAL GEODETIC SURVEY, NOAA 1315 EAST WEST HIGHWAY SILVER SPRING, MD 20910

MARTIN COUNTY ENGINEERING DEPARTMENT COUNTY SURVEYOR 2401 SE MONTEREY ROAD STUART, FL 34996

(772) 288-3927

2. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANCER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE COUNTY SURVEYOR WITHOUT DELAY BY TELEPHONE.

3. GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.

4. B.M. DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD—'88).

5. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF "OTHER" UTILITIES (NOT SHOWN IN THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION, SHOULD THERE BE UTILITY CONFICITS. THE CONTRACTOR SHALL INFORM THE ENGINEER AND NOTIFY THE RESPECTIVE UTILITY OWNERS TO RESOLVE UTILITY CONFLICTS AND ADJUSTMENTS, AS REQUIRED.

6. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.

UTILITY LOCATIONS MAY BE DETERMINED BY CALLING SUNSHINE ONE CALL (DIAL 811) AND THE SPECIFIC UTILITY COMPANIES.

(772) 460-4443 (561) 402-4513 (772) 223-4215 (561) 366-1635 (954) 444-2079 MARK GUTTERREZ COMCAST RICK JOHNSON FLORIDA POWER & LIGHT
FLORIDA PUBLIC UTILITIES CO.
TECO PEOPLES GAS
MARTIN COUNTY TRAFFIC

DAMIEN BONO DAMIEN BONO (772) 288-5528 STEVE VANDERSLUIS (772) 221-1437 MARTIN COUNTY UTILITIES

- THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED BY THE CONTRACTOR 48
 HOURS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A
 COMPANY REPRESENTATIVE CAN BE PRESENT.

 STATION AND OFFSETS REFER TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE

NOTED.

"STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (2017

"INDEX" REFERS TO THE 2017 FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS.

14. AT THE END OF EACH WORK PERIOD, ANY DROP-OFF IN THE AREA ADJACENT TO THE TRAVEL WAY SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD INDEX 600 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY BARRIER WALL AT THE

RAYLL WAY SHALL BE BACKHILLD IN ACCORDANCE WITH STANDARD INDEX 500 OR SHALL BE OTHERWISE PROTECTED WITH TEMPORARY BARRER WALL AT THE CONTRACTOR'S EXPENSE.

15. EROSION AND POLLUTION CONTROL: THE CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS TO PREVENT WATER POLLUTION WITH AQUATIC WEEDS, FUELS, OILS, BITUMENS, CALCIUM CHLORIDE OR OTHER HARMFUL MATERIALS. ALSO, HE SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID POLLUTION OF SILTATION OF WATER BOOKS OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION OF WATER BOOKS OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION OF WATER BOOKS OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL, FEATURES STALL BE CONFIDENCE. EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION HEROUGHOUT THE LIFE OF THE CONTRACT. ANY EROSION OR SHOALING SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE SOD SHALL BE PROVIDED AS SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO, ALL DISTURBED AREAS, UTILITY CONSTRUCTION, SLOPES AND AREAS ASSOCIATED WITH THE DRY RETENTION AREAS AND SWALES. ALL CONSTRUCTION METHOOS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 570, DOT SPECIFICATIONS, FOR ARCENTINE BAHIA SOD AND SHALL INCLUDE WATERING UNTIL FINAL ACCEPTANCE OF THE PROJECT.

THE PROJECT.

WATER POLLUTION AND TURBIDITY CONTROL SHALL BE REQUIRED BY THE CONTRACTOR IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARDS, LOCAL REGULATIONS AND SECTION 104, FDOT REQUIREMENTS INCLUDING BUT NOT LIMITED TO ONE OR MORE OF THE FOLLOWING OPTIONS; SHEET PILE OR EARTH COFFERDAM, HAY BALES, SEDIMENT BASIN, SLT FENCE OR TURBIDITY BARRIER. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN CANALS, PRESERVE AREAS OR IN A POSITION CLOSE ENOUGH THERETO, TO BE WASHED AWAY BY HIGH WATER OR

- 16. THE CONTRACTOR SHALL OBTAIN AN NPDES PERMIT AS "OPERATOR" AND SHALL BE RESPONSIBLE FOR ALL COSTS AND FEES AND IMPLEMENTING THE MEASURES, INCLUDING CONSTRUCTION, INSPECTION AND REPORTING REQUIRED BY THE NPDES
- PERMIT.
 CONTRACTOR SHALL BE RESPONSIBLE TO MEET ALL REQUIREMENTS OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), MARTIN COUNTY, U.S. ARMY CORPS OR ENGINEERS, AND ANY OTHER REGULATORY AGENCIES AT NO EXTRA COST TO THE CONTRACT.
 THE CONTRACTOR IS RESPONSIBLE TO CLEAN AND MAINTAIN THE WORK AREA IN GOOD CONDITION AND CONTROL AIRBORNE DUST DUE TO THE CONSTRUCTION ACTIVITIES. THIS ITEM IS INCIDENTAL TO THE CONTRACT AND SHALL NOT BE PAID FOR SEPARATELY.
- T. SOME HORIZONTAL & VERTICAL CONTROL POINTS ARE LOCATED WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTOR SHALL REESTABLISH CONTROL POINTS AS NEEDED AT NO COST TO THE PROJECT.
- NO COST TO THE PROJECT.

 18. ALL NEW PAVEMENT CONNECTIONS TO EXISTING PAVEMENT WILL BE MADE WITH A STRAIGHT SAW CUT OF THE EXISTING PAVEMENT.

 19. THE CONTRACTOR IS TO MAINTAIN AND KEEP STREET NAME IDENTIFICATION VISIBLE DURING CONSTRUCTION OPERATIONS, IN ORDER TO FACILITATE EMERGENCY VEHICLE TRAFFIC.
- 20. EXISTING MAILBOXES WITHIN CONSTRUCTION LIMITS SHALL BE REMOVED/REPLACED AS NECESSARY TO AVOID DELAY IN MAIL DELIVERY AND SHALL BE INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR WILL RESTRICT THE USE OF EQUIPMENT AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION AS NOTED ON THE PLAN SHEETS. ANY OFF-SITE STORAGE AREAS WILL REQUIRE PRIOR REVIEW BY THE
- 22. THE CONTRACTOR SHALL MAINTAIN A LOG OF ALL ACTIVITIES AT SITE. RECORD DRAWINGS SHALL BE COMPILED AT SUBMISSION OF EVERY PAY REQUEST FOR THE WORK COMPLETED FOR THAT PERIOD. AT THE END OF THE PROJECT, BEFORE SUBSTANTIAL COMPLETION CERTIFICATE IS ISSUED, THE CONTRACTOR SHALL PROVIDE A FULL SET OF AS-BUILT DRAWINGS PREPARED AND SIGNED/SEALED BY A REGISTERED PROFESSIONAL SURVEYOR OF THE STATE OF FLORIDA. THIS EFFORT SHALL BE INCIDENTAL TO THE OTHER PAY ITEMS IN THE CONTRACT AND SHALL NOT BE PAID FOR SEPARATELY.
- 23. MAINTENANCE OF TRAFFIC:

 MAINTENANCE OF TRAFFIC (M.O.T.) SHALL CONFORM TO FOOT TRAFFIC CONTROL THROUGH WORK ZONES REQUIREMENTS PER INDEX SERIES 600 AS APPICABLE.
- ACCESS TO ALL PROPERTIES MUST BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION.
- A M.O.T. PLAN SHALL BE SUBMITTED BY THE CONTRACTOR AND ACCEPTED BY THE
- A MULTI-PLAN SINGLE BE SUBMITTED IT THE CONTRACTION AND ACCEPTED STATE

 MARTIN COUNTY ENGINEERING DEPARTMENT PRIOR TO BEGINNING ANY WORK.

 THE MARTIN COUNTY ENGINEERING TRAFFIC DIMISION (772—288—5527) IS TO BE NOTIFIED

 AT LEAST 14 DAYS IN ADVANCE OF ANY CONSTRUCTION.

 PAYMENT FOR ALL WORK AND COSTS ASSOCIATED WITH MAINTENANCE OF TRAFFIC WILL

 BE MADE UNDER PAY ITEM 102—1 MAINTENANCE OF TRAFFIC LUMP SUM.

 ANY PROPOSED LANE CLOSURES ON SR 76 REQUIRE PRIOR APPROVAL FROM THE FOOT

 TOOPS FROMFER TCOPS ENGINEER.
- 24. THE CONTRACTOR SHALL USE DILIGENT CAUTION TO COMPLETE ALL WORK WITHIN THE MARTIN COUNTY RIGHT OF WAY AND ON MARTIN COUNTY OWNED PROPERTY AS DESCRIBED AND INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE CONTRACTOR ENCROACH ON PRIVATELY DWINED PROPERTY.
- 25. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ADRESSES WATER QUALITY AND EROSION CONTROL DURING CONSTRUCTION. IN ADDITION, THE CONTRACTOR WILL BE REQUIRED TO USE BEST MANAGEMENT PRACTICES AND COMPLY WITH THE MOST RECENT EDITION OF THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (SECTION 104) TO ENSURE THAT NO ADVERSE IMPACTS WILL OCCUR TO WETLANDS ADJACENT TO THE PROJECT CORRIDOR.
- 26. ALL WORK FOR THIS PROJECT WILL BE COMPLETED WITHIN AND FROM THE EXISTING RIGHT-OF-WAY.



711-11-241

MARTIN COUNTY ENGINEERING 2401 SE MONTEREY ROAD STUART, FLORIDA 34996 PHONE: (772) 288-5927 FAX: (772) 288-5955

www.martin.fl.us

711-11-221 Thermoplestic (Std) (Yellow) (Solid) (6") 711-11-224 Thermoplastic (Std) (Yellow) (Solid) (18")

Thermoplastic (Std) (Yellow) (6'-10' Skip) (6")

DWN BY: CKD BY: SCILICITATION NO AUGUST PLE NAME:

AND PLOT SCALE PLOT DATE: FILE NUMBER
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AND PLOT SCALE
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DEDCRIPTION

LF

LF

272

172

SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

SUMMARY OF QUANTITIES . GENERAL NOTES

C CALVEST MENTOGREESY & ASSOCIATES, INC.

P.O. BOX 92..959 S. FEDERAL HWY....STUART, FLORIDA 34995 (Fox) 772-220-0580 (Tel.) 772-287-3636



DENTIFICATION 3

MEET S OF S

HORIZONTAL & VERTICAL CONTROL PLAN

PHONE: (772) 288-5927

FAX: (772) 288-5955

P.O. BOX 92..958 S. FEDERAL HWY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580







DESIGNE STM	D BY:	DATE: 11.10.2016)[- 5	
DWN BY:	CICD BY	SOLICITATION NO.:				
BUBMITT PJB	ED BY:	CONTRACT NO.:	11			
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SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

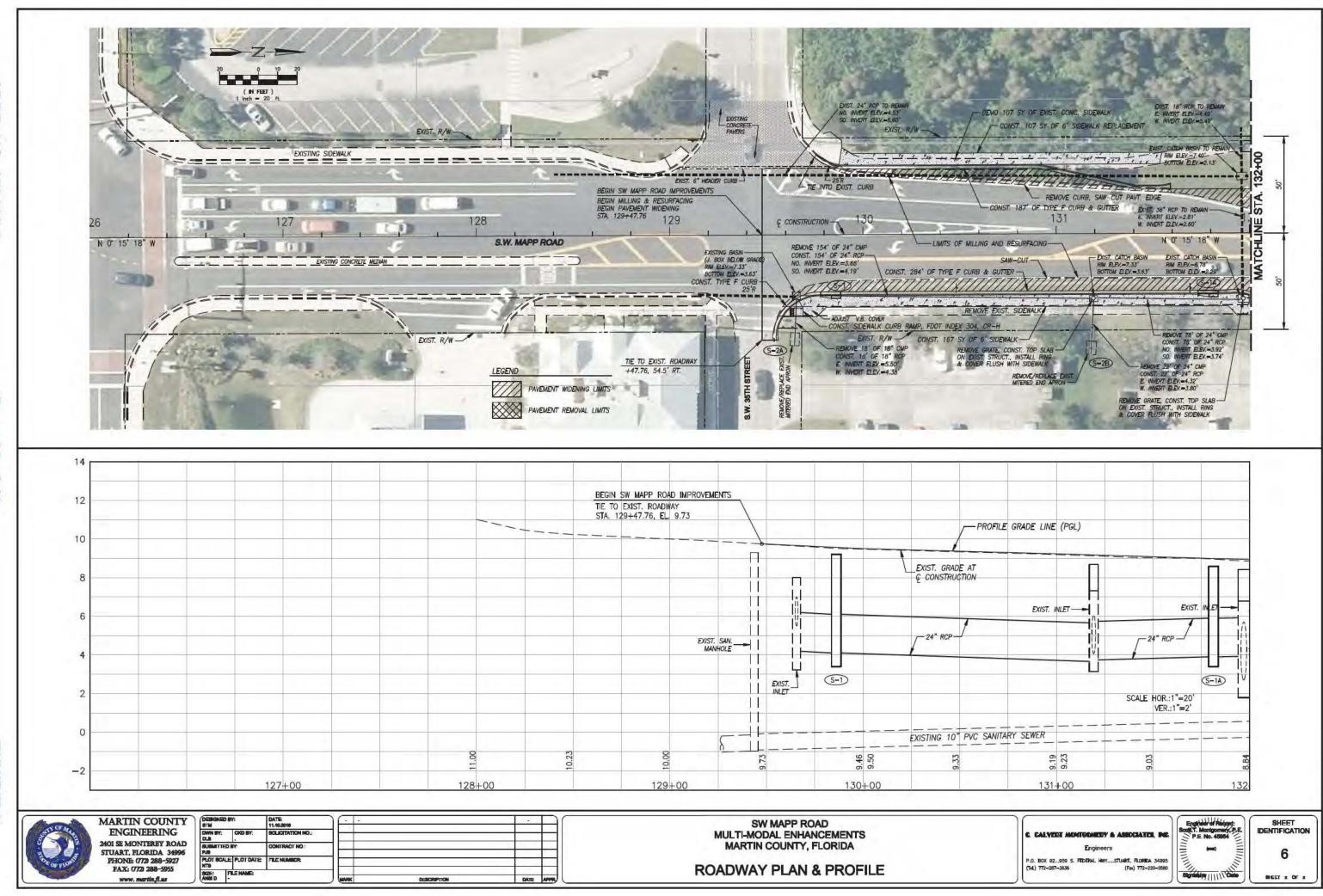
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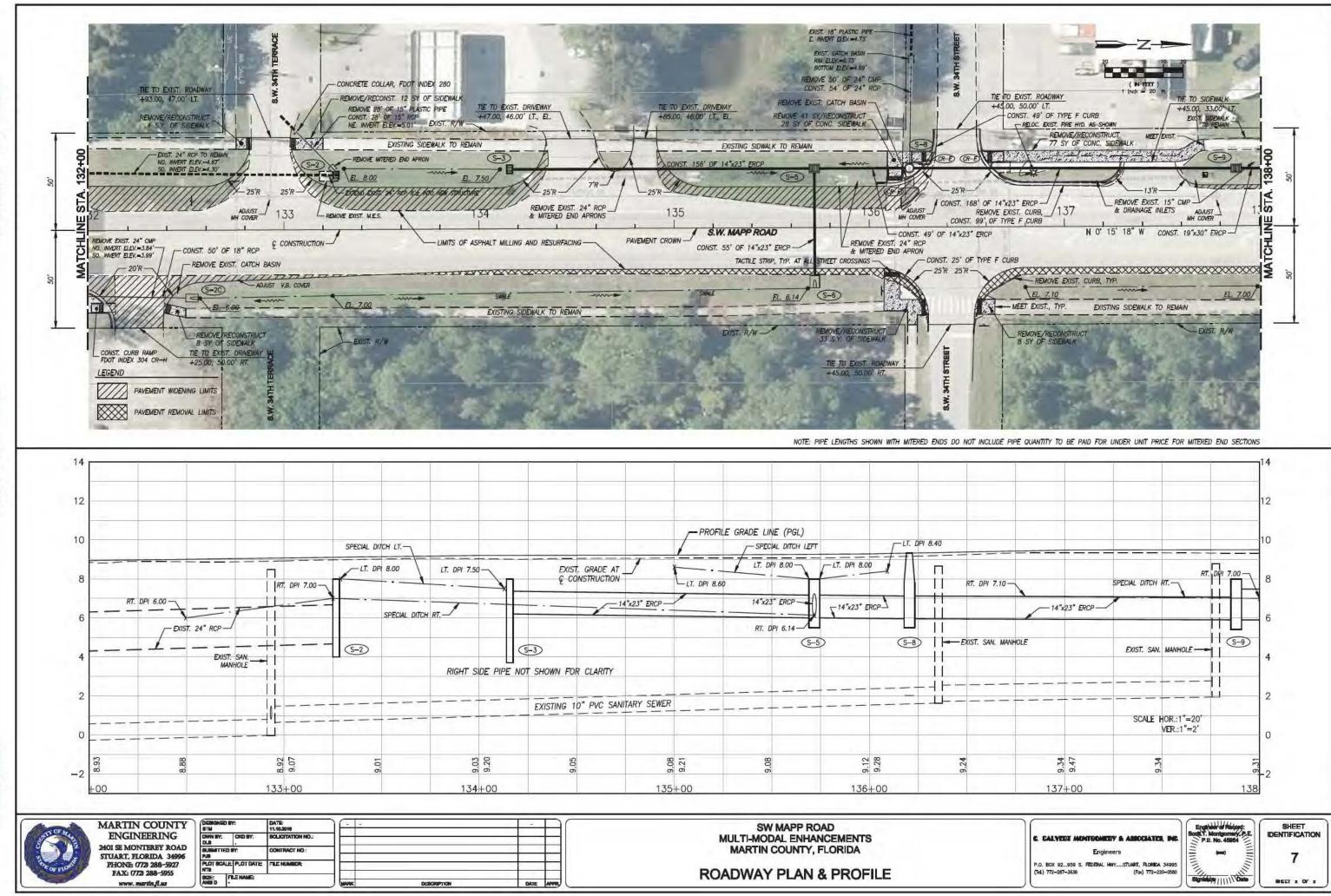
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	Engineers		

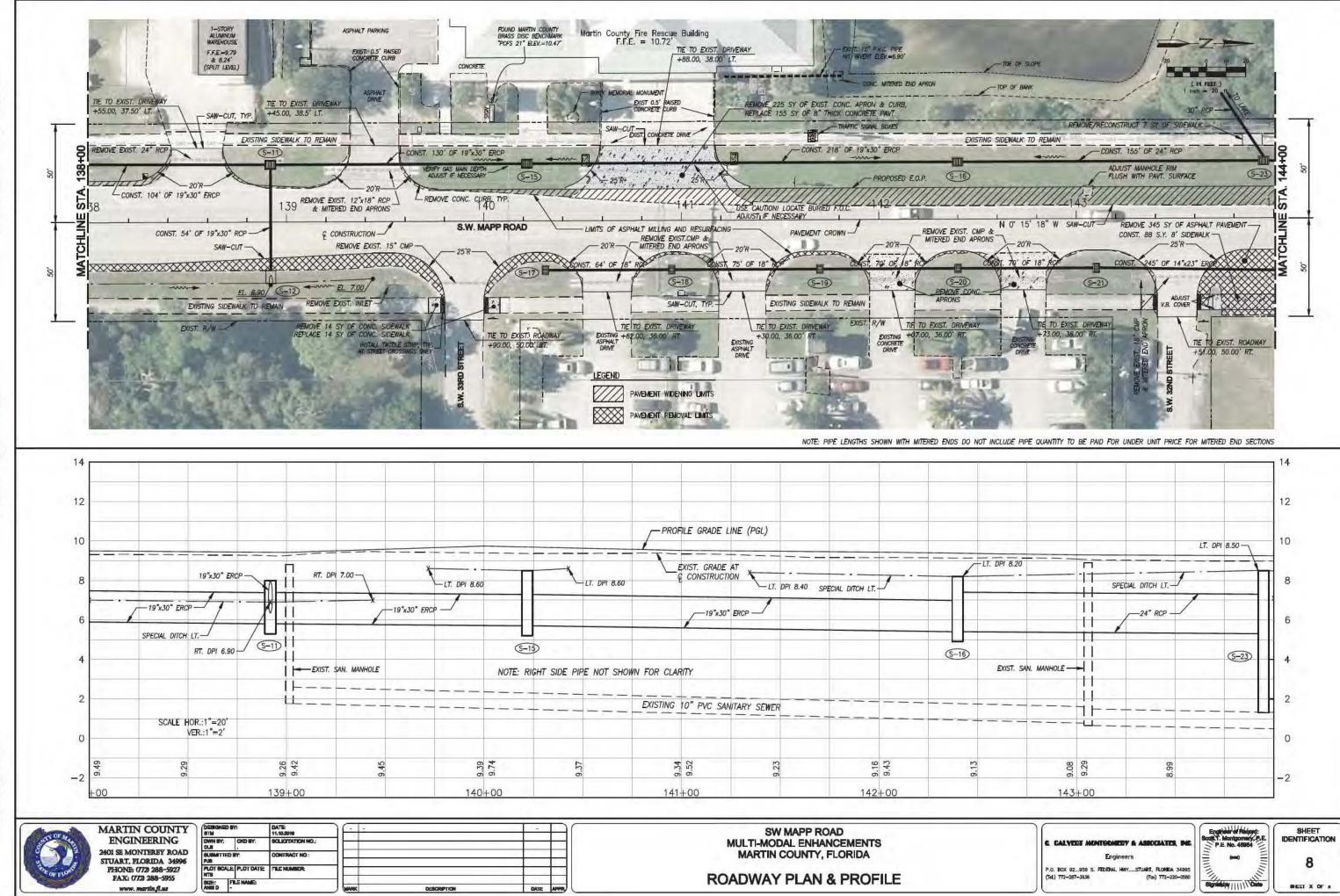
P.O. BOX 92...959 S. FEDERAL HWY.....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580

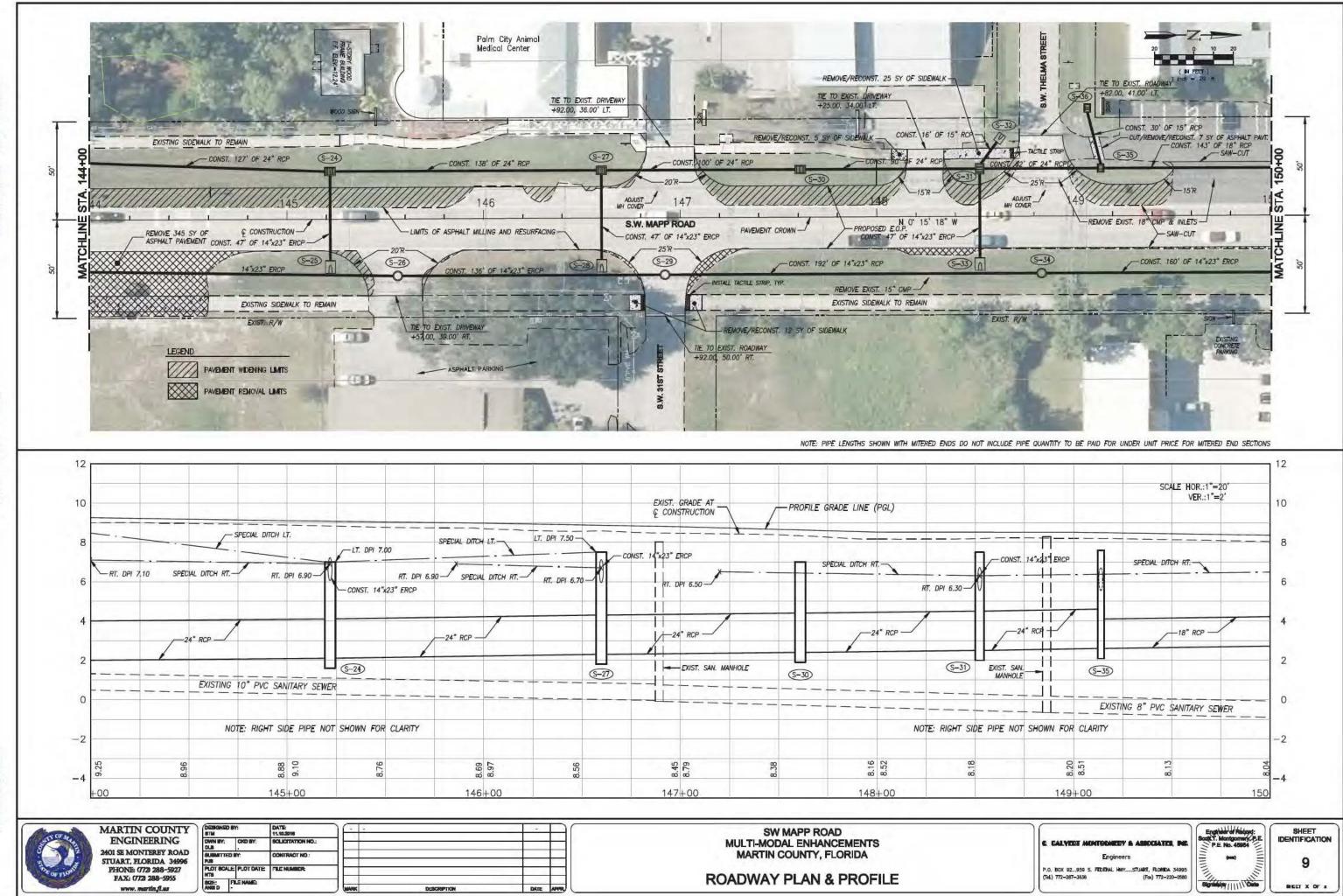


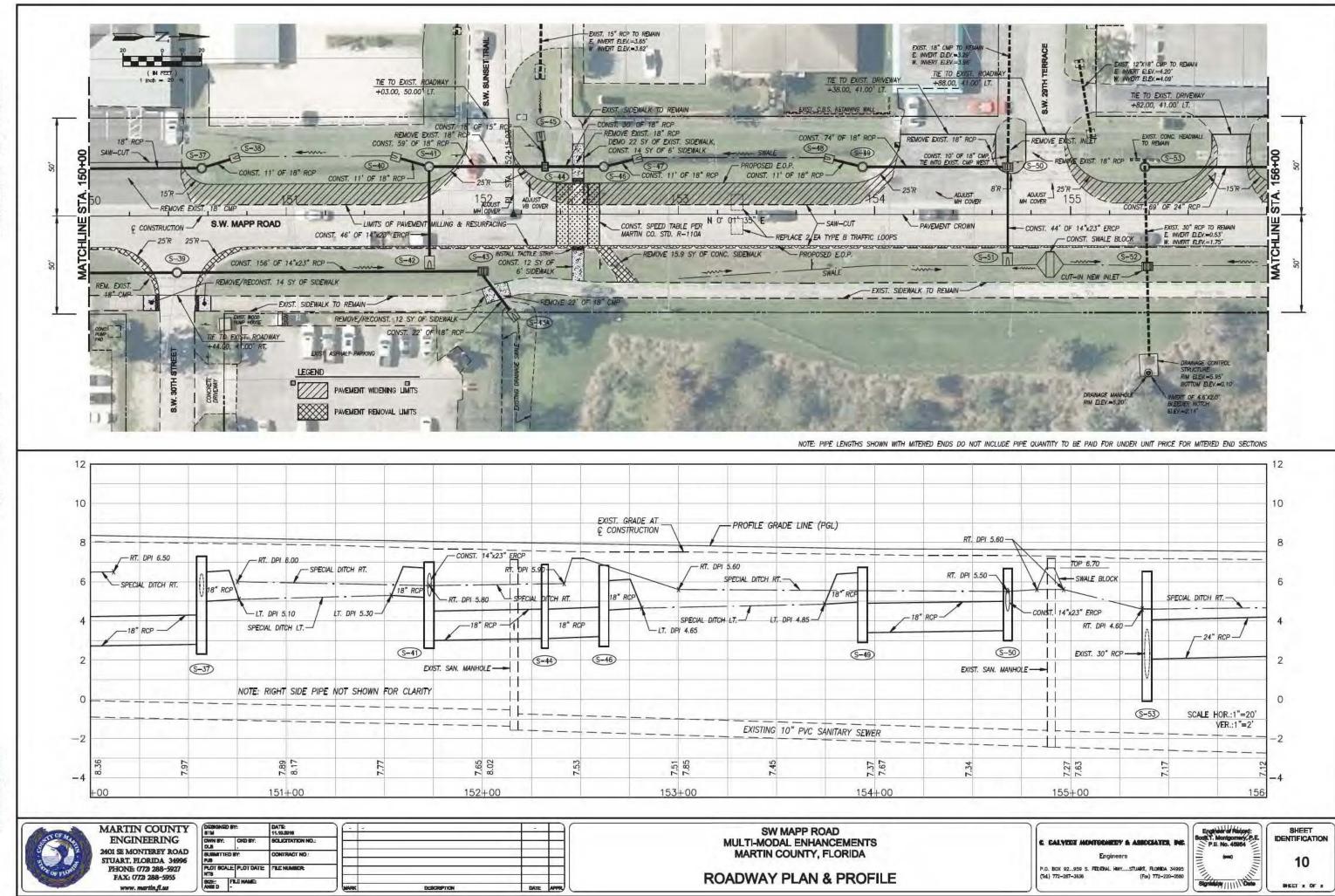
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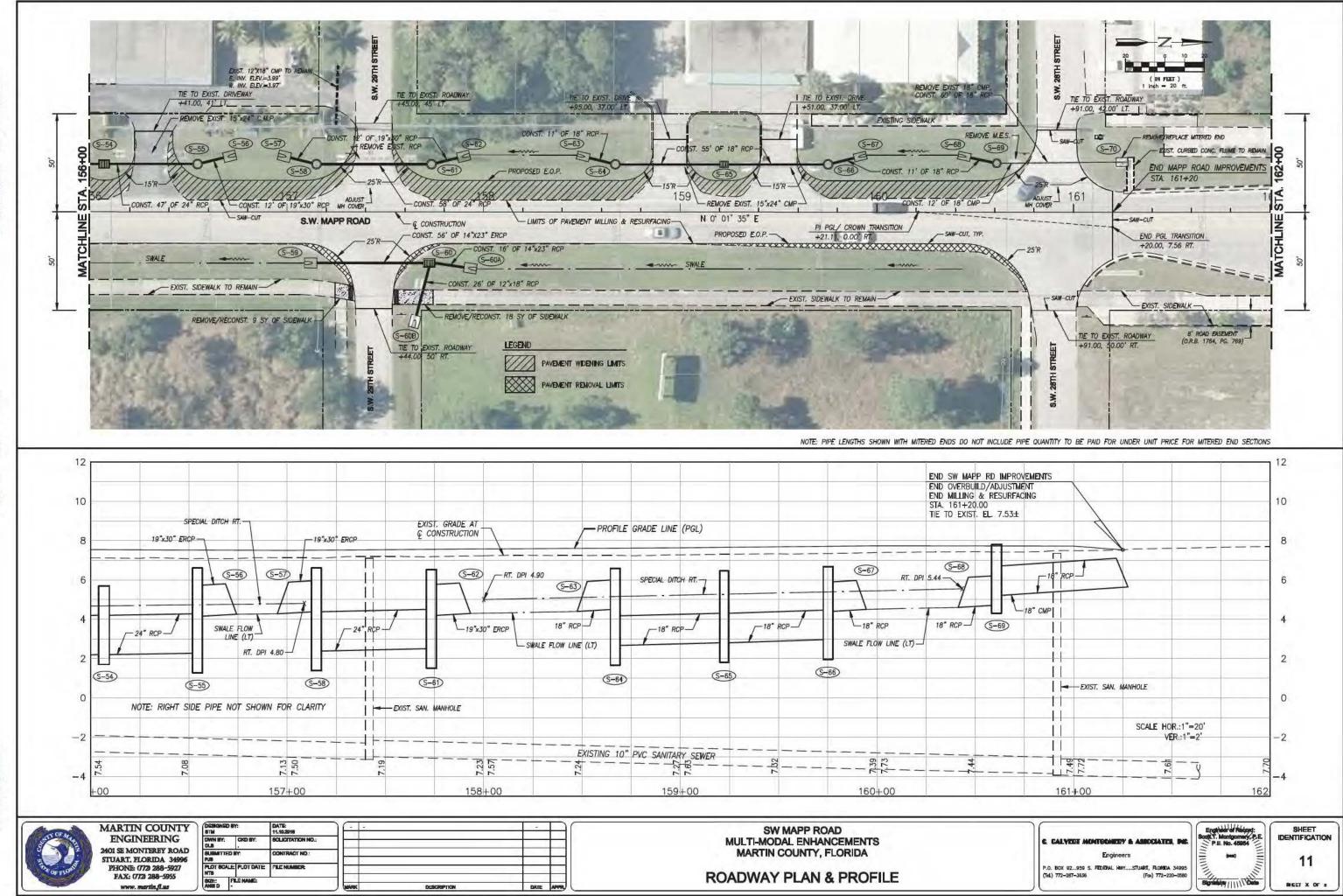


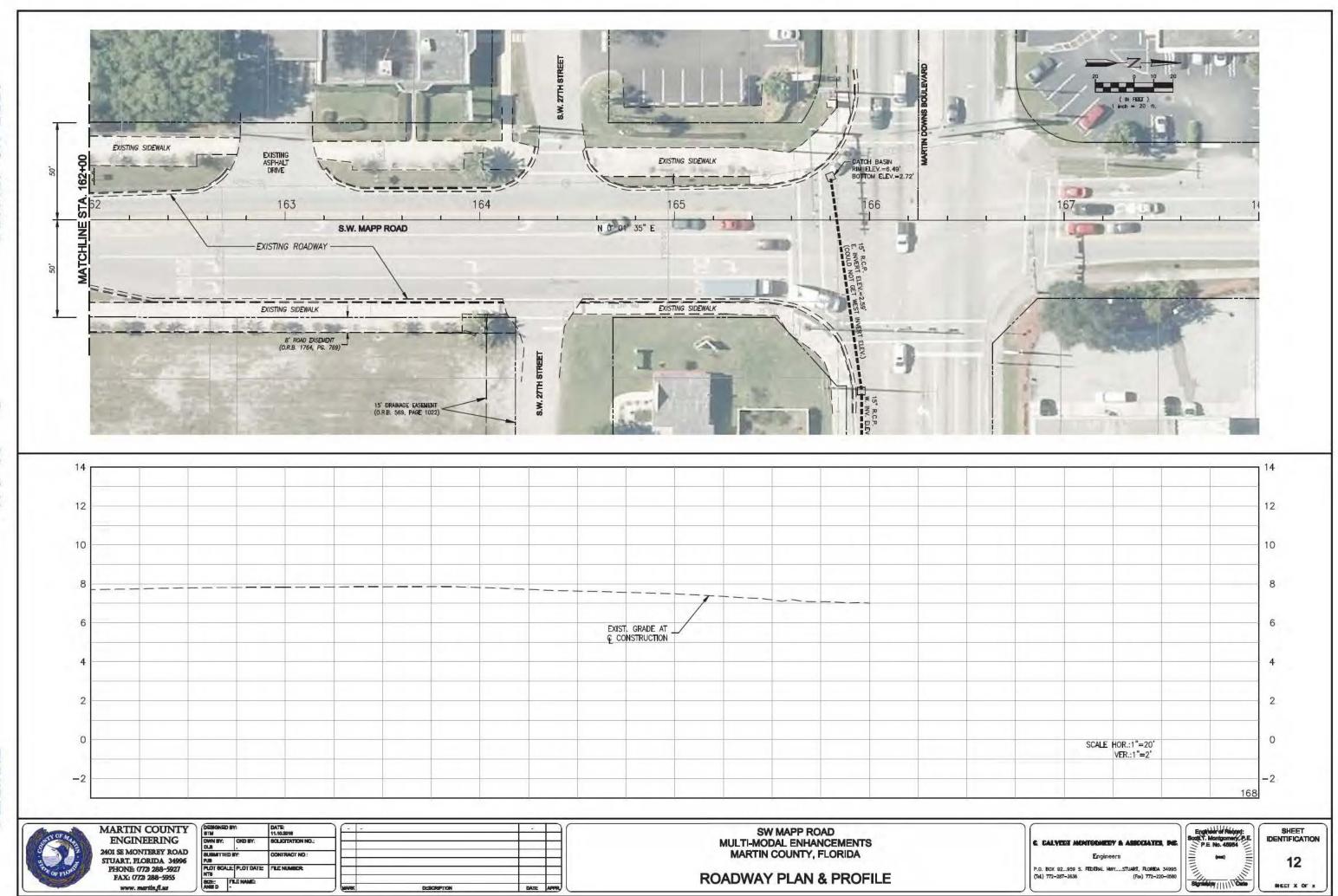












5-42	MES (14"x23" ERCP) CD
5-43	DBI TYPE D
S-43A	MES (18" RCP) CD
S-44	DBI TYPE C
5-45	MES (15" RCP) SD
S-46	MANHOLE TYPE P
S-47	MES (18" RCP) SD
S-48	MES (18" RCP) SD
5-49	MANHOLE TYPE P
5-50	DBI TYPE D
S-51	MES (14"x23" ERCP) CD
S-52	DBI TYPE D
5-53	MANHOLE TYPE P
S-54	DBI TYPE D
S-55	MANHOLE TYPE P
S-56	MES (19"x30" ERCP) SD
N 2	MARTIN COUNTY ENGINEERING SOI SE MONTEREY ROAD TUART, FLORIDA 34996 PHONE: 0772 288-5925 FAX: 0772 288-5925

TABLE OF DRAINAGE STRUCTURES

DESCRIPTION

CURB INLET TYPE 5

CURB INLET TYPE 5

MES (18" RCP) SD

MES (24" RCP) SD

MES (18" RCP) SD

DBI TYPE D

DBI TYPE C

NOT USED

DBI TYPE D

S-6 MES (14"x23" ERCP)

DBI TYPE D

NOT USED

DBI TYPE D

NOT USED

DBI TYPE D

DBI TYPE D

DBI TYPE C

NOT USED

DBI TYPE D

DBI TYPE C

DBI TYPE C

MES (15" RCP) SD

MANHOLE TYPE P

MANHOLE TYPE P

MANHOLE TYPE P

MES (18" RCP) SD

MANHOLE TYPE P

MES (18" RCP) SD

MES (14"x23" ERCP) CD

S-29 MANHOLE TYPE P

MANHOLE TYPE P

MES (14"x23" ERCP) CD

MES (14"x23" ERCP) CD

MANHOLE TYPE P

MES (19"x30" ERCP) NOT USED

NOT USED

MARK

5-1

5-1A

5-2A

S-2B

S-2C

5-5

S-7

5-8

5-9

5-12

5-13 5-14

S-15

S-16

5-18

5-19

5-20

5-21

5-22

5-23

S-24

5-25

5-26

5-27

5-30

5-31

5-32

5-33

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5-36

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5-40

5-41

F.D.O.T. INDEX

200,211

200,211

232

272

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273

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200,201

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272

GRATE EL.

9.21

8.58

8.00

8.00

9.32

8.00

8.00

8.20

8.00

8.00

7.80

7.80

7.80

8.50

7.00

8.55

7.50

8.34

7.00

7.48

6.40

7.60

7.50

7.30

7.50

6.98

6.80

6.88

6.83

6.73

4.60

6.00

5.70

6.60

4.10

3.90

6.00

6.20

6.00

5.95

5.90

5.80

5.40

5.15

5,05

4.95

4.85

4.75

2.00

2.10

4.55

2,30

4.45

2.40

2.50

4.35

2,60

5.00

5.10

4.25

3.00

4.14 (NE)

3.10

4.64

4.65

3.40

2.10

2.20

4.15

4.25

INVERT ELEV.

S.

4.10

3.90

4.67

6.00

5.95

5.90

5.80

5.40

5.05

4.95

4.85

4.75

5.30

2.10

4.55

2.30

4.45

2.40

2.50

4.35

2.60

2.80

4.25

5.30

5.20

4.14

3.10

3.20

4.85

4.95

3.50

2.10 (SW

2.20

2.27

-

5.50 (NW)

5.47 (NW)

5,50

-

3.62

3.63

3,28

1.08

1.75

E.

5.50

4.32

6.00

6.14

5.80

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5.20

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1.75

воттом

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4.65

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1.30

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4.05

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3.95

1.90

2.00

3.85

2.10

4.00

2.30

3.75

-

2.50

-

3.47

2.60

2.70

2.90

2.78

0.41

0.75

1.70

1.77

W

5,0 (SW)

4

4.90

REMARKS

USF 6209 GRATE, SIDE SLOT S. EL. 7.50

USF 6626 GRATE

USF 6626 GRATE

TYPE I FRAME/COVER

USF 6626 GRATE

USF 6626 GRATE

USF 6626 GRATE

USF 6626 GRATE

USF 6209 GRATE

USF 6626 GRATE

USF 6626 GRATE

TYPE I FRAME/COVER USF 6626 GRATE

TYPE I FRAME/COVER

TYPE I FRAME/COVER

TYPE | FRAME/COVER

TYPE I FRAME/COVER

TYPE I FRAME/COVER

USF 6626 GRATE

USF 6209 GRATE

TYPE I FRAME/COVER

TYPE I FRAME/COVER

USF 6626 GRATE, CUT INTO EXIST, PIPE

TYPE I FRAME/COVER. CUT INTO EXIST. PIPE

USF 6626 GRATE

USF 6626 GRATE

TYPE I FRAME/COVER

12"dx24"w SIDE SLOT, USF 6209 GRATE

USF 6209 GRATE

USF 6626 GRATE

USF 6626 GRATE

DESIGNE	20 20	rs.	DATE: 06.46.2016	16-	-
DUB BY:		CRO BY:	BOUGITATION NO.:		
SUBMITT PJE	EDI	TY:	CONTRACT NO:		ł
PLOT BO MT8	ALE:	PLOTDATE	FRE NUMBER		t
AND D	F	LE NAME:		· ·	

MAK	DESICRAPTION	DATE	APPR
			t
S -			

TABLE OF DRAINAGE STRUCTURES (Continued) INVERT ELEV. воттом REMARKS DESCRIPTION INDEX GRATE EL E. S. W. MES (19"x30" ERCP) SD 272 4.27 5-57 S-58 MANHOLE TYPE P 200,201 6.60 2.38 4.37 1.88 TYPE I FRAME/COVER MES (14"x23" ERCP) SD 4.80 5-59 273 TYPE D FIELD INLET 232 6.50 4.90 4.28 4.90 USF 6626 GRATE S-60A MES (14"x23" ERCP) SD 273 5.00 MES (12"x18" ERCP) SD S-60B 273 4.54 5-61 MANHOLE TYPE P 200,201 6.53 4.19 2.50 2.00 TYPE I FRAME/COVER 272 5-62 MES (19"x30" ERCP) SD 4.29 MES (18" RCP) 272 4.39 5-64 MANHOLE TYPE P 200,201 6.58 2.67 4.49 2.17 TYPE I FRAME/COVER DBI TYPE C 232 6.45 2.80 5-65 2.80 -2.30 USF 6209 GRATE 5-66 MANHOLE TYPE P 6.68 200.201 4.40 2.96 2.46 TYPE I FRAME/COVER 5-67 MES (18" RCP) SD 272 4.50 272 5-68 MES (18" RCP) SD 4.60 MANHOLE TYPE P 200,201 7.80 5.11 4.70 4.20 TYPE I FRAME/COVER S-70 MES (18" RCP) SD 5.64

272

SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

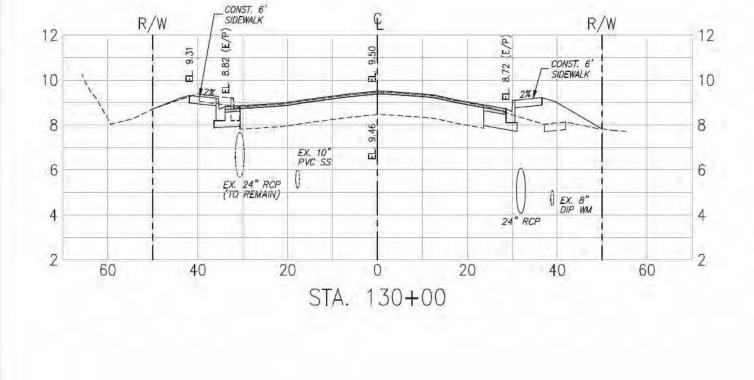
TABLE OF DRAINAGE STRUCTURES

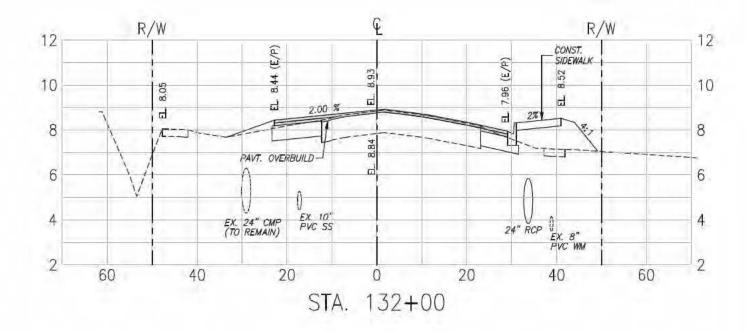
C. CALVEST MONTGOMENY & ABROCIATES, INC.

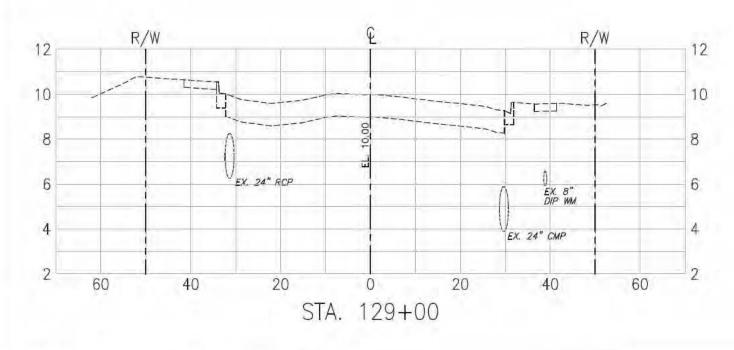
P.O. BOX 92.,359 S. FEDERAL HWY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580

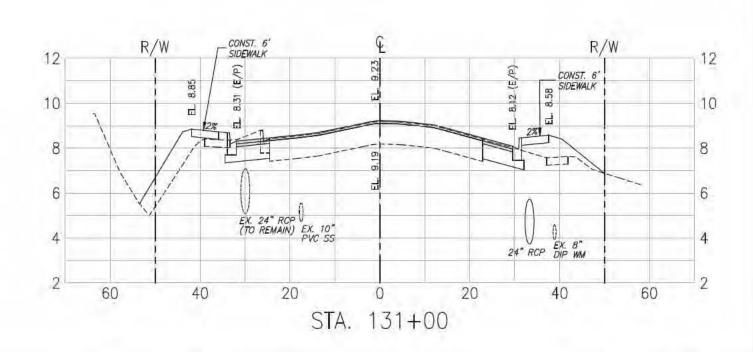


IDENTIFICATION 13













SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

CROSS SECTIONS





SHEET 14

12

10

12

10

R/W

60

R/W

8.92

님

EX. 4" PE GM

40

PAVT. OVERBUILD-

40

EX. 4"
PE GM EX. 24" RCP
(TO REMAIN)





20

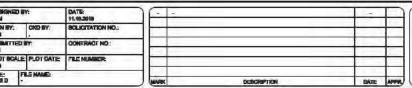
PAVT. OVERBUILD -

EX. 10" PVC SS

0

STA. 134+00

20

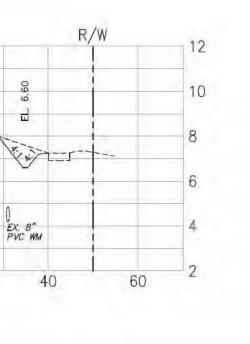


0

STA. 133+00

20

R/W R/W 12 10 7.88 8 EX. 10" PVC SS 6 14"x23" ERCP PAVT. OVERBUILD EX. 4" PE GM EX. 8" PVC WM 20 20 40 60 60 40 STA. 136+00



60

R/W

7.76

- EXIST. PAVT. REMOVAL

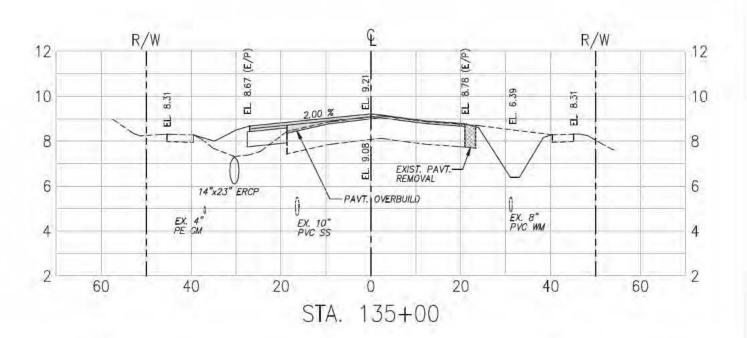
EX. 8" PVC WM

40

20

12

10



SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

CROSS SECTIONS

P.O. BOX 92_,959 S. PEDERAL HWY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580

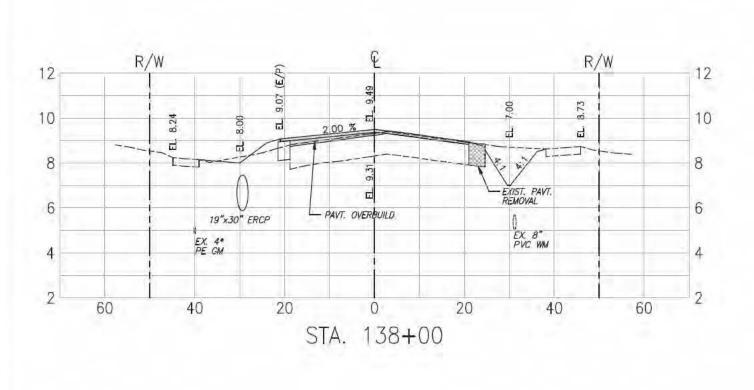


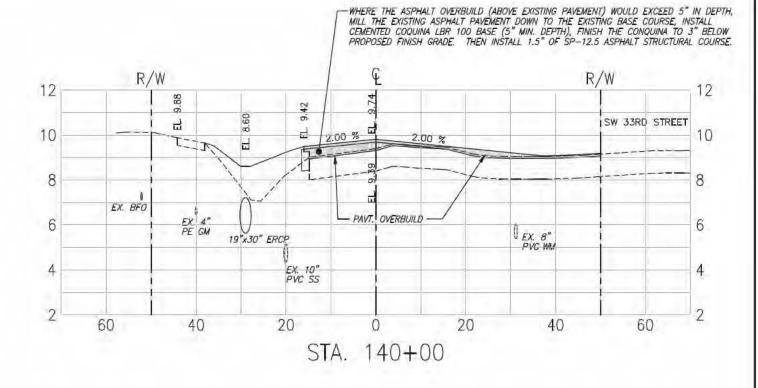
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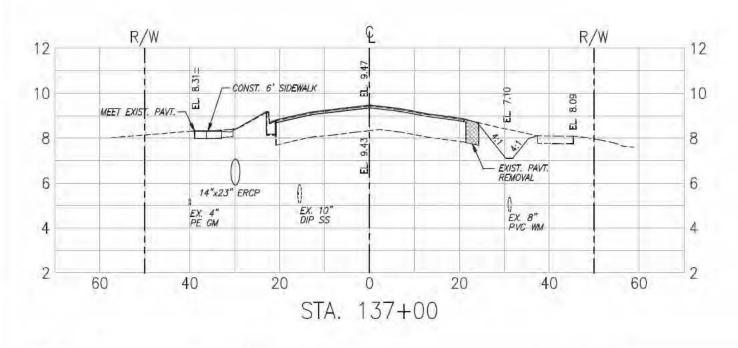
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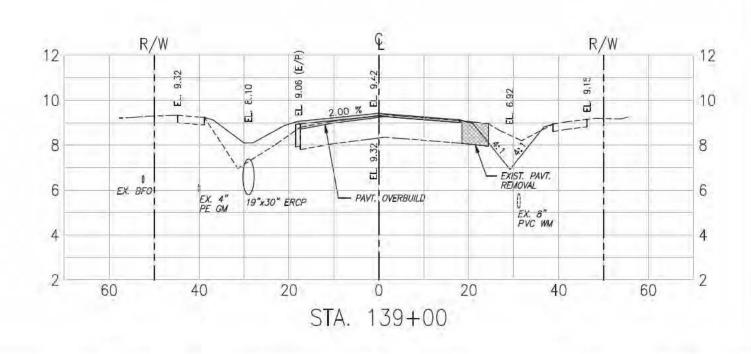
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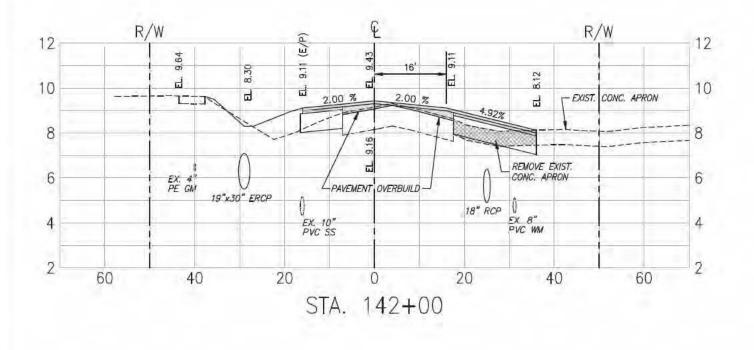
SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA

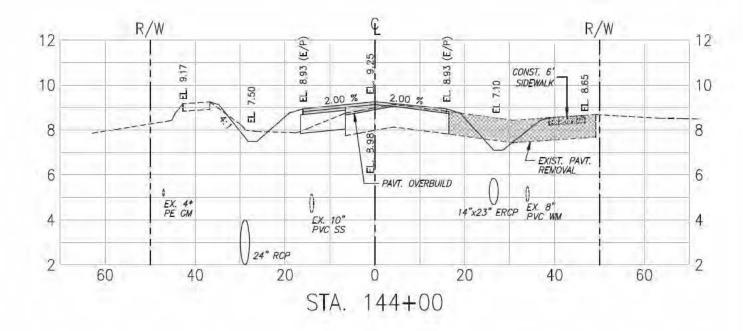
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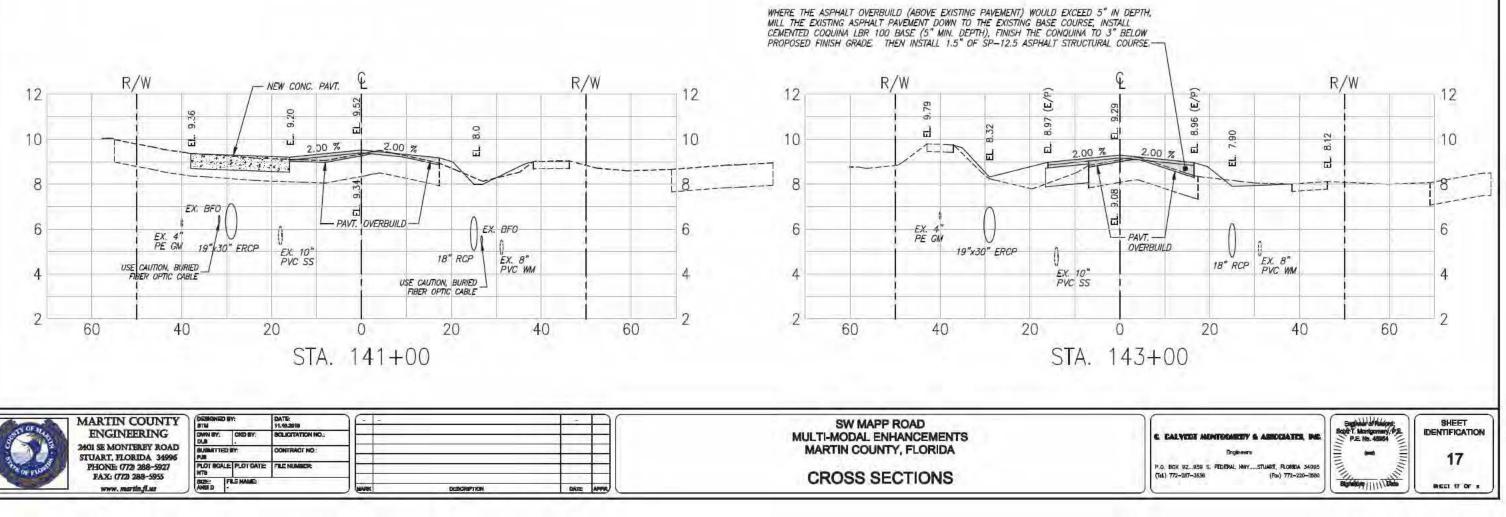




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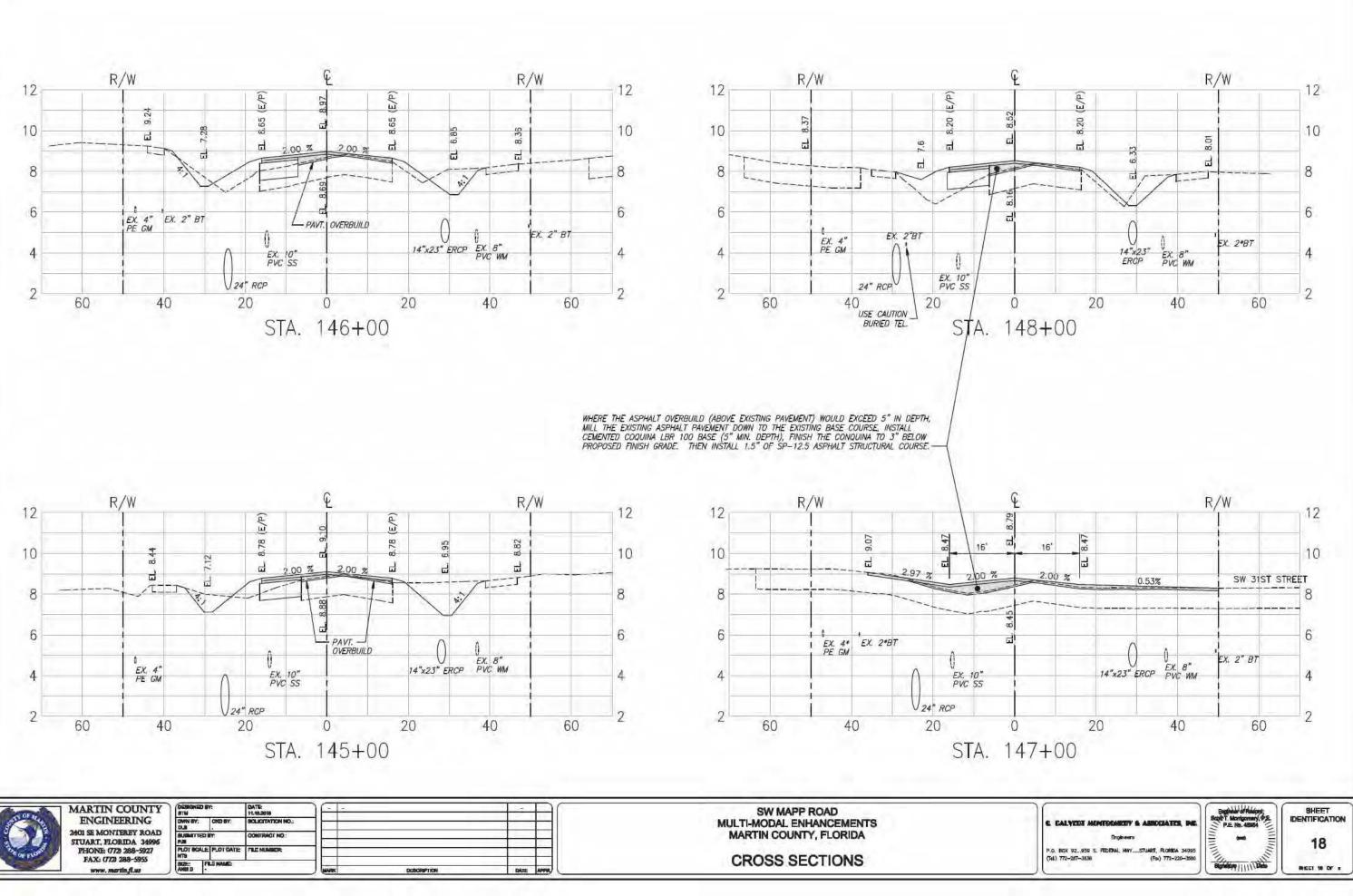


CROSS SECTIONS

P.O. BOX 92...959 S. FEDERAL HNY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580



SHEET 17 04EET 17 OF





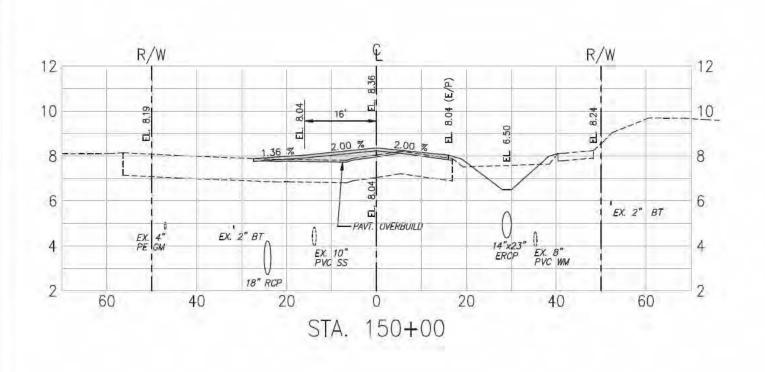


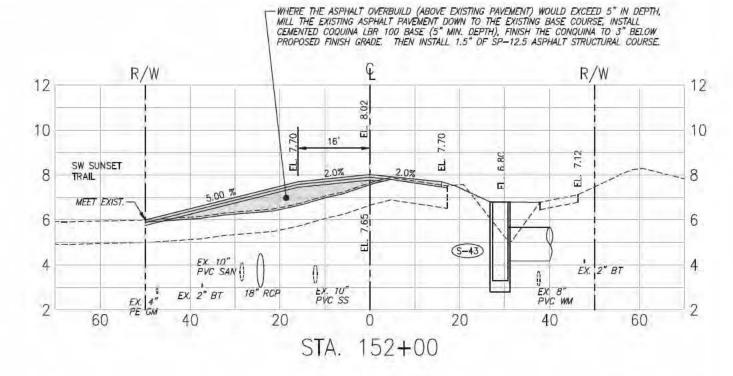
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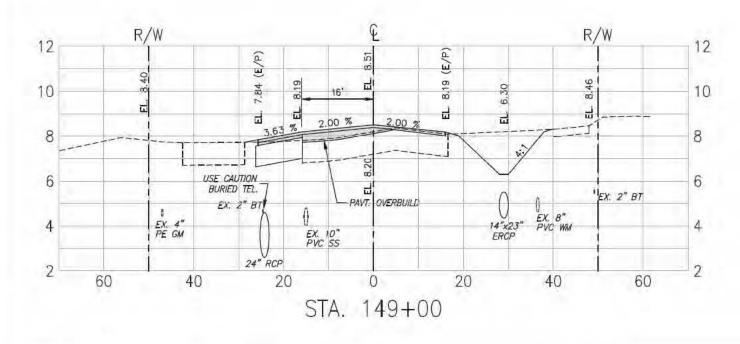
P.O. BOX 92_,959 S. FEDERAL HWY....STUART, FLORIDA 34995 (Tel) 772-287-3636 (Fox) 772-220-0580

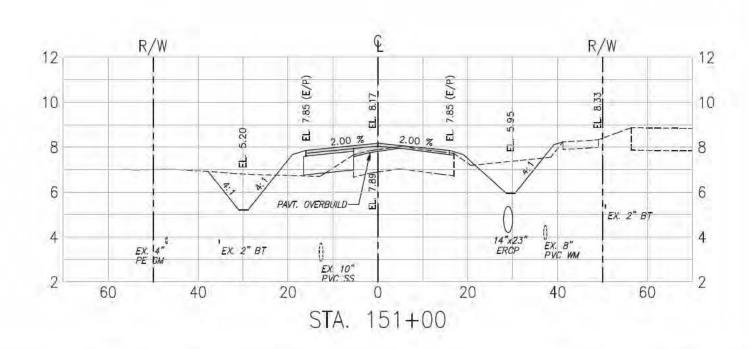


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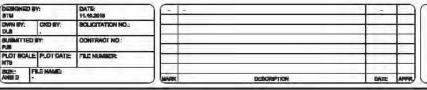




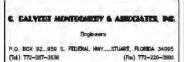








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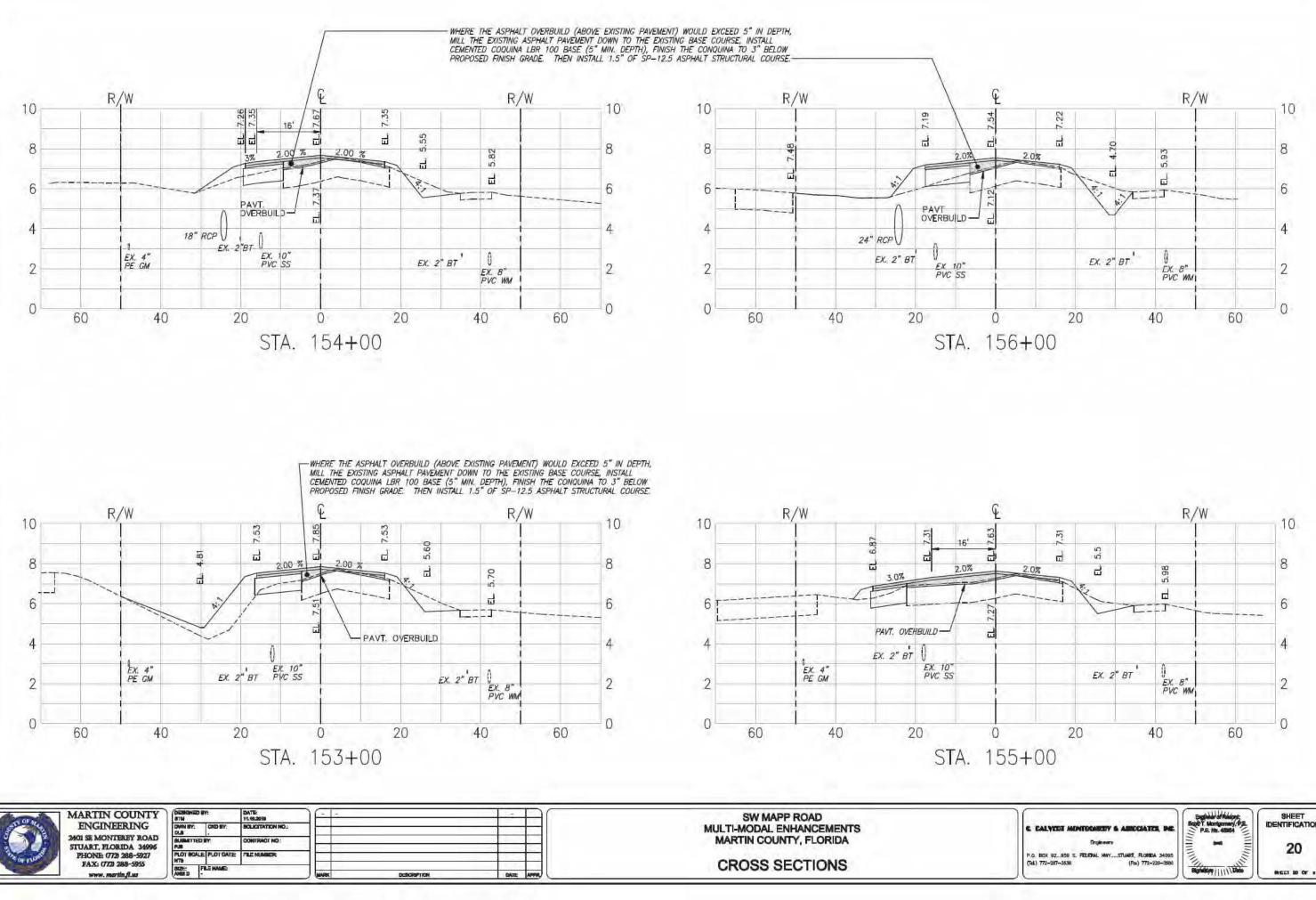




SHEET DENTIFICATION

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PLEET 19 OF X





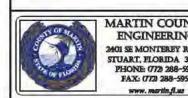


CROSS SECTIONS

P.O. BOX 92...959 S. FEDERAL HNY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580



SHEET 20 RHEET NO OF



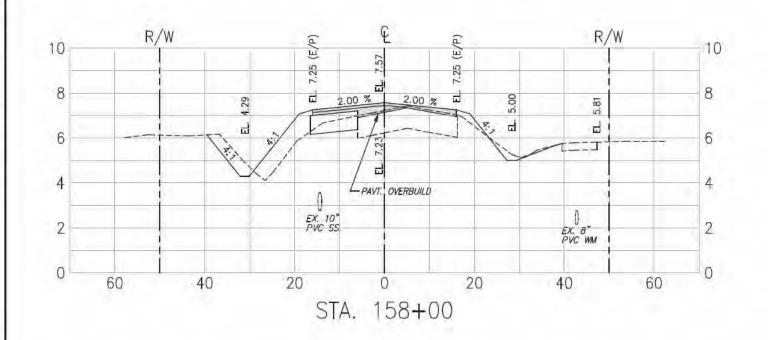


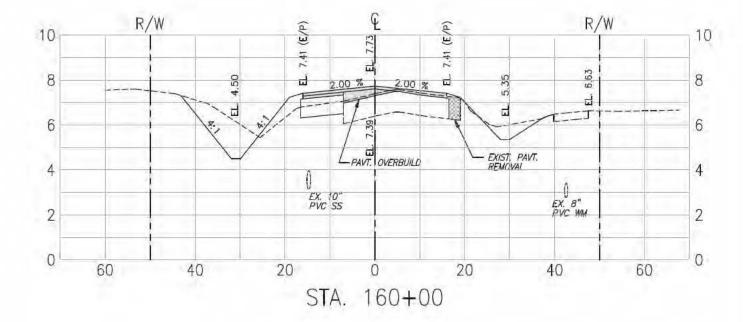
SW MAPP ROAD MULTI-MODAL ENHANCEMENTS MARTIN COUNTY, FLORIDA **CROSS SECTIONS**

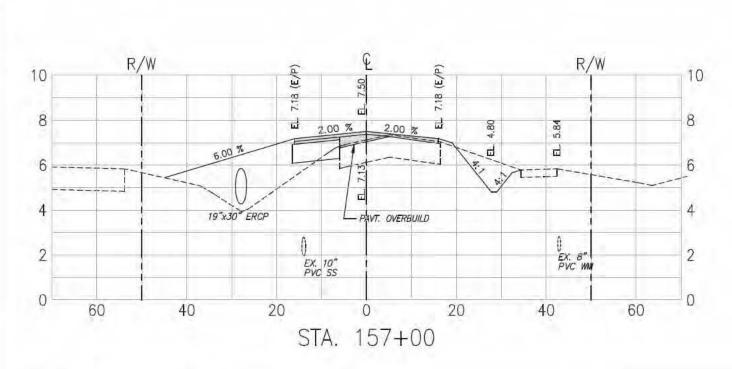
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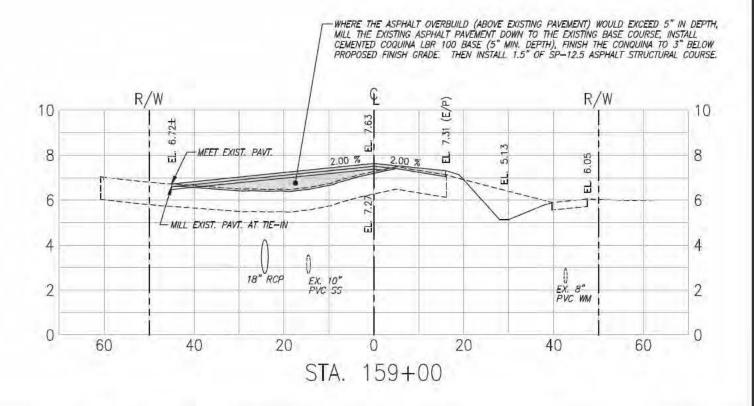


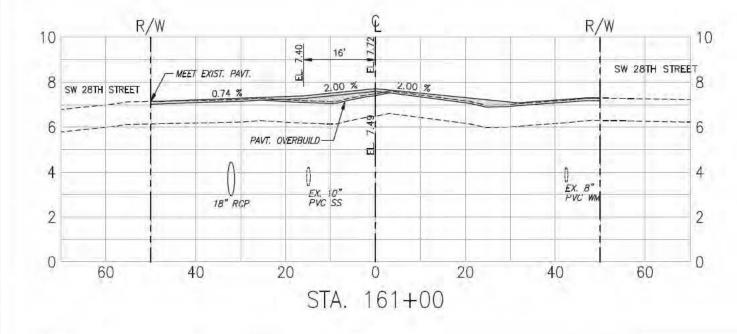
SHEET 21 04EET 21 OF 1













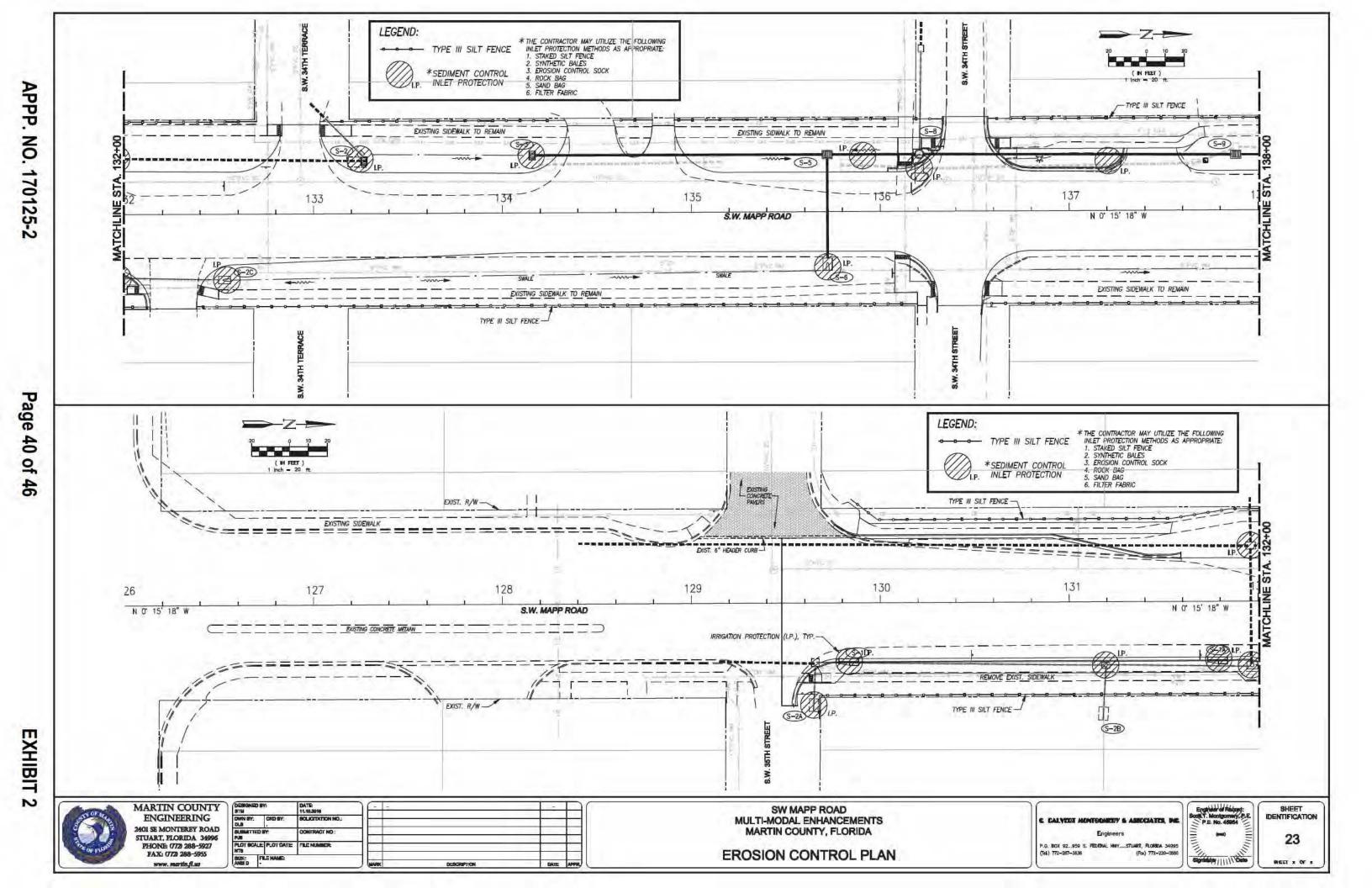


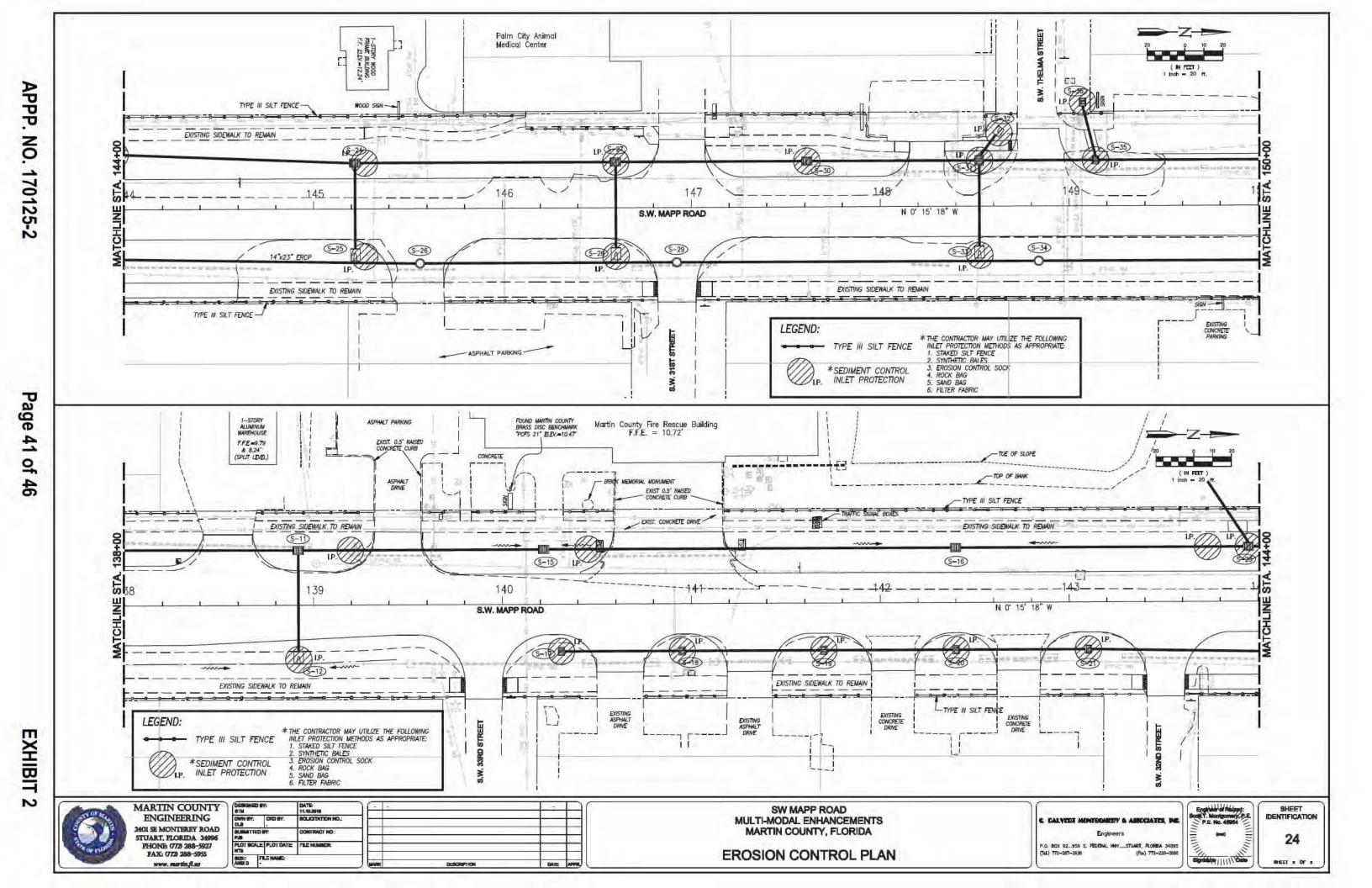
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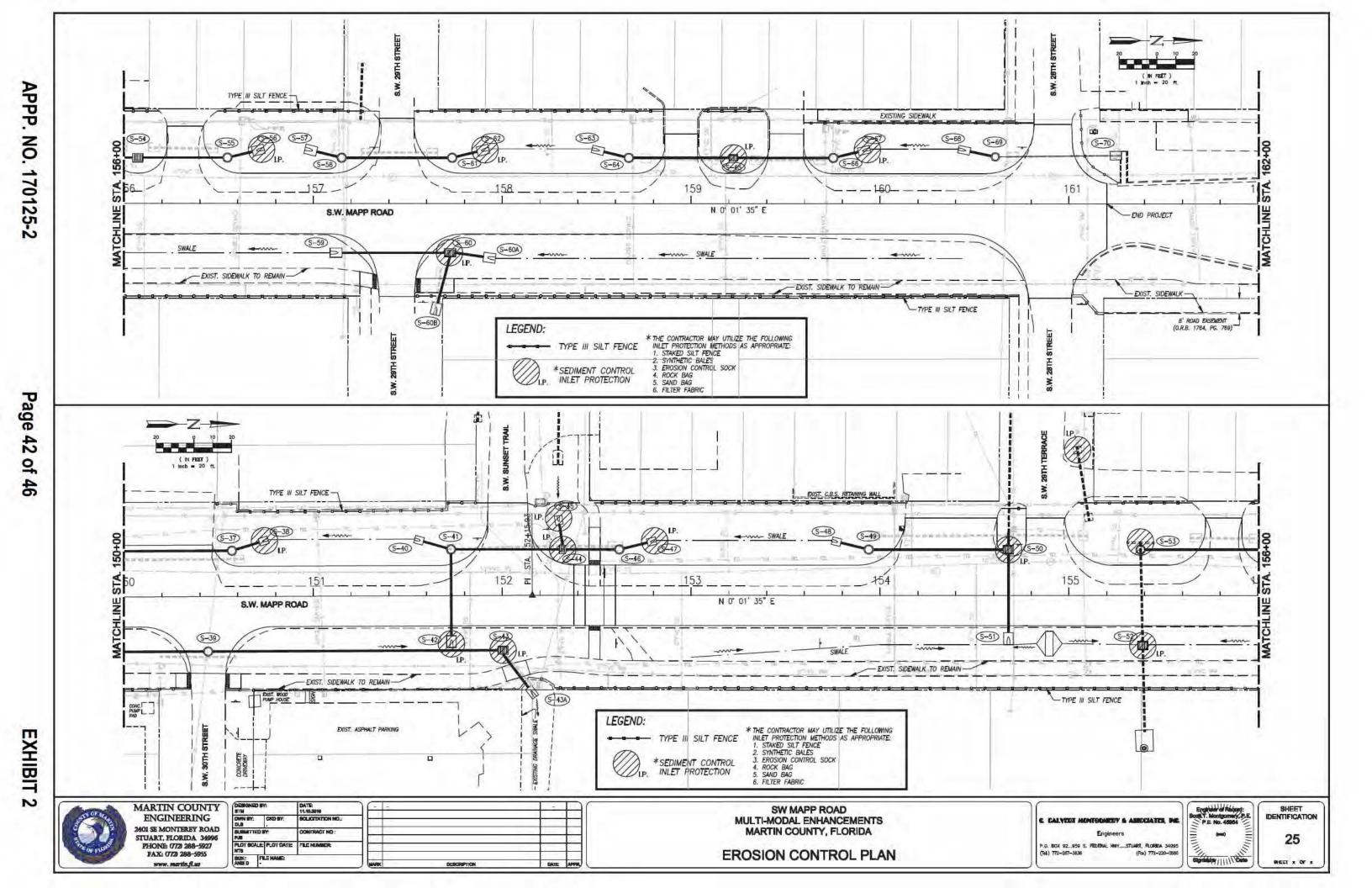
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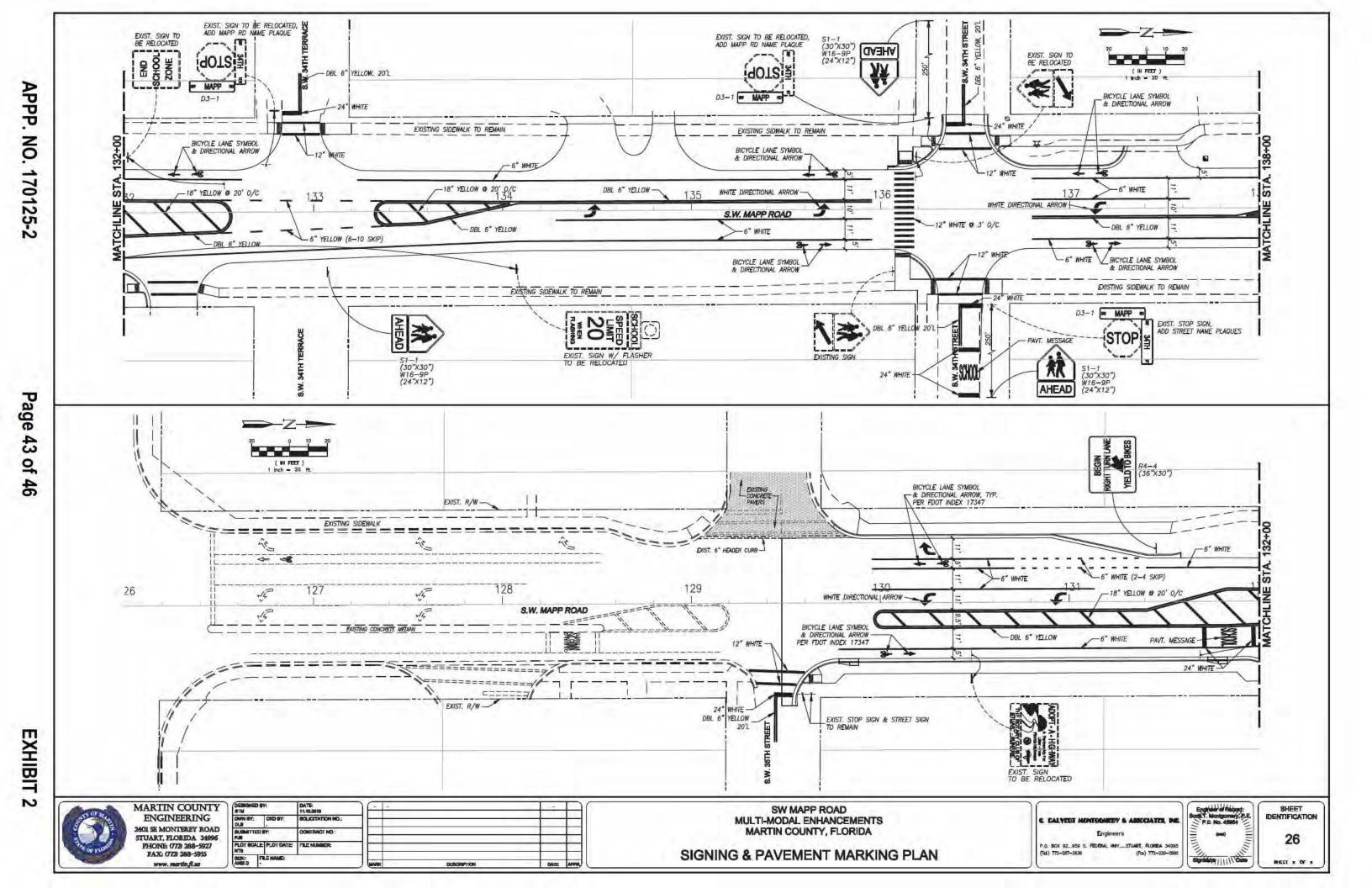


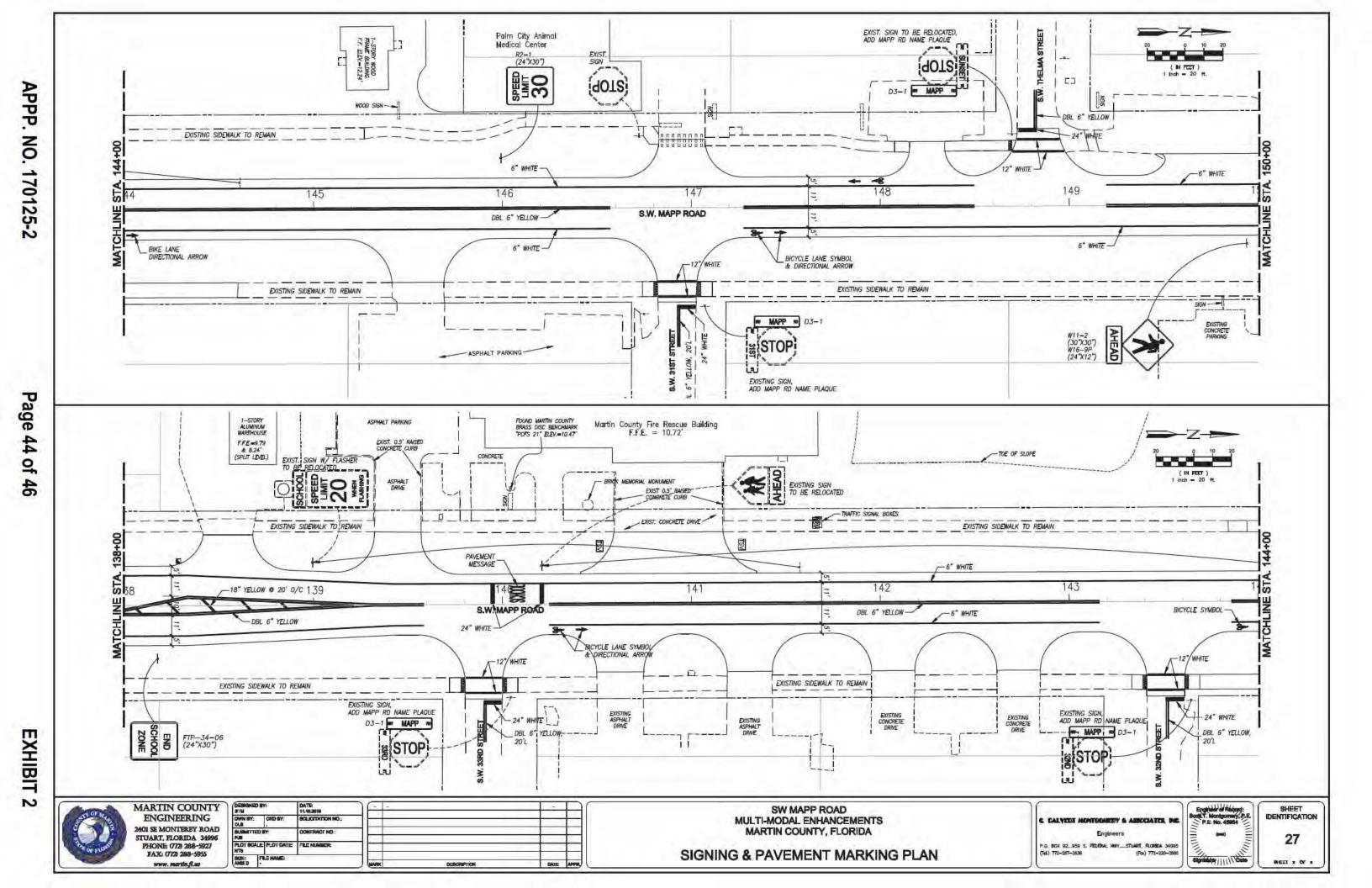
SHEET 22

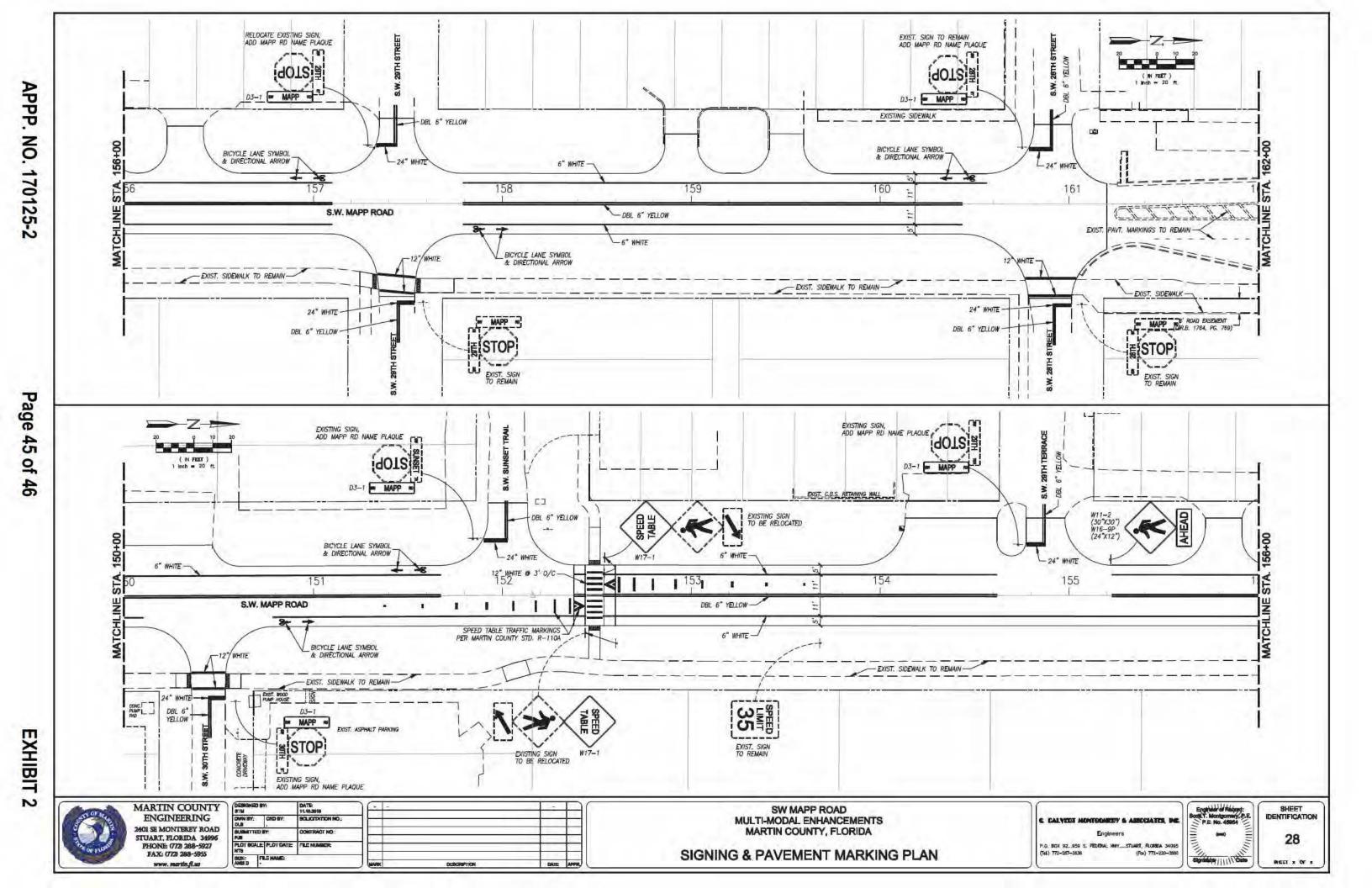


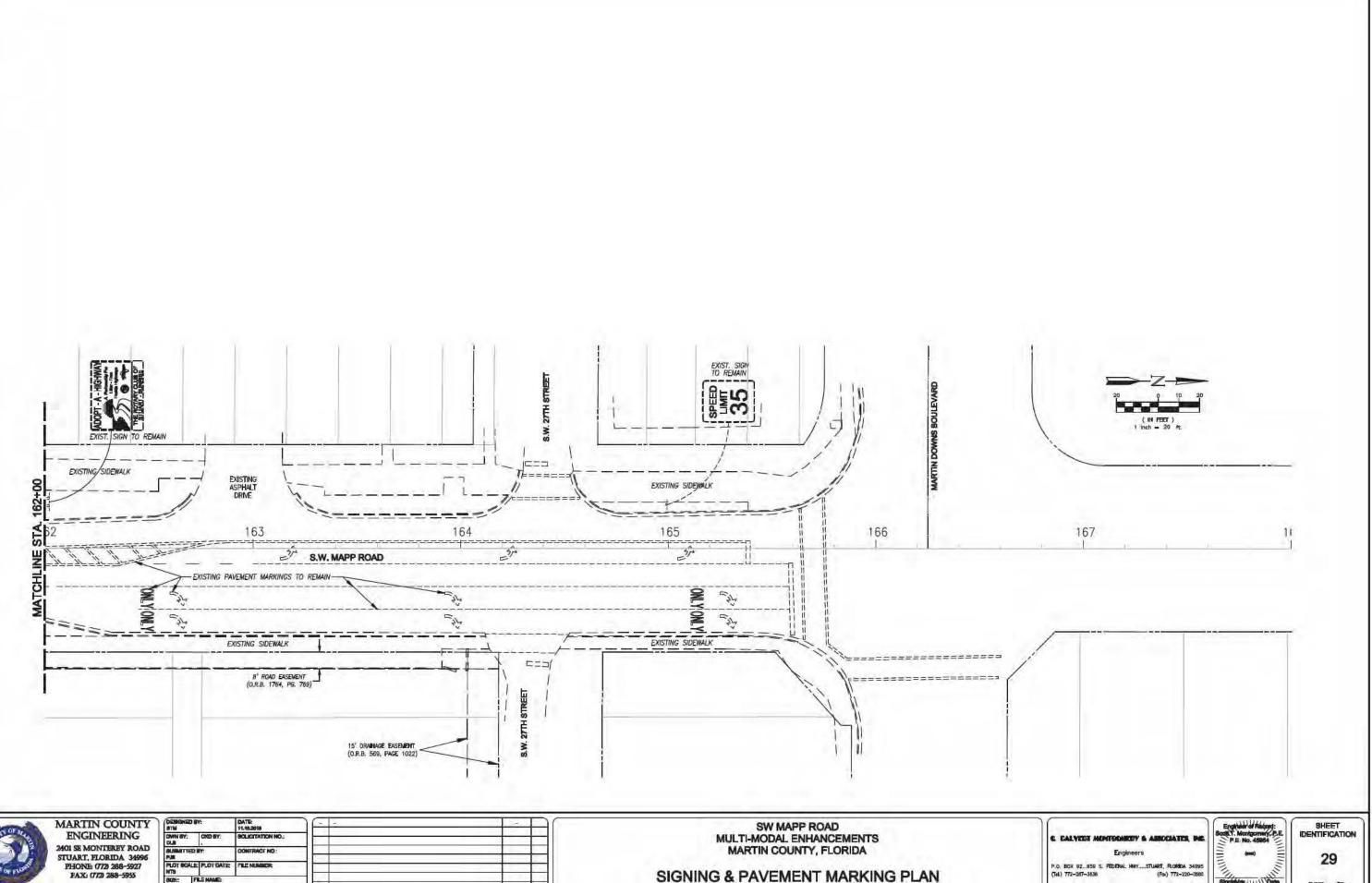




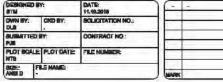










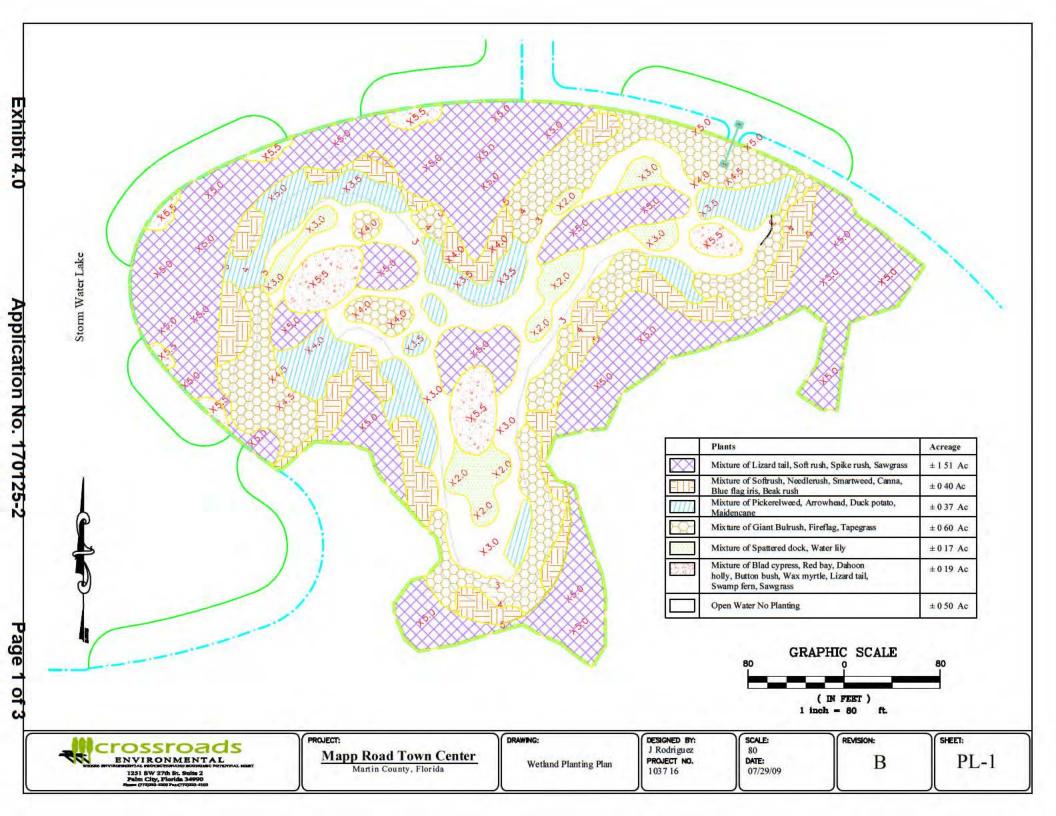


SIGNING & PAVEMENT MARKING PLAN

P.O. BOX 92...959 S. FEDERAL HWY....STUART, FLORIDA 34995 (Tel.) 772-287-3636 (Fox) 772-220-0580



MEET X OF



Common Name	Scientific Name	Size	O.C.	Quantity
Spattered dock	Nuphar luteum	BR	3 o.c.	407
Fragrant Water Lily	Nymphaea odorata	BR	3 o.c.	407
Giant Bulrush	Scirpus californicus	BR	2 o.c.	2142
Fireflag	Thalia geniculata	BR	2 o.c.	2142
Tape Grass	Vallisneria americana	BR	2 o.c.	2142
Pickerelweed	Pontedaria cordata	BR	2 o.c.	1007
Arrowhead	Sagittaria latifolia	BR	2 o.c.	1007
Duck Potato	Sagittaria lancifolia	BR	2 o.c.	1007
Maidencane	Panicum hemitomon	BR	2 o.c.	1007
Soft Rush	Juncus effusus	BR	2 o.c.	4152
Needle Rush	Juncus gerrardii	BR	2 o.c.	1000
Smartweed	Polygonum Spp.	BR	2 o.c.	1000
Yellow Canna	Canna flaccida	BR	2 o.c.	1000
Blue Flag Iris	Iris hexagona	BR	2 o.c.	1000
Beak Rushes	Rhynchospora spp.	BR	2 o.c.	1000
Lizard's Tail	Saururus cernuus	BR	2 o.c.	4002
Spike Rush	Eleocharis cellulosa	BR	2 o.c.	4002
Sawgrass	Cladium jamaicense	BR	2 o.c.	4002
Bald Cypress	Taxodium distichum	7g	10 o.c.	15
Red Bay	Persea borbonia	7g	10 o.c.	15
Dahoon Holly	Ilex cassine	7g	10 o.c.	15
Button Bush	Cephanlanthus occidentalis	3g	5 o.c.	50
Wax Myrtle	Myrica cerifera	3g	5 o.c.	50
Swamp fern	Blechnum serrulatum	BR	2 o.c.	700



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