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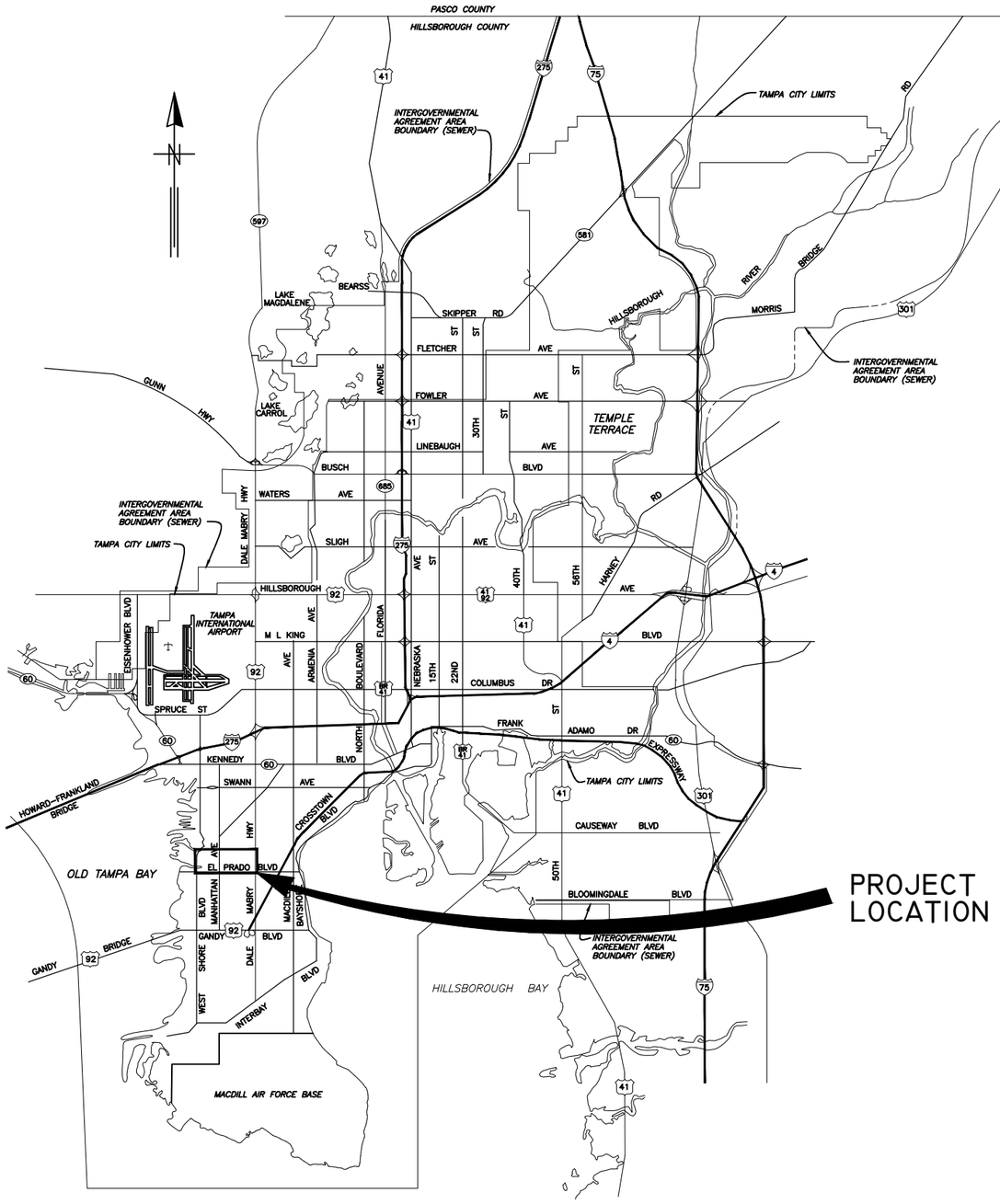
LOCATION MAP



PROJECT LOCATION

CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

DEPARTMENT OF TRANSPORTATION & STORMWATER SERVICES STORMWATER ENGINEERING DIVISION

PLANS FOR
UPPER PENINSULA STORMWATER IMPROVEMENTS PH II
(VASCONIA OUTFALL) CONTRACT NO. I5-C-00059

MATTHEW D. CAMPO, P.E. #53988
CAMPO ENGINEERING, INC.
FBPR CERT. OF AUTHORIZATION NO.: 26726

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FBPR CERTIFICATE OF AUTHORIZATION NO.: 26726
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TAMPA, FL. 33605 PHONE: (813) 215-7372 FAX: (813) 902-8782

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/16

No.	DATE	REVISIONS
3		
2		
1		

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

COVER SHEET

W.O. 500N
SHEET 1

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SHEET INDEX	
SHT. NO.	DESCRIPTION
1	COVER SHEET
2	INDEX & LOCATION MAP
3	LEGEND & KEY MAP
4–5A	GENERAL NOTES
6–7	STORM STRUCTURE TABLE
8–9	STORM PIPE TABLE
10	STORM SEWER LAYOUT

SHEET INDEX	
SHT. NO.	DESCRIPTION
11–67	STORM PLAN AND PROFILE
68–68I	DETAILED GRADING PLAN
69–69A	TYPICAL SECTIONS
69B–81	CROSS SECTIONS
81A–81C	STORMWATER DETAILS
82A–94	PAVING AND STRIPING PLAN
94A–94B	TRAFFIC CONTROL PLANS

SHEET INDEX	
SHT. NO.	DESCRIPTION
95A–105	TREE REMOVAL PLAN
S–1–S–14	STRUCTURAL DETAILS
W–100–W–123	WATER PLANS
W–124–W–125	WATER DETAILS
WW–100	SANITARY STRUCTURE & PIPE TABLE
WW–100A–WW–117	WASTEWATER PLANS
WW–119–WW–129	WASTEWATER DETAILS

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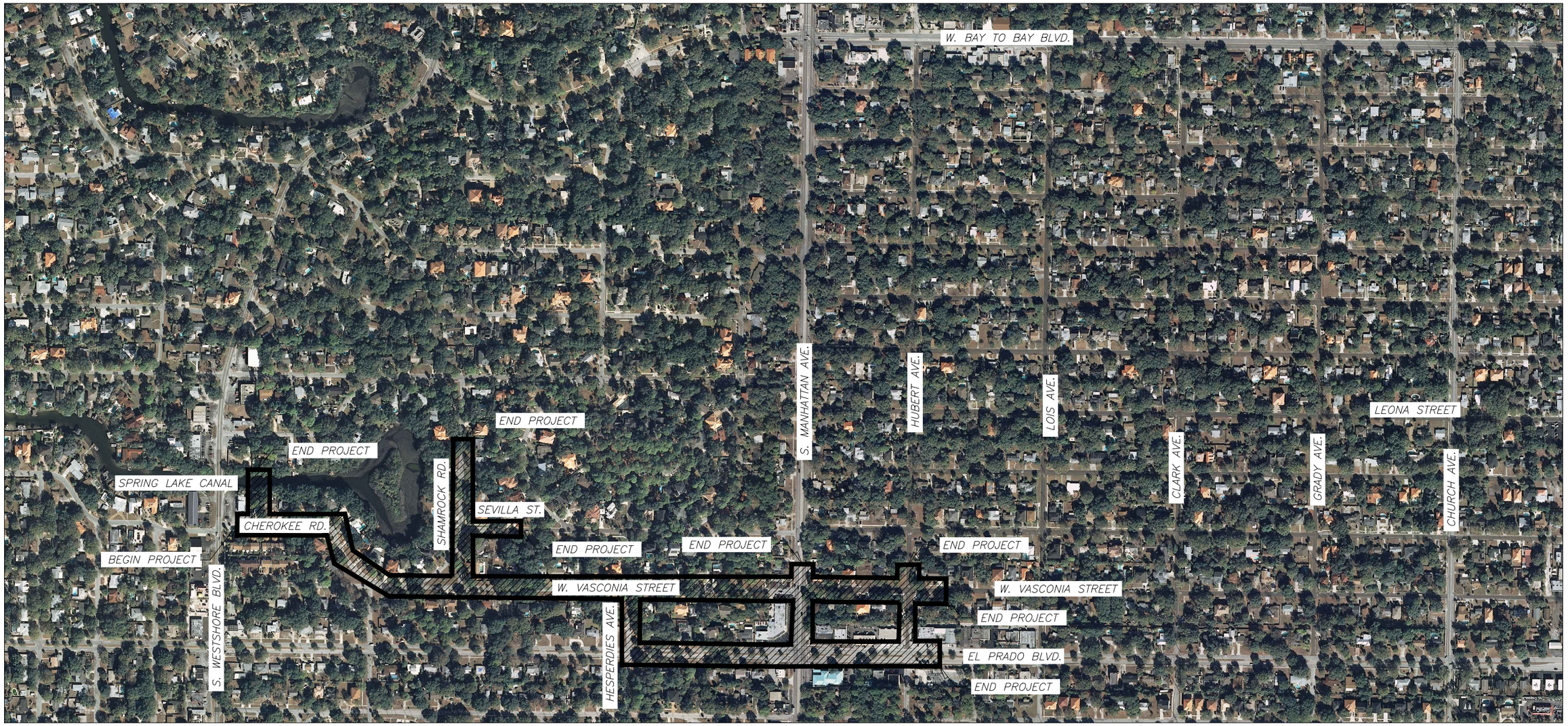

PROJECT LOCATION MAP

NTS

PROJECT AREA

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

INDEX & LOCATION MAP

SHEET 2 OF 105

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LEGEND

EX SEWERS

UP to 24" & SMALLER — 24" & LARGER

EX SAN SEWER & MANHOLES

EX STORM SEWER & MANHOLES

PROP SEWERS

PROP STORM SEWER & MANHOLES

PROP WATER PIPES AND VALVES

PROP SANITARY SEWER & MANHOLES

OTHER FEATURES

PROPOSED MILLING AND RESURFACING

PROPOSED ASPHALT

PROPOSED CONCRETE

PROPOSED SILT FENCE — EC — EC

REMOVE EXISTING TREE

SPOT ELEVATION — 6.54

FLOW ARROW

SLOPE ARROW — 2.46%

EX. WATER LINE UP 8" & LARGER

EX. WATER LINE UP TO 8" & SMALLER

GAS LINE

TELEPHONE CABLE

FENCE

BUILDING LIMIT

EXISTING SEWER SERVICE LATERAL AND REPLACEMENT

GAS METER EXISTING ON PROPERTY — M

WATER METER TO BE REPLACED — WATER

BENCH

CLEANOUT (SANITARY)

ELECTICAL OUTLET

FIRE HYDRANT

FLOOD LIGHT

GAS VALVE COVER — GAS

GUY ANCHOR

IRON PIPE

IRON ROD AND CAP

LIGHT POLE

MAILBOX

NAIL

ORNAMENTAL PLANT

PEDESTRIAN SIGN, SIGNAL

PILING, POST

POWER POLE

SHARED POLE

SHRUB

SIGN (SINGLE POST)

SIGNAL CONTROLLER

SIGNAL ON PEDESTAL

SIGNAL/ SPAN WIRE POLE

STAMPED DISK

TELEPHONE POLE

TREE

TREE (PALM)

TREE (PINE)

TREE (OAK)

TREE (RED SILK)

TURN ARROW

WATER (VALVE)

WATER VALVE COVER — WATER

WATER (METER) — WATER

WIRE PULL BOX

SPRINKLER HEAD

ABBREVIATIONS

ELEVATION	EL	DUCTILE IRON PIPE	DIP
INVERT ELEVATION	IE or INV	REINFORCED CONCRETE PIPE	RCP
RIGHT of WAY	R/W	CONCRETE PIPE	CP
MANHOLE	MH	APPROXIMATE LOCATION	AL
POLYVINYL CHLORIDE PIPE	PVC	FORCE MAIN	FM
VITRIFIED CLAY PIPE	VCP	SANITARY SEWER	SS
ADVANCED DRAINAGE SYSTEM	ADS	WATER MAIN	WM
MITERED END SECTION	M.E.S.	STORM	ST
REINFORCED CONCRETE PIPE	RCP	CORRUGATED METAL PIPE	CMP
EXISTING	EXIST	ELLIPTICAL REINFORCED CONC PIPE	ERCP
SQUARE FEET	SF	PROPOSED	PROP
CONCRETE	CONC	LINEAR FEET	LF
PROPOSED	PROP	CONSTRUCT	CONST
CITY OF TAMPA	COT	TOP OF WALL	TOW
FLORIDA DEPARTMENT OF TRANSPORTATON	FDOT	MATCH EXISTING GRADE	MEG
CLASS IV	C-IV	CENTER LINE	℄
		CONCRETE BOX CULVERT	CBC
		FIBER OBTIC CABLE	FOC

ASPH	ASPHALT
AVE.	AVENUE
BLVD.	BOULEVARD
B.M.	BENCHMARK
C & G	CURB & GUTTER
CLF	CHANI LINK FENCE
CONC	CONCRETE
DWY	DRIVEWAY
EL	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST.	EXISTING
F.F.	FINISH FLOOR ELEVATION
ID	IDENTIFICATION
INV	INVERT
LB	LICENSED BUSINESS
LL	LANELINE
MBX	MAILBOX
MES	MITERED END SECTION
MHD	MANHOLE(STORM DRAINAGE)
MHS	MANHOLE (SANITARY SEWER)
MPH	MILES PER HOUR
RCP	REINFORCED CONCRETE PIPE
R/W or ROW	RIGHT OF WAY
STMD	STAMPED DISK
S/W	SIDEWALK
TOB	TOP OF BANK
TOS	TOE OF SLOPE
TP-RP	TRAVERSE POINT-REFERENCE POINT
(W)	WEST
(E)	EAST
(N)	NORTH
(NW)	NORTHWEST
(S)	SOUTH
(SE)	SOUTHEAST
(W)	WEST

SW

KEY MAP

J-8

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

LEGEND & KEY MAP

SHEET 3 OF 105

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GENERAL NOTES

1. ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988.
2. LOCATIONS, ELEVATIONS AND DIMENSIONS OF THE EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS, OF ALL EXISTING UTILITIES, STRUCTURE, AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION. GAS, VERIZON, WATER MAIN, WATER SERVICES, SEWER LATERALS AND OTHER SUBSURFACE PIPING HAS NOT BEEN LOCATED. ENGINEER OF RECORD SHOWS LOCATIONS AS APPROXIMATE AS PROVIDED BY OTHERS.
3. EXISTING UTILITIES AND TOPOGRAPHIC INFORMATION DENOTED BY UPPER AND LOWER CASE. PROPOSED WORK DENOTED BY ALL UPPER CASE.
4. THE CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
5. WHEN IN CONFLICT, UTILITY POLES, GAS LINES, UNDERGROUND ELECTRIC, TELEPHONE AND OTHER COMMUNICATION CABLES AND CONDUIT WILL BE RELOCATED BY THE RESPECTIVE UTILITY OWNERS AT THEIR OWN EXPENSE AS DIRECTED BY THE ENGINEER.
6. PRIOR TO ANY CONSTRUCTION, CONTACT TAMPA ELECTRIC COMPANY (PH: 813-228-4111 OR 813-275-3037) FOR EXACT LOCATION OF UNDERGROUND LINES. TECO TO RELOCATE ANY CONFLICTING LINES.
7. PRIOR TO ANY CONSTRUCTION, CONTACT TECO GAS (813-275-3743) FOR EXACT LOCATION OF UNDERGROUND LINES. TECO GAS TO RELOCATE ANY CONFLICTING LINES.
8. PRIOR TO ANY CONSTRUCTION, CONTACT VERIZON (813-978-2164) FOR EXACT LOCATION OF UNDERGROUND LINES. VERIZON TO RELOCATE ANY CONFLICTING LINES.
9. STATIONS AND OFFSETS GIVEN ARE TO THE CENTER LINE OF THE INLETS AND MANHOLES, AND REFER TO THE SURVEY BASE LINES.
10. THE SOLID WASTE DEPARTMENT (813-348-1146) IS TO BE NOTIFIED PRIOR TO ANY STREET CLOSURES IN THE PROJECT AREA.
11. TREE REMOVAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING SITE CLEARING PERMIT PRIOR TO START OF ANY CONSTRUCTION.
12. NECESSARY ROOT PRUNING AND TRIMMING OF BRANCHES SHALL BE DONE BY A CERTIFIED ARBORIST.
13. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE LATEST "TREE ORDINANCE" OF THE CITY OF TAMPA. THE CONTRACTOR IS REQUIRED TO RELOCATE THE TREES REMOVED AS A PART OF THE NECESSARY CONSTRUCTION INDICATED ON PLANS. HOWEVER, NO TREE SHALL BE REMOVED WITHOUT APPROVAL OF THE PARKS DEPARTMENT.
14. SOD ALL THE DISTURBED AREAS AS DIRECTED BY THE ENGINEER AND NOTED ON PLANS.
15. WHERE CONNECTIONS TO EXISTING DRIVES AND WALKS ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.
16. STREET SIGNS, STREET MARKERS AND R-O-W MARKERS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER.
17. MAILBOXES SHALL BE REMOVED AND REPLACED AS NECESSARY.
18. DRIVEWAYS SHALL BE RECONSTRUCTED IN ACCORDANCE WITH CHAPTER 25 OF THE CITY CODE AND THE TRANSPORTATION TECHNICAL MANUAL. DEVIATION FROM ESTABLISHED STANDARDS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER.
19. THE CONTRACTOR SHALL PROTECT ALL TREES IN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE. NO TREES SHALL BE PRUNED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PARKS & RECREATION DEPARTMENT, NATURAL RESOURCES DIVISION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST. ROOT PRUNING MAY BE REQUIRED AT CERTAIN LOCATIONS AND SHALL BE COMPLETED IN ACCORDANCE WITH CHAPTER 13 TECHNICAL MANUAL SPECIFICATIONS.
20. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE CITY OF TAMPA DEPARTMENT ORDINANCES AND REGULATIONS.
21. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL APPLICABLE PERMITS ON-SITE AND SHALL BE RESPONSIBLE TO ADHERE TO ALL PERMIT CONDITIONS DURING CONSTRUCTION.
22. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO THE ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
23. COMPACTION FOR PIPE BACKFILL SHALL COMPLY WITH AASHTO T-99 (100%).

SITE NOTES

1. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN CITY OF TAMPA STORMWATER TECHNICAL MANUAL, LATEST VERSION.
2. ALL RIGHT-OF-WAY INSTALLATIONS MUST COMPLY WITH THE CITY OF TAMPA STANDARDS AND TECHNICAL MANUALS.
3. IN AREAS WHERE FILL MATERIAL IS REQUIRED, THE EXISTING VEGETATION AND ROOTS SHALL BE REMOVED PRIOR TO PLACING ANY FILL MATERIAL. THE FILL SHALL BE PLACED IN LIFTS NO GREATER THAN 12 INCHES AS MEASURED LOOSE, AND COMPACTED TO A UNIFORM DENSITY ASTM D698. THE MATERIAL SHALL BE COMPACTED AT A MOISTURE CONTENT PERMITTING THE SPECIFIED COMPACTION. THE FILL SHALL BE TESTED BY THE CITY OF TAMPA THROUGH THE CITY INSPECTOR AND THE RESULTS SUPPLIED TO THE ENGINEER.
4. THE CONTRACTOR SHALL CONTACT THE ENGINEER'S OFFICE IMMEDIATELY ON ANY CONFLICTS ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSULT WITH THE ENGINEER FOR MAKING ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS. HOWEVER, THIS IN NO WAY RELIEVES THE CONTRACTOR OF HIS RESPONSIBILITY FOR CONSTRUCTING THE PROJECT TO ACCOMPLISH THE INTENT OF THE PLANS.
5. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING BEFORE COMMENCING CONSTRUCTION UNLESS SPECIFICALLY EXEMPTED BY THE PLANS.
6. EROSION/SEDIMENTATION CONTROL: THE CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN), IF REQUIRED TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON THE GROUND, AS REQUIRED, IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE, EITHER BY NATURAL DRAINAGE OR BY VEHICLE TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR LOCAL AUTHORITIES. A CITY DESIGNATED LOT USED FOR STORAGE IS AVAILABLE AT 4719 W CHEROKEE RD. USAGE OF THIS LOT WILL REQUIRE A FDOT SOIL TRACKING PREVENTION DEVICE PER 2010 FDOX INDEX 106.
7. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.
8. CONTRACTOR SHALL SPRINKLE OR OTHERWISE APPLY WATER TO AFFECTED CONSTRUCTION AREA TO CONTROL BOTH SIGNIFICANT WIND EROSION OR FUGITIVE DUST.
9. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. AGGREGATE SHALL CONFORM TO ASTM C33. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-04. SUBSURFACE SHALL BE FREE FROM TROWEL OR MACHINE MARKS. SURFACE VARIATIONS SHALL NOT EXCEED 1/4 INCH UNDER TEN-FOOT (10') STRAIGHT EDGE.
10. ALL GRADING OF SIDEWALKS AND PEDESTRIAN WALKWAYS SHALL MEET MINIMUM 'ADA' STANDARDS. SIDEWALK CROSS SLOPES AND DRIVEWAY CROSSINGS FOR SIDEWALKS TO BE 2.0% MAX. SLOPE. ALL SIDEWALK RUNNING SLOPES SHALL NOT EXCEED 5% WITHOUT USE OF PROPER RAMPS FOR FDOT OR FLORIDA BUILDING CODE. CONTRACTOR SHALL FIELD-VERIFY SIDEWALK FORM BOARDS PRIOR TO CONSTRUCTING WALKWAYS.
11. ALL INLET GRATE SEATS SHALL BE GALVANIZED GRATE SEATS.

CONSTRUCTION NOTES

1. PRICE FOR ALL REMOVAL, AS SHOWN ON THE PLANS OUTSIDE OF CONSTRUCTION EXCAVATION AREA, SHALL BE INCLUDED IN THE VARIOUS ITEMS OF THE STORMWATER UNIT PRICES.
2. CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY WITH BAHIA SOD AND/OR LIKE KIND OF EXISTING SOD.
3. CONTRACTOR TO RESTORE DISTURBED RESIDENTIAL YARDS WITHIN CONSTRUCTION LIMITS WITH BAHIA, ST. AUGUSTINE, AND/OR LIKE KIND OF SOD.
4. CONTRACTOR SHALL RESTORE ALL NEIGHBORING RESIDENTIAL YARDS WITH LIKE KIND OF LANSDSCAPING, MAILBOXES, WALK WAYS, DRIVEWAYS, ETC. EACH YARD SHALL BE RESTORED TO EXISTING CONDITIONS UP TO AND INCLUDING FROM BACK OF CURB TO RIGHT OF WAY LINE.
5. CONTRACTOR TO PROTECT EXISTING IRRIGATION SYSTEMS AND ANY OTHER UTILITIES IN RESIDENTIAL YARDS WITHIN CONSTRUCTION LIMITS AND/OR RESTORE ANY DAMAGED SYSTEMS DURING CONSTRUCTION BACK TO EXISTING CONDITIONS.
6. CONTRACTOR TO PROTECT EXISTING PRIVATE FENCES DURING CONSTRUCTION OR REPLACE IN LIKE KIND.
7. THE CONTRACTOR TO PROTECT ANY AND ALL EXISTING INFRASTRUCTURE THAT ARE TO REMAIN INCLUDING BUT NOT LIMITED TO STORMWATER, WATER, WASTEWATER, GAS, TELEPHONE, AND ELECTRICAL CONDUITS.
8. CONTRACTOR SHALL CONTACT SUNSHINE WITHIN 48 HOURS PRIOR TO ANY CONSTRUCTION.
9. CONTRACTOR TO PROTECT ALL POWER POLES & SUBSURFACE UTILITIES. IN THE EVENT OF A CONFLICT THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY PROVIDER RESPONSIBLE FOR THE RELOCATION.
10. ALL RCP PIPES SHALL BE CLASS III WITH MINIMUM COVER OF 18". ALL RCP PIPES WITH LESS THAN 18" OF COVER ON RESIDENTIAL ROADS SHALL BE CLASS IV. ALL RCP PIPES WITH LESS THAN 24" OF COVER ON ARTERIAL ROADS (EL PRADO AND MANHATTAN) SHALL BE CLASS IV.
11. PRIVATE UTILITIES WILL BE MOVED PRIOR TO THE CITY'S START OF CONSTRUCTION AND WILL PROVIDE THE CONTRACTOR WITH AS-BUILTS (HORIZONTAL AND VERTICAL PLACEMENT) OF THEIR RELOCATED SERVICES.
12. NO DREDGING IS TO COMMENCE UNTIL THE PLAN HAS BEEN REVIEWED BY EPC PERSONNEL AT LEAST ONE WEEK PRIOR TO CONSTRUCTION COMMENCEMENT FOR THE PLANTING OF THREE MANGROVES, COMPARABLE TO THE ONES TO BE IMPACTED ALONG THE PROJECT SHORELINE, TO BE LOCATED WITHIN PROPERTY LINES BETWEEN THE WING WALL AND THE SEAWALL REPLACEMENT OUTSIDE OF THE POTENTIAL OUTFALL SCOURING AREA.
13. THE CITY WILL ALLOW ONE TRENCH OPENING/CLOSING SEQUENCE FOR CONSTRUCTION OF STORMWATER, WATER, AND WASTEWATER. ADDITIONAL CLOSURES FOR RESTORATION AND OTHER UTILITY CONSTRUCTION MUST BE APPROVED BY CITY.
14. CONCRETE STRUCTURES AND JUNCTION BOXES MAY BE PRECAST OR CAST IN PLACE.
15. FOR BRICK/PAVER DRIVEWAYS THE INTENT IS TO STACK AND STORE ANY DISTURBED PAVERS, AND TO RESTORE ANY DAMAGED PAVERS AS CLOSE AS POSSIBLE.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

GENERAL & CONSTRUCTION NOTES

SHEET 4 OF 105

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TREE PROTECTION NOTES

1. PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL PROTECTED TREES AND GRAND TREES DURING SITE CLEARING, AND SHALL REMAIN IN PLACE UNTIL LAND ALTERATION, SITE CLEARING AND CONSTRUCTION ACTIVITIES ARE COMPLETE. BARRICADES SHALL BE ERECTED AT A MINIMUM DISTANCE OF TEN FEET (10') FROM THE BARK OF PROTECTED TREES AND TWENTY FEET (20') FROM THE BARK OF GRAND TREES.
2. REQUIRED TREE BARRICADES AND EROSION CONTROL MEASURES MUST REMAIN INTACT THROUGHOUT CONSTRUCTION. ENCROACHMENT INTO OR FAILURE TO MAINTAIN TREE BARRICADES WILL RESULT IN ENFORCEMENT ACTION WHICH MAY INCLUDE CITATIONS AND/OR PERMIT REVOCATION.
3. A MINIMUM DISTANCE OF TEN FEET (10') SHALL BE MAINTAINED FROM ALL PROTECTED TREES WHEN INSTALLING UNDERGROUND UTILITIES. IF THIS RESULTS IN UNREASONABLE HARDSHIP, A SOIL AUGER SHALL BE USED TO TUNNEL UNDER THE ROOT SYSTEMS.
4. THE CONTRACTOR IS REQUIRED TO PREVENT DAMAGE TO TREES WHICH ARE TO REMAIN. THE CONTRACTOR SHALL BE LIABLE FOR FINES DUE TO ALL DAMAGE OF TREES THAT ARE DESIGNATED TO BE SAVED DURING CONSTRUCTION. SPECIAL CARE IS REQUIRED TO PREVENT DAMAGE TO TREES WHICH ARE TO REMAIN.
5. INSTALLATION OF ARTIFICIAL BARRIERS SUCH AS PROTECTIVE BARRICADES, FENCES, POSTS, OR WALLS SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROTECTED TREES AND GRAND TREES. FOOTERS FOR WALLS SHALL BE AT THE POINT WHERE LARGER ROOTS ARE ENCOUNTERED, AND THE ROOTS SHALL BE BRIDGED. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES OR GRAND TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO MAJOR ROOTS.
6. ALL ROOTS TO BE REMOVED DURING THE SITE CLEARING PHASE SHALL BE SEVERED CLEAN AT THE PERIMETER OF THE DESIGNATED PROTECTED RADIUS AND SHALL BE DONE BY A CERTIFIED ARBORIST.
7. ALL TREES SHALL BE PROTECTED, ROOT PRUNING AND CANOPY PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST. ALL ROOT PRUNING AS WELL AS CANOPY PRUNING SHALL BE PERFORMED UNDER THE CITY OF TAMPA PARKS DEPARTMENT SUPERVISION.
8. A TWO-INCH (2") LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES AND GRAND TREES DURING THE SITE CLEARING PHASE.
9. CONTRACTOR SHALL COORDINATE WITH CITY ARBORIST AND APPROVAL FOR ROOT PRUNING AND LIMB TRIMMING FOR CONSTRUCTION ACTIVITIES.
10. CONTRACTOR IS RESPONSIBLE FOR ANY PERMITS FOR TREE REMOVAL, TRIMMING, AND ROOT PRUNING, AS WELL AS ANY NECESSARY NOTICING FOR BOTH GRAND TREES AND NON GRAND TREES.

NPDES/FDEP NOTICE OF INTENT AND REPORTING NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF THE EROSION AND SEDIMENTATION CONTROL PLAN TO BE SUBMITTED TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROECTION. THE PLAN SHALL INCLUDE THE FOLLOWING:
   A. NARRATIVE: A BRIEF DESCRIPTION OF THE OVERALL STRATEGY FOR EROSION AND SEDIMENT CONTROL.
   B. MAP/SITE PLAN: SITE PLAN WHICH SHOWS THE EXISTING AND FINAL ELEVATION CONTOURS, CRITICAL AREAS WITHIN OR NEAR THE PROJECT AREA, EXISTING VEGETATION, LIMITS OF CLEARING AND GRADING, AND LOCATIONS AND NAMES OF EROSION AND SEDIMENT CONTROL MEASURES, WITH DIMENSIONS.
   C. CONSTRUCTION DETAILS
   D. CALCULATIONS: INCLUDE CALCULATIONS USED TO SIZE THE CONTROL MEASURES AND THE DESIGN ASSUMPTIONS FOR SEDIMENT BASINS AND TRAPS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BEFORE AND AFTER EACH RAIN EVENT OF 1/4 INCH OR MORE.
3. DISTURBED AREAS WHICH HAVE BEEN BROUGHT TO FINAL GRADE OR WHICH WILL REMAIN AT ROUGH GRADE FOR 14 DAYS OR MORE SHALL RECEIVE PERMANENT STABILIZATION IMMEDIATELY.
4. CONTRACTOR SHALL MAINTAIN ON-GOING INSPECTION REPORTS FOR EROSION & SEDIMENT CONTROL INSPECTIONS AND MAINTENANCE.
5. CONTRACTOR SHALL HAVE A CERTIFIED INSPECTOR ON STAFF AND BE RESPONSIBLE FOR ALL NPDES REPORTING.
6. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGING, OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.
7. THE CONTRACTOR SHALL SUBMIT THE REQUIRED NPDES/FDEP NOTICE OF INTENT 30 DAYS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL RAINFALL AND DISCHARGE LOGS DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION A NOTICE OF TERMINATION SHALL BE FILED WITH FDEP.

EROSION/TURBIDITY-CONTROL NOTES

1. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
2. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHALL BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
3. CONSTRUCTION OPERATIONS IN OR ADJACENT TO WETLANDS SHALL BE RESTRICTED TO THOSE AREAS IDENTIFIED IN THE PLANS AND IN THE SPECIFICATIONS.
4. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN THE WETLANDS OR IN A POSITION CLOSE ENOUGH THERETO TO BE WASHED AWAY BY HIGH WATER OR RUNOFF.
5. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE AND ARE NOT LIMITED TO, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS, SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.
6. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATIONS, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND 3PERFORMED THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER, AND GRADING OPERATIONS SHALL BE SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
7. THE CONTRACTOR AND/OR OWNER'S REPRESENTATIVE SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOILS ARE STABILIZED.
8. SILT FENCE SHALL BE LOCATED AT THE PERIMETER OF CONSTRUCTION LIMITS, AS DEFINED BY FIELD CONDITIONS.
9. CONTRACTOR IS TO PROVIDE EROSION CONTROL AND SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
10. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.

BIDDING NOTES

1. THE DEMOLITION OF EXISTING INFRASTRUCTURE WITHIN THE LIMITS OF THE EXCAVATION TRENCHED AREAS ARE TO BE INCLUDED IN THE UNIT COST OF THE ASSOCIATED PROPOSED CONSTRUCTION OF STORM, WATER, AND SEWER PIPING AND STRUCTURES. THE DEMOLITION OF EXISTING INFRASTRUCTURE LOCATED OUTSIDE OF THE TRENCHED LIMITS AS SHOWN ON THE PLANS SHALL BE INCLUDED IN THE SEPARATE DEMOLITION CONTRACT ITEMS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING RIGHT-OF-WAY USE PERMITS FOR CITY OF TAMPA.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING RIGHT-OF-WAY USE PERMIT FOR HILLSBOROUGH COUNTY IF DETERMINED ONE IS NEEDED.
4. CONTRACTOR RESPONSIBLE FOR OBTAINING TREE REMOVAL PERMITS AND GRAND TREE REMOVAL NOTICING. CONTRACTOR RESPONSIBLE FOR ANY PERMITTING NECESSARY FOR TREE TRIMMING AND ROOT PRUNING FOR BOTH GRAND AND NON-GRAND TREES.
5. CONTRACTOR RESPONSIBLE FOR SUPPLYING ALL MOT PLANS.
6. PRIOR TO CONSTRUCTION CONTRACTOR TO RECORD LIMITS OF CONSTRUCTION AREA AND DOCUMENT ALL UNIQUE AND SPECIAL FEATURES OF RESIDENTIAL YARD AREAS WITHIN ROW LIMITS. CONTRACTOR SHALL AT BEST EFFORT PRESERVE ALL SPECIAL AND UNIQUE FEATURES INCLUDING BUT NOT LIMITED TO BRICK PAVERS FOR DRIVEWAYS AND WALKWAYS, MAILBOXES, LANDSCAPE PLANTERS AND OTHER FEATURES, TREES, ETC. CONTRACTOR SHALL PERFORM RESTORATION OF ANY FEATURES REMOVED.
7. ALL BOX CULVERTS AND STORMPIPE SHALL BE WATER TIGHT. BOX CULVERT AND STORMPIPE TRENCH BACKFILLING SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS 125. BOX CULVERT BACKFILLING WILL BE UNDER WET CONDITIONS AND SHALL CONFORM SPECIFICALLY TO FDOT STANDARD SPECIFICATION 125.8.3.4 WITH COARSE AGGREGATE PIPE BEDDING WRAPPED IN FILTER FABRIC.
8. LIMITS OF DISTURBED OPEN CUT AREAS MAY VARY DEPENDENT UPON CONTRACTOR MEANS AND METHODS. CONSTRUCTION OPTIONS INCLUDE BUT NOT LIMITED TO INCLUDE SHEET PILING, SLOPED OPEN CUT, AND TRENCH BOX. CONSTRUCTION PLANS AND SPECS ASSUME A SLOPED OPEN CUT TRENCH.

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3			6		
2			5		
1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)

GENERAL & CONSTRUCTION NOTES

SHEET 5 OF 105

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SW

WATER NOTES

1. ALL WORKMANSHIP AND MATERIALS USED IN THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO WATER DEPARTMENT SPECIFICATIONS AS PROVIDED IN CONTRACT 15-C-00059 BID DOCUMENTS.
2. THE LOCATIONS AND SIZE OF THE UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. HOWEVER, THERE IS NO GUARANTEE THAT ALL EXISTING UTILITIES HAVE BEEN FOUND OR SHOWN. THE CONTRACTOR IS FOREWARNED TO ASCERTAIN AND DETERMINE PRECISE LOCATIONS PRIOR TO EXCAVATION AND ALSO TO FAMILIARIZE HIM/HER SELF WITH ALL VOLTAGES CARRIED IN OVERHEAD OR UNDERGROUND UTILITY SERVICES. NO CLAIM FOR EXTRA COST SHALL BE MADE AS A RESULT OF THE AFOREMENTIONED APPROXIMATIONS.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION. CALL "SUNSHINE ONE CALL" AT 1-800-432-4770.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO USE WHATEVER MEANS NECESSARY TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND THE DITCHES DURING CONSTRUCTION. SEE EROSION AND SILTATION CONTROL NOTES FOR ADDITIONAL INFORMATION.
5. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS ARE BASED.
6. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS.
7. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY. SPECIAL PRECAUTIONS MAY BE REQUIRED IN THE VICINITY OF POWER LINES AND OTHER UTILITIES.
8. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FROM PROVIDING A CONTINUOUS SAFE WORKSPACE.
9. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS, PERMIT REQUIREMENTS, AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
10. WATER MAIN CONSTRUCTION SHALL INCLUDE EXCAVATION AS REQUIRED, INSTALLATION, AND BACKFILL ONLY – RESTORATION SHALL BE PER THE PROJECT ROADWAY PLANS AND PAID THROUGH THE CONTRACT ROADWAY PAY ITEMS.
11. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO THEIR ORIGINAL OR BETTER CONDITION.
12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO PERFORM HIS WORK.
13. THE CONTRACTOR SHALL PROVIDE SUPPORT FOR UTILITY POLES WHERE CONSTRUCTION MAY CAUSE THE POLE TO LOSE ITS SELF-SUPPORTING ABILITY.
14. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY CONSTRUCTION EASEMENTS NECESSARY TO COMPLETE THE WORK. IF SUCH EASEMENTS ARE OBTAINED, THEY MUST CONTAIN PROVISIONS TO HOLD THE CITY OF TAMPA HARMLESS FROM ANY OPERATIONS OF THE CONTRACTOR WITHIN THE EASEMENT LIMITS. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNER TO RESTORE PRIVATE PROPERTY TO ITS ORIGINAL OR BETTER CONDITION.
15. N/A
16. THE INTENT OF THIS PROJECT'S PLANS AND TECHNICAL PROVISIONS IS FOR ALL WATER MAINS TO BE INSTALLED AS A CONTINUOUS PROJECT. CONNECTIONS TO EXISTING WATER MAINS SHALL BE DONE IN A TIMELY MANNER. AT NO TIME SHALL THE FLOW OF WATER RUNNING THE LENGTH OF THE PROJECT BE STOPPED EXCEPT TO RECONNECT WATER MAINS THAT HAVE BEEN TESTED AND CLEARED FOR POTABLE WATER USE.
17. CONNECTIONS TO EXISTING SYSTEMS: THE CITY WATER DEPARTMENT REQUIRES THAT ITS CUSTOMERS BE KEPT IN SERVICE AT ALL TIMES. THE CONTRACTOR MUST PROVIDE TEMPORARY SERVICE TO CUSTOMERS WHOSE SERVICE WILL BE AFFECTED BY A SHUTDOWN.
18. WHEN A SHUTDOWN IS AUTHORIZED BY THE CITY WATER DEPARTMENT AND CUSTOMERS WILL HAVE THEIR WATER SHUT OFF, THE CONTRACTOR MUST HAVE PRE-ASSEMBLED ALL NEW PIPING EXCEPT AT THE POINT OF TIE-IN INCLUDING SERVICE LINES BEING TRANSFERRED TO THE NEW MAIN. THE ENTIRE PRE-ASSEMBLY SHALL BE SUCCESSFULLY PRESSURE TESTED AND BACTERIOLOGICAL TESTED PRIOR TO THE SHUTDOWN. THE CONTRACTOR SHALL HAVE SUFFICIENT CREWS ON SITE TO ACCOMPLISH THE SHUTDOWN IN LESS THAN FOUR HOURS.
19. CONTRACTOR SHALL INSTALL LINESTOPS IF AND AS REQUIRED TO KEEP CUSTOMERS IN SERVICE DURING SHUTDOWNS, WITH THE CONCURRENCE OF THE CITY WATER DEPARTMENT. SEVERAL REQUIRED LINESTOPS HAVE BEEN SHOWN IN THE PLANS, BASED ON KNOWN EXISTING CONDITIONS – HOWEVER, OTHERS MAY BE REQUIRED BASED ON THE CONTRACTOR'S AGREED SEQUENCING OF CONSTRUCTION.
20. THE CONTRACTOR'S SCHEDULE PROPOSED FOR WATER MAIN RELOCATION CONSTRUCTION AND REMOVALS SHALL BE SUBMITTED TO, AND MUST BE APPROVED BY, THE CITY WATER DEPARTMENT. NOTE THAT THE SCHEDULE PROPOSED IN THE PROJECT ROADWAY PLANS IS INTENDED FOR ROADWAY & DRAINAGE CONSTRUCTION ONLY – WATER MAINS CANNOT BE CONSTRUCTED IN THE PROPOSED BLOCK-BY-BLOCK MANNER. IT IS RECOMMENDED THAT WATER MAIN RELOCATIONS BE ACCOMPLISHED PRIOR TO THE DRAINAGE AND ROADWAY CONSTRUCTION.
21. CONNECTIONS TO EXISTING SYSTEMS: THE CITY WATER DEPARTMENT REQUIRES THAT ITS CUSTOMERS BE KEPT IN SERVICE AT ALL TIMES. THE CONTRACTOR MUST PROVIDE TEMPORARY SERVICE TO CUSTOMERS WHOSE SERVICE WILL BE AFFECTED BY A SHUTDOWN.

SANITARY NOTES

1. PROPOSED SANITARY SEWER SHALL BE CONSTRUCTED PER CITY OF TAMPA WASTEWATER DEPARTMENT TECHNICAL STANDARDS.
2. UNLESS INDICATED, ALL PROPOSED GRAVITY SEWER SHALL BE PVC ASTM D3034 SDR-35.
3. CONTRACTOR SHALL MAINTAIN CONTINUOUS SEWER SERVICE.
4. CONTRACTOR SHALL RAISE OR LOWER EXISTING MANHOLE FRAME AND COVER TO MATCH PROPOSED GRADE AS REQUIRED.
5. ALL ABANDONED SANITARY SEWERS SHALL BE REMOVED OR ABANDONED IN PLACE WITH FLOWABLE FILL.
6. OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.
7. PLASTIC SHEET LINER "T-LOCK" SHALL BE BY AMERON INTERNATIONAL OR APPROVED EQUAL.

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3			6		
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

GENERAL & CONSTRUCTION NOTES

SHEET 5A OF 105

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SW

STORM STRUCTURE TABLE

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM ELEV./ TOP SLAB	INVERTS	COMMENTS
CS-1	PROPOSED WINGWALL PER FDOT INDEX 289	102+01.52	1'LT.	1.09	-7.20 (S)	
S-1	CUSTOM J-BOX/CONFLICT STRUCTURE W/MH RISER	901+74.69	7'RT.	0.25	-7.00 (E) -7.04 (N)	
S-2	MANHOLE RISER ON BOX CULVERT	904+15.23	5'RT.	4.43	0.90 (SE) 1.35 (N)	
S-3	COT TYPE 1 CURB INLET	904+16.72	14'LT.	4.81	1.43 (S)	
S-4	COT TYPE 1 CURB INLET	904+27.65	14'RT.	4.77	1.00 (NW)	
S-5	CUSTOM J-BOX W/MH RISER	905+06.00	3'RT.	0.60	-6.65 (SE) -6.67 (W)	
S-6	CUSTOM J-BOX W/MH RISER	905+51.92	6'RT.	0.65	-6.60 (S) -6.62 (NW)	
S-7	CUSTOM J-BOX W/MH RISER	906+20.47	5'RT.	0.72	-6.53 (SE) -6.54 (N)	
S-8	CUSTOM J-BOX W/MH RISER	907+29.17	0'RT.	0.84	-6.41 (SE) -6.42 (NW)	
S-9	MANHOLE RISER ON BOX CULVERT	908+40.07	0'RT.	4.17	1.30 (NE) 1.30 (S)	
S-10	COT TYPE BV-1 CURB INLET	908+42.77	16'RT.	4.45	1.40 (N)	
S-12	COT TYPE BS-1 CURB INLET	1000+20.03	16'LT.	4.39	-1.00 (E)	
S-12A	FDOT J-BOX W/MH RISER PER INDEX 200	1000+25.30	0'LT.	2.85	-1.10 (E) -1.10 (W) -1.25 (N)	
S-13	COT TYPE BR-1 CURB INLET	10+93.57	16'RT.	4.21	-3.00 (N) -0.72 (W)	
S-15	CUSTOM J-BOX/CONFLICT STRUCTURE W/MH RISER	10+97.49	0'RT.	4.25	-6.22 (E) -6.25 (NW)	
S-16	COT TYPE 1 CURB INLET	908+44.50	14'LT.	4.38	1.50 (SW)	
S-17	MANHOLE RISER ON BOX CULVERT	13+75.05	2'RT.	4.22		
S-18	COT TYPE BV-1 CURB INLET	13+78.44	16'LT.	4.51	-1.74 (NW) -1.85 (S)	
S-18A	COT TYPE 1 CURB INLET	911+70.17	14'RT.	4.52	-1.00 (NW) -1.12 (SE)	
S-18B	COT TYPE 1 CURB INLET	911+70.75	14'LT.	4.52	-0.72 (SE)	

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3			6		
2			5		
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM STRUCTURE TABLE

SHEET 6 OF 105

STORM STRUCTURE TABLE

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM ELEV./ TOP SLAB	INVERTS	COMMENTS
S-19	FDOT J-BOX W/MH RISER PER INDEX 200	15+05.05	3'RT.	3.57	-5.79 (E) -5.84 (W) -0.60 (N) -0.60 (N)	
S-20	COT TYPE BV-1 CURB INLET	13+78.74	16'RT.	4.51	-1.68 (N)	
S-21	FDOT J-BOX W/MH RISER PER INDEX 200	16+62.29	4'RT.	4.76	-5.65 (E) -5.65 (W)	
S-22	MANHOLE RISER ON BOX CULVERT	17+39.37	4'RT.	4.95	1.70 (S) 1.70 (N)	
S-23	COT TYPE BV-1 CURB INLET	17+41.59	16'RT.	5.23	1.90 (N)	
S-24	COT TYPE BV-1 CURB INLET	17+41.50	16'LT.	5.23	1.90 (S)	
S-25	MANHOLE RISER ON BOX CULVERT	19+57.42	4'RT.	5.48		
S-26	MANHOLE RISER ON BOX CULVERT	23+09.31	4'RT.	4.80		
S-27	COT TYPE 1 CURB INLET	23+15.88	32'RT.	5.03	-1.40 (E) -1.50 (N)	
S-29	COT TYPE 1 CURB INLET	23+43.54	32'LT.	4.81	0.80 (W)	
S-30	COT TYPE 1 CURB INLET	23+15.60	32'LT.	4.81	0.55 (E) -3.36 (S)	
S-32	COT TYPE 1 CURB INLET	23+43.61	32'RT.	5.03	-1.00 (W)	
S-34	COT TYPE BV-1 CURB INLET	25+71.30	16'RT.	5.17	-1.00 (NW)	
S-34A	MANHOLE RISER ON BOX CULVERT	25+65.90	4'RT.	4.82		
S-36	COT TYPE BV-1 CURB INLET	25+67.25	16'LT.	5.18	-1.91 (S)	
S-37	COT TYPE 1 CURB INLET	28+37.40	14'LT.	5.58	-1.70 (S)	
S-37A	COT TYPE 1 CURB INLET	28+39.62	14'RT.	5.61	-1.05 (NW)	
S-38	MANHOLE RISER ON BOX CULVERT	28+35.89	5'RT.	5.23		
S-39	FDOT J-BOX W/MH RISER PER INDEX 200	29+54.43	5'RT.	3.39	-3.36 (W) -3.36 (E)	
S-39A	COT TYPE "T" GRATE INLET	29+63.06	14'RT.	5.63	-1.00 (N)	

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3			6		
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM STRUCTURE TABLE 2

STORM STRUCTURE TABLE

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM ELEV./ TOP SLAB	INVERTS	COMMENTS
S-40	FDOT J-BOX/CONFLICT STRUCTURE W/MH RISER PER INDEX 292	31+40.72	3'LT.	3.15	-3.10 (E) -3.10 (W)	
S-41	FDOT J-BOX W/MH RISER PER INDEX 200	31+59.75	1'LT.	3.57	-3.07 (N) -2.60 (E) -3.07 (W)	
S-42	FDOT J-BOX W/MH RISER PER INDEX 292	32+10.42	0'RT.	3.71	-2.46 (E) -2.48 (W)	
S-43	COT TYPE BS-1 CURB INLET	33+97.26	16'LT.	5.15	-0.06 (S)	
S-43A	MANHOLE RISER ON BOX CULVERT	33+93.46	0'RT.	4.89		
S-45	COT TYPE BS-1 CURB INLET	33+97.06	16'RT.	5.15	-0.06 (N)	
S-47	FDOT J-BOX W/MH RISER PER INDEX 200	36+85.03	0'RT.	4.57	-1.60 (E) -0.50 (S) -1.60 (W)	
S-48	COT TYPE BS-1 CURB INLET	36+57.30	16'LT.	6.09	0.45 (SW)	
S-48A	MANHOLE RISER ON BOX CULVERT	36+51.95	0'RT.	5.80		
S-50	COT TYPE BS-1 CURB INLET	37+18.62	16'LT.	6.19	0.03 (S)	
S-50A	FDOT J-BOX W/MH RISER PER INDEX 200	37+15.60	0'RT.	3.93	-0.06 (S) -0.15 (N) -1.54 (W)	
S-52	COT TYPE BV-1 CURB INLET	36+56.57	16'RT.	6.08	0.82 (N)	
S-52A	COT TYPE 1 CURB INLET	702+90.65	15'LT.	6.13	1.75 (E)	
S-52B	FDOT J-BOX W/MH RISER PER INDEX 200	702+95.46	2'LT.	4.29	1.50 (E) 1.50 (W) 1.00 (S) 1.00 (N)	
S-54	COT TYPE BS-1 CURB INLET	37+16.89	16'RT.	6.11	0.11 (N)	
S-54A	COT TYPE 1 CURB INLET	702+90.65	14'RT.	6.03	1.75 (W)	
S-55	FDOT J-BOX W/MH RISER PER INDEX 200	703+57.85	3'LT.	3.67	-0.16 (S) -0.16 (N)	
S-56A	COT TYPE BS-1 CURB INLET	700+23.43	37'RT.	5.44	2.00 (N)	
S-56B	COT TYPE BS-1 CURB INLET	701+01.49	37'RT.	5.14	1.88 (S) 1.88 (NW)	
S-56C	FDOT J-BOX W/MH RISER PER INDEX 200	701+17.94	19'RT.	5.07	1.78 (SE) 1.78 (W) 1.78 (N)	

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2			5		
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM STRUCTURE TABLE 3

STORM STRUCTURE TABLE

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM ELEV./ TOP SLAB	INVERTS	COMMENTS
S-56E	COT TYPE BS-1 CURB INLET	700+23.15	36'LT.	5.14	2.00 (N)	
S-56F	COT TYPE "H" GRATE INLET	700+98.27	48'LT.	4.94	1.90 (S) 1.90 (NE)	
S-56G	FDOT J-BOX W/MH RISER PER INDEX 200	701+18.39	17'LT.	4.65	1.84 (SW) 1.84 (E)	
S-92	COT TYPE BS-1 CURB INLET	200+31.06	16'RT.	5.01	0.50 (NW)	
S-92A	MANHOLE RISER ON BOX CULVERT	200+37.08	0'LT.	4.77		
S-93	COT TYPE BS-1 CURB INLET	14+74.11	16'LT.	4.91	-2.12 (S)	
S-93A	MANHOLE RISER ON BOX CULVERT	14+71.46	2'RT.	4.60		
S-96	FDOT J-BOX W/MH RISER PER INDEX 200	202+91.02	3'LT.	4.37	-0.80 (S) -0.75 (E) -0.80 (S) -0.80 (N) -0.80 (N)	
S-96A	COT TYPE 1 CURB INLET	300+32.39	14'RT.	5.70	2.02 (N)	
S-96B	COT TYPE 1 CURB INLET	300+33.61	14'LT.	5.77	2.24 (SW)	
S-96C	FDOT J-BOX W/MH RISER PER INDEX 200	300+27.45	7'LT.	4.19	-0.73 (E) 2.17 (NE) 1.83 (S) -0.73 (W)	
S-97	CUSTOM J-BOX W/MH RISER	205+84.33	3'LT.	6.12	-0.95 (W) -0.95 (W)	
S-97A	COT TYPE 1 CURB INLET	205+63.24	14'RT.	5.39	0.23 (W)	
S-97B	MANHOLE RISER ON BOX CULVERT	205+64.87	0'LT.	5.06		
S-97C	FDOT P-BOX W/MH RISER PER INDEX 200	206+02.42	5'RT.	2.90	0.25 (S)	
S-98	TYPE "T" RISER ON TOP OF FDOT J-BOX	301+59.90	8'LT.	5.40	0.74 (S) -0.64 (W)	
S-99	COT TYPE 1 CURB INLET	301+56.40	14'RT.	5.82	1.48 (N)	
S-100	COT TYPE BR-1 CURB INLET	31+25.34	20'RT.	4.97	-1.17 (N)	
S-100A	MANHOLE RISER ON BOX CULVERT	31+19.27	4'LT.	4.84		
S-101	COT TYPE 1 CURB INLET MODIFIED	608+23.59	33'LT.	5.16	1.38 (E)	

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM STRUCTURE TABLE 4

SHEET 7B

105

STORM STRUCTURE TABLE

STRUCTURE NUMBER	STRUCTURE TYPE	STATION	OFFSET	RIM ELEV./ TOP SLAB	INVERTS	COMMENTS
S-101A	FDOT J-BOX W/MH RISER PER INDEX 200	608+14.51	3'LT.	3.74	0.99 (W) 1.36 (E) -2.93 (S)	
S-102	COT TYPE 1 CURB INLET	607+59.55	31'RT.	5.02	1.55 (S) -0.23 (N)	
S-102A	MANHOLE RISER ON BOX CULVERT	31+83.12	2'RT.	4.99		
S-102B	COT TYPE "T" GRATE INLET	606+88.94	36'RT.	4.73	2.25 (N)	
S-103	COT TYPE 1 CURB INLET	31+94.79	32'LT.	5.11	1.73 (W)	
S-1429	FDOT P-BOX W/MH RISER PER INDEX 200	506+43.25	37'LT.	5.08	1.58 (E) 1.58 (N)	
S-1430	COT TYPE "H" GRATE INLET	507+37.13	38'LT.	5.33	2.00 (S) 1.75 (W) 2.00 (E)	
S-1430A	FDOT J-BOX W/MH RISER PER INDEX 200	508+19.67	27'LT.	4.49	1.68 (W) 1.68 (N) 1.68 (E)	
S-1431	COT TYPE BV-1 CURB INLET	508+19.95	40'LT.	5.51	1.70 (S)	
S-1432	FDOT J-BOX W/MH RISER PER INDEX 200	605+03.10	28'LT.	4.39	1.58 (W) 1.34 (S) 1.34 (N)	
S-1434	FDOT J-BOX W/MH RISER PER INDEX 200	604+49.26	29'LT.	4.24	1.49 (S) 1.49 (SW) 1.49 (N)	
S-1434A	COT TYPE BV-1 CURB INLET	508+15.61	40'RT.	2.08	1.90 (NE)	
S-1438	COT TYPE BV-1 CURB INLET	509+23.95	39'LT.	5.34	1.85 (S) 1.85 (N)	
S-1439	COT TYPE BV-1 CURB INLET	509+24.89	39'RT.	5.59	2.32 (N)	
S-1440	COT TYPE BV-1 CURB INLET	507+17.80	40'RT.	5.40	2.15 (N)	
S-1444	COT TYPE BR-2 CURB INLET	601+86.27	36'LT.	6.50	1.90 (S) 1.90 (N)	

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM STRUCTURE TABLE 5

SHEET 7C

STORM PIPE TABLE

STRUC. START	STRUC. END	PIPE SIZE & MATERIAL	LENGTH	SLOPE %	START INV.	END INV.	FALL IN FEET
	S-96	5'X3' CONCRETE BOX CULVERT	84	0.07%	-0.74	-0.80	0.06
	S-96	5'X3' CONCRETE BOX CULVERT	84	0.07%	-0.74	-0.80	0.06
S-19		5'X3' CONCRETE BOX CULVERT	203	0.07%	-0.60	-0.74	0.14
S-19		5'X3' CONCRETE BOX CULVERT	202	0.07%	-0.60	-0.74	0.14
	S-97	5'X4' CONCRETE BOX CULVERT	17	0.00%	-0.95	-0.95	0.00
	S-97	5'X4' CONCRETE BOX CULVERT	17	0.00%	-0.95	-0.95	0.00
		5'X4' CONCRETE BOX CULVERT	122	0.05%	-0.88	-0.94	0.06
S-96		5'X4' CONCRETE BOX CULVERT	159	0.05%	-0.80	-0.88	0.08
		5'X4' CONCRETE BOX CULVERT	122	0.05%	-0.88	-0.94	0.06
S-96		5'X4' CONCRETE BOX CULVERT	159	0.05%	-0.80	-0.88	0.08
	S-47	6'X5' CONCRETE BOX CULVERT	85	0.18%	-1.76	-1.60	0.16
		6'X5' CONCRETE BOX CULVERT	250	0.18%	-2.22	-1.76	0.46
S-42		6'X5' CONCRETE BOX CULVERT	140	0.17%	-2.46	-2.22	0.24
S-41	S-42	6'X5' CONCRETE BOX CULVERT	50	0.24%	-2.60	-2.48	0.12
	S-39	9'X5' CONCRETE BOX CULVERT	96	-0.14%	-3.23	-3.36	0.13
	S-40	9'X5' CONCRETE BOX CULVERT	90	0.14%	-3.23	-3.10	0.13
	S-39	9'X5' CONCRETE BOX CULVERT	104	0.18%	-3.55	-3.36	0.19
		9'X5' CONCRETE BOX CULVERT	250	0.18%	-5.05	-4.61	0.44
S-40	S-41	9'X5' CONCRETE BOX CULVERT	19	0.16%	-3.10	-3.07	0.03
		9'X5' CONCRETE BOX CULVERT	300	0.18%	-5.58	-5.05	0.53
		9'X5' CONCRETE BOX CULVERT	300	0.18%	-4.61	-4.08	0.53
		9'X5' CONCRETE BOX CULVERT	300	0.18%	-4.08	-3.55	0.53
S-21		9'X5' CONCRETE BOX CULVERT	38	0.18%	-5.65	-5.58	0.07
S-15		9'X6' CONCRETE BOX CULVERT	88	0.10%	-6.25	-6.34	0.09
S-19		9'X6' CONCRETE BOX CULVERT	105	0.09%	-5.84	-5.94	0.10
	S-15	9'X6' CONCRETE BOX CULVERT	96	0.09%	-6.13	-6.22	0.09
	S-8	9'X6' CONCRETE BOX CULVERT	64	0.11%	-6.34	-6.41	0.07
	S-5	9'X6' CONCRETE BOX CULVERT	9	0.12%	-6.64	-6.65	0.01
	S-1	9'X6' CONCRETE BOX CULVERT	143	0.10%	-6.85	-7.00	0.15
		9'X6' CONCRETE BOX CULVERT	200	0.09%	-5.94	-6.13	0.19

STORM PIPE TABLE

STRUC. START	STRUC. END	PIPE SIZE & MATERIAL	LENGTH	SLOPE %	START INV.	END INV.	FALL IN FEET
S-1	CS-1	9'X6' CONCRETE BOX CULVERT	161	0.10%	-7.04	-7.20	0.16
S-5		9'X6' CONCRETE BOX CULVERT	172	0.10%	-6.67	-6.85	0.18
S-6		9'X6' CONCRETE BOX CULVERT	16	0.12%	-6.62	-6.64	0.02
S-7	S-6	9'X6' CONCRETE BOX CULVERT	52	0.11%	-6.54	-6.60	0.06
S-8	S-7	9'X6' CONCRETE BOX CULVERT	97	0.11%	-6.42	-6.53	0.10
S-21	S-19	10'X5' CONCRETE BOX CULVERT	157	0.09%	-5.65	-5.79	0.14
S-97C		14"X23" ERCP	12	0.56%	0.25	0.19	0.07
S-1430	S-1440	14"X23" ERCP	80	0.19%	2.00	2.15	0.15
S-39A		15" RCP	5	4.62%	-1.00	-1.25	0.25
S-37A		15" RCP	5	3.27%	-1.05	-1.21	0.16
S-37		15" RCP	14	3.90%	-1.70	-2.24	0.54
	S-97A	15" RCP	11	-2.98%	-0.10	0.23	0.33
S-102B	S-102	15" RCP	71	0.99%	2.25	1.55	0.70
S-1434A	S-1434	15" RCP	31	1.31%	1.90	1.49	0.41
S-96B	S-96C	15" RCP	6	1.00%	2.24	2.17	0.06
S-96A	S-96C	15" RCP	18	1.00%	2.02	1.83	0.18
S-18B	S-18A	15" RCP	28	1.00%	-0.72	-1.00	0.28
S-99	S-98	15" RCP	22	3.38%	1.48	0.74	0.75
S-102		15" RCP	28	1.40%	-0.23	-0.62	0.39
	S-100	15" RCP	20	1.44%	-1.45	-1.17	0.28
S-52		15" RCP	13	1.54%	0.82	0.62	0.20
S-54	S-50A	15" RCP	12	1.50%	0.11	-0.06	0.17
S-50	S-50A	15" RCP	12	1.48%	0.03	-0.15	0.18
S-48		15" RCP	13	1.48%	0.45	0.25	0.20
S-45		15" RCP	13	1.55%	-0.06	-0.26	0.20
S-43		15" RCP	13	1.54%	-0.06	-0.26	0.20
S-4	S-2	15" RCP	16	0.63%	1.00	0.90	0.10
S-23	S-22	15" RCP	12	1.73%	1.90	1.70	0.20
S-20		15" RCP	10	2.51%	-1.68	-1.92	0.24
S-93		15" RCP	13	1.03%	-2.12	-2.26	0.14

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM PIPE TABLE

SHEET 8 OF 105

STORM PIPE TABLE

STRUC. START	STRUC. END	PIPE SIZE & MATERIAL	LENGTH	SLOPE %	START INV.	END INV.	FALL IN FEET
S-92		15" RCP	14	3.54%	0.50	0.00	0.50
S-36		15" RCP	15	1.29%	-1.91	-2.11	0.20
S-34		15" RCP	7	5.52%	-1.00	-1.40	0.40
S-29	S-30	15" RCP	28	0.90%	0.80	0.55	0.25
S-32	S-27	15" RCP	28	1.44%	-1.00	-1.40	0.40
S-103	S-101A	15" RCP C-IV	32	1.15%	1.73	1.36	0.37
S-2	S-3	15" RCP C-IV	19	0.43%	1.35	1.43	0.08
S-24	S-22	15" RCP C-IV	20	0.99%	1.90	1.70	0.20
S-10	S-9	15" RCP C-IV	16	0.64%	1.40	1.30	0.10
S-16	S-9	15" RCP C-IV	15	1.32%	1.50	1.30	0.20
S-18A	S-18	18" RCP	25	2.50%	-1.12	-1.74	0.63
S-1444		18" RCP	156	0.20%	1.90	2.21	0.31
S-54A	S-52B	18" RCP	17	1.50%	1.75	1.50	0.25
S-52A	S-52B	18" RCP	13	1.87%	1.75	1.50	0.25
S-18		18" RCP	13	2.46%	-1.85	-2.17	0.32
S-30		18" RCP	32	0.44%	-3.36	-3.50	0.14
S-27		18" RCP	24	1.26%	-1.50	-1.80	0.30
	S-1430A	19"X30" ERCP	70	0.38%	1.95	1.68	0.27
S-1438	S-1439	19"X30" ERCP	78	0.60%	1.85	2.32	0.47
S-1430		19"X30" ERCP	13	0.38%	2.00	1.95	0.05
S-56E	S-56F	19"X30" ERCP C-IV	76	0.13%	2.00	1.90	0.10
S-56A	S-56B	19"X30" ERCP C-IV	78	0.15%	2.00	1.88	0.12
	S-1438	24" RCP	90	0.41%	1.48	1.85	0.37
	S-1444	24" RCP	114	0.18%	1.70	1.90	0.20
		24" RCP	21	0.41%	1.40	1.48	0.08
S-1434		24" RCP	149	0.14%	1.49	1.70	0.21
S-1429	S-1430	24" RCP	94	0.18%	1.58	1.75	0.17
	S-1429	24" RCP	111	0.39%	1.15	1.58	0.43
S-12A	S-12	24" RCP	17	0.60%	-1.10	-1.00	0.10
S-12A	S-13	24" RCP	25	1.50%	-1.10	-0.72	0.38

STORM PIPE TABLE

STRUC. START	STRUC. END	PIPE SIZE & MATERIAL	LENGTH	SLOPE %	START INV.	END INV.	FALL IN FEET
S-13		24" RCP	17	5.81%	-3.00	-4.00	1.00
S-1432	S-1434	24" RCP C-IV	54	0.28%	1.34	1.49	0.15
S-101	S-101A	24" RCP C-IV	27	1.42%	1.38	0.99	0.39
S-1430A	S-1432	24"X38" ERCP	25	0.40%	1.68	1.58	0.10
S-56F	S-56G	24"X38" ERCP	34	0.18%	1.90	1.84	0.06
S-56B	S-56C	24"X38" ERCP	25	0.40%	1.88	1.78	0.10
S-1431	S-1430A	24"X38" ERCP	13	0.16%	1.70	1.68	0.02
S-56G	S-56C	24"X38" ERCP C-IV	36	0.17%	1.84	1.78	0.06
		24"X38" ERCP C-IV	20	0.17%	1.18	1.15	0.03
S-1432		24"X38" ERCP C-IV	97	0.17%	1.34	1.18	0.16
S-56C		29"X45" ERCP	90	0.09%	1.78	1.70	0.08
S-55	S-52B	29"X45" ERCP	62	1.86%	-0.16	1.00	1.16
S-52B		29"X45" ERCP C-IV	78	0.83%	1.00	1.65	0.65
	S-12A	30" RCP	43	6.76%	-4.18	-1.25	2.93
S-47	S-55	36" RCP	27	1.27%	-0.50	-0.16	0.34
S-96C	S-98	48" RCP	132	0.07%	-0.73	-0.64	0.09
S-96	S-96C	48" RCP	31	0.06%	-0.75	-0.73	0.02
S-41	S-101A	54" RCP	29	0.48%	-3.07	-2.93	0.14
S-47	S-50A	54" RCP	31	0.19%	-1.60	-1.54	0.06

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

STORM PIPE TABLE 2

SHEET 9 OF 105

SW

CS-1
SPRING LAKE OUTFALL

SPRING LAKE CANAL

9'x6' Concrete Box Culvert

CHEROKEE RD.

S-6

9'x6' Concrete Box Culvert

S-1

9'x6' Concrete Box Culvert

S-7

S-8

9'x6' Concrete Box Culvert

S-9

S-17

S-15

9'x6' Concrete Box Culvert

S. RENELLIE DR.

SHAMROCK ROAD

S-97C

S-97

DOUBLE 5'x4' Concrete Box Culvert

48" RCP

S-98

SEVILLA STREET

S-96C

DOUBLE 5'x3' Concrete Box Culvert

10'x5' Concrete Box Culvert

S-22

S-25

S-19

S-21

9'x5' Concrete Box Culvert

9'x5' Concrete Box Culvert

HESPERDIES AVE.

S-26

S-34A

S-39

9'x5' Concrete Box Culvert

6'x5' Concrete Box Culvert

24"X38" ERCP C-IV

24" RCP

S-1432

S-1429

EL PRADO BLVD.

24" RCP

14"x23" ERCP

24"X38" ERCP

24" RCP

18" RCP

S-101A

54" RCP

S-40

S-42

S-102

S. MANHATTAN AVE.

54" HOLE W/BULKHEAD FOR FUTURE CONNECTION

6'x5' Concrete Box Culvert

S-41

HUBERT AVE.

48"X76" HOLE W/BULKHEAD FOR FUTURE CONNECTION

S-47

54" RCP

S-50A

W. VASCONIA STREET

36" RCP

S-55

29"X45" ERCP

29"X45" ERCP C-IV

24"X38" ERCP C-IV

24" RCP

S-56G

24"X38" ERCP

S-1438

S-56F

19"X30" ERCP C-IV

19"X30" ERCP

S-1439

24" RCP C-IV

S-1434

29"X45" ERCP

S-56C

S-56B

19"X30" ERCP C-IV

S-56E

S-56A

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
STORM SEWER LAYOUT

SHEET 10
105

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SW

0 20

1"=20'

POWER POLE TO REMAIN

4.43

4.61

4.42

2" (Plastic) (Gas)

STA. 100+33.16
STA. 901+75.85

Asphalt Parking Lot

CAUTION: 2" GAS PROTECT OR RELOCATE BY UTILITY COMPANY

+65.88
23.94' LT.

EX. FENCE AND DOUBLE 8' GATE

6' Wood Board

3342

PROPOSED INTERLOCKING BLOCK WALL

2.76 TOW

MEG −3.57

MEG −5.37

PROPOSED RUBBLE RIP−RAP OVER FILTER FABRIC APPROX. 29 CU. YDS.

−7.60

5.72 TOW

−7.20

CS−1

102+80

102+00

MEG −5.71

MEG −5.42

MEG −3.43

2.76 TOW

Shots Taken On center of 6' Wood Seawall

±50' SHORELINE LENGTH AFFECTED

SPRING LAKE CANAL

4730

4728

4726

4724

4722

3' Evergreen

Concrete

Verizon Fiber Optic

CHEROKEE RD.

2" CI(WM)

℄ OF CONSTRUCTION

PROP 9'X6' CONCRETE BOX CULVERT

100+00

Brick Paver

S−1

4.55

4.79

Asphalt Drive

101+00

Speed Limit

Concrete Drive

902+00

℄ OF CONSTRUCTION

4.70

4.93

4.69

Planter

PROP 9'X6' CONCRETE BOX CULVERT
SEE SHEET 13

4717

PROPOSED INTERLOCKING BLOCK WALL

S−1

STA. 901+74.69, 6.81' RT.
PROP CUSTOM J−BOX/CONFLICT STRUCTURE W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (E) = −7.00
INV EL: 9'X6' CONCRETE BOX CULVERT (N) = −7.04
TOP SLAB EL: −0.291
MH RISER RIM: 4.62
SEE STRUCTURE DETAILS SHEET
FOR SIZING AND MORE INFORMATION

CS−1

STA. 102+01.52, 0.89' LT.
PROPOSED WINGWALL PER FDOT INDEX 289
INV EL: 9'X6' CONCRETE BOX CULVERT (S) = −7.20
NO MANATEE GRATE REQUIRED FOR 9X6 OUTFALL

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

OUTFALL - STORMWATER - PLAN

SHEET 11 OF 105

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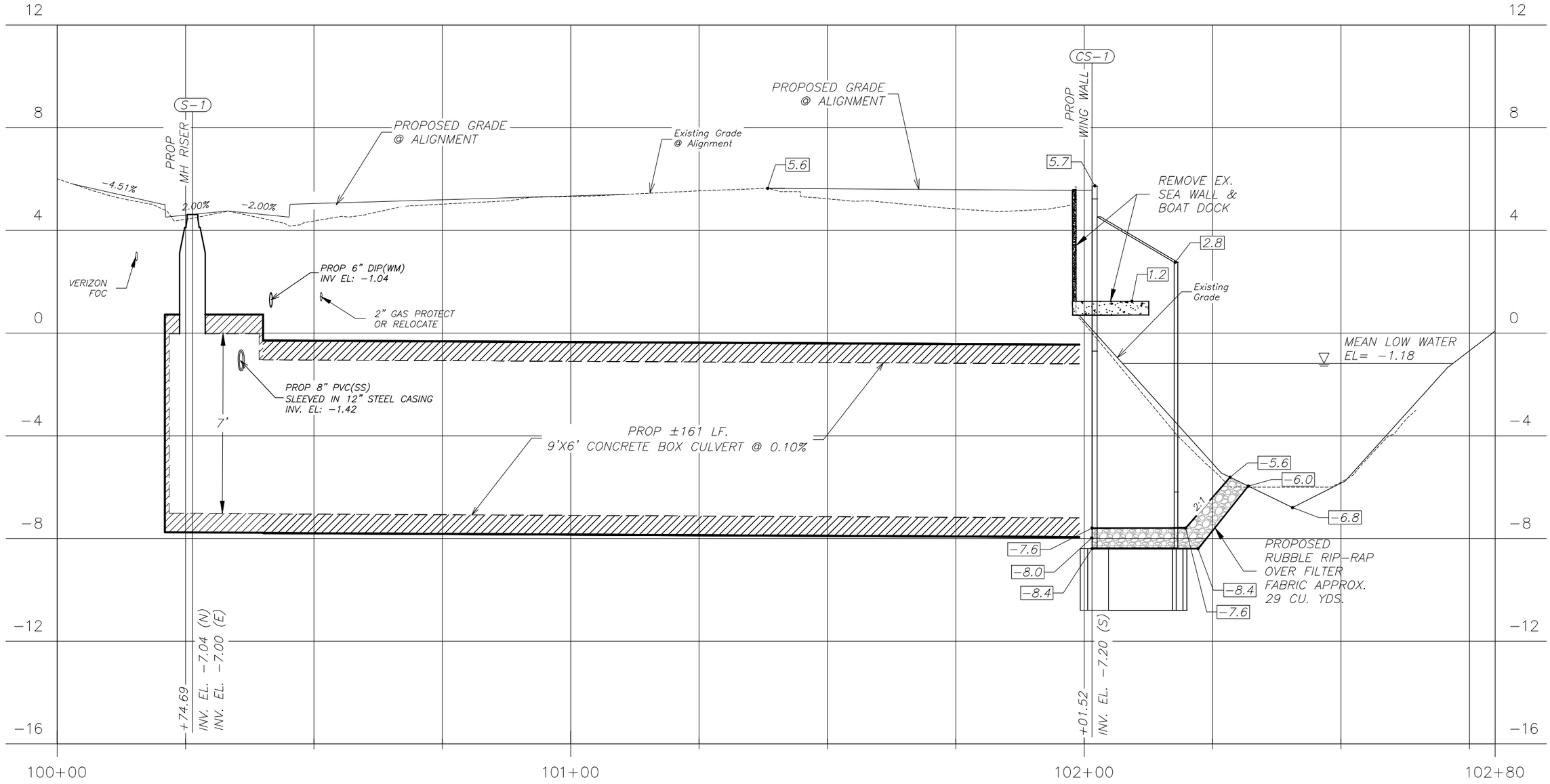
SW



OUTFALL PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

OUTFALL - STORMWATER - PROFILE

SHEET 12 of 105

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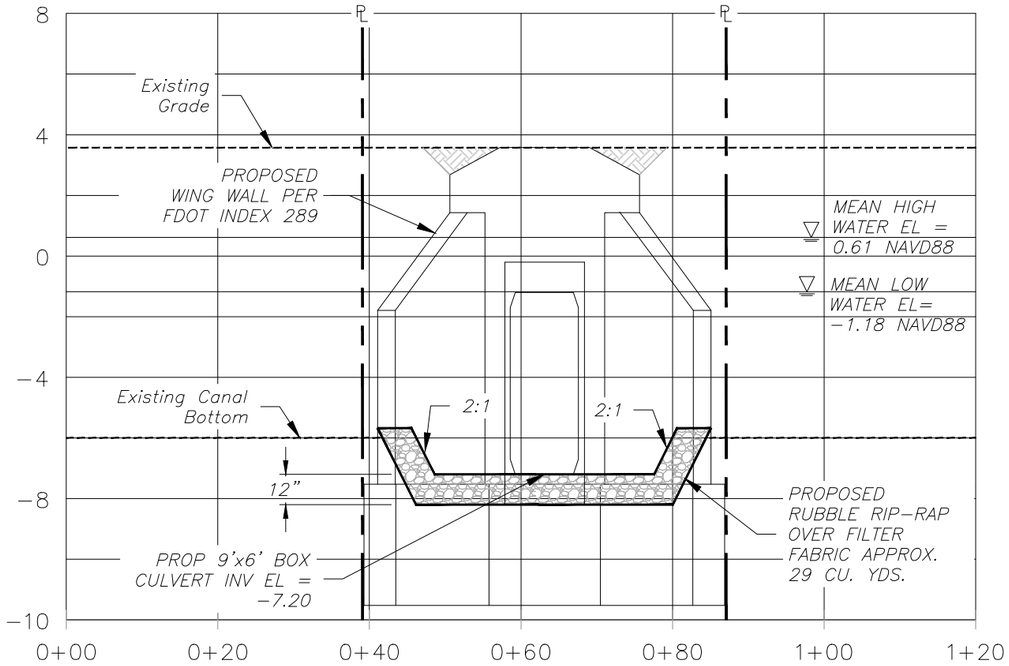
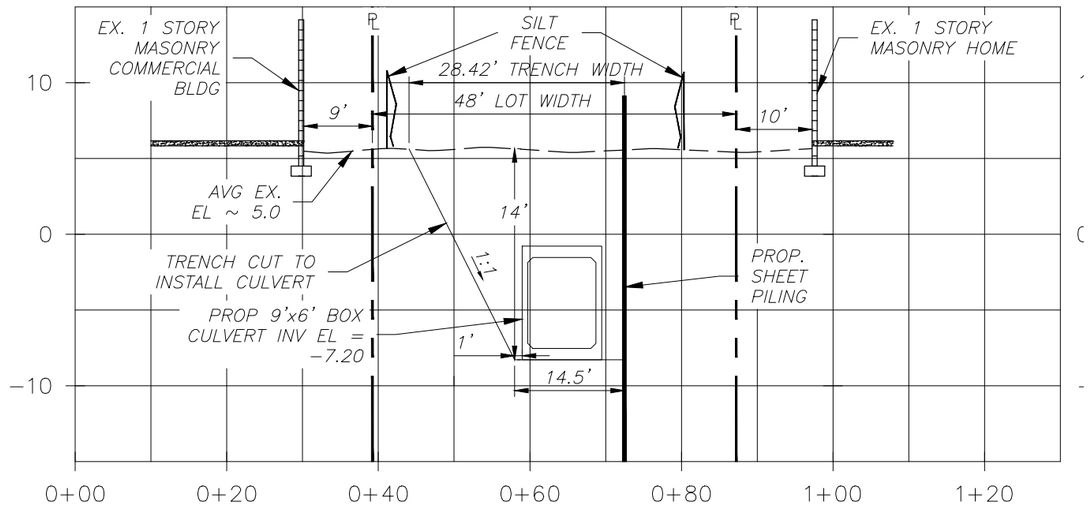
SW



OUTFALL CROSS SECTION
SCALE: HORZ. 1"=20'; VERT. 1"=5'



OUTFALL CROSS SECTION
SCALE: HORZ. 1"=20'; VERT. 1"=10'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

OUTFALL - STORMWATER - CROSS SECTIONS

SHEET 12A of 105

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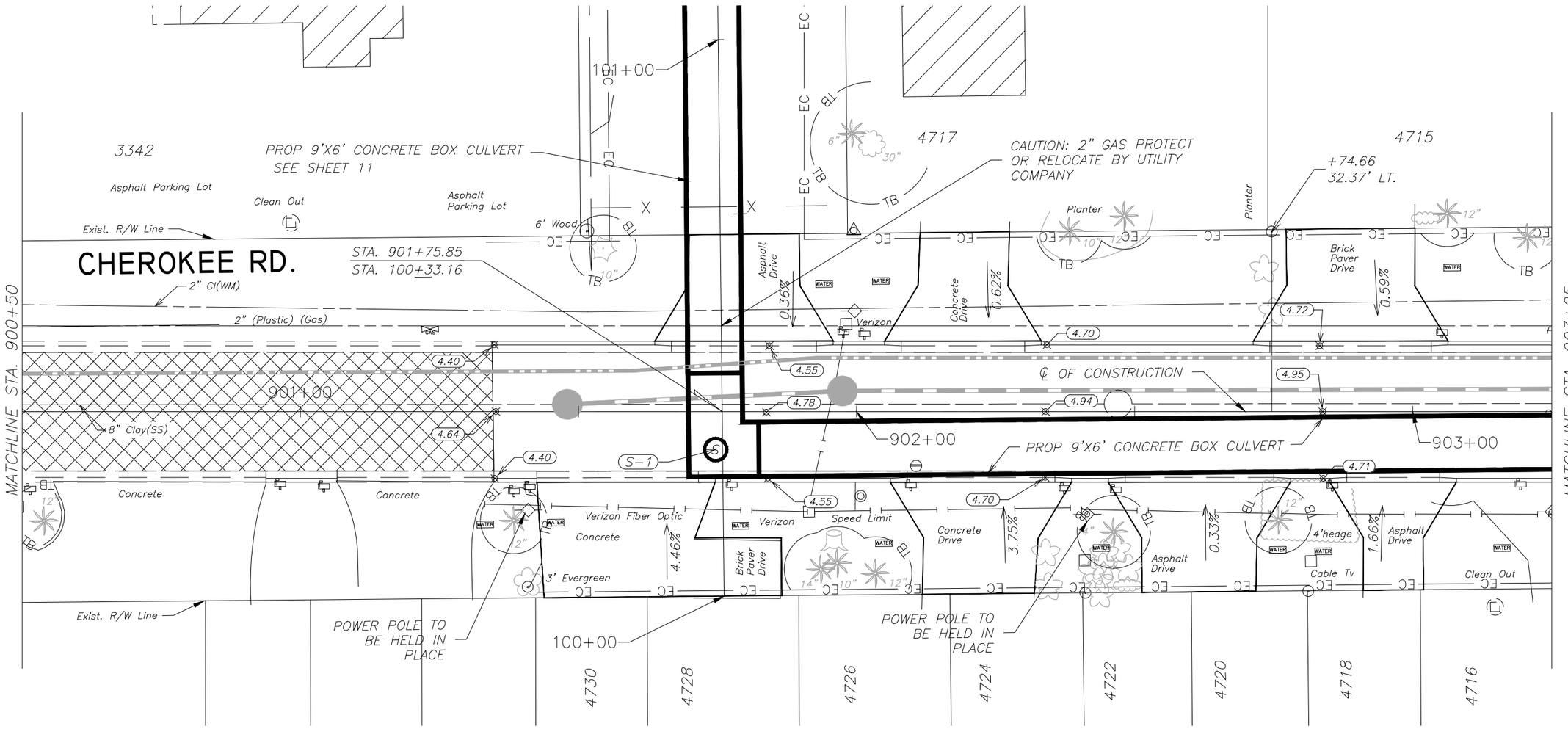
SW



S-1
STA. 901+74.69, 6.81' RT.
PROP CUSTOM J-BOX/CONFLICT STRUCTURE W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (E) = -7.00
INV EL: 9'X6' CONCRETE BOX CULVERT (N) = -7.04
INV EL: 8" PVC SANITARY CROSSING (E) = -1.38
INV EL: 8" PVC SANITARY CROSSING (W) = -1.42
TOP SLAB EL: -0.291
MH RISER RIM: 4.62
SEE STRUCTURE DETAILS SHEET
FOR SIZING AND MORE INFORMATION

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PLAN

SHEET 13 OF 105

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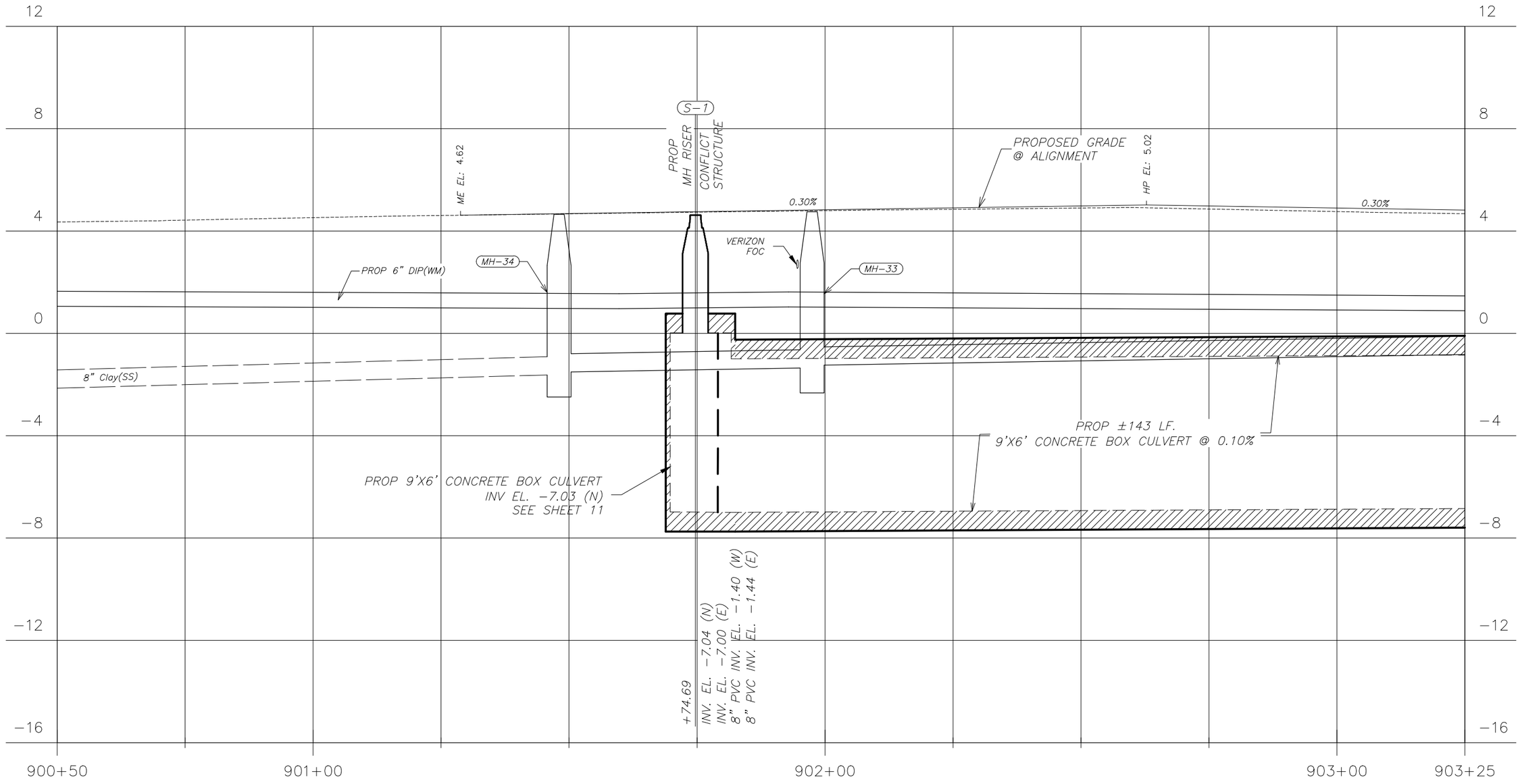
SW



CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PROFILE

SHEET 14 OF 105

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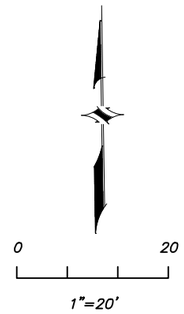

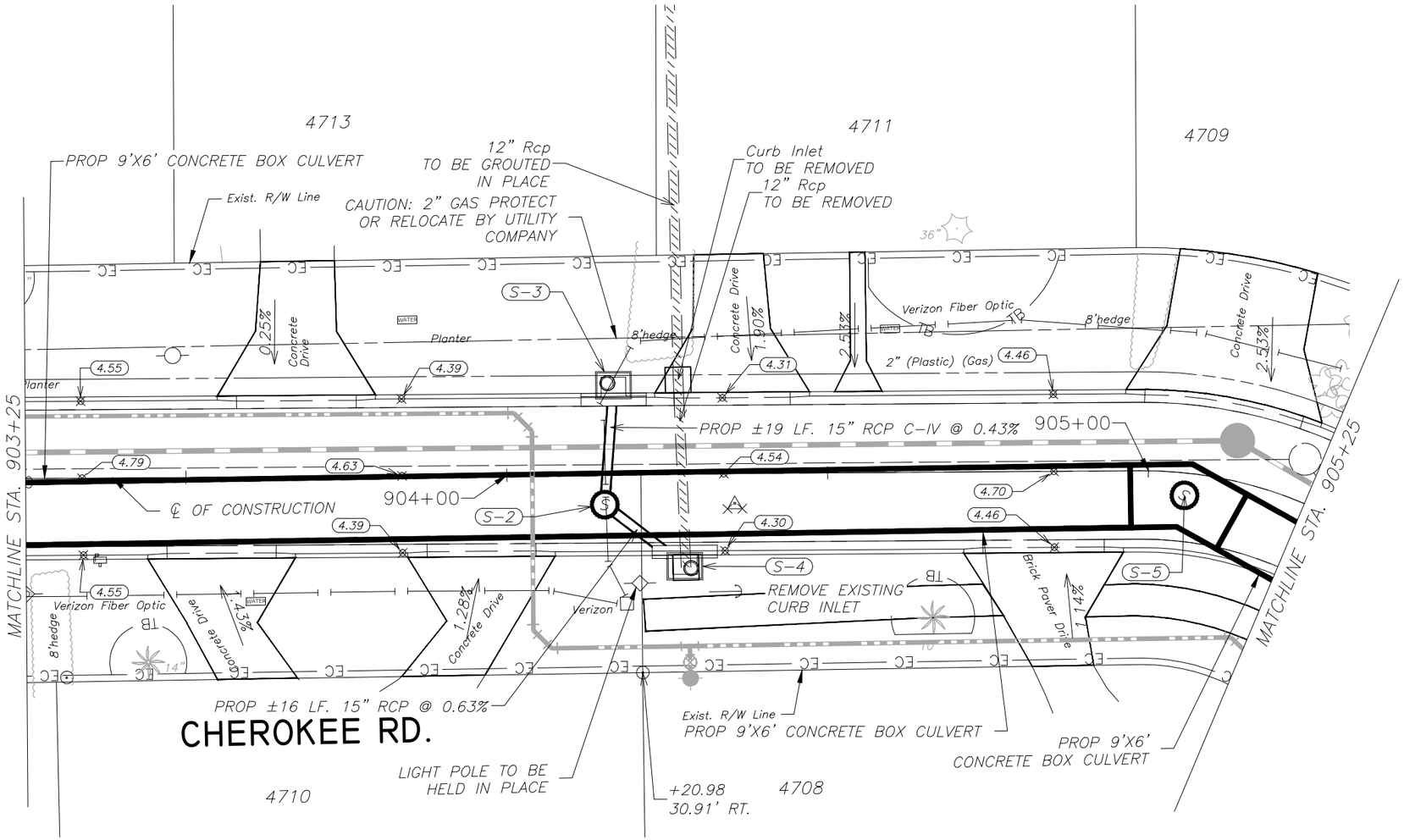

S-2
STA. 904+15.23, 4.69' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.43
INV EL: 15" RCP (SE) = 0.90
INV EL: 15" RCP C-IV (N) = 1.35

S-3
STA. 904+16.72, 13.91' LT.
PROP COT TYPE 1 CURB INLET
RIM: 4.81
INV EL: 15" RCP C-IV (S) = 1.43
FLOWLINE EL: 4.31

S-4
STA. 904+27.65, 14.39' RT.
PROP COT TYPE 1 CURB INLET
RIM: 4.77
INV EL: 15" RCP (NW) = 1.00
FLOWLINE EL: 4.27

S-5
STA. 905+06.00, 3.49' RT.
PROP CUSTOM J-BOX W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (SE) = -6.65
INV EL: 9'X6' CONCRETE BOX CULVERT (W) = -6.67
TOP SLAB EL: 0.08
MH RISER RIM: 4.69
SEE STRUCTURAL DETAIL SHEETS
FOR SIZING AND MORE INFORMATION

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation
and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PLAN

SHEET
15
of
105

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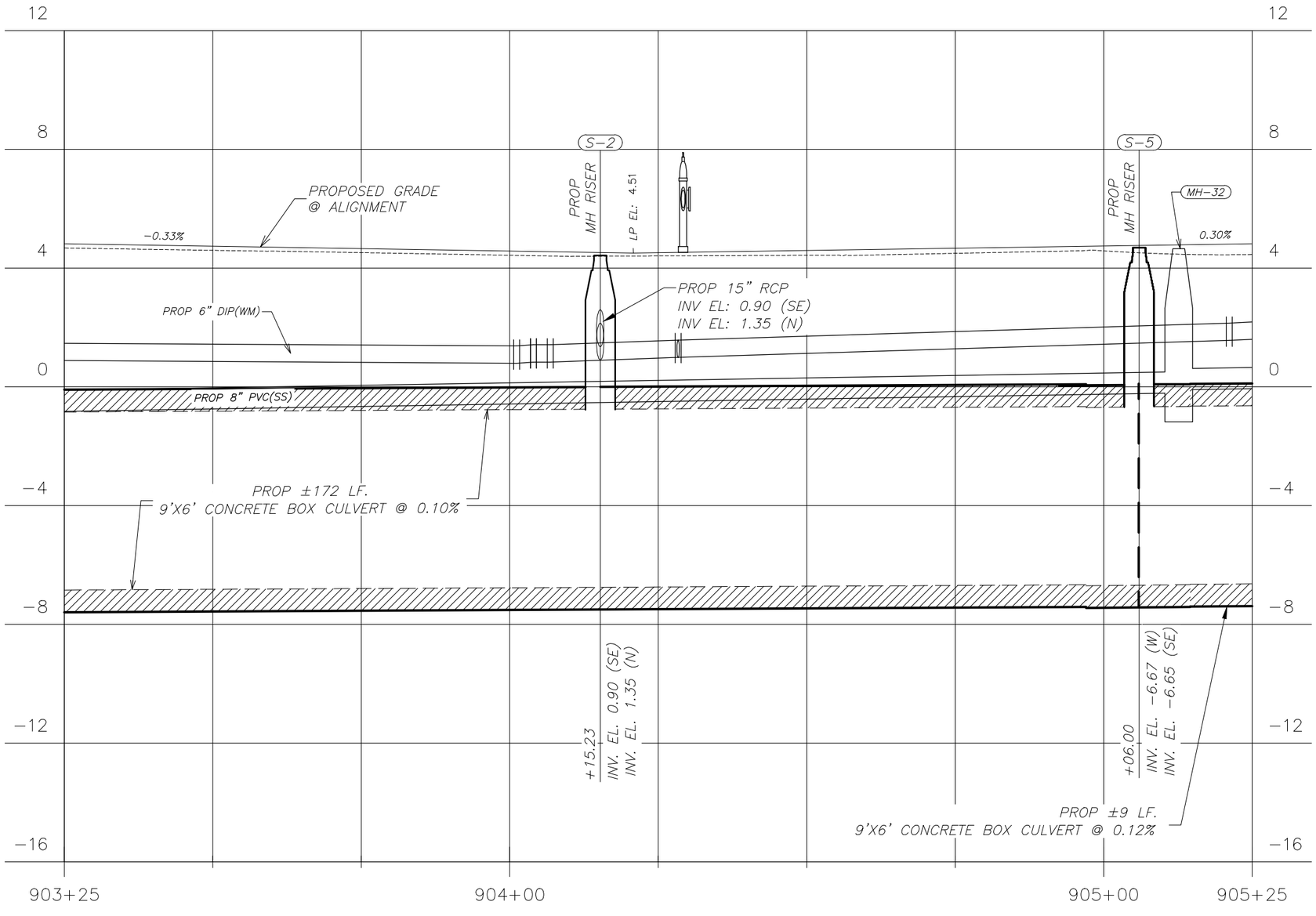

CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PROFILE

SHEET 16 OF 105

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SW

CHEROKEE RD.

4707 4705 4703 4708 4706

PROP 9'X6' CONCRETE BOX CULVERT

MATCHLINE STA 905+25

MATCHLINE STA. 908+00

+56.60
31.78' LT.

Exist. R/W Line

2" CI(WM)

2" (Plastic) (Gas)

Verizon Fiber Optic

℄ OF CONSTRUCTION

Concrete Drive

Brick Paver Drive

18" Mango

Verizon

PROP. 5-FT-WIDE CONCRETE SIDEWALK PER FDOT INDEX 310

Exist. R/W Line

0 20

1"=20'

S-6
STA. 905+51.92, 5.62' RT.
PROP CUSTOM J-BOX W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (S) = -6.60
INV EL: 9'X6' CONCRETE BOX CULVERT (NW) = -6.62
TOP SLAB EL: 0.13
MH RISER RIM: 4.79
SEE STRUCTURE DETAILS SHEET
FOR SIZING AND MORE INFORMATION

S-7
STA. 906+20.47, 4.96' RT.
PROP CUSTOM J-BOX W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (SE) = -6.53
INV EL: 9'X6' CONCRETE BOX CULVERT (N) = -6.54
TOP SLAB EL: 0.21
MH RISER RIM: 4.98
SEE STRUCTURE DETAILS SHEET
FOR SIZING AND MORE INFORMATION

S-8
STA. 907+29.17, 0.33' RT.
PROP CUSTOM J-BOX W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (SE) = -6.41
INV EL: 9'X6' CONCRETE BOX CULVERT (NW) = -6.42
TOP SLAB EL: 0.33
MH RISER RIM: 4.63
SEE STRUCTURE DETAILS SHEET
FOR SIZING AND MORE INFORMATION

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PLAN

SHEET 17
105

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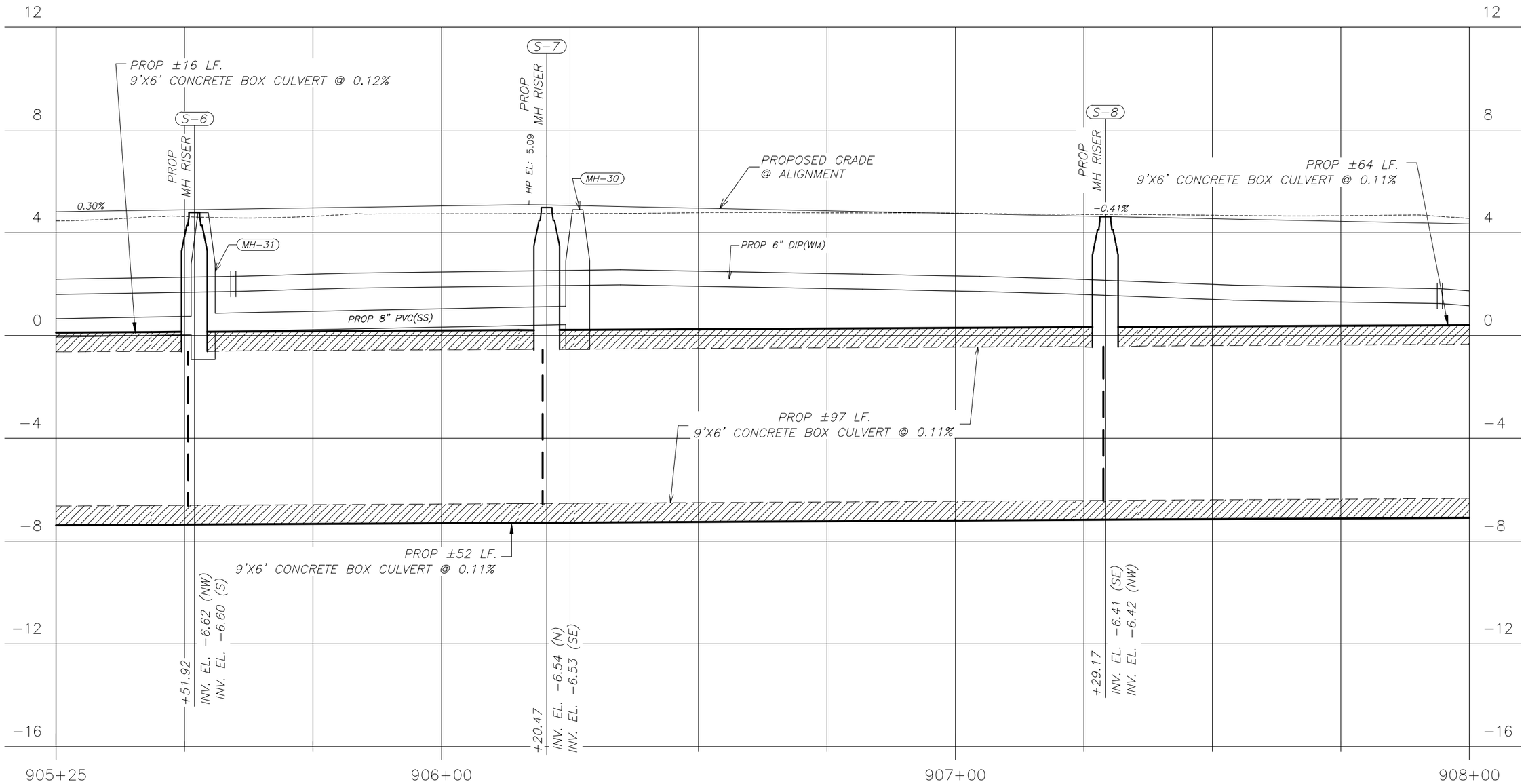
SW



CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PROFILE

SHEET 18 OF 105

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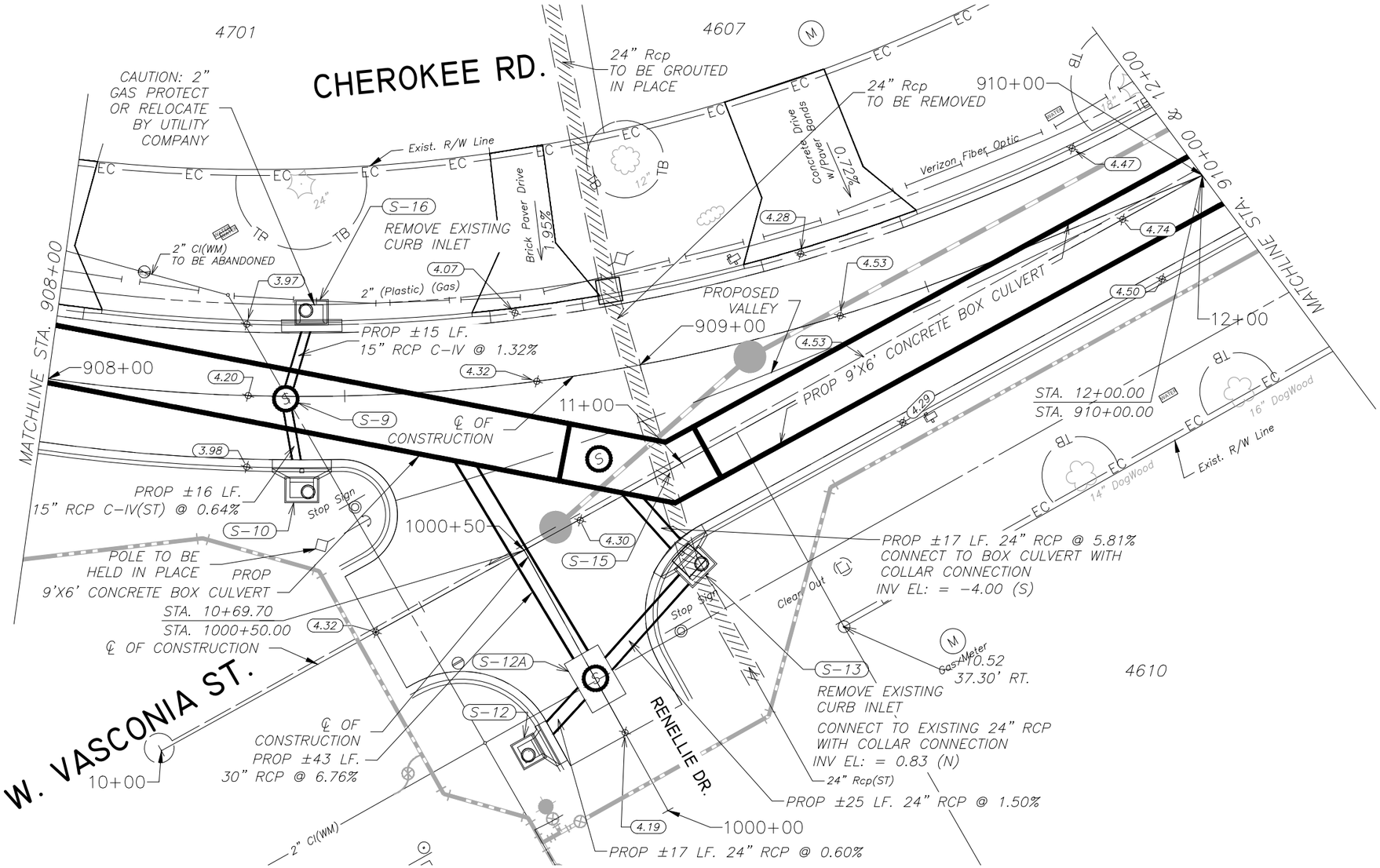
SW



S-9
STA. 908+40.07, 0.40' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.17
INV EL: 15" RCP C-IV (NE) = 1.30
INV EL: 15" RCP C-IV (S) = 1.30

S-10
STA. 908+42.77, 15.70' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 4.45
INV EL: 15" RCP C-IV (N) = 1.40
FLOWLINE EL: 3.95

S-12A
STA. 1000+25.30, 0.02' LT.
PROP 8'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24" RCP (E) = -1.10
INV EL: 24" RCP (W) = -1.10
INV EL: 42" HOLE W/BULKHEAD FOR FUTURE CONNECTION (S) = -1.85
INV EL: 30" RCP (N) = -1.25
MH RISER RIM: 4.11

S-12
STA. 1000+20.03, 15.71' LT.
PROP COT TYPE BS-1 CURB INLET
RIM: 4.39
INV EL: 24" RCP (E) = -1.00
FLOWLINE EL: 3.89

S-13
STA. 10+93.57, 16.34' RT.
PROP COT TYPE BR-1 CURB INLET
RIM: 4.21
INV EL: 24" RCP (N) = -3.00
INV EL: 24" RCP (W) = -0.72
INV EL: 24" RCP (S) = 0.83
FLOWLINE EL: 3.71

S-16
STA. 908+44.50, 14.14' RT.
PROP COT TYPE 1 CURB INLET
RIM: 4.38
INV EL: 15" RCP C-IV (SW) = 1.50
FLOWLINE EL: 3.88

S-15
STA. 10+97.49, 0.45' RT.
PROP CUSTOM J-BOX/CONFLICT STRUCTURE W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (E) = -6.22
INV EL: 9'X6' CONCRETE BOX CULVERT (NW) = -6.25
INV EL: 8" PVC SANITARY CROSSING (E) = -4.60
INV EL: 8" PVC SANITARY CROSSING (W) = -4.64
TOP SLAB EL: 0.500
MH RISER RIM: 4.23
SEE STRUCTURE DETAILS SHEET FOR SIZING AND MORE INFORMATION

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

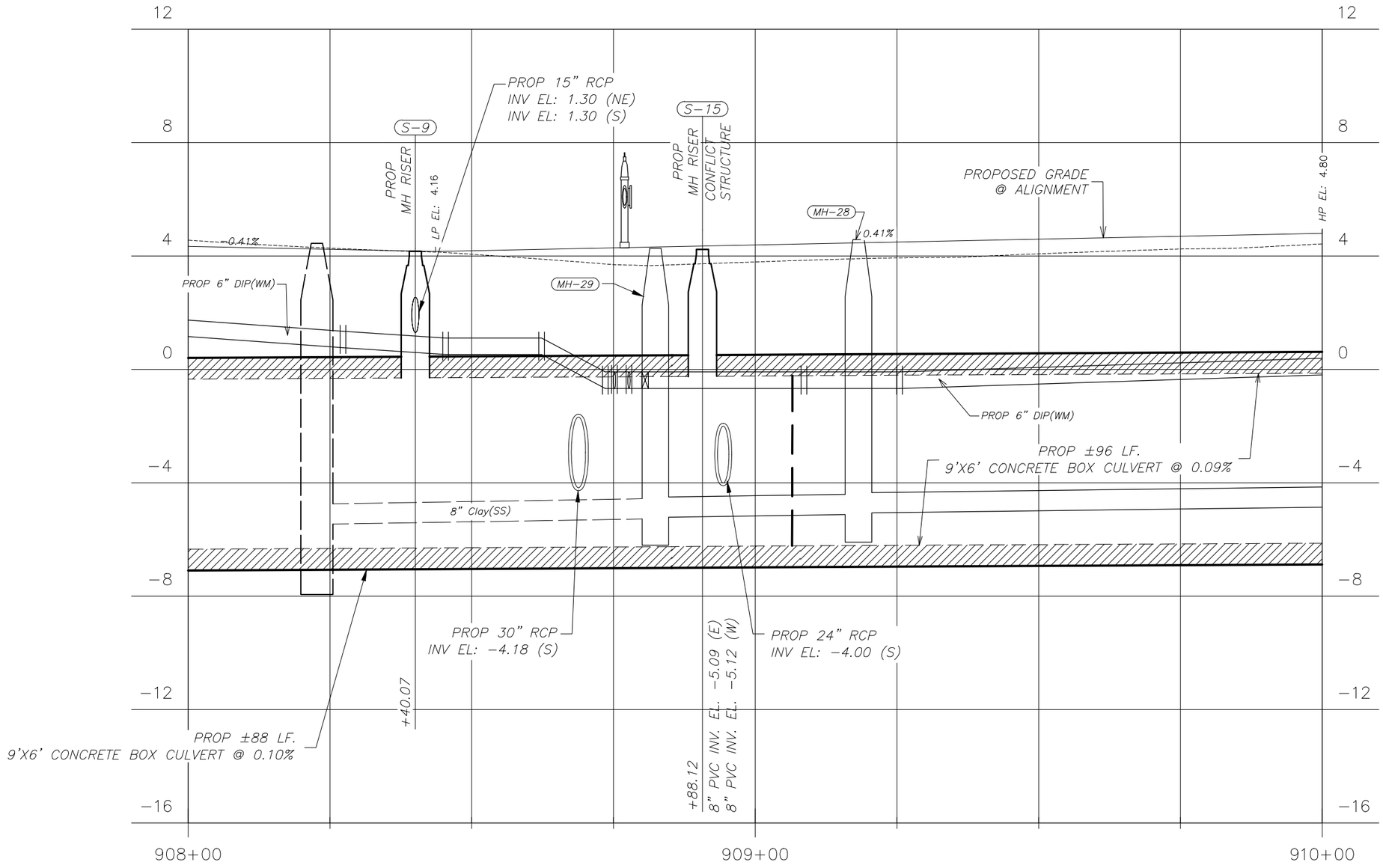
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PLAN

SHEET 19 of 105

SW



CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - STORMWATER
PROFILE

SHEET 20 OF 105

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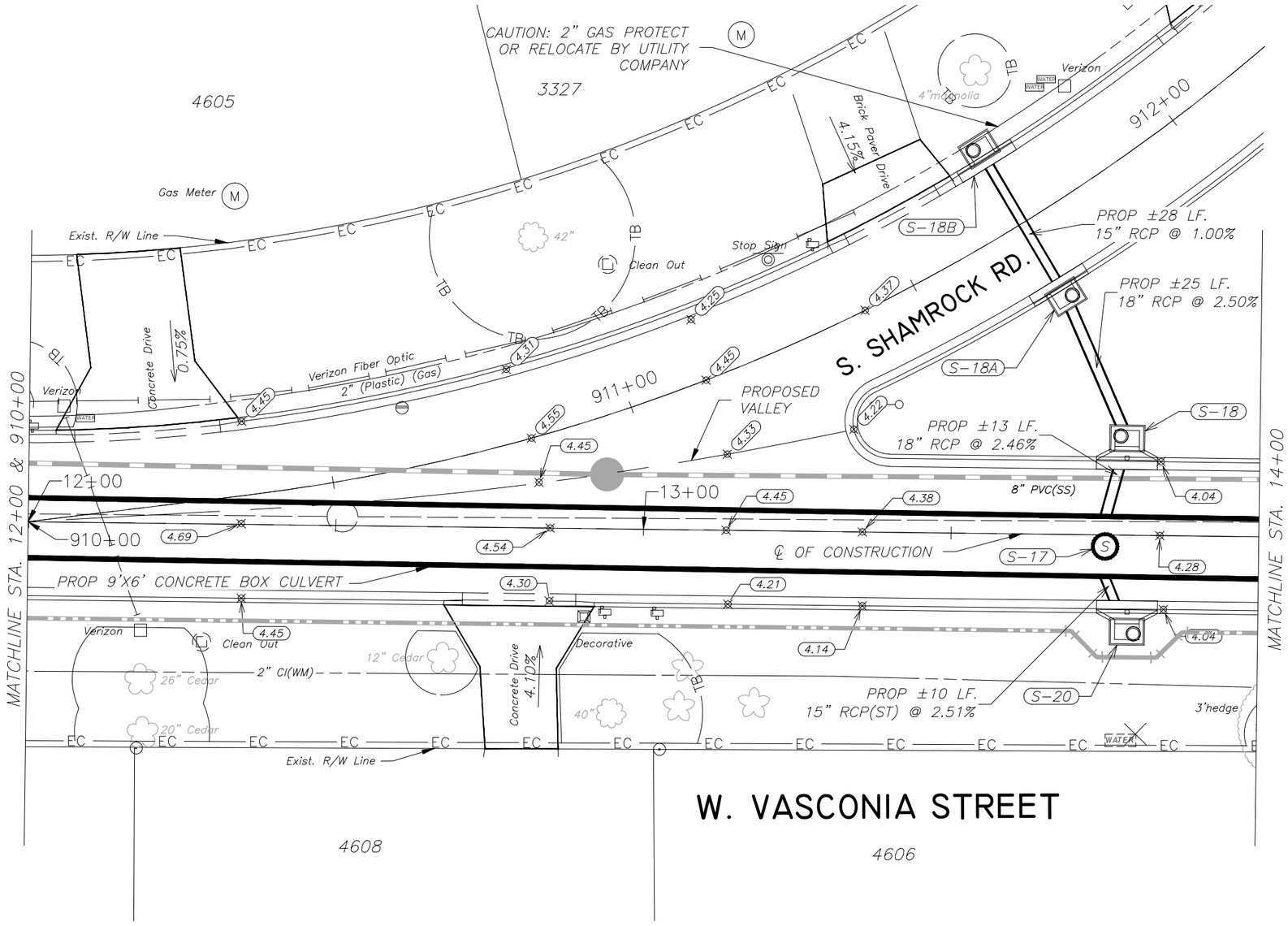
SW



S-17
STA. 13+75.05, 1.86' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.22

S-18
STA. 13+78.44, 15.73' LT.
PROP COT TYPE BV-1 CURB INLET
RIM: 4.51
INV EL: 18" RCP (NW) = -1.74
INV EL: 18" RCP (S) = -1.85
FLOWLINE EL: 4.01

S-20
STA. 13+78.74, 15.68' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 4.51
INV EL: 15" RCP (N) = -1.68
FLOWLINE EL: 4.01

S-18A
STA. 911+70.17, 13.87' RT.
PROP COT TYPE 1 CURB INLET
RIM: 4.52
INV EL: 15" RCP (NW) = -1.00
INV EL: 18" RCP (SE) = -1.12
FLOWLINE EL: 4.05

S-18B
STA. 911+70.75, 13.94' LT.
PROP COT TYPE 1 CURB INLET
RIM: 4.52
INV EL: 15" RCP (SE) = -0.72
FLOWLINE EL: 4.05

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST. - STORMWATER
PLAN

SHEET 21 of 105

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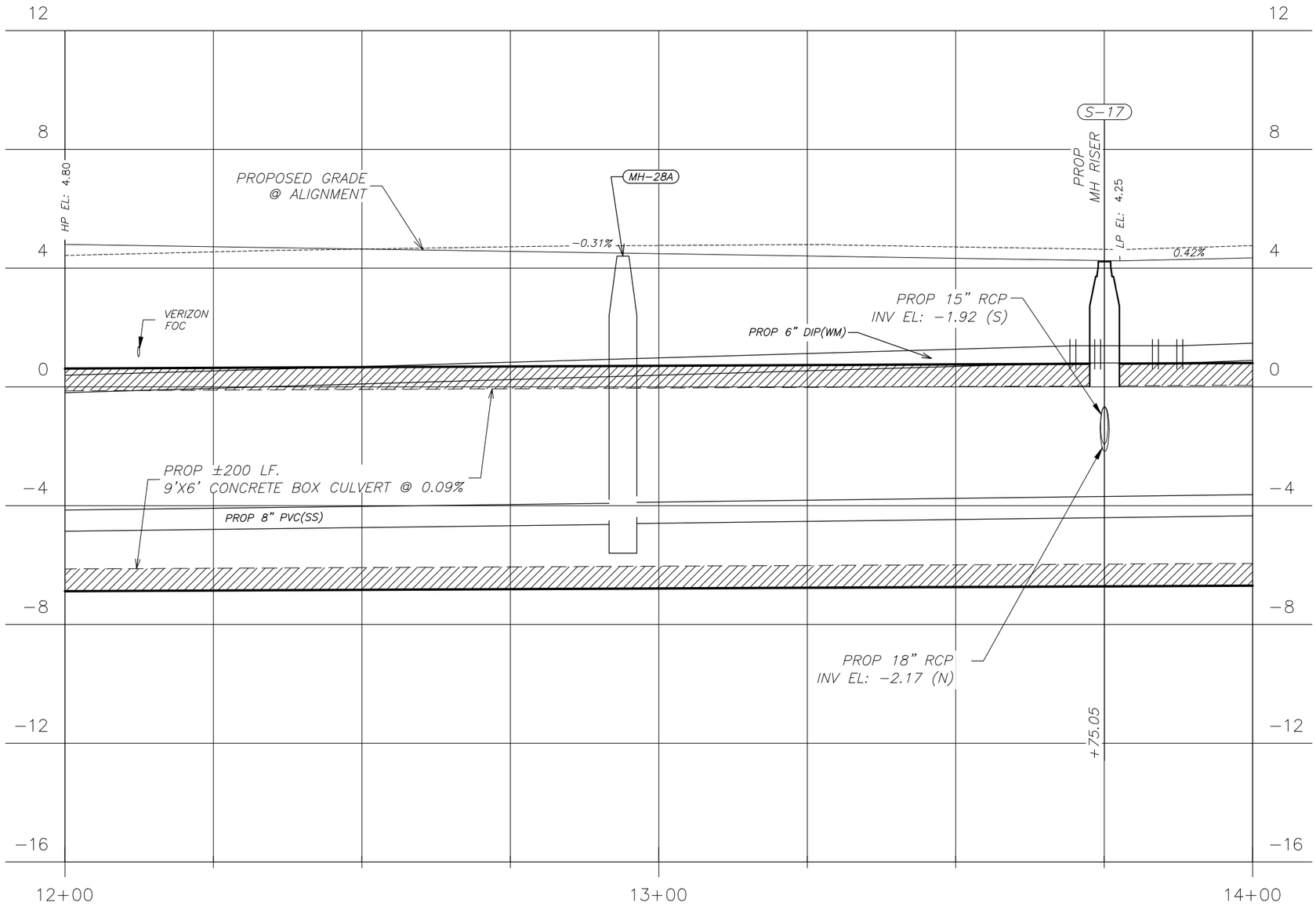
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST. - STORMWATER
PROFILE

SHEET 22 of 105

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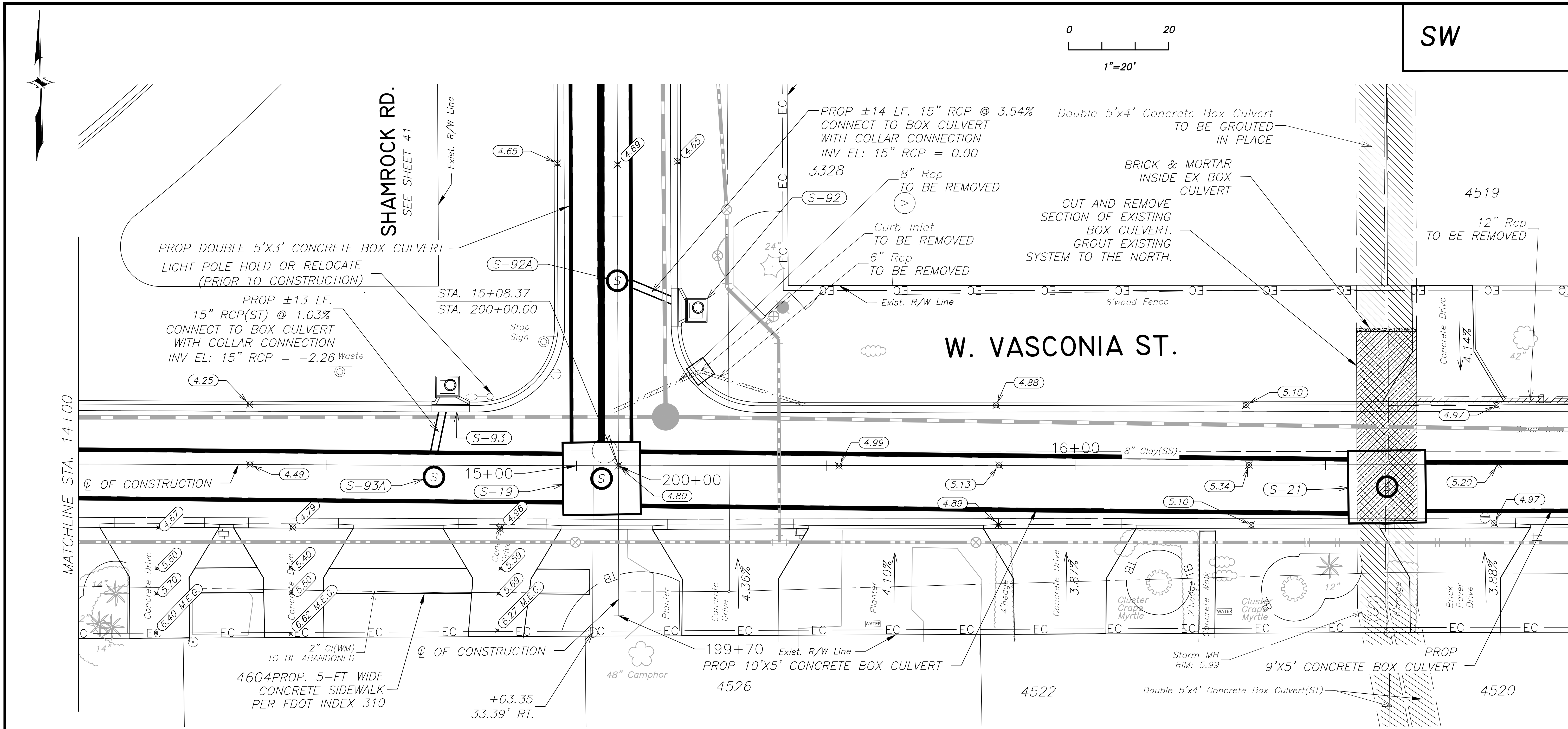
SW



0
20
1"=20'
SHAMROCK RD.
SEE SHEET 41
Exist. R/W Line
PROP DOUBLE 5'X3' CONCRETE BOX CULVERT
LIGHT POLE HOLD OR RELOCATE
(PRIOR TO CONSTRUCTION)
PROP ±13 LF.
15" RCP(ST) @ 1.03%
CONNECT TO BOX CULVERT
WITH COLLAR CONNECTION
INV EL: 15" RCP = -2.26
Waste
STA. 15+08.37
STA. 200+00.00
Stop Sign
S-92A
S-92
S-93
S-93A
S-19
S-21
PROP ±14 LF. 15" RCP @ 3.54%
CONNECT TO BOX CULVERT
WITH COLLAR CONNECTION
INV EL: 15" RCP = 0.00
3328
8" Rcp
TO BE REMOVED
Curb Inlet
TO BE REMOVED
6" Rcp
TO BE REMOVED
Double 5'x4' Concrete Box Culvert
TO BE GROUTED
IN PLACE
BRICK & MORTAR
INSIDE EX BOX
CULVERT
CUT AND REMOVE
SECTION OF EXISTING
BOX CULVERT.
GROUT EXISTING
SYSTEM TO THE NORTH.
4519
12" Rcp
TO BE REMOVED
Exist. R/W Line
6'wood Fence
W. VASCONIA ST.
MATCHLINE STA. 14+00
MATCHLINE STA. 17+00
℄ OF CONSTRUCTION
15+00
16+00
200+00
8" Clay(SS)
4.65
4.89
4.25
4.49
4.80
4.88
5.10
4.97
4.99
5.13
5.34
5.20
4.89
5.10
4.97
4.67
4.79
4.96
5.60
5.70
5.40
5.50
5.59
5.69
6.40 M.E.G.
6.62 M.E.G.
6.27 M.E.G.
Concrete Drive
4.36%
4.10%
3.87%
3.88%
4.14%
Planter
Cluster Crape Myrtle
Concrete Walk
2' hedge
4' hedge
Brick Paver Drive
12"
14"
42"
24"
2" CI(WM)
TO BE ABANDONED
4604PROP. 5-FT-WIDE
CONCRETE SIDEWALK
PER FDOT INDEX 310
℄ OF CONSTRUCTION
+03.35
33.39' RT.
199+70
Exist. R/W Line
PROP 10'X5' CONCRETE BOX CULVERT
48" Camphor
4526
4522
Storm MH
RIM: 5.99
PROP
9'X5' CONCRETE BOX CULVERT
Double 5'x4' Concrete Box Culvert(ST)
4520

S-19
STA. 15+05.05, 2.52' RT.
PROP 13'X14' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 10'X5' CONCRETE BOX CULVERT (E) = -5.79
INV EL: 9'X6' CONCRETE BOX CULVERT (W) = -5.84
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
MH RISER RIM: 4.74

S-93
STA. 14+74.11, 15.70' LT.
PROP COT TYPE BS-1 CURB INLET
RIM: 4.91
INV EL: 15" RCP (S) = -2.12
FLOWLINE EL: 4.41

S-93A
STA. 14+71.46, 2.35' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.60

S-21
STA. 16+62.29, 4.38' RT.
PROP 13'X14' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 5'X4' CONCRETE BOX CULVERT (S) = -0.41
INV EL: 5'X4' CONCRETE BOX CULVERT (S) = -0.41
INV EL: 9'X5' CONCRETE BOX CULVERT (E) = -5.65
INV EL: 10'X5' CONCRETE BOX CULVERT (W) = -5.65
MH RISER RIM: 5.19

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PLAN

SHEET
23
105

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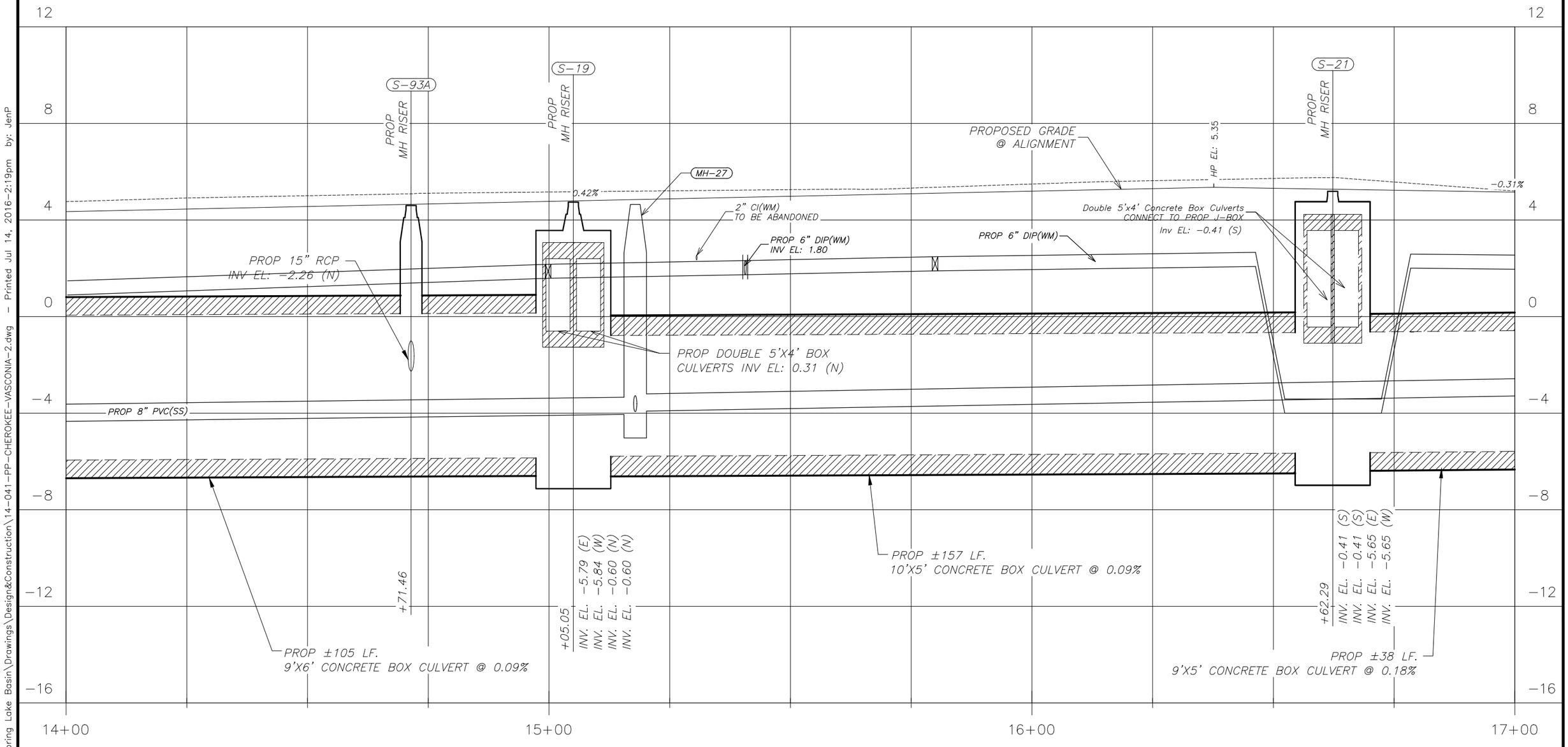
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

DES: ALC
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CITY of TAMPA
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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PROFILE

SHEET 24 OF 105

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0 20

1"=20'

W. VASCONIA ST.

Curb Inlet
TO BE REMOVED

12" Rcp
TO BE REMOVED

POLE TO BE
HELD IN PLACE

Exist. R/W Line

PROP ±20 LF. 15" RCP C-IV @ 0.99%

4517 4513 4509

Concrete Drive 5.26%

Concrete Drive 3.89%

Verizon

Verizon Fiber Optic

Planter ±25.70' LT. 35.86' LT.

Brick Paver Drive

S-24 S-25 S-22 S-23

17+00 18+00 19+00 20+00

MATCHLINE STA. 17+00

MATCHLINE STA. 20+00

PROP ±12 LF. 15" RCP @ 1.73%

PROP 9'X5' CONCRETE BOX CULVERT

℄ OF CONSTRUCTION

REMOVE EXISTING
CURB INLET

Brick Paver Drive 4.47%

Brick Paver Walk

2" CI(WM)

Verizon

Concrete Drive 2.65%

Concrete Drive 1.18%

Verizon Fiber Optic

Clean Out

12" Rcp
TO BE REMOVED

Exist. R/W Line

4520 4516 4510 4508

S-22
STA. 17+39.37, 4.33' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.95
INV EL: 15" RCP (S) = 1.70
INV EL: 15" RCP C-IV (N) = 1.70

S-23
STA. 17+41.59, 15.70' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.23
INV EL: 15" RCP (N) = 1.90
FLOWLINE EL: 4.73

S-24
STA. 17+41.50, 15.69' LT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.23
INV EL: 15" RCP C-IV (S) = 1.90
FLOWLINE EL: 4.73

S-25
STA. 19+57.42, 4.19' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 5.48

NOTE:
SEE SEPARATE PLANS FOR
WATER AND WASTEWATER
DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
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and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PLAN

SHEET 25 OF 105

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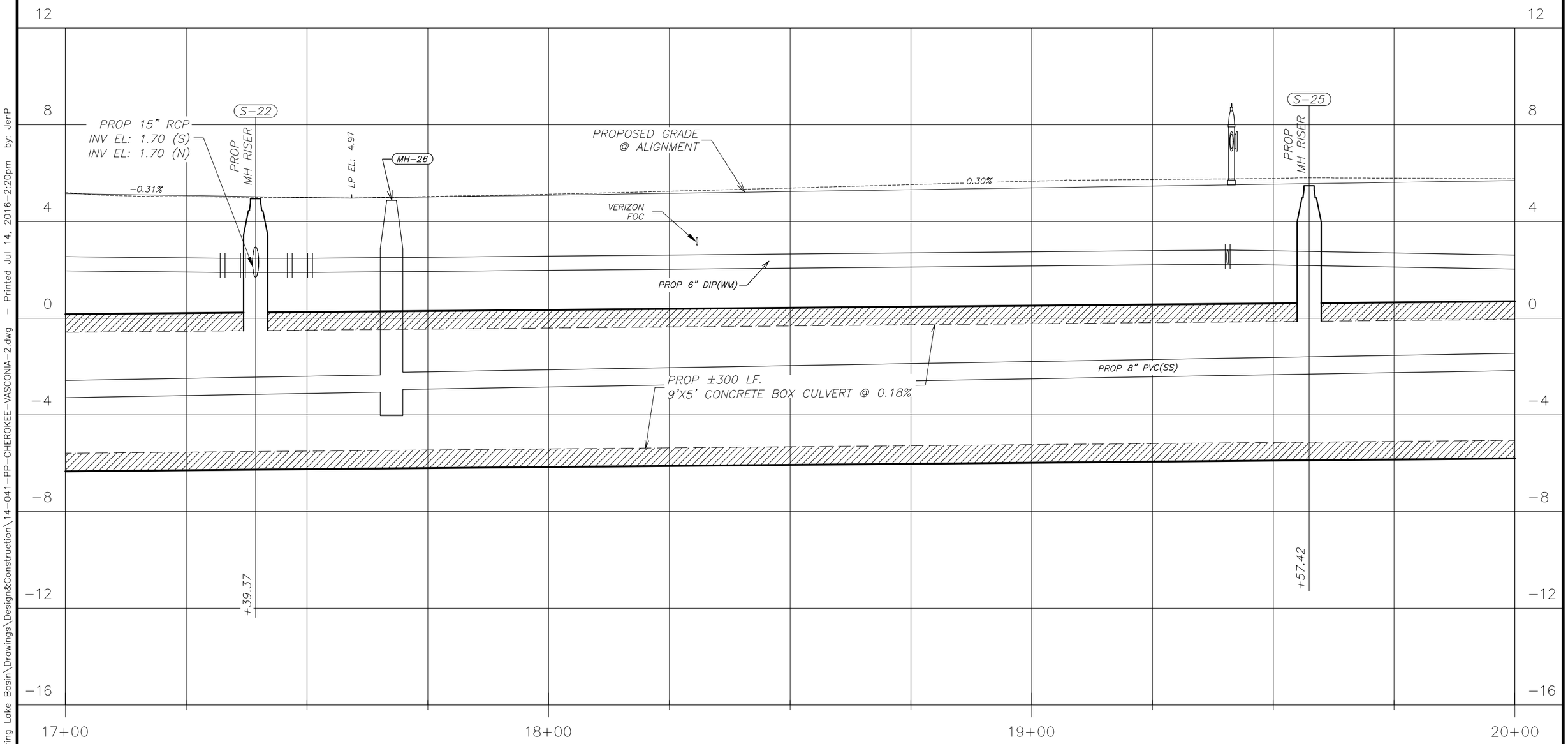
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PROFILE

SHEET 26 of 105

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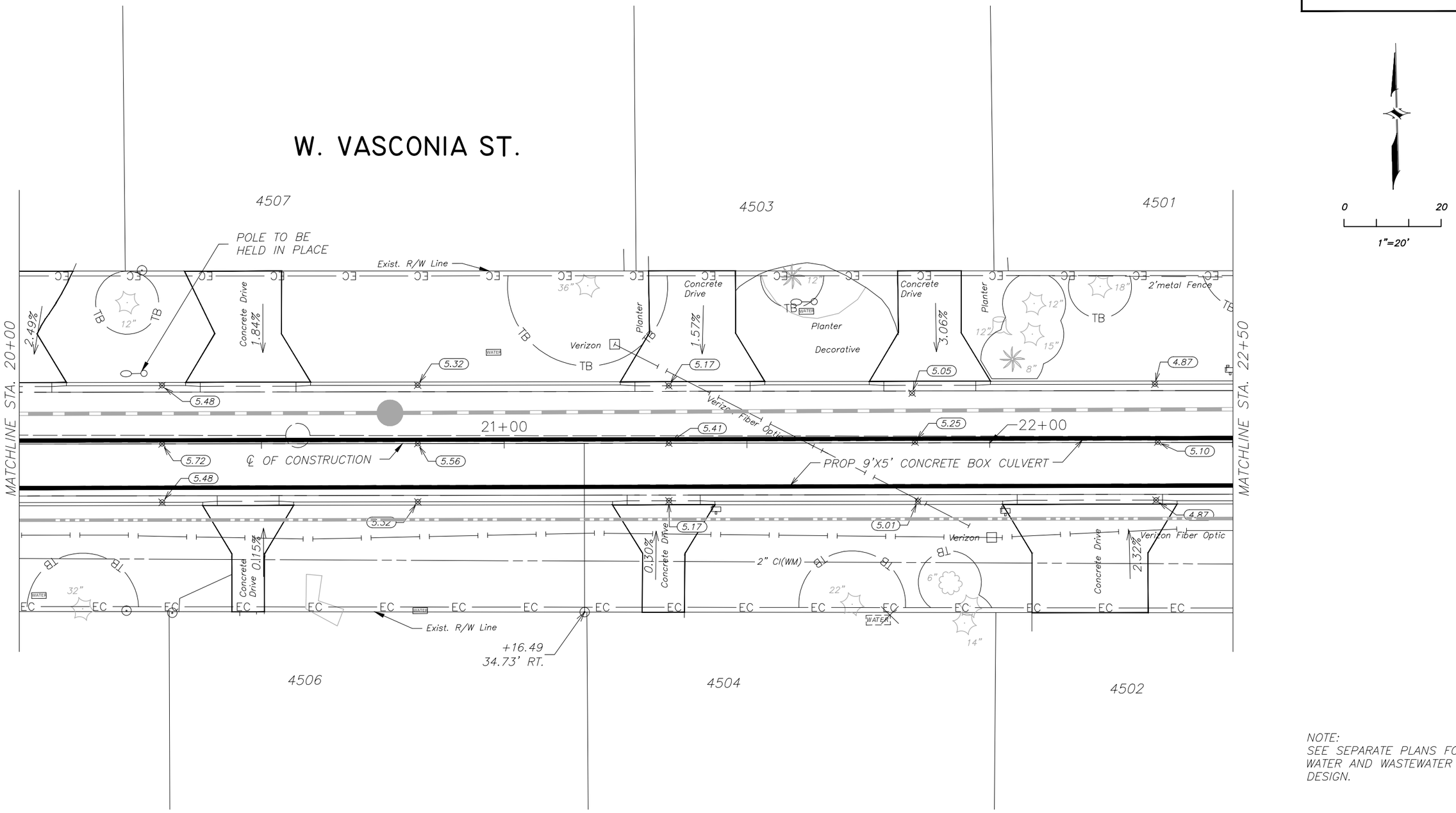
SW

W. VASCONIA ST.



0 20

1"=20'

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PLAN

SHEET 27 of 105

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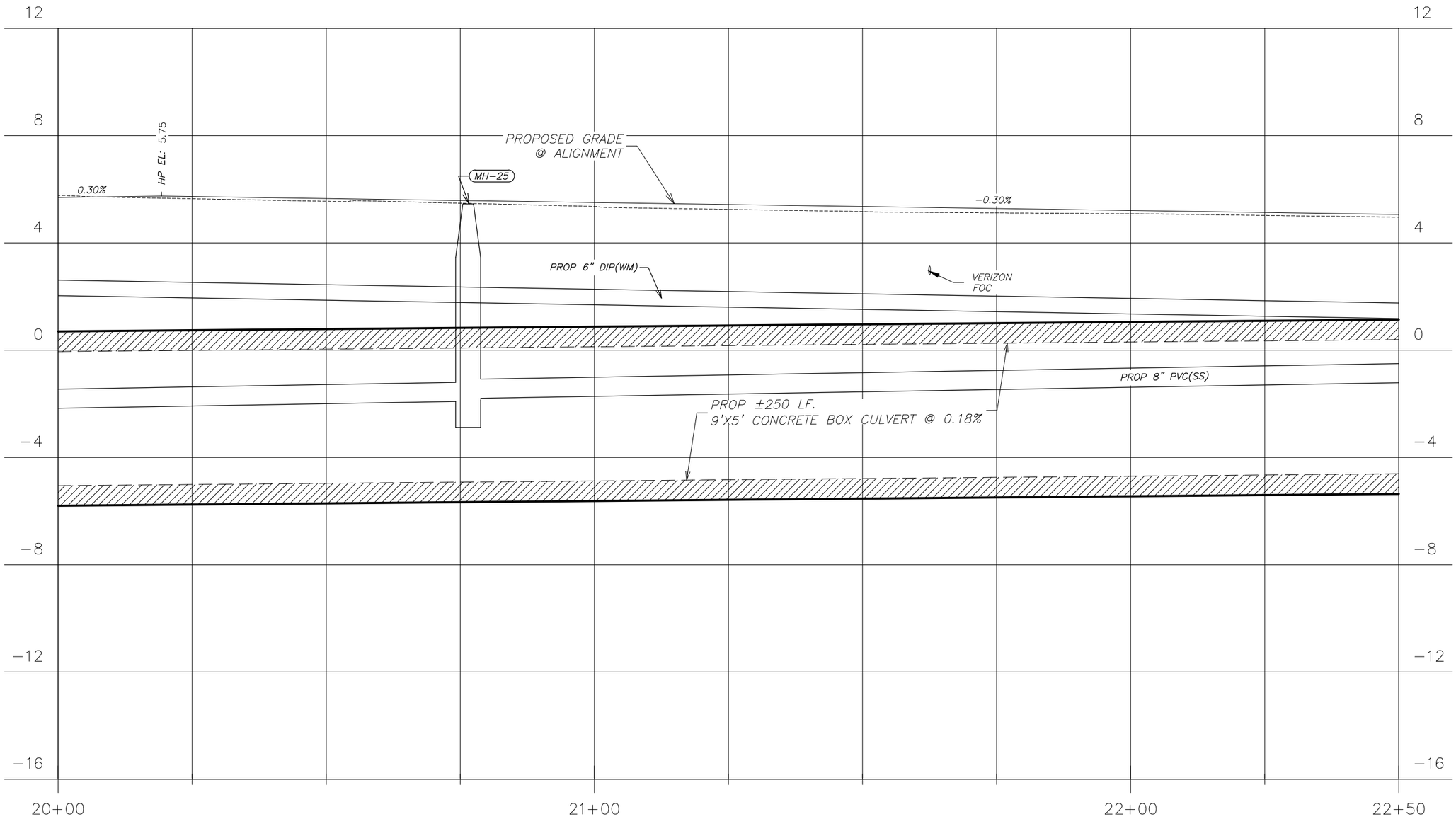
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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1			4		

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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PROFILE

SHEET 28 OF 105

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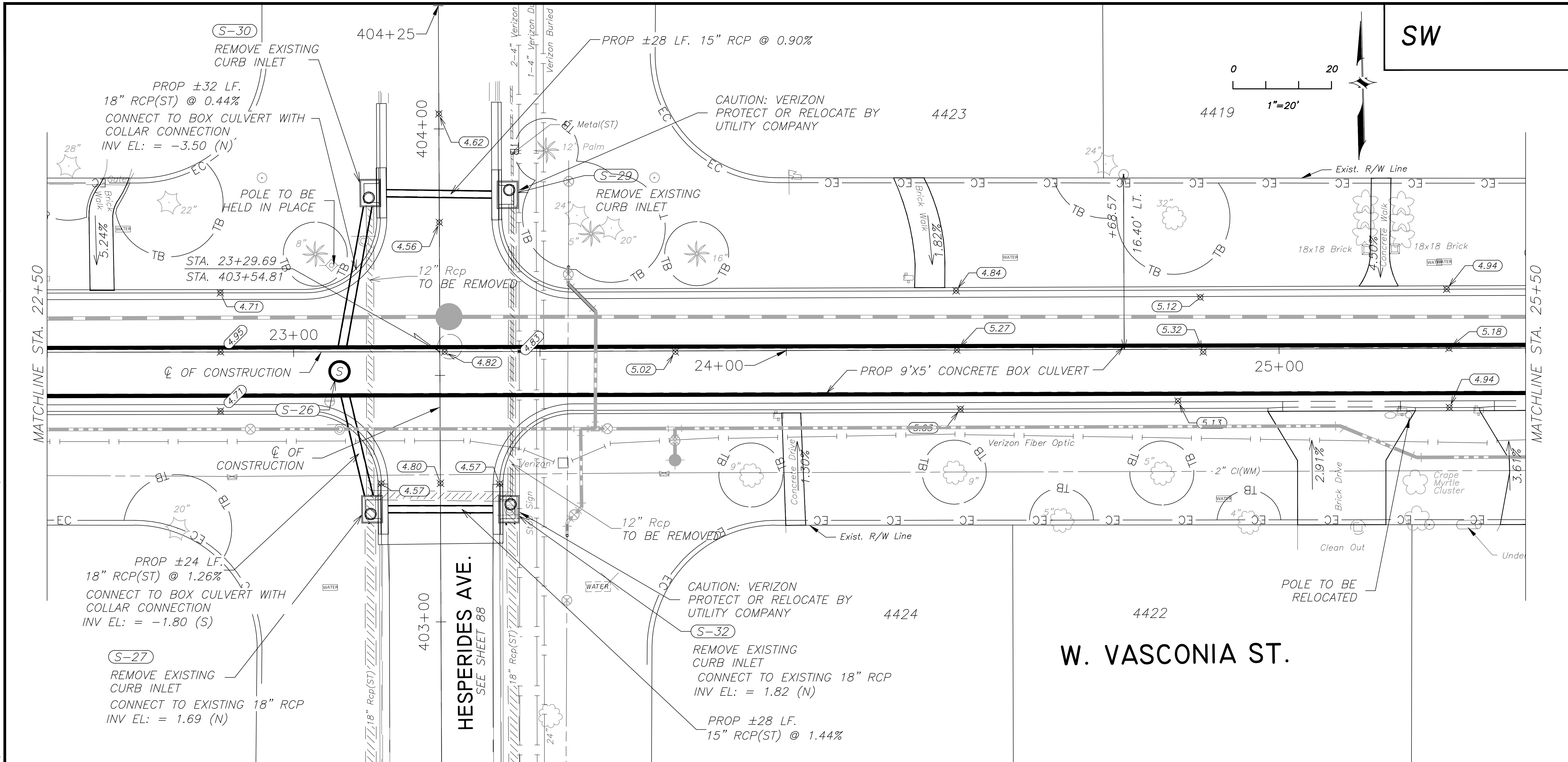

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

S-26
STA. 23+09.31, 3.96' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.80

S-27
STA. 23+15.88, 31.94' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.03
INV EL: 15" RCP (E) = -1.40
INV EL: 18" RCP (N) = -1.50
INV EL: 18" RCP (S) = 1.69
FLOWLINE EL: 4.53

S-29
STA. 23+43.54, 31.78' LT.
PROP COT TYPE 1 CURB INLET
RIM: 4.81
INV EL: 15" RCP (W) = 0.80
INV EL: 4" Metal (N) = 1.83
FLOWLINE EL: 4.31

S-30
STA. 23+15.60, 32.21' LT.
PROP COT TYPE 1 CURB INLET
RIM: 4.81
INV EL: 15" RCP (E) = 0.55
INV EL: 18" RCP (S) = -3.36
FLOWLINE EL: 4.31

S-32
STA. 23+43.61, 32.01' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.03
INV EL: 15" RCP (W) = -1.00
INV EL: 18" RCP (S) = 1.82
FLOWLINE EL: 4.53

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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1			4		

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UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PLAN

SHEET 29
105

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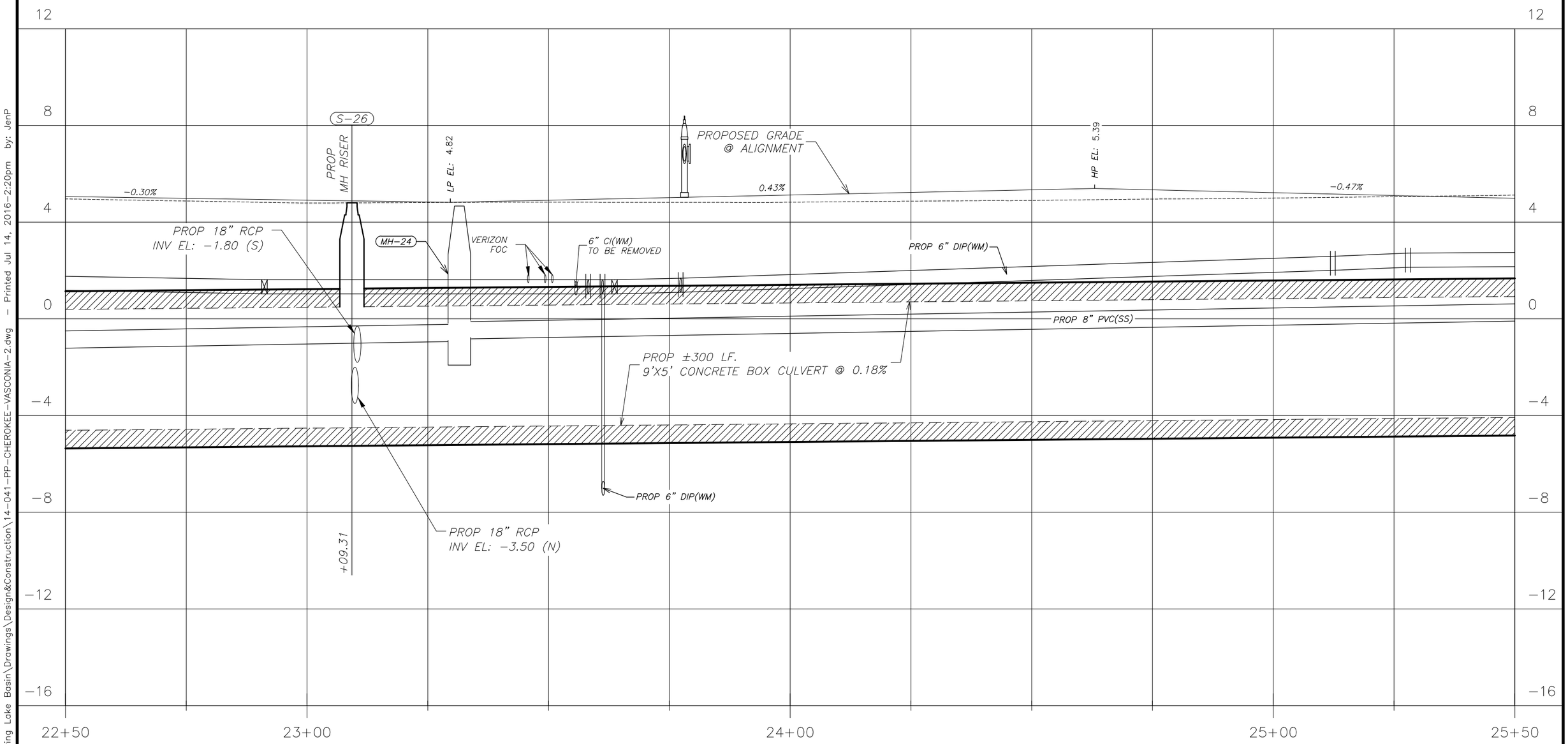
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PROFILE

SHEET 30 of 105

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SW

0 20

1"=20'

PROP ±15 LF. 15" RCP @ 1.29%
CONNECT TO BOX CULVERT WITH
COLLAR CONNECTION
INV EL: = −1.40 (SE)

PROP. 5−FT−WIDE
CONCRETE SIDEWALK
PER FDOT INDEX 310

PROP ±14 LF. 15" RCP @ 3.90%
CONNECT TO BOX CULVERT WITH
COLLAR CONNECTION
INV EL: = −2.24 (N)

4415 4411 4407

Exist. R/W Line

+23.95
33.81' LT.

Clean Out

Brick Drive 2.85%

Concrete 0.69%

Concrete Drive 1.08%

Brick Walk 2.08%

10" Magnolia

4" Crape Myrtle

5" Elm

26"

35"

S−36 18x18 Brick

S−37

S−34A

S−38

26+00

27+00

28+00

MATCHLINE STA. 25+50

MATCHLINE STA. 28+50

℄ OF CONSTRUCTION

PROP 9'X5' CONCRETE BOX CULVERT

Verizon Fiber Optic

Concrete Walk

S−37A

Brick Drive 2.33%

Concrete Drive 0.97%

Brick Drive 2.28%

5'hedge

Decorative

2" CI(WM)

POLE TO BE
HELD IN PLACE

Clean Out

24"

34"

9"

5"

Exist. R/W Line

rground Lp Tank

PROP. 5−FT−WIDE
CONCRETE SIDEWALK
PER FDOT INDEX 310

PROP ±7 LF. 15" RCP @ 5.52%
CONNECT TO BOX CULVERT WITH
COLLAR CONNECTION
INV EL: = −2.11 (N)

PROP ±5 LF. 15" RCP @ 3.27%
CONNECT TO BOX CULVERT WITH
COLLAR CONNECTION
INV EL: = −1.21 (SE)

4418 4416 4414 4410

W. VASCONIA ST.

S−34
STA. 25+71.30, 15.70' RT.
PROP COT TYPE BV−1 CURB INLET
RIM: 5.17
INV EL: 15" RCP (NW) = −1.00
FLOWLINE EL: 4.67

S−34A
STA. 25+65.90, 4.25' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.82

S−36
STA. 25+67.25, 15.76' LT.
PROP COT TYPE BV−1 CURB INLET
RIM: 5.18
INV EL: 15" RCP (S) = −1.91
FLOWLINE EL: 4.67

S−37
STA. 28+37.40, 13.92' LT.
PROP COT TYPE 1 CURB INLET
RIM: 5.58
INV EL: 15" RCP (S) = −1.70
FLOWLINE EL: 5.08

S−38
STA. 28+35.89, 4.60' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 5.23

S−37A
STA. 28+39.62, 13.93' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.61
INV EL: 15" RCP (NW) = −1.05
FLOWLINE EL: 5.08

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PLAN

SHEET 31 of 105

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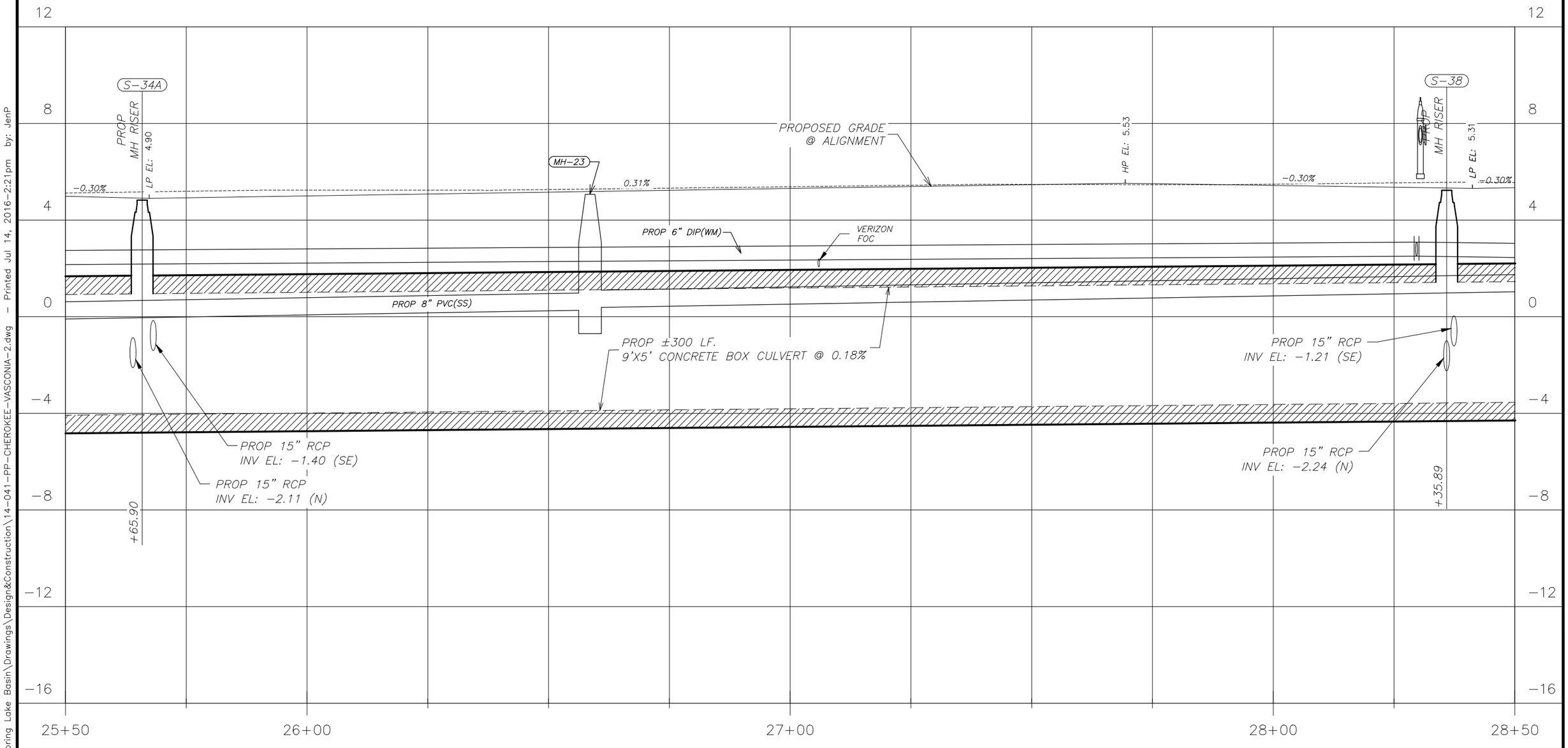
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PROFILE

SHEET 32 OF 105

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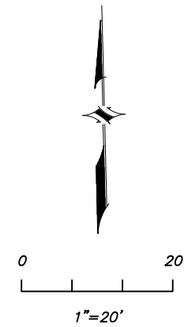
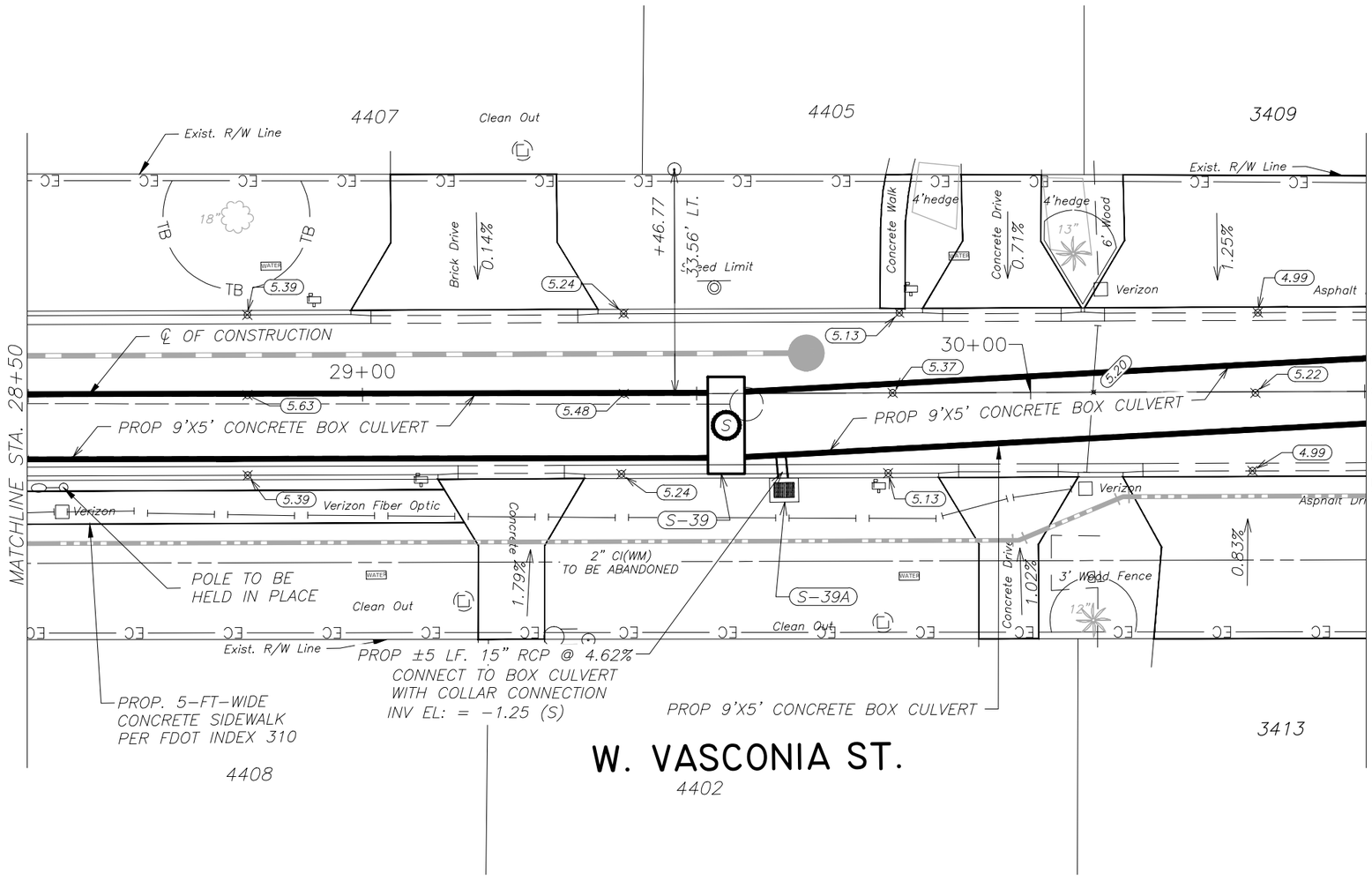
SW





(S-39)
STA. 29+54.43, 4.76' RT.
PROP 13'X4' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 9'X5' CONCRETE BOX CULVERT (W) = -3.36
INV EL: 9'X5' CONCRETE BOX CULVERT (E) = -3.36
MH RISER RIM: 5.35

(S-39A)
STA. 29+63.06, 14.48' RT.
PROP 2'X4' COT TYPE "T" GRATE INLET
INV EL: 15" RCP (N) = -1.00
GRATE EL = 5.40

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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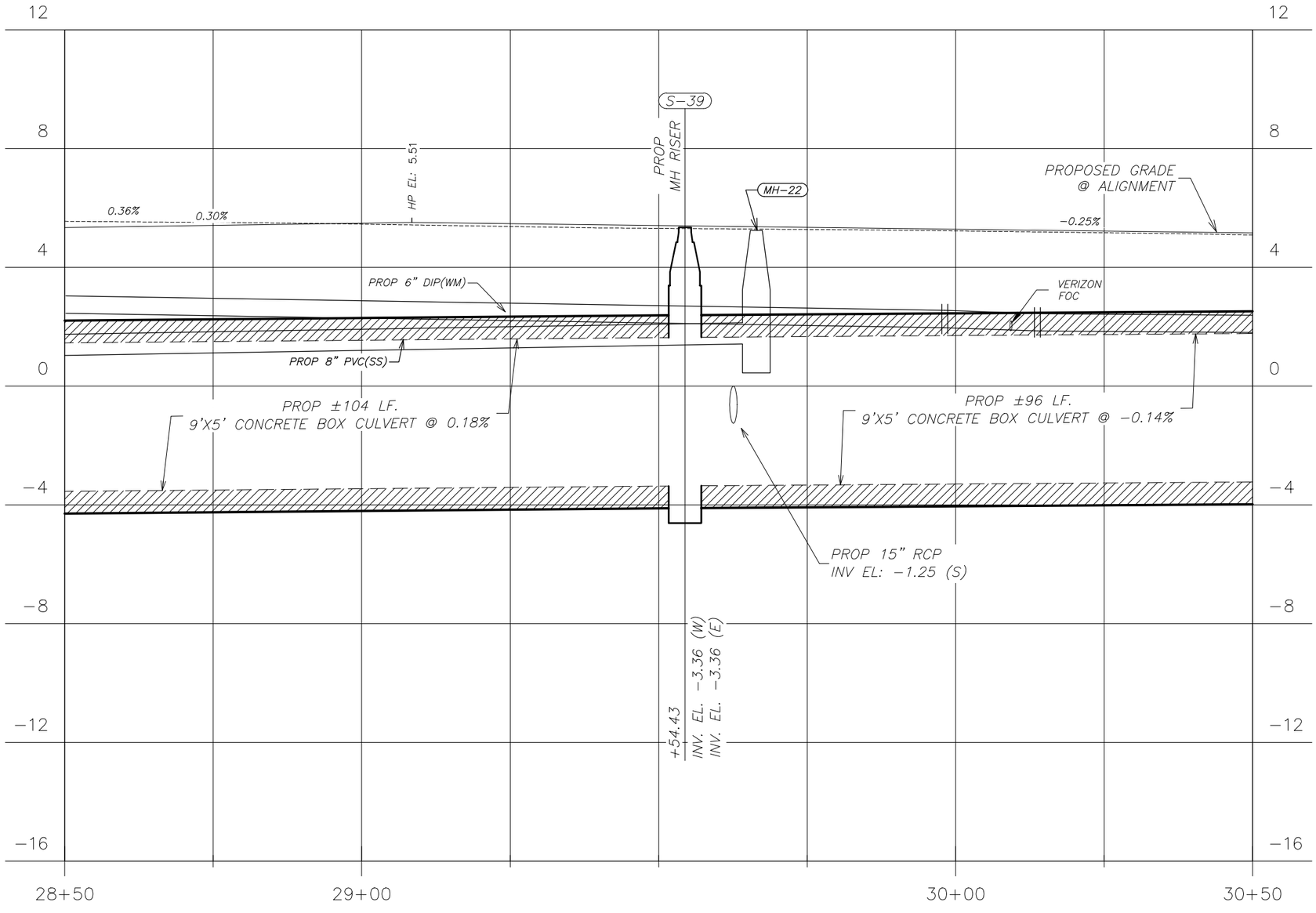
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PLAN

SHEET 33 OF 105

SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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W. VASCONIA STREET - STORMWATER PROFILE

SHEET 34 OF 105

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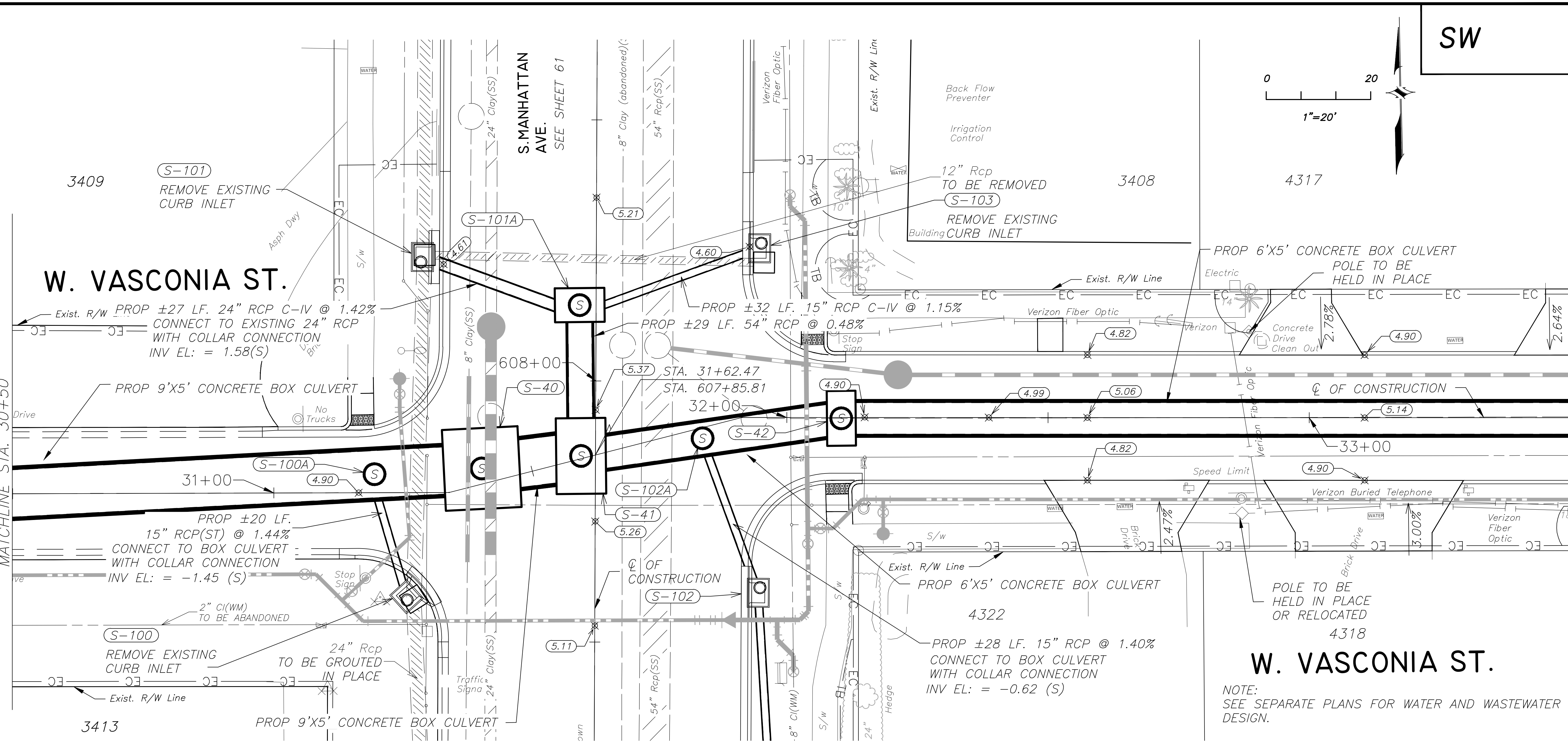
0 20
1"=20'
3409
S-101
REMOVE EXISTING CURB INLET
S.MANHATTAN AVE. SEE SHEET 61
S-101A
5.21
12" Rcp TO BE REMOVED
S-103
REMOVE EXISTING CURB INLET
3408
4317
Back Flow Preventer
Irrigation Control
W. VASCONIA ST.
4.61
4.60
PROP 6'X5' CONCRETE BOX CULVERT
POLE TO BE HELD IN PLACE
Exist. R/W Line
PROP ±27 LF. 24" RCP C-IV @ 1.42% CONNECT TO EXISTING 24" RCP WITH COLLAR CONNECTION INV EL: = 1.58(S)
PROP ±32 LF. 15" RCP C-IV @ 1.15%
PROP ±29 LF. 54" RCP @ 0.48%
Verizon Fiber Optic
4.82
4.90
2.78%
2.64%
PROP 9'X5' CONCRETE BOX CULVERT
608+00
5.37
STA. 31+62.47
STA. 607+85.81
32+00
S-40
4.90
4.99
5.06
OF CONSTRUCTION
5.14
MATCHLINE STA. 30+50
MATCHLINE STA. 33+50
S-42
33+00
S-100A
4.90
31+00
S-102A
4.82
4.90
Speed Limit
Verizon Buried Telephone
PROP ±20 LF. 15" RCP(ST) @ 1.44% CONNECT TO BOX CULVERT WITH COLLAR CONNECTION INV EL: = -1.45 (S)
S-41
5.26
2.47%
3.00%
OF CONSTRUCTION
S-102
Exist. R/W Line
PROP 6'X5' CONCRETE BOX CULVERT
POLE TO BE HELD IN PLACE OR RELOCATED
2" CI(WM) TO BE ABANDONED
4322
4318
S-100
REMOVE EXISTING CURB INLET
24" Rcp TO BE GROUTED IN PLACE
5.11
PROP ±28 LF. 15" RCP @ 1.40% CONNECT TO BOX CULVERT WITH COLLAR CONNECTION INV EL: = -0.62 (S)
W. VASCONIA ST.
Exist. R/W Line
3413
PROP 9'X5' CONCRETE BOX CULVERT

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

S-42
STA. 32+10.42, 0.14' RT.
PROP 9'X4' FDOT J-BOX W/MH RISER PER INDEX 292
INV EL: 6'X5' CONCRETE BOX CULVERT (E) = -2.46
INV EL: 6'X5' CONCRETE BOX CULVERT (W) = -2.48
MH RISER RIM: 4.88

S-41
STA. 31+59.75, 0.51' LT.
PROP 13'X8' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" RCP (N) = -3.07
INV EL: 6'X5' CONCRETE BOX CULVERT (E) = -2.60
INV EL: 9'X5' CONCRETE BOX CULVERT (W) = -3.07
MH RISER RIM: 5.41

S-40
STA. 31+40.72, 2.90' LT.
PROP 13'X14' FDOT J-BOX/CONFLICT STRUCTURE W/MH RISER PER INDEX 292
INV EL: 9'X5' CONCRETE BOX CULVERT (E) = -3.10
INV EL: 9'X5' CONCRETE BOX CULVERT (W) = -3.10
MH RISER RIM: 4.95

S-100
STA. 31+25.34, 19.95' RT.
PROP COT TYPE BR-1 CURB INLET
RIM: 4.97
INV EL: 15" RCP (N) = -1.17
INV EL: 24" RCP (S) = 1.45
FLOWLINE EL: 4.51

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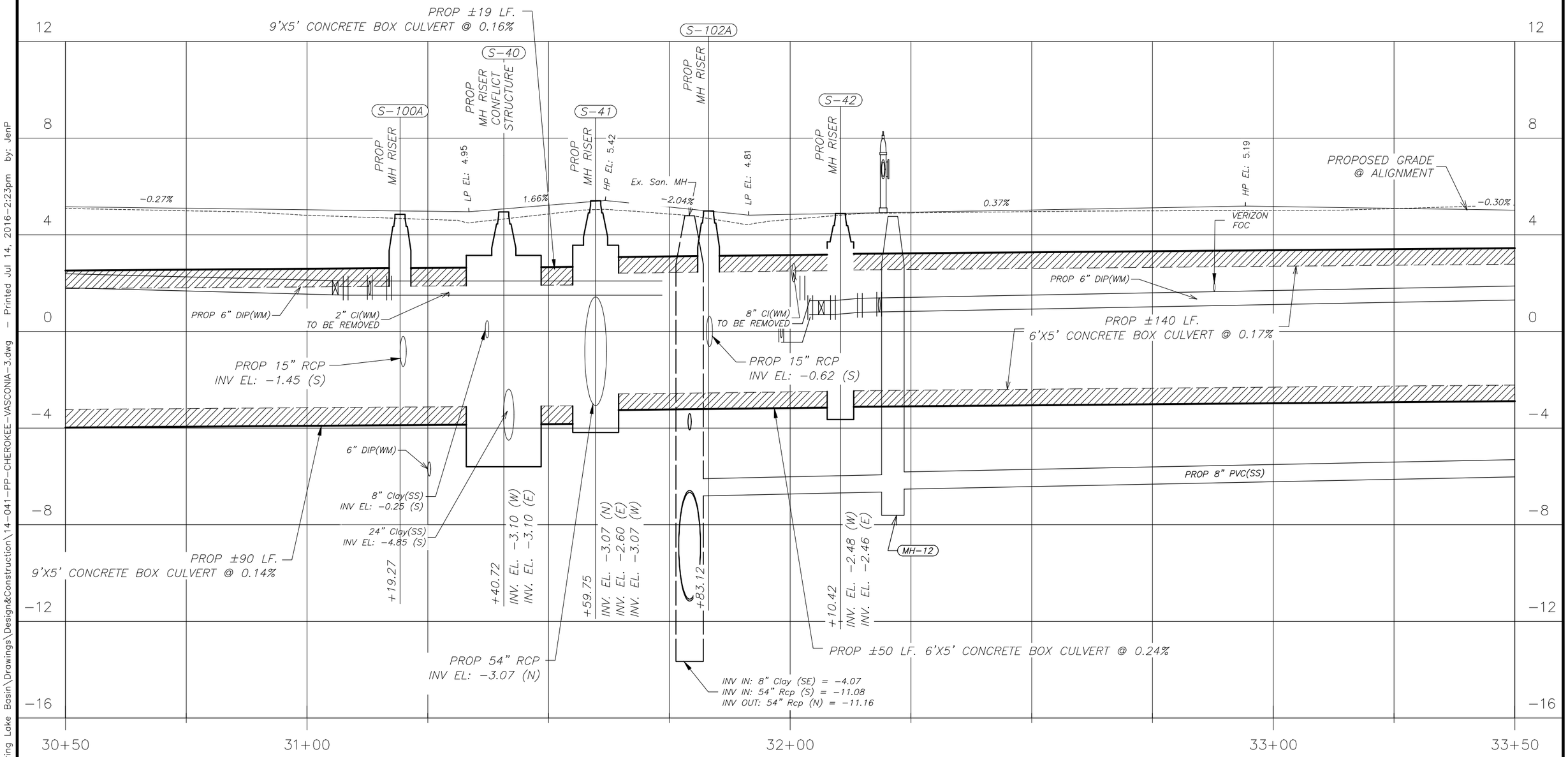
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PLAN

SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PROFILE

SHEET 36
CF 105

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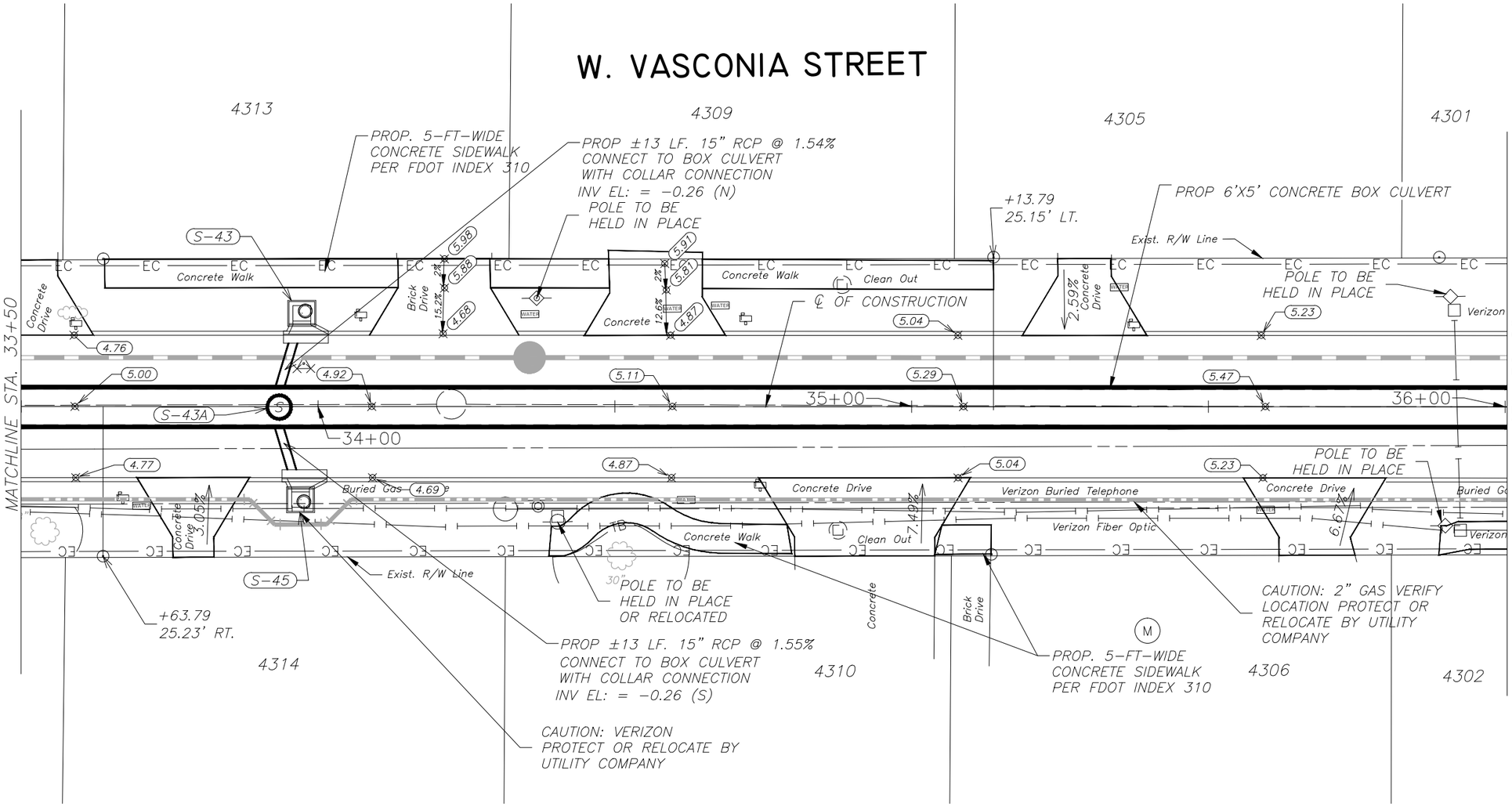
SW

W. VASCONIA STREET



S-43A
STA. 33+93.46, 0.11' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.89

S-43
STA. 33+97.26, 15.69' LT.
PROP COT TYPE BS-1 CURB INLET
RIM: 5.15
INV EL: 15" RCP (S) = -0.06
FLOWLINE EL: 4.65

S-45
STA. 33+97.06, 15.70' RT.
PROP COT TYPE BS-1 CURB INLET
RIM: 5.15
INV EL: 15" RCP (N) = -0.06
FLOWLINE EL: 4.64

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

0 20
1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PLAN

SHEET 37 of 105

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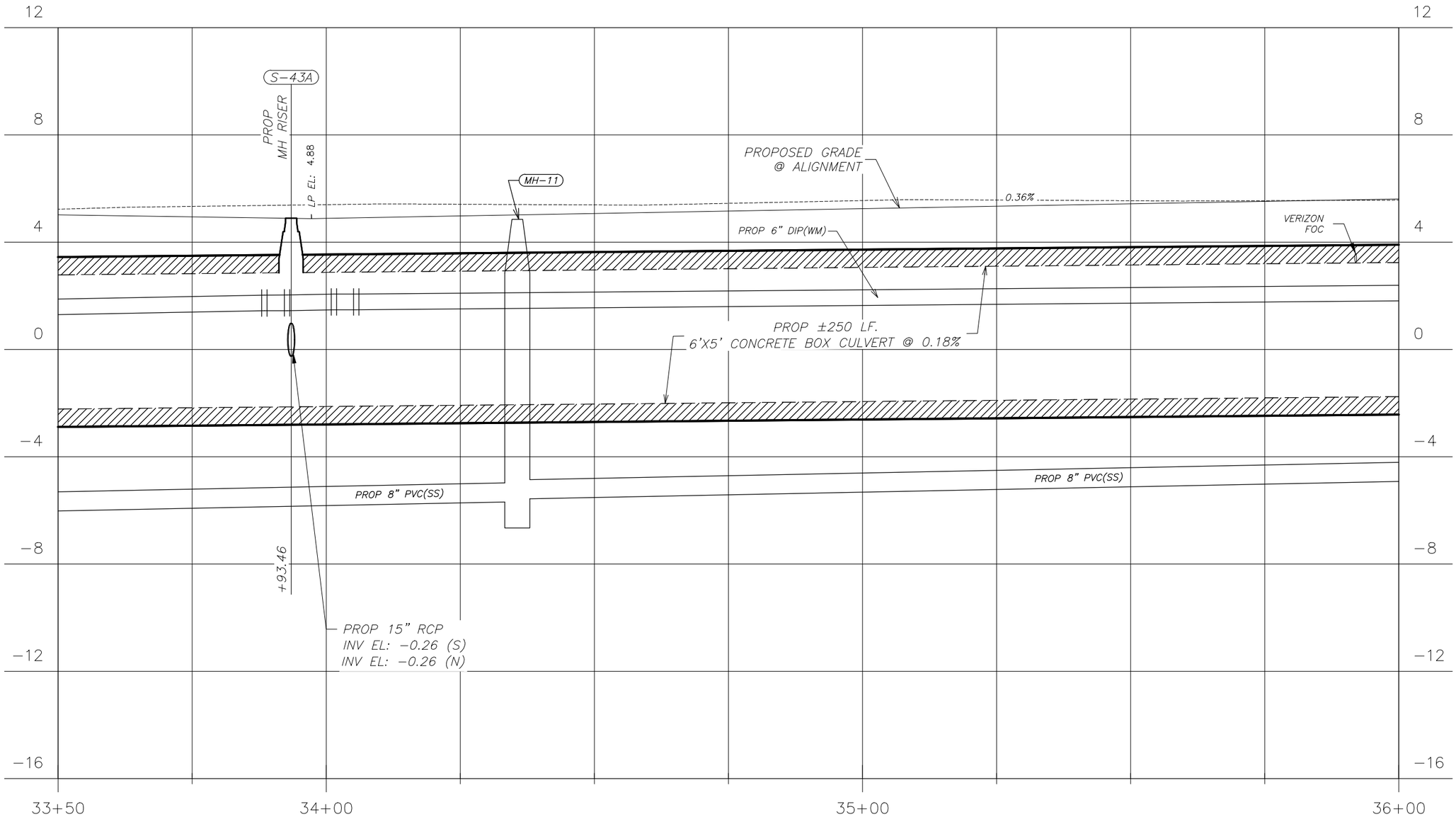
SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

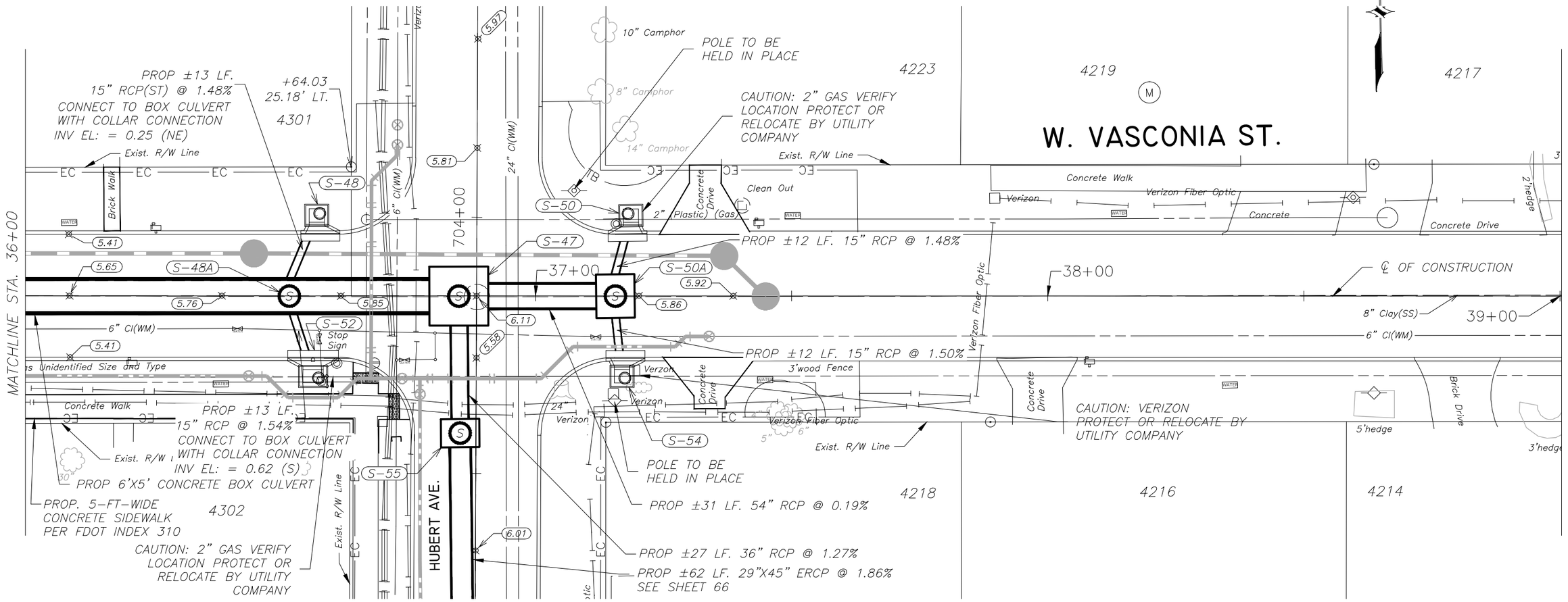
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER PROFILE

SHEET 38 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-CHEROKEE-VASCONIA-3.dwg - Printed Jul 14, 2016-2:24pm by: JenP

SW

0 20
1"=20'



S-47
STA. 36+85.03, 0.05' RT.
PROP 10'X10' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" RCP (E) = -1.60
INV EL: 48"X76" HOLE W/BULKHEAD FOR FUTURE CONNECTION (N) = -1.15
INV EL: 36" RCP (S) = -0.50
INV EL: 6'X5' CONCRETE BOX CULVERT (W) = -1.60
MH RISER RIM: 6.10

S-50A
STA. 37+15.60, 0.05' RT.
PROP 7'X6' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" HOLE W/BULKHEAD FOR FUTURE CONNECTION (E) = -1.53
INV EL: 15" RCP (S) = -0.06
INV EL: 15" RCP (N) = -0.15
INV EL: 54" RCP (W) = -1.54
MH RISER RIM: 5.86

S-48
STA. 36+57.30, 15.69' LT.
PROP COT TYPE BS-1 CURB INLET
RIM: 6.09
INV EL: 15" RCP (SW) = 0.45
FLOWLINE EL: 5.59

S-50
STA. 37+18.62, 15.66' LT.
PROP COT TYPE BS-1 CURB INLET
RIM: 6.11
INV EL: 15" RCP (S) = 0.03
FLOWLINE EL: 5.61

S-54
STA. 37+16.89, 15.70' RT.
PROP COT TYPE BS-1 CURB INLET
RIM: 6.11
INV EL: 15" RCP (N) = 0.11
FLOWLINE EL: 5.61

S-48A
STA. 36+51.95, 0.06' RT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 5.80

S-52
STA. 36+56.57, 15.71' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 6.08
INV EL: 15" RCP (N) = 0.82
FLOWLINE EL: 5.58

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

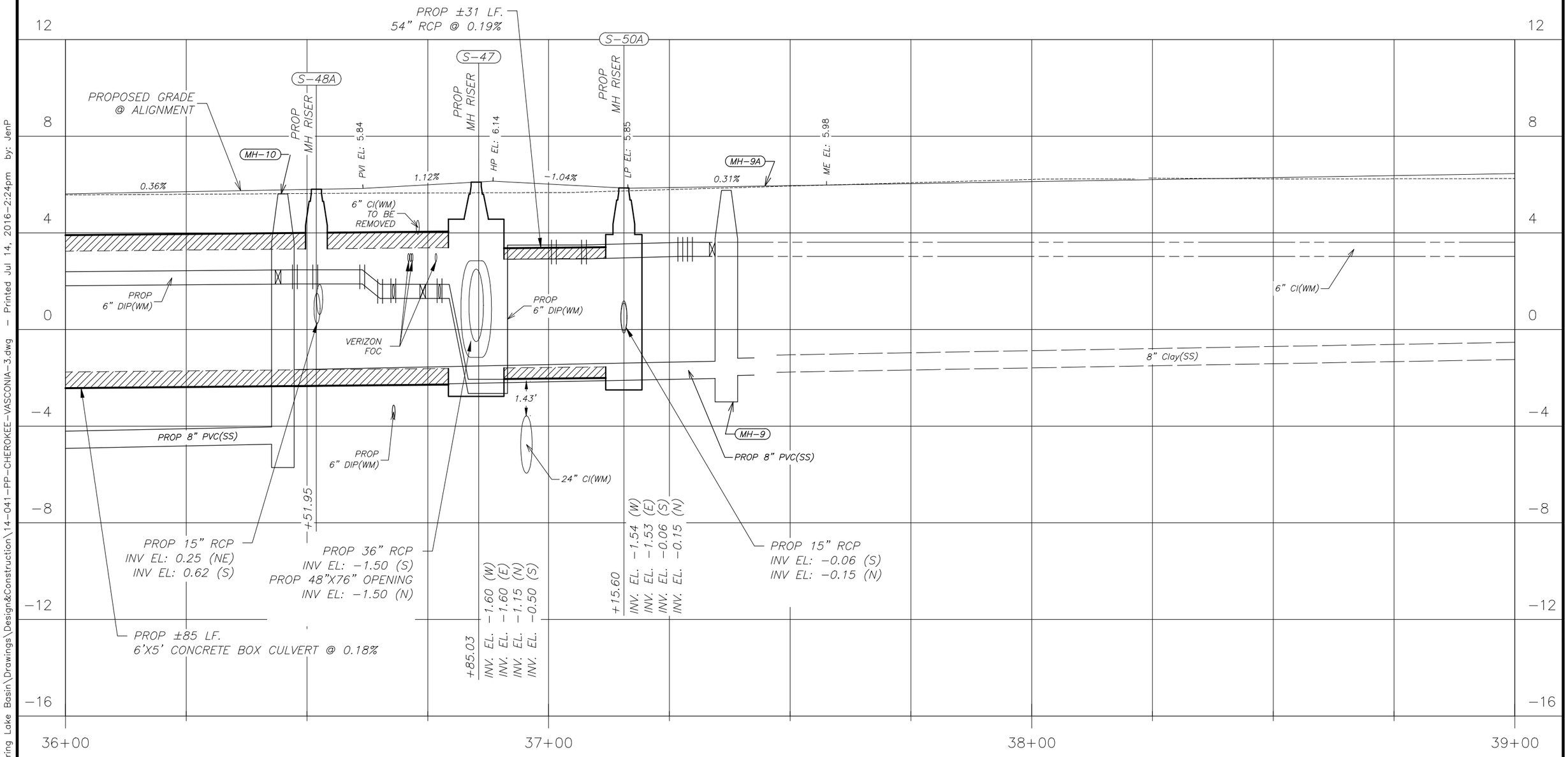
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PLAN

SHEET 39
105

SW



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - STORMWATER
PROFILE

SHEET
40
OF
105

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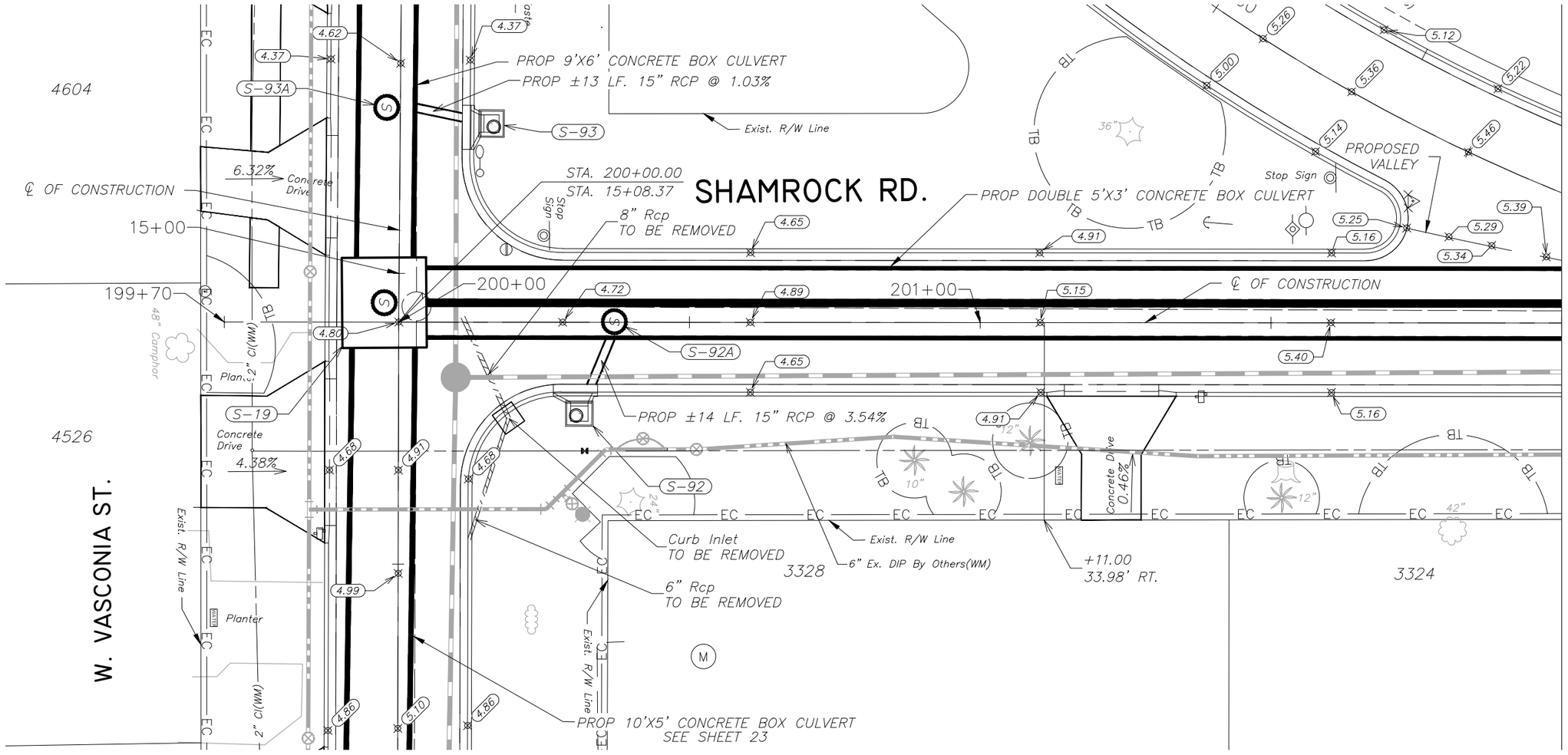
SW

0 20

1"=20'



S-19
STA. 15+05.05, 2.52' RT.
PROP 13'X14' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 10'X5' CONCRETE BOX CULVERT (E) = -5.79
INV EL: 9'X6' CONCRETE BOX CULVERT (W) = -5.84
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
MH RISER RIM: 4.74

S-92
STA. 200+31.06, 15.71' RT.
PROP COT TYPE BS-1 CURB INLET
RIM: 5.01
INV EL: 15" RCP (NW) = 0.50
FLOWLINE EL: 4.50

S-92A
STA. 200+37.08, 0.10' LT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 4.77

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - STORMWATER
PLAN

SHEET 41 OF 105

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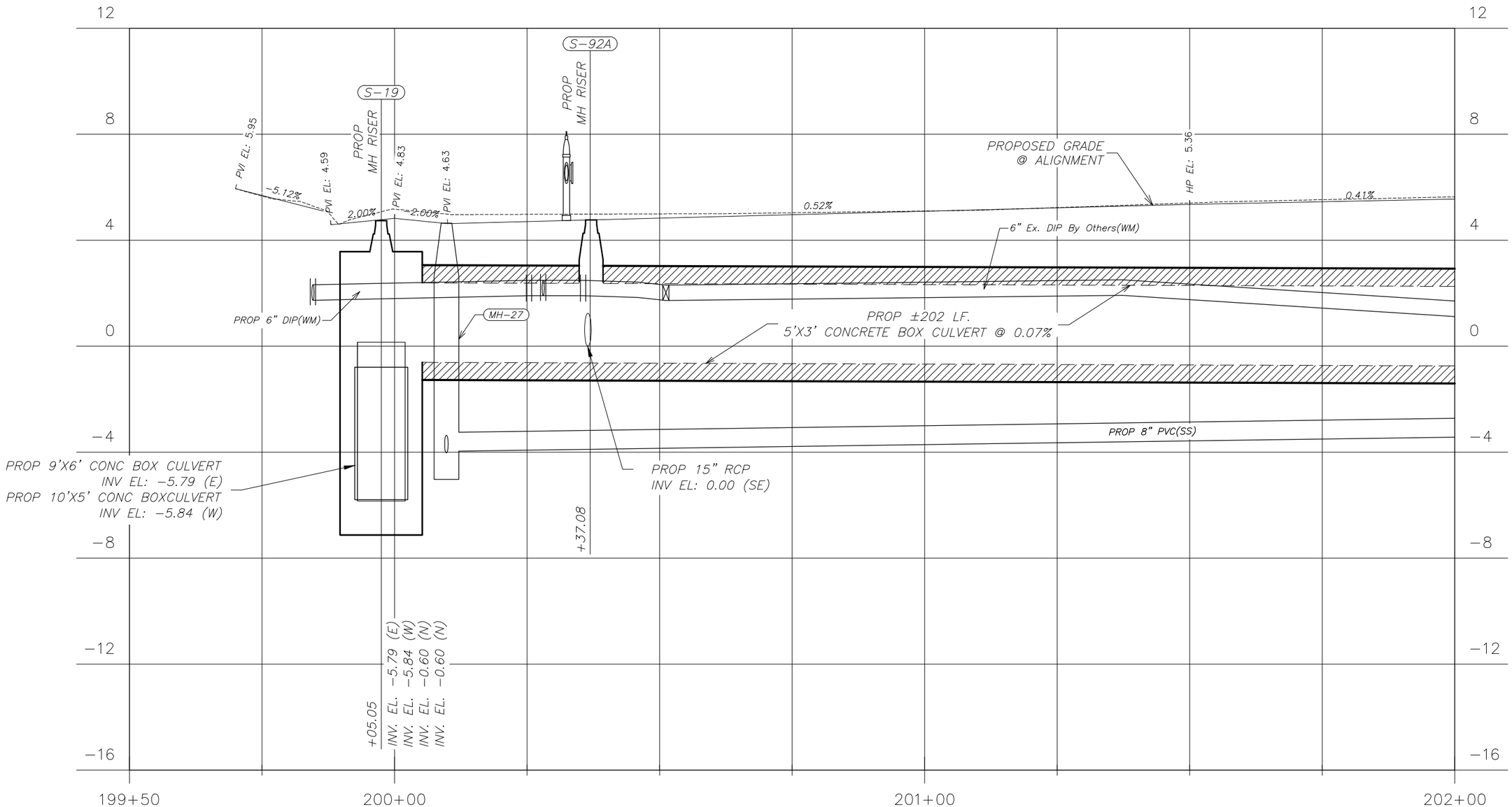
SW



SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - STORMWATER
PROFILE

SHEET 42 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK.dwg - Printed Jul 14, 2016-2:13pm by: JenP

SW

0 20

1"=20'

MATCHLINE STA: 202+00.00

MATCHLINE STA: 204+50.00

EC Exist. R/W Line

3323

3321

3315

3324

3322

3318

SHAMROCK RD.

SEVILLA ST.

SEE SHEET 47

CAUTION: 2" GAS PROTECT OR RELOCATE BY UTILITY COMPANY

POLE TO BE HELD IN PLACE

PROPOSED VALLEY

18' Elm

3'hedge

2'hedge

299+75

914+00

914+54

202+00

300+00

203+00

204+00

STA. 202+83.81

STA. 300+00.00

0.03% Concrete Drive

0.64% Concrete Drive

1.37% Concrete Drive

1.45% Brick Paver Drive

PROP DOUBLE 5'X4' CONCRETE BOX CULVERT

2" (Plastic) (Gas)

Clean Out

SUPPORT POWER POLE

PROP ±18 LF. 15" RCP @ 1.00%

PROP ±6 LF. 15" RCP @ 1.00%

48" RCP(ST)

Street Sign

2" CI (Abandoned)(WM)

Shared Pole

Magnolia

+10.17
33.38' RT.

RELOCATE AND RESET POWER POLE

S-96

S-96A

S-96B

S-96C

5.36 5.49 5.58 5.37 5.55 5.48 5.61 5.48 5.65 5.73 5.76 5.60 5.58 5.26 5.26 5.53 5.58 5.82 5.67 5.46 5.53 5.31 5.28 5.43

M

S

S-96

STA. 202+91.02, 3.34' LT.
PROP 13'X14' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 5'X3' CONCRETE BOX CULVERT (S) = -0.80
INV EL: 48" RCP (E) = -0.75
INV EL: 5'X3' CONCRETE BOX CULVERT (S) = -0.80
INV EL: 5'X4' CONCRETE BOX CULVERT (N) = -0.80
INV EL: 5'X4' CONCRETE BOX CULVERT (N) = -0.80
MH RISER RIM: 5.81

S-96A

STA. 300+32.39, 13.89' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.77
INV EL: 15" RCP (N) = 2.02
FLOWLINE EL: 5.27

S-96B

STA. 300+33.61, 13.73' LT.
PROP COT TYPE 1 CURB INLET
RIM: 5.77
INV EL: 15" RCP (SW) = 2.24
FLOWLINE EL: 5.26

S-96C

STA. 300+27.45, 7.36' LT.
PROP FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 48" RCP (E) = -0.73
INV EL: 15" RCP (NE) = 2.17
INV EL: 15" RCP (S) = 1.83
INV EL: 48" RCP (W) = -0.73
TOP SLAB EL: 3.685
MH RISER RIM: 5.35

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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DATE: 7/15/16

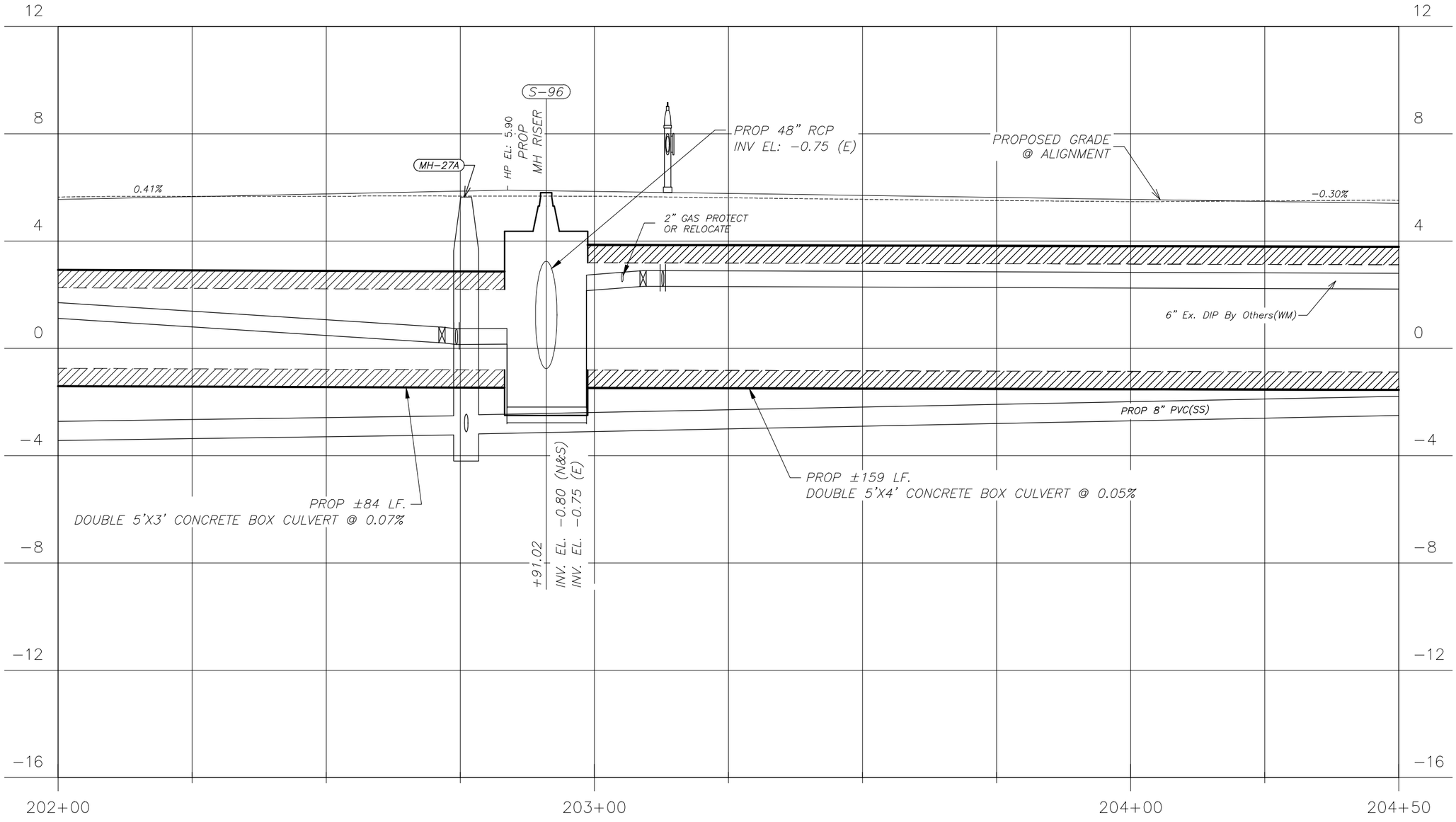
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - STORMWATER
PLAN

SHEET 43 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK.dwg - Printed Jul 14, 2016-2:13pm by: JenP

SW



SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - STORMWATER
PROFILE

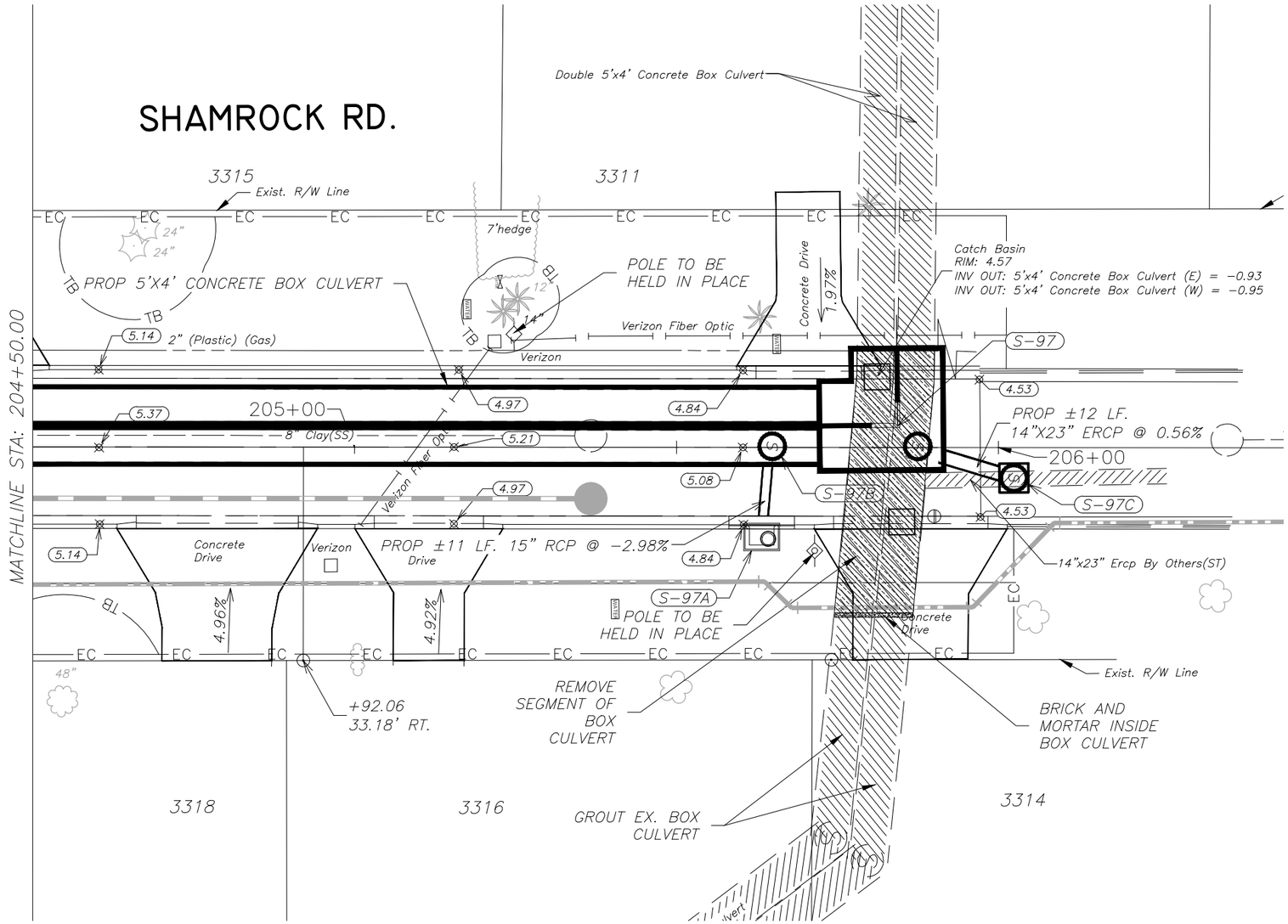
SHEET 44 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK.dwg - Printed Jul 14, 2016-2:13pm by: JenP

SW

0 20

1"=20'



S-97A
STA. 205+63.24, 13.92' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.39
INV EL: 15" RCP (W) = 0.23
THROAT EL: 4.77

S-97
STA. 205+84.33, 3.34' LT.
PROP CUSTOM J-BOX W/MH RISER
INV. EL. -0.95 (W)
INV. EL. -0.94 (S)
MH RISER RIM: 5.00
SEE STRUCTURE DETAILS SHEET FOR SIZING AND MORE INFORMATION

S-97B
STA. 205+64.87, 0.18' LT.
PROP MANHOLE RISER ON BOX CULVERT
RIM: 5.06

S-97C
STA. 206+02.42, 4.73' RT.
PROP 4'X4' FDOT P-BOX W/MH RISER PER INDEX 200
INV EL: 14"X23" ERCP (S) = 0.25

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

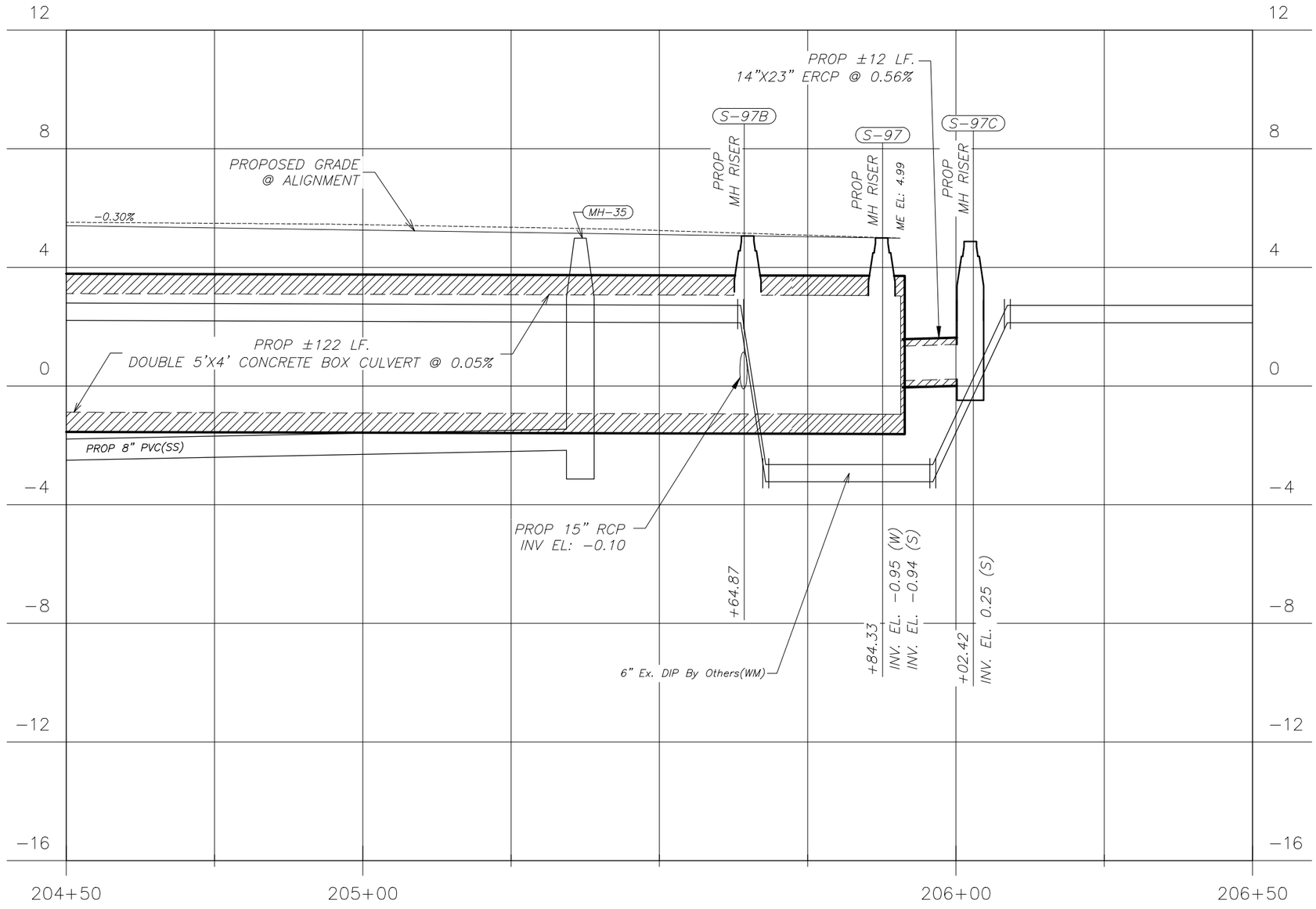
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - STORMWATER
PLAN

SHEET 45 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK.dwg - Printed Jul 14, 2016-2:14pm by: JenP

SW



SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - STORMWATER
PROFILE

SHEET 46 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK.dwg - Printed Jul 14, 2016-2:14pm by: JenP

SW

0 20

1"=20'

3322

4517

PROP 5'X4' CONCRETE BOX CULVERT
SEE SHEET 43

2" CI (Abandoned)(WM)

STA. 300+00.00
STA. 202+83.81

48" RCP(ST)

15" RCP(ST)

PROP. 5-FT-WIDE
CONCRETE SIDEWALK
PER FDOT INDEX 310

5'x4' Concrete Box Culvert
TO BE GROUTED
IN PLACE

5'x4' Concrete Box Culvert
TO BE GROUTED
IN PLACE

BRICK & MORTAR INSIDE EX. BOX CULVERT

Storm MH
TO BE REMOVED

Catch Basin
TO BE REMOVED

Crape Myrtle

6' Pvc Fence

Exist. R/W Line

Morning Buried Utility

42" Rcp(ST)
CONNECT TO PROPOSED
FDOT TYPE 9 CURB INLET
INV. EL.: =>0.60 (E)

Co 7.99

Brick D/w

D/w

S/w

2" (Plastic) (Gas)

2" CI(WM)

Shared Pole

Power Pole (No Power)

42" Rcp(ST)

203+00

300+00

301+00

302+00

914+54
299+75

914+00

℄ OF CONSTRUCTION

PROP ±22 LF. 15" RCP @ 3.38%

Verizon Fiber Optic

Service Cabinet

Stump

REMOVE EXISTING
CATCH BASIN

REMOVE ±45 LF. OF
DOUBLE 5'x4' Concrete Box Culverts(ST)
PLUG BOTH ENDS OF CUT PIPE
WITH BRICK AND MORTAR.

SEVILLA ST.

SHAMROCK RD.

0.90%

Hedge

+33.69
27.78' RT.

POLE TO BE
HELD IN PLACE

Storm MH
TO BE REMOVED

Exist. R/W Line

3324

4514

5'x4' Concrete Box Culvert
TO BE GROUTED
IN PLACE

5'x4' Concrete Box Culvert
TO BE GROUTED
IN PLACE

PROP DOUBLE 5'X3' CONCRETE BOX CULVERT
SEE SHEET 43

BRICK & MORTAR INSIDE EX. BOX CULVERT

S-96
STA. 202+91.02, 3.34' LT.
PROP 13'X14' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 5'X3' CONCRETE BOX CULVERT (S) = -0.80
INV EL: 48" RCP (E) = -0.75
INV EL: 5'X3' CONCRETE BOX CULVERT (S) = -0.80
INV EL: 5'X4' CONCRETE BOX CULVERT (N) = -0.80
INV EL: 5'X4' CONCRETE BOX CULVERT (N) = -0.80
TOP SLAB EL: 4.37
MH RISER RIM: 5.81

S-96A
STA. 300+32.39, 13.89' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.70
INV EL: 15" RCP (N) = 2.02
THROAT EL: 5.24

S-96B
STA. 300+33.61, 13.73' LT.
PROP COT TYPE 1 CURB INLET
RIM: 5.77
INV EL: 15" RCP (SW) = 2.24
THROAT EL: 5.24

S-96C
STA. 300+27.45, 7.36' LT.
PROP 6'X4' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 48" RCP (E) = -0.73
INV EL: 15" RCP (NE) = 2.17
INV EL: 15" RCP (S) = 1.83
INV EL: 48" RCP (W) = -0.73
TOP SLAB EL: 4.19
MH RISER RIM: 5.35

S-98
STA. 301+59.90, 8.00' LT.
PROP TYPE "T" RISER ON TOP OF FDOT
RIM: 5.82
INV EL: 15" RCP (S) = 0.74
INV EL: 48" RCP (W) = -0.64
INV EL: 42" RCP (E) = -0.60
GRATE EL: 5.32

S-99
STA. 301+56.40, 13.92' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.82
INV EL: 15" RCP (N) = 1.48
THROAT EL: 5.32

NOTE:
SEE SEPARATE PLANS FOR WATER AND SEWER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SEVILLA ST. - STORMWATER
PLAN

SHEET 47
105

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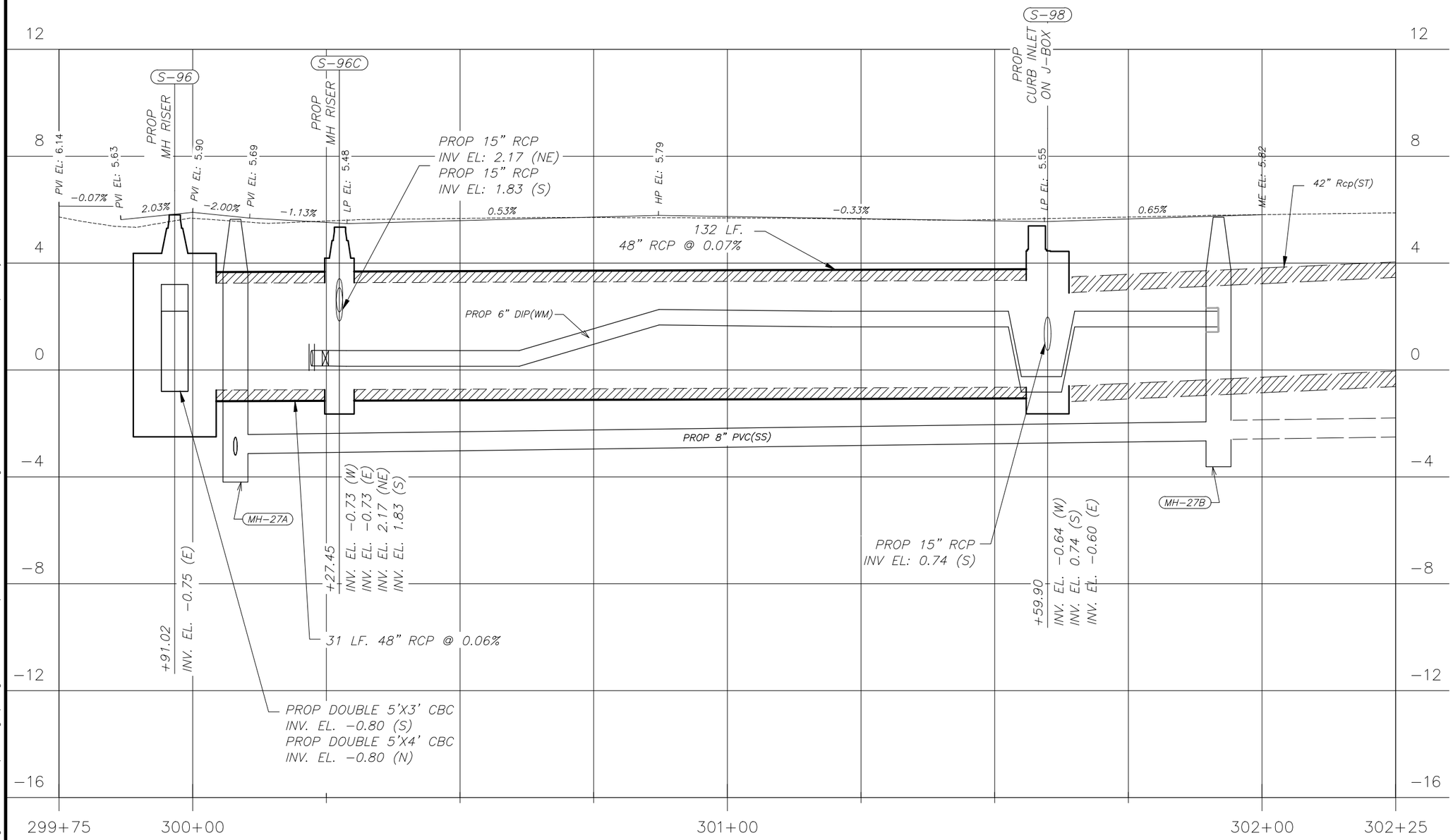
SW



SEVILLA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SEVILLA ST. - STORMWATER
PROFILE

SHEET 48 OF 105

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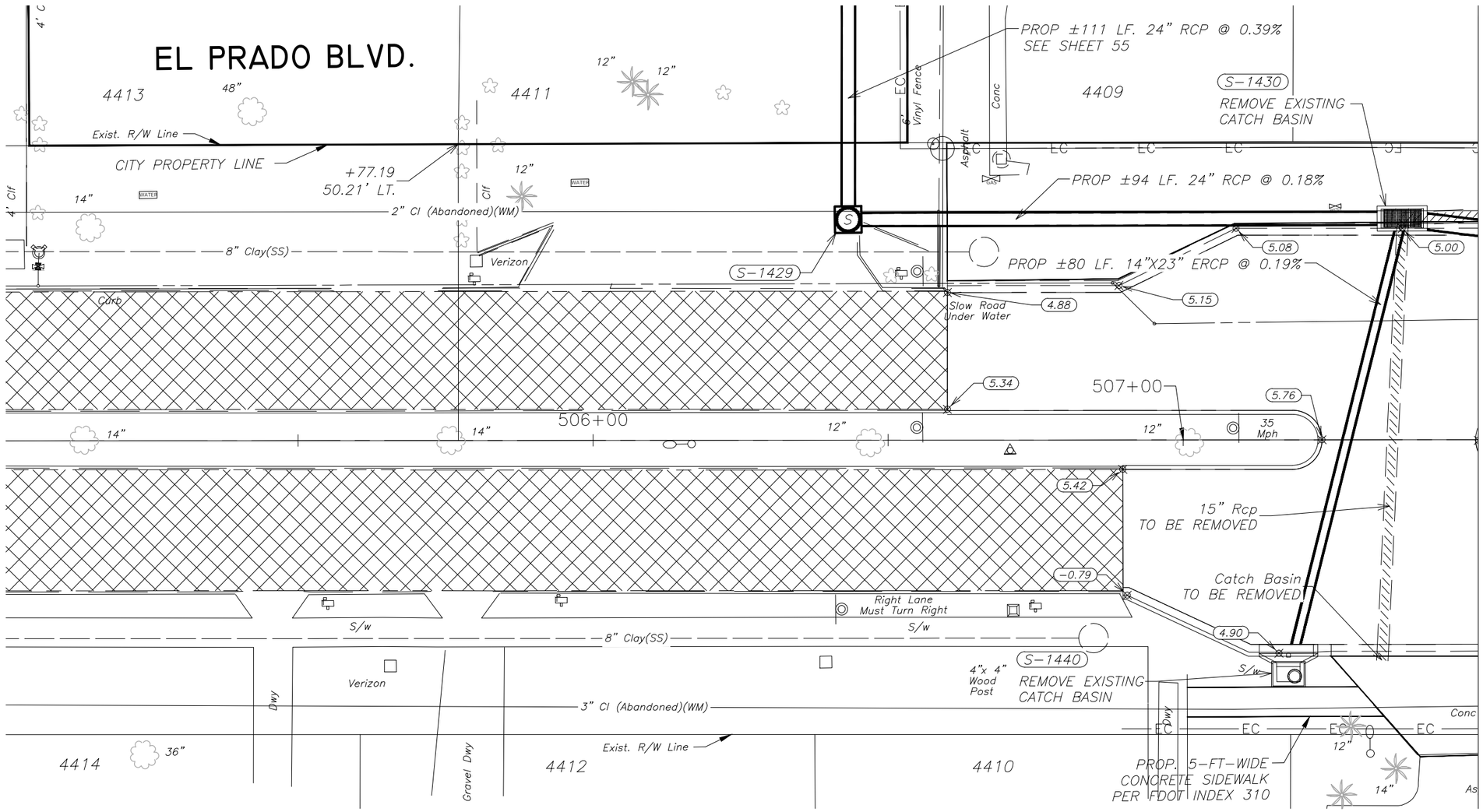
SW



S-1429
STA. 506+43.25, 37.39' LT.
PROP FDOT P-BOX W/MH RISER PER INDEX
RIM: 5.08
INV EL: 24" RCP (E) = 1.58
INV EL: 24" RCP (N) = 1.58

S-1430
STA. 507+37.13, 37.51' LT.
PROP COT TYPE "H" GRATE INLET
GRATE: 5.00
INV EL: 14"X23" ERCP (S) = 2.00
INV EL: 24" RCP (W) = 1.75
INV EL: 19"X30" ERCP (E) = 2.00

S-1440
STA. 507+17.80, 39.72' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.40
INV EL: 14"X23" ERCP (N) = 2.15
FLOWLINE EL: 4.90

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PLAN

SHEET 49 OF 105

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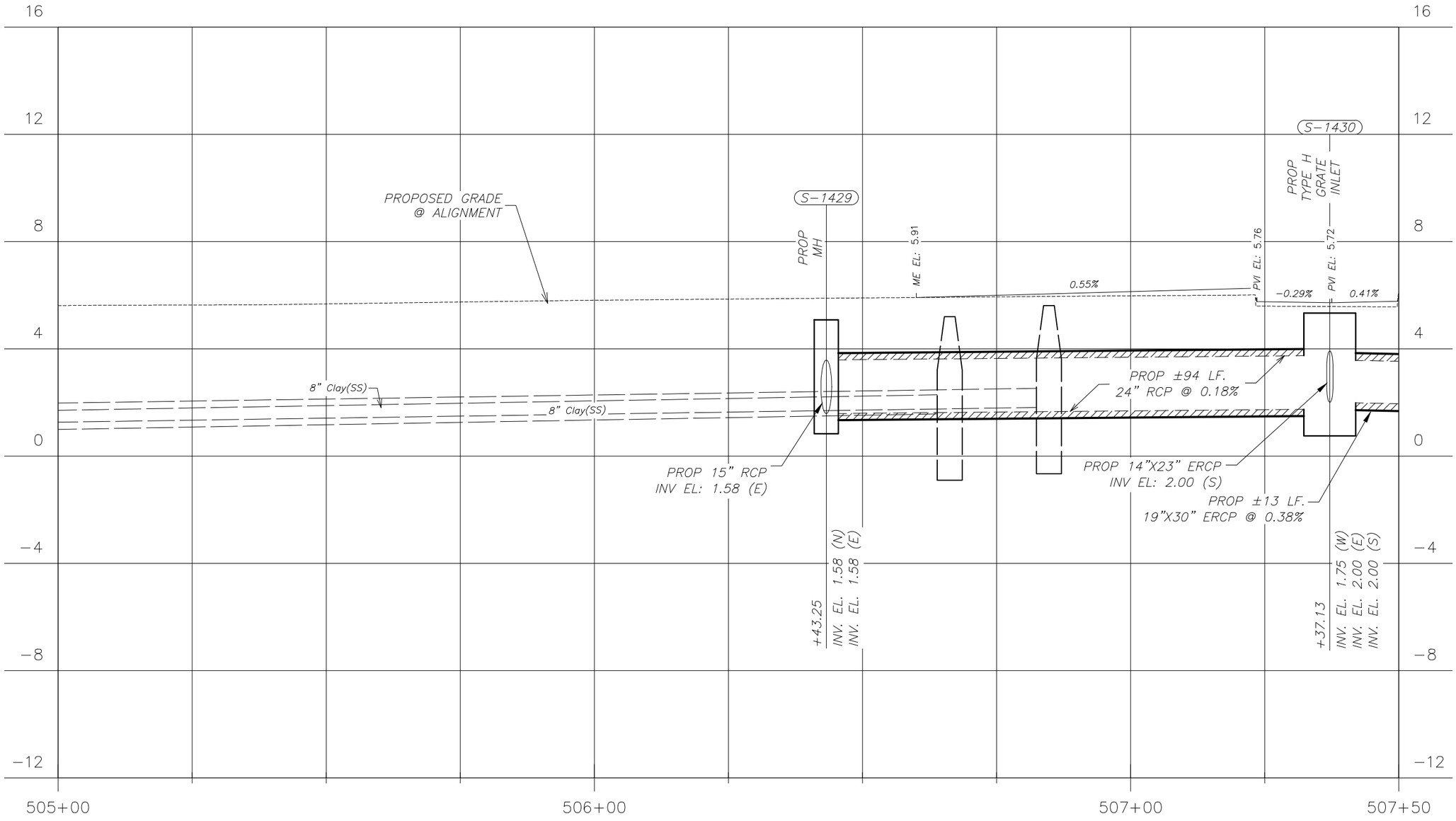
SW



EL PRADO PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PROFILE

SHEET
50
OF
105

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SW

0 20

1"=20'

MATCHLINE STA: 507+50.00

SEE SHEET 91 FOR ROADWAY IMPROVEMENT PLANS

S. MANHATTAN AVE.

EL PRADO BLVD.

508+00 509+00 510+00 605+00

STA. 508+72.61

STA. 604+71.07

24" Rcp TO BE GROUTED IN PLACE

Curb Inlet TO BE REMOVED

PROP ±13 LF. 24"X38" ERCP @ 0.16%

18" Rcp TO BE REMOVED

PROP ±97 LF. 24"X38" ERCP C-IV @ 0.17%

PROP ±90 LF. 24" RCP @ 0.41% SEE SHEET 58

18" Rcp TO BE REMOVED

REMOVE EXISTING CURB INLET

PROP ±70 LF. 19"X30" ERCP @ 0.38%

PROP ±25 LF. 24"X38" ERCP @ 0.40%

18" Rcp TO BE REMOVED

PROP ±54 LF. 24" RCP C-IV @ 0.28%

CAUTION: 2" GAS PROTECT OR RELOCATE BY UTILITY COMPANY

18" Rcp TO BE REMOVED

PROP ±78 LF. 19"X30" ERCP @ 0.60%

POLE TO BE RELOCATED

CAUTION: 2" GAS PROTECT OR RELOCATE BY UTILITY COMPANY

PROP ±31 LF. 15" RCP @ 1.31%

POLE TO BE HELD IN PLACE

Curb Inlet TO BE REMOVED

PROP ±149 LF. 24" RCP @ 0.14%

S-1430A

STA. 508+19.67, 27.15' LT.
PROP 5'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 19"X30" ERCP (W) = 1.68
INV EL: 24"X38" ERCP (N) = 1.68
INV EL: 24"X38" ERCP (E) = 1.68
MH RISER RIM: 5.34

S-1432

STA. 605+03.10, 28.45' LT.
PROP 5'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24"X38" ERCP (W) = 1.58
INV EL: 24" RCP C-IV (S) = 1.34
INV EL: 24"X38" ERCP C-IV (N) = 1.34
MH RISER RIM: 5.29

S-1434A

STA. 508+15.61, 39.73' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.60
INV EL: 15" RCP (NE) = 1.90
FLOWLINE EL: 5.10

S-1438

STA. 509+23.95, 38.71' LT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.60
INV EL: 19"X30" ERCP (S) = 1.85
INV EL: 24" RCP (N) = 1.85
FLOWLINE EL: 5.10

S-1439

STA. 509+24.89, 39.37' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.75
INV EL: 18" RCP (S) = 2.60
INV EL: 19"X30" ERCP (N) = 2.32
FLOWLINE EL: 5.25

S-1431

STA. 508+19.95, 39.71' LT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.51
INV EL: 24"X38" ERCP (S) = 1.70
FLOWLINE EL: 5.01

S-1434

STA. 604+49.26, 29.21' LT.
PROP 4'X4' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24" RCP (S) = 1.49
INV EL: 15" RCP (SW) = 1.49
INV EL: 24" RCP C-IV (N) = 1.49
MH RISER RIM: 5.74

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

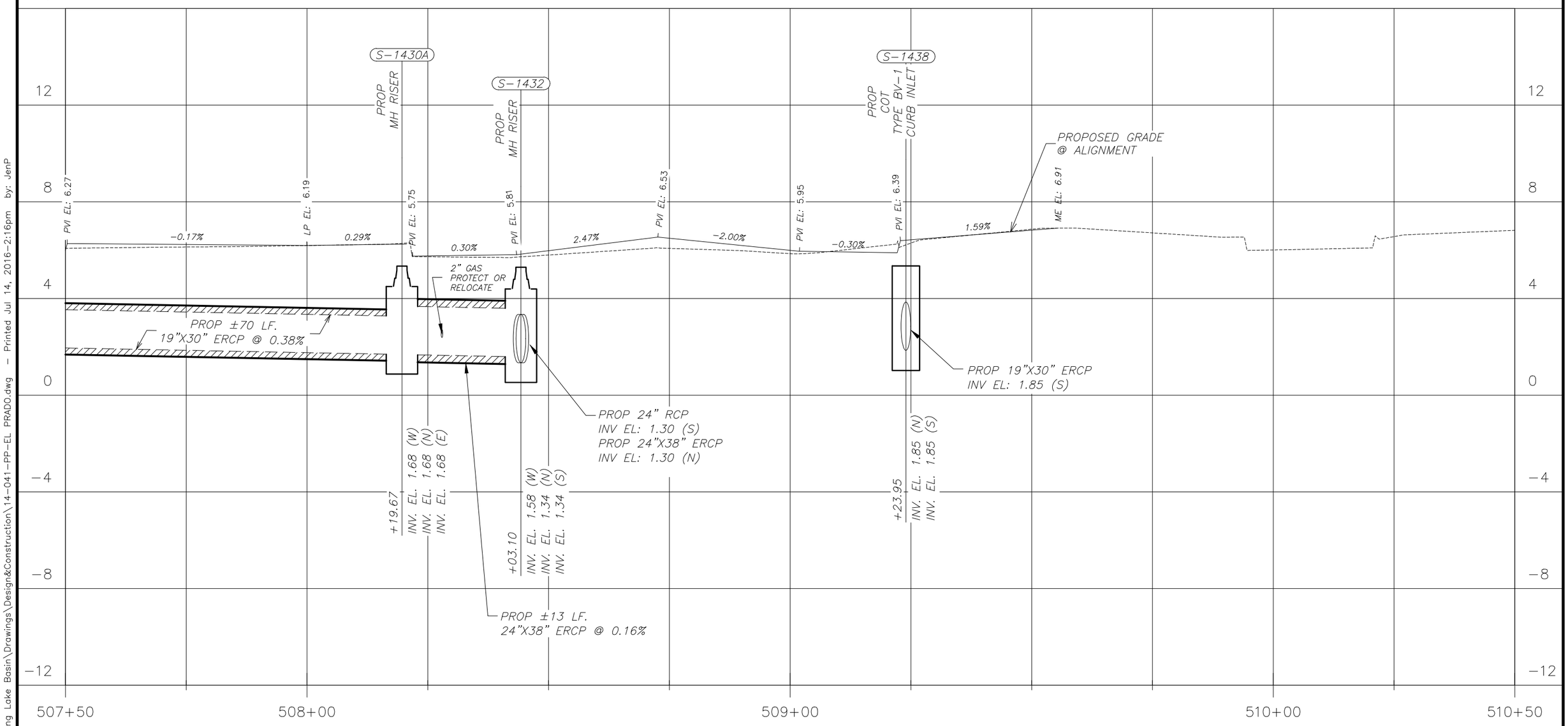
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PLAN

SHEET 51 OF 105

SW



EL PRADO PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PROFILE

SHEET 52 OF 105

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SW

PROP ±36 LF.
24"X38" ERCP C-IV @ 0.17%
15" Rcp
TO BE REMOVED
S-56G
REMOVE EXISTING
MANHOLE
PROP ±34 LF. 24"X38" ERCP @ 0.18%
14"x23" Ercp
TO BE REMOVED
S-56F
REMOVE EXISTING
INLET
PROP ±90 LF. 29"X45" ERCP @ 0.09%
SEE SHEET 63
S-56C
REMOVE EXISTING
MANHOLE
PROP ±25 LF. 24"X38" ERCP @ 0.40%
24" Rcp
TO BE REMOVED
S-56B
18" Rcp
TO BE REMOVED
PROP ±76 LF.
19"X30" ERCP C-IV @ 0.13%
PROP ±78 LF. 19"X30" ERCP C-IV @ 0.15%
S-56E
4.81
4.64
S-56A
REMOVE EXISTING
CURB INLET
Exist. R/W
Stop Sign
Sidewalk
Exist. R/W Line
Pilates
6" DI(WM)
8" Clay(SS)
6" CI(WM)
24" CI(WM)
EL PRADO BLVD.
HUBERT AVE.
701+00
514+00
515+00
700+00
STA. 513+97.68
STA. 700+62.65
+66.65
50.61' RT.
Buried Cable
5.06
4.94
5.12
4.80
4.99
5.54
5.71
6.00
5.66
5.62
5.57
6.10
4.64
4.90
5.78
2"
8"
10"
12"
14"
8' Clf
EC

0 20
1"=20'

S-56E
STA. 700+23.15, 35.72' LT.
PROP COT TYPE BS-1 CURB INLET
RIM: 5.14
INV EL: 19"X30" ERCP C-IV (N) = 2.00
FLOWLINE EL: 4.64

S-56A
STA. 700+23.43, 37.04' RT.
PROP COT TYPE BS-1 CURB INLET
RIM: 5.14
INV EL: 19"X30" ERCP C-IV (N) = 2.00
FLOWLINE EL: 4.64

S-56F
STA. 700+98.27, 47.57' LT.
PROP COT TYPE "H" GRATE INLET
GRATE EL: 4.94
INV EL: 19"X30" ERCP C-IV (S) = 1.90
INV EL: 24"X38" ERCP (NE) = 1.90

S-56B
STA. 701+01.49, 37.25' RT.
PROP COT TYPE BS-1 CURB INLET
RIM: 5.30
INV EL: 19"X30" ERCP C-IV (S) = 1.88
INV EL: 24"X38" ERCP (NW) = 1.88
FLOWLINE EL: 4.80

S-56G
STA. 701+18.39, 17.18' LT.
PROP 5'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24"X38" ERCP (SW) = 1.84
INV EL: 24"X38" ERCP C-IV (E) = 1.84
MH RISER RIM: 5.39

S-56C
STA. 701+17.94, 18.52' RT.
PROP 5'X6' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24"X38" ERCP (SE) = 1.78
INV EL: 24"X38" ERCP C-IV (W) = 1.78
INV EL: 29"X45" ERCP (N) = 1.78
MH RISER RIM: 5.46

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

SEE SHEET 92 FOR ROADWAY IMPROVEMENT PLANS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PLAN

SHEET 53 OF 105

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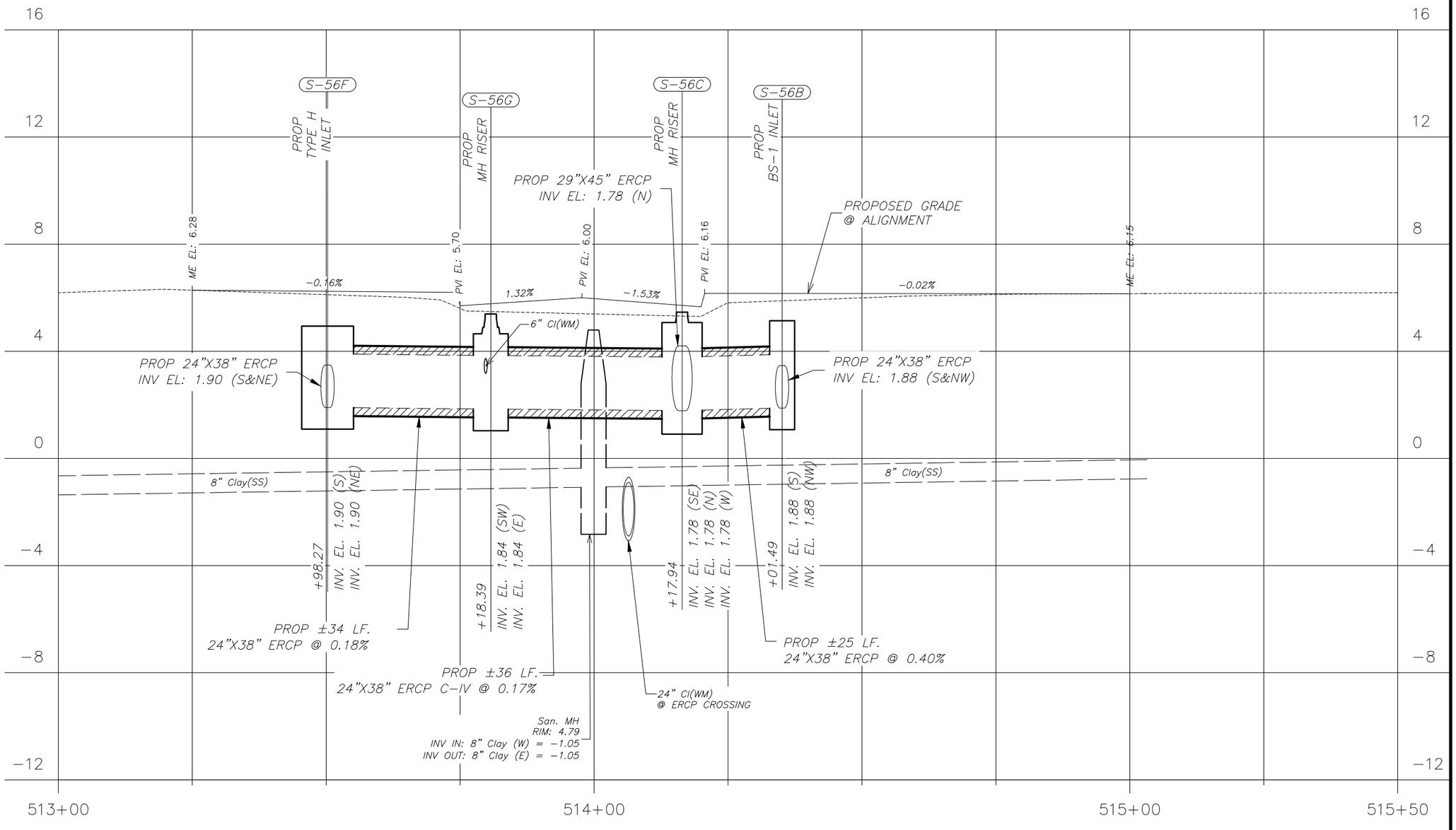
SW



EL PRADO PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PROFILE

SHEET 54 OF 105

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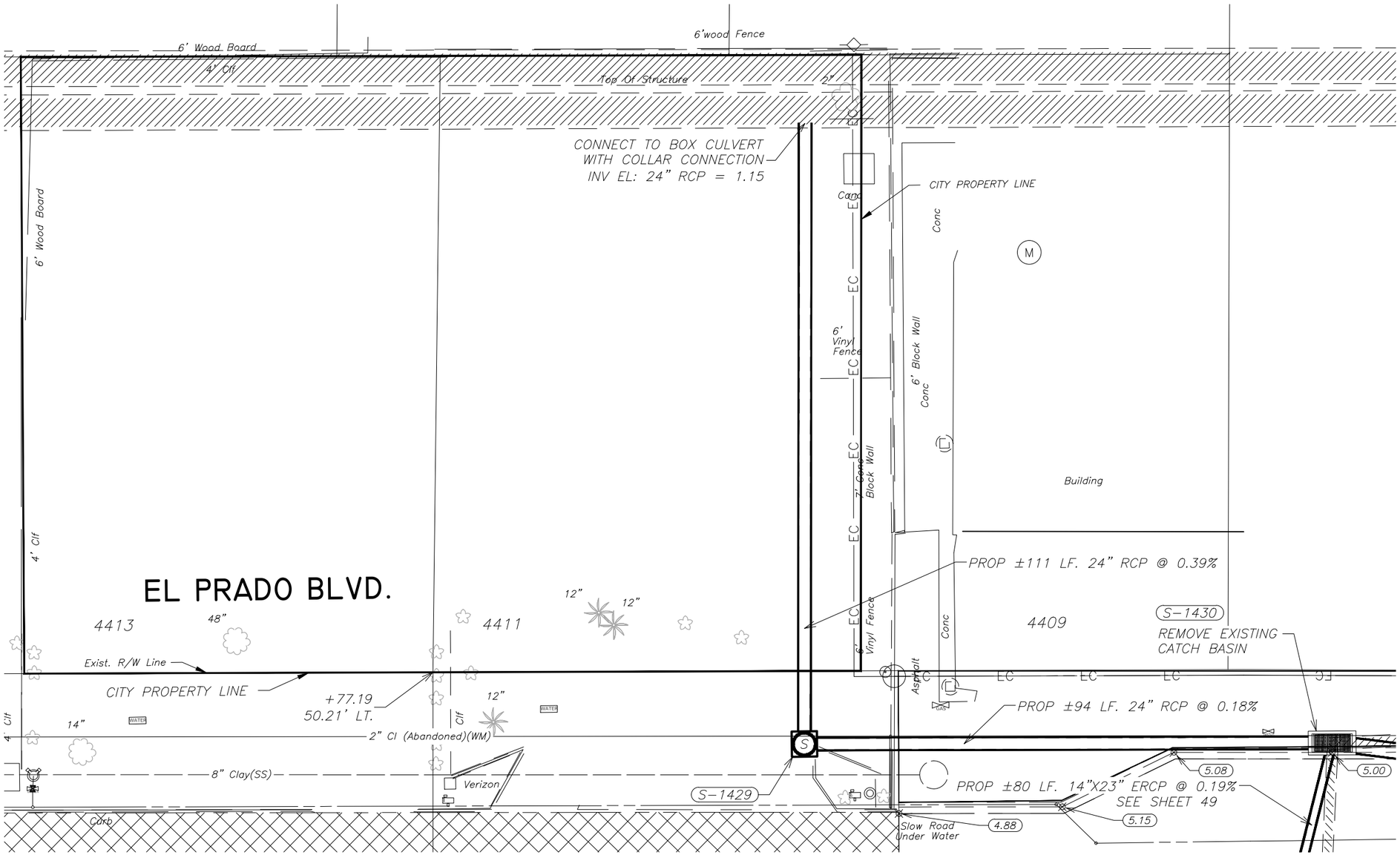
SW



S-1429
STA. 506+43.25, 37.39' LT.
PROP FDOT P-BOX W/MH RISER PER INDEX
RIM: 5.08
INV EL: 24" RCP (E) = 1.58
INV EL: 24" RCP (N) = 1.58

S-1430
STA. 507+37.13, 37.51' LT.
PROP COT TYPE "H" GRATE INLET
GRATE: 5.00
INV EL: 14"X23" ERCP (S) = 2.00
INV EL: 24" RCP (W) = 1.75
INV EL: 19"X30" ERCP (E) = 2.00

NOTE:
SEE SEPARATE PLANS FOR WATER AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. - STORMWATER
PLAN

SHEET 55 of 105

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SW

0 20

1"=20'

Hedge
Tos
Tob
Eop
Exist. R/W Line
S/w
Driveway
18" Rcp(ST)
C & G
Eop
Tob
Tos
S/w
Eop
Eop
Relic
Home-garden
Asph
Exist. R/W Line
S/w
S-1444
C & G
18" Rcp
TO BE REMOVED
PROP ±114 LF. 24" RCP @ 0.18%
24" Clay(SS)
18" Rcp
TO BE REMOVED
PROP ±156 LF. 18" RCP @ 0.20%
CONNECT TO EXISTING CATCH BASIN
INV EL: 18" RCP = 2.21

S. MANHATTAN AVE.

600+00
601+00
Asph Crown
602+00
54" Rcp(SS)

Catch Basin
RIM: 5.08
INV IN: 18" Rcp (S) = 2.21
INV IN: 18" Rcp (E) = 2.32
INV OUT: 18" Rcp (N) = 2.09

18" Rcp(ST)

Eop
C & G
Eop
C & G
24"
Curb
Conc
Curb
Asph
Curb
48"
S/w
Over Head
Curb
Exist. R/W Line
+33.27
51.01' RT.
Chiropra
Entrar
Conc
C & G

W. KENSINGTON AVE.

C & G
C & G
Curb Inlet
RIM: 6.35
Slope
Planter
Conc
16"
16"
16"
18" Rcp(ST)
C & G
Gravel
Gravel

MATCHLINE STA: 603+00.00

(S-1444)
STA. 601+86.27, 36.44' LT.
PROP COT TYPE BR-2 CURB INLET
RIM: 6.00
INV EL: 18" RCP (S) = 1.90
INV EL: 24" RCP (N) = 1.90
THROAT EL: 5.50

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

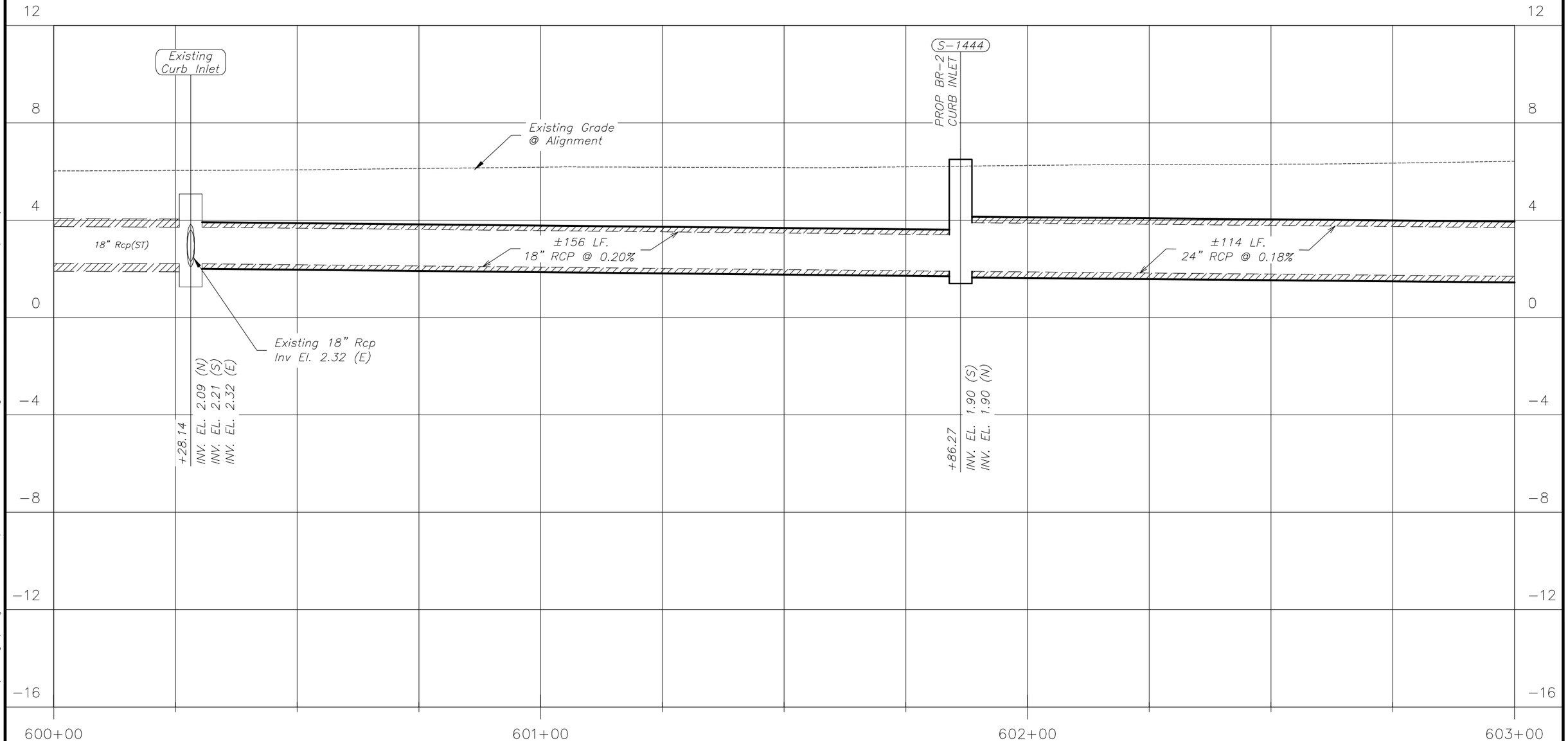
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER
PLAN

SHEET 56 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-MANHATTAN.dwg - Printed Jul 14, 2016-2:19pm by: JenP

SW



S. MANHATTAN AVE. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

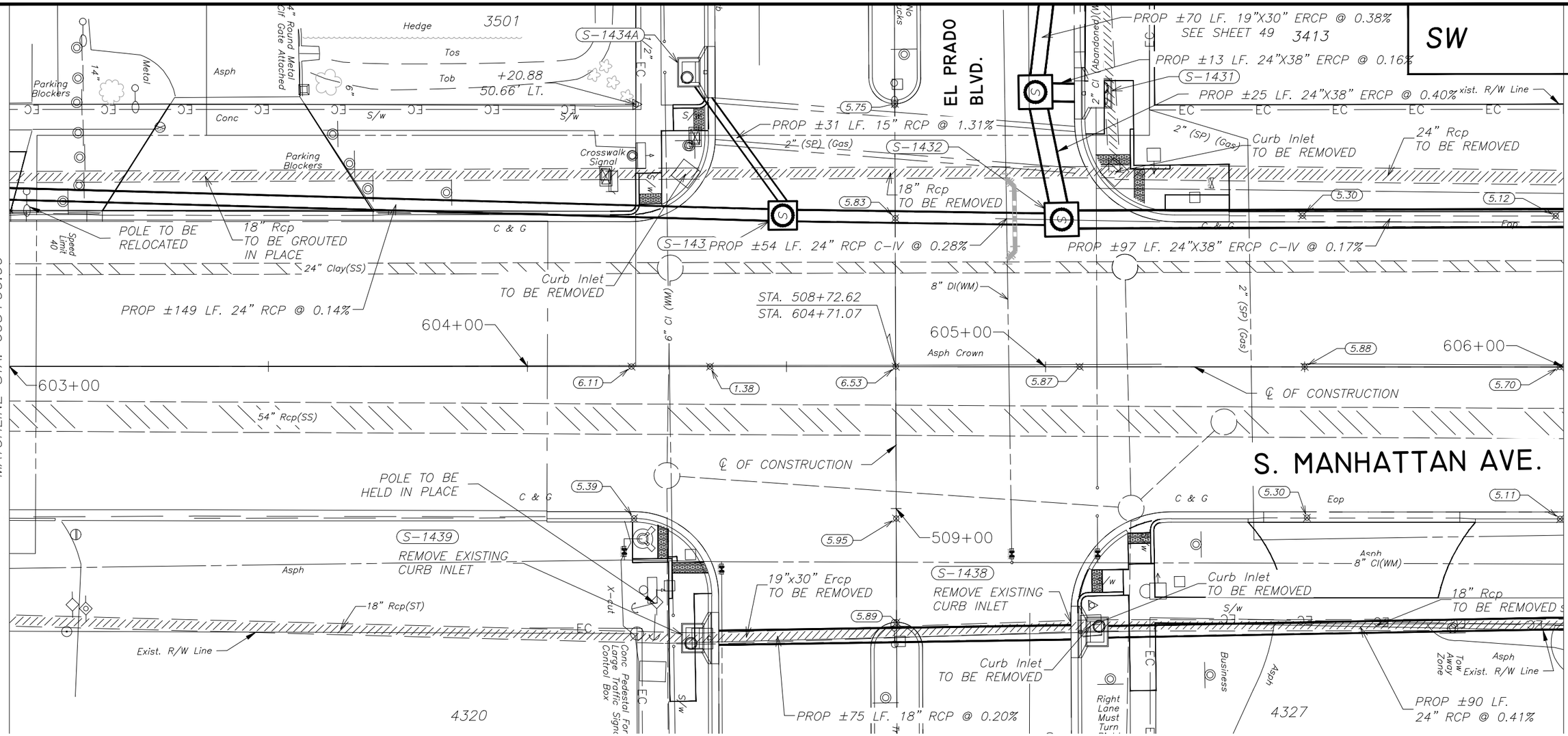
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER PROFILE

SHEET 57 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-MANHATTAN.dwg - Printed Jul 14, 2016-2:19pm by: JenP



S-1431
STA. 508+19.95, 39.71' LT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.51
INV EL: 24"X38" ERCP (S) = 1.70
THROAT EL: 5.01

S-1434
STA. 604+49.26, 29.21' LT.
PROP 4'X4' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24" RCP (S) = 1.49
INV EL: 15" RCP (SW) = 1.49
INV EL: 24" RCP C-IV (N) = 1.49
MH RISER RIM: 5.56

S-1434A
STA. 508+15.61, 39.73' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.60
INV EL: 15" RCP (NE) = 1.90
THROAT EL: 5.10

S-1438
STA. 509+23.95, 38.71' LT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.60
INV EL: 19"X30" ERCP (S) = 1.85
INV EL: 24" RCP (N) = 1.85
THROAT EL: 5.10

S-1439
STA. 509+24.89, 39.37' RT.
PROP COT TYPE BV-1 CURB INLET
RIM: 5.75
INV EL: 18" RCP (S) = 2.60
INV EL: 19"X30" ERCP (N) = 2.32
THROAT EL: 5.25

S-1432
STA. 605+03.10, 28.45' LT.
PROP 5'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24"X38" ERCP (W) = 1.58
INV EL: 24" RCP C-IV (S) = 1.34
INV EL: 24"X38" ERCP C-IV (N) = 1.34
MH RISER RIM: 5.29

0 20
1"=20'

NOTE:
SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
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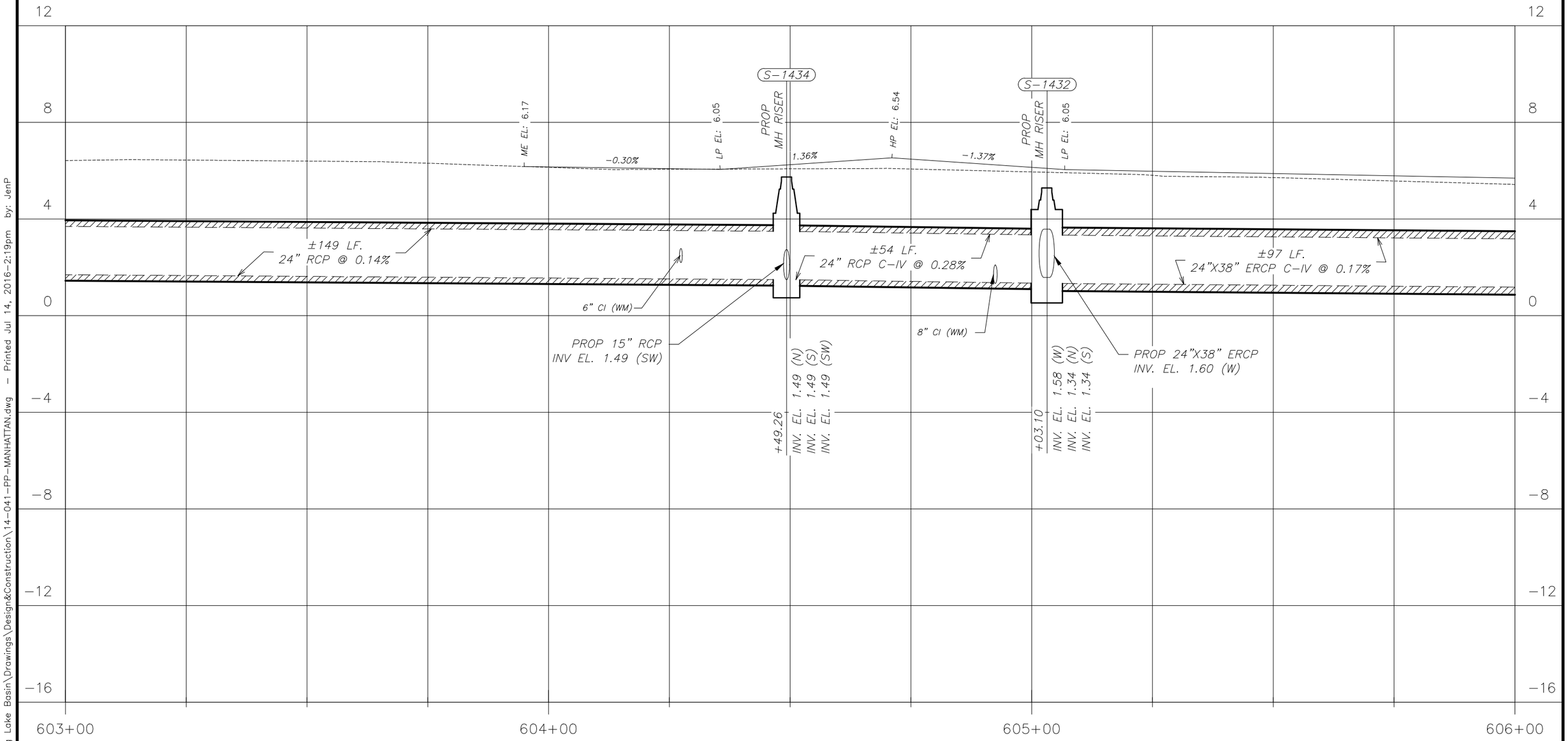
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER
PLAN

SHEET 58 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-MANHATTAN.dwg - Printed Jul 14, 2016-2:19pm by: JenP

SW



S. MANHATTAN AVE. PROFILE WEST SIDE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER PROFILE

SHEET 59 OF 105

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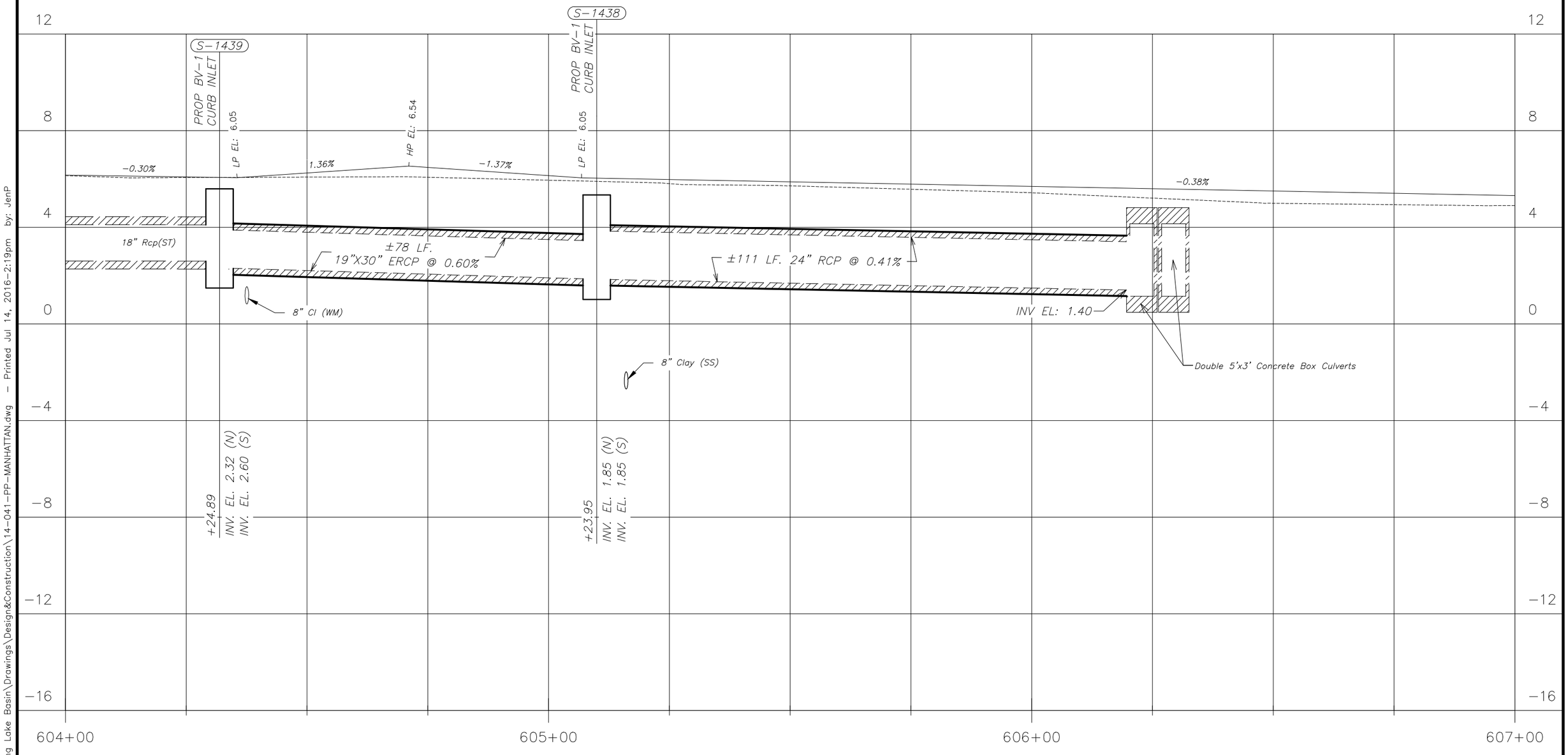
SW



S. MANHATTAN AVE. PROFILE EAST SIDE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER PROFILE

SHEET 60 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-MANHATTAN.dwg - Printed Jul 14, 2016-2:19pm by: JenP

SW

PROP 9'X5' CONCRETE BOX CULVERT SEE SHEET 33

PROP ±20 LF. 24"X38" ERCP C-IV @ 0.17%
CONNECT TO BOX CULVERT WITH COLLAR CONNECTION
INV EL: = 1.15 (S)

CLOSE OPENING IN BOX CULV. W/ BRICK AND MORTAR

3413

PROP ±20 LF. 15" RCP @ 1.44%
CONNECT TO BOX CULVERT WITH COLLAR CONNECTION
INV EL: = -1.45 (S)

31+00

W. VASCONIA ST.

3409

S-101
REMOVE EXISTING CURB INLET
CONNECT TO EXISTING 24" RCP WITH COLLAR CONNECTION
INV EL: 24" RCP = 1.58

24" Rcp TO BE GROUTED IN PLACE

Asph Dwy

Deck Brick

No Trucks

Stop

Exist. R/W Line

2" CI (Abandoned)(WM)

24" Rcp TO BE GROUTED IN PLACE

S-100

S-100A

POLE TO BE HELD IN PLACE

Catch Basin TO BE REMOVED

Eop

8" Clay(SS)

24" Clay(SS)

Traffic Signal

PROP ±27 LF. 24" RCP C-IV(ST) @ 1.42%

S. MANHATTAN AVE.

PROP 9'X5' CONCRETE BOX CULVERT

STA. 607+85.81
STA. 31+62.47

PROP 54" RCP(ST)

S-40

S-101A

S-41

607+00

608+00

Asph Crown

5'x3' Concrete Box Culvert

5'x3' Concrete Box Culvert

8" Clay (abandoned)(SS)

PROP ±32 LF. 15" RCP C-IV @ 1.15%

609+00

54" Rcp(SS)

CLOSE OPENING IN BOX CULV. W/ BRICK AND MORTAR

PROP 6'X5' CONCRETE BOX CULVERT

24" Rcp TO BE GROUTED IN PLACE

PROP ±28 LF. 15" RCP @ 1.40%
CONNECT TO BOX CULVERT WITH COLLAR CONNECTION
INV EL: = -0.62 (S)

S-102A

C & G

S-102B

Speed Limit 40

8" CI(WM)

POLE TO BE HELD IN PLACE

Curb Inlet TO BE REMOVED

S-102

S-103

REMOVE EXISTING CURB INLET

Verizon Fiber Optic

6' Wood Board Fence

Exist. R/W Line

24" Hedge

PROP ±21 LF. 24" RCP @ 0.41%
CONNECT TO BOX CULVERT WITH COLLAR CONNECTION
INV EL: = 1.40 (S)

+67.45
50.45' RT.

4322

S-42

W. VASCONIA ST.

PROP 6'X5' CONCRETE BOX CULVERT SEE SHEET 35

3408

MATCHLINE STA: 606+00.00

MATCHLINE STA: 609+00.00

S-41
STA. 31+59.75, 0.51' LT.
PROP 13'X8' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" RCP (N) = -3.07
INV EL: 6'X5' CONCRETE BOX CULVERT (E) = -2.60
INV EL: 9'X5' CONCRETE BOX CULVERT (W) = -3.07
MH RISER RIM: 5.41

S-101A
STA. 608+14.51, 3.15' LT.
PROP 8'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" HOLE W/BULKHEAD FOR FUTURE CONNECTION (N) = -2.93
INV EL: 24" RCP C-IV (W) = 0.99
INV EL: 15" RCP C-IV (E) = 1.36
INV EL: 54" RCP (S) = -2.93
MH RISER RIM: 5.18

S-102
STA. 607+59.55, 31.27' RT.
PROP COT TYPE 1 CURB INLET
RIM: 5.02
INV EL: 15" RCP (S) = 1.55
INV EL: 15" RCP (N) = -0.23
THROAT EL: 4.51

S-103
STA. 31+94.79, 32.41' LT.
PROP COT TYPE 1 CURB INLET
RIM: 5.11
INV EL: 15" RCP C-IV (W) = 1.73
THROAT EL: 4.60

S-101
STA. 608+23.59, 33.29' LT.
PROP COT TYPE 1 CURB INLET MODIFIED
RIM: 5.10
INV EL: 24" RCP (N) = 1.58
INV EL: 24" RCP C-IV (E) = 1.38
THROAT EL: 4.60

S-102B
STA. 606+88.94, 35.67' RT.
PROP COT TYPE "T" GRATE INLET
INV EL: 15" RCP (N) = 2.25
GRATE EL: 4.73

0 20
1"=20'

NOTE:
SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER PLAN

SHEET 61 OF 105

SW

PROP ±20 LF.
24"X38" ERCP C-IV @ 0.17%

Existing
Catch Basin

TO BE
REMOVED

PROPOSED GRADE
@ ALIGNMENT

PROP 9'X5' CBC
INV EL: -3.07 (W)
PROP 6'X5' CBC
INV EL: -2.60 (E)

S-41

PROP
MH RISER

LP EL: 5.09

HP EL: 5.42

S-101A

PROP
MH RISER

LP EL: 5.18

PROP 24" RCP
INV EL: 0.99 (W)
PROP 15" RCP
INV EL: 1.36 (E)

ME EL: 5.27

-0.38%

1.26%

-0.61%

0.30%

24" Rcp(ST)

8" Cl(WM)

8" Clay(SS)

PROP
8" DIP(WM)

8" Cl(WM)

INV EL: 1.15

EXISTING 24" STORMPIPE TO BE GROUTED IN PLACE
CLOSE OPENING IN BOX CULV.
W/ BRICK AND MORTAR

PROP 8" PVC(SS)

Double 5'x3' Concrete Box Culverts

24" Clay(SS)

PROP 24" PVC(SS)

PROP ±29 LF.
54" RCP @ 0.48%

+59.75
INV. EL. -3.07 (N)
INV. EL. -2.60 (E)
INV. EL. -3.07 (W)

+14.51
INV. EL. -2.93 (S)
INV. EL. -2.93 (N)
INV. EL. 0.99 (W)
INV. EL. 1.36 (E)

12
8
4
0
-4
-8
-12
-16

606+00
607+00
608+00
609+00

S. MANHATTAN AVE. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation
and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - STORMWATER
PROFILE

SHEET
62
OF
105

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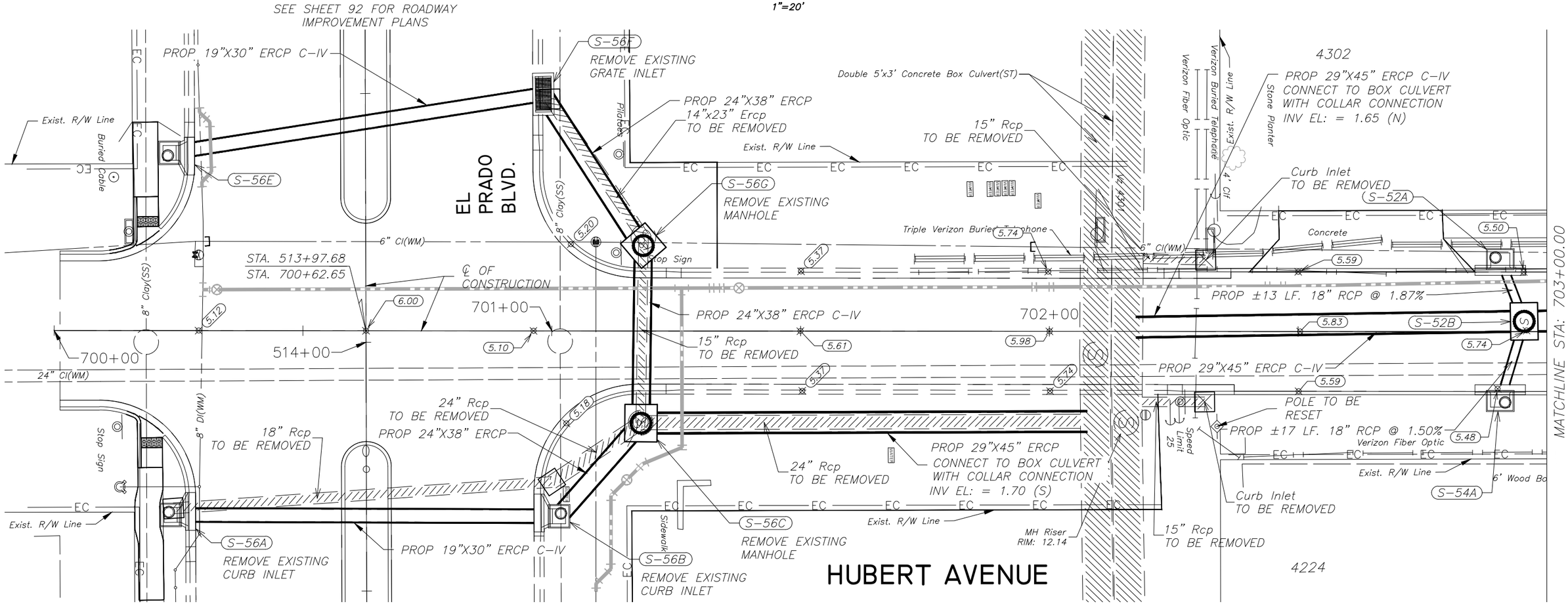
SW

0 20

1"=20'



S-56E
STA. 700+23.15, 35.72' L
PROP COT TYPE BS-1 CURB INLET
RIM: 5.14
INV EL: 19"X30" ERCP C-IV (N) = 2.00
FLOWLINE EL: 4.80

S-56F
STA. 700+98.27, 47.57' L
PROP COT TYPE "H" GRATE INLET
GRATE EL: 4.64
INV EL: 19"X30" ERCP C-IV (S) = 1.90
INV EL: 24"X38" ERCP (NE) = 1.90

S-56G
STA. 701+18.39, 17.18' L
PROP 5'X5' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24"X38" ERCP (SW) = 1.84
INV EL: 24"X38" ERCP C-IV (E) = 1.84
MH RISER RIM: 5.39

S-56C
STA. 701+17.94, 18.52' R
PROP 5'X6' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 24"X38" ERCP (SE) = 1.78
INV EL: 24"X38" ERCP C-IV (W) = 1.78
INV EL: 29"X45" ERCP (N) = 1.78
MH RISER RIM: 5.46

S-56B
STA. 701+01.49, 37.25' R
PROP COT TYPE BS-1 CURB INLET
RIM: 5.30
INV EL: 19"X30" ERCP C-IV (S) = 1.88
INV EL: 24"X38" ERCP (NW) = 1.88
FLOWLINE EL: 4.80

S-56A
STA. 700+23.43, 37.04' R
PROP COT TYPE BS-1 CURB INLET
RIM: 5.14
INV EL: 19"X30" ERCP C-IV (N) = 2.00
FLOWLINE EL: 4.64

S-52A
STA. 702+90.65, 14.58' L
PROP COT TYPE 1 CURB INLET
RIM: 6.12
INV EL: 18" RCP (E) = 1.75
FLOWLINE EL: 5.48

S-54A
STA. 702+90.65, 13.92' R
PROP COT TYPE 1 CURB INLET
RIM: 6.03
INV EL: 18" RCP (W) = 1.75
FLOWLINE EL: 5.48

S-52B
STA. 702+95.46, 2.09' L
PROP 6'X4' FDOT J-BOX W/MH RISER PER
INV EL: 18" RCP (E) = 1.50
INV EL: 18" RCP (W) = 1.50
INV EL: 29"X45" ERCP C-IV (S) = 1.00
INV EL: 29"X45" ERCP (N) = 1.00
MH RISER RIM: 5.70

NOTE:
SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - STORMWATER
PLAN

SHEET 63 OF 105

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SW

S-56A
PROP BS-1 INLET
ME EL: 5.18
LP EL: 5.10
HP EL: 6.00
-0.32%
2.52%
-2.51%
PROP ±78 LF.
19"X30" ERCP C-IV @ 0.15%
8" Clay(SS)
8" DI(WM)
24" CI(WM)
+23.43
INV. EL. 2.00 (N)

S-56B
PROP BS-1 INLET
LP EL: 5.12
PROP ±25 LF.
24"X38" ERCP @ 0.40%
8" Clay(SS)
+01.49
INV. EL. 1.88 (S)
INV. EL. 1.88 (NW)

S-56C
PROP MH RISER
PROP 24"X38" ERCP
INV EL: 1.78 (W)
+17.94
INV. EL. 1.78 (SE)
INV. EL. 1.78 (N)
INV. EL. 1.78 (W)

HP EL: 6.00
0.93%
Double 5'x3' Concrete Box Culvert(ST)
PROP ±90 LF.
29"X45" ERCP @ 0.09%
CONNECT TO CBC
INV EL: 1.70 (S)

PROP 18" RCP
INV EL: 2.00 (E)
PROP 18" RCP
INV EL: 1.96(W)
PROP 24" CI(WM)
PROP ±78 LF.
29"X45" ERCP C-IV @ 0.83%
CONNECT TO CBC
INV EL: 1.65 (N)

S-52B
PROP MH RISER
LP EL: 5.71
-0.30%
PROP 6" DIP(WM)
+95.46
INV. EL. 1.50 (E)
INV. EL. 1.50 (W)
INV. EL. 1.00 (N)
INV. EL. 1.00 (S)

12
8
4
0
-4
-8
-12
-16
700+00
701+00
702+00
703+00

HUBERT AVE. PROFILE EAST SIDE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - STORMWATER
PROFILE

SHEET 64 of 105

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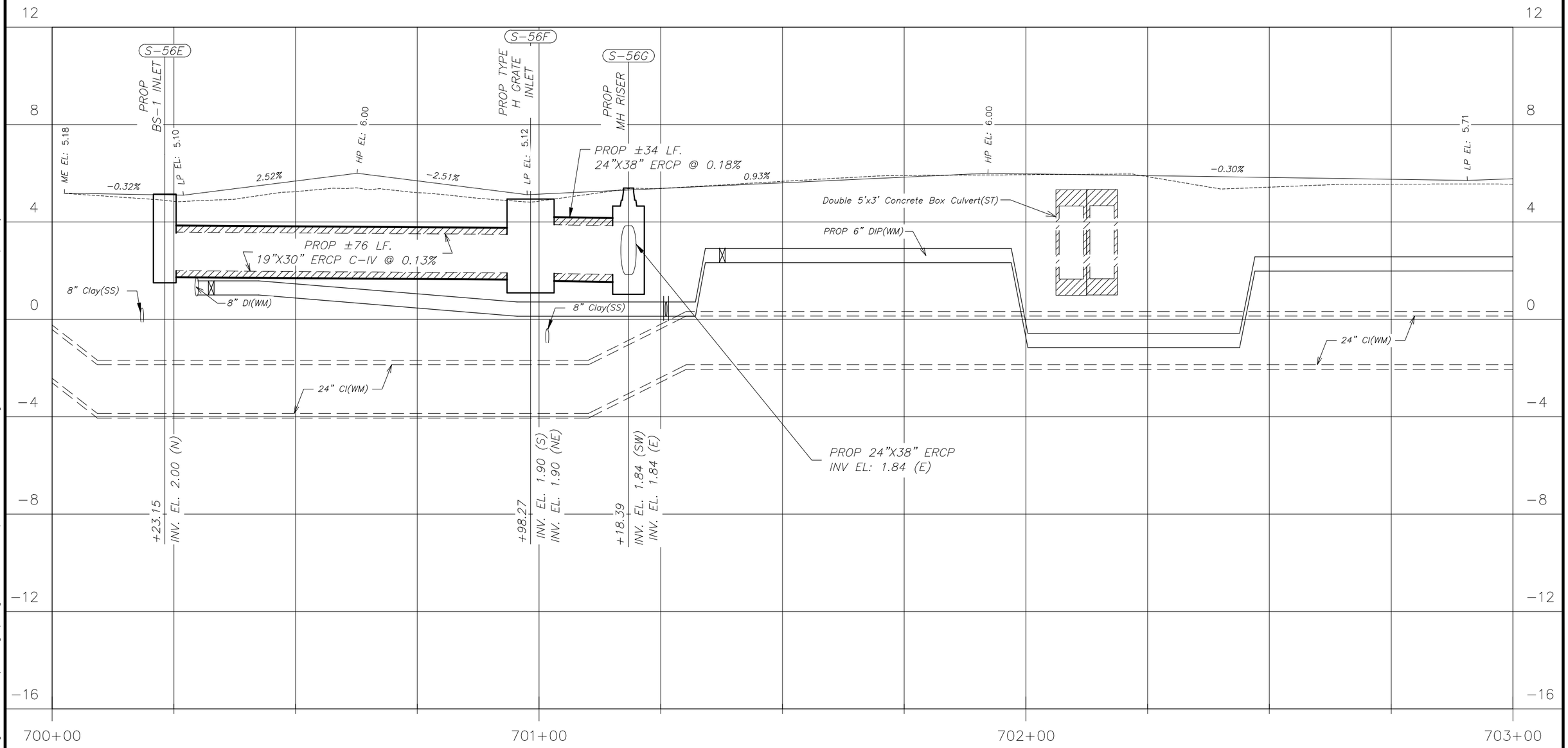
SW



HUBERT AVE. PROFILE WEST SIDE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - STORMWATER
PROFILE

SHEET 65 OF 105

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SW

0 20

1"=20'

PROP ±13 LF. 15" RCP @ 1.54%
CONNECT TO BOX CULVERT
WITH COLLAR CONNECTION
INV EL: = 0.62 (S)

PROP 6'X5' CONCRETE BOX CULVERT
SEE SHEET 39

PROP ±13 LF. 15" RCP @ 1.48%
CONNECT TO BOX CULVERT
WITH COLLAR CONNECTION
INV EL: = 0.25 (NE)

4302 4301 4300

S-52 S-48A S-48

PROP 29"X45" ERCP

6" CI(WM)
TO BE REMOVED
STA. 703+84.67
STA. 36+88.50

Exist. R/W Line

8" Elm

Concrete 4' Clf Concrete 6' Wood Board

Buried Gas Unidentified Size and Type

Triple Verizon Buried Telephone

Verizon Fiber Optic

MATCHLINE STA: 703+00.00

MATCHLINE STA: 706+00.00

HUBERT AVENUE

705+00

704+00

37+00

℄ OF CONSTRUCTION

24" CI(WM)

PROP 36" RCP

PROP 54" RCP

S-55 S-47 S-50A S-50 S-54

POLE TO BE
HELD IN PLACE

Power Pole

Tripple 8" Crape Myrtle

4' Clf 4' Clf 4' Clf

Exist. R/W Line

Concrete

4218 4223 4224

PROP ±12 LF. 15" RCP @ 1.50%

PROP ±12 LF. 15" RCP @ 1.48%

℄ OF CONSTRUCTION

W. VASCONIA ST.

Concrete Drive

Concrete Drive

14" Camphor

8" Camphor

10" Camphor

2" Plastic (Gas)

Clean Out

Verizon

Verizon Fiber Optic

3' wood Fence

Exist. R/W

Exist. R/W Line

5.74 5.50 5.59 5.77 6.01 5.83 5.90 6.14 5.98 5.74 5.95 5.72 5.71

NOTE:
SEE SEPARATE PLANS FOR STORM
AND WASTEWATER DESIGN.

S-47
STA. 36+85.03, 0.05' R
PROP 10'X10' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" RCP (E) = -1.60
INV EL: 48"X76" HOLE W/BULKHEAD FOR FUTURE CONNECTION (N) = -1.15
INV EL: 36" RCP (S) = -0.50
INV EL: 6'X5' CONCRETE BOX CULVERT (W) = -1.60
MH RISER RIM: 6.10

S-55
STA. 703+57.85, 3.09' L
PROP 6'X4' FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 29"X45" ERCP (S) = -0.16
INV EL: 36" RCP (N) = -0.16
MH RISER RIM: 5.88

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - STORMWATER
PLAN

SHEET 66 OF 105

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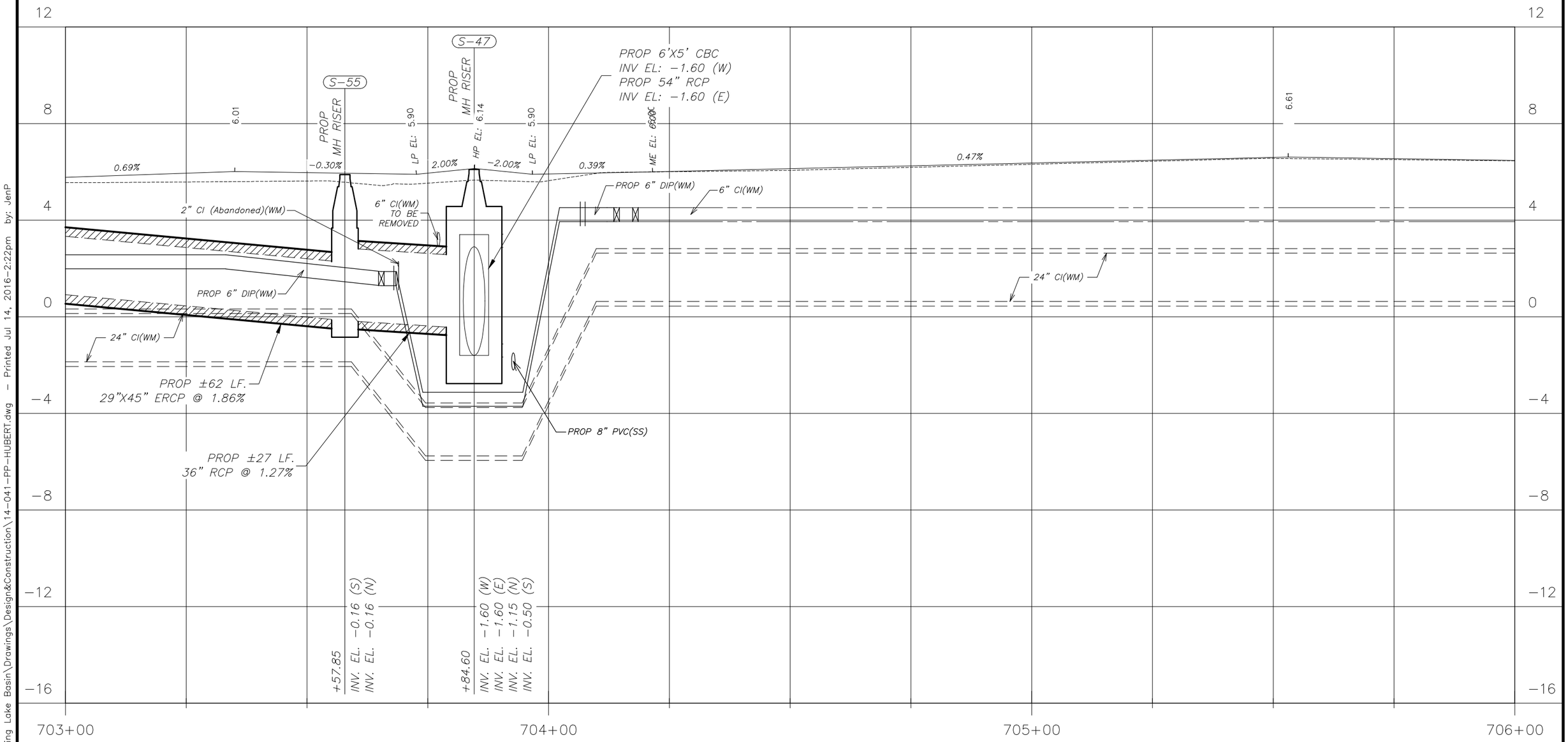
SW



HUBERT AVE. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - STORMWATER
PROFILE

SHEET 67 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-HUBERT.dwg - Printed Jul 14, 2016-2:22pm by: JenP

SW

CHEROKEE RD.

W. VASCONIA STREET

S-16
S-9
LP
STA: 908+43.63
EL: 4.163
4.16
3.98
4.22
4.22
3.94
Brick Paver Drive
EC
TB
12"
4.03
4.11
S-10
3.95
Stop Sign
4.05
4.28
0.40%
℄ OF CONSTRUCTION
909+00
1.40%
MH-28
4.43
VALLEY FLOW LINE
4.09
MH-S-15
4.20
4.34
18"
WATER
0
10
1"=10'
4.31
1.15%
1.23%
1000+50
4.30
4.56
0.40%
4.68
910+00
0.59%
4.34
11+00
0.42%
4.48
0.56%
4.65
4.80
4.24
4.25
MH-29
℄ OF CONSTRUCTION
4.42
4.55
0.42%
4.68
STA: 910+00.00
EL: 4.800
12+00
3.72
3.89
4.00
4.30
4.07
4.00
4.05
3.80
4.19
3.98
S-12A
3.78
Stop Sign
S-13
3.89
3.89
3.89
Clean Out
S-12
WATER

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. & W VASCONIA ST. VALLEY
DETAILED GRADING PLAN

SHEET 68 of 105

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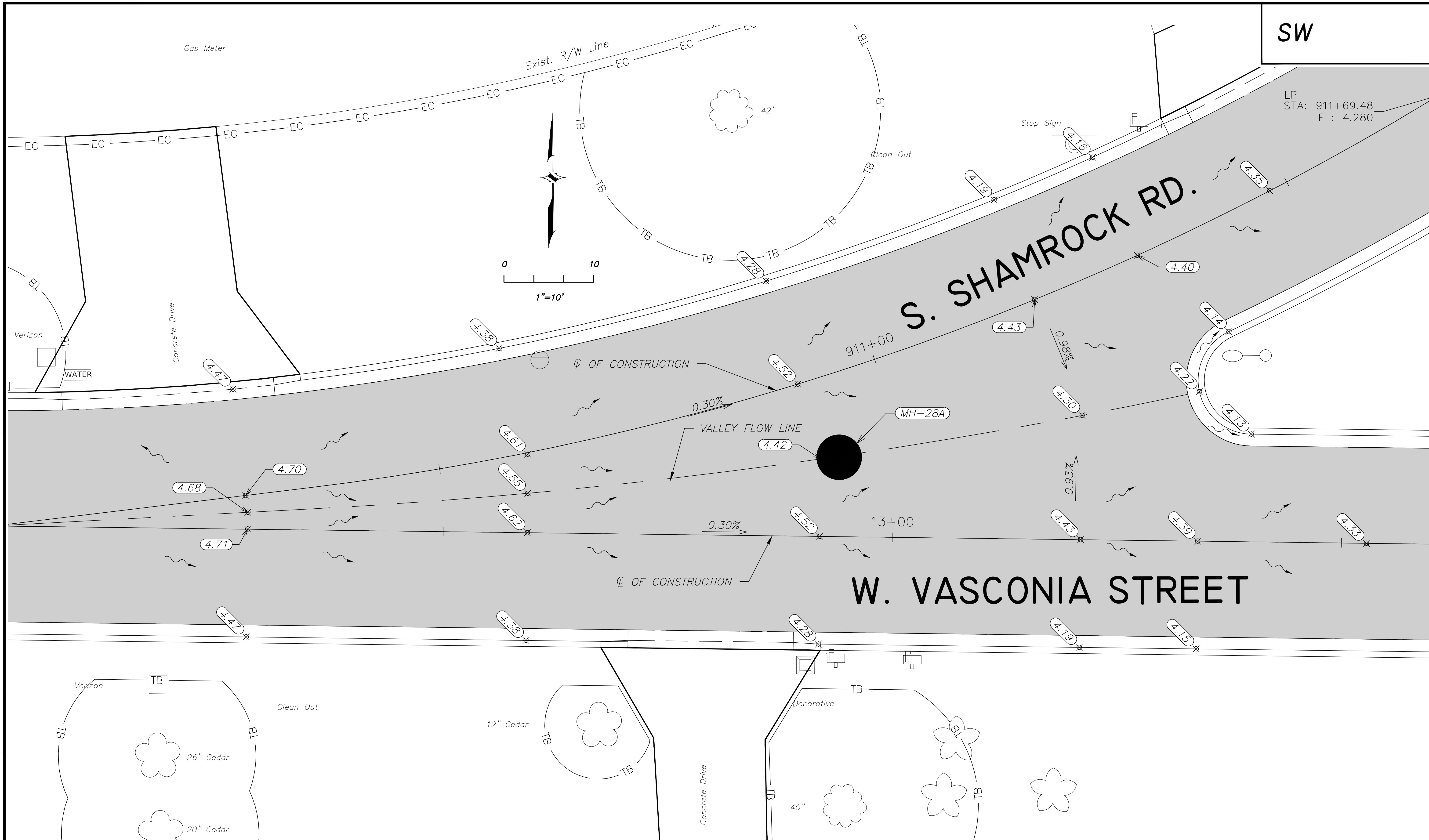

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. & W VASCONIA ST. VALLEY
DETAILED GRADING PLAN

SHEET 68A
OF 105

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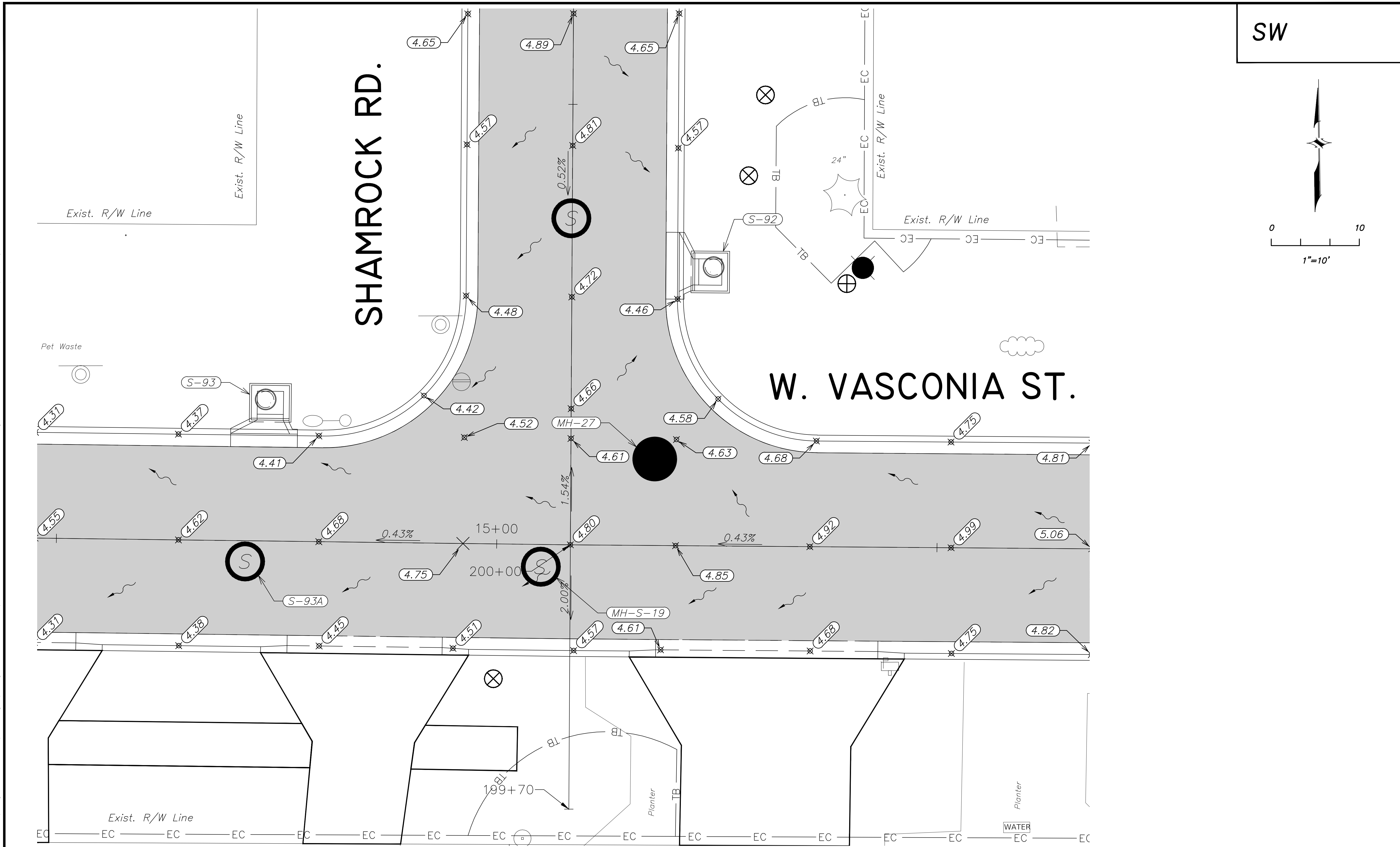

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3			6		
2			5		
1			4		

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DATE: 7/15/16

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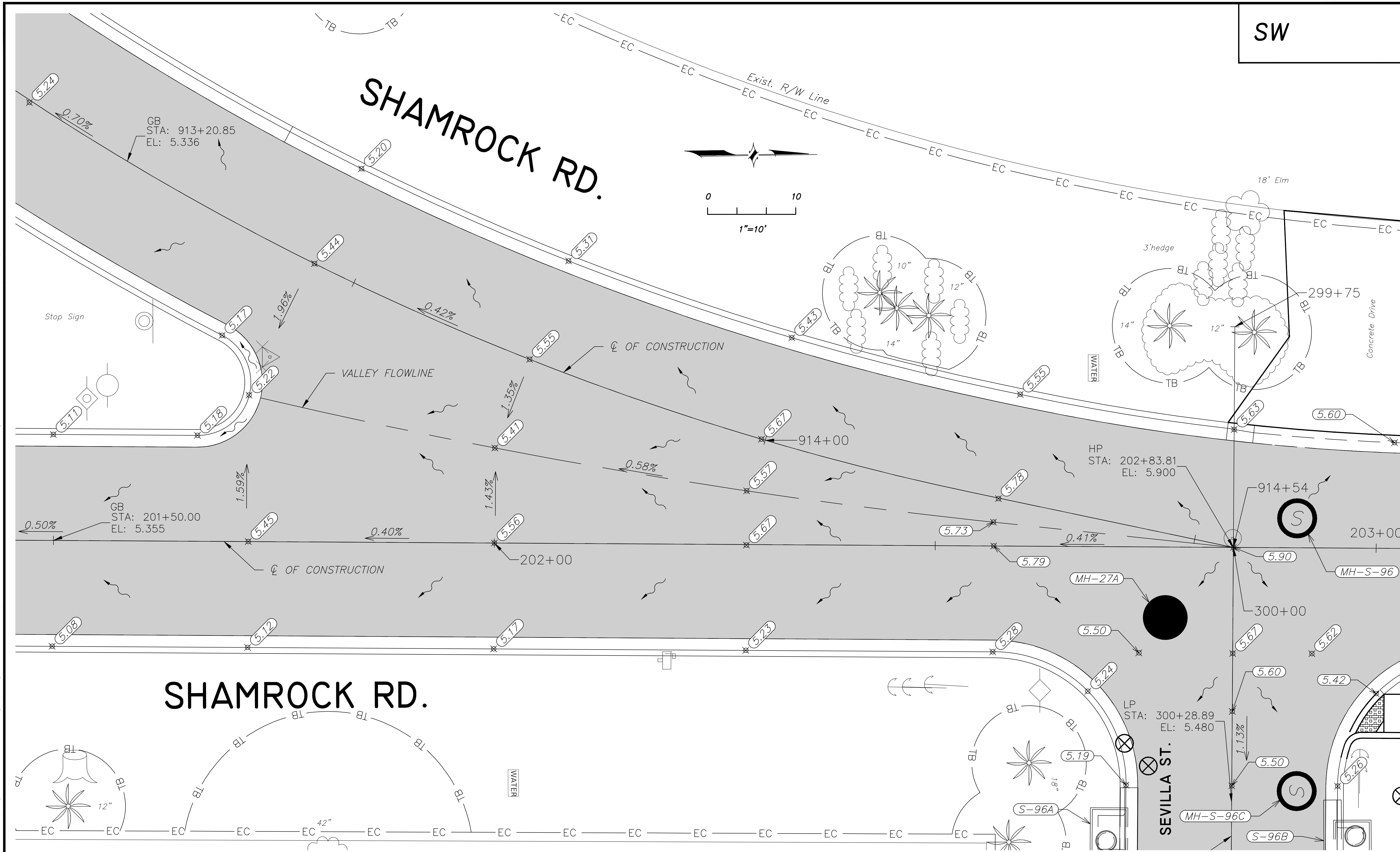
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST. & SHAMROCK RD.
DETAILED GRADING PLAN

SHEET 68B
105



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK VALLEY
DETAILED GRADING PLAN

SHEET 68C
OF 105

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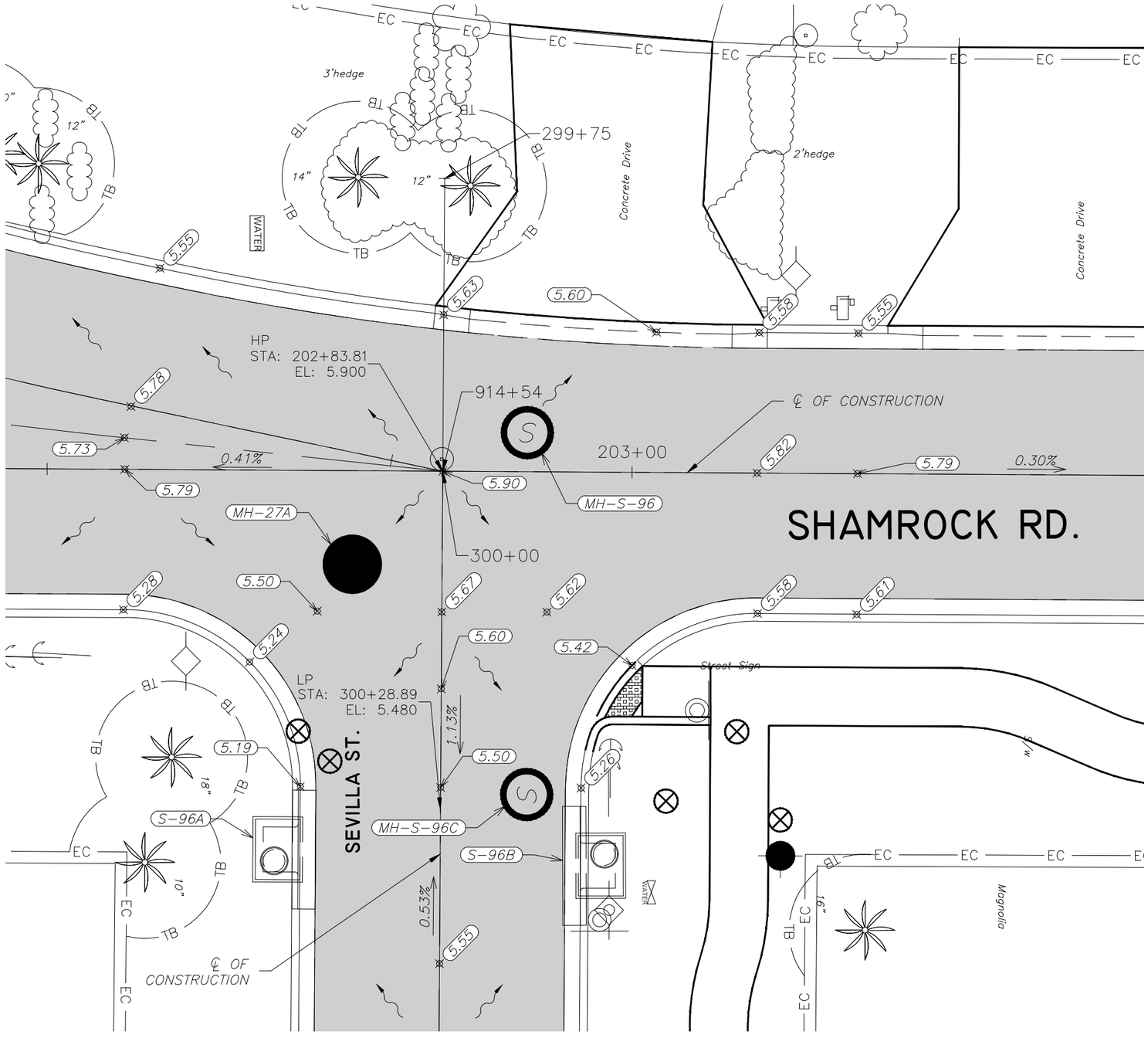
SW



0 10

1"=10'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. & SEVILLA ST.
DETAILED GRADING PLAN

SHEET 68D OF 105

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SW

0 10

1"=10'

404+00

W. VASCONIA ST.

HESPERIDES AVE.

23+00

MH-24

S-26

S-27

S-29

S-30

S-32

0.69%

0.30%

1.99%

0.30%

0.43%

2.00%

1.22%

4.39 4.64 4.40 4.29 4.53 4.29 4.56 4.32 4.32 4.49 4.60 4.62 4.60 4.66 4.38 4.44 4.55 4.66 5.26 4.71 5.00 4.95 4.90 4.85 4.82 4.87 4.93 5.02 5.11 4.76 4.71 4.66 4.64 4.61 4.65 4.69 4.78 4.87 4.57 4.80 4.57 4.63 4.92 4.68 4.68

Exist. R/W Line

EC

TB

WATER

Verizon

Stop Sign

12" Palm

22"

24"

20"

5"

16"

8"

9"

20"

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST. & HESPERIDES AVE.
DETAILED GRADING PLAN

SHEET 68E of 105

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SW

S. MANHATTAN AVE.

W. VASCONIA STREET

W. VASCONIA STREET

Asph Dwy

Exist. R/W Line

EC

S/w

TB

Building Line

0 10

1"=10'

S-101 S-100A S-100 S-102 S-102A S-103

MH-S-40 MH-S-41 MH-S-101A MH-12 MH-S-42

4.63 4.61 4.66 4.69 4.82 4.85 4.80 4.76 4.95 4.90 4.67 4.80 4.76 4.50 4.56 4.57

5.21 5.18 5.26 5.35 5.42 5.28 5.09 5.15

608+00 0.30% 0.61% 2.04% 1.61% 1.26% 0.38%

31+00 5.08 5.04 0.89%

32+00 4.90 4.88 0.37% 4.93 4.99

4.62 4.62 4.64 4.68 4.52 4.69 4.77 4.75

4.78 4.61 4.65 4.70 5.15 4.76 4.57 4.53 4.57

WATER

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST. & MANHATTAN AVE.
DETAILED GRADING PLAN

SHEET 68F of 105

SW

0 10

1"=10'

HUBERT AVE.

W. VASCONIA ST.

704+00

37+00

Exist. R/W Line

EC

TB

S-48

S-48A

S-50

S-52

S-54

MH-10

MH-9

MH-S-47

MH-S-50A

MH-S-55

5.52 5.56 5.60 5.66 5.72 5.75 5.99 5.96 5.90 5.61 5.65 5.68 5.76 5.80 5.84 5.96 1.12% 6.14 1.04% 5.97 5.85 5.88 5.92 5.60 5.62 5.64 5.68 2.00% 0.30% 5.71 5.95 6.21 5.74 5.98 5.77 6.01

8" Camphor

14" Camphor

24"

32"

WATER

Verzon

Verizon

Clea

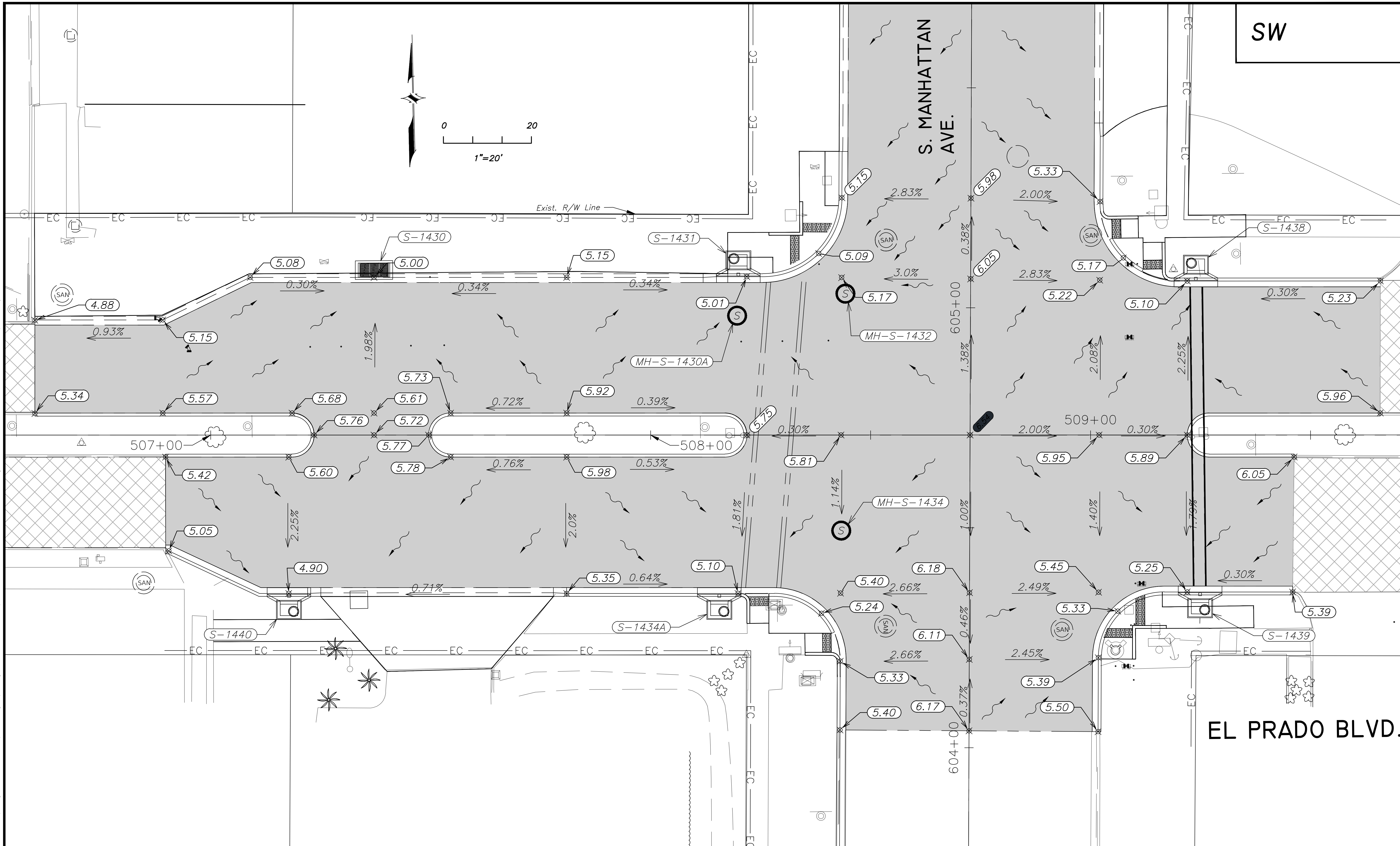
No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST. & HUBERT AVE.
DETAILED GRADING PLAN

SHEET 68G of 105



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

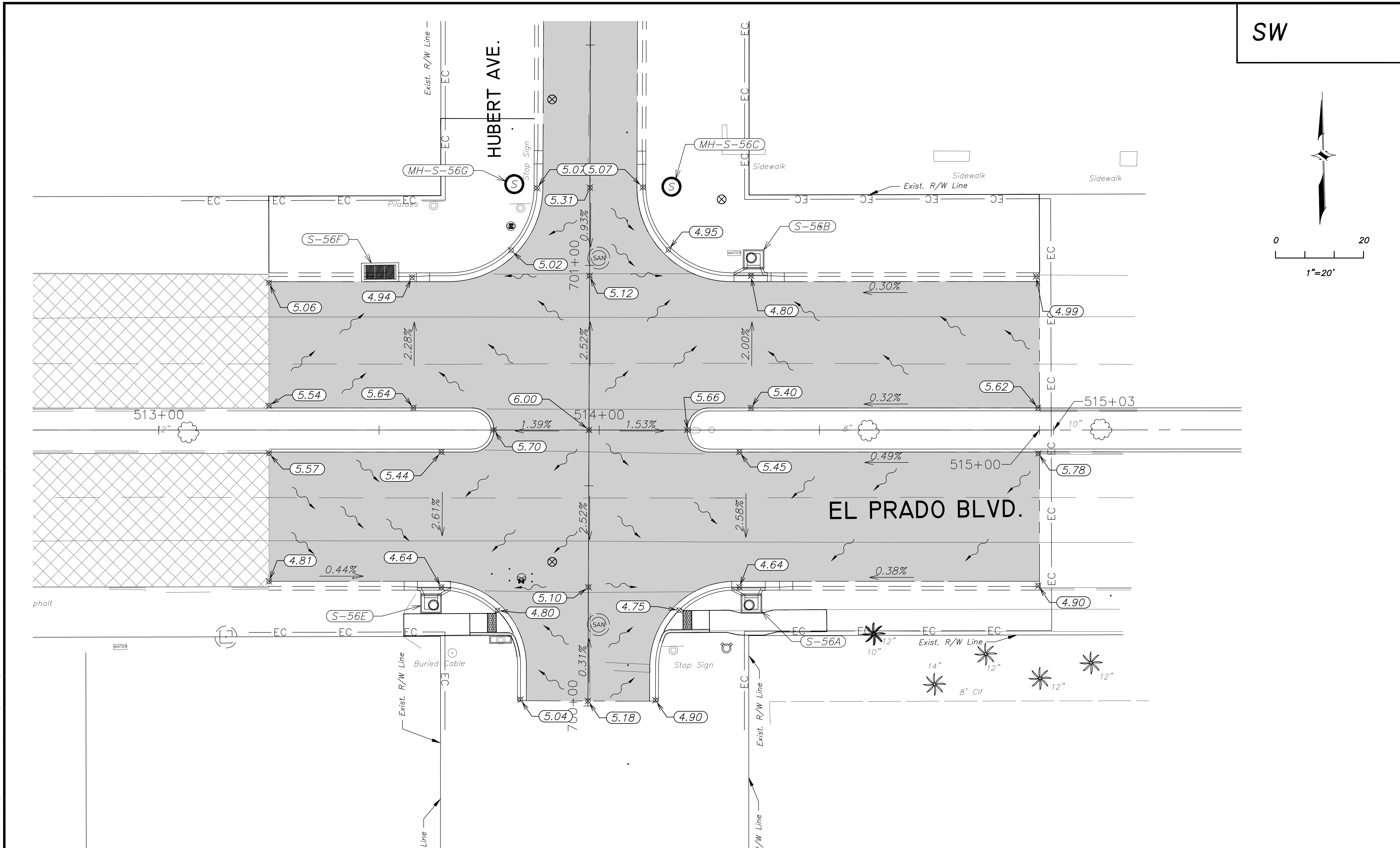
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. & MANHATTAN AVE.
DETAILED GRADING PLAN

SHEET 68H
OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-EL PRADO-GP.dwg - Printed Jul 14, 2016-2:25pm by: JenP



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

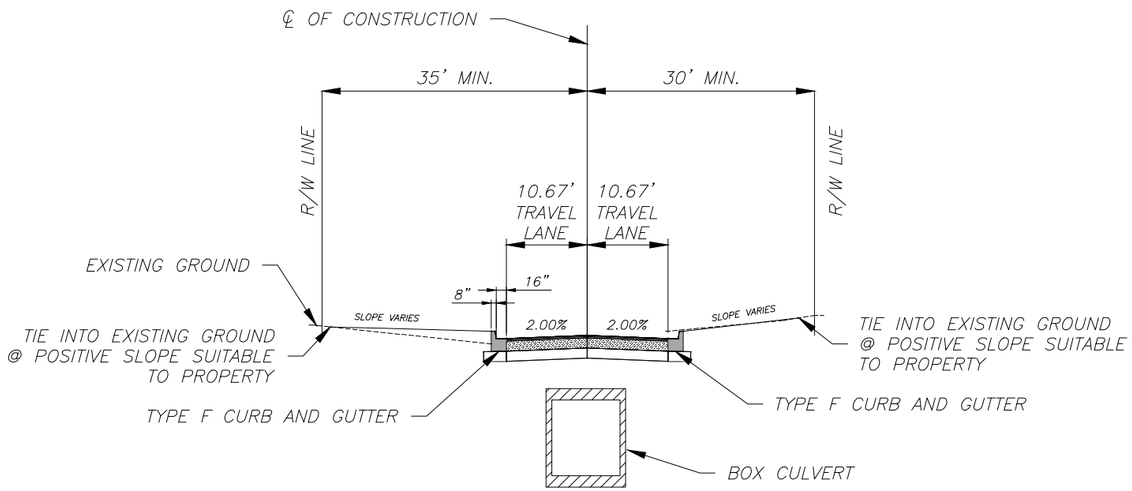
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD. & HUBERT AVE.
DETAILED GRADING PLAN

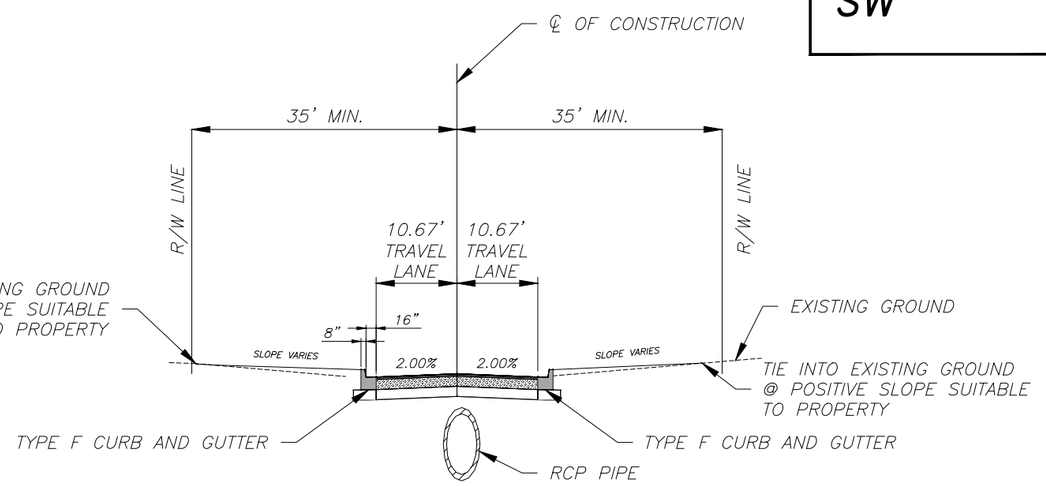
SHEET 681
105

SW



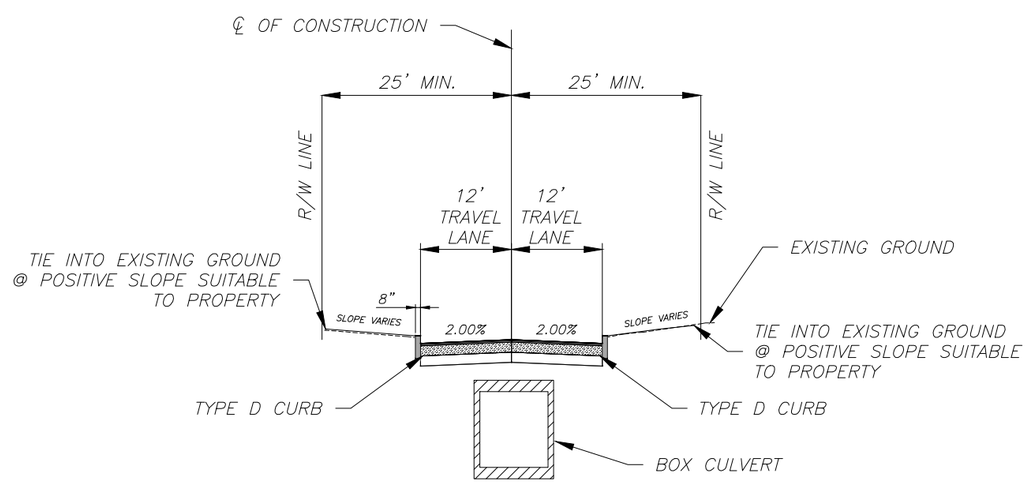
TYPICAL SECTION
CHEROKEE ROAD

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")



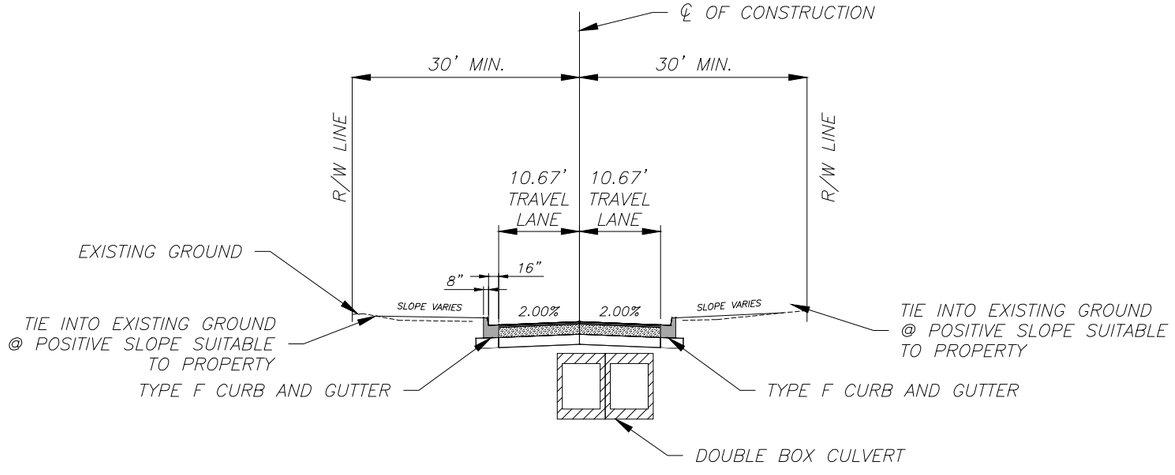
TYPICAL SECTION
W VASCONIA STREET
STA 10+40.54 - STA 31+33.53

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")



TYPICAL SECTION
W VASCONIA STREET
STA 31+91.40 - STA 37+57.54

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")



TYPICAL SECTION
SHAMROCK ROAD

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

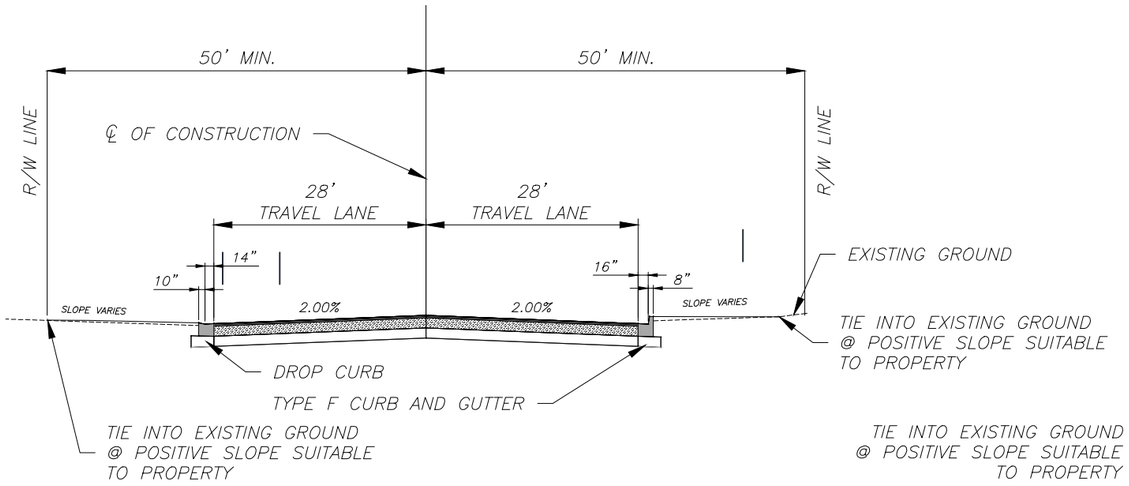
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

TYPICAL SECTIONS

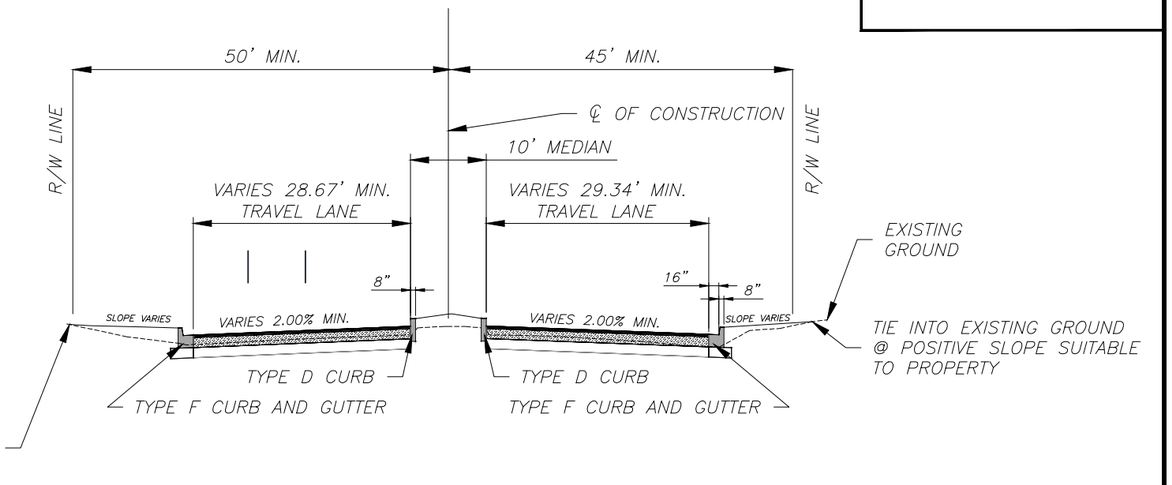
SHEET 69 OF 105

SW



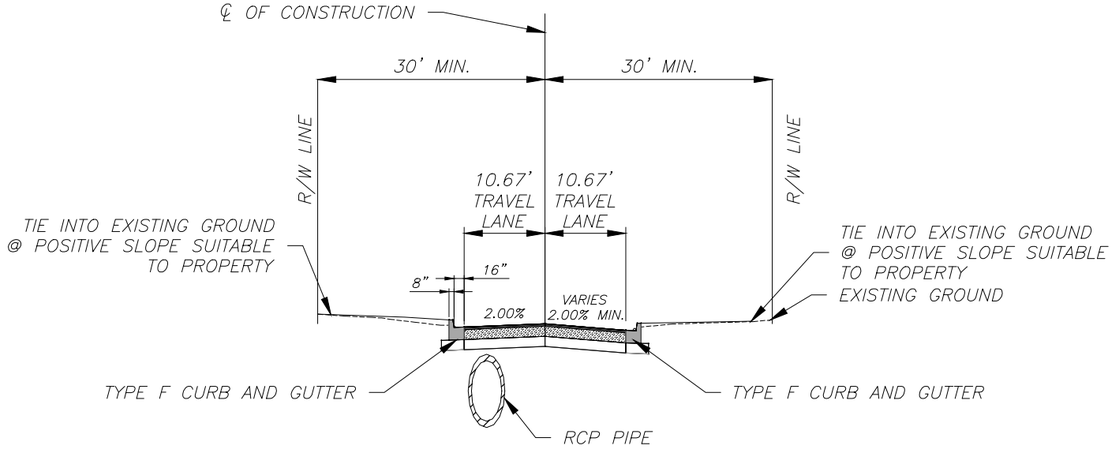
TYPICAL SECTION
MANHATTAN AVENUE

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2-1/2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")



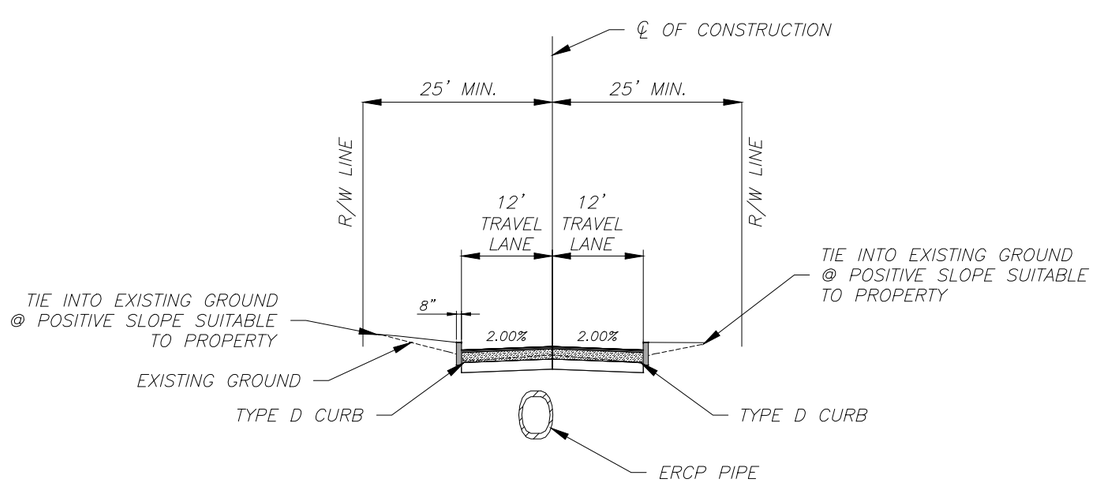
TYPICAL SECTION
EL PRADO BOULEVARD

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2-1/2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")



TYPICAL SECTION
SEVILLA STREET

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")



TYPICAL SECTION
HUBERT AVENUE

TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2")
OPTIONAL BASE GROUP GROUP 06 (CRUSHED CONCRETE LBR-100) (8")
TYPE B STABILIZATION (LBR-40) (6")

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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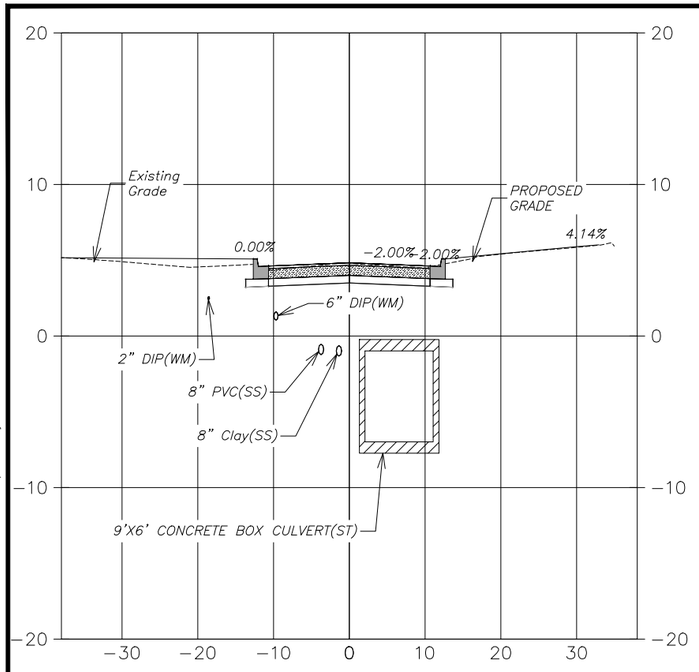
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

TYPICAL SECTIONS

SHEET
69A
105



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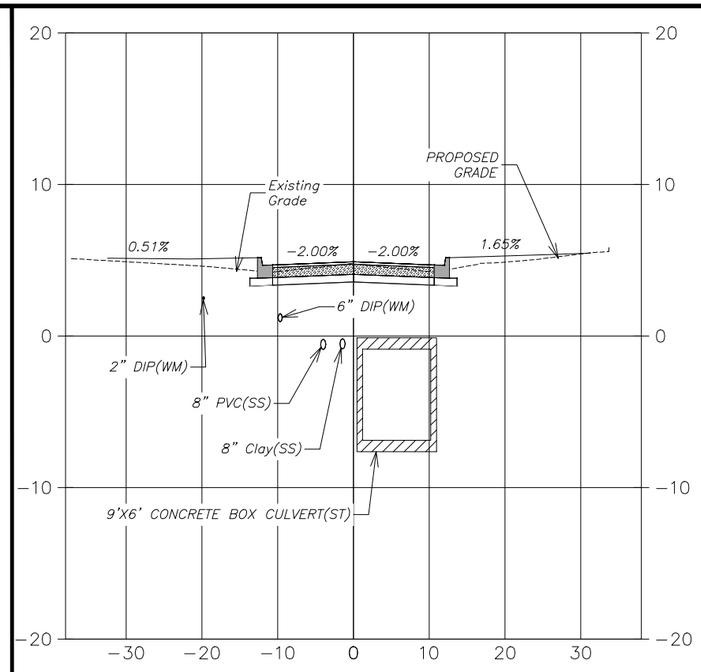

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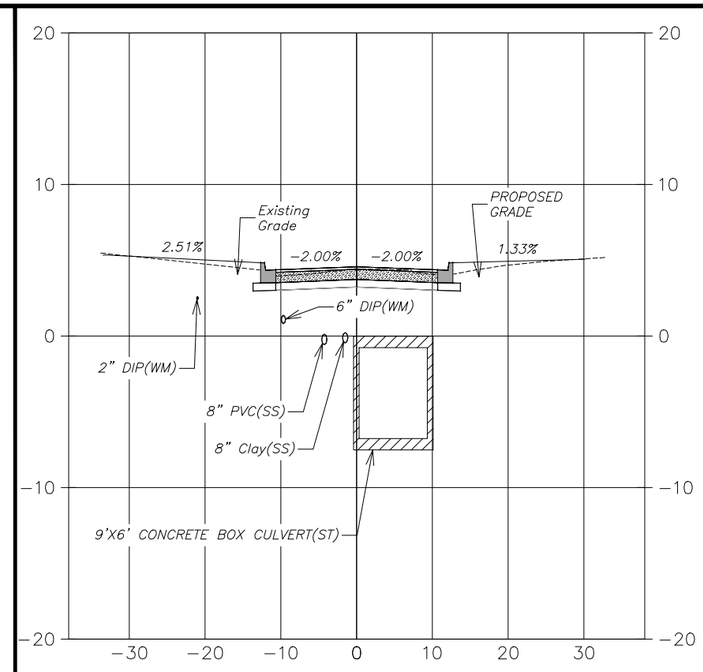

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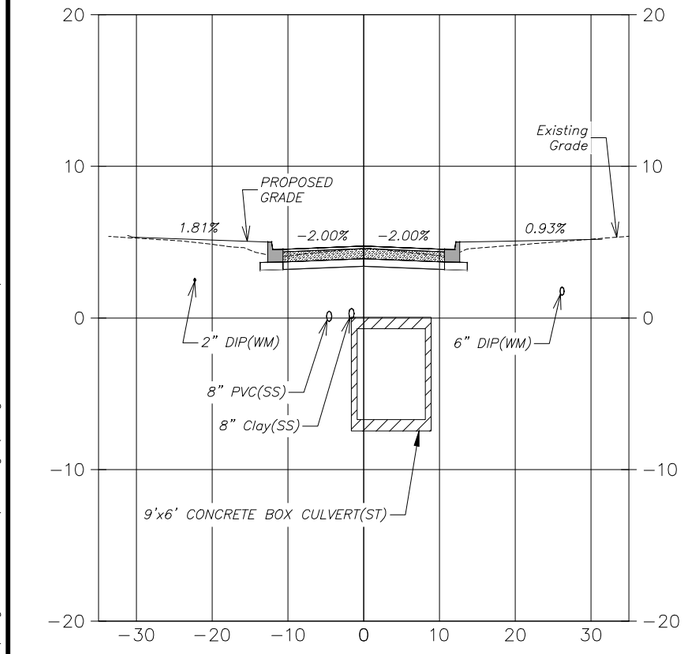

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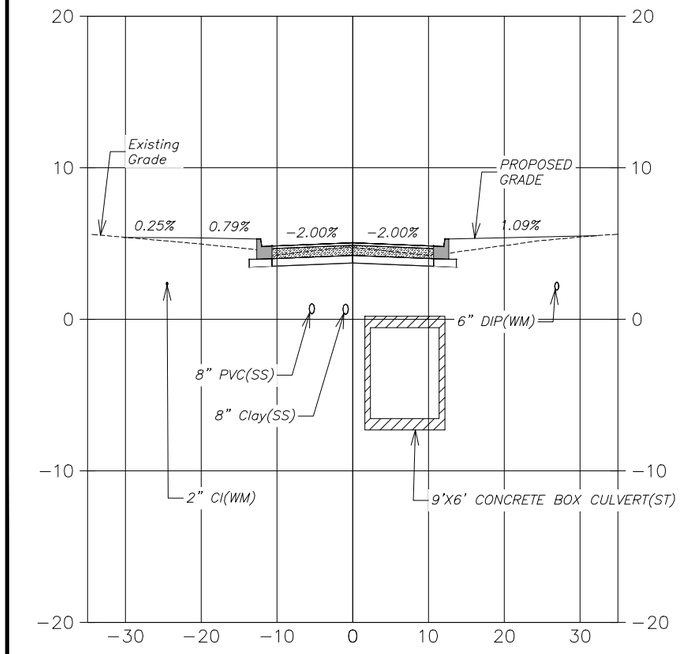

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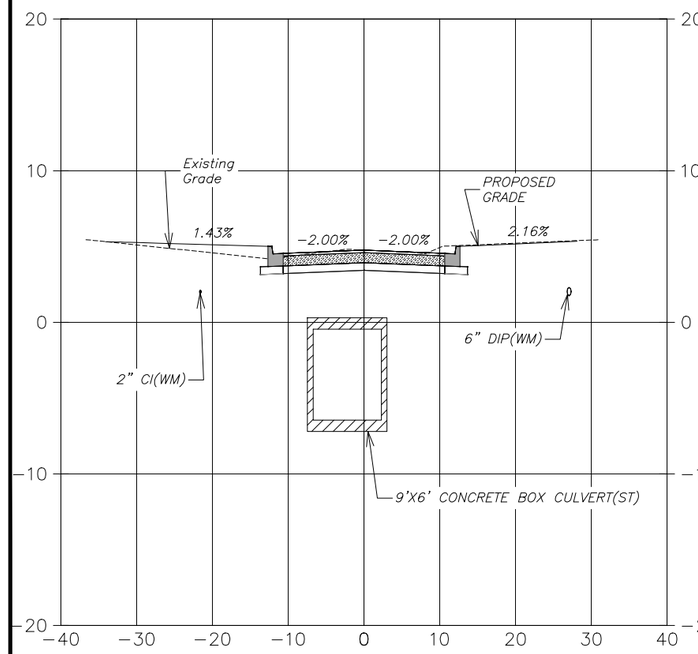

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SW

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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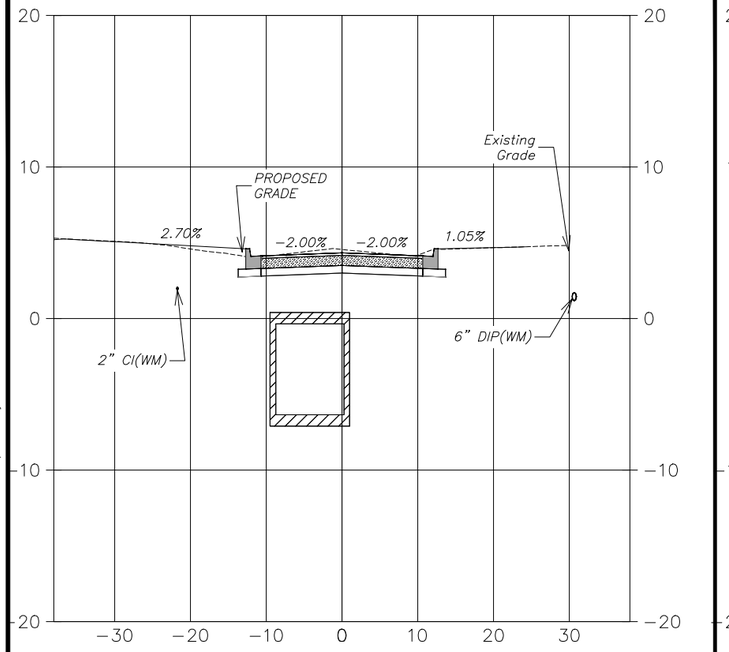
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD.
CROSS SECTIONS

SHEET
69B
OF
105



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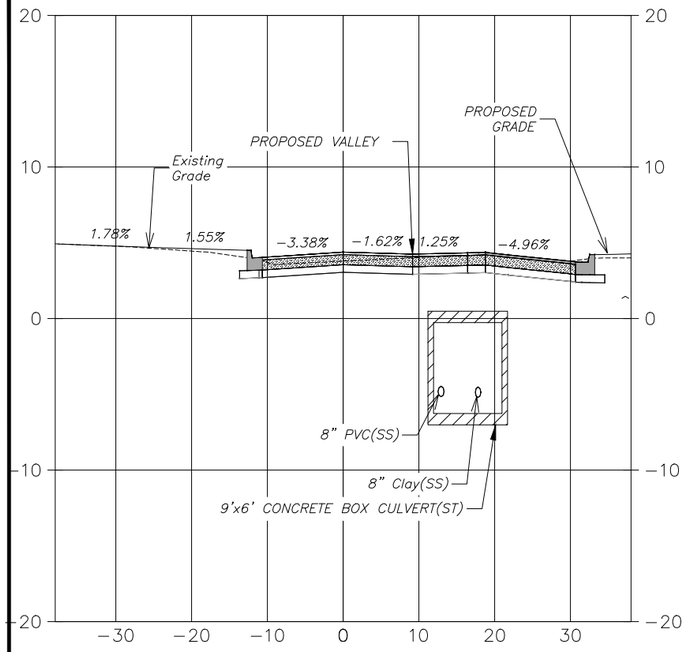

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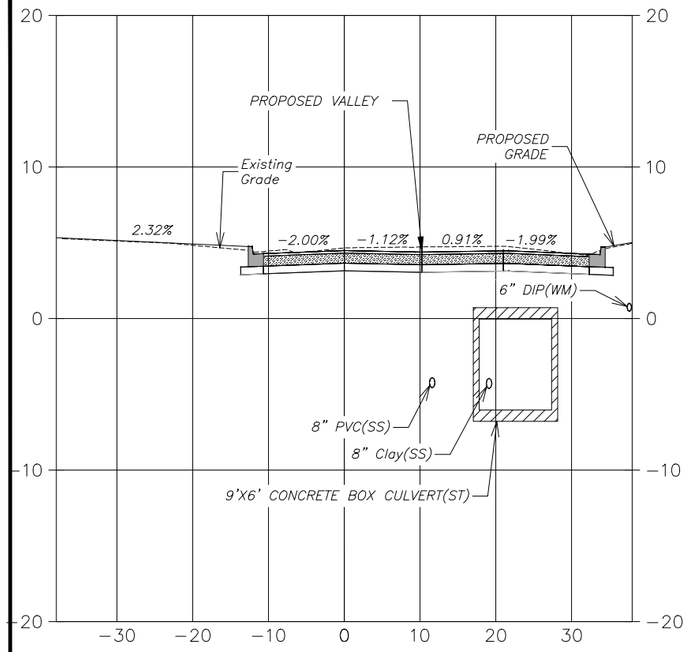

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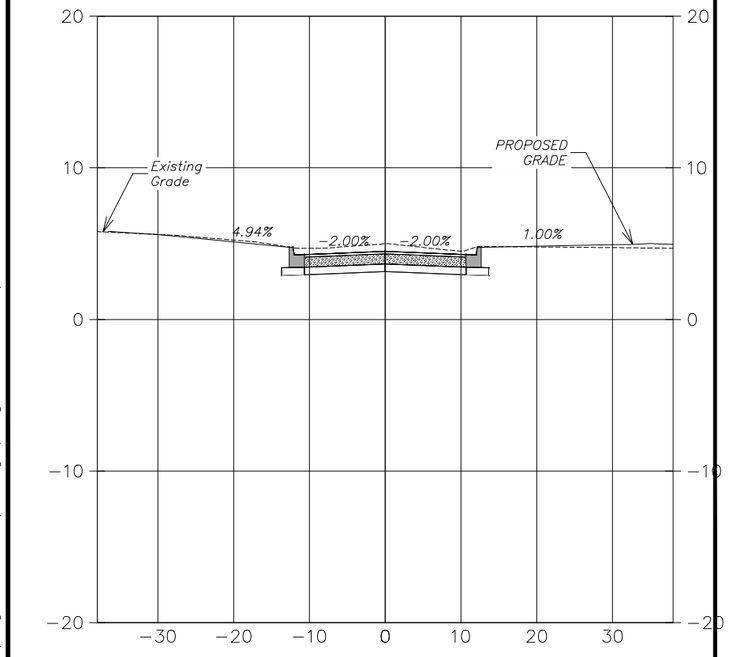

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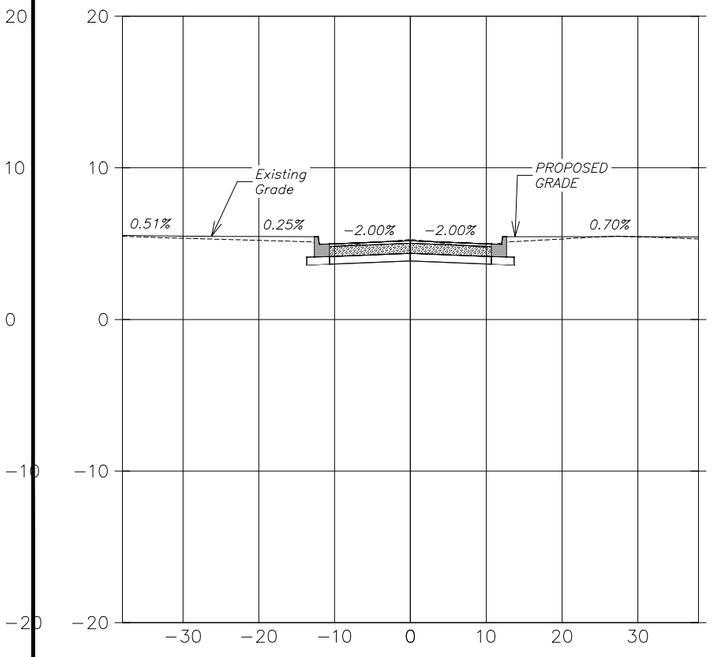

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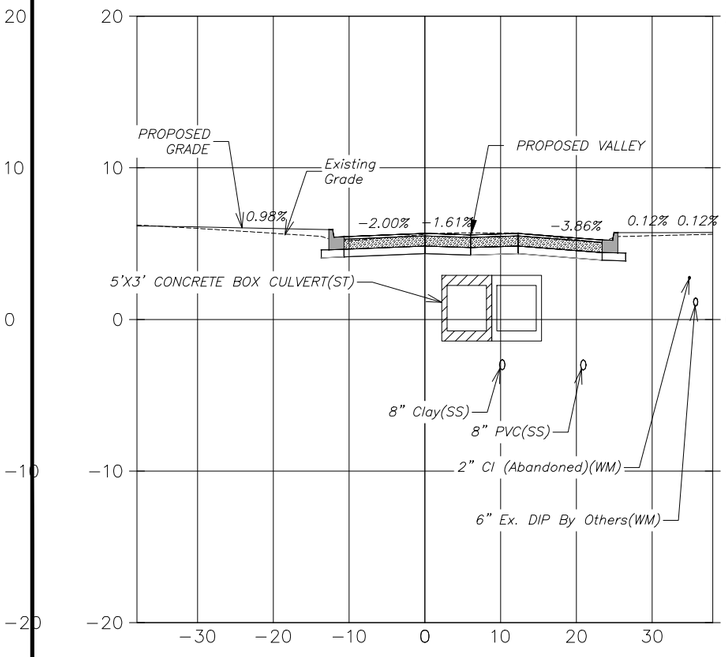

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. & SHAMROCK RD.
CROSS SECTIONS

SHEET 70 OF 105

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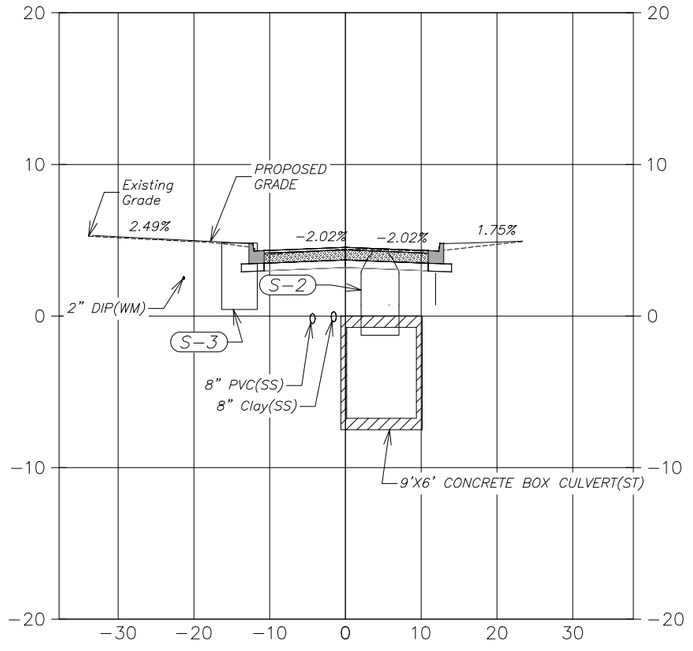

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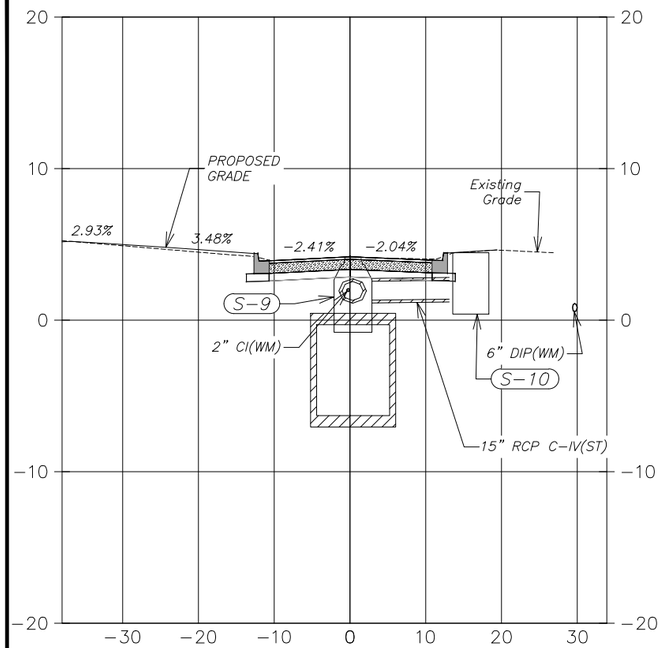

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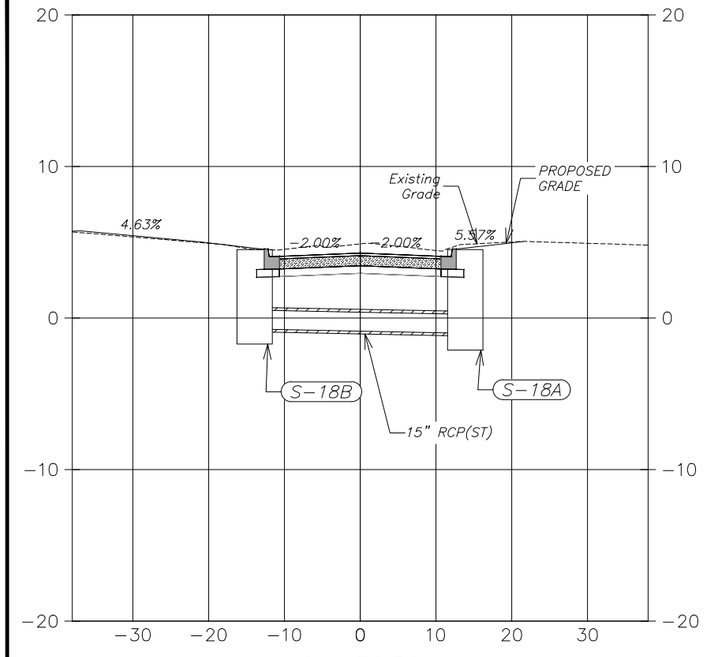

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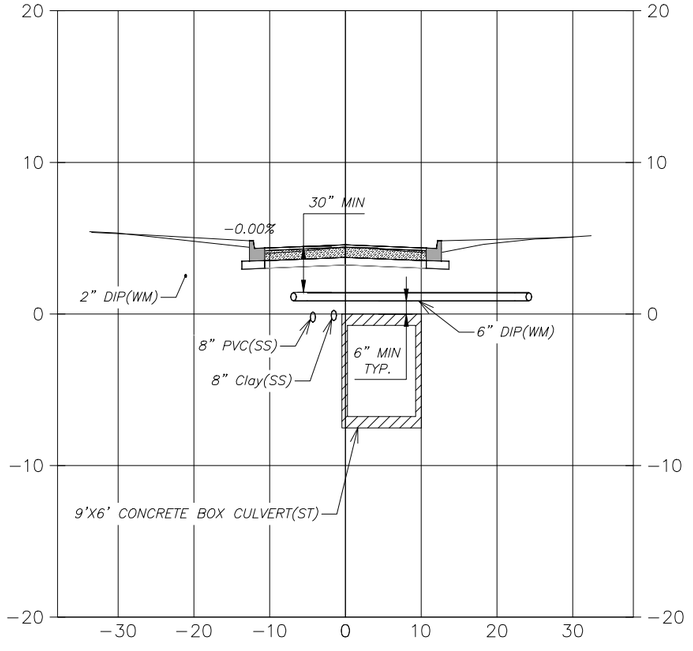

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SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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1			4		

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DRN: ASA
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD.
INLET CROSS SECTIONS

SHEET 71 of 105

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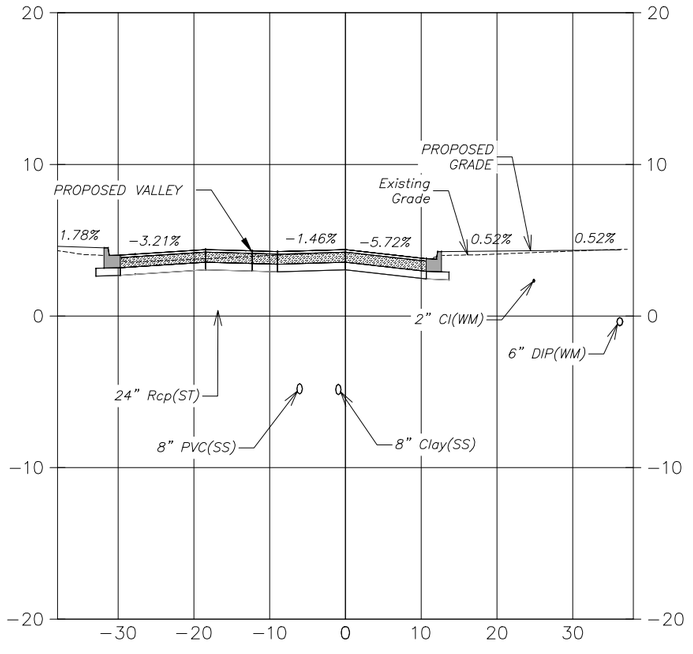

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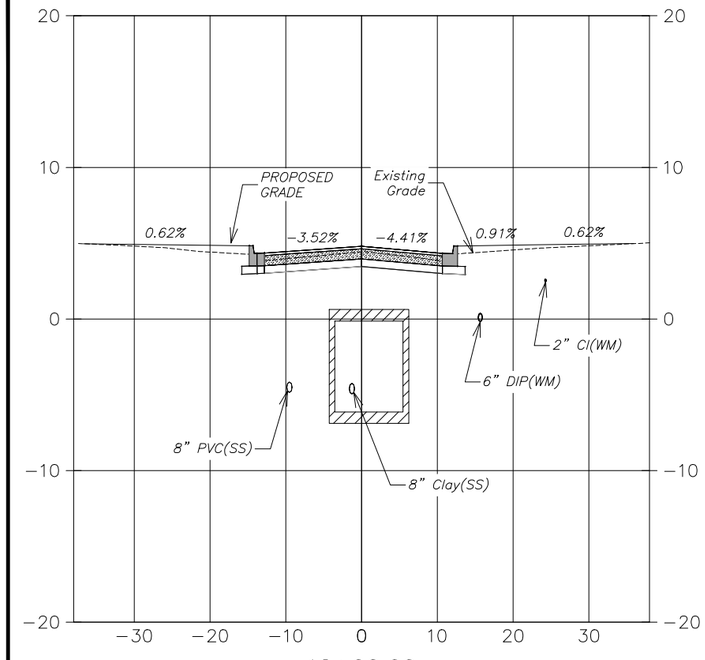

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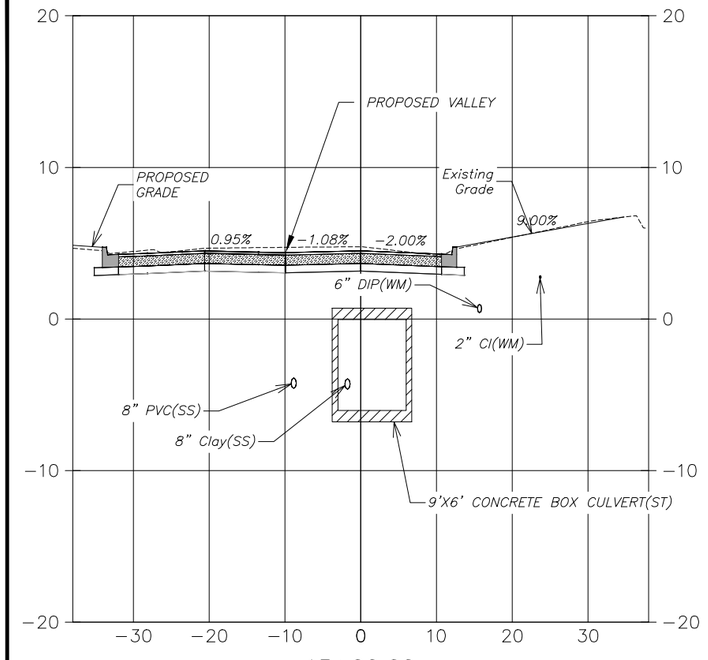

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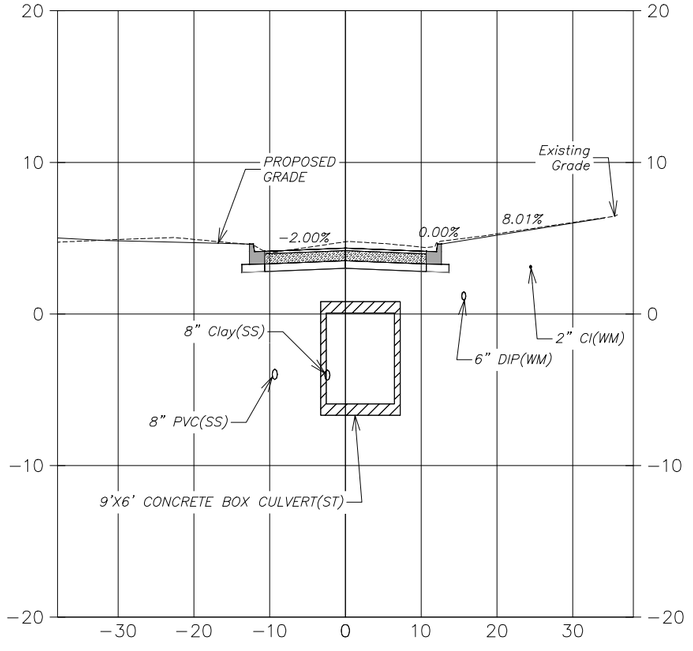

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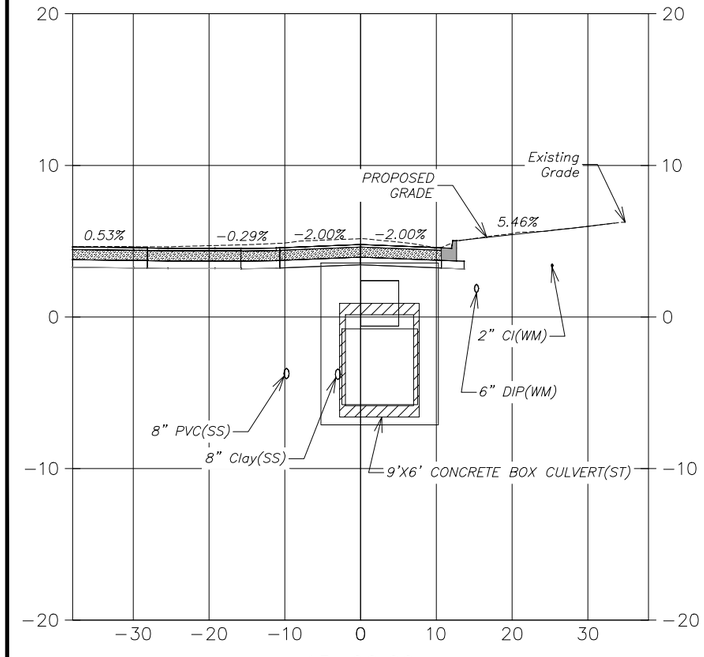

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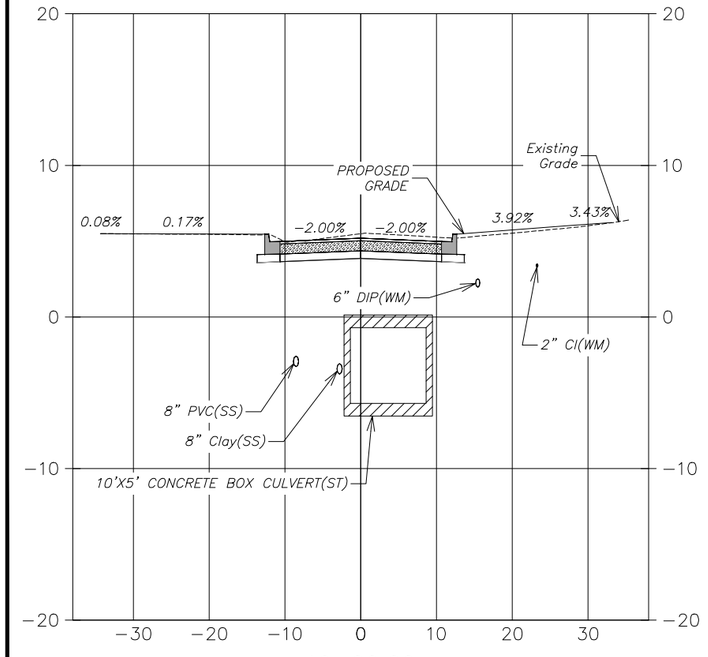

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
CROSS SECTIONS

SHEET 72 of 105

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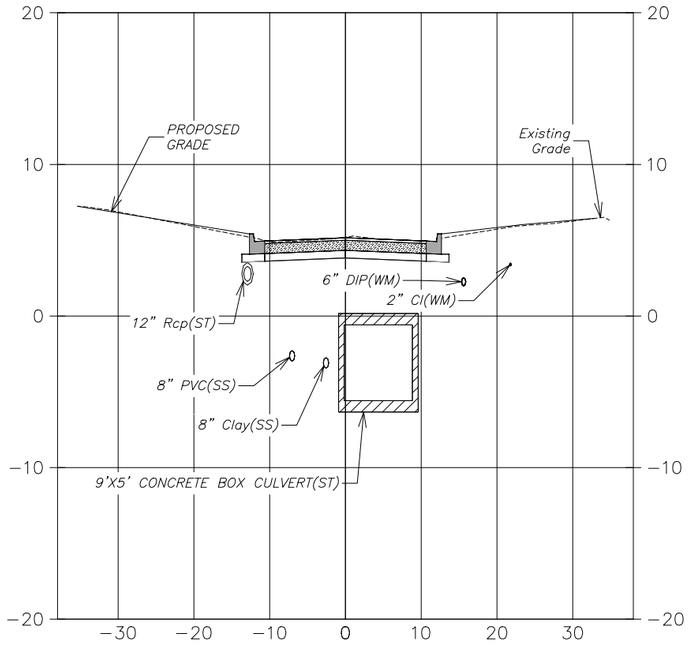

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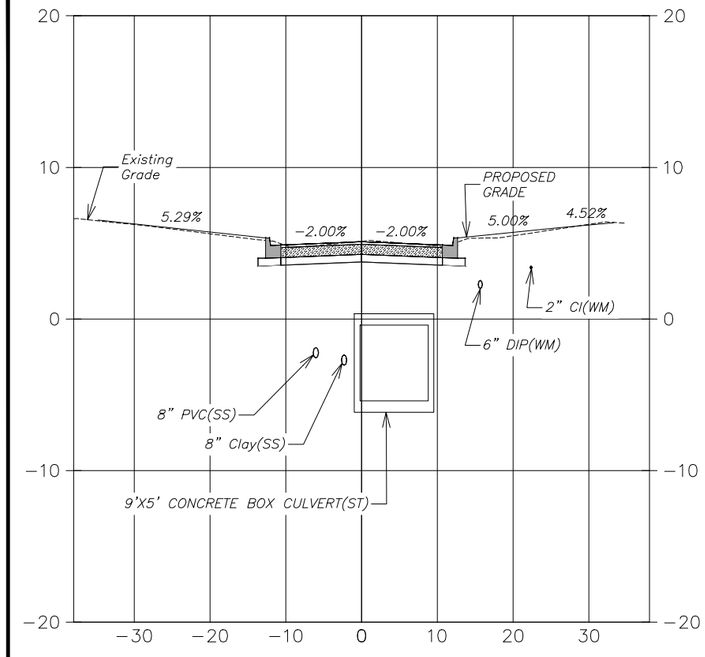

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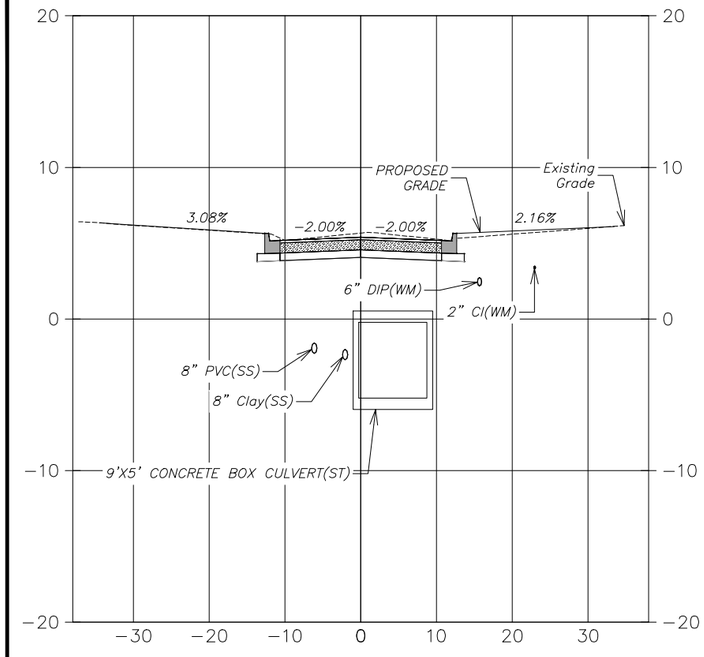

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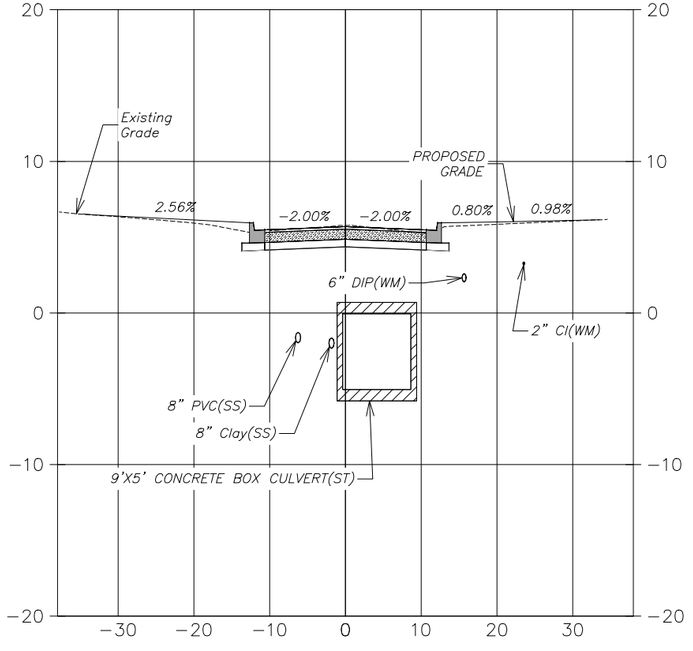

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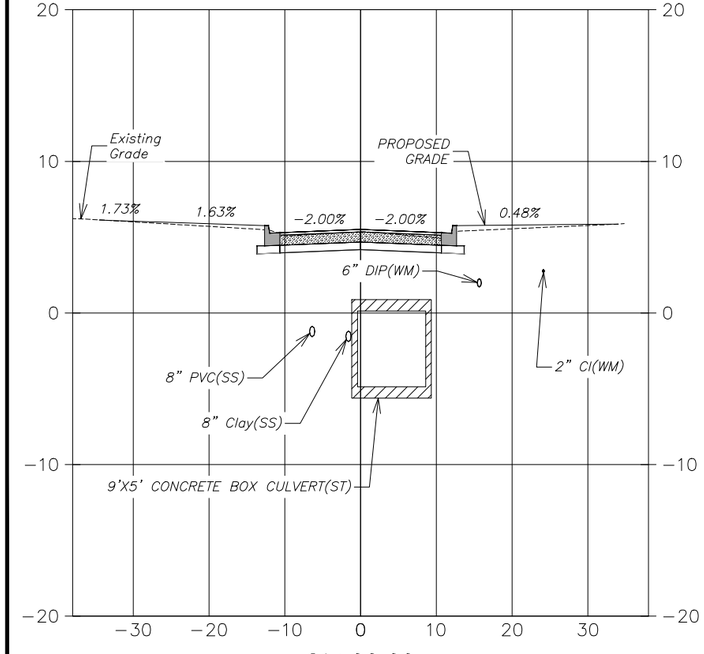

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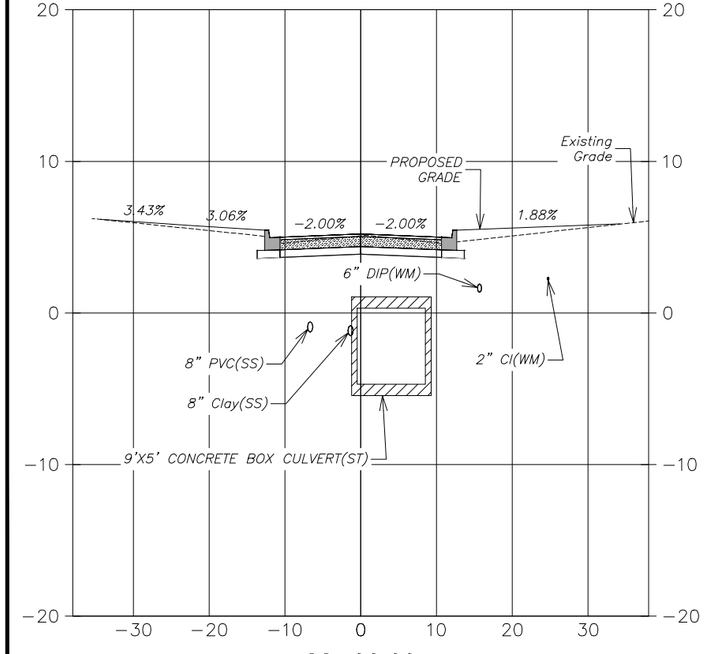

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
CROSS SECTIONS

SHEET 73 OF 105

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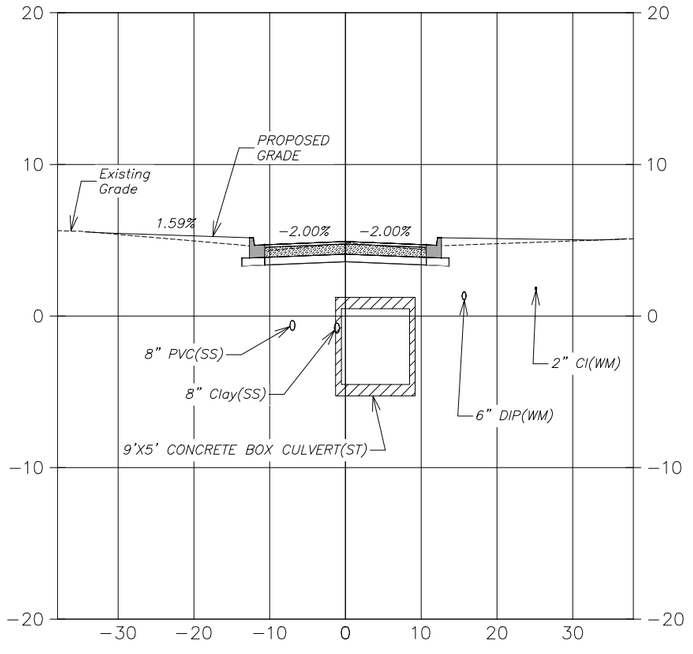

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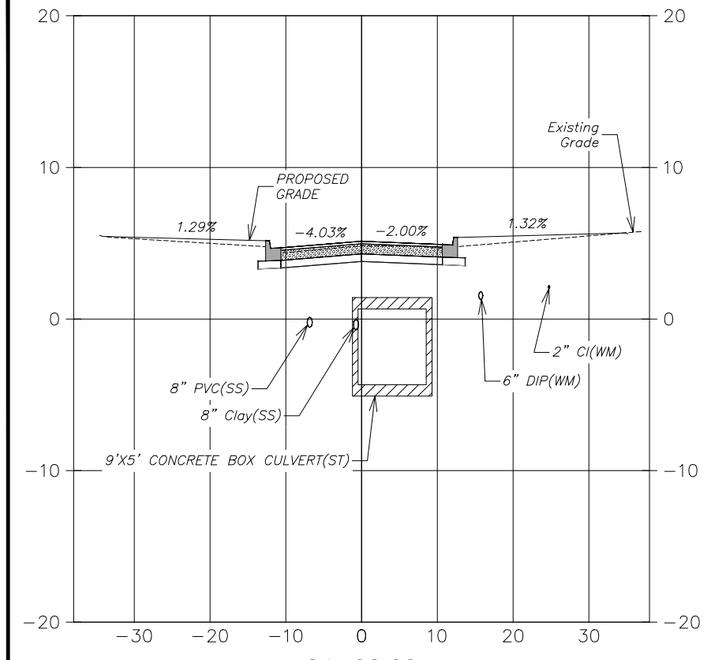

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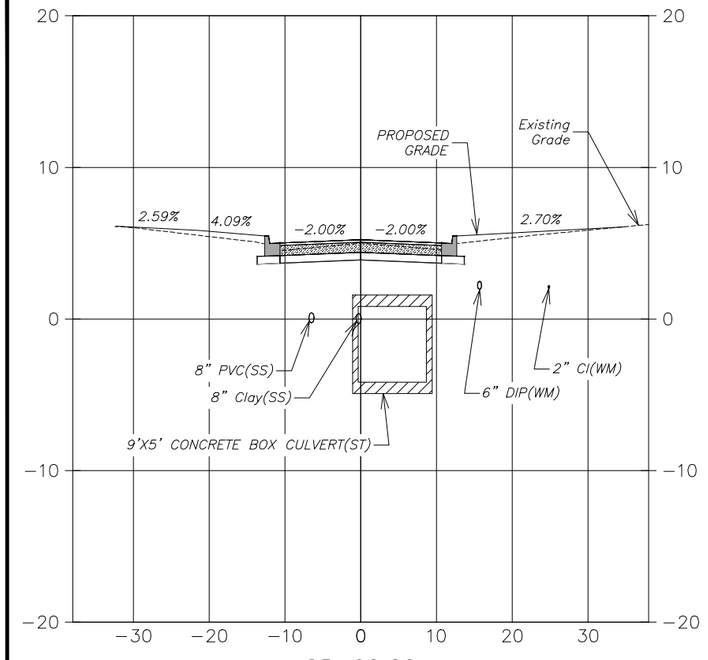

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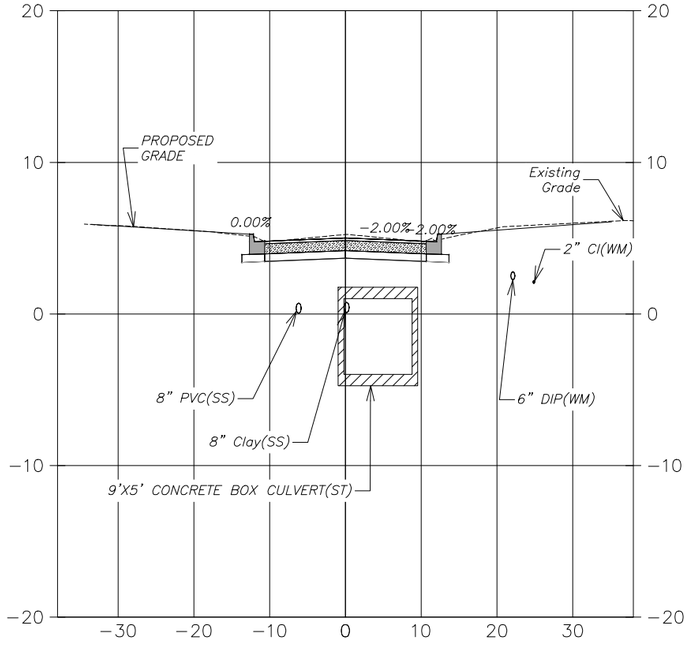

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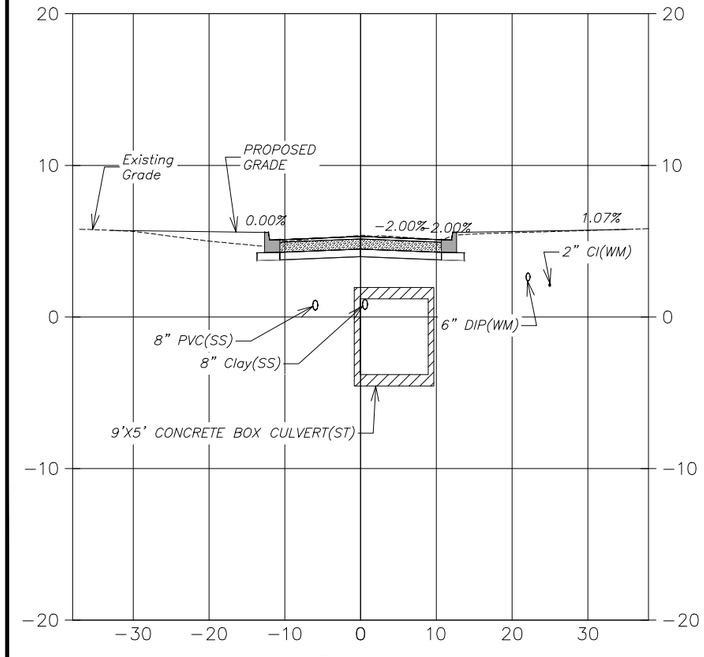

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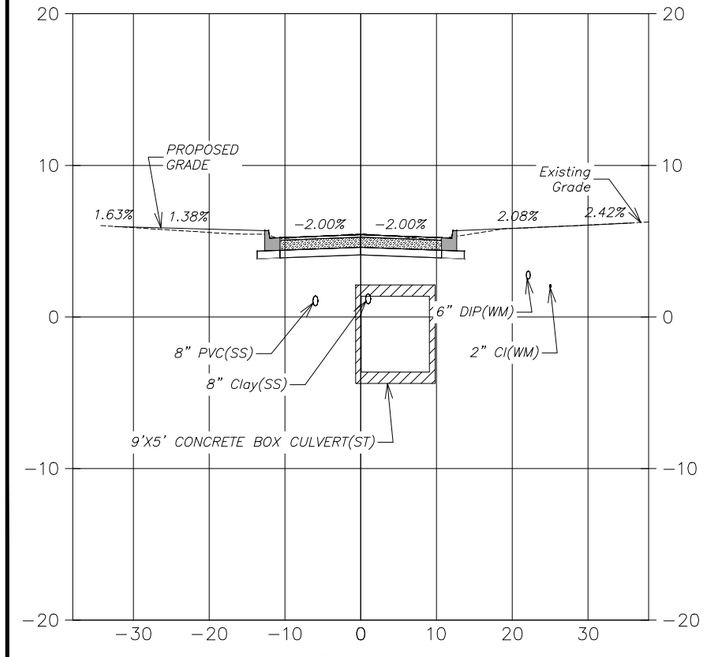

28+00.00
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SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

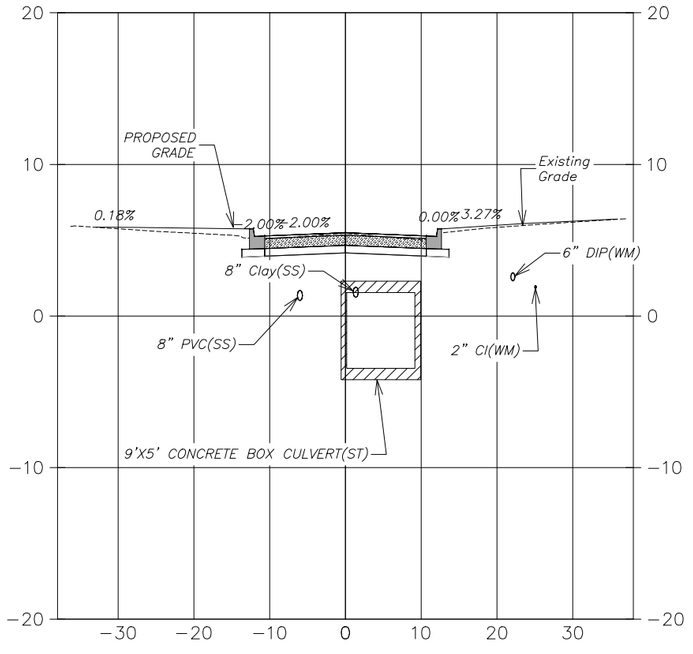
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
CROSS SECTIONS

SHEET 74 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-CHEROKEE-VASCONIA-Sections.dwg - Printed Jul 14, 2016-2:32pm by: JenP



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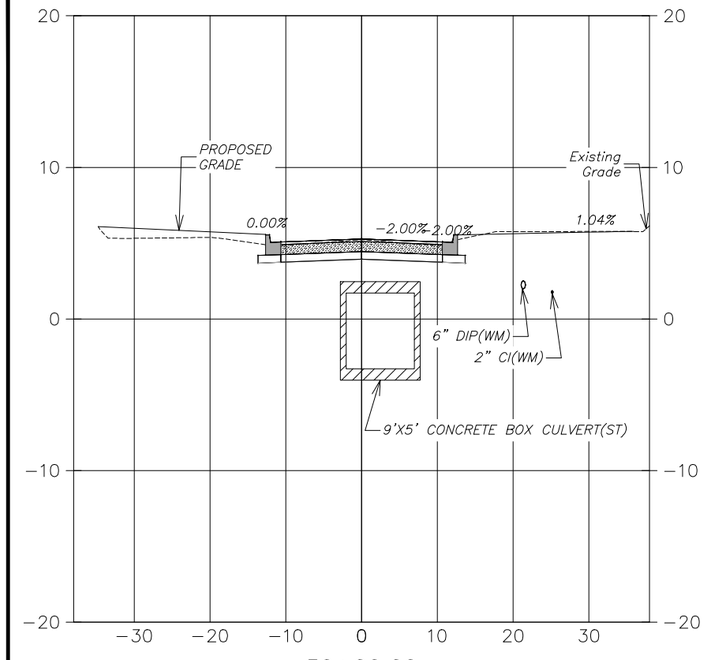

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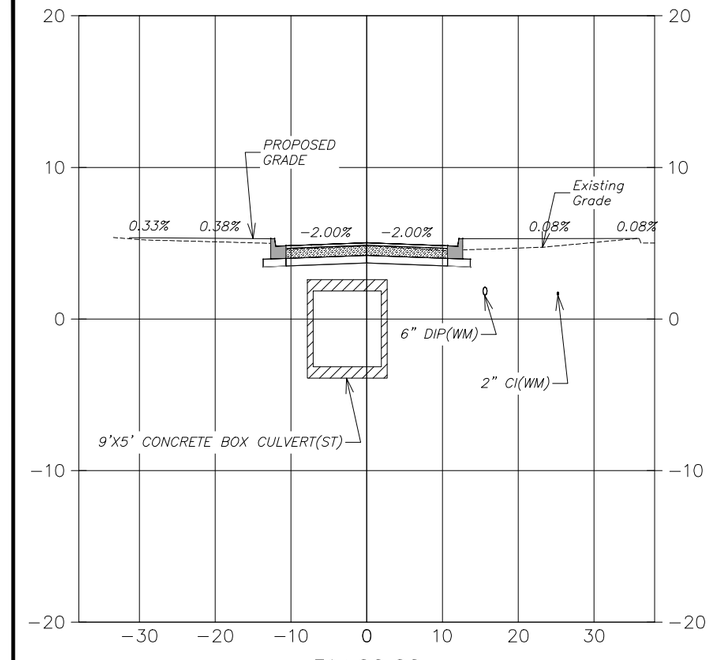

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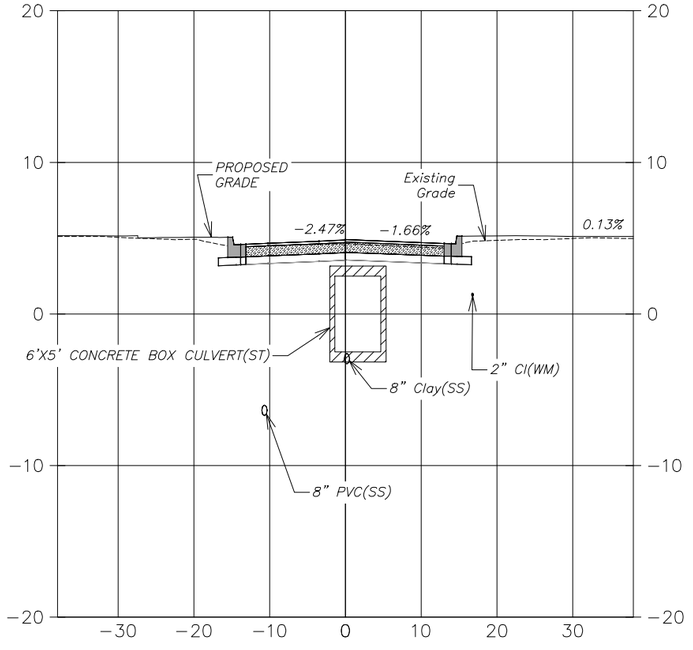

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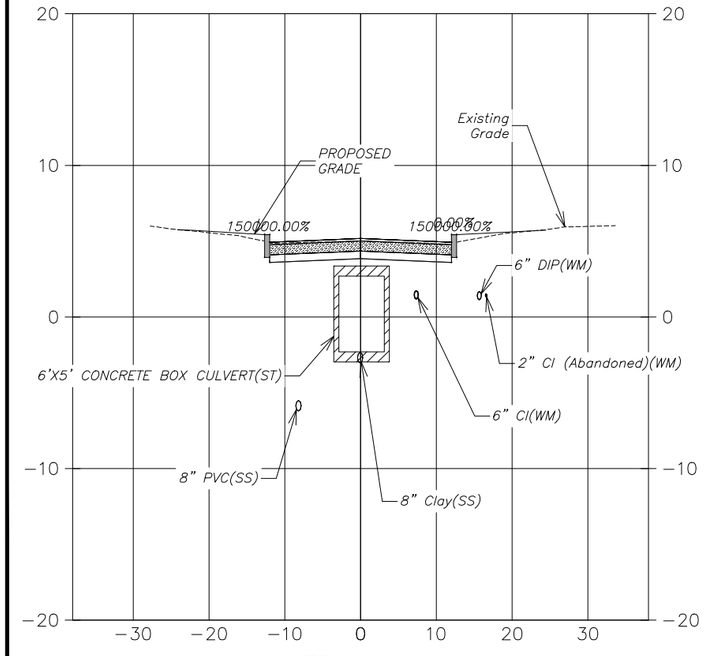

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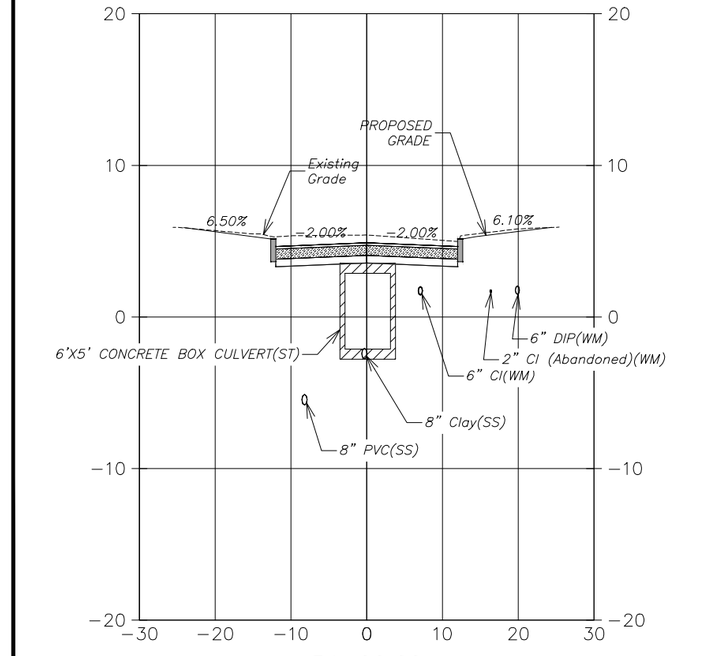

34+00.00
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SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

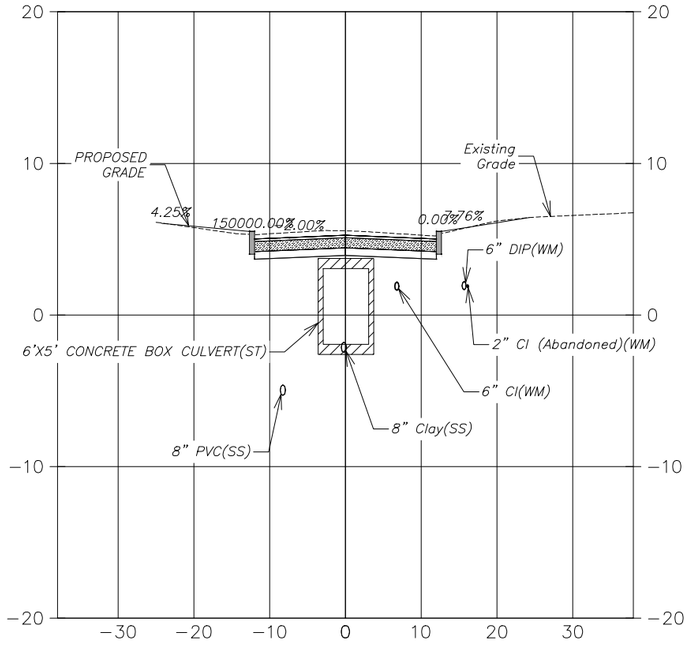
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
CROSS SECTIONS

SHEET 75 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-CHEROKEE-VASCONIA-Sections.dwg - Printed Jul 14, 2016-2:33pm by: JenP



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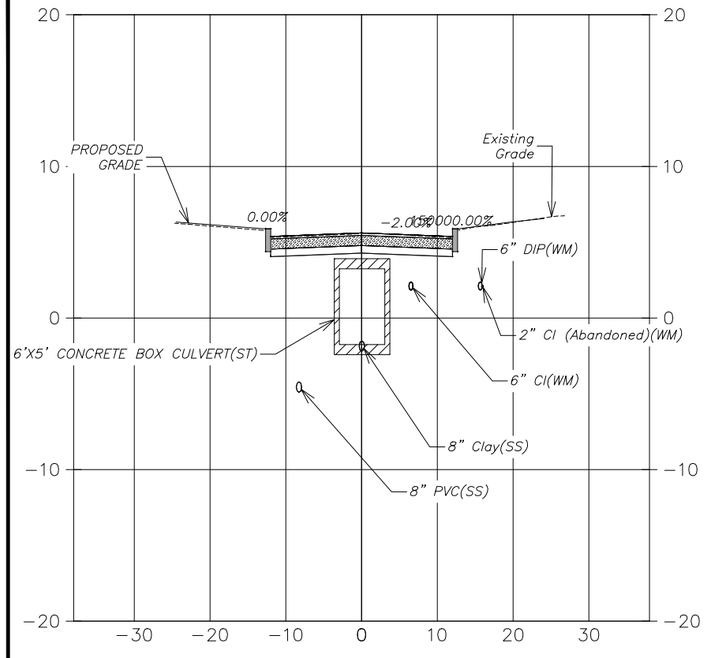

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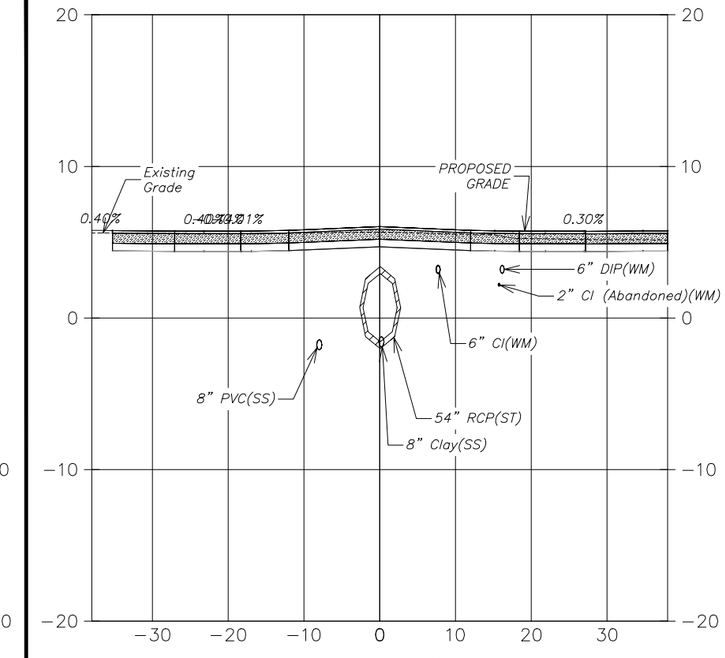

37+00.00
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SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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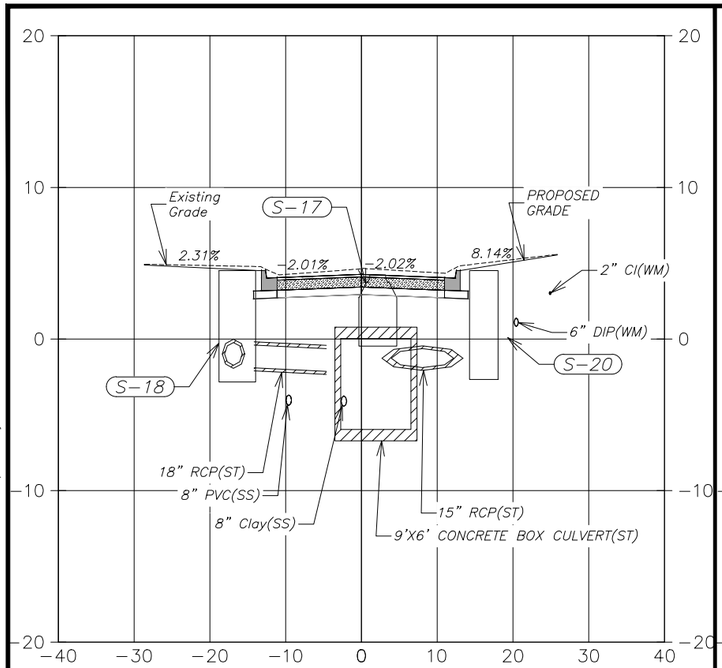
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
CROSS SECTIONS

SHEET 75A of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-CHEROKEE-VASCONIA-Sections.dwg - Printed Jul 14, 2016-2:33pm by: JenP



13+73.53

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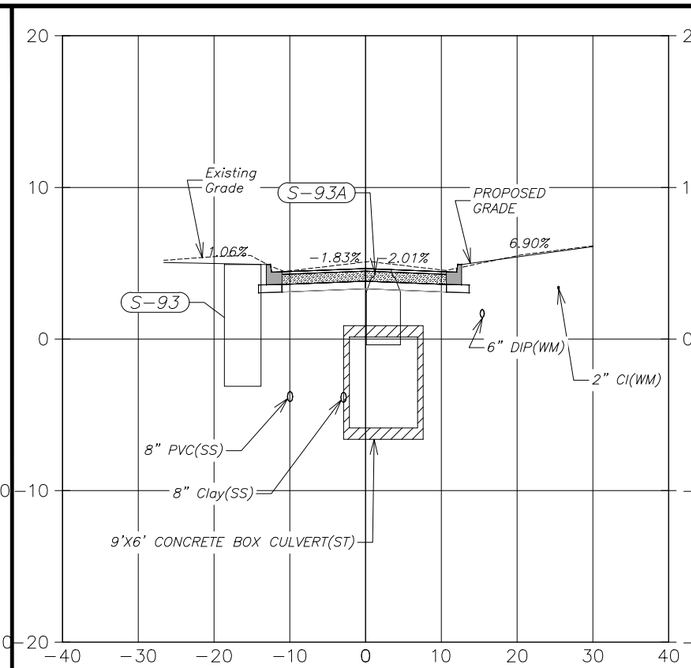

14+71.17

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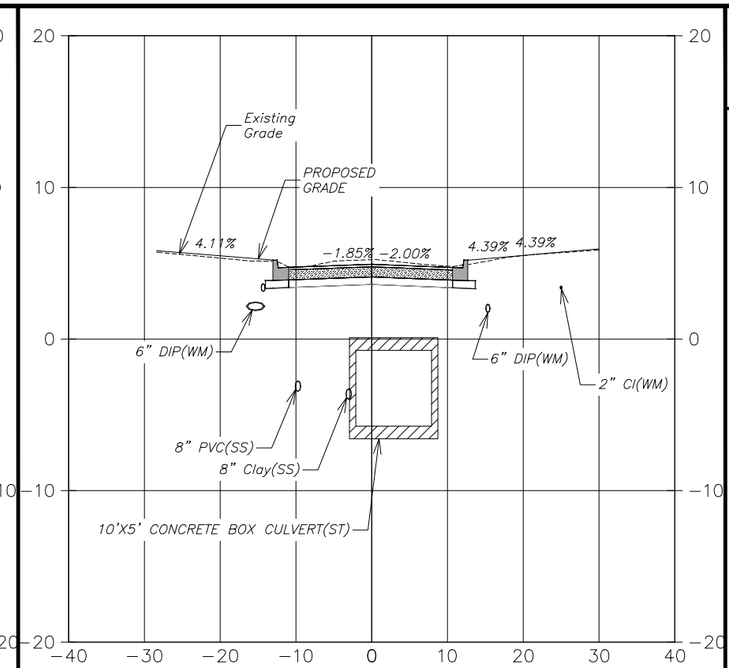

15+36.95

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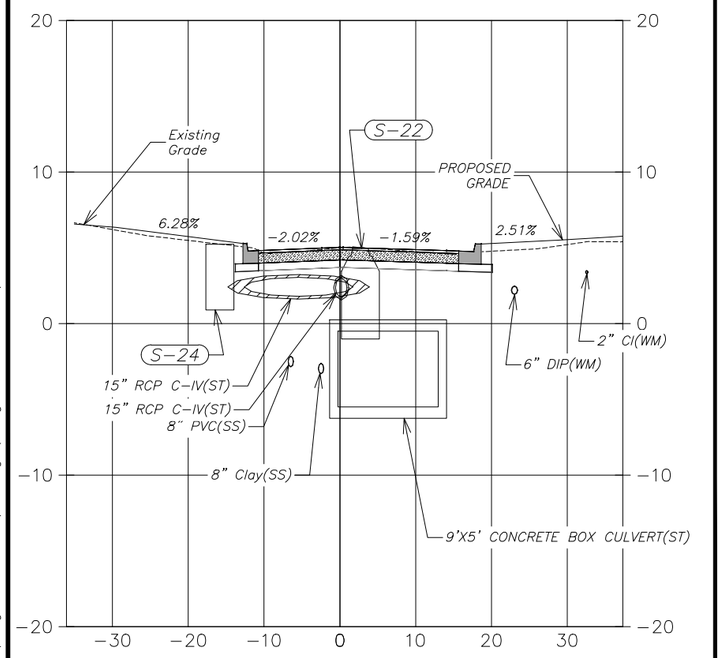
SW



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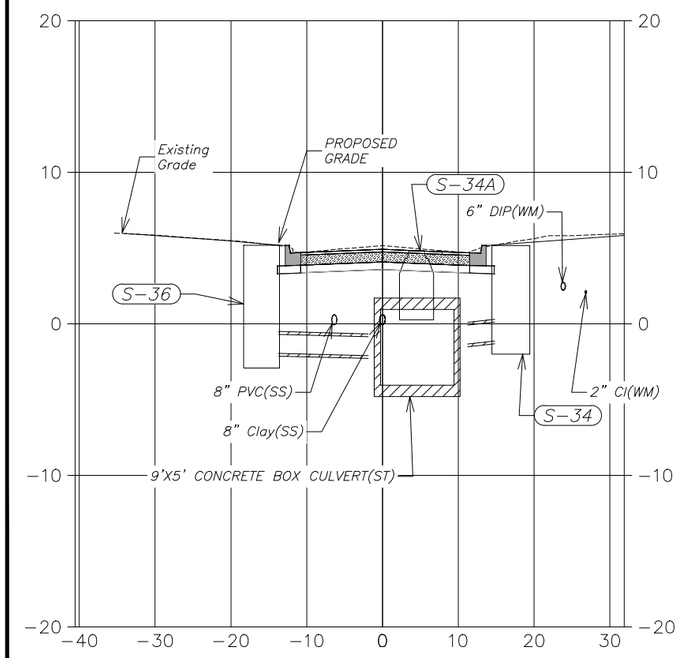

25+64.39

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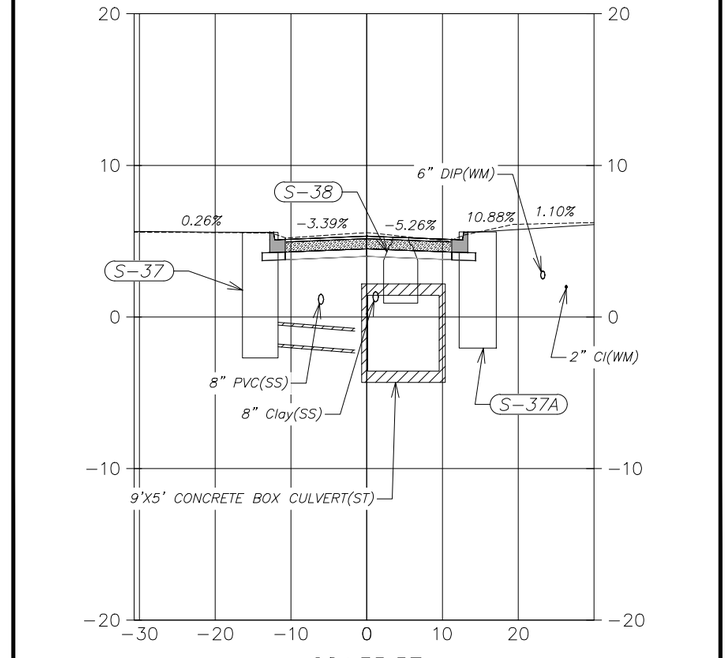

28+35.57

SCALE: HORZ. 1"=20'; VERT. 1"=10'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
INLET CROSS SECTIONS

SHEET 76 OF 105

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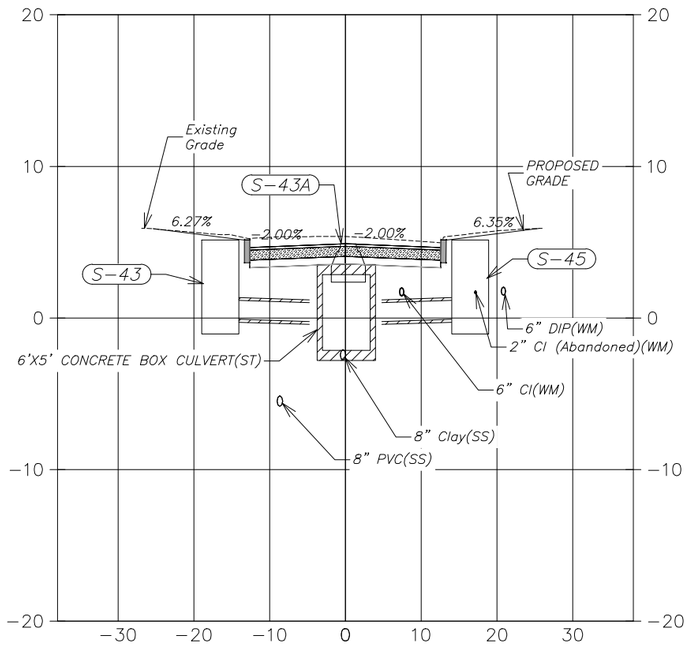

33+92.51

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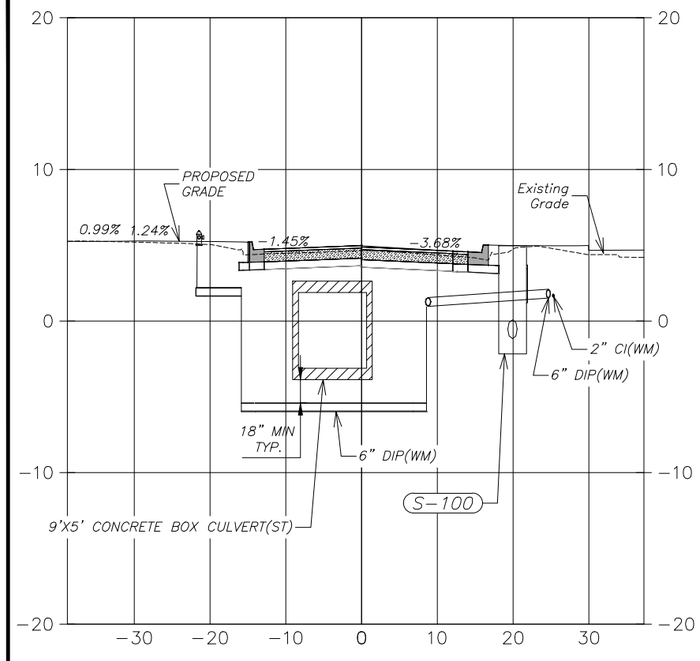

31+25.31

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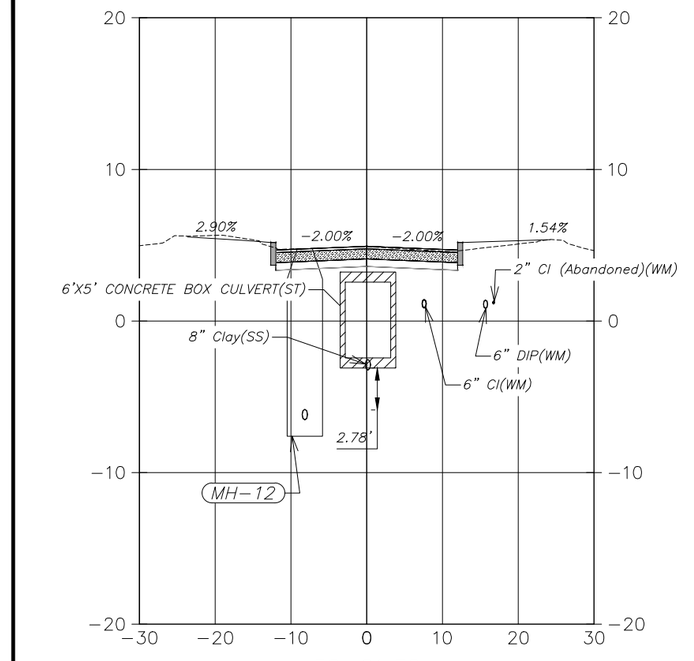

32+21.30

SCALE: HORZ. 1"=20'; VERT. 1"=10'

SW

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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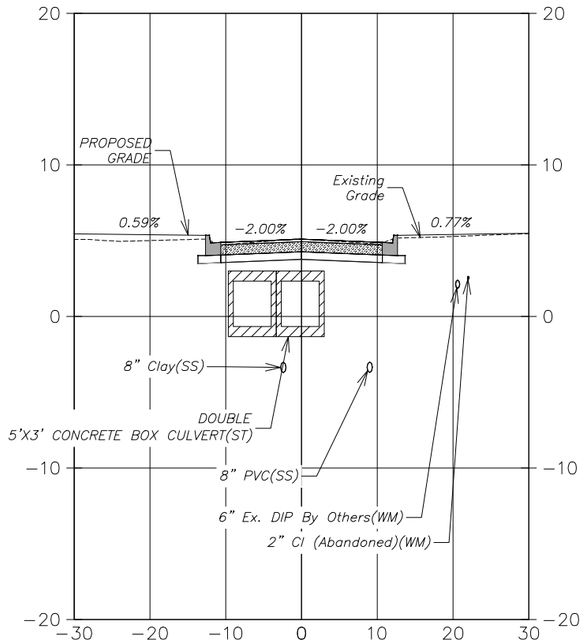
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W VASCONIA ST.
INLET CROSS SECTIONS

SHEET 77 OF 105

SW



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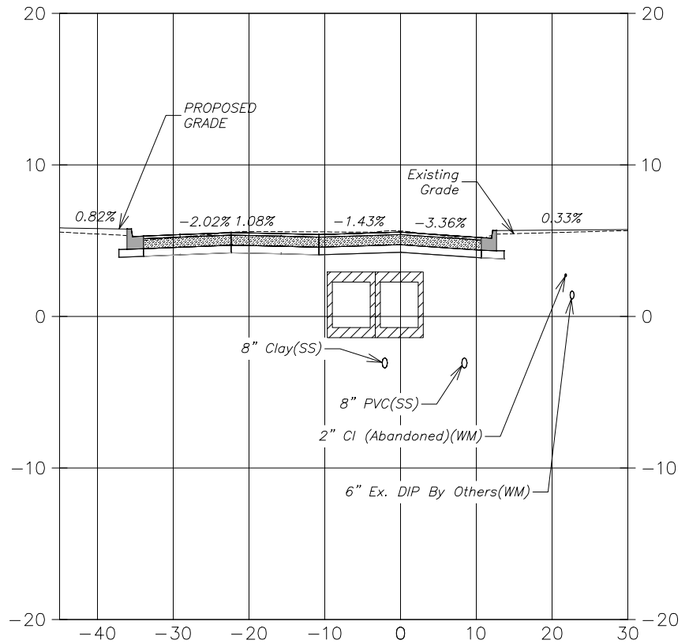

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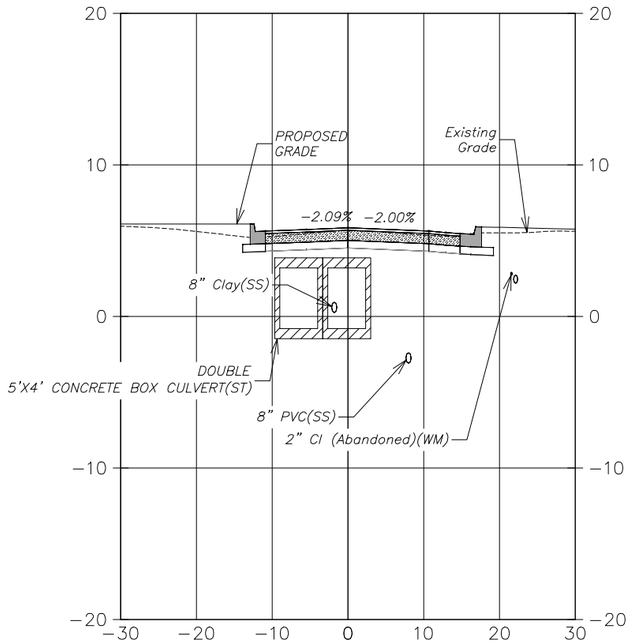

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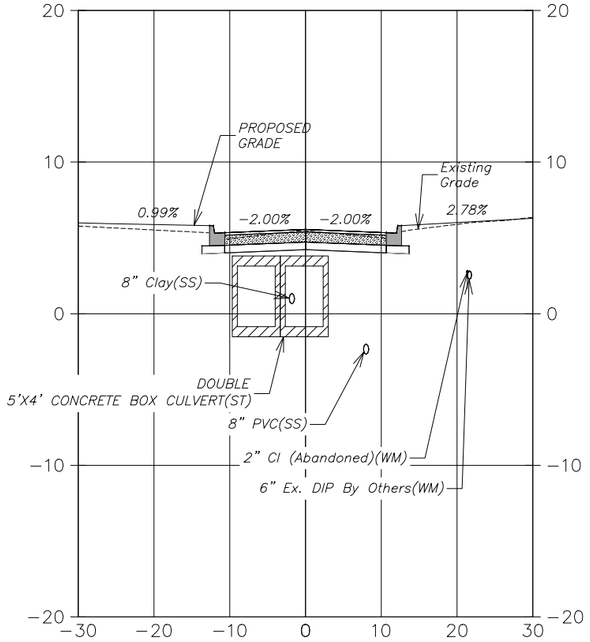

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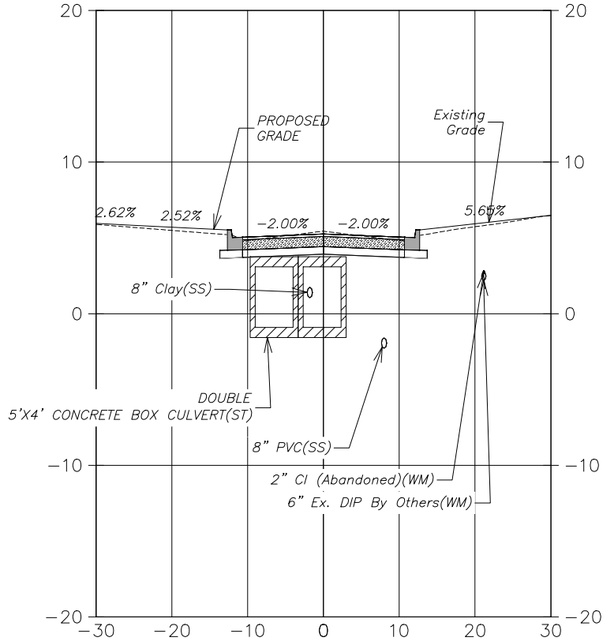

205+00.00
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

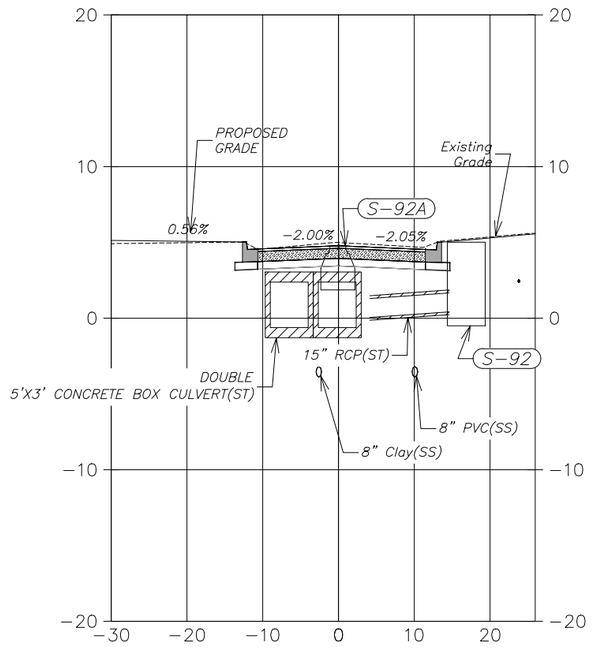
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
CROSS SECTIONS

SHEET 78 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-SHAMROCK-Sections.dwg - Printed Jul 14, 2016-2:37pm by: JenP



200+37.36

SCALE: HORZ. 1"=20'; VERT. 1"=10'

SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
INLET CROSS SECTIONS

SHEET 78A of 105

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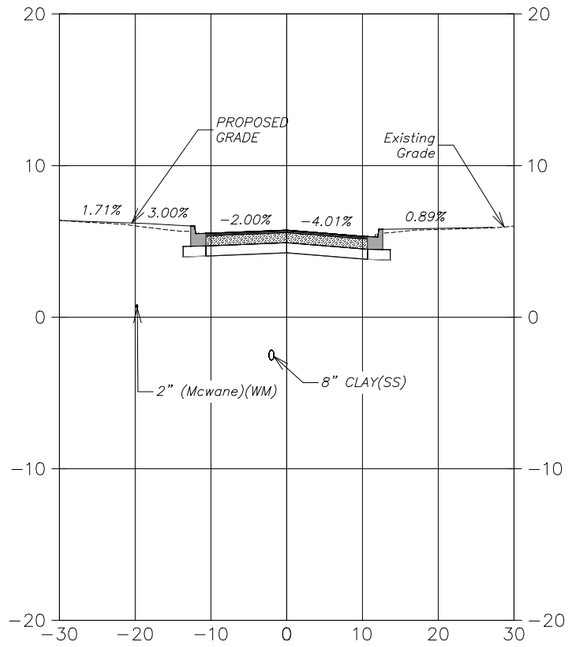

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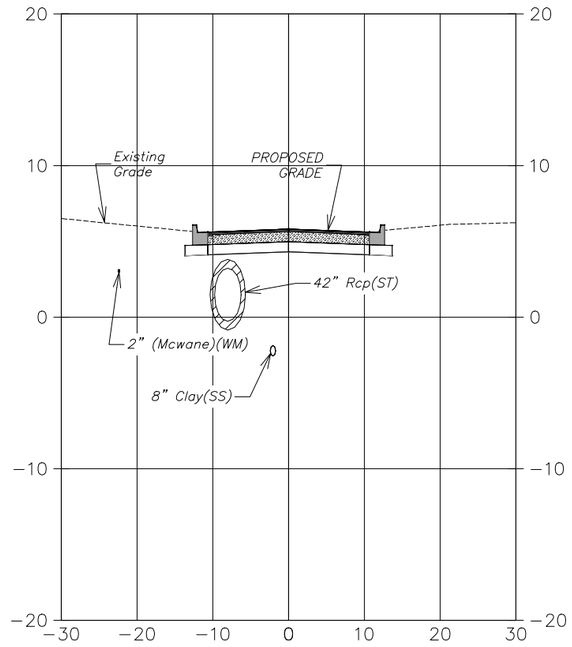

302+00.00
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SW

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-SEVILLA-Sections.dwg - Printed Jul 14, 2016-2:40pm by: JenP

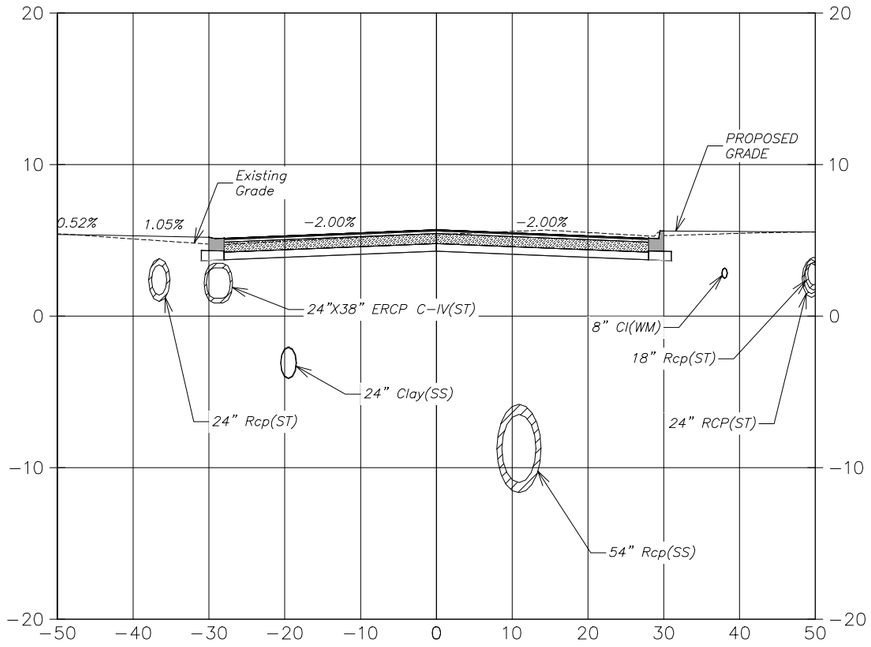
No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SEVILLA ST.
CROSS SECTIONS

SHEET 79 OF 105



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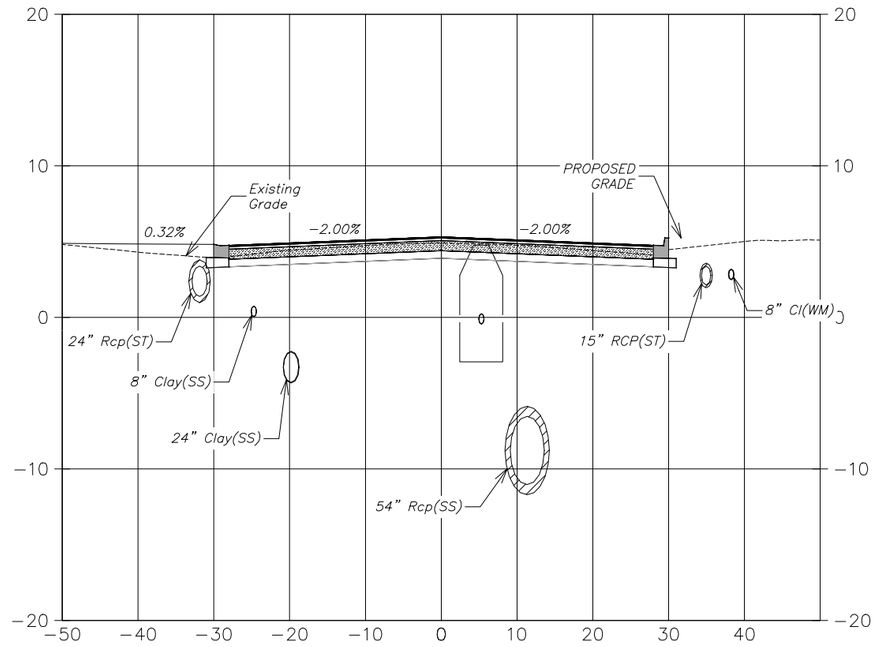

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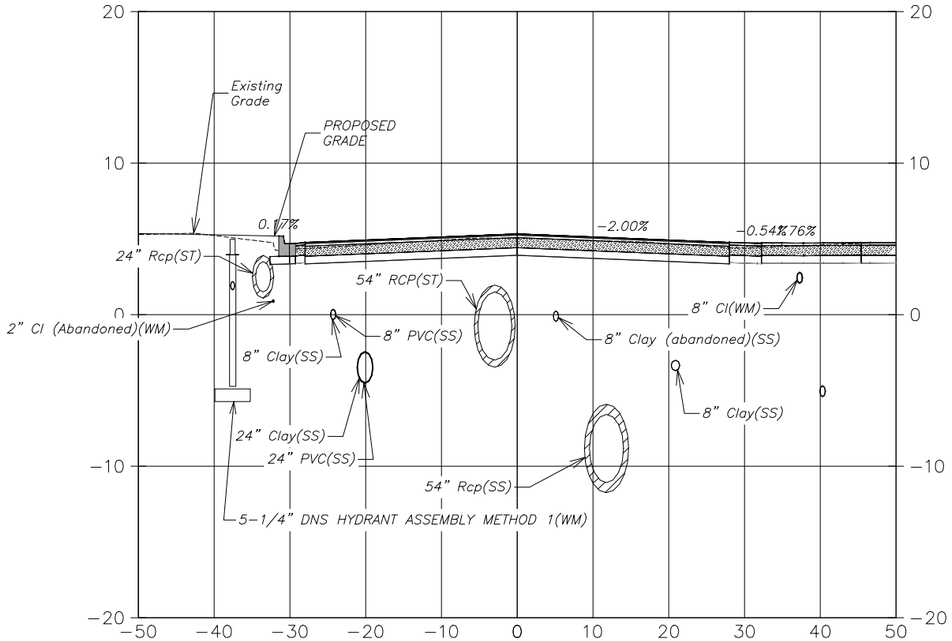

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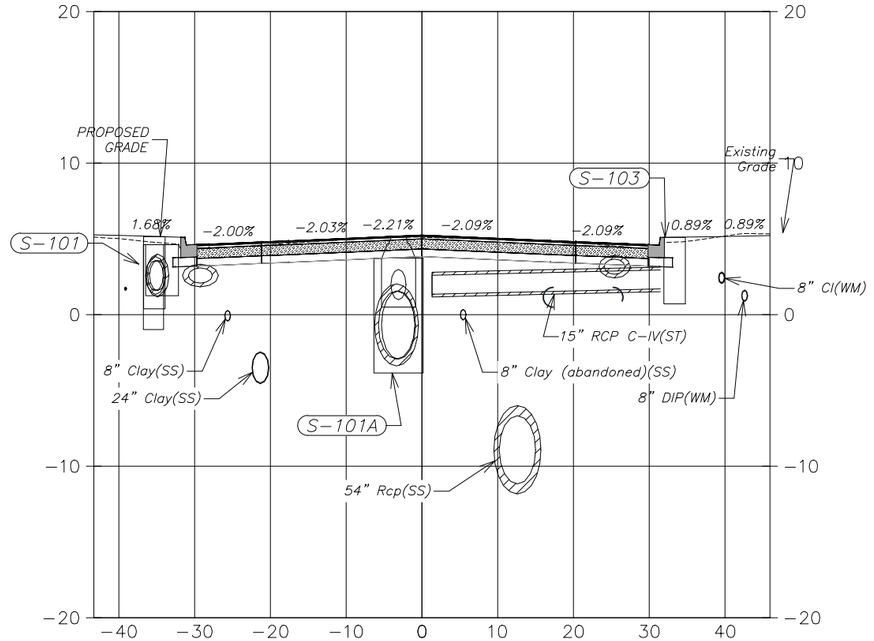

608+14.11
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SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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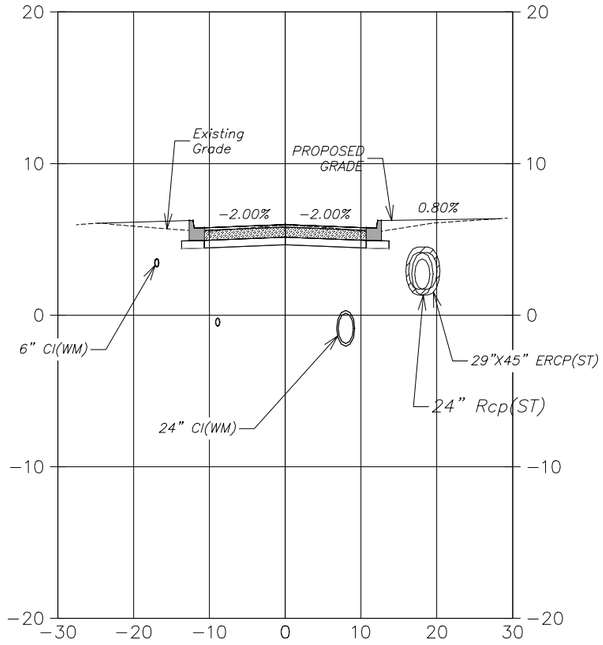
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE.
CROSS SECTIONS

SHEET 80 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-MANHATTAN-Sections.dwg - Printed Jul 14, 2016-2:44pm by: JenP



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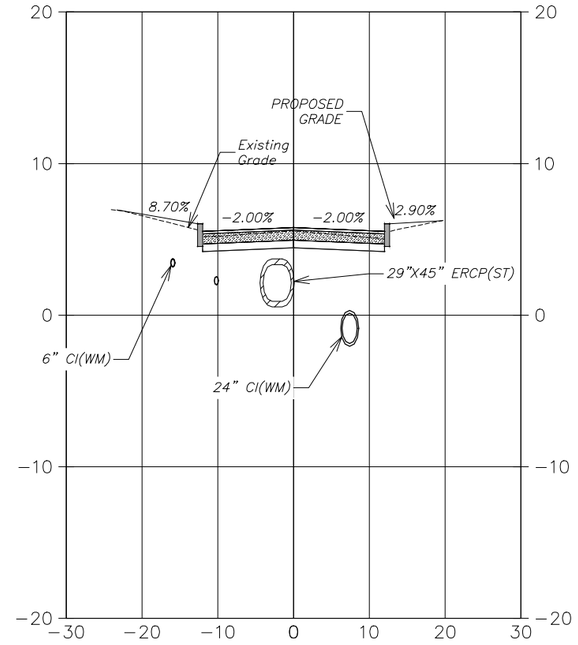

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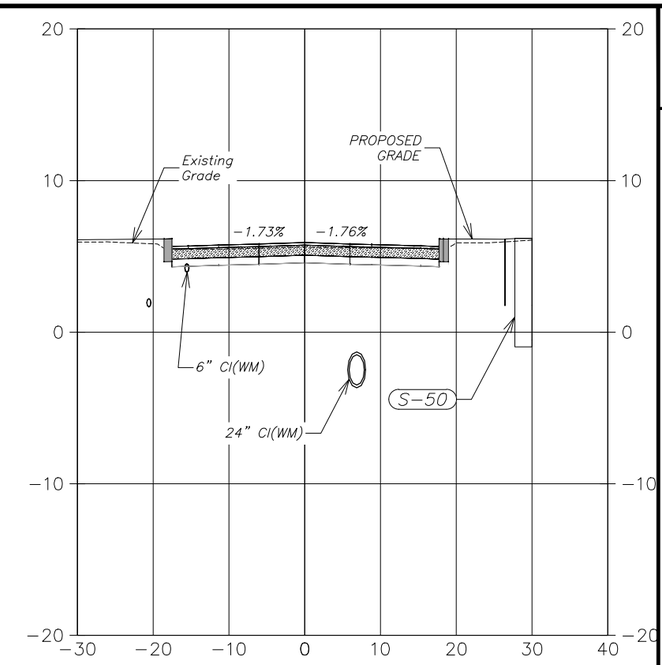

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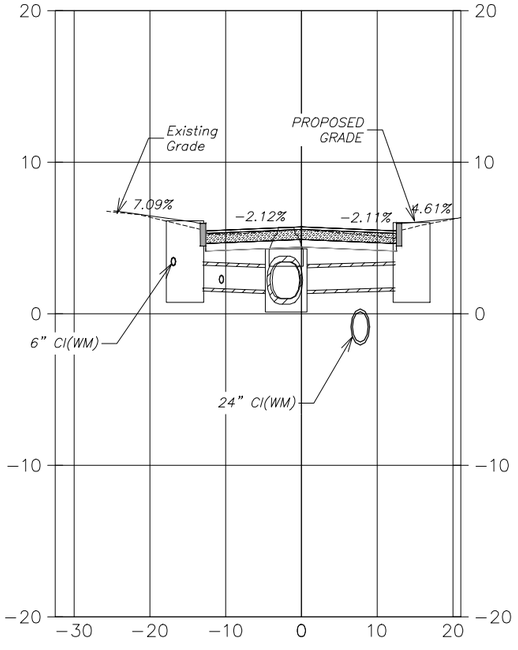
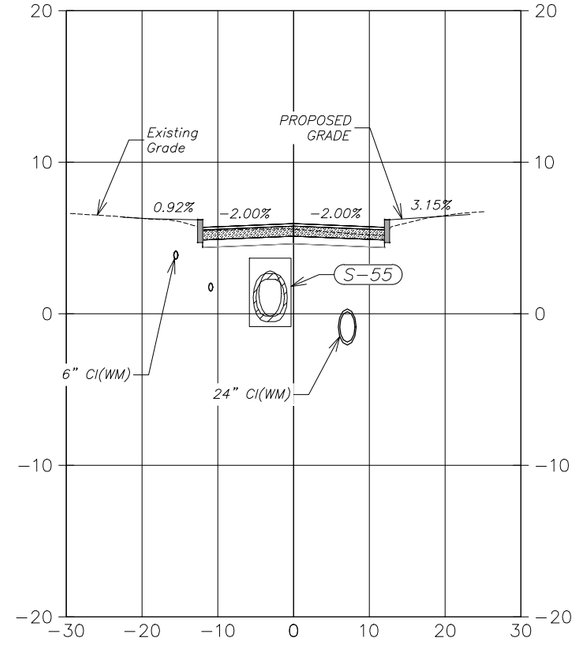
SCALE: HORZ. 1"=20'; VERT. 1"=10'

SW



702+95.48
SCALE: HORZ. 1"=20'; VERT. 1"=10'



703+57.12
SCALE: HORZ. 1"=20'; VERT. 1"=10'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVE.
CROSS SECTIONS

SHEET 81 OF 105

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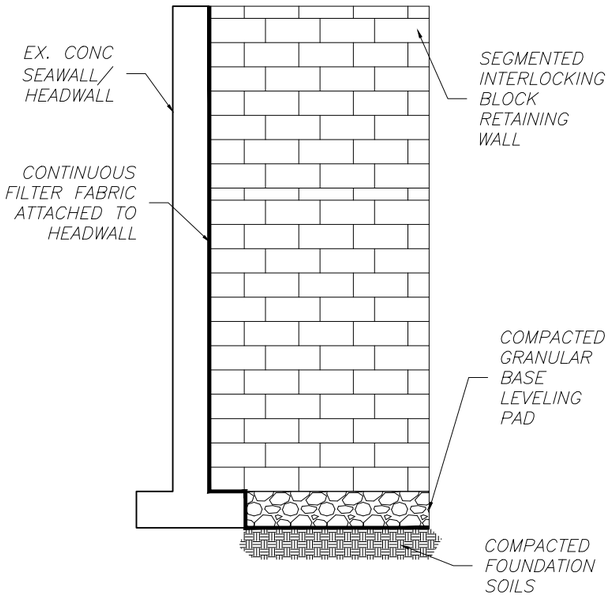
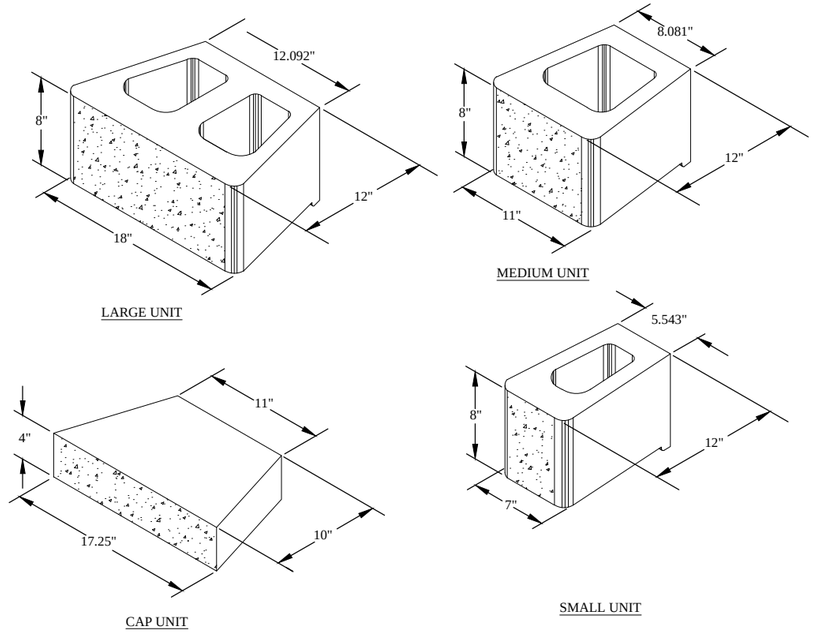
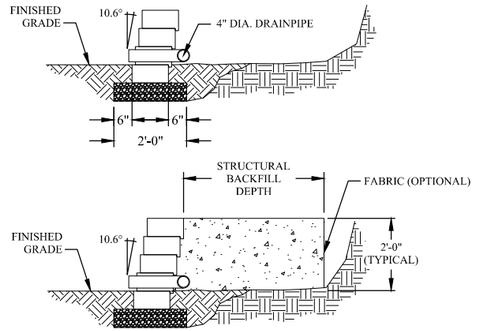


RETAINING WALL TIE IN TO EXIST. HEADWALL/SEAWALL DETAIL
(NTS)

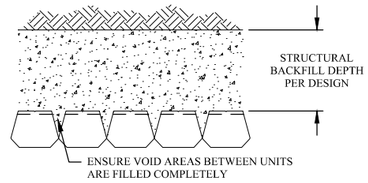


Anchor™ Diamond Pro Stone Cut™ Retaining Wall
ISOMETRIC BLOCK VIEWS

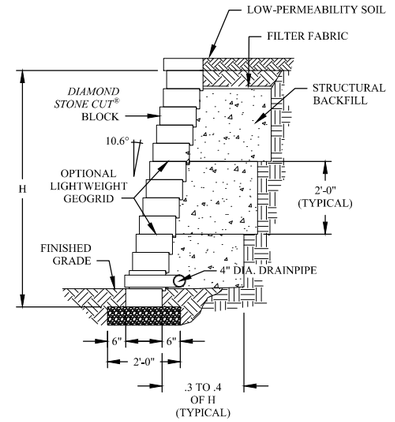
® and ™ ANCHOR WALL SYSTEMS, INC.



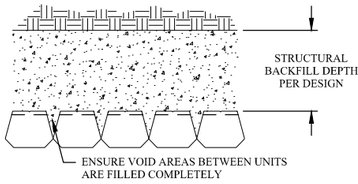
NOTES:
1. STRUCTURAL BACKFILL IS TO BE PLACED IN 8- TO 24-INCH (TYPICAL) LIFTS
2. STRUCTURAL BACKFILL MUST BE MANIPULATED INTO ALL VOIDS BETWEEN BLOCKS TO ENSURE ADEQUATE BOND BETWEEN BLOCK AND CONCRETE MASS.



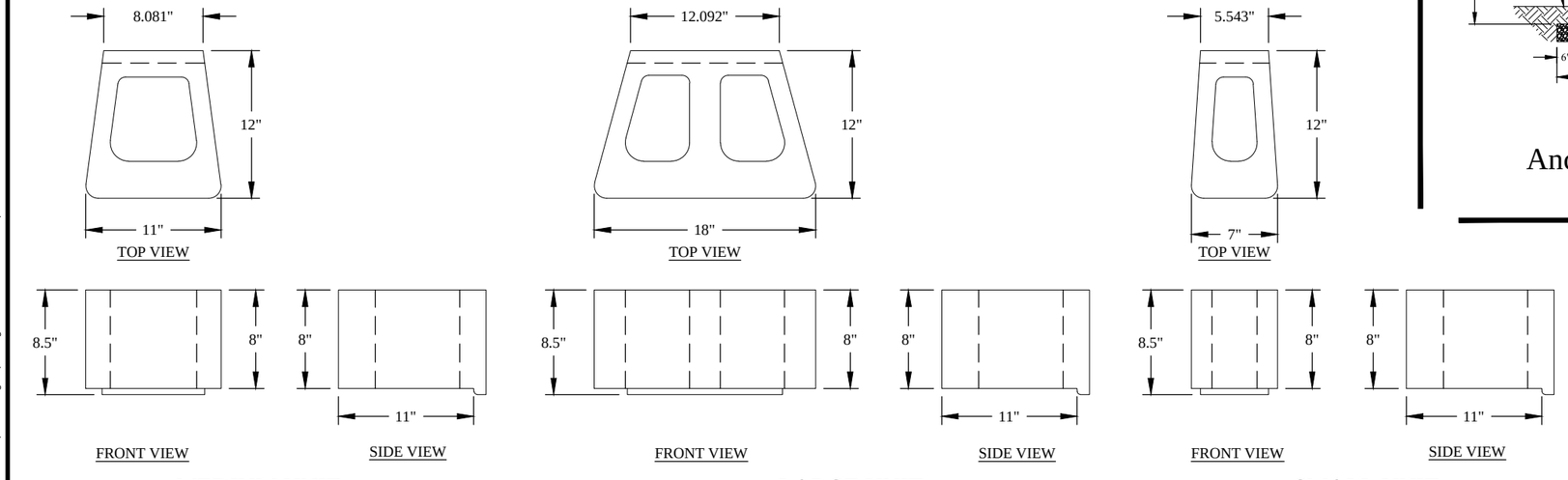
Anchor™ Diamond Stone Cut® Retaining Wall System
Differential Movement Section



NOTES:
1. STRUCTURAL BACKFILL IS TO BE PLACED IN 8- TO 24-INCH (TYPICAL) LIFTS.
2. STRUCTURAL BACKFILL MUST BE MANIPULATED INTO ALL VOIDS BETWEEN BLOCKS TO ENSURE ADEQUATE BOND BETWEEN BLOCK AND CONCRETE MASS.
3. IF DIFFERENTIAL MOVEMENT BETWEEN THE STRUCTURAL BACKFILL AND THE WALL FACE UNIT IS A CONCERN, LAYERS OF LIGHTWEIGHT GEOGRID MAY BE INCORPORATED INTO THE SYSTEM. WHILE GENERALLY NOT NECESSARY, IF USED, THE GRID SHOULD BE PLACED FROM NEAR THE FRONT FACE OF THE WALL SYSTEM AND EXTEND INTO THE STRUCTURAL BACKFILL ABOUT 1 FOOT. THE GEOGRID CAN BE LAID DIRECTLY ON THE COLD JOINT SURFACE WITH FRESH STRUCTURAL BACKFILL PLACED DIRECTLY ON TOP.

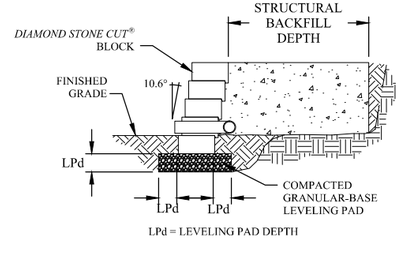


Anchor™ Diamond Stone Cut® Retaining Wall System
Typical First-Pour Column Detail



Anchor™ Diamond Pro Stone Cut™ Retaining Wall
INDIVIDUAL BLOCK VIEWS

® and ™ ANCHOR WALL SYSTEMS, INC.



WALL NOTES:
1. THE WALL SECTION DETAILS ARE TO SERVE AS THE GUIDELINES FOR THE DESIGN OF THE WALL AS PROVIDED BY THE MANUFACTURER. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITH CALCULATIONS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. THESE SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
2. CONCRETE RETAINING WALL DETAIL PROVIDED FOR BIDDING PURPOSES ONLY. CONTRACTOR TO PROVIDE STRUCTURAL DESIGN THAT INCORPORATES A GEOTECHNICAL STUDY SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.

Anchor™ Diamond Stone Cut® Retaining Wall System
1:1 Excavation Detail

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DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

INTERLOCKING BLOCK WALL DETAILS

SHEET 81A OF 105

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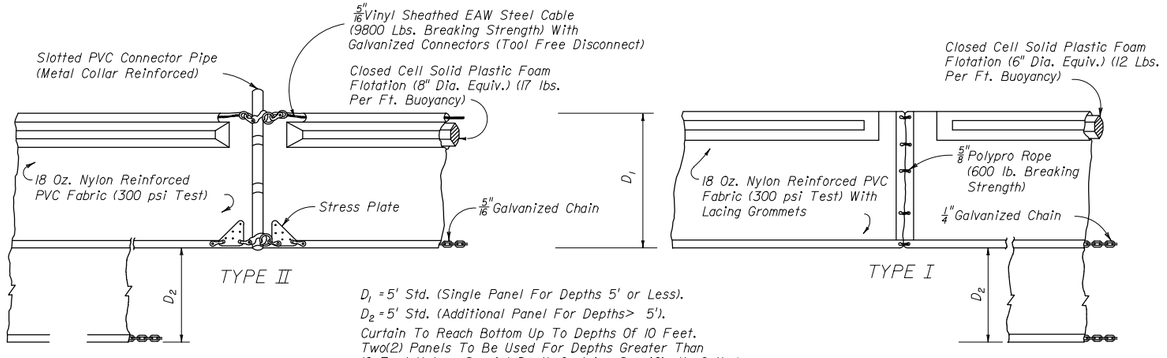


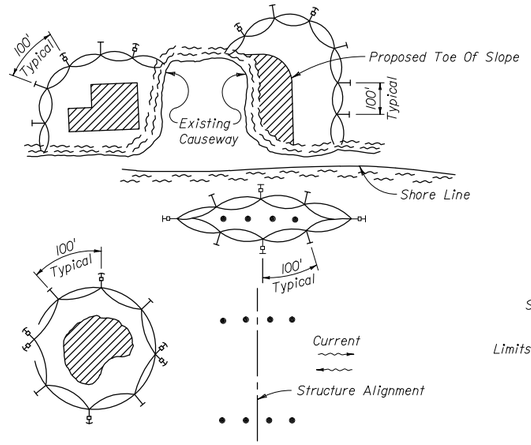
D_1 = 5' Std. (Single Panel For Depths 5' or Less).

D_2 = 5' Std. (Additional Panel For Depths> 5').

Curtain To Reach Bottom Up To Depths Of 10 Feet. Two(2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

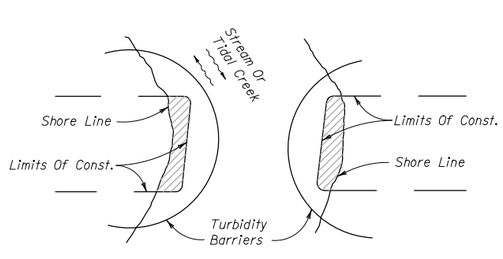
NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS



LEGEND

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



NOTES:

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

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

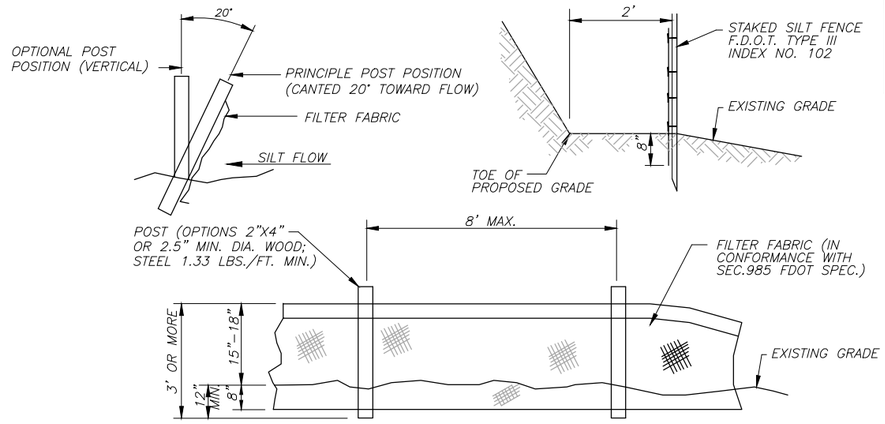
TURBIDITY BARRIER APPLICATIONS

TURBIDITY BARRIERS

NOT TO SCALE

GENERAL NOTES

1. Floating and staked turbidity barriers are to be paid for under the contract lump sum price for Erosion Control and Tree Protection.



STAKED TURBIDITY BARRIER

NPDES/FDEP NOTICE OF INTENT AND REPORTING NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF THE EROSION AND SEDIMENTATION CONTROL PLAN TO BE SUBMITTED TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROECTION. THE PLAN SHALL INCLUDE THE FOLLOWING:
   A. NARRATIVE: A BRIEF DESCRIPTION OF THE OVERALL STRATEGY FOR EROSION AND SEDIMENT CONTROL.
   B. MAP/SITE PLAN: SITE PLAN WHICH SHOWS THE EXISTING AND FINAL ELEVATION CONTOURS, CRITICAL AREAS WITHIN OR NEAR THE PROJECT AREA, EXISTING VEGETATION, LIMITS OF CLEARING AND GRADING, AND LOCATIONS AND NAMES OF EROSION AND SEDIMENT CONTROL MEASURES, WITH DIMENSIONS.
   C. CONSTRUCTION DETAILS
   D. CALCULATIONS: INCLUDE CALCULATIONS USED TO SIZE THE CONTROL MEASURES AND THE DESIGN ASSUMPTIONS FOR SEDIMENT BASINS AND TRAPS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BEFORE AND AFTER EACH RAIN EVENT OF 1/4 INCH OR MORE.
3. DISTURBED AREAS WHICH HAVE BEEN BROUGHT TO FINAL GRADE OR WHICH WILL REMAIN AT ROUGH GRADE FOR 14 DAYS OR MORE SHALL RECEIVE PERMANENT STABILIZATION IMMEDIATELY.
4. CONTRACTOR SHALL MAINTAIN ON-GOING INSPECTION REPORTS FOR EROSION & SEDIMENT CONTROL INSPECTIONS AND MAINTENANCE.
5. CONTRACTOR SHALL HAVE A CERTIFIED INSPECTOR ON STAFF AND BE RESPONSIBLE FOR ALL NPDES REPORTING.
6. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGING, OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.
7. THE CONTRACTOR SHALL SUBMIT THE REQUIRED NPDES/FDEP NOTICE OF INTENT 30 DAYS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL RAINFALL AND DISCHARGE LOGS DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION A NOTICE OF TERMINATION SHALL BE FILED WITH FDEP.

EROSION/TURBIDITY CONTROL NOTES:

1. THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
2. THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL USUALLY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHALL BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
3. CONSTRUCTION OPERATIONS IN OR ADJACENT TO WETLANDS SHALL BE RESTRICTED TO THOSE AREAS IDENTIFIED IN THE PLANS AND IN THE SPECIFICATIONS.
4. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN THE WETLANDS OR IN A POSITION CLOSE ENOUGH THERETO TO BE WASHED AWAY BY HIGH WATER OR RUNOFF.
5. WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE AND ARE NOT LIMITED TO, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS, SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS.
6. THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATIONS, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND 3PERFORMED THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER, AND GRADING OPERATIONS SHALL BE SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
7. THE CONTRACTOR AND/OR OWNER'S REPRESENTATIVE SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE AND ALL BARED SOILS ARE STABILIZED.
8. SILT FENCE SHALL BE LOCATED AT THE PERIMETER OF CONSTRUCTION LIMITS, AS DEFINED BY FIELD CONDITIONS.
9. CONTRACTOR IS TO PROVIDE EROSION CONTROL AND SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
10. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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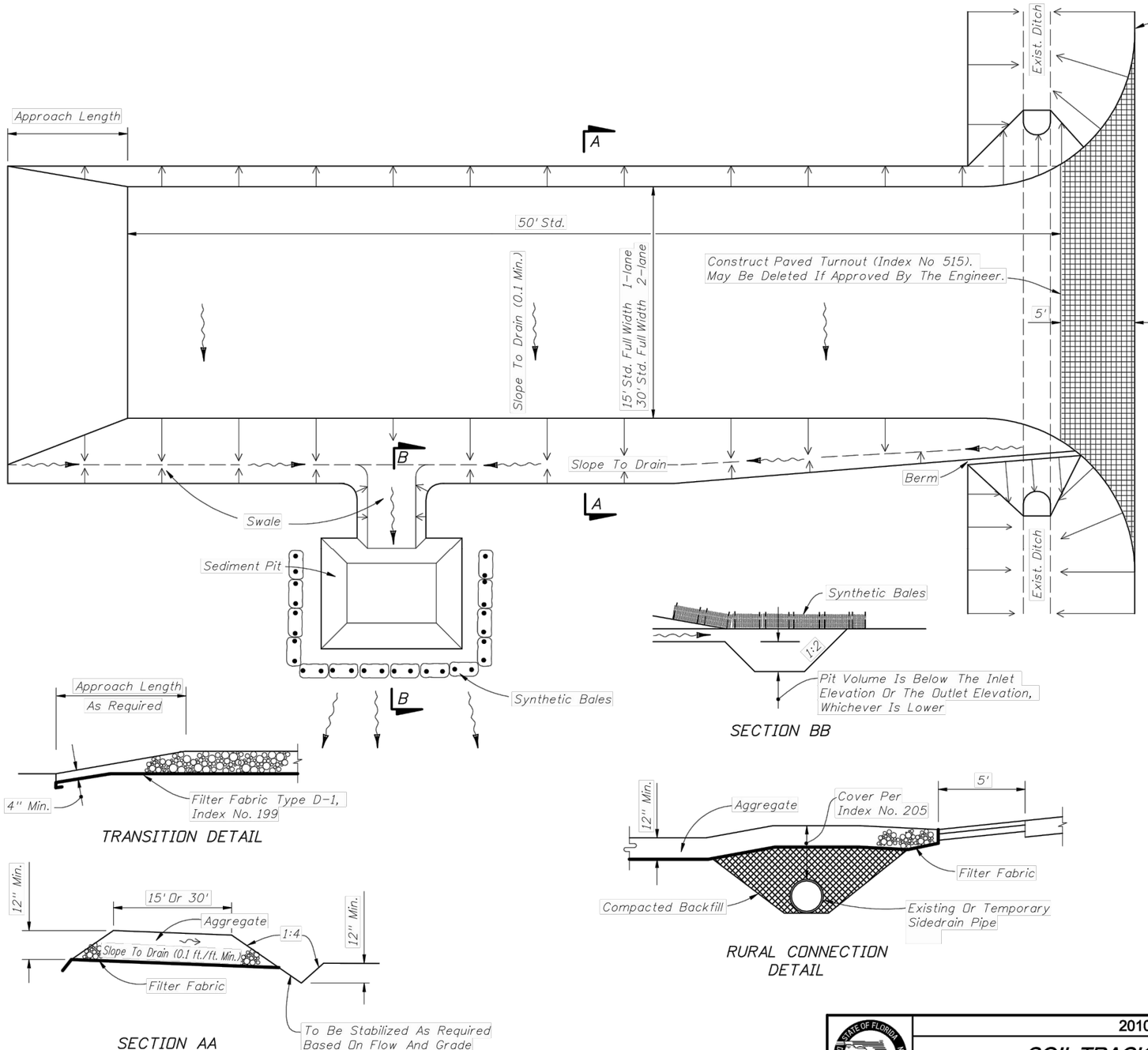
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)

TURBIDITY BARRIER DETAILS

SHEET 81B OF 105



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.

2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.

3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.

4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.

5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit.
   When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   $15' \times 50' = 100\ ft.^3$ $30' \times 50' = 200\ ft.^3$
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.

6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.

7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.

8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.

9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD; including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.

10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

2010 FDOT Design Standards

SOIL TRACKING PREVENTION DEVICE TYPE A

Last Revision	Sheet No.
07/01/07	1 of 1

Index No. 106

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SOIL TRACKING PREVENTION DEVICE DETAIL

SHEET 8IC OF 105

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SW

CHEROKEE RD.

MATCHLINE STA. 903+25

MATCHLINE STA. 905+25

Curb Stop
Asphalt Parking Lot
Clean Out
3342
Asphalt Parking Lot
Exist. R/W Line
6' Wood
4717
4715
Planter
Planter
Brick Paver Drive
BEGIN MILLING AND RESURFACING MATCH EXISTING
STA. 900+22.33
Stop Sign
+34.52, 10.67 LT. BEGIN CURB & GUTTER MATCH EXISTING
Asphalt Drive
Verizon
Concrete Drive
+79.98
+18.64
+88.80
STA. 901+75.85
STA. 100+33.16
32.1'
28.2'
35'
PROP. TYPE F CURB AND GUTTER
901+00
902+00
903+00
END MILLING AND RESURFACING
BEGIN ROAD RECONSTRUCTION
MATCH EXISTING
STA. 901+34.66
PROP. TYPE F CURB AND GUTTER
PROP. DROP CURB TYP.
32.1'
32.6'
32.7'
22.7'
16"
Verizon
Concrete
Concrete
+34.80, 10.67 RT. BEGIN CURB & GUTTER MATCH EXISTING
+57.11
SPEED LIMIT SIGN TO REMAIN
Verizon
Speed Limit
+22.30
Concrete Drive
+61.80
+96.54
Asphalt Drive
4'hedge
Cable Tv
Clean Out
14"
S/W
Concrete
3' Evergreen
100+00
Brick Paver Drive
Asphalt Drive
10"
Exist. R/W Line
42.8'
20.2'
20.5'
10.9'
4730
4728
4726
4724
4722
4720
4718
4716
0
20
1"=20'

Exist. R/W Line
4713
4711
4709
11.5'
11'
2.4'
21.8'
Concrete Drive
+67.24
Planter
8'hedge
Concrete Drive
+35.16
+54.82
8'hedge
Concrete Drive
+09.65
Planter
24.7'
24.1'
31'
+98.59
10.67 LT.
PROP. TYPE F CURB AND GUTTER
904+00
905+00
CHEROKEE RD.
PROP. TYPE F CURB AND GUTTER
+98.59
10.67 RT.
23'
23'
25'
+55.52
PROP. DROP CURB TYP.
+96.02
Concrete Drive
Verizon
+21.31, 21.97 RT. BEGIN SIDEWALK RECONSTRUCTION
+83.63
Brick Paver Drive
8'hedge
Concrete Drive
14"
10"
12.5'
13'
9.6'
Exist. R/W Line
4710
4708
0
20
1"=20'

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DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 82A
CF 105

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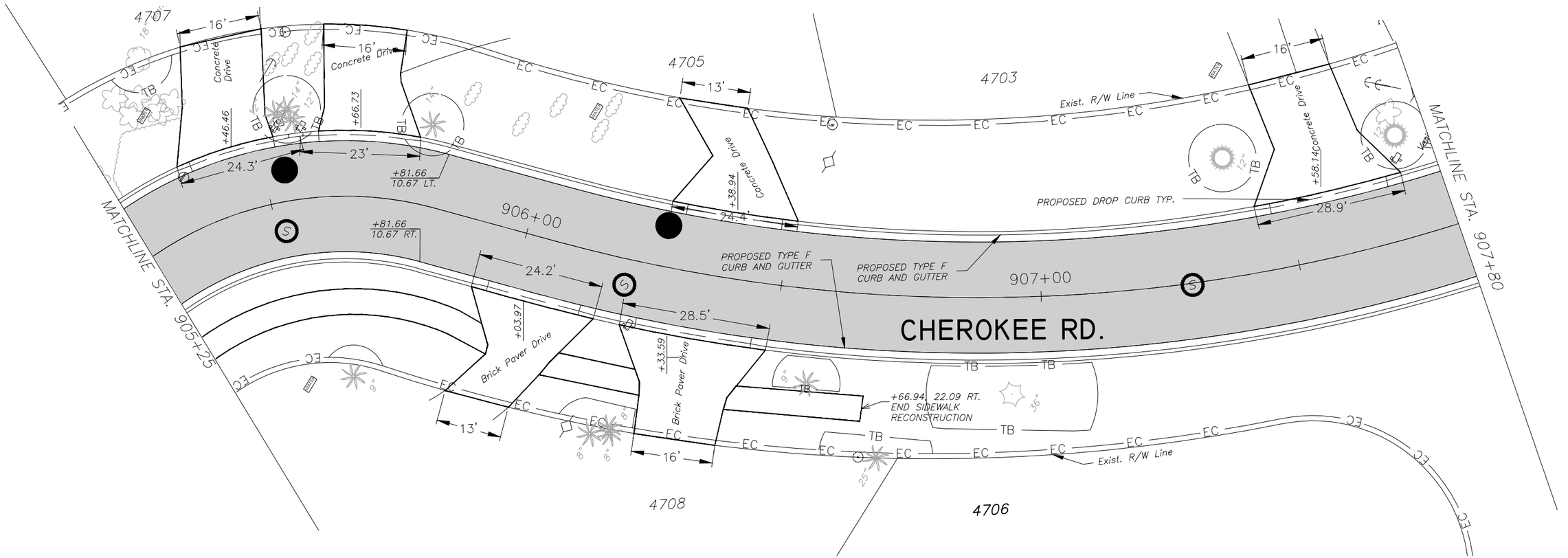
SW

0 20

1"=20'



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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 82B of 105

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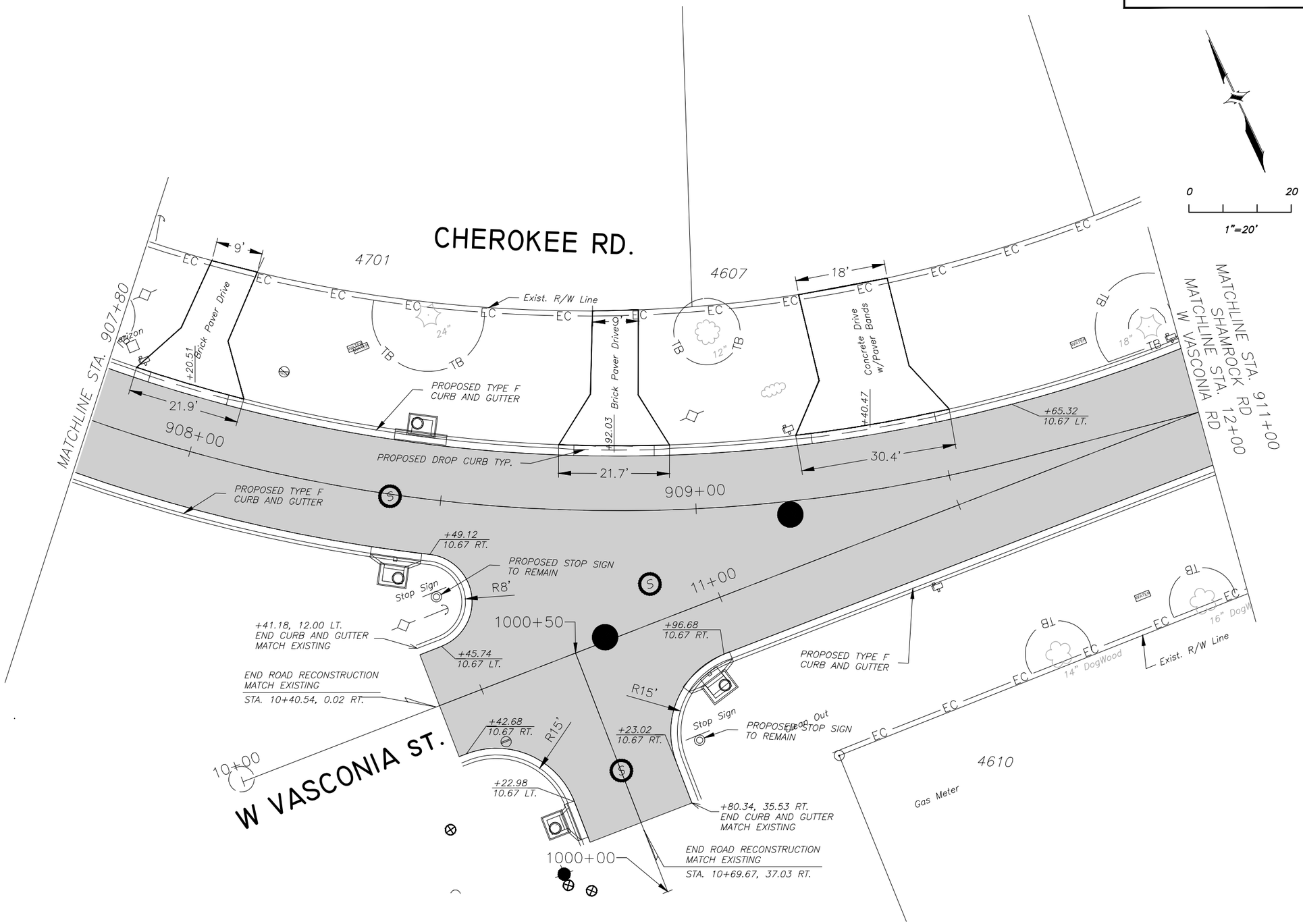
SW



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

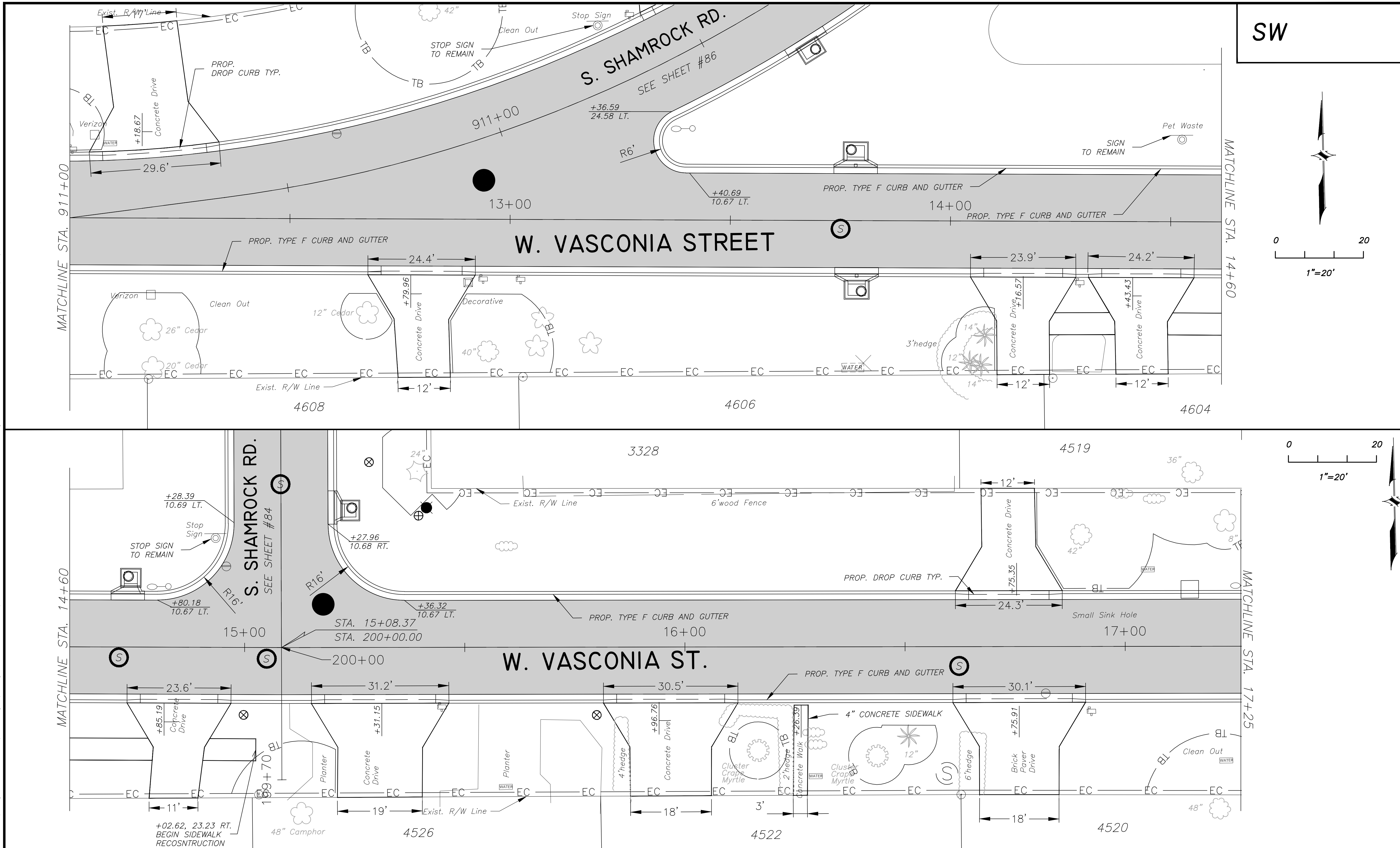
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. & W. VASCONIA STREET
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 82C
CF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-CHEROKEE-VASCONIA-PS.dwg - Printed Jul 14, 2016-2:42pm by: JenP


SW
S. SHAMROCK RD.
SEE SHEET #86
911+00
13+00
14+00
W. VASCONIA STREET
MATCHLINE STA. 911+00
MATCHLINE STA. 14+60
PROP. TYPE F CURB AND GUTTER
PROP. DROP CURB TYP.
STOP SIGN TO REMAIN
SIGN TO REMAIN
Stop Sign
Clean Out
Pet Waste
Verizon
Concrete Drive
Decorative
Exist. R/W Line
+36.59
24.58 LT.
+40.69
10.67 LT.
R6'
29.6'
24.4'
23.9'
24.2'
12'
+18.67
+79.96
+16.57
+43.43
12" Cedar
26" Cedar
20" Cedar
40"
3'hedge
4608
4606
4604
1"=20'
S. SHAMROCK RD.
SEE SHEET #84
W. VASCONIA ST.
15+00
16+00
17+00
STA. 15+08.37
STA. 200+00.00
200+00
MATCHLINE STA. 14+60
MATCHLINE STA. 17+25
+28.39
10.69 LT.
+27.96
10.68 RT.
+80.18
10.67 LT.
+36.32
10.67 LT.
R16'
PROP. TYPE F CURB AND GUTTER
PROP. DROP CURB TYP.
4" CONCRETE SIDEWALK
Exist. R/W Line
6'wood Fence
Small Sink Hole
Clean Out
23.6'
31.2'
30.5'
30.1'
24.3'
12'
11'
19'
18'
3'
+85.19
+31.15
+96.76
+26.39
+75.91
+75.35
Concrete Drive
Concrete Walk
Brick Paver Drive
Planter
Cluster Crape Myrtle
4'hedge
2'hedge
6'hedge
48" Camphor
+02.62, 23.23 RT.
BEGIN SIDEWALK RECOSNTRUCTION
3328
4519
4526
4522
4520

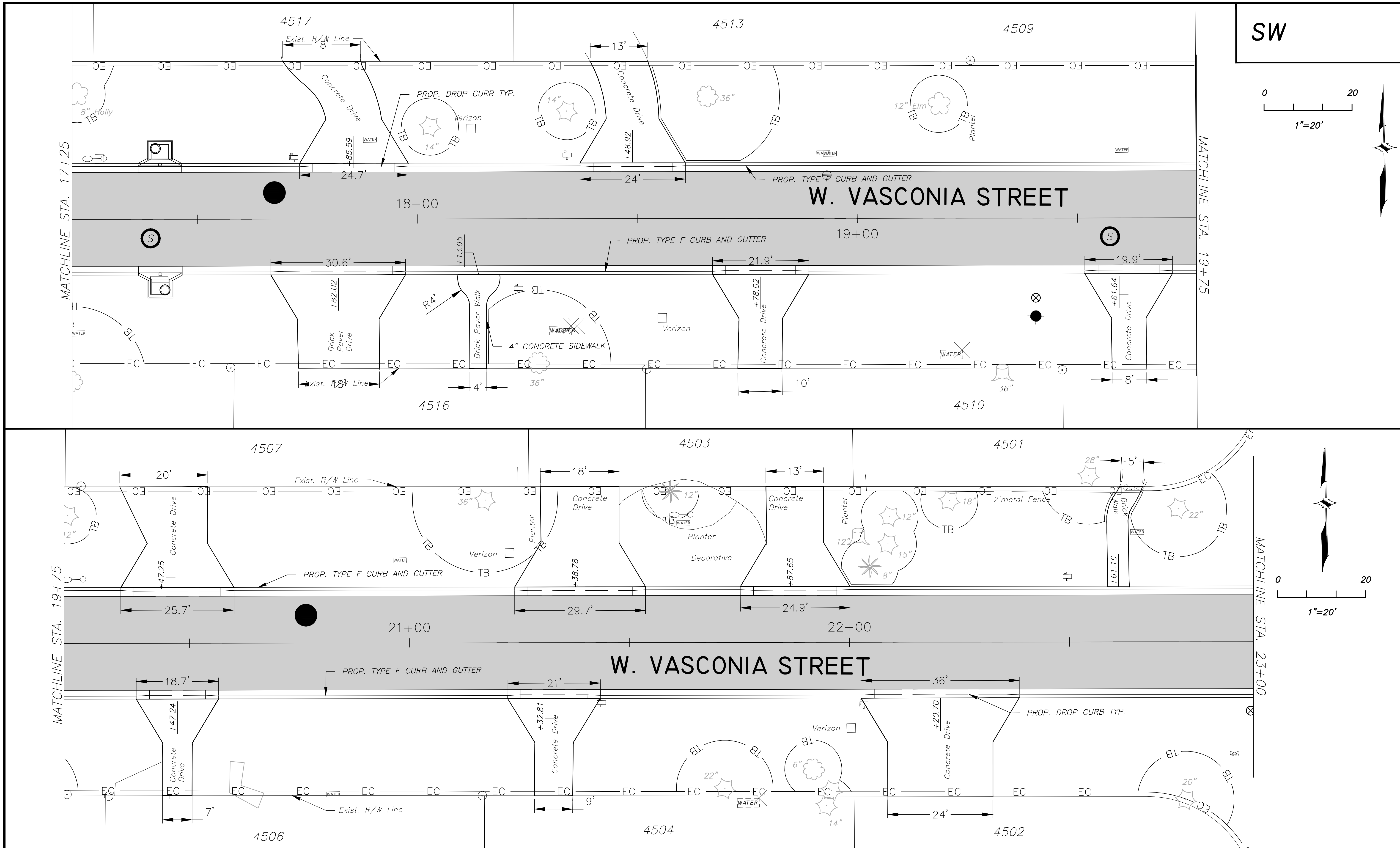
No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 83A of 105



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No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 83B
105

SW

0 20
1"=20'

404+00

MATCHLINE STA. 23+00

HESPERIDES AVE.

TB

12" Palm

END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 23+29.46, 50.47 LT.

EC

4423

6'

Brick Walk

+21.14

24"

32"

4419

4'
Exist. R/W Line

18x18 Brick

+20.27

Concrete Walk

18x18 Brick

18x18 Brick

MATCHLINE STA. 25+30

8"

+81.89
10.67 LT.

+81.79
10.67 RT.

STOP SIGN
TO REMAIN

R15'

+03.02
10.67 LT.

+02.77
10.67 RT.

+56.60
10.68 LT.

PROP. TYPE F CURB AND GUTTER

24+00

25+00

W. VASCONIA STREET

+56.71
10.67 RT.

PROP. TYPE F CURB AND GUTTER

STOP SIGN
TO REMAIN

+27.89
10.67 LT.

Verizon

+27.79
10.67 RT.

Stop Sign

END ROAD RECONSTRUCTION
BEGIN MILLING AND RESURFACING
STA. 403+15.85

9"

+00.95

Concrete Drive

PROP. DROP CURB TYP.

5"

4"

+12.69

Brick Drive

Crape
Myrtle
Cluster

+53.11

Brick Drive

4'
Exist. R/W Line

18'
Clean Out

18'

Underground Lp Tank

4424

4422

4418

4415

10'

Exist. R/W Line

4'

12'

Clean Out

22'

4411

5'

10" Magnolia

Brick Drive

+85.98

+53.01

4" Crape
Myrtle

4" Crape
Myrtle

4" Crape
Myrtle

Concrete

+06.97

5" Elm

Verizon

+40.22

Concrete Drive

26"

+74.00

Brick Walk

35"

MATCHLINE STA. 25+30

23.4'

26+00

27+00

26.7'

33.7'

PROP. TYPE F CURB AND GUTTER

28+00

MATCHLINE STA. 28+50

W. VASCONIA ST.

24.5'

26.8'

18.5'

28'

PROP. TYPE F CURB AND GUTTER

+94.80

Brick Drive

5'hedge

+23.59

Brick Drive

PROP. DROP CURB TYP.

16"

Decorative

Decorative

5"

9"

Clean Out

+73.89, 16.77 RT.
BEGIN SIDEWALK
RECONSTRUCTION

+59.44

Concrete Drive

24"

+95.11

Brick Drive

Concrete Walk

16'

18'

Exist. R/W Line

6'

34"

16'

4416

4414

4410

0 20
1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET
PAVEMENT OVERLAY & STRIPING PLAN

SHEET
83C
of 105

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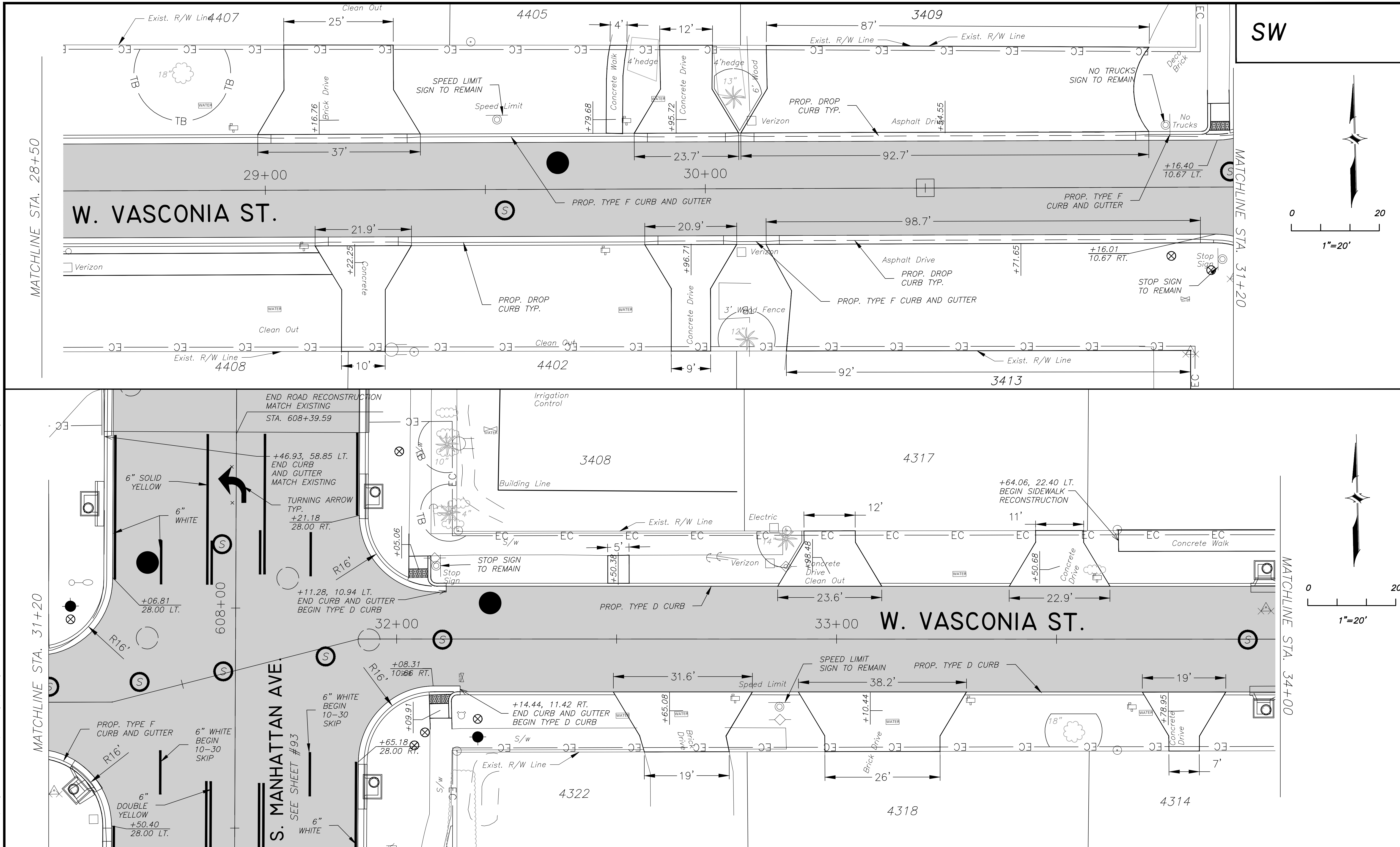

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 83D
OF 105

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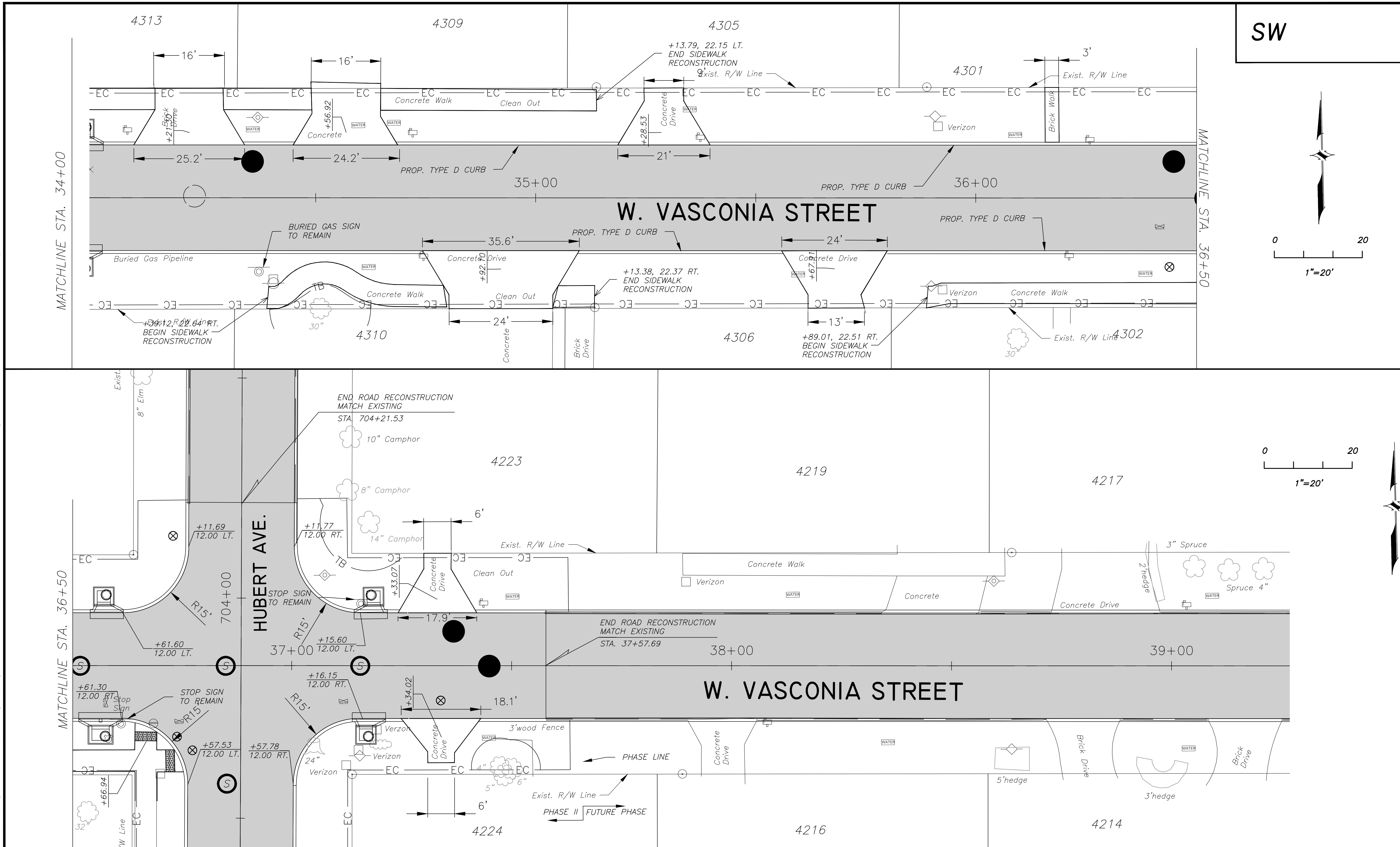
SW
4313
4309
4305
4301
16'
3'
+13.79, 22.15 LT.
END SIDEWALK
RECONSTRUCTION
Exist. R/W Line
Concrete Walk
Clean Out
Brick Drive
Concrete Drive
Concrete
Verizon
Brick Walk
25.2'
24.2'
21'
PROP. TYPE D CURB
35+00
36+00
W. VASCONIA STREET
MATCHLINE STA. 34+00
MATCHLINE STA. 36+50
BURIED GAS SIGN
TO REMAIN
Buried Gas Pipeline
35.6'
24'
13'
+13.38, 22.37 RT.
END SIDEWALK
RECONSTRUCTION
+39.12, 22.64 RT.
BEGIN SIDEWALK
RECONSTRUCTION
+89.01, 22.51 RT.
BEGIN SIDEWALK
RECONSTRUCTION
4310
4306
4302
1"=20'
END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 704+21.53
10" Camphor
8" Camphor
14" Camphor
8" Elm
4223
4219
4217
HUBERT AVE.
704+00
+11.69
12.00 LT.
+11.77
12.00 RT.
STOP SIGN
TO REMAIN
R15'
+61.60
12.00 LT.
+15.60
12.00 LT.
37+00
17.9'
6'
END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 37+57.69
38+00
39+00
3" Spruce
Spruce 4"
2'hedge
+61.30
12.00 RT.
+16.15
12.00 RT.
+34.02
18.1'
+57.53
12.00 LT.
+57.78
12.00 RT.
+66.94
3'wood Fence
PHASE LINE
PHASE II
FUTURE PHASE
5'hedge
3'hedge
4224
4216
4214

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 83E OF 105

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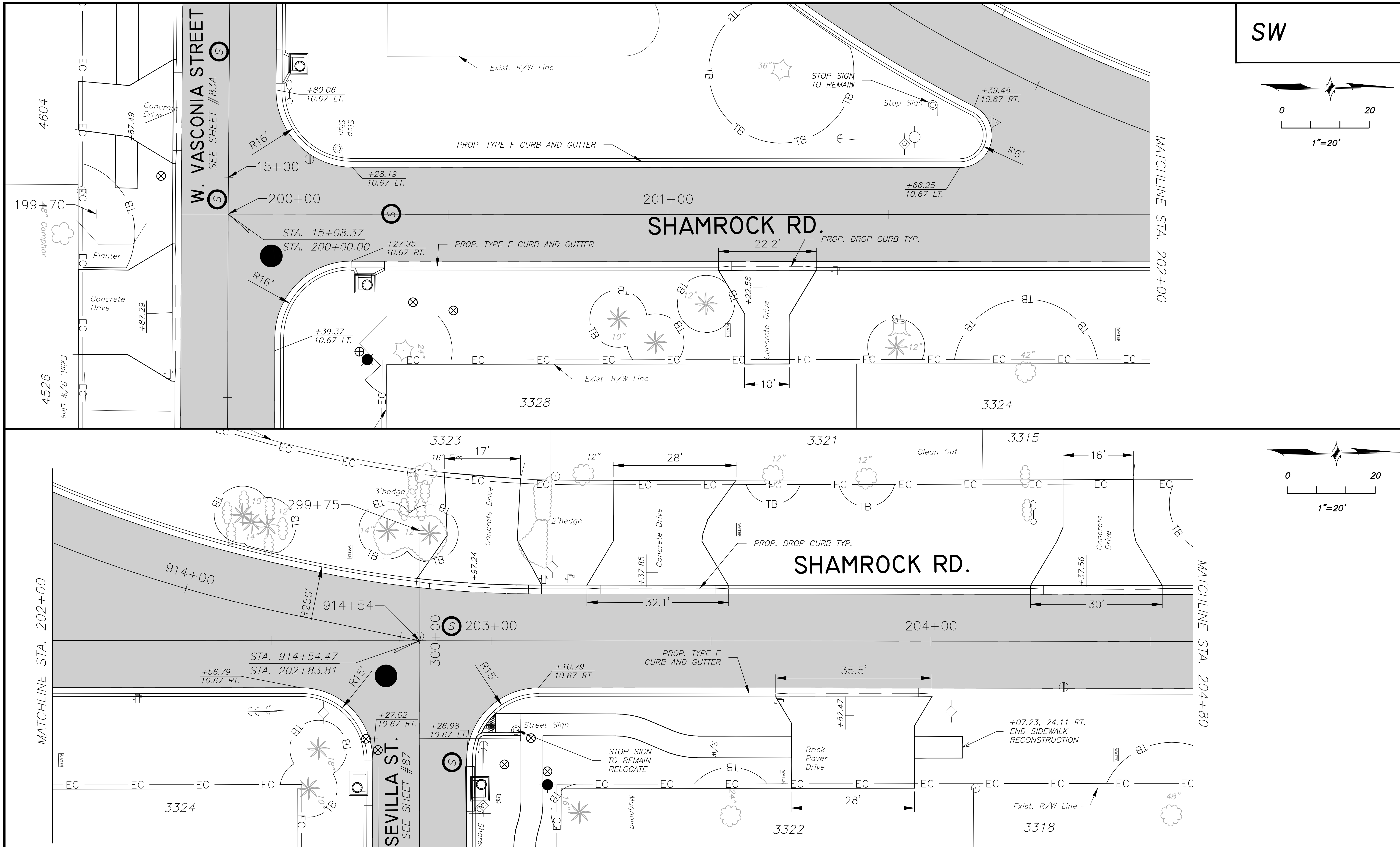


No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
PAVEMENT OVERLAY & STRIPING PLAN

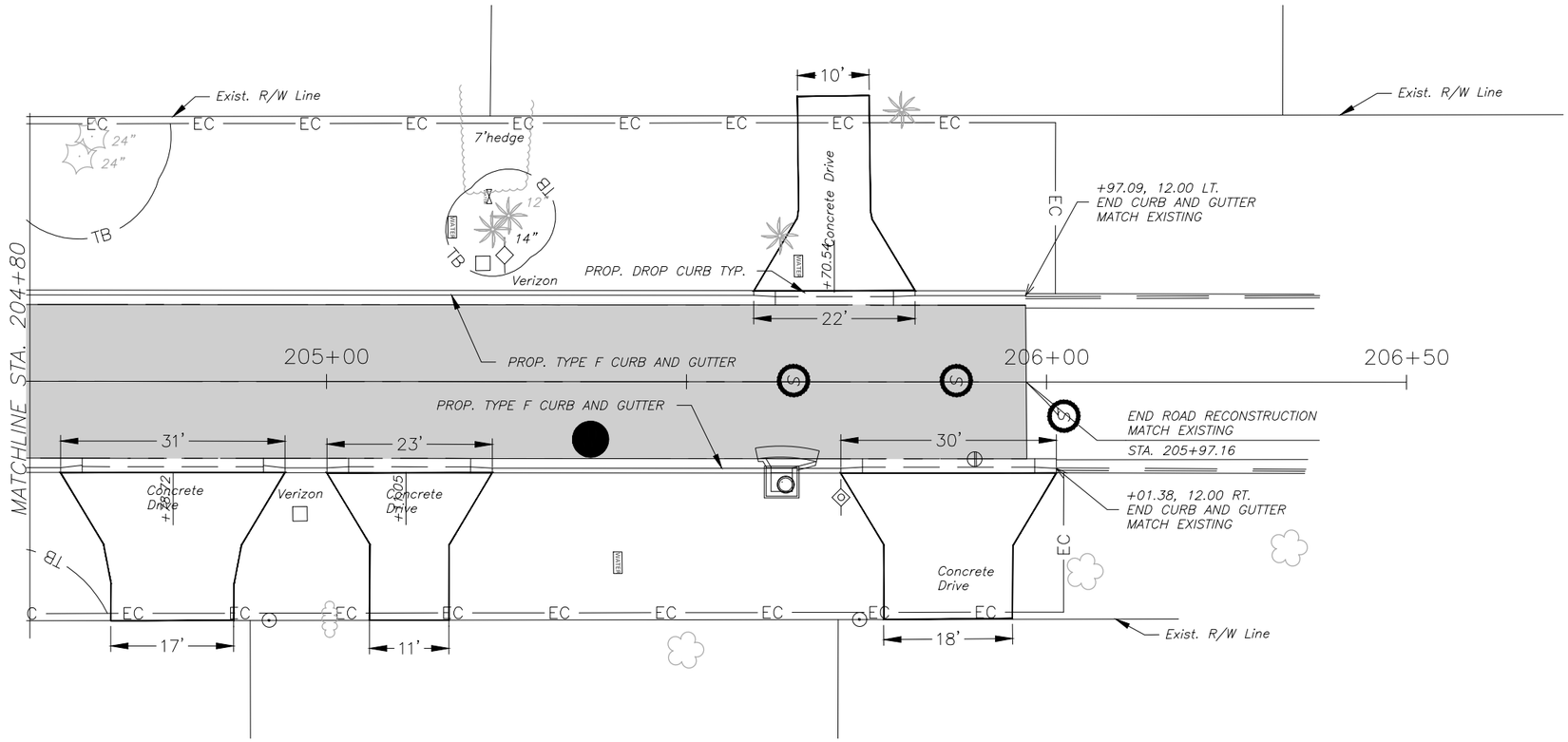
SHEET 84 OF 105

G:\Projects\14-041 – Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK-PS.dwg – Printed Jul 14, 2016-2:46pm by: JenP

SW

0 20

1"=20'



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 85 OF 105

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SW

3327

3325

3323

SHAMROCK RD.

W VASCONIA ST.

SEE SHEET #83A

SEE SHEET #84

4606

3328

911+00

912+00

913+00

14+00

201+00

202+00

PROP. STOP SIGN TO REMAIN

Clean Out

Stop Sign

17.4'

Brick Paver Drive

+52.33

PROP. DROP CURB

22.6'

4" magnolia

Electric

Basketball

18.7'

Concrete Drive

+23.06

26'

Verizon

PROP. TYPE F CURB

+39.48
10.67 RT.

R6'

+66.25
10.67 LT.

+37.02
10.67 RT.

+39.83
10.67 LT.

PROP. TYPE F CURB

PROP. STOP SIGN TO REMAIN

Stop Sign

PROP. TYPE F CURB

PROP. TYPE F CURB

Exist. R/W Line

Pet Waste

PROP. STOP SIGN TO REMAIN

Stop Sign

R16'

+28.19
10.67 LT.

3' hedge

Concrete Drive

Concrete Drive

Concrete Drive

Exist. R/W Line

0 20

1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 86 OF 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK-PS2.dwg - Printed Jul 14, 2016-2:48pm by: JenP

SW

0 20

1"=20'

SHAMROCK RD.
SEE SHEET #84 & #85

SEVILLA ST.

Magnolia
STOP SIGN TO REMAIN
RELOCATE SIGN
Crape Myrtle
+52.16, 23.88 LT.
END SIDEWALK
RECONSTRUCTION
6' Pvc Fence
Exist. R/W Line
Warning Buried Utility
+99.89, 12.00 LT.
END CURB AND GUTTER
MATCH EXISTING
Brick D/w
Co 7.99
Power Pole (no Power)
Street Sign
+10.79
10.67 RT.
+26.98
10.67 LT.
2'hedge
300+00
914+54
203+00
R15'
STOP SIGN TO REMAIN
Shared Pole
PROP. TYPE F CURB AND GUTTER
STA. 300+00.00
STA. 202+83.81
301+00
302+00
STA. 914+54.47
STA. 202+83.81
+27.02
10.67 RT.
21.2'
PROP. TYPE F CURB AND GUTTER
END ROAD RECONSTUCTION
MATCH EXISTING
STA. 302+00.00
3'hedge
299+75
+56.79
10.67 RT.
PROP.
DROP CURB TYP.
+78.84
Hedge
Service Cabinet
Stump
15"
D/w
Exist. R
+00.10, 12.00 RT.
END CURB AND GUTTER
MATCH EXISTING
Concrete Drive
S/w
TB
EC
WATER

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SEVILLA ST.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 87
105

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SW

0 20

1"=20'

500+00

Exist. R/W Line

BEGIN MILLING AND RESURFACING
MATCH EXISTING
STA. 500+16.59

Exist. R/W Line

6'wood Fence

4'hedge

18"

12"

Cluster Crape Myrtle

Cluster Crape Myrtle

Crape Cluster

Crape Murtle Cluster

12'

Concrete Drive

Stop Sign

END MILLING AND RESURFACING
MATCH EXISTING
STA. 400+04.96

400+00

401+00

402+00

HESPERIDES AVE.

MATCHLINE STA. 402+70

STA. 400+49.82
STA. 500+43.19

Stop Sign

EL PRADO BLVD.

SEE SHEET #89

Speed Limit

SPEED LIMIT SIGN
TO REMAIN

Gte

Gte

Cluster
Of 10
Unknown

Concrete Drive

12"

15"

6'alum. Fence

0 20

1"=20'

HESPERIDES AVE.

PROP. TYPE F
CURB AND GUTTER

+02.77
10.67 RT.

23+00

+02.61
10.67 LT.

8"

+81.89
10.67 LT.

BEGIN ROAD RECONSTRUCTION
MATCH EXISTING
STA. 404+05.29

R15'

R15'

+27.89
10.67 LT.

STA. 403+54.81
STA. 23+29.69

403+00

404+00

404+25

MATCHLINE STA. 402+70

BEGIN MILLING AND RESURFACING
END ROAD RECONSTRUCTION
STA. 403+15.84

+27.79
10.67 RT.

+81.79
10.67 RT.

R15'

R15'

Stop Sign

Verizon

W. VASCONIA STREET

SEE SHEET #83C

+56.60
10.68 LT.

24"

5"

20"

12' Palm

24"

+57.61
10.67 RT.

PROP. TYPE F
CURB AND GUTTER

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HESPERIDES AVE.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 88
105

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SW

4601

HESPERIDES AVE.

SEE SHEET #88

40

Exist. R/W Line

4423

10"

15"

8"

24"

18"

EXISITING CURB TO REMAIN

6" SOLID WHITE 10-30 SKIP

BEGIN MILLING AND RESURFACING
MATCH EXISTING
STA. 500+16.58

6" SOLID YELLOW

500+00

501+00

502+00

EXISITING CURB TO REMAIN

12"

STA. 500+43.28
STA. 400+49.99

6" SOLID YELLOW

6" SOLID WHITE 10-30 SKIP

EL PRADO BLVD.

BEGIN MILLING AND RESURFACING
MATCH EXISTING
STA. 400+04.96

EXISITING CURB TO REMAIN

STOP SIGN TO REMAIN

4424

WATER

30"

4422

0 20

1"=20'

4602

00

4419

WATER

12"

15"
Twin
Elm

4417

36"

Conc D

12"
Elm

2"

4415

36"

Brick Dwy

Concrete Drive

Verizon

Concrete Drive

EXISITING CURB TO REMAIN

S/w

S/w

MATCHLINE STA: 502+50.00

6" SOLID WHITE 10-30 SKIP

6" SOLID YELLOW

503+00

EXISITING CURB TO REMAIN

15"

14"

504+00

HIGH WATER SIGN TO BE REMOVED

14"

6" SOLID YELLOW

6" SOLID WHITE 10-30 SKIP

EL PRADO BLVD.

6" SOLID YELLOW

EXISITING CURB TO REMAIN

10"

S/w

S/w

S/w

MATCHLINE STA: 505+00.00

0 20

1"=20'

WATER

10"

4420

Concrete

Verizon

10" Elm

9"

4418

Dwy

HIGH WATER SIGN TO BE REMOVED

4416

Dwy

36"

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET
89
of
105

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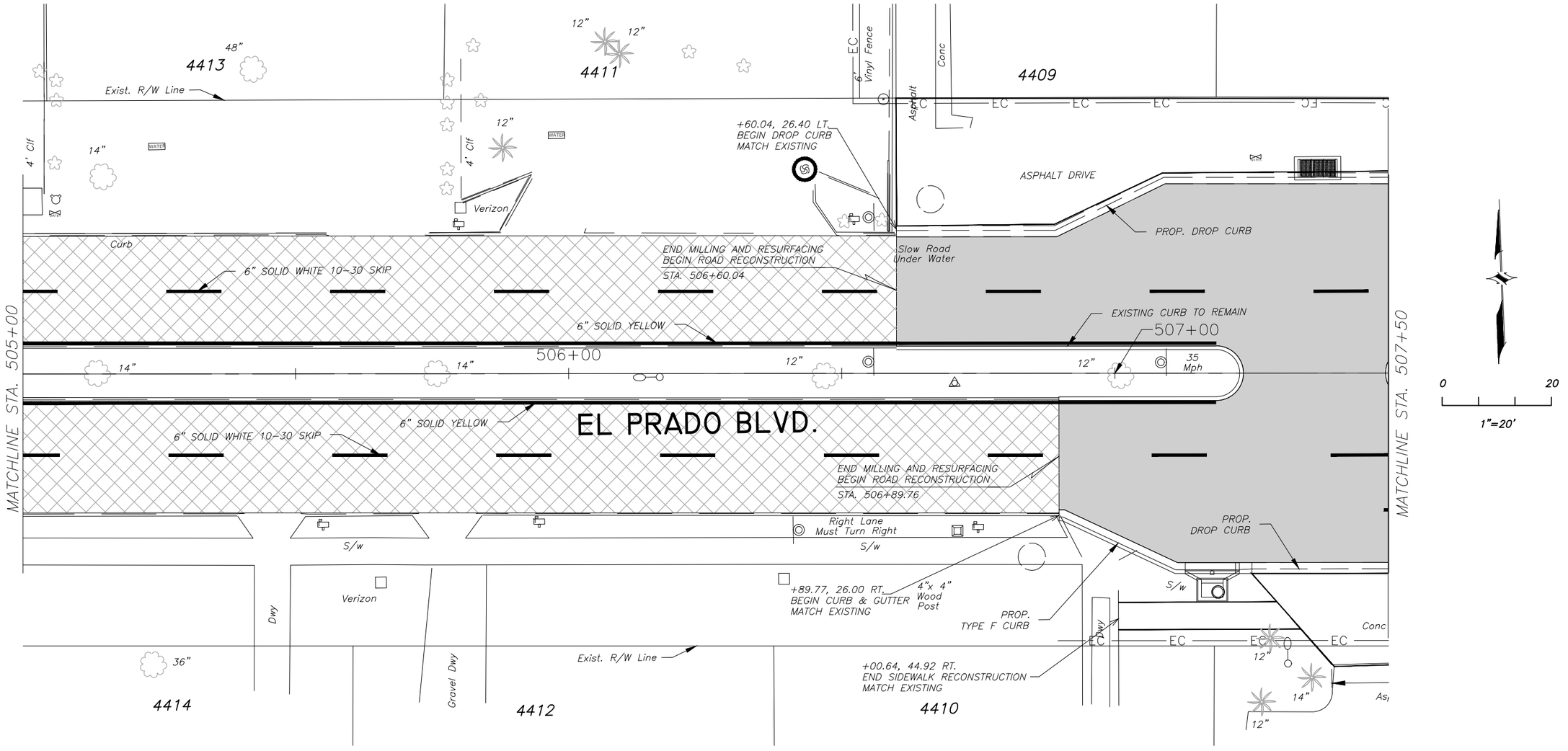
SW



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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DRN: ASA
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 90 OF 105

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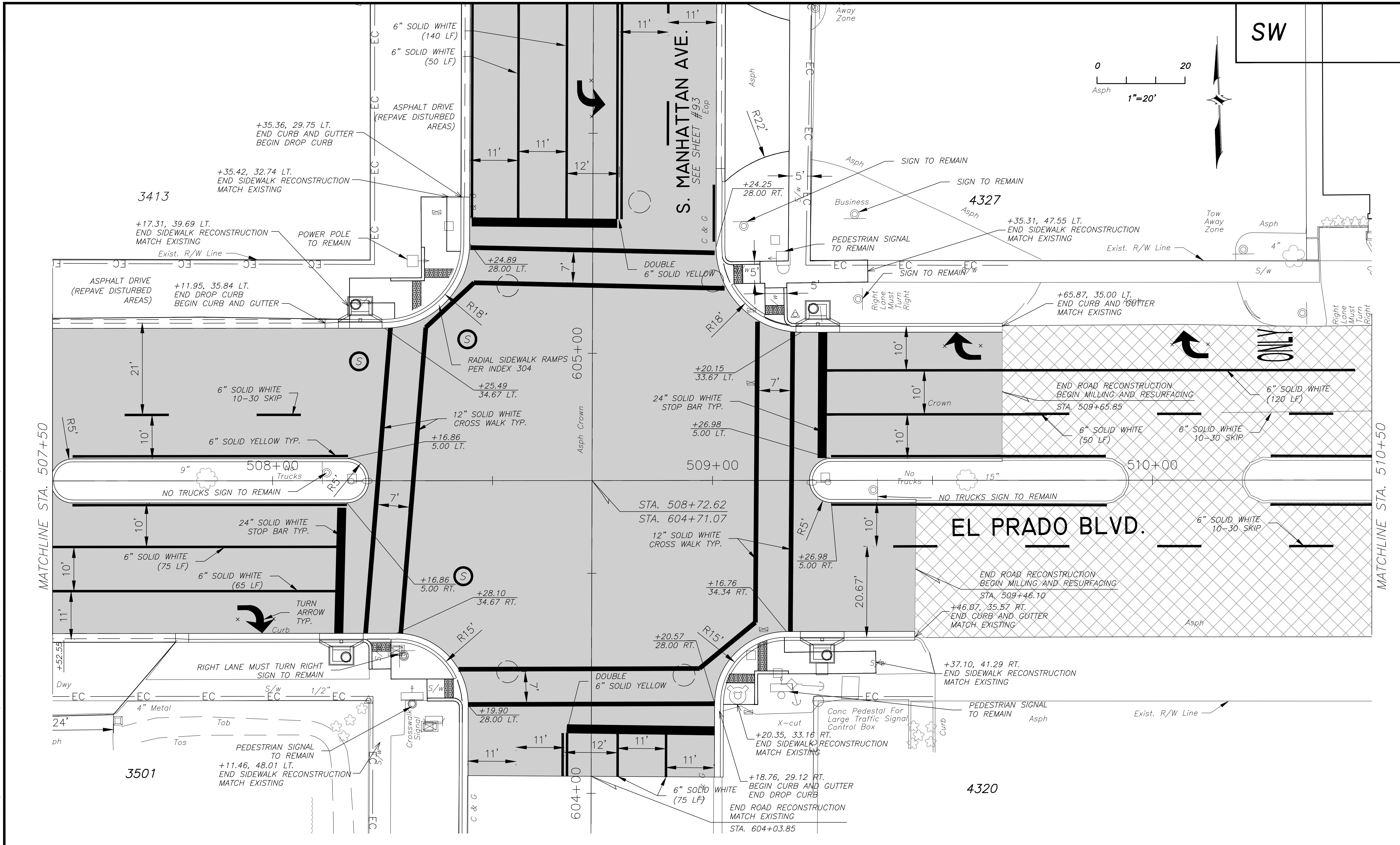
SW
S. MANHATTAN AVE.
SEE SHEET #93
EL PRADO BLVD.
MATCHLINE STA. 507+50
MATCHLINE STA. 510+50
6" SOLID WHITE (140 LF)
6" SOLID WHITE (50 LF)
ASPHALT DRIVE (REPAVE DISTURBED AREAS)
+35.36, 29.75 LT. END CURB AND GUTTER BEGIN DROP CURB
+35.42, 32.74 LT. END SIDEWALK RECONSTRUCTION MATCH EXISTING
+17.31, 39.69 LT. END SIDEWALK RECONSTRUCTION MATCH EXISTING
POWER POLE TO REMAIN
+11.95, 35.84 LT. END DROP CURB BEGIN CURB AND GUTTER
RADIAL SIDEWALK RAMPS PER INDEX 304
+24.89 28.00 LT.
+25.49 34.67 LT.
DOUBLE 6" SOLID YELLOW
12" SOLID WHITE CROSS WALK TYP.
+16.86 5.00 LT.
6" SOLID WHITE 10-30 SKIP
6" SOLID YELLOW TYP.
NO TRUCKS SIGN TO REMAIN
STA. 508+72.62
STA. 604+71.07
24" SOLID WHITE STOP BAR TYP.
6" SOLID WHITE (75 LF)
6" SOLID WHITE (65 LF)
TURN ARROW TYP.
+16.86 5.00 RT.
+28.10 34.67 RT.
RIGHT LANE MUST TURN RIGHT SIGN TO REMAIN
PEDESTRIAN SIGNAL TO REMAIN
+11.46, 48.01 LT. END SIDEWALK RECONSTRUCTION MATCH EXISTING
+19.90 28.00 LT.
SIGN TO REMAIN
+24.25 28.00 RT.
PEDESTRIAN SIGNAL TO REMAIN
+35.31, 47.55 LT. END SIDEWALK RECONSTRUCTION MATCH EXISTING
+65.87, 35.00 LT. END CURB AND GUTTER MATCH EXISTING
+20.15 33.67 LT.
END ROAD RECONSTRUCTION BEGIN MILLING AND RESURFACING STA. 509+65.85
6" SOLID WHITE (120 LF)
6" SOLID WHITE (50 LF)
6" SOLID WHITE 10-30 SKIP
+26.98 5.00 LT.
+26.98 5.00 RT.
+16.76 34.34 RT.
END ROAD RECONSTRUCTION BEGIN MILLING AND RESURFACING STA. 509+46.10
+46.07, 35.57 RT. END CURB AND GUTTER MATCH EXISTING
+20.57 28.00 RT.
+37.10, 41.29 RT. END SIDEWALK RECONSTRUCTION MATCH EXISTING
Conc Pedestal For Large Traffic Signal Control Box
+20.35, 33.16 RT. END SIDEWALK RECONSTRUCTION MATCH EXISTING
+18.76, 29.12 RT. BEGIN CURB AND GUTTER END DROP CURB
6" SOLID WHITE (75 LF)
END ROAD RECONSTRUCTION MATCH EXISTING STA. 604+03.85
Exist. R/W Line
3413
4327
3501
4320
508+00
509+00
510+00
604+00
605+00
ONLY
1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
EL PRADO
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 91
105

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SW

0 20
1"=20'

MATCHLINE STA: 510+50.00

MATCHLINE STA: 513+00.00

Center Line

6" SOLID WHITE 10-30 SKIP

6" SOLID YELLOW TYP.

6" SOLID YELLOW TYP.

511+00

512+00

6"

18"

6" SOLID YELLOW TYP.

6" SOLID YELLOW TYP.

6" SOLID WHITE 10-30 SKIP

EL PRADO BLVD.

Conc S/w

Speed Limit 30

Hart Bus Stop

Conc S/w

SPEED LIMIT SIGN TO REMAIN

BUS STOP SIGN TO REMAIN

Asphalt

WATER

WATER

Exist. R/W Line

WATER

0 20
1"=20'

MATCHLINE STA: 513+00.00

ASPHALT DRIVE (REPAVE DISTURBED AREAS)

+25.00, 33.67 LT.
END DROP CURB
MATCH EXISTING

+65.89
33.67 LT.

+58.49, 33.67 LT.
END CURB AND GUTTER
BEGIN DROP CURB

END ROAD RECONSTRUCTION
BEGIN MILLING AND RESURFACING
STA. 513+25.00

6" SOLID YELLOW TYP.

10'

6" SOLID WHITE 10-30 SKIP

+71.08
5.00 LT.

701+00

HUBERT AVE.

SEE SHEET #94

+30.61
33.67 LT.

20'

ASPHALT DRIVE (REPAVE DISTURBED AREAS)

+42.03, 34.59 LT.
END CURB AND GUTTER
BEGIN DROP CURB

+24.96
5.00 LT.

514+00

10'

6" SOLID YELLOW TYP.

EC

+00.00, 34.67 LT.
END DROP CURB
MATCH EXISTING

END ROAD RECONSTRUCTION
STA. 515+00.10

EC

515+00

10"

8"

LIGHT POLE TO REMAIN

EC

12"

+71.08
5.00 RT.

6" SOLID YELLOW TYP.

10'

END ROAD RECONSTRUCTION
BEGIN MILLING AND RESURFACING
STA. 513+25.00

+24.96
5.00 RT.

6" SOLID YELLOW TYP.

10'

6" SOLID WHITE 10-30 SKIP

STA. 513+97.68
STA. 604+73.05

+25.00, 34.34 RT.
END DROP CURB
MATCH EXISTING

20.67'

PROP. TYPE F CURB AND GUTTER

20.67'

6" SOLID WHITE 10-30 SKIP

EC

END ROAD RECONSTRUCTION
STA. 515+00.00

+55.69, 34.34 RT.
END CURB AND GUTTER
BEGIN DROP CURB

+64.14
34.34 RT.

+30.81
34.34 RT.

+43.97, 35.51 RT.
END CURB AND GUTTER
BEGIN DROP CURB

EC

+00.00, 34.34 RT.
END DROP CURB
MATCH EXISTING

+55.60, 44.20 RT.
END SIDEWALK RECONSTRUCTION
MATCH EXISTING

RADIAL SIDEWALK RAMPS
PER INDEX 304

EC EC EC EC EC EC EC

+51.68, 43.28 RT.
END SIDEWALK RECONSTRUCTION
MATCH EXISTING

12"

Exist. R/W Line

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET 92 of 105

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SW

MATCHLINE STA: 603+00.00

MATCHLINE STA: 606+00.00

MATCHLINE STA: 606+00.00

MATCHLINE STA: 609+00.00

S. MANHATTAN AVE.

S. MANHATTAN AVE.

EL PRADO BLVD.

SEE SHEET #90

W. VASCONIA ST.

SEE SHEET #83D

W. VASCONIA ST.

Parking Blockers

Crosswalk
+20.61 Signal
28.00 LT.

Speed Limit 40

C & G

+03.93, 30.00 LT.
BEGIN CURB AND GUTTER
MATCH EXISTING

+28.10
34.67 RT.

R15'

PROP. TYPE F
CURB AND GUTTER.

+25.49
34.67 LT.

PROP. TYPE F
CURB AND GUTTER.

R18'

ASPHALT DRIVE
(REPAVE DISTURBED AREAS)

0 20

1"=20'

Eop

+35.41, 29.20 LT.
END CURB AND GUTTER
BEGIN DROP CURB

6" SOLID WHITE

24" SOLID WHITE
STOP BAR TYP.

6" SOLID WHITE
(50 LF)

604+00

12'

11'

11'

END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 604+03.81

Asph Crown

605+00

STA. 604+71.07
STA. 508+72.62

12" SOLID WHITE
CROSS WALK TYP.

TURN
ARROW
TYP.

DOUBLE
6" SOLID YELLOW

24" SOLID WHITE
STOP BAR TYP.

C & G

R15'

PROP. TYPE F
CURB AND GUTTER.

+16.76
34.34 RT.

509+00

PROP. TYPE F
CURB AND GUTTER.

R18'

12" SOLID WHITE
CROSS WALK TYP.

C & G

47'

Eop

+19.96
28.00 RT.

+03.77, 30.00 RT.
BEGIN CURB AND GUTTER
MATCH EXISTING

Asph

+20.15
33.67 LT.

+24.25
28.00 RT.

61.37'

Asph

R22'

30'

PROP. DROP
CURB TYP.

X-cut

S/w

EC

PROP. DROP CURB TYP.

ASPHALT DRIVE
(REPAVE TO DISTURBED AREAS)

PROP. DROP CURB TYP.

Eop

6" SOLID WHITE
(10-30 SKIP)

6" SOLID WHITE
(10-30 SKIP)

6" SOLID WHITE

Traffic Signal

+50.39
28.00 LT.

+06.40
28.00 LT.

6" SOLID WHITE

PROP. TYPE F
CURB AND GUTTER.

PROP. RADIAL
CURB RAMP
PER INDEX 304

+39.18, 29.33 LT.
END CURB AND GUTTER
MATCH EXISTING

0 20

1"=20'

6" SOLID WHITE
(140 LF)

DOUBLE
6" SOLID YELLOW

+46.90, 28.00 LT.
END CURB AND GUTTER
BEGIN DROP CURB

607+00

Asph Crown

608+00

DOUBLE
6" SOLID YELLOW

END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 608+39.59

STA. 31+62.47
STA. 607+85.81

6" SOLID WHITE
(10-30 SKIP)

+23.94, 29.00 RT.
END DROP CURB
BEGIN CURB AND GUTTER

DOUBLE
6" SOLID YELLOW

DOUBLE
6" SOLID YELLOW

+43.94, 29.00 RT.
END CURB AND GUTTER
BEGIN DROP CURB

6" SOLID WHITE

PROP. TYPE F
CURB AND GUTTER.

C & G

+65.18
28.00 RT.

PROP. TYPE F
CURB AND GUTTER.

+21.17
28.00 RT.

6" SOLID WHITE

+40.01, 29.33 RT.
END CURB AND GUTTER
MATCH EXISTING

PROP. TYPE F CURB AND GUTTER.

PROP. DROP CURB TYP.

Speed Limit 40

5'

S/w

S/w

32+00

W. VASCONIA ST.

TB

EC

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET
93
105

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SW

4202

Exist. R/W Line

EC

Buried Cable

+64.14
35.67 RT.

+08.85
14.00 LT.

R18'

RADIAL SIDEWALK RAMPS
PER INDEX 304

END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 700+01.26

700+00

12" SOLID WHITE
CROSS WALK TYP.

6" SOLID
YELLOW TYP.

+71.08
5.00 RT.

+71.08
5.00 LT.

PROP. TYPE D
CURB

514+00

EL PRADO BLVD.
SEE SHEET #92

+09.11
14.00 RT.

RADIAL SIDEWALK RAMPS
PER INDEX 304

R18'

Stop Sign

PROP. TYPE F
CURB AND GUTTER

+30.81
35.67 RT.

Exist. R/W Line

4222

+24.96
5.00 RT.

+24.96
5.00 LT.

+65.88
35.00 LT.

+29.89
35.00 LT.

Pilates

4301

Exist. R/W Line

0 20

1"=20'

EC EC EC EC EC

ASPHALT DRIVE
(REPAVE DISTURBED
AREAS)

R20'

Stop Sign

+26.00, 11.84 LT.
END DROP CURB
BEGIN CURB AND GUTTER

PROP. DROP CURB TYP.

+17.53
10.67 LT.

STOP
SIGN TO REMAIN

HUBERT AVE.

701+00

+17.78
10.67 RT.

PROP. TYPE F
CURB AND GUTTER

R20'

+26.01, 11.84 RT.
END DROP CURB
BEGIN CURB AND GUTTER

ASPHALT DRIVE
(REPAVE DISTURBED
AREAS)

Sidewalk

4233

Exist. R/W Line

Vz 4301

+23.05, 10.66 LT.
END CURB AND GUTTER
BEGIN DROP CURB

+23.72, 10.68 RT.
END CURB AND GUTTER
BEGIN DROP CURB

Speed
Limit
25

40" Exist. R/W

4' Clf

Stone Planter

32.9'

Concrete

45.3'

703+00

+36.49, 12.00 LT.
END TYPE D CURB
BEGIN CURB AND GUTTER

702+00

+37.16, 12.68 RT.
END TYPE D CURB
BEGIN CURB AND GUTTER

PROP. TYPE D
CURB

Exist. R/W Line

6' Wood Board

4224

MATCHLINE STA: 703+00.00

MATCHLINE STA: 706+00.00

4302

RADIAL SIDEWALK RAMPS
PER INDEX 304

Exist. R/W Line

EC EC EC EC

Stop Sign

+61.39
12.00 RT.

VASCONIA ST.
SEE SHEET #83E

+57.56
12.00 LT.

R15'

+61.60
12.00 LT.

PROP.
TYPE D CURB

+11.56
12.00 LT.

4301

Exist. R/W Line

8" Elm

Concrete

4' Clf

Concrete

6' Wood Board

4300

0 20

1"=20'

END ROAD RECONSTRUCTION
MATCH EXISTING
STA. 704+21.53

704+00

705+00

706

HUBERT AVE.

PROP. TYPE D
CURB

+57.78
12.00 RT.

PROP.
TYPE D CURB

R15'

37+00

STA. 703+84.67
STA. 36+88.50

+11.77
12.00 RT.

Power
Pole

Tripple 8"
Crape
Myrtle

4' Clf

4' Clf

4' Clf

Concrete

24"
Verizon

Verizon

Verizon

+15.39
12.00 RT.

+15.60
12.00 LT.

Concrete
Drive

Concrete
Drive

14" Camphor

8" Camphor

10" Camphor

Exist. R/W Line

4223

4224

4224

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVE.
PAVEMENT OVERLAY & STRIPING PLAN

SHEET
94
of
105

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SW

W. SEVILLA ST.

W. VASCONIA ST.

HESPERIDES AVE.

VASCONIA ST
DETOUR

VASCONIA ST
DETOUR

TEMPORARY
ON STREET
PARKING
AREA

TEMPORARY
"PRE-CONSTRUCTED
ELEVATED
WALKWAY"

100'
roadway closure

TEMPORARY CLOSE
DRIVEWAYS/SIDEWALKS

END
DETOUR

DETOUR
500 FT

ROAD
CLOSED
AHEAD

DETOUR

ROAD CLOSED
TO
THRU TRAFFIC

TEMPORARY
"PRE-CONSTRUCTED
ELEVATED
WALKWAY"

TEMPORARY
CLOSE DRIVEWAYS

ROAD CLOSED AHEAD
LOCAL
TRAFFIC ONLY

DETOUR

END
DETOUR

WORK AREA

BLOCK AFFECTED

TYPICAL BLOCK DETOUR SIGNING

NTS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

TRAFFIC CONTROL PLAN I

SHEET
94A
OF 105

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SW

W SEVILLA ST

W. SEVILLA ST.

HESPERIDES AVE.

S. MANHATTAN AVE.

HUBERT AVE.

EL PRADO BLVD.

W VASCONIA ST.
MANHATTAN AVE.
DETOUR

END DETOUR

ROAD CLOSED TO THRU TRAFFIC

ROAD CLOSED AHEAD

ROAD CLOSED

W VASCONIA ST
MANHATTAN AVE
DETOUR

END

WORK AREA

TYPICAL INTERSECTION DETOUR SIGNING

NTS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

TRAFFIC CONTROL PLAN II

SHEET 94B
105

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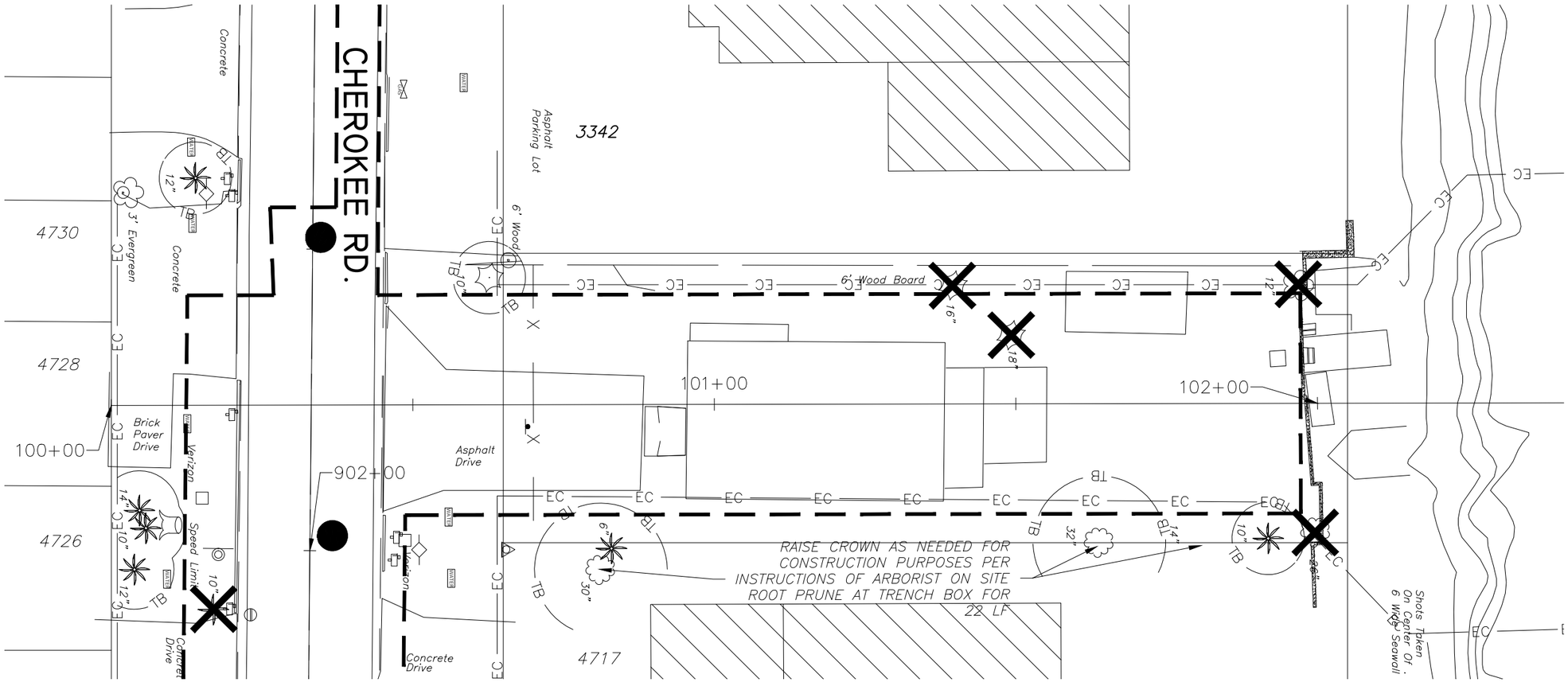
SW



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
OUTFALL
TREE REMOVAL PLAN

SHEET 95 OF 105

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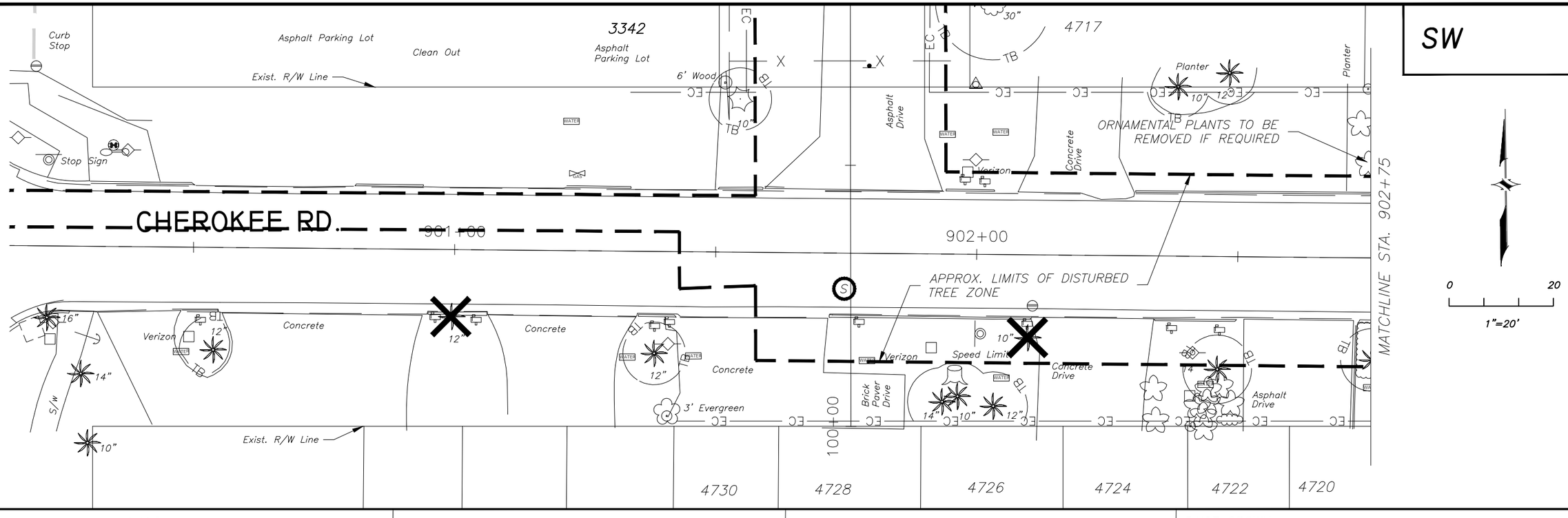
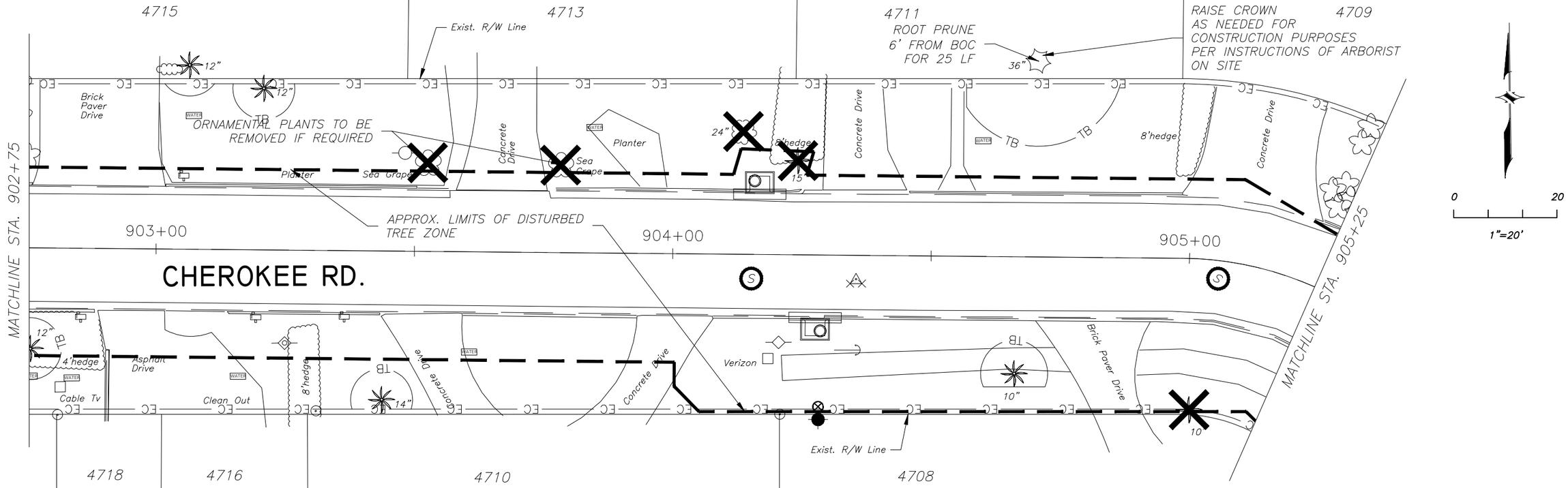
SW





No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

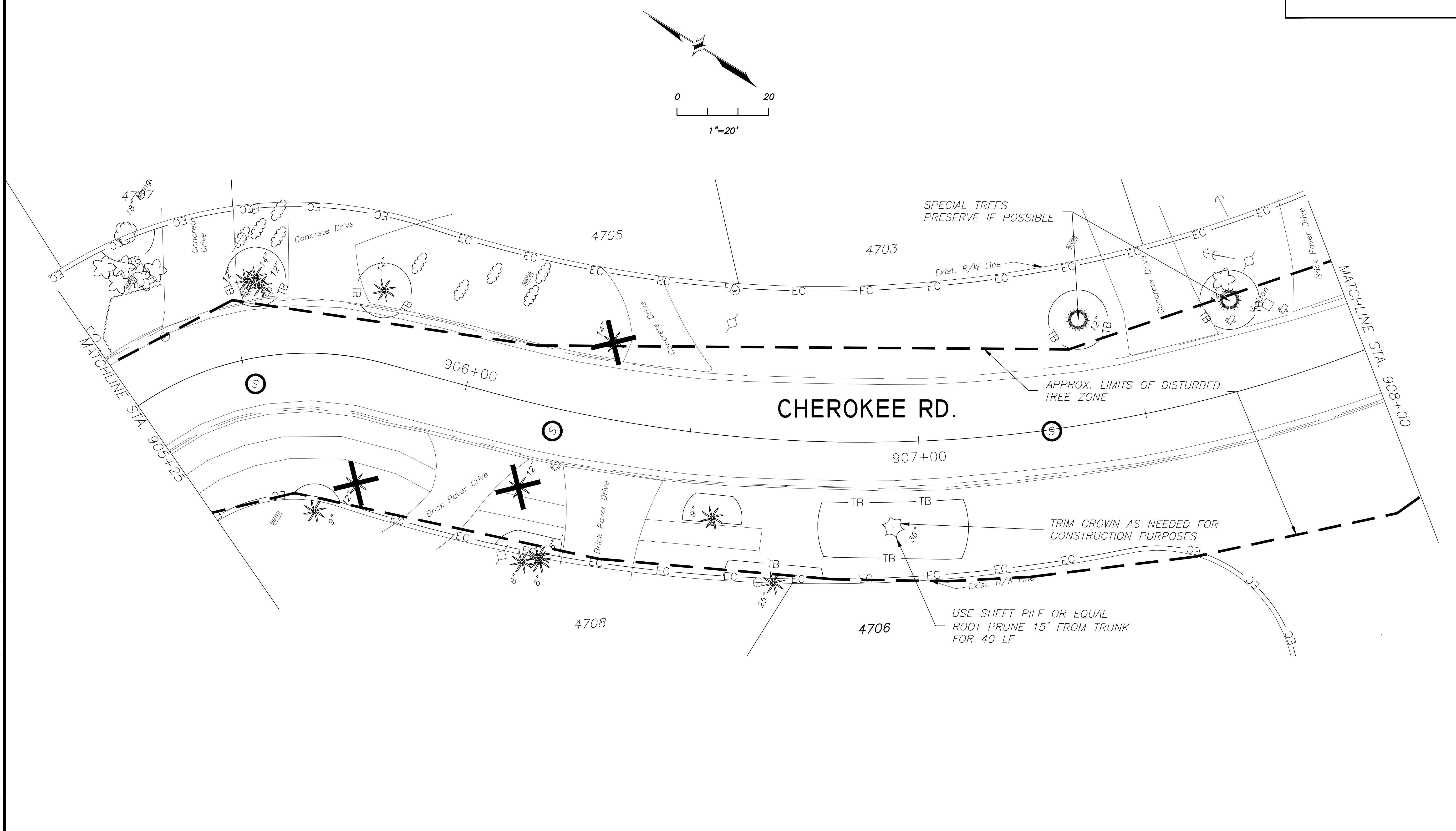
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD.
TREE REMOVAL PLAN

SHEET
95A
of
105

SW



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No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

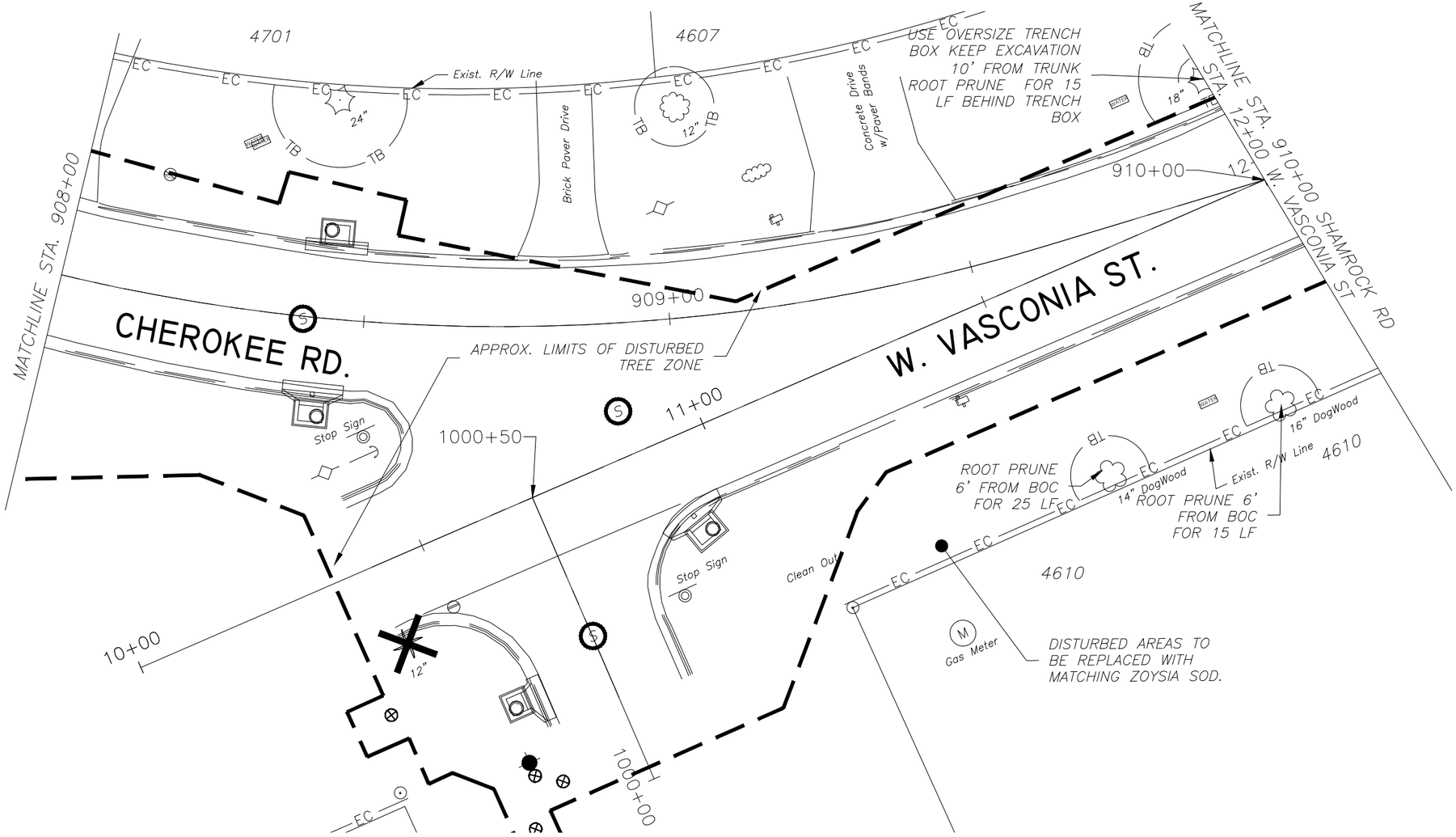
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD.
TREE REMOVAL PLAN

SHEET 96

105

SW



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. & W. VASCONIA ST.
TREE REMOVAL PLAN

SHEET 97 OF 105

SW

Exist. R/W Line
EC
Stop Sign
Clean Out
LARGE BRANCHES 8' OVER STREET CONSULT CITY ARBORIST BEFORE REMOVAL
TB
42"
S. SHAMROCK RD.
SEE SHEET #104
911+00
Concrete Drive
Verizon
WATER
12"
3"
8"
MATCHLINE STA. 910+00 & 12+00
+00
13+00
14+00
12+00
APPROX. LIMITS OF DISTURBED TREE ZONE
MATCHLINE STA. 14+25
ROOT PRUNE 6' FROM BOC FOR 10 LF
W. VASCONIA STREET
Verizon
Clean Out
12" Cedar
Decorative
26" Cedar
20" Cedar
40"
3'hedge
14"
12"
Concrete Drive
WATER
Exist. R/W Line
TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE
ROOT PRUNE 6' FROM BOC FOR 25 LF
4608
4606

0 20
1"=20'

Crape Myrtle 4"
4" Crape Myrtle
3"
Pet Waste
Stop Sign
S. SHAMROCK RD.
SEE SHEET #104
MATCHLINE STA. 14+25
15+00
200+00
199+70
TRIM CROWN AS NEEDED FOR CONSTRUCTION PURPOSES
Concrete Drive
Planter
48" Camphor
ROOT PRUNE 8' FROM BOC FOR 15 LF
Exist. R/W Line
4604
4526

3328
0 20
1"=20'
TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE
24"
Exist. R/W Line
6'wood Fence
ROOT PRUNE 8 FROM BOC FOR 15 LF
12"
10"
10"
10"
Concrete Drive
42"
Small Sink Hole
16+00
W. VASCONIA ST.
17+00
MATCHLINE STA. 17+25
ROOT PRUNE 8' FROM BOC FOR 15 LF
APPROX. LIMITS OF DISTURBED TREE ZONE
TRIM CROWN AS NEEDED FOR CONSTRUCTION PURPOSES
4'hedge
Concrete Drive
Cluster Crape Myrtle
2'hedge
Concrete Walk
12"
6'hedge
Brick Paver Drive
Clean Out
48"
4522
4520
ROOT PRUNE 8' FROM BOC FOR 15 LF
4519
36"

0 20
1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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1			4		

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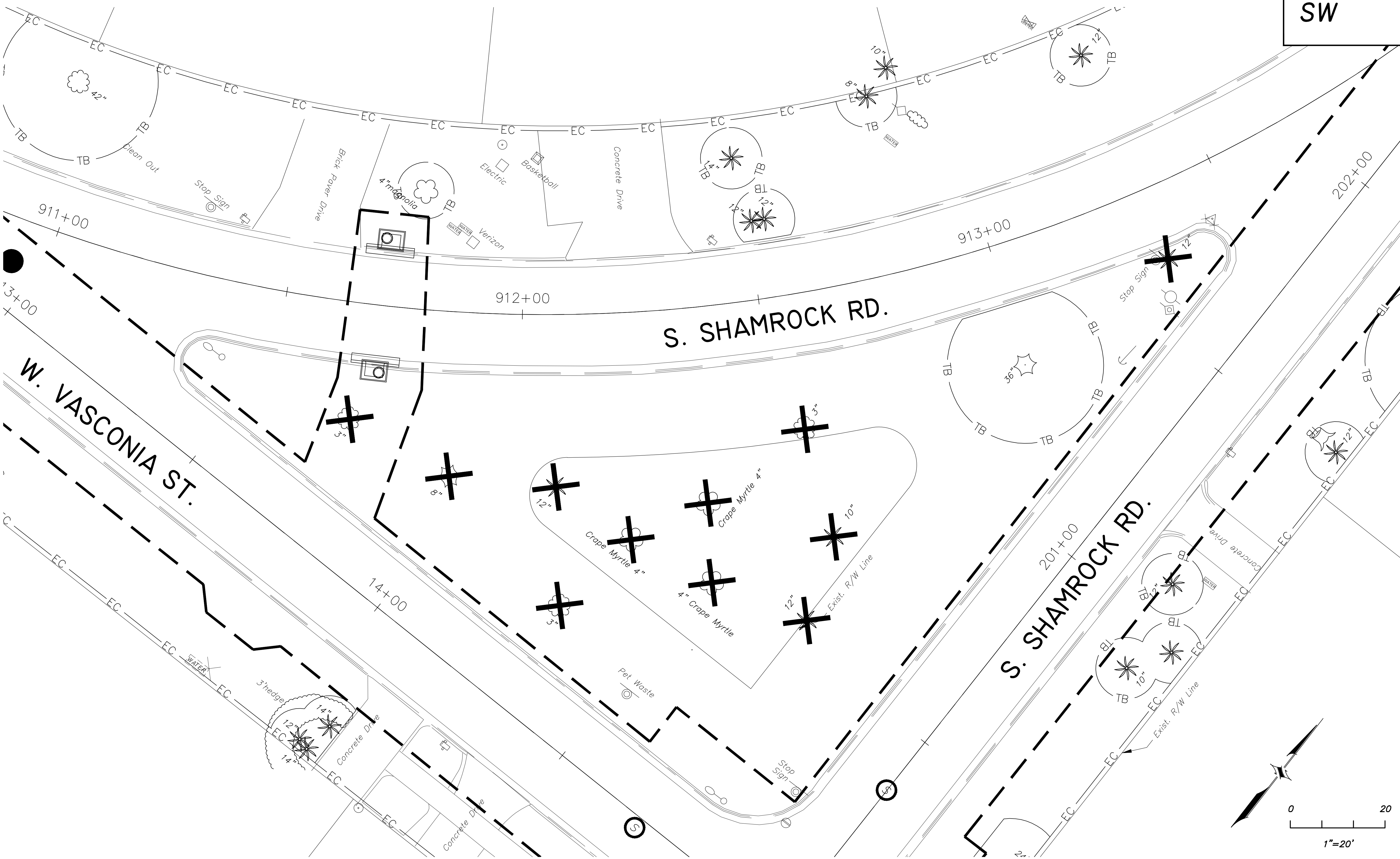
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST.
TREE REMOVAL PLAN

SHEET 98 OF 105

SW



G:\Projects\14-041 – Spring Lake Basin\Drawings\Design&Construction\14-041-PP-OUTFALL-TR.dwg – Printed Jul 18, 2016-10:39am by: JenP

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST. & SHAMROCK RD.
TREE REMOVAL PLAN

SHEET
98A
105

SW

RECOMMENDED REMOVAL, BELOW AVERAGE CONDITION

4517

Exist. R/W Line

ROOT PRUNE 2' FROM BOC FOR 20 LF

4513

TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE

4509

ROOT PRUNE 2' FROM BOC FOR 25 LF

0 20

1"=20'

MATCHLINE STA. 17+25

18+00

19+00

20+00

MATCHLINE STA. 20+25

APPROX. LIMITS OF DISTURBED TREE ZONE

W. VASCONIA STREET

Brick Paver Drive

Brick Paver Walk

Concrete Drive

Verizon

ROOT PRUNE 8' FROM BOC FOR 30 LF

Exist. R/W Line

ROOT PRUNE 2' FROM BOC FOR 30 LF

4516

TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE

4510

4508

4507

4503

4501

Exist. R/W Line

Concrete Drive

Planter

Decorative

ROOT PRUNE 2' FROM BOC FOR 20 LF

2'metal Fence

Gate

Brick Walk

0 20

1"=20'

MATCHLINE STA. 20+25

21+00

22+00

MATCHLINE STA. 22+75

APPROX. LIMITS OF DISTURBED TREE ZONE

W. VASCONIA STREET

MINOR CROWN RAISING

Verizon

Exist. R/W Line

4506

4504

ROOT PRUNE 8' FROM BOC FOR 25 LF

4502

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST.
TREE REMOVAL PLAN

SHEET 99 OF 105

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SW

0 20

1"=20'

404+00

MATCHLINE STA. 22+75

23+00

24+00

25+00

MATCHLINE STA. 25+75

HESPERIDES AVE.

W. VASCONIA STREET

15" Pine

12" Palm

ROOT PRUNE 2' FROM BOC FOR 15 LF

22"

8"

24"

5"

20"

16"

4423

4419

24"

32"

Exist. R/W Line

Brick Walk

Concrete Walk

18x18 Brick

18x18 Brick

18x18 Brick

TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE

APPROX. LIMITS OF DISTURBED TREE ZONE

ROOT PRUNE 8' FROM BOC 25 LF

20"

18"

19"

8"

Verizon

Stop Sign

9"

Concrete Drive

ROOT PRUNE 8' FROM BOC FOR 15 LF

9"

5"

ROOT PRUNE 8' FROM BOC FOR 10 LF

20"

4"

Crape Myrtle Cluster

Brick Drive

Brick Drive

Clean Out

Exist. R/W Line

Underground Lp Tank

4424

4422

4418

WATER

4415

4411

Exist. R/W Line

Brick Drive

8"

14"

30"

24"

10" Magnolia

4" Crape Myrtle

4" Crape Myrtle

4" Crape Myrtle

Clean Out

Concrete

5" Elm

Verizon

Concrete Drive

TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE

ROOT PRUNE FOR 25 LF

26"

35"

Brick Walk

ROOT PRUNE FOR 15 LF

26+00

27+00

28+00

MATCHLINE STA. 25+75

W. VASCONIA STREET

MATCHLINE STA. 28+75

APPROX. LIMITS OF DISTURBED TREE ZONE

15"

27"

5'hedge

Brick Drive

Brick Drive

10"

Decorative

Decorative

6"

5"

9"

Clean Out

24"

Concrete Drive

Concrete Walk

Verizon

Brick Drive

34"

TRIM CROWN AS NEEDED FOR CONSTRUCTION PURPOSES

Exist. R/W Line

4416

4414

4410

TB

EC

WATER

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST.
TREE REMOVAL PLAN

SHEET 100 of 105

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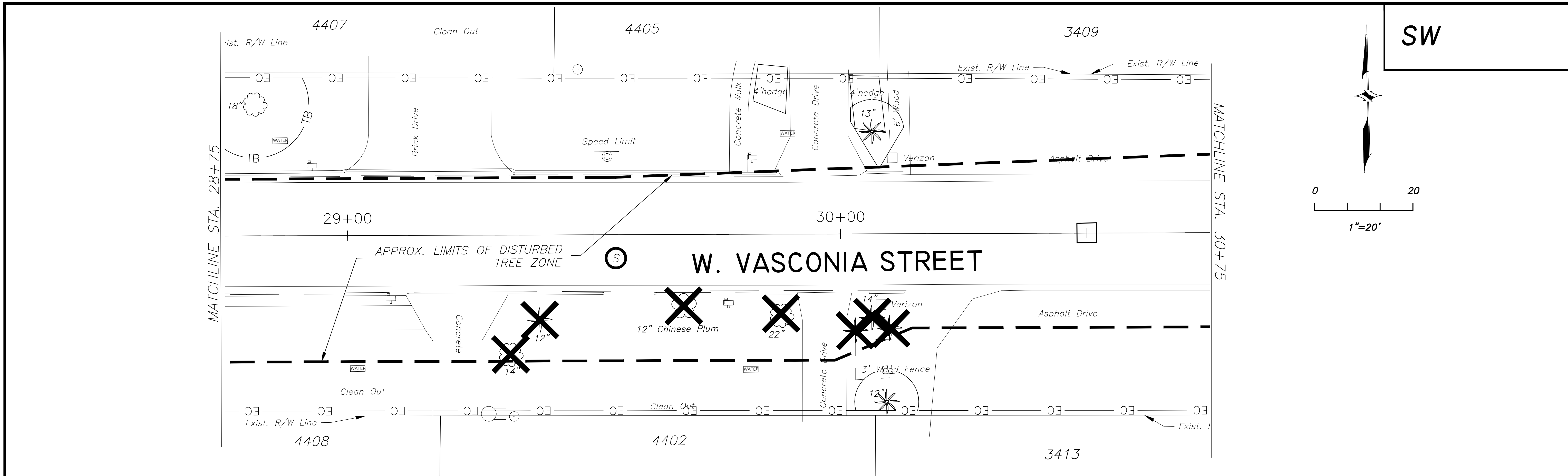
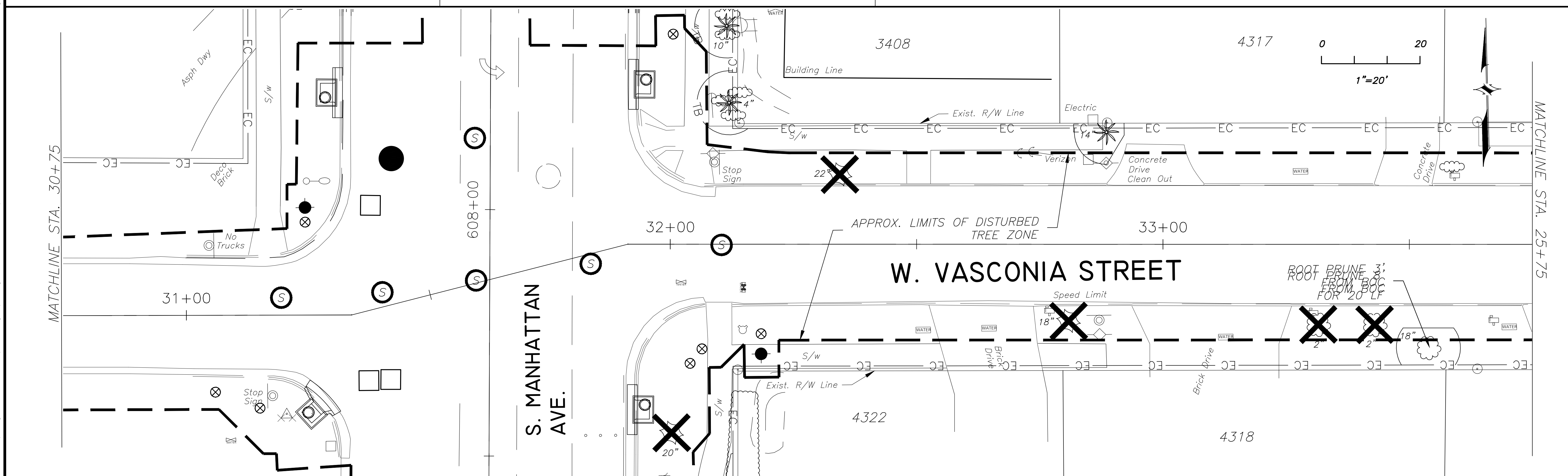
SW





No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST.
TREE REMOVAL PLAN

SHEET 101
105

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SW

4313 | M | 4309 | 4305

MATCHLINE STA. 33+75

34+00 | 35+00 | 36+00

W. VASCONIA STREET

MATCHLINE STA. 36+25

Concrete Walk | Brick Drive | Concrete | Concrete Walk | Clean Out | Concrete Drive | Brick Walk

Exist. R/W Line | Exist.

4"unknown | Verizon

APPROX. LIMITS OF DISTURBED TREE ZONE

TRIM CROWN AS NEEDED FOR CONSTRUCTION PURPOSES

Buried Gas Pipeline | Concrete Drive | Concrete Drive | Concrete Drive | Concrete Walk | Clean Out | Verizon | Concrete Walk

Exist. R/W Line | Exist. R/

30" | 30"

ROOT PRUNE 10' FROM BOC FOR 25 LF

ROOT PRUNE 10' FROM BOC

TRIM CANOPY FOR CONSTRUCTION PURPOSES CONSULT ARBORIST ON SITE

4314 | 4310 | 4306

Concrete | Brick Drive

0 20

1"=20'

4301 | 4223 | 4219 | M | 4217

8" Camphor | 14" Camphor | Exist. R/W Line | 3" Spruce | Spruce 4"

Concrete Walk | Verizon | Concrete | Concrete Drive | 2'hedge

Clean Out | Concrete Drive

MATCHLINE STA. 36+25

704+00

APPROX. LIMITS OF DISTURBED TREE ZONE

37+00 | 38+00 | 39+00

W. VASCONIA STREET

MATCHLINE STA. 39+25

Stop Sign

Verizon | Verizon | 12" Wood Fence | 24" | 9" | 4" | 5" | 6"

Concrete Drive | Concrete Drive | Brick Drive | Brick Drive

5'hedge | 3'hedge

ROOT PRUNE 6' FROM BOC FOR 10 LF

HUBERT AVE.

4302 | 32" | 4224 | 4216 | 4214

Exist. R/W Line

0 20

1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA ST.
TREE REMOVAL PLAN

SHEET 102
105

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SW

0 20

1"=20'

ROOT PRUNE
7' FROM BOC
FOR 40 LF

TRIM CROWN AS NEEDED FOR
CONSTRUCTION PURPOSES

APPROX. LIMITS DISTURBED
TREE ZONE

SHAMROCK RD.

199+70 200+00 201+00

15+00

MATCHLINE STA: 202+00.00

W. VASCONIA ST.
SEE SHEET #98

SEVILLA ST.
SEE SHEET #105

Concrete Drive

Planter

Stop Sign

Street Sign

Exist. R/W Line

Clean Out

Brick Paver Drive

Magnolia

18' Elm

3'hedge

2'hedge

4604 4526 3328 3324 3323 3321 3315 3322 3318

MATCHLINE STA: 204+50.00

914+00 914+54 300+00 299+75 203+00 204+00

0 20

1"=20'

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No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

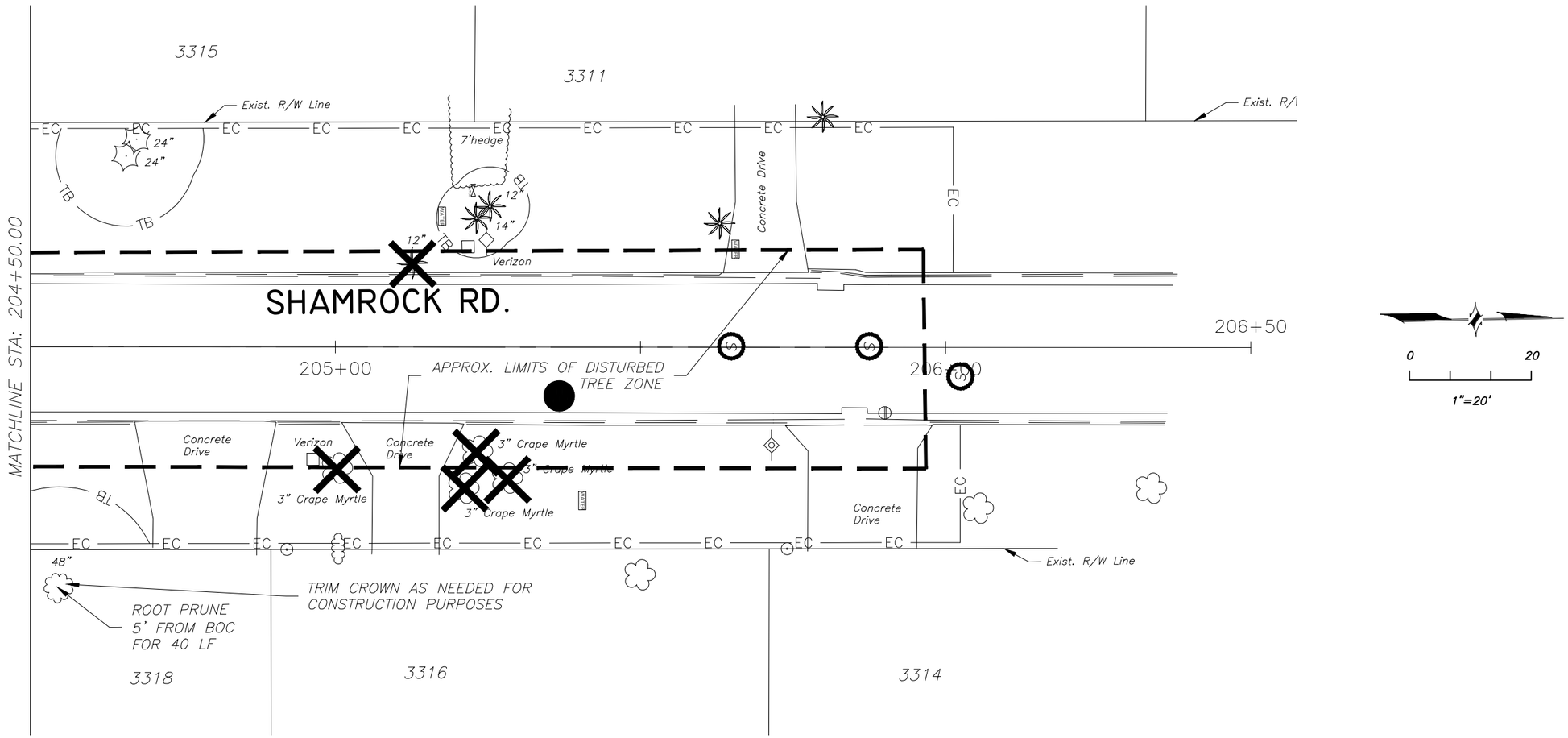
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
TREE REMOVAL PLAN

SHEET 103 OF 105

SW



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
TREE REMOVAL PLAN

SHEET 104 of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-SHAMROCK-TR.dwg - Printed Jul 18, 2016-10:42am by: JenP

SW

3327

3325

3323

911+00

912+00

913+00

13+00

14+00

201+00

SHAMROCK RD.

SHAMROCK RD.

42"

Clean Out

Stop Sign

Brick Paver Drive

4" Magnolia

Electric

Basketball

Concrete Drive

Verizon

10"

8"

14"

12"

12"

12"

Stop Sign

12"

ROOT PRUNE
7' FROM BOC

36"

APPROX. LIMITS DISTURBED TREE ZONE

3"

8"

12"

Crape Myrtle 4"

Crape Myrtle 4"

4" Crape Myrtle

10"

12"

Exist. R/W Line

Pet Waste

Stop Sign

4606

3'hedge

14"

12"

14"

Concrete Drive

Concrete Drive

WATER

12"

Concrete Drive

10"

Exist. R/W Line

3328

0 20

1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD.
TREE REMOVAL PLAN

SHEET
104A
of 105

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SW

0 20
1"=20'

Exist. R/W Line
Buried Cable
EC
Stop Sign
Exist. R/W Line
TRIM CROWN AS NEEDED FOR CONSTRUCTION PURPOSES
Viz 4301
40" Elm
Exist. R/W Line
Planter
HUBERT AVE.
700+00
701+00
702+00
514+00
EL PRADO BLVD.
MATCHLINE STA. 702+50
Stop Sign
Exist. R/W Line
APPROX. LIMITS DISTURBED TREE ZONE
Speed Limit 25
Exist. R/W Line
Sidewalk

0 20
1"=20'

TRIM CROWN AS NEEDED FOR CONSTRUCTION PURPOSES
37"
32"
Exist. R/W Line
Concrete
Stop Sign
MATCHLINE STA. 702+50
703+00
APPROX. LIMITS DISTURBED TREE ZONE
Exist. R/W Line
6' Wood Board
24" Verizon
Verizon
Verzon
Concrete Drive
W VASCONIA ST.
SEE SHEET #102
37+00
704+00
705+00
HUBERT AVE.
Exist. R/W Line
8" Elm
Concrete
4' Clf
Concrete
4' Clf
4' Clf
Exist. R/W Line
14" Camphor
8" Camphor
10" Camphor
Concrete Drive

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

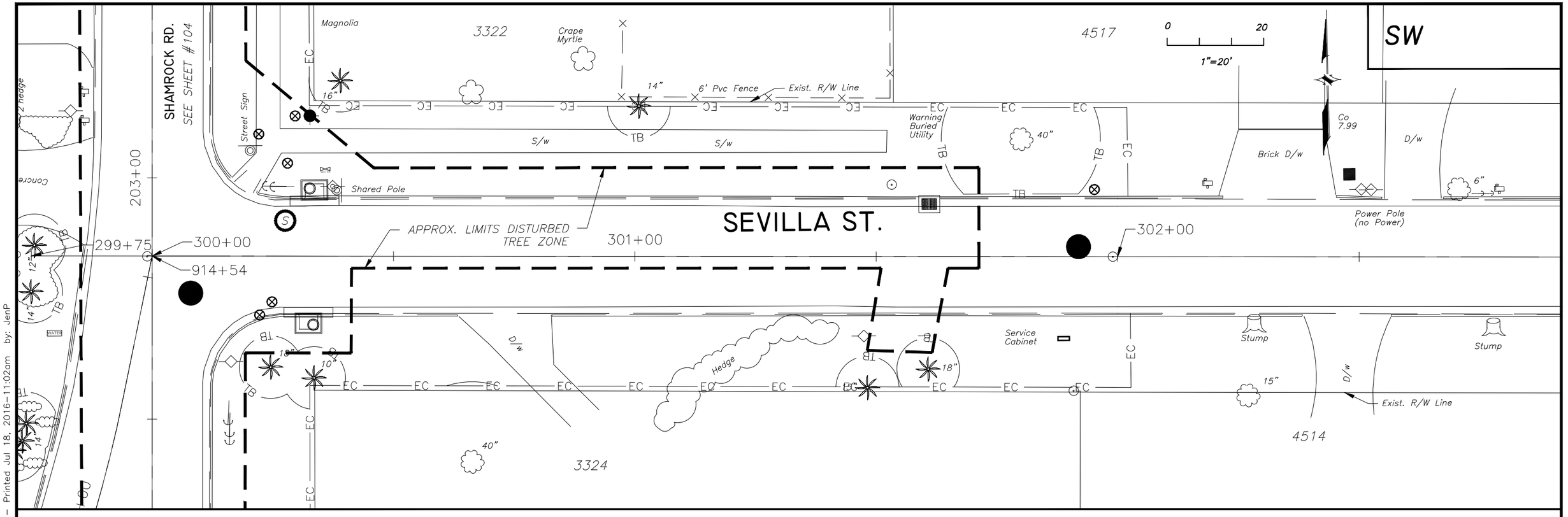
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

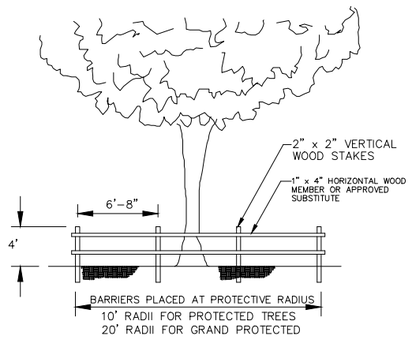
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVE.
TREE REMOVAL PLAN

SHEET 104B of 105

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-HUBERT TR.dwg - Printed Jul 18, 2016-10:45am by: JenP



TREE PROTECTION NOTES



PROTECTIVE BARRIERS are used during land alteration and construction activities to protect trees and natural areas to be retained on a site.

PROTECTIVE BARRIERS must be erected around TREES to be retained within an area where land alteration and construction activities will occur as well as along NATURAL AREAS where such areas are adjacent to permitted land alteration or construction activities. A PROTECTIVE BARRIER must remain in place until the land alteration and construction activities are completed or until commencement of grade finishing and sodding. No ground disturbance must occur within the barricaded area.

BARRIER SPECIFICATIONS FOR TREES:

Four corner upright stakes of no less that 2" x 2" lumber connected by horizontal members of no less than 1" x 4" lumber.

NATURAL AREAS – To restrict access into areas where land alteration and construction activities are not authorized, a physical structure not less than 3 feet in height is placed along the perimeter of such areas.

CITY OF TAMPA – Section 13-164. Tree protection standards:

Development on parcels shall comply with the following tree protection requirement:

1) Protective barricades shall be placed around all protected trees and grand trees during site clearing to create a protective radius and shall remain in place until land alteration, site clearing and construction activities are complete. Barricades for the protective radius shall be erected at a minimum distance of ten (10) feet from the edge of trunk of protected trees and twenty (20) feet from the edge of trunk of grand trees.

2) A minimum distance of ten (10) feet from all protected trees and twenty (20) feet from all grand trees shall be maintained when installing underground utilities. If this results in unreasonable hardship, a soil auger shall be used to tunnel under the root systems.

3) Installation of artificial barriers such as protective barricades, fences, posts or walls shall not destroy or irreversibly harm the root system of projected trees and grand trees. Footers for walls shall end at the point where larger roots are encountered, and the roots shall be bridged. Post holes and trenches located close to protected trees or grand trees shall be adjusted to avoid damage to major roots.

4) All roots to be removed during the site clearing phase shall be severed clean at the perimeter of the designated protective radius.

5) A two-inch layer of mulch shall be applied over the surface of exposed roots of protected trees and grand trees during the site clearing phase.

6) A protective dry well and drainage/aeration system shall be provided where protected trees or grand trees will be adversely affected by raising the grade.

7) A protective retaining wall shall be constructed at the perimeter of the protective radius around a protected tree or grand tree where the protected tree or grand tree will be adversely affected by lowering the grade.

8) All trimming of protected trees and grand trees during development shall be done by a qualified, licensed tree service.

TREE TABLE & LANDSCAPE CALCULATIONS

CREDIT TABLE:

Diameter in Inches	*Retained on Site	Multiplier for Credit	Credit
5" TO 7"	0	0	0
8" TO 12"	0	1	0
13" TO 19"	0	2	0
20" TO 29"	0	4	0
30" OR MORE	0	10	0
ALL PALMS	0	1	0
Total	0	~	0

DEBIT TABLE:

Diameter in Inches	*Removed on Site	Multiplier for Debit	Debit
5" TO 7"	16	0	0
8" TO 12"	9	1	9
13" TO 19"	13	2	26
20" TO 29"	10	4	40
30" OR MORE	2	Inch per Inch	66
ALL PALMS	29	1	29
Total	79	~	170

DEBIT FOR TREES TO BE REMOVED	+170
CREDIT FOR TREES TO REMAIN	-0
TOTAL REQUIRED 2" TREES TO BE PLANTED	= -170
TOTAL PROPOSED 2" TREES TO BE PLANTED	= -XX

REMAINING BALANCE = -XX - -XX = X 2" TREES
MITIGATE VIA PAID INTO TREE FUND

TREE LEGEND

- TREE
- TREE (PALM)
- TREE (PINE)
- TREE (OAK)

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SEVILLA ST.
TREE REMOVAL PLAN

SHEET 105 of 105

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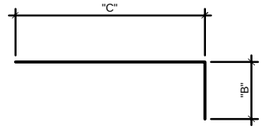
JUNCTION BOX DATA TABLE

BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 901+75.57	9	7	9	9	9	N/A	1	32	VARIES

JUNCTION BOX BAR SCHEDULE															
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.		
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR
6	101	10-2			39	1			10-2					
7	102	10-2			39	1			10-2					
7	103	10-2			48	1			10-2					
7	104	10-2			43	1			10-2					
7	105	8-6 3/4			76	10			2-11 3/4			5-7		
7	106	8-6 3/4			76	10			2-11 3/4			5-7		
4	108	8-2			76	1			8-2					
3	109	34-8			12	1			34-8					
3	110	31-8			12	1			31-8					
3	111	31-0 1/4			12	1			31-0 1/4					
3	112	34-8			12	1			34-8					
3	113	31-8			16	1			31-8					
3	114	31-8			16	1			31-8					

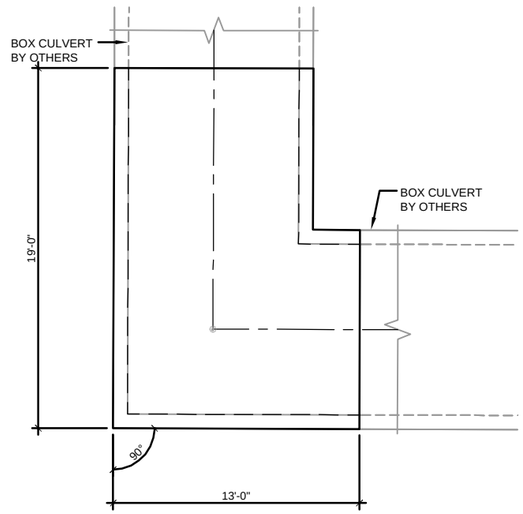
NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE



Bar Type 10
SCALE: N.T.S.

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 12-14-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	7	9	7	23		23

MAIN STEEL REINFORCEMENT SPACING (inches)														TABLE DATE 12-14-15
STRUCTURE	BOX													
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
JUNCTION BOX	10	9	9	10	10	10	-	10	12	12	12	12	12	12



S-1 Junction Box Plan - STA. 901+75.57
SCALE: 1/8" = 1'-0"

STRUCTURE S1 STA. 901+75.57 IS A CONFLICT STRUCTURE THAT REQUIRES CORING FOR 12" DIAMETER STEEL PIPE PER DETAIL ON SHEET S-11

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 8,100 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

AREHNA | Engineering,Inc.
5012 W. Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959

MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

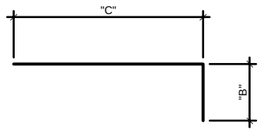
SHEET S-1 OF S-14

JUNCTION BOX DATA TABLE

BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 905+06.00	9	6	9	9	9	N/A	1	19.62	VARIES

JUNCTION BOX BAR SCHEDULE															
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.			
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	
6	101	10-2			25	1			10-2						
7	102	10-2			25	1			10-2						
7	103	10-2			31	1			10-2						
7	104	10-2			28	1			10-2						
7	105	8-0 3/4			48	10			2-11 3/4			5-1			
7	106	8-0 3/4			48	10			2-11 3/4			5-1			
4	108	7-2			48	1			7-2						
3	109	22-3 1/2			12	1			22-3 1/2						
3	110	19-3 1/2			12	1			19-3 1/2						
3	111	18-7 5/8			12	1			18-7 5/8						
3	112	22-3 1/2			12	1			22-3 1/2						
3	113	19-3 1/2			14	1			19-3 1/2						
3	114	19-3 1/2			14	1			19-3 1/2						

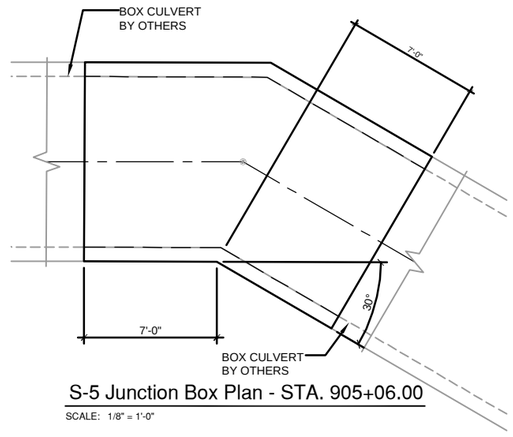
NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE



Bar Type 10
SCALE: N.T.S.

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	5	5	5	15		15

MAIN STEEL REINFORCEMENT SPACING (inches)														TABLE DATE 09-04-15
STRUCTURE	BOX													
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
JUNCTION BOX	10	10	9	10	10	10	-	10	12	12	12	12	12	12



S-5 Junction Box Plan - STA. 905+06.00
SCALE: 1/8" = 1'-0"

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 5,000 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

AREHNA | Engineering,Inc.
5012 W. Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959

MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-2 OF S-14

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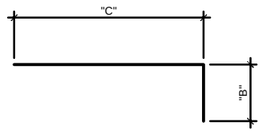
JUNCTION BOX DATA TABLE

BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 905+51.92	9	6	9	9	9	N/A	1	19.12	VARIES

JUNCTION BOX BAR SCHEDULE														
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.		
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR
6	101	10-2			24	1			10-2					
7	102	10-2			24	1			10-2					
7	103	10-2			31	1			10-2					
7	104	10-2			28	1			10-2					
7	105	8-0 3/4			46	10			2-11 3/4			5-1		
7	106	8-0 3/4			46	10			2-11 3/4			5-1		
4	108	7-2			46	1			7-2					
3	109	21-9 1/2			12	1			21-9 1/2					
3	110	18-9 1/2			12	1			18-9 1/2					
3	111	18-1 5/8			12	1			18-1 5/8					
3	112	21-9 1/2			12	1			21-9 1/2					
3	113	18-9 1/2			14	1			18-9 1/2					
3	114	18-9 1/2			14	1			18-9 1/2					

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

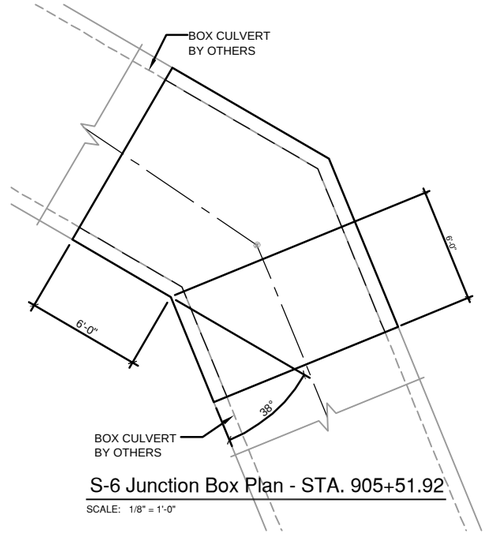


Bar Type 10

SCALE: N.T.S.

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	5	4	5	14		14

MAIN STEEL REINFORCEMENT SPACING (inches)														TABLE DATE 09-04-15
STRUCTURE	BOX													
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
JUNCTION BOX	10	10	9	10	10	10	-	10	12	12	12	12	12	12



S-6 Junction Box Plan - STA. 905+51.92

SCALE: 1/8" = 1'-0"

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 5,200 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

AREHNA | Engineering,Inc.
5012 W. Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959

MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

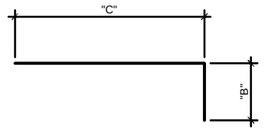
SHEET S-3 OF S-14

JUNCTION BOX DATA TABLE

BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 906+20.47	9	6	9	9	9	N/A	1	12	VARIES

JUNCTION BOX BAR SCHEDULE															
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.		
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR
6	101	10-2			15	1			10-2					
7	102	10-2			15	1			10-2					
7	103	10-2			21	1			10-2					
7	104	10-2			19	1			10-2					
7	105	8-0 3/4			28	10			2-11 3/4			5-1		
7	106	8-0 3/4			28	10			2-11 3/4			5-1		
4	108	7-2			28	1			7-2					
3	109	14-8			12	1			14-8					
3	110	11-8			12	1			11-8					
3	111	11-0 1/4			12	1			11-0 1/4					
3	112	14-8			12	1			14-8					
3	113	11-8			14	1			11-8					
3	114	11-8			14	1			11-8					

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

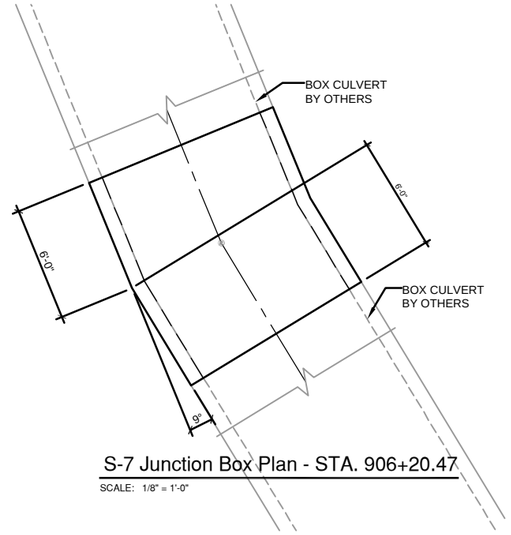


Bar Type 10

SCALE: N.T.S.

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	4	3	4	11		11

MAIN STEEL REINFORCEMENT SPACING (inches)														TABLE DATE 09-04-15
STRUCTURE	BOX													
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
JUNCTION BOX	10	10	9	10	10	10	-	10	12	12	12	12	12	12



S-7 Junction Box Plan - STA. 906+20.47

SCALE: 1/8" = 1'-0"

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 3,100 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

AREHNA | Engineering,Inc.
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MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-4 OF S-14

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JUNCTION BOX DATA TABLE

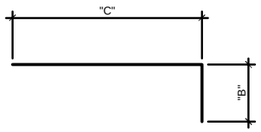
BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 907+29.17	9	6	9	9	9	N/A	1	14	VARIES

JUNCTION BOX BAR SCHEDULE															
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.			
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR
6	101	10-2			18	1			10-2					
7	102	10-2			18	1			10-2					
7	103	10-2			24	1			10-2					
7	104	10-2			21	1			10-2					
7	105	8-0 3/4			34	10			2-11 3/4			5-1		
7	106	8-0 3/4			34	10			2-11 3/4			5-1		
4	108	7-2			34	1			7-2					
3	109	16-8			12	1			16-8					
3	110	13-8			12	1			13-8					
3	111	13-0 1/4			12	1			13-0 1/4					
3	112	16-8			12	1			16-8					
3	113	13-8			14	1			13-8					
3	114	13-8			14	1			13-8					

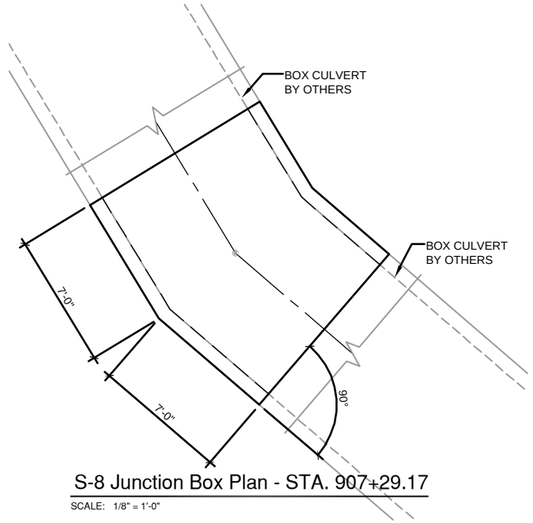
NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	4	4	4	12		12

MAIN STEEL REINFORCEMENT SPACING (inches)														TABLE DATE 09-04-15
STRUCTURE	BOX													
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
JUNCTION BOX	10	10	9	10	10	10	-	10	12	12	12	12	12	12



Bar Type 10
SCALE: N.T.S.



S-8 Junction Box Plan - STA. 907+29.17
SCALE: 1/8" = 1'-0"

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 3,700 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

AREHNA | Engineering,Inc.
5012 W. Lemon Street, Tampa, FL 33609
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MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-5 OF S-14

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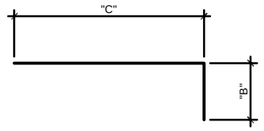
JUNCTION BOX DATA TABLE

BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 10+97.49	9	6	9	9	9	N/A	1	29	VARIES

JUNCTION BOX BAR SCHEDULE														
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.		
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR
6	101	10-2			36	1			10-2					
7	102	10-2			36	1			10-2					
7	103	10-2			39	1			10-2					
7	104	10-2			39	1			10-2					
7	105	8-0 3/4			70	10			2-11 3/4			5-1		
7	106	8-0 3/4			70	10			2-11 3/4			5-1		
4	108	7-2			70	1			7-2					
3	109	31-8			12	1			31-8					
3	110	28-8			12	1			28-8					
3	111	28-0 1/4			12	1			28-0 1/4					
3	112	31-8			12	1			31-8					
3	113	28-8			14	1			28-8					
3	114	28-8			14	1			28-8					

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

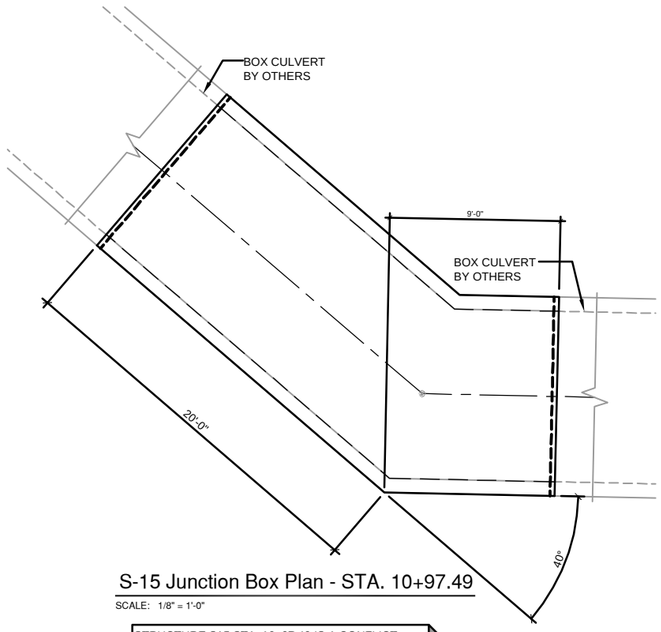


Bar Type 10

SCALE: N.T.S.

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	8	7	8	23		23

MAIN STEEL REINFORCEMENT SPACING (inches)														TABLE DATE 09-04-15
STRUCTURE	BOX													
	101	102	103	104	105	106	107	108	109	110	111	112	113	114
JUNCTION BOX	10	10	10	10	10	10	-	10	12	12	12	12	12	12



S-15 Junction Box Plan - STA. 10+97.49

SCALE: 1/8" = 1'-0"

STRUCTURE S15 STA. 10+97.49 IS A CONFLICT STRUCTURE THAT REQUIRES CORING FOR 12" DIAMETER STEEL PIPE PER DETAIL ON SHEET S-11

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 7,100 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

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MATTHEW D. BRAKEFIELD
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MDB
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CITY of TAMPA
Department of Transportation and Stormwater Services
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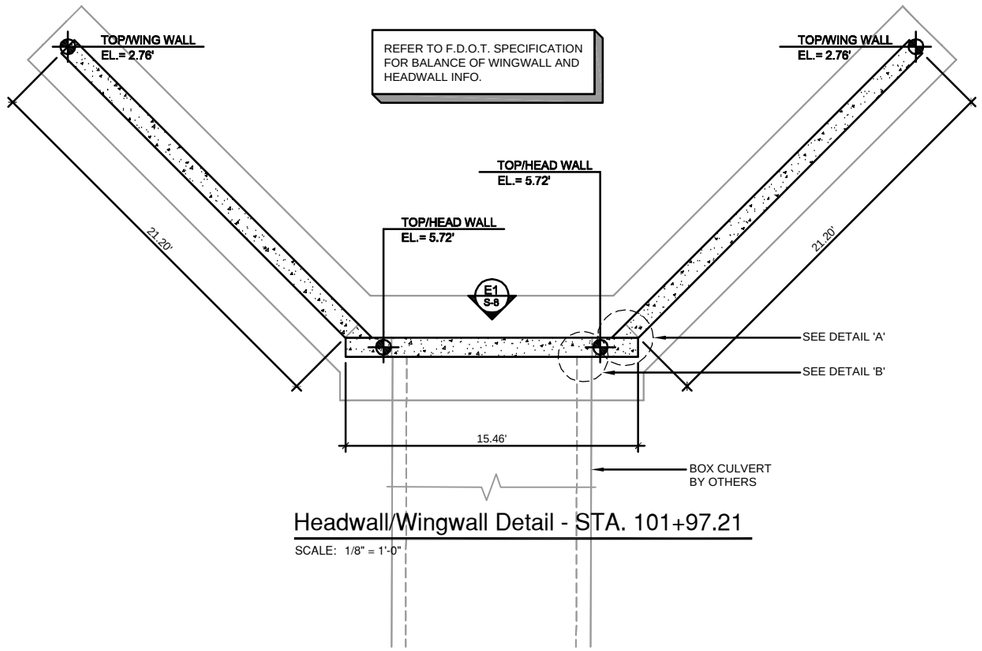
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-6 OF S-14



Headwall/Wingwall Detail - STA. 101+97.21

SCALE: 1/8" = 1'-0"

WINGWALL DATA TABLES

LEFT SIDE WINGWALL DATA TABLE (inches unless shown otherwise)									TABLE DATE 09-04-15
LOCATION	LEFT END WINGWALL								
	Rt	Rw	Rh	Rd	SW (deg)	ƀ (deg)	He (ft)	Hs (ft)	Lw (ft)
STA 101+97.21	36	12	6	12	135	0	11.2	12.8	21.2

RIGHT SIDE WINGWALL DATA TABLE (inches unless shown otherwise)									TABLE DATE 09-04-15
LOCATION	RIGHT END WINGWALL								
	Rt	Rw	Rh	Rd	SW (deg)	ƀ (deg)	He (ft)	Hs (ft)	Lw (ft)
STA 101+97.21	36	12	6	12	135	0	11.2	12.8	21.2

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE						
	LEFT WALL	RIGHT WALL	FOOTING	SUB TOTAL		WINGWALL TOTAL
WINGWALLS	10	10	0	20		20

MAIN STEEL REINFORCEMENT SPACING (inches)									TABLE DATE 09-04-15
LOCATION	LEFT END WINGWALL				RIGHT END WINGWALL				
	401 407 (8)	402 (403)	404 (405)	406	601 607 (8)	602 (603)	604 (605)	606	
STA 101+97.21	10	12	12	10	10	12	12	10	

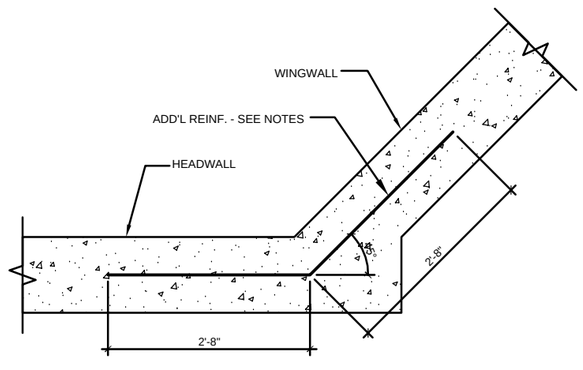
SW

LEFT/RIGHT END WINGWALL BAR SCHEDULE															
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.			
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	
6	401, 601	VARIES: 12-6 ⅜ TO 10-11 1/2			27	1			VARIES: 12-6 ⅜ TO 10-11 1/2						
3	402, 602	20-10 5/16			12	1			20-10 5-16						
3	403, 603	14-2 7/8			1	1			14-2 7/8						
3	404, 604	20-10 5/16			12	1			20-10 5/16						
3	405, 605	14-2 7/8			1	1			14-2 7/8						
6	406, 606	VARIES: 12-6 ⅜ TO 10-11 1/2			27	1			VARIES: 12-6 ⅜ TO 10-11 1/2						
6	407, 607	7-4			27	10			3-8			3-8			

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

WINGWALL NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE: 30 DEGREES
   - MODULUS OF SUBGRADE REACTION: 50 PSI/IN
   - NORMAL BEARING RESISTANCE: 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL
   - WINGWALLS (LEFT AND RIGHT): 3,000 LBS
6. CAST-IN-PLACE WINGWALLS AND HEADWALL SHOWN FOR ILLUSTRATION ONLY. WINGWALLS AND HEADWALL SHALL BE PER F.D.O.T. STANDARD INDEX NO. 289.
7. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

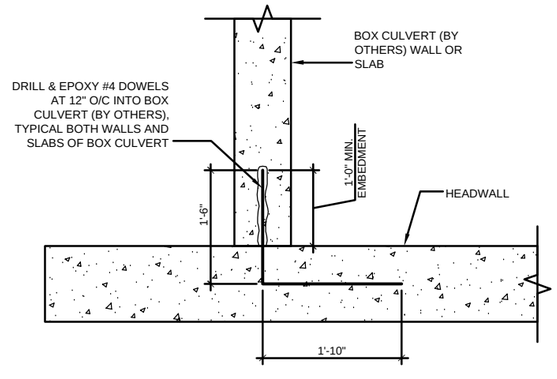


HEADWALL TO WINGWALL CONNECTION NOTES:

1. ADDITIONAL #6 BARS (BAR TYPE 12) SPACED 12" VERTICALLY, REQ'D AT HEADWALL TO WINGWALL CONNECTION (BOTH WINGWALLS).
2. SECTION SHOWS ADDITIONAL REINFORCING ONLY.

Detail 'A'

SCALE: N.T.S.



HEADWALL TO BOX CULVERT (BY OTHERS) CONNECTION NOTES:

1. ADDITIONAL #4 BARS (BAR TYPE 10) SPACED 12" (MAX.) VERTICALLY AND/OR HORIZONTALLY, REQUIRED AT HEADWALL TO BOX CULVERT (BY OTHERS), BOTH WALLS AND BOTH SLABS OF BOX CULVERT.
2. SECTION SHOWS ADDITIONAL REINFORCING ONLY.

Detail 'B'

SCALE: N.T.S.

AREHNA | Engineering,Inc.
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Phone 813.944.3464 | Fax 813.944.4959

MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

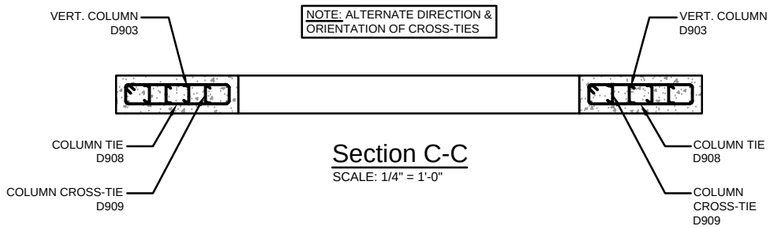
DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

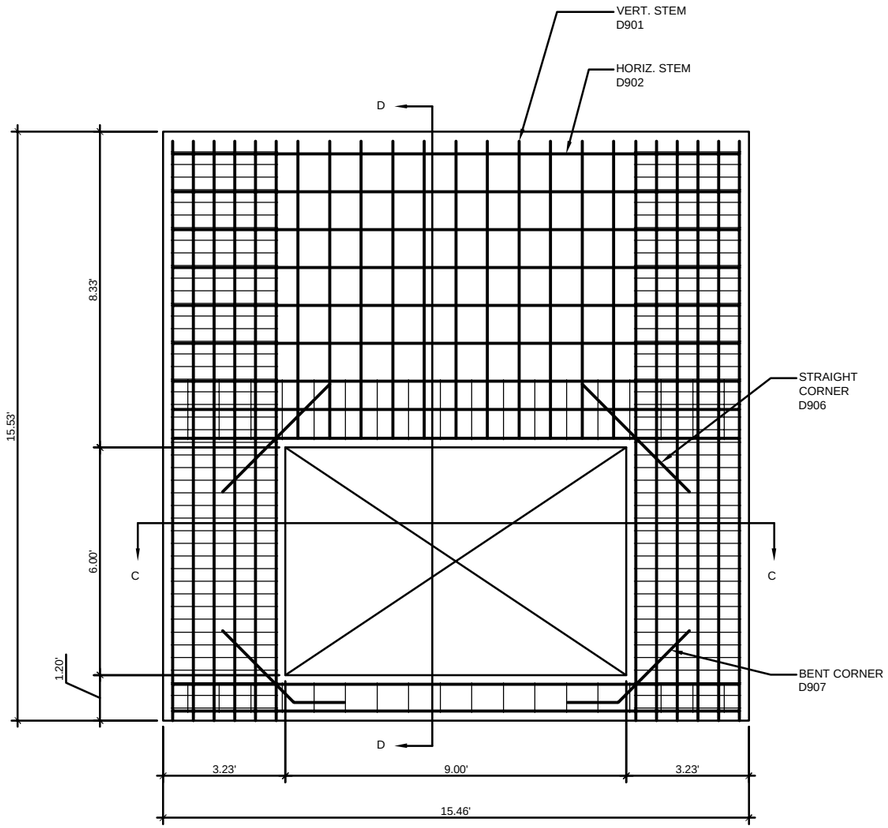
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-7 OF S-14

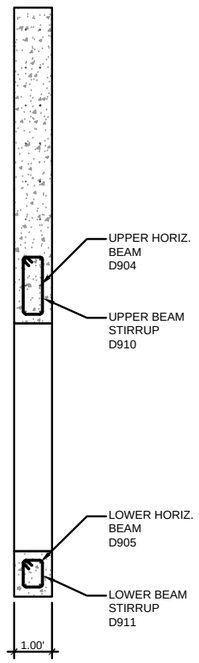
P:\2003 - Arehna Engineering\2003-003 Spring Lake Junction Boxes\Sdwg\Spring Lake - Plans.dwg - Printed Dec 14, 2015 - 4:50pm by: matt



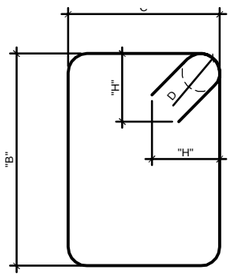
Section C-C
SCALE: 1/4" = 1'-0"



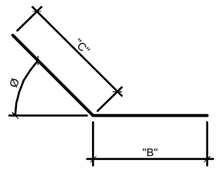
E1 Headwall - Front View
SCALE: 1/4" = 1'-0"



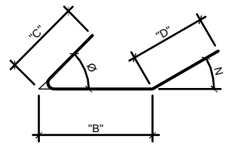
Section D-D
SCALE: 1/4" = 1'-0"



Bar Type 4, w/ 135° Hooks
SCALE: N.T.S.



Bar Type 12
SCALE: N.T.S.



Bar Type 15
SCALE: N.T.S.

HEADWALL DATA TABLES

HEADWALL BAR SCHEDULE																					
MARK		LENGTH			NO.	TYPE	STY 135° HOOKS		'B' DIM.			'C' DIM.			'D' DIM.			Ø	N
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	D	H	FT	IN	FR	FT	IN	FR	FT	IN	FR	DEG	DEG
6	901	7-10			22	1			7-10										
3	902	14-11 1/2			12	1			14-11 1/2										
6	903	15-3 3/8			24	1			15-3 3/8										
6	904	14-11 1/2			6	1			14-11 1/2										
6	905	14-11 1/2			4	1			14-11 1/2										
4	906	4-0			4	1			4-0										
4	907	4-0			4	12			1-4			2-8						45	
3	908	7-0 1/2			90	4	1 1/2	2 1/2	0-6			2-8 3/4							
3	909	1-0			360	15			0-6			0-3 1/2			0-2 1/2			45	90
3	910	4-7			18	4	1 1/2	2 1/2	1-6			0-6							
3	911	2-11 13/16			18	4	1 1/2	2 1/2	0-8 3/8			0-6							

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 09-04-15
STRUCTURE	HEADWALL					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		TOTAL CONCRETE
HEADWALL	0	7	0	7		7

MAIN STEEL REINFORCEMENT SPACING (inches)											TABLE DATE 09-04-15
STRUCTURE	HEADWALL										
	901	902	903	904	905	906	907	908	909	910	911
HEADWALL	10	12	6 1/4	8 1/4	6 7/8	---	---	4	4	10	10

HEADWALL NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 5,000 LBS
6. CAST-IN-PLACE HEADWALL BOX SHOWN FOR ILLUSTRATION ONLY. HEADWALL SHALL BE PRECAST PER F.D.O.T. STANDARD INDEX NO'S. 291 AND 292.
7. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

AREHNA | Engineering, Inc.
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2			5		
1			4		

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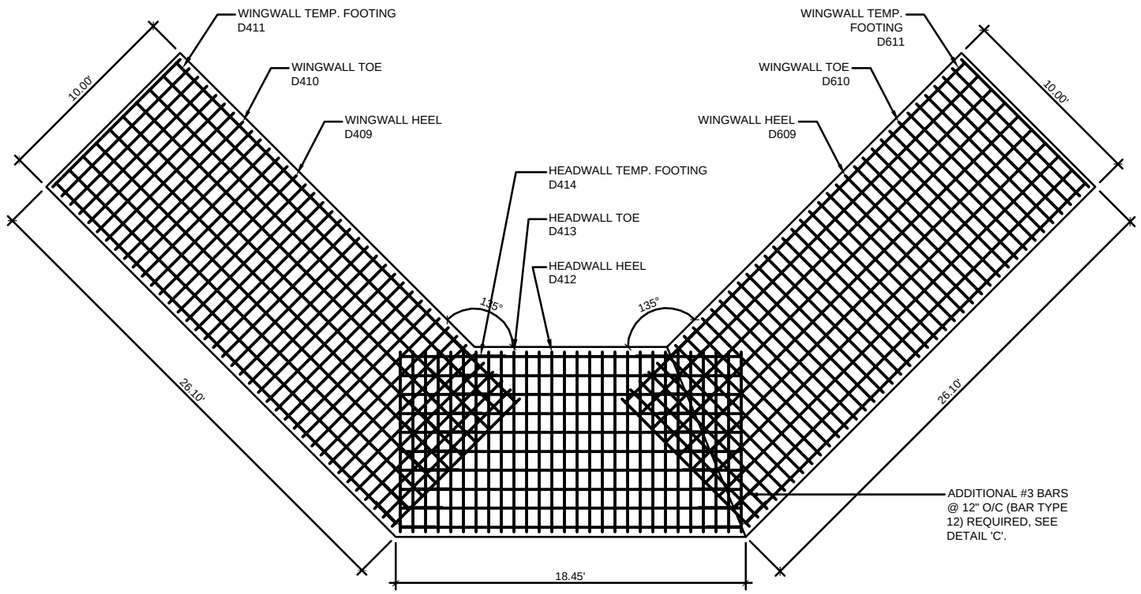
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

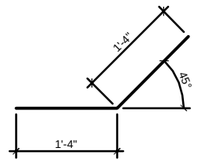
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-8 OF S-14



Wall Footing Rebar Layout

SCALE: 1/8" = 1'-0"



Detail 'C'

SCALE: N.T.S.

WINGWALL/HEADWALL FOOTING DATA TABLES

WINGWALL/HEADWALL FOOTING BAR SCHEDULE												
MARK		LENGTH			NO.	TYPE	STY 135° HOOKS		'B' DIM.			
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	D	H	FT	IN	FR
5	409, 609	9-6			39	1			9-6		
5	410, 610	9-6			39	1			9-6		
3	411, 611	25-4			10	1			25-4		
5	412	9-6			28	1			9-6		
5	413	9-6			28	1			9-6		
3	414	18-0			20	1			18-0		

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

ESTIMATED CONCRETE QUANTITIES (CY)			TABLE DATE 09-04-15
STRUCTURE	SUB TOTAL		WINGWALL / HEADWALL FOOTING TOTAL
WINGWALL / HEADWALL FOOTING	24		24

MAIN STEEL REINFORCEMENT SPACING (inches)						TABLE DATE 09-04-15
STRUCTURE	WALL FOOTING					
	409, 609	410, 610	411, 611	412	413	414
WINGWALL / HEADWALL FOOTING	8	8	12	8	8	12

WINGWALL/HEADWALL FOOTING NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL
   - WINGWALL/HEADWALL FOOTING 2,700 LBS
6. CAST-IN-PLACE WINGWALLS AND HEADWALL SHOWN FOR ILLUSTRATION ONLY. WINGWALLS AND HEADWALL SHALL BE PER F.D.O.T. STANDARD INDEX NO. 289.
7. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

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1			4		

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CITY of TAMPA
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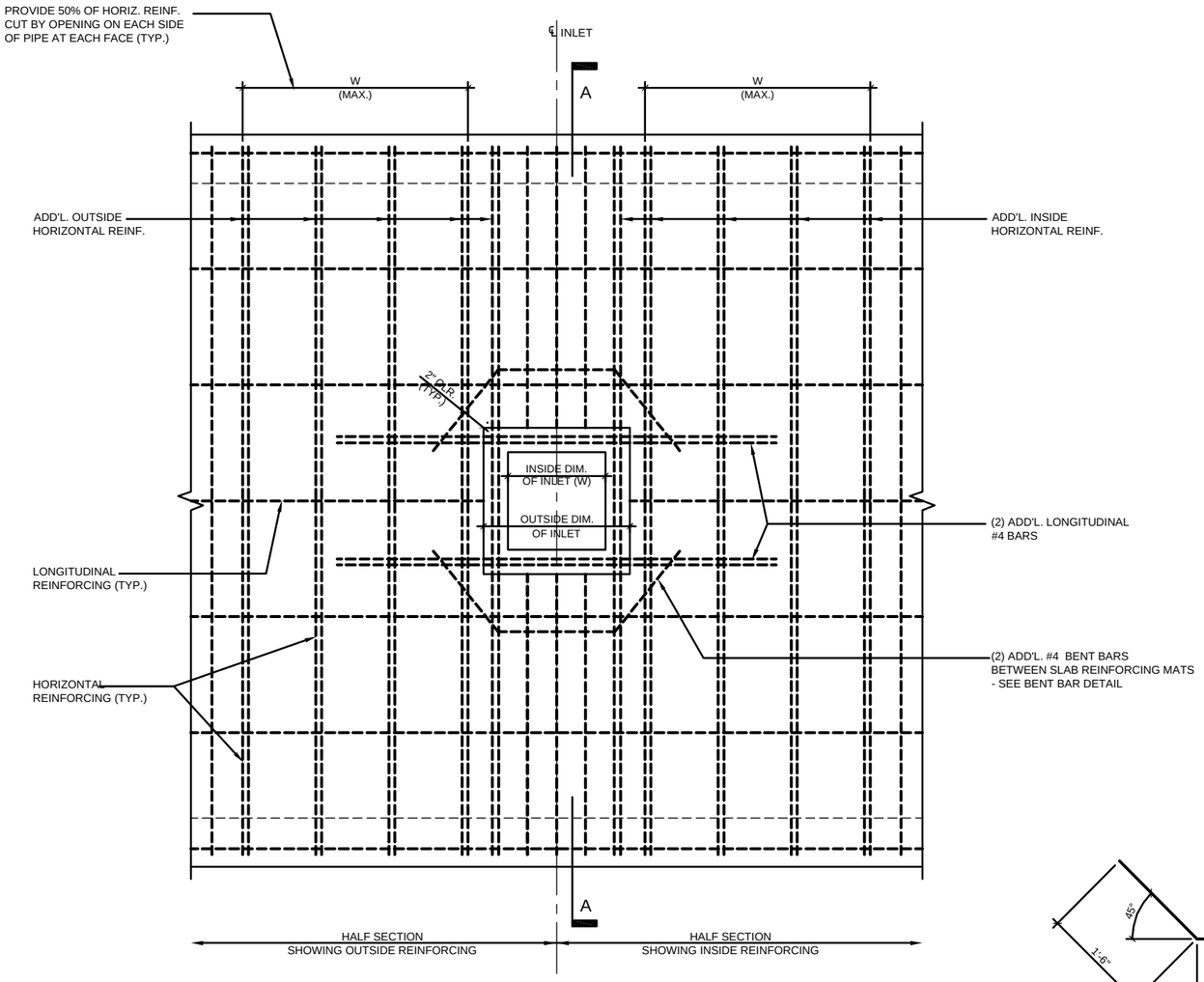
Stormwater Engineering Division

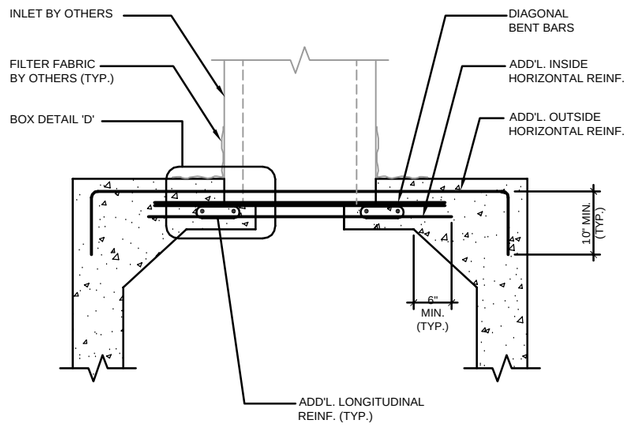
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-9 OF S-14



Plan View - Inlet Opening in Top Slab

SCALE: N.T.S.

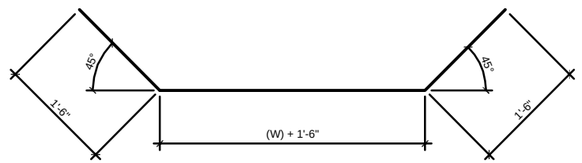


INLET OPENING NOTES:

1. CUT BOX CULVERT REINFORCEMENT AS REQUIRED TO MAINTAIN 2" CONCRETE COVER.
2. BETWEEN INLET AND BOX CULVERT USE AN ADHESIVE BONDING MATERIAL SYSTEM IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS SECTIONS 416 AND 937.

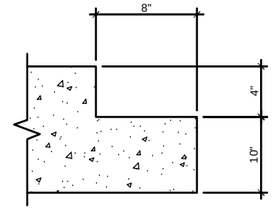
Section A-A

SCALE: N.T.S.



Bent Bar Detail

SCALE: N.T.S.



REINFORCING NOT SHOWN FOR CLARITY

Box Detail 'D'

SCALE: N.T.S.

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MATTHEW D. BRAKEFIELD
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
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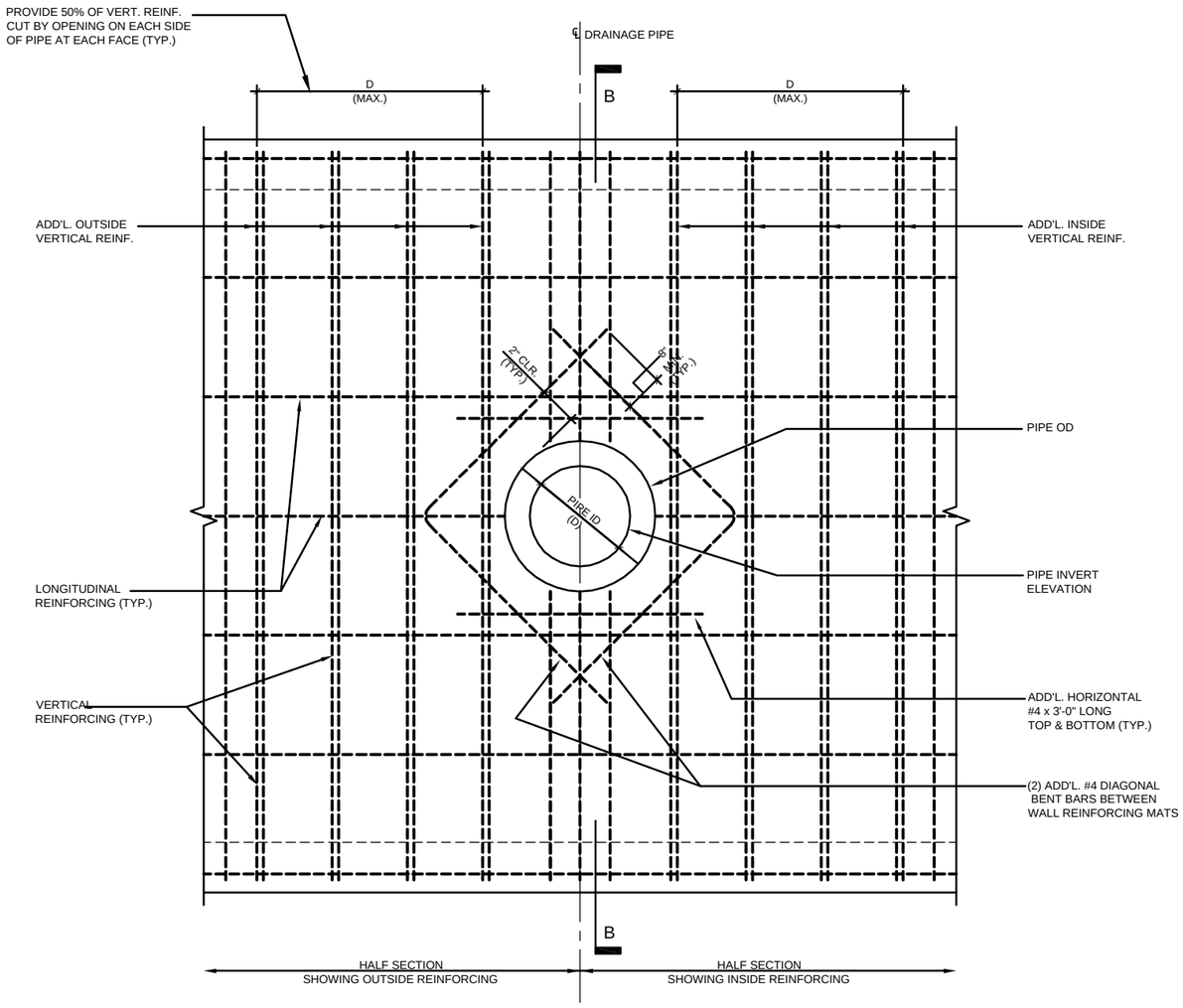
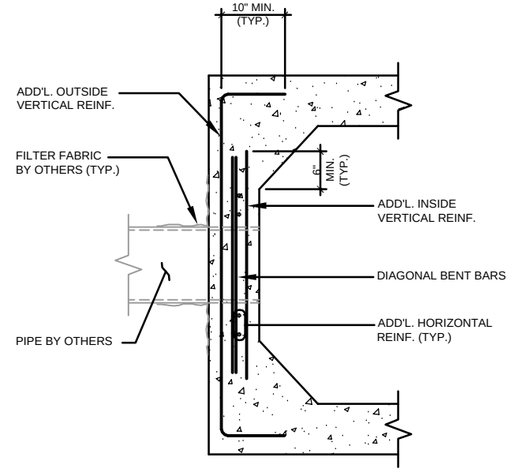
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-10 OF S-14



Elevation View - Pipe Opening Detail

SCALE: N.T.S.



PIPE OPENING NOTES:

1. CUT BOX CULVERT REINFORCEMENT AS REQUIRED TO MAINTAIN 2" CONCRETE COVER.
2. SECTION SHOWS ADDITIONAL OPENING REINFORCING ONLY.

Section B-B

SCALE: N.T.S.

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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-11 OF S-14

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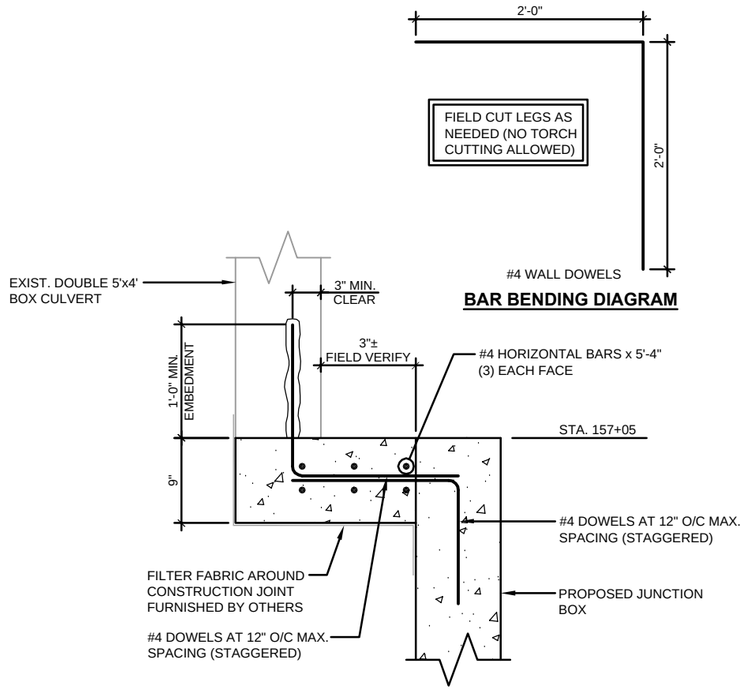
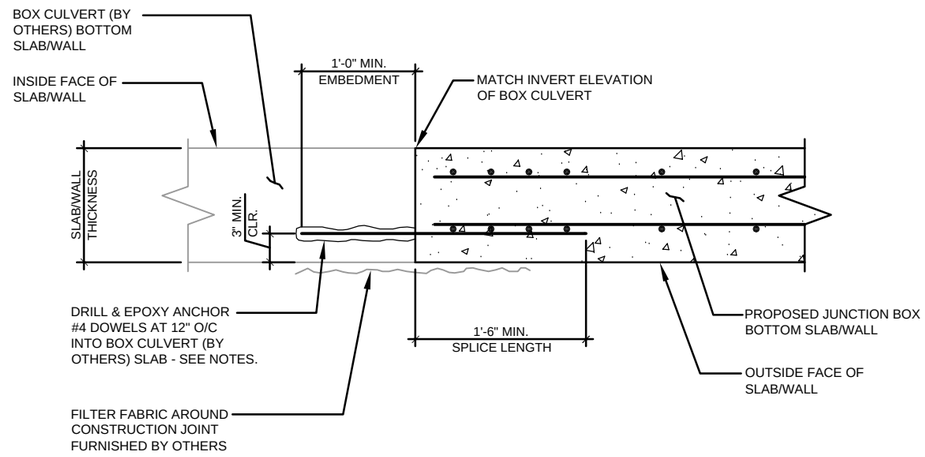


BOX CULVERT/JUNCTION BOX CONNECTION DETAIL NOTES:

1. THE BOX CULVERT DATA TABLES AND REINFORCING BAR LISTS DO NOT INCLUDE THE ADDITIONAL QUANTITIES NEEDED FOR DOWEL CONNECTIONS, REINFORCING STEEL OR CONCRETE FOR TRANSITIONS BETWEEN BOX CULVERTS AND JUNCTION BOXES. THE COST FOR ADDITIONAL REINFORCEMENT AND THICKENED CONCRETE IN THE TRANSITIONAL AREAS SHALL BE INCLUDED IN THE COST FOR THE BOX CULVERTS.
2. COST FOR REMOVAL AND DISPOSAL OF MATERIAL FROM THE EXISTING BOX CULVERT AND COST OF CLEANING, STRAIGHTENING, AND EXTENDING OR DOWELING LONGITUDINAL REINFORCING STEEL SHALL BE INCLUDED IN THE COST OF THE BOX CULVERT.
3. IF NECESSARY, REMOVE EXISTING CONCRETE WHILE AVOIDING DAMAGE TO EXISTING REINFORCEMENT. CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT, LAP AND TIE ONTO BOX CULVERT REINFORCEMENT.
4. DOWEL IN #4 BARS AT 12" MAXIMUM SPACING INTO THE CENTER OF WALL/SLAB. USE AN ADHESIVE BONDING MATERIAL SYSTEM IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS SECTIONS 416 AND 937.

Box Culvert/Junction Box Connection Detail

SCALE: N.T.S.



BOX CULVERT/JUNCTION BOX CONNECTION DETAIL NOTES:

1. THE BOX CULVERT DATA TABLES AND REINFORCING BAR LISTS DO NOT INCLUDE THE ADDITIONAL QUANTITIES NEEDED FOR DOWEL CONNECTIONS, REINFORCING STEEL OR CONCRETE FOR TRANSITIONS BETWEEN BOX CULVERTS AND JUNCTION BOXES. THE COST FOR ADDITIONAL REINFORCEMENT AND THICKENED CONCRETE IN THE TRANSITIONAL AREAS SHALL BE INCLUDED IN THE COST FOR THE BOX CULVERTS.
2. COST FOR REMOVAL AND DISPOSAL OF MATERIAL FROM THE EXISTING BOX CULVERT AND COST OF CLEANING, STRAIGHTENING, AND EXTENDING OR DOWELING LONGITUDINAL REINFORCING STEEL SHALL BE INCLUDED IN THE COST OF THE BOX CULVERT.
3. IF NECESSARY, REMOVE EXISTING CONCRETE WHILE AVOIDING DAMAGE TO EXISTING REINFORCEMENT. CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT, LAP AND TIE ONTO BOX CULVERT REINFORCEMENT.
4. DOWEL IN #4 BARS AT 12" MAXIMUM SPACING INTO THE CENTER OF WALL/SLAB. USE AN ADHESIVE BONDING MATERIAL SYSTEM IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS SECTIONS 416 AND 937.

Box Culvert/Junction Box Connection Detail

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CITY of TAMPA
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-12 OF S-14

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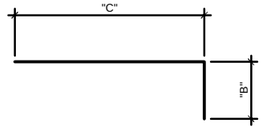
JUNCTION BOX DATA TABLE

BOX DATA TABLE (inches unless shown otherwise)									TABLE DATE 12-14-15
LOCATION	BOX								
	Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	# CELLS	Lc(ft)	COVER
STA 205+84.33	VARIES - SEE PLAN	4	9	9	9	9	2	40	VARIES

JUNCTION BOX BAR SCHEDULE															
MARK		LENGTH			NO.	TYPE	STY		'B' DIM.			'C' DIM.			
SIZE	BAR DESIG.	FT	IN	FR	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	
7	101	16-11			49	1			16-11						
7	102	16-11			54	1			16-11						
7	103	16-11			58	1			16-11						
7	104	16-11			52	1			16-11						
7	105	7-0 3/4			96	10			2-11 3/4			4-1			
7	106	7-0 3/4			96	10			2-11 3/4			4-1			
7	107	13-5			192	10			9-4			4-1			
7	108	5-2			96	1			5-2						
3	109	42-4			18	1			42-4						
5	110	34-4			22	1			34-4						
5	111	38-8 1/4			22	1			38-8 1/4						
3	112	42-4			18	1			42-4						
3	113	39-4			10	1			39-4						
3	114	39-4			10	1			39-4						
3	115	38-8 1/4			10	1			38-8 1/4						

NOTE:
STEEL DETAILER/PROVIDER TO VERIFY ALL LENGTHS AND QUANTITIES OF BARS PROVIDED IN THIS BAR SCHEDULE

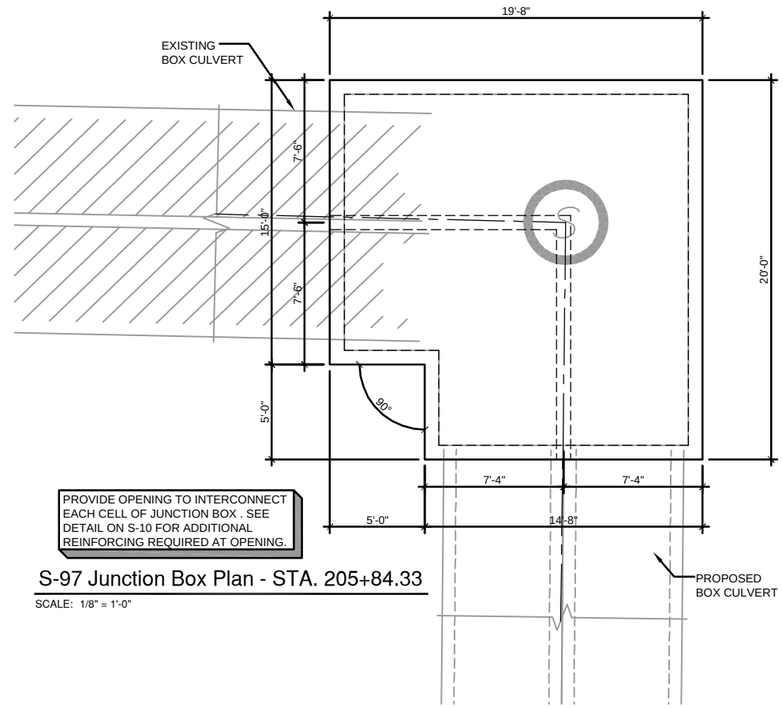


Bar Type 10

SCALE: N.T.S.

ESTIMATED CONCRETE QUANTITIES (CY)						TABLE DATE 12-14-15
STRUCTURE	BOX					
	BOTTOM SLAB	WALLS	TOP SLAB	SUB TOTAL		JUNCTION BOX TOTAL
JUNCTION BOX	11	8	11	30		30

MAIN STEEL REINFORCEMENT SPACING (inches)															TABLE DATE 12-14-15
STRUCTURE	BOX														
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115
JUNCTION BOX	10	9	9	10	10	10	10	10	12	10	10	12	12	12	12



S-97 Junction Box Plan - STA. 205+84.33

SCALE: 1/8" = 1'-0"

BOX CULVERT NOTES:

1. ENVIRONMENTAL CLASS: CLASS 1
2. REINFORCING STEEL: GRADE 60
3. CONCRETE CLASS IV: F'c = 5.5 KSI
4. SOIL PROPERTIES:
   - FRICTION ANGLE 30 DEGREES
   - MODULUS OF SUBGRADE REACTION 50 PSI/IN
   - NORMAL BEARING RESISTANCE 2,500 PSF
5. TOTAL ESTIMATED QUANTITY REINFORCING STEEL 20,900 LBS
6. WORK THIS DRAWING WITH F.D.O.T. DESIGN STANDARD INDEX NO. 289.

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Department of Transportation and Stormwater Services
Stormwater Engineering Division

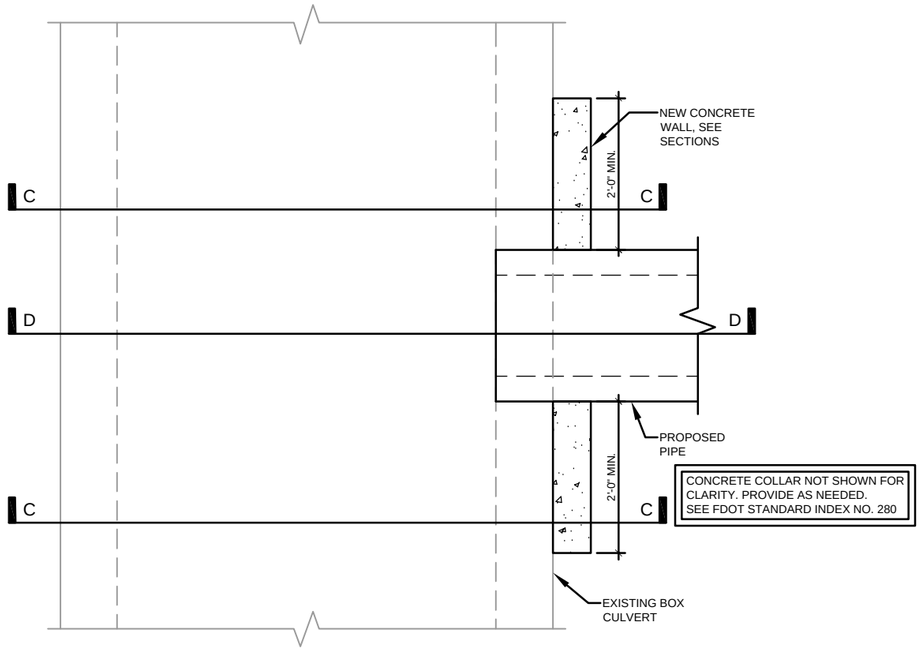
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-13 OF S-14

P:\2003 - Arehna Engineering\2003-003 Spring Lake Junction Boxes\Sdwg\Spring Lake - Plans.dwg - Printed Apr 06, 2016-3:26pm by: matt

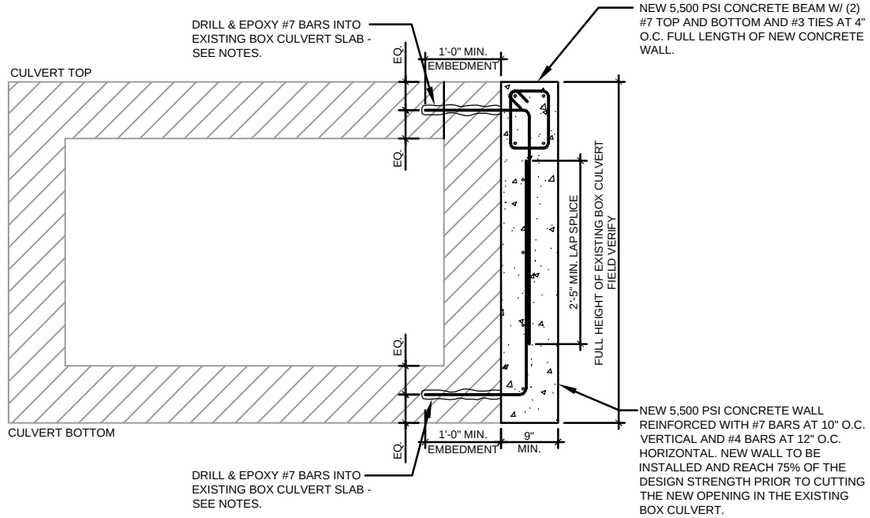
NEW OPENING IN EXISTING BOX CULVERT DETAIL NOTES:

1. THE BOX CULVERT DATA TABLES AND REINFORCING BAR LISTS DO NOT INCLUDE THE ADDITIONAL QUANTITIES NEEDED FOR DOWEL CONNECTIONS, REINFORCING STEEL OR CONCRETE FOR TRANSITIONS BETWEEN BOX CULVERTS AND JUNCTION BOXES. THE COST FOR ADDITIONAL REINFORCEMENT AND THICKENED CONCRETE IN THE TRANSITIONAL AREAS SHALL BE INCLUDED IN THE COST FOR THE BOX CULVERTS.
2. COST FOR REMOVAL AND DISPOSAL OF MATERIAL FROM THE EXISTING BOX CULVERT AND COST OF CLEANING, STRAIGHTENING, AND EXTENDING OR DOWELING LONGITUDINAL REINFORCING STEEL SHALL BE INCLUDED IN THE COST OF THE BOX CULVERT.
3. IF NECESSARY, REMOVE EXISTING CONCRETE WHILE AVOIDING DAMAGE TO EXISTING REINFORCEMENT. CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT, LAP AND TIE ONTO BOX CULVERT REINFORCEMENT.
4. USE AN ADHESIVE BONDING MATERIAL SYSTEM IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS SECTIONS 416 AND 937.



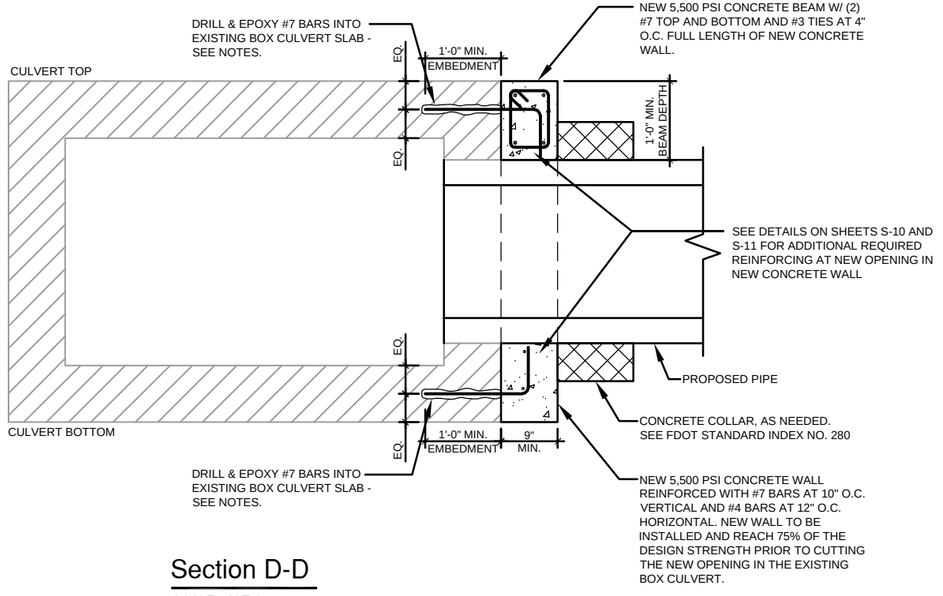
Top View - New Opening in Existing Box Culvert Detail

SCALE: N.T.S.



Section C-C

SCALE: N.T.S.



Section D-D

SCALE: N.T.S.

AREHNA | Engineering,Inc.
5012 W. Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959

MATTHEW D. BRAKEFIELD
FL. LIC. NO. 70852

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

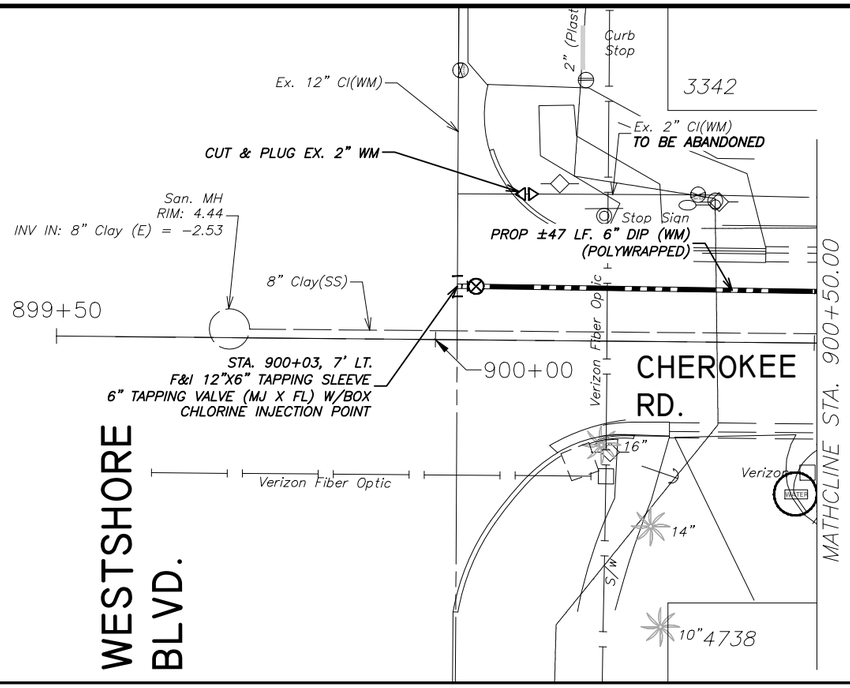
DES: MDB
DRN: MPS
CKD: JPF
DATE: 12/21/15

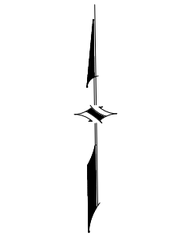
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

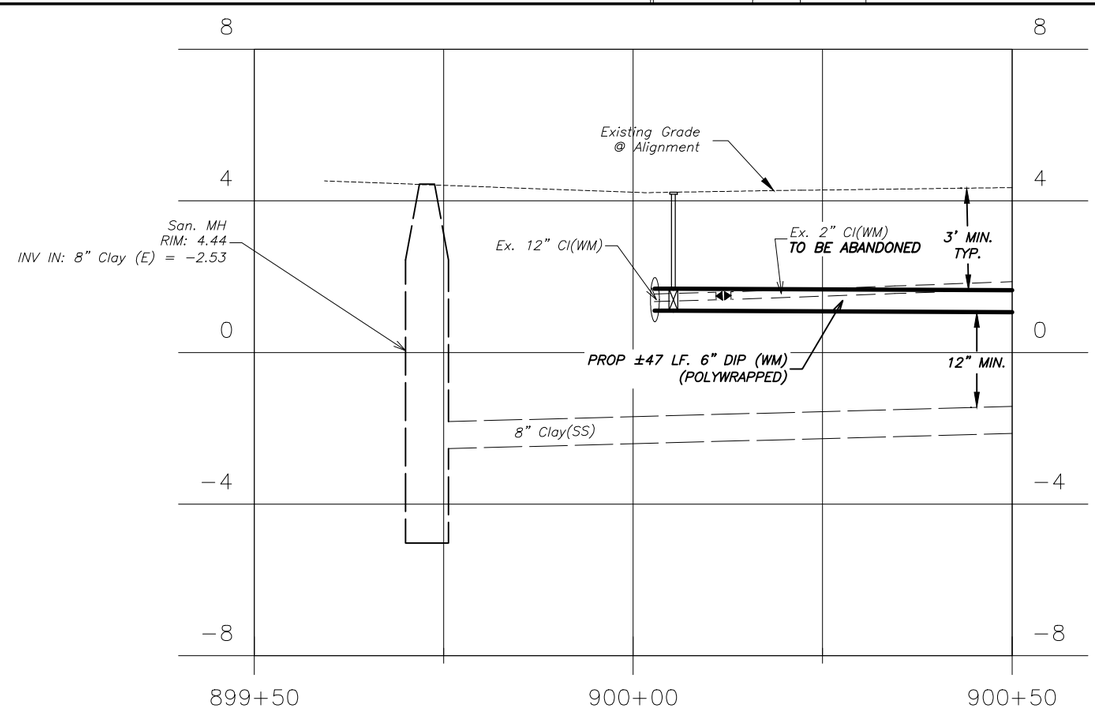
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SHEET S-14 OF S-14

SW







CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - WATER MAIN
PLAN & PROFILE

SHEET W-100
OF W-125

SW

CHEROKEE RD.

MATCHLINE STA. 900+50.00

MATCHLINE STA. 903+25.00

Asphalt Parking Lot

Clean Out

Exist. R/W Line

3342

Asphalt Parking Lot

Ex. 2" CI(WM) TO BE REMOVED

STA. 901+60, 7' LT. 6' Wood BEGIN HOR. DEFLECTION

San. MH TO BE REMOVED RIM: 4.94

INV IN: 8" Clay (E) = -1.06

INV OUT: 8" Clay (W) = -1.06

Planter

4717

Planter

4715

2" CI(WM) TO BE ABANDONED

PROP ±275 LF. 6" DIP (WM) (POLYWRAPPED)

CUT & CAP EX. 2" WM

STA. 901+93, 10' LT. END HOR. DEFLECTION

Asphalt Drive

CUT & CAP EX. 2" WM

Concrete Drive

Brick Paver Drive

APPROXIMATE LATERAL INV EL: 1.17

8" Clay(SS) TO BE REMOVED

2" DIP(WM) TO BE ABANDONED

2" (Plastic) (Gas)

Verizon

8" Clay(SS)

901+00

APPROXIMATE LATERAL INV EL: 0.97

8" PVC(SS)

8" PVC(SS)

MH-33

MH-34

3.02'

S-1

CONFLICT STRUCTURE

3.01'

902+00

8" Clay(SS) TO BE REMOVED

9'X6' CONCRETE BOX CULVERT(ST)

903+00

Concrete

Concrete

Verizon Fiber Optic

Concrete

Verizon

Speed Limit

Concrete Drive

Asphalt Drive

4'hedge

Cable Tv

Asphalt Drive

Clean Out

100+00

3' Evergreen

Brick Paver Drive

4738 Exist. R/W Line | 4736 | 4734 | 4732 | 4730 | 4728 | 4726 | 4724 | 4722 | 4720 | 4718 | 4716

0 20

1"=20'

8 8

PROPOSED GRADE @ ALIGNMENT

MH-34

4.62

Ex. 2" CI(WM) TO BE REMOVED

0.30%

Ex. 2" CI(WM) TO BE ABANDONED

5.02

MH-33

3' MIN. TYP.

Ex. 2" CI(WM) TO BE ABANDONED

PROP ±275 LF. 6" DIP (WM) (POLYWRAPPED)

12" MIN. OVER BOX

8" PVC(SS)

8" PVC(SS)

8" Clay(SS)

CONNECT EXISTING 8" CLAY(SS) TO MH-34 @ INV. ELE. -1.59

PROP STEEL CASING

S-1

STA. 901+74.69, 6.81' RT.

CUSTOM J-BOX/CONFLICT STRUCTURE W/MH RISER

INV EL: 9'X6' CONCRETE BOX CULVERT (E) = -7.00

INV EL: 9'X6' CONCRETE BOX CULVERT (N) = -7.04

INV EL: 8" PVC SANITARY CROSSING (E) = -1.38

INV EL: 8" PVC SANITARY CROSSING (W) = -1.42

MH RISER RIM: 4.62

9'X6' CONCRETE BOX CULVERT(ST)

4 0 -4 -8

900+50 901+00 902+00 903+00 903+25

CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.
2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - WATER MAIN
PLAN & PROFILE

SHEET W-101
CF W-125

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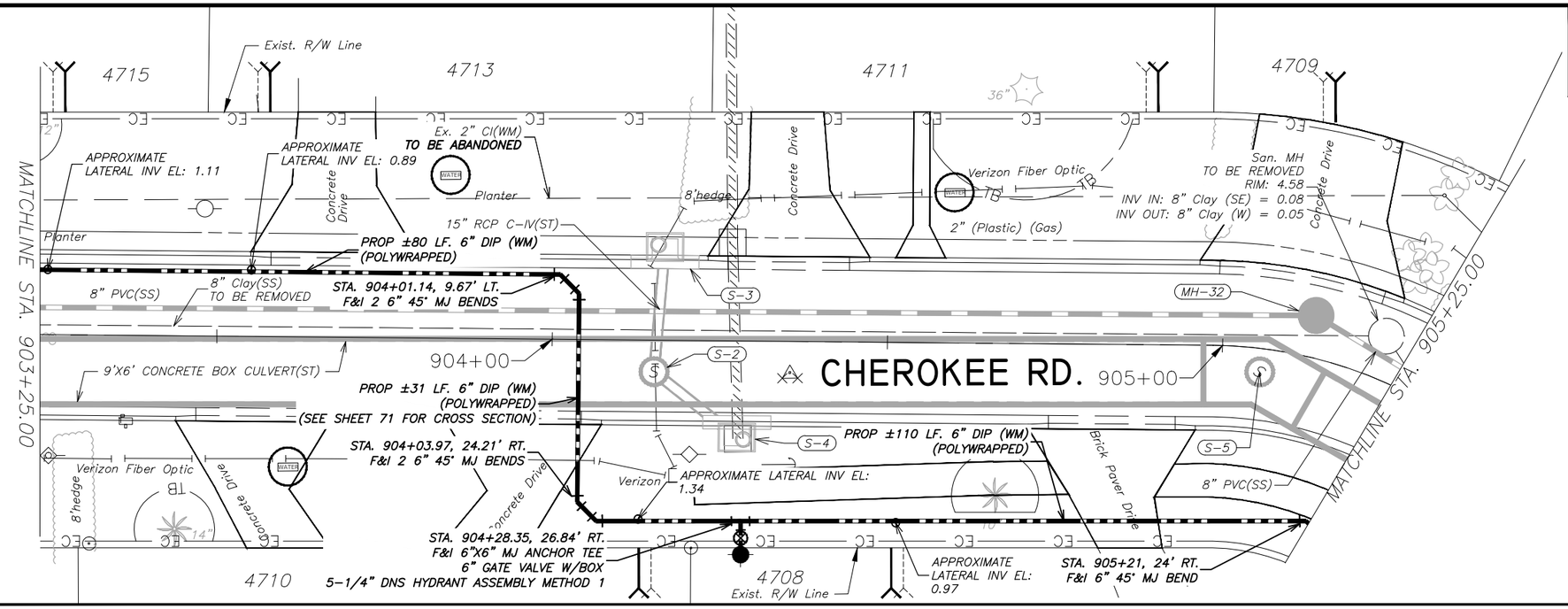

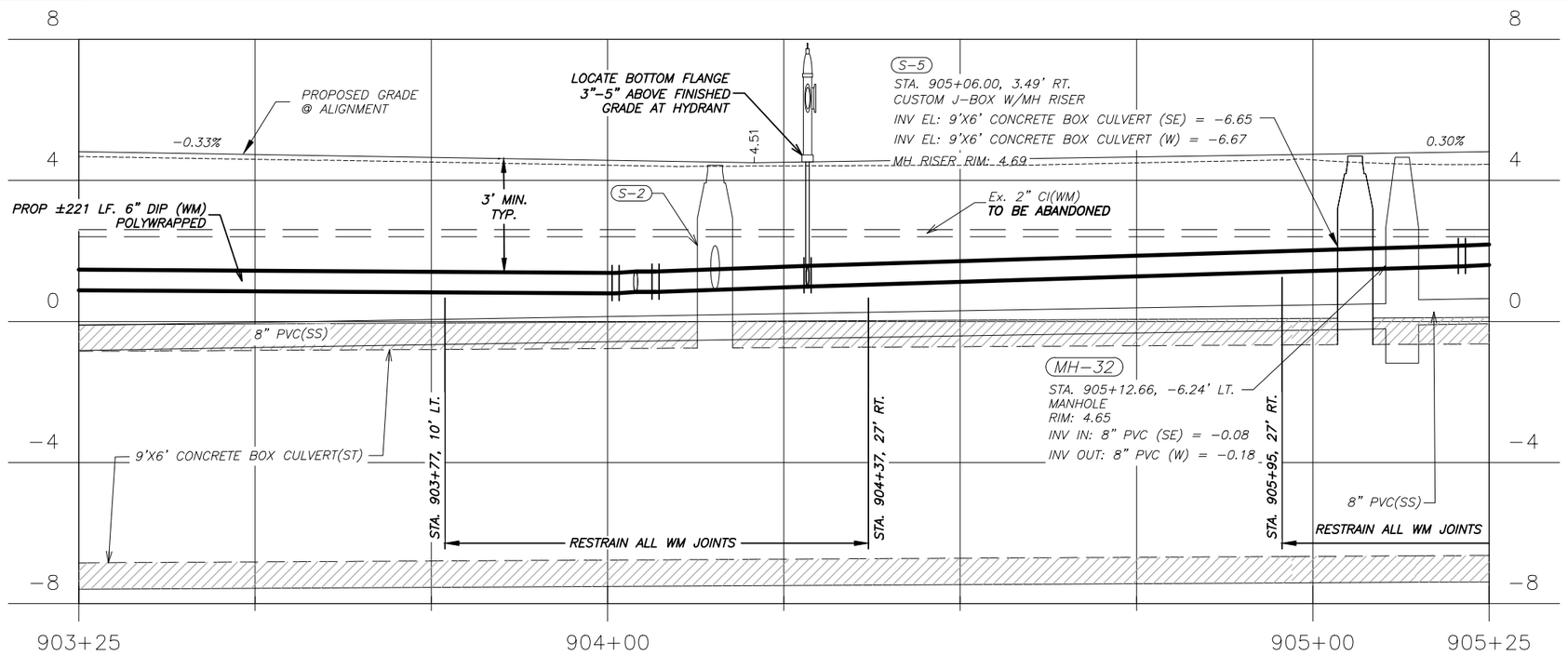

CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

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DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - WATER MAIN
PLAN & PROFILE

SHEET W-102 of W-125

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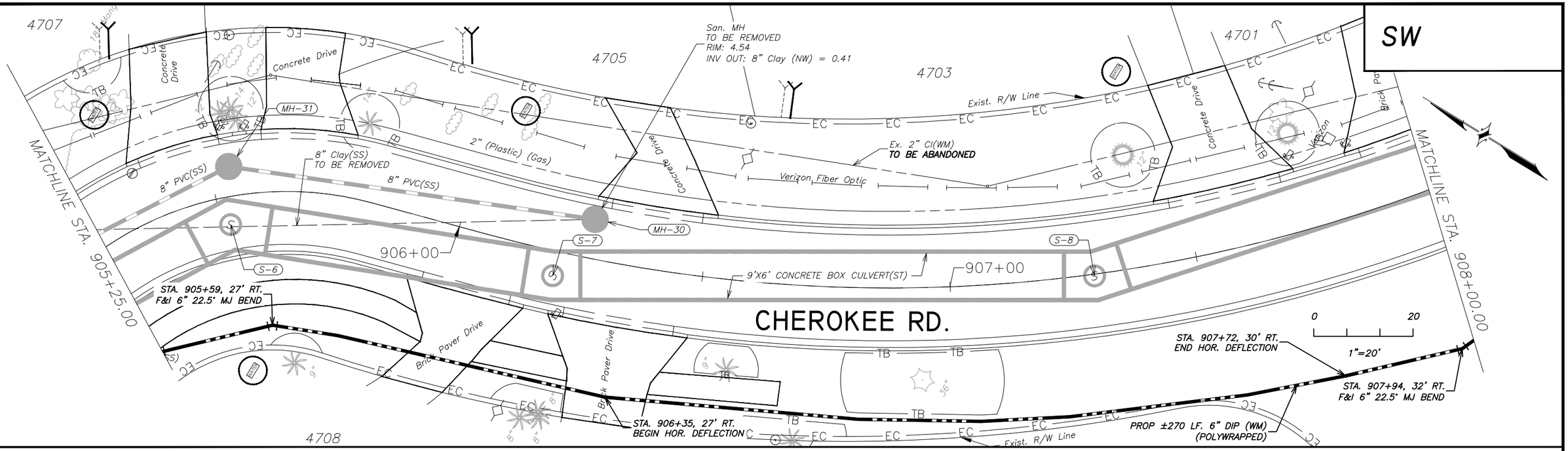

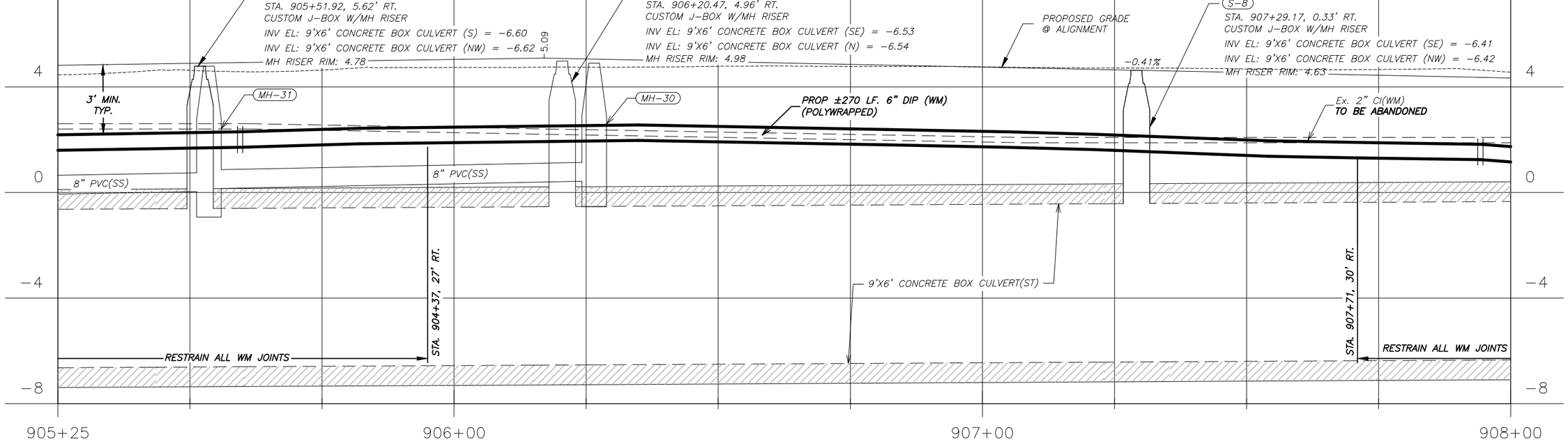

CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

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3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - WATER MAIN
PLAN & PROFILE

SHEET W-103 of W-125

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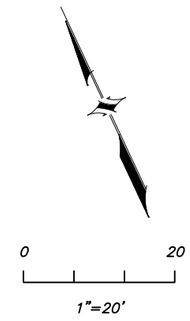
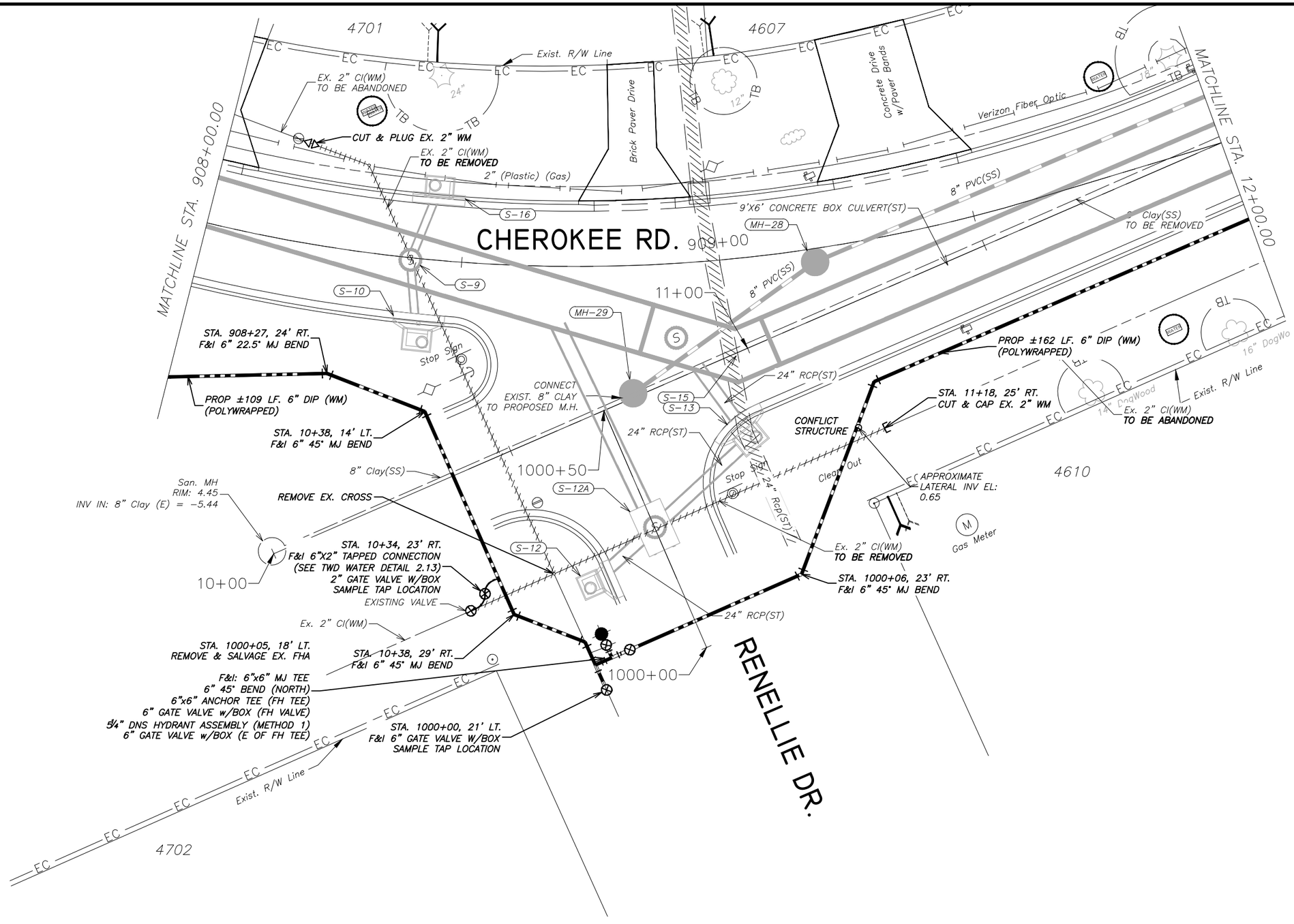
SW





NOTE:
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2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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1			4		

DES: ALC
DRN: ASA
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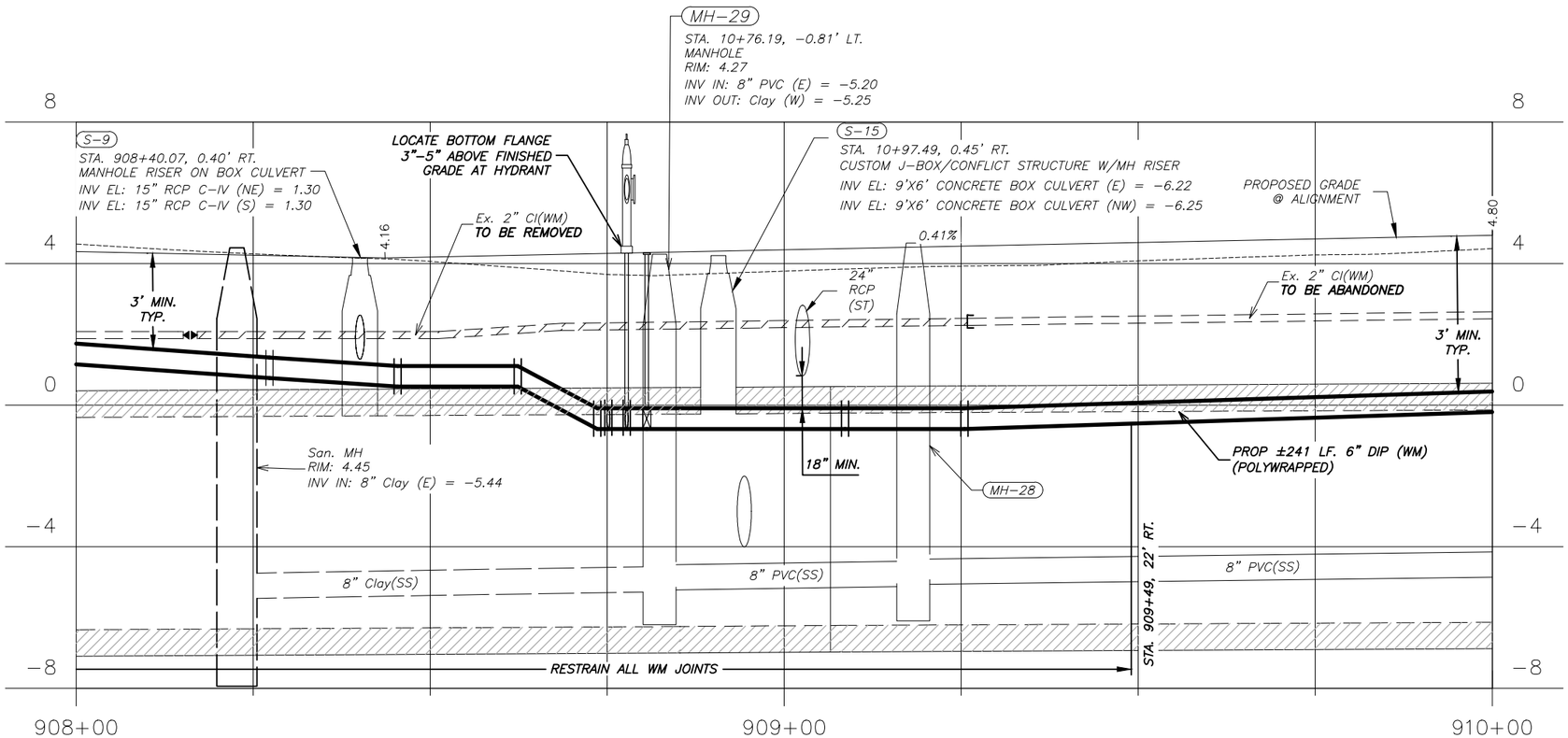
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - WATER MAIN PLAN

SHEET
W-104
of
W-125



CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

(SEE SHEET W–104 FOR PLAN VIEW)

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

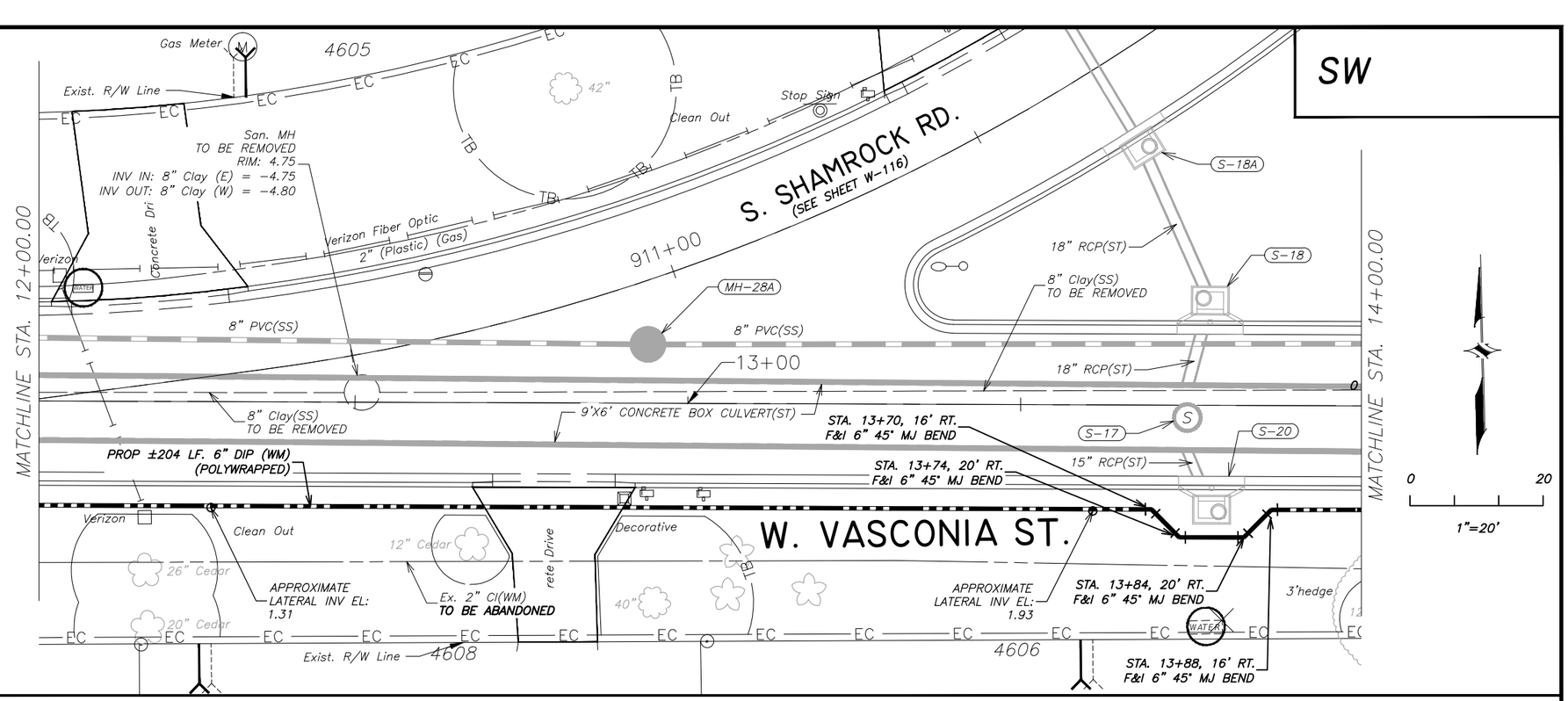
No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

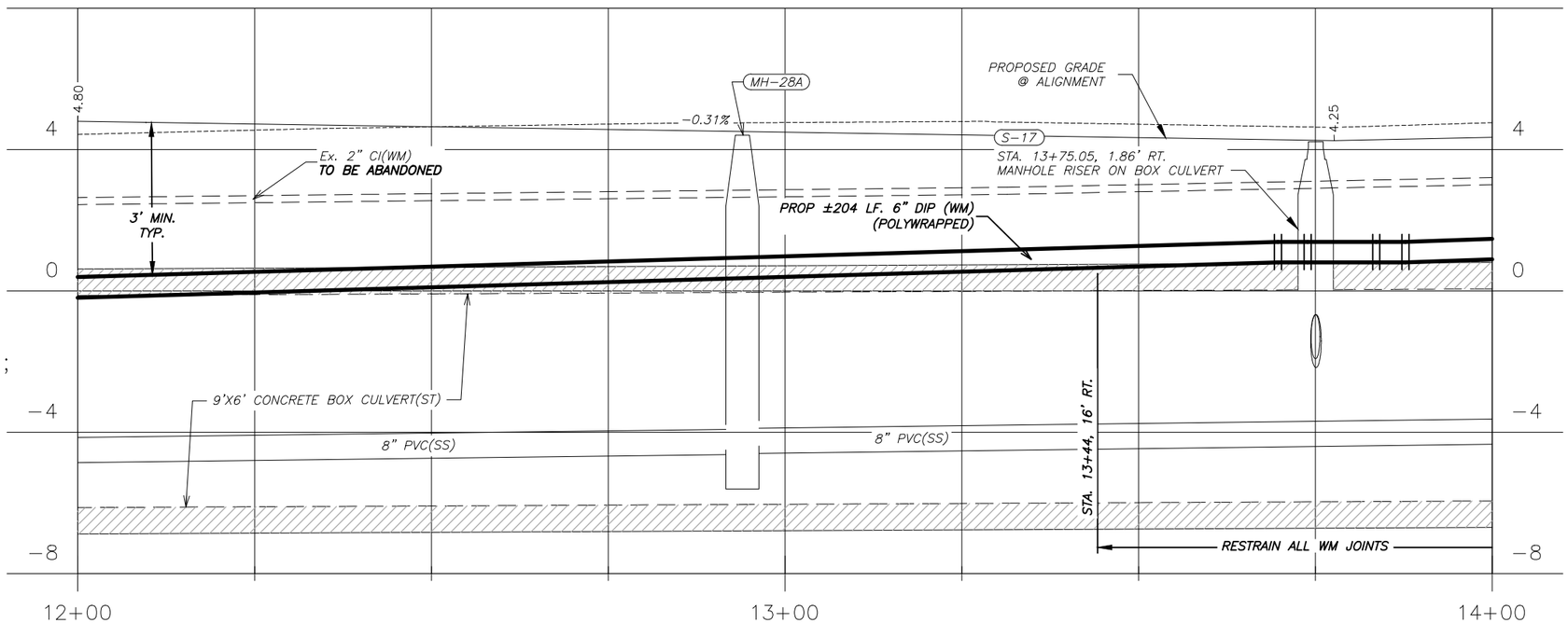
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - WATER MAIN
PROFILE

SHEET W-105
of W-125





W. VASCONIA ST. PROFILE
Scale: 1" = 20' Horizontal ;
1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.
2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN PLAN & PROFILE

SHEET W-106
of W-125

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SW

DOUBLE 5'X3' CONCRETE BOX CULVERT(ST)

8" Clay(SS) TO BE REMOVED

S-92A

SHAMROCK RD.

San. MH TO BE REMOVED
RIM: 5.23
INV IN: 8" Clay (E) = -4.07
INV IN: 8" Clay (N) = -3.98
INV OUT: 8" Clay (W) = -4.10

Stop Sign

S-92

S-93

8" Clay(SS) TO BE REMOVED

15" RCP(ST)

8" PVC(SS)

MATCHLINE STA. 14+00.00

9'X6' CONCRETE BOX CULVERT(ST)

S-93A

PROP ±300 LF. 6" DIP (WM) (POLYWRAPPED)

3' TYP.

STA. 15+00, 15' RT.
F&I 6" GATE VALVE W/BOX

15+00

APPROXIMATE LATERAL INV EL: 1.48

MH-27

200+00

S-19

STA. 200+36, 22' RT.
F&I 6" 45° MJ BEND

SEE SHEET WW-117 FOR CONTINUATION

3328

Exist. R/W Line

6'wood Fence

STA. 200+28, 29' RT.
F&I 6"X6" MJ ANCHOR TEE
6" GATE VALVE W/BOX
5-1/4" DNS HYDRANT ASSEMBLY METHOD1
6" 45° MJ BEND

Ex. Curb Inlet TO BE REMOVED

W. VASCONIA ST.

F&I 66 LF 6" DIP(WM) (POLYWRAPPED)

8" Clay(SS) TO BE REMOVED

16+00

10'X5' CONCRETE BOX CULVERT(ST)

APPROXIMATE LATERAL INV EL: 2.06

STA. 15+41, 15' RT.
F&I 6"X6" MJ TEE

Ex. 2" CI(WM) TO BE ABANDONED

Exist. R/W Line

STA. 15+80, 15' RT.
F&I 6" GATE VALVE W/BOX

Ex. 2" CI(WM) TO BE ABANDONED

APPROXIMATE LATERAL INV EL: 2.17

0 20
1"=20'

STA. 16+78, 16' RT.
F&I 6" 45° VERT MJ BEND-DOWN

STA. 16+72, 16' RT.
F&I 6" 45° VERT MJ BEND-UP

8" PVC(SS)

S-21

STA. 16+52, 16' RT.
F&I 6" 45° VERT MJ BEND-UP

STA. 16+46, 16' RT.
F&I 6" 45° VERT MJ BEND-DOWN

MATCHLINE STA. 17+00.00

Concrete Drive
Planter
Concrete Walk
4'hedge
2'hedge
6'hedge
Cluster Crape Myrtle
Brick Paver Drive
Small Sink Hole
42"
14"
12"
4604
4526
4522
48" Camphor
199+70

S-19
STA. 15+05.05, 2.52' RT.
FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 10'X5' CONCRETE BOX CULVERT (E) = -5.79
INV EL: 9'X6' CONCRETE BOX CULVERT (W) = -5.84
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
MH RISER RIM: 4.74

0.42%

3' MIN. TYP.

S-93A

9'X6' CONCRETE BOX CULVERT(ST)

RESTRAIN ALL WM JOINTS

STA. 14+13, 16' RT.

8" PVC(SS)

Ex. 2" CI(WM) TO BE ABANDONED

10'X5' CONCRETE BOX CULVERT(ST)

±250 LF. 8" PVC (SS) @ 0.35%

MH-27
STA. 15+17.86, -9.81' LT.
MANHOLE
RIM: 4.65
INV IN: 8" PVC (E) = -3.90
INV IN: 8" PVC (N) = -3.94
INV OUT: 8" PVC (W) = -4.02

STA. 15+67, 16' RT.

RESTRAIN ALL WM JOINTS

STA. 15+93, 16' RT.

S-21
STA. 16+62.29, 4.38' RT.
FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 5'X4' CONCRETE BOX CULVERT (S) = -0.41
INV EL: 5'X4' CONCRETE BOX CULVERT (S) = -0.41
INV EL: 9'X5' CONCRETE BOX CULVERT (E) = -5.65
INV EL: 10'X5' CONCRETE BOX CULVERT (W) = -5.65
MH RISER RIM: 5.19

5.35

PROPOSED GRADE @ ALIGNMENT

-0.31%

PROP ±300 LF. 6" DIP (WM) (POLYWRAPPED)

18" MIN.

STA. 16+21, 16' RT.

RESTRAIN ALL WM JOINTS

9'X5' CONCRETE BOX CULVERT(ST)

4
0
-4
-8

14+00
15+00
16+00
17+00

W. VASCONIA ST. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

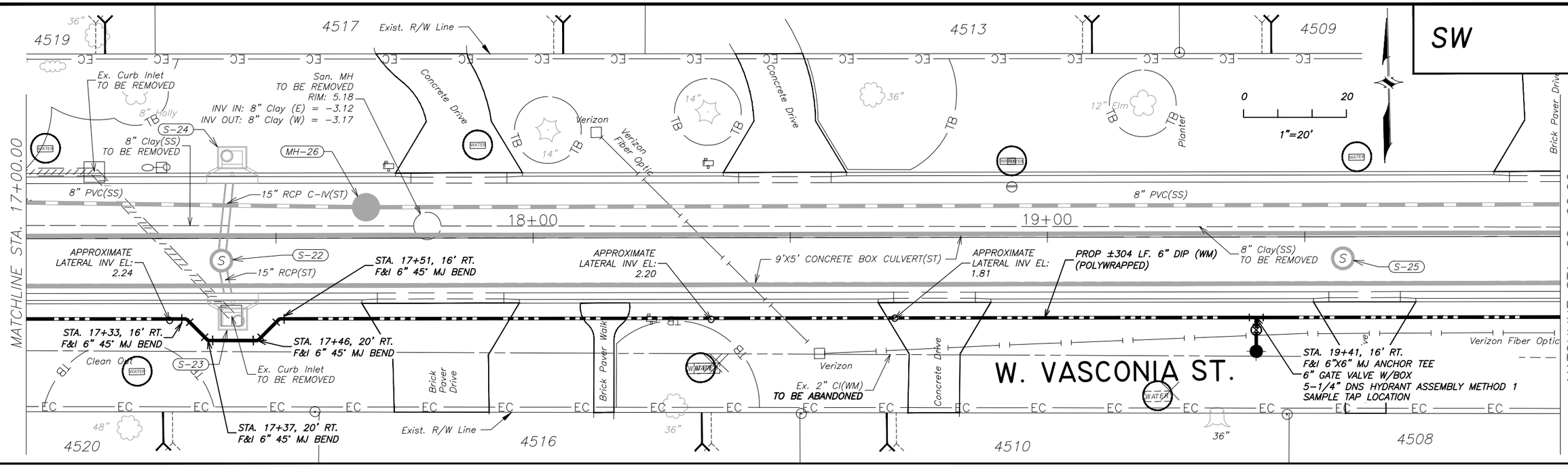
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

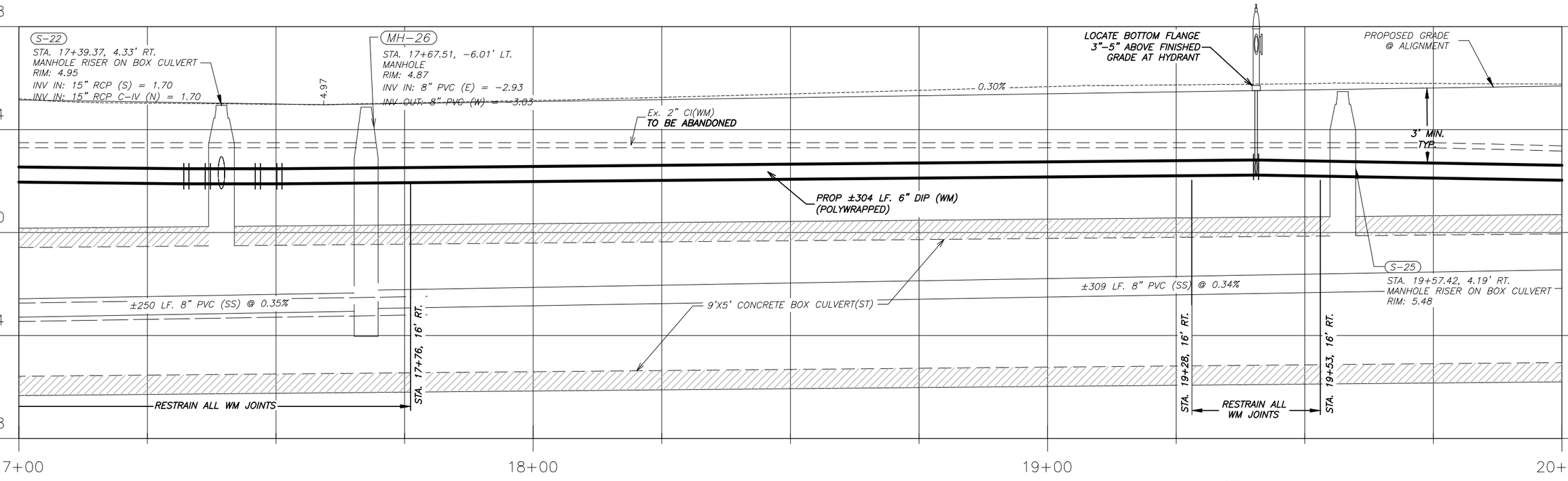
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN PLAN & PROFILE

SHEET W-107 OF W-125

SW





W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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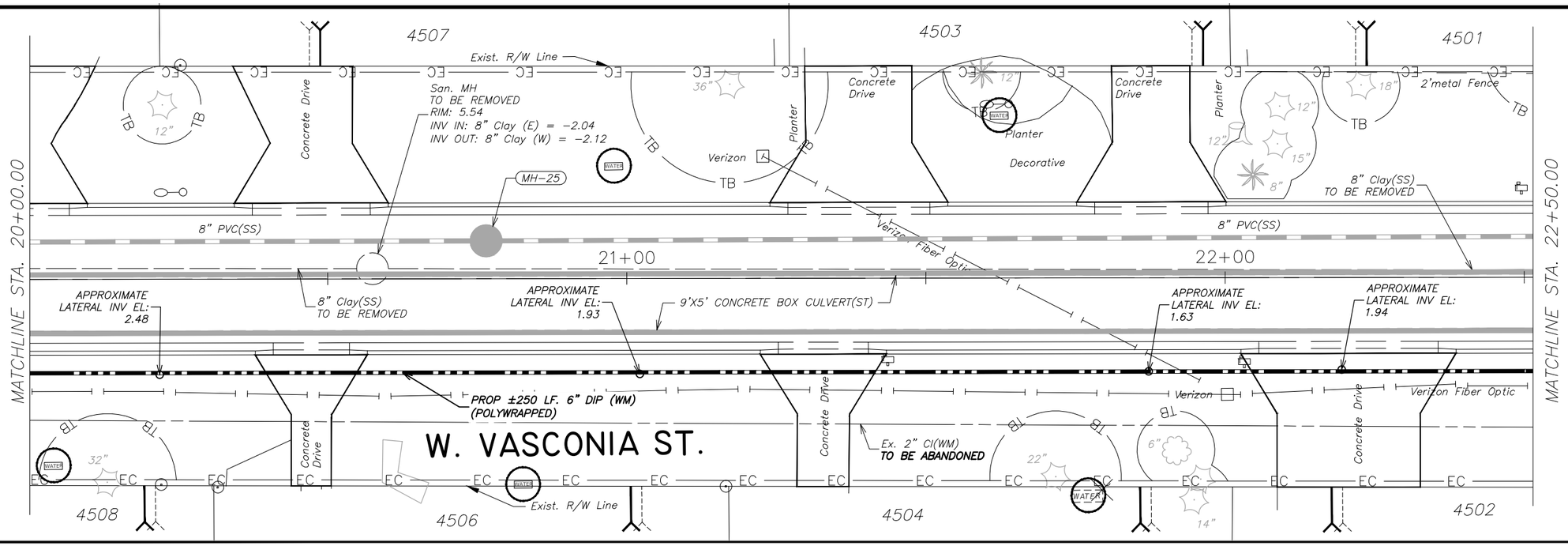
UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN PLAN & PROFILE

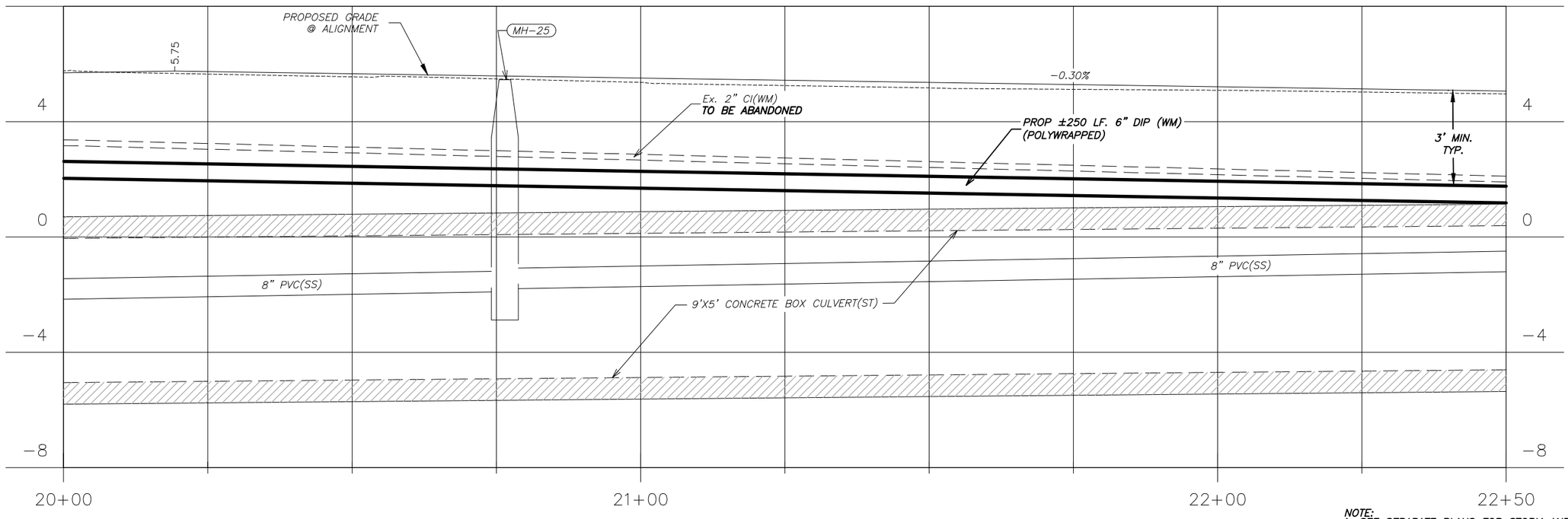
SHEET W-108 of W-125



SW

0 20

1"=20'



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN PLAN & PROFILE

SHEET W-109 OF W-125

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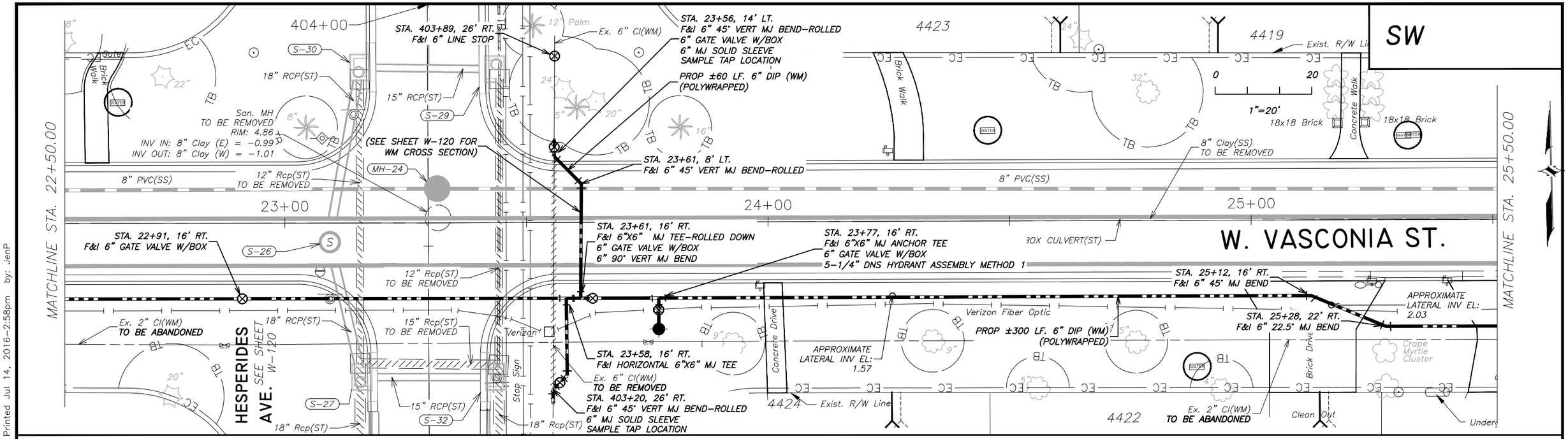

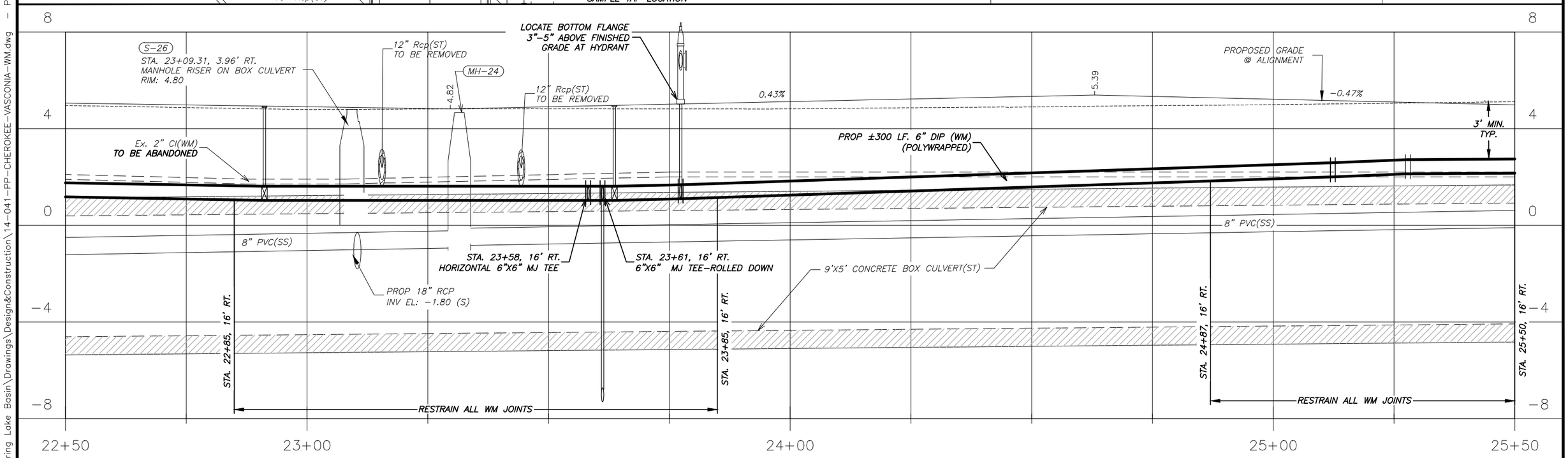

W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN PLAN & PROFILE

SHEET W-110
OF W-125

SW

MATCHLINE STA. 25+50.00

MATCHLINE STA. 28+50.00

0 20

1"=20'

Exist. R/W Line

4415

4411

4418

4416

4414

4412

Brick Drive

10" Magnolia

18x18 Brick

S-36

San. MH
RIM: 5.25
TO BE REMOVED
INV IN: 8" Clay (E) = 0.27
INV OUT: 8" Clay (W) = 0.26

4" Crape Myrtle

Clean Out

5" Elm

Concrete

Concrete Drive

Verizon

Brick Walk

26"

35"

8" PVC(SS)

MH-23

S-37

S-38

26+00

27+00

28+00

W. VASCONIA ST.

S-34A

8" Clay(SS)
TO BE REMOVED

9'X5' CONCRETE BOX CULVERT(ST)

APPROXIMATE
LATERAL INV EL:
2.49

S-37A

S-34

APPROXIMATE
LATERAL INV EL:
2.22

Verizon Fiber Optic

PROP ±300 LF. 6" DIP (WM)
(POLYWRAPPED)

APPROXIMATE
LATERAL INV EL:
2.02

Concrete Walk

Ex. 2" CI(WM)
TO BE ABANDONED

5'hedge

Decorative

16"

5"

9"

24"

34"

WATER

TB

STA. 28+30, 22' RT.
F&I 6"X6" MJ ANCHOR TEE
6" GATE VALVE W/BOX
5-1/4" DNS HYDRANT ASSEMBLY METHOD 1
(LOCATE FH BONNET ALONG PROPERTY LINE
BETWEEN ADJACENT PROPERTIES)
SAMPLE TAP LOCATION

ground Lp Tank

8

4

0

−4

−8

MH-23

PROPOSED GRADE
@ ALIGNMENT

0.31%

−0.30%

4.90

5.53

5.31

3' MIN.
TYP.

S-34A

S-38

LOCATE BOTTOM FLANGE
3"-5" ABOVE FINISHED
GRADE AT HYDRANT

Ex. 2" CI(WM)
TO BE ABANDONED

PROP ±300 LF. 6" DIP (WM)
(POLYWRAPPED)

8" PVC(SS)

9'X5' CONCRETE BOX CULVERT(ST)

PROP 15" RCP
INV EL: −1.21 (SE)

PROP 15" RCP
INV EL: −2.24 (N)

PROP 15" RCP
INV EL: −2.11 (N)

PROP 15" RCP
INV EL: −1.40 (SE)

25+50

26+00

27+00

28+00

28+50

W. VASCONIA ST. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

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CITY of TAMPA
Department of Transportation
and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN
PLAN & PROFILE

SHEET
W-III
OF
W-125

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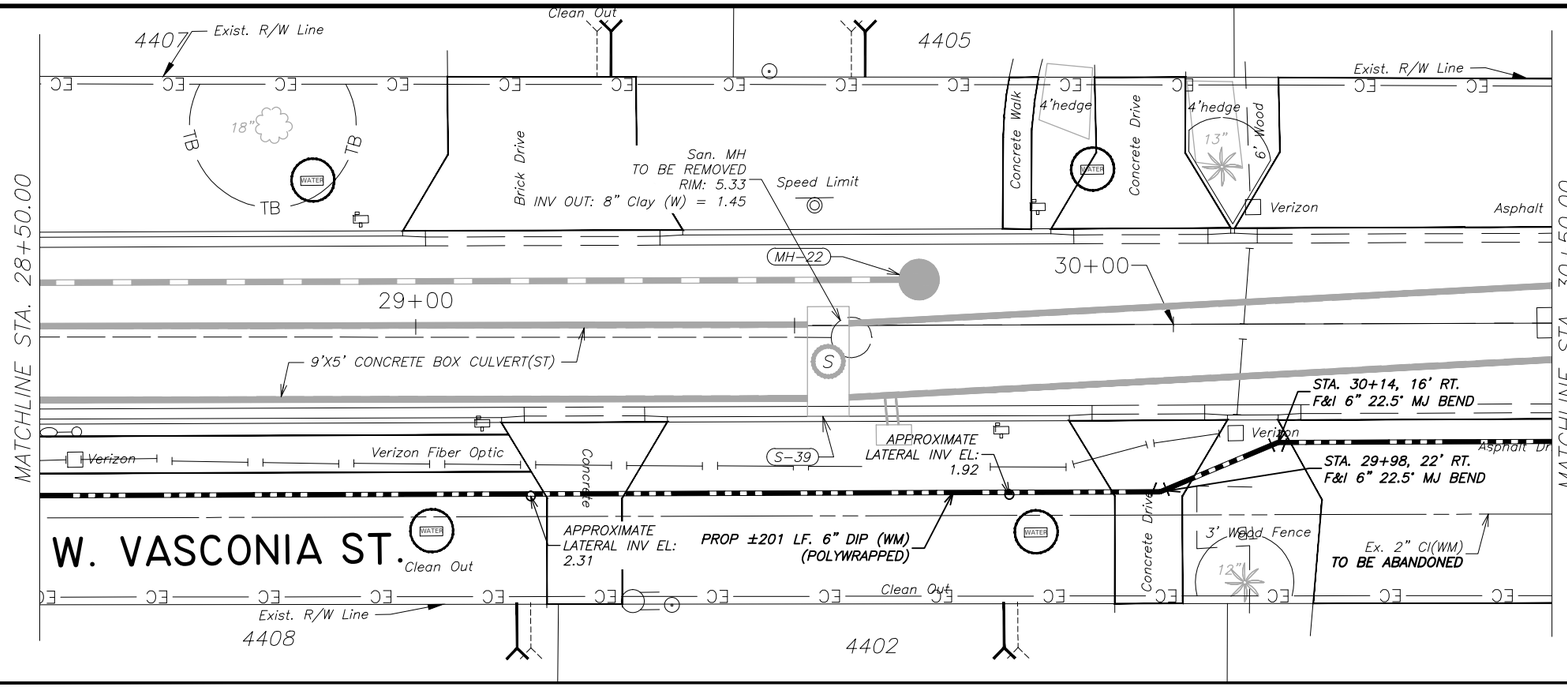
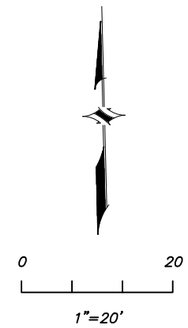
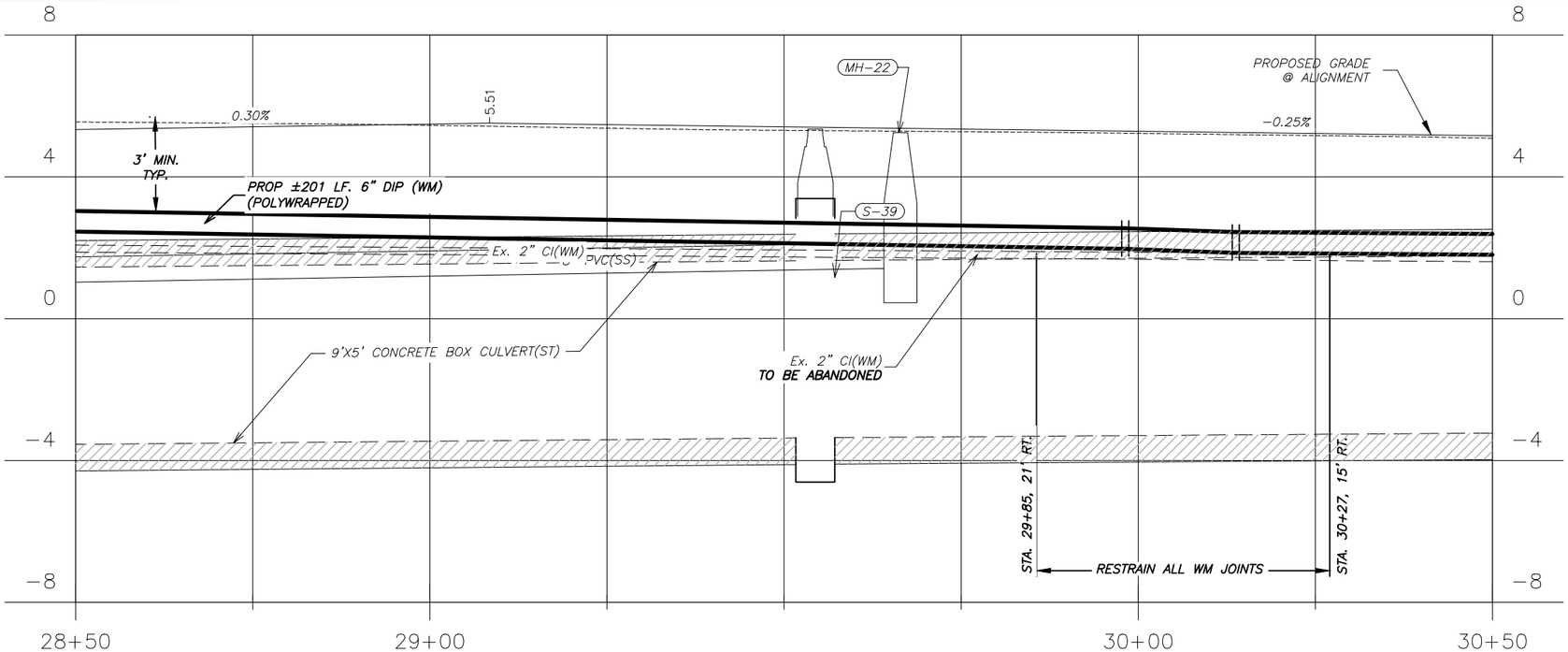


SW





W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN
PLAN & PROFILE

SHEET
W-112
OF
WW-129

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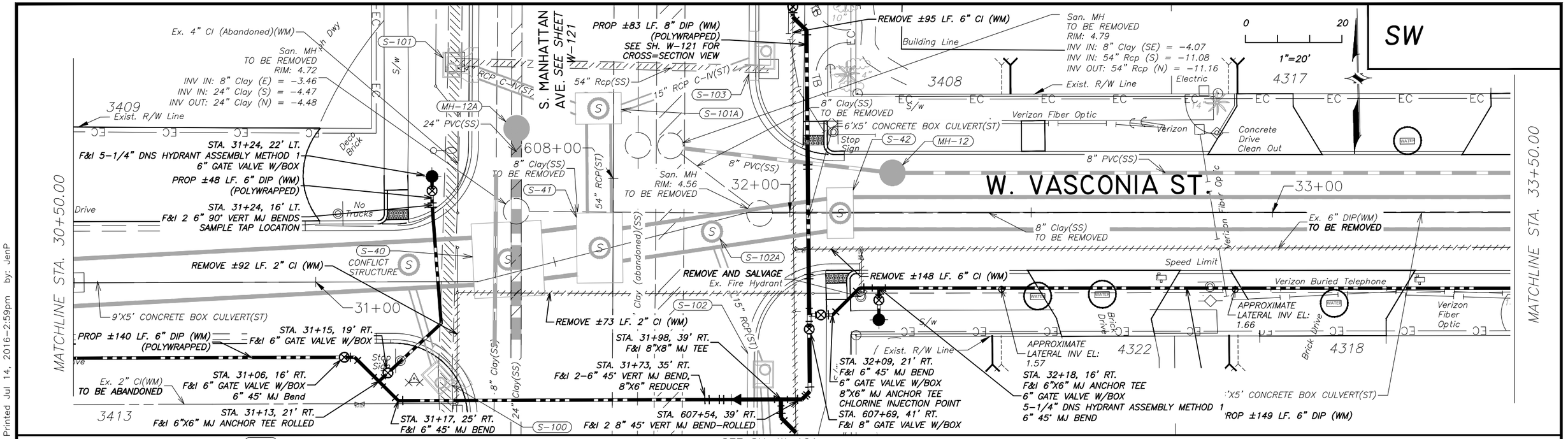

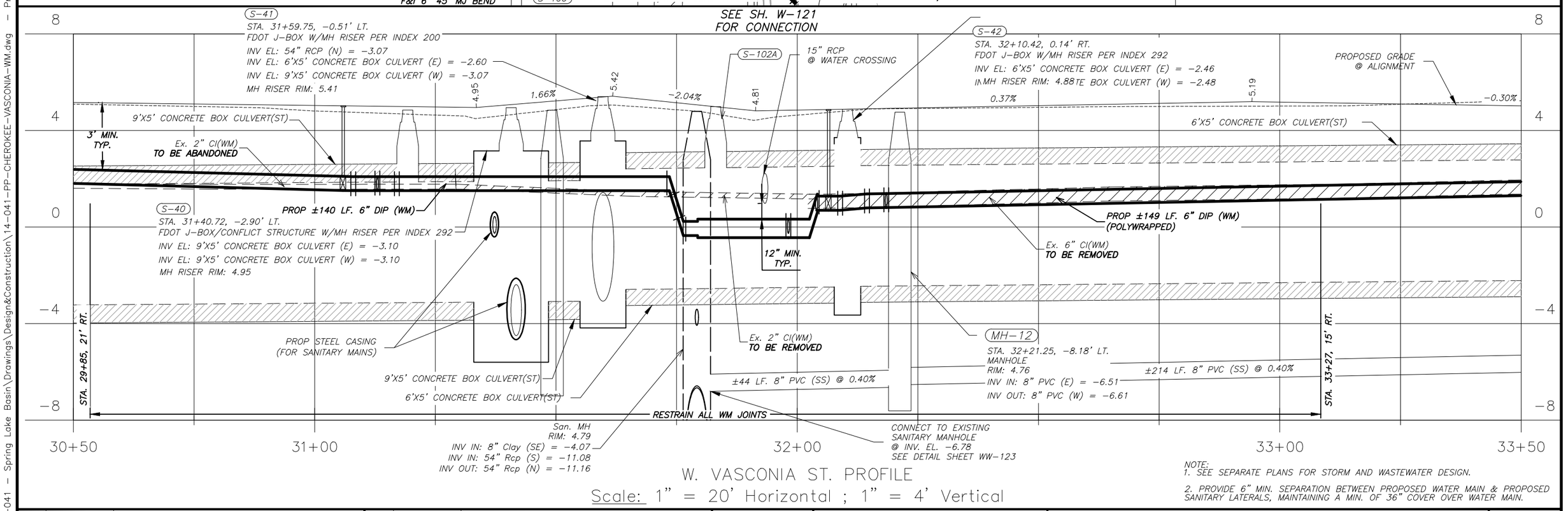

W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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DRN: ASA
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DATE: 7/15/16

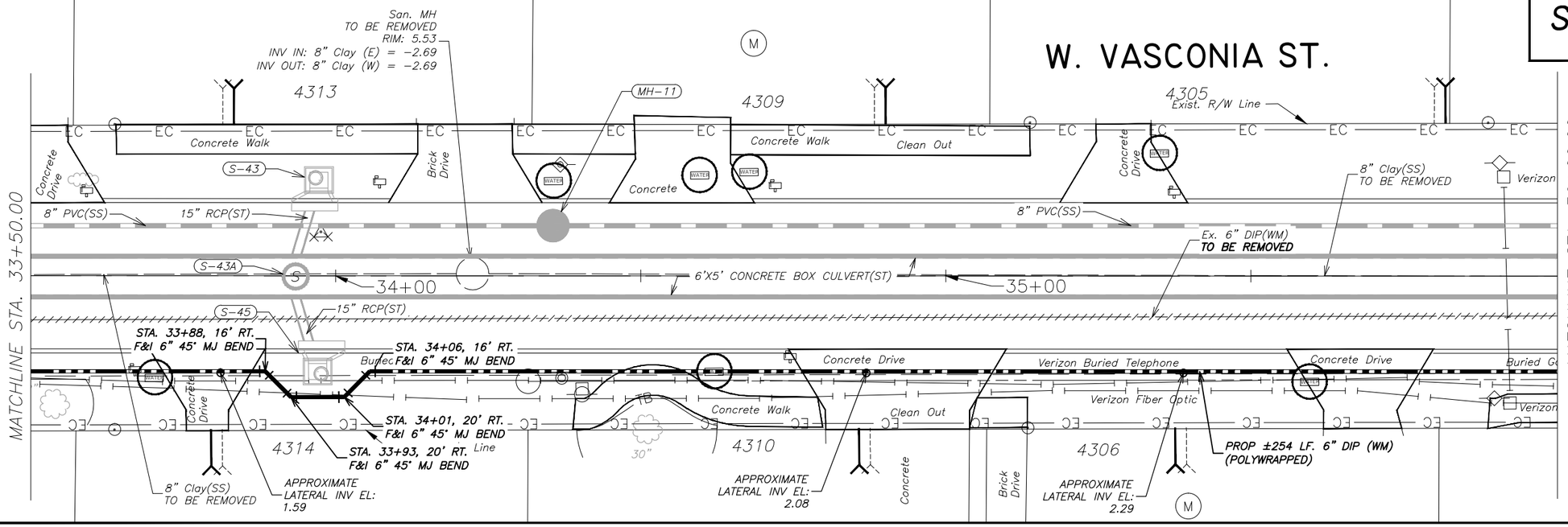
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

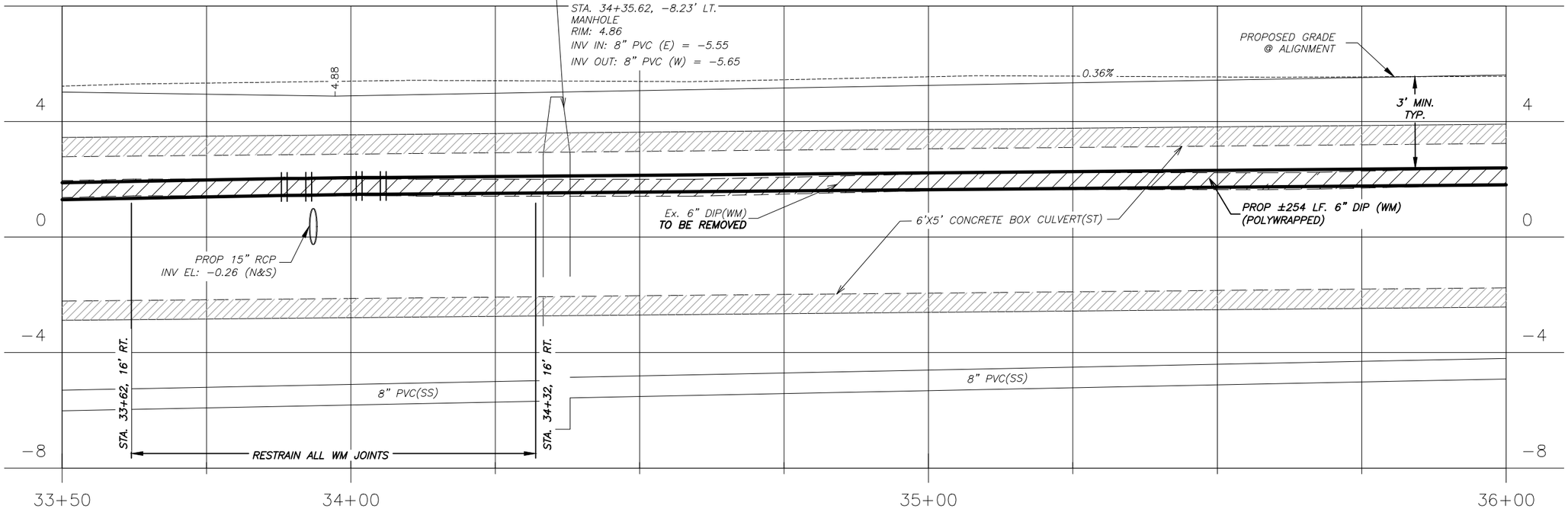
UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN PLAN & PROFILE

SHEET W-113
OF W-125

SW

W. VASCONIA ST.





W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

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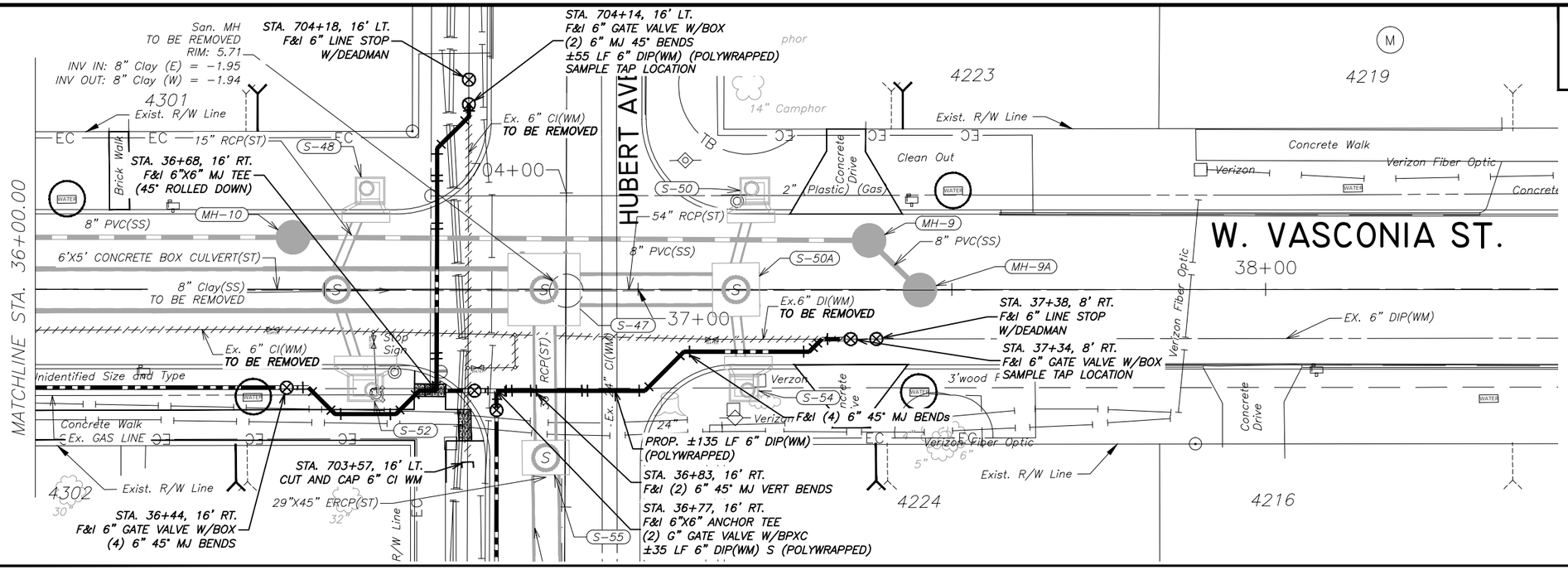
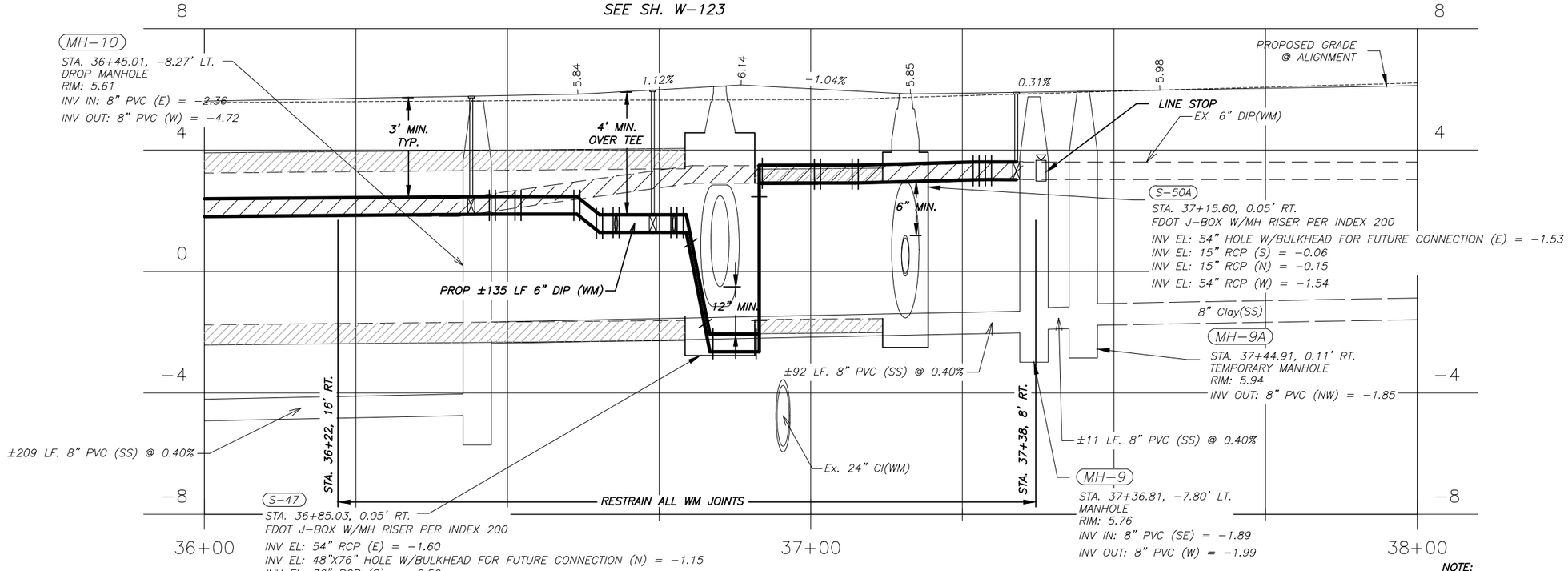
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN
PLAN & PROFILE

SHEET
W-114
of
W-125

SW





W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - WATER MAIN
PLAN & PROFILE

SHEET
W-115
of
W-125

SW

S. SHAMROCK RD.

911+00

912+00

913+00

202+00

201+00

MH-28A

S-18B

S-18A

S-18

S-17

S-20

15" RCP(ST)

18" RCP(ST)

8" PVC(SS)

9'X6' CONCRETE BOX CULVERT(ST)

5'X3' CONCRETE BOX CULVERT(ST)

W. VASCONIA ST.
SEE SHEET W-107 FOR WM CONTINUATIONS

SHAMROCK RD.
(SEE SHEET W-117)

Exist. R/W Line

Ex. 6" DIP (WM)
CONSTRUCTED JAN 2016 BY OTHERS.
CONTRACTOR SHALL OBTAIN AS-BUILTS
OF THE RECENTLY CONSTRUCTED
PHASE PRIOR TO SCHEDULING OF
CONSTRUCTION

4605 3327 3325 3323 4606 3328

Clean Out
Stop Sign
Brick Paver Drive
4" magnolia
Electric
Basketball
Concrete Drive
Verizon
2" (Plastic) (Gas)
3'hedge
Pet Waste
WATER
Concrete Drive

0 20
1"=20'

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

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DRN: ASA
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - WATER MAIN
PLAN

SHEET W-116
OF W-125

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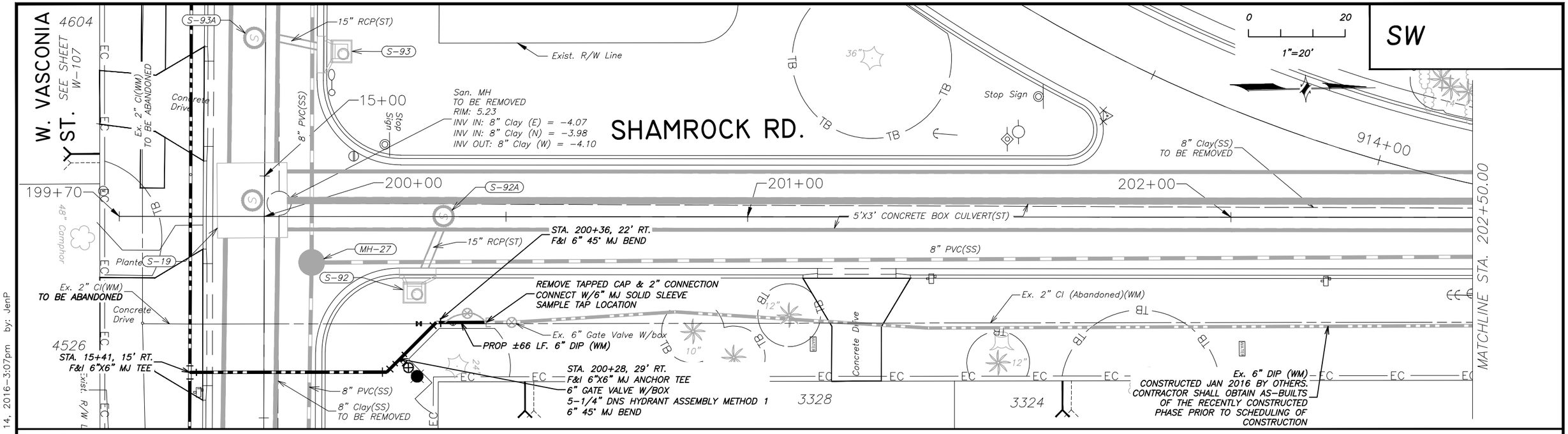

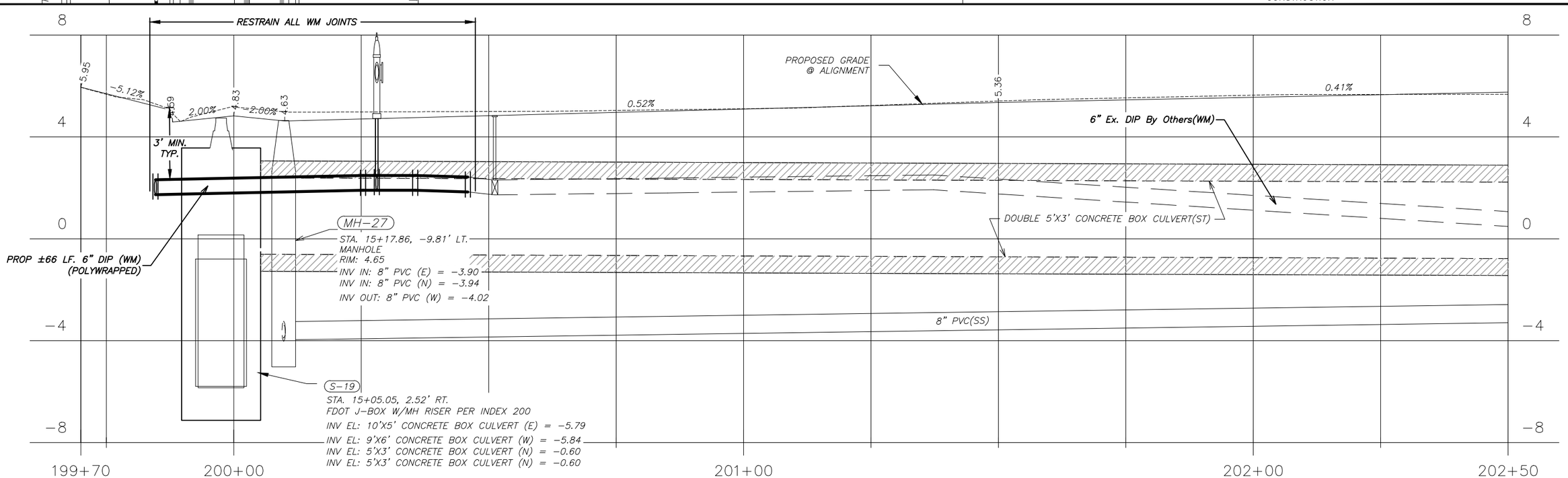

SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - WATER MAIN
PLAN & PROFILE

SHEET W-117 of W-125

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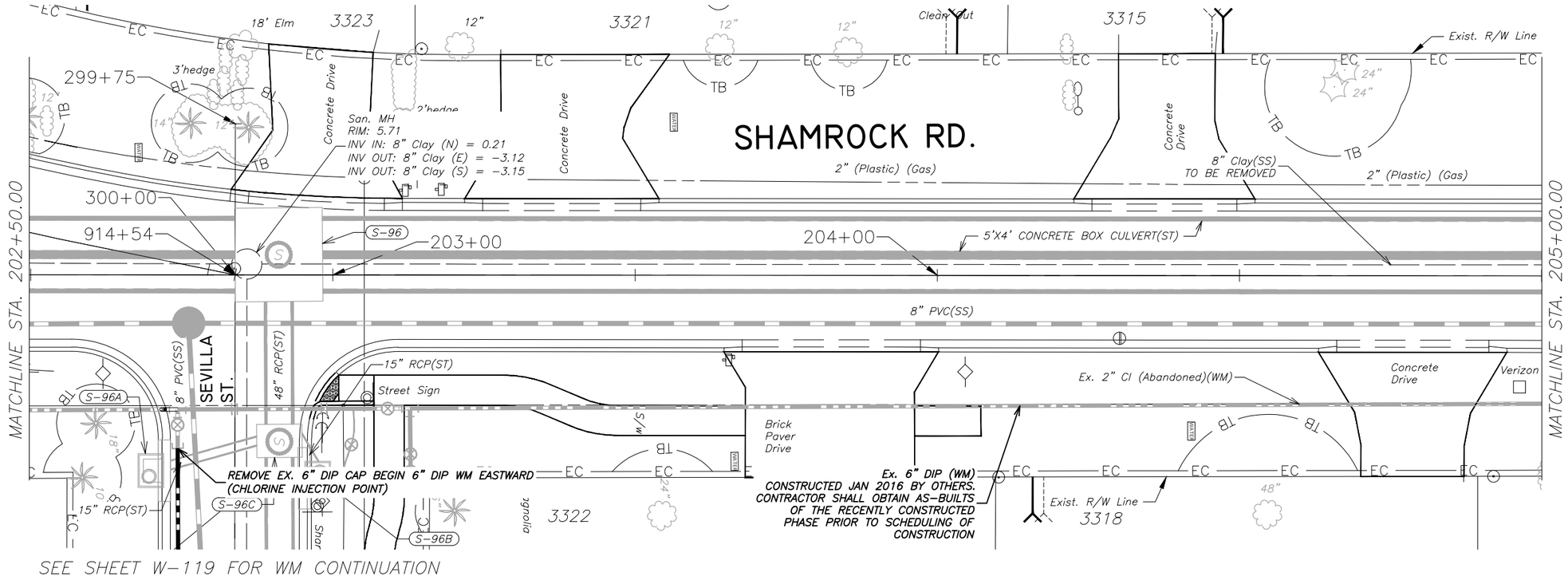
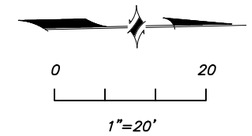
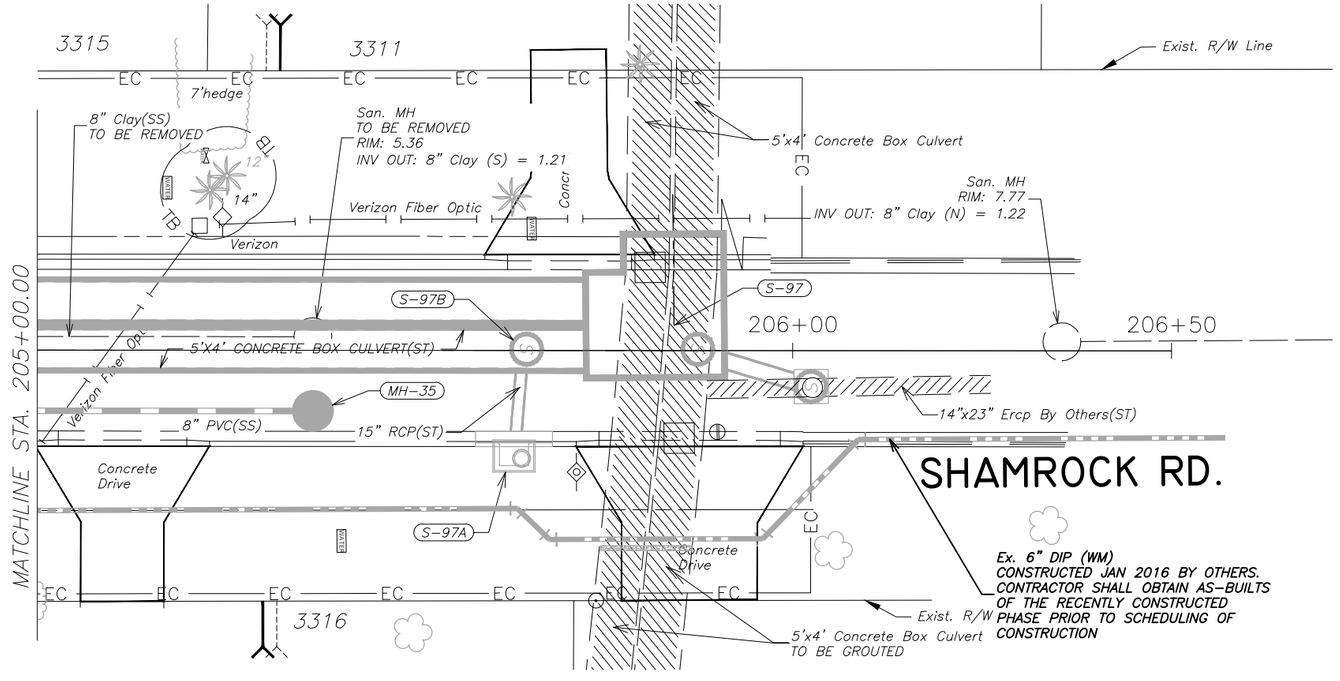
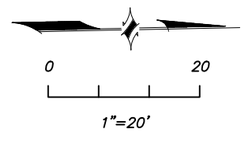
SW



SEE SHEET W-119 FOR WM CONTINUATION







NOTE:
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
SHAMROCK RD. - WATER MAIN
PLAN & PROFILE

SHEET W-118 OF W-125

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SW

0 20

1"=20'

SHAMROCK RD.

DOUBLE 5'X4' CONCRETE BOX CULVERT(ST)
Ex. 2" CI (Abandoned)(WM)
6" Ex. DIP By Others(WM)
Crape Myrtle
DOUBLE 5'x4' Concrete Box Culvert(ST) TO BE GROUTED IN PLACE
3322
4517
6' Pvc Fence
Exist. R/W Line
Street Sign
AFTER NEW WM ACTIVATED CLOSE CORP. CUT AND PLUG 2" HDPE @ CORP
S-96B
2" (Plastic) (Gas)
Warning Buried Utility
CUT & PLUG EX. 2" WM ABANDON 2" WM TO THE WEST
STA. 301+95, 14' LT.
F&I 2" GATE VALVE W/BOX (SAMPLE TAP LOCATION)
Co 7.99
Ex. 2" CI(WM)
Shared Pole
8" Clay(SS) TO BE REMOVED
DOUBLE 5'x4' Concrete Box Culvert(ST) TO BE REMOVED
203+00
Concrete Drive
18' Elm
3'hedge
2'hedge
48" RCP(ST)
15" RCP(ST)
301+00
302+00
S-98
MH-27A
S-96C
8" PVC(SS)
MH-27B
Verizon Fiber Optic
SEVILLA ST.
INSTALL 30 LF 2" HDPE WM UNDER 42" RCP
STA. 301+65, 7' RT. F&I 6" 45° VERT MJ BEND-DOWN
STA. 301+92, 7' RT. F&I 6"X2" TAPPED CAP 2" TAPPED CONNECTION W/20' OF 2" HDPE
Cabinet
Verizon Fiber Op
299+75
300+00
914+54
S-96A
PROP ±163 LF. 6" DIP (WM) (POLYWRAPPED)
REMOVE EX. 6" DIP CAP BEGIN 6" DIP WM EASTWARDS (CHLORINE INJECTION POINT)
STA. 301+53, 7' RT. F&I 6" 45° VERT MJ BEND-DOWN
STA. 301+55, 7' RT. F&I 6" 45° VERT MJ BEND-UP
STA. 301+62, 7' RT. F&I 6" 45° VERT MJ BEND-UP
S-99
6" Ex. DIP By Others(WM)
Ex. 2" CI (Abandoned)(WM)
DOUBLE 5'X3' CONCRETE BOX CULVERT(ST)
3324
DOUBLE 5'x4' Concrete Box Culvert(ST) TO BE GROUTED IN PLACE
4514
D/w

RESTRAIN ALL WM JOINTS

6.14 −0.07% 5.63 2.03% 5.90 −2.00% 5.69 −1.13% 5.48 0.53% 5.79 −0.33% 5.55 0.65%

Ex. 2" CI(WM)
3' MIN. TYP.
S-96
PROP ±163 LF. 6" DIP (WM) (POLYWRAPPED)
48" RCP(ST)
12" MIN.
42" Rcp(ST)
Ex. 6" Ex. DIP By Others(WM)
8" PVC(SS)
8" Clay(SS)
S-98
MH-27A
MH-27B

8 4 0 −4 −8

299+75 300+00 301+00 302+00 302+50

SEVILLA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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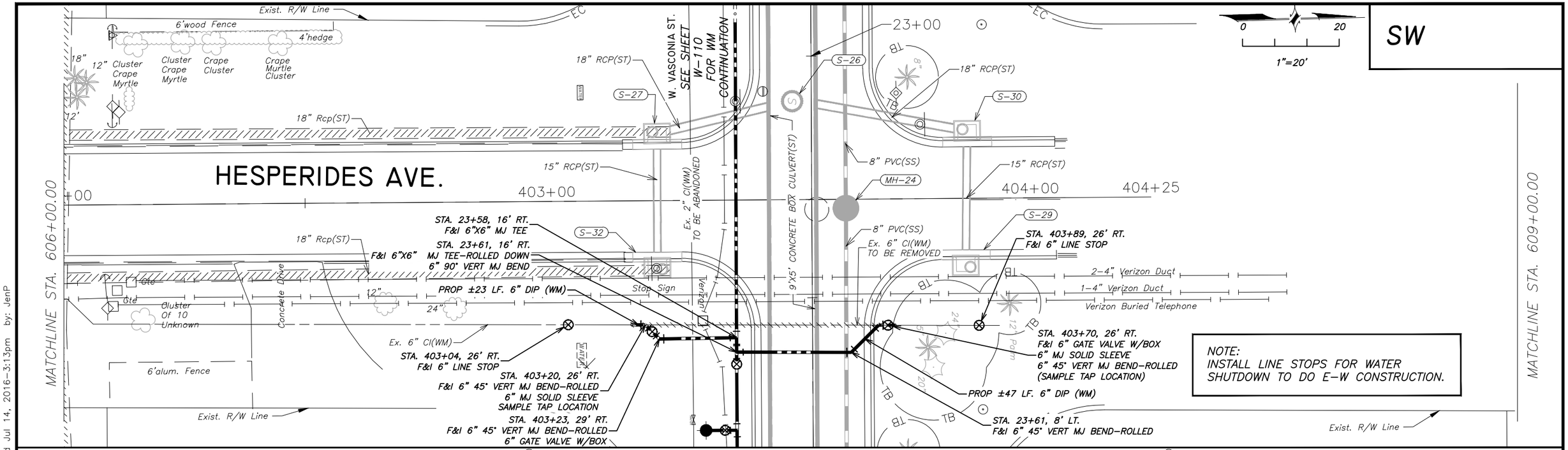
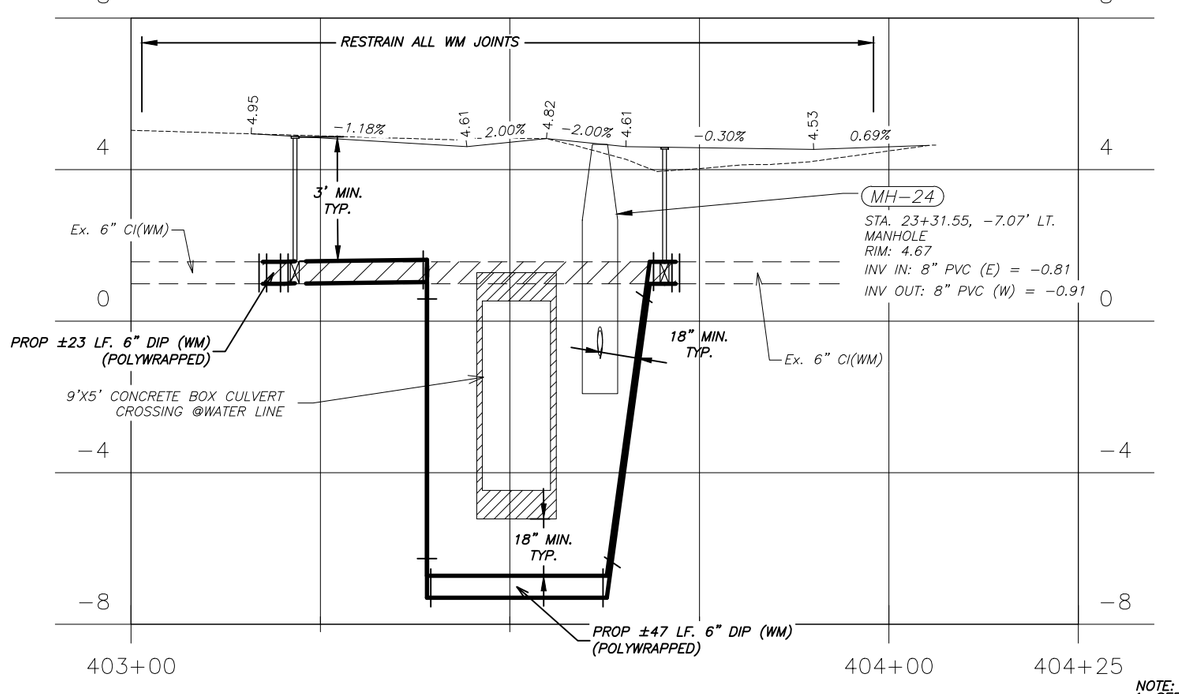
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
SEVILLA ST. - WATER MAIN
PLAN & PROFILE

SHEET W-119 of W-125





HESPERIDES AVE PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL) HESPERIDES AVE. - WATER MAIN PLAN & PROFILE

SHEET W-120 OF W-125

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-HESPERIDES-WM.dwg - Printed Jul 14, 2016-3:13pm by: JenP

SW

0 20

1"=20'

W. KENSINGTON AVE.

Straight Endwall

3.93

Exist. R/W Line

Stop
W. Manhattan Ave.
W. Kensington Ave.

Ex. 2" CI(WM)
TO REMAIN

Manhattan Nails

Tos

Tob

Eop

SAN

Exist. R/W Line

S/w

EC

Tob

Eop

Tos

S/w

S/w

Eop

EC

EC

Relic
Home-garden

Asph

Exist. R/W Line

S/w

WATER

Driveway

18" RCP(ST)
REMOVE EXISTING PIPE

24" RCP(ST)
REMOVE EXISTING PIPE

C & G

Eop

C & G

S-1444

C & G

24" Clay(SS)

S. MANHATTAN AVE.

MATCHLINE STA. 600+00.00

+00

601+00

Asph Crown

602+00

MATCHLINE STA. 603+00.00

SAN

54" Rcp(SS)

C & G

Eop

C & G

C & G

C & G

24"

Curb

Curb

Asph

Curb

Curb

Ex. 8" CI(WM)

Planter

Conc

16"

Stop

16"

S/w

Exist. R/W Line

48"

C & G

C & G

Chiropractic Entrance

Conc

16"

Gravel

Gravel

Ex. 2" CI(WM)

Baisden Company

NOTE:
SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - WATER MAIN
PLAN & PROFILE

SHEET
W-120A
OF
W-125

G:\Projects\14-041 - Spring Lake Basin\Drawings\Design&Construction\14-041-PP-MANHATTAN - WM.dwg - Printed Jul 14, 2016-3:15pm by: JenP

SW

0 20

1"=20'

EL PRADO BLVD.

S. MANHATTAN AVE.

MATCHLINE STA. 603+00.00

MATCHLINE STA. 606+00.00

603+00 604+00 605+00 606+00

Ex. 3" CI (Abandoned)(WM)

4" Round Metal Clr Gate Attached

Hedge

Tos

Asph

Parking Blockers

14" Metal

6"

TRANSFER METER TO THE EX. 8" DIP WM W/2" HDPE SERVICE LINE

Conc

S/w

1/2" EC

Curb

S-1434A

PROP 66 LF 2" HDPE METER SERVICE LINE SAMPLE TAP LOCATION

15" RCP(ST)

2" (SP) (Gas)

18" Rcp(ST) TO BE REMOVED

Crosswalk Signal

Parking Blockers

24" RCP(ST)

C & G

Speed Limit 40

6" CI TO BE TAKEN OUT OF SERVICE AND REMOVED AS REQUIRED. CAP ANY REMAINING ENDS.(WM)

24" Clay(SS)

6" Clay(SS)

S-1434

PROP ±17 LF. 8" DIP (WM)

24" RCP C-IV(ST)

S-1432

CHLORINE INJECTION POINT

S-1430A

Ex. 8" DI(WM)

STA. 508+52, 22' LT. VERTICALLY OFFSET 8" WM UNDER PROP. RCP PER WATER STD. OFFSET DETAIL (SEE SHEET W123A)

Asph Crown

00+80 Trucks

Ex. 2" CI (Abandoned)(WM)

S-1431

Exist. R/W Line

EC

2" (SP)

San. MH
RIM: 6.22
INV OUT: 24" Clay (N) = -3.91

Fop

Ex. 2" CI (Abandoned)(WM)

24" Rcp(ST) TO BE REMOVED

2" (SP) (Gas)

Ex. 6" CI (Abandoned)(WM)

8" Clay(SS)

San. MH
RIM: 5.61
INV IN: 54" Rcp (S) = -10.89
INV OUT: 54" Rcp (N) = -10.96
INV OUT: 8" Clay (SE) = -3.69

54" Rcp(SS)

San. MH
RIM: 5.64
INV IN: 6" Clay (W) = -2.75
INV OUT: 6" Pvc (N) = -2.79
INV OUT: 8" Clay (E) = -2.75

6" Pvc(SS)

STA. 509+09, 43' RT. F&I CUT AND PLUG 6" WM WEST OF TEE

509+00

Ex. 8" CI(WM)

Asph

Ex. 8" CI(WM)

19"X30" ERCP(ST)

X-cut

Exist. R/W Line

18" Rcp(ST)] TO REMAIN

Conc Pedestal For Large Traffic Signal Control Box

S-1439

8" Clay(SS)

Ex. 8" DI(WM)

Curb

Ex. 3" CI (Abandoned)(WM)

No Trucks

Crown

S-1438

Right Lane Must Turn Right

Business

Asph

8" Clay(SS)

San. MH
RIM: 2.44
INV IN: 8" Clay (W) = -2.97
INV IN: 8" Clay (NW) = -3.58
INV IN: 6" Pvc (S) = -2.79
INV OUT: 8" Clay (E) = -2.77

24" RCP(ST)

Tow Away Zone

Asph

Exist. R/W Line

NOTE:
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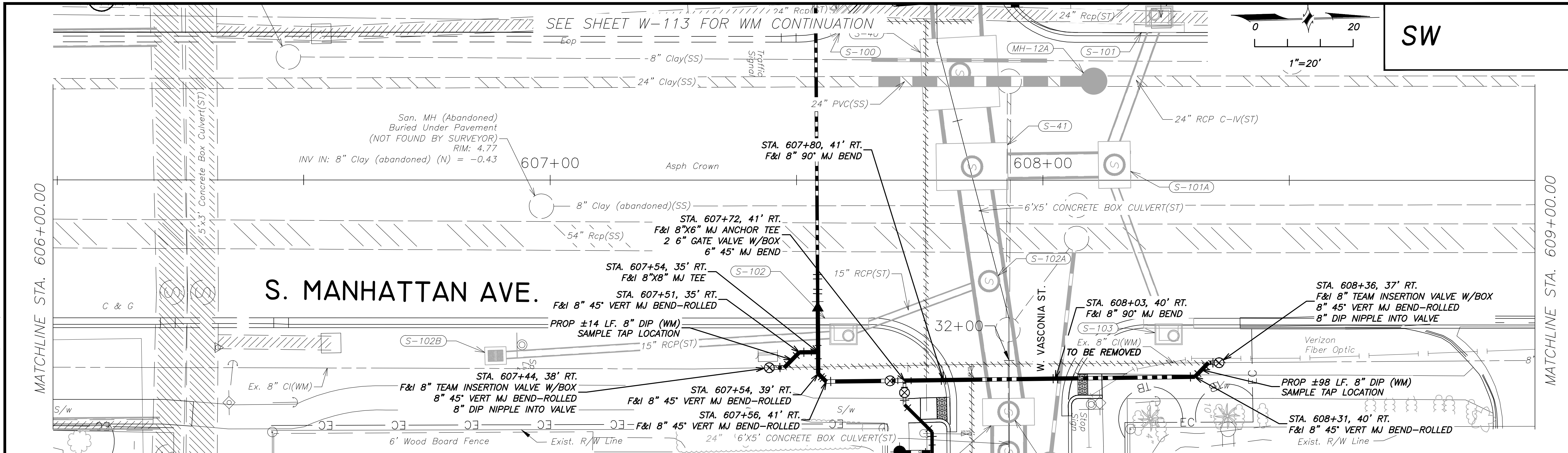
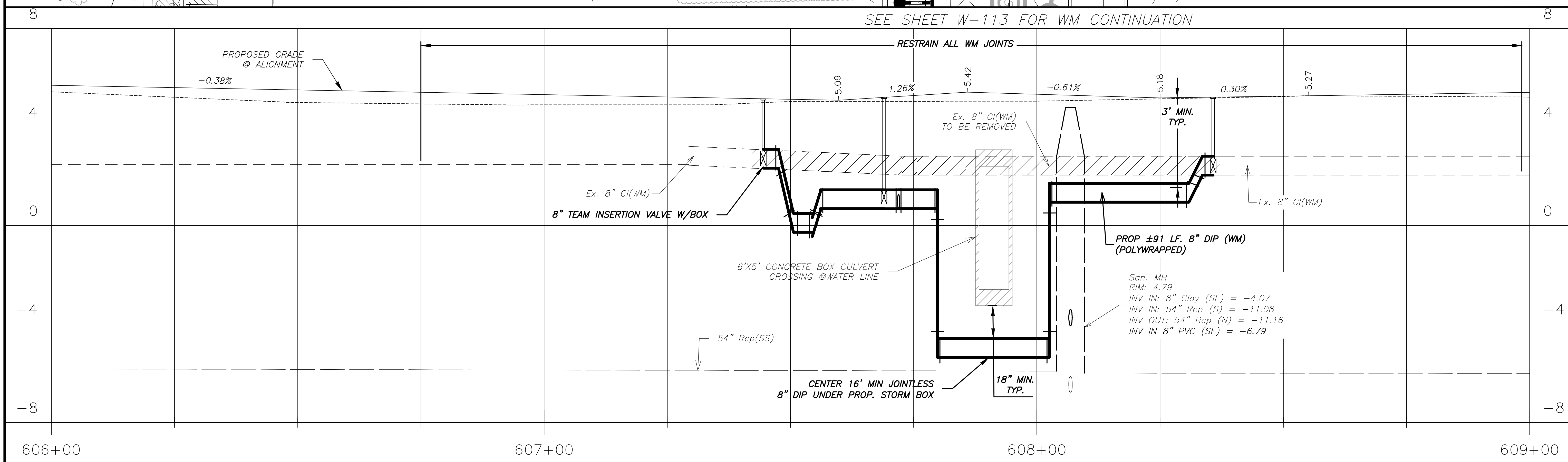
S. MANHATTAN AVE. - WATER MAIN
PLAN & PROFILE

SHEET W-120B of W-125


SEE SHEET W-113 FOR WM CONTINUATION
SW
1"=20'
S. MANHATTAN AVE.
MATCHLINE STA. 606+00.00
MATCHLINE STA. 609+00.00
607+00
608+00
32+00
W. VASCONIA ST.
San. MH (Abandoned)
Buried Under Pavement
(NOT FOUND BY SURVEYOR)
RIM: 4.77
INV IN: 8" Clay (abandoned) (N) = -0.43
STA. 607+80, 41' RT.
F&I 8" 90° MJ BEND
STA. 607+72, 41' RT.
F&I 8"X6" MJ ANCHOR TEE
2 6" GATE VALVE W/BOX
6" 45° MJ BEND
STA. 607+54, 35' RT.
F&I 8"X8" MJ TEE
STA. 607+51, 35' RT.
F&I 8" 45° VERT MJ BEND-ROLLED
PROP ±14 LF. 8" DIP (WM)
SAMPLE TAP LOCATION
STA. 607+44, 38' RT.
F&I 8" TEAM INSERTION VALVE W/BOX
8" 45° VERT MJ BEND-ROLLED
8" DIP NIPPLE INTO VALVE
STA. 607+54, 39' RT.
F&I 8" 45° VERT MJ BEND-ROLLED
STA. 607+56, 41' RT.
F&I 8" 45° VERT MJ BEND-ROLLED
STA. 608+03, 40' RT.
F&I 8" 90° MJ BEND
Ex. 8" CI(WM)
TO BE REMOVED
STA. 608+36, 37' RT.
F&I 8" TEAM INSERTION VALVE W/BOX
8" 45° VERT MJ BEND-ROLLED
8" DIP NIPPLE INTO VALVE
PROP ±98 LF. 8" DIP (WM)
SAMPLE TAP LOCATION
STA. 608+31, 40' RT.
F&I 8" 45° VERT MJ BEND-ROLLED
8" Clay(SS)
24" Clay(SS)
24" PVC(SS)
24" RCP C-IV(ST)
8" Clay (abandoned)(SS)
54" Rcp(SS)
15" RCP(ST)
6'X5' CONCRETE BOX CULVERT(ST)
5'x3' Concrete Box Culvert(ST)
Asph Crown
Ex. 8" CI(WM)
6' Wood Board Fence
Exist. R/W Line
Verizon Fiber Optic
S-100
S-101
S-101A
S-41
S-102
S-102A
S-102B
S-103
MH-12A
C & G


SEE SHEET W-113 FOR WM CONTINUATION
RESTRAIN ALL WM JOINTS
PROPOSED GRADE @ ALIGNMENT
-0.38%
1.26%
-0.61%
0.30%
5.09
5.42
5.18
5.27
3' MIN. TYP.
Ex. 8" CI(WM) TO BE REMOVED
Ex. 8" CI(WM)
8" TEAM INSERTION VALVE W/BOX
PROP ±91 LF. 8" DIP (WM) (POLYWRAPPED)
6'X5' CONCRETE BOX CULVERT CROSSING @WATER LINE
San. MH
RIM: 4.79
INV IN: 8" Clay (SE) = -4.07
INV IN: 54" Rcp (S) = -11.08
INV OUT: 54" Rcp (N) = -11.16
INV IN 8" PVC (SE) = -6.79
54" Rcp(SS)
CENTER 16' MIN JOINTLESS 8" DIP UNDER PROP. STORM BOX
18" MIN. TYP.
8
4
0
-4
-8
606+00
607+00
608+00
609+00

S. MANHATTAN AVE. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
S. MANHATTAN AVE. - WATER MAIN
PLAN & PROFILE

SHEET W-121 OF W-125

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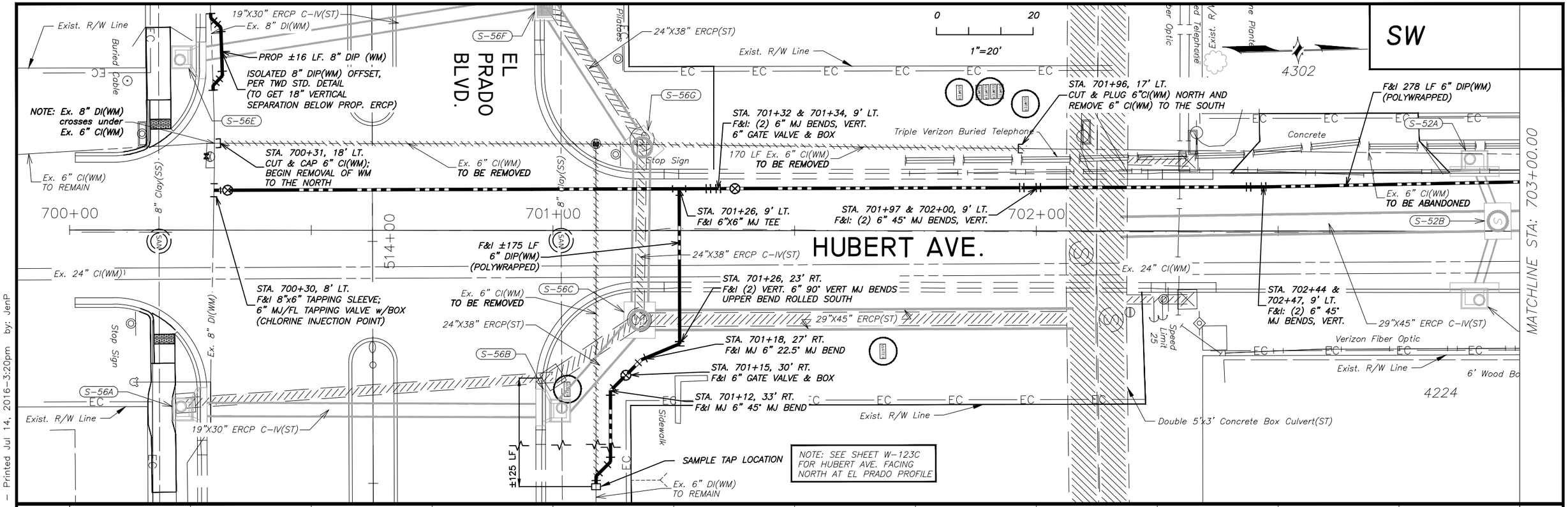

HUBERT AVE. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.
2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
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UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - WATER MAIN
PLAN & PROFILE

SHEET W-122 of W-125

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SW

SEE SHEET W-122
MATCHLINE STA: 703+00.00

6'X5' CONCRETE BOX CULVERT(ST)
STA. 703+74, 21' LT.
F&I 6" MJ 45° VERT BEND
STA. 703+68, 21' LT.
F&I 6" MJ TEE
(ROLLED DOWN)
Ex. 6" CI(WM)
TO BE ABANDONED
STA. 703+57, 16' LT.
CUT AND CAP 6" CI WM
STA. 703+65, 11' LT.
F&I: 6"x6" ANCHOR TEE
6" GATE VALVE W/BOX
(SAMPLE TAP LOCATION)
29"X45" ERCP(ST)
29"X45" ERCP(ST)
36" RCP(ST)
STA. 703+33, 11' LT.
BEGIN HORIZONTAL
DEFLECTION
PROP. ±70 LF 6" DIP(WM)
(POLYWRAPPED)
Verizon Fiber Optic
MH-10
8" PVC(SS)
STA. 703+95, 21' LT.
F&I 6" MJ 45° VERT BEND
STA. 704+02, 21' LT.
F&I 6" MJ 45° VERT BEND
STA. 704+07, 21' LT.
F&I 6" MJ 6" 45° MJ BEND
STA. 704+12, 16' LT.
F&I 6" MJ 6" 45° VERT BEND
STA. 704+14, 16' LT.
F&I SOLID SLEEVE
6" GATE VALVE W/BOX
(SAMPLE TAP LOCATION)
Verizon Fiber Optic
Ex. 6" CI(WM)
STA. 704+18, 16' LT.
F&I 6" LINE STOP
W/DEADMAN (FOR SHUTDOWN)
PROP. ±55 LF 6" DIP(WM)
(POLYWRAPPED)
24" CI(WM)
54" RCP(ST)
VASCONIA ST.
FOR WM CONTINUATION
SEE SH. W-115
Exist. R/W Line
4' Clf
Concrete
6' Wood Board
Buried Gas Unidentified Size and Type
Triple Verizon Buried Telephone
Verizon Fiber Optic
Power Pole
Tripple 8" Crape Myrtle
4301
4300
4302
4224
4223
704+00
705+00
37+00
S-47
S-48
S-48A
S-50
S-50A
S-52
S-54
S-54A
S-55
0 20
1"=20'

HUBERT AVENUE

PROP. WM @ 11' LT.
PROP. WM @ 21' LT.

0.69%
3' MIN. TYP.
11' LT: PROP. 70 LF
6" DIP(WM)
(POLYWRAPPED)
36" RCP(ST)
-0.30%
2.00%
-2.00%
0.39%
0.47%
4' MIN. OVER TEE
Ex. 6" CI(WM)
(TO REMAIN)
INST. 6" LINE STOP
PROP ±55 LF. 6" DIP (WM)
29"X45" ERCP(ST)
24" CI(WM)
18" MIN.
6" MIN.
8" PVC(SS)
24" CI(WM)
RESTRAIN ALL WM JOINTS
STA. 703+45, 11' LT.
STA. 704+18, 23' LT.

S-55
STA. 703+57.85, -3.09' LT.
FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 29"X45" ERCP (S) = -0.16
INV EL: 36" RCP (N) = -0.16

S-47
STA. 703+84.60, -3.47' LT.
FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 54" RCP (E) = -1.60
INV EL: 48"X76" HOLE W/BULKHEAD FOR FUTURE CONNECTION (N) = -1.15
INV EL: 36" RCP (S) = -0.50
INV EL: 6'X5' CONCRETE BOX CULVERT (W) = -1.60

6.01 5.90 6.14 5.90 6.00 6.61

4
0
-4
-8

703+00 704+00 705+00 706+00

HUBERT AVE. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
1. SEE SEPARATE PLANS FOR STORM AND WASTEWATER DESIGN.
2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HUBERT AVENUE - WATER MAIN
PLAN & PROFILE

SHEET W-123
of W-125

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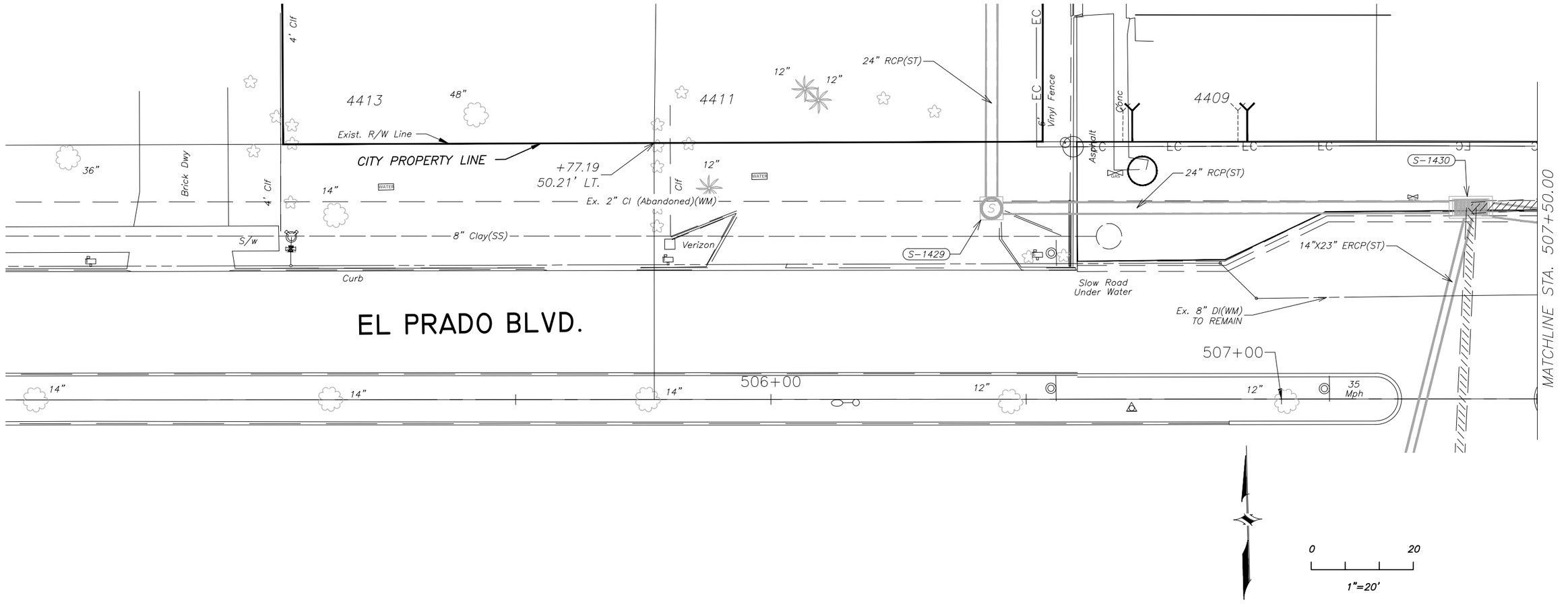
SW



EL PRADO BLVD.

NOTE:
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
EL PRADO BLVD - WATER MAIN
PLAN & PROFILE

SHEET
W-123A
OF
W-125

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SW

MATCHLINE STA. 507+50.00

MATCHLINE STA. 510+50.00

S-1432

PROP ±17 LF. 8" DIP (WM)

605+00

54" Rcp(SS)

Ex. 2" CI (Abandoned)(WM)

19"X30" ERCP(ST)

S-1431

Ex. 8" DI(WM)

24"X38" ERCP(ST)

24"X38" ERCP(ST)

S-1430A

18" Rcp(ST)
TO BE REMOVED

STA. 508+52, 22' LT.
VERTICALLY OFFSET 8" WM UNDER
PROP. RCP PER WATER STD. OFFSET
DETAIL

24" Clay(SS)

Asph C

Right Lane Must Turn Right

S-1438

8" Clay(SS)
Asph

Crown
18" Rcp(ST)
TO BE REMOVED
19"X30" ERCP(ST)

9"

No Trucks

508+00

509+00

510+00

No Trucks

15"

24" RCP C-IV(ST)

ISOLATED 8" DIP(WM) OFFSET,
PER TWD STD. DETAIL
(TO GET 18" VERTICAL
SEPARATION BELOW PROP. ERCP)

2" (SP) (Gas)

S. MANHATTAN AVE.

STA. 508+72.61 EL PRADO
STA. 604+71.07 S. MANHATTAN AVE.

EL PRADO BLVD.

15" RCP(ST)

S-1434

S-1434A

Curb

Curb Inlet
RIM: 5.48

6" Pvc(SS)

Ex. 8" CI(WM)

S-1439

Ex. 8" DI(WM)

Asph

S/w

0 20

1"=20'

2% 9.7'

8

8

6.27 −0.17% 6.19 0.29% 5.75 0.30% 5.81 2.47% 6.53 −2.00% 5.95 −0.30% 6.39 1.59%

PROPOSED GRADE
@ ALIGNMENT

24"X38" ERCP(ST)

19"X30" ERCP(ST)

S-1432

S-1438

Ex. 8" DI(WM)

S-1430A

PROP ±17 LF. 8" DIP (WM)

4

0

−4

−8

507+50 508+00 509+00 510+00 510+50

EL PRADO PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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2. PROVIDE 6" MIN. SEPARATION BETWEEN PROPOSED WATER MAIN & PROPOSED SANITARY LATERALS, MAINTAINING A MIN. OF 36" COVER OVER WATER MAIN.

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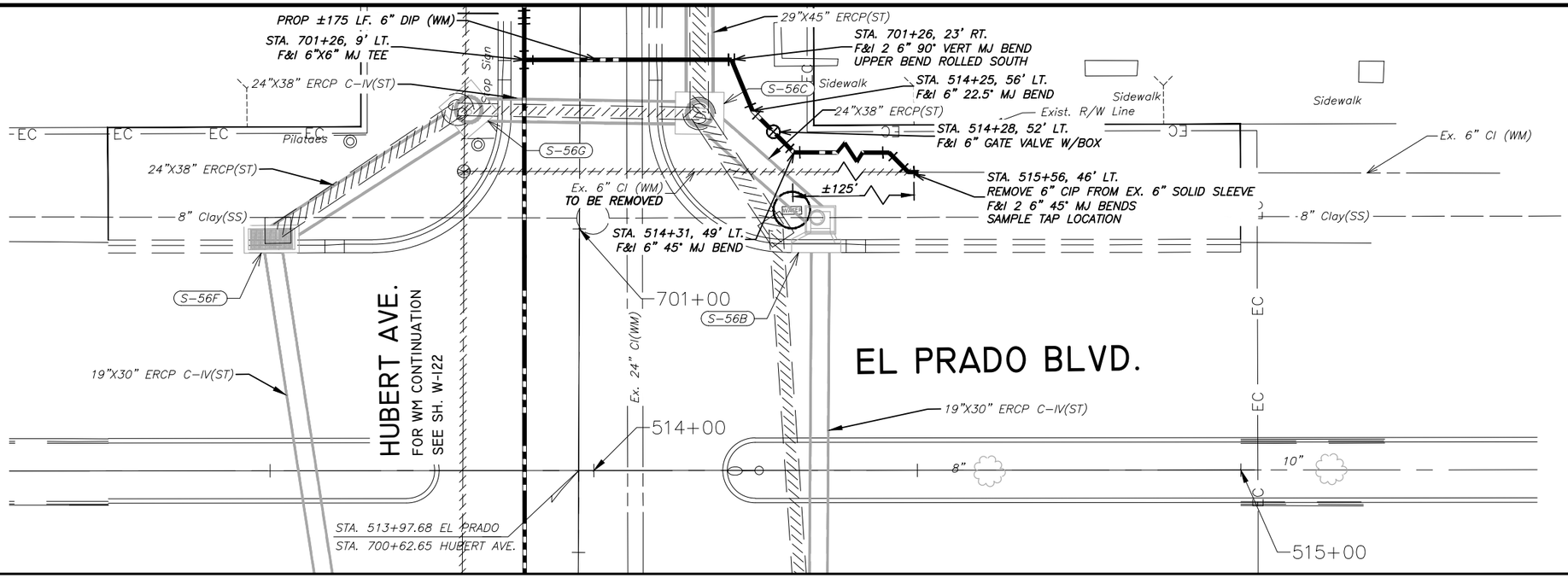
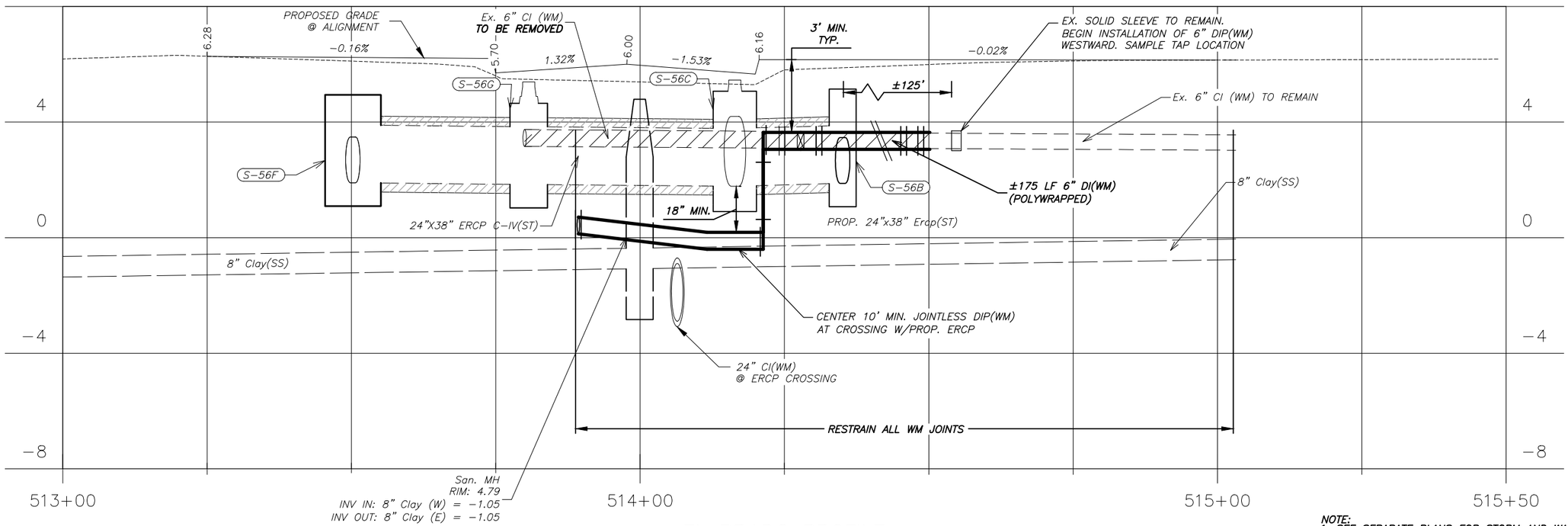
EL PRADO BLVD - WATER MAIN
PLAN & PROFILE

SHEET W-123B
cf W-125

SW





EL PRADO PROFILE

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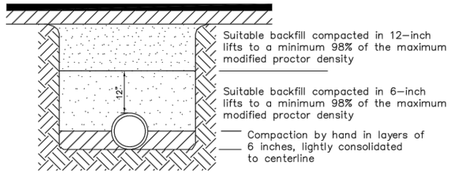
EL PRADO BLVD - WATER MAIN
PLAN & PROFILE

SHEET W-123C of W-125

K:\Standard Details 02\201

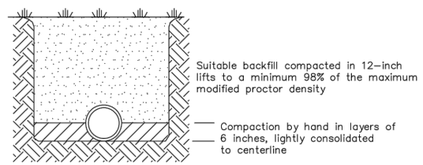


NOTES:

1. Type 2 trench is defined as a flat–bottom trench. Lightly consolidate backfill to centerline of pipe.
2. This standard shall be utilized in the absence of specific standards. The standard of the agency controlling the Right–of–Way shall govern unless otherwise directed by the Engineer.
3. Suitable backfill shall be defined as material free from cinders, ashes, refuse, clay, organic matter, boulders, rocks or stones, or other material that in the opinion of the Engineer is unsuitable.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	TYPICAL TRENCHING, BEDDING AND BACKFILL DETAIL FOR PAVED AREAS	2.01

K:\Standard Details 02\202



NOTES:

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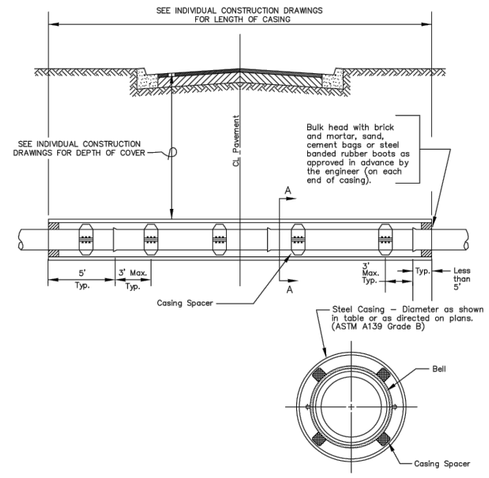
TAMPA WATER DEPARTMENT	APPROVED	REVISED	TYPICAL TRENCHING,BEDDING AND BACKFILL DETAIL FOR NON–PAVED AREAS	2.02

K:\Standard Details 02\203



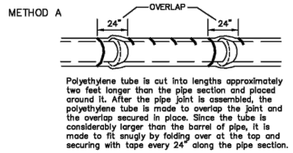
SECTION A – A

D.I.P. Carrier Pipe (P.O.) Nominal Diameter (Inches)	Casing O.D. (Inches)	Thickness
2	4	1/4"(.250)
4	12	1/4"(.250)
6	14	9/32"(.28125)
8	16	9/32"(.28125)
12	20	11/32"(.34375)
16	24	13/32"(.40625)
20	30	15/32"(.46875)
24	36	17/32"(.53125)
30	42	9/16"(.5625)
36	48	9/16"(.5625)

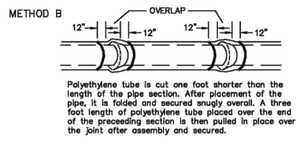
NOTES: 1. Pipelines with bends less than 20' from casing entrance shall be secured by both retainer glands and thrust blocks.
2. Casing pipe sizes listed are for push–on joint carrier pipe only.
3. Two spacers per joint minimum spaced as shown or as directed by the Engineer.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	JACKING & BORING FOR PAVEMENT CROSSING	2.03

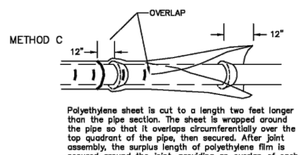
SW



Polyethylene tube is cut into lengths approximately two feet longer than the pipe section and placed around it. After the pipe joint is assembled, the polyethylene tube is made to overlap the joint and the overlap secured in place. Since the tube is considerably larger than the barrel of pipe, it is made to fit snugly by folding over at the top and securing with tape every 24" along the pipe section.



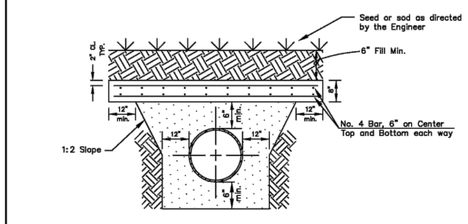
Polyethylene tube is cut one foot shorter than the length of the pipe section. After placement of the pipe, it is folded and secured snugly overall. A three foot length of polyethylene tube placed over the end of the preceeding section is then pulled in place over the joint after assembly and secured.



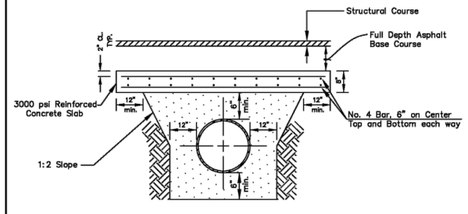
Polyethylene sheet is cut to a length two feet longer than the pipe section. The sheet is wrapped around the pipe so that it overlaps circumferentially over the top quadrant of the pipe, then secured. After joint assembly, the surplus length of polyethylene film is secured around the joint, providing an overlap of each joint. Tape at each joint and at 3' intervals in between.

NOTES: 1. Use blue polyethylene film and tape only.
2. Polyethylene film shall be a minimum of 8 mil. thickness.
3. Spiral Wrap not required with polywrap.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	POLYETHYLENE ENCASEMENT INSTALLATION DETAIL	2.05
	Sept. 2011	JRD 4/09 JRD 9/2011		



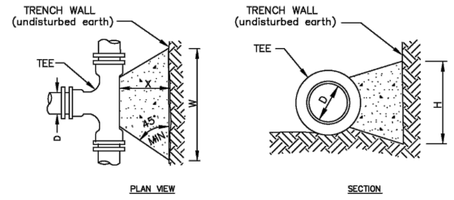
GRASSED SECTION



ROADWAY SECTION

NOTES:
1. Structural course and base course requirement shall be established by the agency having jurisdiction.
2. Shock pads for mains too shallow for the above configuration shall be designed on a case–by–case basis.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	REINFORCED CONCRETE SHOCK PAD (FOR COVER LESS THAN 2.5')	2.06
	Sept. 2011			



DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL

	SIZE (D)	4"	6"	8"	12"	16"	20"	24"
TEES	THRUST (lbs.)	3439	7104	12,223	26,002	45,180	69,624	99,330
	BEARING AREA (ft^2)	2.58	5.33	9.17	19.50	33.89	52.22	74.50
	CONCRETE ($yds.^3$)	0.042	0.126	0.285	0.891	1.811	3.005	4.594
	H (ft.)	1.3	1.9	2.5	3.6	4.8	5.9	7.0
	W (ft.)	2.0	2.8	3.7	5.4	7.1	8.9	10.6
	X (ft.)	1.0 Min.	1.4 Min.	1.9 Min.	2.7 Min.	3.0 Min.	3.0 Min.	3.0 Min.

NOTES:
1. Size (D), shall be the branch size of tees.
2. Concrete shall be kept at sufficient distance from joint for removal of all joint accessories including bolts.
3. All bearing surfaces to be carried to undisturbed soil.
4. This table shows the minimum size thrust blocks for soil bearing pressure of 2000 psf and an internal pressure of 190 psi.
*5. Cover to T.O.P. is 3 feet for 12" and smaller mains; 4 feet for 16" and larger mains. poor and wet soil (silty soils, clay, muck and peat) will require larger thrust blocks.
6. Tees shall be completely polywrapped prior to pouring thrust block.

*WARNING

TAMPA WATER DEPARTMENT	APPROVED	REVISED	THRUST BLOCKS FOR TEES	2.09
	Sept. 2011			

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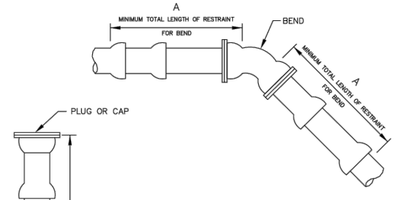

Fitting	RESTRAIN "A" (LF) 4"	6"	8"	12"	16"	20"	24"	30"	36"
11–1/4°	3	4	6	8	9	10	12	15	17
22–1/2°	6	9	12	16	17	21	25	30	35
45°/Offset	13	18	24	34	36	44	52	62	73
90°	31	44	58	82	87	106	125	151	176
Plug/Cap	55	78	102	143	143	174	204	245	285

A=Minimum footage of pipe to be restrained.

NOTES: 1. This table is based on:
a) maximum test pressure of 190 psi
b) laying condition type 2 (see Details 2.01 and 2.02)
c) poor soil conditions
d) using D.I.P.
e) 3 feet of cover for 12" and smaller mains; 4 feet of cover for 16" and larger mains
f) Horizontal bends only – Engineer to submit calculations for vertical restraints
2. For polywrapped D.I.P., multiply the footage by 1.25
3. For PVC pipe, multiply footage by 1.2.
4. Restrained pipe shall be manufactured restrained pipe, push–on restraints or mechanical joint pipe restrained by Megalug or equivalent.
5. Any additional fittings within the restrained section shall be restrained accordingly.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	RESTRAINED JOINT STANDARD FOR BENDS, PLUGS, AND CAPS	2.11

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)

WATER DETAILS (1 OF 4)

SHEET W-124 OF W-125

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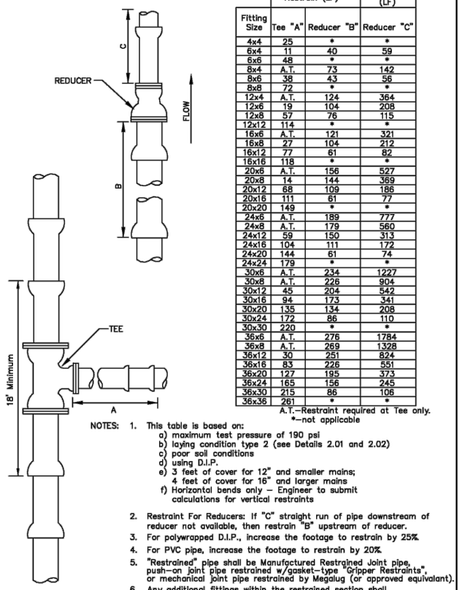
SW



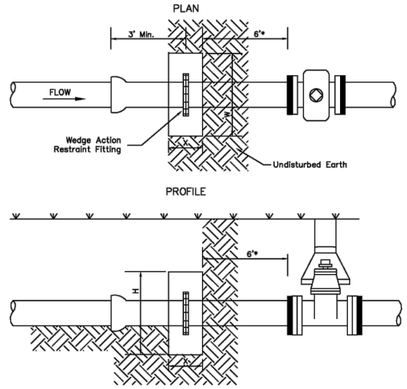
Fitting Size	Restrain (LF) Tee "A"	Reducer "B"	Unrestrained Straight Run (LF) Reducer "C"
4x4	25	*	*
6x4	11	40	59
6x6	48	*	*
8x4	A.T.	73	142
8x6	38	43	56
8x8	72	*	*
12x4	A.T.	124	364
12x6	19	104	208
12x8	57	76	115
12x12	114	*	*
16x6	A.T.	121	321
16x8	27	104	212
16x12	77	61	82
16x16	118	*	*
20x6	A.T.	156	527
20x8	14	144	369
20x12	68	109	186
20x16	111	61	77
20x20	149	*	*
24x6	A.T.	189	777
24x8	A.T.	179	560
24x12	59	150	313
24x16	104	111	172
24x20	144	61	74
24x24	179	*	*
30x6	A.T.	234	1227
30x8	A.T.	226	904
30x12	45	204	542
30x16	94	173	341
30x20	135	134	208
30x24	172	86	110
30x30	220	*	*
36x6	A.T.	276	1784
36x8	A.T.	269	1328
36x12	30	251	824
36x16	83	226	551
36x20	127	195	373
36x24	165	156	245
36x30	215	86	106
36x36	261	*	*

A.T.–Restraint required at Tee only.
*–not applicable

NOTES:
1. This table is based on:
   a) maximum test pressure of 190 psi
   b) laying condition type 2 (see Details 2.01 and 2.02)
   c) poor soil conditions
   d) using D.I.P.
   e) 3 feet of cover for 12" and smaller mains; 4 feet of cover for 16" and larger mains
   f) Horizontal bends only – Engineer to submit calculations for vertical restraints
2. Restraint For Reducers: If "C" straight run of pipe downstream of reducer not available, then restrain "B" upstream of reducer.
3. For polywrapped D.I.P., increase the footage to restrain by 25%.
4. For PVC pipe, increase the footage to restrain by 20%.
5. "Restrained" pipe shall be Manufactured Restrained joint pipe, push-on joint pipe restrained w/gasket-type "Gripper Restraints", or mechanical joint pipe restrained by Megalug (or approved equivalent).
6. Any additional fittings within the restrained section shall be restrained accordingly.

TAMPA WATER DEPARTMENT	APPROVED Sept., 2011	REVISED	RESTRAINED JOINT STANDARD FOR TEES AND REDUCERS	2.12

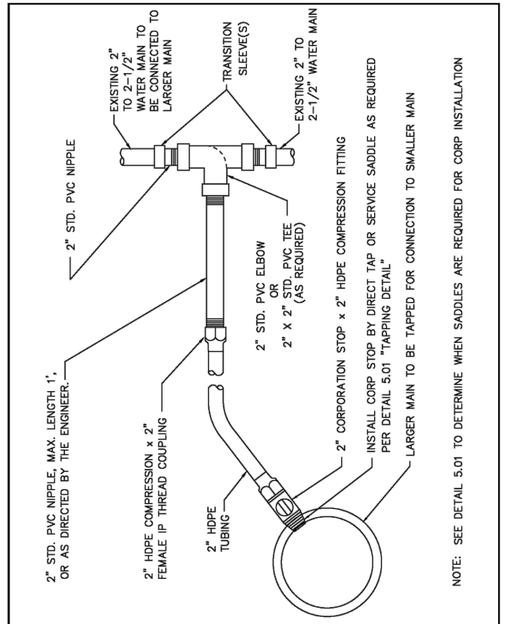
STD/OTHER/DEADMAN



SIZE (D) / THRUST (lbs.)	4" 3439	6" 7104	8" 12,223	12" 26,002	16" 45,180	20" 69,624	24" 99,330
BEARING AREA (ft^2)	2.58	5.33	9.17	19.50	33.89	52.22	74.50
CONCRETE ($yds.^3$)	0.15	0.31	0.71	1.51	3.29	5.07	7.23
H (ft.)	1.6	2.4	3.1	4.5	6.0	7.4	8.8
W (ft.)	1.6	2.4	3.1	4.5	6.0	7.4	8.8
X (ft.)	1.5 Min.	1.5 Min.	2.0 Min.	2.0 Min.	2.5 Min.	2.5 Min.	2.5 Min.

NOTES:
1. Concrete shall be kept at sufficient distance from joint for removal of all joint accessories including bolts.
2. All bearing surfaces to be carried to undisturbed soil.
3. This table shows the minimum size thrust blocks for soil bearing pressure of 2000 psf and an internal pressure of 190 psi. Cover to T.O.P. is 3 feet for 12" and smaller mains; 4 feet for 16" and larger mains.
4. Poor and wet soil (silty soils, clay, muck and peat) will require larger thrust blocks, as directed by the Engineer.
5. Fittings shall be completely polywrapped prior to pouring thrust blocks.
*6. Closest distance to valve for deadman to remain effective.

TAMPA WATER DEPARTMENT	APPROVED Sept. 2011	REVISED	DEADMAN THRUST BLOCK	2.12A



NOTE: SEE DETAIL 5.01 TO DETERMINE WHEN SADDLES ARE REQUIRED FOR CORP INSTALLATION

TAMPA WATER DEPARTMENT	APPROVED Sept. 2011	REVISED	"TAPPED" CONNECTION FROM DI,CI, OR PVC PIPE TO <4" WATER MAINS	2.13

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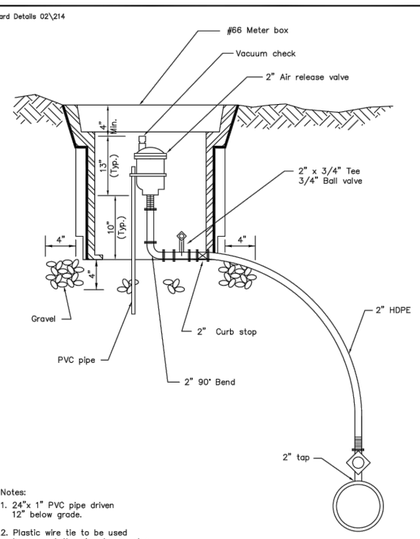

Notes:
1. 24"x 1" PVC pipe driven 12" below grade.
2. Plastic wire tie to be used to connect the air release valve to PVC pipe in order to keep the valve in the vertical position.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	SUB–SURFACE AIR RELEASE VALVE	2.14

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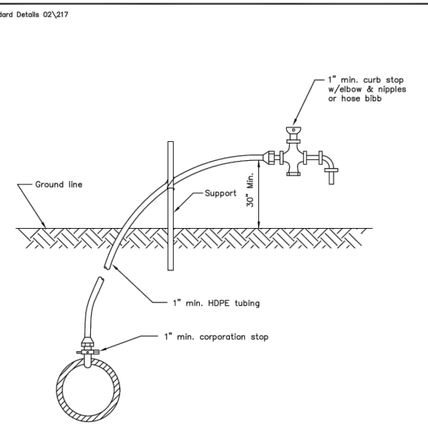

Notes:
1. Water outlet shall be held up off the ground so as not to interfere with the sampling process.
2. Corporation stop to be removed and plugged after operation.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	TEMPORARY SAMPLE TAP INSTALLATION	2.17

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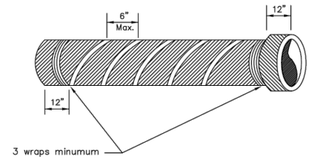
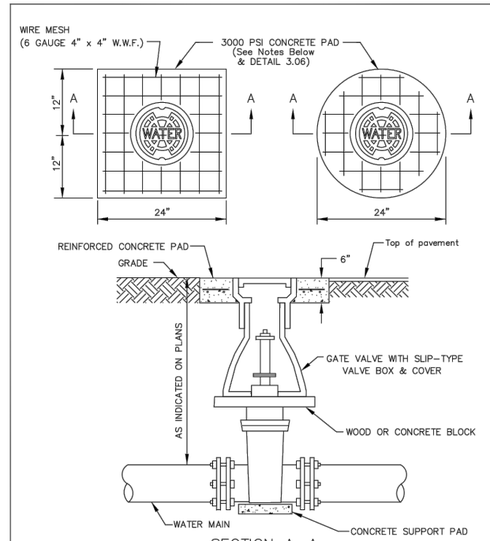


SPIRAL WRAP

NOTES:
1. To ensure proper adhesion, each pipe run shall be wrapped with a continuous run of tape.
2. All tape shall be min. 2" blue vinyl tape for potable water.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	PIPE IDENTIFICATION DETAIL D.I.P. ONLY	2.19



SECTION A–A

Notes :
1. Circular or square concrete pad required for all valve box installations. N.T.S.
2. Cast iron valve boxes shall be firmly supported and centered and plumb over the operating nut of the valve. Valve box cover shall be flush with the surface of the finished pavement, or grade or at such other level as may be directed by the Department.
3. "Blue" Water Valve locate markers (curb markers) required for all valve installations.
4. Embed bronze valve info disk into concrete valve box collar, per Detail 3.06.

TAMPA WATER DEPARTMENT	APPROVED Sept. 2015	REVISED	VALVE INSTALLATION W/VALVE BOX & PAD FOR DI OR CI PIPE	3.01

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)

WATER DETAILS (2 OF 4)

SHEET W-124A
OF W-125

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SW

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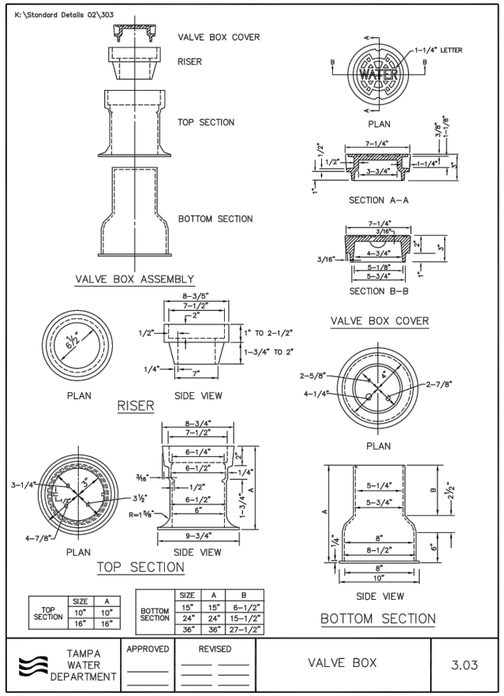

TOP SECTION	SIZE	A
	10"	10"
	16"	16"

BOTTOM SECTION	SIZE	A	B
	15"	15"	6-1/2"
	24"	24"	15-1/2"
	36"	36"	27-1/2"

TAMPA WATER DEPARTMENT	APPROVED	REVISED	VALVE BOX	3.03

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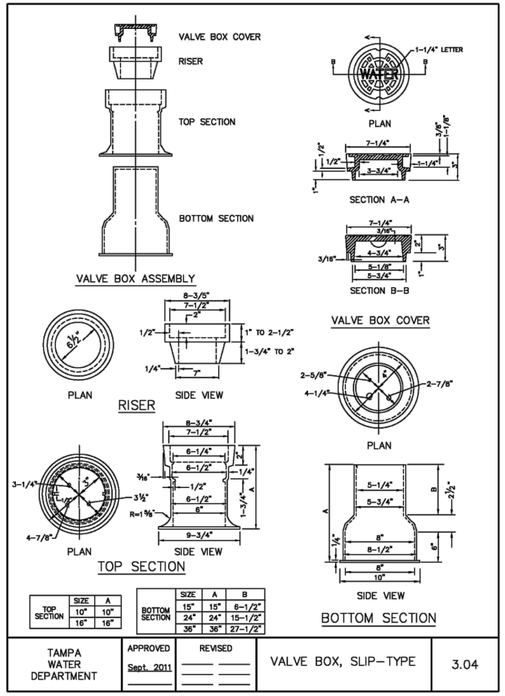

TOP SECTION	SIZE	A
	10"	10"
	16"	16"

BOTTOM SECTION	SIZE	A	B
	15"	15"	8-1/2"
	24"	24"	15-1/2"
	36"	36"	27-1/2"

TAMPA WATER DEPARTMENT	APPROVED Sept. 2011	REVISED	VALVE BOX, SLIP-TYPE	3.04

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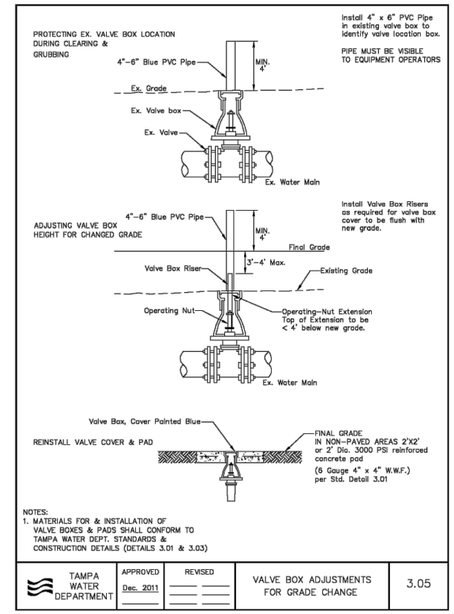

NOTES:
1. MATERIALS FOR & INSTALLATION OF VALVE BOXES & PADS SHALL CONFORM TO TAMPA WATER DEPT. STANDARDS & CONSTRUCTION DETAILS (DETAILS 3.01 & 3.03)

TAMPA WATER DEPARTMENT	APPROVED Dec. 2011	REVISED	VALVE BOX ADJUSTMENTS FOR GRADE CHANGE	3.05

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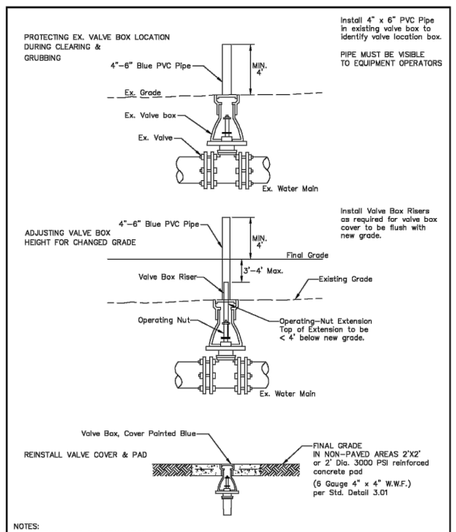

NOTES:
1. MATERIALS FOR & INSTALLATION OF VALVE BOXES & PADS SHALL CONFORM TO TAMPA WATER DEPT. STANDARDS & CONSTRUCTION DETAILS (DETAILS 3.01 & 3.03)

TAMPA WATER DEPARTMENT	APPROVED Dec. 2011	REVISED	VALVE BOX ADJUSTMENTS FOR GRADE CHANGE	3.05

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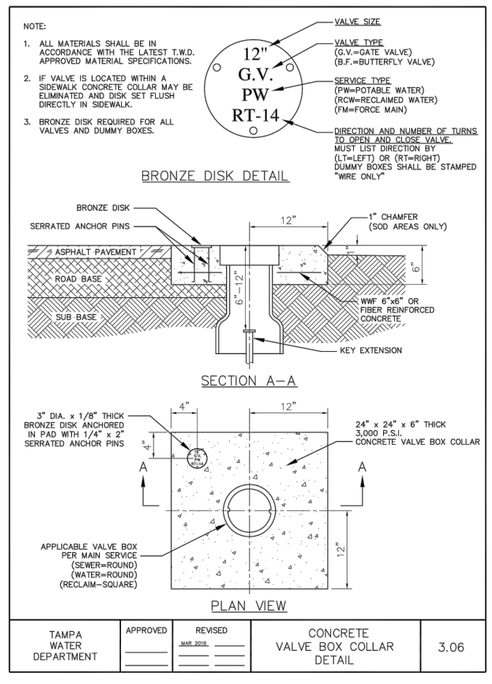

TAMPA WATER DEPARTMENT	APPROVED	REVISED MAR 2016	CONCRETE VALVE BOX COLLAR DETAIL	3.06

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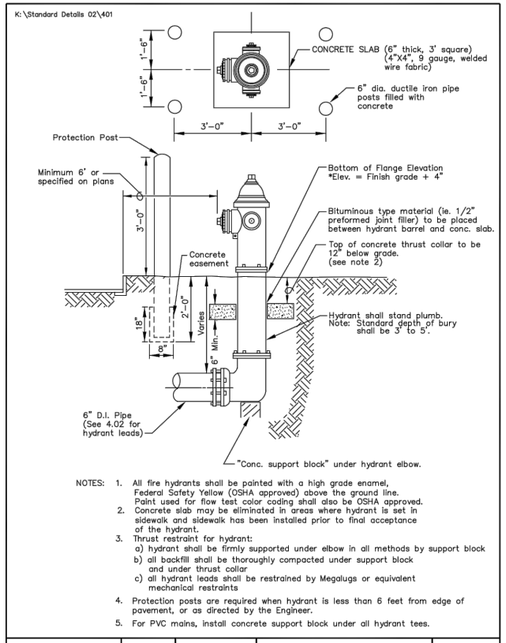

NOTES:
1. All fire hydrants shall be painted with a high grade enamel, Federal Safety Yellow (OSHA approved) above the ground line. Paint used for flow test color coding shall also be OSHA approved.
2. Concrete slab may be eliminated in areas where hydrant is set in sidewalk and sidewalk has been installed prior to final acceptance of the hydrant.
3. Thrust restraint for hydrant:
   a) hydrant shall be firmly supported under elbow in all methods by support block
   b) all backfill shall be thoroughly compacted under support block and under thrust collar
   c) all hydrant leads shall be restrained by Megalugs or equivalent mechanical restraints
4. Protection posts are required when hydrant is less than 6 feet from edge of pavement, or as directed by the Engineer.
5. For PVC mains, install concrete support block under all hydrant tees.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	TYPICAL FIRE HYDRANT INSTALLATION	4.01

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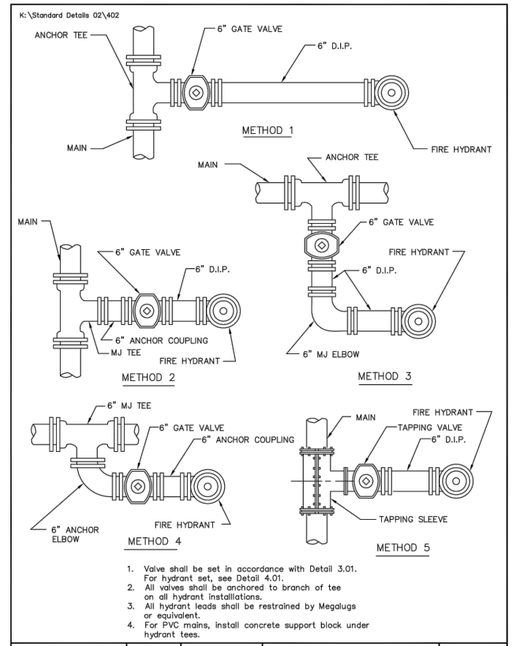

1. Valve shall be set in accordance with Detail 3.01. For hydrant set, see Detail 4.01.
2. All valves shall be anchored to branch of tee on all hydrant installations.
3. All hydrant leads shall be restrained by Megalugs or equivalent.
4. For PVC mains, install concrete support block under hydrant tees.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	FIRE HYDRANT LEADS METHOD OF INSTALLATION	4.02

No.	DATE	REVISIONS
3		
2		
1		

No.	DATE	REVISIONS
6		
5		
4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)

WATER DETAILS (3 OF 4)

SHEET W-124B OF W-125

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SW

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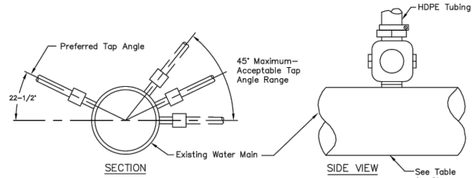
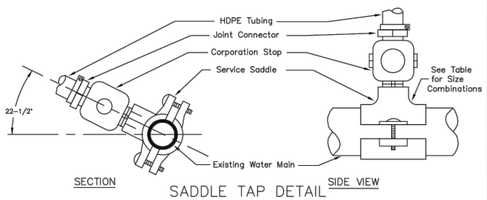


DIRECT TAP DETAIL



SADDLE TAP DETAIL

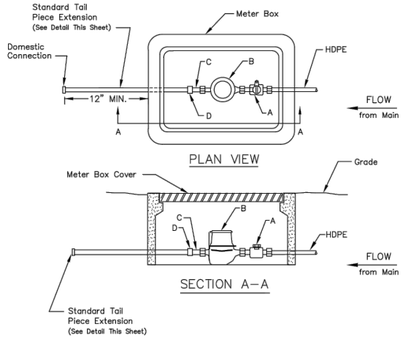
PIPE	SIZE	CORPORATION TAP SIZE	
		1"	2"
DI/CI	12"	DT	DT
	8"	DT	SS
	6"	DT	SS
	4"	SS	SS
PVC	2",2–1/2"	SS	NA
	8" C–900	SS	SS
	6" C–900	SS	SS
	2"–SDR21	SS	NA
OTHER*	12"	SS	SS
	10"	SS	SS
	8"	SS	SS
	6"	SS	SS
	4"	SS	NA
	3"	SS	NA
	2",2–1/2"	SS	NA

LEGEND

DT– Direct Tap Can be Allowed
SS– Service Saddle is Required
NA– Not Allowed
*Asbestos Cement, Steel, Galvanized Iron Pipe, Non Std PVC, etc.

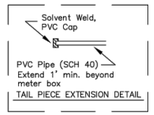
TAMPA WATER DEPARTMENT	APPROVED	REVISED	TAPPING DETAIL FOR 3/4", 1", 1–1/2" & 2" CORPORATION STOP	5.01

K:\Standard Details 02\502



METER INSTALLATION
–PARTS LIST–

ITEM	DESCRIPTION
A	HDPE CJ X METER, SWIVEL NUT
B	METER
C	BRASS METER COUPLING
D	PVC FIP X WELD COUPLING

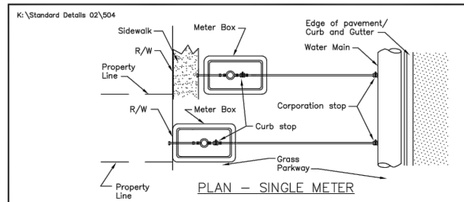


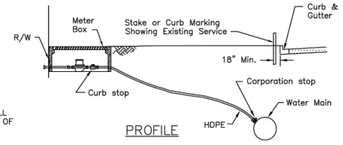
TAIL PIECE EXTENSION DETAIL

* All PVC pipe and fittings shall be SCH 80 except for standard tail piece section which will be SCH 40.
NOTE: Parts list is for standard installation; actual parts required may vary as directed by the Engineer.

TAMPA WATER DEPARTMENT	APPROVED	REVISED	SINGLE METER SET DETAIL 3/4", 1", 1–1/2", 2"	5.02

K:\Standard Details 02\504





PROFILE

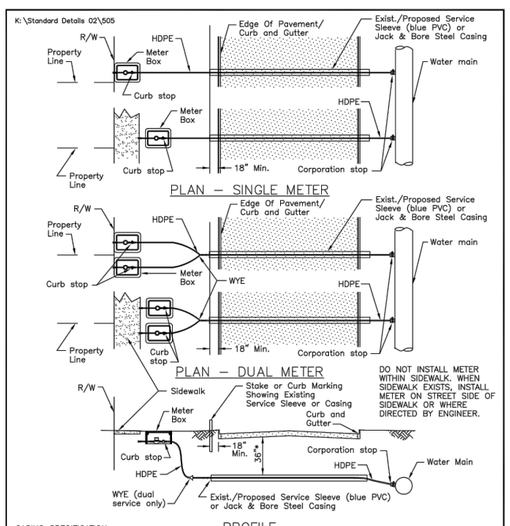
DO NOT INSTALL METER WITHIN SIDEWALK. WHEN SIDEWALK EXISTS, INSTALL METER ON STREET SIDE OF SIDEWALK OR WHERE DIRECTED BY ENGINEER.

SINGLE METER SIZE (inches)	SERVICE LINE SIZE (inches) (0–15')
3/4	1
1	1
1–1/2	2
2	2

DUAL METER SIZE (inches)	SERVICE LINE SIZE (inches) (0–15')
3/4	2
1	N/A
1–1/2	N/A
2	N/A

TAMPA WATER DEPARTMENT	APPROVED	REVISED	SINGLE & DUAL METERED SERVICE – SHORT SIDE 3/4", 1", 1–1/2" AND 2"	5.04

K:\Standard Details 02\505



CASING SPECIFICATION:
1. If pushed–SCH 40 steel pipe (min.)
2. If layed in open trench–SCH 40 steel pipe or SCH 80 PVC solvent weld pipe.

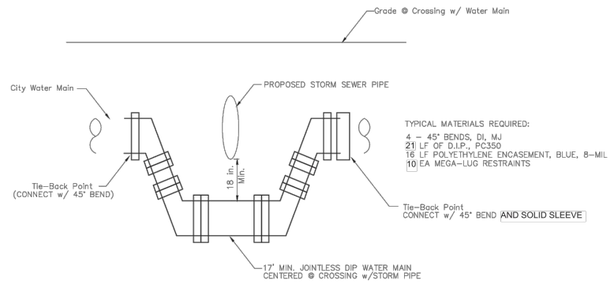
*36" min. or greater if required by appropriate agency.
**These line size requirements are also for 2" S.D.C.V.s

SINGLE METER SIZE (inches)	SERVICE LINE SIZE (inches) (>15'–80')	SERVICE LINE SIZE (inches) (>80'–150')	CASING SIZE (inches)
3/4	1	2	4
1	2	2	4
1–1/2	2	2	4
2**	4" D.I.P.	4" D.I.P.	12

DUAL METER SIZE (inches)	SERVICE LINE SIZE (inches) (>15'–80')	SERVICE LINE SIZE (inches) (>80'–150')	CASING SIZE (inches)
3/4	2	2	4
1	2	4" D.I.P.	4 — 12
1–1/2	N/A	N/A	N/A
2	N/A	N/A	N/A

TAMPA WATER DEPARTMENT	APPROVED	REVISED	SINGLE & DUAL METERED SERVICE – LONG SIDE 3/4", 1", 1–1/2" AND 2"	5.05

Offset of City X" Water Main @ Sta xx+xx, for Prop. CITY Storm Pipe



"OFFSET" CONSTRUCTION DETAIL (nts) (WATER)

CONSTRUCTION NOTES:
1. RESTRAIN ALL JOINTS OF PIPE AND FITTINGS INSTALLED
2. RESTRAIN ALL JOINTS OF EXISTING WATERMAIN PIPE WITHIN 30 ft. OF THE TIE–BACK POINTS
3. POLYWRAP ALL NEW D.I. PIPE & FITTINGS INSTALLED

WATER MAIN DIVERSION/OFFSET NOTES:

1. PRIOR TO STARTING ANY WORK CONTRACTOR SHALL SCHEDULE A PRE–CONSTRUCTION MEETING THROUGH CITY OF TAMPA WATER CONTRACT ADMIN/INSPECTION TEAM AT (813) 635–3400 TO DISCUSS PROCEDURES FOR SHUTTING DOWN THE WATER LINE. ITEMS TO DISCUSS AT MEETING INCLUDE: 1)WHAT VALVES DOES THE CONTRACTOR PROPOSE TO CLOSE? 2) ARE THESE VALVES OPERABLE? 3) WHAT IS PLAN "B" IF THESE VALVE DO NOT WORK (SCHEDULE A PRE–VALVE EXERCISE) ADDITIONAL LINE STOPS MAY BE NECESSARY.
2. TEST AND DISINFECT NEW OFFSET WATER MAIN SEGMENTS AND PULL AT LEAST ONE BACTERIOLOGICAL TEST.
3. TURN ON THE WATER AND COMPLETE A VISUAL INSPECTION ON THE TWO TOP 45° MJ FITTINGS TO INSURE NO LEAKS.
4. FLUSH GENTLY FROM THE NEAREST FIRE HYDRANT TO INSURE NO SEDIMENTS OR DIRTY WATER.
5. COMPLETE BACK FILL WITH COMPACTION AND PROCURE DENSITY TESTS.
6. AS–BUILT THE NEW ELEVATIONS AND VERIFY THE SEPARATION BETWEEN THE WATER MAIN AND THE NEW STORM IN ACCORDANCE WITH CONTRACT DOCUMENTS WATER ASBUILT SPECIFICATIONS.
7. ALL PIPING TO BE DUCTILE IRON. ALL PIPING AND FITTINGS TO BE POLY WRAPPED.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)

WATER DETAILS (4 OF 4)

SHEET W-125 OF W-125

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SW

WASTEWATER STRUCTURE TABLE

STRUCTURE NUMBER	DESCRIPTION	RIM ELEV.	STATION & OFFSET	COMMENTS
C-1	Connect to Existing 8" Clay	0.40	STA: 608+00.78, OFFSET: -24' LT.	
C-2	Connect to Existing 8" Clay	0.54	STA: 607+65.22, OFFSET: -24' LT.	
C-12A	Connect to Existing 24" Clay	-2.25	STA: 607+65.46, OFFSET: -20' LT.	
MH-9	Manhole	5.76	STA: 37+36.81, OFFSET: -8' LT.	
MH-9A	Temporary Manhole	5.94	STA: 37+44.91, OFFSET: 0' RT.	
MH-10	Drop Manhole	5.61	STA: 36+45.01, OFFSET: -8' LT.	
MH-11	Manhole	4.86	STA: 34+35.62, OFFSET: -8' LT.	
MH-12	Manhole	4.76	STA: 32+21.25, OFFSET: -8' LT.	
MH-12A	Manhole	4.84	STA: 608+10.27, OFFSET: -20' LT.	
MH-22	Manhole	5.25	STA: 29+66.44, OFFSET: -6' LT.	
MH-23	Manhole	5.06	STA: 26+58.59, OFFSET: -6' LT.	
MH-24	Manhole	4.67	STA: 23+31.55, OFFSET: -7' LT.	
MH-25	Manhole	5.45	STA: 20+76.48, OFFSET: -6' LT.	
MH-26	Manhole	4.87	STA: 17+67.51, OFFSET: -6' LT.	
MH-27	Manhole	4.65	STA: 15+17.86, OFFSET: -10' LT.	
MH-27A	Manhole	5.64	STA: 202+76.12, OFFSET: 8' RT.	
MH-27B	Manhole	5.72	STA: 301+91.87, OFFSET: -2' LT.	
MH-28	Manhole	4.58	STA: 11+18.62, OFFSET: -10' LT.	
MH-28A	Manhole	4.41	STA: 12+93.98, OFFSET: -9' LT.	
MH-29	Manhole	4.27	STA: 10+76.19, OFFSET: -1' LT.	
MH-30	Manhole	4.90	STA: 906+26.51, OFFSET: -8' LT.	
MH-31	Manhole	4.78	STA: 905+53.61, OFFSET: -6' LT.	
MH-32	Manhole	4.65	STA: 905+12.66, OFFSET: -6' LT.	
MH-33	Manhole	4.75	STA: 901+97.48, OFFSET: -4' LT.	
MH-34	Manhole	4.65	STA: 901+48.04, OFFSET: -1' LT.	
MH-35	Manhole	4.99	STA: 205+36.68, OFFSET: 8' RT.	
MHC-12	Connect to Existing Manhole	-6.06	STA: 31+81.45, OFFSET: -16' LT.	

SANITARY SEWER PIPE TABLE

STRUC. START	STRUC. END	PIPE SIZE & MATERIAL	LENGTH	SLOPE %	START INV.	END INV.	FALL IN FEET
C-2	C-1	8" PVC	36	0.38%	-0.19	-0.32	0.13
MH-9	MH-10	8" PVC	92	0.40%	-1.99	-2.36	0.37
MH-9A	MH-9	8" PVC	11	0.40%	-1.85	-1.89	0.05
MH-10	MH-11	8" PVC	209	0.40%	-4.72	-5.55	0.84
MH-11	MH-12	8" PVC	214	0.40%	-5.65	-6.51	0.86
MH-12	MHC-12	8" PVC	44	0.40%	-6.61	-6.79	0.18
MH-12A	C-12A	24" PVC	45	-0.18%	-4.49	-4.41	0.08
MH-22	MH-23	8" PVC	308	0.34%	1.45	0.40	1.05
MH-23	MH-24	8" PVC	327	0.34%	0.30	-0.81	1.11
MH-24	MH-25	8" PVC	255	0.34%	-0.91	-1.78	0.87
MH-25	MH-26	8" PVC	309	0.34%	-1.88	-2.93	1.05
MH-26	MH-27	8" PVC	250	0.35%	-3.03	-3.90	0.87
MH-27	MH-27A	8" PVC	266	0.28%	-3.94	-3.19	0.75
MH-27	MH-28A	8" PVC	224	0.25%	-4.02	-4.58	0.56
MH-27B	MH-27A	8" PVC	184	0.27%	-2.62	-3.11	0.49
MH-28	MH-29	8" PVC	43	0.25%	-5.09	-5.20	0.11
MH-28A	MH-28	8" PVC	175	0.25%	-4.60	-5.04	0.44
MH-30	MH-31	8" PVC	75	0.40%	0.46	0.16	0.30
MH-31	MH-32	8" PVC	44	0.33%	0.06	-0.08	0.15
MH-32	MH-33	8" PVC	316	0.33%	-0.18	-1.22	1.04
MH-33	MH-34	8" PVC	49	0.33%	-1.32	-1.49	0.16
MH-35	MH-27A	8" PVC	261	0.40%	-2.13	-3.17	1.04

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)

SANITARY STRUCTURE & PIPE TABLE

SHEET WW-100 of WW-129

SW

Asphalt Parking Lot
Clean Out
3342
Asphalt Parking Lot
Exist. R/W Line
6' Wood
TB
X
EC
San. MH
TO BE REMOVED
RIM: 4.94
INV IN: 8" Clay (E) = −1.06
INV OUT: 8" Clay (W) = −1.06
Planter
4717
Planter
4715
Brick Paver Drive
2" CI(WM)
TO BE ABANDONED
2" (Plastic) (Gas)
6" DIP(WM)
Asphalt Drive
Concrete Drive
Verizon
8" Clay(SS)
TO BE REMOVED
STA. 900+50.00
8" Clay(SS)
901+00
MH−34
8" PVC(SS)
MH−33
8" PVC(SS)
CHEROKEE RD.
S−1
CONFLICT STRUCTURE
902+00
8" Clay(SS)
TO BE REMOVED
9'X6' CONCRETE BOX CULVERT(ST)
903+00
MATCHLINE STA. 903+25.00
Concrete
Concrete
Verizon Fiber Optic
Concrete
Verizon
Speed Limit
Concrete Drive
100+00
Brick Paver Drive
3' Evergreen
Asphalt Drive
4'hedge
Cable Tv
Asphalt Drive
Clean Out
Exist. R/W Line
4730
4728
4726
4724
4722
4720
4718
4716

0 20
1"=20'

8 8

MH−34
STA. 901+48.04, −1.31' LT.
MANHOLE
RIM: 4.65
INV IN: 8" PVC (E) = −1.49
4.62
6" DIP(WM)
8" Clay(SS)
CONNECT EXISTING 8" CLAY(SS)
TO MH−34 @ INV. ELE. −1.59
PROP STEEL CASING
0.30%
MH−33
STA. 901+97.48, −3.71' LT.
MANHOLE
RIM: 4.75
INV IN: 8" PVC (E) = −1.22
INV OUT: 8" PVC (W) = −1.32
5.02
PROPOSED GRADE
@ ALIGNMENT
±49 LF. 8" PVC (SS) @ 0.33%
±316 LF. 8" PVC (SS) @ 0.33%
S−1
STA. 901+74.69, 6.81' RT.
CUSTOM J−BOX/CONFLICT STRUCTURE W/MH RISER
INV EL: 9'X6' CONCRETE BOX CULVERT (E) = −7.00
INV EL: 9'X6' CONCRETE BOX CULVERT (N) = −7.04
INV EL: 8" PVC SANITARY CROSSING (E) = −1.38
INV EL: 8" PVC SANITARY CROSSING (W) = −1.42
MH RISER RIM: 4.62
9'X6' CONCRETE BOX CULVERT(ST)
4
0
−4
−8
900+50
901+00
902+00
903+00
903+25

CHEROKEE RD. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
SEE SEPARATE PLANS FOR STORM AND WATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-100A
of
WW-129

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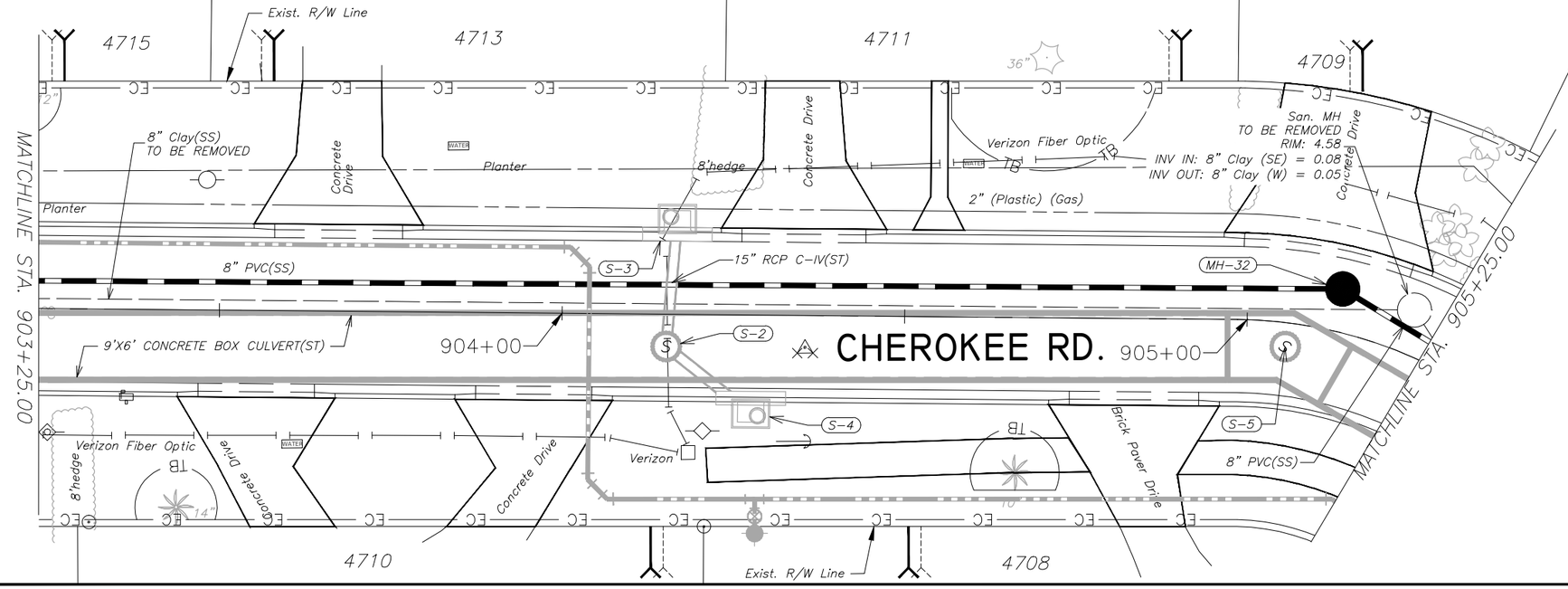
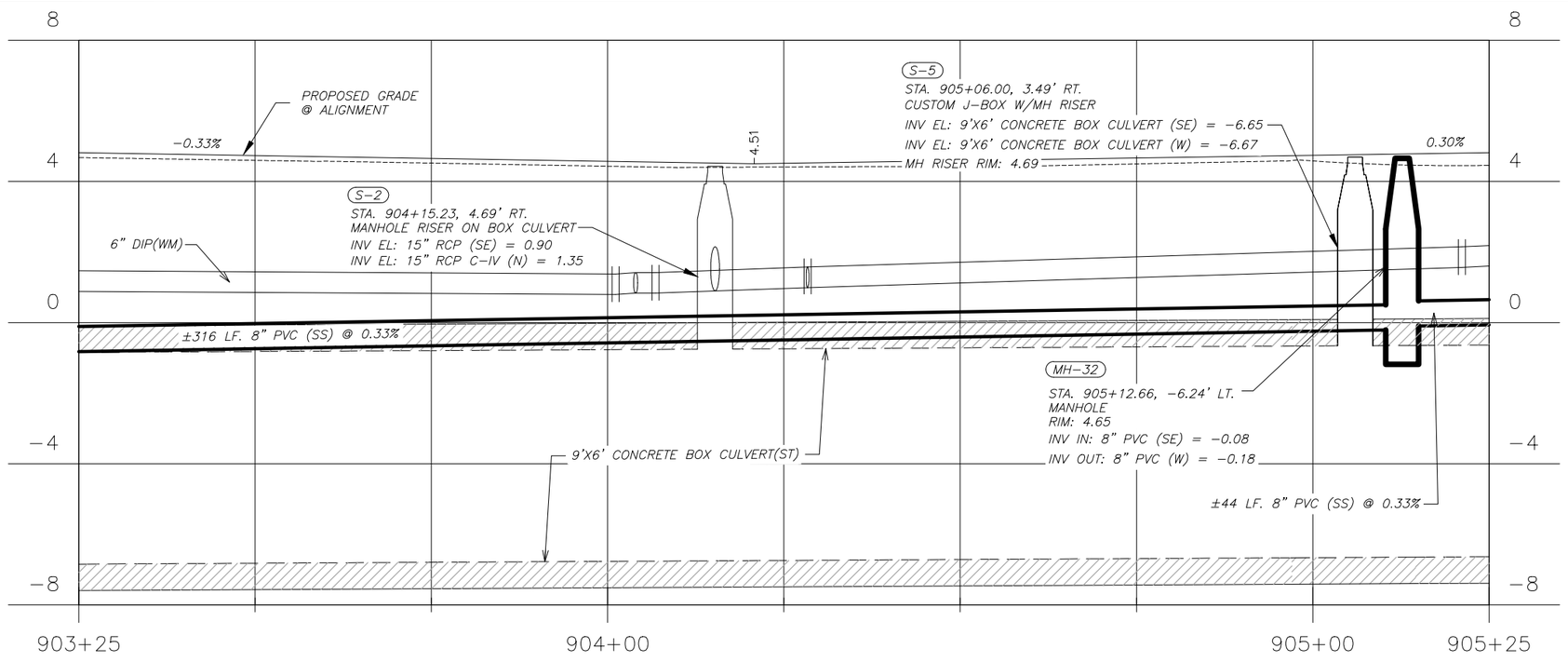


SW

0 20

1"=20'



CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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CITY of TAMPA
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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-101
OF
WW-129

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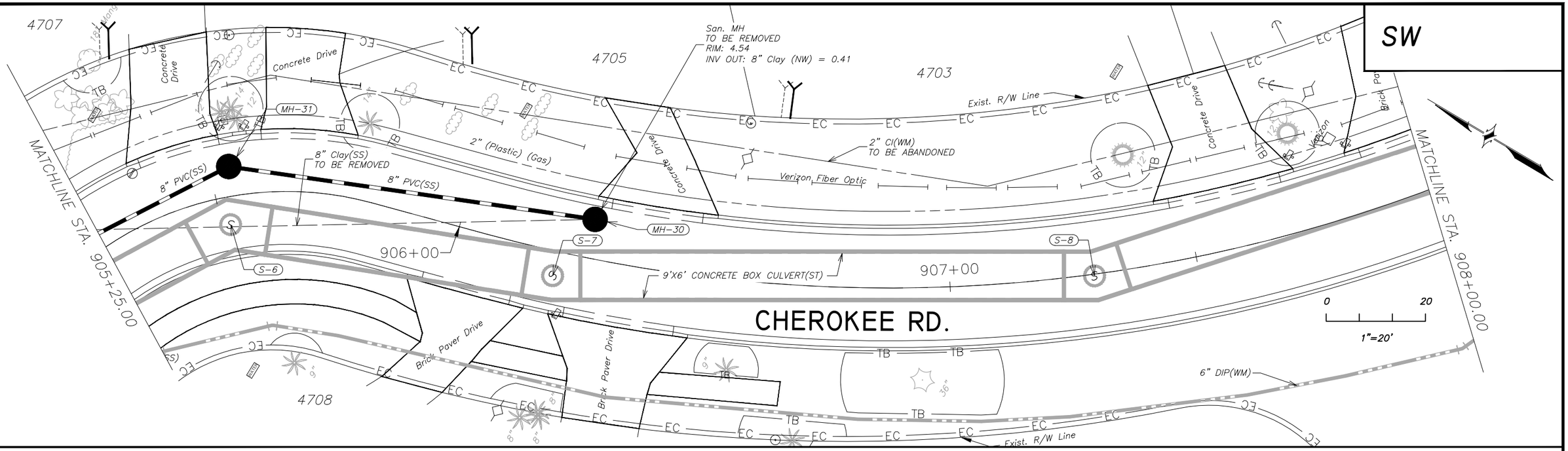

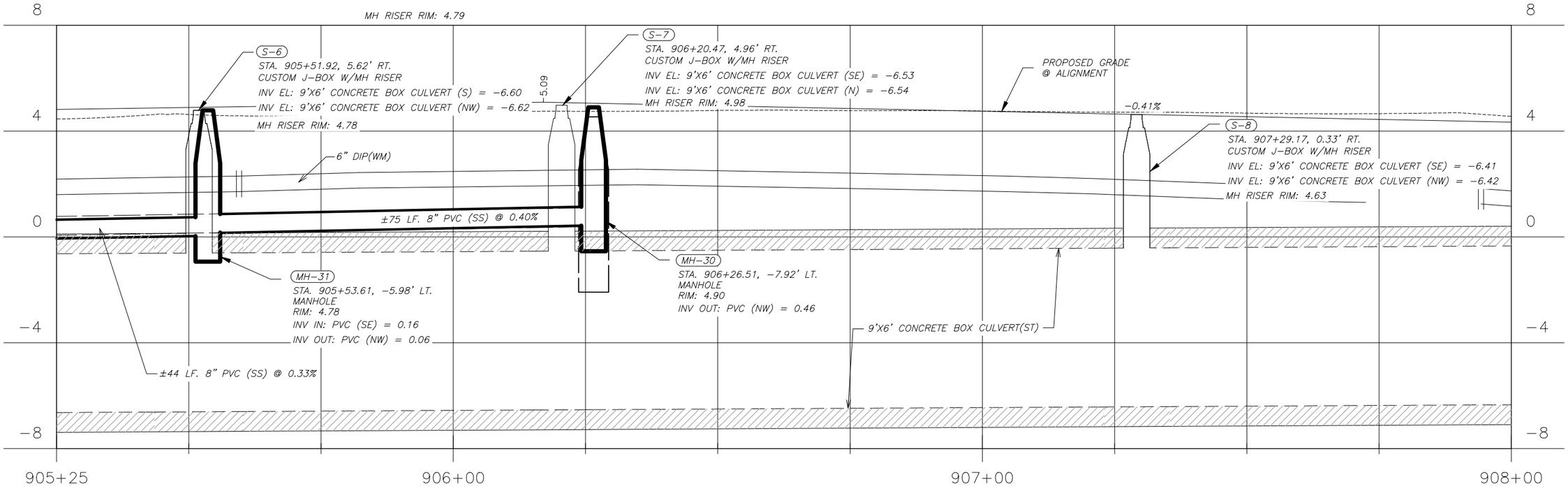

CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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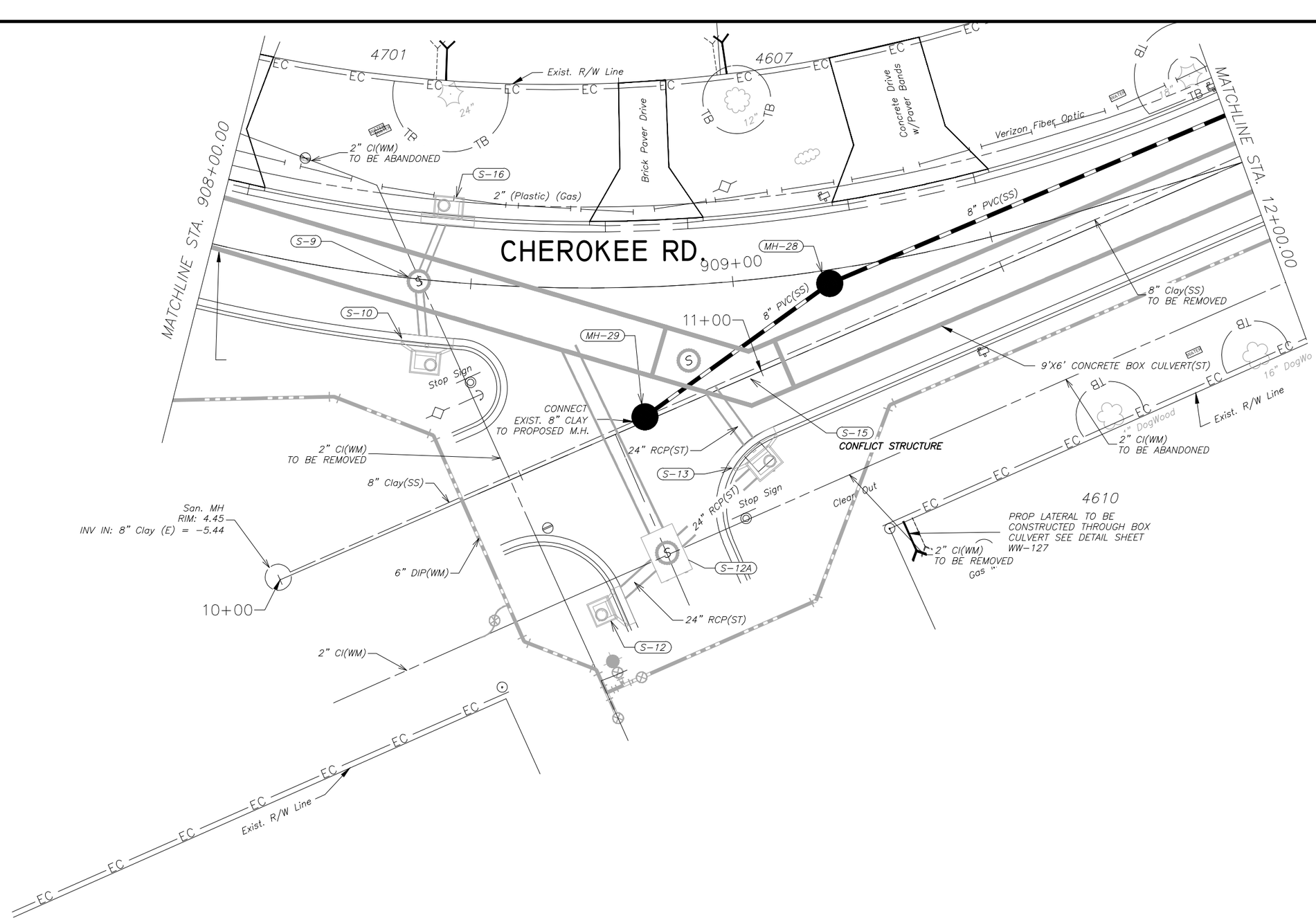
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - SANITARY SEWER PLAN & PROFILE

SHEET
WW-102
OF
WW-129



NOTE:
SEE SEPARATE PLANS FOR STORM AND WATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - SANITARY SEWER PLAN

SHEET WW-103
OF WW-129

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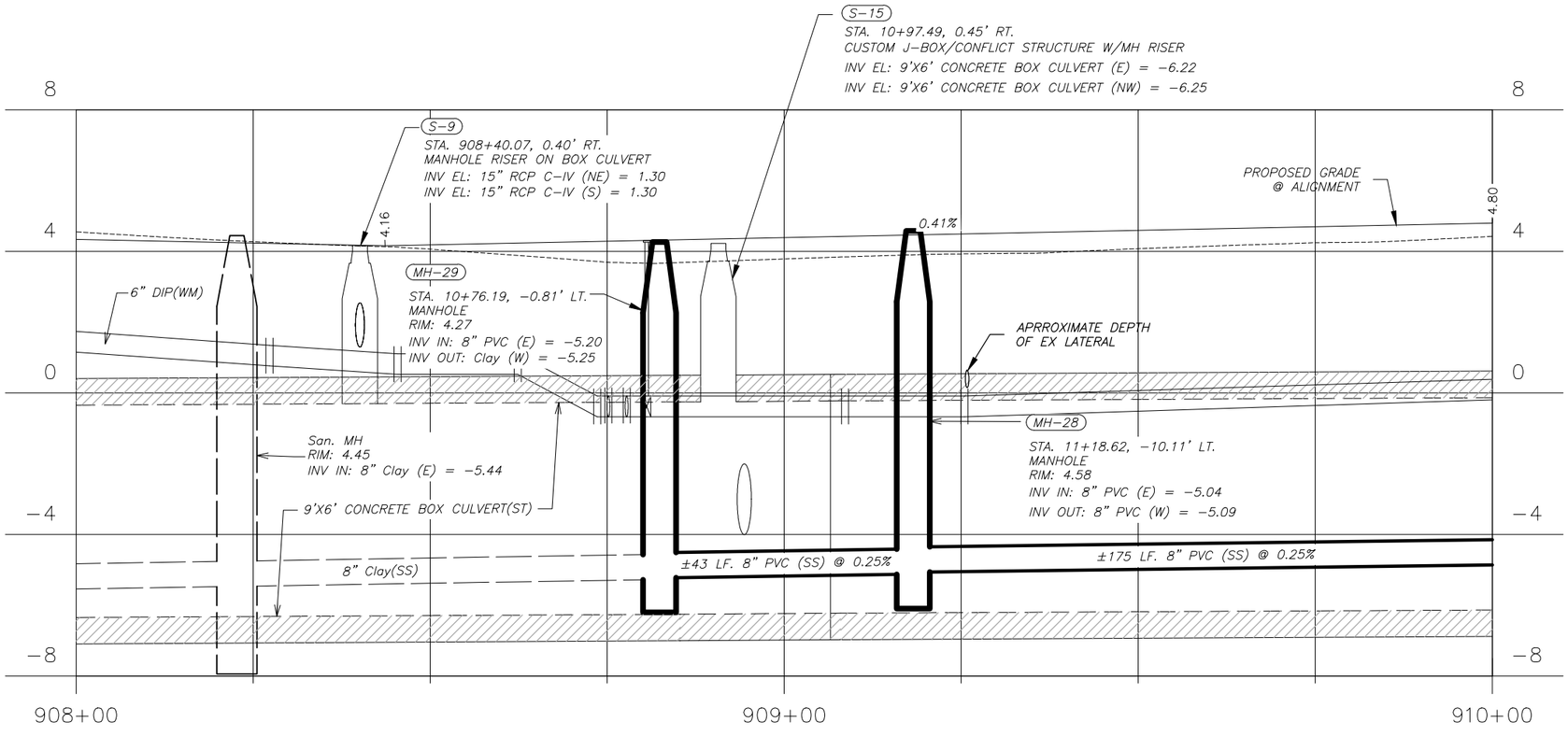

CHEROKEE RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
SEE SEPARATE PLANS FOR STORM AND WATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CHEROKEE RD. - SANITARY SEWER
PROFILE

SHEET
WW-104
OF
WW-129

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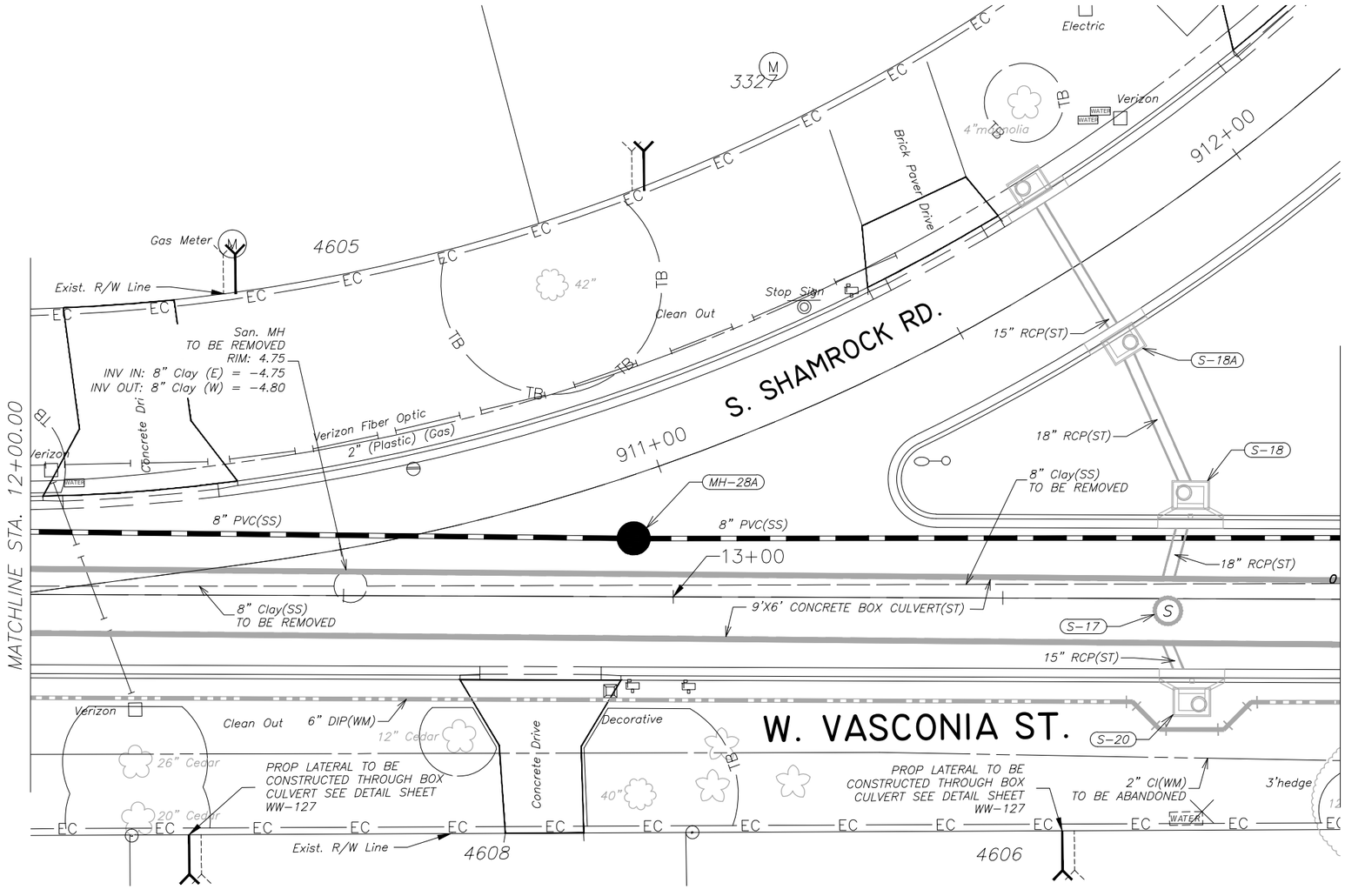

NOTE:
SEE SEPARATE PLANS FOR STORM AND WATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN

SHEET
WW-105
of
WW-129

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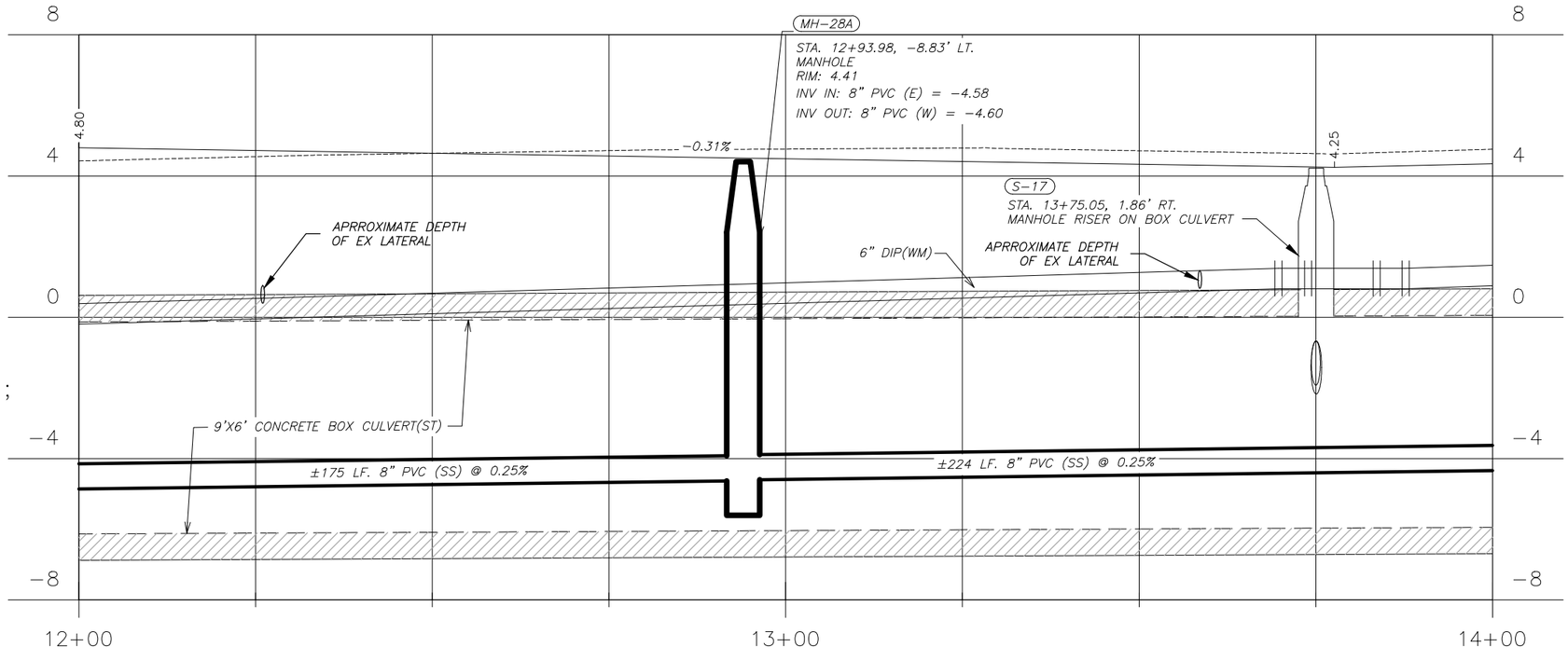

W. VASCONIA ST. PROFILE
Scale: 1" = 20' Horizontal ;
1" = 4' Vertical

NOTE:
SEE SEPARATE PLANS FOR STORM AND WATER DESIGN.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER PROFILE

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WW-105A
OF
WW-129

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SW

DOUBLE 5'X3' CONCRETE BOX CULVERT(ST)

San. MH
TO BE REMOVED
RIM: 5.23
INV IN: 8" Clay (E) = -4.07
INV IN: 8" Clay (N) = -3.98
INV OUT: 8" Clay (W) = -4.10

S-92A
8" Clay(SS)
TO BE REMOVED

Stop Sign

SHAMROCK RD.

8" PVC(SS)

S-92

MH-27

2" CI(WM)
TO BE ABANDONED

3328

Exist. R/W Line

6'wood Fence

0 20
1"=20'

W. VASCONIA STREET

8" Clay(SS)
TO BE REMOVED

S-93

8" PVC(SS)

9'X6' CONCRETE BOX CULVERT(ST)

S-93A

15+00

S-19

10'X5' CONCRETE BOX CULVERT(ST)

16+00

S-21

8" Clay(SS)
TO BE REMOVED

MATCHLINE STA. 14+00.00

MATCHLINE STA. 17+00.00

Concrete

42"

TB

Small Shrub

8" PVC(SS)

Concrete Drive

Concrete Drive

Concrete Drive

TB

Planter

Concrete Drive

Planter

4'hedge

Concrete Drive

TB

Cluster Crape Myrtle

2'hedge

TB

Concrete Walk

WATER

Cluster Crape Myrtle

TB

12"

6'hedge

Brick Paver Drive

14"

12"

14"

EC

4604

PROP LATERAL TO BE CONSTRUCTED THROUGH BOX CULVERT SEE DETAIL SHEET WW-127

48" Camphor

4526

Exist. R/W Line

2" CI(WM)
TO BE ABANDONED

4522

APRROXIMATE DEPTH OF EX LATERAL

0.42%

S-19
STA. 15+05.05, 2.52' RT.
FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 10'X5' CONCRETE BOX CULVERT (E) = -5.79
INV EL: 9'X6' CONCRETE BOX CULVERT (W) = -5.84
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
INV EL: 5'X3' CONCRETE BOX CULVERT (N) = -0.60
MH RISER RIM: 4.74

5.35

-0.31%

S-93A
STA. 14+71.46, 2.35' RT.
MANHOLE RISER ON BOX CULVERT
RIM: 4.60

6" DIP(WM)

MH-27
STA. 15+17.86, -9.81' LT.
MANHOLE
RIM: 4.65
INV IN: 8" PVC (E) = -3.90
INV IN: 8" PVC (N) = -3.94
INV OUT: 8" PVC (W) = -4.02

6" DIP(WM)

S-21
STA. 16+62.29, 4.38' RT.
FDOT J-BOX W/MH RISER PER INDEX 200
INV EL: 5'X4' CONCRETE BOX CULVERT (S) = -0.41
INV EL: 5'X4' CONCRETE BOX CULVERT (S) = -0.41
INV EL: 9'X5' CONCRETE BOX CULVERT (E) = -5.65
INV EL: 10'X5' CONCRETE BOX CULVERT (W) = -5.65
MH RISER RIM: 5.19

9'X6' CONCRETE BOX CULVERT(ST)

10'X5' CONCRETE BOX CULVERT(ST)

±224 LF. 8" PVC (SS) @ 0.25%

±250 LF. 8" PVC (SS) @ 0.35%

9'X5' CONCRETE BOX CULVERT(ST)

4 0 -4 -8

14+00 15+00 16+00 17+00

W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
SEE SEPARATE PLANS FOR STORM AND WATER DESIGN.

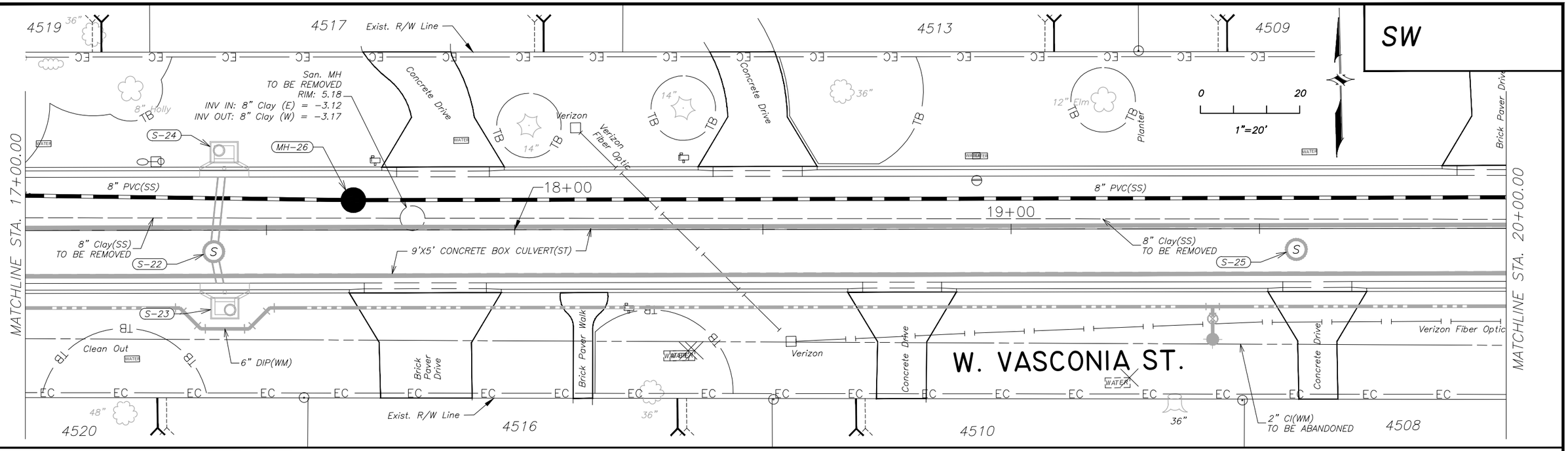
No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

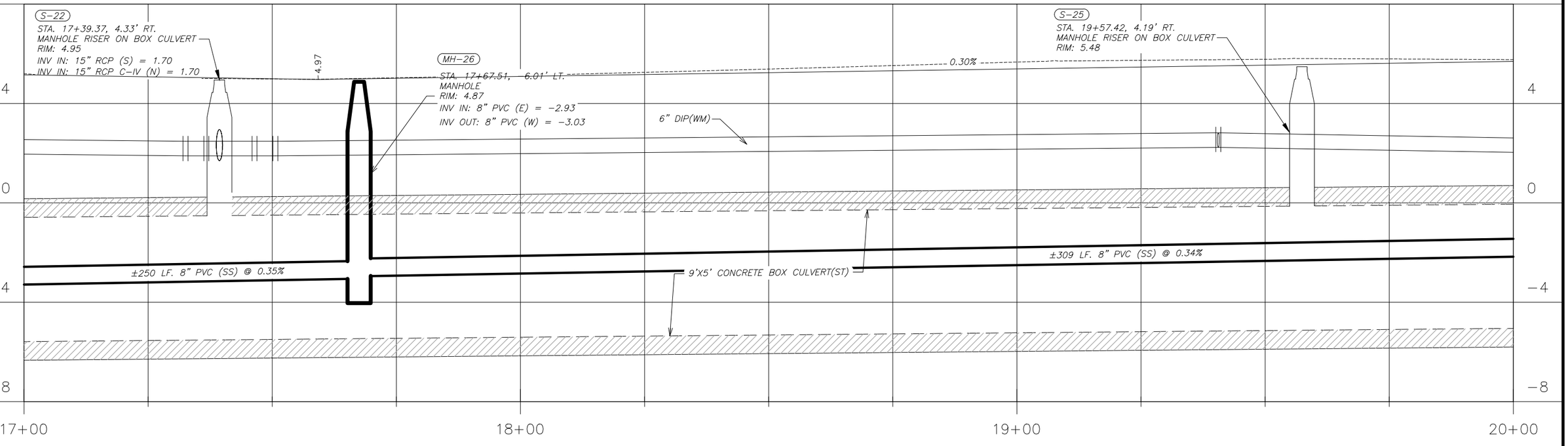
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN & PROFILE

SHEET WW-106
OF WW-129





W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER PLAN & PROFILE

SHEET WW-107
OF WW-129

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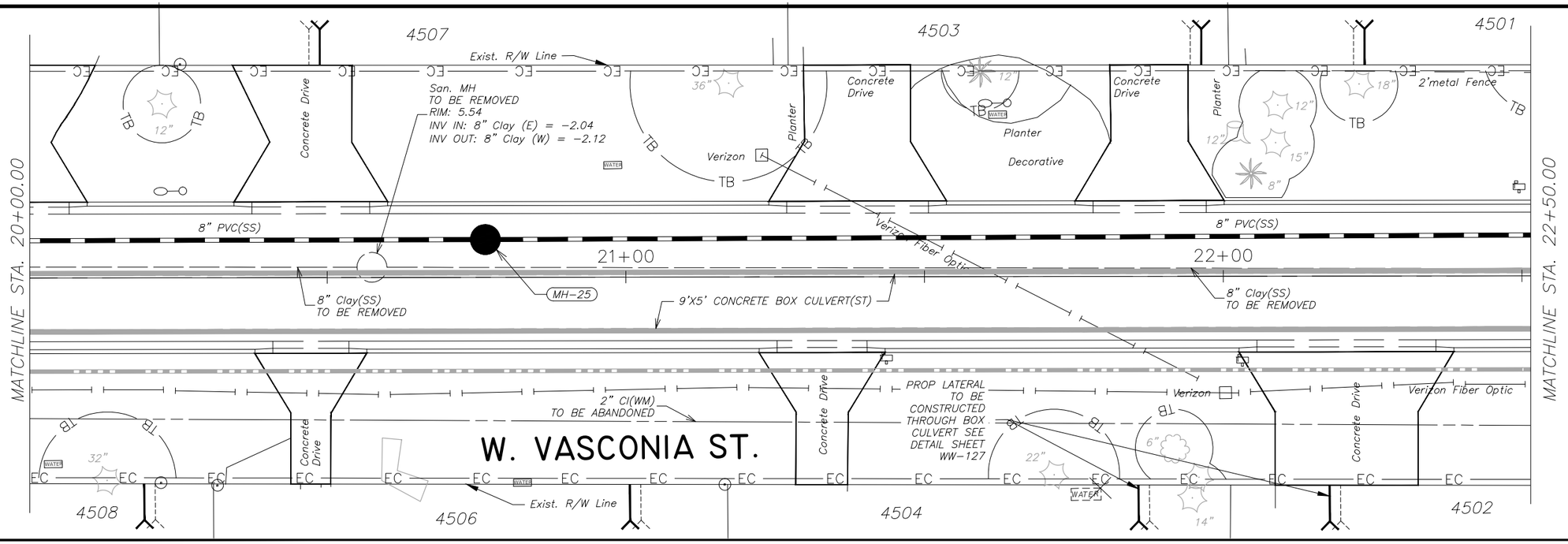
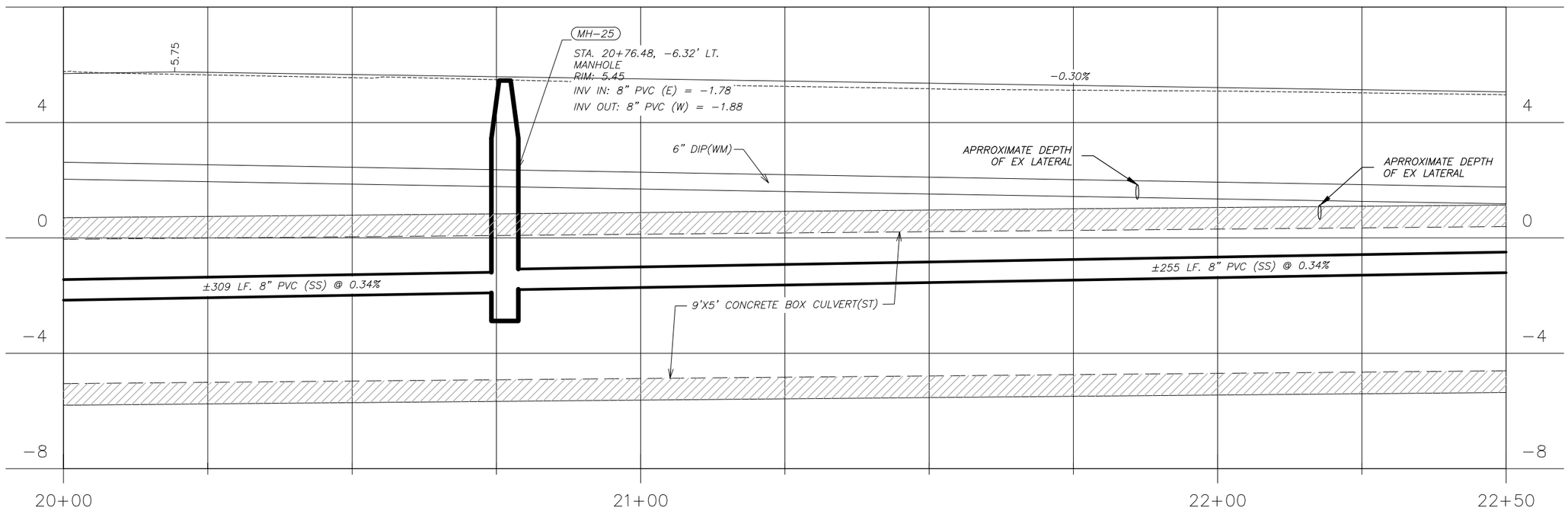


SW

0 20

1"=20'



W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-108
of
WW-129

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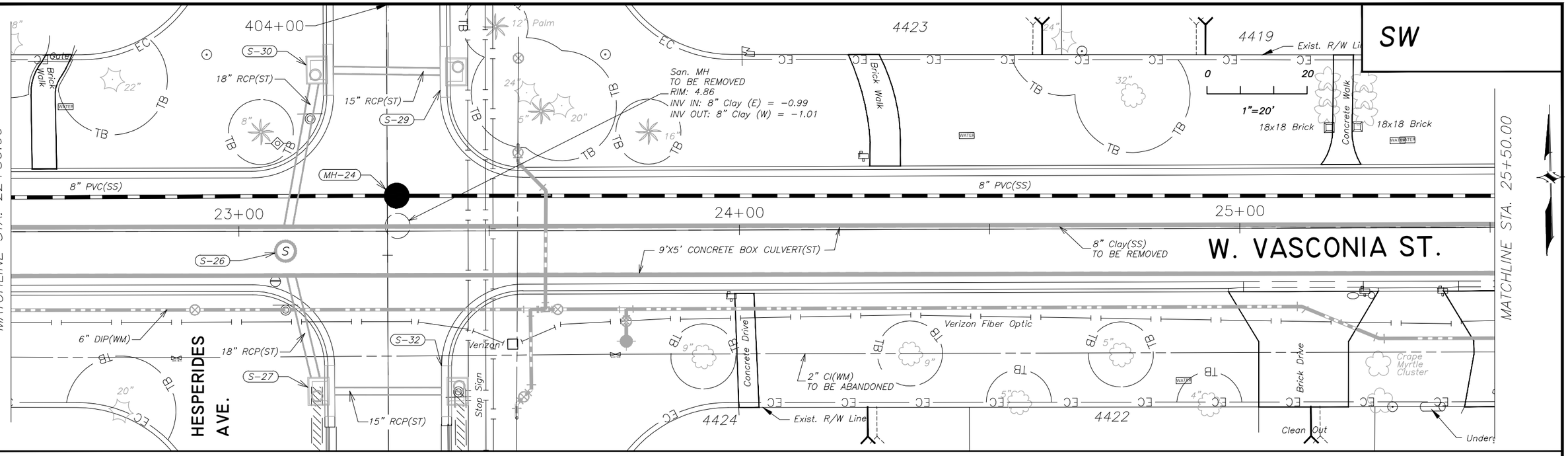

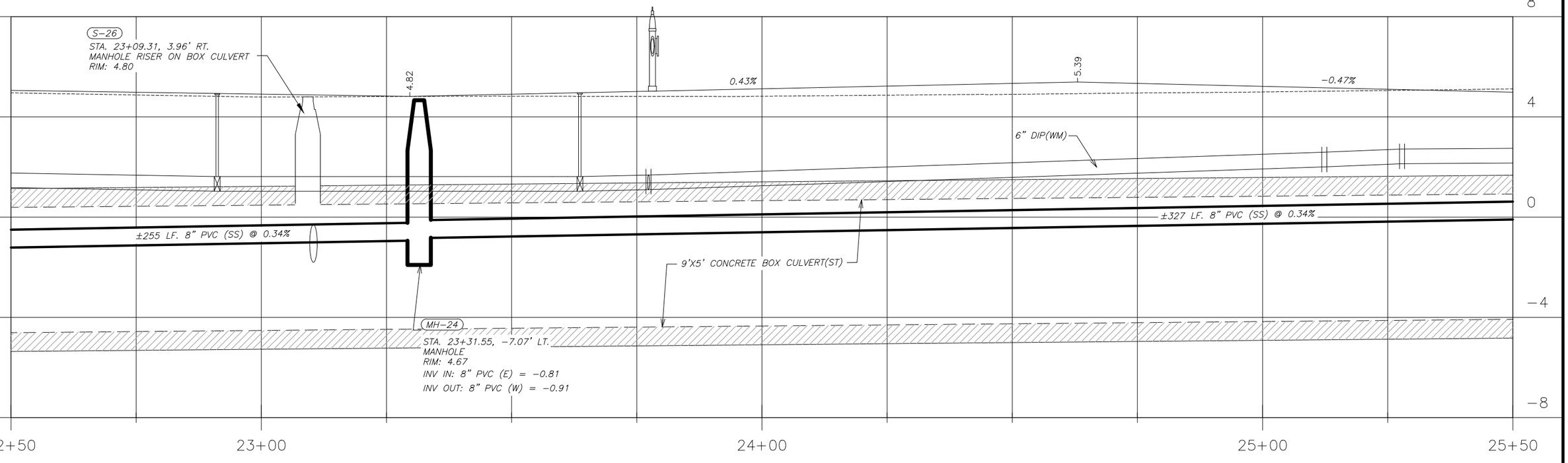

W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN & PROFILE

SHEET WW-109
OF WW-129

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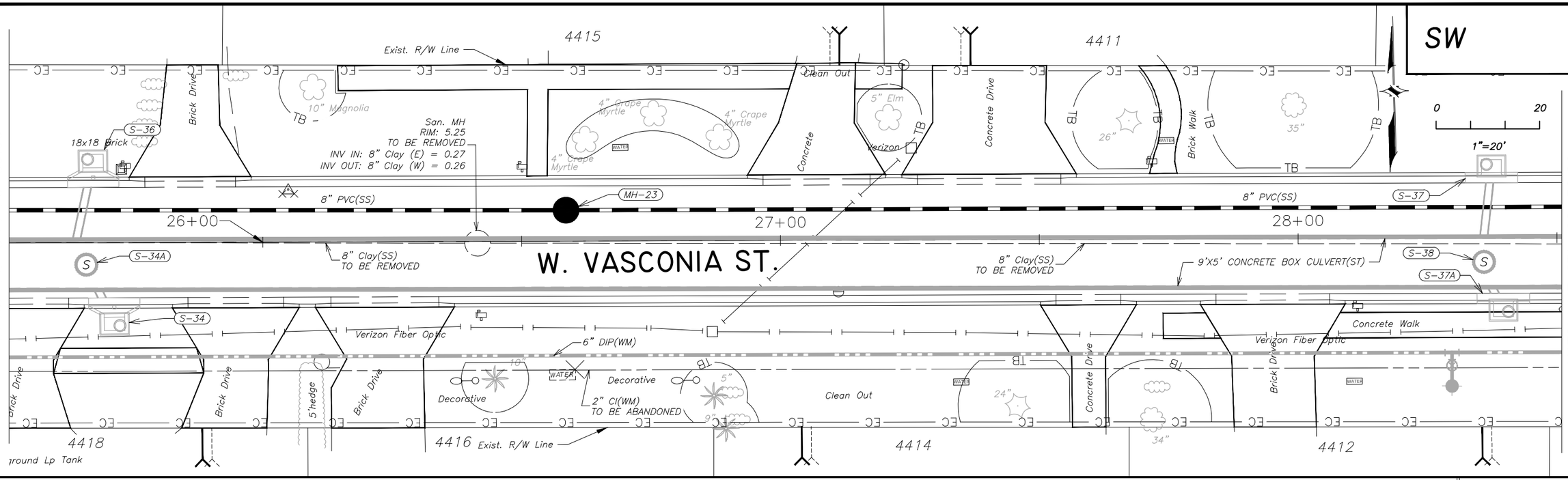
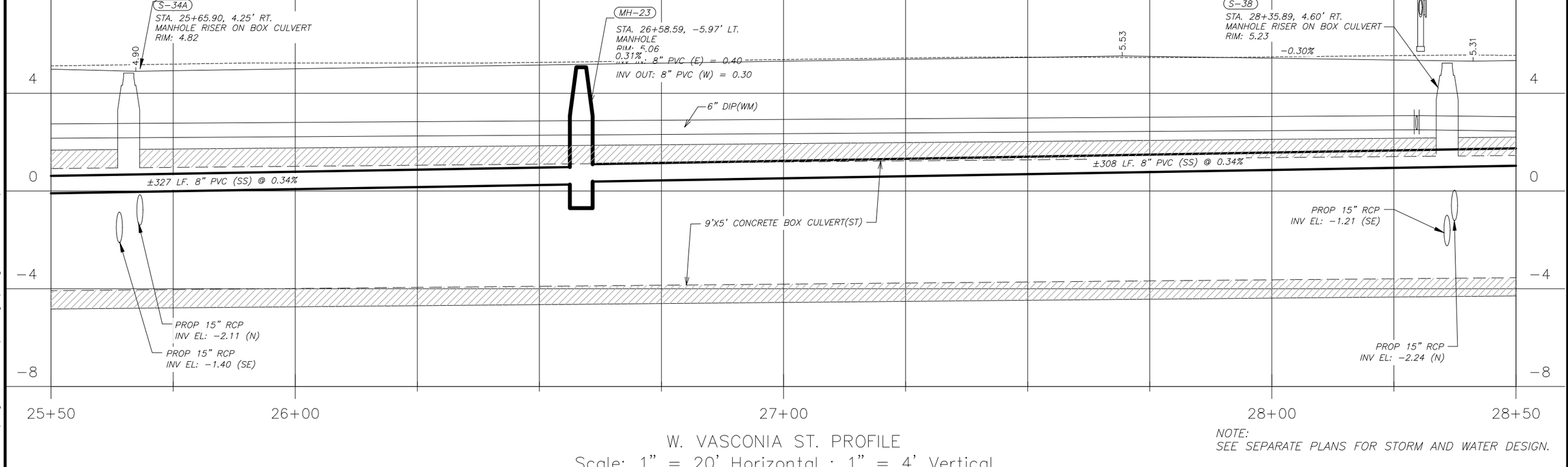
SW





W. VASCONIA ST. PROFILE
Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

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CITY of TAMPA
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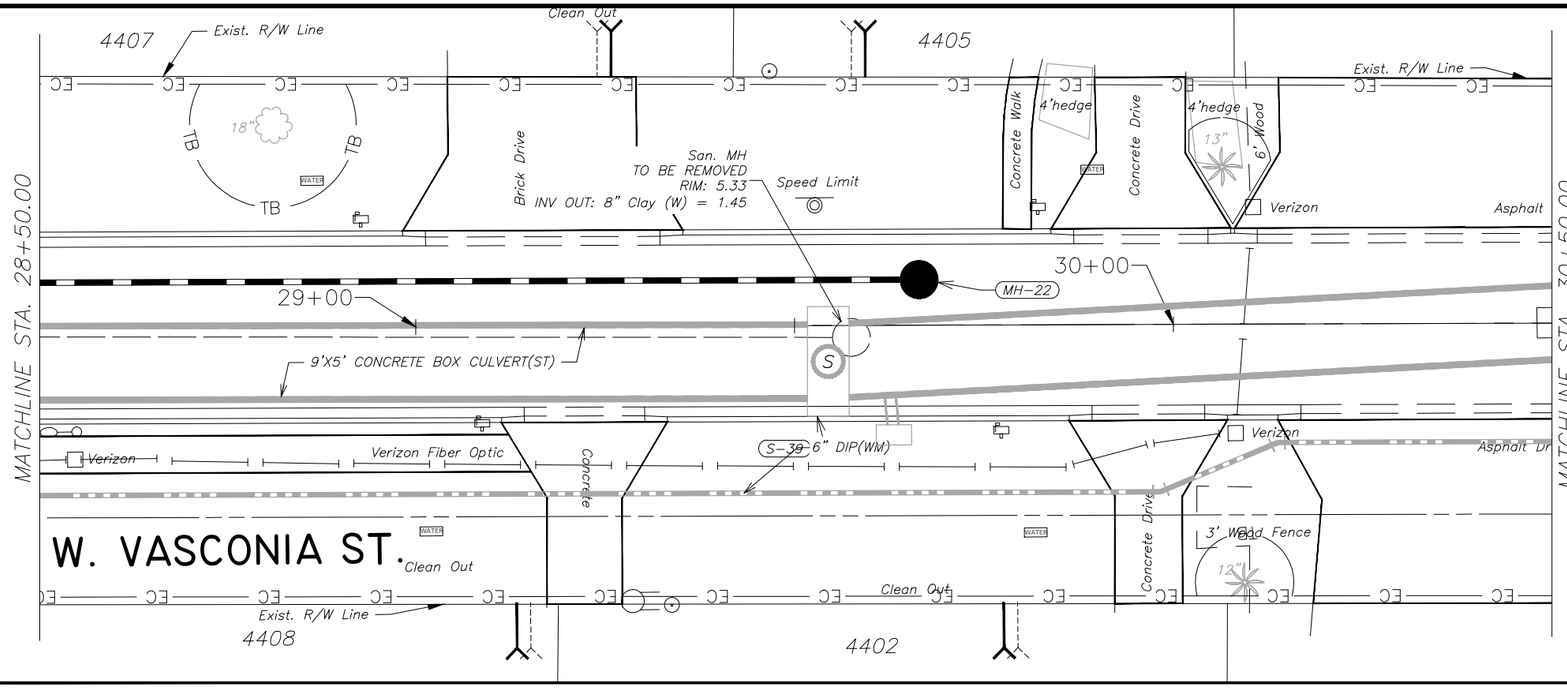
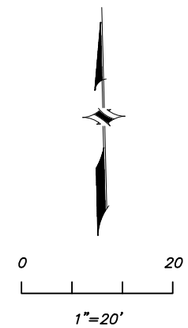
Stormwater Engineering Division

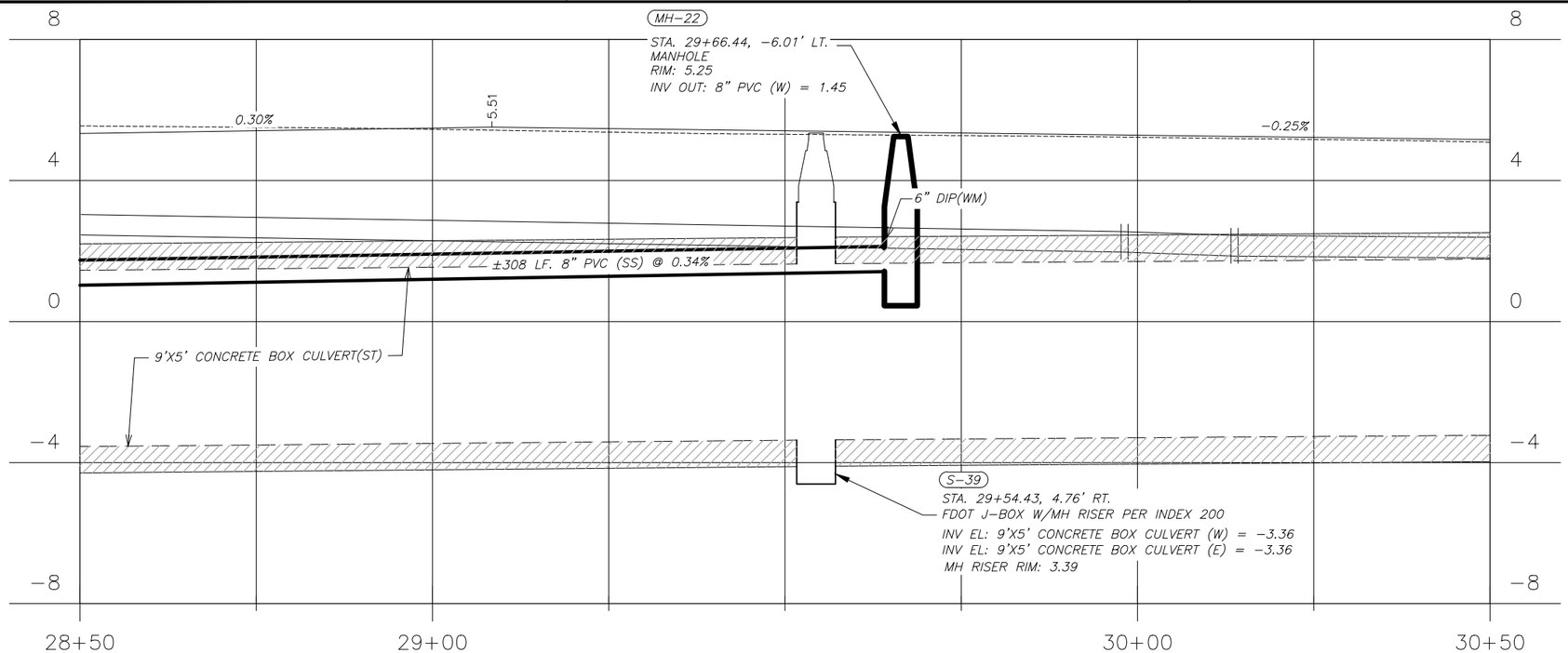
UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER PLAN & PROFILE

SHEET
WW-110
of
WW-129



SW





W. VASCONIA ST. PROFILE

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NOTE:
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DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-III
OF
WW-129

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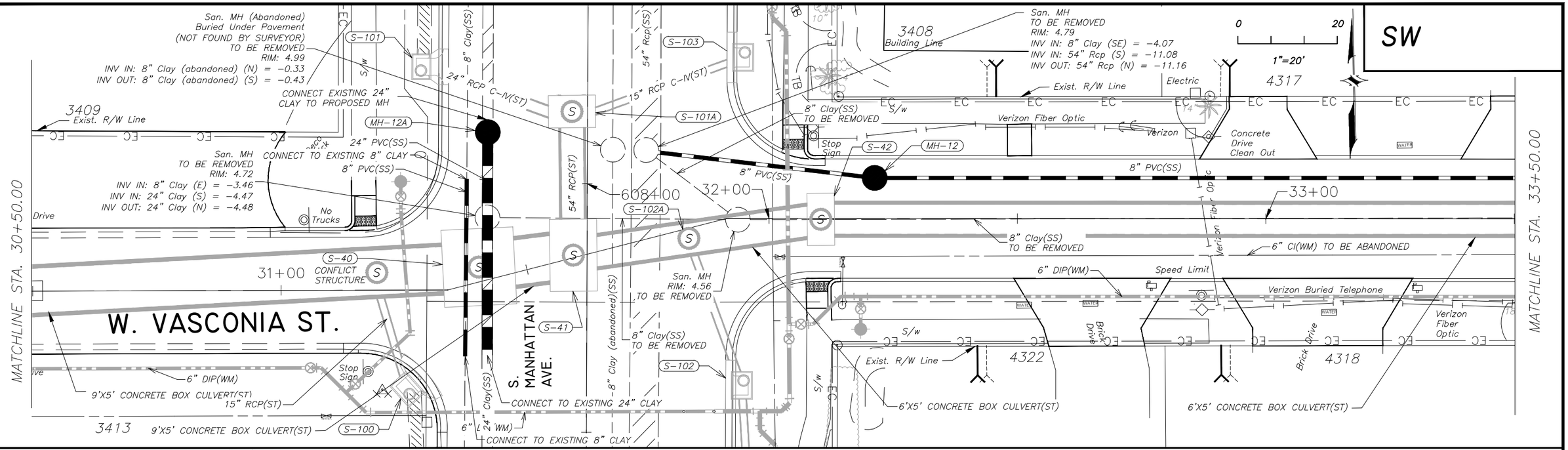

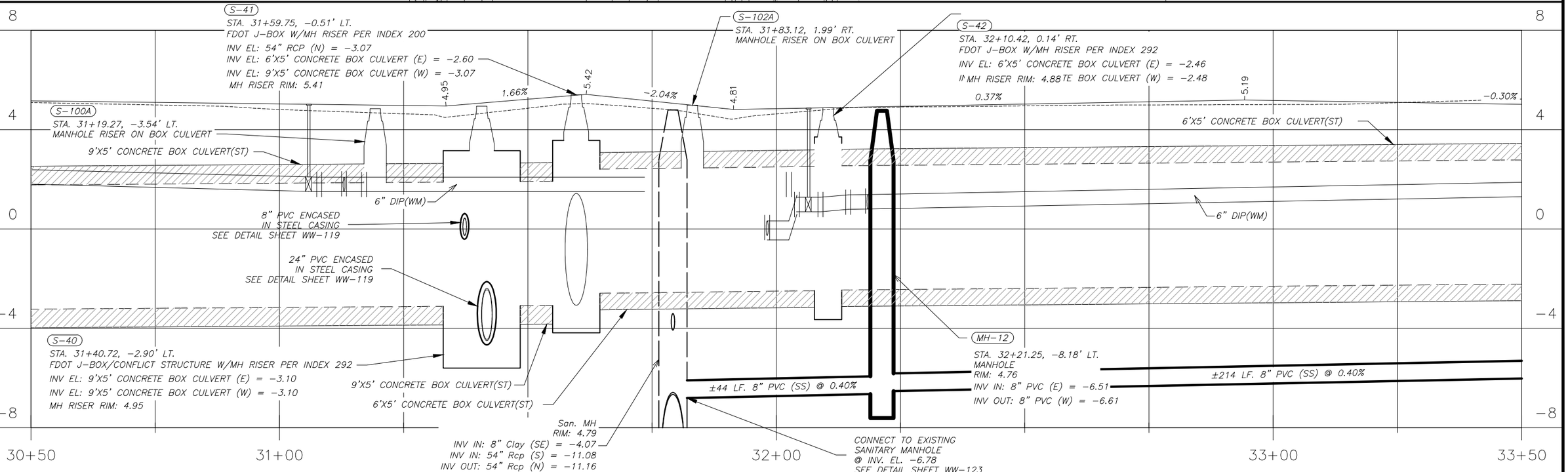

W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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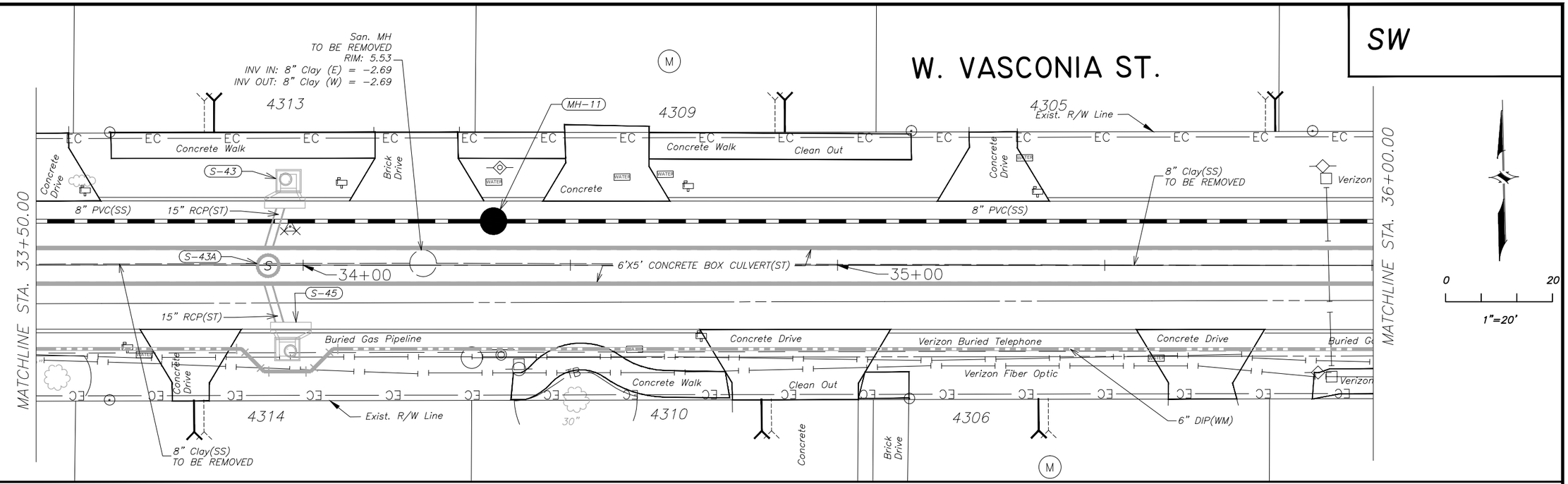
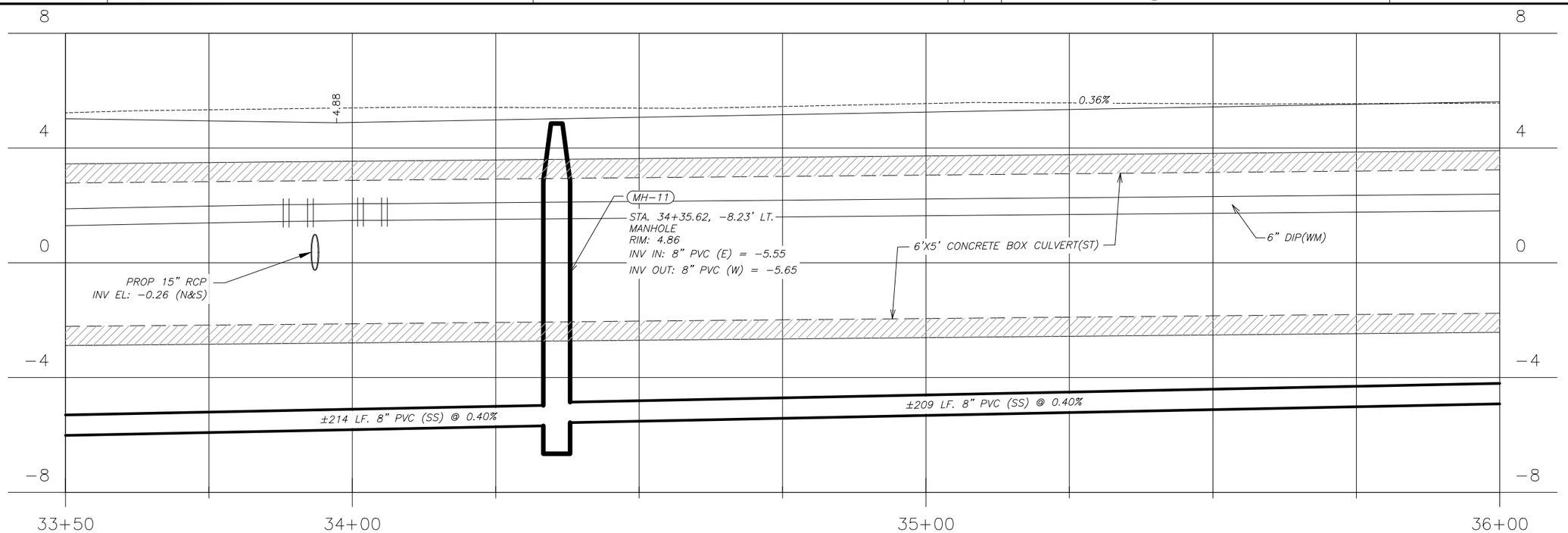
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER PLAN & PROFILE

SHEET
WW-112
OF
WW-129





W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-113
OF
WW-129

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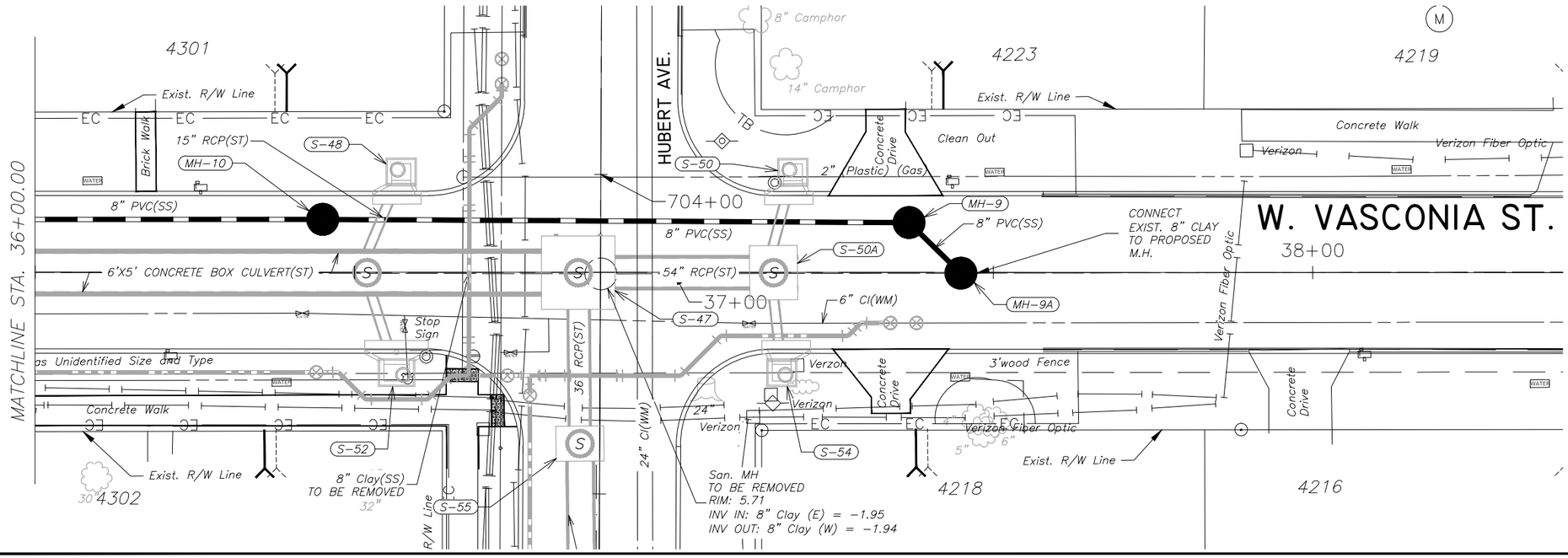

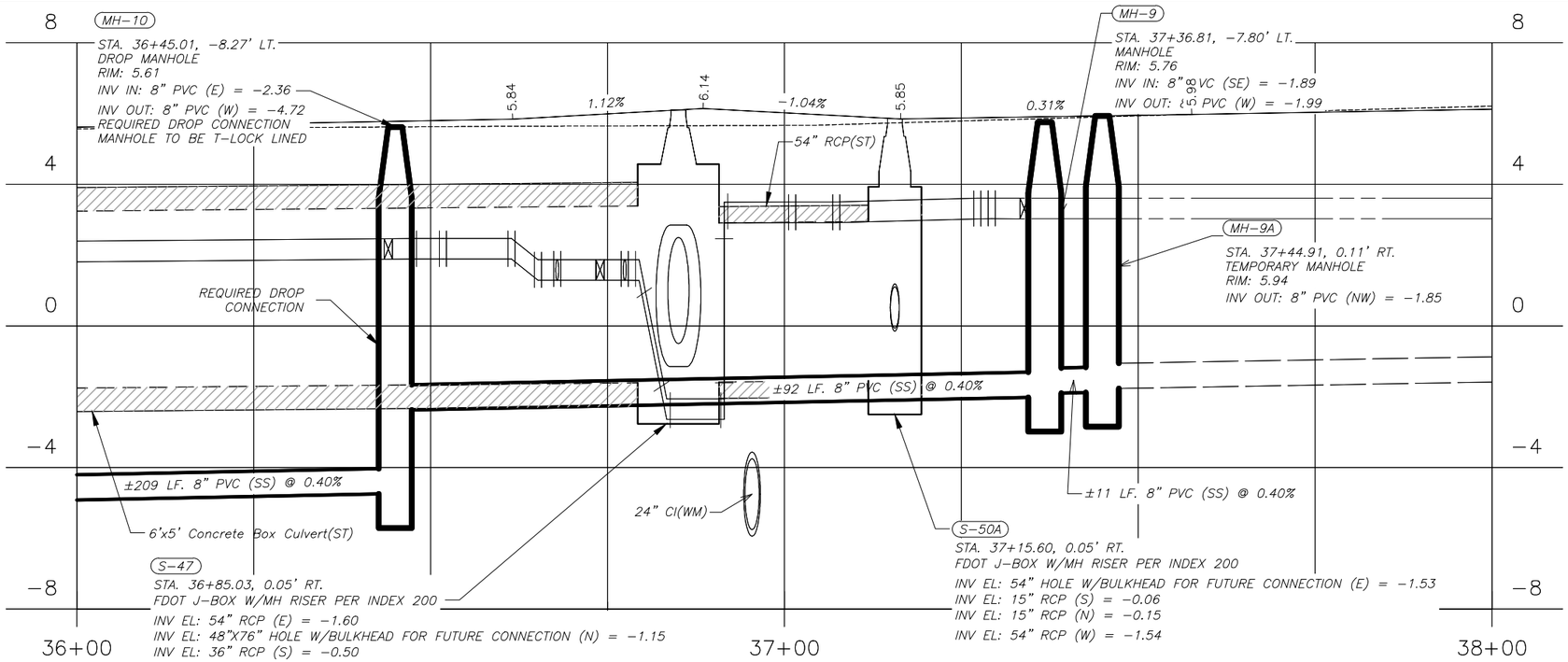

W. VASCONIA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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No.	DATE	REVISIONS	No.	DATE	REVISIONS
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CITY of TAMPA
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
W. VASCONIA STREET - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-114
OF
WW-129

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SW

0 20

1"=20'

W. VASCONIA ST.

SHAMROCK RD.

Exist. R/W Line

S-93A

15" RCP(ST)

S-93

9'X6' CONCRETE BOX CULVERT(ST)

San. MH
TO BE REMOVED
RIM: 5.23
INV IN: 8" Clay (E) = -4.07
INV IN: 8" Clay (N) = -3.98
INV OUT: 8" Clay (W) = -4.10

Stop Sign

Stop Sign

Concrete Drive

4604

15+00

8" PVC(SS)

199+70

48" Camphor

Planter

2" CI(WM)
TO BE ABANDONED

Concrete Drive

S-19

4526

Exist. R/W Line

S-92A

200+00

15" RCP(ST)

S-92

MH-27

8" PVC(SS)

8" Clay(SS)
TO BE REMOVED

10'X5' CONCRETE BOX CULVERT(ST)

201+00

202+00

914+00

8" Clay(SS)
TO BE REMOVED

DOUBLE 5'X3' CONCRETE BOX CULVERT(ST)

8" PVC(SS)

2" CI (Abandoned)(WM)

6" Ex. DIP By Others(WM)

Concrete Drive

3328

3324

Exist. R/W Line

MATCHLINE STA. 202+50.00

36"

10"

12"

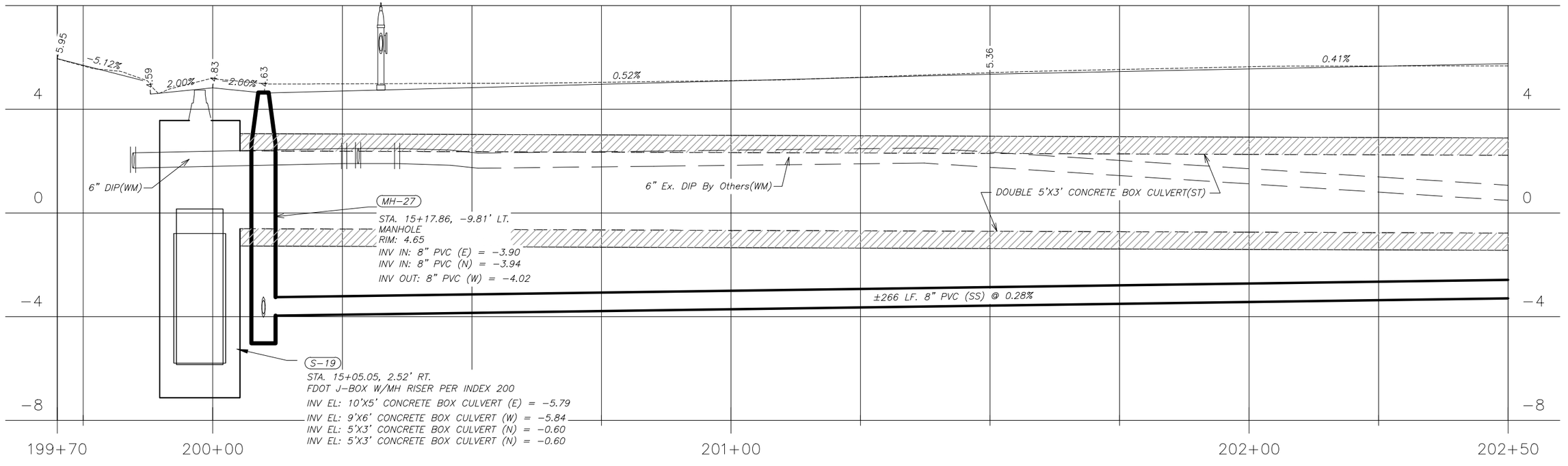
12"

42"

24"

TB

EC



SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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CITY of TAMPA
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD - SANITARY SEWER
PLAN & PROFILE

SHEET
WW-115
of
WW-129

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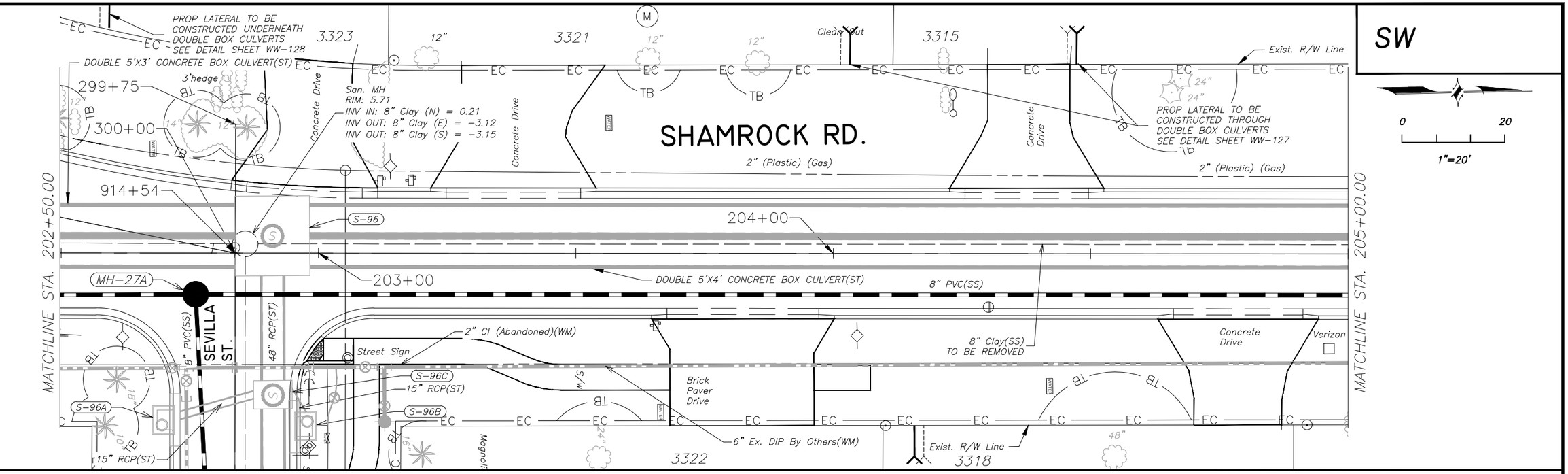

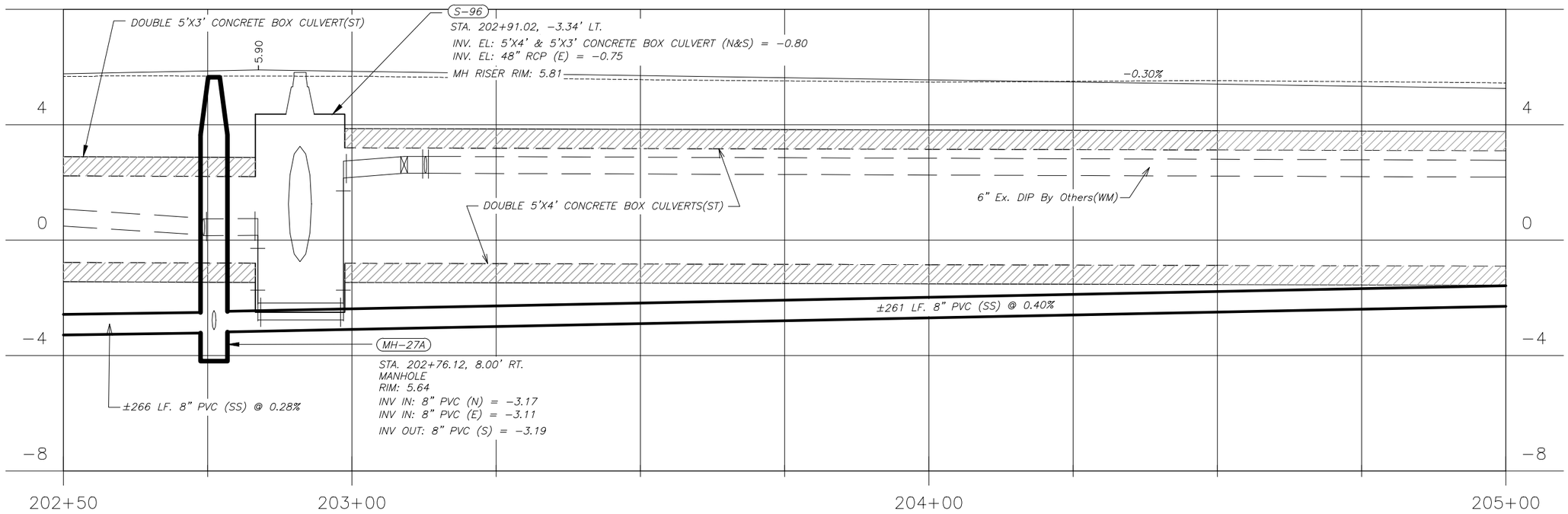

SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD - SANITARY SEWER
PLAN & PROFILE

SHEET WW-116
OF WW-129

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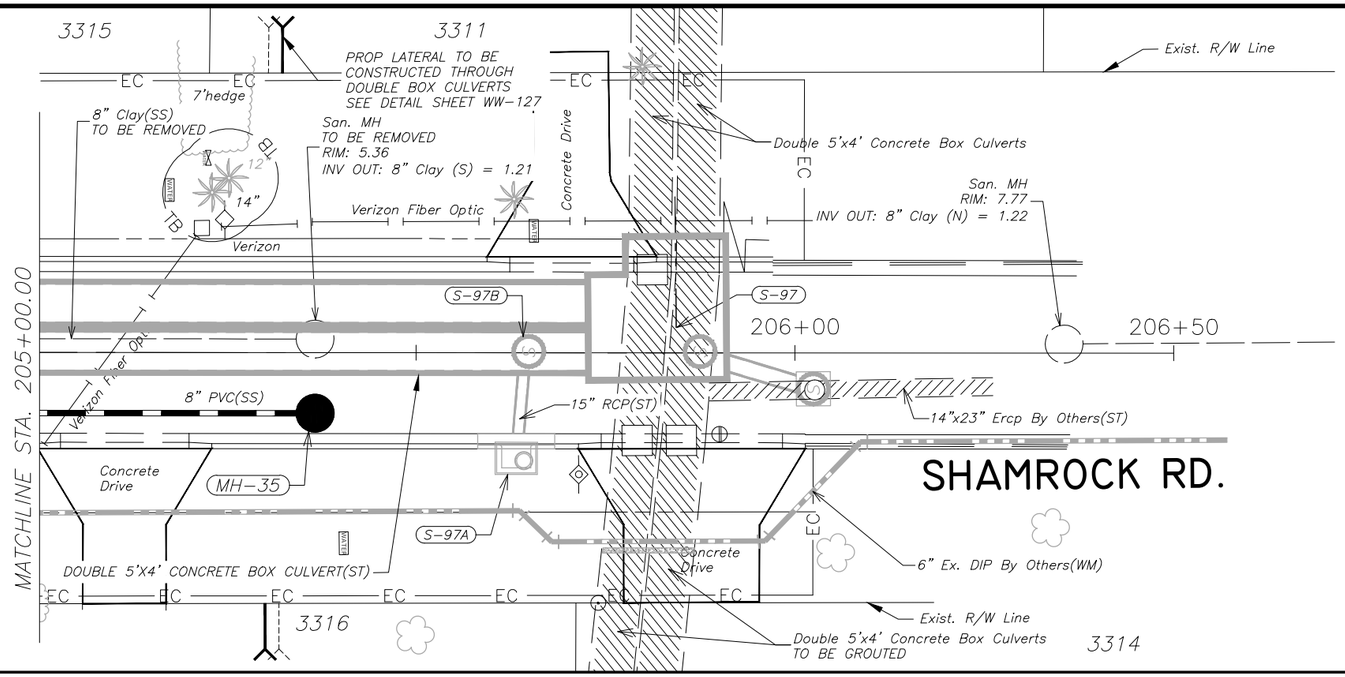

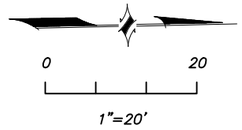

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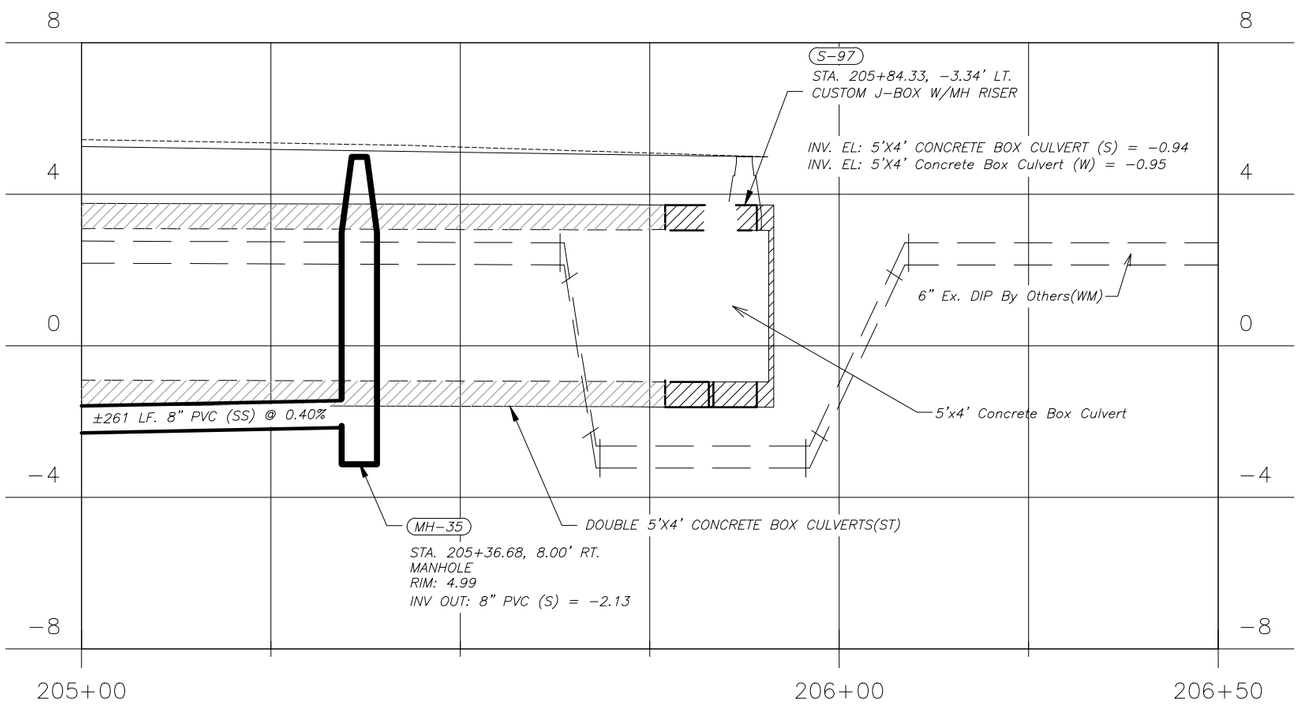

SHAMROCK RD. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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CITY of TAMPA
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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
SHAMROCK RD - SANITARY SEWER
PLAN & PROFILE

SHEET WW-117
OF WW-129

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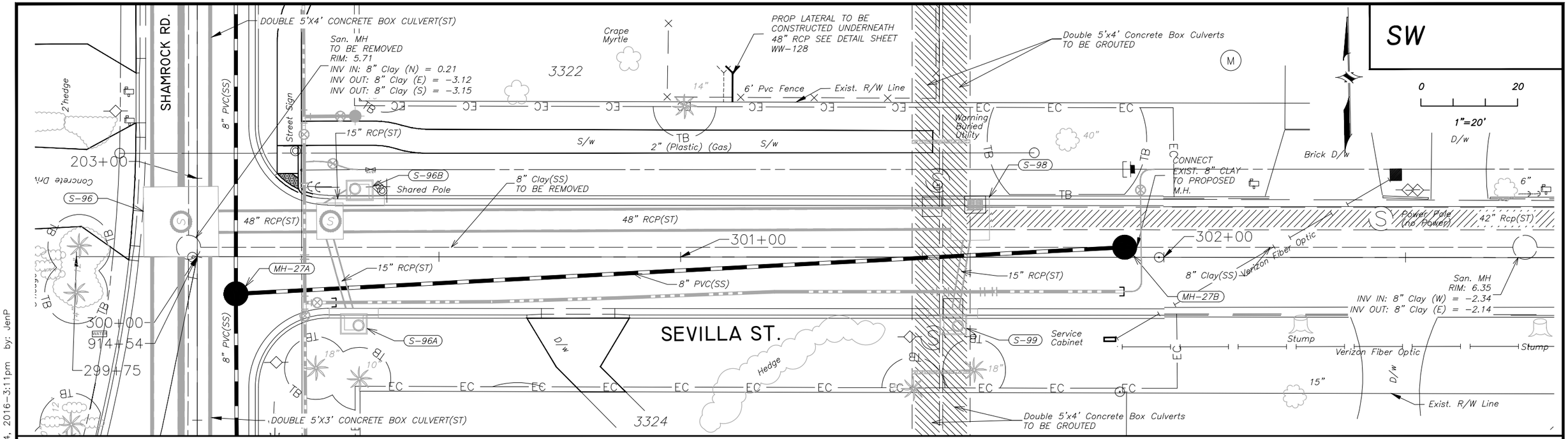

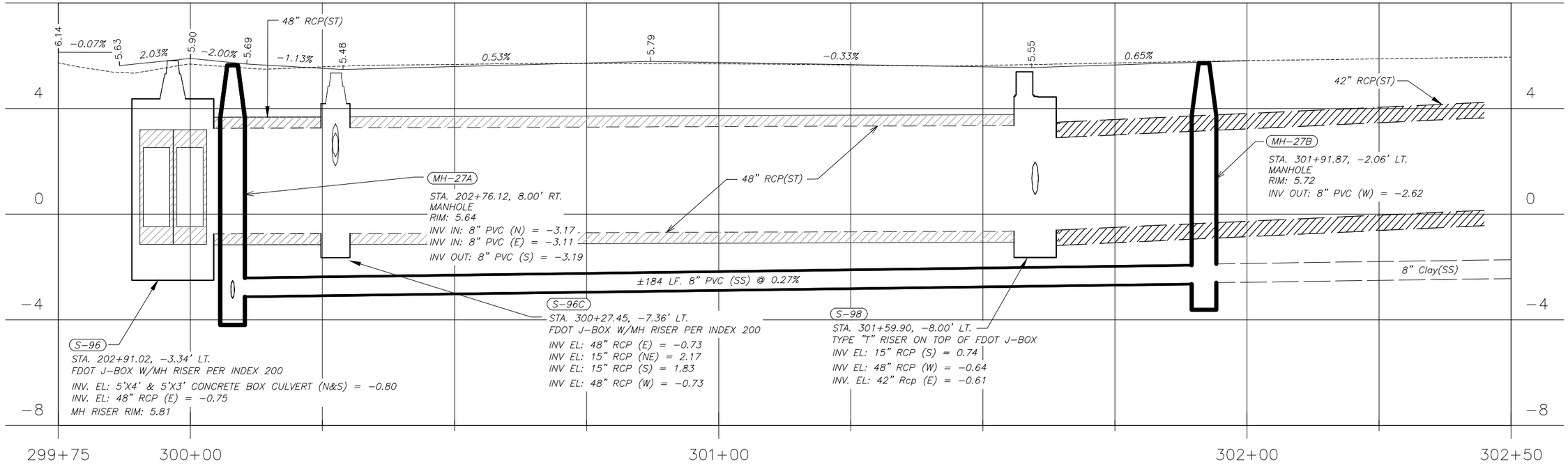

SEVILLA ST. PROFILE

Scale: 1" = 20' Horizontal ; 1" = 4' Vertical

NOTE:
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Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS PHASE II (VASCONIA OUTFALL) SEVILLA ST - SANITARY SEWER PLAN & PROFILE

SHEET WW-118
of WW-129

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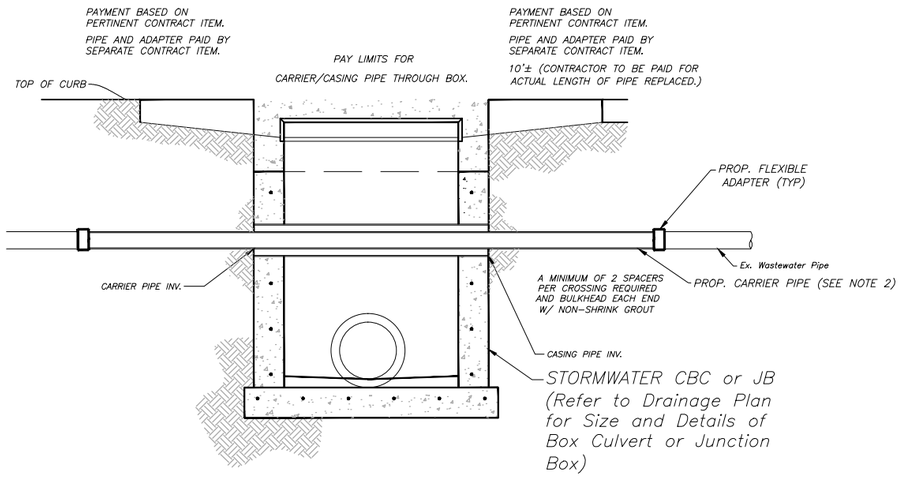


TYPICAL CASING DETAIL
CROSS SECTION
(N.T.S.)

NOTES:

1. CASING PIPE SHALL BE THE SMALLEST DIAMETER CASING PIPE POSSIBLE THAT WILL ACCOMMODATE CASCADE CASING SPACERS. THE CASING PIPE SHALL BE SCHEDULE 40 STEEL PIPE IN ACCORDANCE WITH ANSI B36.10, DUCTILE IRON PIPE (PC-350) OR STEEL CASING IN ACCORDANCE WITH AWWA-C200 AND ASTM A-139, GRADE B. A MINIMUM OF 2 SPACERS PER CROSSING IS REQUIRED.

2. THE CARRIER PIPE SHALL BE ASTM D3034 (SDR-35) PVC PIPE.

3. SEE SHEET S-11 FOR CORING DETAILS.

CONFLICT STRUCTURES

STA.	STR.	SHEET NO.	TYPE	CARRIER PIPE	CARRIER PIPE INVERT	CASING PIPE DIA.	CASING PIPE INVERT
901+75.57	S-1	WW-100A	9'X6' CONC. BOX CULV.	8" PVC	INV IN = -1.40 INV OUT = -1.44	12"	INV IN = -1.57 INV OUT = -1.61
10+97.49	S-15	WW-103	9'X6' CONC. BOX CULV.	8" PVC	INV IN = -5.09 INV OUT = -5.12	12"	INV IN = -5.26 INV OUT = -5.29
31+40.78	S-40	WW-112	8'X5' CONC. BOX CULV.	24" PVC 8" PVC	INV IN = -4.44 INV OUT = -4.46 INV IN = -0.24 INV OUT = -0.27	30" 12"	INV IN = -4.69 INV OUT = -4.71 INV IN = -0.41 INV OUT = -0.44

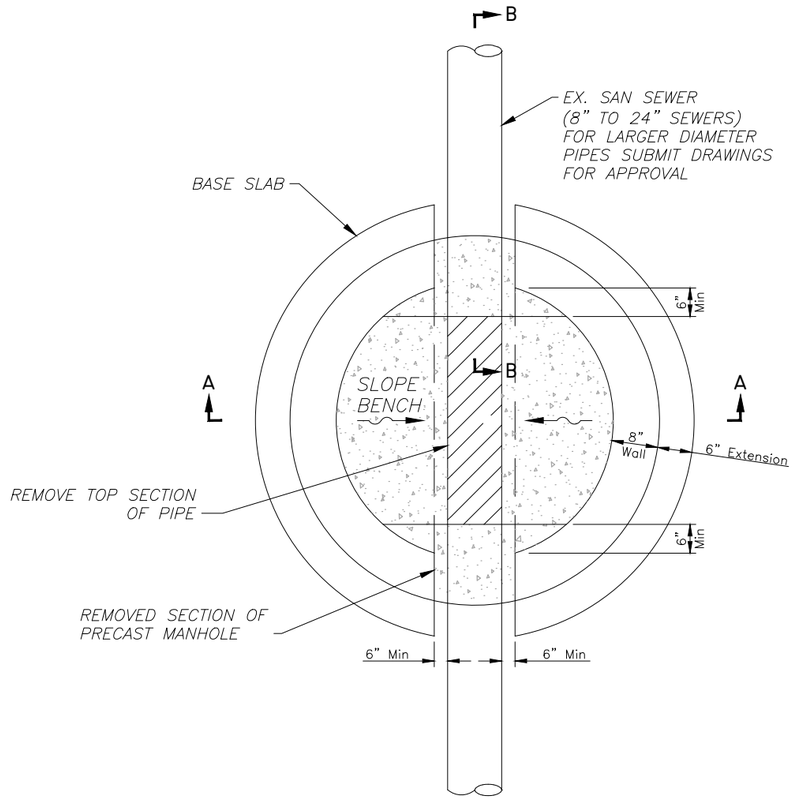
No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

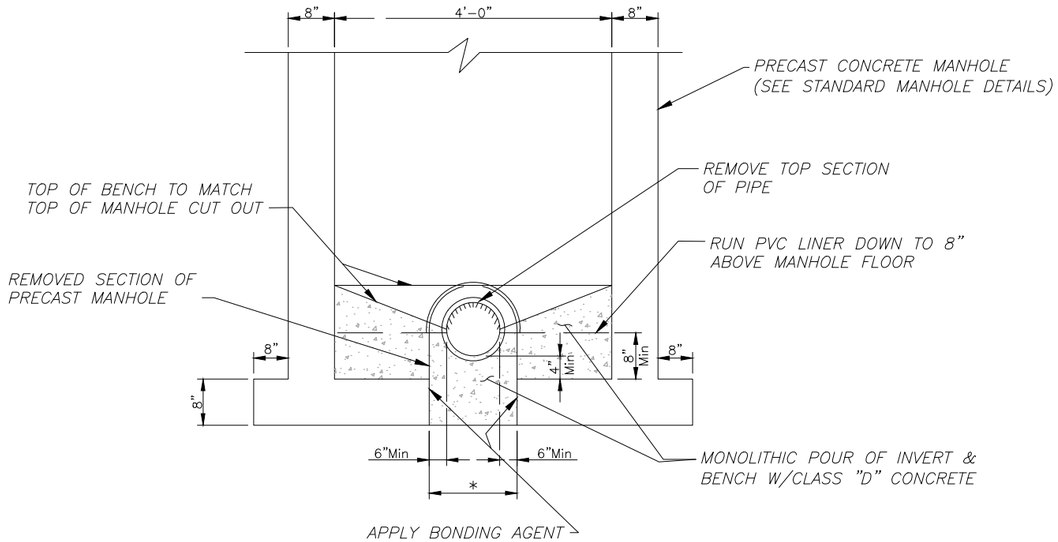
UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
TYPICAL CASING DETAIL &
CONFLICT STRUCTURE TABLE

SHEET WW-119
OF WW-129



DOGHOUSE MANHOLE PLAN VIEW

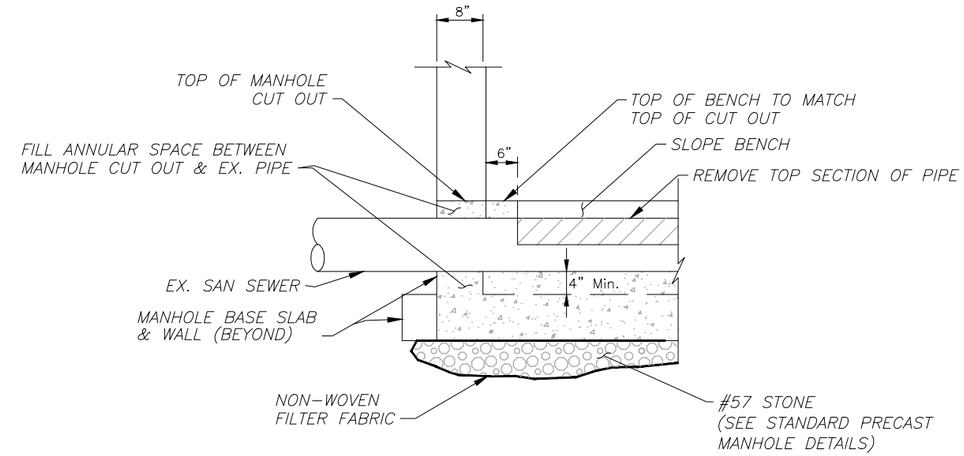
Not to Scale



SECTION A-A

Not to Scale

* TYPICAL WIDTH OF OPENING IS 24" FOR AN EX. 8" PIPE



SECTION B-B

Not to Scale

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
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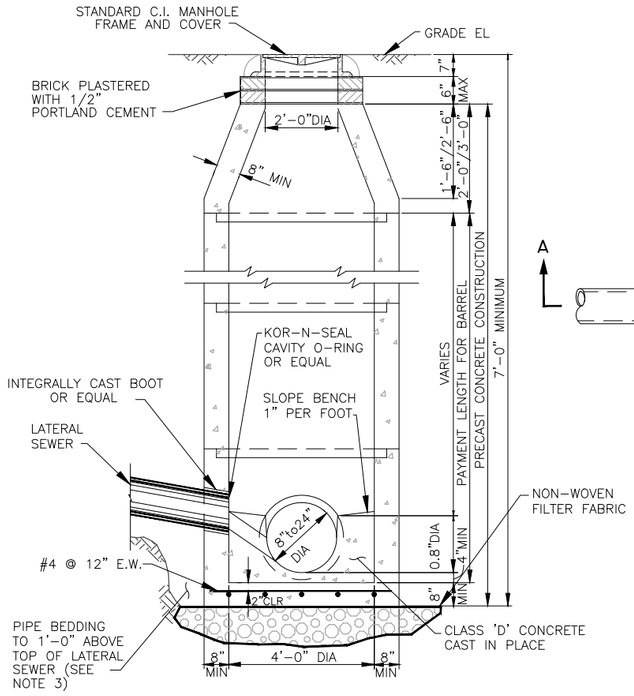
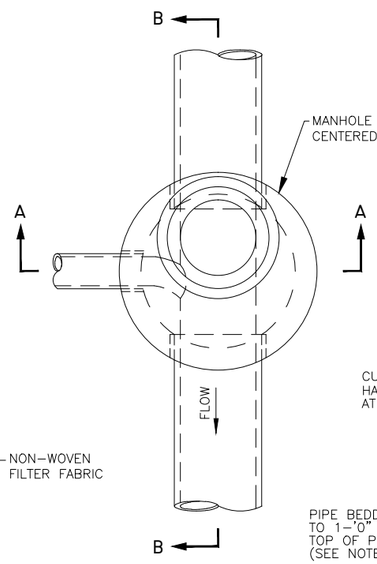
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
DOGHOUSE MANHOLE

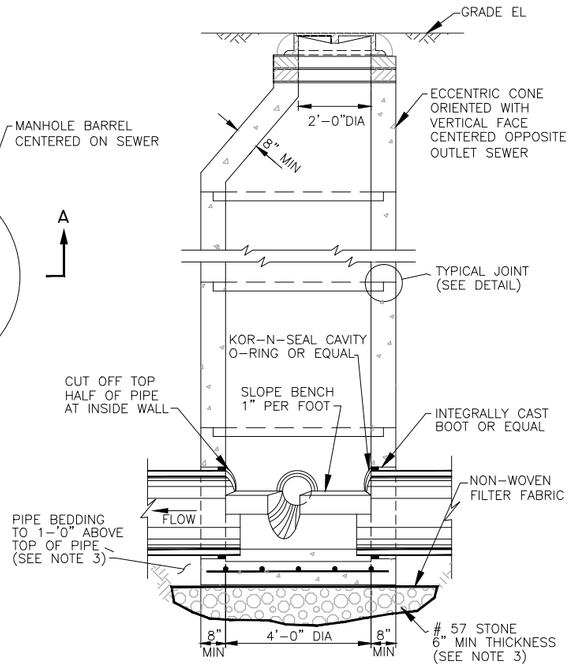
SHEET
WW-120
OF
WW-129



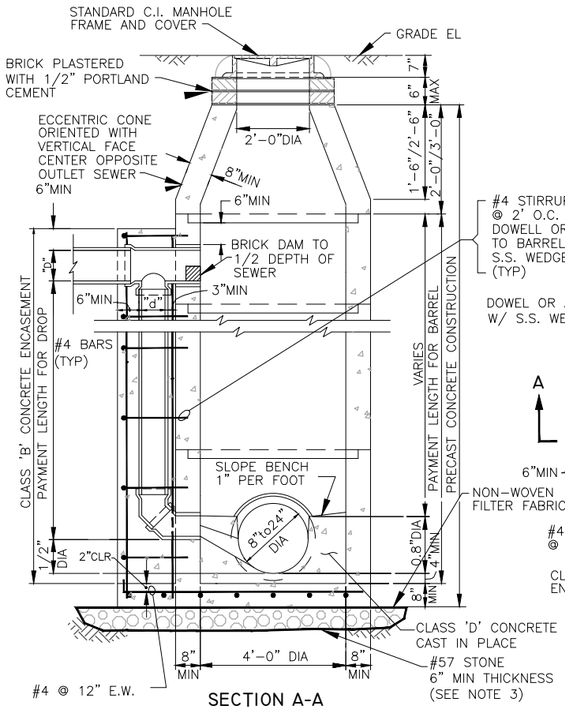
SECTION A-A



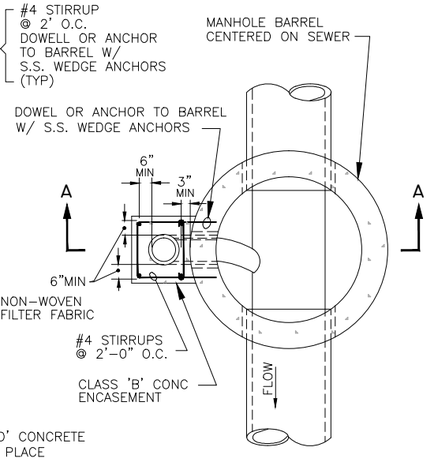
PLAN



SECTION B-B



SECTION A-A

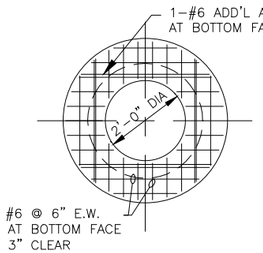


SECTIONAL PLAN

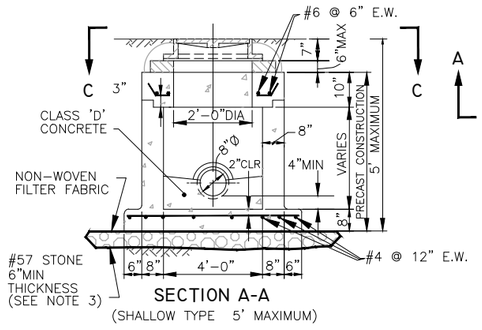
STANDARD MANHOLE – DEEP TYPE

FOR SEWERS 24" OR LESS IN DIAMETER

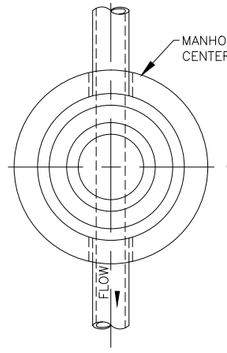
N.T.S



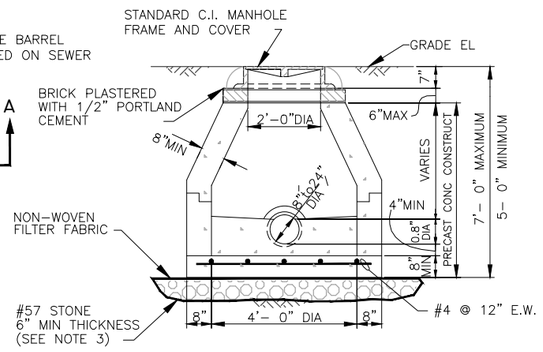
CONCRETE SLAB DETAIL
SECTION C-C



SECTION A-A
(SHALLOW TYPE 5' MAXIMUM)



PLAN



SECTION A-A
5'-0" TO 7'-0" DEEP
(SEE NOTE 4)

STANDARD MANHOLE – SHALLOW TYPE

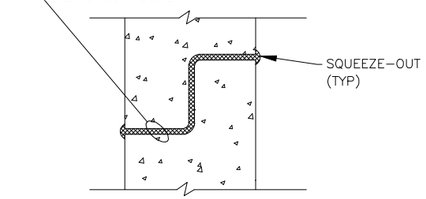
FOR SEWERS 24" OR LESS IN DIAMETER

N.T.S

STANDARD DROP MANHOLE

FOR SEWERS 24" OR LESS IN DIAMETER

N.T.S

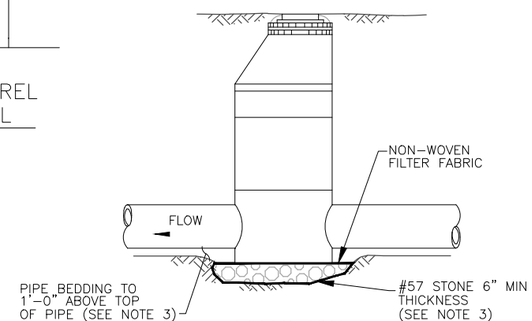


MANHOLE BARREL JOINT DETAIL

N.T.S

(SEE NOTE 5)

SCHEDULE FOR DROP MANHOLE	
INLET PIPE DIAMETER "D"	DROP PIPE DIAMETER "d"
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
21"	18"
24"	18"



ELEVATION

FOR SEWERS 24" OR LESS IN DIAMETER

N.T.S

NOTES

1. REINFORCING STEEL FOR ALL MANHOLES SHALL CONFORM TO ASTM-C478 AND PLACED AS DESCRIBED IN THE SPECIFICATIONS.
2. ALL PIPE STUBS FROM MANHOLES FOR FUTURE CONNECTIONS OR OTHER CONTRACT DIVISIONS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM WITHIN THE MANHOLE.
3. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS AND PLACEMENTS AND COMPACTION OF PIPE AND STRUCTURE BEDDING.
4. STANDARD SHALLOW-TYPE MANHOLES WITH DEPTHS BETWEEN A MAXIMUM OF 7'-0" AND A MINIMUM OF 5'-0" MUST HAVE A CONCRETE CONE FOR THE TOP SECTION.
5. ALL MANHOLE JOINTS MUST BE SEALED WITH AN ACCEPTABLE JOINT SEALING COMPOUND REGARDLESS OF WHETHER AN O-RING GASKET IN A PREFORMED GROOVE IS USED.
6. FILTER FABRIC SHALL BE NON-WOVEN FABRIC PER D.O.T. SPECIFICATION SECTIONS 514 AND 985 AND SHALL BE WRAPPED ENTIRELY AROUND THE #57 STONE.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
STANDARD MANHOLE 8 TO 24

SHEET WW-121 OF WW-129

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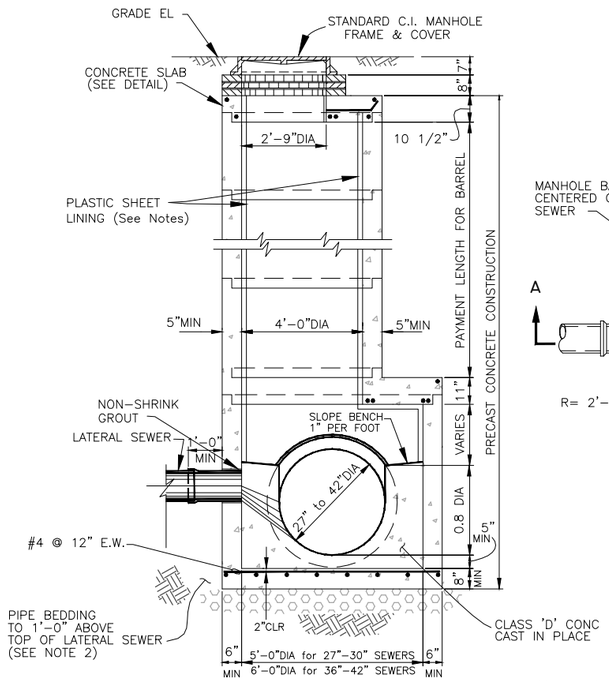
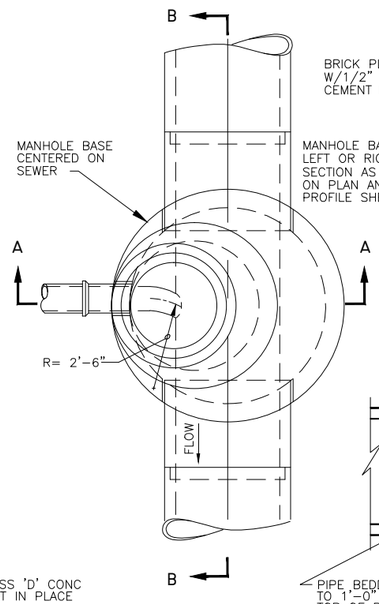
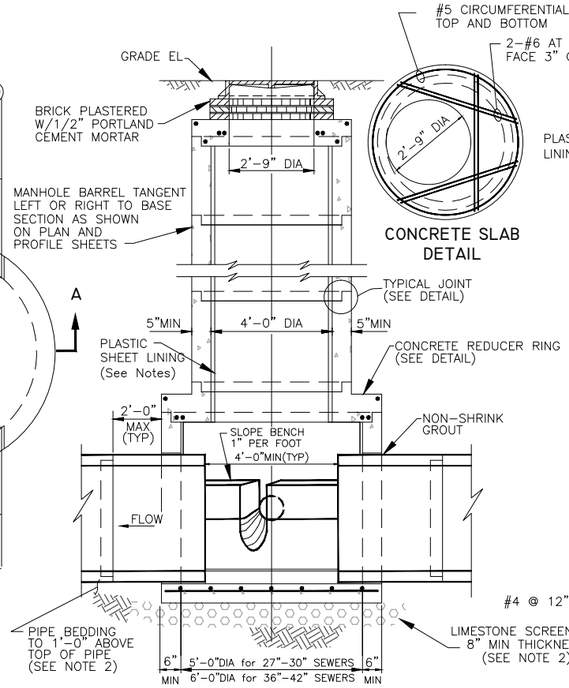
SW



SECTION A-A

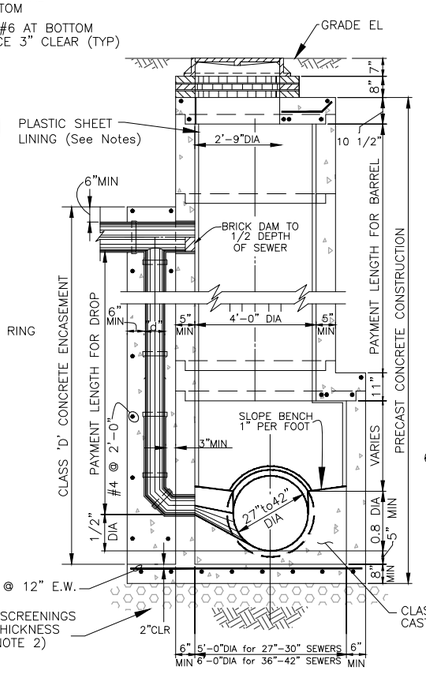


PLAN



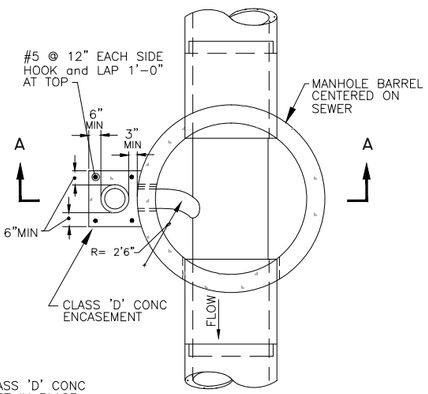
CONCRETE SLAB DETAIL

SECTION B-B



SECTION A-A

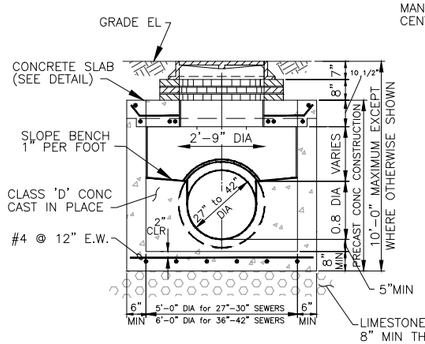
SCHEDULE FOR DROP MANHOLE	
INLET PIPE DIAMETER "D"	DROP PIPE DIAMETER "d"
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
21"	18"
24"	18"



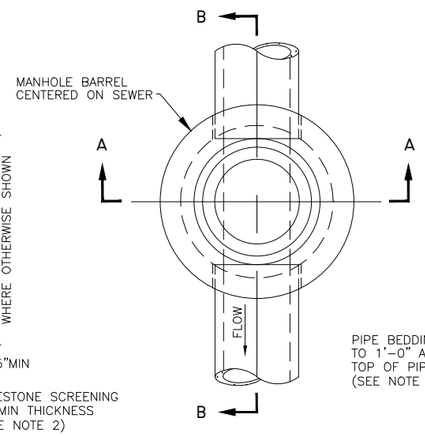
SECTIONAL PLAN

STANDARD MANHOLE – DEEP TYPE
FOR SEWERS 27" THROUGH 42" IN DIAMETER
N.T.S

STANDARD DROP MANHOLE
FOR SEWERS 27" THROUGH 42" IN DIAMETER
N.T.S



SECTION A-A



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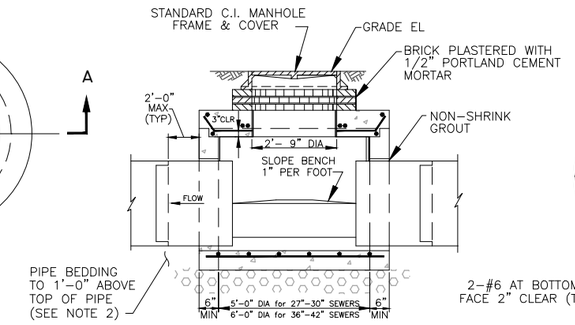
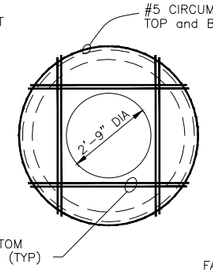
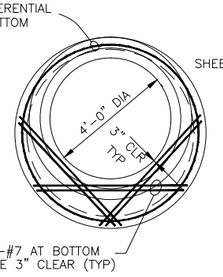


SECTION B-B

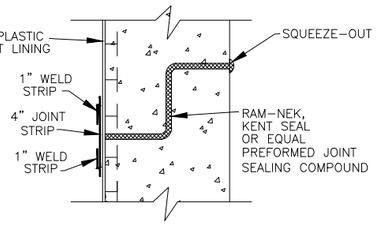
STANDARD MANHOLE – SHALLOW TYPE
FOR SEWERS 27" THROUGH 42" IN DIAMETER
N.T.S



CONCRETE SLAB DETAIL
(SHALLOW TYPE MANHOLE)



REDUCER RING DETAIL



MANHOLE BARREL JOINT DETAIL

NOTES:

1. ALL PIPE STUBS FROM MANHOLES FOR FUTURE CONNECTIONS TO OTHER CONTRACT DIVISIONS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM WITHIN THE MANHOLE.
2. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS AND PLACEMENT AND COMPACTION OF PIPE BEDDING AND LIMESTONE SCREENINGS.
3. PLASTIC SHEET LINER SHALL BE "T-LOCK" BY AMERON INTERNATIONAL OR APPROVED EQUAL.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
STANDARD MANHOLE 27 TO 42

SHEET WW-122
OF WW-129

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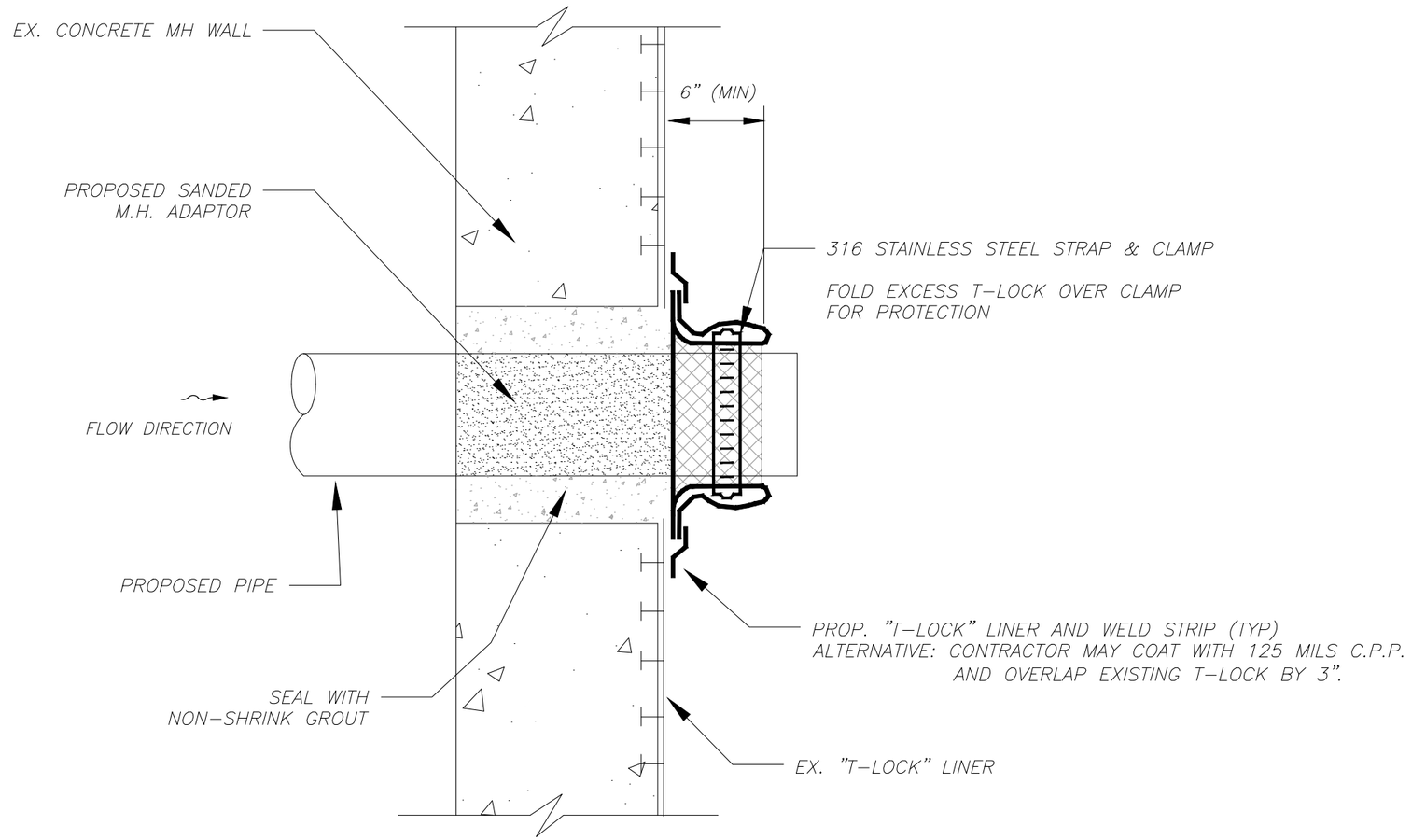

PIPE TO LINED STRUCTURE
N.T.S.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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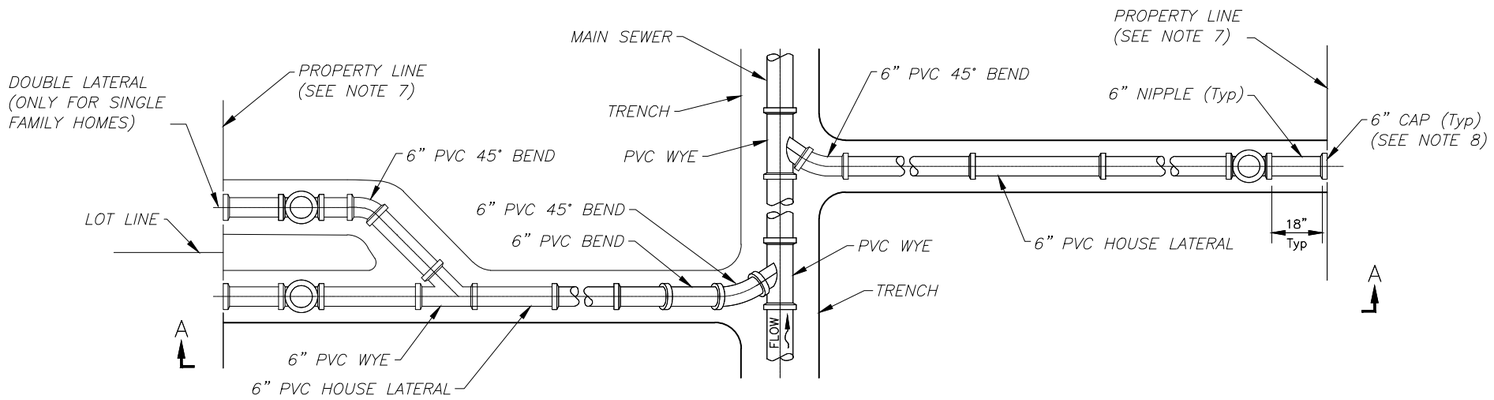
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CONNECT EX. T-LOCK MH

SHEET
WW-123
OF
WW-129



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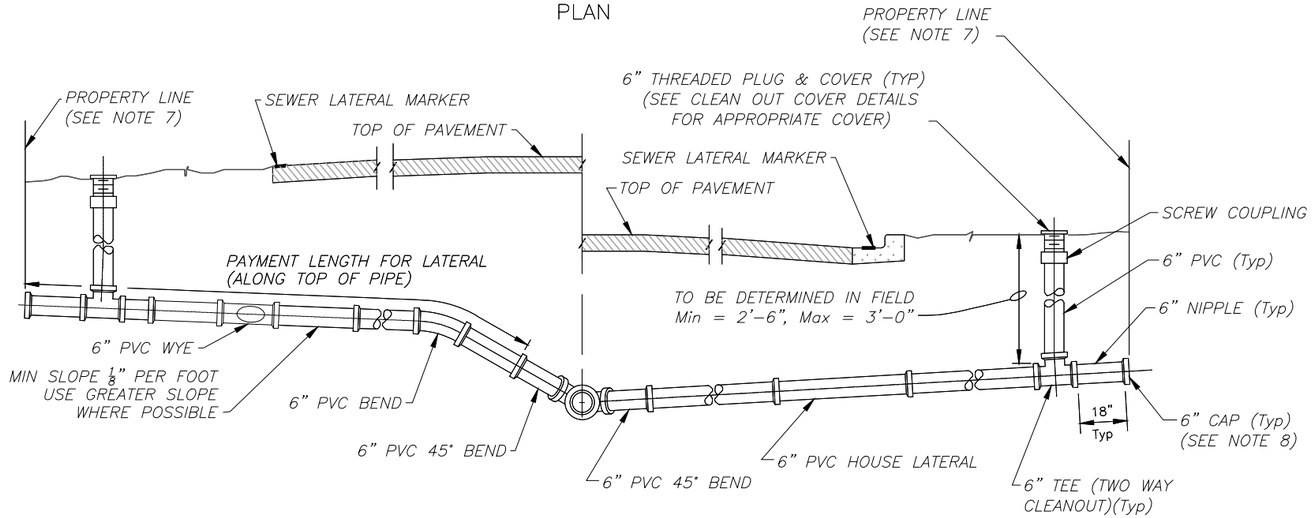

SECTION A–A

TYPE A HOUSE LATERAL DETAIL
Not to Scale

NOTES:

1. *The locations of house laterals by symbols on plans are approximate only and the actual location and slopes will be determined in the field by the contractor with the approval of the engineer.*

2. *The minimum diameter of all house laterals shall be 6 inches.*

3. *The vertical alignment of the service lateral shall be designed so that no more than two (2) vertical bends are required between the connection to the gravity main and the property line.*

4. *House laterals which pass under drainage ditches with less than 18" of cover or which have less than 30" of cover under pavement shall be Pressure Class 350 with 40 mils (MDFT) of Protecto 401 interior coating per specifications.*

5. *A minimum vertical clearance of 12–inches shall be provided when crossing above a water main. However, a vertical clearance less than 12–inches but greater than 6–inches will be allowed if the lateral is installed using one the following criteria:*

   - *The lateral is constructed of ductile iron pipe with a minimum pressure class of 350 with 40 mils (MDFT) of Protecto 401 interior coating.*
   - *The lateral is encased in at least 4–inches of concrete.*
   - *The lateral is installed in a casing pipe with an impact strength equal to the impact strength of pressure class 350 ductile iron.*

   A minimum of 6–inches of vertical clearance shall be provided when crossing below water mains with a diameter 6–inches or less. A minimum of 12–inches of clearance shall be provided when crossing below a water main with a diameter greater than 6–inches up to a diameter of 18–inches. A minimum of 18–inches of vertical clearance will be required when crossing under a water main with diameters greater than 18–inches.

   At all water main crossings, joints of the lateral pipe at the crossing shall be arranged so that no joint is within 6–ft of a joint along the water main. If the joint spacing can not be achieved, then the gravity sewer at the crossing shall be constructed of C–900 PVC.

   A minimum vertical clearance of 6–inches shall be provided when crossing above all utilities other than a water main. A minimum of 6–inches of vertical clearance shall be provided when crossing below a utility with a diameter 6–inches or less. A minimum of 12–inches of clearance shall be provided when crossing below a utility with a diameter greater than 6–inches up to a diameter of 18–inches. A minimum of 18–inches of vertical clearance will be required when crossing under utilities with diameters greater than 18–inches.

6. *Transitions from SDR 35 PVC to either C900 or ductile iron pipes shall be made with PVC rigid adaptors. Transitions from SDR 35 PVC to either existing clay or concrete pipes shall be made with a Fernco 1000 series flexible coupling with stainless steel shear ring or approved equal.*

7. *In sub–divisions where the Developer has provided a recorded utility easement (typically 10') beyond the property line, the clean out shall be installed within the easement away from the sidewalk.*

8. *At the direction of the City's inspector, the contractor shall temporarily stake the cap of all laterals at the property line with a 2"x4" treated wood stake.*

9. *Double laterals are only allowed for single family homes on single lots.*

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Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
NEW LATERAL CONNECTIONS

SHEET WW-124
OF WW-129

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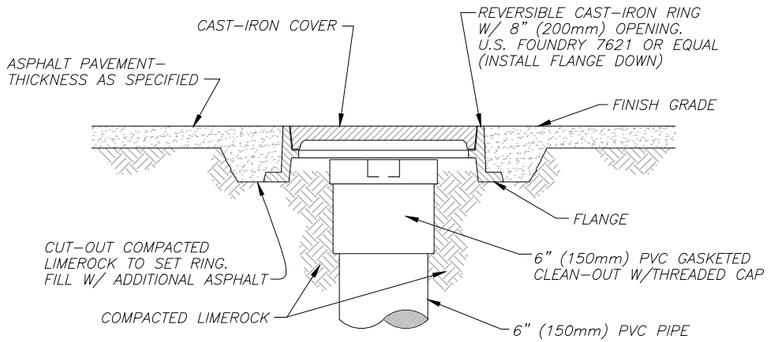
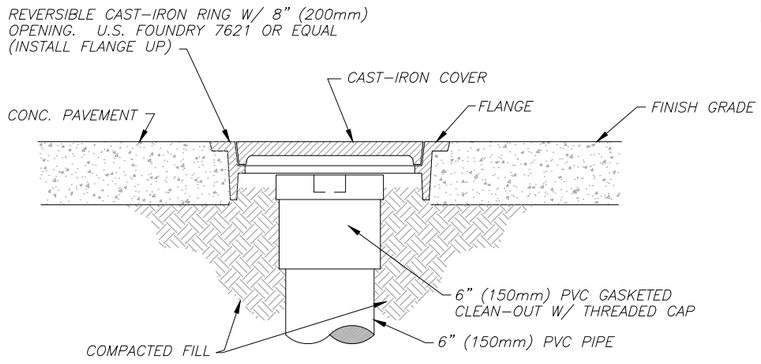


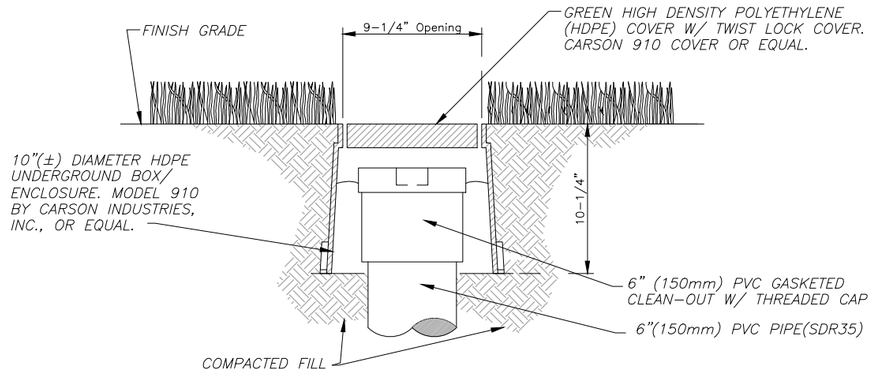
CLEAN–OUT W/ COVER FOR ASPHALT PAVED AREAS

Not to Scale



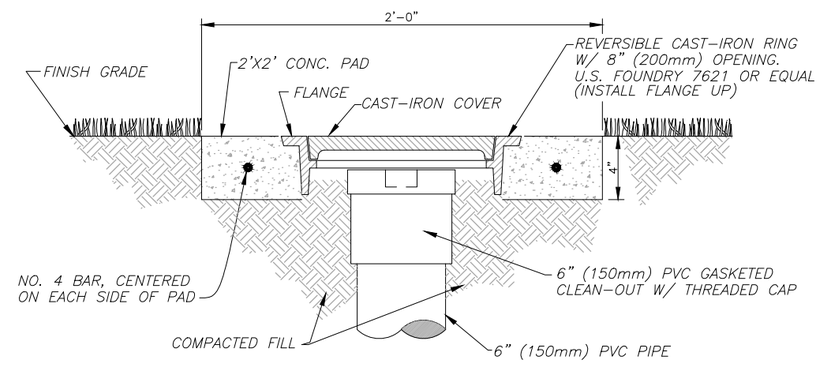
CLEAN–OUT W/ COVER FOR CONCRETE PAVED AREAS

Not to Scale



CLEAN–OUT W/ COVER FOR GRASS (NON–VEHICULAR TRAFFIC) AREAS

Not to Scale



CLEAN–OUT W/COVER FOR GRASSED AREAS W/VEHICULAR TRAFFIC

Not to Scale

NOTES:

1. *Contractor shall adjust the clean–out and cast iron ring and cover or HDPE box and cover so that the cover is seated securely and the top of the cover is flush with the finish grade. The PVC cap of the clean–out shall be no more than 4 inches deeper than the finish grade.*
2. *PVC cap may be provided with recessed nut.*
3. *Cast iron cover shall be provided with an embossed letter "S" for identification, HDPE cover shall be marked "SEWER" for identification.*
4. *Cast iron ring and cover, or HDPE box and cover, as well as the four (4 sf) square feet of material (concrete or asphalt around the clean–out), are part of the clean out installation and cost shall be included within the unit price for clean–out with no additional payment.*
5. *All clean–outs on this project shall be one of the four types shown on this sheet. Field conditions will determine which type.*

CLEANOUT COVER DETAILS

Not to Scale

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

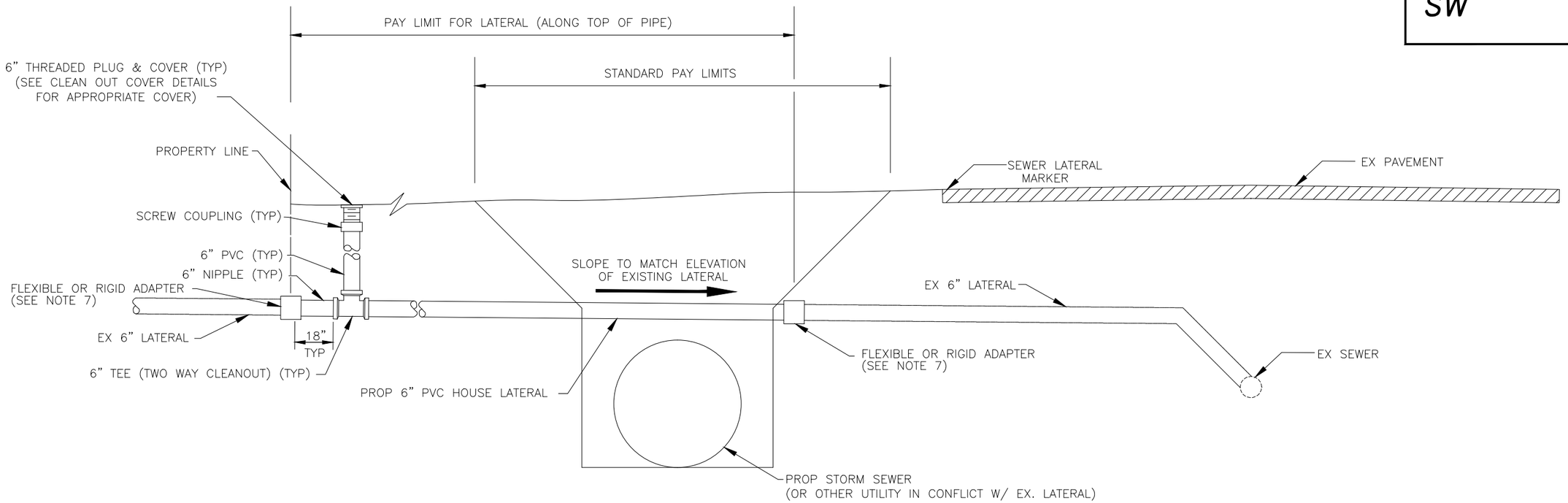
DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
CLEANOUT COVER DETAILS

SHEET WW-125
OF WW-129

SW



NOTES

1. CONTRACTOR SHALL REMOVE AND REPLACE THE EXISTING LATERALS WITHIN THE PAY LIMITS AND FROM THE PAY LIMITS TO THE PROPERTY LINE. THE NEW 6" PVC LATERAL SHALL BE CONNECTED TO THE EXISTING LATERAL PIPE USING FLEXIBLE ADAPTERS. A NEW CLEAN–OUT AND CLEAN–OUT COVER SHALL BE INSTALLED ON THE R/W SIDE OF THE PROPERTY LINE AND WILL BE PAID FOR UNDER SEPARATE PAY ITEM.

2. SEWER SERVICE MUST BE MAINTAINED DURING CONSTRUCTION.

3. THE LOCATIONS OF HOUSE LATERALS BY SYMBOLS ON PLANS ARE APPROXIMATE ONLY AND THE ACTUAL LOCATION AND SLOPES WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.

4. THE MINIMUM DIAMETER OF ALL HOUSE LATERALS SHALL BE 6".

5. HOUSE LATERALS WHICH PASS UNDER DRAINAGE DITCHES WITH LESS THAN 18" OF COVER OR WHICH HAVE LESS THAN 30" OF COVER UNDER PAVEMENT SHALL BE PRESSURE CLASS 350 WITH 40 MILS (MDFT) OF PROTECTO 401 INTERIOR COATING.

6. A MINIMUM VERTICAL CLEARANCE OF 12–INCHES SHALL BE PROVIDED WHEN CROSSING ABOVE A WATER MAIN. HOWEVER, A VERTICAL CLEARANCE LESS THAN 12–INCHES BUT GREATER THAN 6–INCHES WILL BE ALLOWED IF THE LATERAL IS INSTALLED USING ONE THE FOLLOWING CRITERIA:

   - THE LATERAL IS CONSTRUCTED OF DUCTILE IRON PIPE WITH A MINIMUM PRESSURE CLASS OF 350 WITH 40 MILS (MDFT) OF PROTECTO 401 INTERIOR COATING.
   - THE LATERAL IS ENCASED IN AT LEAST 4–INCHES OF CONCRETE.
   - THE LATERAL IS INSTALLED IN A CASING PIPE WITH AN IMPACT STRENGTH EQUAL TO THE IMPACT STRENGTH OF PRESSURE CLASS 350 DUCTILE IRON.

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   AT ALL WATER MAIN CROSSINGS, JOINTS OF THE LATERAL PIPE AT THE CROSSING SHALL BE ARRANGED SO THAT NO JOINT IS WITHIN 6–FT OF A JOINT ALONG THE WATER MAIN. IF THE JOINT SPACING CAN NOT BE ACHIEVED, THEN THE GRAVITY SEWER AT THE CROSSING SHALL BE CONSTRUCTED OF C–900 PVC.

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7. TRANSITIONS FROM SDR 35 PVC TO EITHER C900 OR DUCTILE IRON PIPES SHALL BE MADE WITH PVC RIGID ADAPTORS. TRANSITIONS FROM SDR 35 PVC TO EITHER EXISTING CLAY OR CONCRETE PIPES SHALL BE MADE WITH FERNCO 1000 SERIES FLEXIBLE COUPLING WITH STAINLESS STEEL SHEAR RING OR APPROVED EQUAL.

HOUSE LATERAL REPLACEMENT DETAIL

Not to Scale

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
STANDARD HOUSE LATERAL
REPLACEMENT DETAIL

SHEET WW-126 OF WW-129

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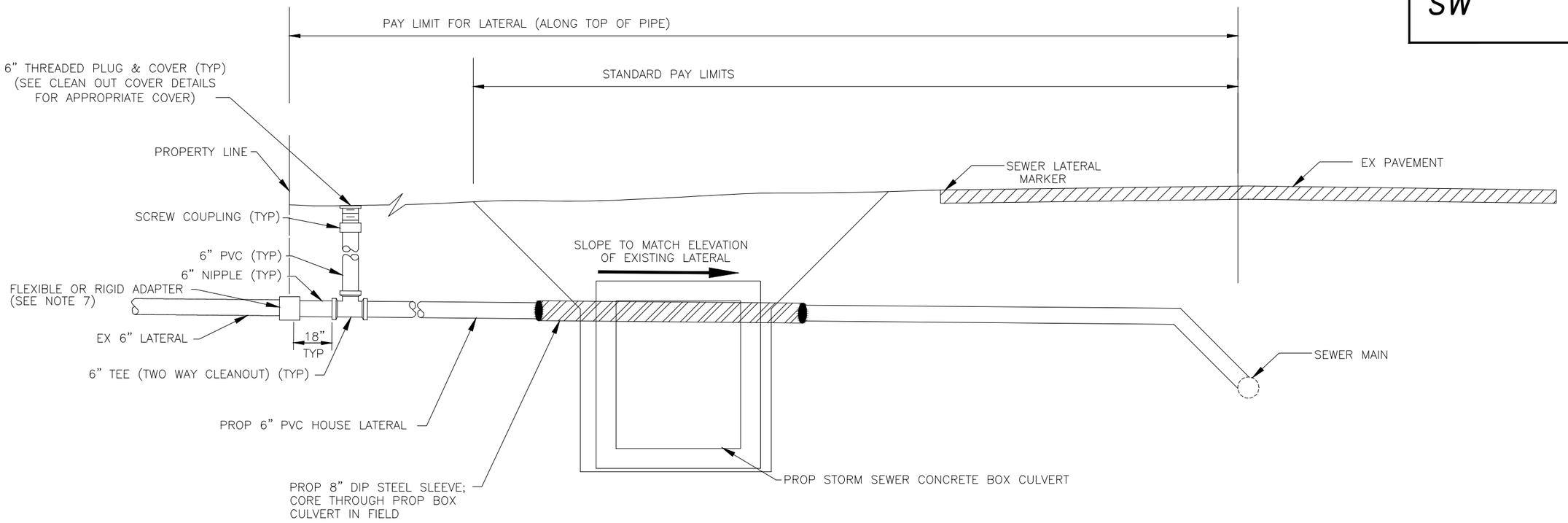
SW



NOTES

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2. SEWER SERVICE MUST BE MAINTAINED DURING CONSTRUCTION.

3. THE LOCATIONS OF HOUSE LATERALS BY SYMBOLS ON PLANS ARE APPROXIMATE ONLY AND THE ACTUAL LOCATION AND SLOPES WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.

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HOUSE LATERAL REPLACEMENT DETAIL – MODIFIED THROUGH BOX CULVERT

Not to Scale

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HOUSE LATERAL REPLACEMENT
DETAIL-THROUGH CULVERT

SHEET
WW-127
OF
WW-129

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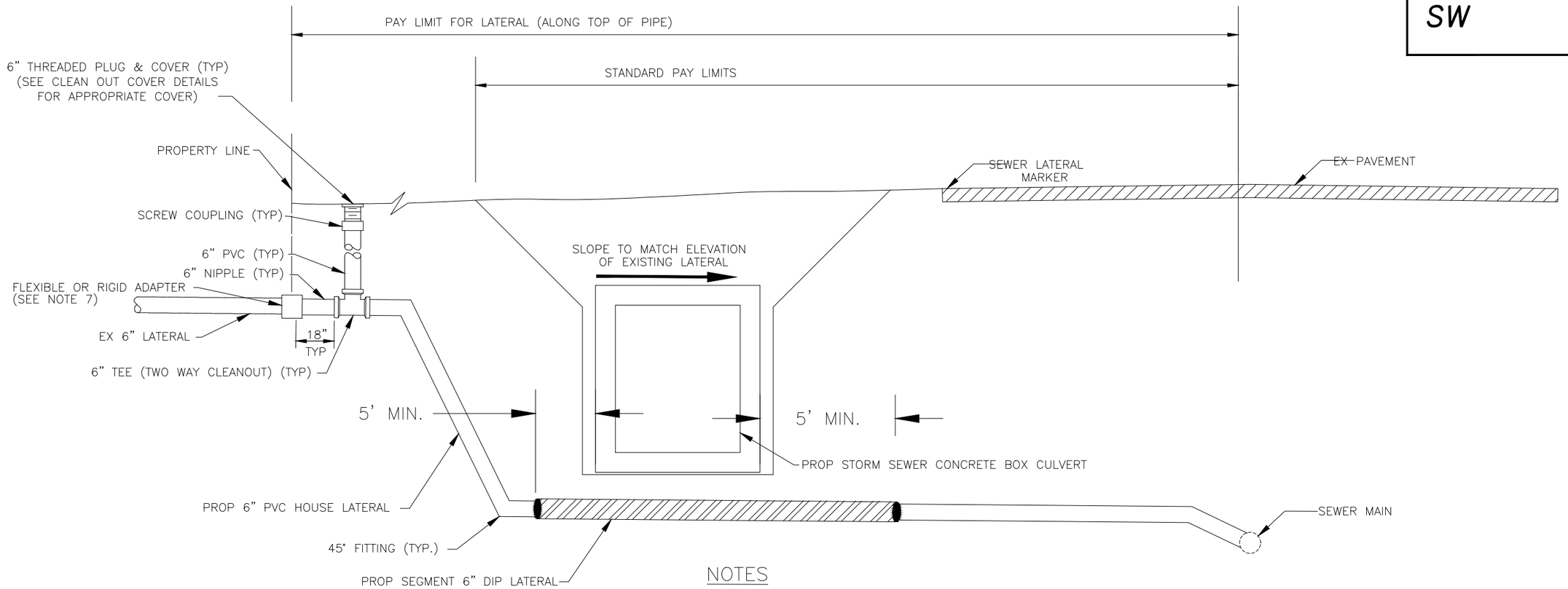
SW



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HOUSE LATERAL REPLACEMENT DETAIL – MODIFIED UNDER BOX CULVERT

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: ALC
DRN: ASA
CKD: MDC
DATE: 7/15/16

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
HOUSE LATERAL REPLACEMENT
DETAIL UNDER CULVERT

SHEET WW-128 OF WW-129

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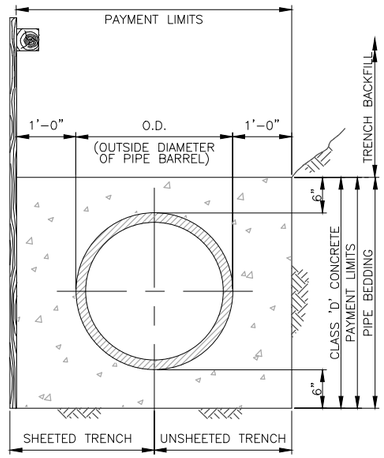
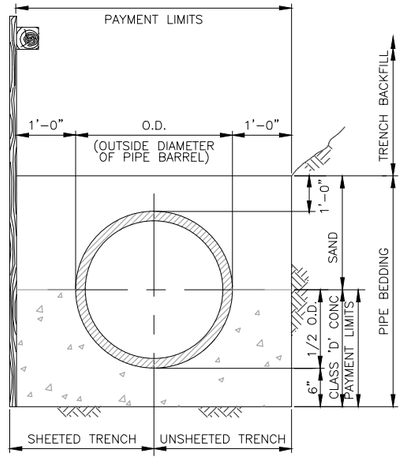


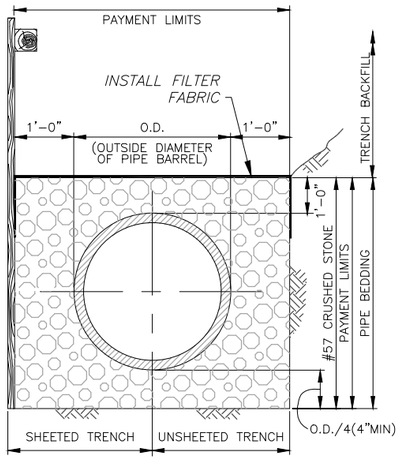
CONCRETE ENCASEMENT



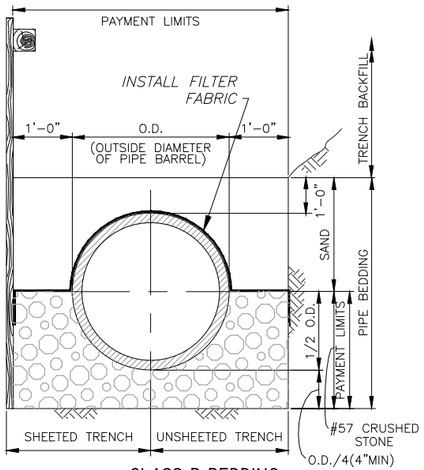
CLASS A BEDDING (CONCRETE CRADLE)

NOTES:

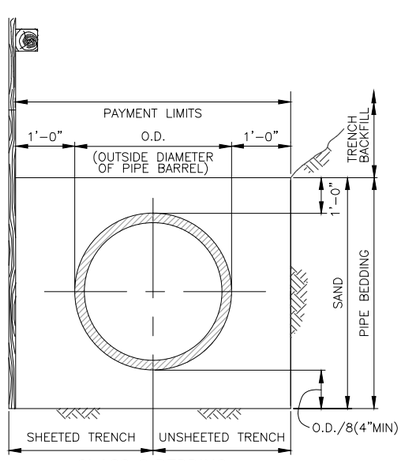
1 ALL TYPES OF PIPE BEDDING SHALL EXTEND TO UNDISTURBED EARTH AT SIDES AND BOTTOM OF THE TRENCH.
2. SAND AND CRUSHED STONE PIPE BEDDING SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS.



CLASS B-I BEDDING

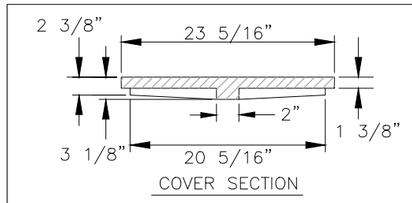


CLASS B BEDDING
(ONLY ALLOWED WITH CITY INSPECTOR APPROVAL)

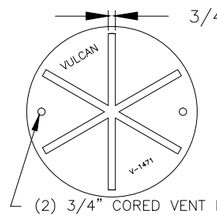


CLASS C BEDDING

PIPE BEDDING DETAILS
N.T.S.

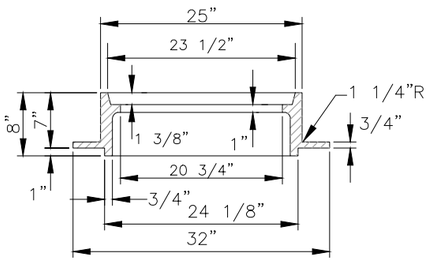


COVER SECTION



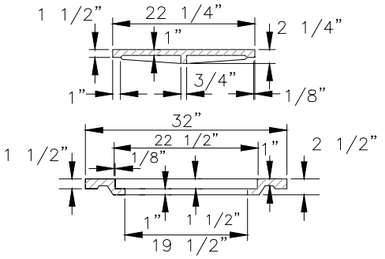
(2) 3/4" CORED VENT HOLES
COVER BACK

COVER FACE

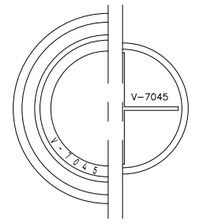


FRAME SECTION

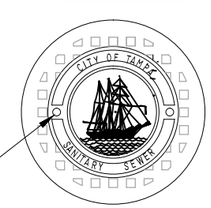
FOR MH'S OF SEWERS 24" OR LESS IN DIAMETER:
VULCAN FOUNDRY NO. V-1471,
U.S. FOUNDRY NO. 575-AT, OR EQUAL



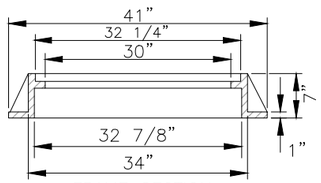
INNER & OUTER COVER SECTIONS



COVER BACKS



COVER FACES



FRAME SECTION

FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER:
VULCAN FOUNDRY NO. V-7045,
U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

HEAVY DUTY CAST IRON MANHOLE FRAME & COVER DETAILS
N.T.S.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
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CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

UPPER PENINSULA STORMWATER IMPROVEMENTS
PHASE II (VASCONIA OUTFALL)
MISC. GRAVITY DETAILS

SHEET WW-129 of WW-129