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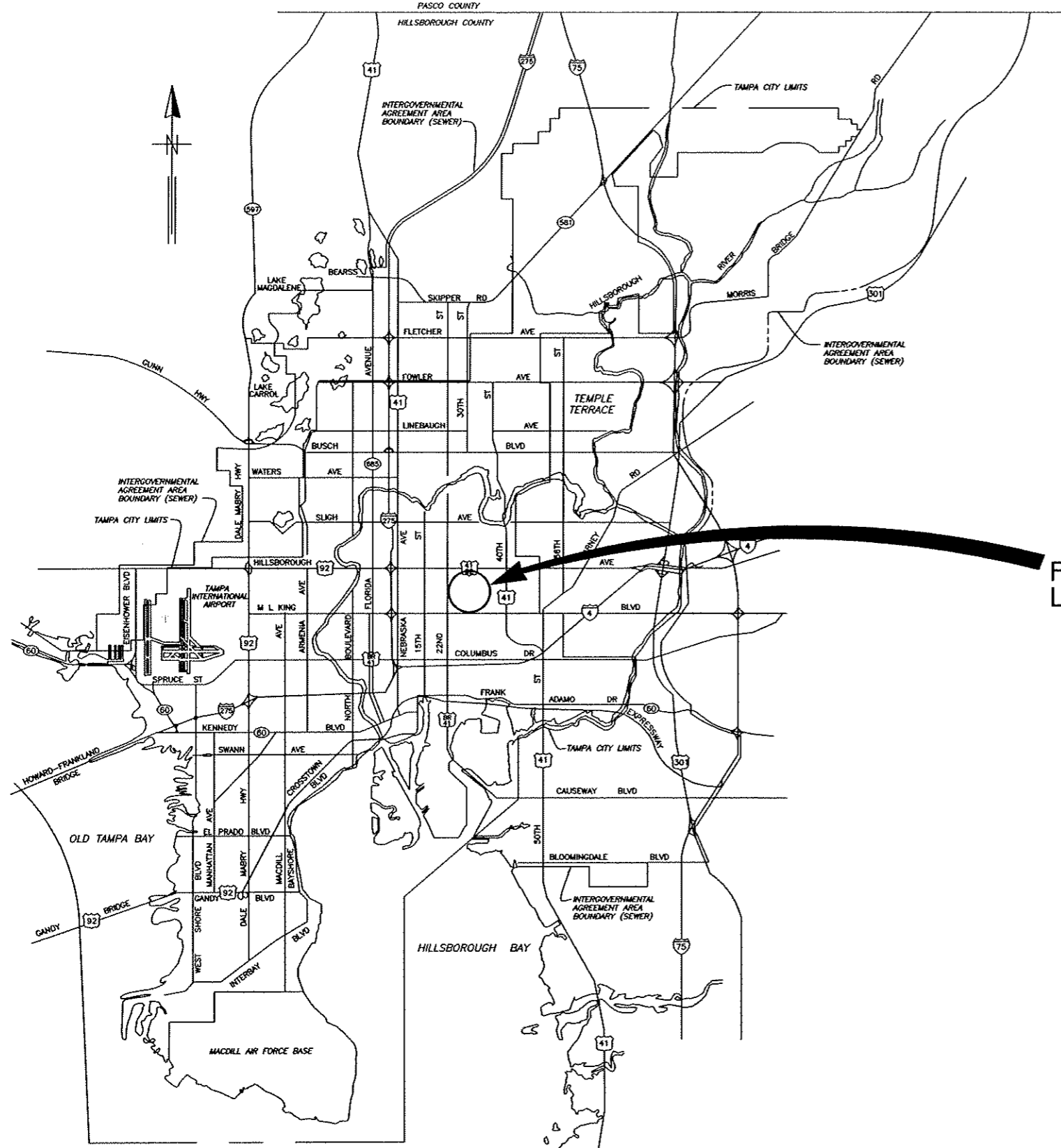
FOR ASSISTANCE OR
TO REGISTER
CONTACT:

[MAILTO:CONTRACTADMINISTRATION@TAMPAGOV.NET](mailto:CONTRACTADMINISTRATION@TAMPAGOV.NET)

(813)274-8456, FAX 274-8080
CONTRACT ADMINISTRATION DEPARTMENT
306 E. JACKSON ST. #280A4N
TAMPA, FL 33602

LOCATION MAP

SW



CITY of TAMPA



PROJECT LOCATION

STORMWATER DEPARTMENT

PLANS FOR
EAST CURTIS STREET STORMWATER IMPROVEMENTS

CONTRACT NO.
10-C-00010

100% SUBMITTAL

F:\PROJECTS\08-020-CURTIS-ROAD\DRAWINGS\DESIGN&CONSTRUCTION\COVERSHEET.DWG

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

DES:	No.	DATE	REVISIONS
MDC	3		
DRN: BLM	2		
CKD: LDC	1		
DATE: 8/09			

CITY of TAMPA
STORMWATER DEPARTMENT

COVER SHEET

W.O. 5130
SHEET
1
OF 16

LEGEND

EX SEWERS	UP to 24" & SMALLER	24" & LARGER
EX FORCE MAIN		
EX SAN SEWER & MANHOLES		
EX STORM SEWER & MANHOLES		
PROP SEWERS		
PROP STORM SEWER & MANHOLES		
PROP SANITARY SEWER & MANHOLES		

OTHER FEATURES

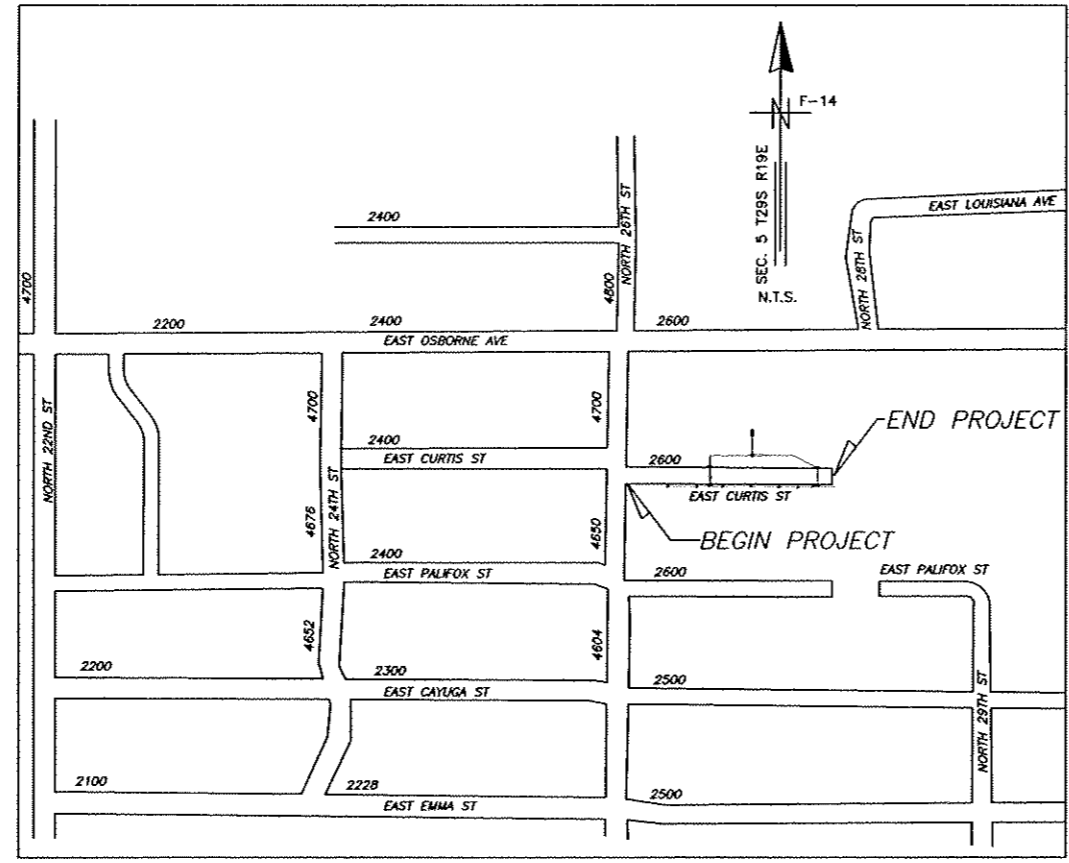
RIGHT of WAY LINE	
EDGE of PAVEMENT	
WATER LINE	
GAS LINE	
ELECTRICAL CABLE or DUCT	
TELEPHONE CABLE or DUCT	
TV CABLE	
VALVE	
HYDRANT	
CATCH BASIN, GRATE	
POWER POLE	
TELEPHONE POLE	
GUY POLE	
GUY WIRE	
VALVE VAULT	
WATER METER	
ELECTRICAL MANHOLE or VAULT	
TELEPHONE MANHOLE or VAULT	
TRAFFIC BOX or VAULT	
BUILDING LIMIT	
PROPERTY OWNERSHIP	
FENCE	
TREE	
HEDGE	
RAILROAD TRACKS	
IRON PIPE	
CONCRETE MONUMENT	
OPEN DITCHES	
EXISTING WYE	
PROPOSED WYE	
CLEAN OUT	
EROSION CONTROL/SILT FENCE	

ABBREVIATIONS

TOP of PIPE	TP	DUCTILE IRON PIPE	DIP
INVERT ELEVATION	IE or INV EL	REINFORCED CONCRETE PIPE	RCP
RIGHT of WAY	R/W	CONCRETE PIPE	CP
MANHOLE	MH or M	APPROXIMATE LOCATION	AL
POLYVINYL CHLORIDE PIPE	PVCP	BENCH MARK	BM
VITRIFIED CLAY PIPE	VCP	POINT of INTERSECTION	PI
ADVANCED DRAINAGE SYSTEM	ADS		

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GENERAL NOTES:

- ELEVATIONS BASED ON NORTH AMERICAN VERTICAL DATUM 1988.
- 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.
- EXISTING UTILITIES AND TOPOGRAPHIC INFORMATION DENOTED BY UPPER AND LOWER CASE. PROPOSED WORK DENOTED BY ALL UPPER CASE.
- THE CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

- 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.
- PRIOR TO ANY CONSTRUCTION, CONTACT TAMPA ELECTRIC COMPANY (PH 228-4111) FOR EXACT LOCATION OF UNDERGROUND LINES. TECO TO RELOCATE ANY CONFLICTING LINES.
- PRIOR TO ANY CONSTRUCTION, CONTACT VERIZON FOR EXACT LOCATION OF UNDERGROUND LINES. VERIZON TO RELOCATE ANY CONFLICTING LINES.
- STATIONS AND OFFSETS GIVEN ARE TO THE CENTER LINE OF THE INLETS AND MANHOLES, AND REFER TO THE SURVEY BASE LINES.
- THE SOLID WASTE DEPARTMENT IS TO BE NOTIFIED PRIOR TO ANY STREET CLOSURES IN THE PROJECT AREA.
- TREE REMOVAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING SITE CLEARING PERMIT PRIOR TO START OF ANY CONSTRUCTION.
- NECESSARY ROOT PRUNING AND TRIMMING OF BRANCHES SHALL BE DONE BY A CERTIFIED ARBORIST.
- 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.
- SOD ALL THE DISTURBED AREAS AS DIRECTED BY THE ENGINEER AND NOTED ON PLANS.
- WHERE CONNECTIONS TO EXISTING DRIVES AND WALKS ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.
- STREET SIGNS, STREET MARKERS AND R-O-W MARKERS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER.
- MAILBOXES SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER AND NOTED PLANS.
- 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.
- 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.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE CITY OF TAMPA DEPARTMENT ORDINANCES AND REGULATIONS.

No.	DATE	REVISIONS	No.	DATE	REVISIONS	DES: MDC	CITY of TAMPA STORMWATER DEPARTMENT	EAST CURTIS STREET STORMWATER IMPROVEMENTS INDEX, LEGEND AND GENERAL NOTES	W.O. 5130
6			3			DRN: BLM			SHEET
5			2			CKD: LDC			2
4			1			DATE: 8/09			OF 16

GENERAL NOTES (CONT.):

20. WATER MAIN SHALL BE LAID 3.0 FEET OR MORE BELOW PROPOSED GRADE.
21. CONFLICTS BETWEEN WATER AND STORM, SANITARY SEWER AND UNDERDRAIN SYSTEMS ARE TO BE RESOLVED BY ADJUSTING WATER LINES AS NECESSARY UPON APPROVAL BY ENGINEER AND CITY OF TAMPA WATER DEPARTMENT.
22. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL APPLICABLE PERMITS ON-SITE AND SHALL BE RESPONSIBLE TO ADHERE TO ALL PERMIT CONDITIONS DURING CONSTRUCTION.
23. ADJUSTMENTS OF VALVE BOX COVERS, INLETS, MANHOLE RIMS AND COVER, GRATES, WATER METERS, ETC., SHALL BE INCLUDED IN THE CONTRACTOR'S BID AND NO CLAIM SHALL BE MADE AGAINST THE CITY OF TAMPA OR ENGINEER FOR THESE ADJUSTMENTS, IF REQUIRED.
24. 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.
25. COMPACTION FOR PIPE BACKFILL SHALL COMPLY WITH AASHTO T-99 (100%).
26. ALL WATER MAINS SHALL BE CONSTRUCTED IN A MANNER SUCH AS TO MAINTAIN A MINIMUM OF THREE (3) FEET HORIZONTAL SEPARATION FROM OTHER UTILITIES' FACILITIES.
27. SANITARY SEWERS, FORCE MAINS, AND STORM SEWERS SHOULD ALWAYS CROSS UNDER WATER MAINS. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.

WHERE SANITARY SEWERS, FORCE MAINS AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE, AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING. WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER THE WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES AND 10 FEET BETWEEN JOINTS SHALL BE REQUIRED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).

28. A MINIMUM 5-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS). ALL WATER MAIN JOINTS SHALL BE RESTRAINED JOINTS WHERE APPLICABLE AND SHALL CONFORM TO THE CITY OF TAMPA SPECIFICATIONS AND DETAILS.

SITE NOTES:

1. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET DOWN IN CITY OF TAMPA LAND DEVELOPMENT, ZONING AND/OR RELATED ORDINANCES.
2. ALL PROPOSED WORK SHALL COMPLY WITH F.D.O.T. INDEX NO. 700.
3. ALL RIGHT-OF-WAY INSTALLATIONS MUST COMPLY WITH THE STATE OF FLORIDA UTILITIES ACCOMMODATIONS GUIDE.

SITE NOTES (CONT.):

4. 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 AN INDEPENDENT TESTING LABORATORY AND THE RESULTS SUPPLIED TO THE ENGINEER.
5. 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.
6. 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.
7. 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.
8. 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.
9. CONTRACTOR SHALL SPRINKLE OR OTHERWISE APPLY WATER TO AFFECTED CONSTRUCTION AREA TO CONTROL BOTH SIGNIFICANT WIND EROSION OR FUGITIVE DUST.
10. 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. WIRE FABRIC SHALL CONFORM TO ASTM A185. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-04. SIX-INCH (6") MESH, 10-GAUGE WIRE FABRIC SHALL BE USED IN SLABS FOUR INCHES (4") THICK. SIX-INCH (6") MESH WIRE FABRIC SHALL BE USED IN SLABS THICKER THAN FOUR INCHES (4"). SUBSURFACE SHALL BE FREE FROM TROWEL OR MACHINE MARKS. SURFACE VARIATIONS SHALL NOT EXCEED 1/4 INCH UNDER TEN-FOOT (10') STRAIGHT EDGE.
11. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH FDOT INDEX No. 17346 AND 17352, CURRENT FDOT STANDARD SPECIFICATIONS AND DESIGN STANDARDS.

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. NG THE SITE CLEARING PHASE.

SW

No.	DATE	REVISIONS	No.	DATE	REVISIONS
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STORMWATER DEPARTMENT

EAST CURTIS STREET
STORMWATER IMPROVEMENTS
GENERAL NOTES

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TREE PROTECTION NOTES (CONT.):

7. 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.

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 PROTECTION. 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.

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 PERFORMED 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.

EROSION/TURBIDITY CONTROL NOTES (CONT.):

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. CRUSHED CONCRETE SHALL BE PERMITTED AS AN ALTERNATE BASE COURSE.
2. CONTRACTOR MAY TEST AND SUBMIT GEOTECHNICAL REPORT TO REUSE EXISTING BASE MATERIAL.
3. ALL REMOVAL WITHIN PROPOSED EXCAVATION AREAS ARE PART OF PIPE, INLET AND MANHOLE CONSTRUCTION.
4. 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.
5. INCLUDE 10% OVERLAP ON MIRAFI AND 4 FEET EXTRA PER END (ONE ROLL = 300 FT - 15 FT WIDE).
6. CONTRACTOR TO RE-USE EXISTING SEWER RING & COVER, BRICK AND MORTAR IN PLACE.
7. EXISTING WATER MAIN APPEARS TO BE 2" DIP, CONTRACTOR TO VERIFY.
8. RESET EXISTING WATER METERS AND BOXES.
9. WATERLINE TESTING THAT MAY BE REQUIRED SHALL BE INCLUDED IN WATER PER UNIT PRICES.

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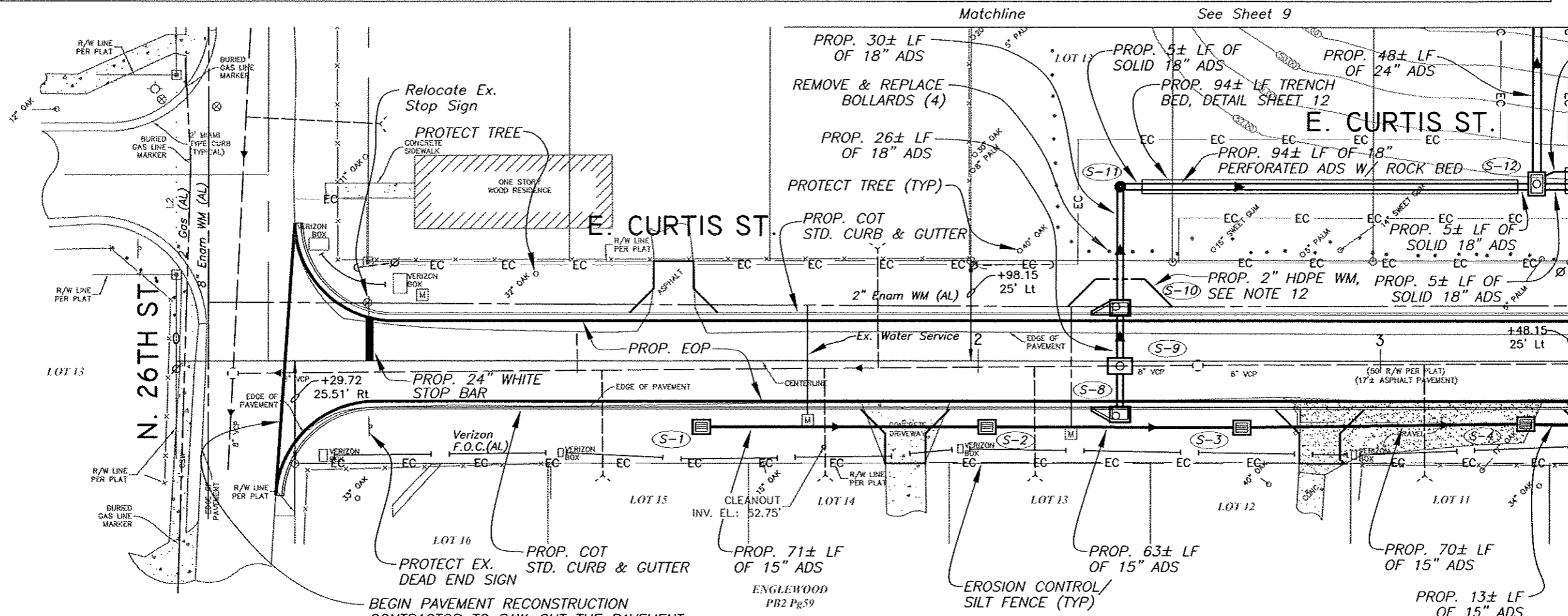
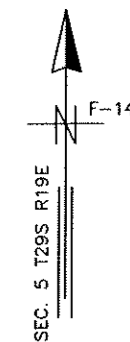
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NOTES:

- CONTRACTOR TO REMOVE AND REPLACE EX. WATER SERVICE LINES TO INSTALL ADS STORM PIPE.
- CONTRACTOR TO PROTECT THE EX. SAN. SEWER SERVICES. IN THE EVENT OF REPAIR OR REPLACEMENT THE CONTRACTOR SHALL USE SDR35 PVC AND TRANSITIONS FROM PVC TO EXISTING VCP OR CONCRETE PIPE SHALL BE WITH FERNCO FLEXIBLE ADAPTORS OR EQUAL.
- CONTRACTOR TO PROTECT THE EX. VERIZON CONDUIT, CONTROL BOXES & PULL BOXES.
- ALL REMOVAL WITHIN PROPOSED EXCAVATION AREAS IS PART OF PIPE, INLET AND MANHOLE CONSTRUCTION.
- 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 PRICE ITEMS.

- CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY W/ BAHIA SOD.
- CONTRACTOR TO INSTALL COT STD. CURB & GUTTER FROM STA. 0+27.24 TO STA. 5+39.10.
- CONTRACTOR TO PROTECT/REPLACE AS NEEDED EXISTING MAILBOXES.
- CONTRACTOR TO REMOVE EXISTING STORM/DRIVEWAY CULVERTS PER PLAN.
- CONTRACTOR TO PROTECT ALL TECO PEOPLES GAS LINES AND SERVICES.
- CONTRACTOR TO REPLACE EXISTING WATER SERVICES WITH 1" HDPE WITHIN SOUTH SIDE OF RIGHT-OF-WAY (6 TOTAL) AND RESET EXISTING METER AND BOX.
- CONTRACTOR TO CUT AND REMOVE EXISTING 2" WATERMAIN TO NEAREST JOINT AND INSTALL 2" TRANSITION TO 2" HDPE AT EACH CONNECTION POINT.

SW



S-1 STA 1+30.98, 16.32'± RT
 PROP. TYPE T MODIFIED INLET
 INV. 15" ADS (E)= 53.55
 GRATE EL= 55.80
 NOTCH EL (W)= 54.00

S-3 STA 2+65.71, 16.50'± RT
 PROP. TYPE T MODIFIED INLET
 INV. 15" ADS (W)= 52.69
 INV. 15" ADS (E)= 52.69
 GRATE EL= 54.50

S-8 STA 2+35.21, 13.25'± RT
 PROP. TYPE 2 STD. INLET
 INV. 18" ADS (N)= 52.00
 THROAT EL=54.50
 RIM & COVER USF #1175

S-10 STA 2+35.21, 13.25'± LT
 PROP. TYPE 2 STD. INLET
 INV. 18" ADS (S)= 51.92
 INV. 18" ADS (N)= 51.92
 THROAT EL=54.50
 RIM & COVER USF #1175

S-12 STA 3+39.33, 44.24'± LT
 PROP. TYPE J BOX W/
 MH RISER
 INV. 18" ADS (W)= 50.00
 INV. 18" ADS (E)= 50.00
 INV. 24" ADS (N)= 49.50
 RIM EL= 53.17

S-2 STA 2+2.17, 16.38'± RT
 PROP. TYPE T STD. INLET
 INV. 15" ADS (W)= 53.41
 INV. 15" ADS (E)= 53.41
 GRATE EL= 55.00

S-4 STA 3+36.75, 15.53' RT.
 PROP. TYPE T STD. INLET
 INV. 15" ADS (W)= 52.55
 INV. 15" ADS (E)= 50.49
 GRATE EL= 54.50

S-9 STA 2+35.21, 1.20'± RT
 PROP. STD. CONFLICT MANHOLE
 INV. 18" ADS (S)= 51.96
 INV. 18" ADS (N)= 51.96
 INV. 8" SAN (W)= 51.76
 INV. 8" SAN (E)= 51.76
 RIM EL=55.38
 RIM & COVER USF #1175

S-11 STA 2+35.21, 43.54'± LT
 PROP. 4' STD. MANHOLE
 INV. 18" ADS (S)= 51.83
 INV. 18" ADS (E)= 50.10
 RIM EL= 54.50
 RIM & COVER USF #1175

NOTE:
 CONTRACTOR SHALL CONTACT
 ONE CALL SYSTEM WITHIN 48
 HOURS PRIOR TO ANY
 CONSTRUCTION.

NOTE:
 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.

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

DES: MDC
 DRN: BLM
 CKD: LDC
 DATE: 8/09

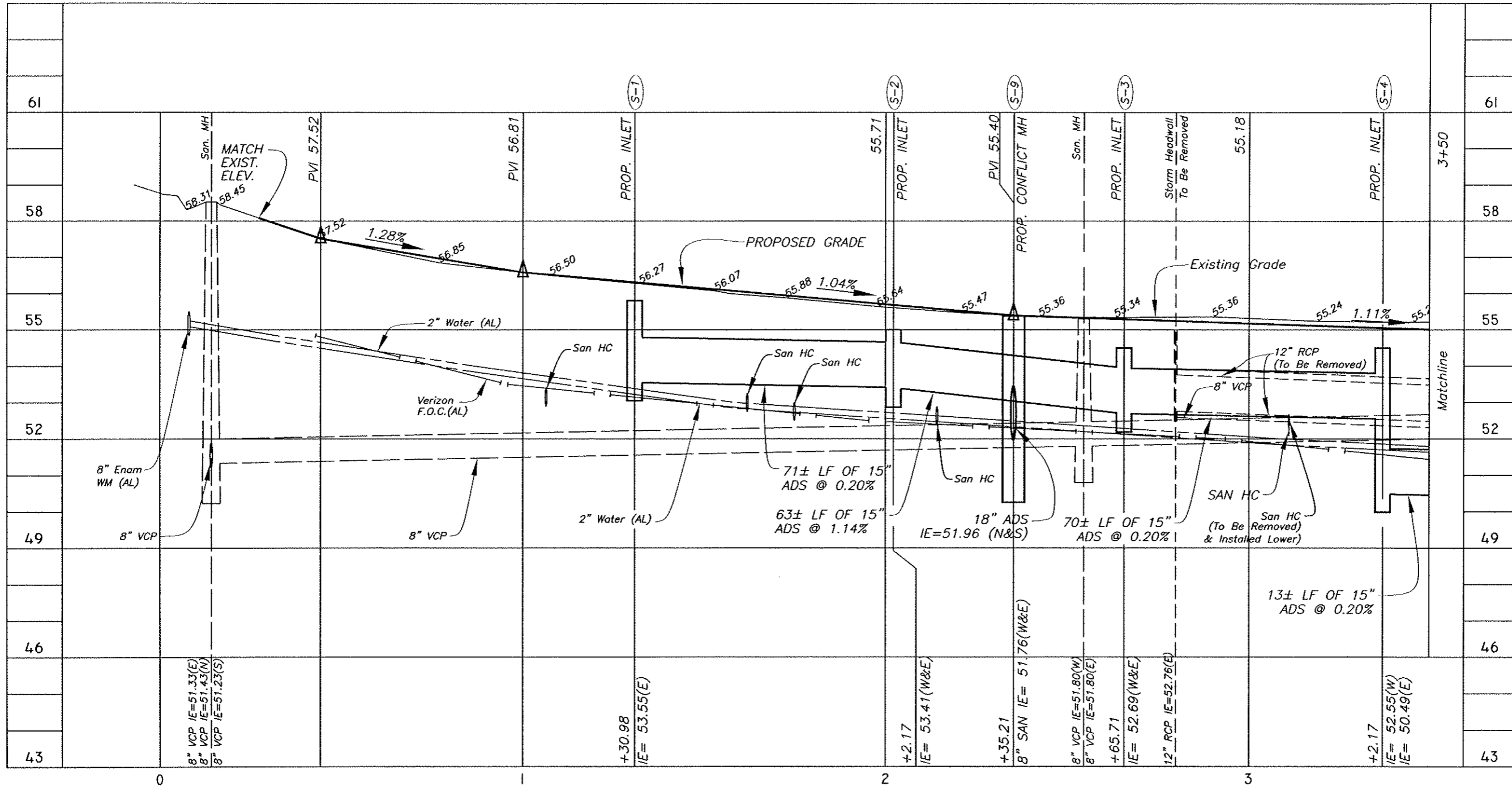
CITY of TAMPA
 STORMWATER DEPARTMENT

EAST CURTIS STREET
 STORMWATER IMPROVEMENTS

W.O. 5130
 SHEET
5
 OF 16

NOTES:

1. SEE SHEET 11 FOR THE PAVEMENT SECTION AND TYPICAL DETAIL.
2. CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY W/ BAHIA SOD.
3. CONTRACTOR TO INSTALL COT STD. CURB & GUTTER FROM STA. 0+27.24 TO STA. 5+39.10.



SCALE
 1"=30' HORIZONTAL
 1"=3' VERTICAL

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CITY of TAMPA
 STORMWATER DEPARTMENT

EAST CURTIS STREET
 STORMWATER IMPROVEMENTS

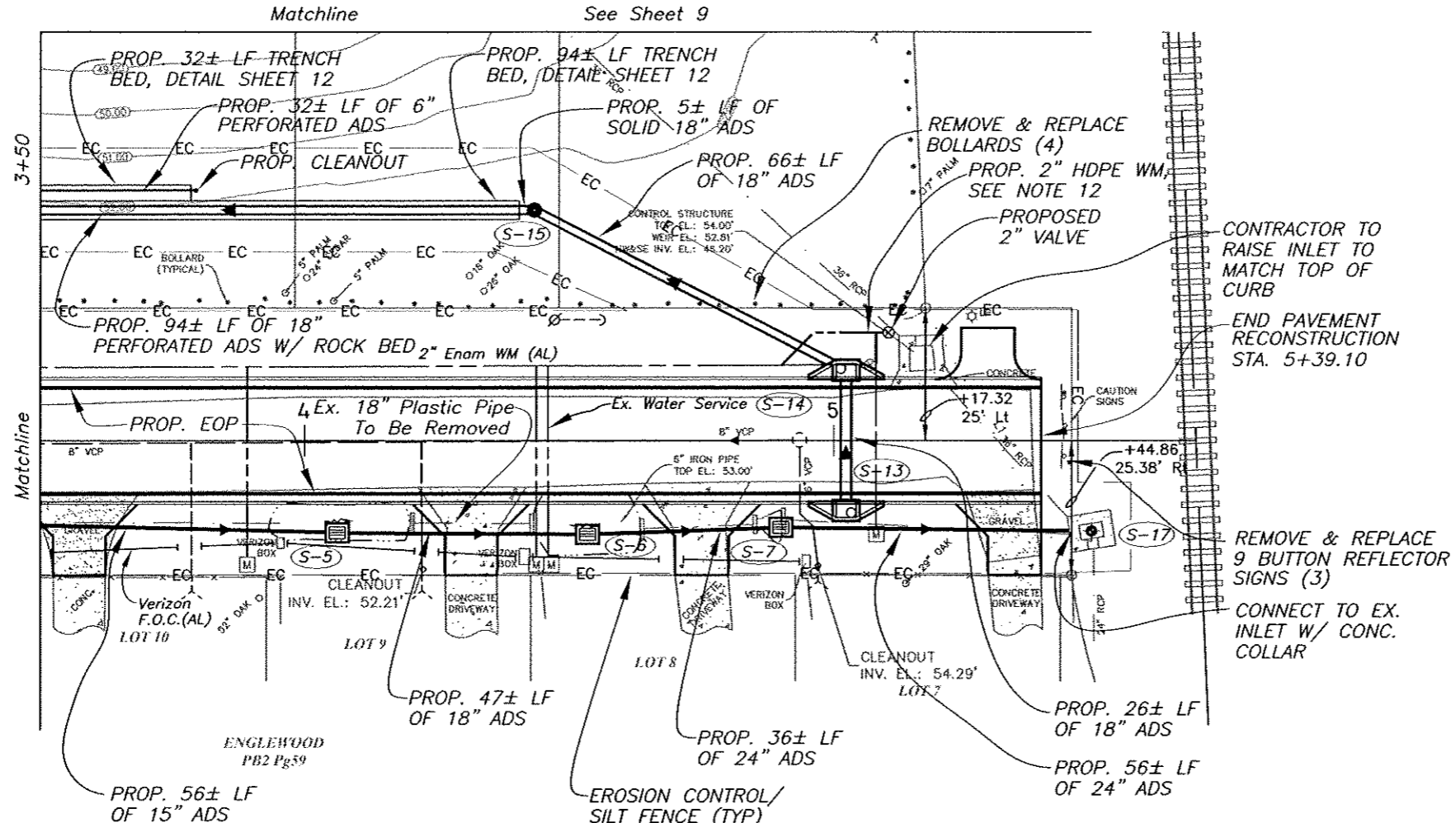
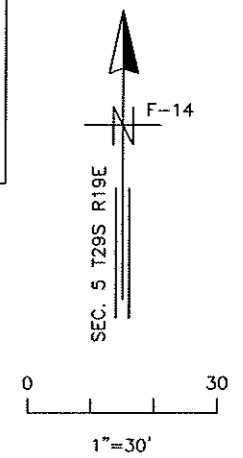
W.O. 5130
 SHEET
6
 OF 16

NOTES:

1. CONTRACTOR TO REMOVE AND REPLACE EX. WATER SERVICE LINES TO INSTALL ADS STORM PIPE.
2. CONTRACTOR TO PROTECT THE EX. SAN. SEWER SERVICES. IN THE EVENT OF REPAIR OR REPLACEMENT THE CONTRACTOR SHALL USE SDR35 PVC AND TRANSITIONS FROM PVC TO EXISTING VCP OR CONCRETE PIPE SHALL BE WITH FERNCO FLEXIBLE ADAPTORS OR EQUAL.
3. CONTRACTOR TO PROTECT THE EX. VERIZON CONDUIT, CONTROL BOXES & PULL BOXES.
4. ALL REMOVAL WITHIN PROPOSED EXCAVATION AREAS IS PART OF PIPE, INLET AND MANHOLE CONSTRUCTION.
5. 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 PRICE ITEMS.

6. CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY W/ BAHIA SOD.
7. CONTRACTOR TO INSTALL COT STD. CURB & GUTTER FROM STA. 0+27.24 TO STA. 5+39.10.
8. CONTRACTOR TO PROTECT/REPLACE AS NEEDED EXISTING MAILBOXES.
9. CONTRACTOR TO REMOVE EXISTING STORM/DRIVEWAY CULVERTS PER PLAN.
10. CONTRACTOR TO PROTECT ALL TECO PEOPLES GAS LINES AND SERVICES.
11. CONTRACTOR TO REPLACE EXISTING WATER SERVICES WITH 1" HDPE WITHIN SOUTH SIDE OF RIGHT-OF-WAY (6 TOTAL) AND RESET EXISTING METER AND BOX.
12. CONTRACTOR TO CUT AND REMOVE EXISTING 2" WATERMAIN TO NEAREST JOINT AND INSTALL 2" TRANSITION TO 2" HDPE AT EACH CONNECTION POINT.

SW



NOTE:
CONTRACTOR TO HAVE RAILROAD FLAGMAN ON SITE DURING PERIODS OF WORK WITHIN 25' OF THE CENTERLINE OF THE EXISTING TRACK.

TEMPORARY BENCH MARK
STA. 5+48.67, 17.06' RT
ELEV = 54.30
S-17 TOP

NOTE:
CONTRACTOR SHALL CONTACT ONE CALL SYSTEM WITHIN 48 HOURS PRIOR TO ANY CONSTRUCTION.

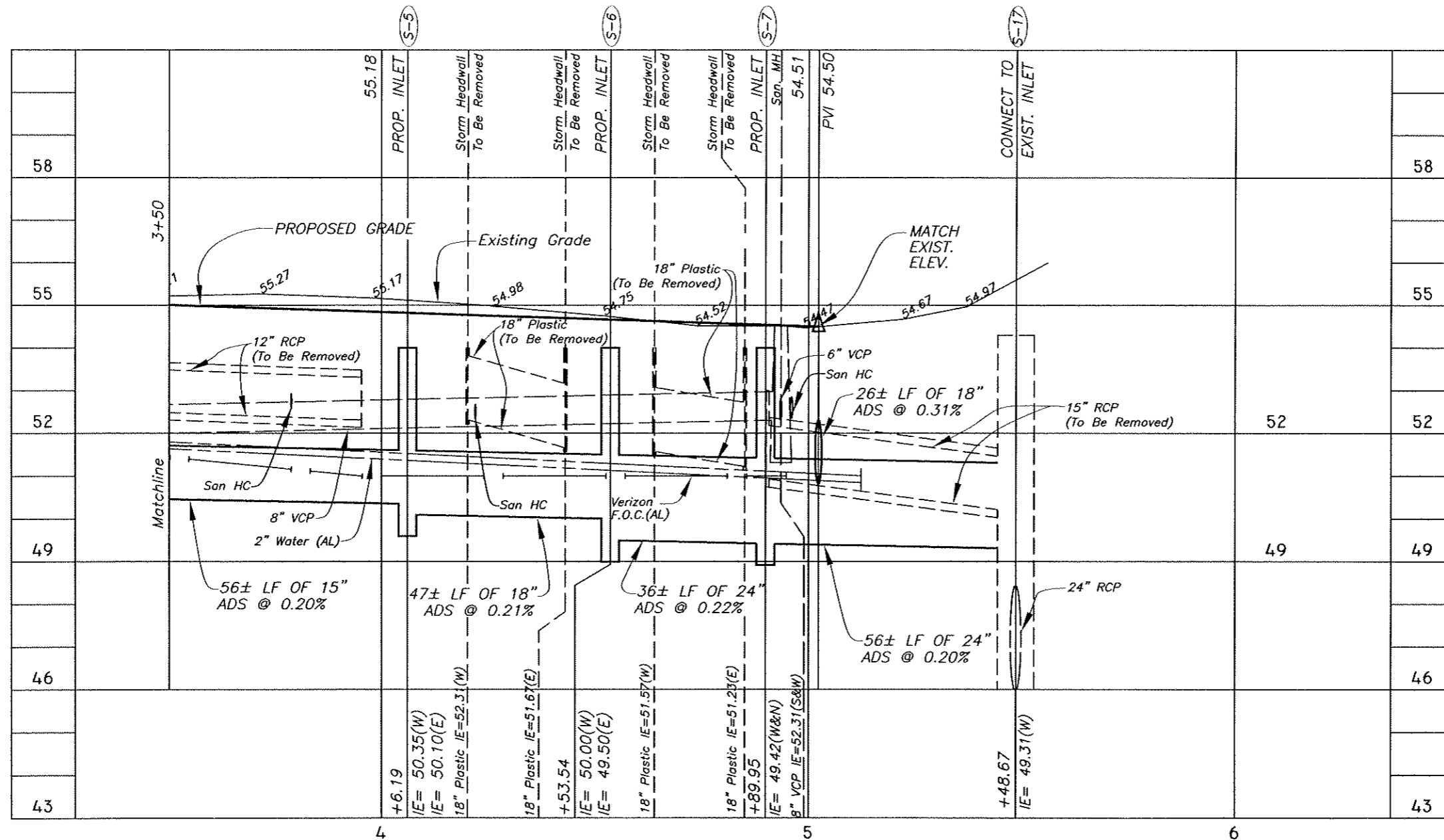
NOTE:
ALL TREES SHALL BE PROTECTED, ROOT PRUNING AND CANOPY PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST. ALL ROOT PRUNING AS WELL AS CANOPY PRUNING SHALL BE PERFORMED UNDER THE CITY OF TAMPA PARKS DEPARTMENT SUPERVISION.

- (S-5) STA 4+6.19, 17.39'± RT
PROP. TYPE T STD. INLET
INV. 15" ADS (W)= 50.35
INV. 18" ADS (E)= 50.10
GRATE EL= 54.00
- (S-6) STA 4+53.54, 17.67'± RT
PROP. TYPE T STD. INLET
INV. 18" ADS (W)= 50.00
INV. 24" ADS (E)= 49.50
GRATE EL= 54.00
- (S-7) STA 4+89.95, 16.37'± RT
PROP. TYPE T STD. INLET
INV. 24" ADS (W)= 49.42
INV. 24" ADS (N)= 49.42
GRATE EL= 54.00
- (S-13) STA 5+2.35, 13.25'± RT
PROP. TYPE 3 STD. INLET
INV. 18" ADS (N)= 50.85
THROAT EL= 53.60
RIM & COVER USF #1175
- (S-14) STA 5+2.35, 13.25'± LT
PROP. TYPE 3 STD. INLET
INV. 18" ADS (S)= 50.77
INV. 18" ADS (NW)= 50.77
THROAT EL= 53.60
RIM & COVER USF #1175
- (S-15) STA 4+43.45, 43.54'± LT
PROP. 4' STD. MANHOLE
INV. 18" ADS (SE)= 50.10
INV. 18" ADS (W)= 50.10
RIM EL= 53.00
RIM & COVER USF #1175
- (S-17) STA 5+48.67, 17.06'± RT
EX. CONTROL STRUCTURE
EX. INV. 36" RCP (NW)= 46.03
EX. INV. 15" RCP (W)= 50.22
(TO BE REMOVED)
EX. INV. 24" RCP (S)= 46.19
INV. 24" ADS (W)= 49.31

No.	DATE	REVISIONS	No.	DATE	REVISIONS	DES: MDC	CITY of TAMPA STORMWATER DEPARTMENT	EAST CURTIS STREET STORMWATER IMPROVEMENTS	W.O. 5130
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5			2			CKD: LDC			7
4			1			DATE: 8/09			OF 16

NOTES:

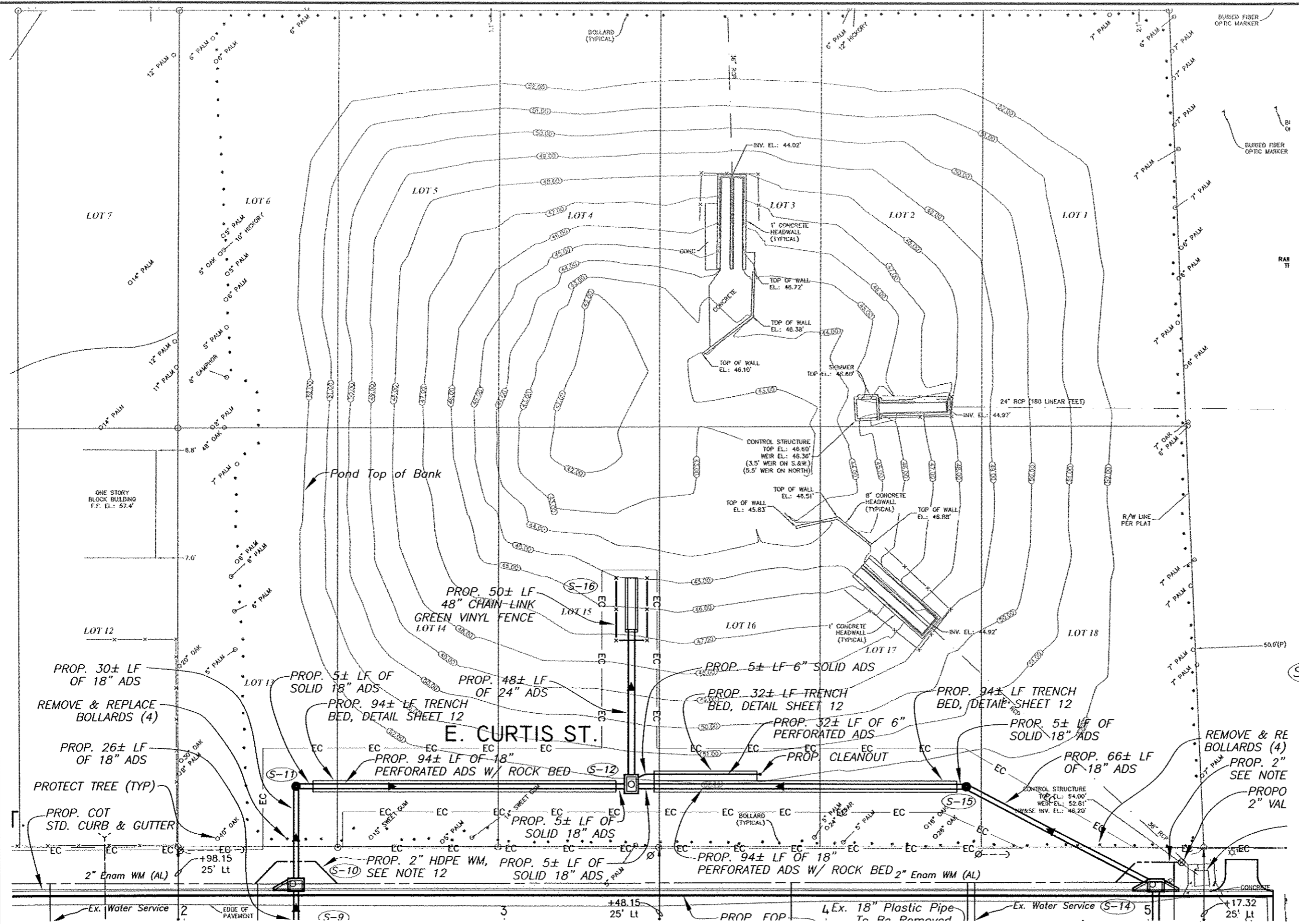
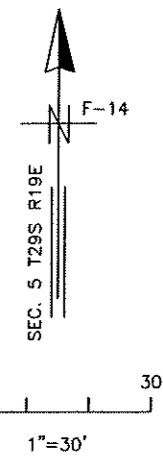
1. SEE SHEET 11 FOR THE PAVEMENT SECTION AND TYPICAL DETAIL.
2. CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY W/ BAHIA SOD.
3. CONTRACTOR TO INSTALL COT STD. CURB & GUTTER FROM STA. 0+27.24 TO STA. 5+39.10.



SCALE
 1"=30' HORIZONTAL
 1"=3' VERTICAL

No.	DATE	REVISIONS	No.	DATE	REVISIONS	DES: MDC	CITY of TAMPA STORMWATER DEPARTMENT	EAST CURTIS STREET STORMWATER IMPROVEMENTS	W.O. 5130
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4			1			DATE: 8/09			OF 16

SW



S-16 STA 3+39.33, 92.19' LT
 PROP. U-ENDWALL
 INV. 24" ADS = 45.00

NOTE:
 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.

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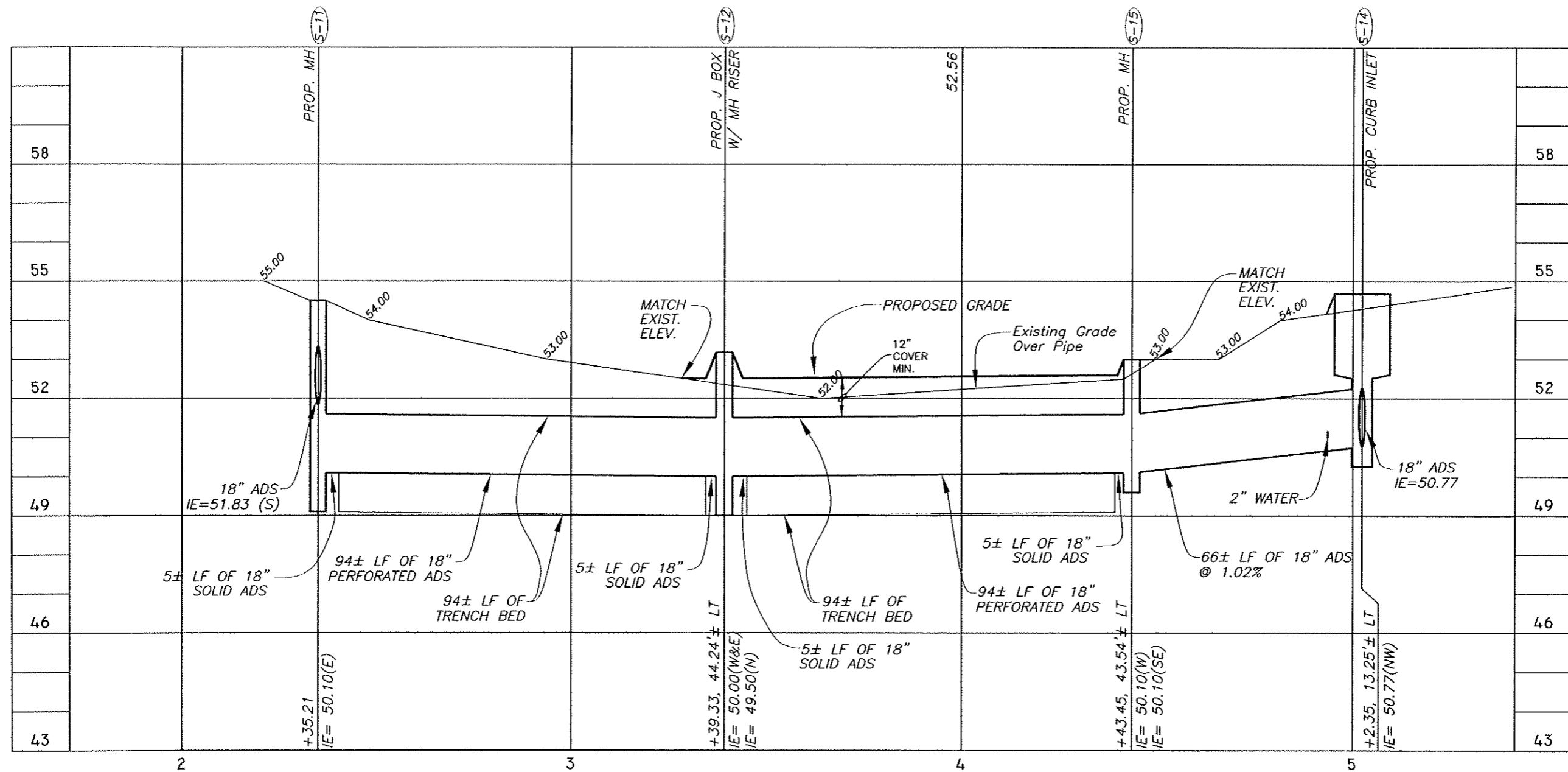
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 DATE: 8/09

CITY of TAMPA
 STORMWATER DEPARTMENT

EAST CURTIS STREET
 STORMWATER IMPROVEMENTS

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 SHEET
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 OF 16

NOTES:
 1. SEE SHEET 11 FOR THE PAVEMENT SECTION AND TYPICAL DETAIL.
 2. CONTRACTOR TO SOD DISTURBED RIGHT-OF-WAY W/ BAHIA SOD.
 3. CONTRACTOR TO INSTALL COT STD. CURB & GUTTER FROM STA. 0+27.24 TO STA. 5+39.10.



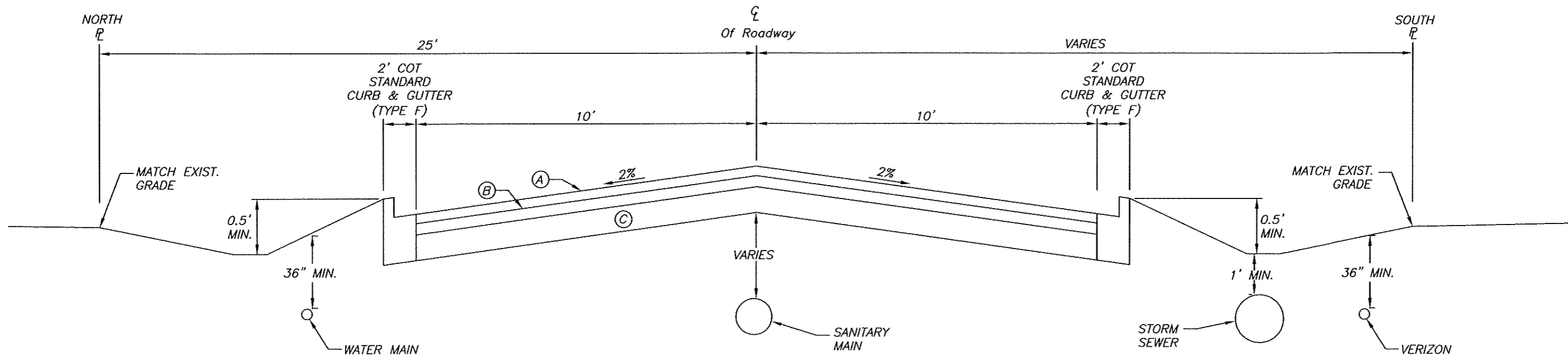
SCALE
 1"=30' HORIZONTAL
 1"=3' VERTICAL

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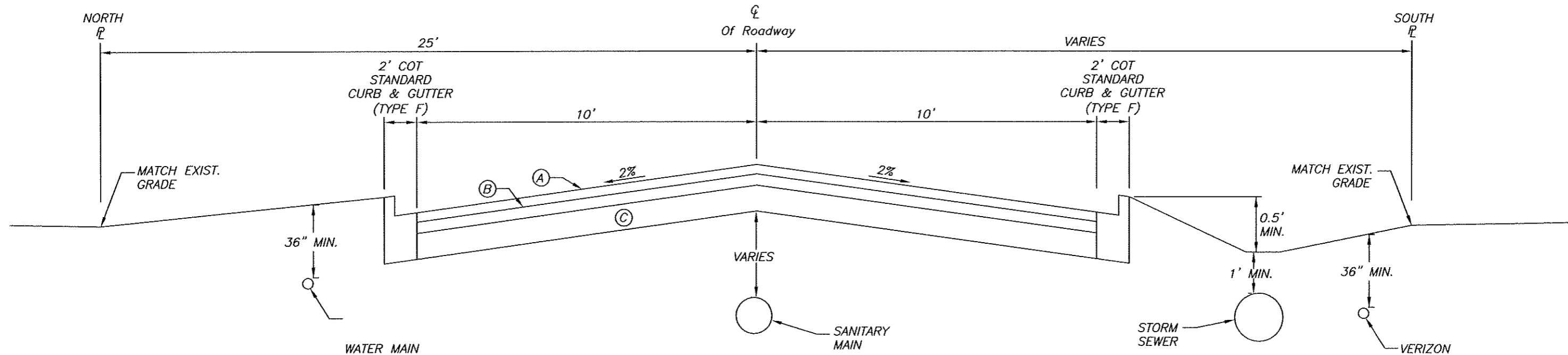
CITY of TAMPA
 STORMWATER DEPARTMENT

EAST CURTIS STREET
 STORMWATER IMPROVEMENTS



TYPICAL CROSS SECTION
 STA. 0+50 TO STA. 2+00
 CURTIS STREET
 N.T.S

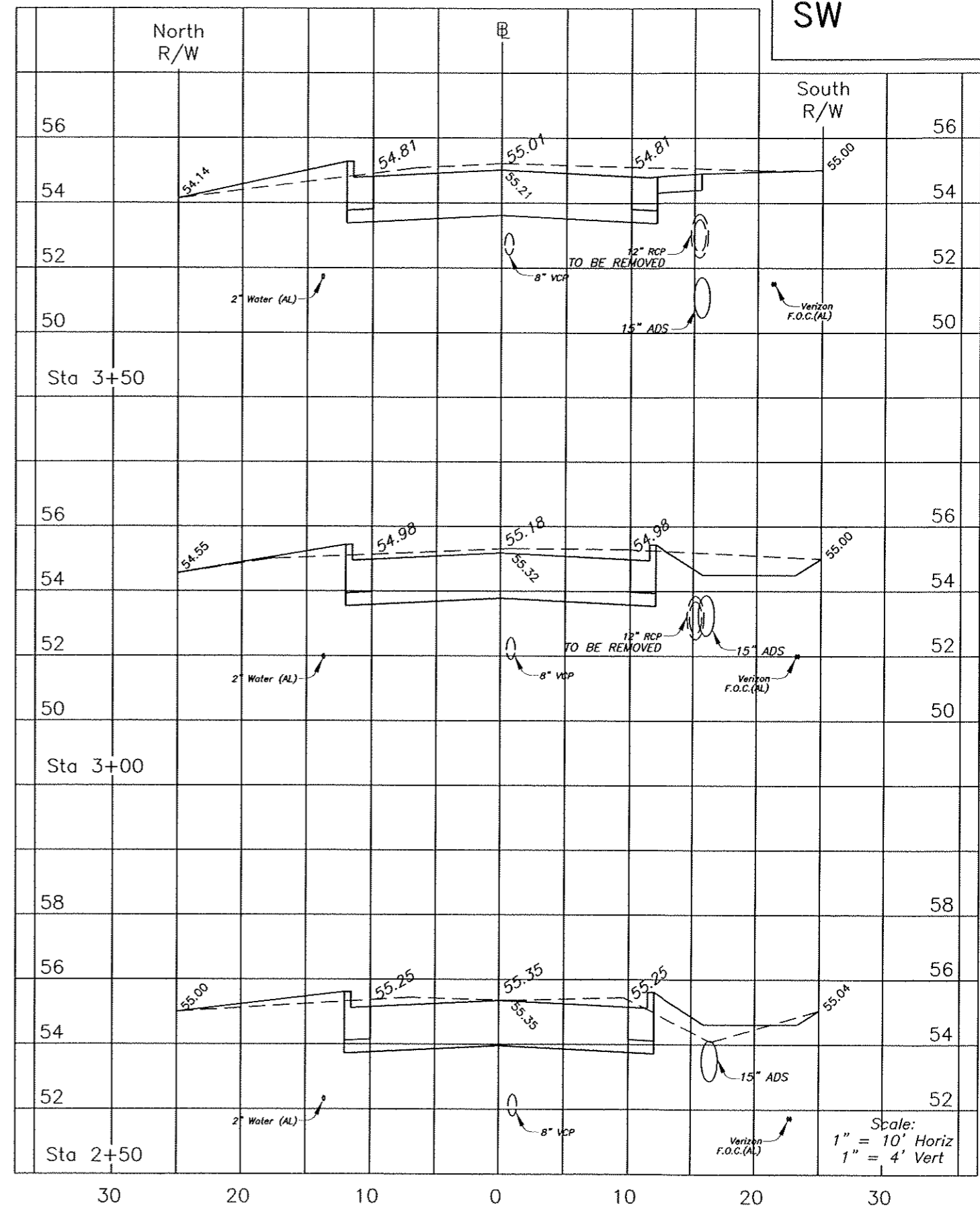
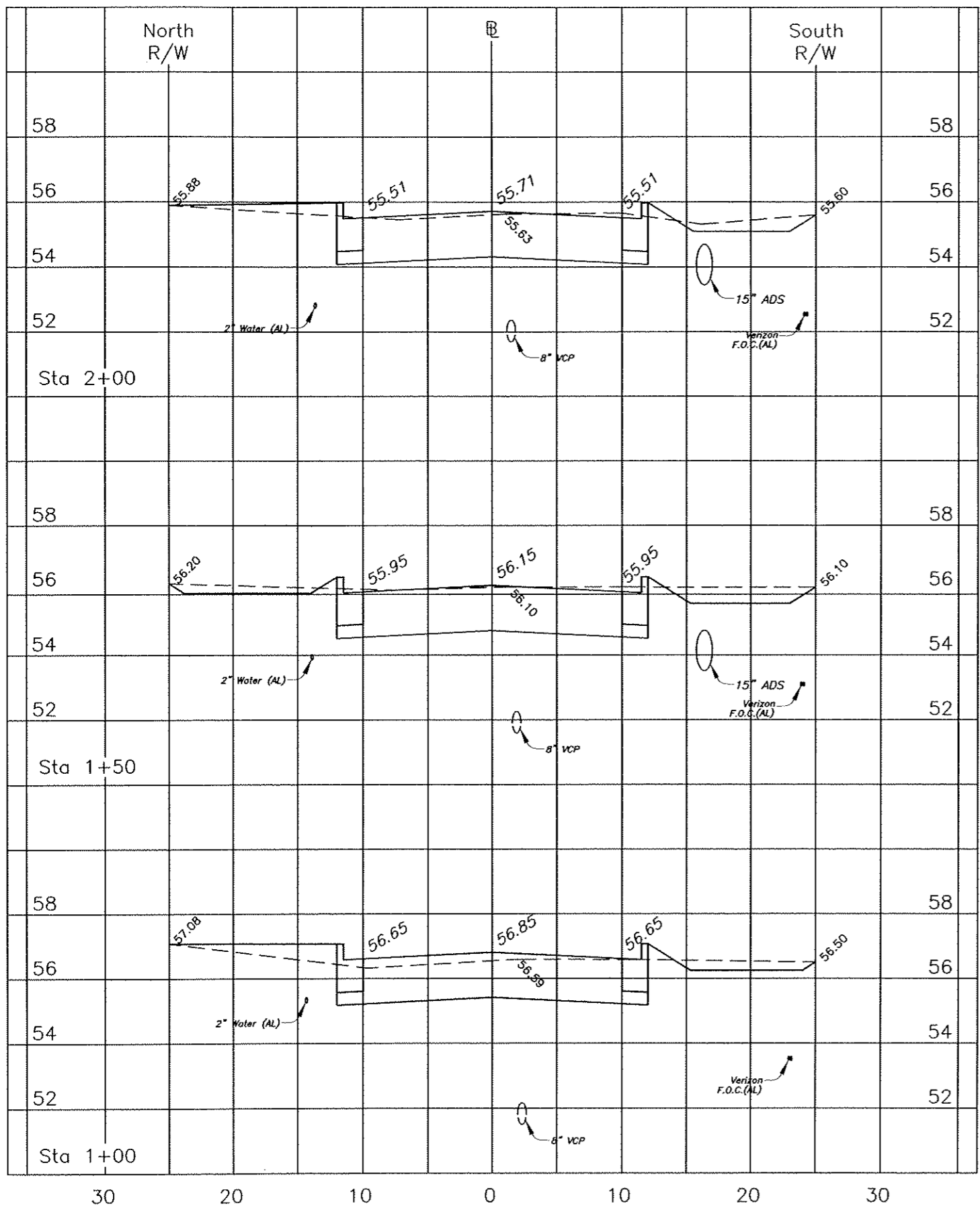
- (A) 1" TYPE S-3 ASPH. CONC. SURFACE COURSE
- (B) 1 3/4" TYPE S-1 ASPH. CONC. STRUCTURAL COURSE
- (C) 8" CRUSHED CONCRETE BASE



TYPICAL CROSS SECTION
 STA. 2+00 TO STA. 5+39.10
 CURTIS STREET
 N.T.S

No.	DATE	REVISIONS	No.	DATE	REVISIONS	DES: MDC	CITY of TAMPA STORMWATER DEPARTMENT	EAST CURTIS STREET STORMWATER IMPROVEMENTS	W.O. 5130	
6			3			DRN: BLM			SHEET	II
5			2			CKD: LDC			OF 16	
4			1			DATE: 8/09				

SW



Scale:
1" = 10' Horiz
1" = 4' Vert

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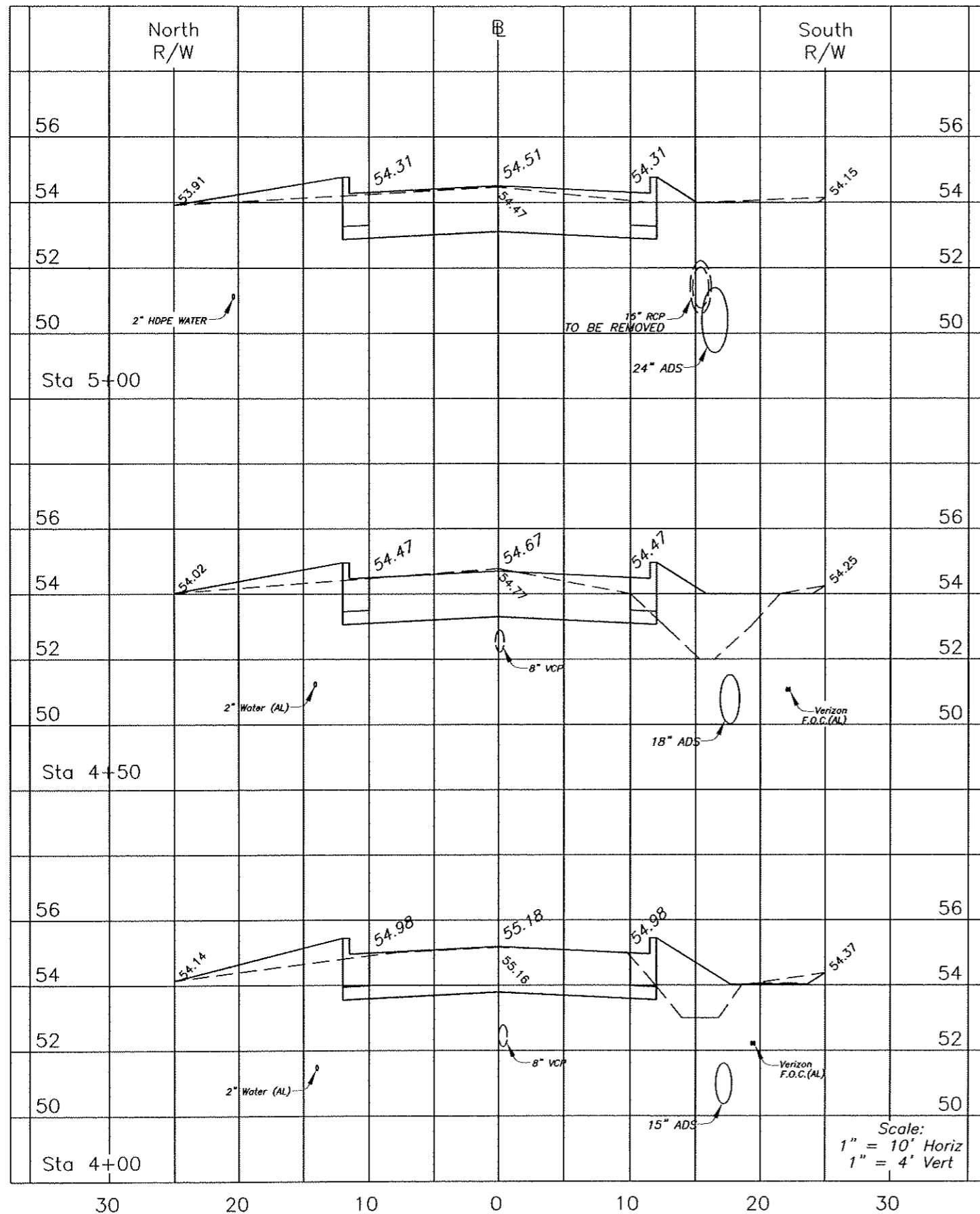
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CITY of TAMPA
STORMWATER DEPARTMENT

EAST CURTIS STREET
STORMWATER IMPROVEMENTS
CROSS SECTIONS

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SW



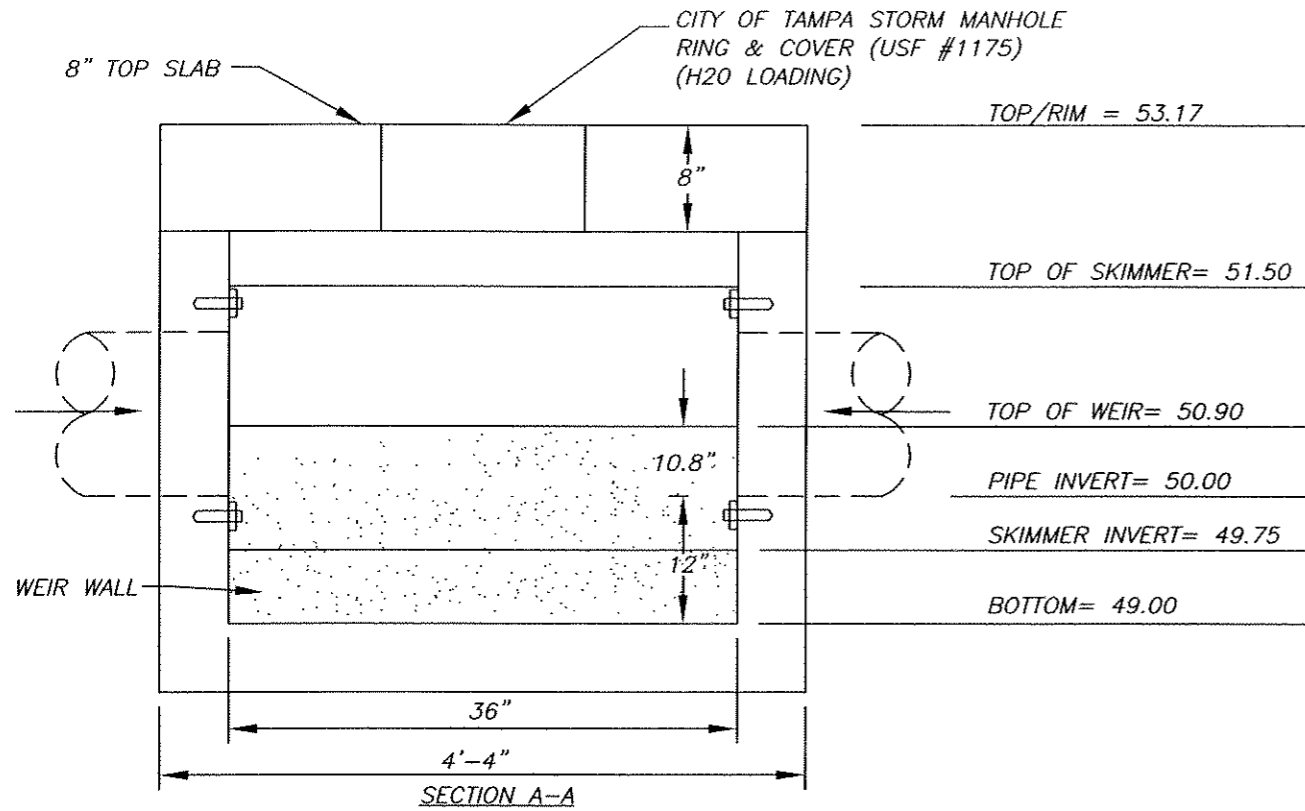
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CITY of TAMPA
 STORMWATER DEPARTMENT

EAST CURTIS STREET
STORMWATER IMPROVEMENTS
CROSS SECTIONS

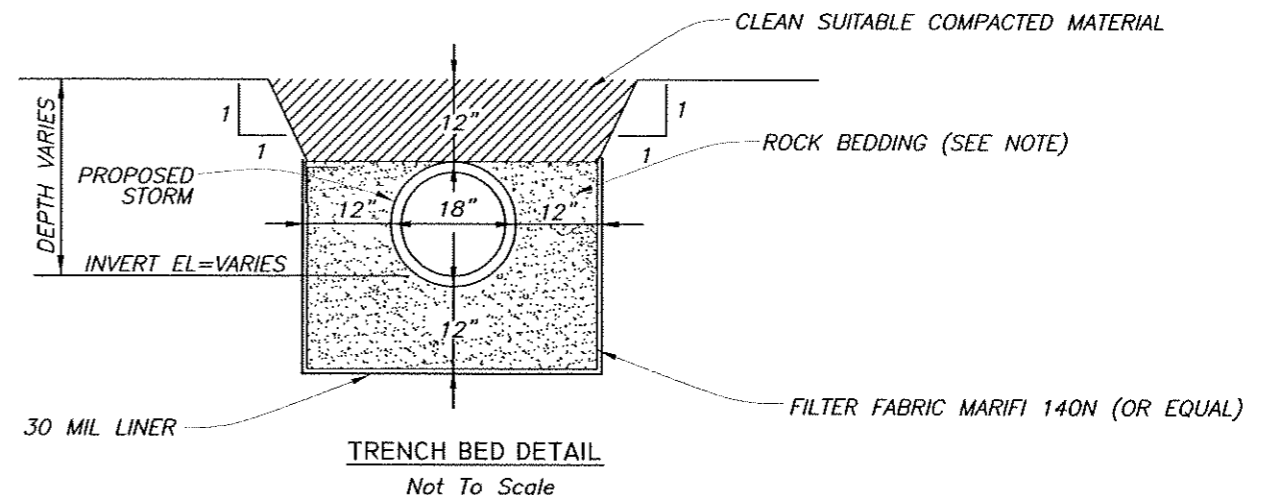
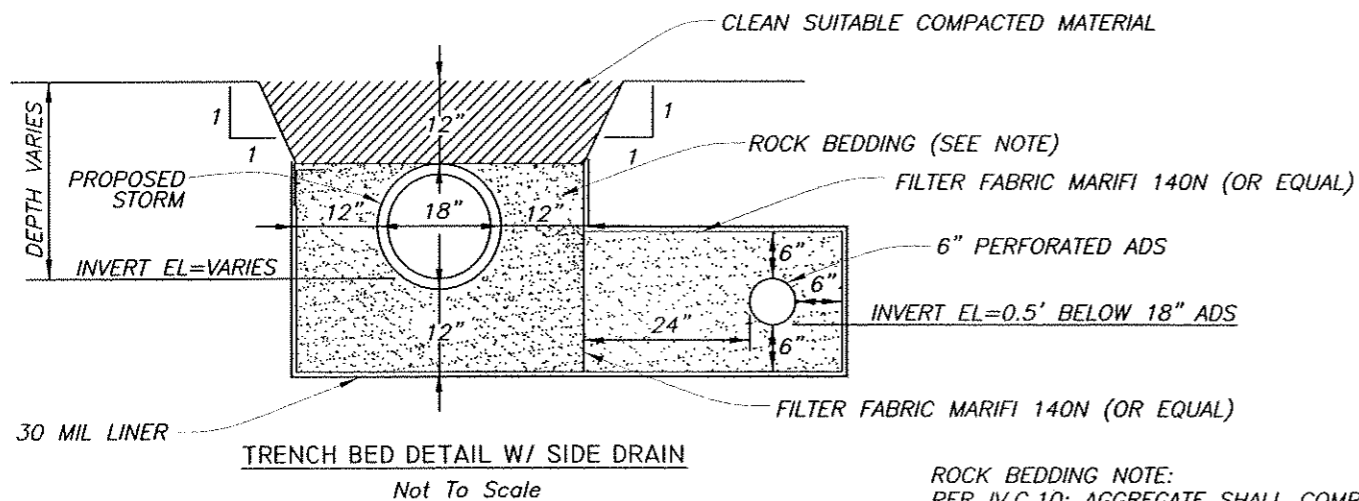
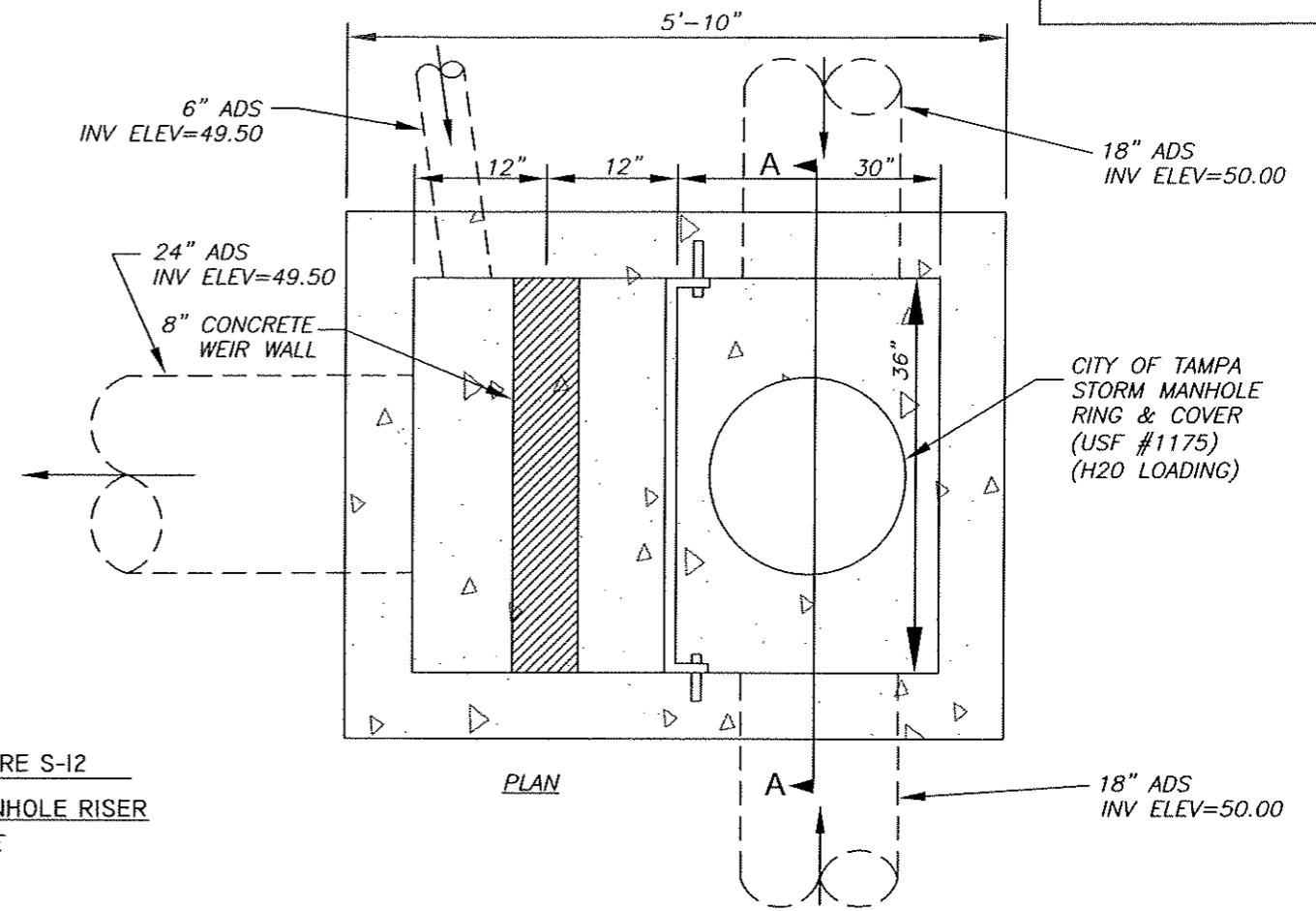
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SKIMMER NOTES:

1. SKIMMERS SHALL BE MADE FROM FIBERGLASS REINFORCED THERMOSETTING RESIN WITH A 40% NOMINAL FIBERGLASS CONTENT AS SUPPLIED BY ENVIRONMENTAL COMPOSITIES, INC. OR APPROVED EQUAL. SKIMMERS SHALL BE ATTACHED TO THE OUTLET CONTROL STRUCTURE PER THE MANUFACTURER'S RECOMMENDATIONS.
2. ALL BOLTS SHALL BE A GALVANIZED STEEL MATERIAL.
3. CONTRACTOR SHALL BRICK AND MORTAR WEIR WALL OR CAST IN PLACE IN PRE-FAB BOX.

CONTROL STRUCTURE S-12
TYPE J BOTTOM W/ MANHOLE RISER
NOT TO SCALE



ROCK BEDDING NOTE:
PER IV.C.10: AGGREGATE SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (1991) FOR COARSE AGGREGATE SIZE NUMBER 5 (1 TO 1/2"), EXCEPT THAT NO LIMESTONE, DOLOMITES, OR SANDSTONES SHALL BE USED. 30% VOIDS NOMINAL

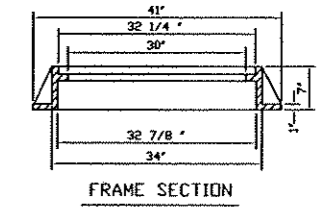
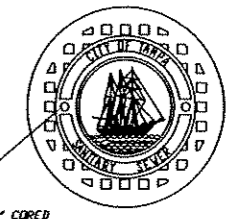
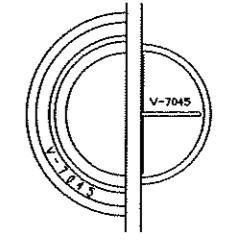
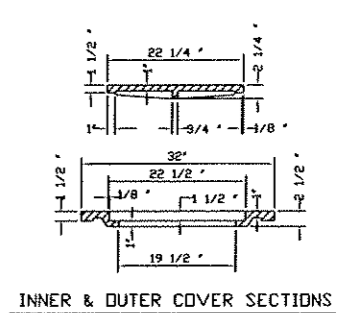
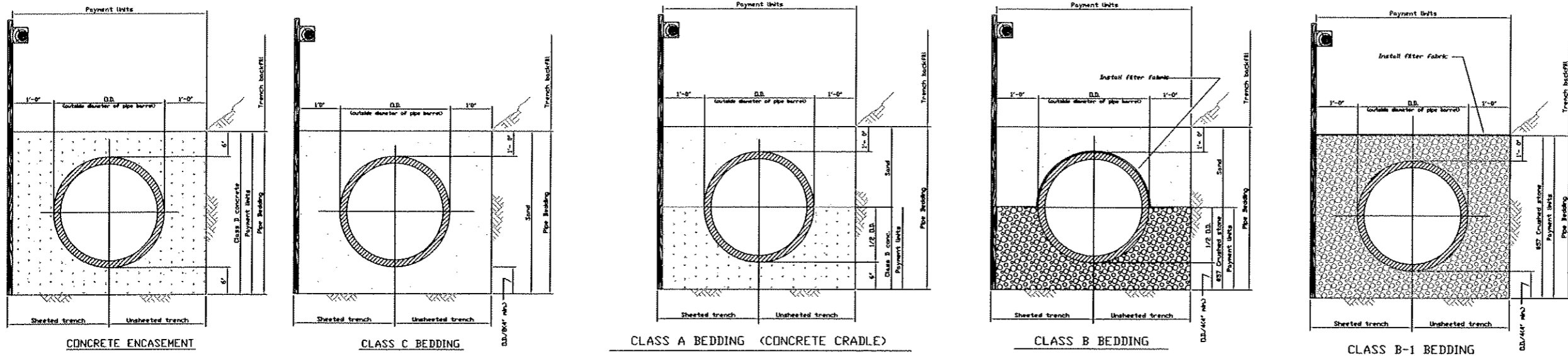
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CITY of TAMPA
STORMWATER DEPARTMENT

MISCELLANEOUS DETAILS
EAST CURTIS STREET
STORMWATER IMPROVEMENTS

SW



FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER:
 VULCAN FOUNDRY NO. V-7045,
 U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

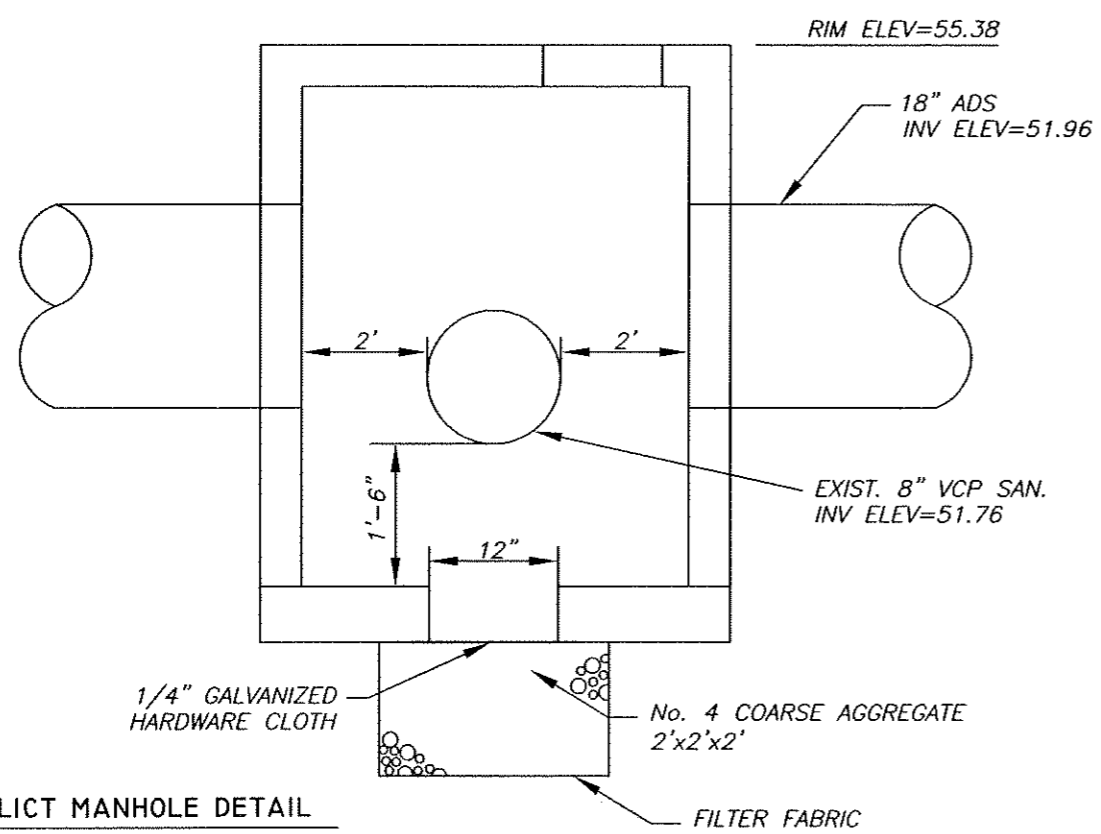
HEAVY DUTY CAST IRON MANHOLE FRAME & COVER DETAILS

NOT TO SCALE

PIPE BEDDING DETAILS
 NOT TO SCALE

QUANTITIES FOR PAYMENT FOR ADDITIONAL PIPE BEDDING MATERIALS ORDERED IN WRITING BY THE ENGINEER

NOMINAL INSIDE PIPE DIAMETER (INCHES)	6	8	10	12	14	15	16	18	20	21	24	27	30	36	42	48	54	60	66	72
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CONCRETE ENCASEMENT	0.141	0.167	0.191	0.216	0.229	0.256	0.252	0.299	0.300	0.340	0.383	0.427	0.472	0.588	0.690	0.797	0.909	1.027	1.150	1.279
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CLASS A BEDDING (CONCRETE CRADLE)	0.071	0.084	0.096	0.108	0.115	0.128	0.126	0.150	0.150	0.170	0.192	0.214	0.236	0.294	0.345	0.399	0.455	0.514	0.575	0.640
CUBIC YARD OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B-1 BEDDING	0.172	0.201	0.228	0.225	0.269	0.304	0.298	0.362	0.363	0.419	0.479	0.542	0.608	0.781	0.936	1.103	1.281	1.471	1.673	1.887
CUBIC YARDS OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B BEDDING	0.055	0.068	0.078	0.088	0.094	0.111	0.108	0.143	0.143	0.173	0.207	0.243	0.280	0.381	0.475	0.578	0.690	0.810	0.939	1.078



CONFLICT MANHOLE DETAIL
 NOT TO SCALE

CONFLICT MANHOLE NOTES:

- CONFLICT MANHOLE SHOP DRAWING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR BEGINNING OF ANY WORK ON THE CONFLICT MANHOLE.
- THE STRUCTURAL DESIGN SHALL BE CONSISTENT WITH FDOT INDEX 200 AND AS APPROVED BY THE ENGINEER.
- FOR CONFLICT STRUCTURES WITH SANITARY SEWER (S.S.) PIPES THE FOLLOWING SHALL APPLY:
 IF THE S.S. PIPE IS BELOW THE FLOWLINE OF THE STORM PIPE, REPLACE THE S.S. PIPE WITH AWWA C-900 DR-18 GREEN AND EMBED IT IN THE SUMP WITH NON-SHRINK GROUT. CONNECT THE C-900 TO THE EXISTING PIPE WITH FERNCO ADAPTERS.
 IF THE S.S. PIPE IS ABOVE THE FLOWLINE OF THE STORM PIPE, REPLACE THE S.S. PIPE WITH AWWA C-900 DR-18 GREEN OR ASTM 3034 SDR-35 OR SDR-26 PIPE AND ENCASE IT IN THE SMALLEST DIAMETER STEEL CASING POSSIBLE THAT WILL ACCOMMODATE CASCADE CASING SPACERS. THE STEEL CASING SHALL BE IN COMPLIANCE WITH SECTION W.67, "STEEL PIPE AND FITTINGS." CONNECT THE NEW PVC PIPE TO THE EXISTING PIPE WITH FERNCO ADAPTERS.
- FILTER FABRIC SHALL MEET FDOT STANDARD SPECIFICATION 441-2.3.

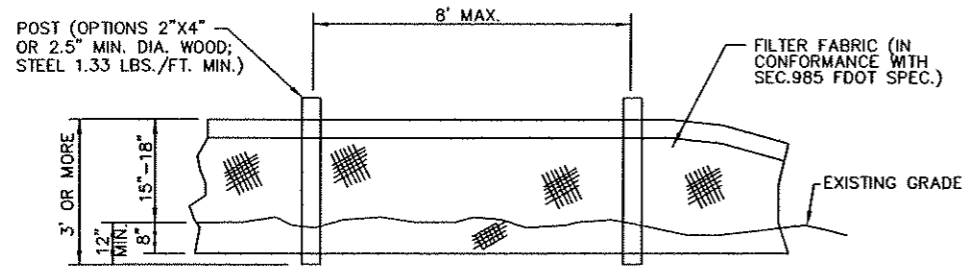
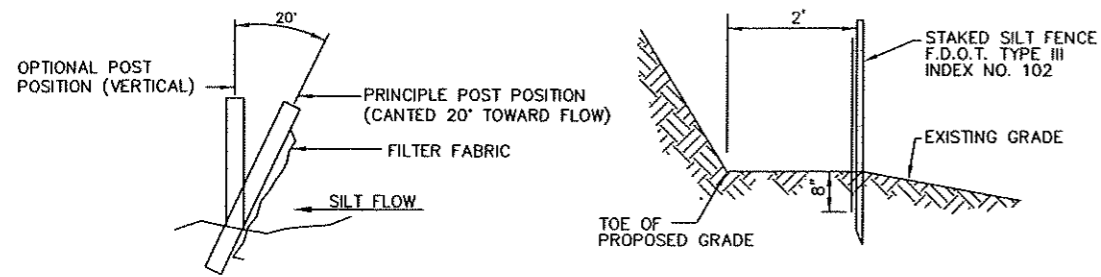
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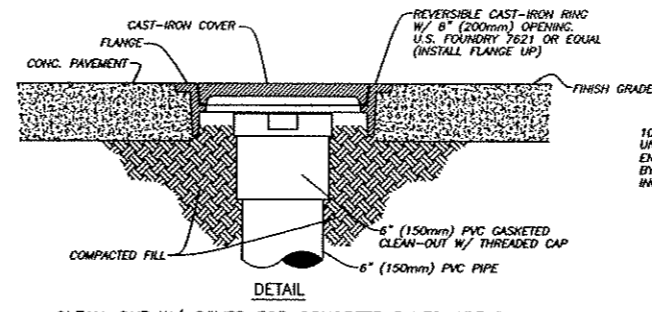
CITY of TAMPA
 STORMWATER DEPARTMENT

MISCELLANEOUS WATER DETAILS
 EAST CURTIS STREET
 STORMWATER IMPROVEMENTS

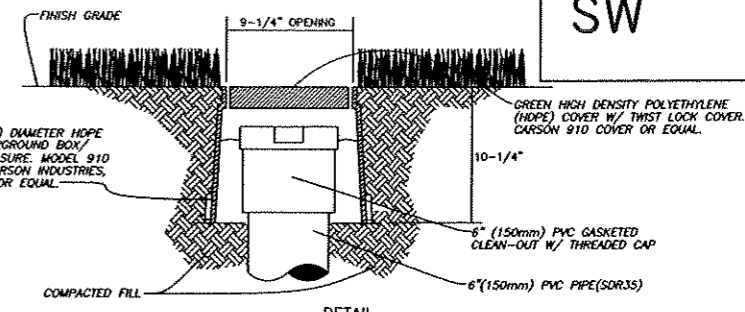
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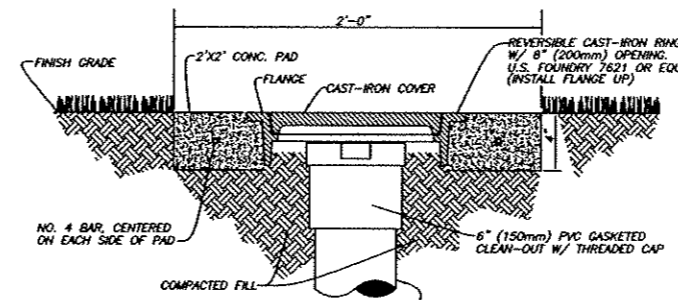
SILT FENCE DETAIL
NOT TO SCALE



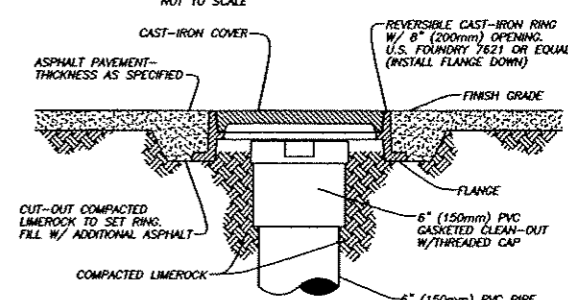
CLEAN-OUT W/ COVER FOR CONCRETE PAVED AREAS
NOT TO SCALE



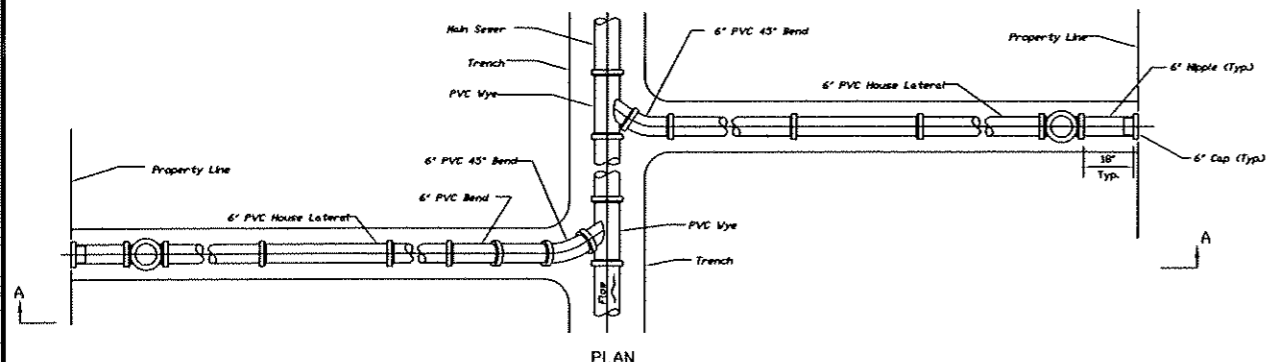
CLEAN-OUT W/ COVER FOR GRASS (NON-VEHICULAR TRAFFIC) AREAS
NOT TO SCALE



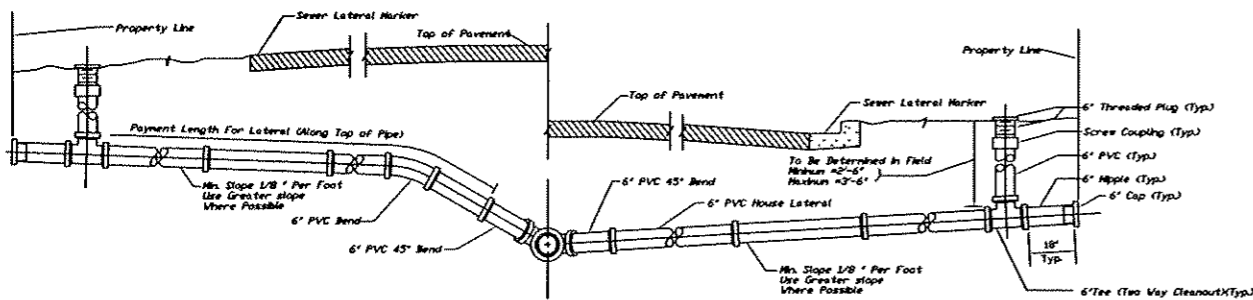
CLEAN-OUT W/COVER FOR GRASSED AREAS W/VEHICULAR TRAFFIC
NOT TO SCALE



CLEAN-OUT W/ COVER FOR ASPHALT PAVED AREAS
NOT TO SCALE



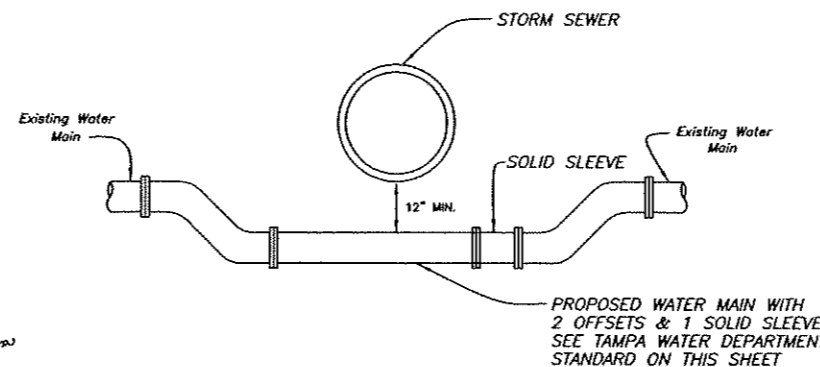
PLAN



SECTION A-A

- NOTES**
- The locations of house laterals by symbols on plans are approximate only and the actual locations and slopes will be determined in the field by the Contractor with the approval of the Engineer.
 - The minimum diameter of all house laterals shall be 6".
 - 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 class 54 poly-lined BIP per specifications.
 - The Department's standard regarding vertical perpendicular conflicts requires that there be a minimum of 18" clearance between house laterals and all crossing utilities. If, however, conditions dictate that it is impossible to meet this standard, the following notes are intended to address the most common conflict conditions.
 - The minimum clearance between house laterals and water lines shall be 6" under all circumstances; if the house lateral is below a water line and has between 6" and 18" of clearance or if the lateral is above the water line regardless of clearance, then a nominal 20' length of green A/V/A Class 150 C900 PVC pipe shall be centered over/under the water line.
 - If the house lateral must pass over any utility other than a water line with less than 18" clearance, the lateral shall remain SDR 35 PVC pipe.
 - If the house lateral must pass under any utility other than a water line with less than 18" clearance, the lateral shall remain SDR 35 PVC pipe unless the utility poses a structural load too great for the PVC lateral. If the utility poses such a structural load as determined by the Engineer, each conflict will be reviewed on a case by case basis.
 - 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 flexible adaptors or equal.

TYPE A HOUSE LATERAL DETAIL
NOT TO SCALE



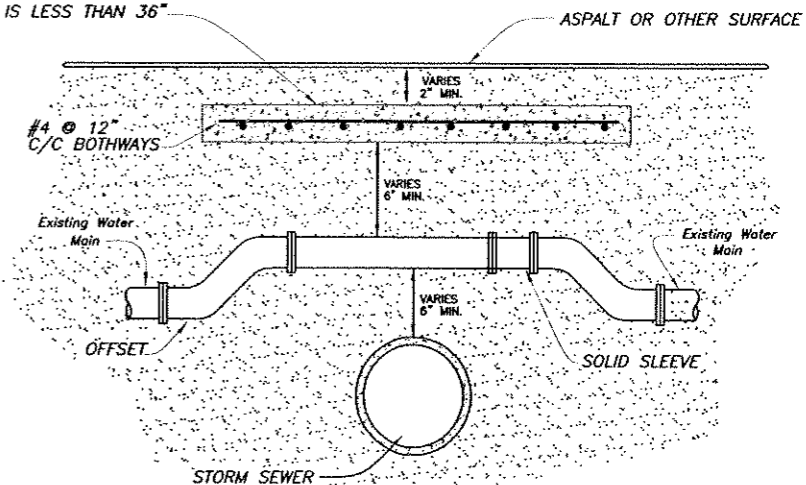
WATER MAIN RELOCATION
NOT TO SCALE

NOTES:

- CONTRACTOR SHALL ADJUST THE CLEAN-OUT AND CAST IRON RING AND COVER OR HOPE 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.
- PVC CAP MAY BE PROVIDED WITH RECESSED NUT.
- CAST IRON COVER SHALL BE PROVIDED WITH AN EMBOSSED LETTER "S" FOR IDENTIFICATION HOPE COVER SHALL BE MARKED "SEWER" FOR IDENTIFICATION.
- CAST IRON RING AND COVER, OR HOPE BOX AND COVER, AS WELL AS THE FOUR (4) SQ. 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.
- ALL CLEAN-OUTS ON THIS PROJECT SHALL BE ONE OF THE FOUR TYPES SHOWN ON THIS SHEET. FIELD CONDITIONS WILL DETERMINE WHICH TYPE.

CLEAN-OUT COVER DETAILS
NOT TO SCALE

ADD 6" SHOCK PAD IF COVER OVER WATERMAIN IS LESS THAN 36"



- NOTE:**
- CENTER A FULL JOINT OF WATER PIPE WHEN CROSSING UNDER STORMWATER.
 - CHLORINE INJECTION & SAMPLE TAP LOCATION TO BE DETERMINED BY ENGINEER.

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

DES: MDC
DRN: BLM
CKD: LDC
DATE: 8/09

CITY of TAMPA
STORMWATER DEPARTMENT

MISCELLANEOUS DETAILS
EAST CURTIS STREET
STORMWATER IMPROVEMENTS

W.O. 5130
SHEET
16
OF 16