The Enclosed Document Is Provided For Your Convenience.

Please Email ALL Questions:

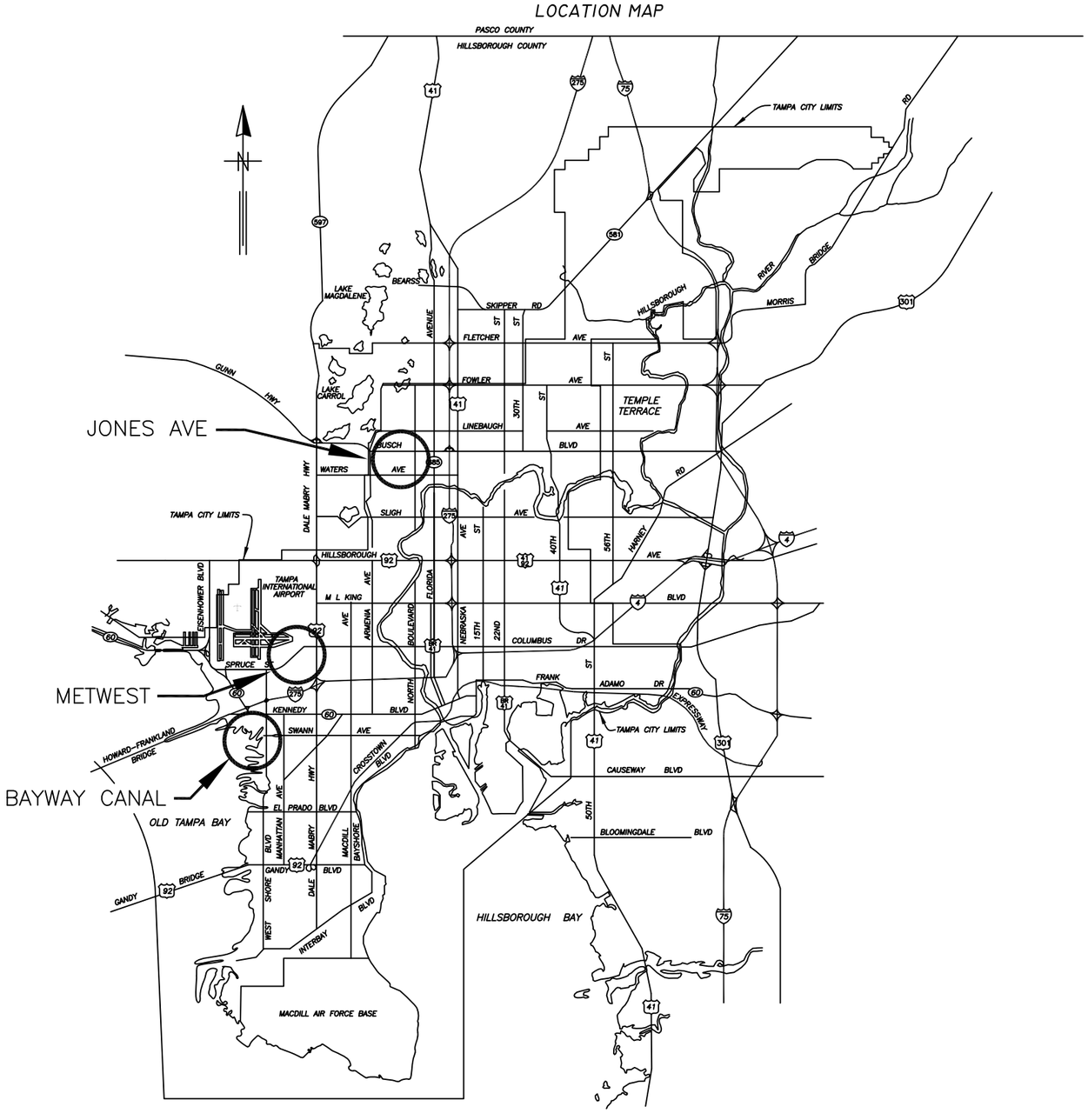
MailTo:ContractAdministration@TampaGov.net

Please Let Us Know If You Plan To Bid

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456

SW 2013

LOCATION MAP



CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

PLANS FOR

DITCH STABILIZATION:
BAYWAY CANAL, JONES AVE, METWEST

CONTRACT No.

13-C-00018

W.O. 5864/510W

No.	DATE	
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DES: SWM
DRN: SWM
CKD:
DATE: 04/2013

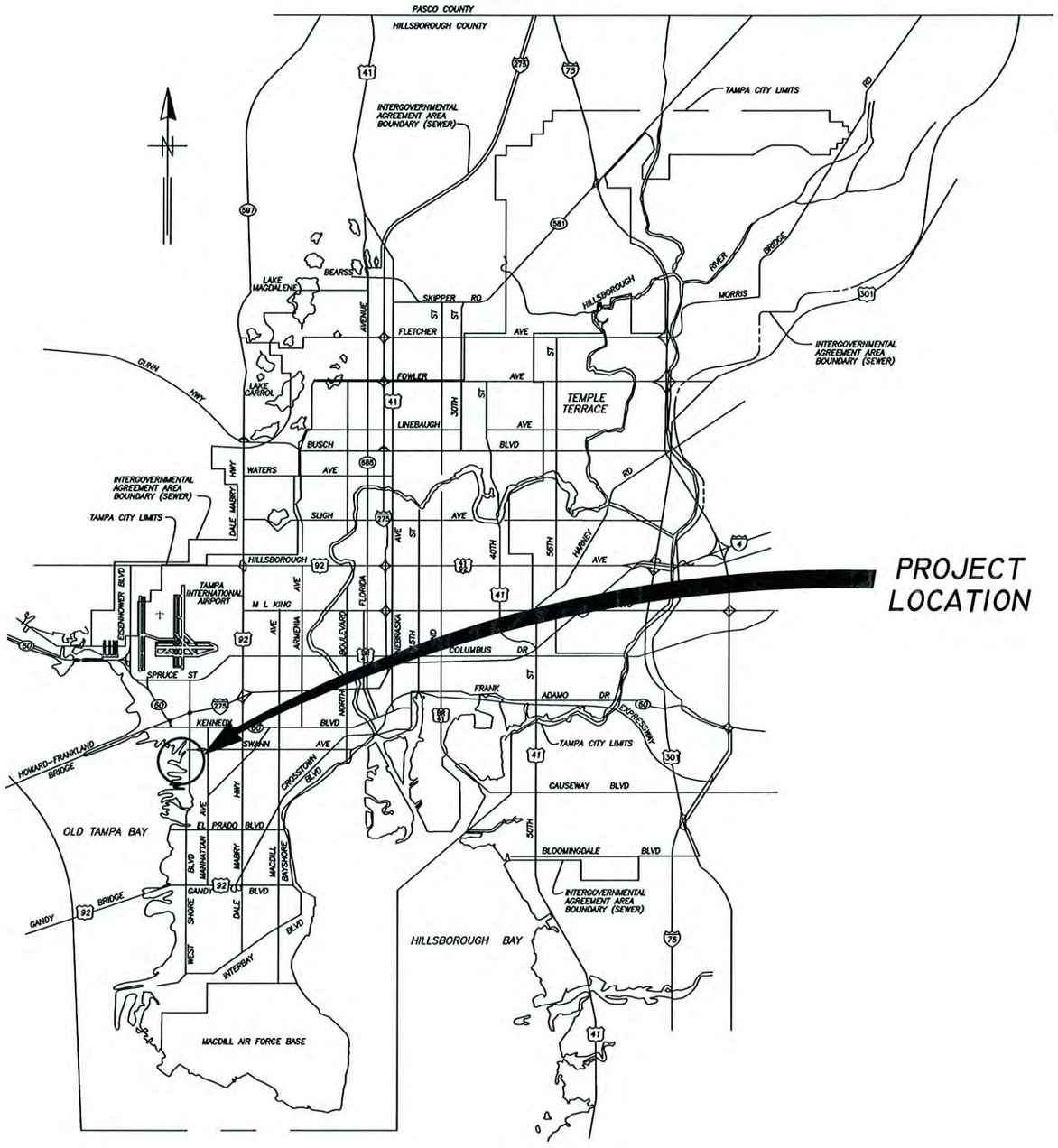
CITY of TAMPA
Department of Public Works
Stormwater Division

COVER SHEET

SHEET 1 OF 1

SW

LOCATION MAP



CITY of TAMPA

DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

PLANS FOR
DITCH STABILIZATION
CONTRACT No.
13-C-00018

BAYWAY CANAL SEGMENT

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER
DPW/STORMWATER DIVISION

No.	DATE	
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DES: MTM
DRN: MP
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CITY of TAMPA
Department of Public Works
Stormwater Division

COVER SHEET

W.O. 5864
SHEET 1 OF 10

LEGEND

	UP to 18" & SMALLER	24" & LARGER
EX STORMWATER		
FORCE MAIN		
PIPES & MANHOLES		
CATCH BASIN, GRATE		
DITCHES, SWALES		
PROP STORMWATER		
FORCE MAIN		
PIPES & MANHOLES		
OTHER UTILITIES		
SAN SEWER & MANHOLES		
WATER LINE		
GAS LINE		
ELECTRICAL CABLE or DUCT		
TELEPHONE CABLE or DUCT		
TV CABLE		
VALVE		
HYDRANT		
CLEAN OUT		
EXISTING WYE		
POWER POLE		
TELEPHONE POLE		
GUY POLE		
GUY WIRE		
VALVE VAULT	V	
WATER METER	M	
ELECTRICAL MANHOLE or VAULT	E	
TELEPHONE MANHOLE or VAULT	T	
TRAFFIC BOX or VAULT	TR	
OTHER FEATURES		
RIGHT of WAY LINE	R/W	
EDGE of PAVEMENT		
BUILDING LIMIT	1236	
PROPERTY OWNERSHIP	Z	
FENCE		
CONIFER	6"	
PALM	8"	
OAK	10"	
OTHER	12"	
SHRUB		
HEDGE		
RAILROAD TRACKS		
IRON PIPE		
CONCRETE MONUMENT		

ABBREVIATIONS

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

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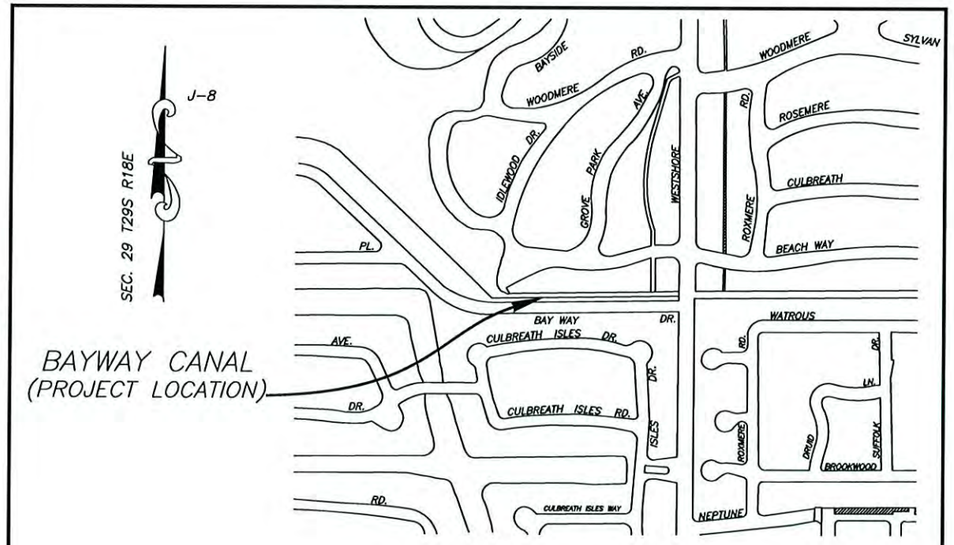

Construction Notes:

1. *Bank stabilization system should extend from the top of bank at a 1:1 slope down to low tide line. Bottom edge of stabilization system to be anchored below grade as specified by the manufacturer.*

2. *Top of bank to be restored to conditions approximated on plans in cooperation with project engineer and must be staked out and reviewed prior to commencement of work.*

3. *Where new stabilization system abuts an existing system, the edge of the existing system must be exposed and connected to new system with staples or manufacturer approved method.*

4. *Because this is maintenance work, no impact will be allowed to the main canal channel by placement of fill or other material. All work must be performed from the south side of the ditch.*

5. *Removal of vegetation should be the minimum required to facilitate the installation of the stabilization system. Under no circumstances should trees or shrubs with diameters greater than or equal to three (3) inches be removed, unless approved by Natural Resources at 813–274–5158. Before work commences, a meeting must be arranged with Natural Resources to review regulations regarding work around trees and shrubs.*

6. *Where stabilization system is to be placed around trees, the fabric shall be split to surround the tree and rip–rap shall be placed on the slope below the tree to prevent future erosion. No tree roots are to be cut without consulting with a Certified Arborist.*

7. *Area south of the ditch along Bay Way is a linear park with irrigation and floodlights. Any irrigation pipes, valves, or heads; light fixtures or wiring; and sodded or landscaped areas damaged during construction will be restored to like conditions. Video archiving of existing conditions is recommended prior to construction.*

8. *Turbidity barrier must be installed prior to construction, kept in working condition during construction, and removed upon completion of the construction.*

9. *Contractor will remove all invasive species including Brazilian Pepper & Cherry Laurel by stump cutting and provide a basal application of appropriate herbicide to remaining stumps.*

10. *Construction staging to be determined at preconstruction meeting and approved by project engineer.*

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CITY of TAMPA
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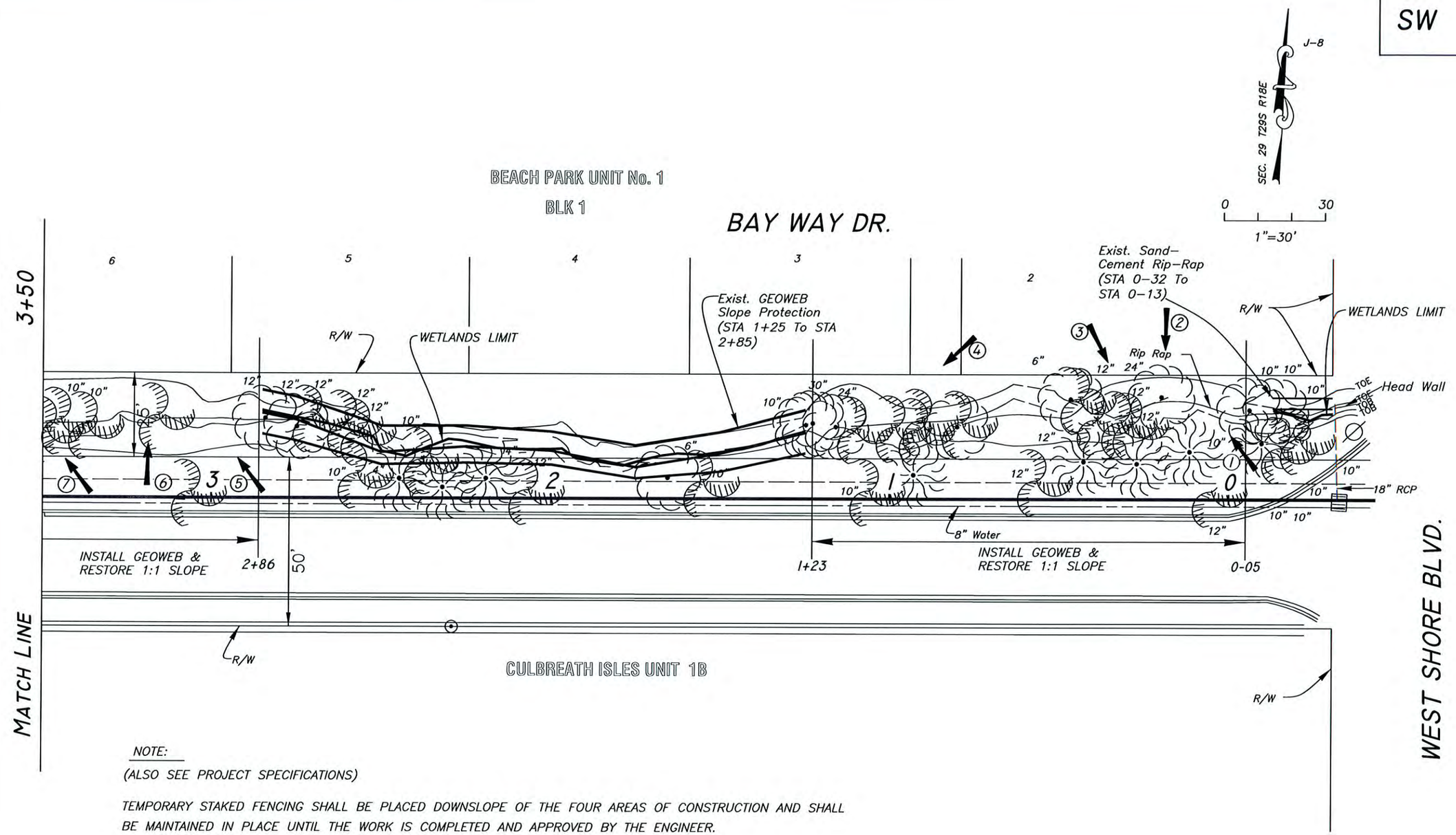
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

W.O. 5864
SHEET 2 OF 10

SW



NOTE:

(ALSO SEE PROJECT SPECIFICATIONS)

TEMPORARY STAKED FENCING SHALL BE PLACED DOWNSLOPE OF THE FOUR AREAS OF CONSTRUCTION AND SHALL BE MAINTAINED IN PLACE UNTIL THE WORK IS COMPLETED AND APPROVED BY THE ENGINEER.

(#) CORRESPONDS TO PHOTOGRAPH NUMBER

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CITY of TAMPA
Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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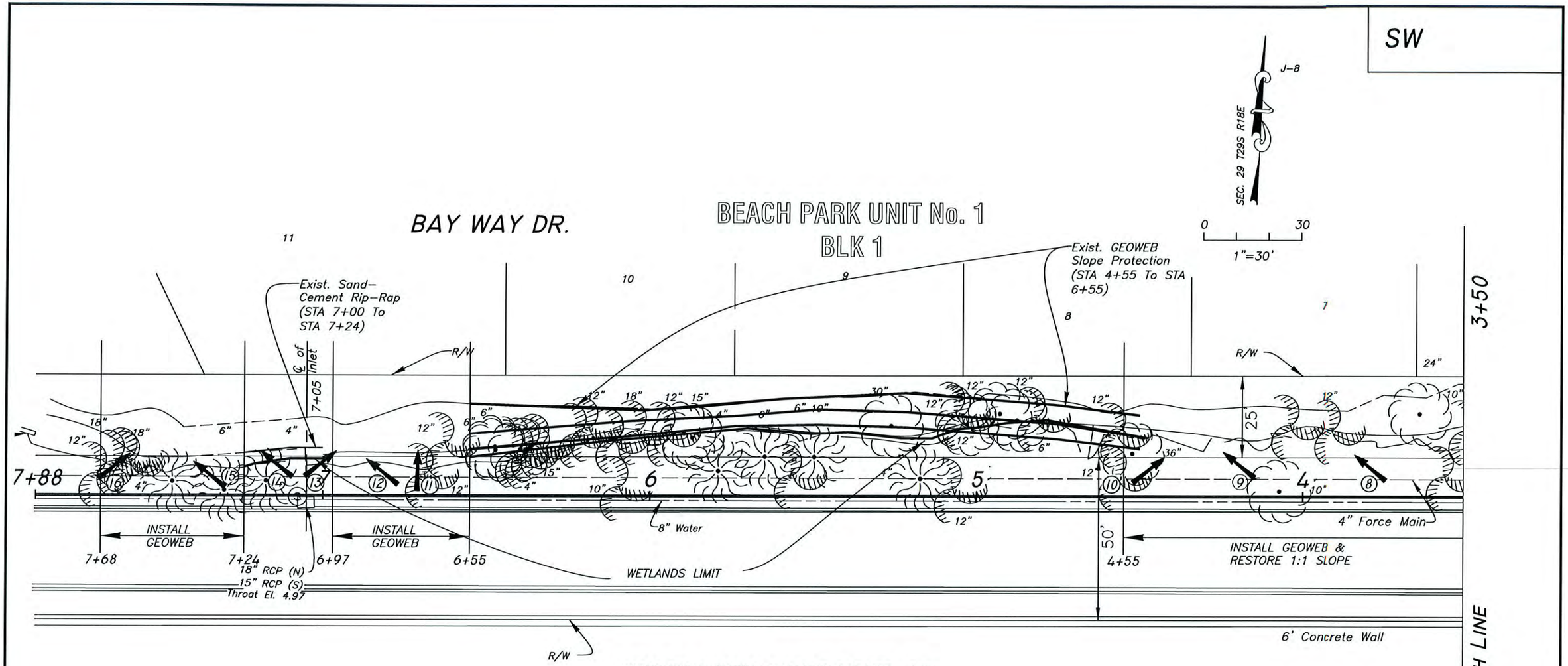

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Stormwater Division

2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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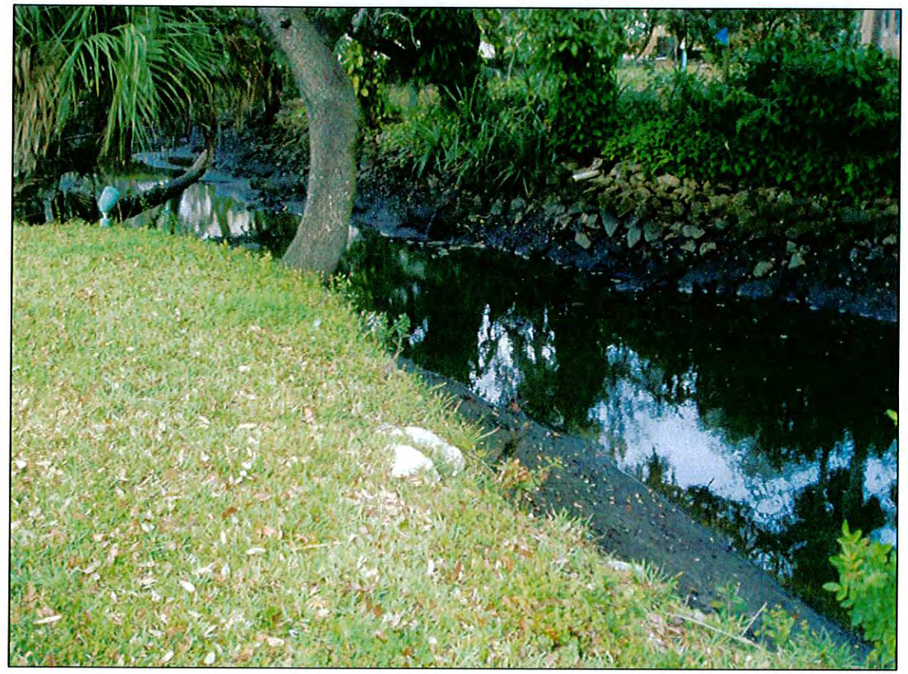

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Stormwater Division

2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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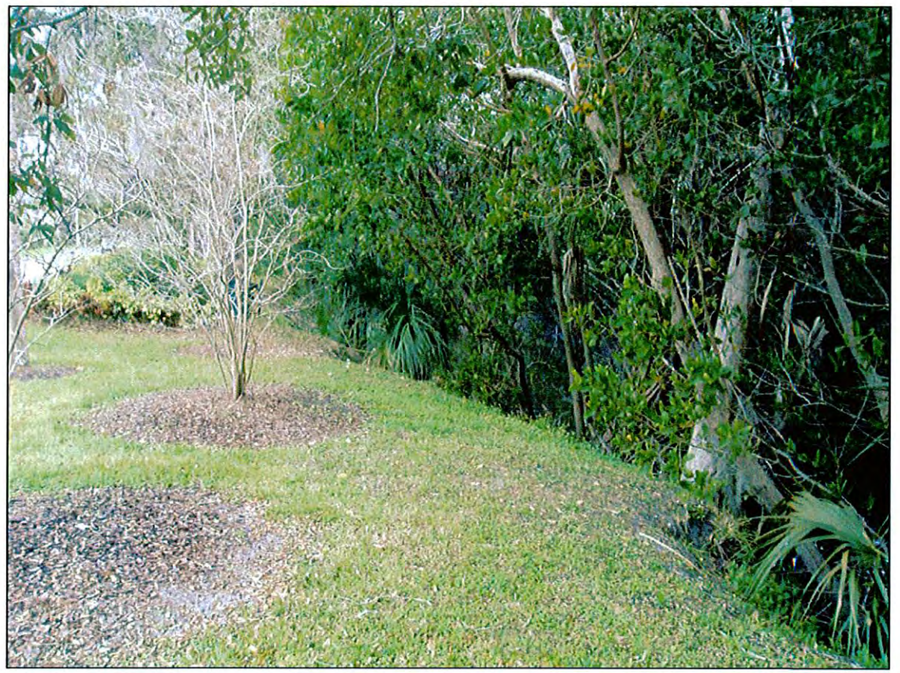

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2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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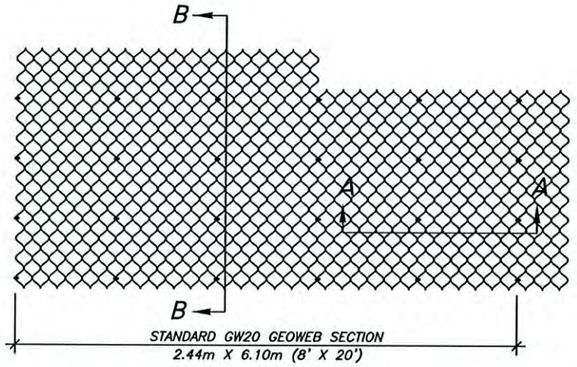
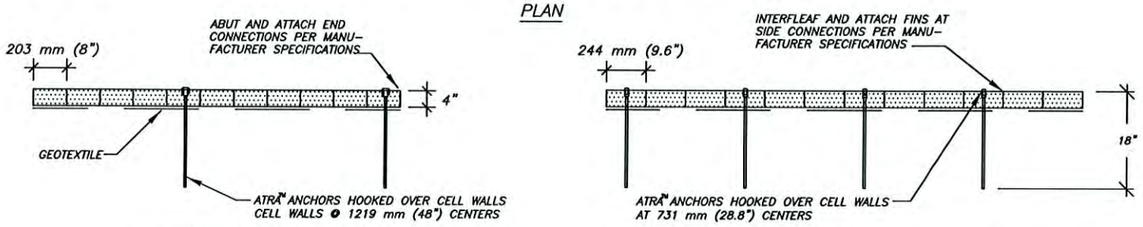


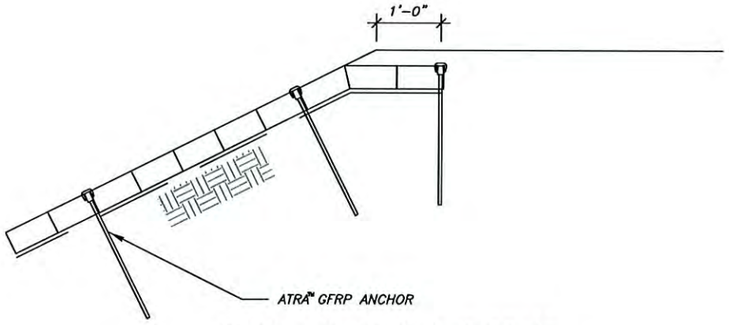
PLAN



SECTION A – A

SECTION B – B

TYPICAL ATRA™ ANCHOR SYSTEM



STAKE AND CREST ANCHORAGE

TYPICAL STAKE CREST ANCHOR SYSTEM

EXAMPLE

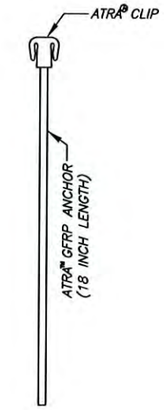
STEP 1 – POSITION STAKE NEXT TO 'UP–SLOPE' CELL WALL

STEP 2 – DRIVE STAKE INTO GROUND UNTIL FLUSH WITH THE TOP OF THE CELL WALLS

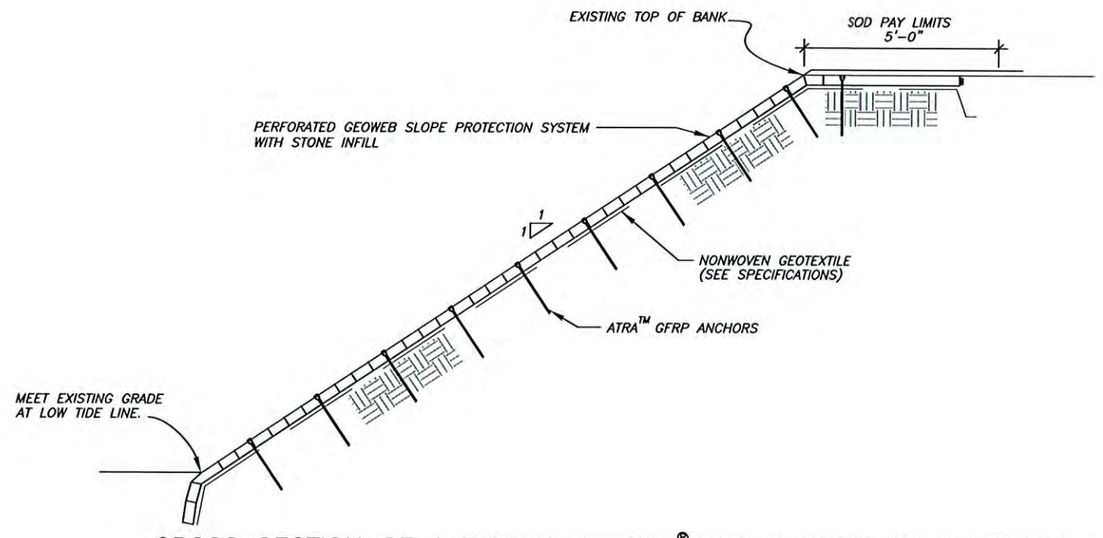
STAKE ANCHOR INSTALLATION – NO TENDONS

NOTES

1. AFTER PLACEMENT AND STAKING, GEOWEB CELLS SHALL BE FILLED WITH ROCK MATERIAL MEETING THE PROJECT SPECIFICATIONS (SECTION 118). ABOVE THE TOP–OF–BANK LOCATION, CELLS SHALL BE FILLED WITH CLEAN FILL MATERIAL AND SODDED.
2. NONWOVEN GEOTEXTILE MATERIAL MEETING THE PROJECT SPECIFICATIONS (SECTION 77) SHALL BE PLACED BETWEEN THE SURFACE OF THE REGRADED SLOPE AND THE BOTTOM OF THE GEOWEB MATERIAL.
3. SOD PAYMENT LIMITS SHALL BE FROM THE T.O.B. LOCATION TO FIVE (5) FEET SOUTH OF THE T.O.B. LOCATION.
4. PLAN SHEETS 5 AND 6 ARE ADAPTED FROM PRESTO PRODUCTS STANDARD EXAMPLES OF GEOWEB INSTALLATIONS. THESE EDITED/ADAPTED SHEETS REPRESENT THE INTENDED DESIGN OF THE CELLULAR CONFINEMENT SLOPE PROTECTION SYSTEM FOR THIS PROJECT. THE CONTRACTOR SHALL OBTAIN TECHNICAL ASSISTANCE REGARDING DESIGN DETAILS FROM THE MANUFACTURER'S REPRESENTATIVE PRIOR TO ORDERING MATERIALS AND PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.



TYPICAL STAKE DETAILS



CROSS SECTION OF A TYPICAL GEOWEB® SLOPE PROTECTION SYSTEM

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2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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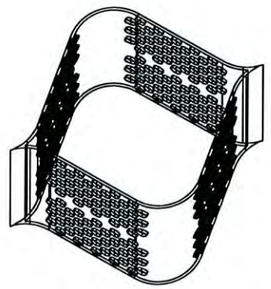
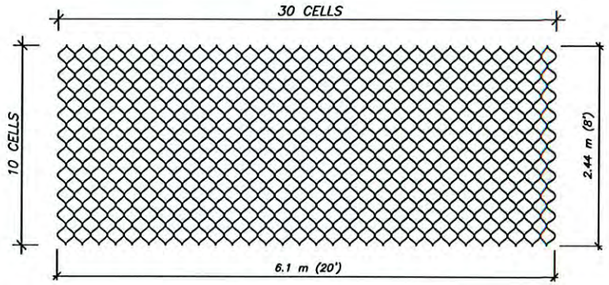
GEOWEB® CELL AND SECTION SIZES

THE CELL DEPTHS mm (in)				AREA	THE SECTION WIDTHS		LENGTHS	
75 (3)	100 (4)	150 (6)	200 (8)	cm² (in²)	MINIMUM m (ft)	MAXIMUM m (ft)	MINIMUM m (ft)	MAXIMUM m (ft)
GW20		200 mm (8.0 in)		248 (38.4)	0.72 (2.4) 3 CELLS	2.44 (8.0) 10 CELLS	0.6 (2.0) 3 CELLS	9.1 (30.0) 45 CELLS
240 mm (9.6 in)								

NOTE: ALL DIMENSIONS ARE NOMINAL AND ARE SUBJECT TO MANUFACTURING TOLERANCES



ISOMETRIC VIEW
PERFORATED CELL



TYPICAL GW20 SECTION

GEOWEB® PRODUCT CODE FORMAT

GWTTDDWWLL + (FEATURES CODE)

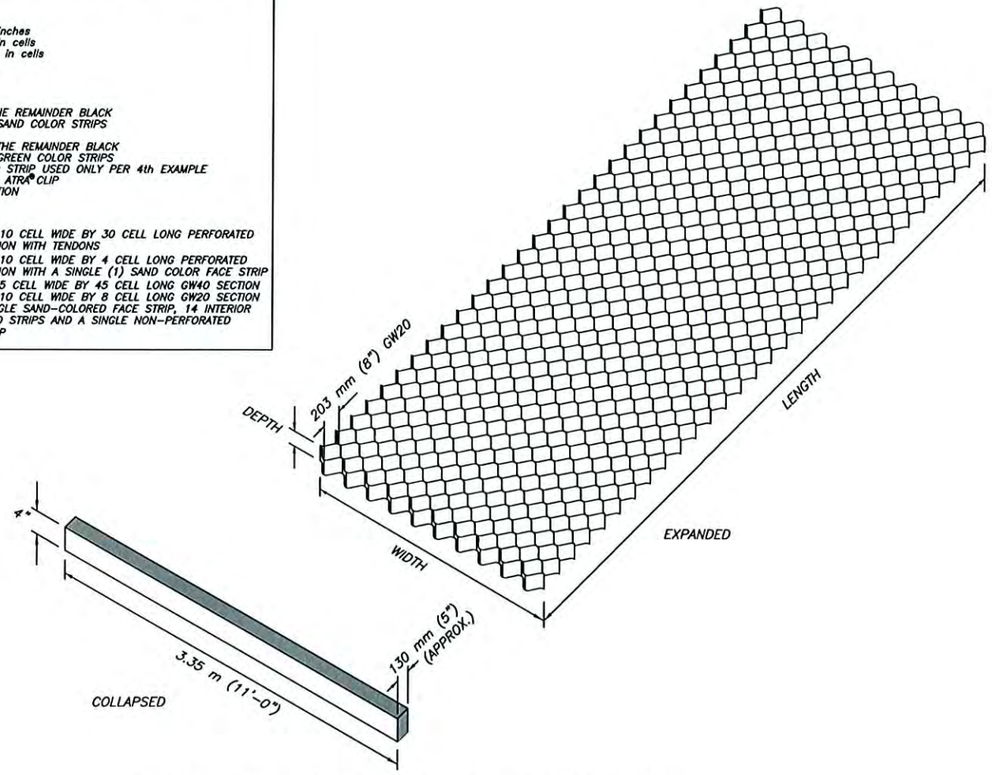
WHERE:
- TT is the CELL TYPE
- DD is the CELL DEPTH in inches
- WW is the SECTION WIDTH in cells
- LL is the SECTION LENGTH in cells

GEOWEB® PRODUCT FEATURES

- P PERFORATED STRIP
- S SAND (TAN) COLOR STRIP(S)
- S1 ONE SAND COLOR FACE WITH THE REMAINDER BLACK
- SS TOTAL SECTION CONSISTING OF SAND COLOR STRIPS
- G GREEN COLOR STRIP(S)
- G1 ONE GREEN COLOR FACE WITH THE REMAINDER BLACK
- GG TOTAL SECTION CONSISTING OF GREEN COLOR STRIPS
- BK BLACK COLOR NON-PERFORATED STRIP USED ONLY PER 4th EXAMPLE
- N NOTCHED TO ACCOMMODATE THE ATRA® CLIP
- T TENDON HOLES DRILLED IN SECTION
- F FLAT PACKED FOR SHIPPING

EXAMPLES

GW20081030PT	8" DEPTH, 10 CELL WIDE BY 30 CELL LONG PERFORATED GW20 SECTION WITH TENDONS
GW20081004PS1	8" DEPTH, 10 CELL WIDE BY 4 CELL LONG PERFORATED GW20 SECTION WITH A SINGLE (1) SAND COLOR FACE STRIP
GW40040545	4" DEPTH, 5 CELL WIDE BY 45 CELL LONG GW40 SECTION
GW20081008S1/P14/BK1	8" DEPTH, 10 CELL WIDE BY 8 CELL LONG GW20 SECTION WITH A SINGLE SAND-COLORED FACE STRIP, 14 INTERIOR PERFORATED STRIPS AND A SINGLE NON-PERFORATED BLACK STRIP



STANDARD GEOWEB® SECTION DIMENSIONS

NOTES FOR STANDARD CONNECTIONS BETWEEN GEOWEB® SECTIONS:

1. ADJACENT GEOWEB SECTIONS ARE ATTACHED TOGETHER USING MANUFACTURER APPROVED CONNECTORS
2. THE TOP EDGES OF ADJACENT CELL WALLS SHOULD BE HELD FLUSH WHEN ATTACHING.
3. SIDE CONNECTIONS BETWEEN EXPANDED GEOWEB SECTIONS SHOULD BE INTERLEAFED AS SHOWN IN FIGURE A. WELDED EDGE SEAMS SHOULD BE ALIGNED WHEN ATTACHING.
4. END CONNECTIONS BETWEEN GEOWEB SECTIONS SHOULD BE BUTTED AS SHOWN IN FIGURE B. THE LONGITUDINAL CENTER-LINES OF ABUTTING EXTERNAL CELLS SHOULD BE ALIGNED AND ATTACHED AT THE CELL WALL CONTACT POINT.

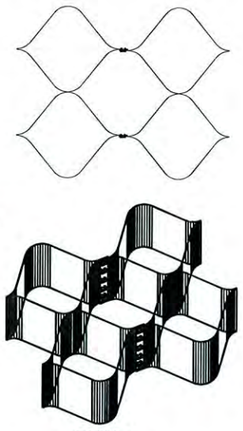


FIGURE A
SIDE CONNECTION DETAIL - INTERLEAFED

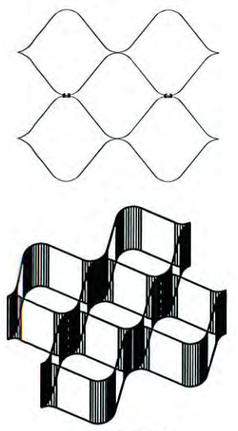


FIGURE B
END CONNECTION DETAIL - ABUTTED

STAPLED END CONNECTION DETAILS

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Stormwater Division

2013 DITCH STABILIZATION PROGRAM
BAYWAY CANAL SEGMENT

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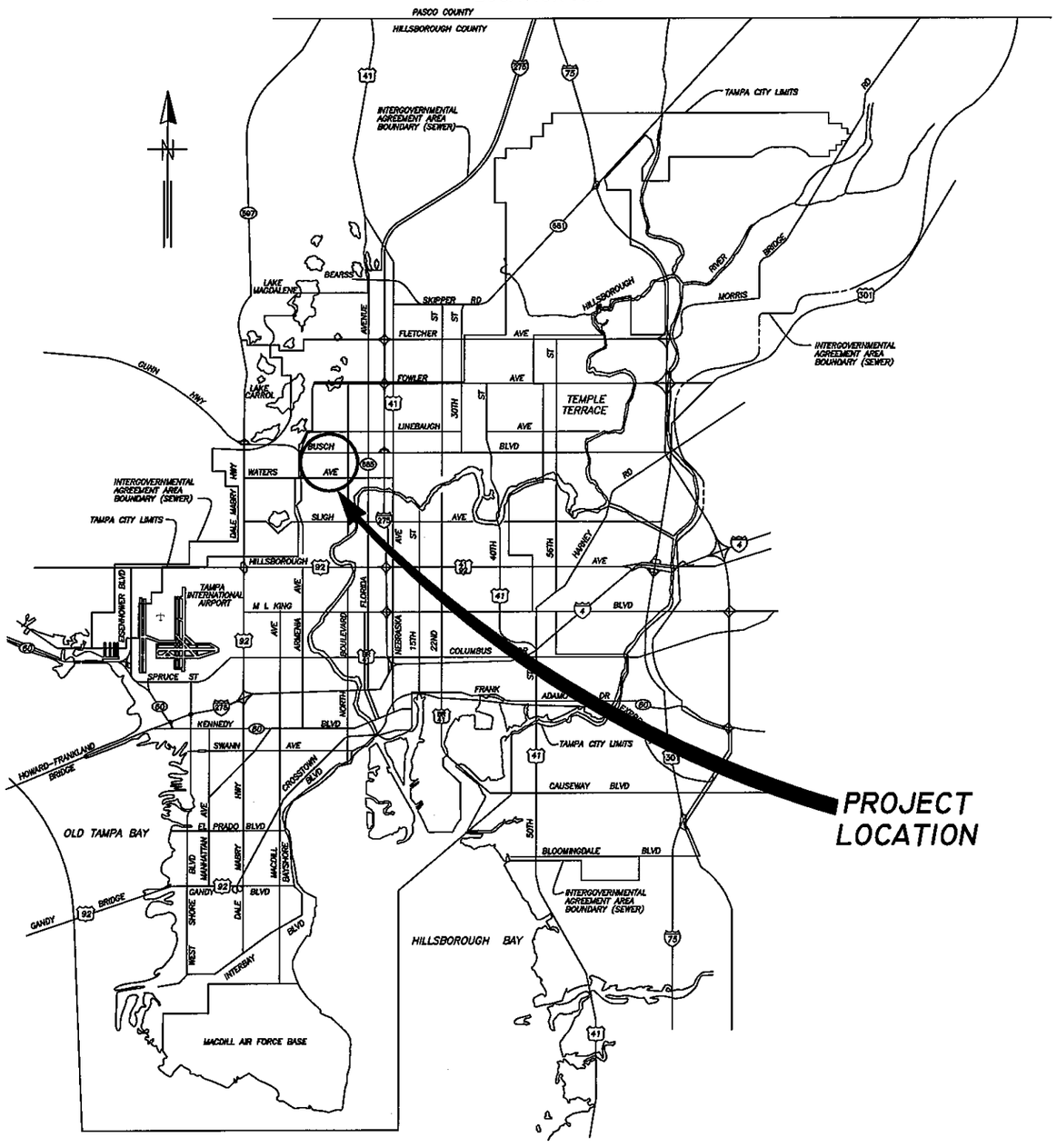
LOCATION MAP



CITY of TAMPA

CITY OF TAMPA FLORIDA
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ORGANIZED JULY 15 1887

DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

PLANS FOR
DITCH STABILIZATION
CONTRACT No.
13-C-00018

JONES AVE SEGMENT

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER
DPW/STORMWATER DIVISION
5/7/13

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COVER SHEET

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SHEET 1 OF 13

LEGEND

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CONCRETE MONUMENT		

ABBREVIATIONS

TOP of PIPE	TP
INVERT ELEVATION	IE or INV EL
RIGHT of WAY	R/W
MANHOLE	MH
POLYVINYL CHLORIDE PIPE	PVCP
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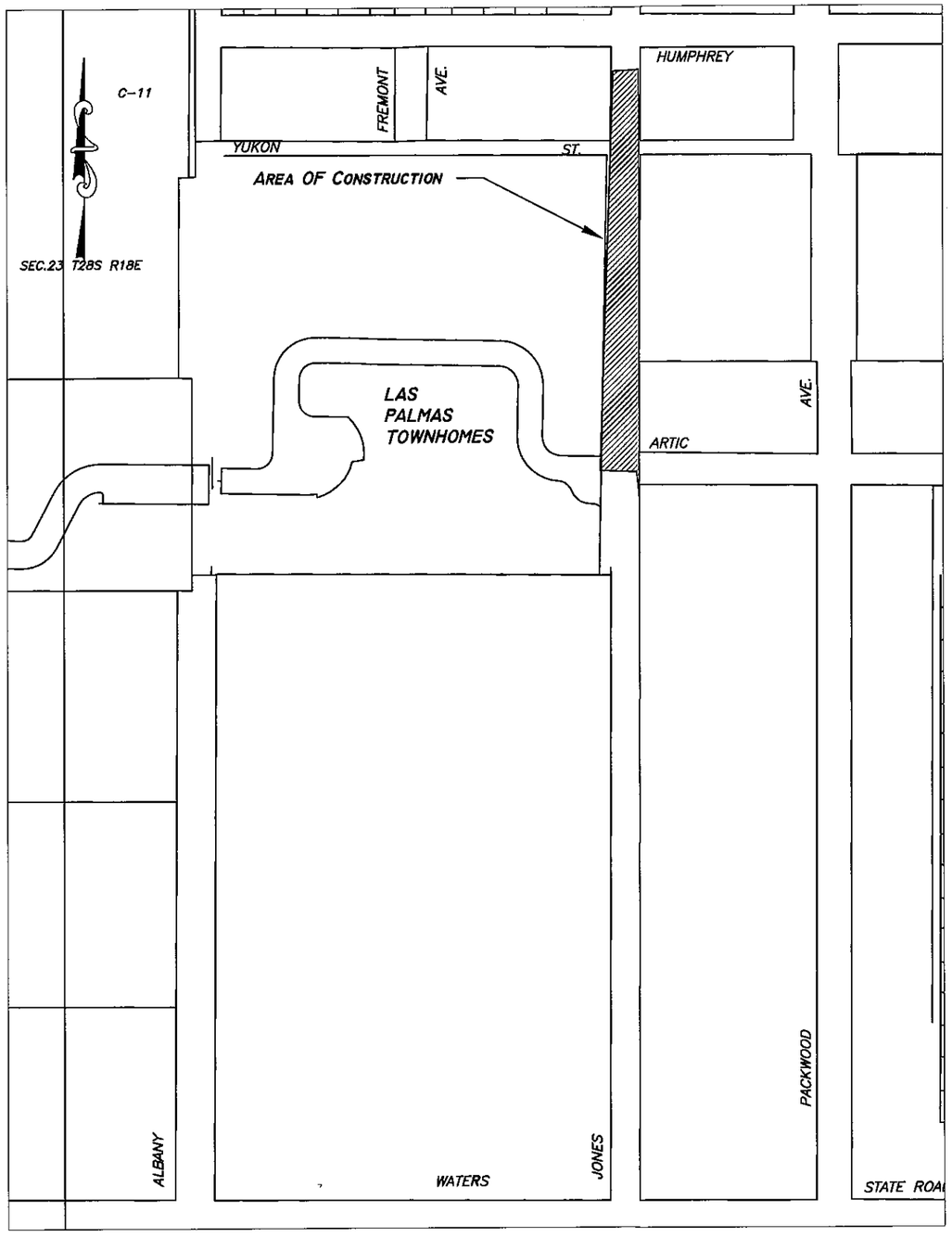

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Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT
LEGEND & INDEX SHEET

W.O. 5864
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SURVEY NOTES:

SW

FIELD WORK PERFORMED BY HEIDT AND ASSOCIATES.

1) THIS SURVEY IS LIMITED TO ABOVE GROUND VISIBLE IMPROVEMENTS ALONG AND NEAR THE BOUNDARY LINES, EXCEPT AS SHOWN HEREON, AND THAT NOTHING BELOW THE GROUND WAS LOCATED INCLUDING, BUT NOT LIMITED TO FOUNDATIONS (FOOTINGS), UTILITIES, ETC.

2) BEARINGS AND NORTHING AND EASTING COORDINATES (INDICATED IN FEET) AS SHOWN HEREON REFER TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83 – 1990 ADJUSTMENT) FOR THE WEST ZONE OF FLORIDA, AS TAKEN FROM HILLSBOROUGH COUNTY HORIZONTAL CONTROL MONUMENTS, "Q–18" AND "SKIPPER".

3) RIGHT–OF–WAY LINES SHOWN HEREON ARE BASED ON EXISTING MONUMENTATION, DEEDS AND PLATS OF RECORD.

4) ELEVATIONS SHOWN HEREON ARE NORTH AMERICAN VERTICAL DATUM OF 1988 AS TAKEN FROM CITY OF TAMPA BENCHMARKS. SEE THIS SHEET FOR LOCAL BENCHMARKS.

5) ALL OFFSETS SHOWN HEREON ARE BASED FROM LINE BEING PERPENDICULAR TO BASELINE OF SURVEY.

REFERENCE BENCHMARK(S):

CITY OF TAMPA BENCHMARK NO. B–1103
FOUND BOX CUT LOCATED AT THE NORTHWEST CORNER OF STORM INLET ON THE NORTHEAST CORNER OF WATERS AVENUE AND PACKWOOD AVENUE. (CITY CIRCUIT 26B)
ELEVATION = 29.70 (NAVD88)

CITY OF TAMPA BENCHMARK NO. B–1102
FOUND BOX CUT LOCATED AT THE CENTER OF THE NORTH SIDE OF THE STORM INLET ON THE NORTH SIDE OF WATERS AVENUE AND 50'± EAST OF THE CENTERLINE OF FREMONT AVENUE. (CITY CIRCUIT 26B)
ELEVATION = 26.69 (NAVD88)

CITY OF TAMPA BENCHMARK NO. HV–02–0150
CITY OF TAMPA DISK LOCATED AT THE SOUTHEAST CORNER OF ROME AVENUE AND JUNIPER STREET, 20' SOUTH OF THE CENTERLINE OF JUNIPER STREET AND 30' EAST OF THE CENTERLINE OF ROME AVENUE.
ELEVATION = 30.208 (NAVD88)

ELEVATIONS SHOWN HEREON ARE IN FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

GENERAL NOTES:

1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES WERE PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE. VERIFY THE LOCATION AND DEPTH OF ALL PERTINENT UTILITIES PRIOR TO CONSTRUCTION. ALL LOCATIONS, ELEVATION AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PLAN PREPARATION. THE CONTRACTOR IS CAUTIONED THAT THERE MAY BE OTHER UTILITIES AND/OR IMPROVEMENTS NOT SHOWN ON THE DRAWINGS WHICH MAY IMPACT THE WORK REPRESENTED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE, THEREFORE, FOR VERIFYING, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES (WHEATHER SHOWN OR NOT ON THE PLANS) WHICH COULD AFFECT THE CONTRACTOR'S WORK. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THERE MAY BE SOME UTILITY CONFLICTS INHERENT IN THE PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES FROM ACCIDENTAL DAMAGE. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT THE LOCATION OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT UTILITIES NOTIFICATION CENTER (SUNSHINE STATE ONE CALL) AT 1–800–432–4770.
2. THE INFORMATION SHOWN IN THESE PLANS IS PROVIDED SOLELY FOR THE PURPOSE OF ASSISTING THE CONTRACTOR IN ASSESSING THE PHYSICAL CONDITIONS UNDER WHICH THE PROJECT IS TO BE BID AND CONSTRUCTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EVALUATION THE CONTRACTIBILITY OF THE PROJECT AND CONDUCTING HIS OWN INVESTIGATION INTO THE PHYSICAL CHARACTERISTICS OF THE PROJECT, INCLUDING THE EXISTENCE AND IMPACT OF ANY STRUCTURES, UTILITIES, OR OTHER SITE FEATURES (WHETHER SHOWN OR NOT SHOWN) PRIOR TO PREPARING AND SUBMITTING A SEALED BID.
3. FIELD CONDITIONS MAY NECESSITATE SLIGHT ALIGNMENT AND GRADE DEVIATIONS OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS DIRECTED BY THE ENGINEER.
4. CONTRACTOR SHALL PROVIDE, OPERATE AND MAINTAIN ALL TEMPORARY BY–PASS OPERATIONS OF UTILITIES, IF REQUIRED, FOR THE COMPLETION OF THE WORK.
5. THE CONTRACTOR SHALL REPLACE ALL EXISTING PAVING, STABILIZED EARTH, CURBS, CONCRETE DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, IRRIGATION LINES, SIGNS AND OTHER IMPROVEMENTS WITH THE SAME TYPE OF MATERIAL THAT WAS DISTURBED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
6. THE CONTRACTOR SHALL PROTECT IN PLACE ALL FACILITIES AND PLANT MATERIALS THAT ARE NOT TO BE RELOCATED AND/OR REMOVED BUT ARE TO REMAIN.
7. CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION. FLOW IN DITCH, ESPECIALLY DURING STORM EVENTS, SHALL BE MAINTAINED OR ADEQUATELY BYPASSED.
8. MAINTENANCE OF TRAFFIC WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAGMEN AS REQUIRED BY THE F.D.O.T. IN THE "MANUAL ON TRAFFIC CONTROL & SAFE PRACTICES." THE CONTRACTOR SHALL SUBMIT "MAINTENANCE OF TRAFFIC" PLANS TO THE CITY FOR APPROVAL.
9. CONTRACTOR SHALL PROVIDE CONTINUOUS ACCESS TO ALL RESIDENTIAL AND COMMERCIAL PROPERTIES FOR OWNERS, DELIVERY PERSONNEL AND MAINTENANCE STAFF.
10. RESTORATION OF ALL CURBS, LANDSCAPING, SOD, ACCESS DRIVES, STREETS AND ROADWAYS SHALL BE COMPLETE WITHIN (10) TEN CALENDAR DAYS OF INITIAL DISTURBANCE IN AREAS OUTSIDE THE PROJECT AREA; OR IN AREAS USED FOR ACCESS OR TRAFFIC BY THE GENERAL PUBLIC. THE RESTORED EARTH MUST BE STABILIZED WITHIN 72 HOURS.
11. CONTRACTOR SHALL MAINTAIN AN UPDATED SET OF CONSTRUCTION PLANS WITH CURRENT FIELD CHANGES MARKED THEREON. SAID PLANS SHALL BE DELIVERED TO THE PROJECT MANAGER UPON COMPLETION OF ALL CONSTRUCTION OPERATIONS. CONTRACTOR'S MARKUPS SHALL INDICATE ALL VALVES, FITTINGS AND APPURTENANCES IN GPS STATE PLAN COORDINATES. PIPES SHALL BE DIMENSIONALLY LOCATED, FROM THE R.O.W. LINE, BACK OF CURB AND/OR EDGE OF PAVEMENT WITH SUFFICIENT REGULARITY (NO LESS THAN EVERY 100 FT) TO PROVIDE ACCURATE FIELD LOCATION. CONTRACTOR SHALL ALSO IDENTIFY THE TOP OF PIPE ELEVATION AT EACH CHANGE IN HORIZONTAL OR VERTICAL LOCATION.
12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
13. SHOP DRAWINGS SHALL BE FURNISHED TO THE ENGINEER FOR APPROVAL OF ALL GUARDRAIL COMPONENTS, FABRIC FORMED CONCRETE PRODUCTS PRIOR TO FABRICATION OR DELIVERY TO THE JOB SITE.
14. CONTRACTOR SHALL RETURN THE ENTIRE AREA DISTURBED BY CONSTRUCTION ACTIVITIES TO THE ORIGINAL CONDITION OR BETTER UPON COMPLETION OF THE WORK, IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
15. SOD USED TO REPLACE OWNER MAINTAINED AREAS IN THE RIGHT–OF–WAY SHALL BE OF THE SAME TYPE AND QUALITY THAT WAS IN PLACE PRIOR TO THE START OF CONSTRUCTION. ANY EXCEPTION MUST BE APPROVED BY THE ENGINEER.
16. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE AREA WITHIN THE CITY RIGHT–OF–WAY, PROPERTY LIMITS OR EASEMENTS AS SHOWN ON THE CONTRACT DRAWINGS.
17. TREE TRIMMING AND/OR REMOVAL AND ROOT PRUNING WILL BE REQUIRED WHERE WORK AREA IS WITHIN TEN FEET OF TREES. ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR CLEARING AND GRUBBING. CONTRACTOR MUST COORDINATE WORK AROUND TREES WITH NATURAL RESOURCES AT (813)274–5167.
18. OVERALL CLEAN UP SHALL BE ACCOMPLISHED BY THE CONTRACTOR IN ACCORDANCE WITH CITY STANDARDS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE LINE ITEM.
19. THE CONTRACTOR SHALL ENDEAVOR TO PROTECT PRIVATE PROPERTY. ANY DAMAGE CAUSED BY THE CONTRACTOR IN THE PERFORMANCE OF HIS WORK SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE. PAYMENT WILL NOT BE MADE FOR THIS WORK.
20. ANY DAMAGE TO STATE, COUNTY OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. PAYMENT WILL NOT BE MADE FOR THIS WORK.
21. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BARRIERS IN COMPLIANCE WITH THE LATEST EDITION OF THE FLORIDA EROSION AND SEDIMENTATION CONTROL MANUAL, AND AS DIRECTED BY THE ENGINEER. THE MAINTENANCE OF EROSION CONTROL DEVICES AND THEIR COMPLETE REMOVAL ARE TO BE INCLUDED IN THE UNIT BID PRICE FOR EACH INDIVIDUAL ITEM.
22. CONTRACTOR SHALL COORDINATE ANY UTILITY RELOCATIONS WITH UTILITY OWNER PRIOR TO UTILITY ADJUSTMENT. CONTRACTOR SHALL CONTACT UTILITY OWNERS AT THE BEGINNING OF CONSTRUCTION TO ALLOW ADEQUATE TIME FOR UTILITY RELOCATION WORK.
23. OVERHEAD UTILITIES – THE CONTRACTOR IS TO PROTECT IN PLACE ALL OVERHEAD UTILITY LINES WITHIN THE PROJECT LIMITS.
24. ALL DISTURBED SIDEWALKS AND DRIVEWAYS DURING CONSTRUCTION ARE TO BE REPLACED IN LIKE KIND AND PER CITY OF TAMPA STANDARDS.
25. SANITARY SEWER SERVICE, IF UNCOVERED DURING CONSTRUCTION, WILL BE REMOVED WITHIN THE LIMITS OF CONSTRUCTION, PLUGGED AT SIX FEET BEHIND CURB, AND AND DISTURBED AREA COMPACTED. THE EXCEPTION IS SERVICE AT STA. 15+54, IF THIS IS UNCOVERED CONTACT PROJECT ENGINEER FOR DIRECTION.

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CITY of TAMPA
Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT
SURVEY & GENERAL NOTES

W.O. 5864
SHEET 3 OF 13

STRUCTURAL CONSTRUCTION NOTES:

SW

1.0 GENERAL

1.1 ALL WORK IS TO BE PERFORMED IN A GOOD, WORKMANLIKE AND PROFESSIONAL MANNER.

1.2 ALL CONSTRUCTION SHALL BE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE FLORIDA STATE BUILDING CODE, LATEST EDITION, LOCAL BUILDING CODES. FDOT SPECIFICATIONS AND INDICES AND COT SPECIFICATIONS, IF MORE STRINGENT.

1.3 THESE DRAWINGS DO NOT SHOW PROVISIONS FOR SAFETY DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THE REQUIRED BRACING, SHORING, AND SAFETY DEVICES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT.

2.0 COORDINATION

2.1 CONTRACTOR IS TO VERIFY THE ELEVATION AND LOCATION OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. ANY "KNOWN" UTILITY LINES DAMAGED WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE. IF ANY "UNKNOWN" UTILITY LINES ARE ENCOUNTERED WHEN EXCAVATING THE CONTRACTOR IS TO CEASE ALL EXCAVATION ACTIVITY UNTIL THE ENGINEER AND OWNER ARE NOTIFIED AND INSTRUCTIONS ARE PROVIDED ABOUT HOW TO PROCEED.

2.2 THE CONTRACTOR SHALL OBTAIN THE OWNER'S PERMISSION BEFORE ENCASING OR BACK FILLING AROUND ANY EXISTING UNDERGROUND STRUCTURE, PIPING, ELECTRICAL, OR OTHER UNDERGROUND WORK.2.3 ANY DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN ON THESE DRAWINGS ARE TO BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE CONSTRUCTION WORK PROCEEDS, INCLUDING ORDERING AND FABRICATING MATERIALS.

3.0 REINFORCING STEEL

3.1 BARS SHALL BE ROLLED FROM NEW BILLET-STEEL OF DOMESTIC MANUFACTURE CONFORMING TO "STANDARD SPECIFICATION FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT," ASTM A 615, GRADE 60 AND SUPPLEMENTARY REQUIREMENT S-1.

3.2 DETAIL AND FABRICATE REINFORCING STEEL IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE "ACI DETAILING MANUAL," LATEST PUBLICATION.

3.3 REINFORCING STEEL IN PLACE SHALL BE REVIEWED BY THE OWNER'S CONSTRUCTION REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE. IN GENERAL "CLR" DISTANCES FOR CONCRETE COVER ARE PROVIDED ON THE DRAWINGS IN THE SECTIONS & DETAILS. FOR SECTIONS & DETAILS w/OUT CONCRETE COVER FOR REINFORCING BARS REFERENCE THE PROJECTS SPECIFICATIONS.

3.4 WELDED WIRE FABRIC SHALL CONFORM TO "STANDARD SPECIFICATION FOR WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT," ASTM A-185.

3.5 PLACE WELDED WIRE FABRIC AT CENTER OF SLABS-ON-GRADE UNLESS NOTED OTHERWISE.

3.6 PROVIDE BARS AT CORNERS AND INTERSECTIONS OF WALLS & FOOTINGS OF THE SAME NUMBER AND SIZE AS LONGITUDINAL BARS, U.N.O. ON THE DRAWINGS.

3.7 FABRICATE CONTINUOUS BARS IN SLABS, WALLS & FOOTINGS TO THE LONGEST PRACTICABLE LENGTHS.

3.8 REINFORCING STEEL SHALL NOT BE BENT AFTER BEING PARTIALLY EMBEDDED IN HARDENED CONCRETE.

3.9 BARS SHALL BE COLD BENT AND SHALL NOT BE HEATED FOR ANY REASON.

3.10 REINFORCING BARS SHALL NOT BE WELDED UNLESS NOTED OTHERWISE ON THE DRAWINGS.

3.11 REFERENCE DRAWINGS FOR REQUIREMENTS FOR LAP REINFORCING STEEL IN CONCRETE. ALL "LCS" SHALL CONFORM TO CLASS B SPLICE CRITERIA. IT IS ACCEPTABLE TO LAP REINFORCING IN NON "LCS" STRUCTURES A MINIMUM 50 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

3.12 LAP SPLICED BARS IN CONCRETE ARE TO BE WIRE TIED.

4.0 CONCRETE

4.1 IN GENERAL CONCRETE SHALL BE CLASS "B" AND DEVELOP 4000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS UNLESS OTHERWISE NOTED. REFERENCE PROJECT SPECIFICATIONS, FOR APPLICATION & SPECIFIC CONCRETE MIX DESIGN REQUIREMENTS.

4.2 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318 & TO "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES", ACI 350 (LATEST EDITIONS).

4.3 PLACE 1 /2 INCH EXPANSION JOINT MATERIAL BETWEEN EDGES OF SLABS AND VERTICAL SURFACES UNLESS NOTED OTHERWISE.

4.4 PROVIDE CONSTRUCTION OR CONTROL JOINTS IN SLABS & WALLS AT LOCATIONS SHOWN ON DRAWINGS, AT OFFSETS AND CHANGES IN DIRECTION AND AT THIRTY (30) FEET MAXIMUM U.N.O.. GENERAL CONTRACTOR TO PROVIDE CONSTRUCTION JOINT LAYOUT PLAN PER THE PROJECT SPECIFICATIONS PRIOR TO CONSTRUCTION, INCLUDING ORDERING & FABRICATING MATERIALS.

4.5 CHAMFER EXPOSED EDGES OF CONCRETE 3/4 INCH, UNLESS NOTED OTHERWISE.

4.6 CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CURING OF ALL CONCRETE. CURING METHODS SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES" ACI 350 AND "STANDARD PRACTICE FOR CURING CONCRETE," ACI 308, LATEST EDITIONS.

4.7 UNLESS NOTED OTHERWISE DOWELS SHALL BE THE SAME NUMBER AND SIZE AS THE LARGEST VERTICAL BAR TO WHICH THEY ARE SPLICED.

4.8 REFERENCE PROJECT SPECIFICATIONS FOR REQUIRED FINISHES.

4.9 BONDING AGENT TO BE STRUCTURAL EPOXY ADHESIVE CONFORMING TO ASTM C-881 TYPE I AND II, GRADE 2, CLASS B AND C WITH A MINIMUM BOND STRENGTH OF 1900 PSI.

4.10 CONTRACTOR SHALL SUBMIT REBAR SHOP DRAWINGS FOR APPROVAL TO OWNER PRIOR TO FABRICATION. DO NOT FABRICATE REINFORCING PRIOR TO RECEIPT OF APPROVED SHOP DRAWINGS.

4.11 ROUGHEN THE "BASE" CONCRETE POUR SURFACE TO A FULL AMPLITUDE OF 1/4" MINIMUM, WHERE NOTED ON THE CONSTRUCTION DRAWINGS.

4.12 CONCRETE MIXES TO BE REVIEWED BY THE OWNER'S CONSTRUCTION REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE. COMPRESSIVE STRENGTH TEST CYLINDERS TO BE REVIEWED BY THE OWNER'S CONSTRUCTION REPRESENTATIVE THROUGHOUT CONCRETE CONSTRUCTION OF THE PROJECT.

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CITY of TAMPA
Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT
STRUCTURAL NOTES

W.O. 5864
SHEET 4 of 13

SW

C-11

SEC.23 T28S R18E

0 20

1"=20'

ARCTIC ST

JONES AVE

1901 1903 1905 1907 1911 1913 1915 1917 1919

11" Cherry Laurel

15" Live Oak

12" Live Oak

14" Live Oak

STA. 10+55
REMOVE SECTION OF TRANSITIONAL CURB AND REPLACE WITH TYPE D CURB.
EXTEND TYPE D CURB TO FLUME

TWO 24"RCP

TOE OF SLOPE & LIMITS OF MAT

TOP OF SLOPE

E.O.P.

STA. 10+52, 18' LT
END OF GUARDRAIL
W/IMPACT HEAD OR
ROUND END

STA. 10+62 12' LT
START OF GUAR-
DRAIL FLARE

STA. 10+77
TRANSITION FROM FLUME
TO TYPE "F" CURB

10 11 12

10"VCP

25.91'
+50.04

25.91'
+23.42

STA. 12+50

MATCHLINE

8" DIP(AL)

24"19"28"

6" Laurel Oak

D/W

Gate Gate

4' Chain Link Fence

Brighthouse cable(AL)

INSTALL RIP-RAP WITH FILTER FABRIC LINER

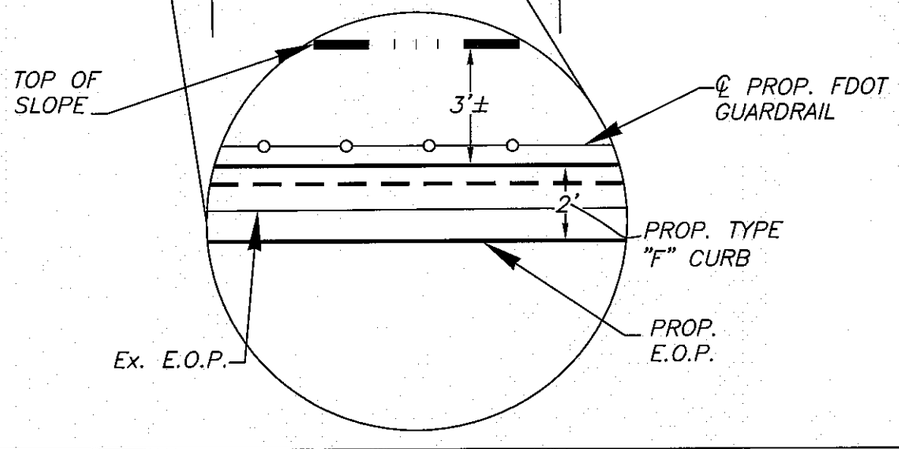
Concrete Drive

1809 8605 8607

LOCAL BENCHMARK
Bridge spike in West side utility pole #1812 (Set)
Elev.=28.89'(NAVD88)

R/W

D-1 Existing MES
Inv. El=23.39(W. RCP)
Inv. El=23.44(E. RCP)



MILL AND OVERLAY
SOUTHBOUND LANE FROM
STA. 10+55 TO STA. 16+80
WITH 1" ASPHALT.

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2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

W.O. 5864

SHEET 5 OF 13

SW

30
28
26
24
22
20
18
16

Elevation at E.O.P.

27.58
27.60
27.78
27.97
28.21

24" RCP

24.2
23.41

PROPOSED DITCH BOTTOM @ 0.29%

22.97
23.24
22.96

Brighthouse Cable (AL)

Ditch Bottom

10"VCP

6" HC (AL)
6" HC (AL)
6" HC (AL)
6" HC (AL)

STA. 12+50

MATCHLINE

+64±
EL=23.41
EL=23.30
EL=23.00

Scale
1"=20' Horiz.
1"=2' Vertical

10
11
12

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2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

W.O. 5864
SHEET 6 OF 13

SW

C-11

SEC.23 T28S R18E

0 20

1"=20'

JONES AVE

CONCRETE RETAINING WALL TO BE REMOVED

4'X8' RIP-RAP WITH FILTER FABRIC LINER

1923

6' Aluminum Fence

6' Chain Link Fence

8"PVC

R/W

14" Live Oak

8" Laurel Oak

6" Laurel Oak

14" Live Oak

8" Laurel Oak

7" Laurel Oak

8" Laurel Oak

18" Laurel Oak

14"Live Oak

STA. 12+50

STA. 15+00

1' Concrete Retaining Wall

San. Lateral

13

14

10"VCP

Abandoned 8" WM

E.O.P.

MATCHLINE

MATCHLINE

10"

3' Wood Fence

East R/W line

D/W

3' Wood Fence

4' Chain Link Fence

D/W

D/W

4' Chain Link Fence

Brick Paver Drive

LOCAL BENCHMARK

"□" cut in Concrete Drive

Elev.=27.68'(NAVD88)

8609

8611

8613

8615

★3 8" PVC SAN. CONN. SUE LOCATION
TOP OF UTILITY EL. = 20.58

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CITY of TAMPA
Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

W.O. 5864
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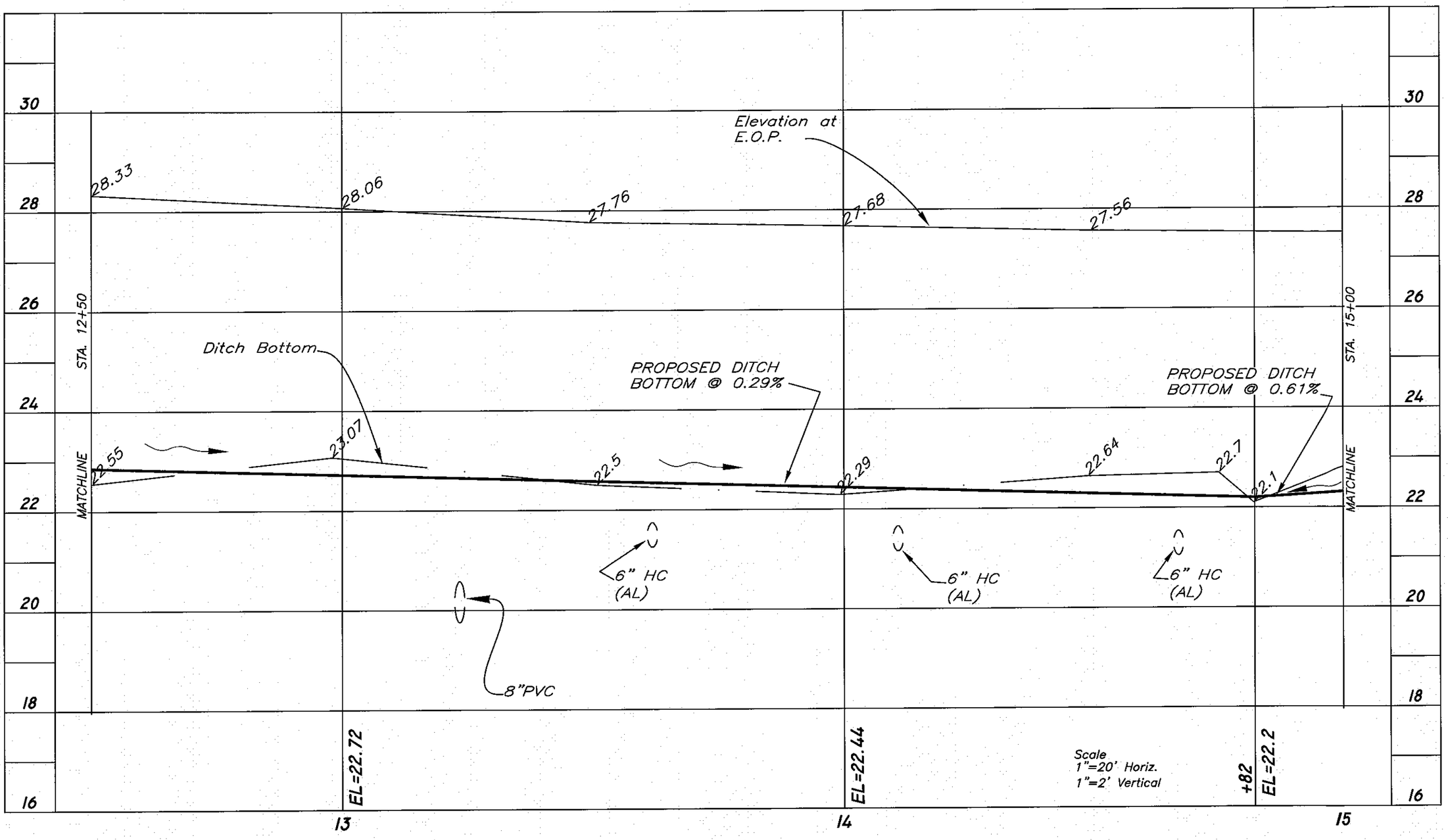
SW



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Department of Public Works
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2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

W.O. 5864
SHEET 8 OF 13

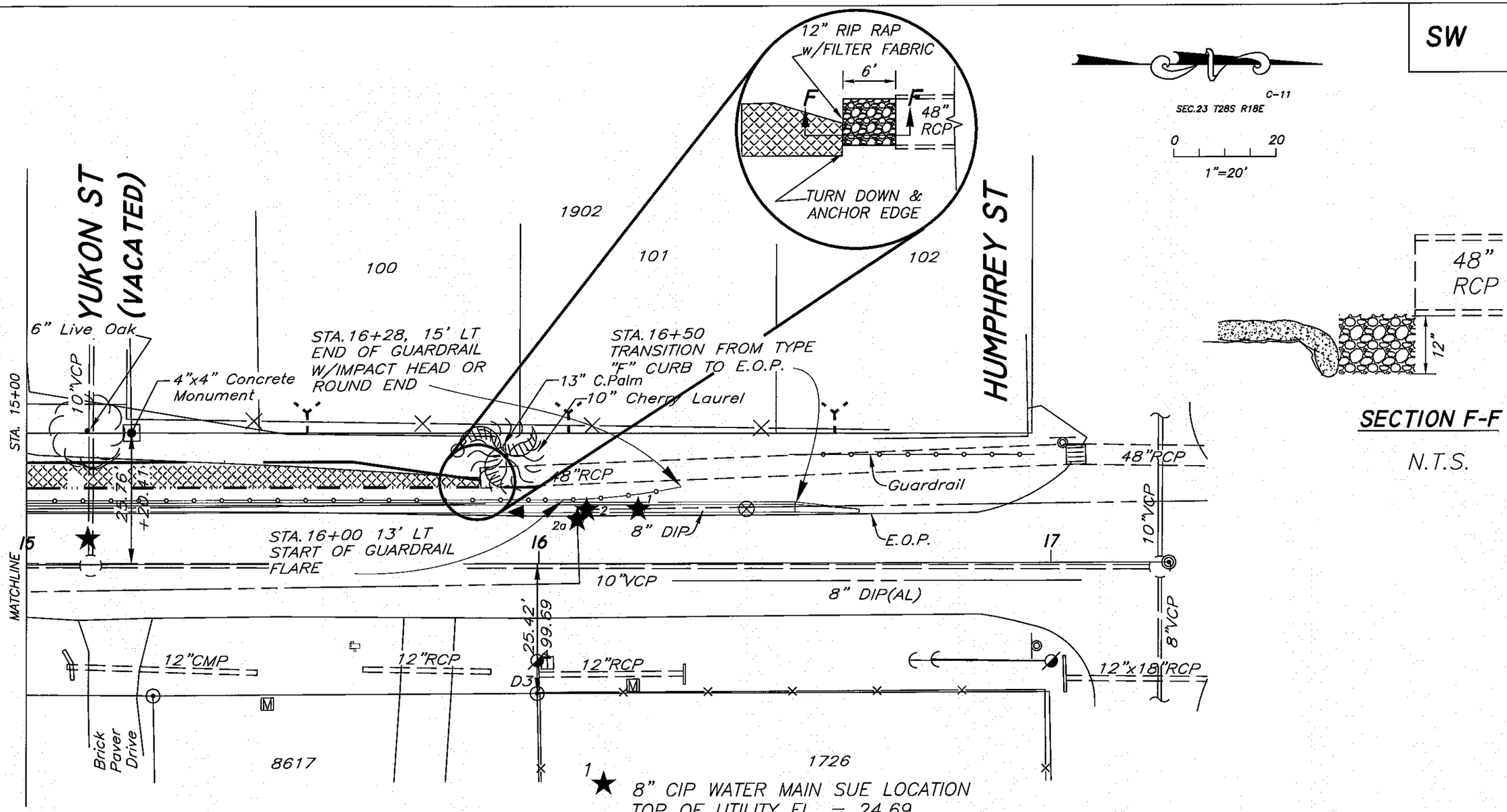
SW

C-11

SEC.23 T28S R18E

0 20

1"=20'



SECTION F-F

N.T.S.

★ 10" VCP NOT FOUND

1 ★ 8" CIP WATER MAIN SUE LOCATION
TOP OF UTILITY EL. = 24.69

2 ★ 8" CIP WATER MAIN SUE LOCATION
TOP OF UTILITY EL. = 24.58

2a ★ 8" CIP WATER MAIN SUE LOCATION
TOP OF UTILITY EL. = 24.58

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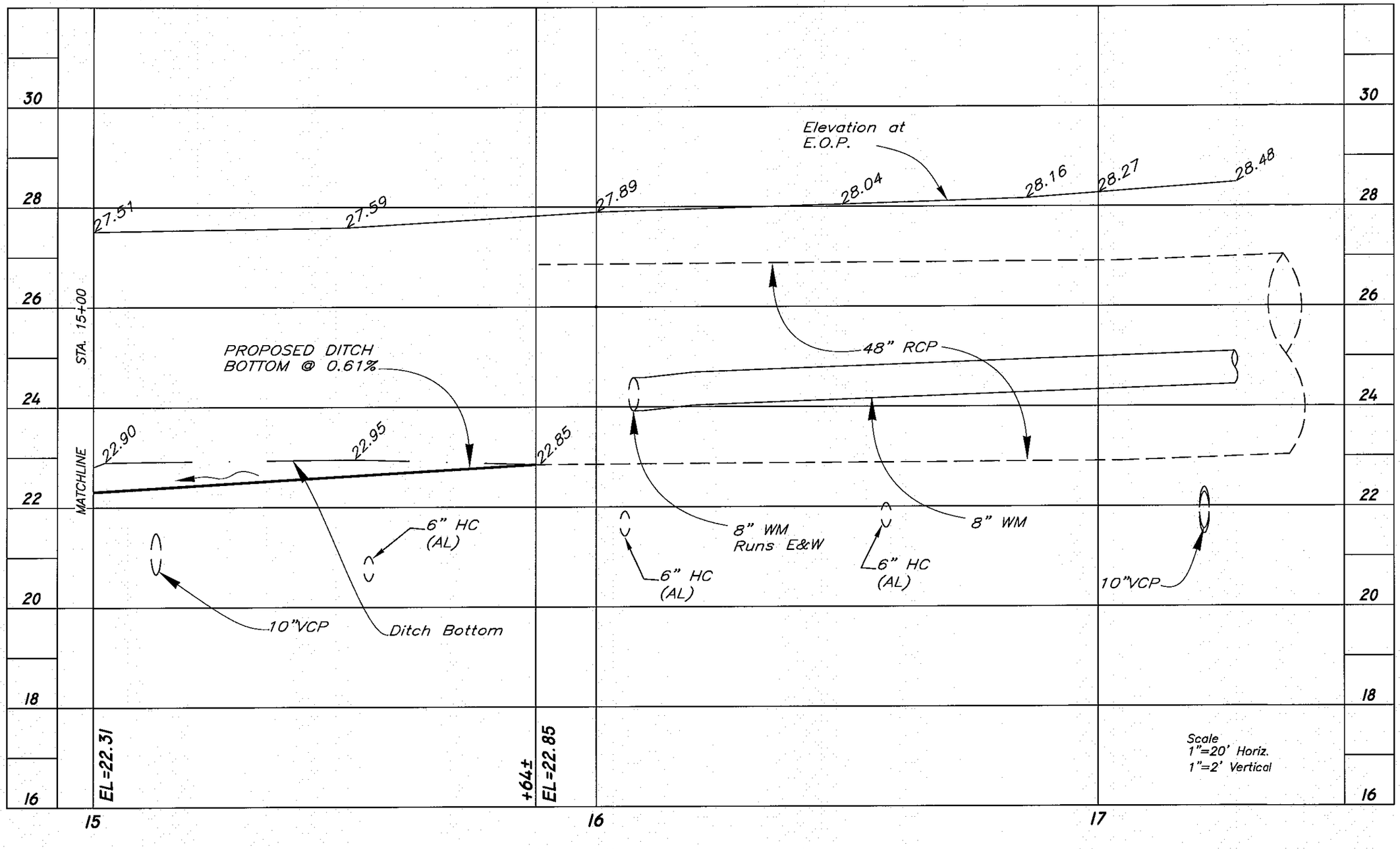

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2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

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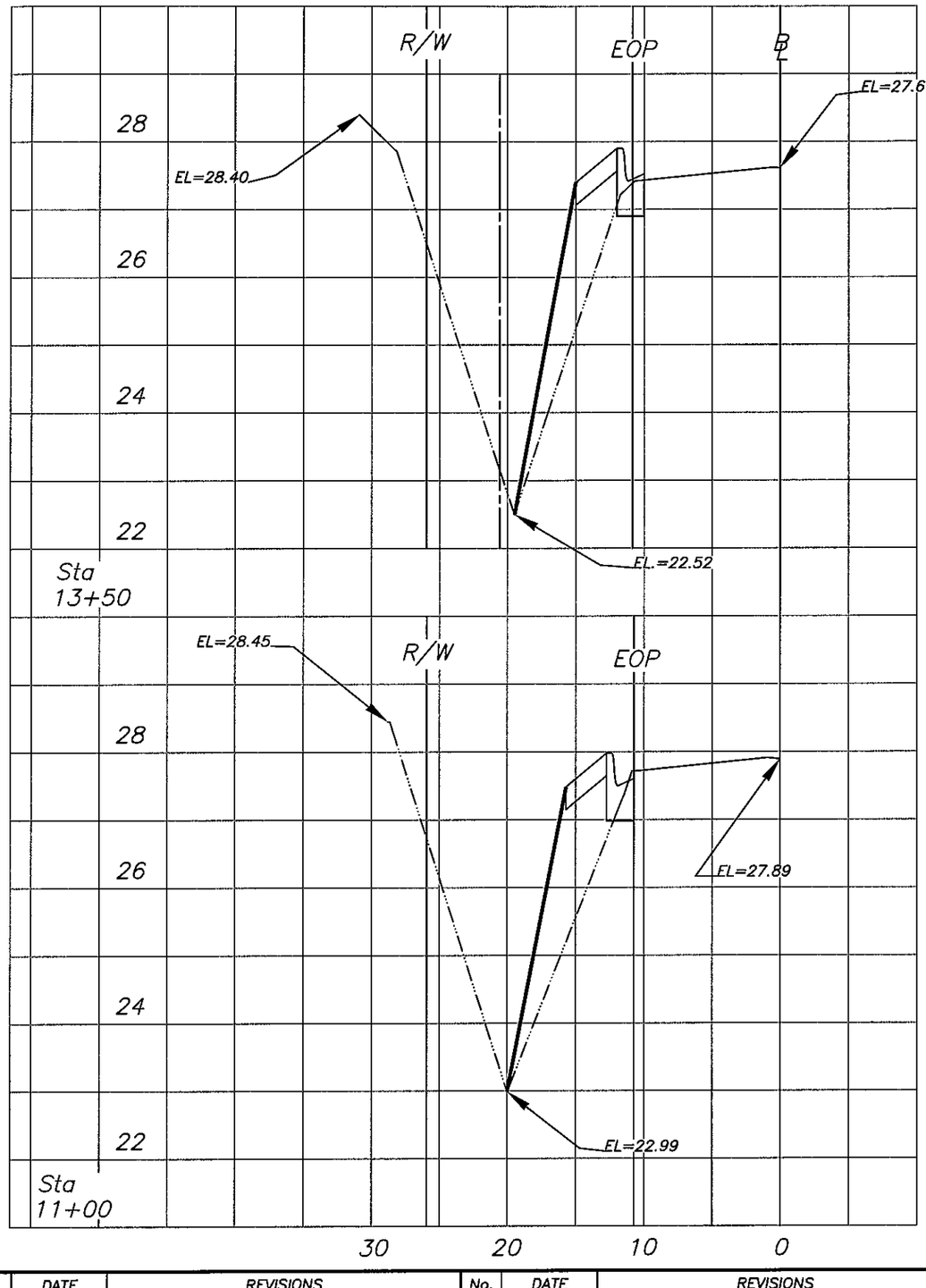
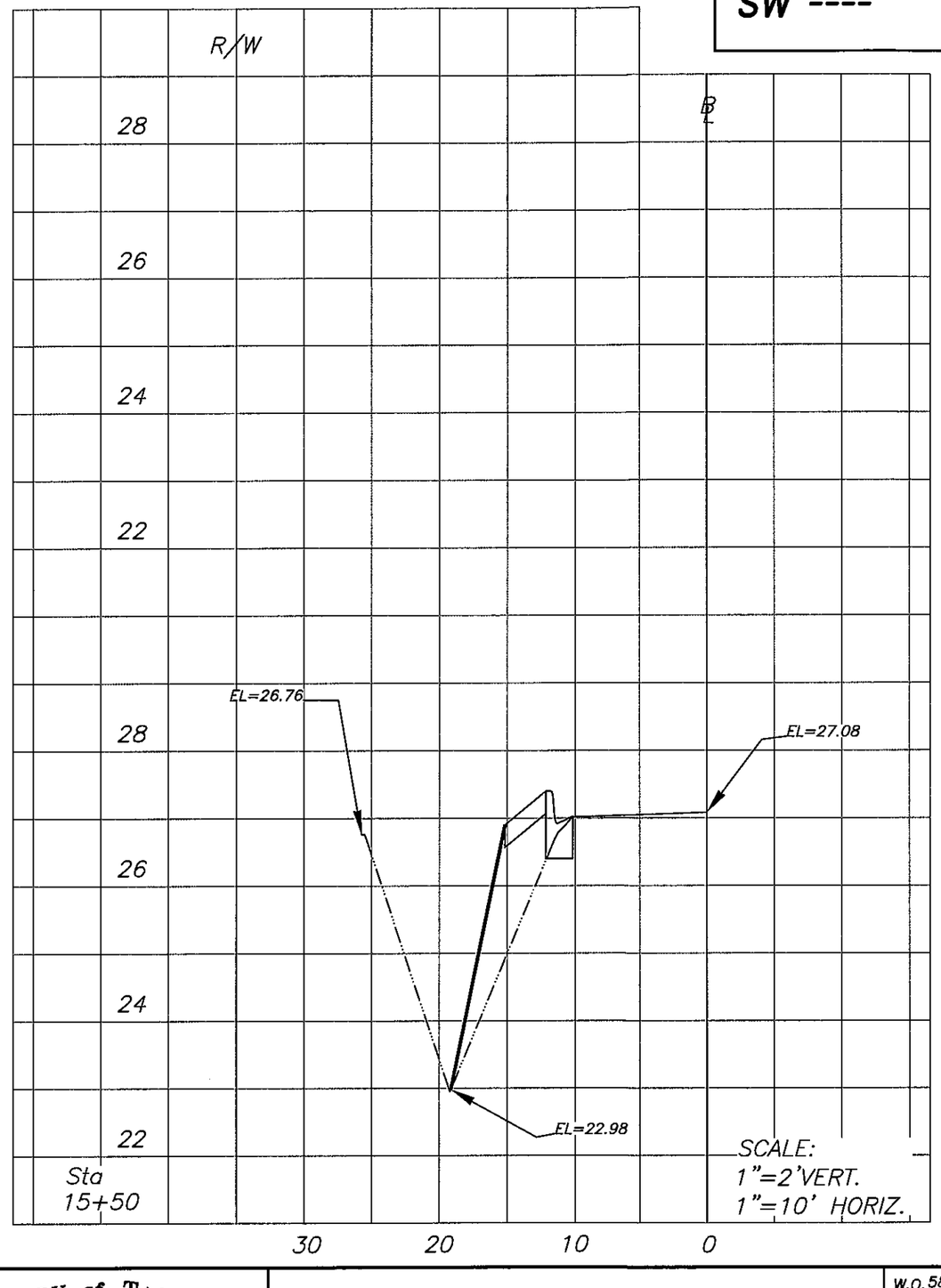
SW ----





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CITY of TAMPA
Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

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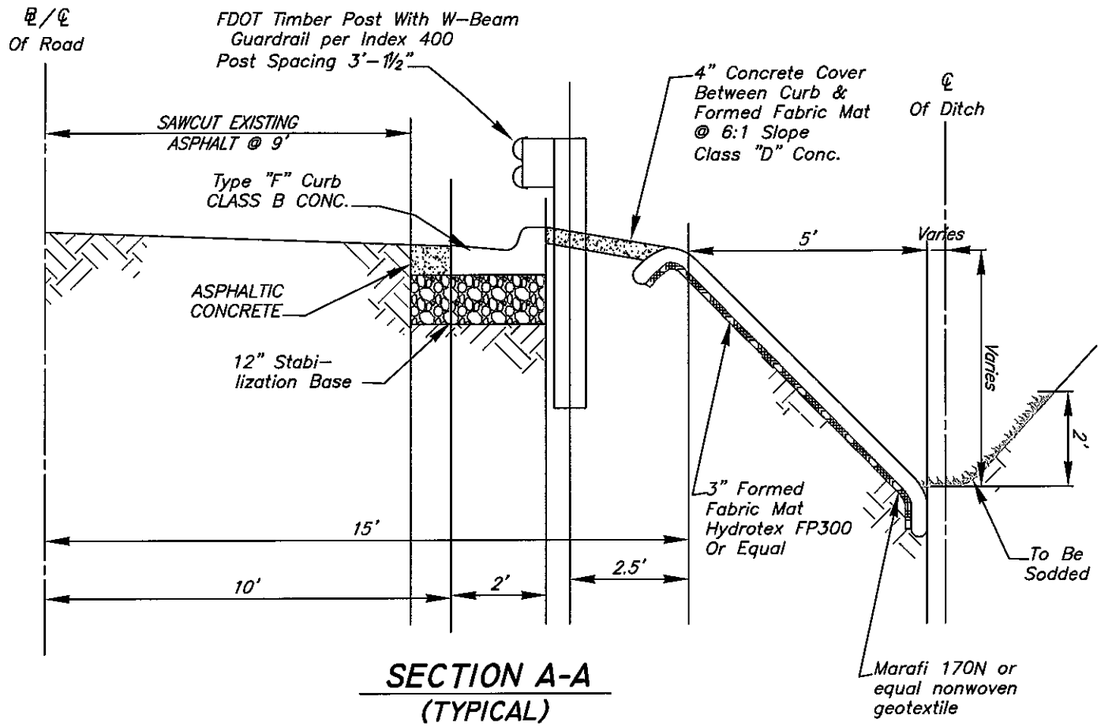
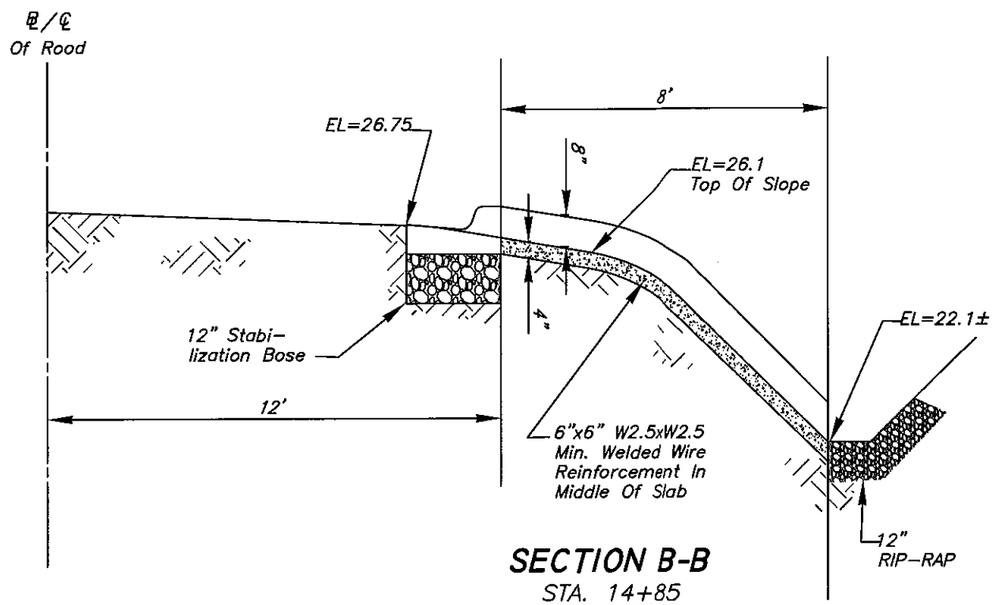
SHEET 11 OF 13

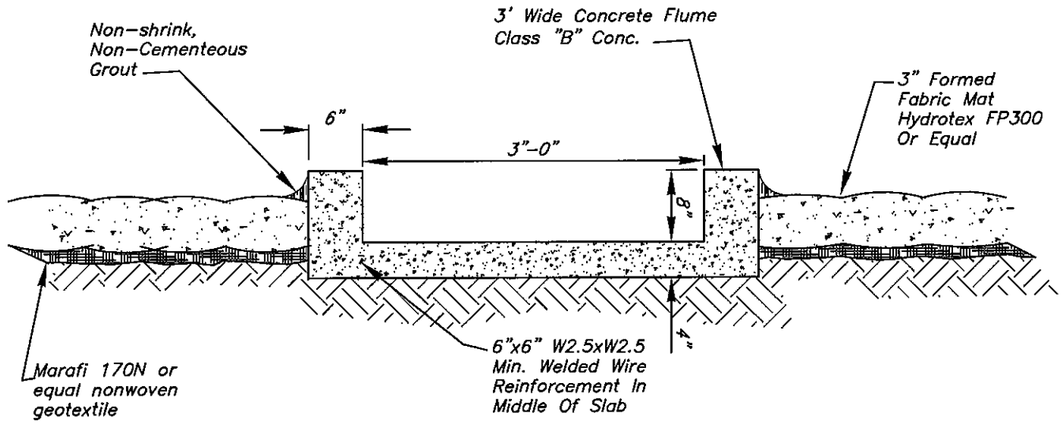
SW



SECTION A-A
(TYPICAL)
N.T.S.



SECTION B-B
STA. 14+85
N.T.S.



SECTION C-C
N.T.S.

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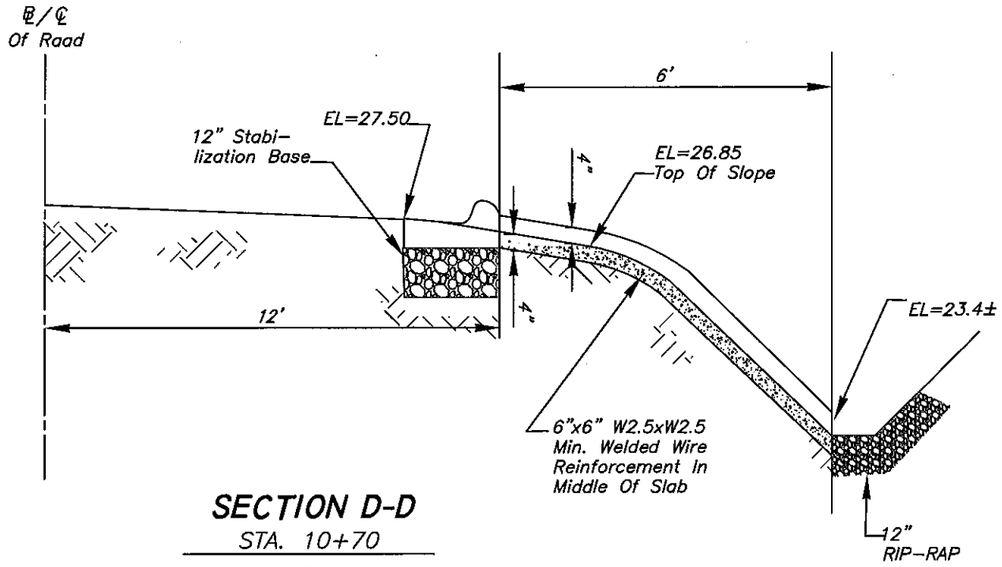
W.O. 5864
SHEET 12 OF 13



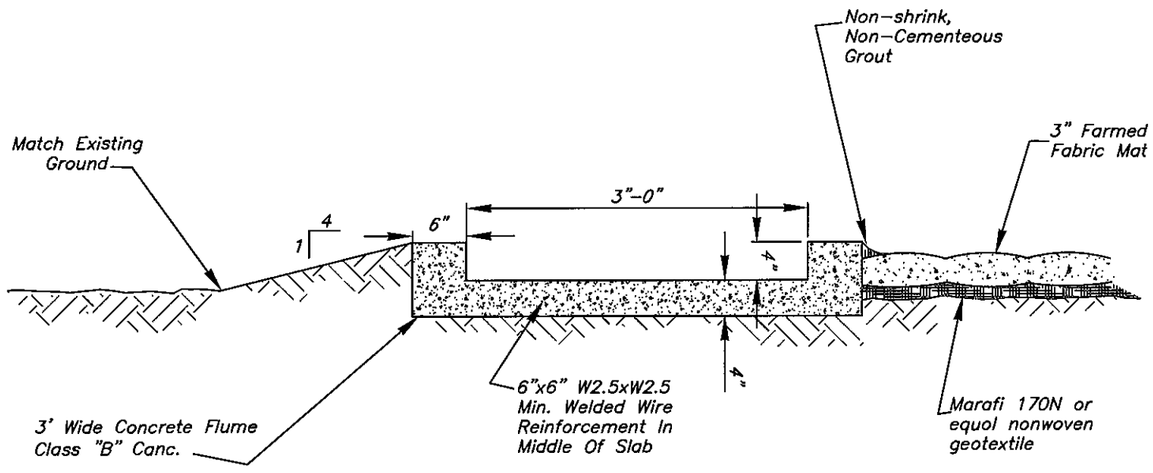
SECTION D-D

STA. 10+70

N.T.S.

TYPE "F" CURB GRADES

Station	E.O.P.	Top of Curb	Bottom of Curb	
10+55	27.6	28.0	27.5	Transition "D" To Flume
10+70	27.5			℄ of Flume
10+76	27.6	28.0	27.5	Transition From Flume To "F" Curb
11+00	27.5	27.9	27.4	
11+50	27.7	28.1	27.6	
12+00	27.85	28.3	27.75	
12+50	28.0	28.4	27.9	
13+00	27.7	28.1	27.6	
13+50	27.5	27.9	27.4	
14+00	27.2	27.6	27.1	
14+50	26.9	27.3	26.8	
14+79	26.75	27.15	26.65	Transition To Flume Radius
14+85	26.75			℄ of Flume
14+92	26.75	27.15	26.65	Transition To Flume Radius
15+00	26.8	27.2	26.7	
15+50	27.0	27.4	26.9	
16+00	27.2	27.6	27.1	
16+50	27.4	27.8	27.3	Transition To No Curb
16+65	27.44			No Curb



SECTION E-E

N.T.S.

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

DES: MTM
DRN: MP
CKD:
DATE: 12/12/12

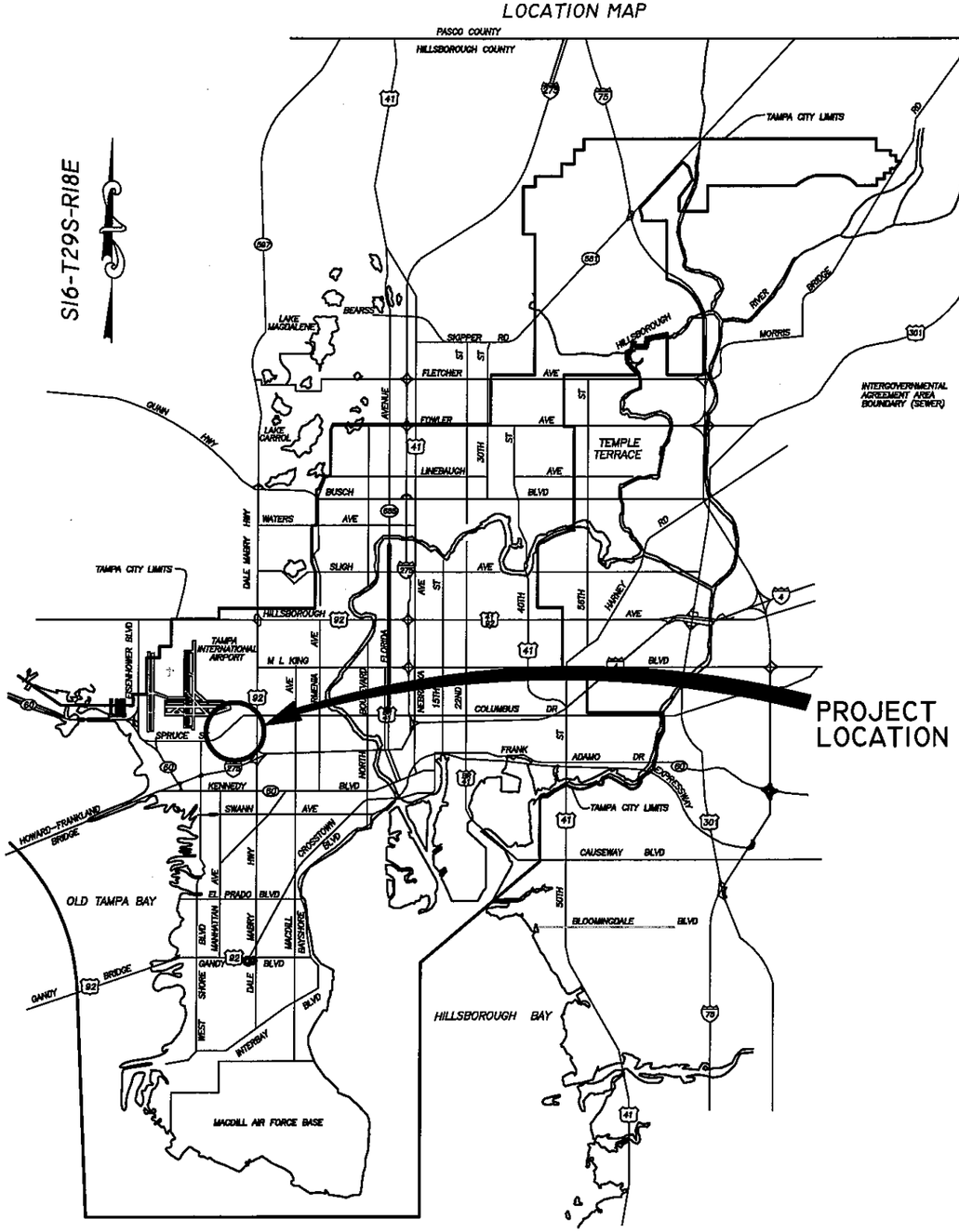
CITY of TAMPA
Department of Public Works
Stormwater Division

2013 DITCH STABILIZATION PROGRAM
JONES AVENUE SEGMENT

W.O. 5864
SHEET 13 OF 13

SW 2013-

LOCATION MAP



CITY of TAMPA

CITY OF TAMPA FLORIDA · ORGANIZED JULY 15 1887 · MASCOTTE

DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

PLANS FOR
DITCH STABILIZATION
CONTRACT No.
(13-C-00018)

MET-WEST SEGMENT

PLANS PREPARED BY:

Stantec
2205 North 20th Street
Tampa, Florida 33605
Tel (813) 223-9500
Fax (813) 223-0009
www.stantec.com
www.wilsonmiller.com
WilsonMiller, Inc.
Certificate of Authorization #43
FL Lic # LC-C000170

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #39991
HAMIDREZA SAHEBKAR, P.E.
FLORIDA LICENCE# 39991

No.	DATE	
3		
2		
1		

DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/2012

CITY of TAMPA
Department of Public Works
Stormwater Division

COVER SHEET

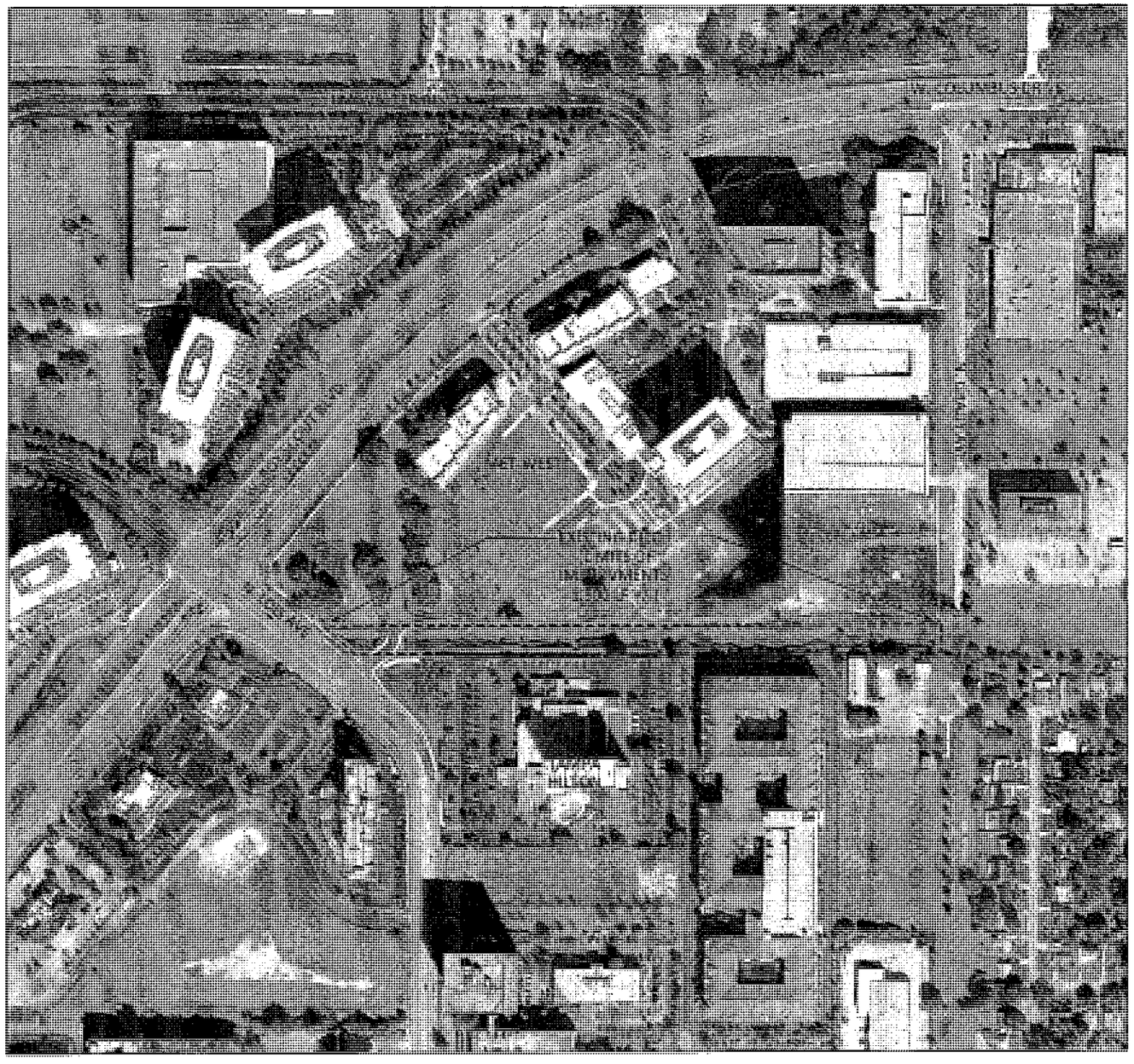
WO# 510W
SHEET 1 OF 14

SW 2013-

S16 - T29S - R18E

0 300

1" = 300'



SHT. NO.	DESCRIPTION
1	COVER SHEET
2	PROJECT MAP & INDEX
3	LEGEND & GENERAL NOTES
4	PLAN SHEET (1 OF 4)
5	PLAN SHEET (2 OF 4)
6	PLAN SHEET (3 OF 4)
7	PLAN SHEET (4 OF 4)
8	CROSS SECTIONS (1 OF 4)
9	CROSS SECTIONS (2 OF 4)
10	CROSS SECTIONS (3 OF 4)
11	CROSS SECTIONS (4 OF 4)
12	STORMWATER DETAILS (1 OF 2)
13	STORMWATER DETAILS (2 OF 2)
14	MISCELANEOUS DETAILS

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL#39991

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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST

PROJECT MAP & INDEX

WO# 510W
SHEET 2 OF 14

SW 2013-

LEGEND

EX STORMWATER	UP to 18" & SMALLER	24" & LARGER
FORCE MAIN		
PIPES & MANHOLES		
CATCH BASIN, GRATE		
DITCHES, SWALES		
PROP STORMWATER		
FORCE MAIN		
PIPES & MANHOLES		
OTHER UTILITIES		
SAN SEWER & MANHOLES		
WATER LINE	WM	WM
FORCEMAIN	FM	FM
GAS LINE	GAS	GAS
ELECTRICAL CABLE or DUCT	ELEC	
TELEPHONE CABLE or DUCT	TEL	
VALVE		
HYDRANT		
CLEAN OUT		
EXISTING WYE		
POWER POLE		
TELEPHONE POLE		
GUY POLE		
GUY WIRE		
VALVE VAULT	V	
WATER METER	M	
ELECTRICAL MANHOLE or VAULT	E	
TELEPHONE MANHOLE or VAULT	T	
TRAFFIC BOX or VAULT	TB	
OTHER FEATURES		
RIGHT of WAY LINE	R/W	
EDGE of PAVEMENT		
BUILDING LIMIT	1236	
PROPERTY OWNERSHIP		
FENCE		
PALM	8" P	
OAK	10" O	
OTHER	12" U	
SHRUB		
HEDGE		
RAILROAD TRACKS		
IRON PIPE		
CONCRETE MONUMENT		
TREE PROTECTION BARRICADE		

ABBREVIATIONS

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

GENERAL NOTES

1. ALL ELEVATIONS REFER TO NAVD1988 DATUM AS REQUIRED BY CITY OF TAMPA.

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 PRIOR TO CONSTRUCTION OR ORDERING MATERIALS/STRUCTURES.

3. THE CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.

4. WHEN IN CONFLICT, UTILITY POLES, GAS LINES, UNDERGROUND ELECTRIC AND TELEPHONE CABLES WILL BE RELOCATED BY THE RESPECTIVE UTILITY OWNERS AT THEIR OWN EXPENSE AS DIRECTED BY THE ENGINEER.

5. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:

TAMPA ELECTRIC CO.	813-275-3428
COT WASTEWATER DEPT.	813-274-8936
TAMPA WATER DEPT.	813-274-7423
VERIZON	813-989-7960
MCI	813-262-1913
LEVEL 3 COMM.	813-349-1431
XSPEDIUS	954-914-5862
XO COMM.	813-301-4028
BRIGHTHOUSE	813-684-6100 Ext. 325

7. STATIONS AND OFFSETS REFER TO THE SURVEY BASELINE OR TO THE CONSTRUCTION CENTERLINE AS NOTED.

8. STATIONS AND OFFSETS FOR DITCH BOTTOM INLETS AND MANHOLES REFER TO THE CENTERPOINT OF THE STRUCTURE. CURB INLETS SHALL BE POSITIONED LONGITUDINALLY ACCORDING TO STATIONING GIVEN AND LATERALLY ACCORDING TO THE APPROPRIATE STANDARD, UNLESS NOTED OTHERWISE. CURB INLET TOP AND THROAT ELEVATIONS SHALL BE BASED ON THE EDGE-OF-PAVEMENT ELEVATION (GIVEN OR CALCULATED) AND THE APPROPRIATE STANDARD. INLET THROAT ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR FROM THE EDGE-OF-PAVEMENT ELEVATION.

9. NO TREES NOR TREE ROOTS SHALL BE REMOVED WITHOUT PRIOR CITY APPROVAL.

10. ALL DISTURBED AREAS SHALL BE SODDED AS DIRECTED BY THE ENGINEER.

11. WHERE CONNECTIONS TO EXISTING WALKS AND DRIVES ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.

12. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE ENVIRONMENTAL RULES AND REGULATIONS OF THE CITY, COUNTY, STATE, ARMY CORPS OF ENGINEERS, US ENVIRONMENTAL PROTECTION AGENCY (EPA), AND ANY OTHER JURISDICTIONAL AGENCIES, AND ALL CONDITIONS SET FORTH IN ENVIRONMENTAL PERMITS.

13. REMOVAL OF EXISTING PAVEMENT AND BASE MATERIAL, SIDEWALK, CURB, POLES, UNDERGROUND PIPES, STRUCTURES, FOUNDATIONS, AND OTHER MISCELLANEOUS TEMS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR CLEARING AND GRUBBING, AND NO SEPARATE PAYMENT SHALL BE MADE UNLESS SEPARATE BID ITEM IS PROVIDED.

14. THE CONTRACTOR SHALL USE ALL SURPLUS FILL APPROVED AS SUITABLE FROM EXCAVATION PRIOR TO SUPPLYING FILL FROM OTHER SOURCES. PAYMENT FOR ADDITIONAL FILL WILL BE MADE ONLY FOR FILL SUPPLIED FROM SOURCES OTHER THAN EXCAVATIONS IN THIS CONTRACT. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR CITY.

15. DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS MAY ONLY OCCUR AT OFFSITE DISPOSAL FACILITIES APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY APPLICABLE PERMITS AT NO ADDITIONAL COST TO THE CITY.

16. BALED HAY OR STRAW BARRIERS AND/OR SILT FENCES MEETING FDOT INDEX #102 SHALL BE USED AS DIRECTED BY THE ENGINEER AS NECESSARY FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION. COST OF EROSION CONTROL SHALL BE INCLUDED IN THE COST OF THE OTHER VARIOUS CONTRACT ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.

17. ALL REINFORCED CONCRETE PIPE (ROUND OR ELLIPTICAL) SHALL BE INSTALLED WITH A NON-WOVEN FILTER FABRIC JACKET AS PER THE DETAIL ON THE CITY OF TAMPA STANDARD DRAWING NUMBER D-13.

18. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COMPLETE CONSTRUCTION DOCUMENTS CONSIST OF PLANS PLUS COMPLETE SPECIFICATIONS (GENERAL PROVISIONS, TECHNICAL SPECIFICATIONS, SPECIFIC PROVISIONS AND ANY ADDENDA), AND CITY AND FDOT STANDARDS, AS APPLICABLE.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR AND OR COORDINATION OF MAINTENANCE OF ALL SERVICES (UTILITIES, ACCESS, EMERGENCY, ETC.) DURING CONSTRUCTION.

20. EXISTING TREES WITHIN PRIVATE PROPERTY MAY NOT BE INCLUDED IN SURVEYING OR CONSTRUCTION PLANS. CONTRACTOR TO FIELD COORDINATE WITH CITY OF TAMPA PARKS AND RECREATION TREE PROTECTION TO IDENTIFY ANY POSSIBLE DISTURBANCE TO THE TREE DRIPLINE.

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #39991

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

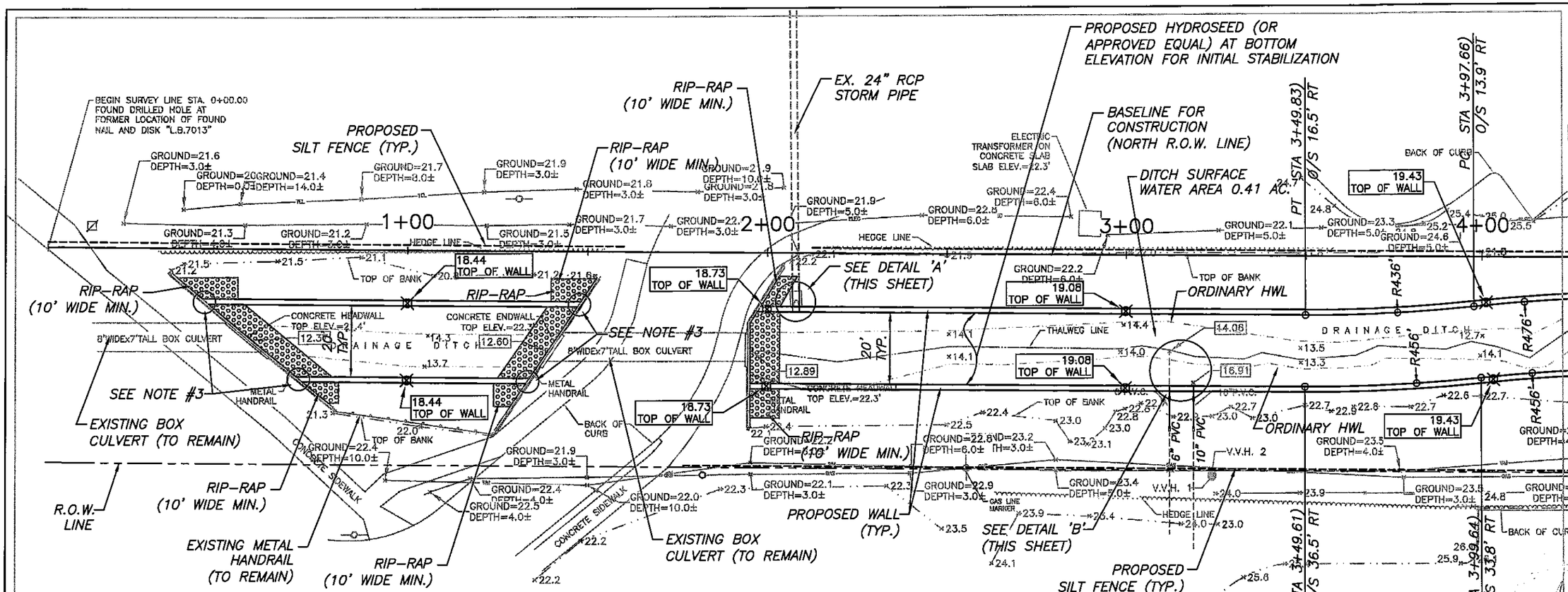
DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST
LEGEND & GENERAL NOTES

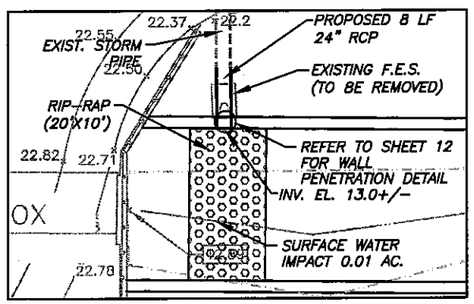
WO# 510W
SHEET 3 OF 14

SW 2013-



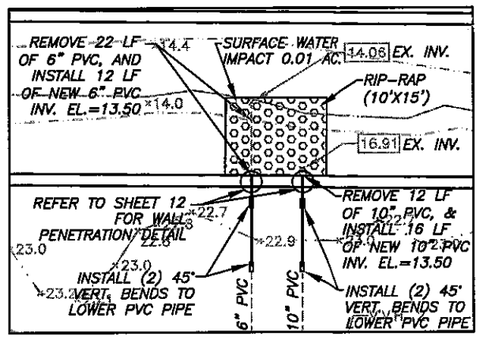
NOTES:

1. REFER TO SHEETS 8–11 FOR CROSS SECTIONS AND DETAILS.
2. REFER TO SHEET 12 FOR WALL DETAILS AND SPECIFICATIONS.
3. TIE–IN DETAILS AND CONNECTION DETAIL PER WALL MANUFACTURERS RECOMMENDATIONS.
4. ALL DIMENSIONS, ELEVATIONS AND REFERENCES SHOWN ARE TO THE TOP FACE OF WALL, UNLESS OTHERWISE SPECIFIED.
5. INSTALL DOUBLE TURBIDITY BARRIER AS NECESSARY PER LIMITS OF CONSTRUCTION
6. COORDINATE WALL DESIGN WITH BRIDGE FOUNDATION AND HEIGHT CLEARANCES.
7. BASELINE FOR CONSTRUCTION HAS BEEN ESTABLISHED IN THE FIELD AS THE NORTH R.O.W. LINE. PROPERTY CORNERS HAVE BEEN FIELD LOCATED AND NOTED ON PLANS.
8. CONTRACTOR TO COORDINATE CONSTRUCTION EASEMENT WITH ADJACENT PROPERTY OWNERS.
9. CONTRACTOR SHALL PROTECT WATER MAIN AT ALL TIMES, DURING CONSTRUCTION. CONTRACTOR SHALL NOT BE ALLOWED TO OPERATE HEAVY EQUIPMENT OVER EXISTING WATER MAINS.



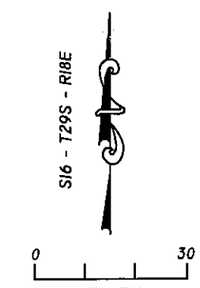
DETAIL 'A'

SCALE 1" = 20'



DETAIL 'B'

SCALE 1" = 20'



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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

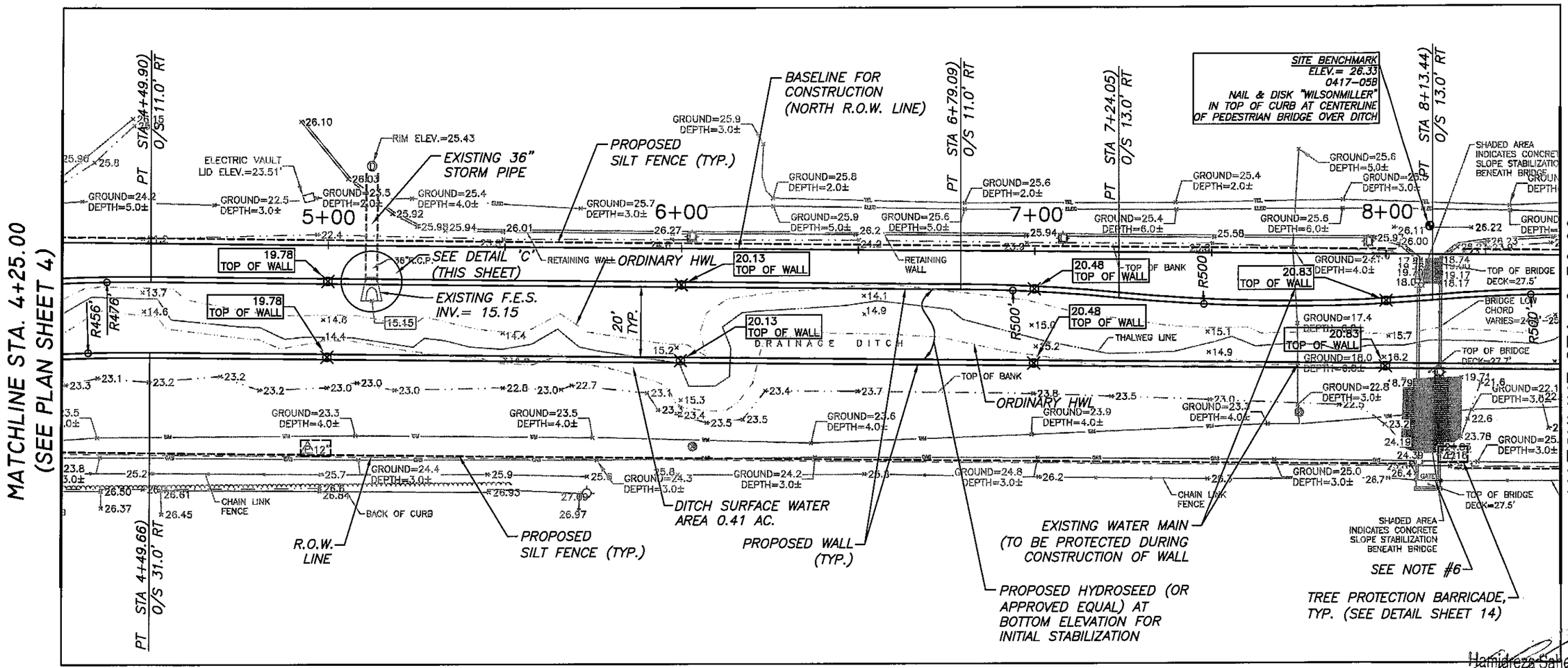
DITCH STABILIZATION AT MET-WEST

PLAN SHEET (1 OF 4)

WO# 510W
SHEET 4 OF 14

Amidreza Salehkar, P.E.
MAY 15 2013

SW 2013-



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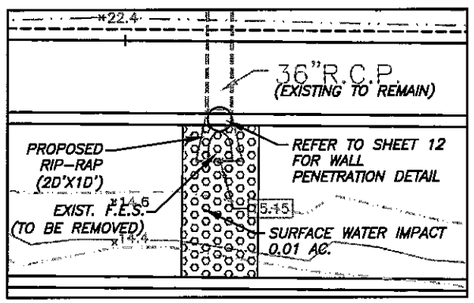
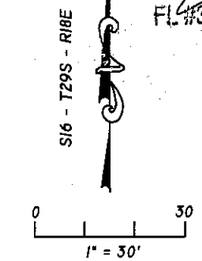
5. INSTALL DOUBLE TURBIDITY BARRIER AS NECESSARY PER LIMITS OF CONSTRUCTION
6. COORDINATE WALL DESIGN WITH BRIDGE FOUNDATION AND HEIGHT CLEARANCES.
7. BASELINE FOR CONSTRUCTION HAS BEEN ESTABLISHED IN THE FIELD AS THE NORTH R.O.W. LINE. PROPERTY CORNERS HAVE BEEN FIELD LOCATED AND NOTED ON PLANS.
8. CONTRACTOR TO COORDINATE CONSTRUCTION EASEMENT WITH ADJACENT PROPERTY OWNERS.
9. CONTRACTOR SHALL PROTECT WATER MAIN AT ALL TIMES, DURING CONSTRUCTION. CONTRACTOR SHALL NOT BE ALLOWED TO OPERATE HEAVY EQUIPMENT OVER EXISTING WATER MAINS.



DETAIL 'C'

SCALE 1" = 20'

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL.#39991



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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/19/12

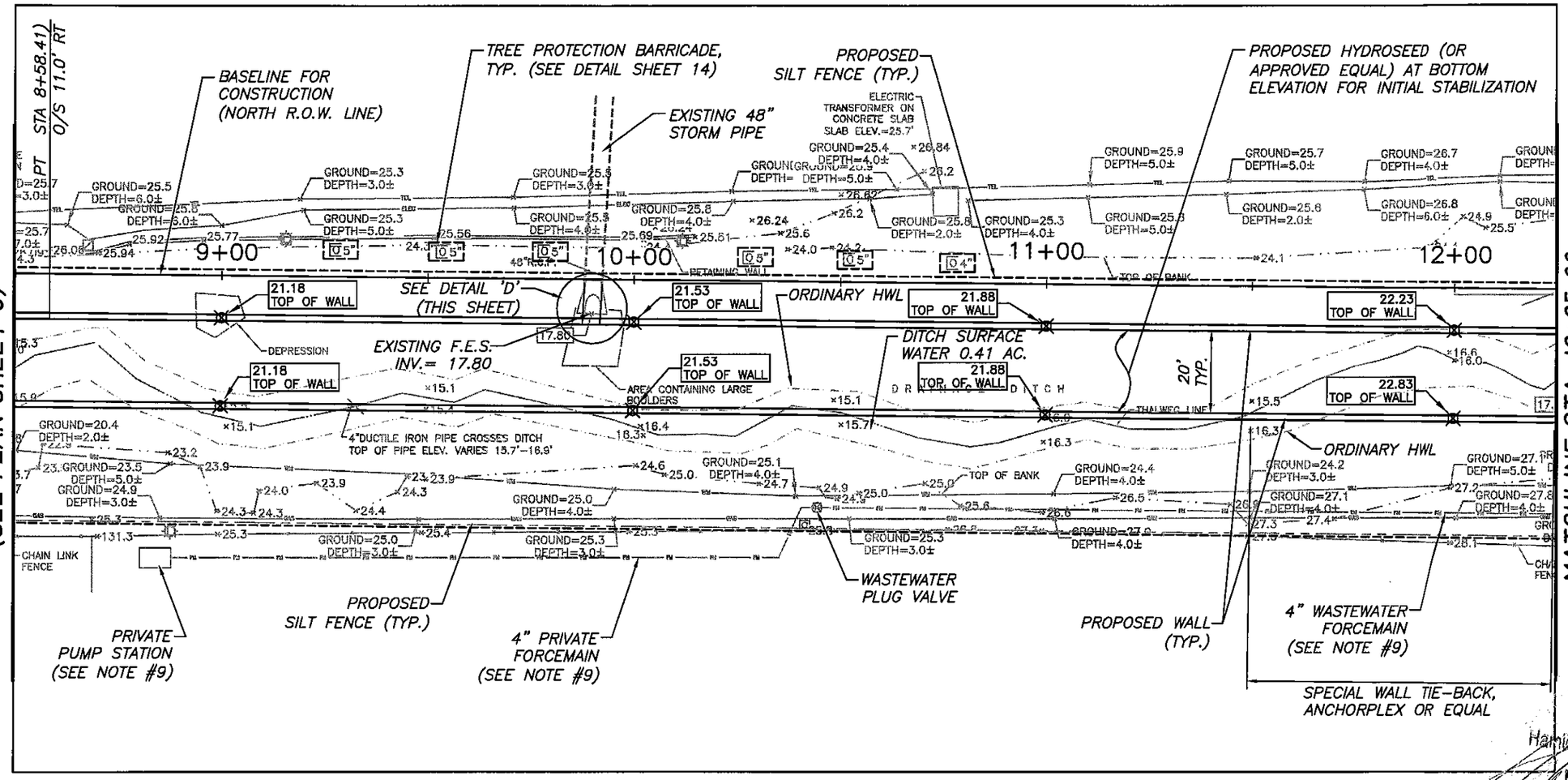
CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST

PLAN SHEET (2 OF 4)

WO# 510W
SHEET 5 OF 14

SW 2013-



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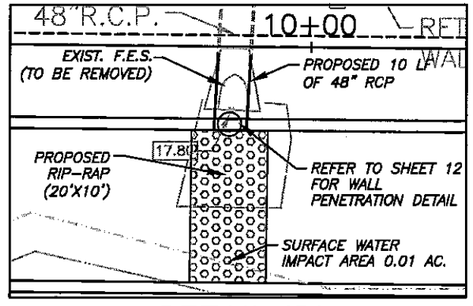
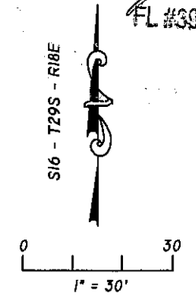
8. CONTRACTOR TO COORDINATE CONSTRUCTION EASEMENT WITH ADJACENT PROPERTY OWNERS.
9. FORCEMAIN SHOWN ON PLANS WAS BASED ON FORMATION PROVIDED BY THE CITY OF TAMPA WASTEWATER DEPARTMENT. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER.
10. CONTRACTOR SHALL PROTECT WATER MAIN AT ALL TIMES, DURING CONSTRUCTION. CONTRACTOR SHALL NOT BE ALLOWED TO OPERATE HEAVY EQUIPMENT OVER EXISTING WATER MAINS.



DETAIL 'D'

SCALE 1" = 20'

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #39891



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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/19/12

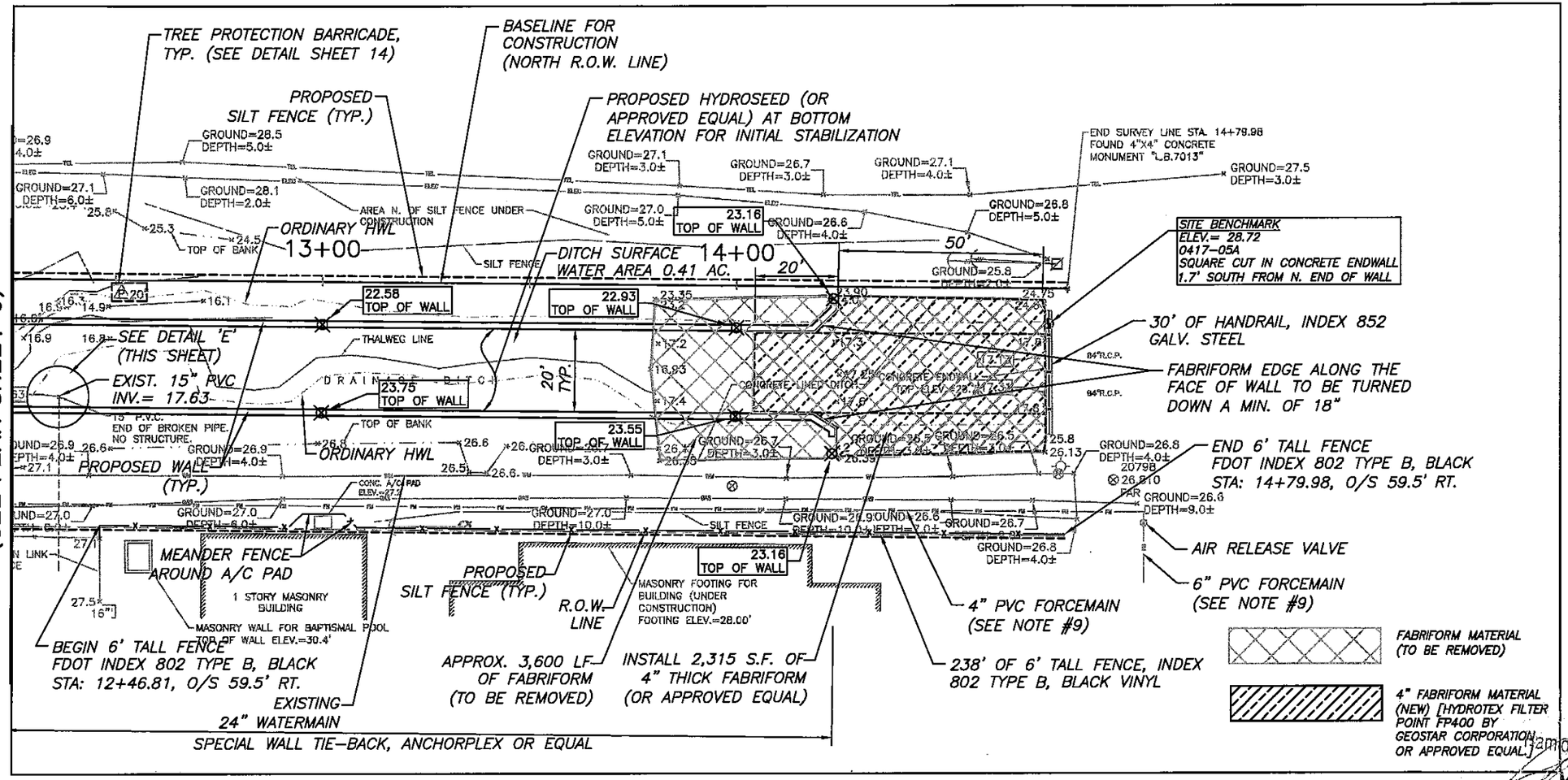
CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST

PLAN SHEET (3 OF 4)

WO# 510W
SHEET 6 OF 14

SW 2013-



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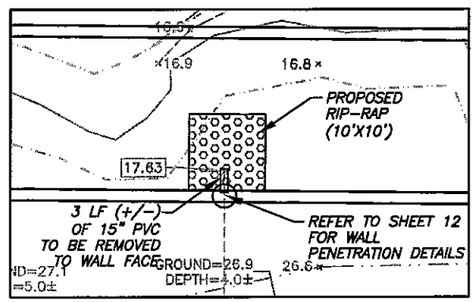
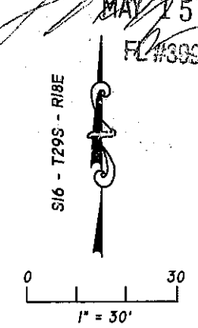
8. CONTRACTOR TO COORDINATE CONSTRUCTIDN EASEMENT WITH ADJACENT PROPERTY OWNERS.
9. FORCEMAIN SHOWN ON PLANS WAS BASED ON INFORMATION PROVIDED BY THE CITY OF TAMPA WASTEWATER DEPARTMENT. CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER.
10. CONTRACTOR SHALL PROTECT WATER MAIN AT ALL TIMES, DURING CONSTRUCTION. CONTRACTOR SHALL NOT BE ALLOWED TO OPERATE HEAVY EQUIPMENT OVER EXISTING WATER MAINS.



DETAIL 'E'
SCALE 1" = 20'

Ramdreza Sarebkar, P.E.
MAY 15 2013
FL#39991



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DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

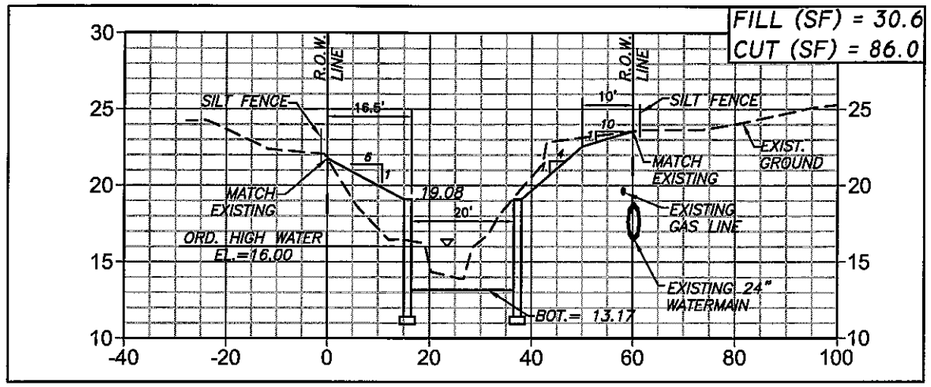
DITCH STABILIZATION AT MET-WEST

PLAN SHEET (4 OF 4)

WO# 510W
SHEET 7 OF 14

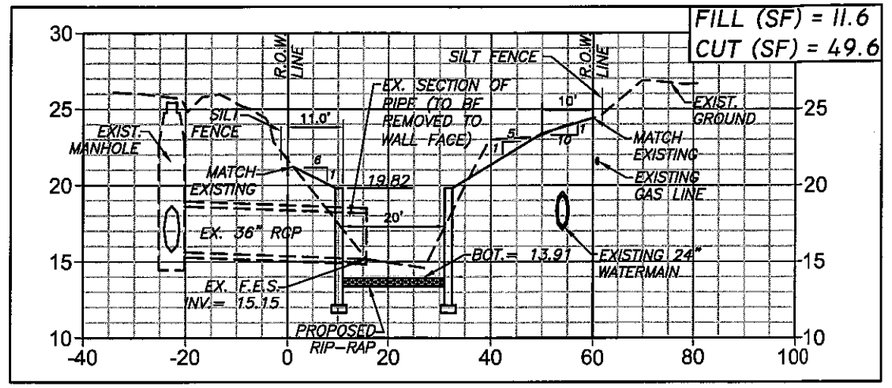
SW 2013-

0 30
1" = 30'



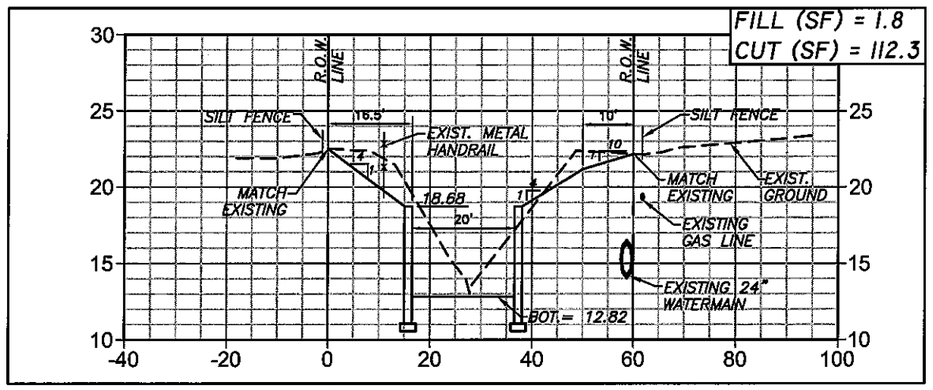
SECTION 3+00.00

VOLUME (2+00-3+00)
FILL (CY) = 60.0
CUT (CY) = 367.2



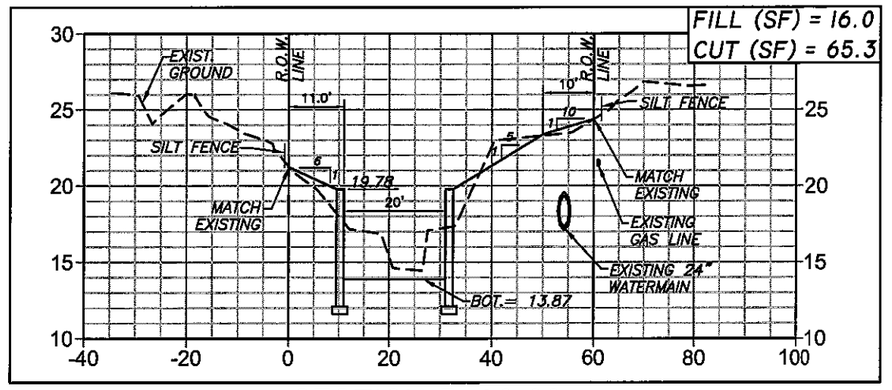
SECTION 5+12.66

VOLUME (5+00-5+12)
FILL (CY) = 6.1
CUT (CY) = 25.5



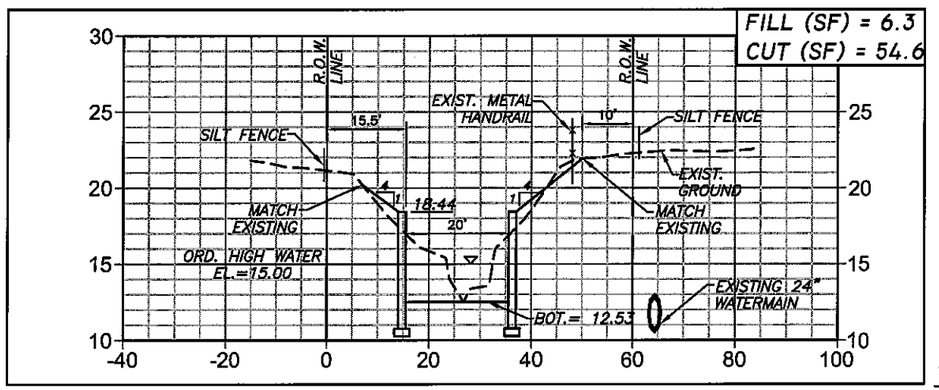
SECTION 2+00.00

VOLUME (1+00-2+00)
FILL (CY) = 15.0
CUT (CY) = 309.0



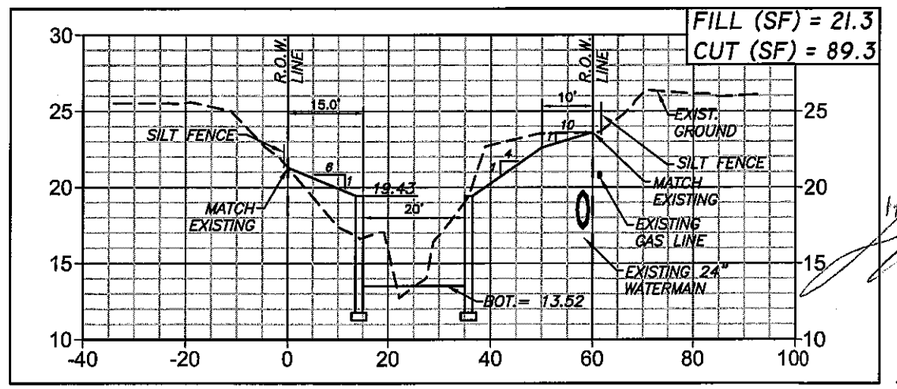
SECTION 5+00.00

VOLUME (4+00-5+00)
FILL (CY) = 69.1
CUT (CY) = 286.3



SECTION 1+00.00

VOLUME (BEGIN-1+00)
FILL (CY) = 11.6
CUT (CY) = 101.1



SECTION 4+00.00

VOLUME (3+00-4+00)
FILL (CY) = 96.1
CUT (CY) = 324.0

Hamidreza Sahebkar, P.E.
MAY 13 2013
FL #39991

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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/20/12

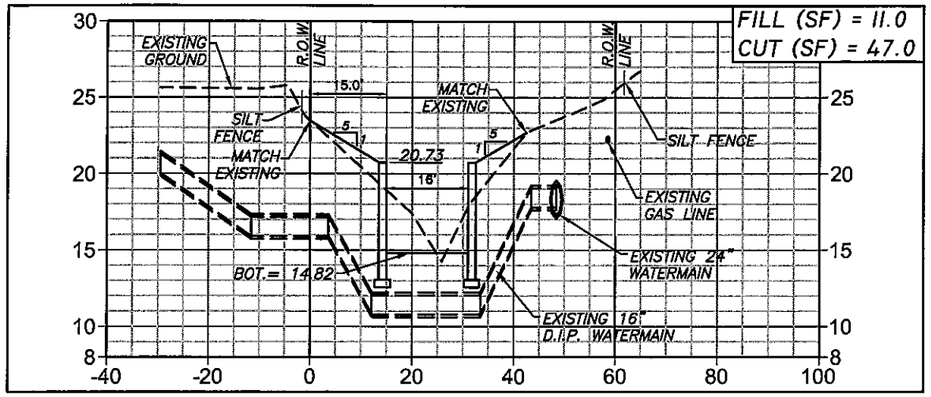
CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST
CROSS SECTIONS (1 OF 4)
SCALE: 1" = 30' (HORIZ.), 1" = 10' (VERT.)

WO# 510W
SHEET 8 OF 14

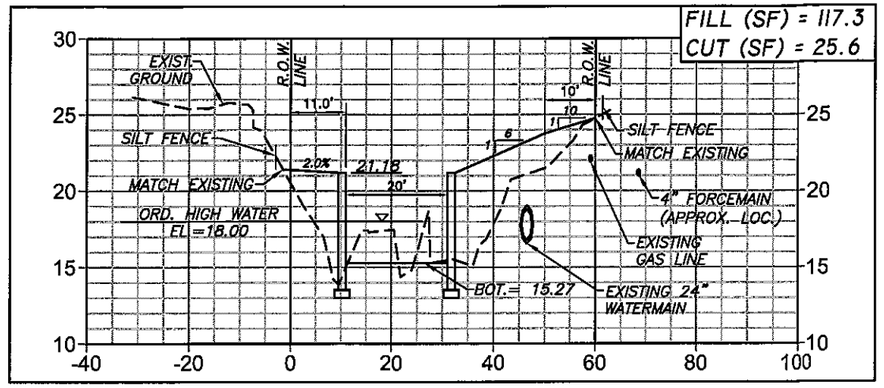
SW 2013-

0 30
1" = 30'



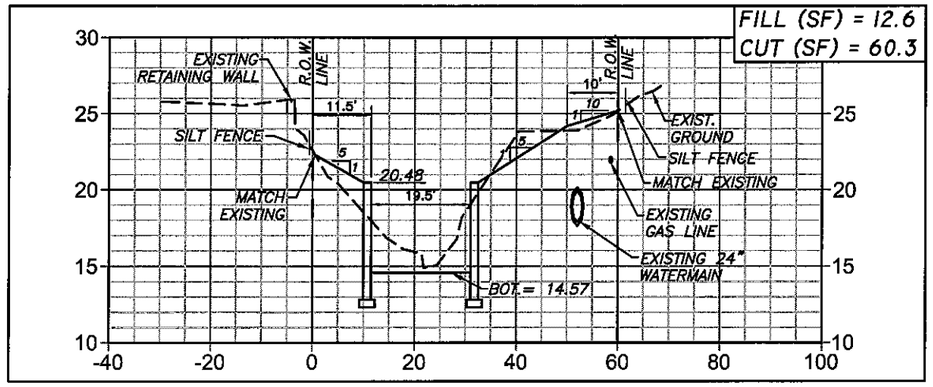
SECTION 7+74.83

VOLUME (7+00-7+74)
FILL (CY) = 32.3
CUT (CY) = 147.0



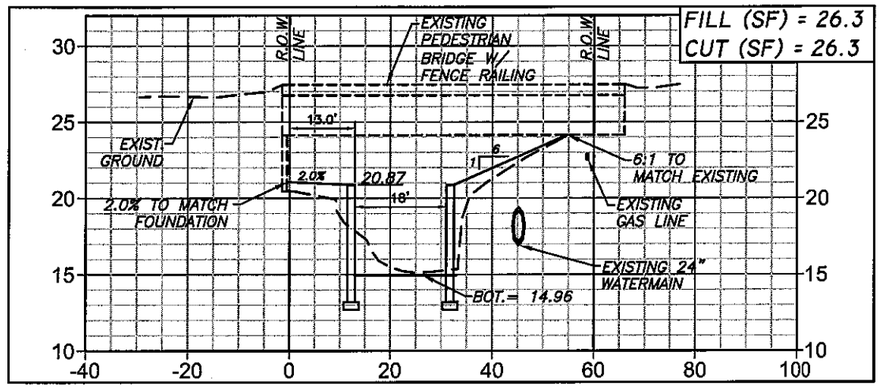
SECTION 9+00.00

VOLUME (8+12-9+00)
FILL (CY) = 223.1
CUT (CY) = 84.6



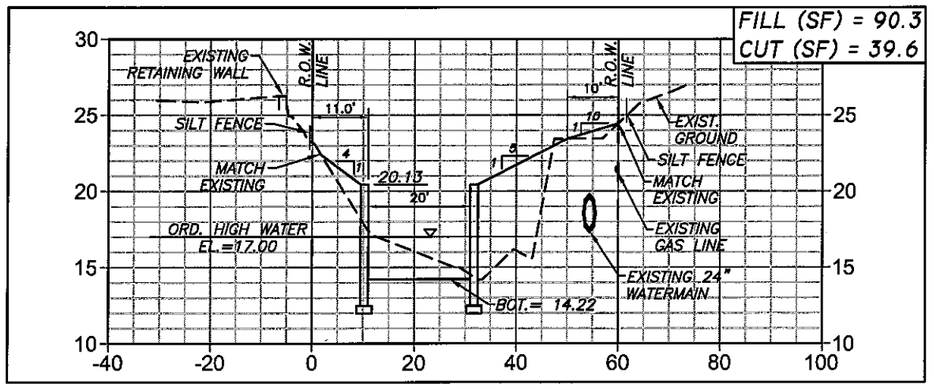
SECTION 7+00.00

VOLUME (6+00-7+00)
FILL (CY) = 190.5
CUT (CY) = 185.0



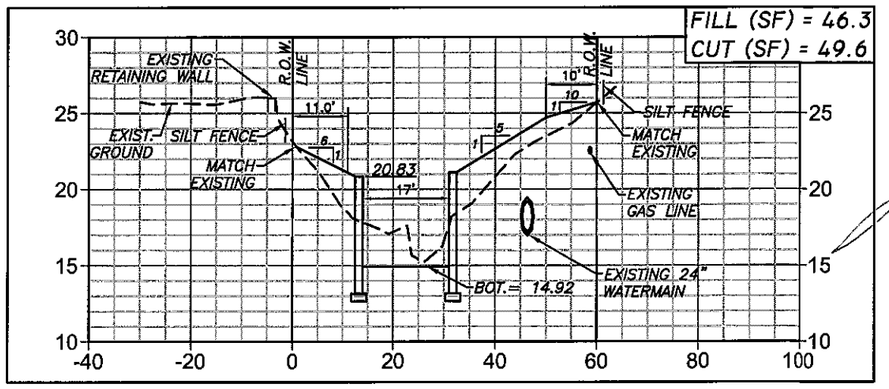
SECTION 8+12.76

VOLUME (8+00-8+12)
FILL (CY) = 16.1
CUT (CY) = 16.8



SECTION 6+00.00

VOLUME (5+12-6+00)
FILL (CY) = 166.1
CUT (CY) = 145.3



SECTION 8+00.00

VOLUME (7+00-8+00)
FILL (CY) = 27.6
CUT (CY) = 46.5

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #39991

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

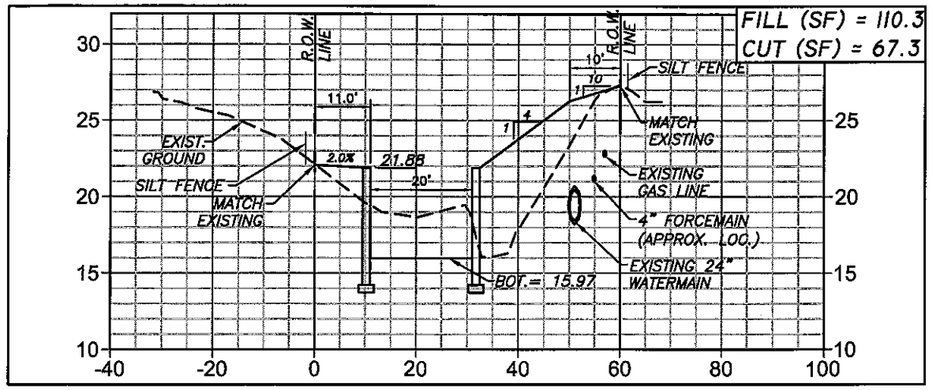
DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/20/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST
CROSS SECTIONS (2 OF 4)
SCALE: 1" = 30' (HORIZ.), 1" = 10' (VERT.)

WO# 510W
SHEET 9 OF 14

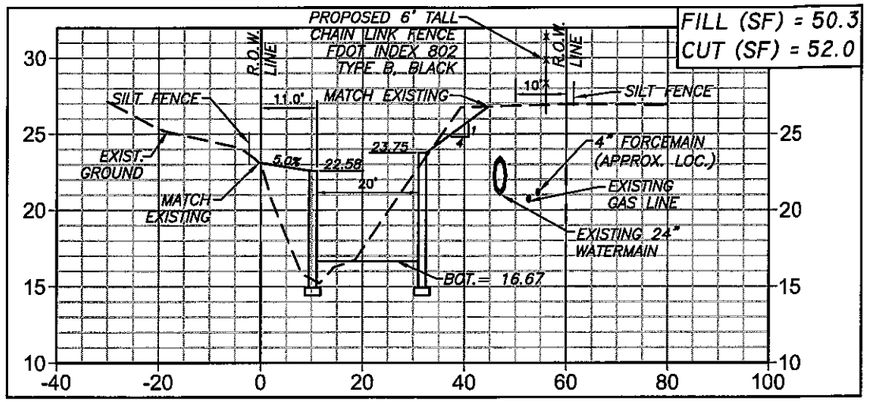
SW 2013-



SECTION 11+00.00

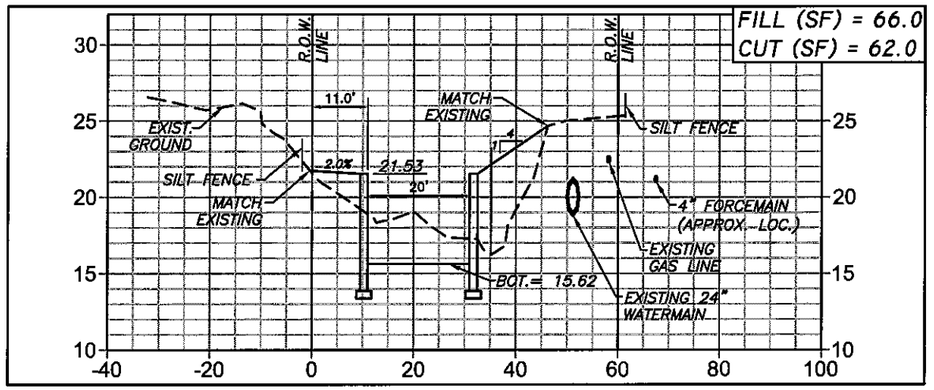
0 30
1" = 30'

VOLUME (10+00-11+00)
FILL (CY) = 326.5
CUT (CY) = 239.4



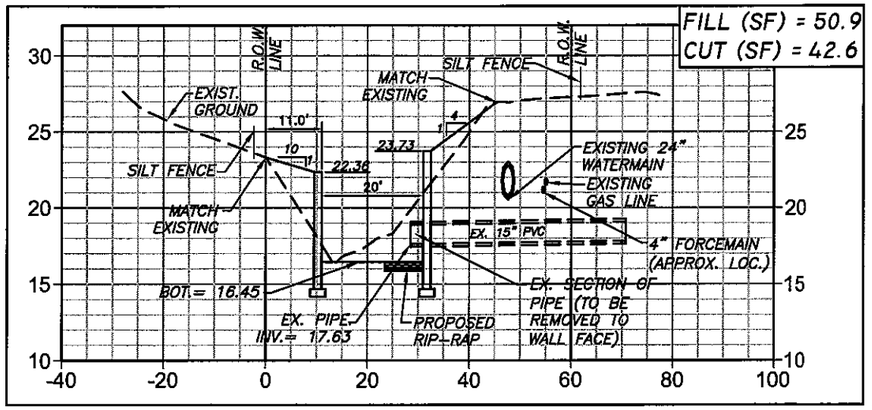
SECTION 13+00.00

VOLUME (12+36-13+00)
FILL (CY) = 119.9
CUT (CY) = 110.9



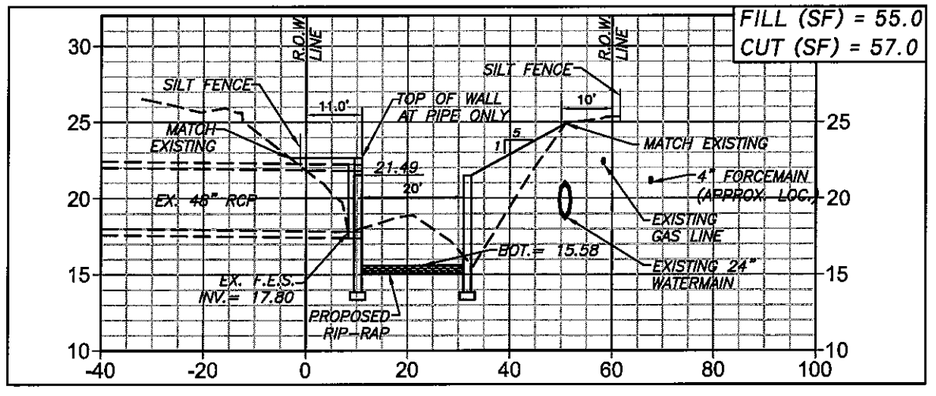
SECTION 10+00.00

VOLUME (9+89-10+00)
FILL (CY) = 24.6
CUT (CY) = 24.2



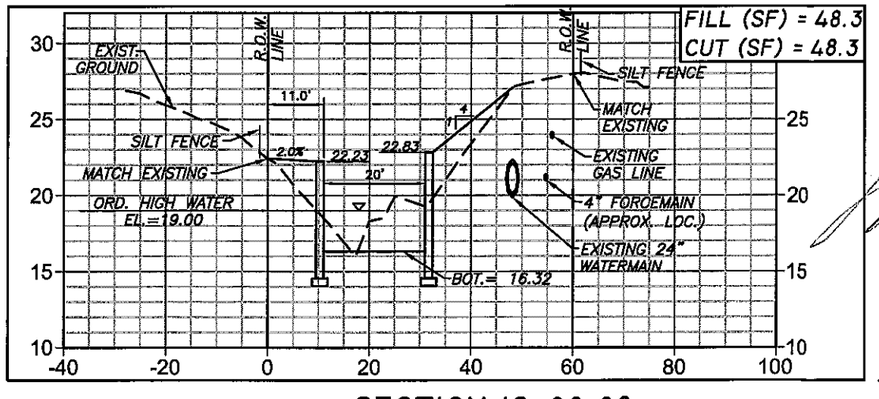
SECTION 12+36.67

VOLUME (12+00-12+36)
FILL (CY) = 66.1
CUT (CY) = 61.7



SECTION 9+89.86

VOLUME (9+00-9+89)
FILL (CY) = 284.0
CUT (CY) = 136.0



SECTION 12+00.00

VOLUME (11+00-12+00)
FILL (CY) = 293.7
CUT (CY) = 214.0

Hamidreza Sanebkar, P.E.
MAY 15 2013
FL #39991

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

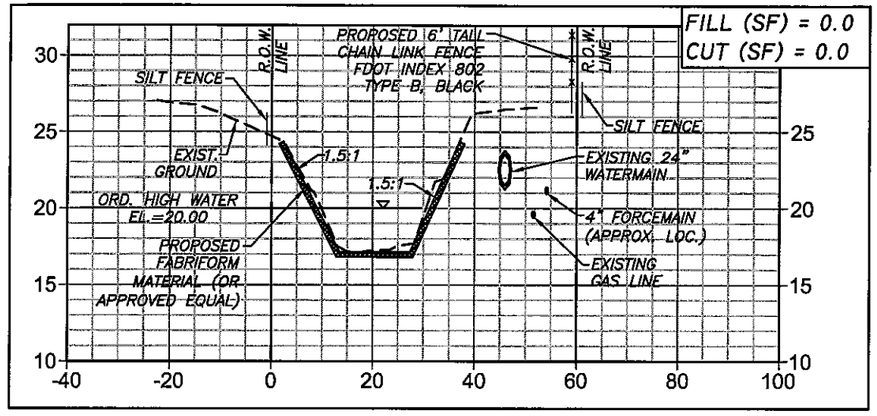
DES: KMJ
DRN: ELR
CKD: HS
DATE: 11/20/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST
CROSS SECTIONS (3 OF 4)
SCALE: 1" = 30' (HORIZ.), 1" = 10' (VERT.)

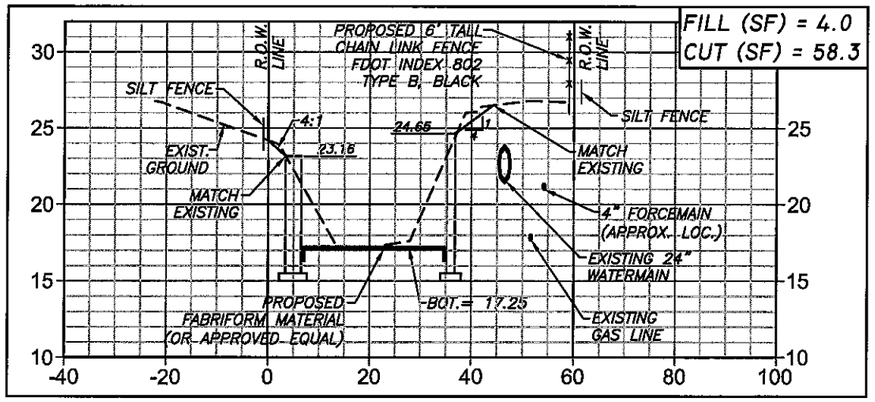
WO# 510W
SHEET 10 OF 14

SW 2013-



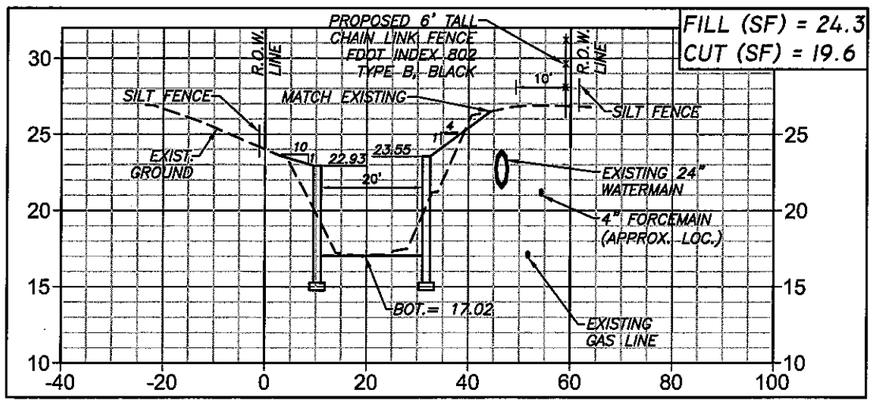
SECTION 14+50

VOLUME (14+23-14+50)
FILL (CY) = 2.0
CUT (CY) = 29.2



SECTION 14+23

VOLUME (14+00-14+23)
FILL (CY) = 12.1
CUT (CY) = 33.2



SECTION 14+00

VOLUME (13+00-14+00)
FILL (CY) = 138.1
CUT (CY) = 132.6

0 30
1" = 30'

TOTAL VOLUME (ENTIRE DITCH IMPROVEMENTS)
FILL (CY) = 2,180.6
CUT (CY) = 3,019.5

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #39991

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

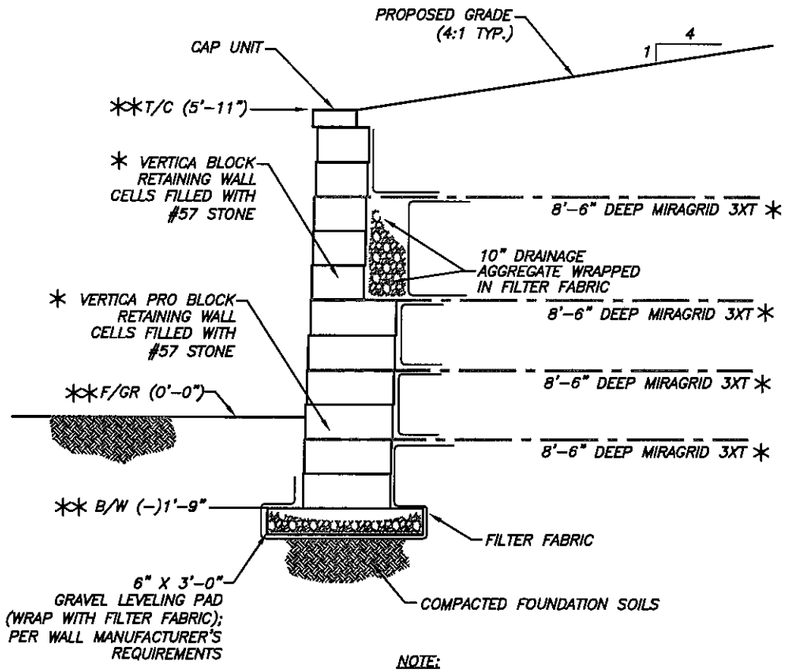
DES: KMJ
DRN: ELR
CKD: HS
DATE: 12/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST
CROSS SECTIONS (4 OF 4)
SCALE: 1" = 30' (HORIZ.), 1" = 10' (VERT.)

WO# 510W
SHEET 11 OF 14

SW 2013-



* OR APPROVED EQUAL

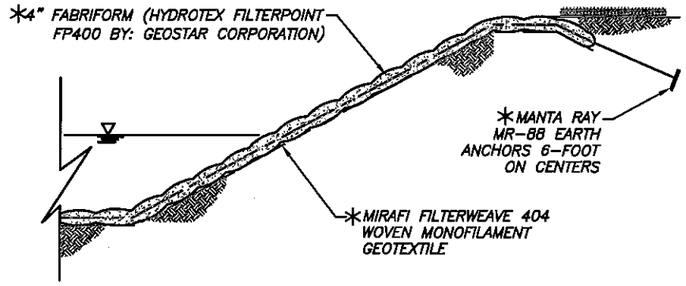
** TYPICAL WALL DIMENSIONS. (SEE PLAN SHEETS FOR ACTUAL ELEVATION)

NOTE:

THE WALL SECTION DETAIL IS TO SERVE AS THE GUIDELINES FOR THE DESIGN OF THE WALL AS PROVIDED BY THE MANUFACTURER. CONTRACTOR SHALL PROVIDE SHOP DRAWING WITH CALCULATIONS SIGNED AND SEALED BY A CURRENTLY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA. THE CALCULATIONS AND PLANS SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

TYPICAL RETAINING WALL -SECTION

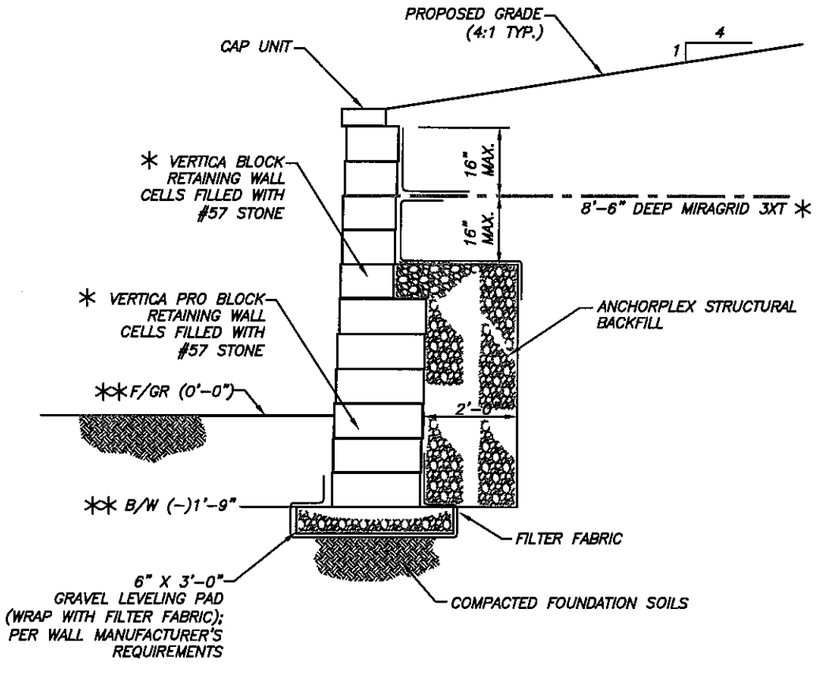
N.T.S.



* OR APPROVED EQUAL

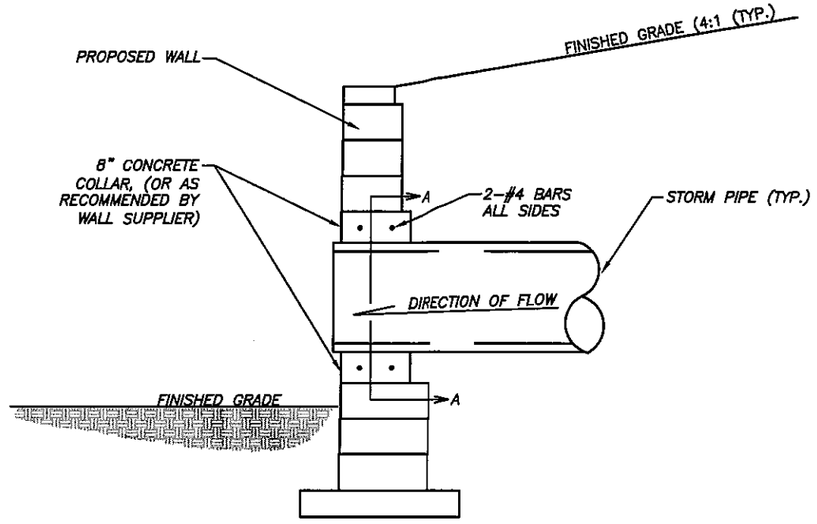
SLOPE STABILIZATION DETAIL (FABRIFORM)

N.T.S.



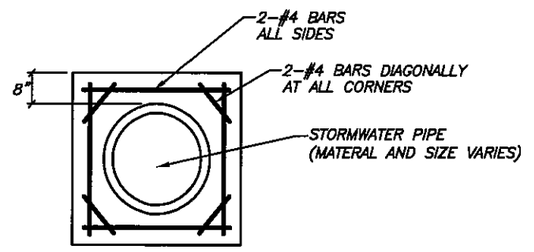
TYPICAL RETAINING WALL -SECTION w/ ANCHORPLEX

N.T.S.



PIPE PENETRATION DETAIL

N.T.S.



SECTION A-A

N.T.S.

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #60991

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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 12/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST

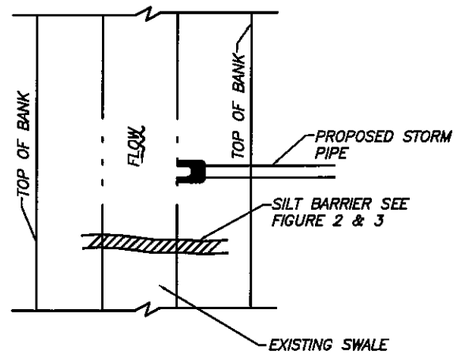
STORMWATER DETAILS (1 OF 2)

WO# 510W
SHEET 12 OF 14

SW 2013-

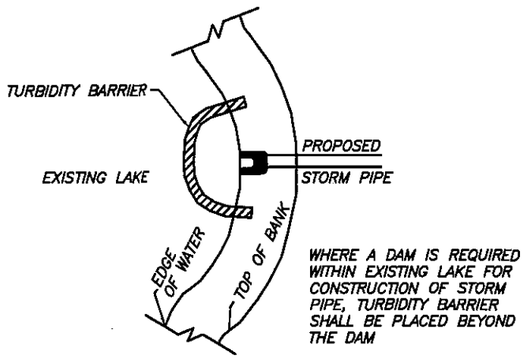
STORMWATER POLLUTION PREVENTION NOTES:

1. A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN SHALL BE KEPT AT THE PROJECT SITE AT ALL TIMES.
2. THE CONSTRUCTION WILL BE STAGED IN PHASES WHENEVER POSSIBLE TO MINIMIZE SOIL LOSS AND CONTROL EROSION.
3. PROTECT STORMWATER INLETS IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES TO MINIMIZE SILTATION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SITE STABILIZATION IS COMPLETE. INLET GRATES SHOULD REMAIN WRAPPED UNTIL THE COMPLETION OF THE PROJECT.
4. DEWATERING WILL OCCUR, AS REQUIRED, FOR ALL EXCAVATION ACTIVITY INCLUDING, BUT NOT LIMITED TO, STORM SEWERS, SANITARY SEWERS, WATER LINES AND OTHER UTILITIES.
5. ALL CONSTRUCTION DEWATERING WILL BE CONTAINED ONSITE, AT SPECIFIED LOCATIONS, AND EITHER DIRECTED TO A TEMPORARY SEDIMENTATION BASIN OR ALLOWED TO INFILTRATE THE SOIL. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT OVERSEES THE REQUIREMENTS OF DEWATERING PERMITTING AND METHODS. IF IT IS NECESSARY TO DISCHARGE DEWATERING EFFLUENT OFF SITE, ALL DEWATERING EFFLUENT SHALL BE ROUTED TO A TEMPORARY SEDIMENT SUMP PRIOR TO DISCHARGE TO THE WETLANDS OR OFFSITE. THE GENERAL PROCESS OF THE DEWATERING SYSTEM SHALL BE ADHERED TO DURING CONSTRUCTION, ALTHOUGH THE ACTUAL LAYOUT OF THE SYSTEM MAY BE CONSTRUCTED AS DICTATED BY FIELD CONDITIONS.
6. THE DEWATERING SYSTEM MUST USE A PUMP AND PIPING THAT IS LESS THAN 6 INCHES IN DIAMETER AND OPERATE LESS THAN A TOTAL OF SIX MONTHS. ANY DEVIATION FROM THIS REQUIREMENT SHALL REQUIRE A WATER USE PERMIT. THE COST OF A WATER USE PERMIT AND ASSOCIATED MATERIALS SHALL BE BORNE BY THE CONTRACTOR.
7. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF OF THE DEPTH OF THE SILTATION CONTROL BARRIER OR CONTROL DEVICES SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS. ALL SILTATION BARRIERS SHALL THEN BE RESTORED TO THEIR ORIGINAL CONDITIONS.
8. ALL SILTATION AND EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED AT A MINIMUM OF ONCE PER WEEK OR AFTER ANY 1/2" OR GREATER RAINFALL EVENT. THE CONTRACTOR SHALL MAINTAIN RECORDS OF ALL MAINTENANCE AND INSPECTIONS, ON SITE, UNTIL CONSTRUCTION IS COMPLETE. COPIES SHALL BE FURNISHED TO THE ENGINEER AND/OR OWNER, UPON REQUEST.
9. THE CONTRACTOR SHALL IMPLEMENT OTHER BEST MANAGEMENT PRACTICES AS DIRECTED BY THE ENGINEER OF RECORD OR OTHER REGULATORY AGENCIES.
10. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE REQUIREMENTS AND CONDITIONS OF THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD) PERMIT AND HAVE A COPY ON SITE.
11. CONTRACTOR SHALL SPRINKLE OR OTHERWISE APPLY WATER TO AFFECTED CONSTRUCTION AREAS AS NEEDED TO CONTROL BOTH SIGNIFICANT WIND EROSION AND FUGITIVE DUST.
12. THE CONTRACTOR SHALL DIRECT ONSITE RUNOFF TO THE WET DETENTION (WITHOUT FILTRATION TREATMENT) STORMWATER MANAGEMENT SYSTEM DURING CONSTRUCTION.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH SOD IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 575 OR WITH PERMANENT SEED AND MULCH AS SOON AS PRACTICAL BUT IN NO CASE MORE THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY IN ACCORDANCE FDOT SPECIFICATION SECTION 570.
14. SODDING INCLUDES MAINTAINING SLOPES AND SOD UNTIL COMPLETION AND ACCEPTANCE OF TOTAL PROJECT OR GROWTH IS ESTABLISHED, WHICHEVER COMES LAST. UNTIL THEN, ALL EROSION, SILTATION, AND MAINTENANCE OF GRADES AND GRASS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. TOP SOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL TEMPORARILY CEASE FOR AT LEAST 7 DAYS SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH AS SOON AS PRACTICABLE. THE TEMPORARY SEED AND MULCH SHALL BE INSTALLED IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 570.
16. FOR DRAINAGE BASINS WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN PROVIDING 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED WHERE ATTAINABLE UNTIL FINAL STABILIZATION OF THE SITE. THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. FOR DRAINAGE BASINS WITH 10 OR MORE DISTURBED ACRES AT ONE TIME AND WHERE A TEMPORARY SEDIMENT BASIN PROVIDING 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED, OR EQUIVALENT CONTROLS IS NOT ATTAINABLE, A COMBINATION OF SMALLER SEDIMENT BASINS AND/OR SEDIMENT TRAPS AND OTHER BMPS SHOULD BE USED. AT A MINIMUM, SILT FENCES, OR EQUIVALENT SEDIMENT CONTROLS ARE REQUIRED FOR ALL SIDESLOPE AND DOWNSLOPE BOUNDARIES OF THE CONSTRUCTION AREA.
17. AREAS THAT ARE DESIGNATED FOR PERMANENT STORMWATER INFILTRATION TREATMENT SYSTEMS (E.G., STORMWATER RETENTION PONDS) SHOULD NOT BE USED FOR TEMPORARY SEDIMENT BASINS UNLESS APPROPRIATE MEASURES ARE TAKEN TO ASSURE REMOVAL OF ACCUMULATED FINE SEDIMENTS, WHICH MAY CAUSE PREMATURE CLOGGING AND LOSS OF INFILTRATION CAPACITY, AND TO AVOID EXCESSIVE COMPACTION OF SOILS BY CONSTRUCTION MACHINERY OR EQUIPMENT.
18. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT AS REQUIRED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.
19. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
20. INSPECT SILT FENCE REGULARLY FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
21. SEDIMENT BASINS TO BE INSPECTED REGULARLY FOR DEPTH OF SEDIMENT. BUILT UP SEDIMENT TO BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY AND/OR AT THE END OF THE JOB.
22. DIVERSION DIKE, IF REQUIRED, WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
23. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS AND HEALTHY GROWTH.
24. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN.
25. THE SITE SUPERINTENDENT, WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, FILLING OUT THE INSPECTION AND MAINTENANCE REPORT AND IF NECESSARY, REVISING THE STORMWATER POLLUTION PREVENTION PLAN CONSISTENT WITH MODIFICATIONS MADE DUE TO UNFORESEEN CAUSES, AND DICTATED BY FIELD CONDITIONS.
26. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM SITE SUPERINTENDENT FOR INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.



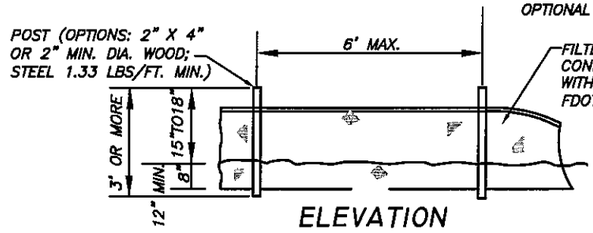
SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE

N.T.S.

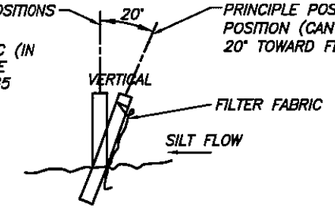


TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE

N.T.S.



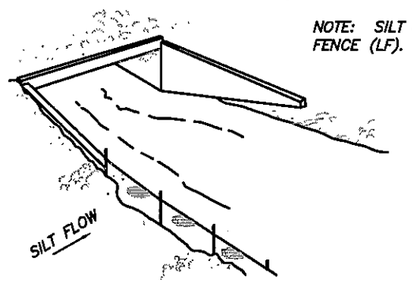
ELEVATION



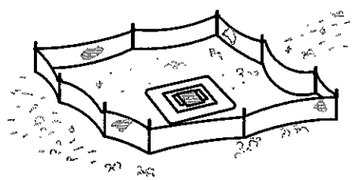
SECTION

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKE SILT FENCE (LF).

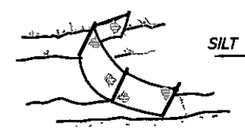
SILT FENCE



TYPE 3 SILT FENCE



TYPE 3 SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.



NOTE: SPACING FOR TYPE 3 SILT FENCE TO BE IN ACCORDANCE WITH CHART XX151, SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3.

TYPE 3 SILT FENCE

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS

REFER TO FDOT INDEXES 102, 103, & 104

Hamidreza Sahebkar, P.E.
MAY 15 2013
FL #39991

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

DES: KMJ
DRN: ELR
CKD: HS
DATE: 12/19/12

CITY of TAMPA
Department of Public Works
Stormwater Division

DITCH STABILIZATION AT MET-WEST

STORMWATER DETAILS (2 OF 2)

WO# 510W
SHEET 13 OF 14

SW 2013-

ALL TREES SHOULD BE BARRICADED MEETING THE SPECIFICATIONS AS ILLUSTRATED ON THE ATTACHED DIAGRAM.

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 AND CONSTRUCTION ACTIVITIES. A PROTECTIVE BARRIER MUST REMAIN IN PLACE UNTIL THE LAND ALTERATION AND CONSTRUCTION ACTIVITIES ARE COMPLETED OR COMMENCEMENT OF GRADE FINISHING AND SODDING. NO GROUND DISTURBANCE MUST OCCUR WITHIN THE BARRICATED AREA.

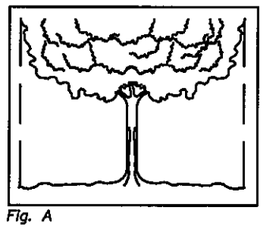


Fig. A

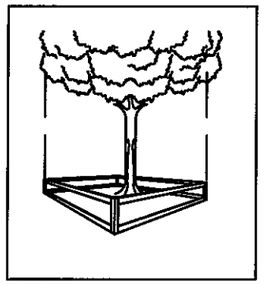


Fig. B

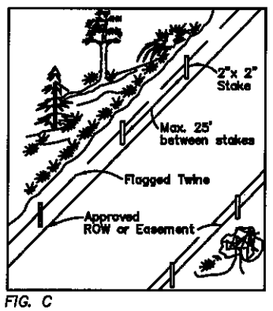


FIG. C

1. TREES – TO RESTRICT ACCESS INTO THE AREA WITHIN THE DRIPLINE OF A TREE, A PHYSICAL STRUCTURE NOT LESS THAN 3 FEET IN HEIGHT, COMPRISED OF WOOD OR OTHER SUITABLE MATERIAL, IS PLACED AROUND THE TREE AT THE DRIPLINE, EXCEPT WHERE LAND ALTERATION OR CONSTRUCTION ACTIVITIES ARE APPROVED WITHIN THE DRIPLINE. SEE ORD. 87–2, SEC. 4.B.3.M.

2. THE DRIPLINE OF A TREE IS THE IMAGINERY, VERTICLE LINE THAT EXTENDS DOWNWARD FROM THE OUTERMOST TIPS OF THE TREE'S BRANCHES TO THE GROUND. FIG. A.

BARRIER SPECIFICATIONS FOR TREES:

FOUR CORNER UPRIGHT STAKES OF NO LESS THAN 2" X 2" LUMBER CONNECTED BY HORIZONTAL MEMBERS OF NO LESS THAN 1" X 4" LUMBER; OR STAKES SPACED AT 5' INTERVALS OF NO LESS 2" X 2" LUMBER CONNECTED BY SILT SCREEN FABRIC OR MATERIAL OF COMPARABLE DURABILITY. FIG. B.

1. 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.

BARRIER SPECIFICATIONS FOR NATURAL AREAS:

UPRIGHT STAKES OF NO LESS THAN 2" X 2" LUMBER SPACED NO MORE THAN 25' APART AND CONNECTED BY TWINE FLAGGED WITH PLASTIC SURVEYING TAPE AT REGULAR INTERVALS OF 5–10'. FIG. C. OTHER METHODS OF DEMARCATION WILL BE CONSIDERED DEPENDING UPON THE CHARACTERISTICS OF THE SITE.

WHY A BARRIER:

1. TO PROTECT ALL ABOVE GROUND PORTIONS OF TREES AND OTHER SIGNIFICANT VEGETATION FROM MECHANICAL DAMAGE.

2. TO PROTECT ROOT SYSTEMS FROM COMPACTION.

3. TO PROVIDE AWARENESS OF PROTECTED AREAS TO EQUIPMENT OPERATORS.

WHY IT WORKS:

A TREE'S CHANCE FOR SURVIVAL IS GREATLY INHANCED IF NO CONSTRUCTION MATERIAL, HEAVY EQUIPMENT OR STOCKPILING OF SOIL IS ALLOWED INSIDE THE BARRIER, ONLY HAND LABOR.

FOR ADDITIONAL INFORMATION, CONTACT THE DEPARTMENT OF PLANNING AND DEVELOPMENT MANAGEMENT. TEL.: 272–5920

TREE PROTECTION

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MISCELANEOUS DETAILS

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SHEET 14 OF 14