

CONTRACT 22-C-00005

EXECUTIVE PARK GRAVITY SEWER REPLACEMENT

CITY OF TAMPA
 WASTEWATER DEPARTMENT
 2545 GUY N. VERGER BOULEVARD
 TAMPA, FL 33605



PROJECT - TID

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
C0.0	COVER SHEET
C0.1	OVERALL PROJECT AREA
C2.0	STA. 1+00 TO 2+93.29
C2.1	STA. 2+93.29 TO 7+75.00
C2.2	STA. 7+75.00 TO 13+50.00
C2.3	STA. 13+50.00 TO 19+15.14
C2.4	STA. 19+15.14 TO 24+40.00
C2.5	STA 24+40.00 TO 25+80.68
C3.0	DETAILS & NOTES
C3.1	DETAILS & NOTES
C3.2	DETAILS & NOTES
116-009	AS-BUILT DRAWING

100% CONSTRUCTION DRAWINGS - 01/13/22

REVISIONS					
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

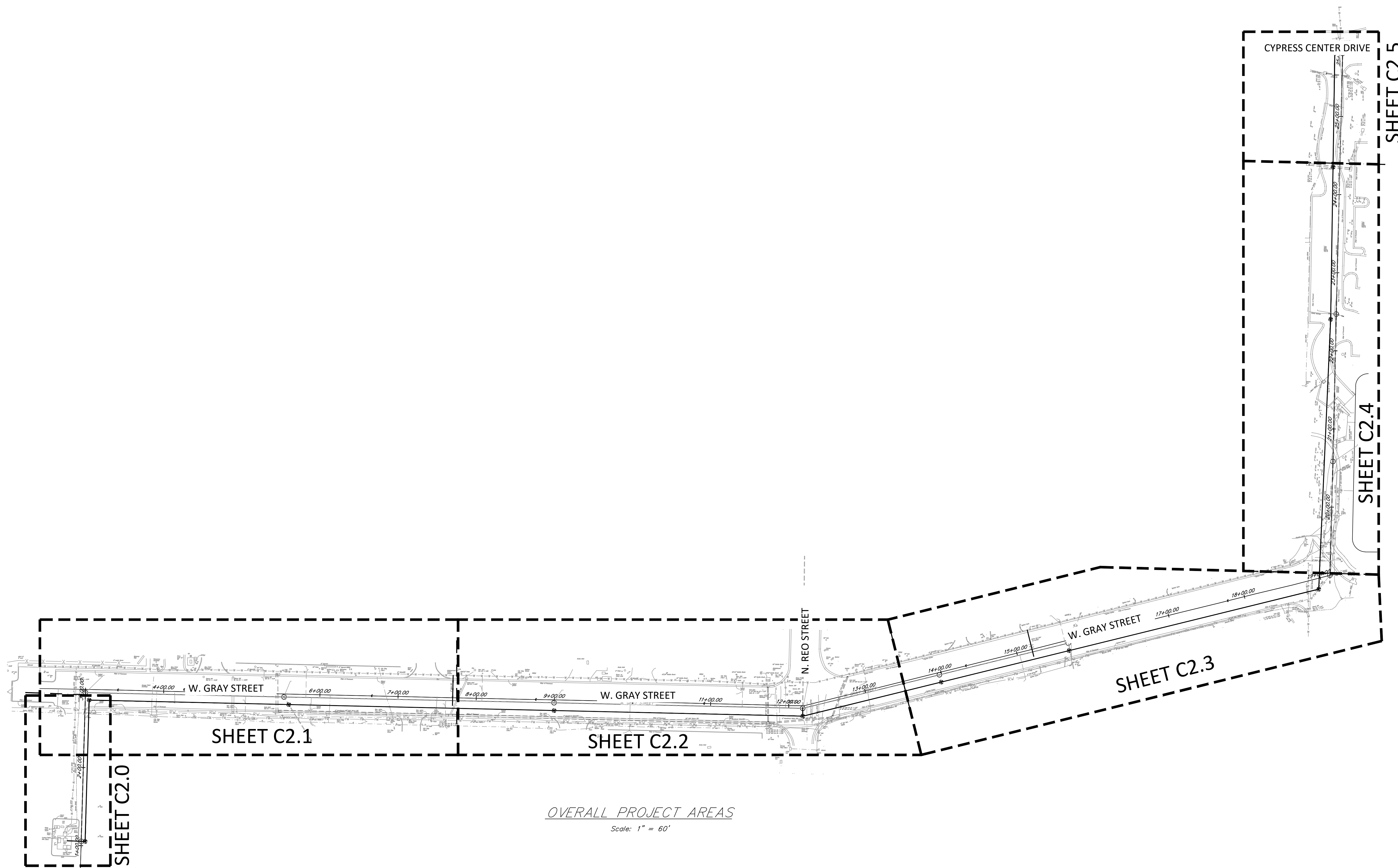
MILLS and ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 3242 HENDERSON BOULEVARD • SUITE 300
 TAMPA, FLORIDA 33609-3056
 TELEPHONE: (813) 876-5869

FOR
 CITY OF TAMPA WASTE
 WATER DEPARTMENT

DRWN BY: _____ DATE _____
 DSGN BY: _____ DATE _____
 CHKD BY: _____ DATE _____
 SCALE: _____

-WR-NC- I
 0 - - - I 0
 0 - - - I 0
 STATE - 0-11A

PROJECT EXECUTIVE PARK GRAVITY SEWER REPLACEMENT	SHEET C0.0
COVER SHEET	JOB NO. 21-013.001



OVERALL PROJECT AREAS
Scale: 1" = 60'

95% CONSTRUCTION DRAWINGS - 12/01/21

REVISIONS					
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

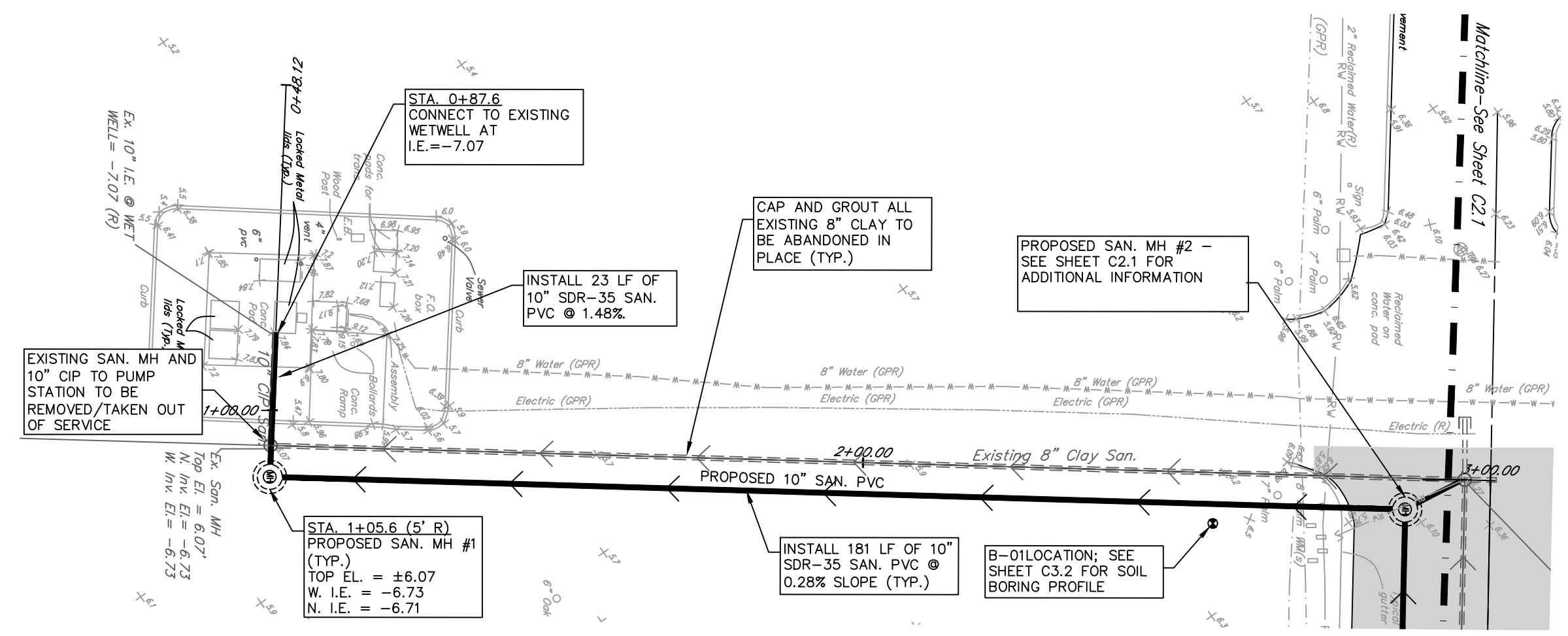
MILLS and ASSOCIATES, INC.
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TAMPA, FLORIDA 33609-3056
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FOR
CITY OF TAMPA WASTE
WATER DEPARTMENT

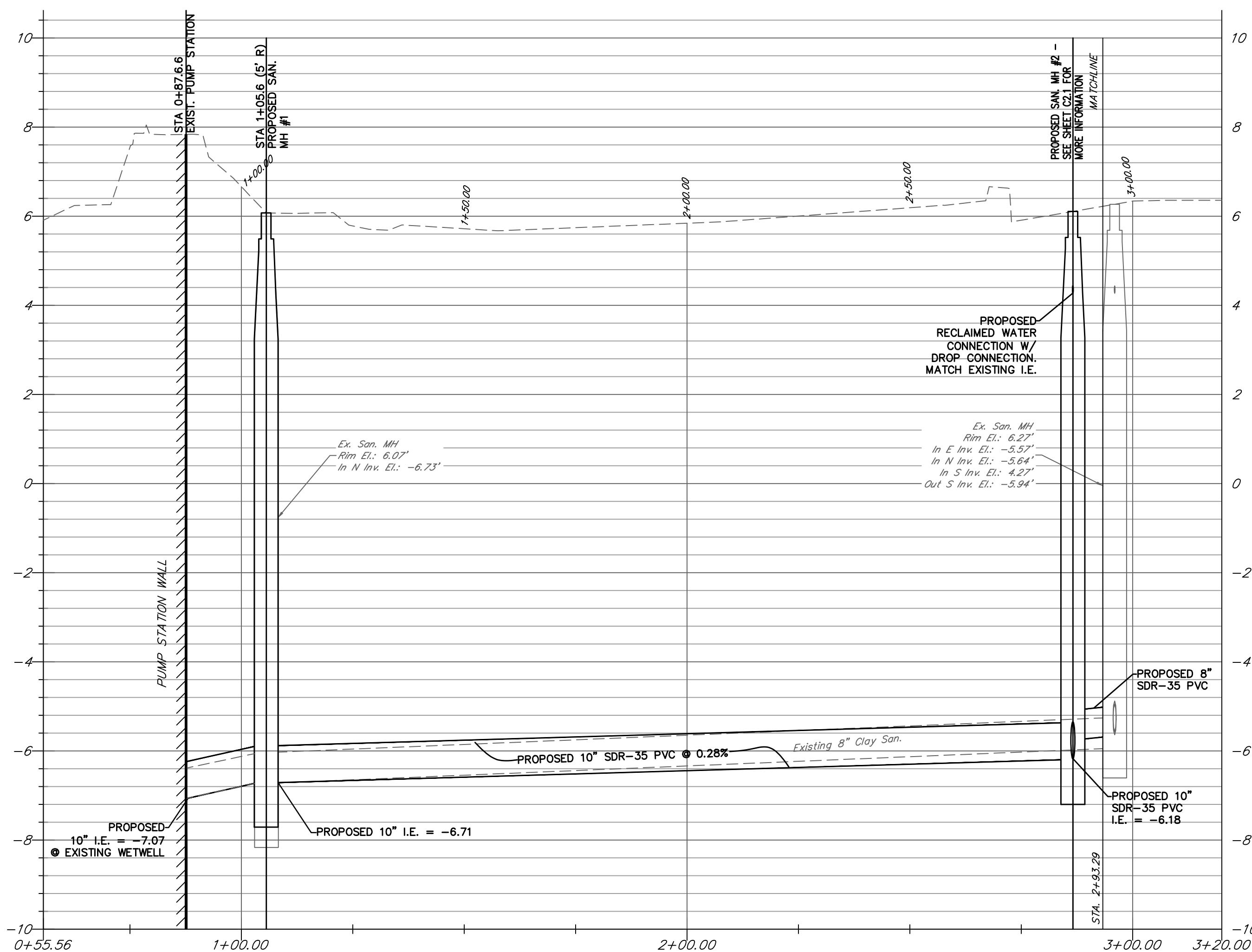
DRWN BY: _____ DATE _____
DSGN BY: _____ DATE _____
CHKD BY: _____ DATE _____
SCALE: _____

LAWRENCE E. MILLS
P.E. NO. 22324 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA

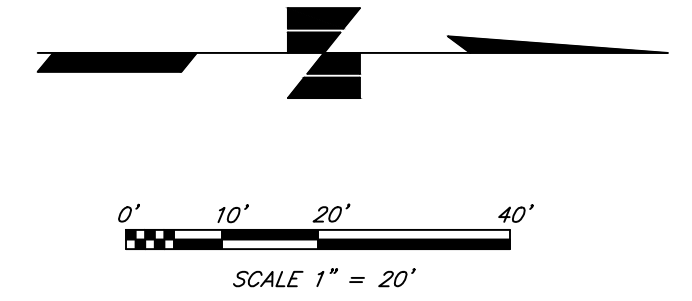
PROJECT	SHEET
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT	CO.1
OVERALL PROJECT AREAS	JOB NO. 21-013.001



PLAN VIEW
Horizontal Scale: 1" = 20'



PROFILE VIEW
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 2'



- LEGEND (As Applicable)**
- BC Back of Curb
 - BFP Backflow Preventer
 - (C) Calculated
 - CLF Chain Link Fence
 - CMP Corrugated Metal Pipe
 - CO Clean Out
 - Conc. Concrete
 - EOP Edge of Pavement
 - FDC Fire Department Connector
 - FF Finished Floor Elevation
 - FL Flow Line
 - GI Grate Inlet
 - GW Gully Wire
 - H/C Handicapped Parking Sign
 - HP High Point
 - ID Identification
 - IE Invert Elevation
 - FDIR Found Capped Iron Rod
 - FCM Found Concrete Monument
 - TH Fire Hydrant
 - FIR Found Iron Rod
 - LB Licensed Business
 - L.P. Light Pole
 - (M) Measured data
 - MEC Match Existing Curb
 - MEP Match Existing Pavement
 - MES Mitered End Section
 - MH Manhole
 - O/A Overall
 - OR Official Records
 - OHW Overhead Wires
 - (P) Plot data
 - Ped. xing Pedestrian Crossing
 - PK&D Parker Kalon Nail & Disk (as noted)
 - (R) Reported
 - PVC Polyvinyl chloride
 - RCP Reinforced Concrete Pipe
 - R/W Right of Way
 - San. Sanitary
 - SCD Sanitary CD
 - SF Square Feet
 - SIR Set 5/8" IR with Cap: LB3868
 - S/W Sidewalk
 - TM Temporary Bench Mark
 - TC Top of Curb
 - TE Top Elevation
 - T.O.B. Top of Blank
 - (Typ) Typical
 - OHW Overhead Wires
 - Overhang
 - UGE Underground Electric
 - UP Utility Pole
 - Ver. Verizon
 - WM Water Meter
 - WV Water Valve

- NOTES:**
1. SANITARY SERVICE LATERAL LOCATIONS OBTAINED FROM RECORD AS-BUILT DRAWINGS AND T.V. INSPECTION VIDEO. CONTRACTOR TO FIELD VERIFY LATERAL LOCATIONS PRIOR TO CONSTRUCTION.
 2. EXISTING UTILITIES ARE SHOWN FROM THE BEST INFORMATION AVAILABLE. UNDERGROUND UTILITY INFORMATION SHOWN IS FROM GPR INFORMATION COLLECTED ON 07/28/21 AND ASBUILT/RECORD DRAWINGS SUPPLIED BY UTILITY PROVIDERS. PRIOR TO CONSTRUCTION, CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.

NOTE TO CONTRACTOR:
CONTRACTOR TO CALL SUNSHINE STATE ONE-CALL OF FLORIDA, 1-800-432-4770, A MINIMUM OF 2 DAYS PRIOR TO EXCAVATION

100% CONSTRUCTION DRAWINGS - 01/13/22

REVISIONS					
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MILLS and ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS

3242 HENDERSON BOULEVARD • SUITE 300
TAMPA, FLORIDA 33609-3056
TELEPHONE: (813) 876-5869

FOR

CITY OF TAMPA WASTE WATER DEPARTMENT

DRWN BY: _____ DATE _____
 DSGN BY: _____ DATE _____
 CHKD BY: _____ DATE _____
 SCALE: 1" = 20'

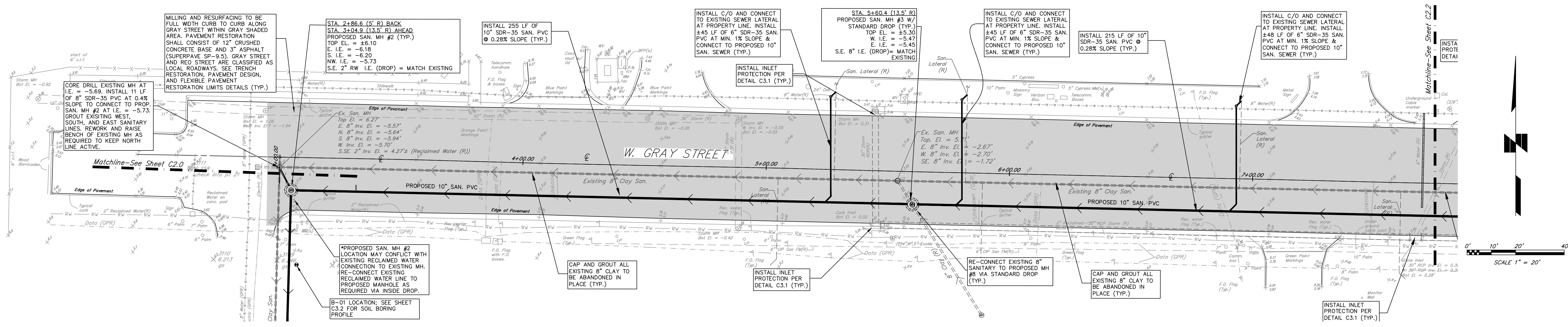
PROJECT
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT

SHEET
C2.0

JOB NO.
21-013.001

STA. 1+00.00 TO 2+93.29

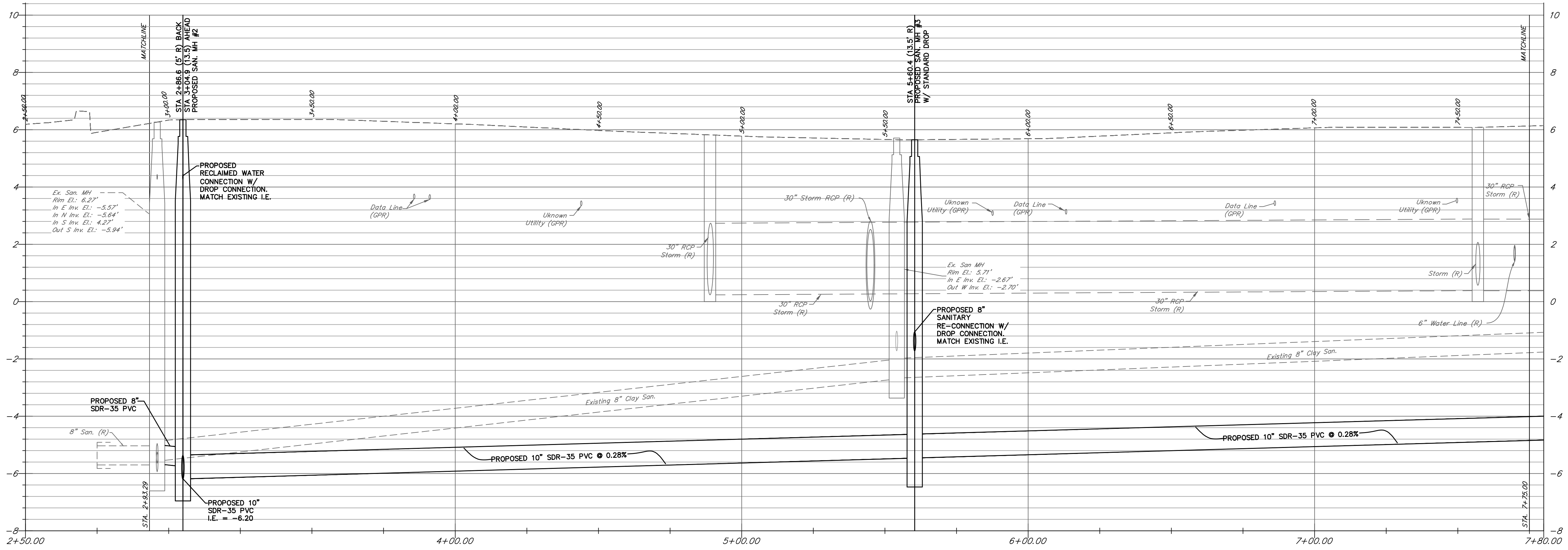
LAWRENCE E. MILLS
P.E. NO. 22324 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA



PLAN VIEW
Horizontal Scale: 1" = 20'

LEGEND (As Applicable)

- BC Back of Curb
- BFP Backflow Preventer
- (C) Calculated
- CLF Chain Link Fence
- CMP Corrugated Metal Pipe
- CO Clean Out
- Conc. Concrete
- EOP Edge of Pavement
- FDC Fire Department Connector
- FF Finished Floor Elevation
- FL Flow Line
- GI Grate Inlet
- GW Guy Wire
- H/C Handicapped Parking Sign
- HP High Point
- ID Identification
- IE Invert Elevation
- FOR Found Corroded Iron Rod
- FCM Found Concrete Monument
- FH Fire Hydrant
- FIR Found Iron Rod
- LB Licensed Business
- L.P. Light Pole
- (M) Measured data
- MEC Match Existing Curb
- MEF Match Existing Pavement
- MES Mitered End Section
- MH Manhole
- O/A Overall
- OR Official Records
- OHW Overhead Wires
- (P) Pilot data
- Ped. xing Pedestrian Crossing
- PK&D Tanker Kation Nail & Disk (as noted)
- (R) Reported
- PVC Polyvinyl chloride
- RCP Reinforced Concrete Pipe
- R/W Right of Way
- San. Sanitary
- SCD Sanitary CD
- SC Square Feet
- SR Set 5/8" IR with Cap: LB3868
- S/W Sidewalk
- TBM Temporary Bench Mark
- TC Top of Curb
- TE Top Elevation
- T.O.B. Top of Bank
- (Typ) Typical
- OHW Overhead Wires
- UOE Underground Electric
- UP Utility Pole
- Ver. Verizon
- WM Water Meter
- WV Water Valve



PROFILE VIEW
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 2'

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100% CONSTRUCTION DRAWINGS - 01/13/22

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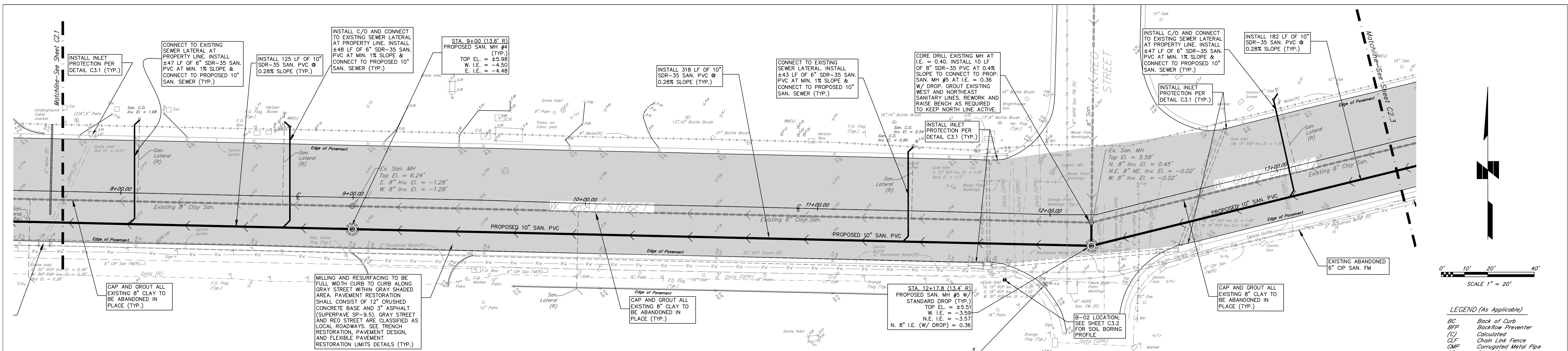
MILLS and ASSOCIATES, INC.
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TAMPA, FLORIDA 33609-3056
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FOR
CITY OF TAMPA WASTE
WATER DEPARTMENT

DRWN BY: _____ DATE _____
DSGN BY: _____ DATE _____
CHKD BY: _____ DATE _____
SCALE: 1" = 20'

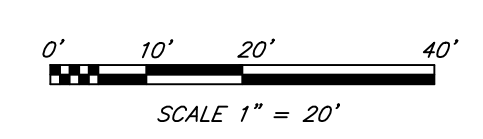
LAWRENCE E. MILLS
P.E. NO. 28284 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA

PROJECT EXECUTIVE PARK GRAVITY SEWER REPLACEMENT	SHEET C2.1
STA. 2+93.29 TO 7+75.00	JOB NO. 21-013.001



PLAN VIEW

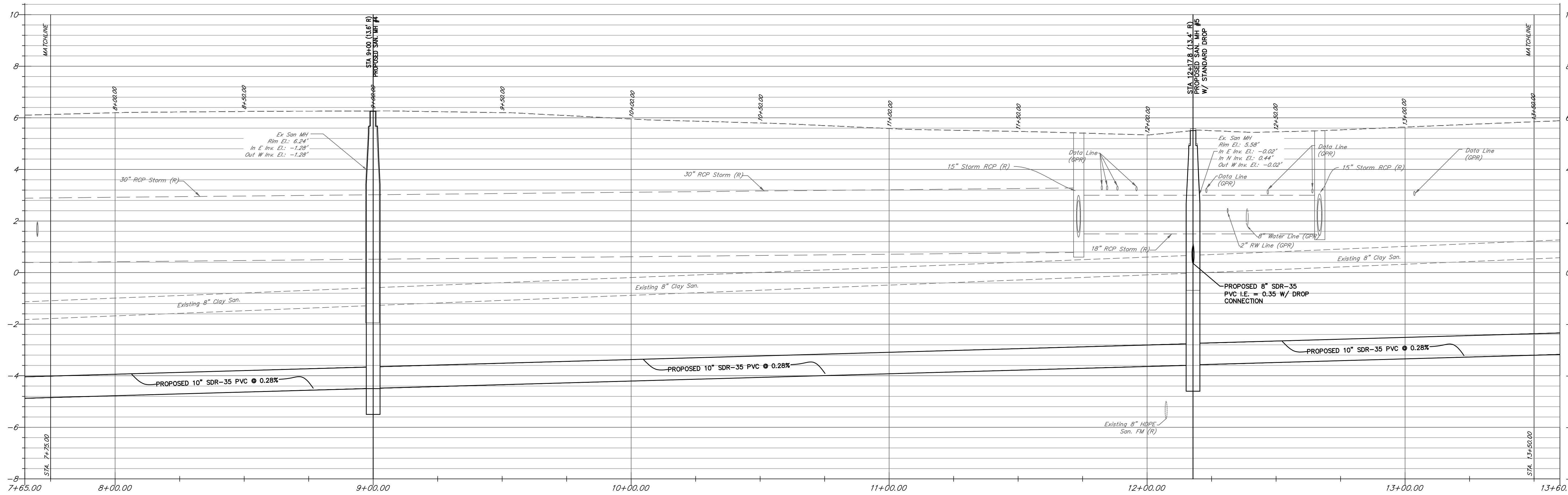
Horizontal Scale: 1" = 20'



LEGEND (As Applicable)

- BC Back of Curb
- BFP Backflow Preventer
- C Calculated
- CLF Chain Link Fence
- CMF Corrugated Metal Pipe
- CO Clean Out
- Conc. Concrete
- EOP Edge of Pavement
- FDC Fire Department Connector
- FF Finished Floor Elevation
- FL Flow Line
- GI Gully Inlet
- GW Guy Wire
- H/C Handicapped Parking Sign
- HP High Point
- ID Identification
- IE Invert Elevation
- FOR Found Capped Iron Rod
- FCM Found Concrete Monument
- FH Fire Hydrant
- FR Found Iron Rod
- LB Licensed Business
- L.P. Light Pole
- (M) Measured data
- MEC Match Existing Curb
- MEP Match Existing Pavement
- MES Matched End Section
- MH Manhole
- O/A Overall
- OR Official Records
- OHW Overhead Wires
- (P) Plot data
- PC Ped. w/ing Pedestrian Crossing
- Pk&d Pk&d & Disk (as noted)
- (R) Reported
- PVC Polyvinyl chloride
- RCP Reinforced Concrete Pipe
- R/W Right of Way
- San. Sanitary
- San. CD Sanitary CD
- SCD Square Foot
- SP Set 5/8" IR with Cap, LB388B
- SIR
- SBM Sidewalk
- TBM Temporary Bench Mark
- TC Top of Curb
- TE Top Elevation
- T.O.B. (Typ.) Typical
- OHW Overhead Wires
- O/H Overhang
- U/E Underground Electric
- UP Utility Pole
- Ver. Verizon
- WM Water Meter
- WV Water Valve

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PROFILE VIEW

Horizontal Scale: 1" = 20'
 Vertical Scale: 1" = 2'

NOTE TO CONTRACTOR:
 CONTRACTOR TO CALL SUNSHINE STATE ONE-CALL OF FLORIDA, 1-800-432-4770 A MINIMUM OF 2 DAYS PRIOR TO EXCAVATION

100% CONSTRUCTION DRAWINGS - 01/13/22

REVISIONS					
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

MILLS and ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 3242 HENDERSON BOULEVARD • SUITE 300
 TAMPA, FLORIDA 33609-3056
 TELEPHONE: (813) 876-5869

FOR
CITY OF TAMPA WASTE WATER DEPARTMENT

DRWN BY: _____ DATE _____
 DSGN BY: _____ DATE _____
 CHKD BY: _____ DATE _____
 SCALE: 1" = 20'

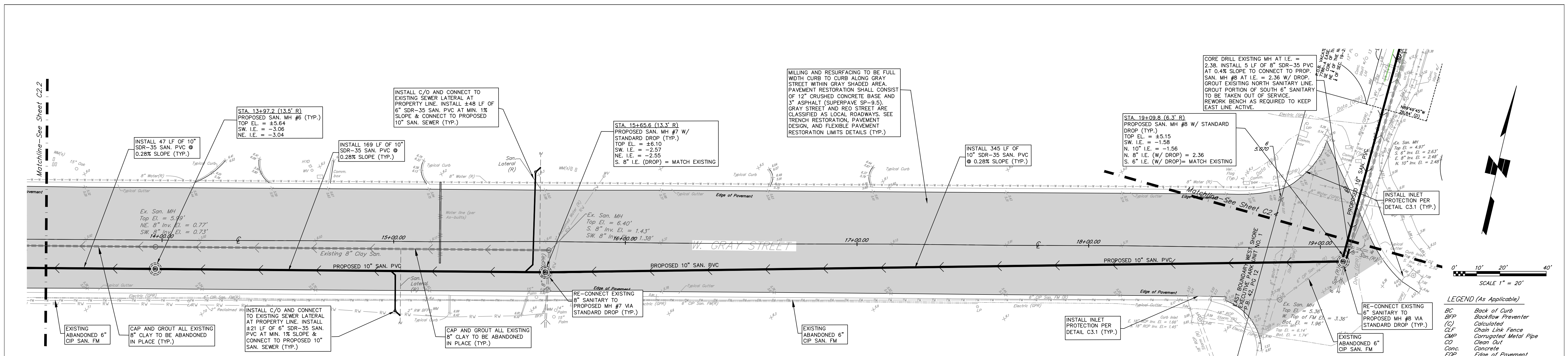
LAWRENCE E. MILLS
 P.E. NO. 28284 - E.B. NO. 3860
 P.L.S. NO. 3141 - L.B. NO. 3868
 STATE OF FLORIDA

PROJECT
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT

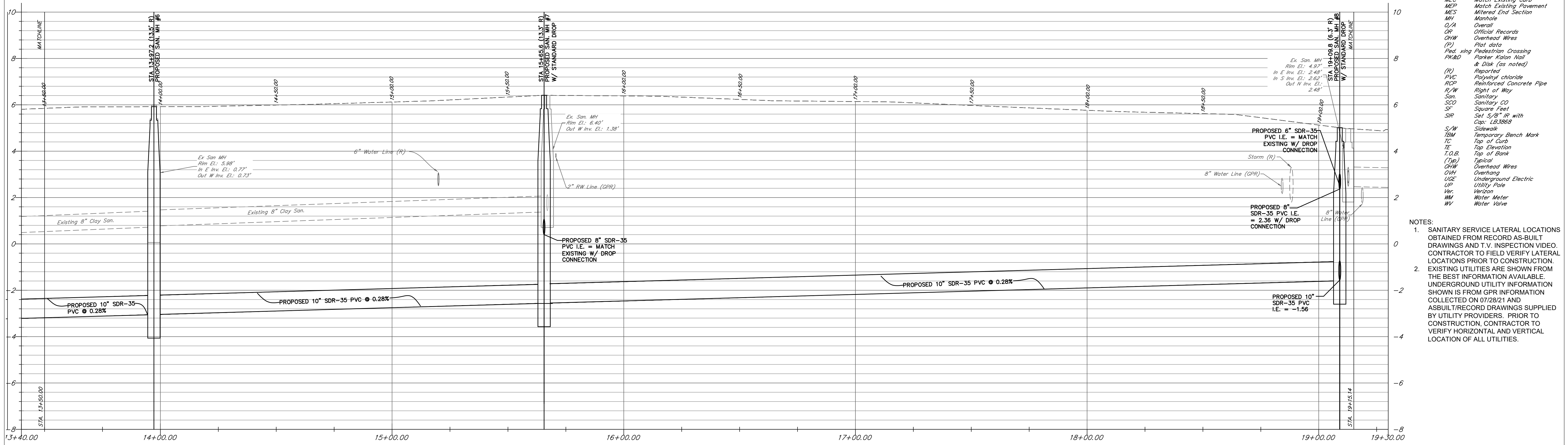
SHEET
C2.2

JOB NO.
21-013.001

STA. 7+75.00 TO 13+50.00



PLAN VIEW
Horizontal Scale: 1" = 20'



PROFILE VIEW
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 2'

NOTE TO CONTRACTOR:
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100% CONSTRUCTION DRAWINGS - 01/13/22

- LEGEND (As Applicable)
- BC Back of Curb
 - B/P Backflow Preventer
 - Calculated
 - CL Chain Link Fence
 - CMP Corrugated Metal Pipe
 - CO Clean Out
 - Conc. Concrete
 - EDP Edge of Pavement
 - FDC Fire Department Connector
 - FF Finished Floor Elevation
 - FL Flow Line
 - GI Gully Inlet
 - GW Guy Wire
 - H/C Handicapped Parking Sign
 - HP High Point
 - ID Identification
 - IE Invert Elevation
 - FOR Found Capped Iron Rod
 - FCM Found Concrete Monument
 - FH Fire Hydrant
 - FIR Found Iron Rod
 - LB Licensed Business
 - L.P. Light Pole
 - (M) Measured data
 - MEC Match Existing Curb
 - MEP Match Existing Pavement
 - MES Mitered End Section
 - MH Manhole
 - O/A Overall
 - OR Official Records
 - OHV Overhead Wires
 - (P) Plot data
 - Ped. xing Pedestrian Crossing
 - PK&D & Disk (as noted)
 - (R) Reported
 - PVC Polyvinyl chloride
 - RCP Reinforced Concrete Pipe
 - R/W Right of Way
 - San. Sanitary
 - San. CD Sanitary CD
 - SCD Square Feet
 - SIR Set 5/8" IR with Cap, LB3868
 - S/W Sidewalk
 - TBM Temporary Bench Mark
 - TC Top of Curb
 - TE Top Elevation
 - T.O.B. Top of Bank
 - (Typ) Typical
 - OHV Overhead Wires
 - OHV Overhang
 - USE Underground Electric
 - UP Utility Pole
 - Ver. Verizon
 - WM Water Meter
 - WV Water Valve

- NOTES:
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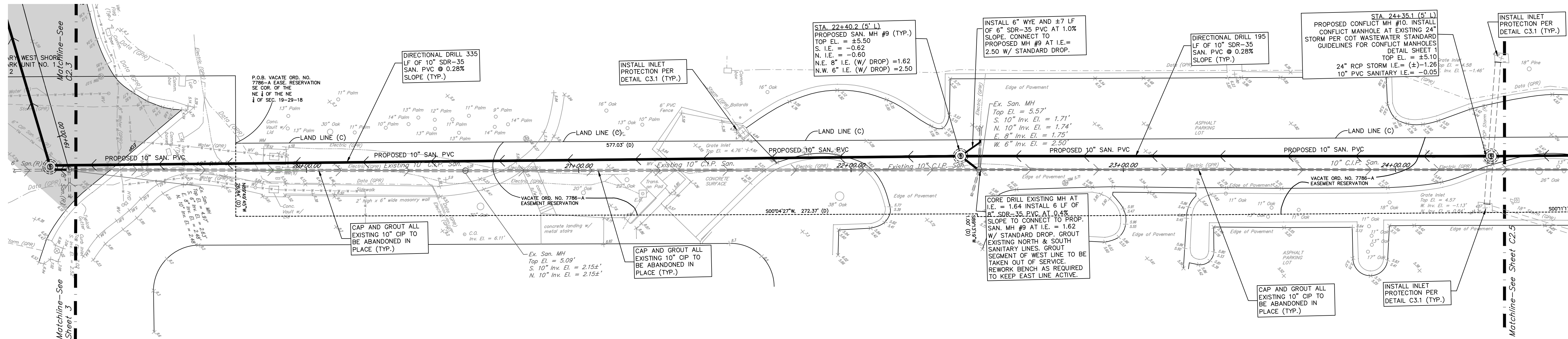
MILLS and ASSOCIATES, INC.
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3242 HENDERSON BOULEVARD • SUITE 300
TAMPA, FLORIDA 33609-3056
TELEPHONE: (813) 876-5869

FOR
CITY OF TAMPA WASTE
WATER DEPARTMENT

DRWN BY: _____ DATE _____
DSGN BY: _____ DATE _____
CHKD BY: _____ DATE _____
SCALE: 1" = 20'

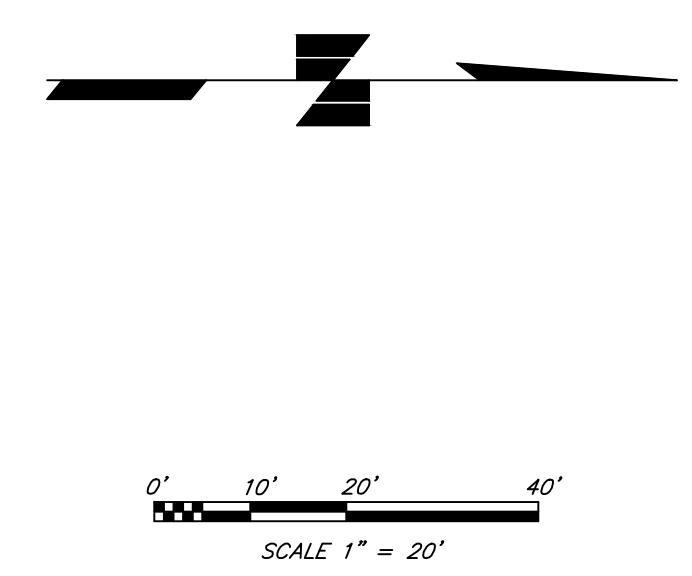
LAWRENCE E. MILLS
P.E. NO. 22324 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA

PROJECT
EXECUTIVE PARK GRAVITY
SEWER REPLACEMENT
SHEET
C2.3
JOB NO.
21-013.001
STA. 13+50.00 TO 19+15.14



PLAN VIEW

Horizontal Scale: 1" = 20'



LEGEND:

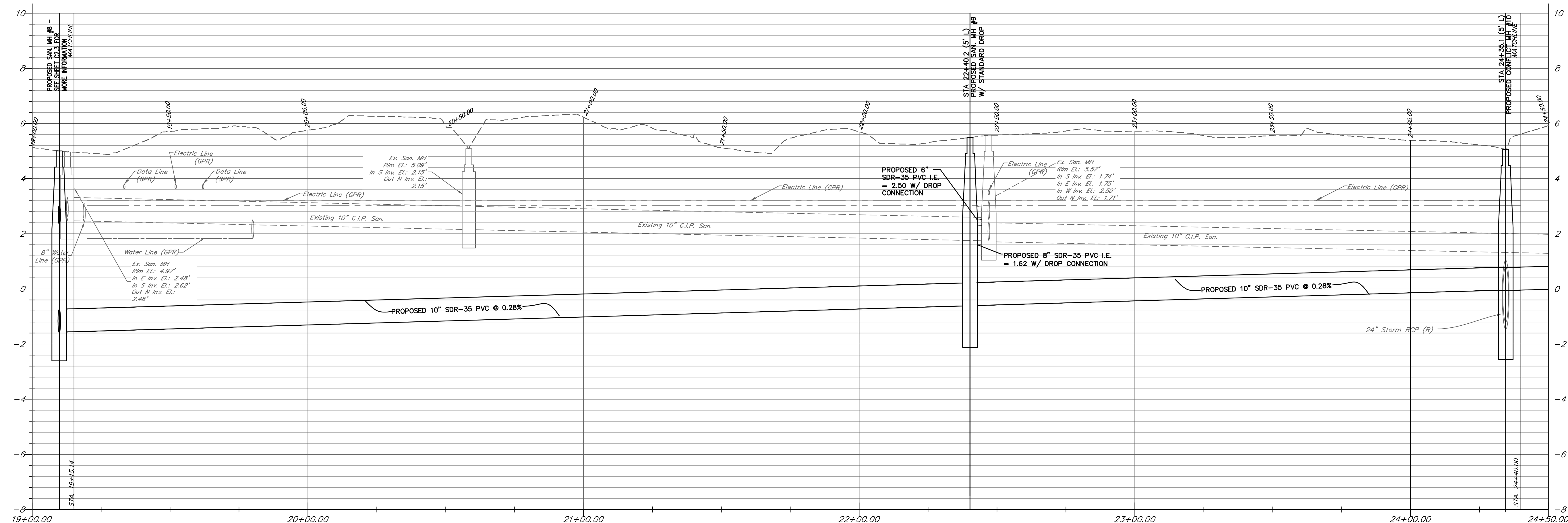
- (D) = Description Data
- (P) = Plot Data
- (M) = Measured Data
- (R) = Reported Data
- FIP = Found Iron Pipe
- FIPR = Capped Iron Rod
- FIP = Found Iron Rod
- FMN Disc = Found Mag Nail & Disk
- FN&D = Found Nail & Disk
- FND = Found
- IR = Iron Rod
- SIR = Set 1/2" Iron Rod & LB 3868 Cap
- MN = Mag Nail
- SN&D = Set Nail & Disk #3141
- No I.D. = No Identification
- W.C. = Witness Corner
- BFP = Backflow Preventer
- Bldg. = Building
- Boll. = Bollard
- C.O. = Cleanout
- Comm. = Communication
- Conc. = Concrete
- c.l.p. = Concrete Light Pole
- DIA. = Diameter
- E.B. = Electrical Box
- El. = Elevation
- Elec. = Electric
- F.F.E. = Finished Floor Elevation
- FO = Fiber Optic
- GA = Guy Anchor
- HC = Handicapped
- HYD = Hydrant
- icv = Irrigation Control Valve
- Inv. = Invert
- Mas. = Masonry
- MES = Mitered End Section
- m.l.p. = Metal Light Pole
- O/A = Overall
- OHW = Overhead Utility Lines
- Plas. = Plastic
- PVC = Polyvinyl chloride Pipe
- RCP = Reinforced Concrete Pipe
- Ret. = Retaining
- R/W = Right-of-Way
- San. = Sanitary
- Sign. = Signal
- s.s. = Street Sign
- TBM = Temporary Benchmark
- T.O.B. = Top of Bank
- Traf. = Traffic
- Trans. = Transformer
- (Typ.) = Typical
- UP = Utility Pole
- Util. = Utility
- Ver. = Verizon
- WM = Water Meter
- WV = Water Valve
- w.l.p. = Wood Light Pole

NOTES:

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100% CONSTRUCTION DRAWINGS - 01/13/22



PROFILE VIEW

Horizontal Scale: 1" = 20'
 Vertical Scale: 1" = 2'

REVISIONS					
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

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 CONSULTING ENGINEERS & LAND SURVEYORS
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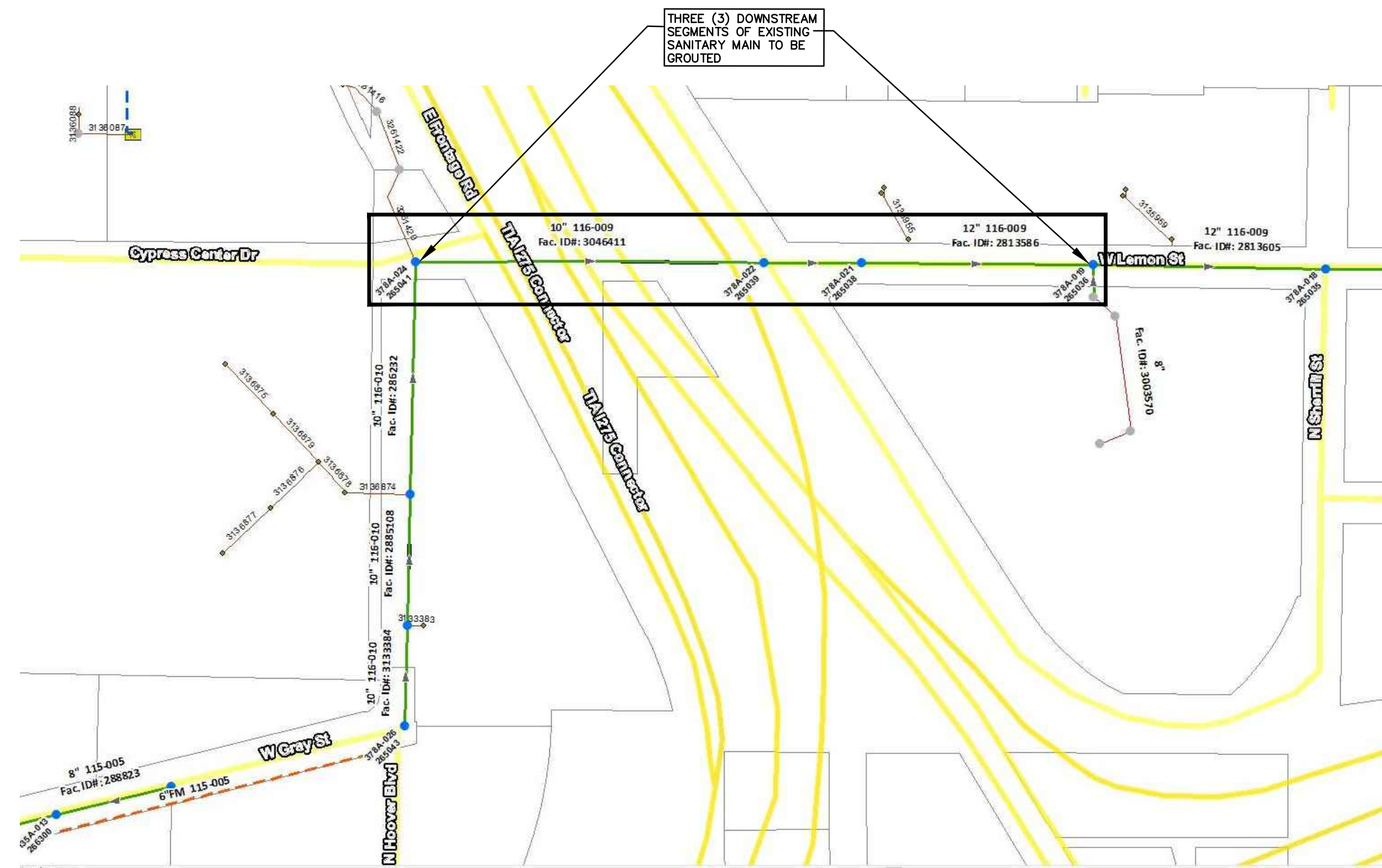
FOR
CITY OF TAMPA WASTE WATER DEPARTMENT

DRWN BY: _____ DATE _____
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 SCALE: 1" = 20'

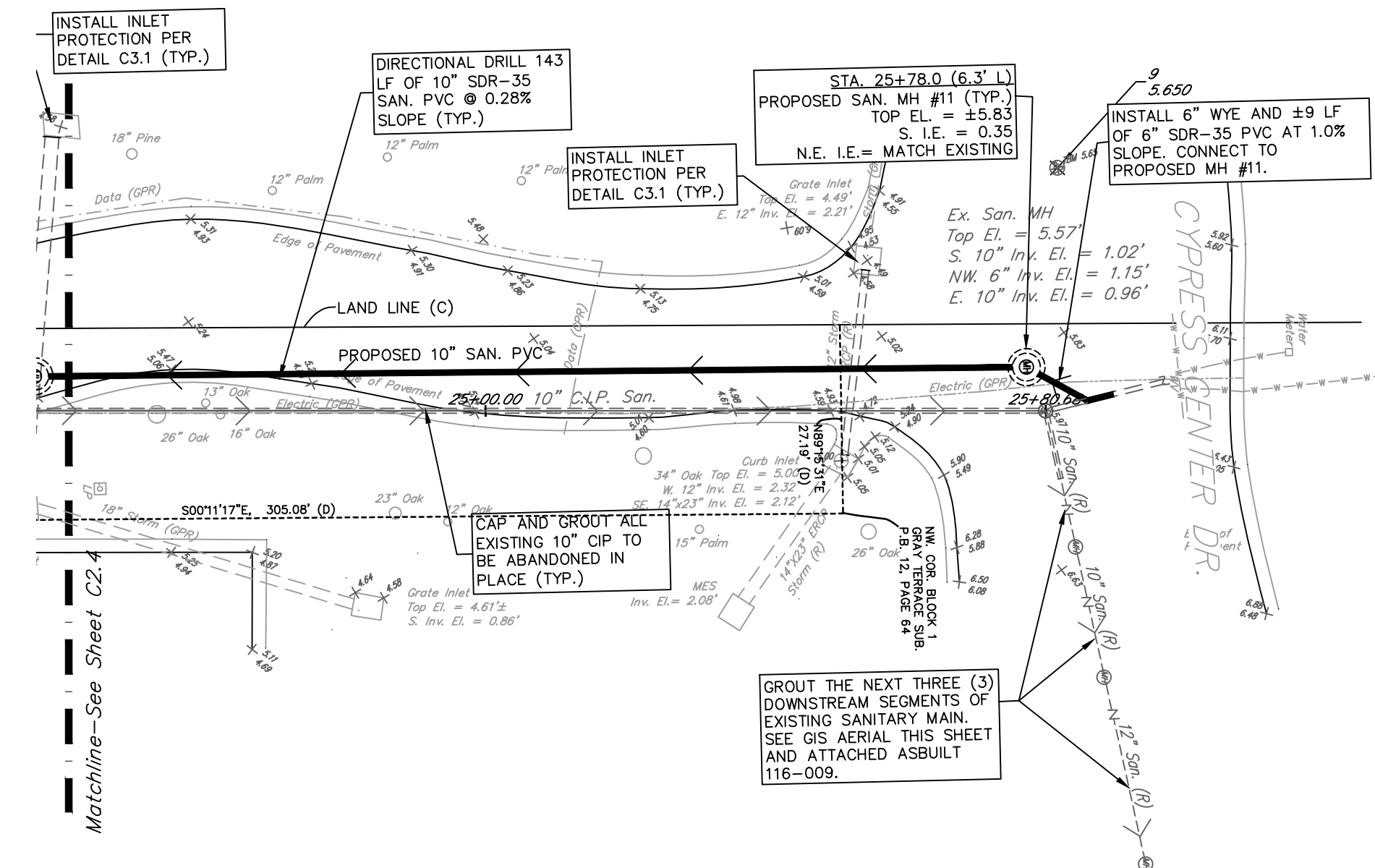
LAWRENCE E. MILLS
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 STATE OF FLORIDA

PROJECT
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT
 STA. 19+15.14 TO 24+40.00

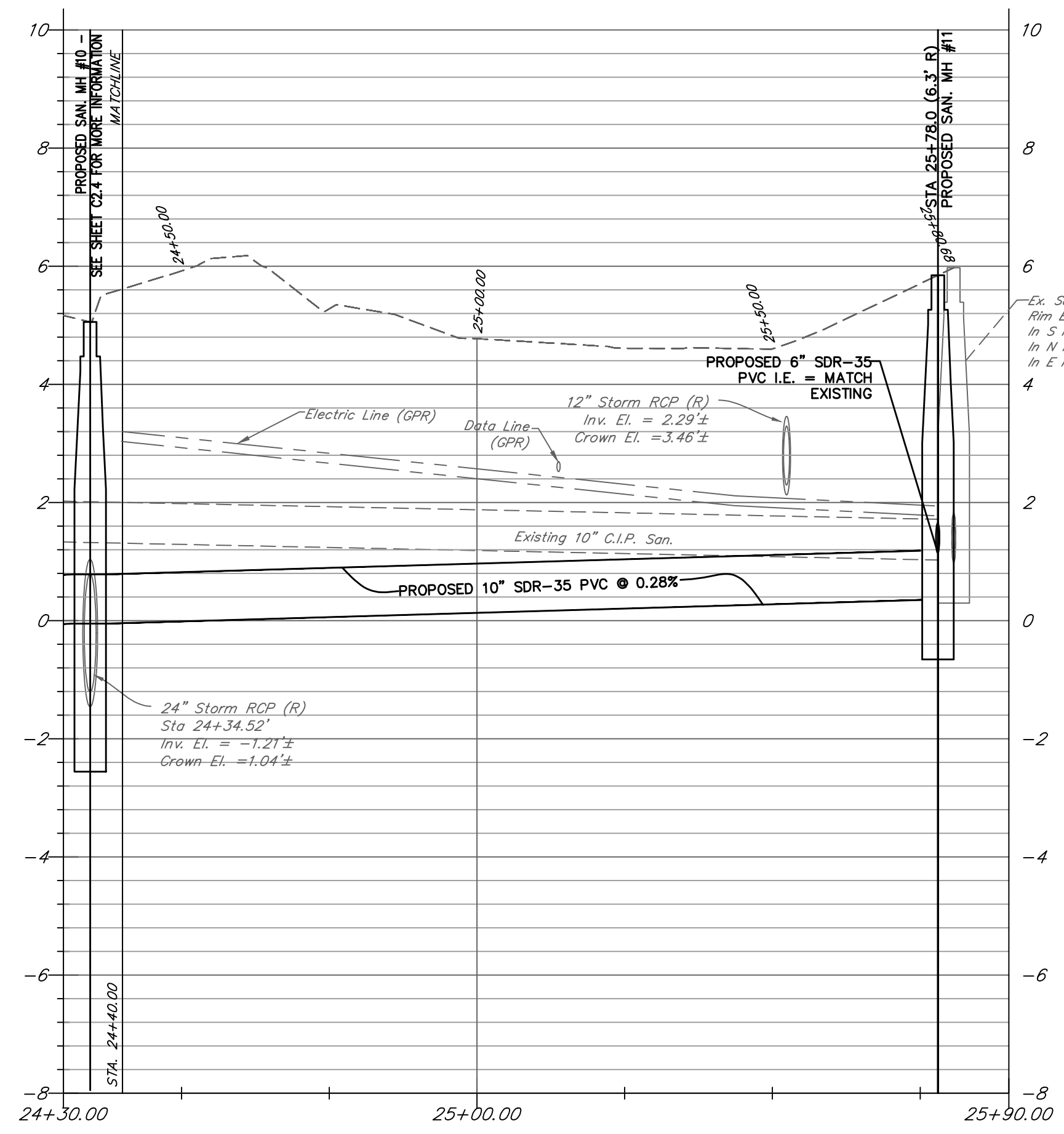
SHEET
C2.4
 JOB NO.
21-013.001



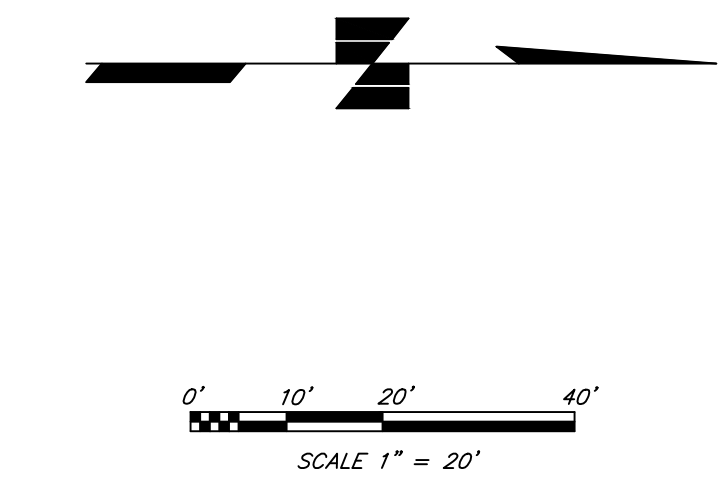
GIS AERIAL
N.T.S.



PLAN VIEW
Horizontal Scale: 1" = 20'



PROFILE VIEW
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 2'



- LEGEND:**
- (D) = Description Data
 - (P) = Plot Data
 - (M) = Measured Data
 - (R) = Reported Data
 - FIP = Found Iron Pipe
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- NOTES:**
- SANITARY SERVICE LATERAL LOCATIONS OBTAINED FROM RECORD AS-BUILT DRAWINGS AND T.V. INSPECTION VIDEO. CONTRACTOR TO FIELD VERIFY LATERAL LOCATIONS PRIOR TO CONSTRUCTION.
 - EXISTING UTILITIES ARE SHOWN FROM THE BEST INFORMATION AVAILABLE. UNDERGROUND UTILITY INFORMATION SHOWN IS FROM GPR INFORMATION COLLECTED ON 07/28/21 AND AS-BUILT RECORD DRAWINGS SUPPLIED BY UTILITY PROVIDERS. PRIOR TO CONSTRUCTION, CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.

NOTE TO CONTRACTOR:
CONTRACTOR TO CALL SUNSHINE STATE ONE-CALL OF FLORIDA, 1-800-432-4770 A MINIMUM OF 2 DAYS PRIOR TO EXCAVATION.

100% CONSTRUCTION DRAWINGS - 01/13/22

REVISIONS					
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

MILLS and ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
3242 HENDERSON BOULEVARD • SUITE 300
TAMPA, FLORIDA 33609-3056
TELEPHONE: (813) 876-5869

FOR
CITY OF TAMPA WASTE
WATER DEPARTMENT

DRWN BY: _____ DATE _____
DSGN BY: _____ DATE _____
CHKD BY: _____ DATE _____
SCALE: 1" = 20'

PROJECT
EXECUTIVE PARK GRAVITY
SEWER REPLACEMENT

SHEET
C2.5

JOB NO.
21-013.001

STA. 24+40.00 TO 25+80.68

LAWRENCE E. MILLS
P.E. NO. 22324 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA

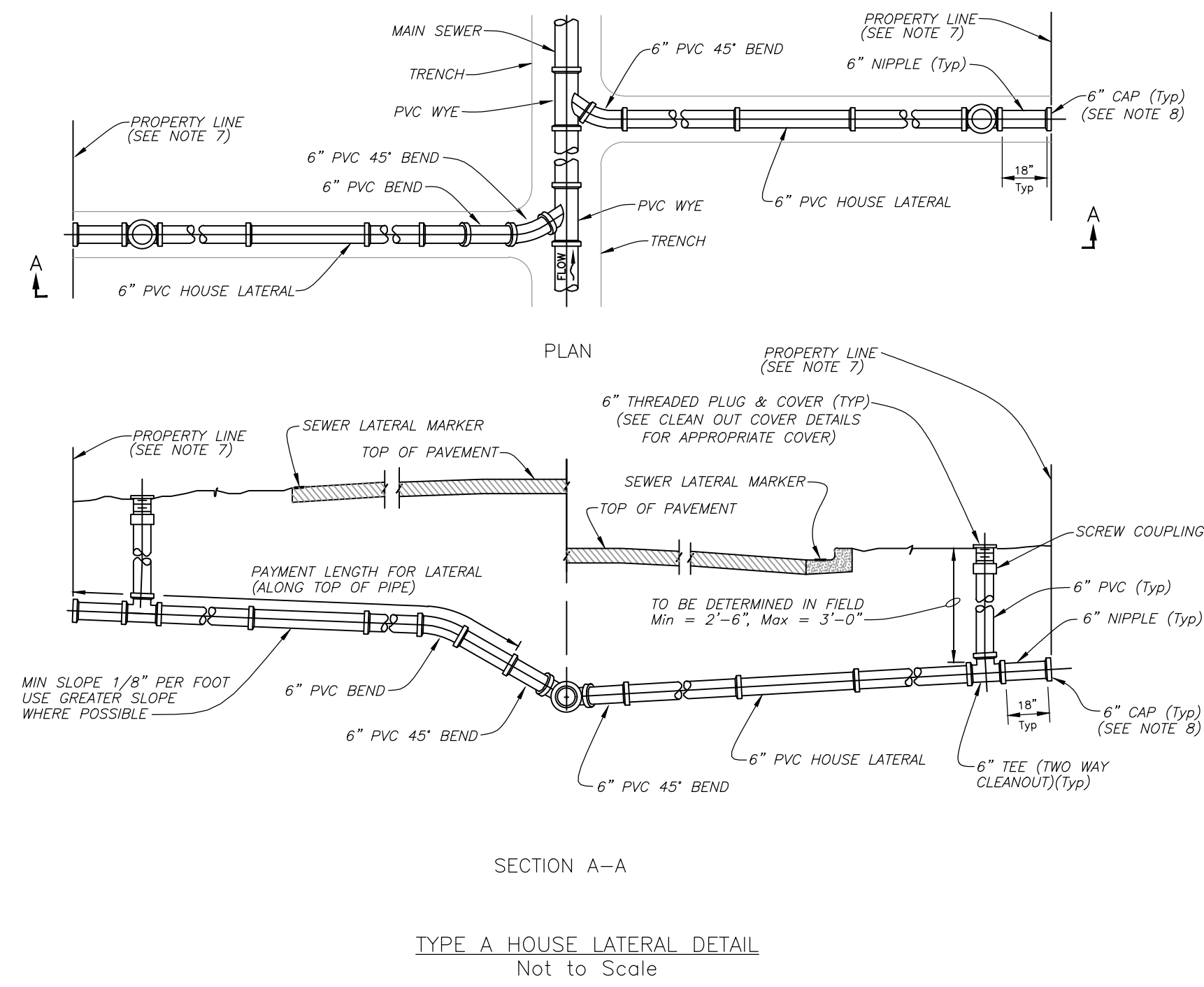
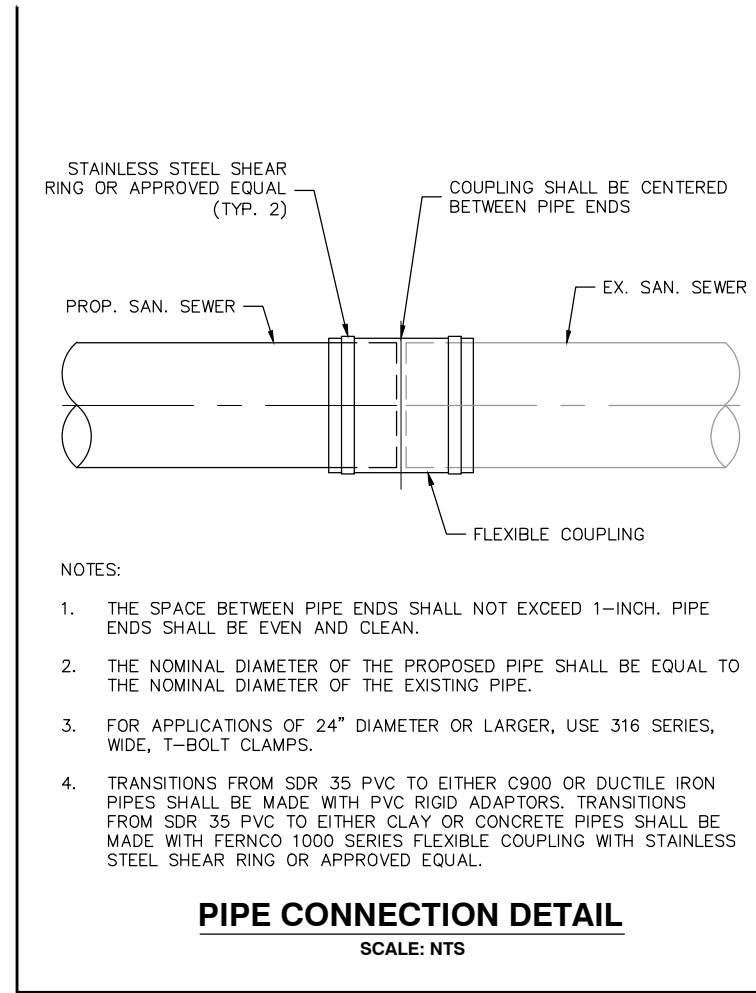
GENERAL NOTES:

- All work shall comply with the regulations, requirements and ordinances of the various governing agencies having jurisdiction over said work, including, and not limited to, Hillsborough County, F.D.E.P., F.D.H.R.S., S.W.F.W.M.D., and F.D.O.T.
- Location, dimension, elevation and identification of existing utilities, structures and other topographic features are approximate only, according to the best information available at the time of preparation of these plans. There may be additional existing details on-site and off-site. The presence of which is not known or detected at this time. Engineer/Surveyor shall not be held responsible for undetected underground utilities. Prior to construction, it is the contractor's responsibility to verify the location, dimension, elevation and identification of all utilities, structures and topographic features (i.e. buildings, sidewalks, canopy supports, fences, pavement, underground utilities, utility poles/guy wires, manholes, inlets, a/c units, trees, landscaping, etc.). If any of the existing or proposed conditions either: a) conflict with the proposed improvements, or b) are not shown or shown incorrectly on the plans, it is the contractor's responsibility to contact the Engineer prior to the commencing any work activities.
- The construction testing/inspection shall be the contractor's responsibility to schedule and complete any and all tests as required with all site civil improvements constructed on and off site. It shall also be the contractor's responsibility to pre-test these improvements prior to giving the Engineer-of-Record any governing agency field representative 48 hours advance notice of any formal tests.
- Engineer/Surveyor shall not be held responsible for undetected underground utilities and/or soil conditions. Site preparation to be in accordance with a geotechnical engineers recommendations and as a minimum standard must conform with the following: a) Unsuitable material to be removed; b) Fill material to be clean with no organics, muck, clay, etc.; c) Fill to be placed 12" lifts or less and compacted to 98% modified proctor.
- All elevations refer to 1988 NAVD.
- The Contractor shall notify the appropriate public agency(ies) and utility companies prior to commencing work within their jurisdiction(s).
- All pipe lengths are plus or minus and are measured from center of fittings and/or structures.
- The Contractor shall maintain copies of all applicable permits on-site and shall be responsible to adhere to all permit conditions during construction.
- Florida Statute 553.851 (1979) requires a minimum of 2 days and maximum of 5 days notice before excavation. Call SUNSHINE STATE ONE-CALL OF FLORIDA at 1-800-432-4770.
- The Contractor shall use appropriate measures to prevent erosion and transport of sediment to surface drains. The Contractor shall use hay bales and/or silt barriers to mitigate adverse impacts to existing surface water quality.
- The Contractor shall check plans for conflicts and discrepancies prior to construction. The Contractor shall notify the owner's Engineer of any conflict before performing any work in the affected area.
- Reinforced concrete pipe (RCP) shall be a minimum of Class III pipe as designated in ASTM C-76.
- Any relocation or modification of proposed storm sewer system shall not be made without the approval of the Engineer-of-Record.
- Drainage shall be maintained during construction.
- The Contractor is responsible for repairing any damage to existing facilities, above or below ground, that may occur as a result of the work performed by the Contractor called for in this contract.
- All underground utilities must be in place and tested or inspected prior to base and surface construction.
- All inspections and documents referred to shall be of latest revision.
- The Contractor shall submit for approval to the Owner's Engineer shop drawings on all precast and manufactured items. Failure to obtain approval before installation may result in removal and replacement at Contractor's expense.
- Mills & Associates, Inc. makes no representations or guarantees pertaining to easements, rights of way, set back lines, reservations, agreements and other similar matters.
- Continuous sewer service must be maintained by the contractor at all times. Contractor shall provide by-pass pumping sized for 500 GPM. A by-pass pumping plan shall be submitted for approval.
- The minimum clearance between laterals and water lines shall be 6" under all circumstances. If the 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 AWWA Class 150 C900 PVC pipe shall be centered over/under the water line. All disturbed earth areas shall be sodded with Bahia sod. Proposed pipe shall be green ASTM D3034 P.V.C. pipe, SDR-35 installed with Class "C" bedding.
- Contractor must maintain access to all streets and driveways for the duration of the project.
- Connection between new PVC and existing pipes shall be made using flexible couplings with stainless steel shear rings. See pipe connection detail.
- 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 Resource 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.
- Pavement restoration shall consist of 12- inch crushed concrete base, and 3- inch asphalt (Superpave SP-9.5). Gray Street and Reo Street are classified as local roadways. See trench restoration, pavement design and flexible pavement restoration limits details.
- Existing utilities are shown from the best information available. Underground utility information shown is from GPR information collected on 07/28/21 and as built/record drawings supplied by utility providers. Prior to directional drilling, contractor shall excavate and verify existing horizontal and vertical location of all utilities via vacuum or conventional excavation.

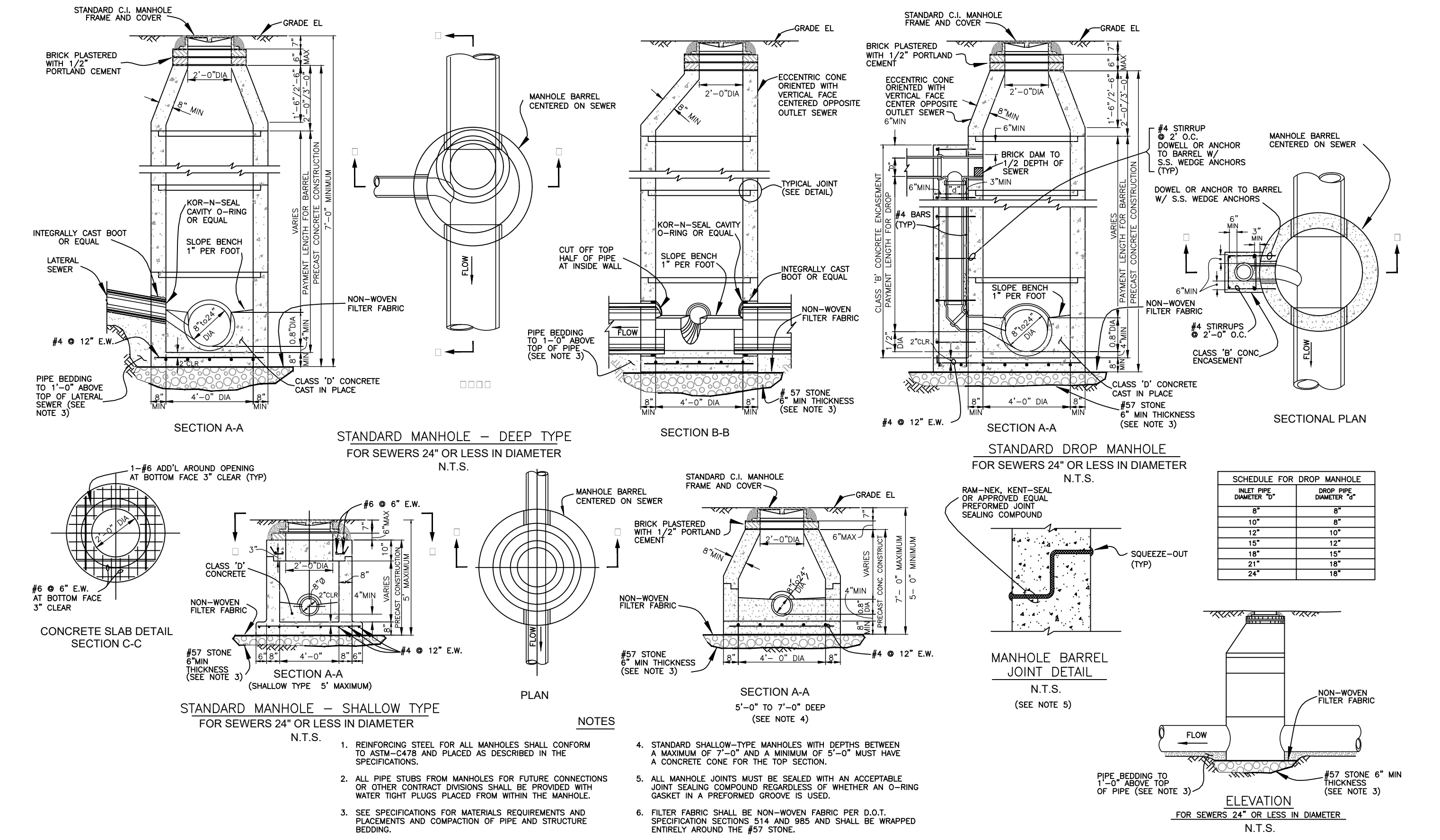
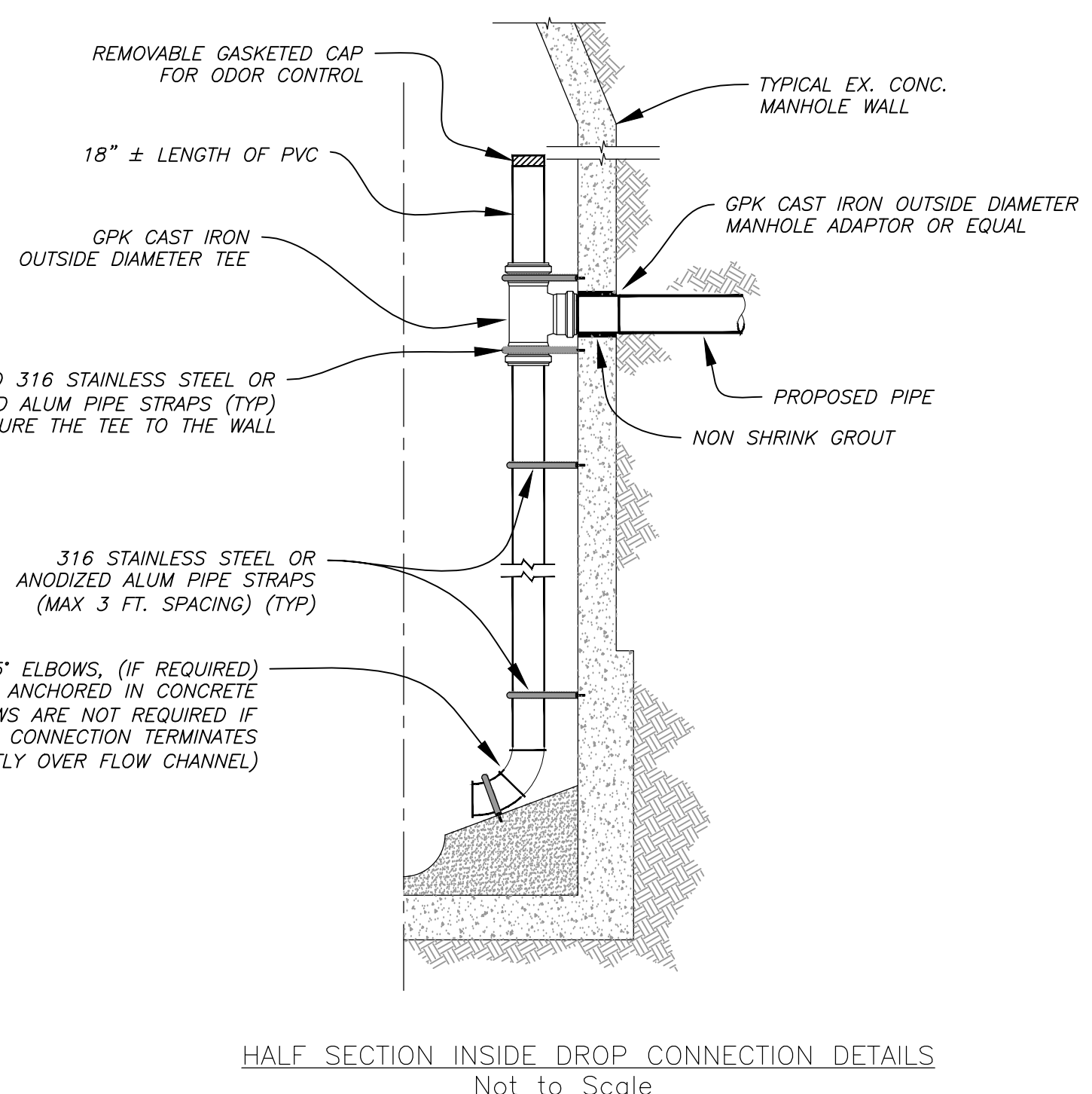
24. SAFETY:

- During the construction and/or maintenance of this project, all safety regulations are to be enforced. The Contractor or his representative shall be responsible for the control and safety of the traveling public and the safety of his personnel.
- Labor safety regulations shall conform to the provisions set forth by OSHA in the Federal Register of the Department of Transportation.
- The minimum standards as set forth in the current edition of "The State of Florida, Manual on Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations" shall be followed in the design application, installation, maintenance and removal of all traffic control devices, warning devices and barriers necessary to protect the public and workmen from hazards within the project limits.
- All traffic control markings and devices shall conform to the provisions set forth in the manual on uniform traffic control devices prepared by the U.S. Department of Transportation Federal Highway Administration.

It shall be the sole responsibility of the Contractor to comply and enforce all applicable safety regulations. The above information has been provided for the Contractor's information only and does not imply the Owner or Engineer will inspect and/or enforce safety regulations.



- NOTES:**
- The locations of house laterals by symbols on plans are approximate only and the actual location and slopes will be determined in the field by the contractor with the approval of the engineer.
 - The minimum diameter of all house laterals shall be 6 inches.
 - The vertical alignment of the service lateral shall be designed so that no more than two (2) vertical bends are required between the connection to the gravity main and the property line.
 - House laterals which pass under drainage ditches with less than 18" of cover or which have less than 30" of cover under pavement shall be Pressure Class 350 with 40 mils (MDPT) of Protecto 401 interior coating per specifications.
 - A minimum vertical clearance of 12-inches shall be provided when crossing above a water main. However, a vertical clearance less than 12-inches but greater than 6-inches will be allowed if the lateral is installed using one the following criteria:
 - The lateral is constructed of ductile iron pipe with a minimum pressure class of 350 with 40 mils (MDPT) of Protecto 401 interior coating.
 - The lateral is encased in at least 4-inches of concrete.
 - The lateral is installed in a casing pipe with an impact strength equal to the impact strength of pressure class 350 ductile iron.
 - A minimum of 6-inches of vertical clearance shall be provided when crossing below water mains with a diameter 6-inches or less. A minimum of 12-inches of vertical clearance shall be provided when crossing below a water main with a diameter greater than 6-inches up to a diameter of 18-inches. A minimum of 18-inches of vertical clearance will be required when crossing under a water main with diameters greater than 18-inches.
 - At all water main crossings, joints of the lateral pipe at the crossing shall be arranged so that no joint is within 6-ft of a joint along the water main. If the joint spacing can not be achieved, then the gravity sewer at the crossing shall be constructed of C-900 PVC.
 - A minimum vertical clearance of 6-inches shall be provided when crossing above all utilities other than a water main. A minimum of 6-inches of vertical clearance shall be provided when crossing below a utility with a diameter 6-inches or less. A minimum of 12-inches of clearance shall be provided when crossing below a utility with a diameter greater than 6-inches up to a diameter of 18-inches. A minimum of 18-inches of vertical clearance will be required when crossing under utilities with diameters greater than 18-inches.
 - Transitions from SDR 35 PVC to either C900 or ductile iron pipes shall be made with PVC rigid adaptors. Transitions from SDR 35 PVC to either existing clay or concrete pipes shall be made with a Franco 1000 series flexible coupling with stainless steel shear ring or approved equal.
 - In sub-divisions where the Developer has provided a recorded utility easement (typically 10') beyond the property line, the clean out shall be installed within the easement away from the sidewalk.
 - At the direction of the City's inspector, the contractor shall temporarily stake the cap of all laterals at the property line with a 2"x4" treated wood stake.



SCHEDULE FOR DROP MANHOLE

PIPE DIAMETER (IN)	MIN. PIPE DEPTH (IN)	MIN. PIPE WIDTH (IN)
6"	12"	8"
8"	12"	10"
10"	12"	12"
12"	12"	14"
14"	12"	16"
16"	12"	18"
18"	12"	20"
24"	12"	24"

STANDARD DETAILS MANHOLE INSIDE DROP CONNECTIONS

STANDARD DETAILS STANDARD MANHOLE 8" TO 24"

100% CONSTRUCTION DRAWINGS - 01/13/22

REVISIONS

BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

MILLS and ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS

3242 HENDERSON BOULEVARD • SUITE 300
TAMPA, FLORIDA 33609-3056
TELEPHONE: (813) 876-5869

FOR

CITY OF TAMPA WASTE WATER DEPARTMENT

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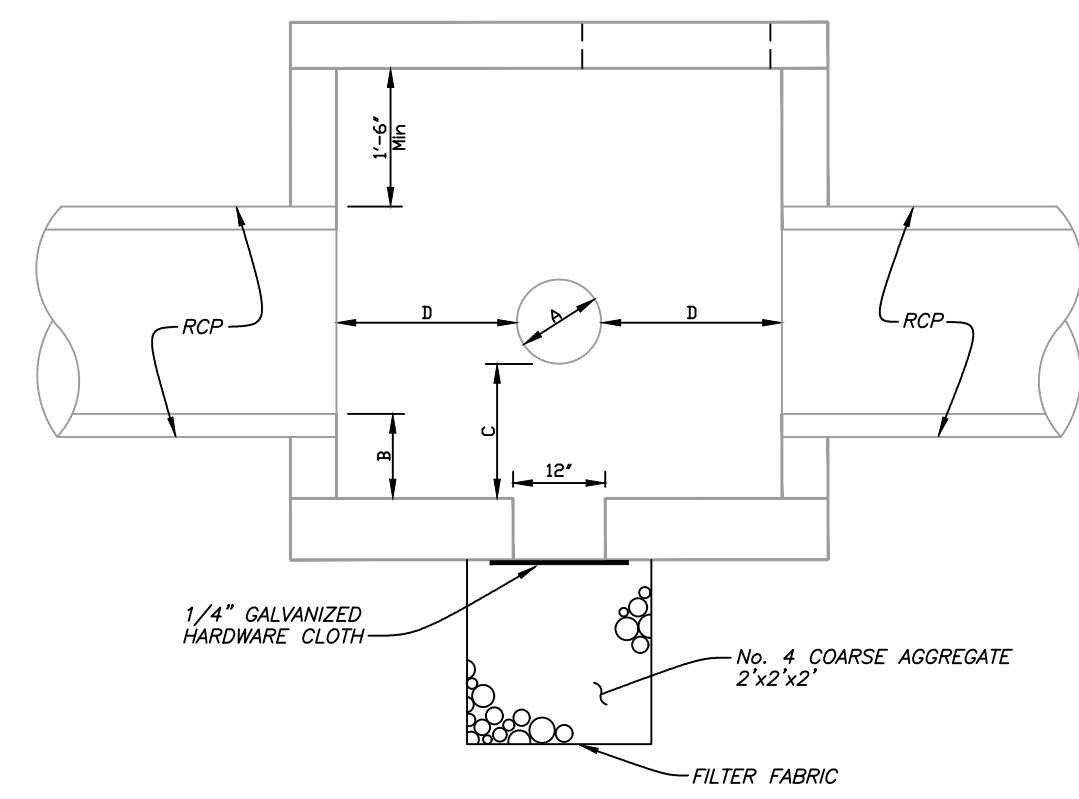
LAWRENCE E. MILLS
P.E. NO. 28284 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA

PROJECT
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT

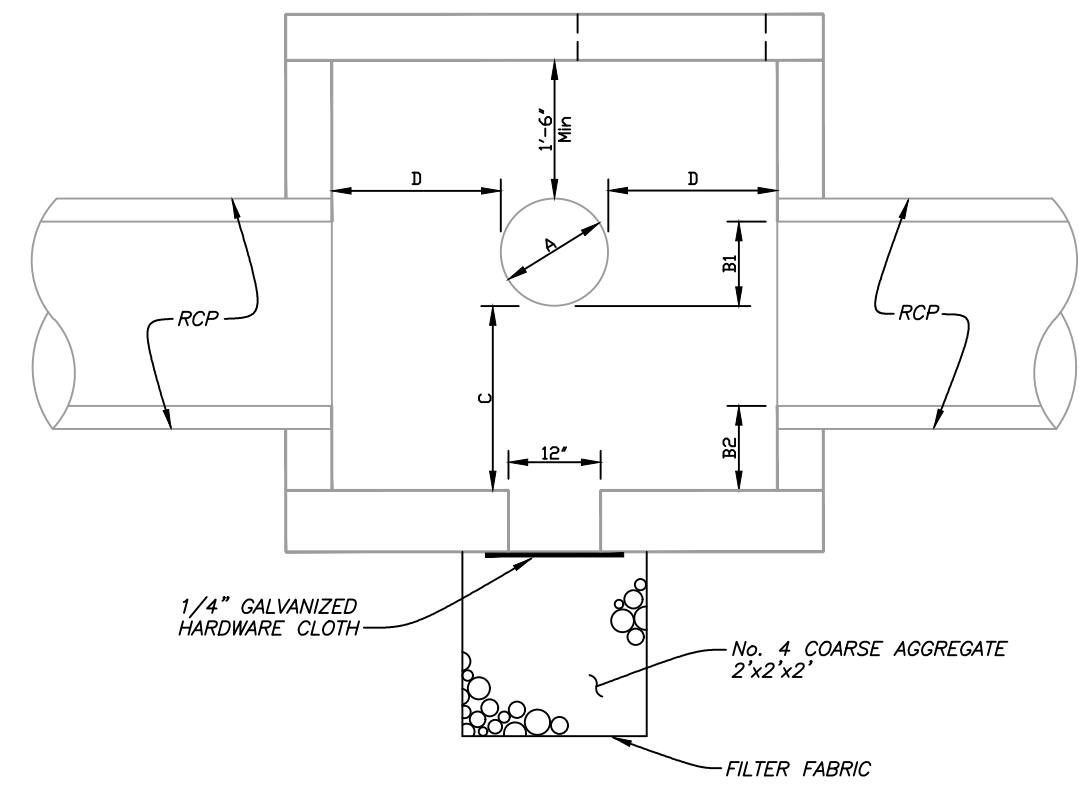
SHEET
C3.0

JOB NO.
21-013.001

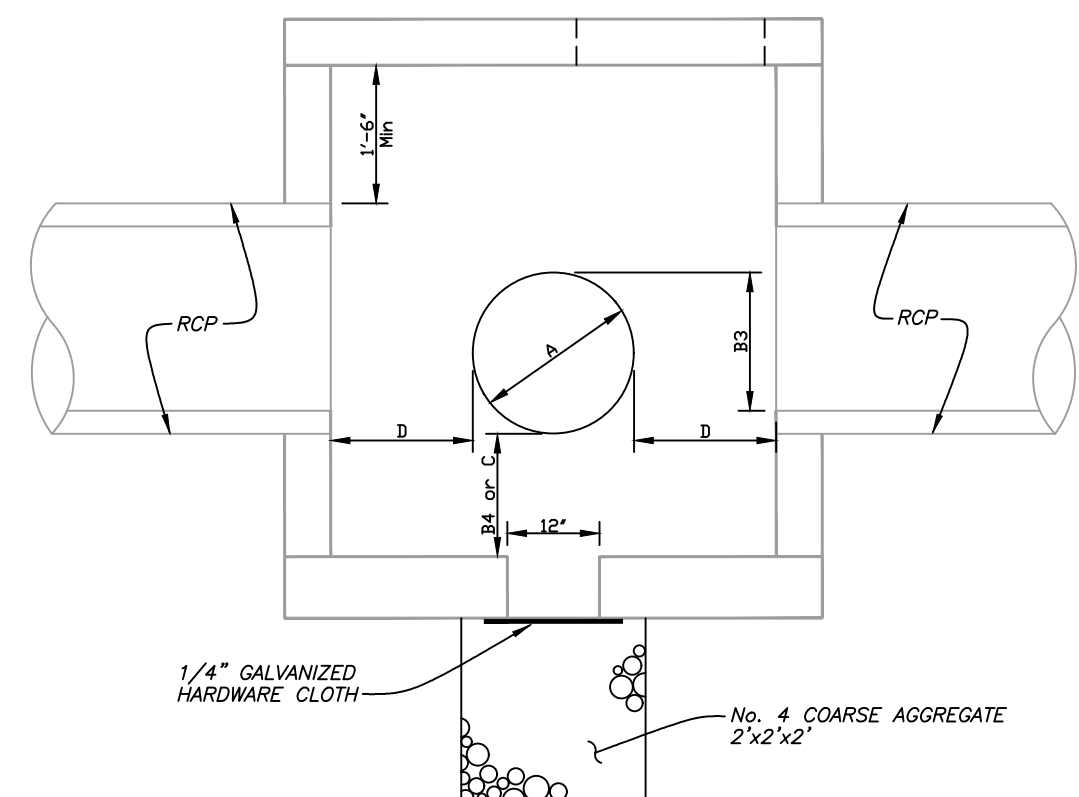
DETAILS & NOTES



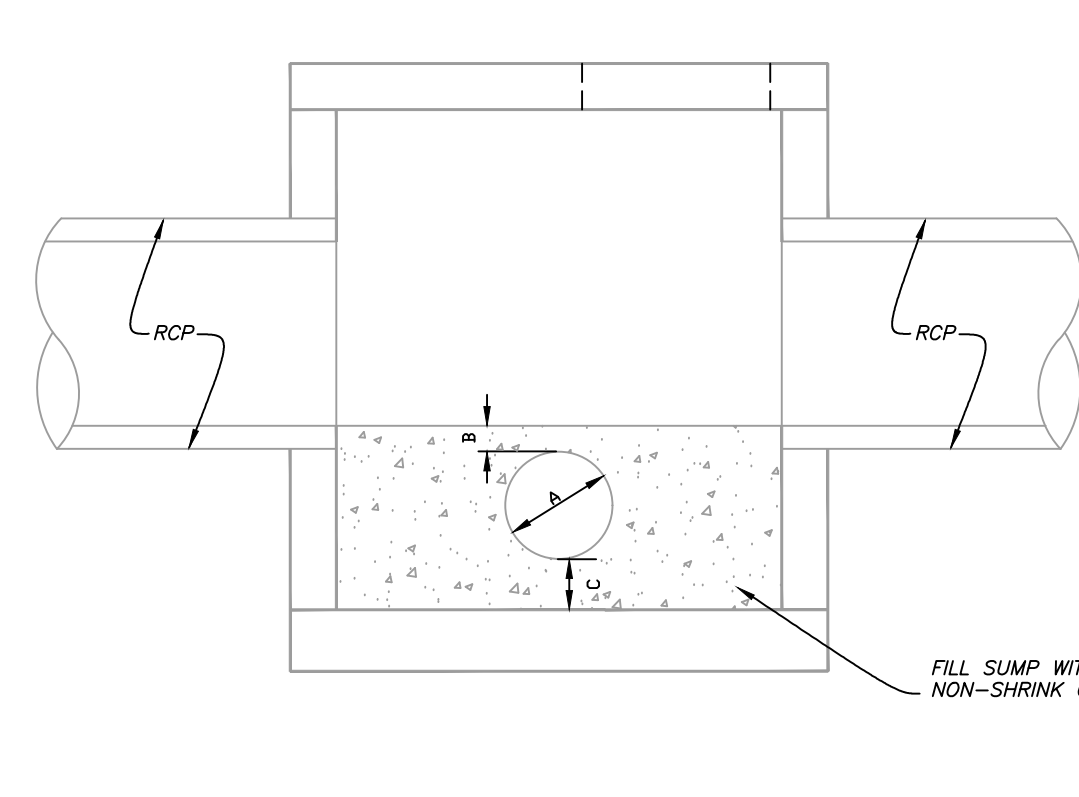
CONFLICT AT MID-POINT
Not To Scale



CONFLICT AT CROWN
Not To Scale



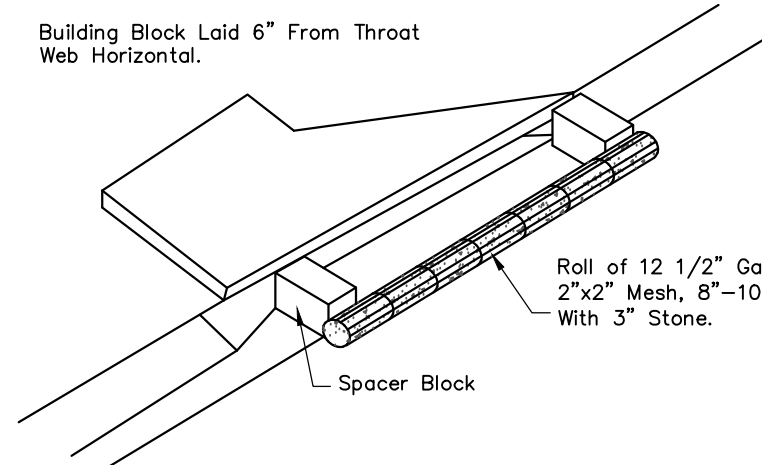
CONFLICT AT FLOWLINE
Not To Scale



CONFLICT BELOW FLOWLINE WITH INSUFFICIENT CLEARANCE
Not To Scale

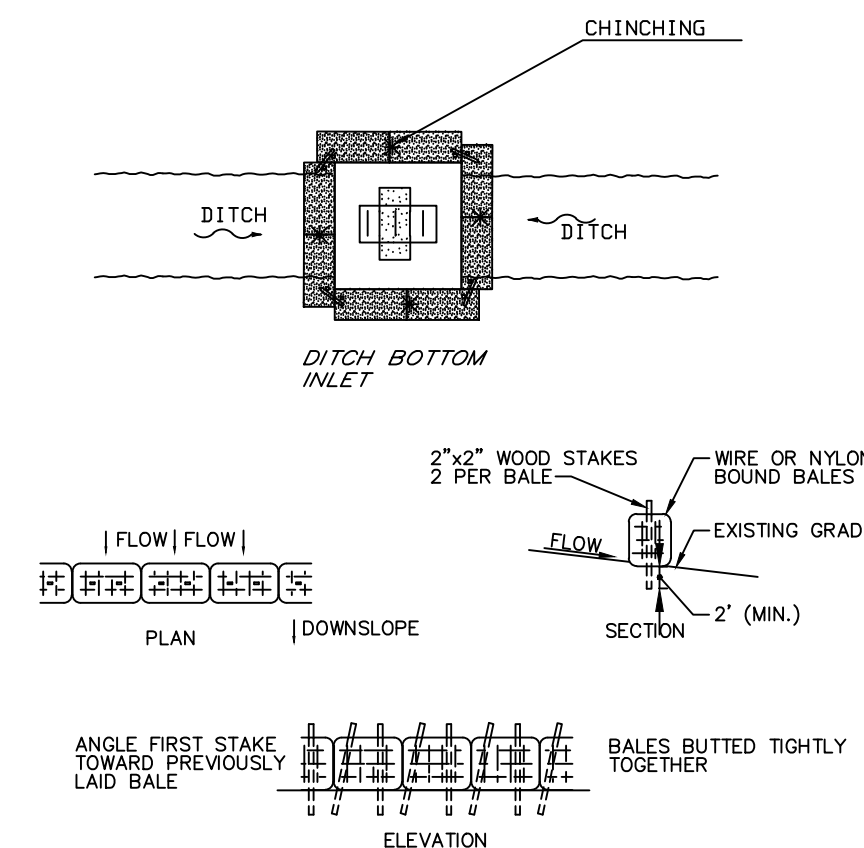
GUIDELINES FOR CONFLICT MANHOLES
SCALE: NTS

CONTRACTOR'S RESPONSIBILITY
Erosion and Sedimentation controls are performance based criteria. If the BMPs provided do not prevent soils from leaving a construction site, then the Contractor is required to employ additional procedures to provide clean runoff from a site.



- NOTES:**
1. Fibrous filler material in front of block prevents gravel from washing into structure.
 2. 2"x4" behind block and across throat helps keep block in place. Place in outer hole of spacer block.

CURB INLET PROTECTION
N.T.S.

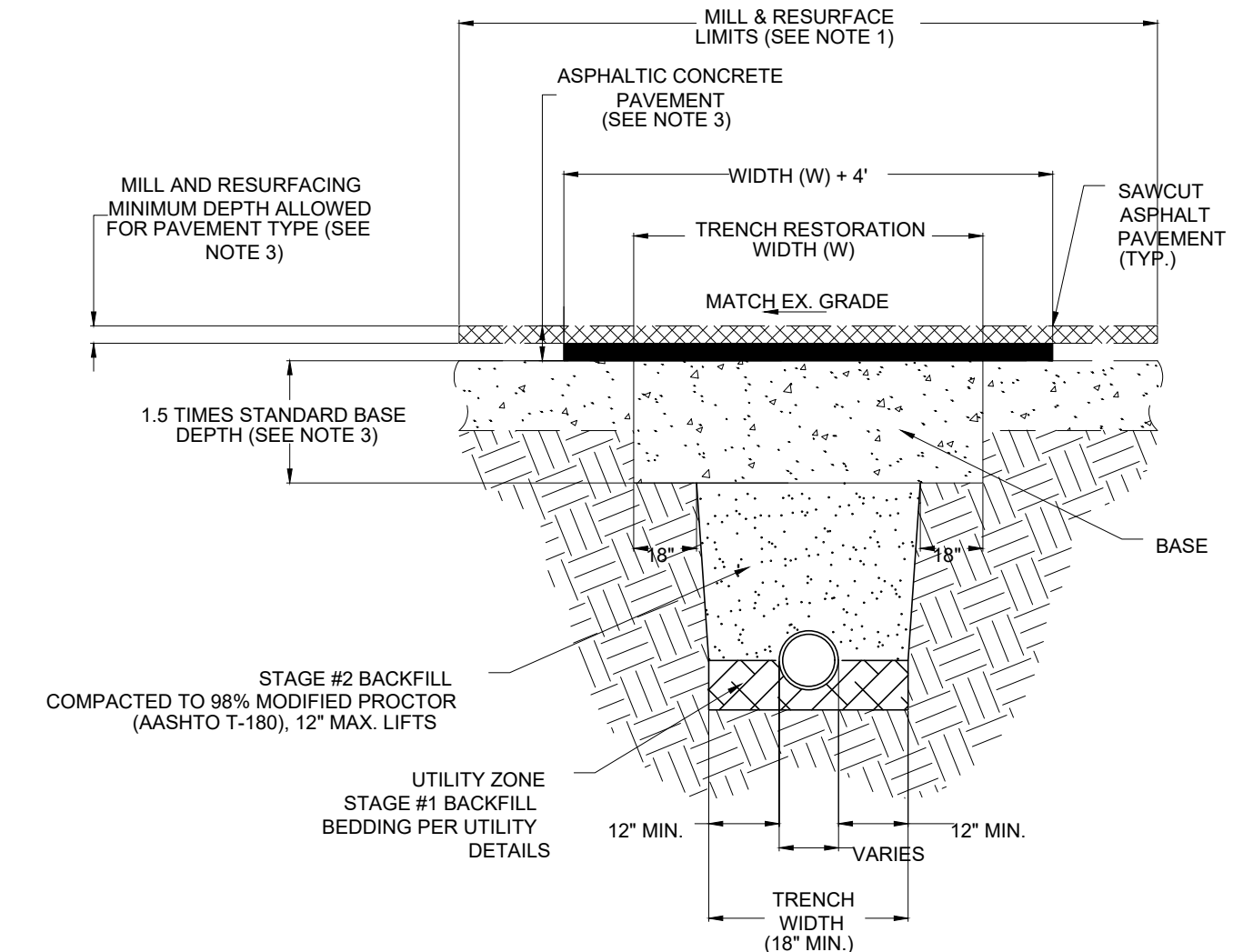


STRAW BALE INLET PROTECTION

Erosion Control Note:
The contractor to set silt screen, hay bales, and all other protection measures prior to the start of construction. All existing stormwater grate inlets within the project area are to be protected. After new inlets are installed, the contractor shall place erosion control on those also. As an alternate, place filter fabric under the grates. The contractor to inspect all erosion control measures on a daily basis and re-erect as required.

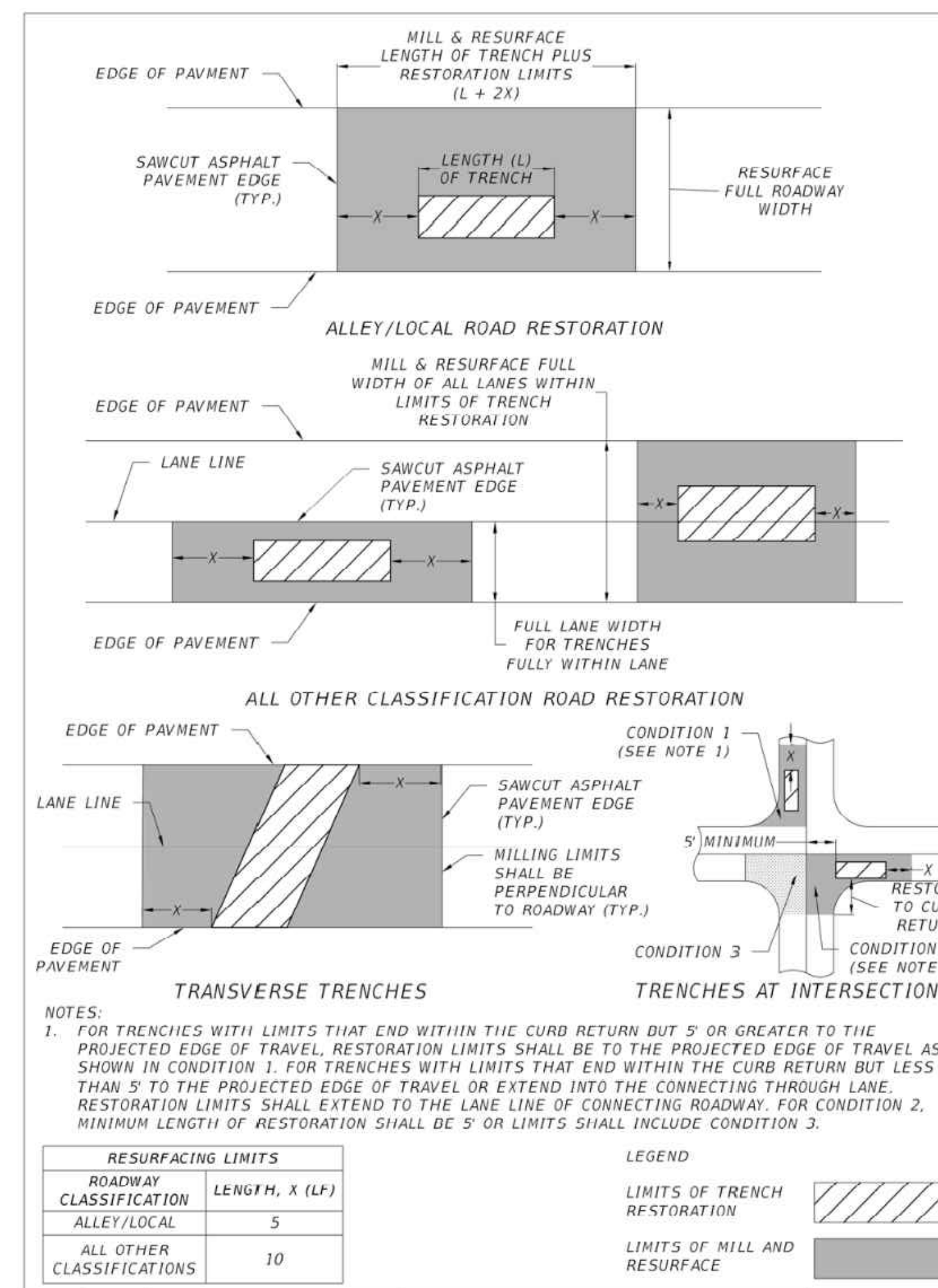
NOTES

1. Conflict manhole shop drawing shall be submitted to the Engineer for approval prior to fabrication or beginning of any work on the conflict manhole.
2. The structural design shall be consistent with FDOT Index 200 and as approved by the Engineer.
3. 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 Feroco 5000 series shielded couplings w/ SS band 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 pipe 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 Feroco 5000 series shielded couplings w/ SS band adapters.
4. Conflicting water mains shall be sleeved if a joint in the pipeline falls within the conflict structure.
5. Filter fabric shall meet FDOT Standard Specification 441-2.3.
A = Outside diameter of the conflicting utility line or sleeve.
D = 2'-0" or 1/2(A) whichever is greater.
6. Exterior Steel Coating Shall Receive:
1) shop coat - one coat, 4-6 mils (dry) tmemc n140-1211 epoxy primer.
2) field coat - 1st coat, 5-7 mils (dry) tmemc series 446 perma-shield mcu
3) field coat - 2nd coat, 5-7 mils (dry) tmemc series 446 perma-shield mcu



- NOTES:**
1. ALL WORK, MATERIALS, AND TESTING PER CITY OF TAMPA PAVEMENT AND RIGHT OF WAY RESTORATION REQUIREMENTS.
 2. SEE CITY OF TAMPA FLEXIBLE PAVEMENT RESTORATION LIMITS DETAIL (PVT-2) FOR REQUIRED LIMITS OF MILLING & RESURFACING, IF EXISTING ASPHALTIC CONCRETE PAVEMENT LAYER DEPTH EXCEEDS MINIMUM STANDARD, MATCH EXISTING ASPHALT THICKNESS.
 3. MATERIAL TYPE AND THICKNESS OF STANDARD ASPHALTIC CONCRETE PAVEMENT AND BASE PER CITY OF TAMPA PAVEMENT DESIGN STANDARDS. SEE PAVEMENT DESIGN DETAIL, PVT-1A FOR INTERIM STANDARDS.
 4. ANY ROADWAY RESTORATION OUTSIDE THE LIMITS OF TRENCH RESTORATION SHALL MEET THE MINIMUM MATERIAL AND THICKNESS REQUIREMENTS WITHIN THE CITY OF TAMPA PAVEMENT DESIGN STANDARDS. SEE PAVEMENT DESIGN DETAIL, PVT-1A FOR INTERIM STANDARDS.
 5. CONTRACTOR SHALL REVIEW ROADWAY LONGITUDINAL ROADWAY GRADES PRIOR TO PAVEMENT RESTORATION WORK TO ENSURE THAT ROADWAY MEETS MINIMUM SLOPE PER THE FLORIDA MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE (FLORIDA GREENBOOK).
 6. FOR BRICK PAVER SECTIONS, SEE CITY OF TAMPA MISCELLANEOUS RESTORATION DETAILS, PVT-3. FOR RIGID PAVEMENT, SEE FLORIDA DEPT. OF TRANSPORTATION (FDOT) STANDARD PLANS.

TRENCH RESTORATION
SCALE: NTS



NOTES:

1. FOR TRENCHES WITH LIMITS THAT END WITHIN THE CURB RETURN BUT 5' OR GREATER TO THE PROJECTED EDGE OF TRAVEL, RESTORATION LIMITS SHALL BE TO THE PROJECTED EDGE OF TRAVEL AS SHOWN IN CONDITION 1. FOR TRENCHES WITH LIMITS THAT END WITHIN THE CURB RETURN BUT LESS THAN 5' TO THE PROJECTED EDGE OF TRAVEL OR EXTEND INTO THE CONNECTING THROUGH LANE, RESTORATION LIMITS SHALL EXTEND TO THE LANE LINE OF CONNECTING ROADWAY. FOR CONDITION 2, MINIMUM LENGTH OF RESTORATION SHALL BE 5' OR LIMITS SHALL INCLUDE CONDITION 3.

RESURFACING LIMITS	
ROADWAY CLASSIFICATION	LENGTH, X (LF)
ALLEY/LOCAL	5
ALL OTHER CLASSIFICATIONS	10

LEGEND

LIMITS OF TRENCH RESTORATION (Hatched pattern)

LIMITS OF MILL AND RESURFACE (Solid grey)

FLEXIBLE PAVEMENT LIMITS
SCALE: NTS

PAVEMENT DESIGN MINIMUM STANDARDS

ROADWAY CLASSIFICATION	BASE MATERIAL	RIGID PAVEMENT	ASPHALTIC CONCRETE
ALLEY	6"	6"	1"
LOCAL	8"	6"	2"
NEIGHBORHOOD COLLECTOR	8"	6"	3"
COLLECTOR ARTERIAL	12"	8"	4"

* MINIMUM PAVEMENT SECTIONS CAN BE MODIFIED WITH AN APPROVED PAVEMENT DESIGN SUBMITTED TO THE CITY OF TAMPA MOBILITY DEPT., TRANSPORTATION ENGINEERING DIVISION.

PAVEMENT DESIGN

REVISIONS

BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

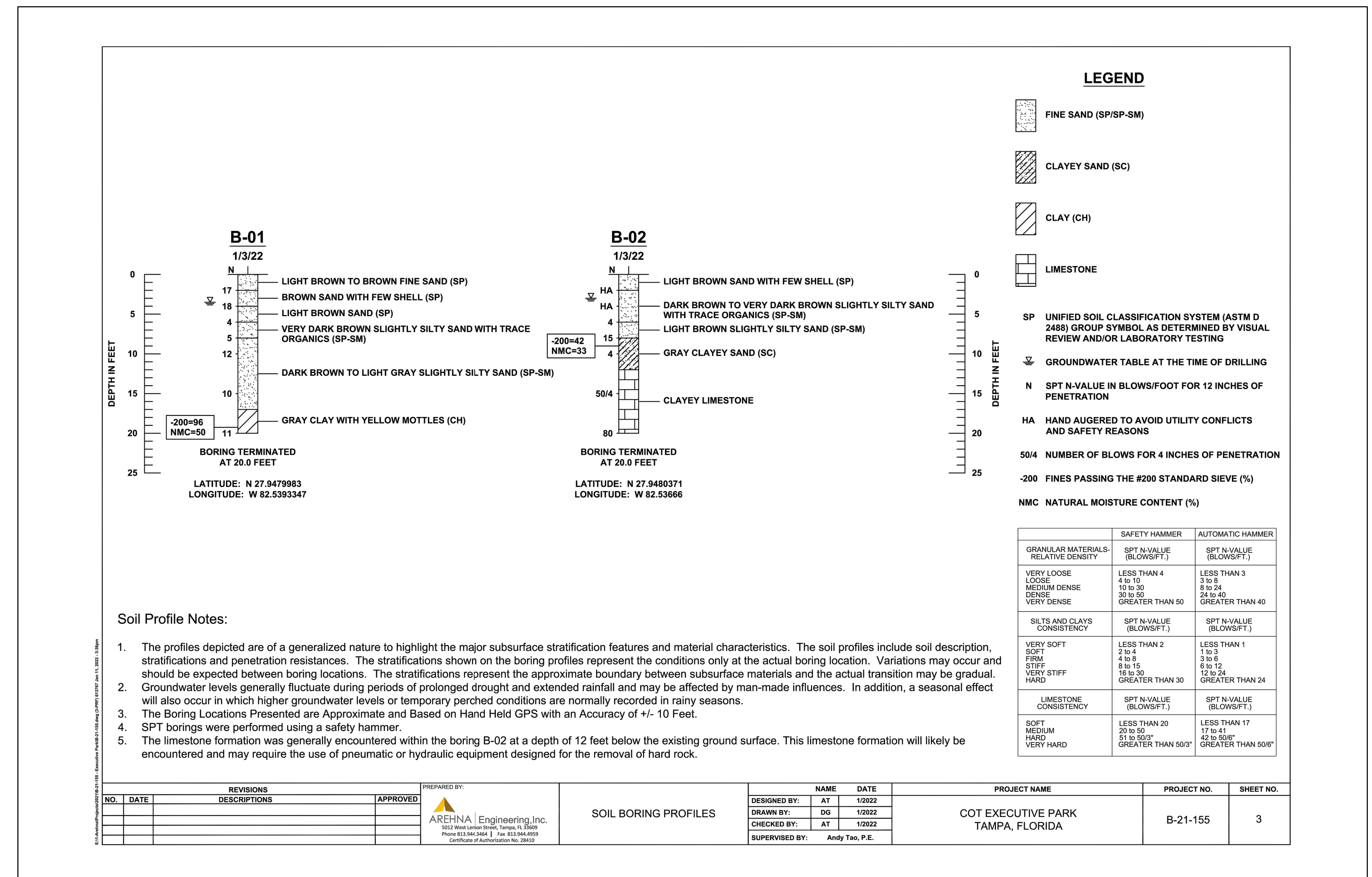
MILLS and ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
3242 HENDERSON BOULEVARD * SUITE 300
TAMPA, FLORIDA 33609-3056
TELEPHONE: (813) 876-5869

FOR
CITY OF TAMPA WASTE WATER DEPARTMENT

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LAWRENCE E. MILLS
P.E. NO. 22324 - E.B. NO. 3860
P.L.S. NO. 3141 - L.B. NO. 3868
STATE OF FLORIDA

PROJECT	SHEET
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT	C3.1
DETAILS & NOTES	JOB NO. 21-013.001



100% CONSTRUCTION DRAWINGS – 01/13/22

REVISIONS					
BY	DATE	DESCRIPTION	BY	DATE	DESCRIPTION

MILLS and ASSOCIATES, INC.
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TAMPA, FLORIDA 33609-3056
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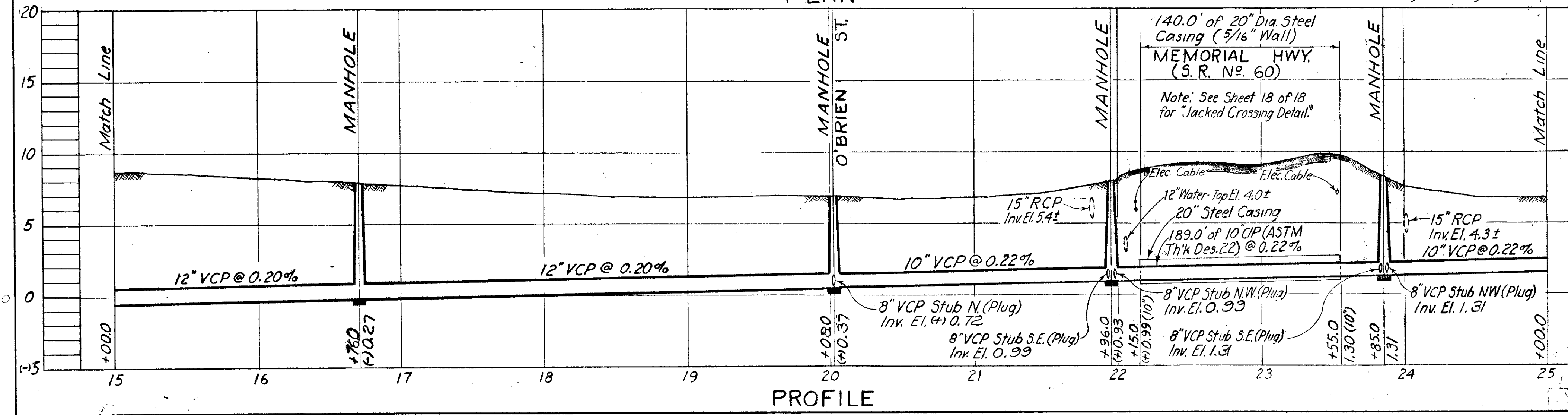
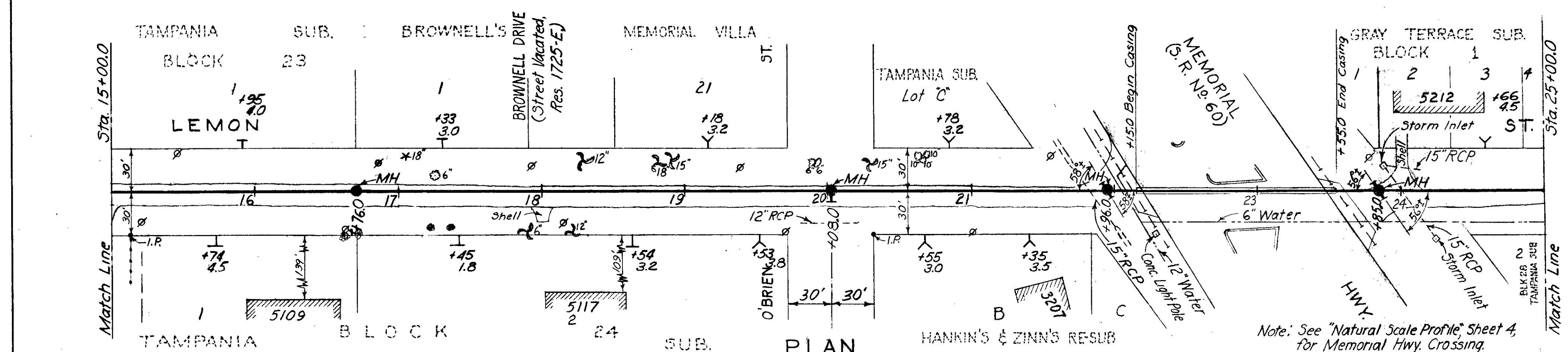
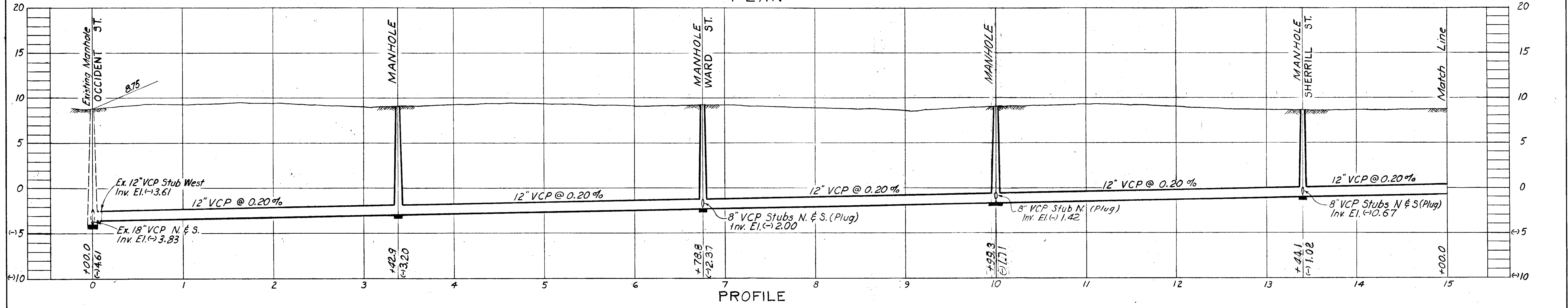
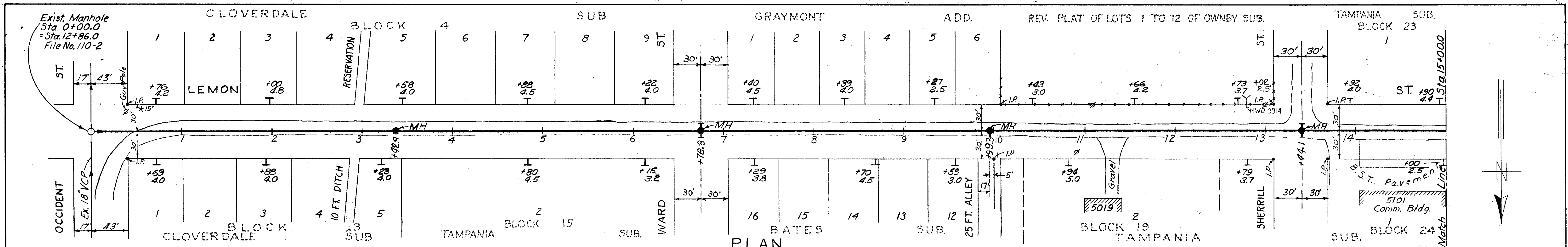
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PROJECT
EXECUTIVE PARK GRAVITY SEWER REPLACEMENT
DETAILS & NOTES

SHEET
C3.2
JOB NO.
21-013.001

—WR—NC— I
= 0 . - - J 0
STAT— 0-11A



- NOTES:
- B.M. A-1034 - Elev. 8.157 - RR Spike in 36" Oak tree @ N.E. corner of Lemon St. & Memorial Highway.
 - Min. depth of house connections for 5109 & 5117 Lemon St. = 4.0' at property line.

Handwritten: H.C. Built

M.H. STA. & INV. REVISED W.A. 9/82

Design W.O. 1898	
Proj. R-12	
CITY OF TAMPA, FLORIDA	
RENEWAL & REPLACEMENT	
SEWER IMPROVEMENTS	
LEMON ST: Occident St to Sta. 25+00.0	
DES: HMS	NOV. 1967
DRN: HMS	
CKD: CMT	
DATE:	
SEC. MAP No.	LINE No.
1 - 8	60
SCALE: 50' = 1" = 50'	
Drainage Subdistrict A3	
SHEET 3 OF 18	

16-9