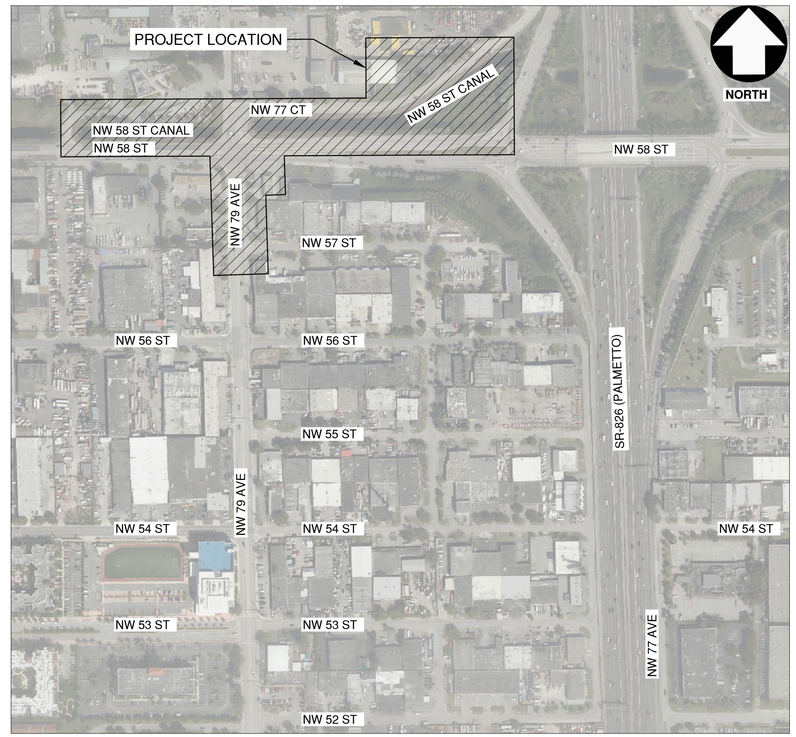
SHEET No: G-0.0

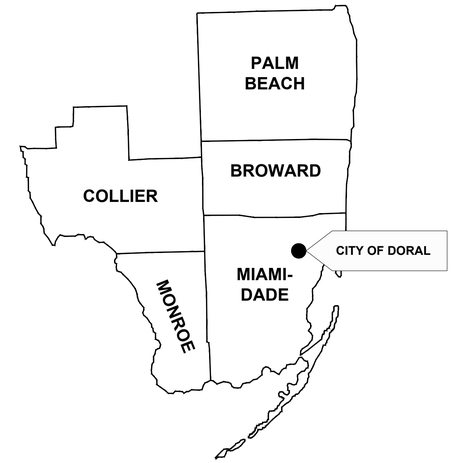
AUGUST 2021

SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826)

CITY OF DORAL PROJECT CLIII 2021-0017



PROJECT LOCATION MAP
1" = 250'



Vicinity Map
NTS

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

PERMIT SET
MUST BE ON JOB SITE AT ALL TIMES DURING CONSTRUCTION.

SAFETY
IS PARAMOUNT FOR ALL CONSTRUCTION ACTIVITIES. APPLICABLE JURISDICTIONAL SAFETY REQUIREMENTS MUST BE ADHERED TO ALWAYS.

NOTE
APPROVAL OF THESE PLANS DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION. A PERMIT FOR CONSTRUCTION MUST BE OBTAINED FROM JURIDICTIONAL AUTHORITIES.

NOTE
INSPECTIONS REQUIRED

24 HOURS PRIOR TO COMMENCING WORK IN PUBLIC RIGHT OF WAY CONTACT APPLICABLE RIGHT OF WAY JURISDICTION FOR INSPECTION.

NOTE
THESE PLANS HAVE BEEN PROVIDED WITH THE DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAILS AND SPECIFICATIONS. ALL CONSTRUCTION WILL BE PERFORMED ACCORDING TO THE SPECIFICATIONS.

GOVERNING STANDARDS FOR PLANS:
FLORIDA DEPARTMENT OF TRANSPORTATION, FY2020-21 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IRs)

STANDARD PLANS FOR ROAD CONSTRUCTION AND ASSOCIATED IRs ARE AVAILABLE AT THE FOLLOWING WEBSITE: https://www.fdot.gov/design/standardplans/default.shtm

APPLICABLE IRs: N/A

GOVERNING STANDARDS FOR SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, JANUARY 2021 FOR THE GOVERNING STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE: https://www.fdot.gov/programmanagement/implemented/specbooks/default.shtm

DORAL FLORIDA

CITY OF DORAL
DEPARTMENT OF PUBLIC WORKS
8401 NW 53 TERRACE, DORAL FL 33166

MAYOR AND CITY COUNCIL

JUAN CARLOS BERMUDEZ MAYOR
DIGNA CABRAL VICE MAYOR

PETE CABRERA COUNCILMAN
CLAUDIA MARIACA COUNCILWOMAN
OSCAR PUIG-CORVE COUNCILMAN

CITY STAFF

HERNAN M. ORGANVIDEZ CITY MANAGER
CARLOS ARROYO PUBLIC WORKS DIRECTOR

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
(305) 265-5400
CA # 7011

EAC PROJECT No.: 17077.WW01-06

PERMIT SET

REVISIONS:

NO.	DESCRIPTION	DATE	BY

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

ELIAS GUEVARA
January 28, 2022 4:09 PM
I:\Project\17 project\17077.ww01-06 city of doral\17077.ww01-06 - nw 58th st outfall\CAD_Phase 2\drawings\G-0.0 COVER.dwg
DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

HERMAN D. TIRADO
LICENSE
No 36910
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

EAC CONSULTING, INC.
5959 BLUE LAGOON DRIVE SUITE 410
MIAMI FL, 33126
CERTIFICATE OF AUTHORIZATION 7011
MICHAEL A. ADEIFE, P.E. NO. 56094

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

INDEX OF SHEETS

SHEET NUMBER	SHEET TITLE
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G-1.0	SUMMARY OF QUANTITIES
G-2.0	GENERAL NOTES
G-3.0	STORMWATER POLLUTION PREVENTION/EROSION CONTROL NOTES & DETAILS
SD-1.0	PROJECT LAYOUT PLAN
SD-2.1	DRAINAGE IMPROVEMENTS PLAN
SD-2.2	DRAINAGE IMPROVEMENTS PROFILES
SD-2.3	PAVEMENT RESTORATION PLAN
SD-3.1	CANAL BANK REPAIRS & RESTORATION PLAN (SHEET 1 OF 2)
SD-3.2	CANAL BANK REPAIRS & RESTORATION PLAN (SHEET 2 OF 2)
SD-4.1	CANAL CROSS SECTIONS (SHEET 1 OF 7)
SD-4.2	CANAL CROSS SECTIONS (SHEET 2 OF 7)
SD-4.3	CANAL CROSS SECTIONS (SHEET 3 OF 7)
SD-4.4	CANAL CROSS SECTIONS (SHEET 4 OF 7)
SD-4.5	CANAL CROSS SECTIONS (SHEET 5 OF 7)
SD-4.6	CANAL CROSS SECTIONS (SHEET 6 OF 7)
SD-4.7	CANAL CROSS SECTIONS (SHEET 7 OF 7)
SD-5.1	DRAINAGE CONSTRUCTION DETAILS (SHEET 1 OF 2)
SD-5.2	DRAINAGE CONSTRUCTION DETAILS (SHEET 2 OF 2)
SD-6.1	CANAL BANK REPAIR & RESTORATION DETAILS (SHEET 1 OF 2)
SD-6.2	CANAL BANK REPAIR & RESTORATION DETAILS (SHEET 1 OF 2)

DORAL FLORIDA
CITY OF DORAL
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8401 NW 53rd TERRACE
DORAL, FL 33166

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
SIGNATURE SHEET

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: G-1.0 PAY ITEMS.dwg
DATE: AUGUST 2021
SHEET NO.
G-0.1

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
January 28, 2022 4:12 PM
I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\G-1.0 PAY ITEMS.dwg

SUMMARY OF QUANTITIES

PAY ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
101-1	MOBILIZATION & DEMOBILIZATION	LS	1
102-1	MAINTENANCE OF TRAFFIC	LS	1
104-0	STORMWATER POLLUTION PREVENTION (SWPP)	LS	1
110-1-1	CLEARING AND GRUBBING	LS	1
110-4-10	REMOVAL OF EXISTING CONCRETE	SY	133
120-6	EMBANKMENT	CY	173
160-4	TYPE B STABILIZATION	SY	311
285-706	OPTIONAL BASE, BASE GROUP 6	SY	11
327-70-1	MILLING EXISTING ASPHALT PAVEMENT, 1" AVG DEPTH	SY	2070
337-7-82	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-9.5, PG 76-22	TN	133
334-1-53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	35
425-2-62	MANHOLES, P-8, >10'	EA	1
425-2-92	MANHOLES, J-8, >10' (TRAFFIC RATED GRATES)	EA	1
425-2-95	MANHOLES, J-8, >10', CONTROL STRUCTURE (TRAFFIC RATED GRATES)	EA	1
425-11	MODIFY EXISTING DRAINAGE STRUCTURE	EA	3
425-1369	INLETS, CURB, TYPE P-6, MODIFY	EA	1
430-174-118	PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 18"SD	LF	100
430-174-124	PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 24"SD	LF	170
430-174-148	PIPE CULVERT, OPT MATERIAL, ROUND, 48"SD	LF	90
430-548-100	STRAIGHT CONCRETE ENDWALLS, 48", SINGLE, 0 DEGREES, ROUND	AS	1
430-880	FLAP GATE - DRAINAGE (INLINE CHECK VALVE, 48")	EA	1
433-1	CHEMICAL GROUT REPAIR, MANHOLE / INLET	EA	4
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	140
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	92
530-3-3	RIPRAP - RUBBLE, BANK AND SHORE	TN	31
536-1-1	GUARDRAIL -ROADWAY, GENERAL TL-3	LF	500
536-7-3	SPECIAL GUARDRAIL POST - ENCASED POST FOR SHALLOW MOUNT	EA	85
536-73	GUARDRAIL REMOVAL	LF	500
550-10220	FENCING, TYPE B, 5.1-6.0', STANDARD	LF	550
570-1-2	PERFORMANCE TURF, SOD	SY	1500
102-3	PAVEMENT MARKING	LS	1
EAC-100	MIRAFI MIRAMESH GEOSYNTHETIC	LS	1
EAC-200	DIG AND REPLACE EXIST 36" FD, OPTIONAL MATERIAL, ROUND	LF	50
EAC-300	PIPELINE CCTV & ASSESSMENT, 8"-36 (SD/FD)	LF	500

PAY ITEM NOTES

1. EXCEPT OTHERWISE SPECIFIED, ALL BID AND PAY ITEM NUMBERS REFERENCED IN THESE CONTRACT PLANS ARE FURNISH AND INSTALLATION (CONSTRUCTION ITEMS).

2. ALL BID AND PAY ITEM NUMBERS REFERENCED IN THESE CONTRACT PLANS SHALL COMPLY FULLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) BASIS OF ESTIMATES MANUAL (2021 EDITION) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2021), EXCEPT MODIFIED BY PAY ITEM NOTES INCLUDED BELOW AND/OR BY OTHER CITY OF DORAL CONTRACTUAL DIRECTIVE(S).

3. PAY ITEM 102-1 MAINTENANCE OF TRAFFIC, INCLUDES ALL ITEMS REQUIRED TO SAFELY MAINTAIN TRAFFIC THROUGHOUT THE PROJECT WORK ZONE WITH MINIMAL INCONVENIENCE TO THE PUBLIC NOT COVERED BY ANY OF THE ITEMS LISTED ON THE TABULATION OF QUANTITIES. THIS ITEM INCLUDE THE COST OF MAINTAINING TRAFFIC DURING CONSTRUCTION AND OPENING THE ROAD FOR SAFE USE AT END OF THE WORKING DAY. THIS ITEM ALSO INCLUDES THE COST FOR DAILY LITTER COLLECTION AND REMOVAL. CONTRACTOR SHALL SEQUENCE ALL UNDERGROUND PIPING AND UTILITY WORK INCLUDING RESTORATION FIRST. CONTRACTOR SHALL ENSURE TO COORDINATE DEVELOPED MOT PHASING / CONSTRUCTION SEQUENCING PLANS WITH THE TOWN'S WATER & SEWER AND POLICE DEPARTMENTS, FOR APPROVAL PRIOR TO IMPLEMENTATION. ALL COSTS FOR IMPLEMENTING APPROVED MOT PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE INCLUDED IN THIS ITEM.

4. PAY ITEM 120-6 EMBANKMENT, INCLUDES REMOVAL OF 12" DEPTH OF EXISTING EARTH PRIOR TO PLACING NEW FILL COMPACTED IN 12" LAYERS.

5. PAY ITEM 104-0(AA) STORMWATER POLLUTION PREVENTION (SWPP), INCLUDES ALL ITEMS OR DEVICES REQUIRED TO PREVENT THE FLOW OR INTRUSION OF SEDIMENTS INTO EXISTING OR NEWLY CONSTRUCTED STORMWATER DRAINAGE INFRASTRUCTURE OR SYSTEMS OR EXISTING WATER BODIES AND CANALS.

6. PAY ITEM 334-1-53 SUPERPAVE ASPHALTIC CONCRETE INCLUDES FURNISHING AND INSTALLATION OF PAVEMENT STRUCTURAL COURSE MATERIAL AND INCLUDES ALL PRIME COAT AND TACK COAT INSTALLATION IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS.

7. PAY ITEM 430-174-118, 430-174-124, & 430-174-148 PIPE CULVERT OPTIONAL MATERIAL PAY ITEM INCLUDES THE COST FOR FURNISHING AND INSTALLING COST OF PIPE COLLAR AND/OR JACKET AS REQUIRED AND AS INDICATED IN THE PLANS.

8. PAY ITEM 430-880 FLAP GATE - DRAINAGE, IS USED FOR THE FURNISHING AND INSTALLATION OF A 48" TIDE FLEX INLINE CHECK VALVE OR APPROVED EQUAL.

11. PAY ITEM 530-3-3 RIPRAP - RUBBLE, BANK AND SHORE, INCLUDES THE COSTS FOR FURNISHING AND INSTALLATION OF BEDDING STONE AND COMPLETE INSTALLATION PER FDOT SPECIFICATION SECTIONS 530 AND 901. PAY ITEM ALSO INCLUDES INSTALLATION OF RIPRAP AND BEDDING STONE SEPARATED BY NON WOVEN GEOTEXTILE FABRIC COMPLYING WITH FDOT STANDARDS AND SPECIFICATION 985. GEOTEXTILE FABRIC SHALL ALSO UNDERLAY THE RIPRAP INSTALLED.

12. PAY ITEM 550-10220 FENCING, TYPE B, 5.1'-6.0', STANDARD, INCLUDES THE COST OF VERIFYING THE DIMENSIONS OF THE EXISTING FENCE PRIOR TO BIDDING THE PROJECT.

13. PAY ITEM 570-1-2 PERFORMANCE TURF, SOD, INCLUDES PAYMENT FOR TOP SOIL AND WATERING AS NECESSARY. PAY ITEM INCLUDES PAYMENT FOR RESTORATION OF ALL DISTURBED AREAS RESULTING FROM CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL MATCH EXISTING TYPE OF SOD.

14. PAY ITEM EAC-200, INCLUDES THE COST OF COMPLETE INSTALLATION OF PIPING, INCLUDING ALL PREPARATION, STAKING, MATERIALS AND COORDINATION WITH AGENCIES HAVING JURISDICTION.

15. PAY ITEM 520-1-10 CONCRETE CURB & GUTTER, TYPE F, INCLUDES FINISHING AND INSTALLING CURB PAD COMPRISING OF 8-INCH BASE AND 12-INCH STABILIZED SUBGRADE MATERIAL.

16. PAY ITEM 522-2 CONCRETE SIDEWALK AND DRIVEWAY, 6" THICK, INCLUDES FURNISHING AND INSTALLATION OF WIRE MESH AND 12-INCH STABILIZED SUBGRADE MATERIAL IN ACCORDANCE WITH JURISDICTIONAL STANDARDS.

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CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE: **SUMMARY OF QUANTITIES**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

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January 28, 2022 4:12 PM
I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\G-1.0 PAY ITEMS.dwg

ENGINEER'S GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION ASSOCIATED WITH THIS PROJECT MUST BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO THE CITY OF DORAL, MIAMI-DADE DEPARTMENT OF REGULATORY & ENVIRONMENTAL RESOURCES (RER), MIAMI-DADE TRANSPORTATION DEPARTMENT & PUBLIC WORKS (DTPW), THE FLORIDA ADMINISTRATIVE CODE (F.A.C.) 62-555 AND 62-610, THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) STANDARDS, CRITERIA AND REGULATIONS. ANY DISCREPANCIES MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY AND EOR.

2. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE ADEQUATE MEASURES TO ENSURE SAFETY WHEN WORKING WITHIN THE VICINITY AND/OR CROSSING OF BURIED GAS, OVERHEAD POWER, ELECTRICAL & TELEPHONE LINES. PROPER COORDINATION WITH JURISDICTIONAL AUTHORITIES SHALL BE UNDERTAKEN AS APPLICABLE.

3. THE MAINTENANCE OF TRAFFIC (MOT) PLANS OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH ALL PERMITTING AGENCIES AT NO EXPENSE TO THE CITY. THE CONTRACTOR SHALL PRODUCE HIS/HER OWN MOT PLANS AND OBTAIN A PERMIT APPROVAL BY THE CITY OF DORAL'S PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION PER SECTION 38-3 OF THE CITY OF DORAL MUNICODE. A COPY OF THE PERMIT SHALL BE PROVIDED TO THE POLICE DEPARTMENT, CODE COMPLIANCE DEPARTMENT AND THE CITY MANAGERS OFFICE. THE COST ASSOCIATED WITH THIS EFFORT SHALL BE REFLECTED IN THE BID. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE CITY FOR MOT COSTS ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. MOT PLANS SHALL INCLUDE BUT NOT LIMITED TO MESSAGE BOARDS TO INFORM DRIVERS OF CONSTRUCTION ON ROADWAYS, SCHOOL ZONES, MAINTAINING CROSSING ACCESS, ETC. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NOTIFYING ALL SCHOOLS, RESIDENTS AND BUSINESSES WITHIN THE VICINITY OF THE PROJECT ABOUT THE CONSTRUCTION SCHEDULE. LANE CLOSURES SHALL BE MONDAY TO SATURDAY FROM 7:30 AM TO 6:30 PM. ADDITIONALLY, ANY LANE CLOSURE AFFECTING COUNTY OR CITY PUBLIC TRANSPORTATION ROUTES SHALL BE COORDINATED BY THE CONTRACTOR 2-WEEKS IN ADVANCE WITH THE RESPECTIVE AGENCY. NIGHT WORK SHALL BE REQUIRED FOR THIS PROJECT.

4. DEWATERING SHALL BE REQUIRED FOR PROJECT. DEWATERING PLANS AND PERMITS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PRODUCE HIS/HER OWN DEWATERING PLANS AND MUST HAVE SAID PLANS APPROVED BY CITY OF DORAL AND MIAMI-DADE DEPARTMENT OF REGULATORY & ENVIRONMENTAL RESOURCES. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE CITY FOR DEWATERING COST ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. PERMIT WILL BE REQUIRED PRIOR TO OPERATION. COSTS FOR DEWATERING SHALL BE INCLUDED IN APPLICABLE BID ITEM SUBMITTED BY THE CONTRACTOR.

5. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND/OR APPROVALS WITH THE STATE, COUNTY AND CITY PRIOR TO START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO AN NPDES NOI PERMIT AND ANY OTHER PERMIT ASSOCIATED WITH CONSTRUCTING THIS PROJECT.

6. GEOTECHNICAL EXPLORATIONS WERE UNDERTAKEN FOR THIS PROJECT SITE BY INTERTEK PSI AND REPORT, DATED SEPTEMBER 25/ 2020, WAS PREPARED/COMPILED WITH TEST RESULTS AND RECOMMENDATIONS FOR CONSTRUCTION. THE GEOTECHNICAL REPORT IS INCLUDED AS PART OF THE PROJECT'S SPECIFICATIONS.

7. THE TOPOGRAPHY SURVEY WAS PREPARED BY RAUL IZQUIERDO OF HADONNE CORPORATION LAND SURVEYORS (LIC #6099) DATED JULY 28, 2020. THE TOPOGRAPHY SURVEY IS INCLUDED AS PART OF THE PROJECT SPECIFICATIONS.

8. ALL ELEVATIONS ON THE PLAN AND PROFILE SHEETS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29). BENCHMARK USED ARE THOSE IDENTIFIED ON THE TOPOGRAPHIC BOUNDARY SURVEY.

9. FIELD VERIFICATION OF ALL UTILITIES SHOWN ON PLANS AND PROFILE VIEW SHALL BE REQUIRED. CONSTRUCTION OF PROPOSED WORK SHALL NOT PROCEED WITHOUT VERIFICATION PROCESS COMPLETED, THE LOCATIONS OF EXISTING UTILITIES CONFIRMED AS SHOWN OR PLANS, OR CORRECTED BY ENGINEER/E.O.R AFTER CONTRACTOR PROVIDES A REPORT OF THE FINDINGS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING ITSELF WITH THE CURRENT SITE CONDITIONS AND CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY AND EOR OF ANY DISCREPANCIES.

11. CONTRACTOR SHALL DETERMINE THE TOPOGRAPHIC AND/OR UNDERGROUND FEATURES THAT WILL BE IMPACTED DUE TO ITS PROPOSED METHOD OF CONSTRUCTION. THE CONTRACTOR MUST INCLUDE IN ITS BID PRICE, THE COST OF RELOCATING OR REPLACING IN KIND ANY FEATURES THAT WILL BE IMPACTED DUE TO ITS PROPOSED METHOD OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO EXISTING TREES, UTILITY BOXES, SIGNS, FIRE HYDRANTS, GUARDRAILS, UTILITY POLES, VALVES, ETC. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED BY THE CITY IN THE EVENT THE CONTRACTOR NEGLECTS TO ACCOUNT FOR THIS WORK IN ITS BID PRICE.

12. THE CONTRACTOR SHALL ADHERE TO CITY OF DORAL NOISE ORDINANCE 06-23. CONSTRUCTION SHALL ONLY BE PERMITTED BETWEEN THE HOURS OF 8:00 AM TO 6:00 PM ON WEEKDAYS AND BETWEEN 10:00 AM TO 4:00 PM ON SATURDAYS. NO CONSTRUCTION WORK SHALL BE PERMITTED ON SUNDAYS OR ON NATIONAL HOLIDAYS.

13. IN THE EVENT CONTAMINATED MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY ADVISE THE CITY, EOR AND THE MIAMI-DADE DEPARTMENT OF REGULATORY & ENVIRONMENTAL RESOURCES MANAGEMENT.

14. CONTRACTOR SHALL COORDINATE WITH THE CITY PRIOR TO SHUTTING DOWN ANY EXISTING SERVICE/S. FULL COMPLIANCE WITH FAC RULE 62-555.350 (10) d. IS MANDATORY.

15. THE CONTRACTOR SHALL INFORM THE CITY AND EOR AT LEAST 48 HOURS PRIOR TO START CONSTRUCTION.

16. THE CONTRACTOR MUST COMPLY WITH ALL HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS AS STATED IN THE FLORIDA ADMINISTRATIVE CODE (F.A.C.) RULE 62-555.314.

17. CONTRACTOR IS FULLY RESPONSIBLE TO RESTORE ALL EXISTING TRAFFIC LOOPS AND ALL OTHER EXISTING TRAFFIC RELATED INFRASTRUCTURE DAMAGED DURING THE INSTALLATION OF THE PROPOSED UTILITIES. THE CONTRACTOR MUST COORDINATE WITH MIAMI-DADE TRANSPORTATION AND PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE ALTERNATIVE MEANS FOR SIGNAL CONTROL WHEN EXISTING LOOPS ARE DISABLED. COSTS ASSOCIATED WITH THIS EFFORT SHALL BE ASSUMED INCLUDED IN COSTS OF APPLICABLE BID ITEM. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED BY CITY.

18. THE CONTRACTOR SHALL INCLUDE AS PART OF ITS BID THE COST OF RESTORING A FULL LANE OR LANES OF ROADWAY, DRIVEWAYS OR OTHER PAVED AREAS THAT ARE AFFECTED BY CONSTRUCTION. THIS SHOULD INCLUDE ALL TRENCH RESTORATION, TEMPORARY PAVEMENT, RESURFACING, TREE ROOT PRUNING, INSTALLATION OF ROOT BARRIERS, AND INCIDENTAL ROADWAY RESTORATION AS WELL AS TEMPORARY AND PERMANENT STRIPING TO ENSURE THAT THE ROADWAY IS FULLY RESTORED TO EQUAL OR BETTER CONDITION.

19. THE CONTRACTOR SHALL TEMPORARILY AND PERMANENTLY RESTORE ALL PAVEMENT MARKINGS WITH NEW STRIPING IN THEIR PRE-CONSTRUCTION LOCATIONS UNLESS OTHERWISE SHOWN ON PLANS. THE CONTRACTOR SHALL SURVEY THE LOCATIONS, DIMENSIONS, COLOR, AND OTHER RELEVANT CHARACTERISTICS OF THE EXISTING PAVEMENT STRIPING PRIOR TO EXCAVATION. FINAL PERMANENT PAVEMENT STRIPING SHALL BE THERMOPLASTIC IN ACCORDANCE WITH FDOT STANDARDS. ALL CONSTRUCTION WORK EFFORT ASSOCIATED WITH THIS ITEM MUST BE INCLUDED IN THE BID PRICE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO INCLUDE THIS COST IN ITS BID PRICE, THEN THE CONTRACTOR SHALL COMPLETE THE RE-STRIPING WORK AT ITS OWN EXPENSE.

20. IN THE EVENT THAT THERE IS ANY EXISTING STRIPING THAT DOES NOT CONFORM TO THE CURRENT CODES OR STANDARDS, THE CONTRACTOR SHALL NOTIFY THE EOR, AND THE CITY IN THIS REGARD PRIOR TO RE-STRIPING.

21. ALL DRIVEWAYS SHALL BE PROTECTED FROM DAMAGE. IF DAMAGED BY CONTRACTOR MEANS AND METHOD, SHALL BE RESTORED AT NO COST TO THE CITY TO PRE-CONSTRUCTION CONDITIONS OR BETTER.

22. CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL AT 811 IN ADVANCE OF CONSTRUCTION TO VERIFY LOCATION OF UTILITIES. REPRESENTATIVE FROM CONTRACTOR SHALL BE PRESENT & CONTRACTOR SHALL ENSURE THAT ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY SHALL BE RESOLVED WITHIN 48 HOURS BY THE CONTRACTOR AT NO COST TO THE CITY OR OWNER.

23. ANY DAMAGE TO PROPERTY OR MONUMENTS IS SHALL BE REPAIRED, RESTORED OR REPLACED AT NO COST TO THE CITY, TO THE SATISFACTION OF THE CITY, OWNER OR JURISDICTION.

24. CONTRACTOR SHALL PROVIDE A 72 HOUR NOTICE TO ALL BUSINESSES PRIOR TO THE BEGINNING OF CONSTRUCTION.

STORMWATER DRAINAGE CONSTRUCTION NOTES

1. CONTRACTOR SHALL ENSURE THAT ALL BMPS ARE PROPERLY IMPLEMENTED AND MAINTAINED THROUGHOUT CONSTRUCTION.

2. ALL PROPOSED DRAINAGE STRUCTURES COVERS, GRATES AND INLETS SHALL BE TRAFFIC RATED.

3. ALL PROPOSED DRAINAGE STRUCTURE LOCATION LABELS (NORTHING AND EASTING & STATION/OFFSET) ARE REFERENCED TO THE CENTER OF THE STRUCTURE RIM, GRATE OR COVER.

4. THE CONTRACTOR SHALL VERIFY THE PIPE SIZES AND THE DIMENSIONS OF ALL PROPOSED AND EXISTING DRAINAGE STRUCTURES. NO ADDITIONAL COMPENSATION SHALL BE GRANTED TO THE CONTRACTOR DUE TO A DECREASE OR INCREASE IN PIPE SIZE OR A DECREASE OR INCREASE IN DRAINAGE STRUCTURE DIMENSIONS OR SHAPE.

5. THE CONTRACTOR SHALL INCLUDE IN ITS BID THE COST ASSOCIATED WITH TESTING OF CONSTRUCTION MATERIALS OR CONSTRUCTED/INSTALLED WORK. NO ADDITIONAL COMPENSATION SHALL BE PAID BY THE CITY FOR TESTING OF PROPOSED CONSTRUCTION.

6. ALL SOLID DRAINAGE PIPES SHALL BE LAMP TESTED. THE TEST SHALL BE PERFORMED AT HIGH TIDE OR WHEN THE WATER TABLE IS AT A MINIMUM OF 2 FEET ABOVE THE SECTION OF PIPE TO BE TESTED.

7. MANHOLE EXFILTRATION LEAKAGE SHALL NOT EXCEED 4 GALLONS PER DAY PER MANHOLE.

8. ALL TEST RESULTS SHALL BE CERTIFIED BY THE CONTRACTOR AND SUBMITTED TO CITY AND EOR FOR REVIEW AND APPROVAL.

9. FOR ANY TEST FOR WHICH THE PRESENCE OF THE EOR IS REQUIRED OR REQUESTED, THE CONTRACTOR SHALL FORMALLY REQUEST THE PRESENCE OF THE EOR AT LEAST 48-HOURS PRIOR TO THE EOR FIELD VISIT.

10. ALL, PROPOSED AND EXISTING, DRAINAGE STRUCTURES AND PIPES WITHIN THE PROJECT LIMITS SHALL BE CLEANED PRIOR TO FINAL WALK-THROUGH AT NO EXPENSE TO THE CITY. THE CONTRACTOR SHALL PROVIDE A CERTIFIED ELECTRONIC VIDEO RECORDING OF THE DRAINAGE STRUCTURES AND PIPES AFTER CLEANING.

ENGINEER'S PRE-TRENCHING AND TRENCHING NOTES

1. UTILITIES SHOWN ON THESE PLANS SHEETS ARE APPROXIMATE & ADDITIONAL UTILITIES MAY EXIST IN THE FIELD THAT IS NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL INCLUDE AS PART OF ITS BID, AN ITEM FOR PRE-TRENCHING TO ENSURE THAT NO PORTION OF THE PROPOSED WORK CONFLICTS WITH ANY UTILITIES PRIOR TO CONSTRUCTION. IF POTENTIAL CONFLICTS ARE FOUND, THEN THE CONTRACTOR SHALL PROVIDE THE OWNER, ENGINEER & UTILITY OWNER AT LEAST SEVEN (7) DAYS ADVANCED NOTICE PRIOR TO CONSTRUCTION. THIS NOTIFICATION SHALL INCLUDE SURVEY INFORMATION ABOUT THE CONFLICTING UTILITY'S HORIZONTAL & VERTICAL ALIGNMENT. FAILURE ON THE CONTRACTOR'S PART TO PRE-TRENCH PRIOR TO CONSTRUCTION IS AT ITS OWN RISK & BY SO DOING RELIEVES THE OWNER & THE ENGINEER OF ANY & ALL LIABILITIES & COSTS ASSOCIATED WITH RESOLVING UTILITY CONFLICTS. IN ADDITION, NO ADDITIONAL COMPENSATION SHALL BE GRANTED FOR ANY COSTS INCURRED AS A RESULT OF FAILURE ON THE CONTRACTOR'S PART TO PRE-TRENCH.

2. EXTREME CAUTION SHALL BE USED DURING ANY EXCAVATION. ALL EXCAVATIONS SHALL BE SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED AS INDICATED IN THE GEOTECHNICAL REPORT'S RECOMMENDATIONS.

3. CONTRACTOR SHALL UTILIZE SUBSURFACE UTILITY ENGINEERING METHODS & CORING TO DISCLOSE THE PRESENCE OF ROCK, UTILITIES & OTHER SUBSURFACE ELEMENTS NOT INDICATED ON TOPOGRAPHY SURVEY.

4. CONTRACTOR SHALL ENGAGE IN CONSULTATIONS AND COORDINATE WITH IDENTIFIED UTILITY OWNERS.

5. PRE-TRENCHING DIRECTIONS TO CONTRACTOR:
   - A. CONTRACTOR SHALL UTILIZE A SUPPORT SYSTEM STURDY ENOUGH TO WITHSTAND THE PRESSURE OF THE SOIL.
   - B. CONTRACTOR SHALL UTILIZE A SUPPORT SYSTEM STURDY ENOUGH TO WITHSTAND THE STRESS WHICH MAY BE EXERTED BY WATER, VIBRATION, OR HEAVY LOADS.
   - C. CONTRACTOR SHALL PROPERLY SUPPORT ANY UNDERGROUND INSTALLATIONS THAT ARE UNCOVERED.
   - D. CONFORM TO FLORIDA'S TRENCH SAFETY ACT & OSHA REQUIREMENTS.

6. BEFORE TRENCHING OR EXCAVATION, CONTRACTOR SHALL CHECK THE FOLLOWING:
   - A. SOIL CONDITIONS OR OTHER MATERIAL TO BE DUE.
   - B. PROXIMITY TO UTILITIES, BUILDINGS & SOURCES OF VIBRATIONS.
   - C. OWNERS OF UTILITIES, SERVICE, OR TRANSMISSION PIPING, ETC. & ARRANGE FOR SHUTDOWN OR RELOCATION OF FACILITIES, IF NECESSARY.
   - D. FOR PREVIOUSLY DISTRIBUTED GROUND.
   - E. FOR TREES, BOULDERS, OR OTHER HAZARDS.
   - F. ADEQUACY & AVAILABILITY OF ALL EQUIPMENT, INCLUDING PERSONAL PROTECTIVE GEAR, SHORING MATERIALS, SIGNS, BARRICADES & MACHINERY.

7. DURING TRENCHING OR EXCAVATION, CONTRACTOR SHALL REGULARLY CHECK FOR THE FOLLOWING:
   - A. CHANGING GROUND CONDITIONS, PARTICULARLY AFTER RAINFALL.
   - B. POSSIBLE OXYGEN DEFICIENCY OR GASEOUS CONDITIONS.
   - C. ADEQUACY OF SHORING AND/OR SLOPING AS WORK PROGRESSES.
   - D. MAINTENANCE OF ENTRANCE & EXIT FACILITIES.
   - E. ALL SHEETING, BRACING, SHORING & UNDERPINNING.
   - F. CHANGES IN VEHICULAR & MACHINERY OPERATIONAL PATTERNS

8. AFTER TRENCHING OR EXCAVATION, THE CONTRACTOR SHALL CHECK:
   - A. DEPTH OF TRENCHING OR EXCAVATION, ITS SLOPING & SHORING.
   - B. SLOPING OF BANKS, SIDES & WALLS IN RELATION TO DEPTH OF CUT, WATER CONTENT OF SOIL, VIBRATIONS.
   - C. ENTRANCE & EXIT FACILITIES.
   - D. LOCATION OF HEAVY EQUIPMENT - POWER SHOVELS, DERRICK, TRUCKS.
   - E. EXCAVATION MATERIAL IS TWO FEET OR MORE FROM EDGE OF OPENING.
   - F. PORTABLE TRENCH BOXES OR TRENCH SHIELDS ARE ADEQUATE, IF USED.
   - G. CROSS BRACES OR TRENCH JACKS ARE CORRECTLY POSITIONED TO PREVENT SLIDING, FALLING OR KICKOUTS.

9. PRE-TRENCHING REQUIREMENTS CHECKLIST:
   - A. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL UNDERTAKE EFFORTS TO DETERMINE UNDERGROUND INSTALLATIONS SUCH AS SEWER, TELEPHONE, WATER, GAS, ELECTRIC LINES, ETC. ARE PRESENT & WHERE THEY ARE ACTUALLY LOCATED.
   - B. THE WALLS & FACES OF ALL EXCAVATIONS IN WHICH EMPLOYEES ARE EXPOSED TO DANGER FROM MOVING GROUND SHALL BE GUARDED BY A SHORING SYSTEM, SLOPING OF THE GROUND OR SOME OTHER EQUIVALENT MEANS.
   - C. THE DETERMINATION OF THE ANGLE OF REPOSE & DESIGN OF THE SUPPORTING SYSTEM SHALL BE BASED ON CAREFUL EVALUATION OF PERTINENT FACTORS SUCH AS: DEPTH OF CUT, POSSIBLE VARIATION IN THE WATER CONTENT OF THE MATERIALS FROM EXPOSURE TO AIR, SUN AND/OR WATER.
   - D. ALL SLOPES SHALL BE EXCAVATED TO AT LEAST THE ANGLE OF REPOSE EXCEPT IN AREAS WHERE SOLID ROCK ALLOWS FOR LINE DRILLING OR PRE SPLITTING.
   - E. IN EXCAVATIONS WHICH EMPLOYEES MAY BE REQUIRED TO ENTER, EXCAVATED OR OTHER MATERIALS SHALL BE EFFECTIVELY STORED & RETAINED AT LEAST 2 FT OR MORE FROM THE EDGE OF THE EXCAVATION.

AS-BUILT DRAWING REQUIREMENTS

1. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS WITH CURRENT FIELD CHANGES ACCURATELY MARKED AND UPDATED AS CONSTRUCTION PROGRESSES. A COPY OF THE MARKED UP SET OF PLANS SHALL BE DELIVERED ELECTRONICALLY (PDF) VIA E-MAIL TO THE E.O.R. AND THE CITY'S REPRESENTATIVE AT THE END OF EACH WEEK.

2. THE CONTRACTOR SHALL PREPARE AN AS-BUILT PROGRESS SET OF DRAWINGS (RED-LINE AS-BUILT DRAWINGS). THE AS-BUILT PROGRESS SET SHALL ACCURATELY DEPICT THE COMPLETED WORK AND SHALL BE CONSISTENT WITH THE CONTRACTOR'S MONTHLY INVOICE AND INVOICED QUANTITIES. THE CONTRACTOR SHALL SUBMIT (1) PAPER COPY, ONE (1) ELECTRONIC COPY (PDF) AND ONE (1) CAD COPY (AUTOCAD 2018 FORMAT) OF THE AS-BUILT PROGRESS SET WITH EACH PAY APPLICATION.

3. THE CONTRACTOR SHALL PREPARE AN AS-BUILT FINAL SET OF DRAWINGS CERTIFIED BY A REGISTERED LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA. THREE (3) SIGNED AND SEALED ORIGINAL COPIES, ONE (1) ELECTRONIC COPY (PDF) AND ONE (1) CAD COPY (AUTOCAD 2018 FORMAT) OF THE FINAL SET OF AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE E.O.R. AND THE CITY'S REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO THE FINAL WALKTHROUGH AND RELEASE OF RETAINAGE.

4. THE AS-BUILT PROGRESS SET AND FINAL SET OF DRAWINGS SHALL, AT A MINIMUM DEPICT THE FOLLOWING INFORMATION:

   FOR ALL PROJECTS: IDENTIFY AND LOCATE THE VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION.

a.	UTILITY CROSSINGS:	TYPE, LOCATION, MATERIAL, ELEVATION OF EXISTING UTILITY TYPE, LOCATION, MATERIAL, ELEVATION OF PROPOSED UTILITY GROUND ELEVATION
b.	UTILITY CLEARANCE:	PROVIDE THE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE PROPOSED UTILITY AND ALL EXISTING UTILITIES WITHIN EACH 100-FT
c.	ALL PIPES:	LOCATION, MATERIAL, PIPE ELEVATION, GROUND ELEVATION AT AT EACH 100-FT
d.	VALVES (ALL), FIRE HYDRANTS, METERS FITTINGS, SERVICE LINES, TIE-INS, CAPS:	LOCATION, MATERIAL, ELEVATION, AND GROUND ELEVATION
e.	MANHOLES (ALL), DRAINAGE STRUCTURES	LOCATION, ELEVATION, BOTTOM ELEVATION, PIPE INVERT ELEVATION, MATERIAL AND DIRECTION, AND GROUND ELEVATION

APPLICABLE AGENCIES, CODES AND STANDARD SPECIFICATIONS

1. CITY OF DORAL CODE OF ORDINANCES
2. CITY OF DORAL DEPARTMENT OF PUBLIC WORKS
3. MIAMI-DADE COUNTY HEALTH DEPARTMENT
4. MIAMI-DADE COUNTY TRANSPORTATION & PUBLIC WORKS
5. MAIMI-DADE COUNTY REGULATORY & ENVIRONMENTAL RESOURCES DEPARTMENT (RER)
6. FLORIDA BUILDING CODE
7. FLORIDA ADMINISTRATIVE CODE (FAC)
8. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT))
9. FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
10. MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
11. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
12. AMERICANS WITH DISABILITIES ACT AND ACCESSIBILITY GUIDELINES (ADA).

ABBREVIATIONS

ABD	ABANDONED	LP	LIGHT POLE
AC	ASBESTOS CEMENT	LT	LEFT
ADA	AMERICAN WITH DISABILITIES ACT	MAX	MAXIMUM
ADJ	ADJUST	MHW	MEAN HIGH WATER
APPROX	APPROXIMATELY	MIN	MINIMUM
ASPH	ASPHALT	MISC	MISCELLANEOUS
AVE	AVENUE	MOT	MAINTENANCE OF TRAFFIC
BE	BURIED ELECTRIC	MPH	MILES PER HOUR
℄	BASE LINE	MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
BLDG	BUILDING	N	NORTH
BLVD	BOULEVARD	NAVD	NATIONAL AMERICAN VERTICAL DATUM
BM	BENCH MARK	NGVD	NATIONAL GEODETIC VERTICAL DATUM
BOS	BACK OF SIDEWALK	NO	NUMBER
BOT	BOTTOM	NTS	NOT TO SCALE
BT	BURIED TELEPHONE	OC	ON CENTER
C&G	CURB & GUTTER	OFF	OFFSET
C.L.F.	CHAIN LINK FENCE	OT	OVERHEAD TELEPHONE
CB	CATCH BASIN	OU	OVERHEAD UTILITY
CF	CUBIC FOOT	PE	PROFESSIONAL ENGINEER
CFS	CUBIT FEET PER SECOND	℘	PROPERTY LINE
CI	CAST IRON	PLA	PLASTIC
CIP	CAST IRON PIPE	PP	POWER POLE
℄	CENTER LINE	PRB	POLLUTION RETARDANT BAFFLE
CL	CLAY	PROP	PROPOSED
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CO	CLEAN OUT	PVMT	PAVEMENT
C/O	CARE OF	R	RADIUS
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
CONST	CONSTRUCTION	RD	ROAD
CY	CUBIC YARD	REF	REFERENCE
DBL	DOUBLE	REQ	REQUIRE
DEPT	DEPARTMENT	REST	RESTORATION
DI	DUCTILE IRON	ROW, R/W	RIGHT OF WAY
DIA	DIAMETER	RPM	RAISED REFLECTIVE PAVEMENT MARKER
DIP	DUCTILE IRON PIPE	RT	RIGHT
DRWY	DRIVEWAY	S	SOUTH
DWG(S)	DRAWING(S)	S/W	SIDEWALK
E	EAST	SD	STORM DRAIN
EA	EACH	SP	SAMPLING POINT
EL	ELEVATION	SPEC	SPECIFICATION
EOP	EDGE OF PAVEMENT	SS	SANITARY SEWER
EOR	ENGINEER OF RECORD	ST	STREET
EXIST	EXISTING	STL	STEEL
F&I	FURNISH & INSTALL	STA	STATION
F.A.C.	FLORIDA ADMINISTRATIVE CODE	STD	STANDARD
F.F.E.	FINISH FLOOR ELEVATION	SYMB	SYMBOL
FD	FRENCH DRAIN	TAP SL	TAPPING SLEEVE
FH	FIRE HYDRANT	TAP V	TAPPING VALVE
FM	FORCE MAIN	TB	TEST BORING
FOC	FIBER OPTICS CABLE	TERR	TERRACE
FT	FEET	TH	TEST HOLE
G	GAS	TOB	TOP OF BANK
GALV	GALVANIZED	TOC	TOP OF CURB
GB	GRADE BREAK	TOP	TOP OF PIPE
GM	GAS MAIN	TOS	TOP OF SIDEWALK
GP	GRADE POINT	TYP	TYPICAL
GRD	GROUND	UG	UNDERGROUND
GV	GATE VALVE	VERT	VERTICAL
HC	HORIZONTAL CLEARANCE	VCP	VERIFIED CLAY PIPE
HH	HAND HOLE	W	WEST, WATER
HORIZ	HORIZONTAL	W/	WITH
IN	INCHES	W/O	WITHOUT
INV	INVERT	W/STL	WRAP STEEL
L	LENGTH	WL	WATER LINE
LAT	LATERAL	WM	WATER MAIN
LBR	LIME ROCK BEARING RATIO		
LF	LINEAR FOOT		

NOTE:

NO CONCRETE STRUCTURES SHALL BE ORDERED TO BE MANUFACTURED BY CONTRACTOR UNTIL ALL EXISTING UTILITY CONFLICTS HAVE BEEN VERIFIED BY SOFT DIG AND CONFIRMING ITS EXISTING ELEVATIONS AND OFFSET.

LEGEND FOR PLAN SHEETS

- PROP DRAINAGE MANHOLE
- PROP GUARDRAIL
- EXIST DRAINAGE MANHOLE
- EXIST GUARDRAIIL
- EXIST SANITARY SEWER MANHOLE
- EXIST CATCH BASIN
- EXIST WATER METER
- EXIST UTILITY POLE
- EXIST SIGN POST
- EXIST WATER VALVE
- EXIST TREE
- EXIST ELECTRICAL BOX
- SURVEY CONTROL POINT
- EXIST FIRE HYDRANT
- LA/RW LINE
- EXIST TRAFFIC POLE
- EXIST 6' HIGH CHAIN LINK FENCE
- PROPOSED WORK (BY OTHERS)
- PROPOSED TRENCH RESTORATION (REFER T PLANS & DETAILS)
- PROPOSED ROADWAY 1-INCH MILLING & RESURFACING LIMITS (REFER TO PLANS & DETAILS)
- CANAL BANK REPAIR & RESTORATION (EARTHWORK (EXCAVATION & FILL), STABILIZATION & SODDING) (REFER TO DETAILS)
- CONCRETE CURB AND PAVEMENT REPLACEMENT
- PROPOSED RIPRAP (REFER TO CANAL BANK CANAL AND RESTORATION DETAILS)
- PERFORMANCE TURF, SOD

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE: GENERAL NOTES

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: G-2.0 GENERAL NOTES.dwg
DATE: AUGUST 2021
SHEET NO.
G-2.0

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA

August 18, 2021 4:13 PM

I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\G-2.0 GENERAL NOTES.dwg

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

1. PERMANENT OR TEMPORARY EROSION & SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICABLE TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICE. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHALL BE THE PLACEMENT OF TEMPORARY EROSION & SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT, THE INITIAL WORK AREA AND OTHER AFFECTED AREAS TO PREVENT STORM WATER POLLUTION.

2. CONFORMANCE WITH SWPPP DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITIES TO PROTECT ADJACENT PROPERTIES, FEATURES & NATURAL ENVIRONMENT FROM THE POSSIBLE DAMAGE IMPACT THAT MAY ARISE AS A RESULT OF THE CONSTRUCTION .

3. CONTRACTOR SHALL INSTALL PERIMETER POLLUTION PREVENTION CONTROLS BEFORE BEGINNING OTHER CONSTRUCTION PHASES.

4. IF ADDITIONAL EROSION & SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) ARE REQUESTED BY ANY REGULATORY AGENCY, THE CONTRACTOR SHALL PROMPTLY IMPLEMENT SAID MEASURES AFTER APPROVAL OF EOR/JURISDICTIONS.

5. MAINTENANCE REQUIREMENTS:

   A. CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A SWPP AND EROSION CONTRO PLAN. THE PLAN SHALL INCLUDE A DESCRIPTION OF PROCEDURES THAT WILL BE FOLLOWED TO ENSURE THE TIMELY MAINTENANCE OF VEGETATION, EROSION AND SEDIMENT CONTROLS, STORMWATER MANAGEMENT PRACTICES, AND OTHER PROTECTIVE MEASURES AND BMPS SO THEY WILL REMAIN IN GOOD AND EFFECTIVE OPERATING CONDITION.

   B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF EROSION & SEDIMENT CONTROL/SWPPP DEVICES PER THE CITY OF DORAL STORMWATER MASTER PLAN, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND FDOT STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION (CURRENT EDITION). THE MAINTENANCE OF THESE DEVICES SHALL OCCUR UNTIL THE CITY'S REPRESENTATIVE DIRECTS OTHERWISE. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AFTER COMPLETION OF THE PROJECT.

   C. EROSION & SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED BY THE CONTRATOR TO PERFORM THE INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.

   D. CONTRACTOR SHALL VERIFY THAT ALL DRAINAGE STRUCTURES, WITHIN THE PROJECT LIMITS WHETHER INDICATED ON THE PLANS OR NOT ARE PROTECTED IN ACCORDANCE WITH THE ESTABLISHED METHODS AS NOTED ABOVE.

   E. DUST, RESULTING FROM PROPOSED DEMOLITION ACTIVITIES, SHALL BE PREVENTED FROM INTRUSION INTO THE STORMWATER CONVEYANCE SYSTEM. APPROPRIATE DUST CONTROL TECHNIQUES (WATER OR SLURRY) SHALL BE RETAINED ON SITE. CALCIUM CHLORIDE, OILS OR OTHER CHEMICAL DUST CONTROL AGENTS SHALL NOT BE UTILIZED.

   F. DURING CONSTRUCTION, THE EXISTING DRAINAGE FLOW PATTERNS SHALL BE MAINTAINED AND SERVICED FOR MAINTENANCE AT THE DISCRETION OF THE CITY AT NO ADDITIONAL COST TO THE CITY.

   G. THE CONTRACTOR SHALL MONITOR ALL POLLUTION CONTROL DEVICES TO ENSURE SUFFICIENT CONVEYANCE OF STORMWATER RUNOFF & TO ELIMINATE SOIL EROSION DURING CONSTRUCTION.

   H. CONTRACTOR SHALL COVER LOADED TRUCKS WITH TARPAULINS.

   I. CONTRACTOR SHALL REMOVE EXCESS DIRT FROM WORK SITE ON A DAILY BASIS.

   J. BUILT-UP SEDIMENT WILL BE REMOVED FROM THE STAKED SILT FENCE WHEN IT REACHES ONE-THIRD OF THE FENCE BARRIER OR WHENEVER FLOW IS IMPEDED.

   K. AT NO TIME SHOULD SEDIMENTS BE ALLOWED TO ACCUMULATE WITHIN DRAINAGE STRUCTURE & CONVEYANCE PIPELINES. STRUCTURES & PIPELINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATIONS SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.

   L. STOCKPILE OF EARTH & OTHER CONSTRUCTION RELATED MATERIAL SHALL BE PROTECTED AGAINST ACCIDENTAL TRANSPORTATION FROM PROJECT SITE BY WIND & WATER FLOW.

   M. ALL STORM DRAINAGE SYSTEMS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT WATER CANNOT GAIN ENTRY INTO THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHER WISE TREATED TO REMOVE SEDIMENTS.

6. THE FOLLOWING NON-STORMWATER DISCHARGES ARE PROHIBITED:

   A. WASTEWATER FROM WASHOUT OF CONCRETE.

   B. WASTEWATER FROM WASHOUT AND CLEANOUTS OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS.

   C. FUELS, OILS, OR OTHER POLLUTANTS ASSOCIATED WITH VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.

   D. SOAPS OR SOLVENTS USED IN VEHICLE OR EQUIPMENT WASHING OR CLEANING.

7. POLLUTION PREVENTION CONTROLS: THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, INSTALLATION, IMPLEMENTATION, AND MAINTENANCE OF EFFECTIVE POLLUTION PREVENTION MEASURES TO ACCOMPLISH ALL OF THE FOLLOWING:

   A. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. TREAT WASH WATERS USING A TREATMENT SYSTEM SO THAT THEY DO NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF WATER QUALITY STANDARDS.

   B. MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON THE SITE TO PRECIPITATION AND TO STORMWATER.

   C. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS; AND IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES.

   D. CONTROL WASTES, SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTE, IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS.

   E. FOLLOW ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER, AND SEPTIC SYSTEM REGULATIONS.

   F. USE PROPER APPLICATION RATES AND METHODS FOR FERTILIZERS, HERBICIDES, AND PESTICIDES. SET FORTH HOW THESE PROCEDURES WILL BE IMPLEMENTED AND ENFORCED. APPLY NUTRIENTS ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION AND CONSISTENT WITH ALL LABELING REQUIREMENTS.

   G. LIMIT THE APPLICATION, GENERATION, AND MIGRATION OF TOXIC SUBSTANCES; AND PROPERLY STORE AND DISPOSE OF TOXIC MATERIALS.

8. EROSION AND SEDIMENT CONTROLS: THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, INSTALLATION, IMPLEMENTATION, AND MAINTENANCE OF APPROPRIATE EROSION AND SEDIMENT CONTROLS TO ACCOMPLISH ALL OF THE FOLLOWING:

   A. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION.

   B. CONTROL STORMWATER PEAK DISCHARGE RATES AND VOLUME TO MINIMIZE EROSION AT DISCHARGE OUTFALLS AND TO MINIMIZE DOWNSTREAM CHANNEL AND STREAMBANK EROSION.

   C. MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING THE CONSTRUCTION ACTIVITY.

   D. MINIMIZE THE DISTURBANCE OF STEEP SLOPES.

   E. MINIMIZE SEDIMENT DISCHARGES FROM THE SITE. THE DESIGN, INSTALLATION, AND MAINTENANCE OF EROSION & SEDIMENT CONTROLS SHALL ADDRESS FACTORS SUCH AS THE AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION; THE NATURE OF THE RESULTING STORMWATER; AND SOIL CHARACTERISTICS, INCLUDING THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT ON THE SITE.

   F. MINIMIZE OFF-SITE VEHICLE TRACKING OF SEDIMENTS ONTO PAVED SURFACES AND THE GENERATION OF DUST. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

   G. WHERE FEASIBLE, DIRECT STORMWATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION AND TO PROVIDE AND MAINTAIN NATURAL BUFFERS ADJACENT TO SURFACE WATERS OF THE STATE.

   H. MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.

9. INSPECTIONS: CONTRACTOR SHALL PROVIDE AN INSPECTOR QUALIFIED IN ACCORDANCE WITH PART II.12, OF DEP DOCUMENT NO. 62-621.300(4)(A), EFFECTIVE FEBRUARY 17, 2009, INCORPORATED BY REFERENCE IN PARAGRAPH 62-621.300(4)(A), F.A.C., TO PERFORM ALL REQUIRED SITE INSPECTIONS. SITE INSPECTIONS MUST INCLUDE ALL POINTS OF DISCHARGE INTO SURFACE WATERS; DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED; AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; STRUCTURAL CONTROLS; AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. SITE INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. INSPECTIONS SHALL INCLUDE:

   A. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER SYSTEM. THE STORMWATER MANAGEMENT SYSTEM AND EROSION & SEDIMENT CONTROL MEASURES IDENTIFIED IN THE TABLE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION & SEDIMENT CONTROL AND STORMWATER TREATMENT MEASURES ARE EFFECTIVE IN PREVENTING OR MINIMIZING THE DISCHARGE OF POLLUTANTS, INCLUDING RETAINING SEDIMENT ONSITE PURSUANT TO RULE 62-40.432, F.A.C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.

   B. BASED ON THE RESULTS OF THE INSPECTION, ALL MAINTENANCE OPERATIONS NEEDED TO ASSURE PROPER OPERATION OF ALL CONTROLS, BMPS, PRACTICES, OR MEASURES IDENTIFIED IN THE STORMWATER POLLUTION PREVENTION PLAN SHALL BE DONE IN A TIMELY MANNER, BUT IN NO CASE LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION. IF NEEDED, POLLUTION PREVENTION CONTROLS, BMPS, AND MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED AS NECESSARY TO ASSURE PROPER OPERATION OF ALL CONTROLS, BMPS, PRACTICES, OR MEASURES IDENTIFIED IN THE STORMWATER POLLUTION PREVENTION PLAN. SUCH REVISIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.

   C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION; NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION; THE DATE(S) OF THE INSPECTION; RAINFALL DATA; MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN; AND ACTIONS TAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PERMIT, SHALL BE MADE AND RETAINED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN. SUCH REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.

INLET PROTECTION

1. ALL EXISTING INLETS, CATCH BASINS AND STORMWATER INTAKE STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE PROTECTED AT ALL TIMES.

2. PROPOSED DRAINAGE STRUCTURES SHALL BE PROTECTED UPON CONSTRUCTION.

STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION: JULY 2013

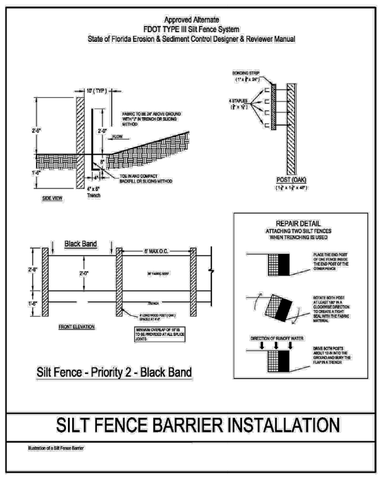
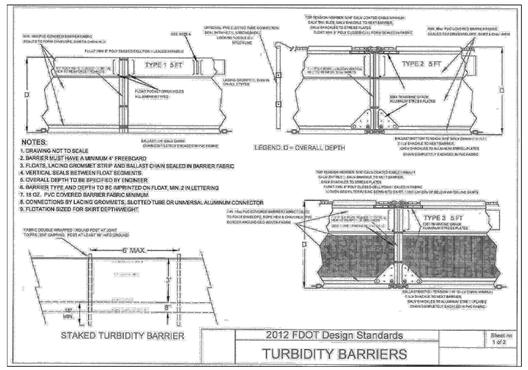


Figure V-3: Illustration of Silt Fence Priority 2 – Black Band

Figure V-9: Illustration of Installing a Floating Turbidity Barrier



STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION: JULY 2013

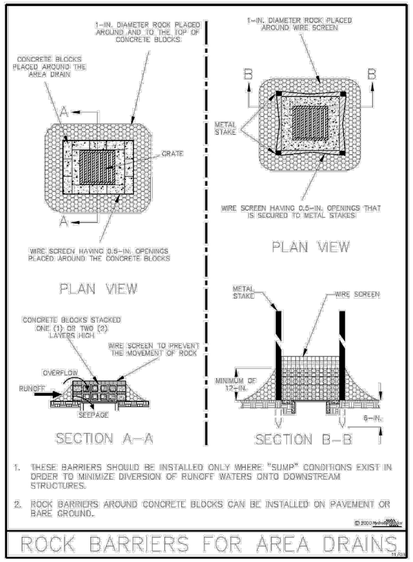


Figure V-13: Illustration of Rock Barriers around Area Drains

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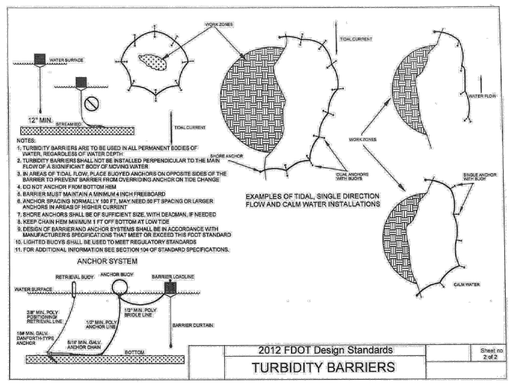
Figure V-10: Illustration of Installing a Floating Turbidity Barrier



STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION: JULY 2013

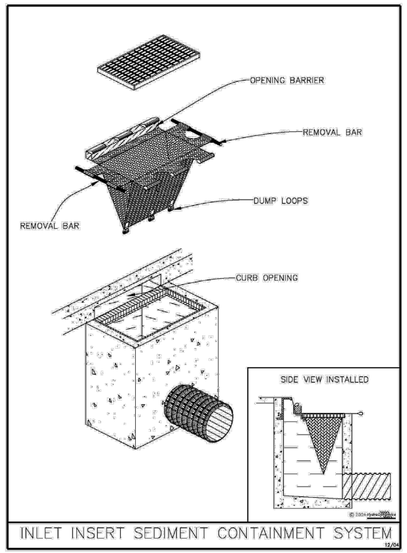


Figure V-18: Illustration of an Inlet Insert Sediment Containment System

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DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826) CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE: STORMWATER POLLUTION PREVENTION/EROSION CONTROL NOTES & DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-2.0.dwg
DATE: AUGUST 2021
SHEET NO.
G-3.0

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA

March 24, 2021 11:32 AM

I:\Project\17 project\17077.ww01-06 city of doral\17077.ww01-06 - nw 58th st outfall\CAD\D_Phase 2\drawings\SD-2.0.dwg

N

0 100' 200'
Feet

LEGEND

KEY SHEETS

R/W

HORIZONTAL CONTROL PLAN						
SEGMENT	ALIGNMENT	STATION	NORTHING	EASTING	BEARING	LENGTH
L1	NW 79 AVE	0+00.00	542637.52	877958.72	N 1° 46' 26.01" W	453.93'
L2	NW 57 ST	10+00.00	542761.19	877899.86	N 89° 40' 06.76" E	989.82'
L3	NW 58 ST	52+00.00	543088.26	877344.67	N 89° 43' 00.74" E	1257.70'
L4	NW 77 CT	81+00.00	543244.45	877986.88	N 89° 43' 08.99" E	411.75'
C1	NW 77 CT	85+11.75	543246.47	878398.62	N73° 15' 12.18"E	218.41
L5	NW 77 CT	87+30.16	543308.54	878604.90	N 56° 47' 15.37" E	340.36'
C2	NW 77 CT	90+70.53	543494.97	878889.67	N30° 43' 58.37"E	345.60

DO NOT USE THE INFORMATION ON THIS SHEET FOR CONSTRUCTION PURPOSES. This sheet is in the plans for documentation and to assist construction personnel with drainage concerns.

DORAL FLORIDA

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PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

Always call 811 two full business days before you dig to have underground utilities located and marked.

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
PROJECT LAYOUT PLAN

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-1.0 KEY & DRAIN. MAP.dwg
DATE: AUGUST 2021
SHEET NO.
SD-1.0

PERMITTING SET

ELIAS GUEVARA
January 18, 2022 3:20 PM
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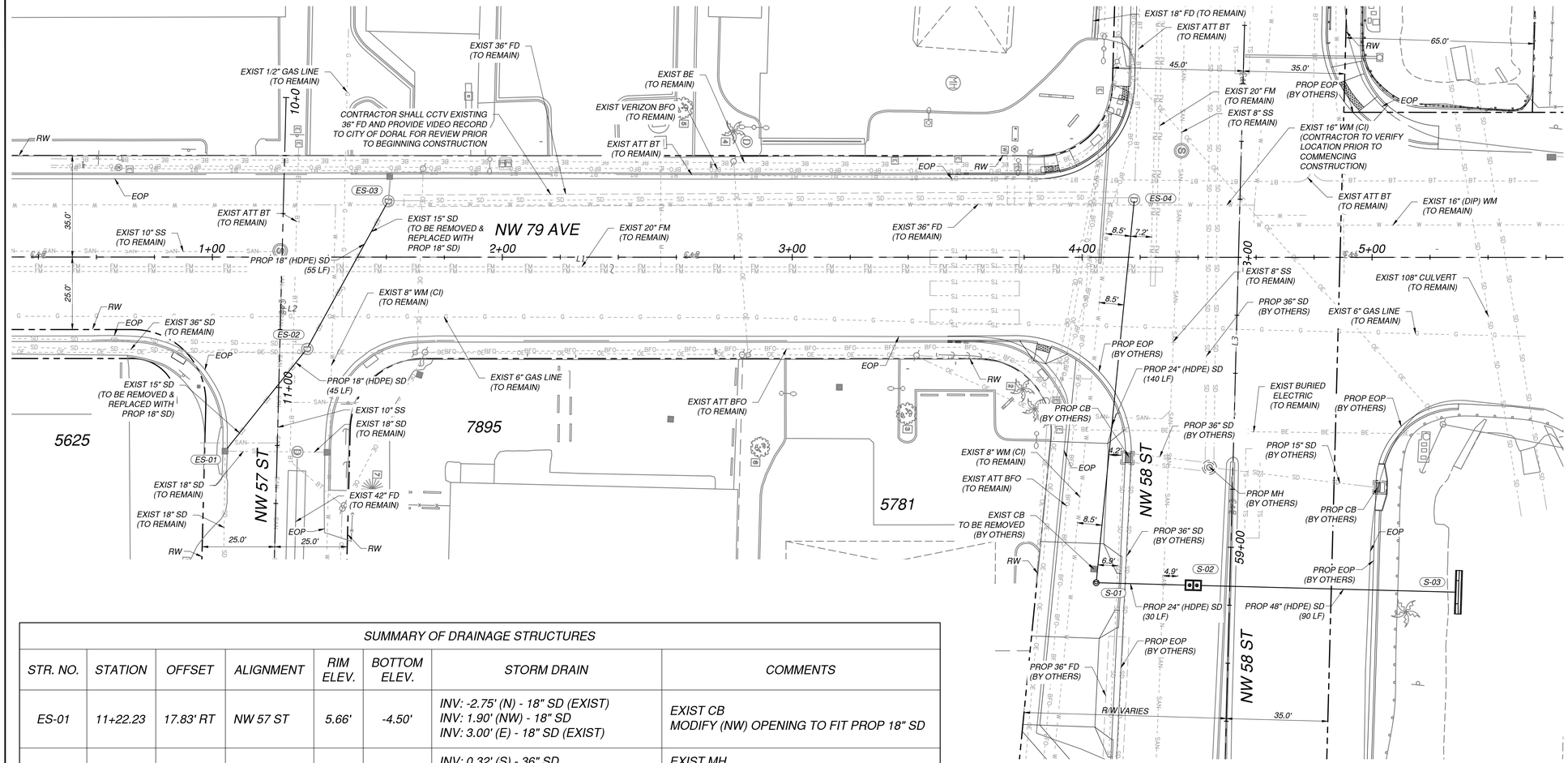

SUMMARY OF DRAINAGE STRUCTURES							
STR. NO.	STATION	OFFSET	ALIGNMENT	RIM ELEV.	BOTTOM ELEV.	STORM DRAIN	COMMENTS
ES-01	11+22.23	17.83' RT	NW 57 ST	5.66'	-4.50'	INV: -2.75' (N) - 18" SD (EXIST) INV: 1.90' (NW) - 18" SD INV: 3.00' (E) - 18" SD (EXIST)	EXIST CB MODIFY (NW) OPENING TO FIT PROP 18" SD
ES-02	10+86.43	9.35' LT	NW 57 ST	6.22'	-2.50'	INV: 0.32' (S) - 36" SD INV: 1.65' (SE) - 18" SD INV: -1.60' (NW) - 18" SD (CORE & TIE)	EXIST MH MODIFY (SE) OPENING TO FIT PROP 18" SD MODIFY (NW) OPENING TO FIT PROP 18" SD
ES-03	10+34.72	36.13' LT	NW 57 ST	6.53'	-1.90'	INV: 0.10' (N) - 36" FD (EXIST) INV: 1.70' (W) - 18" 18" (EXIST) INV: -1.90' (SE) - 18" SD (CORE & TIE)	EXIST MH MODIFY (SE) OPENING TO FIT PROP 18" SD
ES-04	57+80.70	36.39' RT	NW 58 ST	8.15'	-3.90'	INV: -1.20' (E) - 24" SD (CORE & TIE) INV: 0.10' (S) - 36" FD (EXIST)	EXIST MH CORE DRILL (E) TO FIT PROP 24" SD
S-01	59+13.43	46.10' RT	NW 58 ST	7.40'	-4.80'	INV: -1.70' (W) - 24" SD INV: -2.80' (N) - 24" SD	MH TYPE P-8 (48" DIA) (FDOT INDEX 425-001, 425-010)
S-02	59+13.44	12.90' RT	NW 58 ST	8.31'	-5.30'	INV: -1.00' (N) - 48" SD INV: -3.30' (S) - 24" SD	TWO CHAMBER CONTROL STRUCTURE (REFER TO DETAILS)
S-03	59+13.43	78.90' LT	NW 58 ST	N/A	N/A	INV: -2.00' (S) - 48" SD	STRAIGHT CONCRETE ENDWALL (FDOT INDEX 430-030)

NOTES:

1. ALL SALVAGEABLE MATERIALS THAT ARE REMOVED MUST BE DELIVERED AND UNLOADED AT:

   MIAMI-DADE ROAD, BRIDGE AND CANAL MAINTENANCE DIVISION
   9301 NW 58 STREET
   MIAMI, FL 33178
   TELEPHONE NUMBER: (305) 592-3116

2. REFER TO MIAMI DADE COUNTY PUBLIC WORKS MANUAL STANDARD G 2.1 FOR UTILITY PLACEMENT WITHIN THE PUBLIC RIGHT OF WAY

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CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
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eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
DRAINAGE IMPROVEMENTS PLAN

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

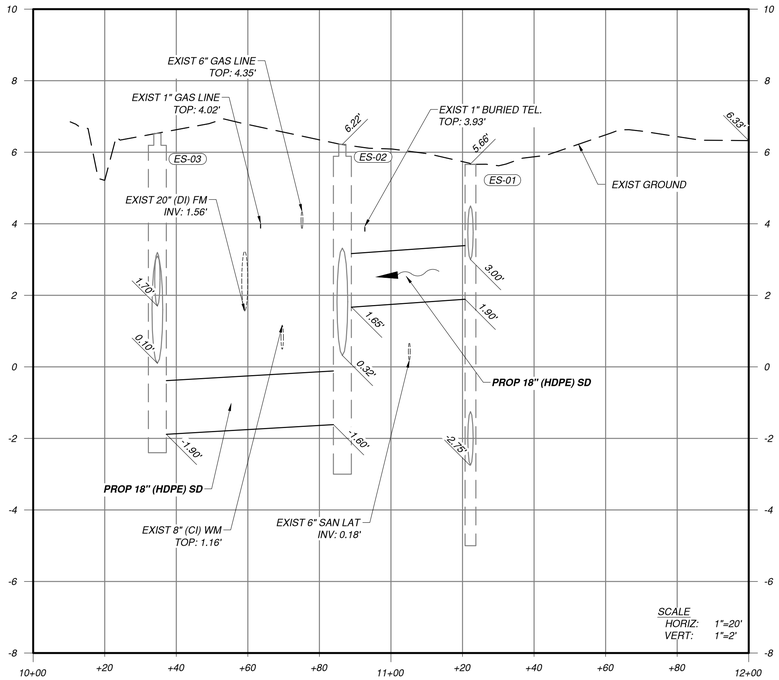
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-4.0 DRAINAGE PLAN.dwg
DATE: AUGUST 2021
SHEET NO.
SD-2.1

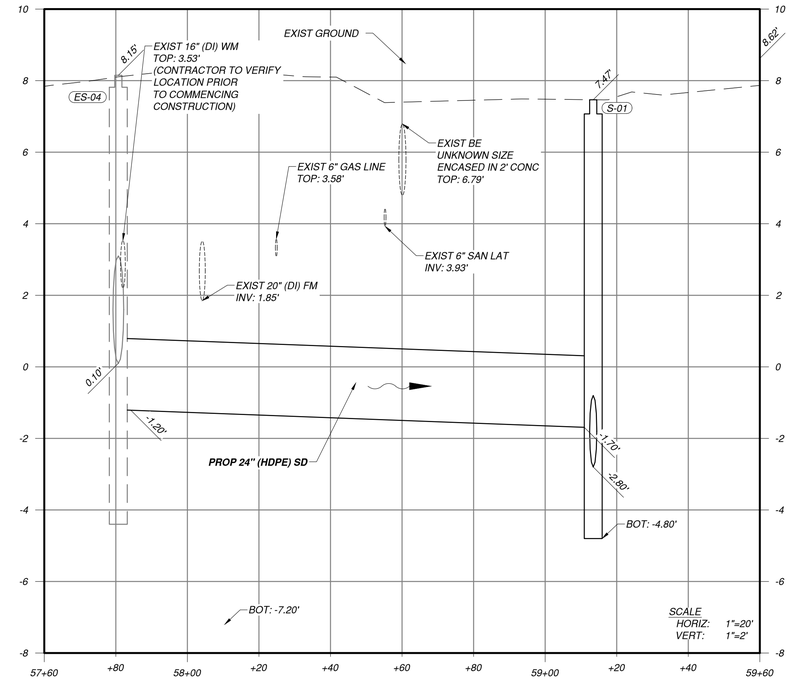
PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

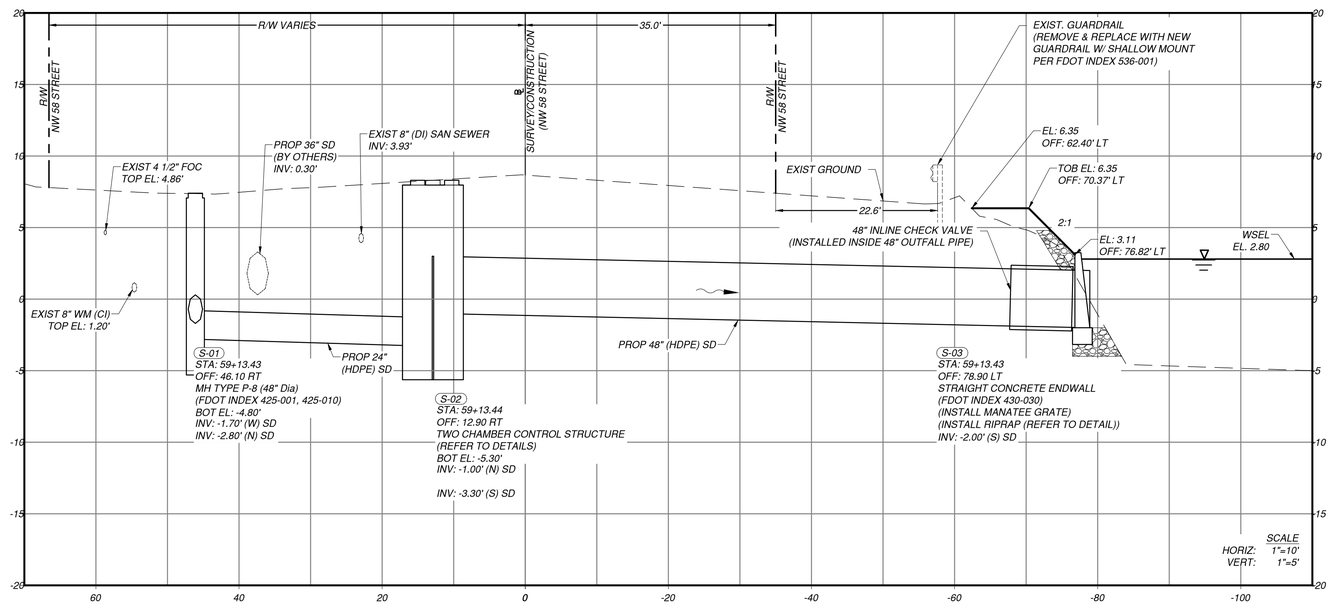
ELIAS GUEVARA
January 18, 2022 4:49 PM
I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-4.0 DRAINAGE PLAN.dwg



NW 57 STREET
FROM STA. 10+00.00 TO STA.12+00.00



NW 58 STREET
FROM STA. 57+60.01 TO STA.59+60.00



NW 58 STREET CANAL OUTFALL

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FLORIDA

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DORAL, FL 33166

CONSULTANT:

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eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
DRAINAGE IMPROVEMENTS PROFILES

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-4.0 DRAINAGE PLAN.dwg
DATE: AUGUST 2021
SHEET NO.
SD-2.2

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
January 18, 2022 4:49 PM
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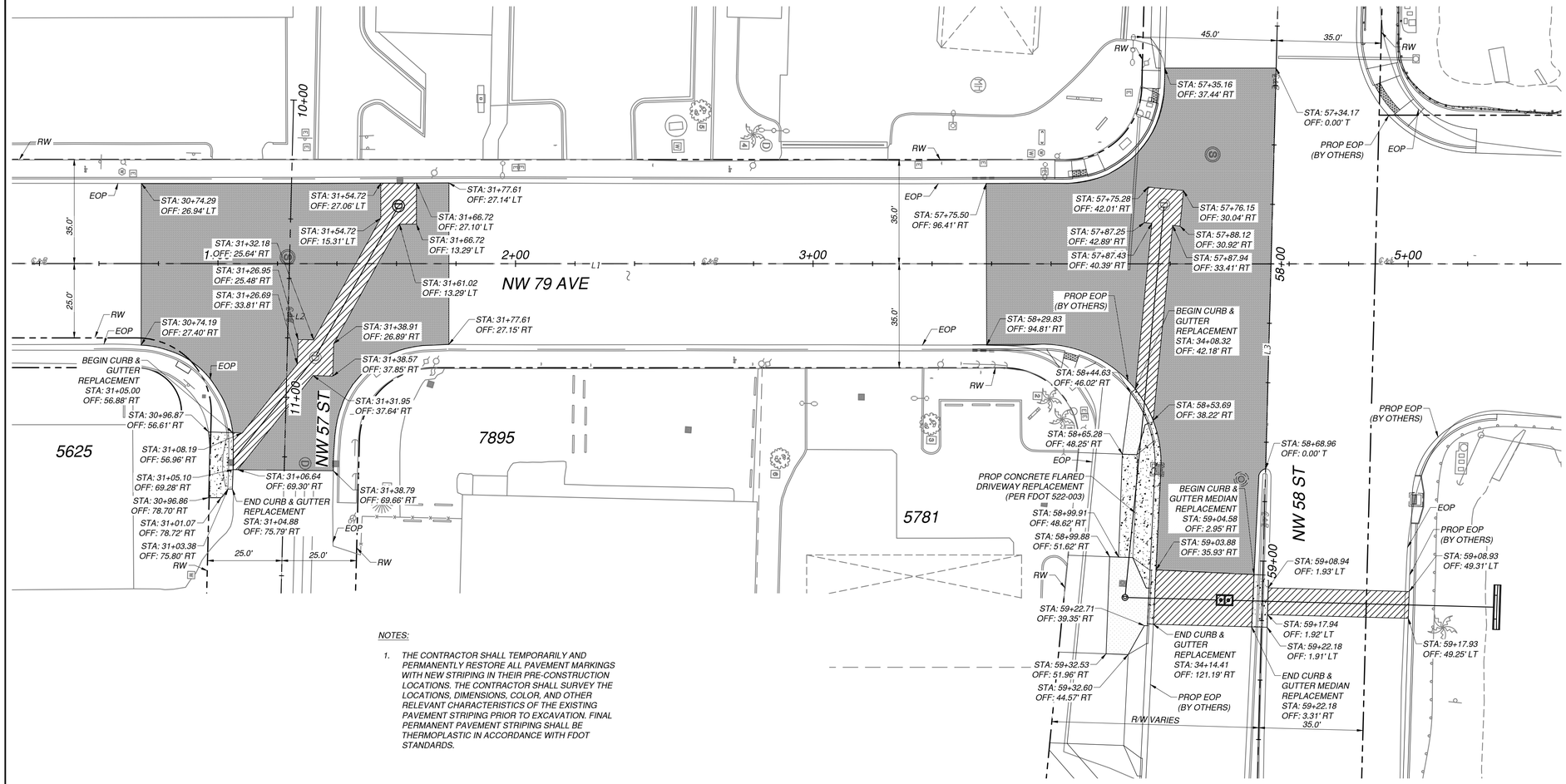

NOTES:

1. THE CONTRACTOR SHALL TEMPORARILY AND PERMANENTLY RESTORE ALL PAVEMENT MARKINGS WITH NEW STRIPING IN THEIR PRE-CONSTRUCTION LOCATIONS. THE CONTRACTOR SHALL SURVEY THE LOCATIONS, DIMENSIONS, COLOR, AND OTHER RELEVANT CHARACTERISTICS OF THE EXISTING PAVEMENT STRIPING PRIOR TO EXCAVATION. FINAL PERMANENT PAVEMENT STRIPING SHALL BE THERMOPLASTIC IN ACCORDANCE WITH FDOT STANDARDS.

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DORAL, FL 33166

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eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
PAVEMENT RESTORATION PLAN

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-2.3 PAVEMENT MARKING PLAN.dwg
DATE: AUGUST 2021
SHEET NO.
SD-2.3

PERMITTING SET

ELIAS GUEVARA
April 12, 2021 10:59 AM
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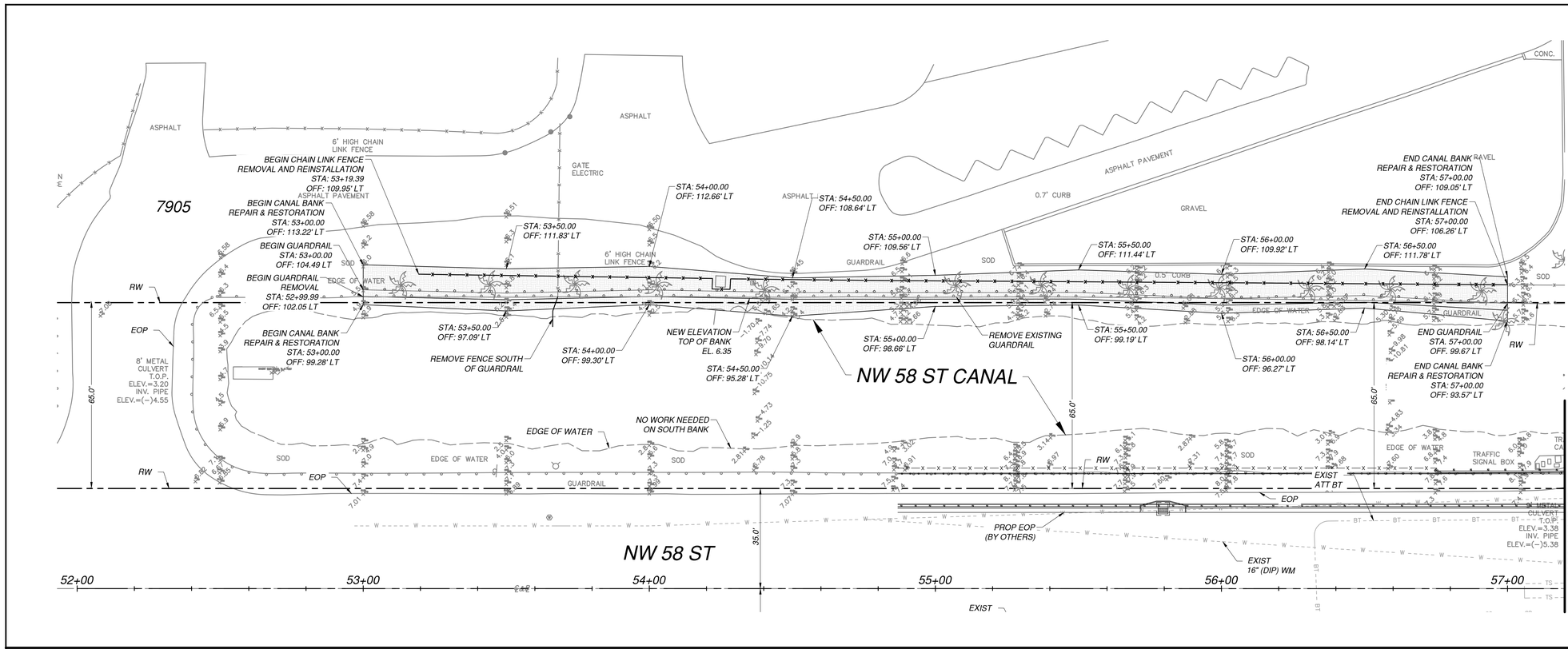
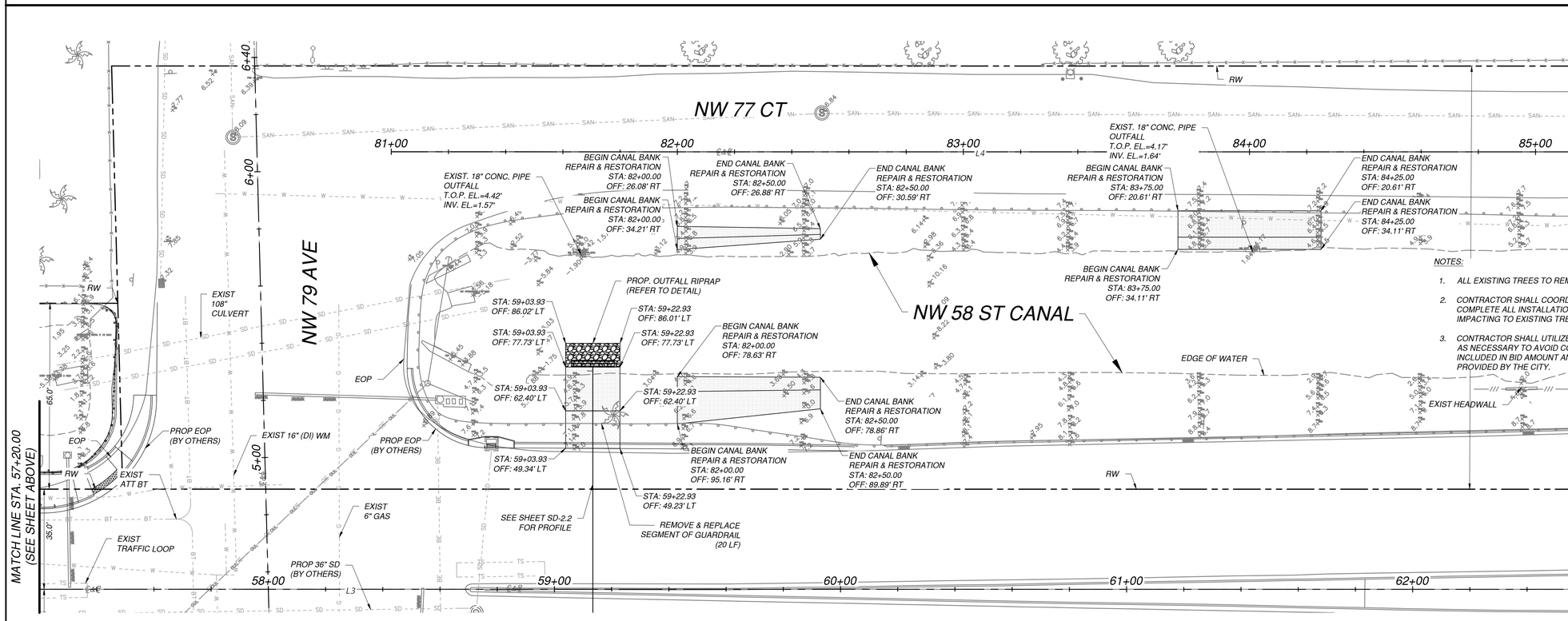
DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.



0 20' 40'
Feet

NOTES:

1. ALL EXISTING TREES TO REMAIN.
2. CONTRACTOR SHALL COORDINATE, PLAN, SCHEDULE, PERFORM AND COMPLETE ALL INSTALLATION AND CONSTRUCTION WITHOUT NO IMPACTING TO EXISTING TREES.
3. CONTRACTOR SHALL UTILIZE THE SERVICES OF A LICENSED ARBORIST AS NECESSARY TO AVOID COMPROMISING EXISTING TREES. COST TO BE INCLUDED IN BID AMOUNT AND NO ADDITIONAL COMPENSATION SHALL BE PROVIDED BY THE CITY.



NOTES:

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2. CONTRACTOR SHALL COORDINATE, PLAN, SCHEDULE, PERFORM AND COMPLETE ALL INSTALLATION AND CONSTRUCTION WITHOUT NO IMPACTING TO EXISTING TREES.
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CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE: **CANAL BANK REPAIRS & RESTORATION PLAN (STA 52+00.00 - STA 62+60.00) (STA 81+00.00 - STA 85+17.00) (SHEET 1 OF 2)**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-6.0 CANAL PLAN.dwg
DATE: AUGUST 2021
SHEET NO.
SD-3.1

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

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January 29, 2022 4:54 PM
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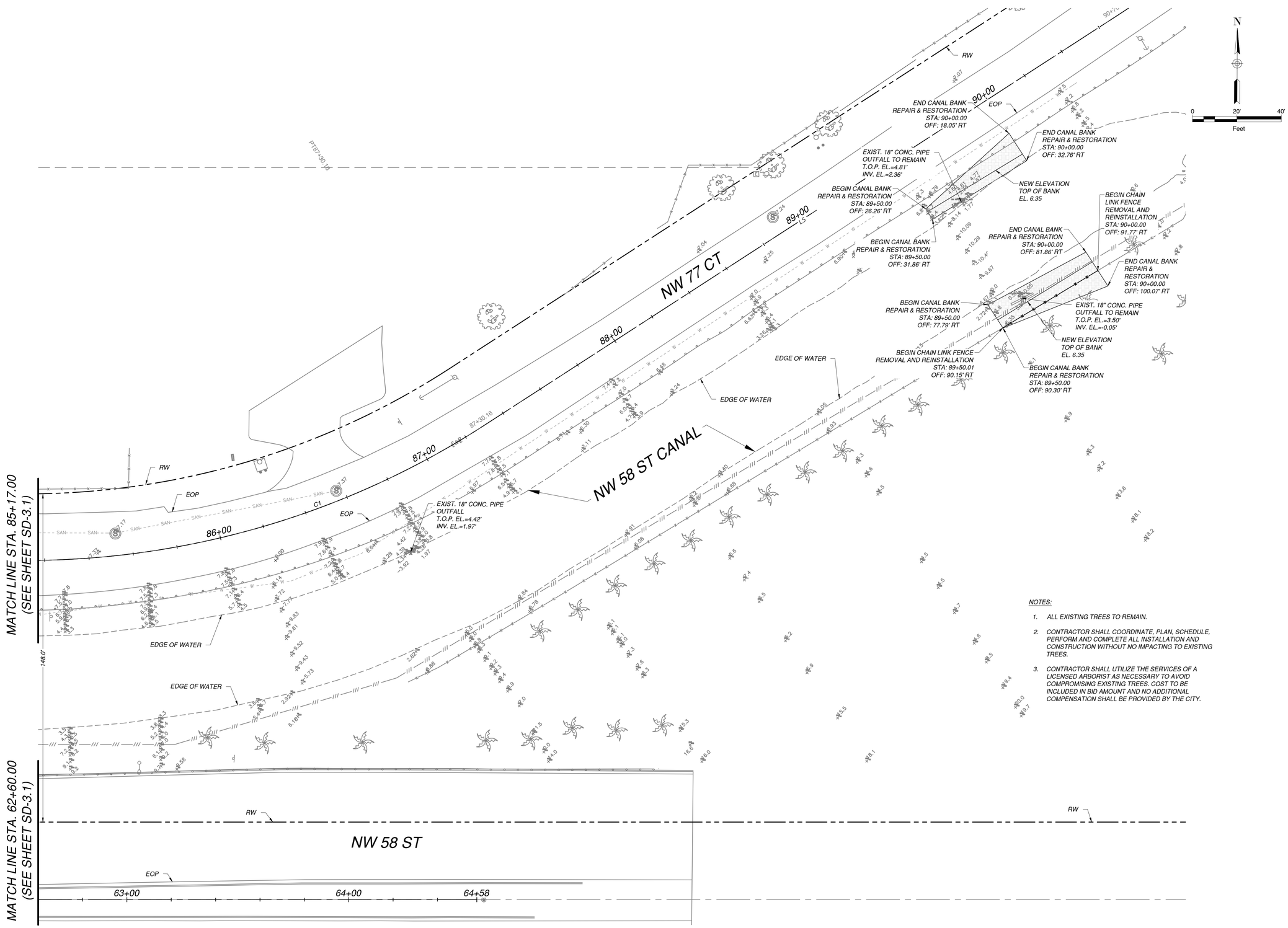

NOTES:

1. ALL EXISTING TREES TO REMAIN.
2. CONTRACTOR SHALL COORDINATE, PLAN, SCHEDULE, PERFORM AND COMPLETE ALL INSTALLATION AND CONSTRUCTION WITHOUT NO IMPACTING TO EXISTING TREES.
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FLORIDA

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8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

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5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL BANK REPAIRS & RESTORATION PLAN
(STA 85+17.00 - 90+80.00)
(SHEET 2 OF 2)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-6.0 CANAL PLAN.dwg
DATE: AUGUST 2021
SHEET NO.
SD-3.2

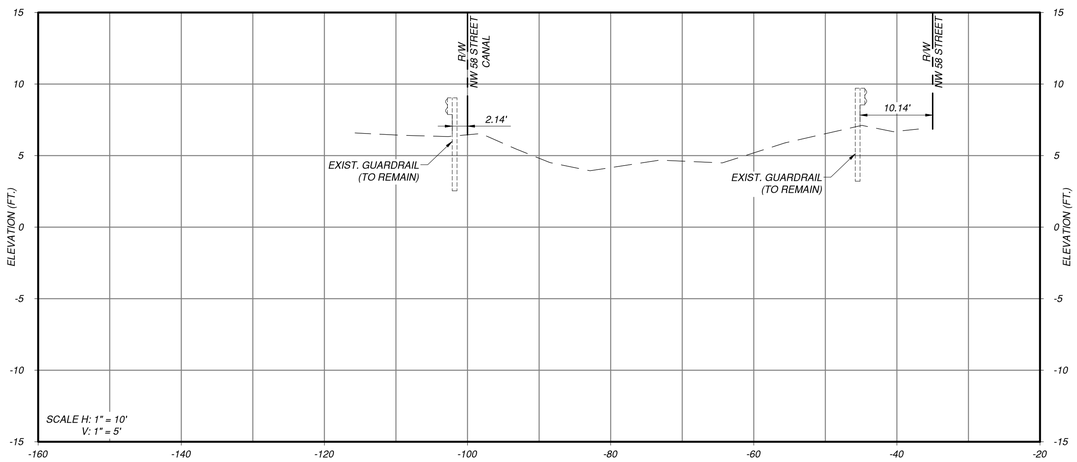
PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

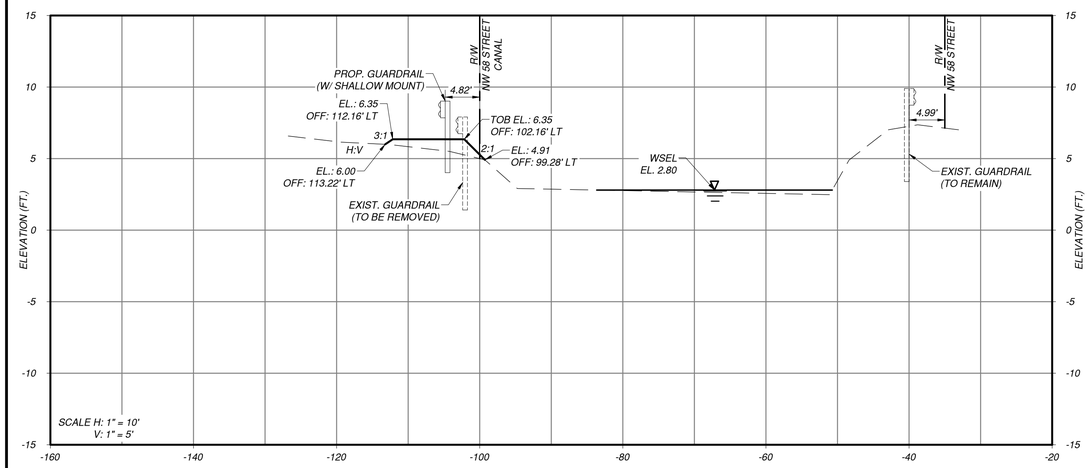
ELIAS GUEVARA

January 29, 2022 4:54 PM

I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-6.0 CANAL PLAN.dwg



NW 58 ST STA 52+50.00



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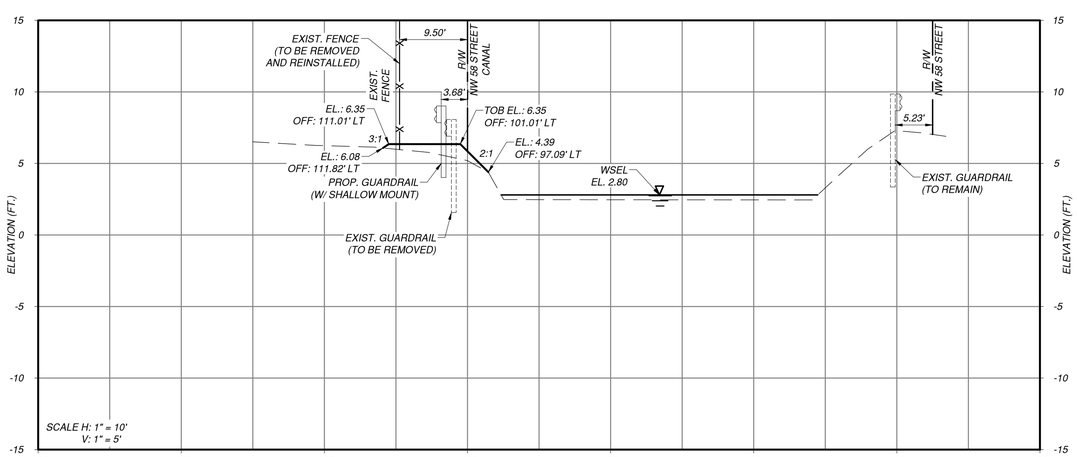

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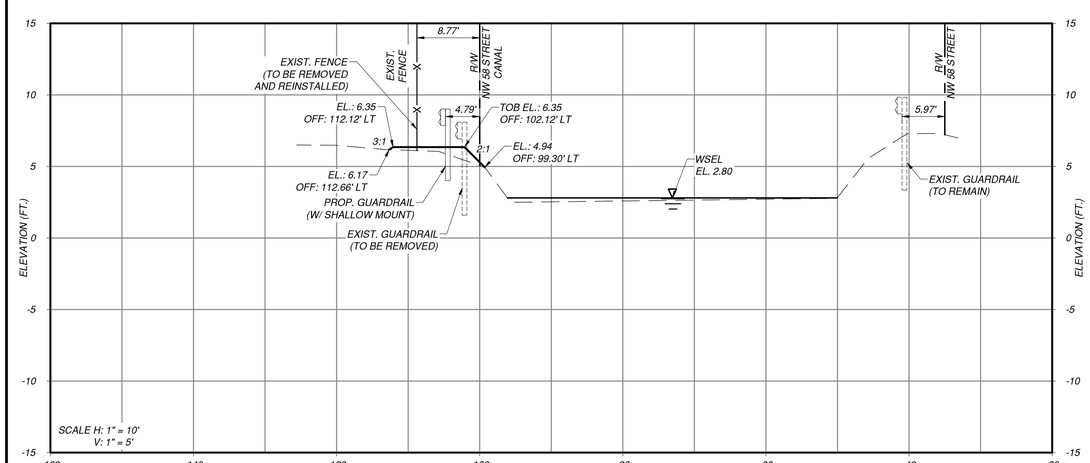

NW 58 ST STA 54+00.00

DORAL
FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 52+50.00 - STA 54+00.00)
(SHEET 1 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

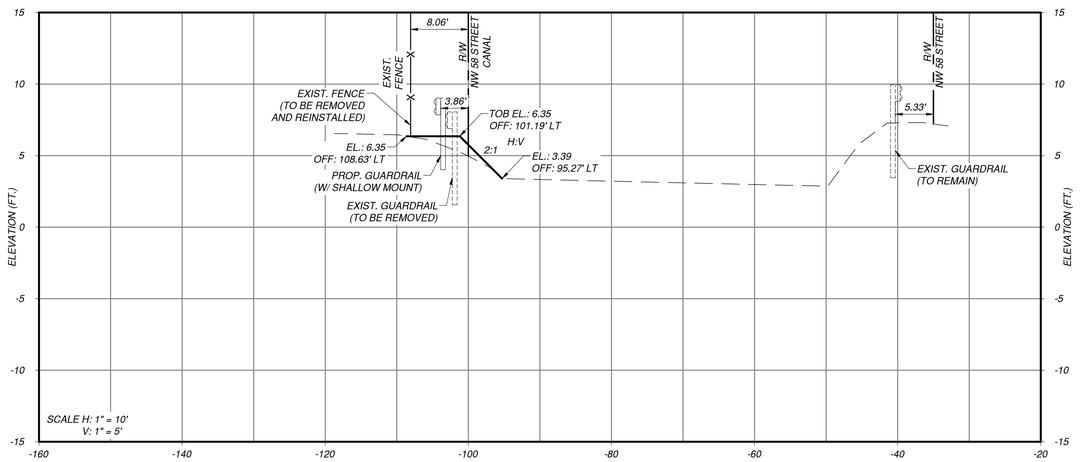
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.0 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.1

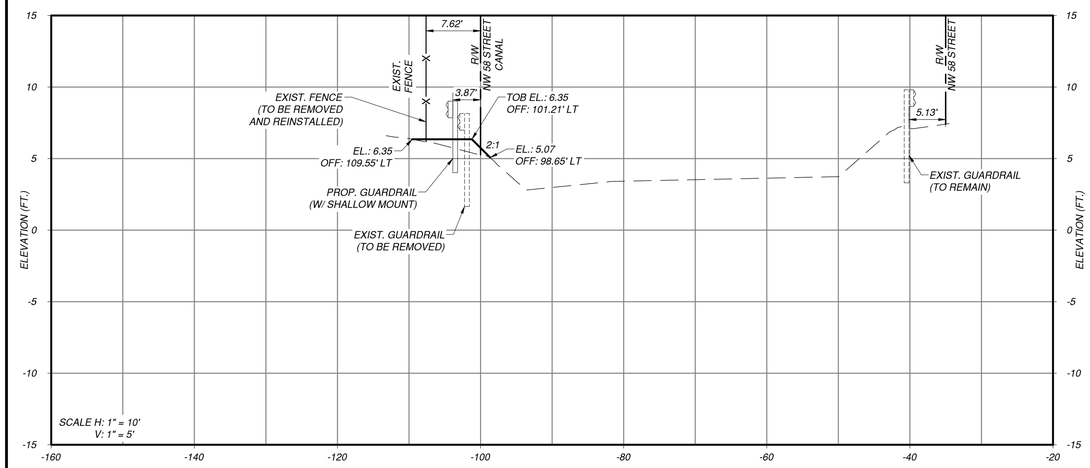
PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

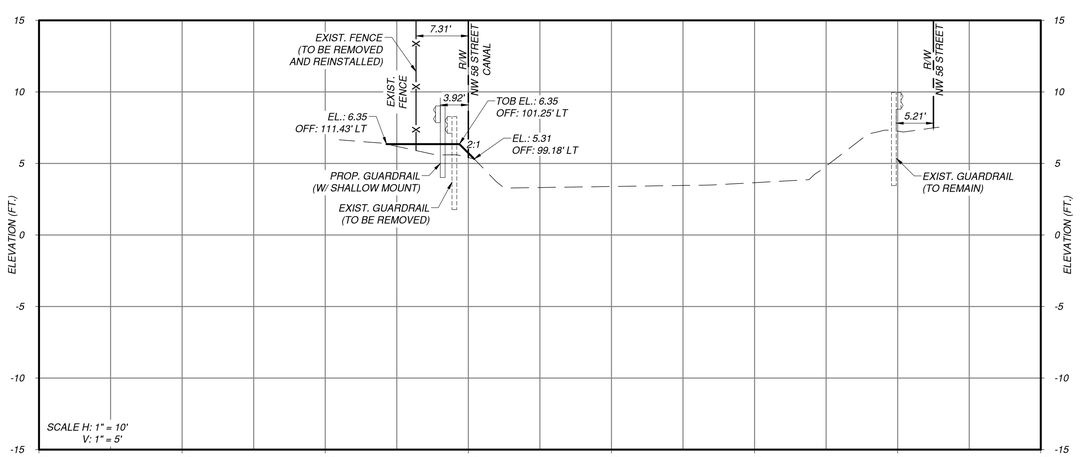
ELIAS GUEVARA
March 22, 2021 10:18 PM
I:\Project\17 project\17077.ww01-06 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-8.0 CANAL SECTIONS.dwg



NW 58 ST STA 54+50.00



NW 58 ST STA 55+00.00



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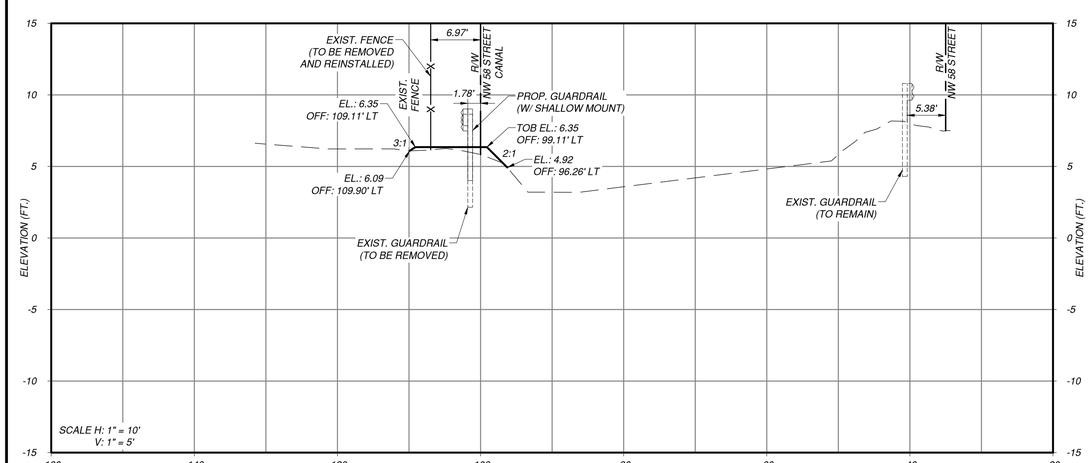

NW 58 ST STA 56+00.00

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 54+50.00 - STA 56+00.00)
(SHEET 2 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.0 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.2

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
March 22, 2021 10:18 PM
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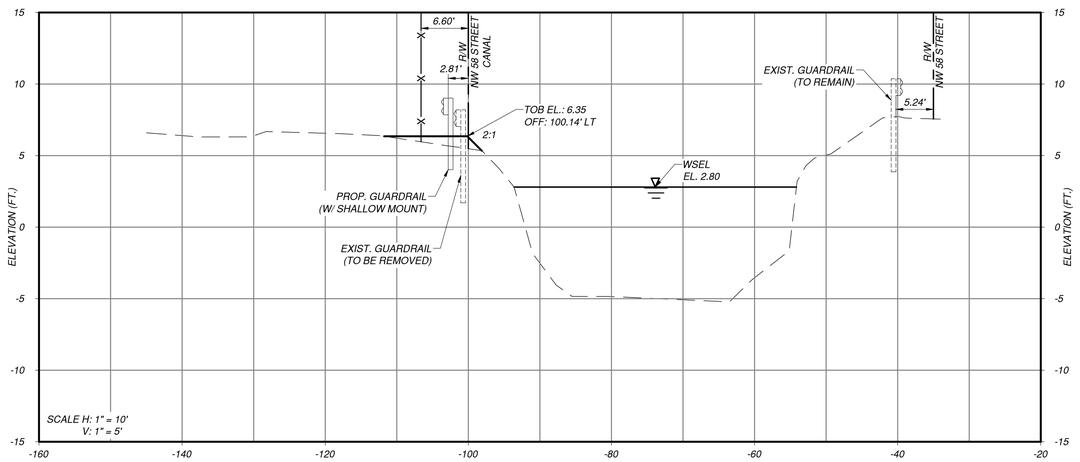

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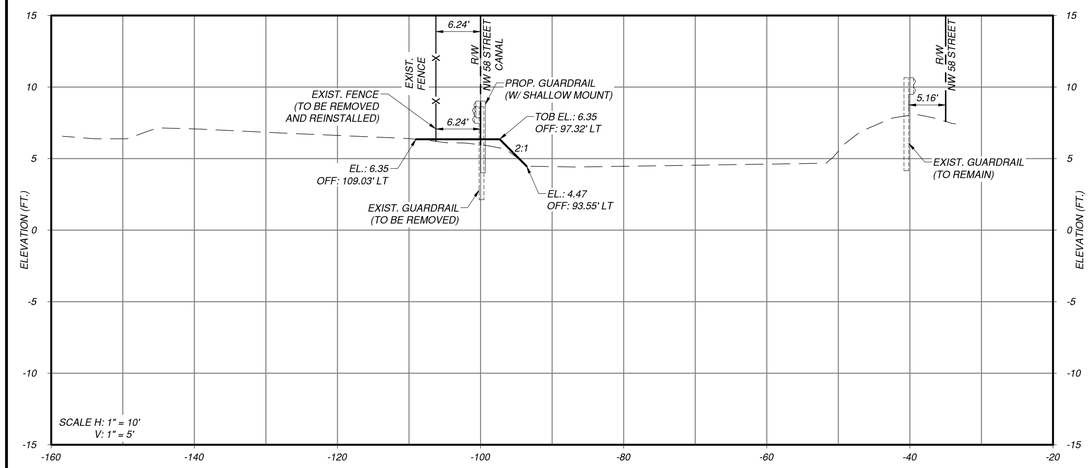

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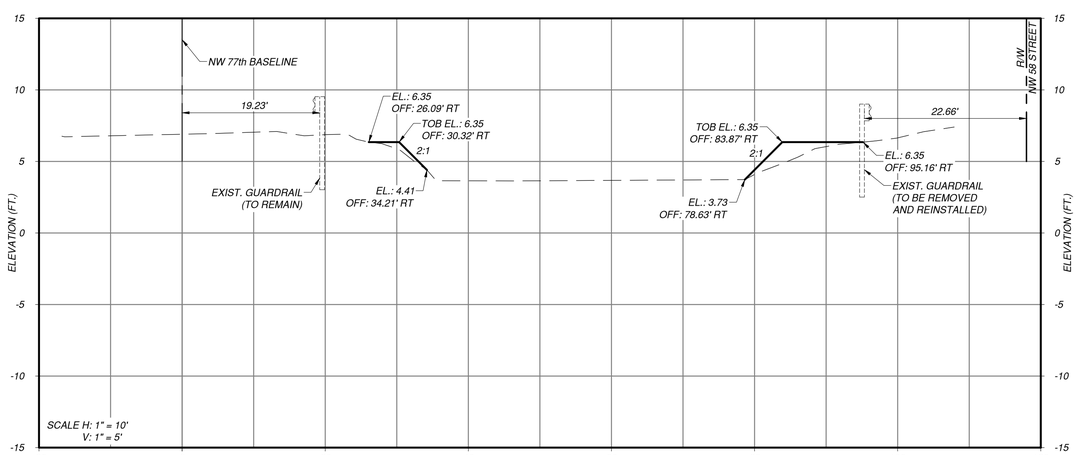
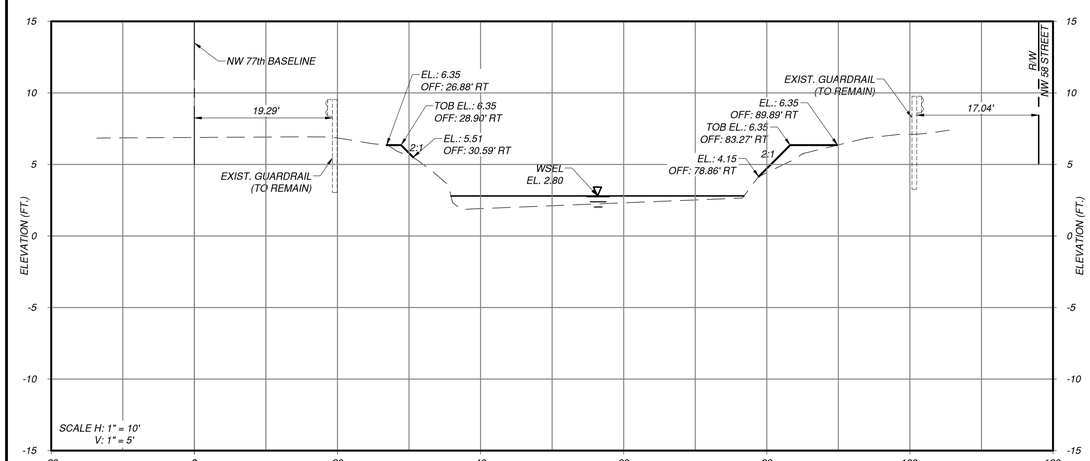


NW 77 CT STA 82+00.00



NW 77 CT STA 82+50.00

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 56+50.00 - STA 57+00.00)
(STA 82+00.00 - STA 82+50.00)
(SHEET 3 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.0 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.3

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
March 22, 2021 10:18 PM
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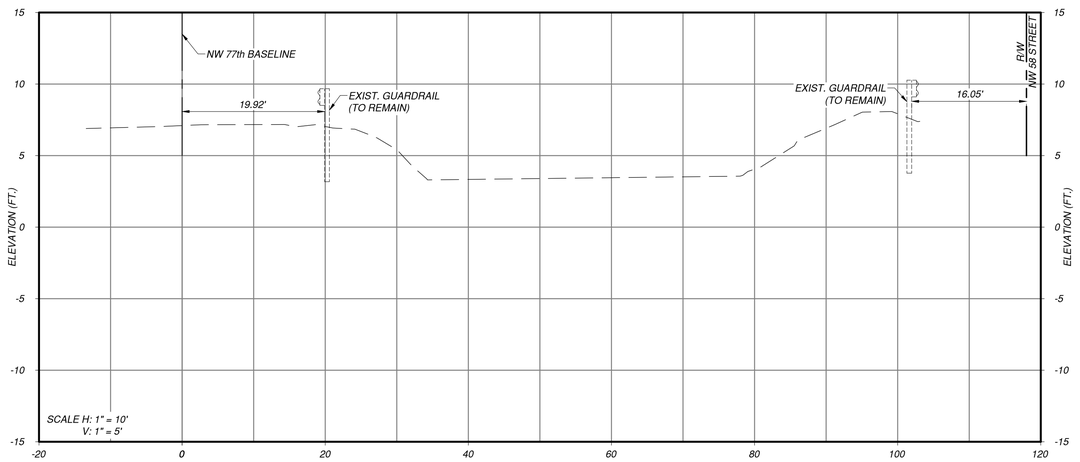
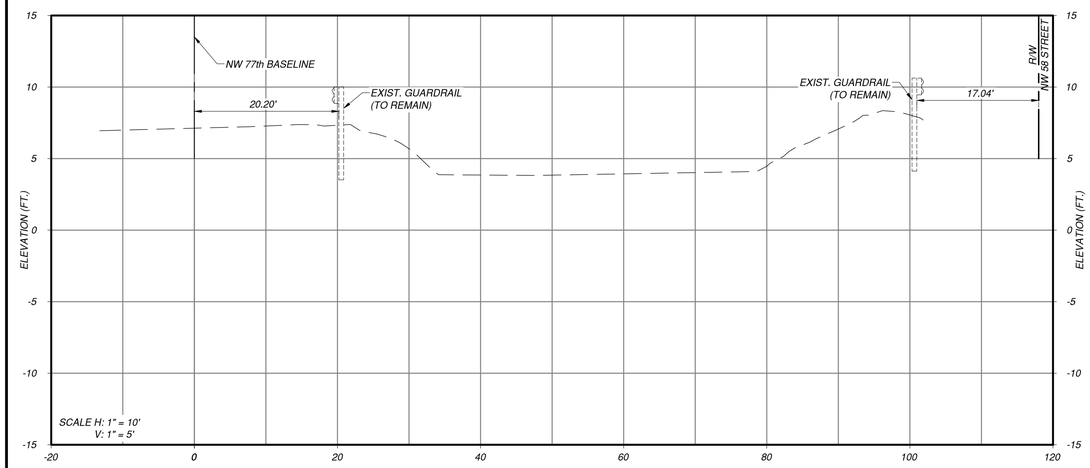
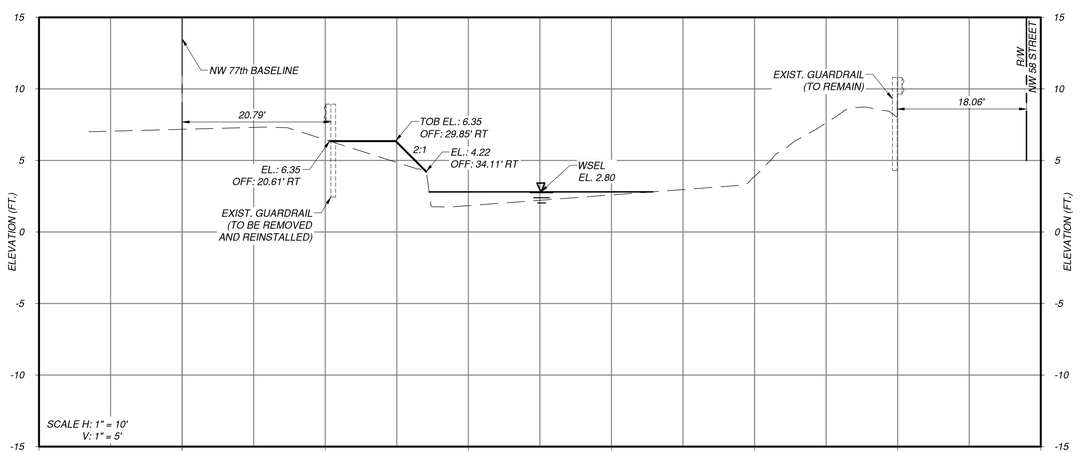


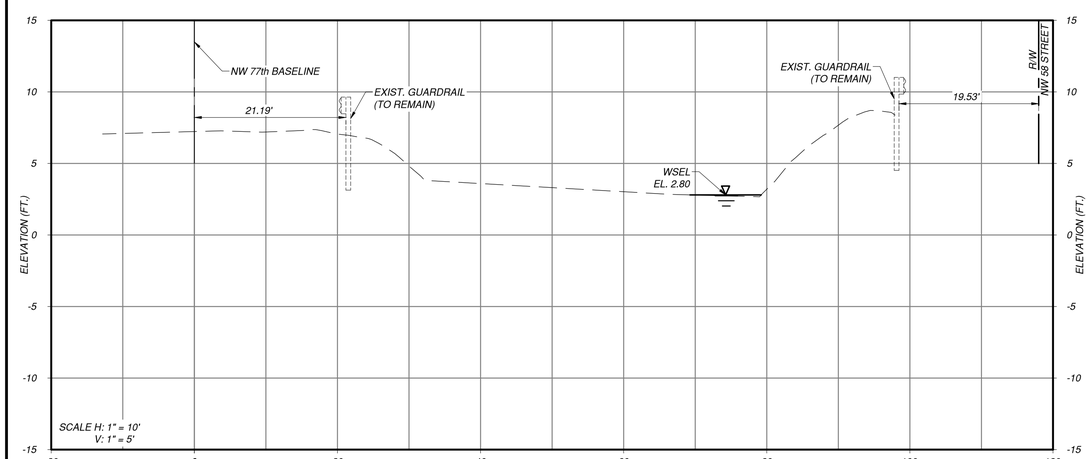
NW 77 CT STA 83+00.00



NW 77 CT STA 83+50.00



NW 77 CT STA 84+00.00



NW 77 CT STA 84+50.00

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 83+00.00 - STA 84+50.00)
(SHEET 4 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.6 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.4

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
January 18, 2022 4:59 PM
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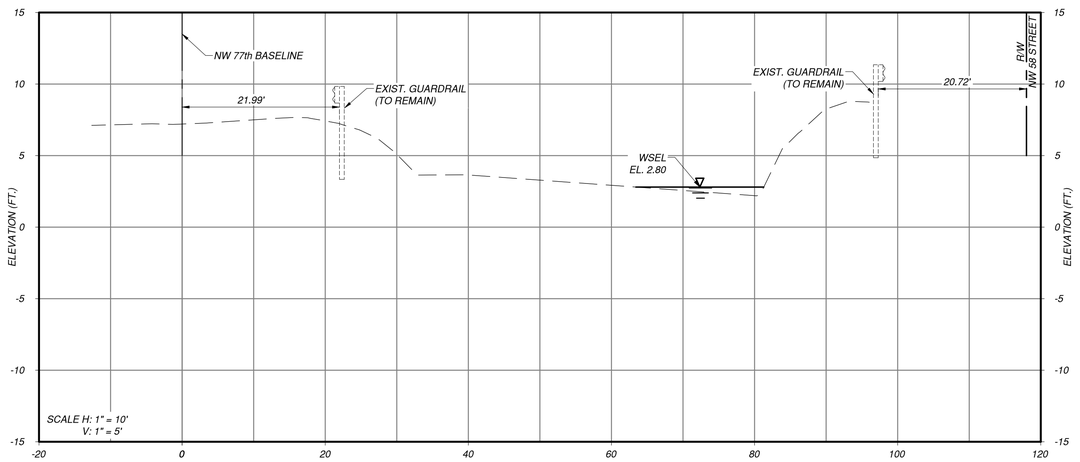
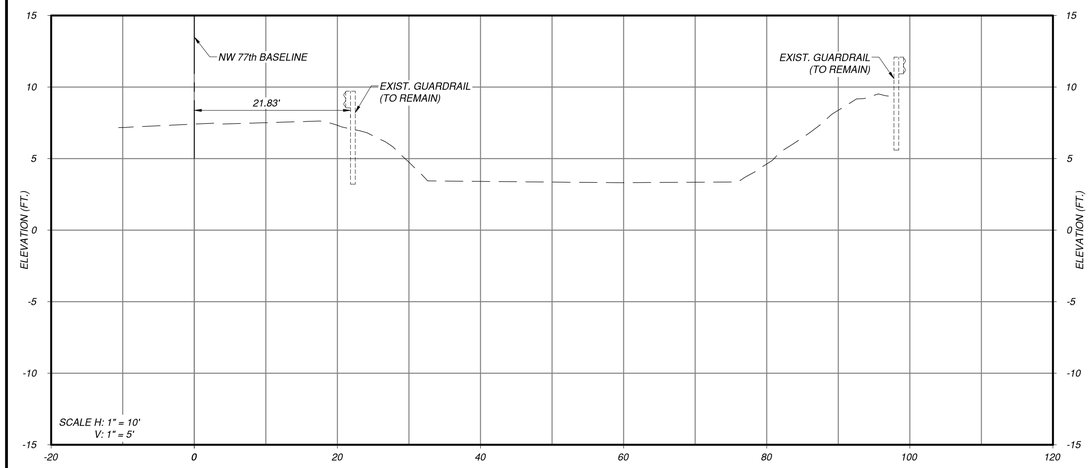
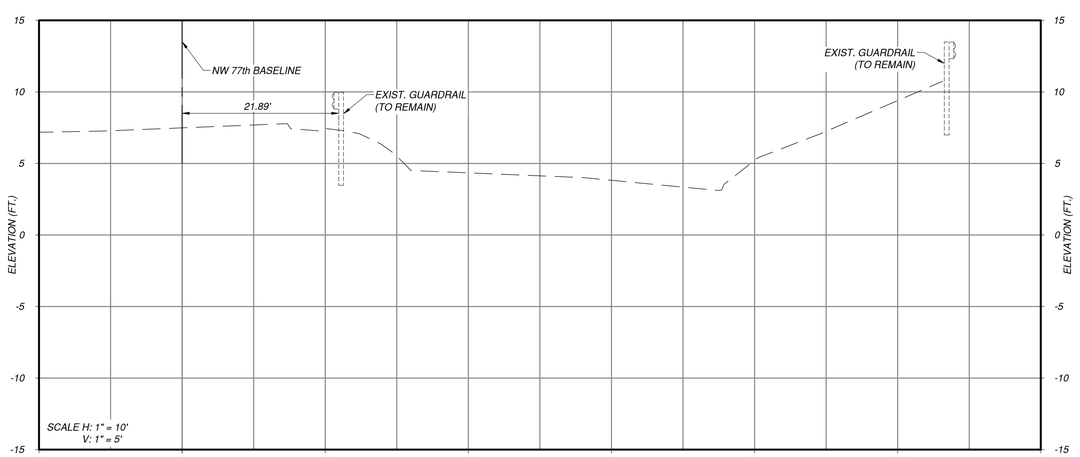


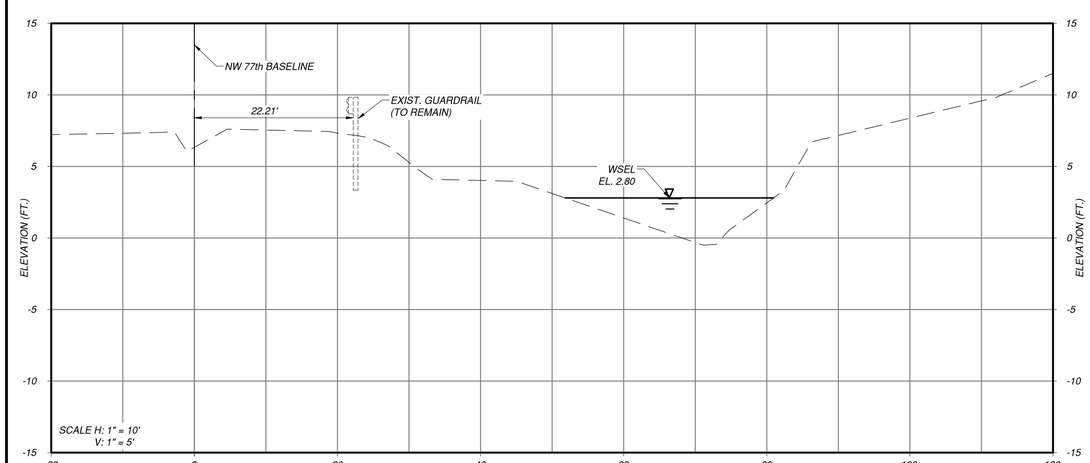
NW 77 CT STA 85+00.00



NW 77 CT STA 85+50.00



NW 77 CT STA 86+00.00



NW 77 CT STA 86+50.00

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 85+00.00 - STA 86+50.00)
(SHEET 5 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.6 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.5

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.
ELIAS GUEVARA
January 18, 2022 4:59 PM
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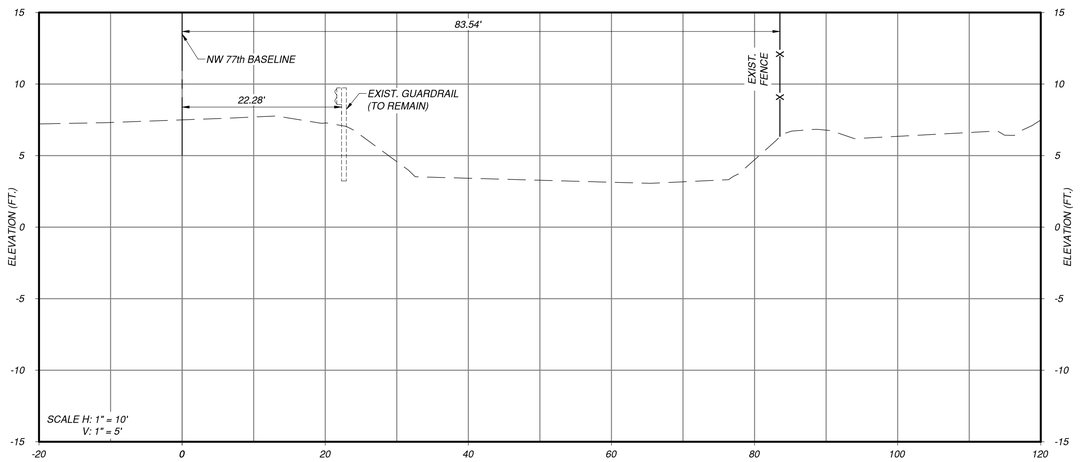
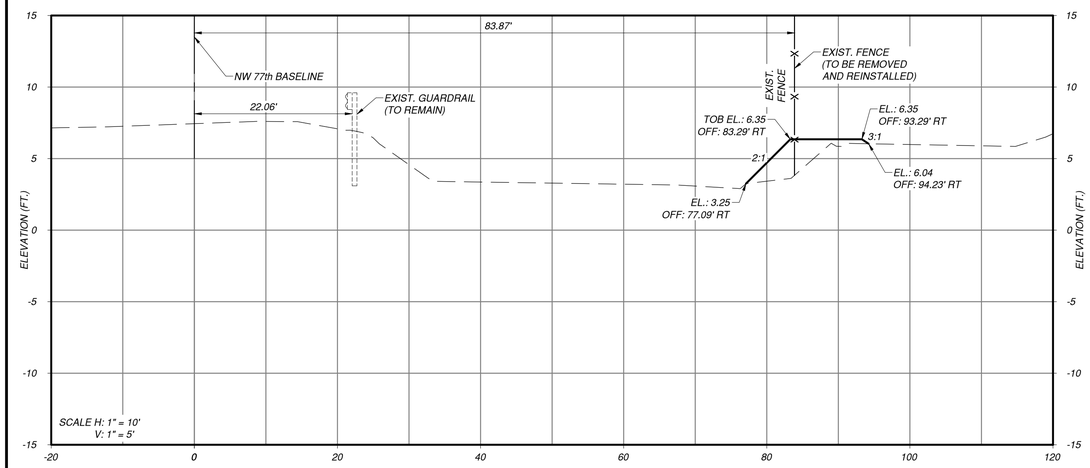
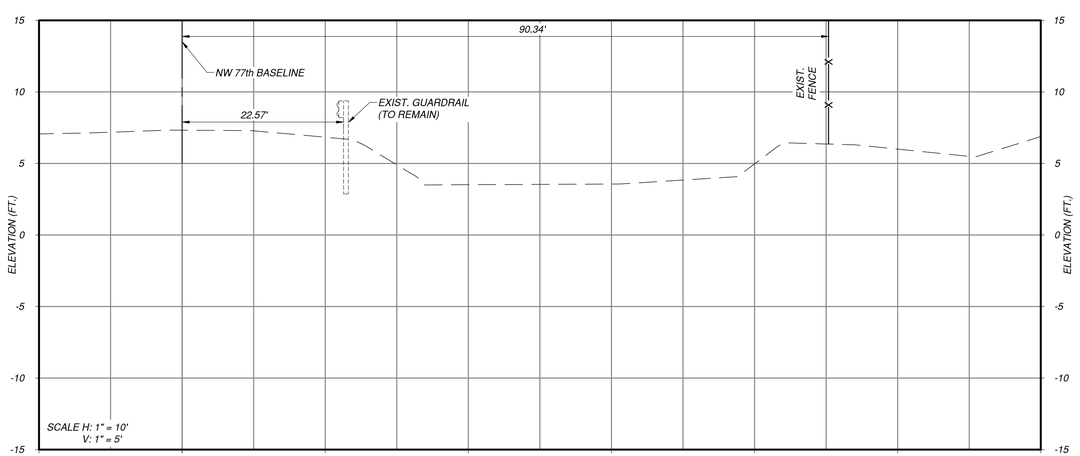


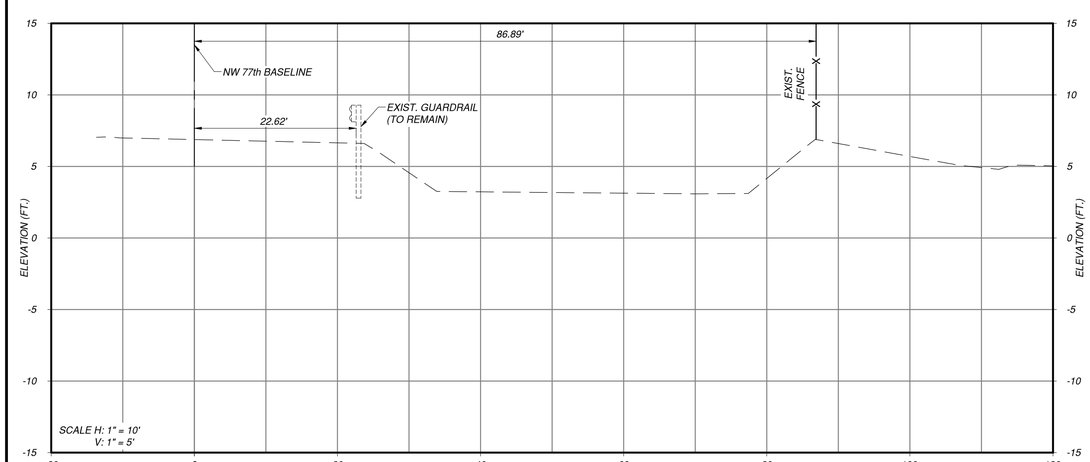
NW 77 CT STA 87+00.00



NW 77 CT STA 87+50.00



NW 77 CT STA 88+00.00



NW 77 CT STA 88+50.00

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 87+00.00 - STA 88+50.00)
(SHEET 6 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.6 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.6

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
January 18, 2022 4:59 PM
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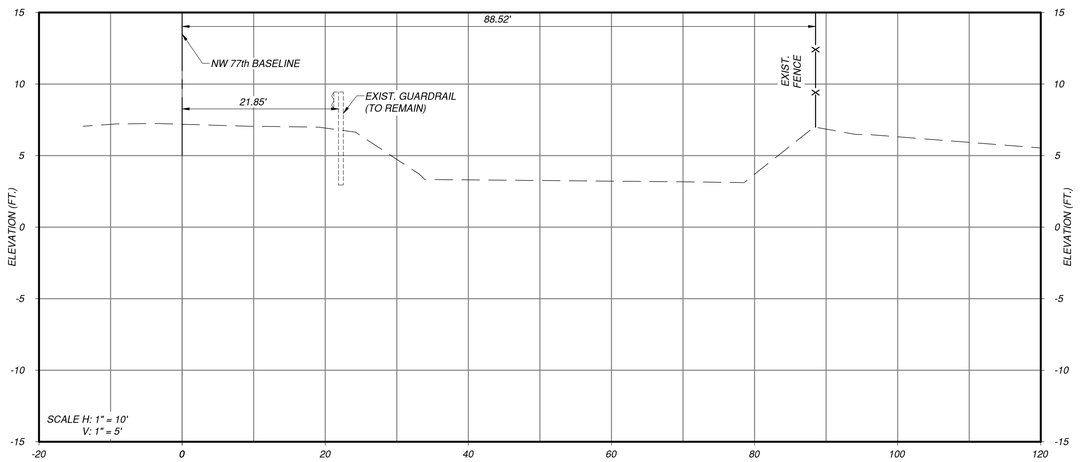
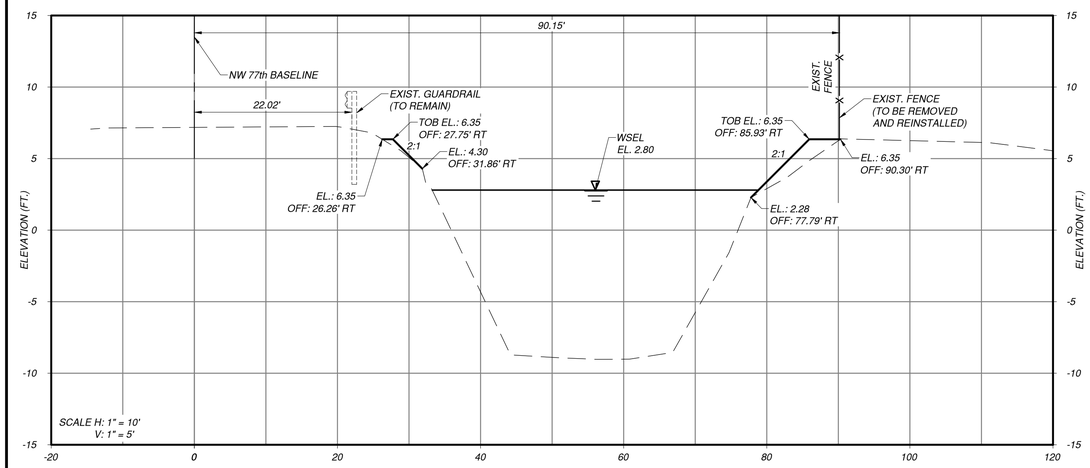


NW 77 CT STA 89+00.00



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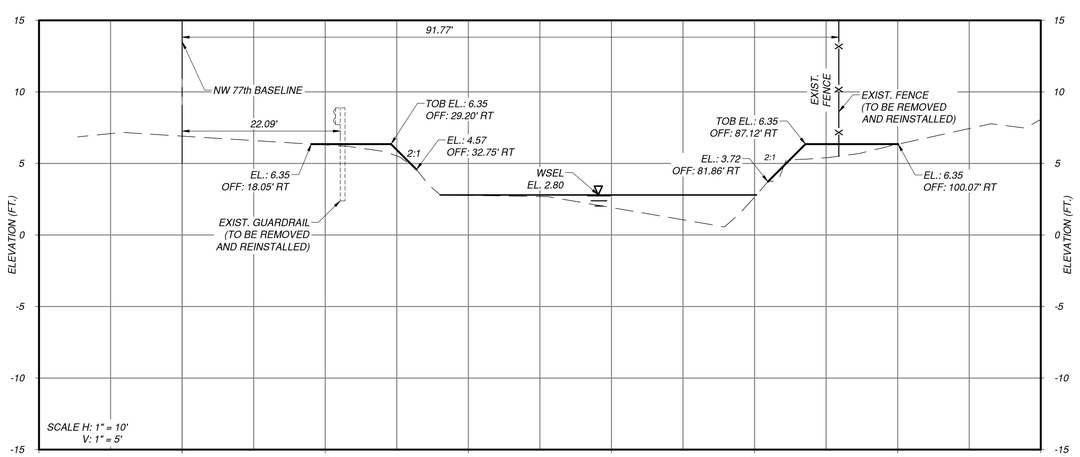

NW 77 CT STA 90+00.00

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL CROSS SECTIONS
(STA 89+00.00 - STA 90+00.00)
(SHEET 7 OF 7)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-8.6 CANAL SECTIONS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-4.7

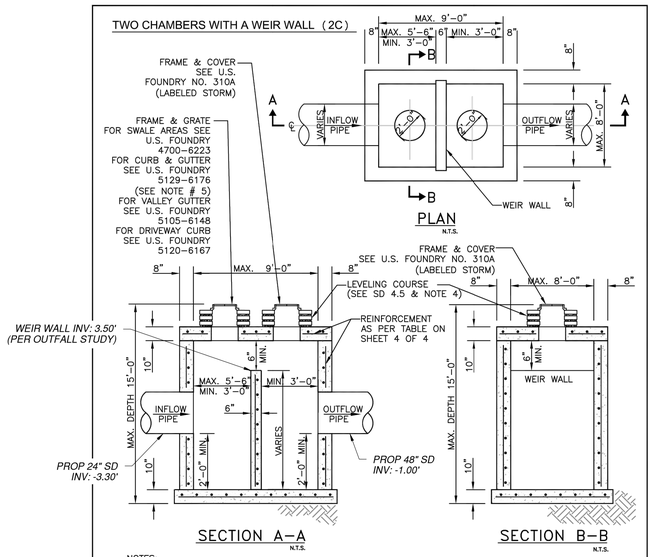
PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
January 18, 2022 4:59 PM
I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-8.6 CANAL SECTIONS.dwg

ELIAS GUEVARA
April 9, 2021 3:12 PM
I:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-7.0 DRAINAGE DETAILS.dwg

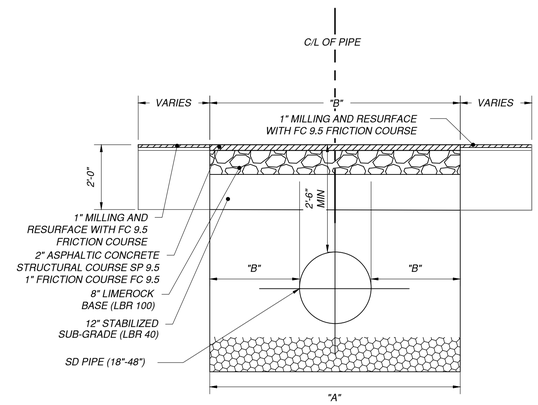
TWO CHAMBERS WITH A WEIR WALL (2C)



NOTES:
1.-CAST TOP SLAB TO FIT WALL USED.
2.-PIPES MAY EXTEND INTO CATCH BASIN A MAXIMUM OF 4".
3.-USE 4,000 psi CONCRETE. (MINIMUM). MAXIMUM W/C=0.53, GRADE 60 STEEL FOR REBAR AND GRADE 65 FOR WWF.
4.-A SMOOTH LINE OF MORTAR 1/2" THICK INSIDE AND OUTSIDE.
5.-IF USING THE FIRST CHAMBER AS AN INLET, A BAFFLE IS REQUIRED BEFORE THE FINAL OUTLET POINT.

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/8/2018	REVISED 5/8/2018 6/18/2014 9/27/2012	STANDARD STORM DRAINAGE DETAIL POLLUTION CONTROL STRUCTURE	SD 5.2 SHEET 2 OF 4

ENGINEER'S NOTES:
1. *DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES.*
2. *CONTRACTOR SHALL ENSURE THAT PROPOSED STRUCTURES INSTALLED ARE DESIGNED BASED ON PROJECT SPECIFIC INFORMATION AND CERTIFIED BY LICENSED STATE OF FLORIDA PROFESSIONAL ENGINEER.*



SOLID PIPE RESTORATION DETAIL
N.T.S.

SOLID PIPE			
SIZE (I.D.)	"A"	"B"	"C"
18"	6.50'	2.50'	6.50'
24"	7.00'	2.50'	7.00'
48"	9.00'	2.50'	9.00'

ENGINEER'S NOTES:
1. *DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES.*
2. *CONTRACTOR SHALL ENSURE THAT PROPOSED STRUCTURES INSTALLED ARE DESIGNED BASED ON PROJECT SPECIFIC INFORMATION AND CERTIFIED BY LICENSED STATE OF FLORIDA PROFESSIONAL ENGINEER.*

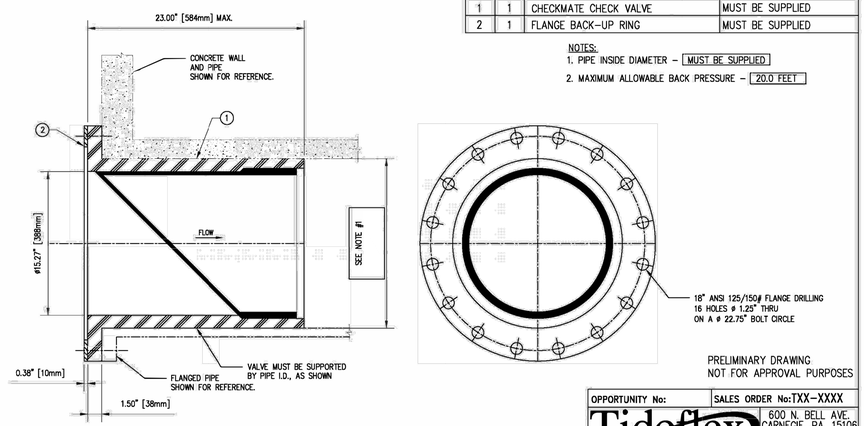
POLLUTION CONTROL STRUCTURE										
Standard Detail	Width (ft)	Length (ft)	Height (ft)	Wall Thickness (in)	Wall Steel	Top Slab Thickness (in)	Top Slab Steel	Bottom Slab Thickness (in)	Bottom Slab Steel	Bottom Slab Overhang (in)
5.2-3C	8.0	14.0	0.0 - 5.0	10.0	#5@9.5"H #4@10"V	10.0	#6@6" E.W.	10.0	#4@8" E.W.	12.0
5.2-3C	8.0	14.0	5.1 - 10.0	10.0	#7@9"H #4@10"V	10.0	#6@6" E.W.	10.0	#4@8" E.W.	12.0
5.2-3C	8.0	14.0	10.1 - 15.0	10.0	#8@8"H #4@10"V	10.0	#6@6" E.W.	10.0	#4@8" E.W.	12.0
5.2-2C	8.0	9.0	0.0 - 5.0	8.0	#5@9.5"H #4@10"V	10.0	#6@6" E.W.	10.0	#4@8" E.W.	12.0
5.2-2C	8.0	9.0	5.1 - 10.0	8.0	#7@9"H #4@10"V	10.0	#6@6" E.W.	10.0	#4@8" E.W.	12.0
5.2-2C	8.0	9.0	10.1-15.0	8.0	#8@8"H #4@10"V	10.0	#6@6" E.W.	10.0	#4@8" E.W.	12.0

5.2-3C - POLLUTION CONTROL STRUCTURE 3 CHAMBER
5.2-2C - POLLUTION CONTROL STRUCTURE 2 CHAMBER

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED 5/8/2018	REVISED 5/8/2018	STANDARD STORM DRAINAGE DETAIL POLLUTION CONTROL STRUCTURE	SD 5.2 SHEET 4 OF 4

ITEM	QTY.	DESCRIPTION	MAT'L
1	1	CHECKMATE CHECK VALVE	MUST BE SUPPLIED
2	1	FLANGE BACK-UP RING	MUST BE SUPPLIED

NOTES:
1. PIPE INSIDE DIAMETER - MUST BE SUPPLIED
2. MAXIMUM ALLOWABLE BACK PRESSURE - 20.0 FEET



PRELIMINARY DRAWING
NOT FOR APPROVAL PURPOSES

CUSTOMER: XXX
ORDER No: XXX

OPPORTUNITY No: | SALES ORDER No: TXX-XXXX

Tideflex Technologies
A Division of Red Valve Company, Inc.
600 N. BELL AVE.
CARNEGIE, PA. 15106
info@tideflex.com
412.279.0044
fax 412.279.5410

TT PRODUCT: 18" CHECKMATE VALVE (FLANGE UPSTREAM)
TT PART No: CMFU-180-APPROVAL
DR. BY: PAP DATE: 10-19-10 | CHKD. BY: DATE:
CAD SCALE: FULL
PLOT SCALE: NTS
DWG No: TTS-DWG | REV

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DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
DRAINAGE CONSTRUCTION DETAILS (SHEET 1 OF 2)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-7.0 DRAINAGE DETAILS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-5.1

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

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PROJECT: SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

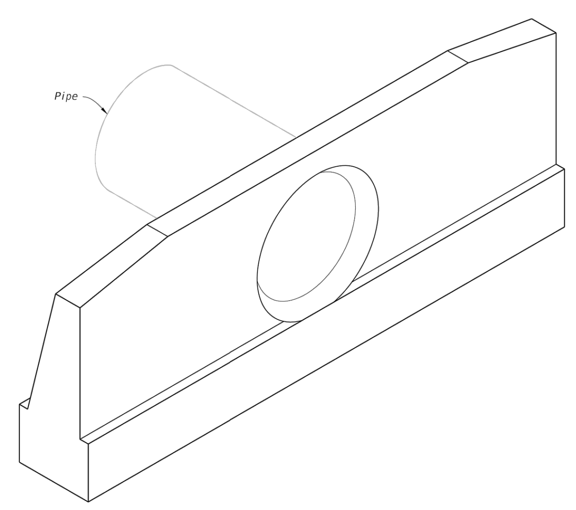
SHEET TITLE: DRAINAGE CONSTRUCTION DETAILS (SHEET 2 OF 2)

GENERAL NOTES:

1. Use Class I concrete.
2. Reinforcing steel is either Grade 40 or 60.
3. Endwalls may be cast in place or precast concrete. (Additional reinforcement necessary for handling precast units will be determined by the Contractor or the supplier).
4. Chamfer all exposed edges and corners to ¾".
5. Endwall dimensions, locations and positions are for round and elliptical concrete pipe and for round and pipe-arch corrugated metal pipe. Round concrete pipe shown.
6. On outfall ditches with side slopes flatter than 1:1.5 provide 20' transitions from the endwall to the flatter side slopes, right of way permitting.
7. Construct front slope and ditch transitions in accordance with Index 430-001.
8. Quantities shown are for estimating purposes only.

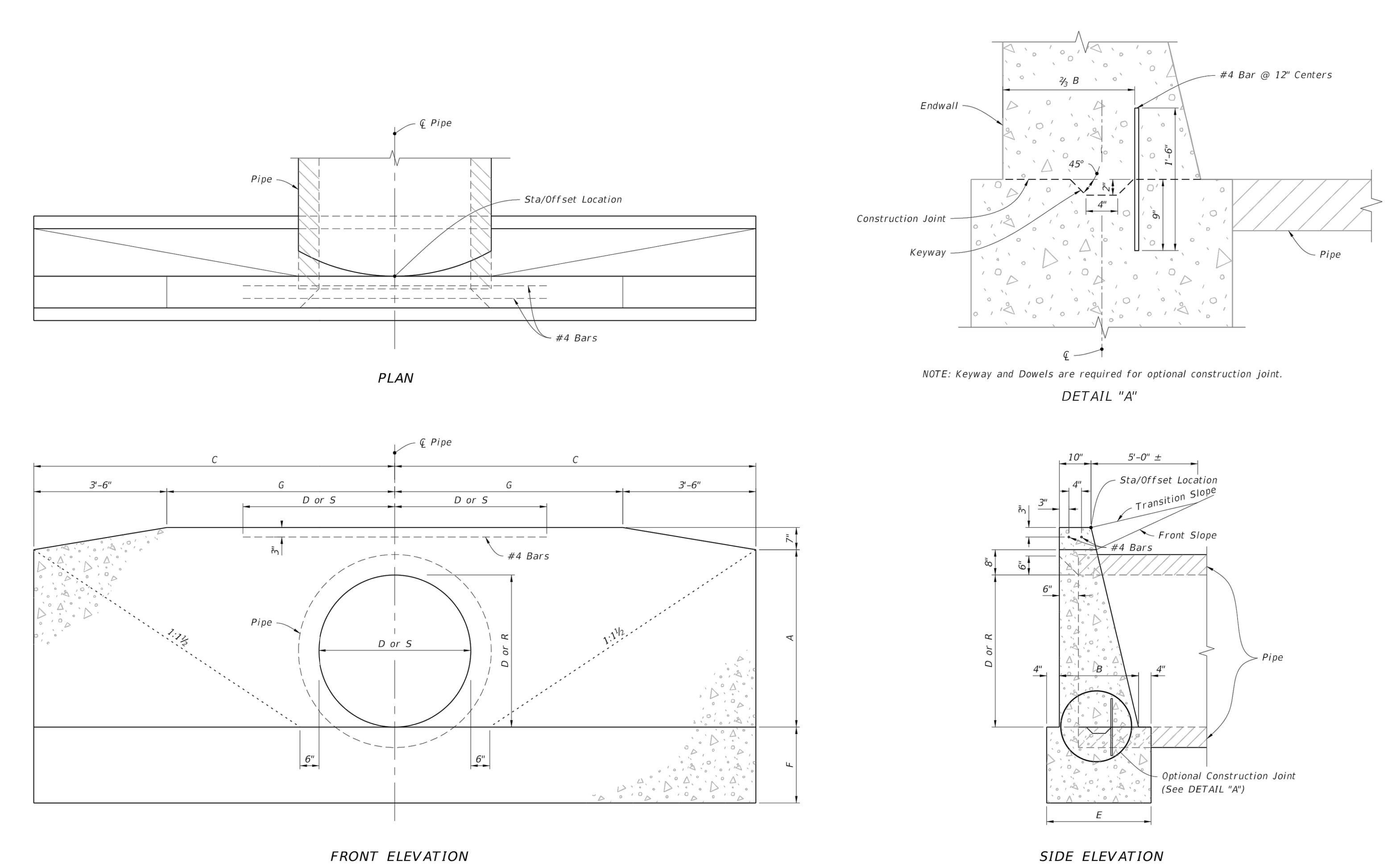
TABLE OF CONTENTS:

Sheet	Description
1	General Notes and Contents
2	Concrete Endwall Details
3	Concrete and Metal Pipe Tables
4	Spacing For Multiple Pipes



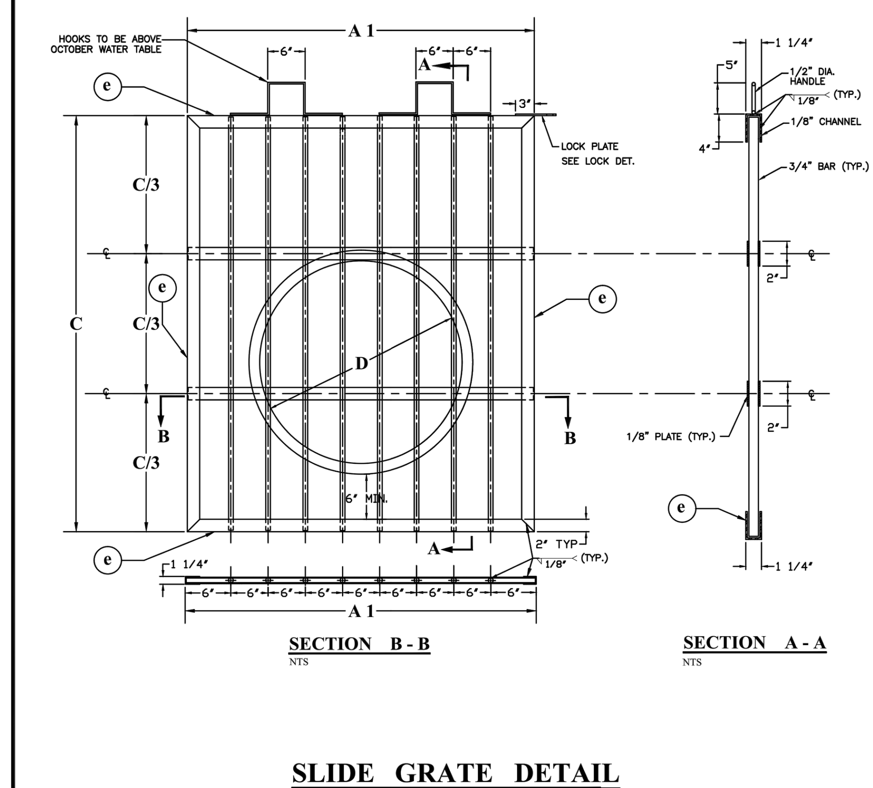
STRAIGHT CONCRETE ENDWALL

LAST REVISION 11/01/19 | DESCRIPTION: | FDOT | FY 2020-21 STANDARD PLANS | STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE | INDEX 430-030 | SHEET 1 of 4



CONCRETE ENDWALL DETAILS

LAST REVISION 11/01/19 | DESCRIPTION: | FDOT | FY 2020-21 STANDARD PLANS | STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE | INDEX 430-030 | SHEET 2 of 4



SLIDE GRATE DETAIL

NTS

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS | APPROVED 5/9/2018 | REVISED 5/9/2018 | STANDARD STORM DRAINAGE DETAIL MANATEE GRATE | SD 5.1 SHEET 1 OF 4

ROUND CONCRETE AND CORRUGATED METAL PIPE

Pipe	Dia. D	Opening Area (SF) Number Of Pipes 1	2	3	4	Dimensions A	B	C	E	F	G	Y	X 0°	15°	30°	45°
Concrete	15"	1.23	2.46	3.69	4.92	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-7"	2'-7"	2'-8"	3'-0"	3'-8"
	18"	1.77	3.54	5.31	7.08	2'-2"	1'-3"	4'-6"	1'-11"	1'-3"	1'-0"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"
	21"	2.41	4.82	7.23	9.64	2'-5"	1'-4"	5'-0"	2'-0"	1'-4"	1'-6"	3'-2"	3'-2"	3'-3"	3'-8"	4'-6"
	24"	3.14	6.28	9.42	12.56	2'-8"	1'-4"	5'-6"	2'-0"	1'-4"	2'-0"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"
	27"	3.98	7.96	11.94	15.92	2'-11"	1'-5"	6'-0"	2'-1"	1'-5"	2'-6"	3'-10"	3'-10"	4'-0"	4'-5"	5'-5"
	30"	4.91	9.82	14.73	19.64	3'-2"	1'-6"	6'-6"	2'-2"	1'-6"	3'-0"	4'-3"	4'-3"	4'-5"	4'-11"	6'-0"
	36"	7.07	14.14	21.21	28.28	3'-8"	1'-8"	7'-6"	2'-4"	1'-8"	4'-0"	5'-1"	5'-1"	5'-3"	5'-10"	7'-2"
	42"	9.62	19.24	28.86	38.48	4'-2"	1'-10"	8'-6"	2'-6"	2'-0"	5'-0"	6'-0"	6'-0"	6'-3"	6'-11"	8'-6"
	48"	12.57	25.14	37.71	50.28	4'-8"	2'-1"	9'-6"	2'-9"	2'-0"	6'-0"	6'-9"	6'-9"	7'-0"	7'-10"	9'-7"
	54"	15.90	31.80	47.70	63.60	5'-2"	2'-6"	10'-6"	3'-2"	2'-3"	7'-0"	7'-8"	7'-8"	7'-11"	8'-10"	10'-10"
Corrugated Metal	15"	1.23	2.46	3.69	4.92	1'-11"	1'-2"	4'-0"	1'-10"	1'-2"	0'-6"	2'-7"	2'-7"	2'-8"	3'-0"	3'-8"
	18"	1.77	3.54	5.31	7.08	2'-2"	1'-3"	4'-6"	1'-11"	1'-3"	1'-0"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"
	21"	2.41	4.82	7.23	9.64	2'-5"	1'-4"	5'-0"	2'-0"	1'-4"	1'-6"	3'-2"	3'-2"	3'-3"	3'-8"	4'-6"
	24"	3.14	6.28	9.42	12.56	2'-8"	1'-4"	5'-6"	2'-0"	1'-4"	2'-0"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"
	27"	3.98	7.96	11.94	15.92	2'-11"	1'-5"	6'-0"	2'-1"	1'-5"	2'-6"	3'-10"	3'-10"	4'-0"	4'-5"	5'-5"
	30"	4.91	9.82	14.73	19.64	3'-2"	1'-6"	6'-6"	2'-2"	1'-6"	3'-0"	4'-3"	4'-3"	4'-5"	4'-11"	6'-0"
	36"	7.07	14.14	21.21	28.28	3'-8"	1'-8"	7'-6"	2'-4"	1'-8"	4'-0"	5'-1"	5'-1"	5'-3"	5'-10"	7'-2"
	42"	9.62	19.24	28.86	38.48	4'-2"	1'-10"	8'-6"	2'-6"	2'-0"	5'-0"	6'-0"	6'-0"	6'-3"	6'-11"	8'-6"
	48"	12.57	25.14	37.71	50.28	4'-8"	2'-1"	9'-6"	2'-9"	2'-0"	6'-0"	6'-9"	6'-9"	7'-0"	7'-10"	9'-7"
	54"	15.90	31.80	47.70	63.60	5'-2"	2'-6"	10'-6"	3'-2"	2'-3"	7'-0"	7'-8"	7'-8"	7'-11"	8'-10"	10'-10"

Pipe	Class I Concrete (CY), Number Of Pipe And Skew Angle Of Pipe (α): Single 0°	Double 0°	Double 15°	Double 30°	Double 45°	Triple 0°	Triple 15°	Triple 30°	Triple 45°	Quadruple 0°	Quadruple 15°	Quadruple 30°	Quadruple 45°	Dia. D
Concrete	1.23	1.59	1.60	1.65	1.74	1.94	1.96	2.05	2.23	2.30	2.34	2.47	2.74	15"
	1.56	1.99	2.01	2.06	2.17	2.43	2.46	2.56	2.79	2.86	2.91	3.06	3.40	18"
	1.97													21"
	2.24	2.82	2.84	2.91	3.06	3.39	3.43	3.57	3.87	3.97	4.03	4.24	4.69	24"
	2.73													27"
	3.26	4.13	4.16	4.26	4.49	4.98	5.04	5.25	5.69	5.84	5.93	6.24	6.91	30"
	4.53	5.73	5.77	5.92	6.23	6.92	7.00	7.29	7.91	8.13	8.26	8.69	9.62	36"
	6.33	8.11	8.17	8.39	8.85	9.90	10.02	10.45	11.38	11.68	11.87	12.51	13.89	42"
	8.15	10.40	10.48	10.75	11.33	12.64	12.80	13.34	14.50	14.89	15.13	15.93	17.68	48"
	11.71	15.23	15.35	15.78	16.69	18.77	19.02	19.86	21.69	22.29	22.66	23.93	26.67	54"
Corrugated Metal	1.24	1.62	1.63	1.68	1.78	1.99	2.02	2.11	2.30	2.37	2.41	2.75	2.84	15"
	1.59	2.04	2.06	2.11	2.23	2.51	2.54	2.65	2.89	2.96	3.01	3.17	3.53	18"
														21"
	2.29	2.91	2.93	3.01	3.17	3.52	3.56	3.71	4.03	4.14	4.20	4.43	4.91	24"
														27"
	3.34	4.28	4.31	4.43	4.67	5.20	5.27	5.49	5.97	6.13	6.23	6.56	7.29	30"
	4.64	5.95	6.00	6.15	6.49	7.25	7.34	7.65	8.33	8.57	8.71	9.18	10.20	36"
	6.49	8.43	8.50	8.73	9.23	10.38	10.52	10.98	11.99	12.32	12.52	13.22	14.73	42"
	8.38	10.85	10.94	11.23	11.87	13.34	13.51	14.11	15.39	15.82	16.08	16.97	18.90	48"
	11.77	15.35	15.48	15.90	16.83	18.93	19.18	20.04	21.89	22.51	22.89	24.17	26.96	54"

ELLIPTICAL CONCRETE AND CORRUGATED METAL PIPE ARCH

Pipe	Rise R	Span S	Opening Area (SF) Number Of Pipes 1	2	3	4	Dimensions A	B	C	E	F	G	Y	X 0°	15°	30°	45°
Concrete	12"	18"	1.3	2.6	3.9	5.2	1'-8"	1'-2"	3'-9"	1'-10"	1'-2"	0'-3"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"
	14"	23"	1.8	3.6	5.4	7.2	1'-10"	1'-3"	4'-2½"	1'-11"	1'-3"	8½"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"
	19"	30"	3.3	6.6	9.9	13.2	2'-3"	1'-4"	5'-1½"	2'-0"	1'-4"	1'-7½"	4'-2"	4'-2"	4'-4"	4'-10"	5'-11"
	24"	38"	5.1	10.2	15.3	20.4	2'-8"	1'-5"	6'-3"	2'-1"	1'-5"	2'-9"	5'-2"	5'-2"	5'-4"	6'-0"	7'-4"
	29"	45"	7.4	14.8	22.2	29.6	3'-1"	1'-6"	7'-0"	2'-2"	1'-6"	3'-6"	6'-0"	6'-0"	6'-3"	6'-11"	8'-6"
	34"	53"	10.2	20.4	30.6	40.8	3'-6"	1'-7"	7'-11½"	2'-3"	1'-7"	4'-5½"	7'-1"	7'-1"	7'-4"	8'-2"	10'-0"
	38"	60"	12.9	25.8	38.7	51.6	3'-10"	1'-8"	8'-9"	2'-4"	1'-8"	5'-3"	7'-11"	7'-11"	8'-2"	9'-2"	11'-2"
	43"	68"	16.6	33.2	49.8	66.4	4'-3"	1'-10"	9'-8½"	2'-6"	1'-10"	6'-2½"	8'-10"	8'-10"	9'-2"	10'-2"	12'-6"
	48"	76"	20.5	41.0	61.5	82.0	4'-8"	2'-1"	10'-8"	2'-9"	2'-0"	7'-2"	9'-9"	9'-9"	10'-1"	11'-3"	13'-9"
	53"	83"	24.8	49.6	74.4	99.2	5'-1"	2'-6"	11'-7"	3'-2"	2'-6"	8'-1"	10'-7"	10'-7"	10'-11"	12'-3"	15'-0"
	58"	91"	29.5	59.0	88.5	118.0	5'-6"	2'-10"	12'-6½"	3'-6"	2'-10"	9'-0½"	11'-4"	11'-4"	11'-9"	13'-1"	16'-0"
Corrugated Metal	13"	17"	1.1	2.2	3.3	4.4	1'-9"	1'-2"	3'-10"	1'-10"	1'-2"	0'-4"	2'-6"	2'-6"	2'-7"	2'-11"	3'-6"
	15"	21"	1.6	3.2	4.8	6.4	1'-11"	1'-2"	4'-3"	1'-10"	1'-2"	0'-9"	2'-10"	2'-10"	2'-11"	3'-3"	4'-0"
	20"	28"	2.8	5.6	8.4	11.2	2'-4"	1'-3"	5'-2"	1'-11"	1'-3"	1'-8"	3'-5"	3'-5"	3'-6"	3'-11"	4'-10"
	24"	35"	4.3	8.6	12.9	17.2	2'-8"	1'-4"	5'-11½"	2'-0"	1'-4"	2'-5½"	4'-0"	4'-0"	4'-2"	4'-7"	5'-8"
	29"	42"	5.9	11.8	17.7	23.6	3'-1"	1'-5"	6'-10½"	2'-1"	1'-5"	3'-4½"	4'-9"	4'-9"	4'-11"	5'-6"	6'-9"
	33"	49"	8.4	16.8	25.2	33.6	3'-5"	1'-6"	7'-8"	2'-2"	1'-6"	4'-2"	5'-6"	5'-6"	5'-8"	6'-4"	7'-9"
	38"	57"	10.6	21.2	31.8	42.4	3'-10"	1'-7"	8'-7½"	2'-3"	1'-7"	5'-1½"	6'-4"	6'-4"	6'-7"	7'-4"	8'-11"
	43"	64"	13.2	26.4	39.6	52.8	4'-3"	1'-8"	9'-6½"	2'-4"	1'-8"	6'-0½"	7'-1"	7'-1"	7'-4"	8'-2"	10'-0"
	47"	71"	16.9	33.8	50.7	67.6	4'-7"	1'-10"	10'-4"	2'-6"	2'-0"	6'-10"	7'-10"	7'-10"	8'-1"	9'-1"	11'-1"

Pipe	Class I Concrete (CY), Number Of Pipe And Skew Angle Of Pipe (α): Single 0°	Double 0°	Double 15°	Double 30°	Double 45°	Triple 0°	Triple 15°	Triple 30°	Triple 45°	Quadruple 0°	Quadruple 15°	Quadruple 30°	Quadruple 45°	Rise R	Span S	Approx. Equiv. Round
Concrete	1.09	1.45	1.46	1.51	1.60	1.80	1.82	1.91	2.09	2.16	2.20	2.33	2.60	12"	18"	15"
	1.36	1.82	1.84	1.89	2.01	2.29	2.32	2.43	2.68	2.75	2.80	2.97	3.33	14"	23"	18"
	1.89	2.55	2.57	2.65	2.82	3.22	3.27	3.43	3.77	3.88	3.95	4.19	4.70	19"	30"	24"
	2.64	3.55	3.58	3.69	3.93	4.48	4.54	4.77	5.24	5.39	5.49	5.82	6.53	24"	38"	30"
	3.32	4.48	4.52	4.66	4.96	5.64	5.72	6.00	6.60	6.80	6.92	7.34	8.24	29"	45"	36"
	4.24	5.76	5.81	6.00	6.39	7.29	7.40	7.76	8.55	8.81	8.97	9.52	10.70	34"	53"	42"
	5.22	7.16	7.23	7.46	7.96	9.10	9.24	9.70	10.71	11.05	11.25	11.95	13.46	38"	60"	48"
	6.63	9.01	9.09	9.38	10.00	11.39	11.56	12.13	13.36	13.77	14.02	14.88	16.73	43"	68"	54"
	8.66	11.74	11.85	12.22	13.02	14.82	15.04	15.77	17.37	17.91	18.23	19.34	21.74	48"	76"	60"
	12.50	16.98	16.98	17.67	18.83	21.47	21.78	22.86	25.18	25.97	26.44	28.06	31.55	53"	83"	66"
	16.46	22.26	22.46	23.16	24.66	28.05	28.46	29.85	32.85	33.85	34.46	36.55	41.05	58"	91"	72"
Corrugated Metal	1.16	1.47	1.48	1.52	1.60	1.78	1.80	1.88	2.04	2.09	2.12	2.23	2.48	13"	17"	15"
	1.33	1.69	1.70	1.75	1.84	2.04	2.06	2.15	2.33	2.40	2.44	2.57	2.84	15"	21"	18"
	1.78	2.31	2.33	2.39	2.53	2.83	2.87	2.99	3.26	3.36	3.42	3.60	4.01	20"	28"	24"
	2.34	3.03	3.05	3.14	3.32	3.72	3.77	3.93	4.29	4.40	4.47	4.72	5.25	24"	35"	30"
	3.13	4.06	4.09	4.20	4.45	4.99	5.06	5.28	5.76	5.93	6.03	6.36	7.09	29"	42"	36"
	3.83	5.00	5.04	5.18	5.48	6.16	6.24	6.52	7.12	7.32	7.44	7.86	8.76	33"	49"	42"
	4.87	6.31	6.36	6.53	6.91	7.74	7.84	8.18	8.93	9.18	9.33	9.85	10.96	38"	57"	48"
	5.88	7.64	7.70	7.91	8.37	9.40	9.52	9.94	10.86	11.15	11.33	11.97	13.33	43"	64"	54"
	7.80	10.15	10.23	10.51	11.12	12.49	12.65	13.22	14.43	14.85	15.10	15.94	17.77	47"	71"	60"

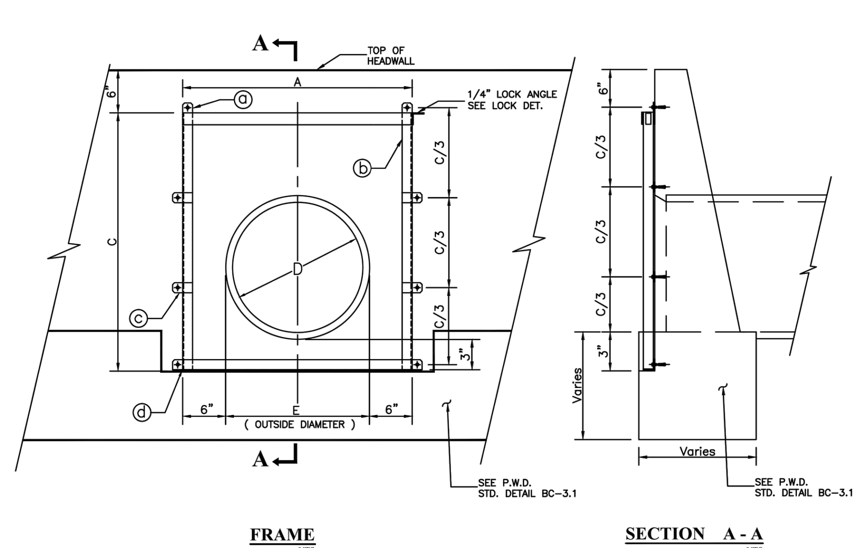
NOTES:

1. Dimension X is calculated as: X = S*SEC α.
2. Select tabular quantities using skew values as follows:

End Skew to Pipe	Use Tabulated Value
0° to 5°	0°
6° to 15°	15°
16° to 30°	30°
31° or Over	45°

CONCRETE AND METAL PIPE TABLES

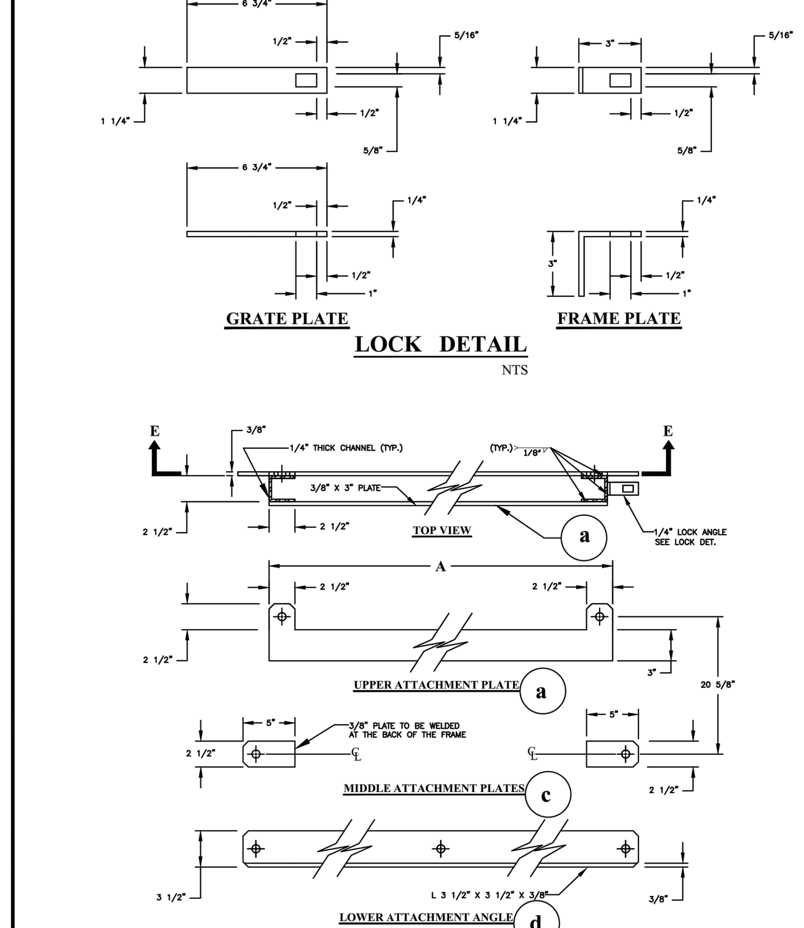
LAST REVISION 11/01/19 | DESCRIPTION: | FDOT | FY 2020-21 STANDARD PLANS | STRAIGHT CONCRETE ENDWALLS SINGLE AND MULTIPLE PIPE | INDEX 430-030 | SHEET 3 of 4



FRAME

SECTION A - A

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS | APPROVED 5/9/2018 | REVISED 5/9/2018 | STANDARD STORM DRAINAGE DETAIL MANATEE GRATE | SD 5.1 SHEET 2 OF 4



LOCK DETAIL

NTS

SECTION E - E

NTS

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS | APPROVED 5/9/2018 | REVISED 5/9/2018 | STANDARD STORM DRAINAGE DETAIL MANATEE GRATE | SD 5.1 SHEET 3 OF 4

MANATEE GRATE TABLE

D	A	C	E	A1	a	b	c	d	e	No. of Bars @ 6" o.c.
18	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"X2 1/2"X2 1/2"	3/8"X2 1/2"X5"	L3 1/2"X3 1/2"X3/8"	C1/8"X1 1/4"X3"	4
24	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"X2 1/2"X2 1/2"	3/8"X2 1/2"X5"	L3 1/2"X3 1/2"X3/8"	C1/8"X1 1/4"X3"	5
30	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"X2 1/2"X2 1/2"	3/8"X2 1/2"X5"	L3 1/2"X3 1/2"X3/8"	C1/8"X1 1/4"X3"	6
36	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"X2 1/2"X2 1/2"	3/8"X2 1/2"X5"	L3 1/2"X3 1/2"X3/8"	C1/8"X1 1/4"X4"	7
42	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"X2 1/2"X2 1/2"	3/8"X2 1/2"X5"	L3 1/2"X3 1/2"X3/8"	C1/8"X1 1/4"X4"	8
48	E+12"	VARIES	O.D.	A-1"	3/8" PLATE	C1/4"X2 1/2"X2 1/2"	3/8"X2 1/2"X5"	L3 1/2"X3 1/2"X3/8"	C1/8"X1 1/4"X4"	8
54	E+12"	VARIES	O.D.	A-1"	3/4" PLATE	C1/2"X2 1/2"X2 1/2"	3/4"X4 1/2"X10"	L3 1/2"X3 1/2"X1/2"	C1/8"X1 1/4"X4"	10
60	E+12"	VARIES	O.D.	A-1"	3/4" PLATE	C1/2"X2 1/2"X2 1/2"	3/4"X4 1/2"X10"	L3 1/2"X3 1/2"X1/2"	C1/8"X1 1/4"X4"	11

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS | APPROVED 5/9/2018 | REVISED 5/9/2018 | STANDARD STORM DRAINAGE DETAIL MANATEE GRATE TABLE | SD 5.1 SHEET 4 OF 4

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

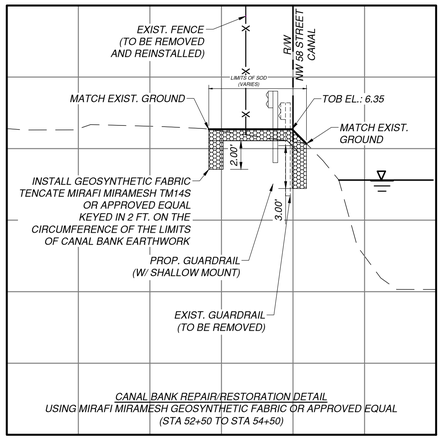
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-7.0 DRAINAGE DETAILS.dwg
DATE: AUGUST 2021
SHEET NO.
SD-5.2

PERMITTING SET

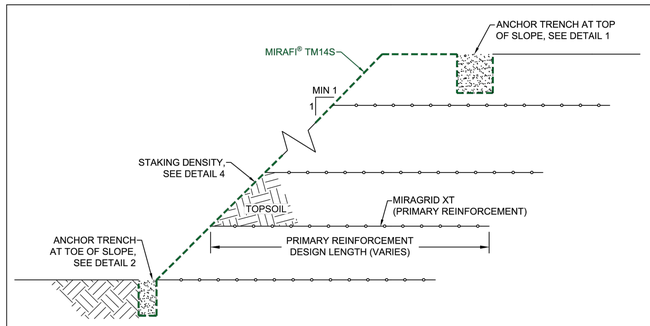
DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
April 9, 2021 3:12 PM
I:\Project17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-7.0 DRAINAGE DETAILS.dwg



CANAL BANK REPAIR/RESTORATION DETAIL
USING MIRAFI MIRAMESH GEOSYNTHETIC FABRIC OR APPROVED EQUAL
(STA 52+50 TO STA 54+50)

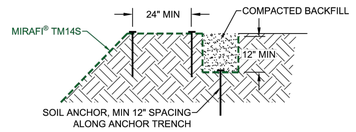
NOTES:
1. SHRUBS AND MISCELLANEOUS VEGETATION WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED AS PART OF CLEARING & GRUBBING.
2. CONTRACTOR SHALL COORDINATE WITH THE CITY PRIOR TO THE REMOVAL OF ANY TREES.
3. ALL PUBLICITY AND PRIVATELY OWNER FACILITIES WITHIN THE PROJECT LIMITS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTORY OF THE OWNER AT NO ADDITIONAL COST TO THE CITY.



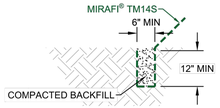
TYPICAL SECTION - REINFORCED SLOPE WITH MIRAFI® TM14S FACING
NOT TO SCALE

NOTES:
SLOPE SHALL BE OVERBUILT AND CUT BACK TO FINAL GEOMETRY PRIOR TO PLACEMENT OF TOPSOIL, IF UNABLE TO ACHIEVE SATISFACTORY COMPACTION AT SLOPE FACE.

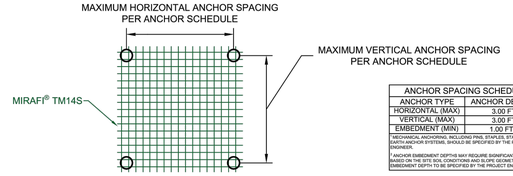
MIRAFI® TM14S ROLL SIDE IS 12-FT WIDE x 70-FT LONG. UNROLL MIRAFI® TM14S DOWN THE SLOPE FACE. INSTALL MIRAFI® TM14S USING AN ANCHOR TRENCH AT THE TOP AND BOTTOM OF THE SLOPE AS SHOWN IN DETAIL 1 AND DETAIL 2. OVERLAP MIRAFI® TM14S A MINIMUM OF 6-INCHES ALONG ROLL EDGES, AS SHOWN IN DETAIL 3. USE SOIL ANCHORS AS OUTLINED IN DETAIL 4.



DETAIL 1 - LONGITUDINAL ANCHOR TRENCH AT TOP OF SLOPE



DETAIL 2 - ANCHOR TRENCH AT TOE OF SLOPE

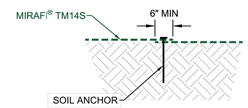


ANCHOR SPACING SCHEDULE	
ANCHOR TYPE	ANCHOR DEVICE[1]
HORIZONTAL (MAX)	3.00 FT
VERTICAL (MAX)	3.00 FT
EMBEDMENT (MIN)	1.00 FT [2]

[1]MECHANICAL ANCHORING, INCLUDING PINS, STAPLES, STAKES, AND ANCHOR TRENCH SYSTEMS, SHOULD BE SPECIFIED BY THE PROJECT ENGINEER.

[2] ANCHOR EMBEDMENT DEPTHS MAY REQUIRE SIGNIFICANT INCEASE, BASED ON THE SITE SOIL CONDITIONS AND SLOPE GEOMETRY. ANCHOR EMBEDMENT DEPTH TO BE SPECIFIED BY THE PROJECT ENGINEER.

DETAIL 4 - ANCHOR PLACEMENT DENSITY



DETAIL 3 - TYPICAL OVERLAP

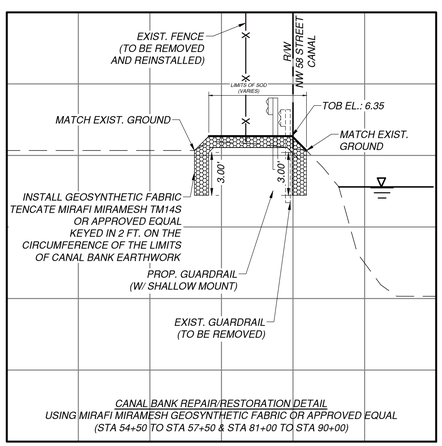
TENCATE GEOSYNTHETICS
365 SOUTH HOLLAND DRIVE
PENDERGRASS, GEORGIA 30567
TEL: (706) 693-2226
WWW.TENCATEGEO.US

NOTE: THE STANDARD DETAILS ILLUSTRATED IN THESE DRAWINGS ARE FOR INFORMATION AND EVALUATION PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION. PROJECT SPECIFIC CALCULATIONS, SHOP DRAWINGS AND SPECIFICATIONS, SIGNED AND SEALED BY A REGISTERED LICENSED ENGINEER, ARE REQUIRED FOR CONSTRUCTION.

SLOPE EROSION CONTROL
REINFORCED SLOPE WITH MIRAFI® TM14S

STANDARD DETAIL
NOT FOR CONSTRUCTION
DATE : 10/24/19
MIRAFI® TM14S RSS TRM FACING
EXHIBIT A-1

©2019 TENCATE GEOSYNTHETICS



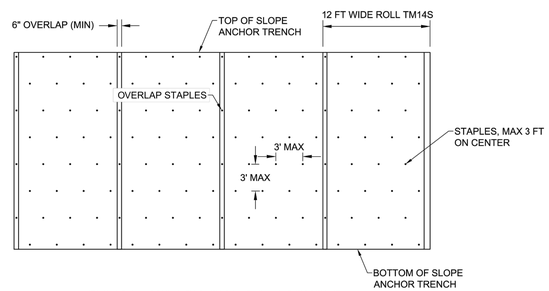
CANAL BANK REPAIR/RESTORATION DETAIL
USING MIRAFI MIRAMESH GEOSYNTHETIC FABRIC OR APPROVED EQUAL
(STA 54+50 TO STA 57+50 & STA 81+00 TO STA 90+00)

NOTES:
1. SHRUBS AND MISCELLANEOUS VEGETATION WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED AS PART OF CLEARING & GRUBBING.
2. CONTRACTOR SHALL COORDINATE WITH THE CITY PRIOR TO THE REMOVAL OF ANY TREES.
3. ALL PUBLICITY AND PRIVATELY OWNER FACILITIES WITHIN THE PROJECT LIMITS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTORY OF THE OWNER AT NO ADDITIONAL COST TO THE CITY.

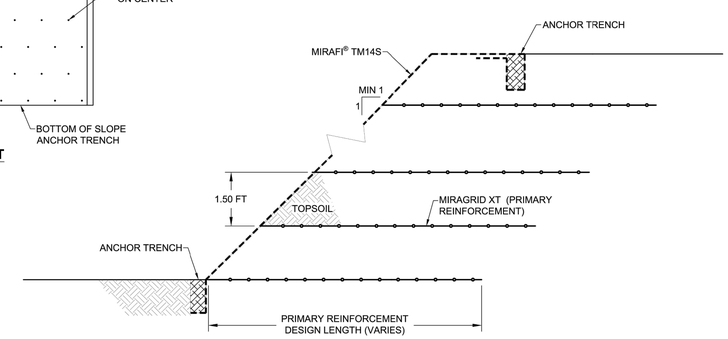
SLOPE SHALL BE OVERBUILT AND CUT BACK TO FINAL GEOMETRY PRIOR TO PLACEMENT OF TOPSOIL, IF UNABLE TO ACHIEVE SATISFACTORY COMPACTION AT SLOPE FACE.

MIRAFI® TM14S ROLL SIDE IS 12-FT WIDE x 70-FT LONG. UNROLL MIRAFI® TM14S DOWN THE SLOPE FACE. INSTALL MIRAFI® TM14S USING AN ANCHOR TRENCH AT THE TOP AND BOTTOM OF THE SLOPE. AT THE TOP OF THE SLOPE EXTEND MIRAFI® TM14S ONE FOOT BEYOND THE TOP OF SLOPE AND INSERT INTO A MINIMUM 6-INCH WIDE BY 12-INCH DEEP ANCHOR TRENCH BACKFILLED WITH COMPACTED SOIL. AT THE BOTTOM OF THE SLOPE EXTEND MIRAFI® TM14S INTO THE SAME SIZE ANCHOR TRENCH AT THE TOE OF THE SLOPE.

OVERLAP MIRAFI® TM14S A MINIMUM OF 6-INCHED ALONG ROLL EDGES. USE U-SHAPED SOIL STAPLES TO PIN MIRAFI® TM14S TO THE SLOPE FACE. INSTALL STAPLES ALONG THE ROLL OVERLAP AND IN THE ROLL CENTER. USE A MAXIMUM STAPLE SPACING OF 3-FT ON CENTER.



TYPICAL MIRAFI® TM14S PLACEMENT



TYPICAL SECTION - SLOPE REINFORCEMENT - MIRAFI® TM14S FACED

TENCATE GEOSYNTHETICS
365 SOUTH HOLLAND DRIVE
PENDERGRASS, GEORGIA 30567
TEL: (706) 693-2226
WWW.TENCATEGEO.US

NOTE: THE STANDARD DETAILS ILLUSTRATED IN THESE DRAWINGS ARE FOR INFORMATION AND EVALUATION PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION. PROJECT SPECIFIC CALCULATIONS, SHOP DRAWINGS AND SPECIFICATIONS, SIGNED AND SEALED BY A STATE REGISTERED LICENSED ENGINEER, ARE REQUIRED FOR CONSTRUCTION.

REINFORCED SOIL SLOPE
REINFORCED SLOPE WITH MIRAFI® TM14S

STANDARD DETAIL
NOT FOR CONSTRUCTION
DATE : 4/24/19
MIRAFI® TM14S TYPICAL CROSS SECTION
SHEET W7 OF 10

©2019 TENCATE GEOSYNTHETICS

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

PROJECT:
SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS
(FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE:
CANAL BANK REPAIR & RESTORATION DETAILS
(SHEET 1 OF 2)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

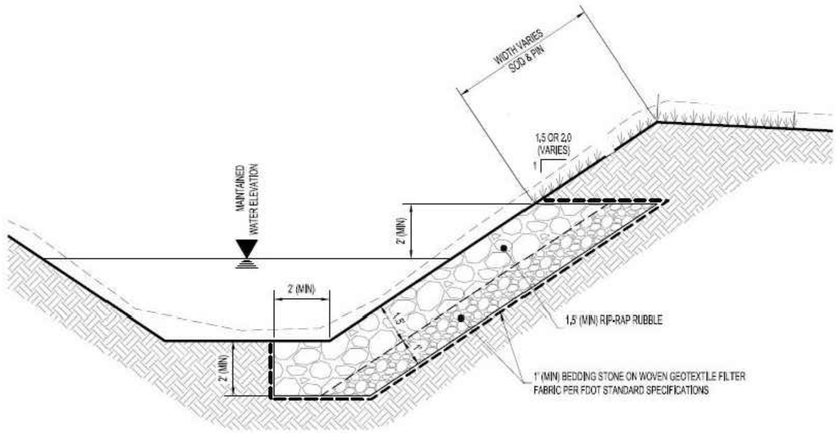
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-9.0 CANAL DETAIL.dwg
DATE: AUGUST 2021
SHEET NO.
SD-6.1

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

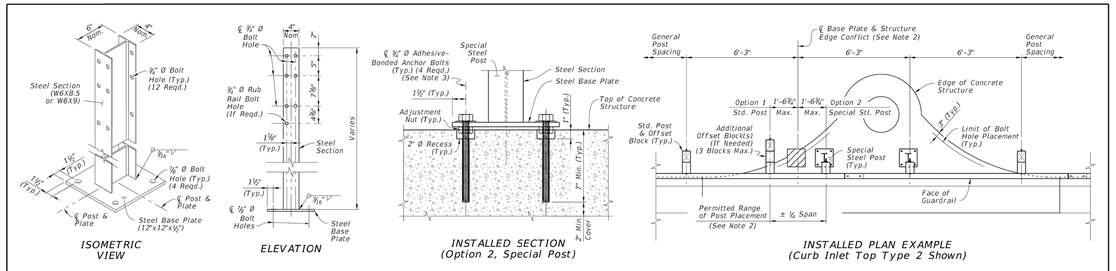
ELIAS GUEVARA
January 28, 2022 4:12 PM
I:\Project\17 project\17077.ww01-06 city of doral\17077.ww01-06 - nw 58th st outfall\CAD\D_Phase 2\drawings\SD-9.0 CANAL DETAIL.dwg



NOTE:
1. RIPRAP SHALL MEET FDOT SPECIFICATION 530.
2. SHRUBS AND MISCELLANEOUS VEGETATION WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED AS PART OF CLEARING & GRUBBING.
3. CONTRACTOR SHALL COORDINATE WITH THE CITY PRIOR TO THE REMOVAL OF ANY TREES.
4. ALL PUBLICITY AND PRIVATELY OWNER FACILITIES WITHIN THE PROJECT LIMITS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTORY OF THE OWNER AT NO ADDITIONAL COST TO THE CITY.

RIPRAP DETAIL

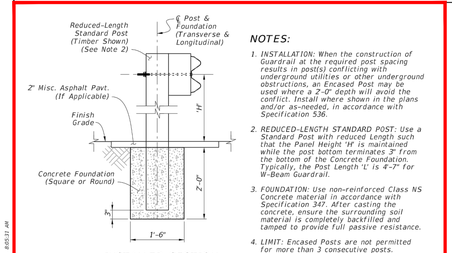
NTS



SPECIAL STEEL POST — STRUCTURE MOUNTING

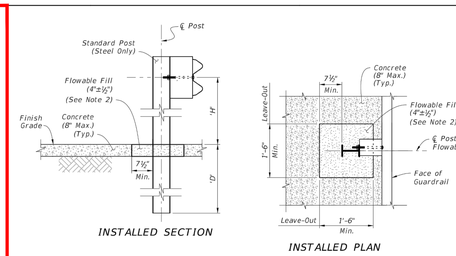
NOTES:
1. INSTALLATION: When the construction of Guardrail at the required post spacing results in post(s) located atop culverts, inlets, pier footings, or similar concrete structures, a Special Steel Post may be substituted for a Standard Post. Install where shown in the plans and/or as-needed, in accordance with Specification 536.
2. EDGE CONFLICT: When a required post location causes an Edge Conflict with the structure, where the Steel Base Plate is not located entirely on the structure at least 3" from the Edge of Concrete, the longitudinal post location may be altered by up to 1'-6¾" (Quarter Span) from the original required spacing location to prevent the Edge Conflict. With the post location adjusted, use a Std. Post mounted in soil (Option 1) or a Special Steel Post with its Base Plate mounted entirely on the structure (Option 2). Maintain the original required spacing locations upstream and downstream of the structure.
3. BASE PLATE MOUNT: Install Special Steel Posts as shown using steel Adhesive-Bonded Anchor Bolts in accordance with Specification 536. Use ¾" Hex-Head Bolts for structures less than 9" deep as defined in the Specification.
4. PANEL MOUNT TO ADJUSTED POST: Punch additional ¾"x2½" Post Bolt Slot(s) in the W-Beam or Thrie-Beam Panel only where needed to mount the panel to a post in an adjusted location. Meet the Panel Post Bolt Slots requirements of Specification 536.
5. MATERIALS: Use steel base plates in accordance with Specification 536.

SPECIAL STEEL POST FOR CONCRETE STRUCTURE MOUNT



NOTES:
1. INSTALLATION: When the construction of Guardrail at the required post spacing results in post(s) conflicting with underground utilities or other underground obstructions, an Encased Post may be used where a 2'-0" depth will avoid the conflict. Install where shown in the plans and/or as-needed, in accordance with Specification 536.
2. REDUCED-LENGTH STANDARD POST: Use a Standard Post with reduced Length such that the Panel Height "H" is maintained while the post bottom terminates 3" from the bottom of the Concrete Foundation. Typically, the Post Length "L" is 4'-7" for W-Beam Guardrail.
3. FOUNDATION: Use non-reinforced Class NS Concrete material in accordance with Specification 347. After casting the concrete, ensure the surrounding soil material is completely backfilled and tamped to provide full passive resistance.
4. LIMIT: Encased Posts are not permitted for more than 3 consecutive posts.

ENCASED POST FOR SHALLOW MOUNT



NOTES:
1. INSTALLATION: When the construction of Guardrail at the required post spacing results in post(s) placed within a concrete surface (typically a sidewalk), use a Frangible Leave-Out around the post base as shown. Install where shown in the plans and/or as-needed, in accordance with Specification 536.

   Use Standard steel posts. Timber posts are not permitted for frangible leave-outs.

   For the required 1'-6" x 1'-6" Leave-Out, smoothly cut the existing concrete surface or form-up the square shape when an application has new surrounding concrete.

   Ensure Flowable Fill surface is smooth and even with the adjacent concrete surface.
2. MATERIALS: Use Non-Excavatable Flowable Fill in accordance with Specification 121, not to exceed 150 psi.

FRANGIBLE LEAVE-OUT FOR CONCRETE SURFACE MOUNT

LAST REVISION	REVISION	DESCRIPTION:	FY 2021-22 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19			FDOT		536-001	23 of 24

TECHNICAL SPECIAL PROVISION

FOR

TSP 430 – STORMWATER BACKFLOW PREVENTION USING INLINE CHECKMATE VALVE

TSP 430-1 Description.
Furnish and install inline stainless-steel stormwater backflow preventor(s), at locations shown in the Plans, including all appurtenances and accessories necessary for a complete and accepted installation.

TSP 430-2 Materials.

TSP 430-2.1 Housing/Pipe: Stainless-steel (EN1.4301/AISI 304 or EN1.4404/AISI 316).
TSP 430-2.2 Membrane: Polyurethane (PU) - molded eccentric conical membrane.
TSP 430-2.3 Fixation Material:
Collar plate: Stainless-steel (EN1.4301/AISI 304 or EN1.4404/AISI 316).
Bracket: Stainless-steel (EN1.4301/AISI 304 or EN1.4404/AISI 316).
Nuts, bolts, and washers: Stainless-steel (EN1.4404 / AISI316).
Mounting tabs: Stainless-steel (EN1.4404 / AISI316).
TSP 430-2.4 Flanges: DIN Standard, ANSI #150, or Custom-made stainless-steel (EN1.4301/AISI 304 or EN1.4404/AISI 316).
TSP 430-2.5 Sealing/Gasket: Ethylene Propylene Diene Monomer (EPDM); ASTM D-1418, Class M.

TSP 430-3 Construction Requirements.

TSP 430-3.1 General: Installation shall be conducted according to the manufacturers' recommendations. All stormwater backflow preventors shall be marked with a unique serial number and flow direction.
TSP 430-3.2 Inline Backflow Preventor: Ensure that inline stormwater backflow preventors are fabricated to operate in installations using flanges, flat irons, slide muffs, joint couplings, or custom-made brackets. The stormwater backflow preventors shall be able to be installed on an inlet or in a culvert outlet, vertically or horizontally, inside existing pipes or between two pipes.
The housing of the inline stormwater backflow preventors should be of stainless-steel and less than or equal to 3mm (0.12-inch) thick. The membrane shall be conical and attach to the housing along the top of the membrane, and the outlet side of the housing, allowing maximum flow through the membrane.
The stormwater backflow preventors should have a pulsating flow, opening and closing at the specific levels as recommended by the manufacturer or as specified in the Plans.

TSP 430-4 Method of Measurement.
The quantity to be paid for inline backflow preventers will be per each, furnished, installed in place inside structures as described in the Plans, completed, tested, and accepted.

TSP 430-5 Basis of Payment.
Price and Payment for the quantities of each inline backflow preventer shall be full compensation for furnishing all materials, labor, equipment, testing, tools, and incidentals necessary to complete and accepted installation per this Technical Special Provision.

Payment will be made under:

Item No. 0430-880 Flap Gates, Drainage, 0"-48", EA.

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

PROJECT: SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE: **CANAL BANK REPAIR & RESTORATION DETAILS (SHEET 2 OF 2)**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: MA
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SD-9.0 CANAL DETAIL.dwg
DATE: AUGUST 2021
SHEET NO.
SD-6.2

PERMITTING SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

ELIAS GUEVARA
January 28, 2022 4:12 PM
10/12/2020 8:05:31 AM
E:\Project\17 project\17077.ww01-00 city of doral\17077.ww01-06 - nw 58th st outfall\CADD_Phase 2\drawings\SD-9.0 CANAL DETAIL.dwg

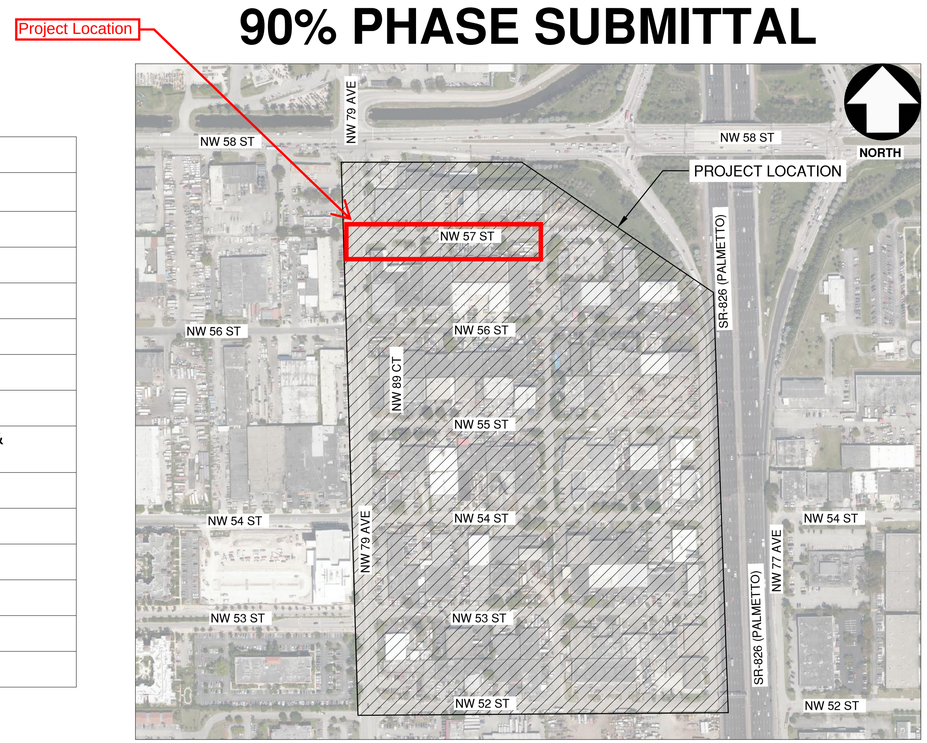
JULY 2020

SUB-BASIN H-8 STORMWATER IMPROVEMENT (PHASE 1)

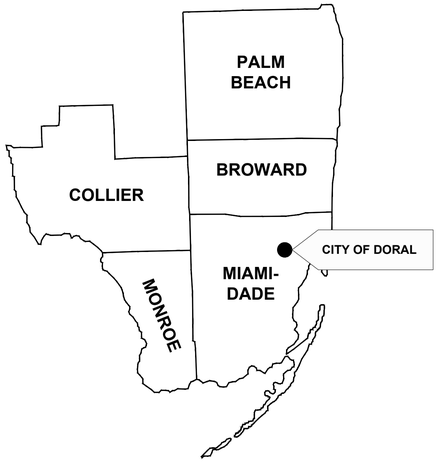
CITY PROJECT RFQ 2017-21

90% PHASE SUBMITTAL

INDEX OF SHEETS	
SHEET NUMBER	SHEET TITLE
1	COVER
2	SUMMARY OF PAY ITEMS
3	GENERAL NOTES
4	HORIZONTAL CONTROL PLAN
5	DRAINAGE MAP
6	TEST HOLE PLAN
7	STORMWATER POLLUTION PREVENTION PLANS & EROSION CONTROL DETAILS
8	MAINTENANCE OF TRAFFIC NOTES
9 - 10	SUMMARY OF DRAINAGE STRUCTURES
11 - 19	DRAINAGE PLAN & PROFILE
20-25	ROADWAY RESTORATION PLAN
26-28	DRAINAGE STRUCTURE CROSS SECTIONS
29	DRAINAGE DETAILS



PROJECT LOCATION MAPS
1" = 250'



Vicinity Map
NTS

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

PERMIT SET
MUST BE ON JOB SITE AT ALL TIMES DURING CONSTRUCTION.

SAFETY
IS PARAMOUNT FOR ALL CONSTRUCTION ACTIVITIES. APPLICABLE JURISDICTIONAL SAFETY REQUIREMENTS MUST BE ADHERED TO ALWAYS.

NOTE
APPROVAL OF THESE PLANS DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION. A PERMIT FOR CONSTRUCTION MUST BE OBTAINED FROM JURIDICTIONAL AUTHORITIES.

NOTE
INSPECTIONS REQUIRED

24 HOURS PRIOR TO COMMENCING WORK IN PUBLIC RIGHT OF WAY CONTACT APPLICABLE RIGHT OF WAY JURISDICTION FOR INSPECTION.

NOTE
THESE PLANS HAVE BEEN PROVIDED WITH THE DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAILS AND SPECIFICATIONS. ALL CONSTRUCTION WILL BE PERFORMED ACCORDING TO THE SPECIFICATIONS.

NOTE

1. GOVERNING ROADWAY STANDARDS AND SPECIFICATIONS:

   FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS (CURRENT EDITION) AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DIVISION II AND III (CURRENT EDITION)

DORAL
FLORIDA

CITY OF DORAL
DEPARTMENT OF PUBLIC WORKS
8401 NW 53 TERRACE, DORAL FL 33166

MAYOR AND CITY COUNCIL

JUAN CARLOS BERMUDEZ MAYOR
CHRISTI FRAGA VICE MAYOR

DIGNA CABRAL COUNCILWOMAN
PETE CABRERA COUNCILMAN
CLAUDIA MARIAGA COUNCILWOMAN

CITY STAFF

CARLOS ARROYO PUBLIC WORKS DIRECTOR

PREPARED BY:

EAC Consulting, Inc.
eacconsult.com

5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
(305) 265-5400
CA # 7011

EAC PROJECT No.: 17077.WW01-06

REVISIONS:

NO.	DESCRIPTION	DATE	BY

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

DANIEL GIRALDO

July 29, 2020 10:26 AM

L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CAD\roadway\COVER.dwg

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

SUMMARY OF RECONCILED QUANTITIES
SOW TRANSFERRED FROM PHASE 1 TO PHASE 2

PAY ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
104-18	INLET PROTECTION SYSTEM	EA	11
160-4	TYPE B STABILIZATION	SY	740
285-706	OPTIONAL BASE, BASE GROUP 06	SY	740
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	927
337-7-82	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-9.5, PG 76-22	TN	92
0334 1 53	SUPERPAVE ASPHALTIC CONCRETE,TRAFFIC C, FC-12.5, PG 76-22	TN	81
425-1-361	INLETS, CURB, TYPE P-6, <10'	EA	1
425-1-362	INLETS, CURB, TYPE P-6, >10'	EA	1
425-1-561	INLETS, DT BOT, TYPE F, <10'	EA	5
425-1-562	INLETS, DT BOT, TYPE F, >10'	EA	4
425-2-71	MANHOLES, J-7, (5'x5') <10'	EA	0
425-2-72	MANHOLES, J-7, (5'x5') >10'	EA	5
430-175-115	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 15" S/CD	LF	25
430-175-118	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 18" S/CD	LF	220
430-175-124	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 24" S/CD	LF	0
430-175-130	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 30" S/CD	LF	0
430-175-136	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 36" S/CD	LF	0
430-175-142	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 42" S/CD	LF	181
443-002	SKIMMERS FOR FRENCH DRAIN OUTLETS	EA	8
443-70-4	FRENCH DRAIN, 24"	LF	0
443-70-5	FRENCH DRAIN, 30"	LF	0
443-70-6	FRENCH DRAIN, 36"	LF	0
443-70-7	FRENCH DRAIN, 42"	LF	365
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	26
570-1-2	PERFORMANCE TURF, SOD	SY	0
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	16
711-15-101	THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	GM	0.13
711-15-201	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 6"	GM	0.02
711-15-231	THERMOPLASTIC, STANDARD, YELLOW, SKIP, 6"	GM	0.10

PAY ITEM NOTES

1. EXCEPT OTHERWISE SPECIFIED, ALL BID AND PAY ITEM NUMBERS REFERENCED ~~IN THESE CONTRACT PLANS~~ ARE FURNISH AND INSTALLATION (CONSTRUCTION ITEMS).

2. ALL BID AND PAY ITEM NUMBERS REFERENCED IN THESE CONTRACT PLANS SHALL COMPLY FULLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) BASIS OF ESTIMATES MANUAL (2021 EDITION) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2021), EXCEPT MODIFIED BY PAY ITEM NOTES INCLUDED BELOW AND/OR BY OTHER CITY OF DORAL CONTRACTUAL DIRECTIVE(S).

3. PAY ITEM 102-1 MAINTENANCE OF TRAFFIC, INCLUDES ALL ITEMS REQUIRED TO SAFELY MAINTAIN TRAFFIC THROUGHOUT THE PROJECT WORK ZONE WITH MINIMAL INCONVENIENCE TO THE PUBLIC NOT COVERED BY ANY OF THE ITEMS LISTED ON THE TABULATION OF QUANTITIES. THIS ITEM INCLUDE THE COST OF MAINTAINING TRAFFIC DURING CONSTRUCTION AND OPENING THE ROAD FOR SAFE USE AT END OF THE WORKING DAY. THIS ITEM ALSO INCLUDES THE COST FOR DAILY LITTER COLLECTION AND REMOVAL. CONTRACTOR SHALL SEQUENCE ALL UNDERGROUND PIPING AND UTILITY WORK INCLUDING RESTORATION FIRST. CONTRACTOR SHALL ENSURE TO COORDINATE DEVELOPED MOT PHASING / CONSTRUCTION SEQUENCING PLANS WITH THE TOWN'S WATER & SEWER AND POLICE DEPARTMENTS, FOR APPROVAL PRIOR TO IMPLEMENTATION. ALL COSTS FOR IMPLEMENTING APPROVED MOT PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE INCLUDED IN THIS ITEM.

~~4. PAY ITEM 120-6 EMBANKMENT, INCLUDES REMOVAL OF 12" DEPTH OF EXISTING EARTH PRIOR TO PLACING NEW FILL COMPACTED IN 12" LAYERS.~~

5. PAY ITEM 104-0(AA) STORMWATER POLLUTION PREVENTION (SWPP), INCLUDES ALL ITEMS OR DEVICES REQUIRED TO PREVENT THE FLOW OR INTRUSION OF SEDIMENTS INTO EXISTING OR NEWLY CONSTRUCTED STORMWATER DRAINAGE INFRASTRUCTURE OR SYSTEMS OR EXISTING WATER BODIES AND CANALS.

6. PAY ITEM 334-1-53 SUPERPAVE ASPHALTIC CONCRETE INCLUDES FURNISHING AND INSTALLATION OF PAVEMENT STRUCTURAL COURSE MATERIAL AND INCLUDES ALL PRIME COAT AND TACK COAT INSTALLATION IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS.

7. PAY ITEM 430-17~~4-118, 430-174-124, & 430-174-148~~ PIPE CULVERT OPTIONAL MATERIAL PAY ITEM INCLUDES THE COST FOR FURNISHING AND INSTALLING COST OF PIPE COLLAR AND/OR JACKET AS REQUIRED AND AS INDICATED IN THE PLANS.

~~8. PAY ITEM 430-880 FLAP GATE - DRAINAGE, IS USED FOR THE FURNISHING AND INSTALLATION OF A 48" TIDE FLEX INLINE CHECK VALVE OR APPROVED EQUAL.~~

~~11. PAY ITEM 530-3-3 RIPRAP - RUBBLE, BANK AND SHORE, INCLUDES THE COSTS FOR FURNISHING AND INSTALLATION OF BEDDING STONE AND COMPLETE INSTALLATION PER FDOT SPECIFICATION SECTIONS 530 AND 901. PAY ITEM ALSO INCLUDES INSTALLATION OF RIPRAP AND BEDDING STONE SEPARATED BY NON WOVEN GEOTEXTILE FABRIC COMPLYING WITH FDOT STANDARDS AND SPECIFICATION 985. GEOTEXTILE FABRIC SHALL ALSO UNDERLAY THE RIPRAP INSTALLED.~~

~~12. PAY ITEM 550-10220 FENCING, TYPE B, 5.1'-6.0', STANDARD, INCLUDES THE COST OF VERIFYING THE DIMENSIONS OF THE EXISTING FENCE PRIOR TO BIDDING THE PROJECT.~~

13. PAY ITEM 570-1-2 PERFORMANCE TURF, SOD, INCLUDES PAYMENT FOR TOP SOIL AND WATERING AS NECESSARY. PAY ITEM INCLUDES PAYMENT FOR RESTORATION OF ALL DISTURBED AREAS RESULTING FROM CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL MATCH EXISTING TYPE OF SOD.

~~14. PAY ITEM EAC-200, INCLUDES THE COST OF COMPLETE INSTALLATION OF PIPING, INCLUDING ALL PREPARATION, STAKING, MATERIALS AND COORDINATION WITH AGENCIES HAVING JURISDICTION.~~

15. PAY ITEM 520-1-10 CONCRETE CURB & GUTTER, TYPE F, INCLUDES FINISHING AND INSTALLING CURB PAD COMPRISING OF 8-INCH BASE AND 12-INCH STABILIZED SUBGRADE MATERIAL.

~~16. PAY ITEM 522-2 CONCRETE SIDEWALK AND DRIVEWAY, 6" THICK, INCLUDES FURNISHING AND INSTALLATION OF WIRE MESH AND 12-INCH STABILIZED SUBGRADE MATERIAL IN ACCORDANCE WITH JURISDICTIONAL STANDARDS.~~

QUANTITIES SHOWN ABOVE APPLY TO UNBUILT "PHASE 1" CONSTRUCTION DOCUMENTS AS REPACKAGED DIRECTLY BY THE CITY OF DORAL PUBLIC WORKS DEPARTMENT

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

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EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB BASIN H5 - NW 58 STREET CANAL AND OUTFALL IMPROVEMENTS (FROM NW 79 AVENUE TO SR 826)
CITY OF DORAL PROJECT NO. 2017-21

SHEET TITLE: SUMMARY OF RECONCILED QUANTITIES SOW TRANSFERRED FROM PHASE 1 TO PHASE 2

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY:
DRAWN BY:
REVIEWED BY:
SEAL

FILE NAME:
DATE:
SHEET NO. G-1.0A

ENGINEER'S GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION ASSOCIATED WITH THIS PROJECT MUST BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO THE CITY OF DORAL, MIAMI-DADE DEPARTMENT OF REGULATORY & ENVIRONMENTAL RESOURCES (RER), MIAMI-DADE TRANSPORTATION DEPARTMENT & PUBLIC WORKS (MDTPW), THE FLORIDA ADMINISTRATIVE CODE (F.A.C.) 62-555 AND 62-610, THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) STANDARDS, CRITERIA AND REGULATIONS. ANY DISCREPANCIES MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY AND EOR.

2. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE ADEQUATE MEASURES TO ENSURE SAFETY WHEN WORKING WITHIN THE VICINITY AND/OR CROSSING OF BURIED GAS, OVERHEAD POWER, ELECTRICAL & TELEPHONE LINES. PROPER COORDINATION WITH JURISDICTIONAL AUTHORITIES MUST BE UNDERTAKEN AS APPLICABLE.

3. THE MAINTENANCE OF TRAFFIC (MOT) PLANS OF THE PROJECT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST PRODUCE HIS/HER OWN MOT PLANS AND OBTAIN A PERMIT APPROVAL BY THE CITY OF DORAL'S PUBLIC WORK DEPARTMENT PRIOR TO CONSTRUCTION PER SECTION 38-3 OF THE CITY OF DORAL MUNICODE. A COPY OF THE PERMIT SHALL BE PROVIDED TO THE POLICE DEPARTMENT, CODE COMPLIANCE DEPARTMENT AND THE CITY MANAGERS OFFICE. THE COST ASSOCIATED WITH THIS EFFORT MUST BE REFLECTED IN THE BID. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE CITY FOR MOT COSTS ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD. MOT PLANS SHALL INCLUDE BUT NOT LIMITED TO MESSAGE BOARDS TO INFORM DRIVERS OF CONSTRUCTION ON ROADWAYS, IT SHALL ADDRESS SCHOOL ZONES, MAINTAINING CROSSING ACCESS, ETC. CONTRACTOR IS ALSO RESPONSIBLE FOR NOTIFYING ALL SCHOOLS, RESIDENTS AND BUSINESSES WITHIN THE VICINITY OF THE PROJECT LIMITS ABOUT THE CONSTRUCTION SCHEDULE. LANE CLOSURES SHALL BE MONDAY TO SATURDAY FROM 7:30 AM TO 6:30 PM. ADDITIONALLY, ANY LANE CLOSURE AFFECTING COUNTY OR CITY PUBLIC TRANSPORTATION ROUTES SHALL BE COORDINATED BY THE CONTRACTOR 2-WEEKS IN ADVANCE WITH THE RESPECTIVE AGENCY.

4. DEWATERING MIGHT BE REQUIRED FOR PROJECT. DEWATERING PLANS AND PERMITS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MUST PRODUCE HIS/HER OWN DEWATERING PLANS AND MUST HAVE SAID PLANS APPROVED BY CITY OF DORAL AND MIAMI-DADE DEPARTMENT OF REGULATORY & ENVIRONMENTAL RESOURCES. NO ADDITIONAL COMPENSATION WILL BE GRANTED BY THE CITY FOR DEWATERING COST ASSOCIATED WITH THIS PROJECT AFTER PROJECT AWARD.

5. CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS AND/OR APPROVALS WITH THE COUNTY AND CITY PRIOR TO START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO AN NPDES NOI PERMIT AND ANY OTHER PERMIT ASSOCIATED WITH SUCH PERMIT.

6. GEOTECHNICAL EXPLORATIONS WERE CARRIED OUT ON THE PROJECT SITE BY GEOSOL, INC. AND REPORT, DATED NOVEMBER 6, 2014. WAS GENERATED WITH TEST RESULTS AND RECOMMENDATIONS FOR CONSTRUCTION. THE GEOTECHNICAL REPORT IS INCLUDED AS PART OF THE PROJECT'S SPECIFICATIONS.

7. THE TOPOGRAPHY SURVEY WAS PREPARED BY RAUL IZQUIERDO OF HADDONE CORPORATION LAND SURVEYORS (LIC #6099) DATED 2019-10-10.

8. ALL ELEVATIONS ON THE PLAN AND PROFILE SHEETS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29). BENCHMARK USED ARE THOSE IDENTIFIED ON THE TOPOGRAPHIC BOUNDARY SURVEY.

9. FIELD VERIFICATION OF ALL UTILITIES SHOWN ON PLANS AND PROFILE VIEW IS REQUIRED. CONSTRUCTION OF PROPOSED WORK MUST NOT PROCEED WITHOUT VERIFICATION PROCESS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING ITSELF WITH THE CURRENT SITE CONDITIONS AND CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY AND EOR OF ANY DISCREPANCIES.

11. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE TOPOGRAPHIC AND/OR UNDERGROUND FEATURES THAT WILL BE IMPACTED DUE TO ITS PROPOSED METHOD OF CONSTRUCTION. THE CONTRACTOR MUST INCLUDE IN ITS BID PRICE, THE COST OF RELOCATING OR REPLACING IN KIND ANY FEATURES THAT WILL BE IMPACTED DUE TO ITS PROPOSED METHOD OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO EXISTING TREES, UTILITY BOXES, SIGNS, FIRE HYDRANTS, GUARDRAILS, UTILITY POLES, VALVES, ETC. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED BY THE CITY IN THE EVENT THE CONTRACTOR NEGLECTS TO ACCOUNT FOR THIS WORK IN ITS BID PRICE.

12. THE CONTRACTOR SHALL ADHERE TO CITY OF DORAL NOISE ORDINANCE 06-23. CONSTRUCTION SHALL ONLY BE PERMITTED BETWEEN THE HOURS OF 8:00 AM TO 6:00 PM ON WEEKDAYS AND BETWEEN 10:00 AM TO 4:00 PM ON SATURDAYS. NO CONSTRUCTION WORK SHALL BE PERMITTED ON SUNDAYS OR ON NATIONAL HOLIDAYS.

13. IN THE EVENT CONTAMINATED MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY ADVISE THE CITY, EOR AND THE MIAMI-DADE DEPARTMENT OF REGULATORY & ENVIRONMENTAL RESOURCES MANAGEMENT.

14. CONTRACTOR SHALL COORDINATE WITH THE CITY PRIOR TO SHUTTING DOWN ANY EXISTING SERVICE/S. FULL COMPLIANCE WITH FAC RULE 62-555.350 (10) d. IS MANDATORY.

15. THE CONTRACTOR SHALL INFORM THE CITY AND EOR AT LEAST 48 HOURS PRIOR TO START CONSTRUCTION, AND IN ADVANCE OF CONNECTIONS TO EXISTING SYSTEM OR ANY REQUEST FOR SERVICE.

16. THESE PLANS HAVE BEEN PROVIDED WITH THE DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAILS AND SPECIFICATIONS. ALL CONSTRUCTION WILL BE PERFORMED ACCORDING TO THE DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAILS AND SPECIFICATIONS.

17. THE CONTRACTOR MUST COMPLY WITH ALL HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS AS STATED IN THE FLORIDA ADMINISTRATIVE CODE (F.A.C.) RULE 62-555.314.

18. CONTRACTOR IS FULLY RESPONSIBLE TO RESTORE ALL EXISTING TRAFFIC LOOPS AND ALL OTHER EXISTING TRAFFIC RELATED INFRASTRUCTURE DAMAGED DURING THE INSTALLATION OF THE PROPOSED UTILITIES, AT NO EXPENSE TO THE CITY. THE CONTRACTOR MUST COORDINATE WITH MIAMI-DADE TRANSPORTATION AND PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION.

19. THE CONTRACTOR MUST INCLUDE AS PART OF ITS BID THE COST OF RESTORING A FULL LANE OR LANES OF ROADWAY, DRIVEWAYS OR OTHER PAVED AREAS THAT ARE AFFECTED BY CONSTRUCTION. THIS SHOULD INCLUDE ALL TRENCH RESTORATION, TEMPORARY PAVEMENT, RESURFACING, TREE ROOT PRUNING, INSTALLATION OF ROOT BARRIERS, AND INCIDENTAL ROADWAY RESTORATION AS WELL AS TEMPORARY AND PERMANENT STRIPING TO ENSURE THAT THE ROADWAY IS FULLY RESTORED TO EQUAL OR BETTER CONDITION.

20. THE CONTRACTOR IS FULLY RESPONSIBLE FOR RESTORING ALL PAVEMENT MARKINGS WITH NEW STRIPING IN THEIR PRE-CONSTRUCTION LOCATIONS UNLESS OTHERWISE SHOWN ON PLANS. THE CONTRACTOR MUST THEREFORE SURVEY THE LOCATIONS, DIMENSIONS, COLOR, AND OTHER RELEVANT CHARACTERISTICS OF THE EXISTING PAVEMENT STRIPING PRIOR TO EXCAVATION. FINAL PAVEMENT STRIPING MUST BE THERMOPLASTIC IN ACCORDANCE WITH FDOT STANDARDS. ALL CONSTRUCTION WORK EFFORT ASSOCIATED WITH THIS ITEM MUST BE INCLUDED IN THE BID PRICE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO INCLUDE THIS COST IN ITS BID PRICE, THEN THE CONTRACTOR WILL COMPLETE THE RE-STRIPING WORK AT ITS OWN EXPENSE.

21. IN THE EVENT THAT THERE IS ANY EXISTING STRIPING THAT DOES NOT CONFORM TO THE CURRENT CODES OR STANDARDS, THE CONTRACTOR MUST NOTIFY THE EOR, AND THE CITY IN THIS REGARD PRIOR TO RE-STRIPING.

22. SPECIAL PAVEMENT DRIVEWAYS SHALL BE PROTECTED FROM DAMAGE. IF DAMAGE BY CONTRACTOR MEANS AND METHOD, IT SHALL BE RESTORED AT NO COST TO THE CITY.

23. CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL AT 811 AT LEAST 2 FULL WORKING DAYS PRIOR TO VERIFY THE EXACT LOCATION. REPRESENTATIVE FROM CONTRACTOR MUST BE PRESENT & CONTRACTOR IS RESPONSIBLE TO REASSURE ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY SHALL BE RESOLVED WITHIN 48 HOURS BY THE CONTRACTOR AT NO COST TO THE CITY OR OWNER, UNLESS OTHERWISE AGREED IN WRITING BY THE OWNER.

24. ANY DAMAGE TO PROPERTY OR MONUMENTS IS THE CONTRACTOR'S RESPONSIBILITY AT NO COST TO THE CITY.

25. CONTRACTOR SHALL PROVIDE A 72 HOUR NOTICE TO ALL BUSINESSES PRIOR TO CONSTRUCTION.

26. CONTRACTOR SHALL KEEP LOADS UP TO 48 HOURS IN ORDER TO ALLOW IT TO DRY. LOADS MUST BE REMOVED FROM SITE AFTER.

STORMWATER DRAINAGE CONSTRUCTION NOTES

1. CONTRACTOR SHALL ENSURE THAT ALL BMPS ARE PROPERLY IMPLEMENTED AND MAINTAINED THROUGHOUT CONSTRUCTION.

2. ALL PROPOSED DRAINAGE STRUCTURES COVERS, GRATES AND INLETS SHALL BE TRAFFIC RATED.

3. ALL PROPOSED DRAINAGE STRUCTURE LOCATION LABELS (NORTHING AND EASTING & STATION/OFFSET) ARE REFERENCED TO THE CENTER OF THE STRUCTURE RIM, GRATE OR COVER.

4. THE CONTRACTOR SHALL VERIFY THE PIPE SIZES AND THE DIMENSIONS OF ALL PROPOSED AND EXISTING DRAINAGE STRUCTURES. NO ADDITIONAL COMPENSATION SHALL BE GRANTED TO THE CONTRACTOR DUE TO A INCREASE IN PIPE SIZE OR AN INCREASE IN DRAINAGE STRUCTURE DIMENSIONS OR SHAPE.

5. THE CONTRACTOR SHALL INCLUDE IN ITS BID THE COST ASSOCIATED WITH TESTING THE PROPOSED DRAINAGE SYSTEM. NO ADDITIONAL COMPENSATION SHALL BE GRANTED TO THE CONTRACTOR FOR NOT ACCOUNTING THIS TASKS IN ITS BID PRICE.

6. ALL SOLID DRAINAGE PIPES SHALL BE LAMP TESTED. THE TEST SHALL BE PERFORMED AT HIGH TIDE OR WHEN THE WATER TABLE IS AT A MINIMUM OF 2 FEET ABOVE THE SECTION OF PIPE TO BE TESTED.

7. ALL EXFILTRATION LINES SHALL BE TESTED. THE TEST SHALL BE PERFORMED AT LOW TIDE AND FOLLOW THE FOLLOWING STEPS:

   A. EXFILTRATION TRENCH INSTALLATION SHALL BE COMPLETED (INCLUDING BACKFILL AND COMPACTION).
   B. THE MAXIMUM LENGTH OF EXFILTRATION TRENCH TESTED SHALL NOT EXCEED 700-FEET.
   C. THE EXFILTRATION TRENCH SECTION SHALL BE ISOLATED, FREE OF DEBRIS AND FILLED WITH CLEAN WATER UP TO AN ELEVATION OF 2 FEET BELOW THE LOWEST RIM ELEVATION IS REACHED.
   D. THE EXFILTRATION TRENCH SECTION SHALL BE ALLOWED TO STAND UNTIL MAXIMUM ABSORPTION HAS BEEN REACHED, BUT NO LESS THAN 4 HOURS. THE WATER LEVEL SHALL BE HELD STEADY FOR THE ENTIRE DURATION .
   E. AFTER MAXIMUM ABSORPTION HAS BEEN REACHED, THE CONTRACTOR SHALL FILL THE TEST SECTION WITH CLEAN WATER UP TO AN ELEVATION OF 2 FEET BELOW THE LOWEST RIM ELEVATION.
   F. THE CONTRACTOR SHALL RECORD THE OBSERVED LEAKAGE AT EVERY 15 MINS FOR A TOTAL OF 2 HOURS.
   G. THE MEASURED LEAKAGE SHALL NOT EXCEED 500 GALLONS PER INCH OF INSIDE PIPE DIAMETER, PER MILE OF PIPE, PER 24 HOURS.
   H. WHEN THE MEASURED LEAKAGE EXCEEDS THE ALLOWABLE LIMIT, THE SYSTEM SHALL BE REPAIRED AND RETESTED AT THE CONTRACTORS EXPENSE.

8. MANHOLE EXFILTRATION LEAKAGE SHALL NOT EXCEED 4 GALLONS PER DAY PER MANHOLE.

9. ALL TEST RESULTS ARE TO BE CERTIFIED BY THE CONTRACTOR AND PRESENTED TO THE EOR.

10. FOR ANY TEST FOR WHICH THE PRESENCE OF THE EOR IS REQUIRED OR REQUESTED, THE CONTRACTOR SHALL CONDUCT ITS OWN TEST AND PRESENT TO THE EOR THE TEST RESULTS AT LEAST 48-HOURS PRIOR TO THE EOR FIELD VISIT.

11. ALL, PROPOSED AND EXISTING, DRAINAGE STRUCTURES AND PIPES WITHIN THE PROJECT LIMITS SHALL BE CLEANED PRIOR TO FINAL WALK-THROUGH AT NO EXPENSE TO THE CITY. THE CONTRACTOR SHALL PROVIDE A CERTIFIED ELECTRONIC VIDEO RECORDING OF THE DRAINAGE STRUCTURES AND PIPES AFTER CLEANING.

ENGINEER'S PRE-TRENCHING AND TRENCHING NOTES

1. UTILITIES SHOWN ON THESE PLANS SHEETS ARE APPROXIMATE & ADDITIONAL UTILITIES MAY EXIST IN THE FIELD THAT IS NOT SHOWN ON THE PLANS. THE CONTRACTOR MUST INCLUDE AS PART OF ITS BID, AN ITEM FOR PRE-TRENCHING TO ENSURE THAT NO PORTION OF THE PROPOSED WORK CONFLICTS WITH ANY UTILITIES PRIOR TO CONSTRUCTION. IF POTENTIAL CONFLICTS ARE FOUND, THEN THE CONTRACTOR MUST PROVIDE THE OWNER, ENGINEER & UTILITY OWNER AT LEAST SEVEN (7) DAYS ADVANCED NOTICE PRIOR TO CONSTRUCTION. THIS NOTIFICATION SHALL INCLUDE SURVEY INFORMATION ABOUT THE CONFLICTING UTILITY'S HORIZONTAL & VERTICAL ALIGNMENT. FAILURE ON THE CONTRACTOR'S PART TO PRE-TRENCH PRIOR TO CONSTRUCTION IS AT ITS OWN RISK & BY SO DOING RELIEVES THE OWNER & THE ENGINEER OF ANY & ALL LIABILITIES & COSTS ASSOCIATED WITH RESOLVING UTILITY CONFLICTS. IN ADDITION, NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR ANY COSTS INCURRED AS A RESULT OF FAILURE ON THE CONTRACTOR'S PART TO PRE-TRENCH.

2. EXTREME CAUTION MUST BE USED DURING ANY EXCAVATION. ALL EXCAVATIONS MUST BE SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED AS INDICATED IN THE GEOTECHNICAL REPORT'S RECOMMENDATIONS.

3. CONTRACTOR MUST UTILIZE SUBSURFACE UTILITY ENGINEERING METHODS & CORING TO DISCLOSE THE PRESENCE OF ROCK, UTILITIES & OTHER SUBSURFACE ELEMENTS NOT INDICATED ON TOPOGRAPHY SURVEY.

4. CONTRACTOR MUST ENGAGE IN CONSULTATIONS AND COORDINATE WITH IDENTIFIED UTILITY OWNERS.

5. PRE-TRENCHING DIRECTIONS TO CONTRACTOR:
   A. CONTRACTOR MUST UTILIZE A SUPPORT SYSTEM STURDY ENOUGH TO WITHSTAND THE PRESSURE OF THE SOIL.
   B. CONTRACTOR MUST UTILIZE A SUPPORT SYSTEM STURDY ENOUGH TO WITHSTAND THE STRESS WHICH MAY BE EXERTED BY WATER, VIBRATION, OR HEAVY LOADS.
   C. CONTRACTOR MUST PROPERLY SUPPORT ANY UNDERGROUND INSTALLATIONS THAT ARE UNCOVERED.
   D. CONFORM TO FLORIDA'S TRENCH SAFETY ACT & OSHA REQUIREMENTS.

6. BEFORE TRENCHING OR EXCAVATION, CONTRACTOR MUST CHECK THE FOLLOWING:
   A. SOIL CONDITIONS OR OTHER MATERIAL TO BE DUE.
   B. PROXIMITY TO UTILITIES, BUILDINGS & SOURCES OF VIBRATIONS.
   C. OWNERS OF UTILITIES, SERVICE, OR TRANSMISSION PIPING, ETC. & ARRANGE FOR SHUTDOWN OR RELOCATION OF FACILITIES, IF NECESSARY.
   D. FOR PREVIOUSLY DISTRIBUTED GROUND.
   E. FOR TREES, BOULDERS, OR OTHER HAZARDS.
   F. ADEQUACY & AVAILABILITY OF ALL EQUIPMENT, INCLUDING PERSONAL PROTECTIVE GEAR, SHORING MATERIALS, SIGNS, BARRICADES & MACHINERY.

7. DURING TRENCHING OR EXCAVATION, CONTRACTOR MUST REGULARLY CHECK FOR THE FOLLOWING:
   A. CHANGING GROUND CONDITIONS, PARTICULARLY AFTER RAINFALL.
   B. POSSIBLE OXYGEN DEFICIENCY OR GASEOUS CONDITIONS.
   C. ADEQUACY OF SHORING AND/OR SLOPING AS WORK PROGRESSES.
   D. MAINTENANCE OF ENTRANCE & EXIT FACILITIES.
   E. ALL SHEETING, BRACING, SHORING & UNDERPINNING.
   F. CHANGES IN VEHICULAR & MACHINERY OPERATIONAL PATTERNS

8. AFTER TRENCHING OR EXCAVATION, THE CONTRACTOR MUST CHECK FOR:
   A. DEPTH OF TRENCHING OR EXCAVATION, ITS SLOPING & SHORING.
   B. SLOPING OF BANKS, SIDES & WALLS IN RELATION TO DEPTH OF CUT, WATER CONTENT OF SOIL, VIBRATIONS.
   C. ENTRANCE & EXIT FACILITIES.
   D. LOCATION OF HEAVY EQUIPMENT - POWER SHOVELS, DERRICK, TRUCKS.
   E. EXCAVATION MATERIAL IS TWO FEET OR MORE FROM EDGE OF OPENING.
   F. PORTABLE TRENCH BOXES OR TRENCH SHIELDS ARE ADEQUATE, IF USED.
   G. CROSS BRACES OR TRENCH JACKS ARE CORRECTLY POSITIONED TO PREVENT SLIDING, FALLING OR KICKOUTS.

9. PRE-TRENCHING REQUIREMENTS CHECKLIST:
   A. PRIOR TO EXCAVATION, THE CONTRACTOR MUST UNDERTAKE EFFORTS TO DETERMINE UNDERGROUND INSTALLATIONS SUCH AS SEWER, TELEPHONE, WATER, GAS, ELECTRIC LINES, ETC. ARE PRESENT & WHERE THEY ARE ACTUALLY LOCATED.
   B. THE WALLS & FACES OF ALL EXCAVATIONS IN WHICH EMPLOYEES ARE EXPOSED TO DANGER FROM MOVING GROUND SHALL BE GUARDED BY A SHORING SYSTEM, SLOPING OF THE GROUND OR SOME OTHER EQUIVALENT MEANS.
   C. THE DETERMINATION OF THE ANGLE OF REPOSE & DESIGN OF THE SUPPORTING SYSTEM SHALL BE BASED ON CAREFUL EVALUATION OF PERTINENT FACTORS SUCH AS: DEPTH OF CUT, POSSIBLE VARIATION IN THE WATER CONTENT OF THE MATERIALS FROM EXPOSURE TO AIR, SUN AND/OR WATER.
   D. ALL SLOPES SHALL BE EXCAVATED TO AT LEAST THE ANGLE OF REPOSE EXCEPT IN AREAS WHERE SOLID ROCK ALLOWS FOR LINE DRILLING OR PRE SPLITTING.
   E. IN EXCAVATIONS WHICH EMPLOYEES MAY BE REQUIRED TO ENTER, EXCAVATED OR OTHER MATERIALS SHALL BE EFFECTIVELY STORED & RETAINED AT LEAST 2 FT OR MORE FROM THE EDGE OF THE EXCAVATION.

AS-BUILT DRAWING REQUIREMENTS

1. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS WITH CURRENT FIELD CHANGES ACCURATELY MARKED AND UPDATED AS CONSTRUCTION PROGRESSES. A COPY OF THE MARKED UP SET OF PLANS SHALL BE DELIVERED ELECTRONICALLY (PDF) VIA E-MAIL TO THE E.O.R. AND THE CITY'S REPRESENTATIVE AT THE END OF EACH WEEK.

2. THE CONTRACTOR SHALL PREPARE AN AS-BUILT PROGRESS SET OF DRAWINGS (RED-LINE AS-BUILT DRAWINGS). THE AS-BUILT PROGRESS SET SHALL ACCURATELY DEPICT THE COMPLETED WORK AND SHALL BE CONSISTENT WITH THE CONTRACTOR'S MONTHLY INVOICE AND INVOICED QUANTITIES. THE CONTRACTOR SHALL SUBMIT (1) PAPER COPY, ONE (1) ELECTRONIC COPY (PDF) AND ONE (1) CAD COPY (AUTOCAD 2018 FORMAT) OF THE AS-BUILT PROGRESS SET WITH EACH PAY APPLICATION.

3. THE CONTRACTOR SHALL PREPARE AN AS-BUILT FINAL SET OF DRAWINGS CERTIFIED BY A REGISTERED LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA. THREE (3) SIGNED AND SEALED ORIGINAL COPIES, ONE (1) ELECTRONIC COPY (PDF) AND ONE (1) CAD COPY (AUTOCAD 2018 FORMAT) OF THE FINAL SET OF AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE E.O.R. AND THE CITY'S REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO THE FINAL WALKTHROUGH AND RELEASE OF RETAINAGE.

4. THE AS-BUILT PROGRESS SET AND FINAL SET OF DRAWINGS SHALL, AT A MINIMUM DEPICT THE FOLLOWING INFORMATION:

   FOR ALL PROJECTS: IDENTIFY AND LOCATE THE VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION.

   a. UTILITY CROSSINGS: TYPE, LOCATION, MATERIAL, ELEVATION OF EXISTING UTILITY
      TYPE, LOCATION, MATERIAL, ELEVATION OF PROPOSED UTILITY
      GROUND ELEVATION
   b. UTILITY CLEARANCE: PROVIDE THE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE PROPOSED UTILITY AND ALL EXISTING UTILITIES WITHIN EACH 100-FT
   c. ALL PIPES: LOCATION, MATERIAL, PIPE ELEVATION, GROUND ELEVATION AT AT EACH 100-FT
   d. VALVES (ALL), FIRE HYDRANTS, METERS FITTINGS, SERVICE LINES, TIE-INS, CAPS: LOCATION, MATERIAL, ELEVATION, AND GROUND ELEVATION
   e. MANHOLES (ALL), DRAINAGE STRUCTURES: LOCATION, ELEVATION, BOTTOM ELEVATION, PIPE INVERT ELEVATION, MATERIAL AND DIRECTION, AND GROUND ELEVATION

APPLICABLE AGENCIES, CODES AND STANDARD SPECIFICATIONS

1. CITY OF DORAL CODE OF ORDINANCES
2. CITY OF DORAL DEPARTMENT OF PUBLIC WORKS
3. MIAMI-DADE COUNTY HEALTH DEPARTMENT
4. MIAMI-DADE COUNTY TRANSPORTATION & PUBLIC WORKS DEPARTMENT
5. MAIMI-DADE COUNTY REGULATORY & ENVIRONMENTAL RESOURCES DEPARTMENT (RER)
6. FLORIDA BUILDING CODE
7. FLORIDA ADMINISTRATIVE CODE (FAC)
8. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT))
9. FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
10. MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
11. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
12. AMERICANS WITH DISABILITIES ACT AND ACCESSIBILITY GUIDELINES (ADA).

PAY ITEM NOTES

110-1-1 LUMP SUM INCLUDES REMOVAL OF EXISTING PAVEMENT, SAWCUTTING OF EXISTING PAVEMENT, MISCELLANEOUS CONCRETE, VEGETATION, TREES AND DEBRIS WITHIN THE LIMITS OF CONSTRUCTION TO BE DISPOSED OF IN LEGAL AREAS PROVIDED BY THE CONTRACTOR. INCLUDE THE COST OF CLEANING-OUT ALL EXISTING DRAINAGE STRUCTURES WHICH ARE TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION.

ABBREVIATIONS

ABD	ABANDONED	LF	LINEAR FOOT
AC	ASBESTOS CEMENT	LP	LIGHT POLE
ADA	AMERICAN WITH DISABILITIES ACT	LT	LEFT
ADJ	ADJUST	MAX	MAXIMUM
APPROX	APPROXIMATELY	MHW	MEAN HIGH WATER
ASPH	ASPHALT	MIN	MINIMUM
AVE	AVENUE	MISC	MISCELLANEOUS
BE	BURIED ELECTRIC	MOT	MAINTENANCE OF TRAFFIC
℄	BASE LINE	MPH	MILES PER HOUR
BLDG	BUILDING	MUTCD	MANUAL ON UNIFORM TRAFFIC
BLVD	BOULEVARD		CONTROL DEVICES
BM	BENCH MARK	N	NORTH
BOS	BACK OF SIDEWALK	NAVD	NATIONAL AMERICAN VERTICAL DATUM
BOT	BOTTOM	NGVD	NATIONAL GEODETIC VERTICAL DATUM
BT	BURIED TELEPHONE	NO	NUMBER
C&G	CURB & GUTTER	NTS	NOT TO SCALE
C.L.F.	CHAIN LINK FENCE	OC	ON CENTER
CB	CATCH BASIN	OFF	OFFSET
CF	CUBIC FOOT	OT	OVERHEAD TELEPHONE
CFS	CUBIT FEET PER SECOND	OU	OVERHEAD UTILITY
CI	CAST IRON	PE	PROFESSIONAL ENGINEER
CIP	CAST IRON PIPE	⅊	PROPERTY LINE
℄	CENTER LINE	PLA	PLASTIC
CL	CLAY	PP	POWER POLE
CMP	CORRUGATED METAL PIPE	PRB	POLLUTION RETARDANT BAFFLE
CO	CLEAN OUT	PROP	PROPOSED
C/O	CARE OF	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	PVMT	PAVEMENT
CONST	CONSTRUCTION	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
DBL	DOUBLE	RD	ROAD
DEPT	DEPARTMENT	REF	REFERENCE
DI	DUCTILE IRON	REQ	REQUIRE
DIA	DIAMETER	REST	RESTORATION
DIP	DUCTILE IRON PIPE	ROW, R/W	RIGHT OF WAY
DRWY	DRIVEWAY	RPM	RAISED REFLECTIVE PAVEMENT
DWG(S)	DRAWING(S)		MARKER
E	EAST	RT	RIGHT
EA	EACH	S	SOUTH
EL	ELEVATION	S/W	SIDEWALK
EOP	EDGE OF PAVEMENT	SD	STORM DRAIN
EOR	ENGINEER OF RECORD	SP	SAMPLING POINT
EXIST	EXISTING	SPEC	SPECIFICATION
F&I	FURNISH & INSTALL	SS	SANITARY SEWER
F.A.C.	FLORIDA ADMINISTRATIVE CODE	ST	STREET
F.F.E.	FINISH FLOOR ELEVATION	STL	STEEL
FD	FRENCH DRAIN	STA	STATION
FH	FIRE HYDRANT	STD	STANDARD
FM	FORCE MAIN	SYMB	SYMBOL
FOC	FIBER OPTICS CABLE	TAP SL	TAPPING SLEEVE
FT	FEET	TAP V	TAPPING VALVE
G	GAS	TB	TEST BORING
GALV	GALVANIZED	TERR	TERRACE
GB	GRADE BREAK	TH	TEST HOLE
GM	GAS MAIN	TOC	TOP OF CURB
GP	GRADE POINT	TOS	TOP OF SIDEWALK
GRD	GROUND	TYP	TYPICAL
GV	GATE VALVE	UG	UNDERGROUND
HC	HORIZONTAL CLEARANCE	VERT	VERTICAL
HH	HAND HOLE	VCP	VERIFIED CLAY PIPE
HORIZ	HORIZONTAL	W	WEST, WATER
IN	INCHES	W/	WITH
INV	INVERT	W/O	WITHOUT
L	LENGTH	W/STL	WRAP STEEL
LAT	LATERAL	WL	WATER LINE
LBR	LIME ROCK BEARING RATIO	WM	WATER MAIN

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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Sunshine811.com

PROJECT: STORMWATER IMPROVEMENTS SUB-BASIN H-8 (PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE: GENERAL NOTES

REVISIONS

NO.	DESCRIPTION	DATE	BY

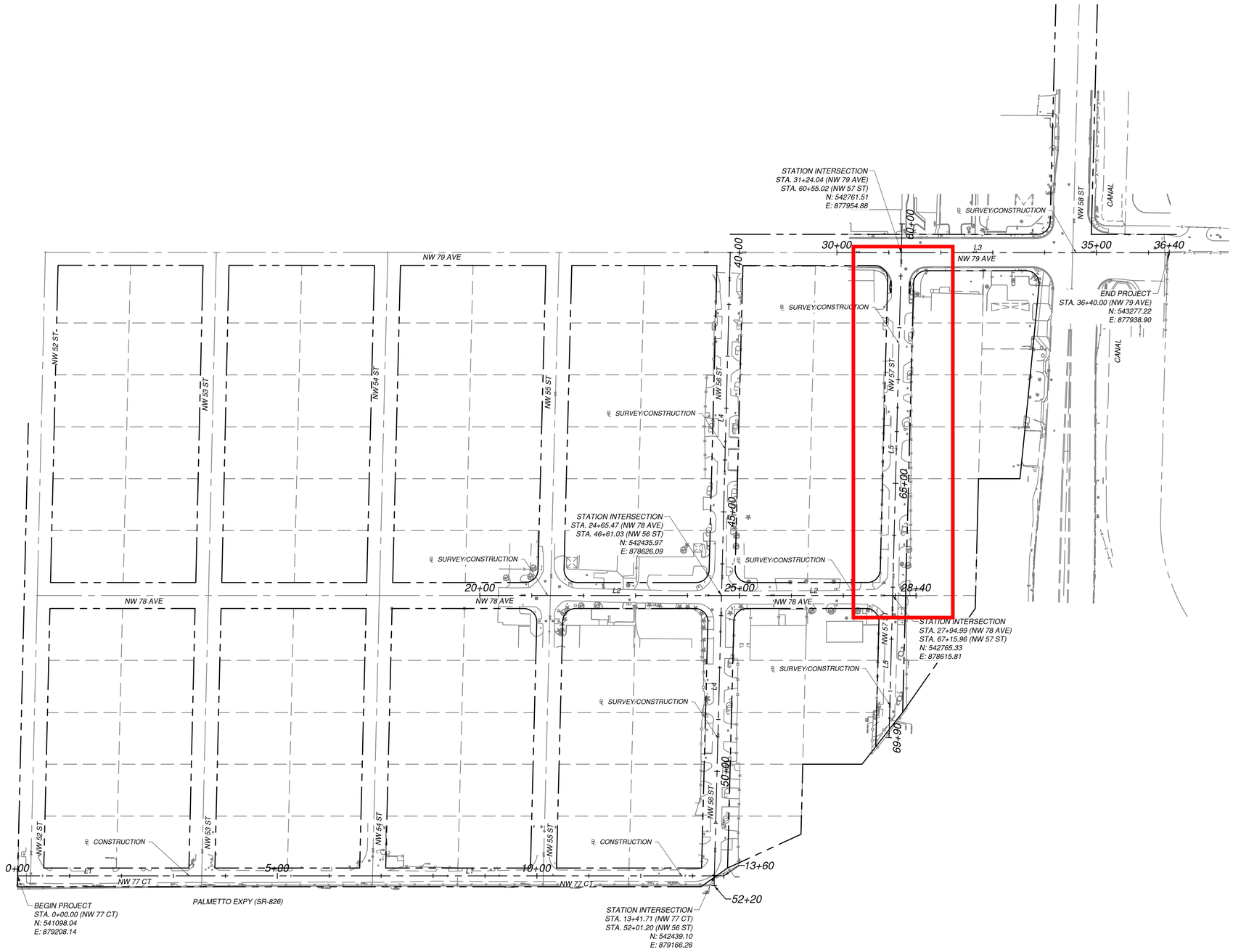
DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: GENERAL NOTES.dwg
DATE: MAY 2020
SHEET NO. 3
BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 5:03 PM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CAD\roadway\GENERAL NOTES.dwg



0 100' 200'

LEGEND

- RIGHT OF WAY LINE
- PROPERTY LINE
- CENTER LINE

HORIZONTAL CONTROL						
SEGMENT ID	STREET	NORTHING	EASTING	STATION	BEARING	LENGTH
L1	NW 77 CT	541,098.04	879,208.14	0+00.00	N01° 47' 19.57"W	1,360.00
L2	NW 78 AVE	541,970.73	878,640.62	20+00.00	N01° 47' 19.01"W	840.00
L3	NW 79 AVE	542,637.52	877,958.72	30+00.00	N01° 46' 26.01"W	453.93
L4	NW 56 ST	542,432.15	877,965.08	40+00.00	S89° 40' 06.69"W	1,220.00
L5	NW 57 ST	542,761.19	877,899.86	60+00.00	N89° 40' 06.12"E	715.96

DORAL FLORIDA
CITY OF DORAL
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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB-BASIN H-8 STORMWATER IMPROVEMENTS (PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE: **HORIZONTAL CONTROL PLAN**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

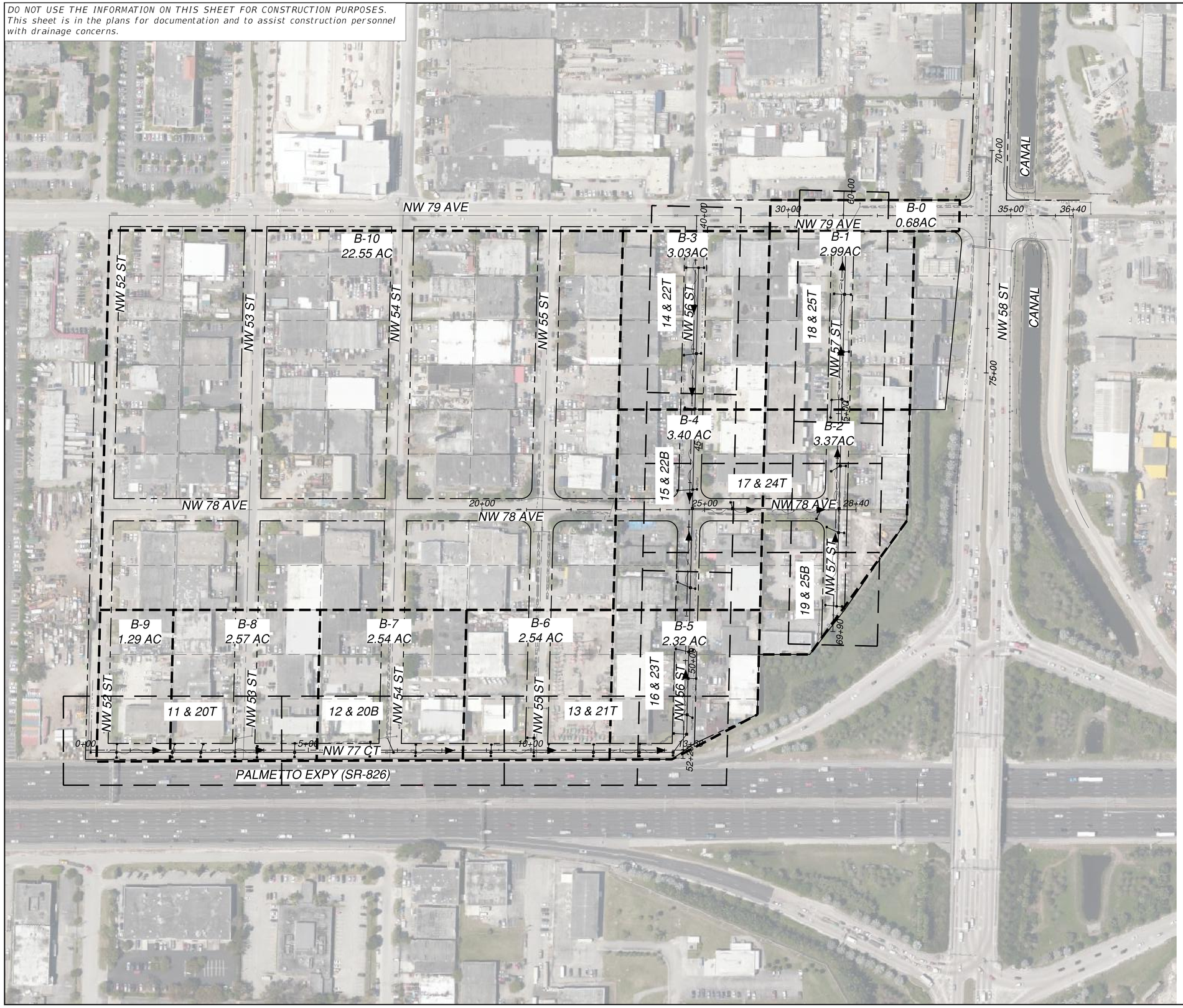
FILE NAME: HVCP01.dwg
DATE: MAY 2020
SHEET NO. **4**

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 2:14 PM
L:\Project\17 Project\17077.WW01-00 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\HVCP01.dwg

DO NOT USE THE INFORMATION ON THIS SHEET FOR CONSTRUCTION PURPOSES.
This sheet is in the plans for documentation and to assist construction personnel with drainage concerns.



0 100' 200'
Feet

LEGEND

- DRAINAGE BASIN
- KEY SHEETS
- T = TOP OF SHEET
- B = BOTTOM OF SHEET

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE MAP & KEY SHEET

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

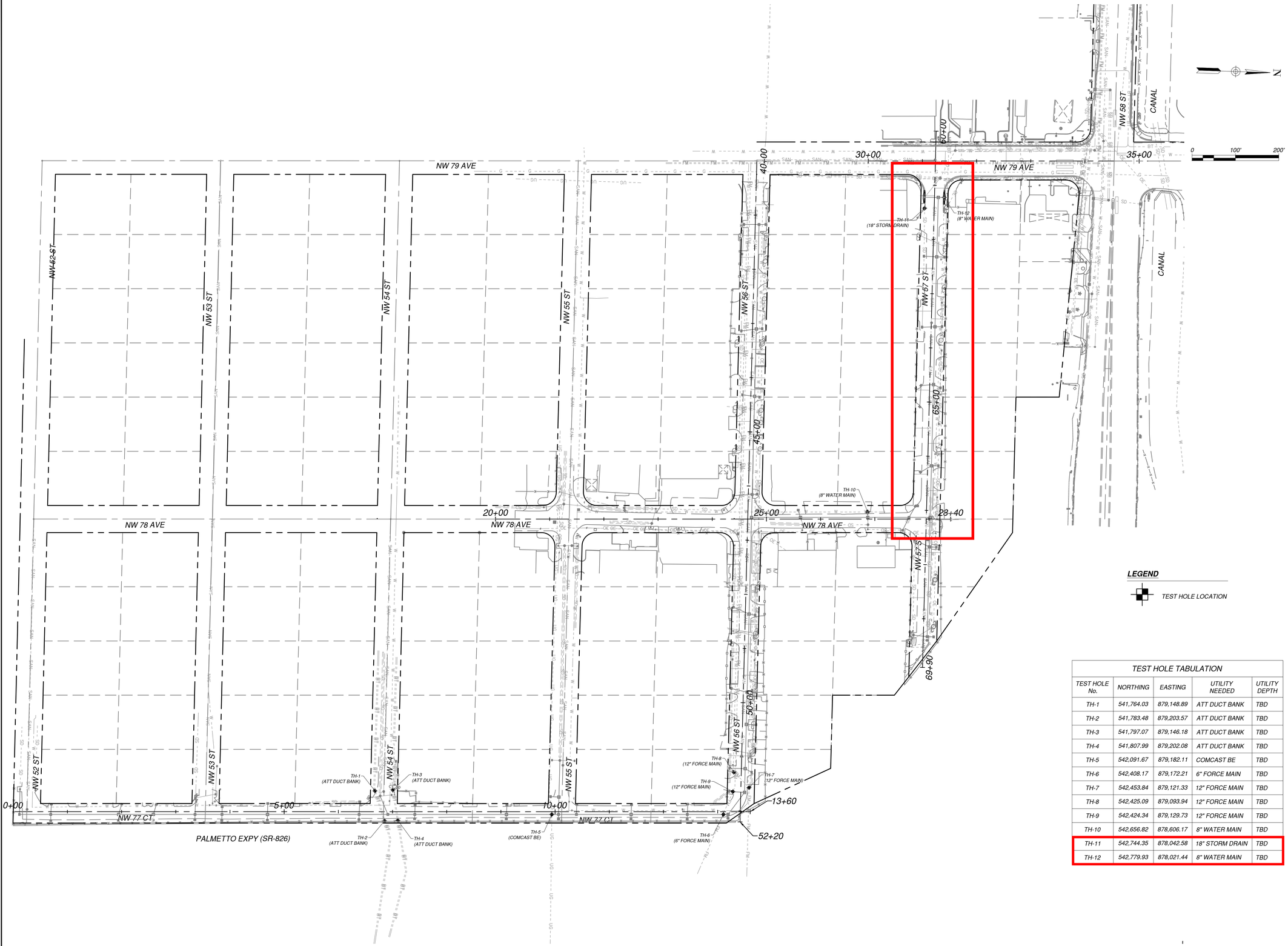
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: DRMPRD01.dwg
DATE: MAY 2020
SHEET NO.
5

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 2:20 PM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CAD\drainage\DRMPRD01.dwg



LEGEND

TEST HOLE LOCATION

TEST HOLE TABULATION

TEST HOLE No.	NORTHING	EASTING	UTILITY NEEDED	UTILITY DEPTH
TH-1	541,764.03	879,148.89	ATT DUCT BANK	TBD
TH-2	541,783.48	879,203.57	ATT DUCT BANK	TBD
TH-3	541,797.07	879,146.18	ATT DUCT BANK	TBD
TH-4	541,807.99	879,202.08	ATT DUCT BANK	TBD
TH-5	542,091.67	879,182.11	COMCAST BE	TBD
TH-6	542,408.17	879,172.21	6" FORCE MAIN	TBD
TH-7	542,453.84	879,121.33	12" FORCE MAIN	TBD
TH-8	542,425.09	879,093.94	12" FORCE MAIN	TBD
TH-9	542,424.34	879,129.73	12" FORCE MAIN	TBD
TH-10	542,656.82	878,606.17	8" WATER MAIN	TBD
TH-11	542,744.35	878,042.58	18" STORM DRAIN	TBD
TH-12	542,779.93	878,021.44	8" WATER MAIN	TBD

DORAL FLORIDA

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CONSULTANT:

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: STORMWATER IMPROVEMENTS (PHASE 1) SUB-BASIN H-8
CITY PROJECT RFQ 2017-21

SHEET TITLE: **TEST HOLE PLAN**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: THPL01.dwg
DATE: MAY 2020
SHEET NO. **6**

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO

July 29, 2020 2:39 PM

L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\THPL01.dwg

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

1. PERMANENT OR TEMPORARY EROSION & SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICABLE TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICE. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHALL BE THE PLACEMENT OF TEMPORARY EROSION & SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT, THE INITIAL WORK AREA AND OTHER AFFECTED AREAS TO PREVENT STORM WATER POLLUTION.

2. CONFORMANCE WITH SWPPP DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITIES TO PROTECT ADJACENT PROPERTIES, FEATURES & NATURAL ENVIRONMENT FROM THE POSSIBLE DAMAGE IMPACT THAT MAY ARISE AS A RESULT OF THE CONSTRUCTION .

3. CONTRACTOR SHALL INSTALL PERIMETER POLLUTION PREVENTION CONTROLS AFTER CLEARING & GRUBBING BUT BEFORE BEGINNING OTHER CONSTRUCTION PHASES. CONTRACTOR SHALL REMOVE PERIMETER CONTROLS ONLY AFTER ALL AREAS HAVE BEEN STABILIZED.

4. MODIFICATIONS OR CHANGES TO THE INFORMATION DEPICTED ON THE STORMWATER POLLUTION PREVENTION PLAN MUST BE SUBMITTED TO MIAMI-DADE COUNTY (RER) FOR APPROVAL.

5. IF ADDITIONAL EROSION & SEDIMENT CONTROL BETTER MANAGEMENT PRACTICES (BMPs) ARE REQUESTED BY ANY REGULATORY AGENCY, THE CONTRACTOR SHALL PROMPTLY IMPLEMENT SAID MEASURES AFTER APPROVAL OF EOR/JURISDICTIONS.

6. MAINTENANCE REQUIREMENTS:

   A. THE PLAN SHALL INCLUDE A DESCRIPTION OF PROCEDURES THAT WILL BE FOLLOWED TO ENSURE THE TIMELY MAINTENANCE OF VEGETATION, EROSION AND SEDIMENT CONTROLS, STORMWATER MANAGEMENT PRACTICES, AND OTHER PROTECTIVE MEASURES AND BMPS SO THEY WILL REMAIN IN GOOD AND EFFECTIVE OPERATING CONDITION.

   B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF EROSION & SEDIMENT CONTROL/SWPPP DEVICES PER THE CITY OF DORAL STORMWATER MASTER PLAN, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND FDOT STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION (CURRENT EDITION). THE MAINTENANCE OF THESE DEVICES SHALL OCCUR UNTIL BCAD'S REPRESENTATIVE ESTABLISHES AREAS AS PERMANENTLY STABILIZED. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AFTER COMPLETION OF THE PROJECT.

   C. EROSION & SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED BY THE CONTRACTOR TO PERFORM THE INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.

   D. CONTRACTOR SHALL VERIFY THAT ALL DRAINAGE STRUCTURES, WITHIN THE PROJECT LIMITS WHETHER INDICATED ON THE PLANS OR NOT ARE PROTECTED IN ACCORDANCE WITH THE ESTABLISHED METHODS AS NOTED ABOVE.

   E. DUST, RESULTING FROM PROPOSED DEMOLITION ACTIVITIES, MUST BE PREVENTED FROM INTRUSION INTO THE STORMWATER CONVEYANCE SYSTEM. APPROPRIATE DUST CONTROL TECHNIQUES (WATER OR SLURRY) MUST BE RETAINED ON SITE. CALCIUM CHLORIDE, OILS OR OTHER CHEMICAL DUST CONTROL AGENTS SHALL NOT BE UTILIZED.

   F. DURING CONSTRUCTION, THE EXISTING DRAINAGE FLOW PATTERNS SHALL BE MAINTAINED AND SERVICED FOR MAINTENANCE AT THE DISCRETION OF THE CITY AT NO ADDITIONAL COST TO THE CITY.

   G. THE CONTRACTOR SHALL MONITOR ALL POLLUTION CONTROL DEVICES TO ENSURE SUFFICIENT CONVEYANCE OF STORMWATER RUNOFF & TO ELIMINATE SOIL EROSION DURING CONSTRUCTION.

   H. CONTRACTOR SHALL COVER LOADED TRUCKS WITH TARPAULINS.

   I. CONTRACTOR SHALL REMOVE EXCESS DIRT FROM WORK SITE ON A DAILY BASIS.

   J. BUILT-UP SEDIMENT WILL BE REMOVED FROM THE STAKED SILT FENCE WHEN IT REACHES ONE-THIRD OF THE FENCE BARRIER OR WHENEVER FLOW IS IMPEDED.

   K. AT NO TIME SHOULD SEDIMENTS BE ALLOWED TO ACCUMULATE WITHIN DRAINAGE STRUCTURE & CONVEYANCE PIPELINES. STRUCTURES & PIPELINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATIONS SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.

   L. STOCKPILE OF EARTH & OTHER CONSTRUCTION RELATED MATERIAL SHALL BE PROTECTED AGAINST ACCIDENTAL TRANSPORTATION FROM PROJECT SITE BY WIND & WATER FLOW.

   M. ALL STORM DRAINAGE SYSTEMS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT WATER CANNOT GAIN ENTRY INTO THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHER WISE TREATED TO REMOVE SEDIMENTS.

9. THE FOLLOWING NON-STORMWATER DISCHARGES ARE PROHIBITED:

   A. WASTEWATER FROM WASHOUT OF CONCRETE.

   B. WASTEWATER FROM WASHOUT AND CLEANOUTS OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS.

   C. FUELS, OILS, OR OTHER POLLUTANTS ASSOCIATED WITH VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.

   D. SOAPS OR SOLVENTS USED IN VEHICLE OR EQUIPMENT WASHING OR CLEANING.

10. POLLUTION PREVENTION CONTROLS. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, INSTALLATION, IMPLEMENTATION, AND MAINTENANCE OF EFFECTIVE POLLUTION PREVENTION MEASURES TO ACCOMPLISH ALL OF THE FOLLOWING:

    A. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. TREAT WASH WATERS USING A TREATMENT SYSTEM SO THAT THEY DO NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF WATER QUALITY STANDARDS.

    B. MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON THE SITE TO PRECIPITATION AND TO STORMWATER.

    C. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS; AND IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES.

    D. CONTROL WASTES, SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTE, IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS.

    E. FOLLOW ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER, AND SEPTIC SYSTEM REGULATIONS.

    F. USE PROPER APPLICATION RATES AND METHODS FOR FERTILIZERS, HERBICIDES, AND PESTICIDES. SET FORTH HOW THESE PROCEDURES WILL BE IMPLEMENTED AND ENFORCED. APPLY NUTRIENTS ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION AND CONSISTENT WITH ALL LABELING REQUIREMENTS.

    G. LIMIT THE APPLICATION, GENERATION, AND MIGRATION OF TOXIC SUBSTANCES; AND PROPERLY STORE AND DISPOSE OF TOXIC MATERIALS.

11. EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, INSTALLATION, IMPLEMENTATION, AND MAINTENANCE OF APPROPRIATE EROSION AND SEDIMENT CONTROLS TO ACCOMPLISH ALL OF THE FOLLOWING:

    A. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION.

    B. CONTROL STORMWATER PEAK DISCHARGE RATES AND VOLUME TO MINIMIZE EROSION AT DISCHARGE OUTFALLS AND TO MINIMIZE DOWNSTREAM CHANNEL AND STREAMBANK EROSION.

    C. MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING THE CONSTRUCTION ACTIVITY.

    D. MINIMIZE THE DISTURBANCE OF STEEP SLOPES.

    E. MINIMIZE SEDIMENT DISCHARGES FROM THE SITE. THE DESIGN, INSTALLATION, AND MAINTENANCE OF EROSION & SEDIMENT CONTROLS SHALL ADDRESS FACTORS SUCH AS THE AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION; THE NATURE OF THE RESULTING STORMWATER; AND SOIL CHARACTERISTICS, INCLUDING THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT ON THE SITE.

    F. MINIMIZE OFF-SITE VEHICLE TRACKING OF SEDIMENTS ONTO PAVED SURFACES AND THE GENERATION OF DUST. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

    G. WHERE FEASIBLE, DIRECT STORMWATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION AND TO PROVIDE AND MAINTAIN NATURAL BUFFERS ADJACENT TO SURFACE WATERS OF THE STATE.

    H. MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.

12. INSPECTIONS. AN INSPECTOR QUALIFIED IN ACCORDANCE WITH PART II.12. OF DEP DOCUMENT NO. 62-621.300(4)(A), EFFECTIVE FEBRUARY 17, 2009, INCORPORATED BY REFERENCE IN PARAGRAPH 62-621.300(4)(A), F.A.C., (PROVIDED BY THE OWNER OR OPERATOR) SHALL PERFORM ALL REQUIRED SITE INSPECTIONS. SITE INSPECTIONS MUST INCLUDE ALL POINTS OF DISCHARGE INTO SURFACE WATERS; DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED; AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION; STRUCTURAL CONTROLS; AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. SITE INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. INSPECTIONS SHALL INCLUDE:

    A. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER MANAGEMENT SYSTEM AND EROSION & SEDIMENT CONTROL MEASURES IDENTIFIED IN THE TABLE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION & SEDIMENT CONTROL AND STORMWATER TREATMENT MEASURES ARE EFFECTIVE IN PREVENTING OR MINIMIZING THE DISCHARGE OF POLLUTANTS, INCLUDING RETAINING SEDIMENT ONSITE PURSUANT TO RULE 62-40.432, F.A.C. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.

    B. BASED ON THE RESULTS OF THE INSPECTION, ALL MAINTENANCE OPERATIONS NEEDED TO ASSURE PROPER OPERATION OF ALL CONTROLS, BMPS, PRACTICES, OR MEASURES IDENTIFIED IN THE STORMWATER POLLUTION PREVENTION PLAN SHALL BE DONE IN A TIMELY MANNER, BUT IN NO CASE LATER THAN 7 CALENDAR DAYS FOLLOWING THE INSPECTION. IF NEEDED, POLLUTION PREVENTION CONTROLS, BMPS, AND MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED AS NECESSARY TO ASSURE PROPER OPERATION OF ALL CONTROLS, BMPS, PRACTICES, OR MEASURES IDENTIFIED IN THE STORMWATER POLLUTION PREVENTION PLAN. SUCH REVISIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.

    C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION; NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION; THE DATE(S) OF THE INSPECTION; RAINFALL DATA; MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN; AND ACTIONS TAKEN IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PERMIT, SHALL BE MADE AND RETAINED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN. SUCH REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.

13. PROJECT AREA:
    TOTAL PROJECT AREA: 47.28 ACRE

    DISTURBED AREA:
    TOTAL DISTURBED AREA: 5.37 ACRE

    B-0: 0.6803 ACRE
    B-1: 0.5137 ACRE
    B-2: 0.8470 ACRE
    B-3: 0.6179 ACRE
    B-4: 0.9521 ACRE
    B-5: 0.6550 ACRE
    B-6: 0.2891 ACRE
    B-7: 0.3210 ACRE
    B-8: 0.3366 ACRE
    B-9: 0.1615 ACRE
    B-10: 0.0000 ACRE

STATE OF FLORIDA EROSION & SEDIMENT CONTROL - DESIGNER & REVIEWER MANUAL

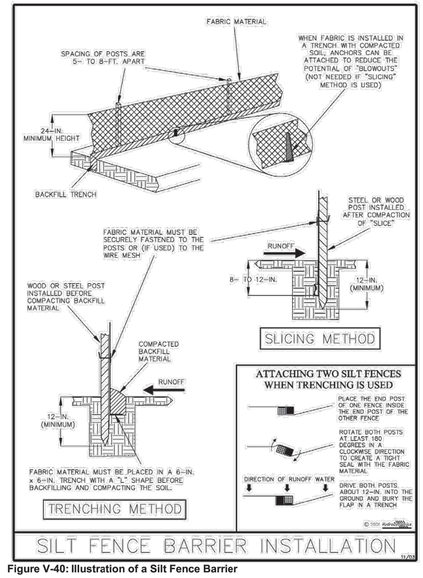

Figure V-40: Illustration of a Silt Fence Barrier

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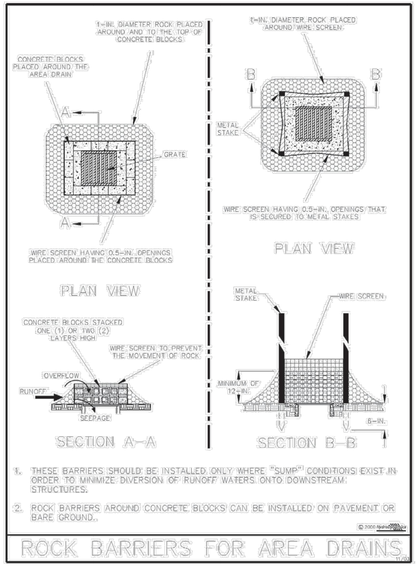

Figure V-46: Illustration of Rock Barriers around Area Drains

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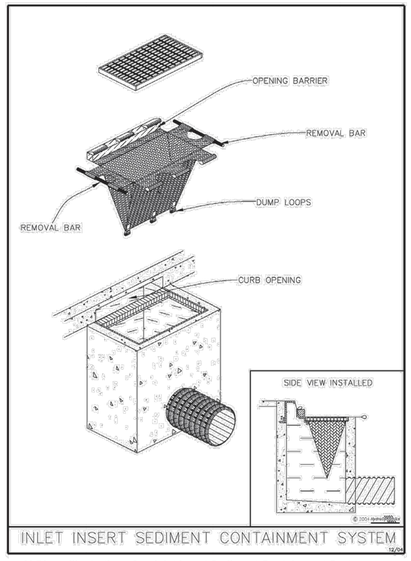

Figure V-51: Illustration of an Inlet Insert Sediment Containment System

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INLET PROTECTION		
STATION	OFFSET	ALIGNMENT
0+12.48	41.30' LT	NW 77 CT
0+40.95	39.72' LT	NW 77 CT
3+36.54	25.50' LT	NW 77 CT
3+73.21	32.04' LT	NW 77 CT
3+76.04	83.96' LT	NW 77 CT
5+47.06	15.96' LT	NW 77 CT
6+39.40	18.25' LT	NW 77 CT
6+56.67	25.28' LT	NW 77 CT
6+98.29	30.82' LT	NW 77 CT
7+04.21	49.76' LT	NW 77 CT
7+05.99	92.48' LT	NW 77 CT
9+11.06	12.17' LT	NW 77 CT
9+94.28	95.07' LT	NW 77 CT
10+35.87	93.73' LT	NW 77 CT
12+44.82	13.83' LT	NW 77 CT
25+58.55	16.28' LT	NW 78 AVE
25+66.06	20.57' RT	NW 78 AVE
26+86.75	10.99' LT	NW 78 AVE
26+86.96	19.02' RT	NW 78 AVE
27+51.32	20.52' RT	NW 78 AVE
31+61.15	27.81' LT	NW 79 AVE
34+15.82	69.25' RT	NW 79 AVE
40+86.69	19.68' LT	NW 56 ST
41+16.88	19.05' LT	NW 56 ST
41+17.72	20.71' RT	NW 56 ST
41+67.54	17.42' LT	NW 56 ST
41+72.54	22.42' RT	NW 56 ST
42+72.64	18.39' LT	NW 56 ST
43+09.33	17.54' LT	NW 56 ST
43+14.29	20.57' RT	NW 56 ST
44+87.30	19.49' RT	NW 56 ST

INLET PROTECTION		
STATION	OFFSET	ALIGNMENT
45+66.52	27.83' RT	NW 56 ST
46+14.75	16.08' LT	NW 56 ST
46+18.50	27.46' RT	NW 56 ST
46+45.52	44.36' RT	NW 56 ST
47+06.94	17.24' LT	NW 56 ST
47+10.15	23.03' RT	NW 56 ST
48+24.23	22.36' RT	NW 56 ST
48+38.07	17.97' LT	NW 56 ST
49+20.65	21.52' RT	NW 56 ST
49+20.97	19.11' LT	NW 56 ST
49+74.38	22.01' RT	NW 56 ST
50+39.93	25.00' LT	NW 56 ST
50+63.43	25.34' LT	NW 56 ST
51+21.48	21.73' RT	NW 56 ST
51+27.99	18.91' LT	NW 56 ST
51+64.33	21.80' RT	NW 56 ST
61+21.92	17.20' LT	NW 57 ST
61+22.40	17.97' RT	NW 57 ST
63+15.96	18.52' LT	NW 57 ST
63+17.34	15.63' RT	NW 57 ST
63+60.30	20.14' LT	NW 57 ST
63+62.25	16.61' RT	NW 57 ST
64+04.23	20.20' LT	NW 57 ST
64+73.28	19.86' LT	NW 57 ST
65+39.77	18.51' LT	NW 57 ST
66+17.24	19.60' LT	NW 57 ST
66+75.45	19.10' LT	NW 57 ST
66+93.24	20.13' RT	NW 57 ST
67+55.40	20.06' RT	NW 57 ST
67+67.52	19.78' LT	NW 57 ST
69+30.60	18.28' RT	NW 57 ST

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
STORMWATER POLLUTION PREVENTION & EROSION CONTROL DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SWWP.dwg
DATE: MAY 2020
SHEET NO.
7

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 5:09 PM
L:\Project\17 Project\17077 WW01-06 City of Doral\17077 WW01-06 - NW 58th St Outlet\CAD\roadway\SWWP.dwg

TRAFFIC CONTROL PHASING NOTES

1. THE CONTRACTOR SHALL DEVELOP MAINTENANCE OF TRAFFIC PLANS OF HIS OWN IN ACCORDANCE WITH THE PROJECT PLANS, THE CITY OF DORAL MUNICODE AS PERTAINS TO MAINTENANCE OF TRAFFIC, THE FLORIDA DOT DESIGN STANDARDS (600 SERIES), THE FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS MINIMUM CRITERIA AND THE LATEST REVISIONS OF AFORE MENTIONED MANUALS.

2. THE CONTRACTOR'S MAINTENANCE OF TRAFFIC PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO OBTAINING THE PERMIT. THE PLANS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.

3. CONTRACTOR SHALL PROVIDE THE CITY OF DORAL AND ADJACENT PROPERTY OWNERS WRITTEN NOTICE 72 HOURS PRIOR TO THE START OF CONSTRUCTION.

4. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL POTHOLES THAT DEVELOP WITHIN THE PROJECT LIMITS AND WILL MAINTAIN A SUPPLY OF COLD MIX ON THE PROJECT SITE TO EXPEDITE THOSE REPAIRS. COST OF REPAIR TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

5. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO CLOSURE OR DETOUR BY COORDINATING WITH MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT, MIAMI-DADE COUNTY TRAFFIC OPERATIONS AND THE CITY OF DORAL PUBLIC WORKS.

6. LANE CLOSURES SHALL OCCUR ONLY DURING NON-PEAK HOURS ON NON-EVENT WEEKDAYS.

7. THE CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AND FIRE PROTECTION SERVICES TWENTY-FOUR (24) HOURS IN ADVANCE OF A DETOUR IN ACCORDANCE WITH SECTION 336.07 OF THE FLORIDA STATUTES.

8. AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSURE CAUSES EXTENDED CONGESTION OR DELAY, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME THAT THE TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.

9. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY DURING ALL PHASES OF CONSTRUCTION. LOCAL RESIDENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY DURING ALL PHASES OF CONSTRUCTION. LOCAL RESIDENTS INCLUDE ALL COMMERCIAL ESTABLISHMENTS AND BUSINESSES.

10. AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE. COST OF COVERING AND UNCOVERING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

11. CONTRACTOR SHALL REMOVE, RELOCATE, OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY REMOVING, RELOCATING, COVERING, AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

12. EACH EXISTING STREET NAME AND TRAFFIC SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE LOCATION FOR THE DURATION OF THE PROJECT. WHEN NO LONGER AFFECTED BY CONSTRUCTION, THESE SIGNS SHALL BE RESTORED IN THEIR ORIGINAL POSITION. COST OF TEMPORARILY RELOCATING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM ROADWAYS UTILIZED FOR MAINTAINING TRAFFIC IN A MANNER APPROVED BY THE ENGINEER. COST FOR REMOVING THE WATER SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

14. FOR DROP-OFF, THE CONTRACTOR'S ATTENTION IS DIRECTED TO FDOT STANDARD INDEX NO. 600, SHEET 9.

15. DURING ASPHALT CONSTRUCTION OPERATIONS, NO MORE THAN 1 1/4" DROP-OFF BETWEEN ADJACENT TRAVEL LANES OR AT TRANSVERSE JOINTS SHALL BE ALLOWED WHEN LANES ARE OPEN TO TRAFFIC. WHERE DROP OFF CONDITIONS EXIST, THE SIGNING FOR UNEVEN LANES SHALL BE INSTALLED FOR THE DURATION OF THE CONDITION (W8-11).

16. THE CONTRACTOR IS TO PLACE TEMPORARY OR REMOVABLE PAVEMENT MARKINGS BETWEEN EACH LAYER OF PAVEMENT, AND IS RESPONSIBLE FOR THE TEMPORARY RELOCATION OF STOP BARS & STOP SIGNS AS APPLICABLE. PAVEMENT MARKINGS AND BARRICADES PLACEMENT SHALL BE APPROPRIATELY COORDINATED.

17. THE CONTRACTOR SHALL REMOVE ANY EXISTING OR TEMPORARY PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. GRINDING OR MILLING SHALL ONLY BE PERMITTED IN NON-TRAFFIC AREAS.

18. COST OF REMOVAL OF TEMPORARY PAVEMENT MARKINGS, REGARDLESS OF METHOD, IS INCLUDED IN THE RELATED PAY ITEMS. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED.

19. AT ALL INTERSECTING STREETS, NO LESS THAN ONE "ROAD CONSTRUCTION AHEAD" SIGN AND ONE "END CONSTRUCTION" SIGN MUST BE INSTALLED.

20. ADJACENT INTERSECTIONS SHALL NOT BE CONSTRUCTED SIMULTANEOUSLY UNLESS DIRECTED BY THE ENGINEER. TRAFFIC SHALL BE MAINTAINED ON A PAVED, DUST-FREE SURFACE AT ALL TIMES.

21. ALL LANES OPEN TO TRAFFIC SHALL BE A MINIMUM OF 10' IN WIDTH.

22. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE EROSION CONTROL MEASURES TO PREVENT CLOG OF PROPOSED DRAINAGE STRUCTURES AND SEDIMENT INTRUSION ON WATERWAYS DURING CONSTRUCTION. THESE MEASURES SHALL BE APPROVED BY THE ENGINEER AND CONFORM WITH CURRENT EDITION OF THE FDOT DESIGN STANDARDS FOR EROSION CONTROL (100 SERIES).

23. CONTRACTOR MUST MAINTAIN DRAINAGE AT ALL TIMES. THE EXISTING DRAINAGE SYSTEM SHALL BE KEPT OPERATIONAL OR TEMPORARY DRAINAGE PROVIDED WHILE THE PROPOSED DRAINAGE SYSTEM IS BEING CONSTRUCTED. THE CONTRACTOR SHALL PROVIDE THE NECESSARY TEMPORARY DRAINAGE AS APPROVED BY THE ENGINEER. ALL COSTS SHALL BE INCLUDED IN THE PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

24. ALL AREAS DISTURBED BY CONSTRUCTION ARE TO BE TEMPORARILY SODDED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. COST ASSOCIATED WITH FURNISHING, LAYING, AND REMOVING TEMPORARY SOD TO BE INCLUDED IN ITEM 102-1 MAINTENANCE OF TRAFFIC. TEMPORARY SOD IS TO BE REMOVED WHEN APPROPRIATE FOR PLACEMENT OF PERMANENT SOD.

25. THE CONTRACTOR SHALL FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AS DIRECTED BY THE ENGINEER. MESSAGES FOR THE PCMS SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE IN PLACE ONE WEEK BEFORE THE START OF ANY WORK ITEMS AFFECTING THE EXISTING VEHICULAR AND PEDESTRIAN TRAFFIC. PCMS INSTALLATION, OPERATION, AND REMOVAL TO BE INCLUDED IN THE PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

26. THE CONTRACTOR MUST PROVIDE FLASHING ARROW BOARD FOR ANY LANE THAT IS CLOSED OR DIVERTED.

27. THE CONTRACTOR SHALL PROVIDE TWO (2) PROJECT INFORMATION SIGNS PER THE CITY OF DORAL REQUIREMENTS. PROJECT INFORMATION SIGNS SHALL BE PRESENT AT ALL TIMES DURING CONSTRUCTION. ALL ASSOCIATED COSTS INCLUDING MAINTENANCE OF THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: STORMWATER IMPROVEMENTS (PHASE 1) SUB-BASIN H-8
CITY PROJECT RFQ 2017-21

SHEET TITLE: **MAINTENANCE OF TRAFFIC NOTES**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: MOT PLANS.dwg
DATE: MAY 2020
SHEET NO. **8**

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 2:54 PM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\MOT PLANS.dwg

SUMMARY OF DRAINAGE STRUCTURES

STR. NO.	STATION	OFFSET	RIM ELEV.	BOTTOM ELEV.	STORM DRAIN	DESCRIPTION
01	0+12.48	41.30' LT	7.06	1.28'	INV: 3.28' (E) - 18" SD INV: 3.28' (W) - 24" SD (EXIST)	EXIST CB (MODIFY) CORE DRILL AT (E) INV.
02	0+11.44	5.00' RT	7.50	-1.20'	INV: 0.80' (N) - 18" SD INV: 3.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
03	0+69.25	16.64' RT	6.57	0.50'	INV: 2.50' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
04	0+69.26	5.00' RT	6.89	-3.20'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: 0.80' (S) - 18" SD INV: 2.30' (E) - 18" SD INV: -1.00' (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
05	0+70.37	13.49' LT	6.96	-2.80'	INV: -0.80' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
06	1+94.22	15.94' RT	6.26	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
07	1+94.53	5.00' RT	6.38	-3.20'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: 0.80' (S) - 24" FD (W/ SKIMMER) INV: 1.90' (E) - 18" SD INV: -1.00' (W) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
08	2+00.[illegible]	13.58' LT	6.24	-2.80'	INV: -0.80' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
09	2+58.07	15.50' RT	6.06	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
10	2+58.64	5.00' RT	6.25	-3.20'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: 0.80' (S) - 24" FD (W/ SKIMMER) INV: 1.90' (E) - 18" SD INV: -1.00' (W) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
11	2+64.08	13.19' LT	6.37	-2.80'	INV: -0.80' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
12	3+35.24	14.78' RT	6.4[illegible]	-0.25'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
13	3+35.52	5.00' RT	6.50	[illegible].20'	INV: 0.80' (N) - 24" SD INV: 0.8[illegible] (S) - 24" FD (W/ SKIMMER) INV: 1.[illegible] (E) - 18" SD INV: [illegible].00' (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
14	3+36.54	25.50' LT	6.24	-2.80'	INV: 0.80' (E) - 18" SD INV: 3.15' (N) - 18" SD (EXIST) INV: 3.76' (W) - 24" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
15	3+84.81	16.29' RT	6.19	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
16	3+85.28	5.00' RT	6.47	[illegible].00'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: [illegible].00' (S) - 24" SD INV: 1.[illegible] (E) - 18" SD INV: 1.[illegible] (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
17	3+85.53	8.64' LT	6.27	0.00'	INV: 2.00' ([illegible]) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
18	4+68.96	15.28' RT	[illegible].7	0.00'	INV: 2.00' (W) - [illegible] SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
19	4+69.26	5.00' R[illegible]	6.14	-3.70'	INV: 0.80' (N) - 24" F[illegible] (W/ SKIMMER) INV: 0.80' (S) - 24" FD ([illegible] (W/ SKIMMER) INV: 1.90' (E) - 18" SD INV: -1.70' (W) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
20	4+69.68	1[illegible].8' LT	5.98	-3.50'	INV: -1.50' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
21	6+38.0[illegible]	14.20' RT	6.11	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
22	6+[illegible]8.31	5.00' RT	6.12	-3.50'	INV: -1.50' (N) - 24" SD INV: 0.80' (S) - 24" FD (W/ SKIMMER) INV: 1.90' (E) - 18" SD INV: -1.00' (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 4[illegible]-010, 443-002)
23	6+39.40	18.25' LT	5.57	-2.80'	INV: -0.80' (E) - 18" SD INV: 2.00' (S) - 18" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-05[illegible]
[illegible]	6+91.30	5.00' RT	6.70	-3.50'	INV: -1.50' (N) - 24" SD INV: -1.50' (S) - 24" SD INV: -1.50' (SW) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
25	6+77.16	28.71' LT	6.39	-3.00'	INV: -1.00' (NE) - 18" SD INV: -0.18' (S) - 18" SD (EXIST) INV: -0.18' (N) - 18" SD (EXIST) INV: 2.24' (W) - 24" FD (EXIST)	EXIST MH (MODIFY) CORE DRILL AT [illegible] INV.
26	7+40.61	12.99' RT	6.29	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
27	7+41.13	5.00' RT	6.35	-3.50'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: -1.50' (S) - 24" SD INV: 1.90' (E) - 18" SD INV: 1.80' (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
28	7+41.58	12.23' LT	6.44	0.00'	INV: 2.00' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
29	9+09.94	13.35' RT	6.39	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)

SUMMARY OF DRAINAGE STRUCTURES

STR. NO.	STATION	OFFSET	RIM	BOTTOM	STORM DRAIN	DESCRIPTION
30	9+10.19	5.00' RT	6.51	-3.20'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: 0.80' (S) - 24" FD (W/ SKIMMER) INV: 1.90' (E) - 18" SD INV: 1.90' (W) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
31	9+11.06	12.17' LT	6.39	0.00'	INV: 2.00' (E) - 18" SD INV: 3.65' (N) - 15" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
32	10+06.28	13.65' RT	6.08	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
33	10+06.27	5.00' RT	6.19	-3.20'	INV: 0.80' (N) - 24" SD INV: 0.80' (S) - 24" FD (W/ SKIMMER) INV: 1.90' (E) - 18" SD INV: 1.50' (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
34	[illegible]+07.00	27.04' LT	5.96	-0.70'	INV: 1.75' (E) - 18" SD INV: 1.30' (S) - 18" SD INV: 1.75' (W) - 18" SD	MH TYPE J-7 (5'X[illegible] (FDOT INDEX 4[illegible]001, 425-010, 443-0[illegible])
35	9+9[illegible]7	27.80' LT	5.82	-0.50'	INV: 1.50' (N) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
36	10+08.83	[illegible]4.61' LT	5.99	-3.20'	INV: 2.00' (E) - 18" SD INV: 1.75' (S) - 18" SD (EXIST) INV: -1.20' (N) - 18" SD (EXIST) INV: 0.65' (W) - 24" FD (EXIST)	EXIST [illegible]H (MODIFY) CO[illegible] DRILL AT (E) INV.
37	10+39.38	5.00' [illegible]T	6.24	-4.00'	INV: 0.80' (N) - 24" FD (W/ SKIMMER) INV: 0.80' (S) - 24" SD INV: -2.00' (W) - 18" SD	[illegible] TYPE J-7 (4'X4') [illegible]DOT INDEX 425-001, 425-010, 443-002)
38	10+39.92	13.08' LT	6.24	-3.80'	INV: -1.80' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
39	11+40.02	13.62' RT	6.[illegible]	0.00'	INV: 2.00' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
40	11+40.31	5.00' RT	6.57	[illegible]-4.00'	INV: 0.80' (N) - 24" FD (W/ [illegible]KIMMER) INV: 0.80' (S) - 24" FD (W/ [illegible]KIMMER) INV: 1.90' (E) - 18" SD INV: -2.00' (W) - 18" S[illegible]	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
41	11+40.87	12.50' LT	6.14	-3.[illegible]	INV: -1.80' (E) - 1[illegible] SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
42	12+43.72	13.72' RT	6.00	0.00'	INV: 2.00' (W[illegible] 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
43	12+43.96	5.00' RT	6.07	-5.00'	INV: -3.0[illegible] (N) - 24" SD INV: [illegible] (S) - 24" FD (W/ SKIMMER) INV: [illegible]0' (E) - 18" SD INV: [illegible]0' (W) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
44	12+44.82	13.83' LT	6.02	-3.80'	INV: -1.8[illegible] (E) - 18" SD INV: 3.52' [illegible] 15" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
45	13+19.05	12.01' RT	5.67	0.00'	INV: 2.00' (W) [illegible]" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
46	13+19.26	5.00' RT	5.71	[illegible]00'	INV: -3.00' (S) - 24" [illegible]D INV: 1.90' (E) - 18" S[illegible] INV: -3.00' (NW) - 24" [illegible]	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
47B	41+17.73	20.71' RT	5.54	-4.90'	INV: 2.25' (E) - 18" SD (E[illegible]T) INV: -2.90' (N) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
47A	41+16.88	19.05' LT	[illegible]6	-5.40'	INV: 0.56' (W) - 18" SD (EXIST) INV: -3.40' (S) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
47	41+17.12	7.00' LT	5.72	-7.00'	INV: -3.00' (E) - 24" FD (W/ SKIMM[illegible] INV: -3.50' (N) - 18" SD INV: -3.20' (S) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
48	43+14.29	20.[illegible] RT	5.69	-4.00'	INV: 1.79' (E) - 18" SD (EXIST) INV: 2.42' (W) - 18" SD (EXIST) INV: -2.00' (N) - 18" SD	DBI TYPE F [illegible]DOT INDEX 425-001, 4[illegible]053)
49	43+10.04	7.00' LT	6.30	-7.00'	INV: -3.00' (W) - 24" FD (W/ SKIMMER) INV: -3.00' (E) - 24" FD (W/ SKIMMER) INV: -2.25' (S) - 18" SD INV: -1.20' (N) - 18" SD	MH [illegible]PE J-7 (5'X5') (FDO[illegible] INDEX 425-001, 425-01[illegible]443-002)
50	43+[illegible].33	17.54' LT	5.41	-3.00'	INV: 2.11' (W) - 18" SD (EXIST) INV: -1.00' (S) - 18" SD	DBI TYPE [illegible] (FDOT INDE[illegible] 425-001, 425-053)
51	[illegible]4+32.17	15.57' RT	6.38	-3.50'	INV: -1.50' (N) - 18" SD	DBI TYPE F (FDOT INDEX 42[illegible]001, 425-053)
5[illegible]	44+34.31	7.00' LT	5.77	-7.00'	INV: -3.00' (W) - 24" FD (W/ SKIMMER) INV: -3.00' (E) - 24" FD (W/ SKIMMER) INV: -1.75' (S) - 18" SD INV: -1.50' (N) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
[illegible]53	44+35.63	15.94' LT	5.62	-3.25'	INV: -1.25' (S) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
54A	46+18.50	27.46' RT	5.17	-4.90'	INV: 1.62' (SE) - 18" SD (EXIST) INV: -2.90' (N) - 18" SD INV: 2.30' (W) - 15" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
54	46+15.55	7.00' LT	5.82	-7.00'	INV: -3.00' (W) - 24" FD (W/ SKIMMER) INV: -3.00' (E) - 24" SD INV: -1.30' (N) - 18" SD INV: -3.20' (S) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
55	46+14.75	16.08' LT	5.44	-3.20'	INV: -1.20' (S) - 18" SD INV: 2.50' (W) - 18" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
SUMMARY OF DRAINAGE STRUCTURES
(1 OF 2)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SUMDRD01.dwg
DATE: MAY 2020
SHEET NO.
9

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 5:01 PM
L:\Project\17 Project\17077 WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\SUMDRD01.dwg

SUMMARY OF DRAINAGE STRUCTURES						
STR. NO.	STATION	OFFSET	RIM ELEV.	BOTTOM ELEV.	STORM DRAIN	DESCRIPTION
56	48+24	22.36' RT	5.09	-4.50'	INV: -2.50' (N) - 18" SD INV: 0.77' (W) - 18" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
57	48+36	00' LT	5.11	-6.50'	INV: -2.50' (W) - 30" FD (W/ SKIMMER) INV: -2.50' (E) - 30" FD (W/ SKIMMER) INV: -1.50' (N) - 18" SD INV: -3.00' (S) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
58	48+38	17.97'	4.93	-3.40'	INV: -1.40' (S) - 18" S INV: 1.28' (W) - 18" (EXIST) INV: 1.53' (E) - 18" D (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
59	49+74	22.01' RT	5.01	-4.50'	INV: -2.50' (N) - SD INV: 0.62' (W) 8" SD (EXIST) INV: 0.77' (E) 8" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
60	49+80	7.00' LT	5.10	-6.50'	INV: -2.50 W) - 30" FD (W/ SKIMMER) INV: -2.5 E) - 30" FD (W/ SKIMMER) INV: -1 (N) - 18" SD INV: -3 0' (S) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
61	49+76	16.47' LT	4.91	40'	IN 1.40' (S) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
62	50+39	7.00' LT	5.13	-6.50	NV: -2.50' (W) - 30" FD (W/ SKIM ER) NV: -2.50' (E) - 30" FD (W/ SKIM ER) NV: -2.00' (N) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
63	50+39	25.00' LT	4.87	-3	NV: -1.80' (S) - 18" SD 0.70' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
64	50+63	25.33' LT	4.95	0.50'	INV 00' (W) - 18" SD INV: 9' (E) - 18" FD (EXIST)	EXIST CB (MODIFY) CORE DRILL AT (W) INV.
65	51+21	21.73' RT	4.8	-4.60'	INV: -2 (N) - 18" SD INV: 1.77 W) - 18" FD (EXIST) INV: 0.77 - 18" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
66	51+21	7.00' LT	4.77	-6.50'	INV: -2.50' (W 30" FD (W/ SKIM ER) INV: -3.50' (E) 0" SD INV: -3.00' (S) - SD INV: -2.00' (NE) - SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
67	51+64	21.8 RT	4.85	-4.25'	INV: -2.25' (N) - 18" INV: 2.02' (SE) - 18" F EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
68	51+65	00' LT	5.26	-5.50'	INV: -3.50' (W) - 30" SD INV: -3.00' (SE) - 24" SD INV: -2.50' (S) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
69	51+27	18.91' LT	4.55	-3.80'	INV: -1.80' (SW) - 18" SD INV: 1.05' (E) - 18" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
70	61+22.05	7.00' LT	5.66	-7.50'	INV: -3.50' (E) - 42" FD (W/ SKIMMER) INV: -2.75' (S) - 18" SD INV: 1.50' (N) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
70A	61+22.40	17.97' RT	5.71	-4.50'	INV: 1.00' (NW) - 15" SD (EXIST)(ASSUMED) INV: 3.10' (E) - 18" SD (EXIST) INV: -2.50' (N) - 18" SD	CURB INLET TYPE P-6 (FDOT INDEX 425-001, 425-021)
71	61+21.92	17.20' LT	5.66	-0.40'	INV: 1.60' (S) - 18" SD	CURB INLET TYPE P-6 (FDOT INDEX 425-001, 425-021)
72	62+31.22	16.53' RT	6.33	-4.00'	INV: -2.00' (N) - 18" SD INV: 3.10' (W) - 18" SD (EXIST) INV: 3.10' (E) - 18" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
73	62+31.76	7.00' LT	6.37	-7.50'	INV: -3.50' (W) - 42" FD (W/ SKIMMER) INV: -3.50' (E) - 42" FD (W/ SKIMMER) INV: -2.50' (S) - 18" SD INV: -1.20' (N) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
74	62+31.90	21.21' LT	6.17	-3.00'	INV: -1.00' (S) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
75A	63+60.30	20.14' LT	6.48	0.96'	INV: 2.50' (S) - 18" SD INV: 3.19' (W) - 15" SD (EXIST)	EXIST CB (MODIFY) CORE DRILL AT (S) INV.
75B	63+62.25	16.61' RT	6.53	-3.75'	INV: 3.10' (W) - 18" SD (EXIST) INV: -1.75' (N) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
75	63+60.91	7.00' LT	6.63	-7.50'	INV: -3.50' (W) - 42" FD (W/ SKIMMER) INV: -3.50' (E) - 42" FD (W/ SKIMMER) INV: 2.35' (N) - 18" SD INV: -2.00' (S) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
76	64+69.89	15.97' RT	6.81	-3.70'	INV: -1.70' (N) - 18" SD INV: -1.60' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
77	65+09.14	17.25' RT	6.24	-3.20'	INV: -1.20' (W) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
78	64+67.55	7.00' LT	6.43	-7.50'	INV: -3.50' (W) - 42" FD (W/ SKIMMER) INV: -3.50' (E) - 42" FD (W/ SKIMMER) INV: -1.20' (NE) - 18" SD INV: -2.00' (S) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
79	64+73.28	19.86' LT	5.98	-2.80'	INV: -1.00' (SW) - 18" SD INV: 2.31' (E) - 15" SD (EXIST) INV: 2.61' (W) - 15" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
80	66+29.85	13.09' RT	6.08	-3.25'	INV: -1.25' (NW) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
81	66+17.53	7.00' LT	6.10	-7.50'	INV: -3.50' (W) - 42" FD (W/ SKIMMER) INV: -2.00' (N) - 18" SD INV: -1.50' (SE) - 18" SD INV: -3.50' (E) - 42" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)

SUMMARY OF DRAINAGE STRUCTURES						
STR. NO.	STATION	OFFSET	RIM ELEV.	BOTTOM ELEV.	STORM DRAIN	DESCRIPTION
82	66+17.24	19.60' LT	5.93	-3.80'	INV: -1.80' (S) - 18" SD INV: 2.41' (E) - 15" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
83						DBI TYPE F (FDOT INDEX 425-001, 425-053)
83	26+86.96	3.00' LT	5.96	-7.00'	INV: -3.00' (S) - 36" FD (W/ SKIMMER) INV: -3.00' (N) - 36" FD (W/ SKIMMER) INV: 1.80' (W) - 18" SD INV: 2.30' (E) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
83	26+ 38	10.41' RT	6.16	0.51'	INV: 2.56' (W) - 18" SD (EXIST) INV: 2.26' (S) - 18" SD (EXIST) INV: 2.66' (E) - 18" SD (EXIST)	EXIST MH
84	27+74.84	23.71' LT	5.38	-0.60'	INV: 1.40' (SE) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
84	27+51.32	20 2' RT	5.69	-0.50'	INV: 2.54' (S) - 18" SD (EXIST) INV: 1.50' (NW) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
84	27+63.11	3.00' LT	6.00	-7.00'	INV: -3.00' (S) - 36" FD (W/ SKIMMER) INV: -3.00' (N) - 36" SD INV: 1.20' (NW) - 18" SD INV: 1.30' (SE) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
85	67+12.78	7.00' LT	8	-5.50'	INV: -3.50' (W) - 42" SD INV: -1.50' (E) - 24" FD (W/ SKIMMER) INV: -3.00' (S) - 36" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
86	67+55.40	20.06' RT	4.56	-2.70'	INV: -0.70' (NE) - 18" S INV: 1.28' (E) - 18" SD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
87	67+67.52	19.78' LT	5.09	90'	INV: -2.80' (S) - SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
87	67+67.18	7.00' LT	5.55	-5.50'	INV: -1.50' (W) - 24" FD (W/ SKIMMER) INV: -1.50' (E) - 24" FD (W/ SKIMMER) INV: -1.00 (SW) - 18" SD INV: -3 (N) - 18" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
88	69+30.60	18.28' RT	5.59	-2.50'	IN 50' (N) - 18" SD IN 12' (W) - 18" SD (EXIST) IN 13' (E) - 18" FD (EXIST)	DBI TYPE F (FDOT INDEX 425-001, 425-053)
89	69+32.80	7.00' LT	5.63	-5.50'	INV: - 50' (W) - 24" FD (W/ SKIMMER) INV: -2 (N) - 18" SD INV: -0.8 (S) - 18" SD	MH TYPE J-7 (4'X4') (FDOT INDEX 425-001, 425-010, 443-002)
90	69+32.96	18.97' LT	5.33	-4.5	INV: -2.50' (S 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
91	24+72.53	3.00' LT	6.01	7.00'	INV: -3.00' (W) - SD INV: -2.50' (E) - 30 D (W/ SKIMMER) INV: -3.00' (N) - 36 D (W/ SKIMMER)	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)
94	25+58.55	16.28' LT	5.6	-4.10'	INV: -2.10' (E) - 18" SD	DBI TYPE F (FDOT INDEX 425-001, 425-053)
94	25+67.15	10.31' RT	6.01	0.54'	INV: 2.54' (W) - 15" SD (EXIST) INV: 2.64' (N) - 18" SD (EXIST) INV: 1.31' (E) - 18" SD (EXIST) INV: 2.44' (S) - 18" FD (EXIST)	EXIST MH
9	25+62.80	3.0 LT	6.06	-7.00'	INV: -3.00' (S) - 36" FD (W/ SKIMMER) INV: -3.00' (N) - 36" FD (W/ SKIMMER) INV: -2.20' (W) - 18" SD INV: 2.30' (E) - 15" SD	MH TYPE J-7 (5'X5') (FDOT INDEX 425-001, 425-010, 443-002)

Structures S-70
through S-82 pending.

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DORAL, FL 33166

CONSULTANT:
EAC
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
SUMMARY OF DRAINAGE STRUCTURES (2 OF 2)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: SUMDRD01.dwg
DATE: MAY 2020
SHEET NO.
10

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 5:01 PM
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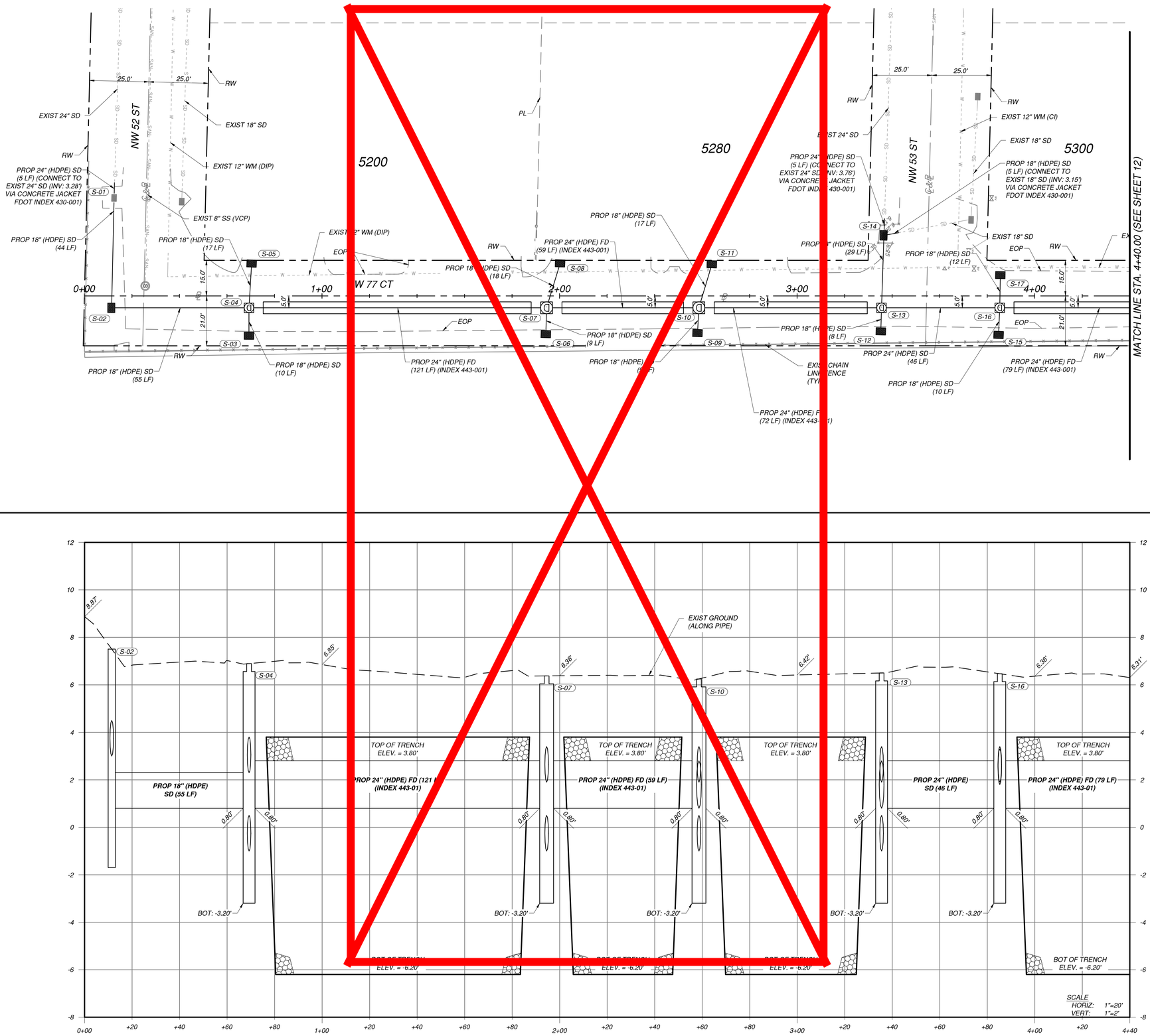

LEGEND

- PROP DRAINAGE MANHOLE
- PROP CATCH BASIN
- PROP CURB INLET
- EXIST DRAINAGE MANHOLE
- EXIST SANITARY SEWER MANHOLE
- EXIST CATCH BASIN
- EXIST WATER METER
- EXIST UTILITY POLE
- EXIST SIGN POST
- EXIST WATER VALVE
- EXIST TREE
- EXIST ELECTRICAL BOX
- SURVEY CONTROL POINT

0 20' 40'
Feet

DORAL FLORIDA

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(1 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD01.dwg
DATE: MAY 2020
SHEET NO.
11

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 5:56 PM
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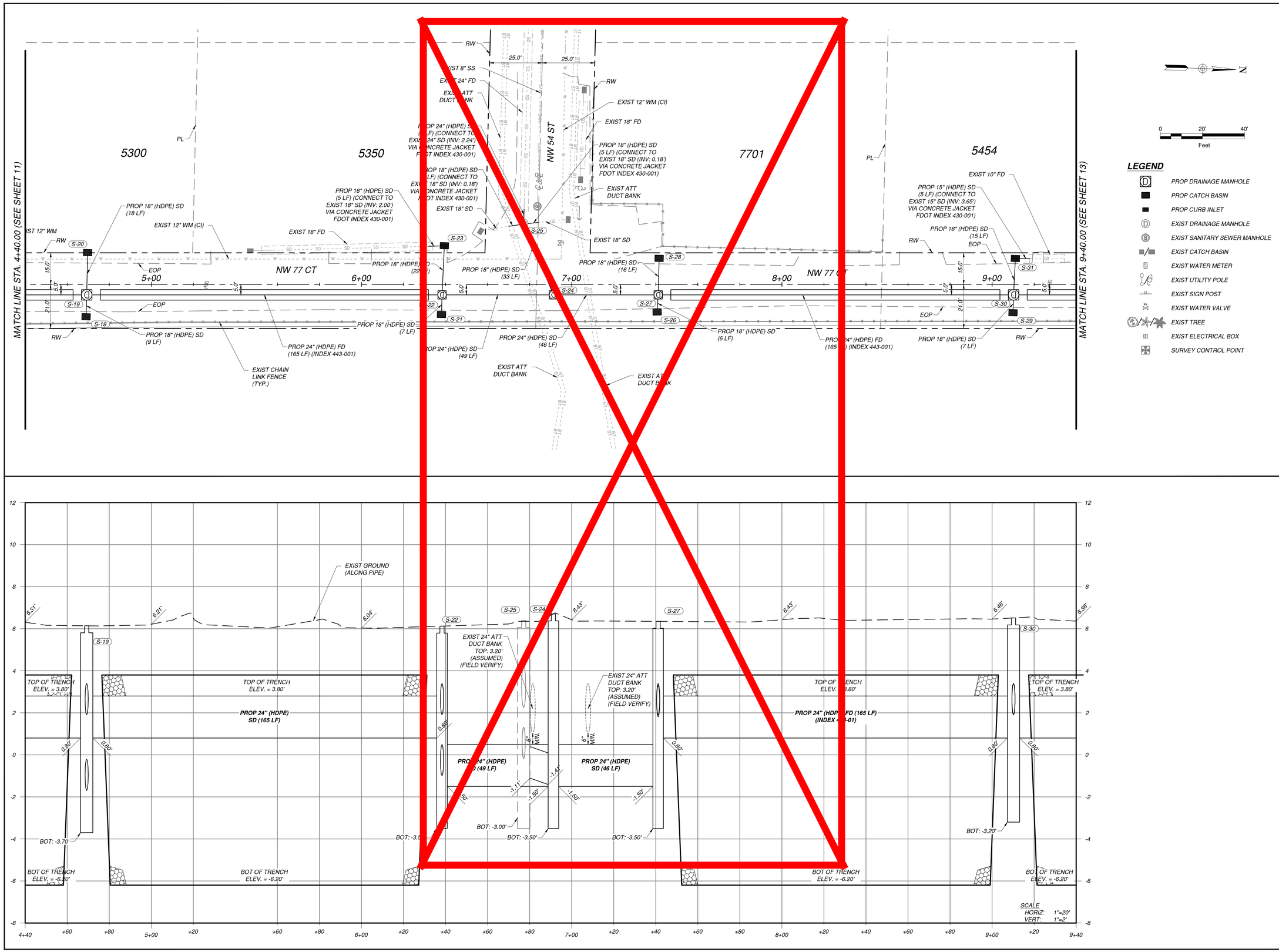

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CA # 7011
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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(2 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD01.dwg
DATE: MAY 2020
SHEET NO.
12

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 5:56 PM
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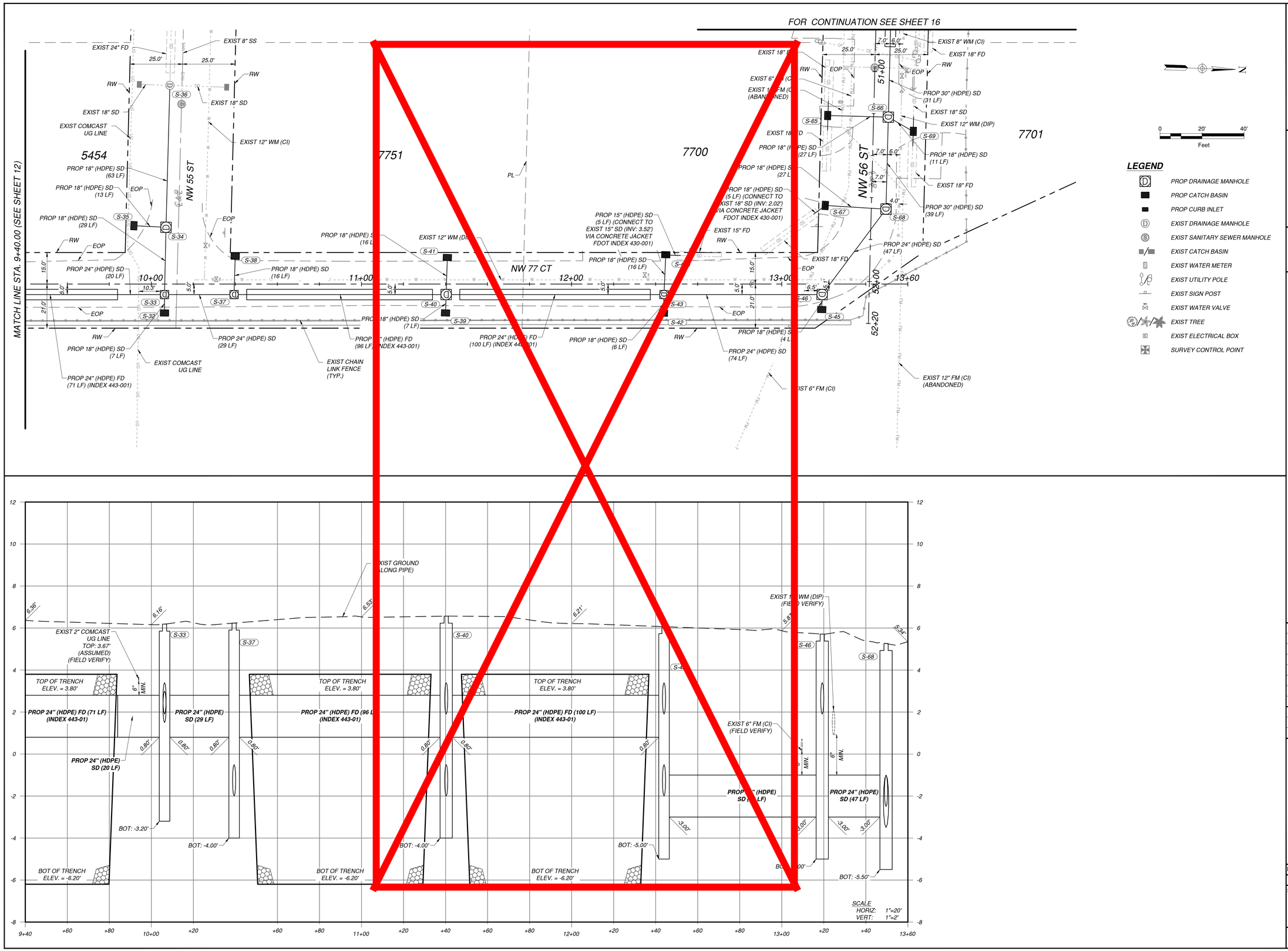

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
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(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(3 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

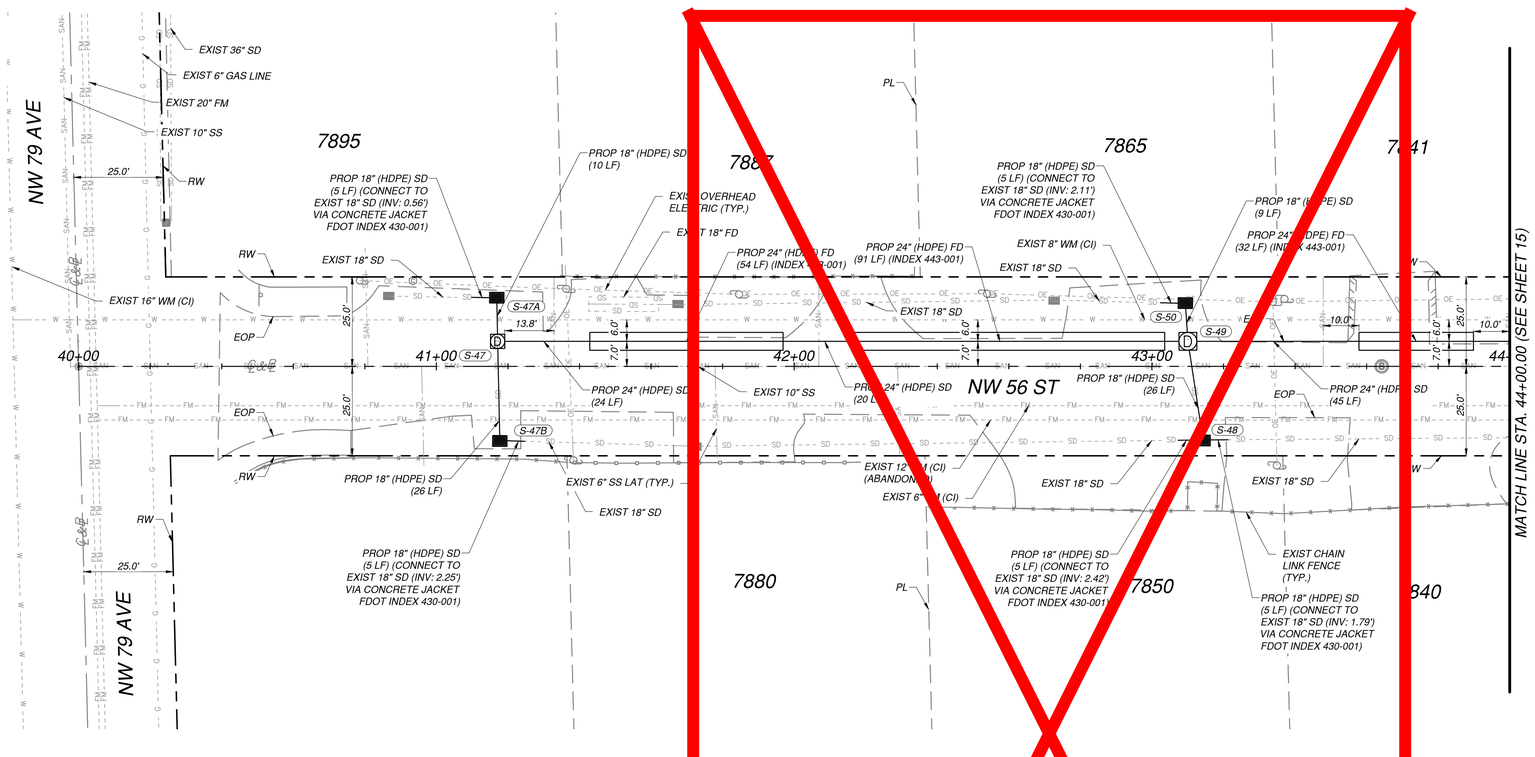
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

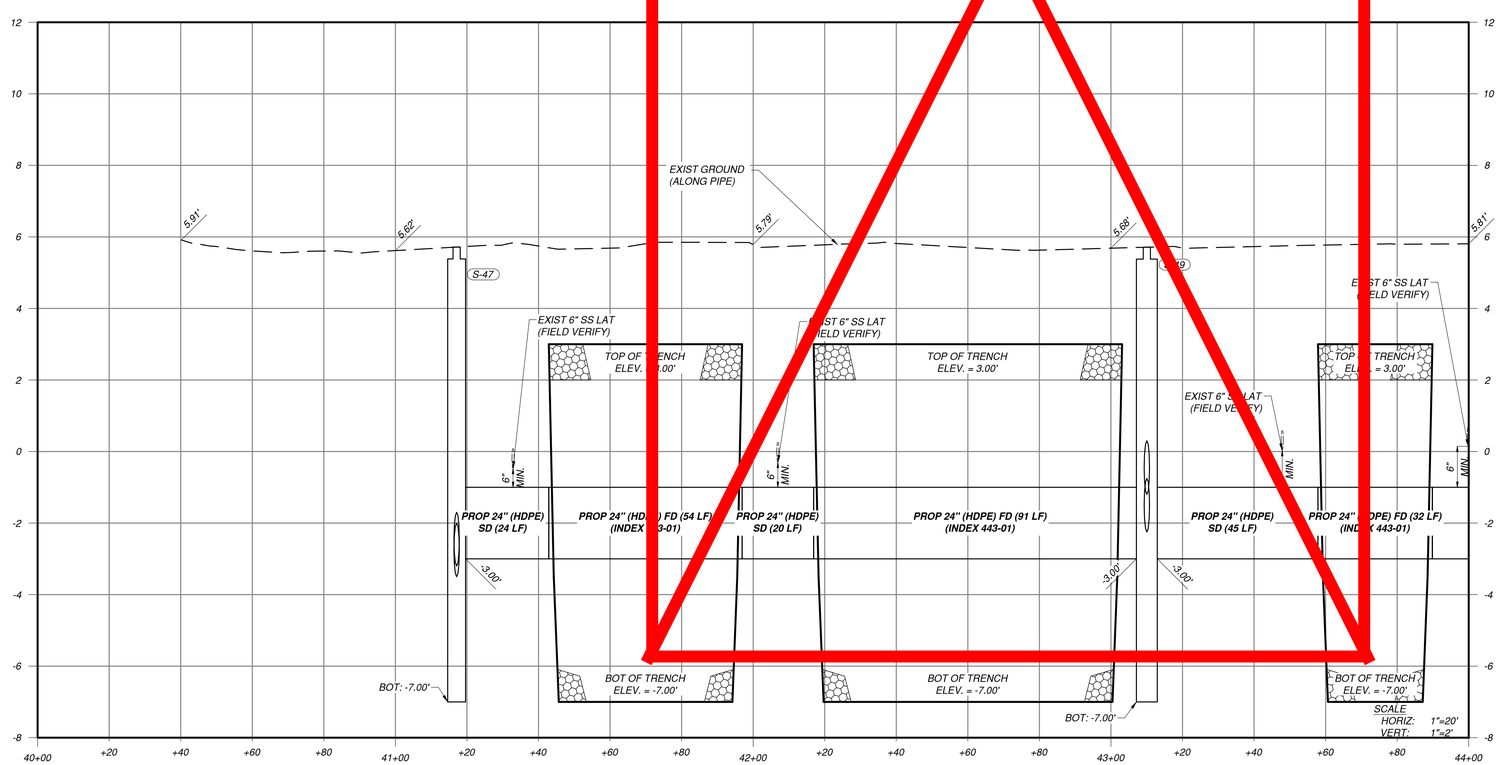
FILE NAME: PLANRD01.dwg
DATE: MAY 2020
SHEET NO.
13

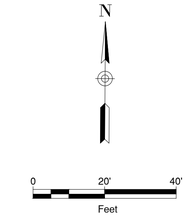
BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 5:56 PM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANRD01.dwg







LEGEND

- PROP DRAINAGE MANHOLE
- PROP CATCH BASIN
- PROP CURB INLET
- EXIST DRAINAGE MANHOLE
- EXIST SANITARY SEWER MANHOLE
- EXIST CATCH BASIN
- EXIST WATER METER
- EXIST UTILITY POLE
- EXIST SIGN POST
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- SURVEY CONTROL POINT

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eacconsult.com
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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(4 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD04.dwg
DATE: MAY 2020
SHEET NO.
14

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 9:45 AM
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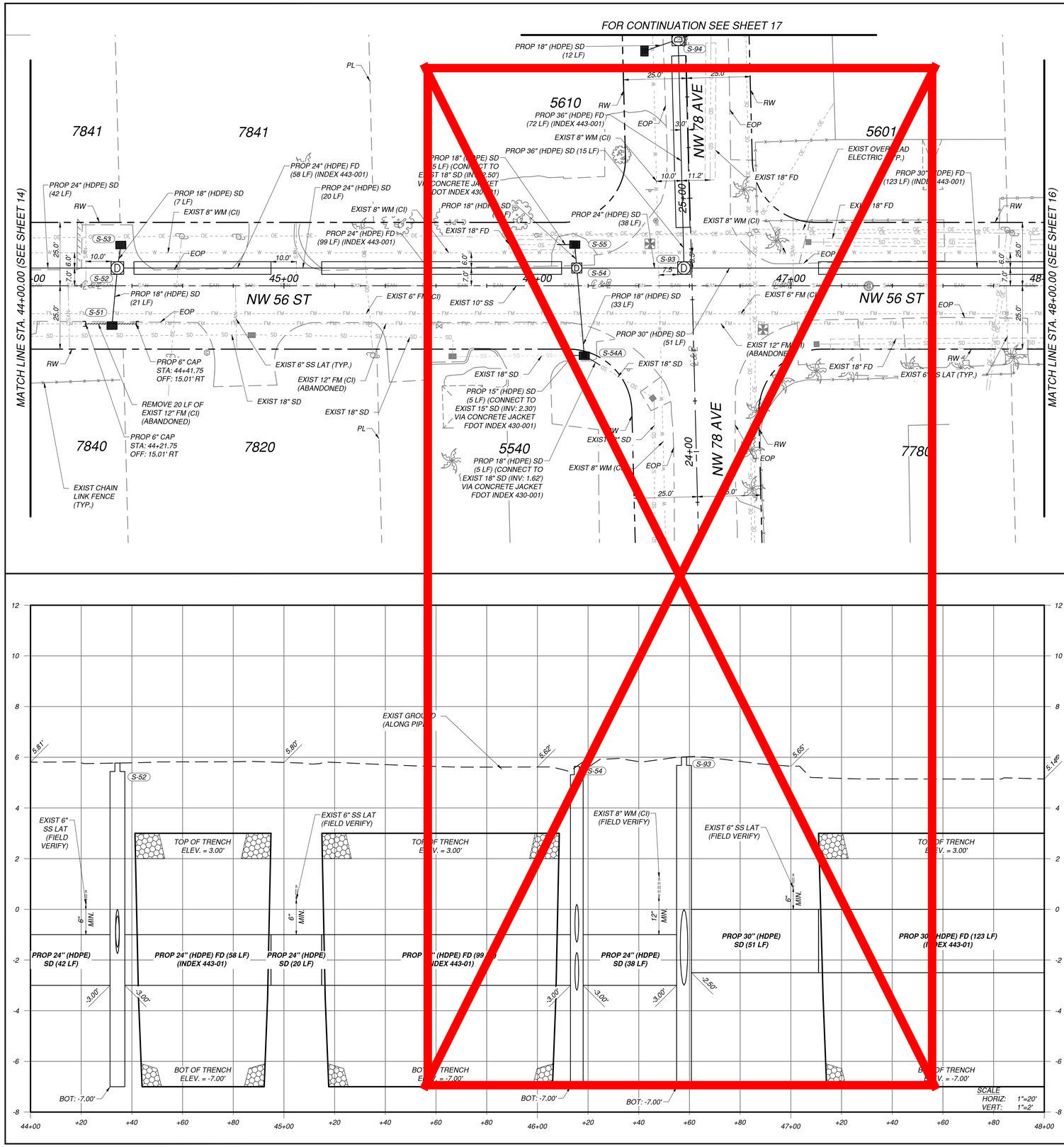

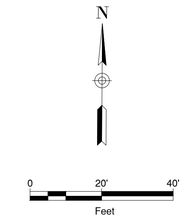

LEGEND

- PROP DRAINAGE MANHOLE
- PROP CATCH BASIN
- PROP CURB INLET
- EXIST DRAINAGE MANHOLE
- EXIST SANITARY SEWER MANHOLE
- EXIST CATCH BASIN
- EXIST WATER METER
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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(5 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD04.dwg
DATE: MAY 2020
SHEET NO.
15

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 9:45 AM
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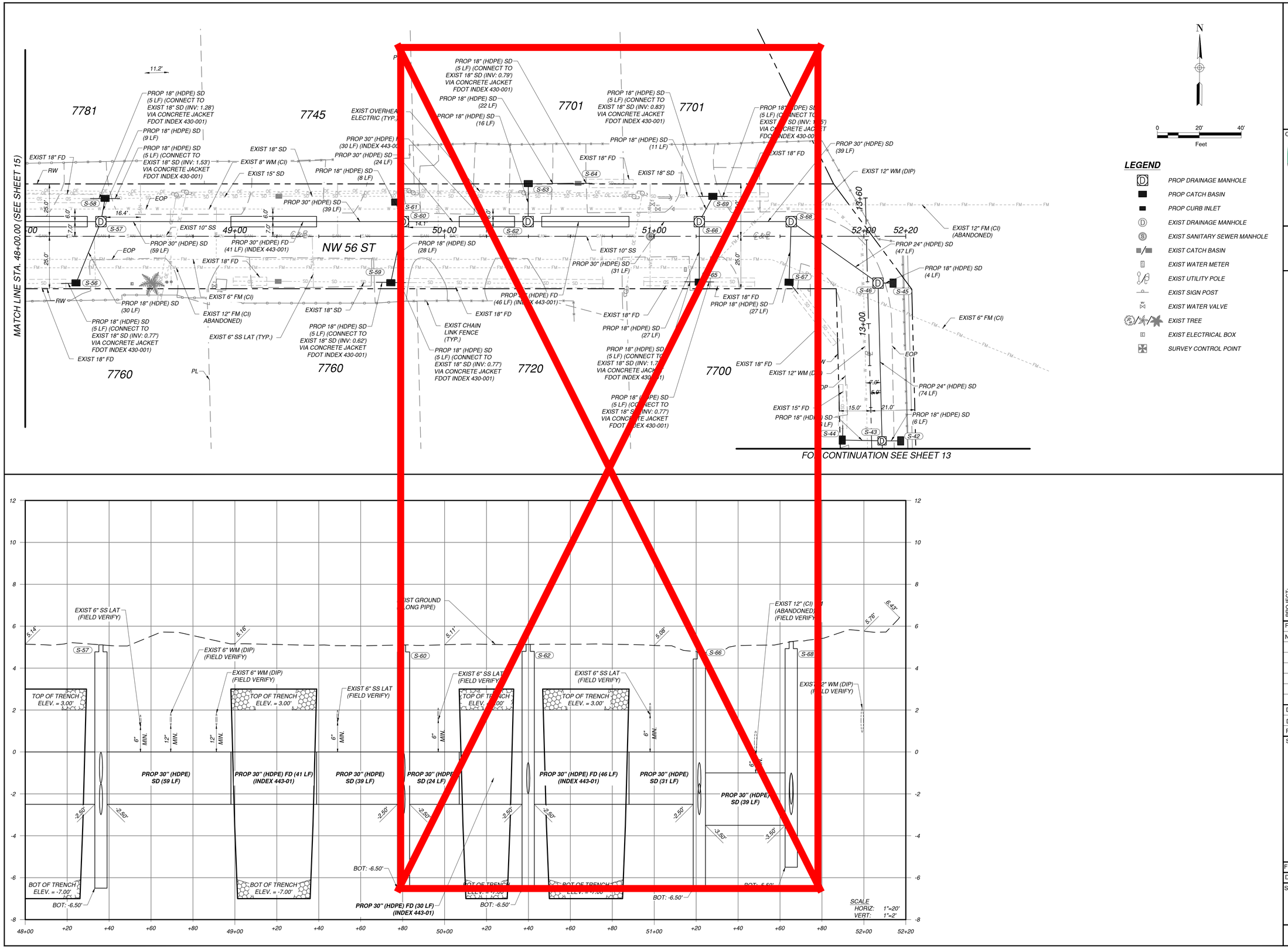

LEGEND

- PROP DRAINAGE MANHOLE
- PROP CATCH BASIN
- PROP CURB INLET
- EXIST DRAINAGE MANHOLE
- EXIST SANITARY SEWER MANHOLE
- EXIST CATCH BASIN
- EXIST WATER METER
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- SURVEY CONTROL POINT

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB-BASIN H-8 STORMWATER IMPROVEMENTS (PHASE 1) CITY PROJECT RFQ 2017-21

SHEET TITLE: **DRAINAGE PLAN & PROFILE (6 OF 9)**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD04.dwg
DATE: MAY 2020
SHEET NO. **16**

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 9:45 AM
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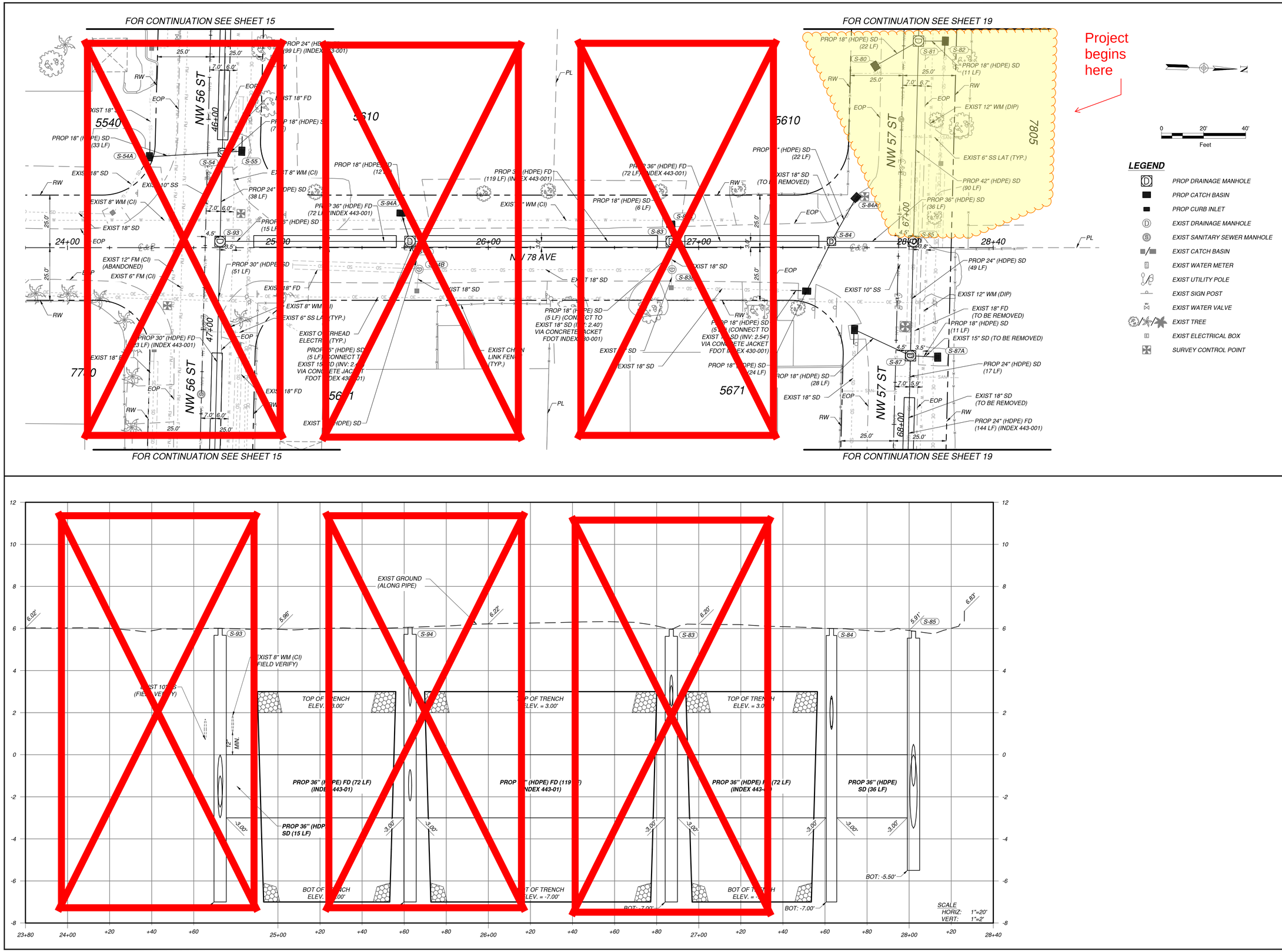

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DORAL, FL 33166

CONSULTANT:

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(7 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

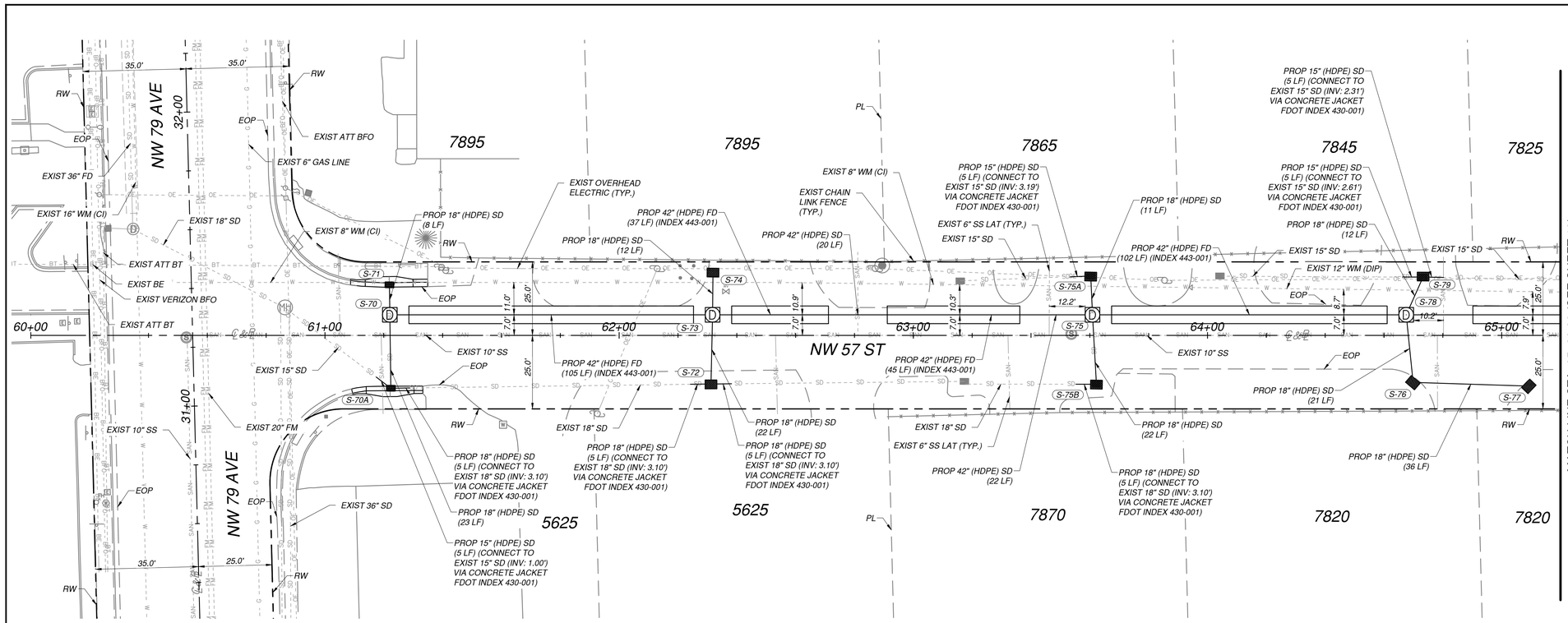
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

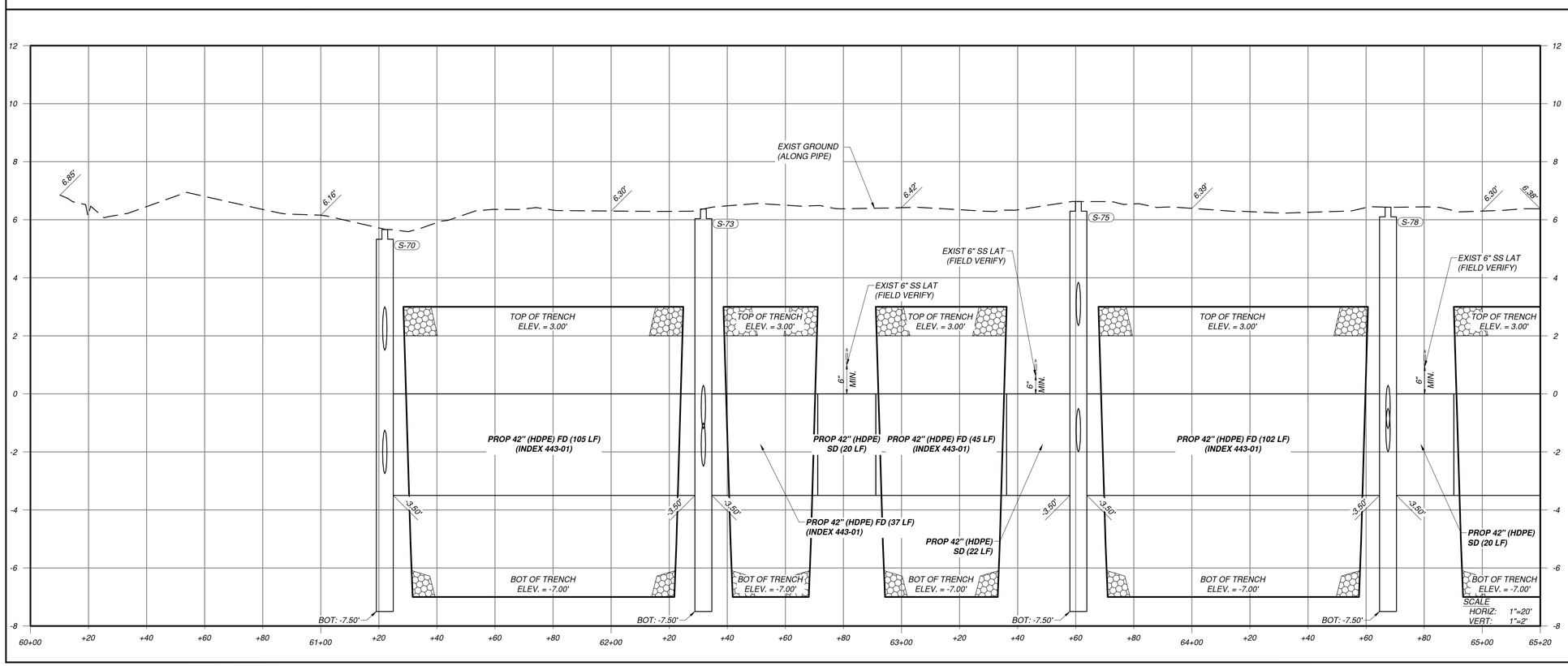
FILE NAME: PLANRD07.dwg
DATE: MAY 2020
SHEET NO.
17

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 10:42 AM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANRD07.dwg





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CONSULTANT:

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CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(8 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD09.dwg
DATE: MAY 2020
SHEET NO.
18

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 7:04 PM
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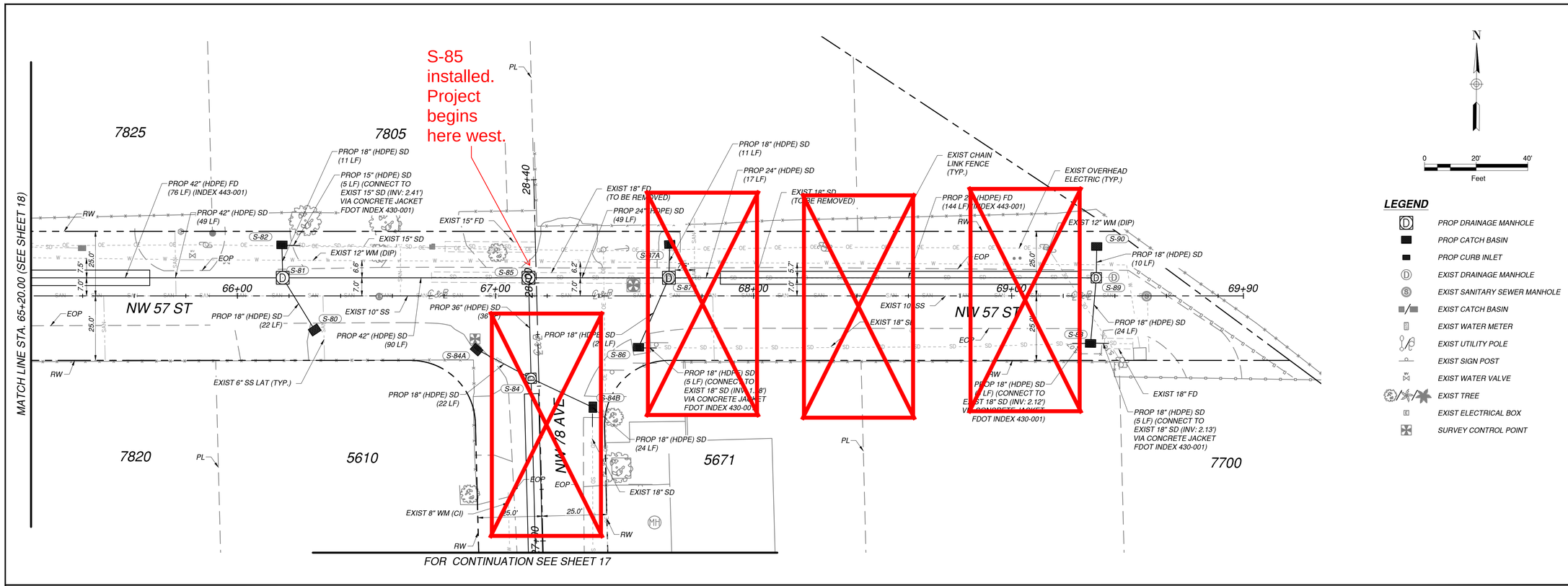

LEGEND

- PROP DRAINAGE MANHOLE
- PROP CATCH BASIN
- PROP CURB INLET
- EXIST DRAINAGE MANHOLE
- EXIST SANITARY SEWER MANHOLE
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EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE PLAN & PROFILE
(9 OF 9)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

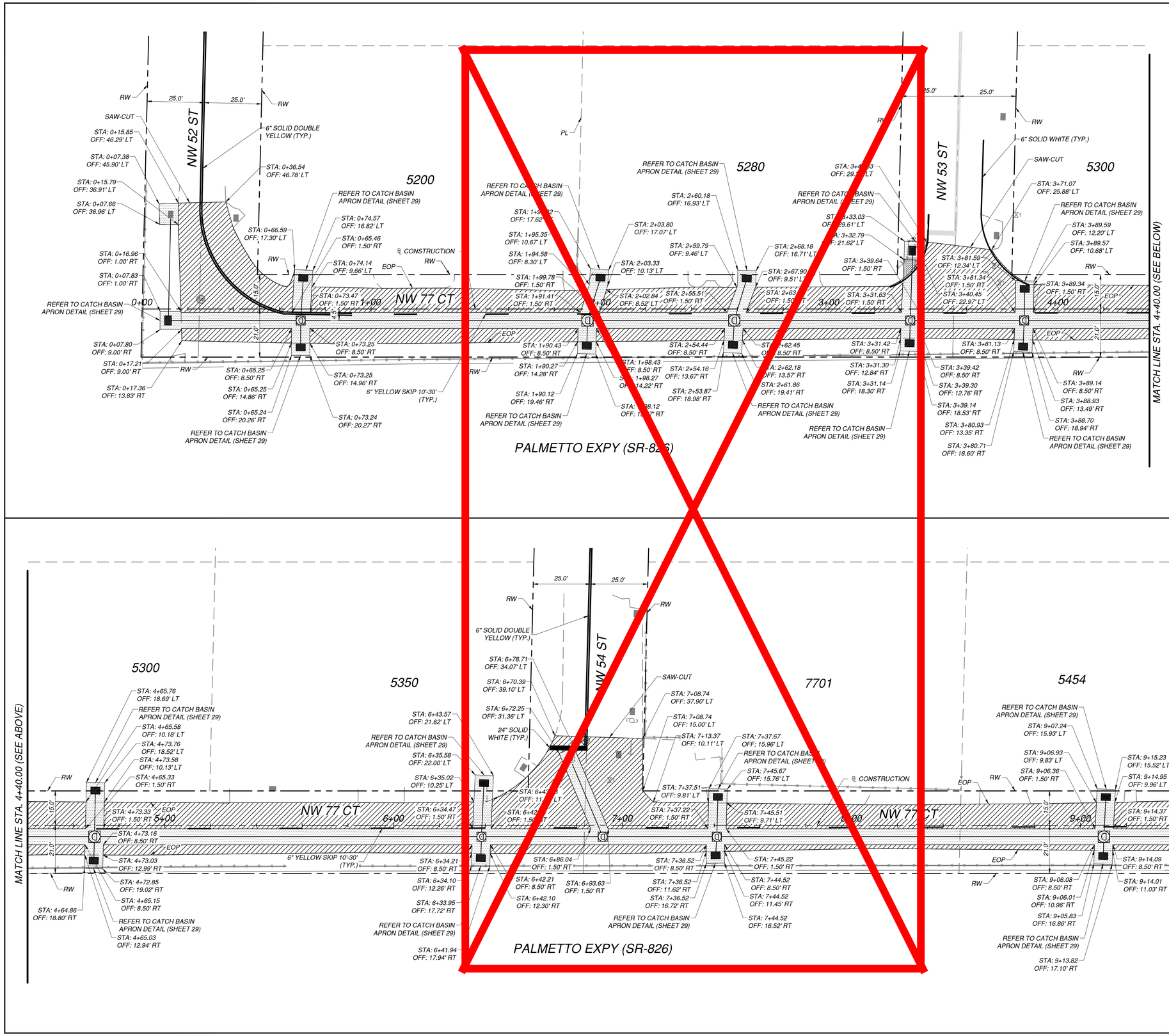
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANRD09.dwg
DATE: MAY 2020
SHEET NO.
19

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 29, 2020 7:04 PM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANRD09.dwg



LEGEND

- PROPOSED 1" MILLING & RESURFACING
- PROPOSED FULL PAVEMENT SECTION RECONSTRUCTION
- PROPOSED SOD

NOTE

1. ALL PAVEMENT MARKINGS ARE PER FDOT INDEX 706-001, 711-001, 711-002, 711-003

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

Always call 811 two full business days before you dig to have underground utilities located and marked.

Sunshine811.com

PROJECT: SUB-BASIN H-8 STORMWATER IMPROVEMENTS (PHASE 1) CITY PROJECT RFQ 2017-21

SHEET TITLE: ROADWAY RESTORATION PLAN (NW 77TH COURT) (1 OF 6)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

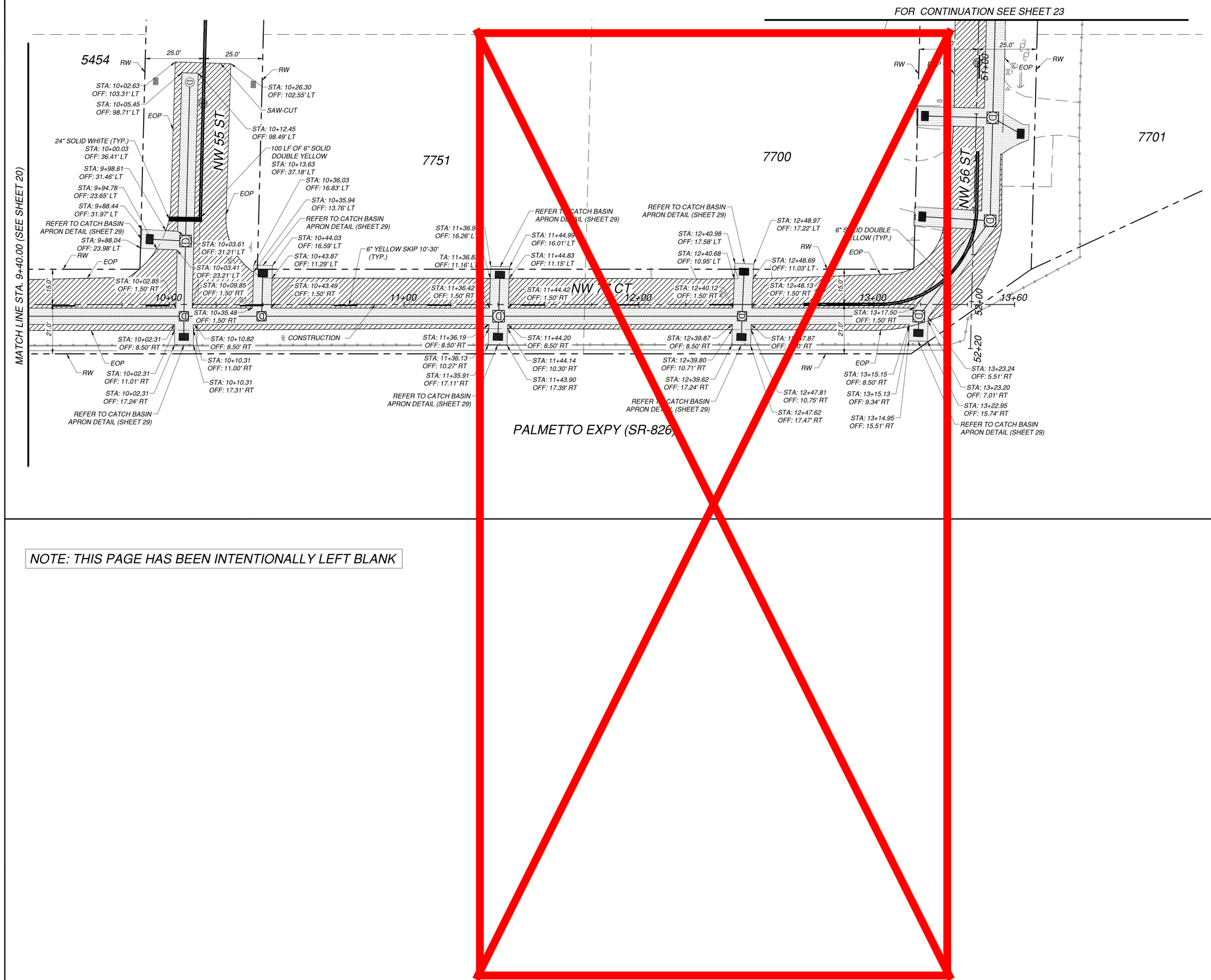
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANPVMK (NW 77 CT).dwg
DATE: MAY 2020
SHEET NO. 20

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 11:00 AM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANPVMK (NW 77 CT).dwg



LEGEND

- PROPOSED 1" MILLING & RESURFACING
- PROPOSED FULL PAVEMENT SECTION RECONSTRUCTION
- PROPOSED SOD

NOTE

1. ALL PAVEMENT MARKINGS ARE PER FDOT INDEX 706-001, 711-001, 711-002, 711-003

NOTE: THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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Sunshine811.com

PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
ROADWAY RESTORATION PLAN (NW 77TH COURT)
(2 OF 6)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

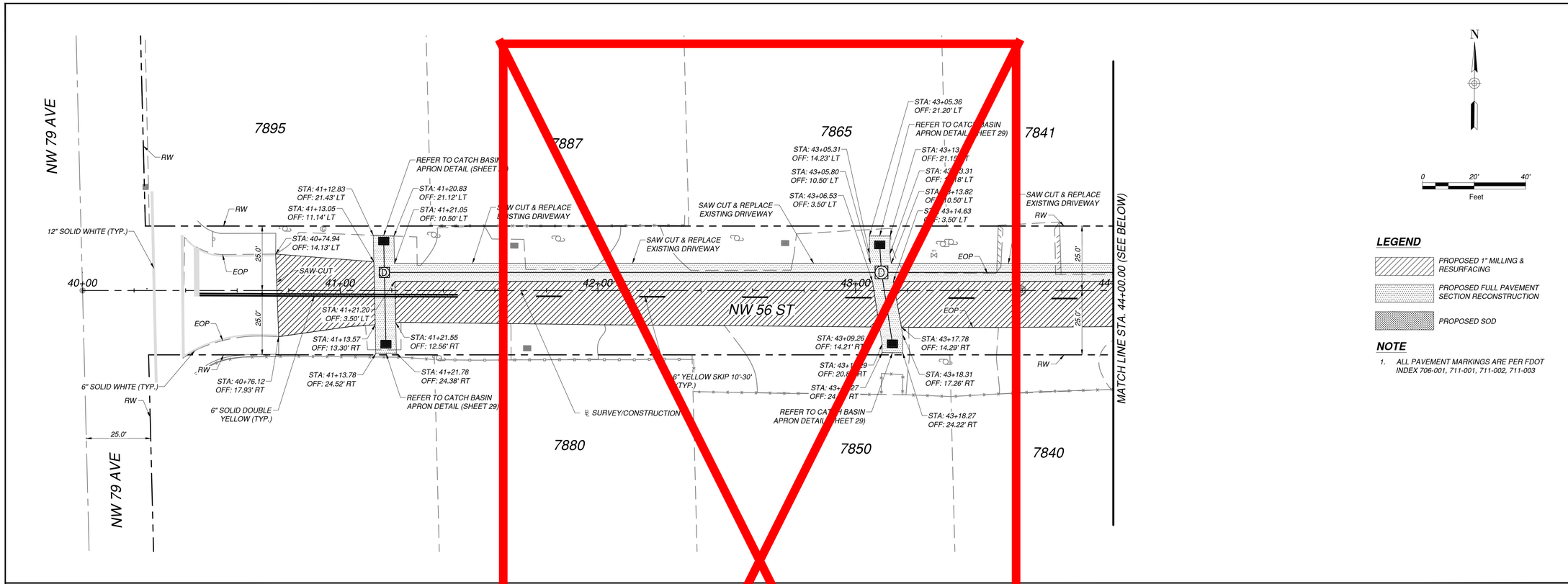
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

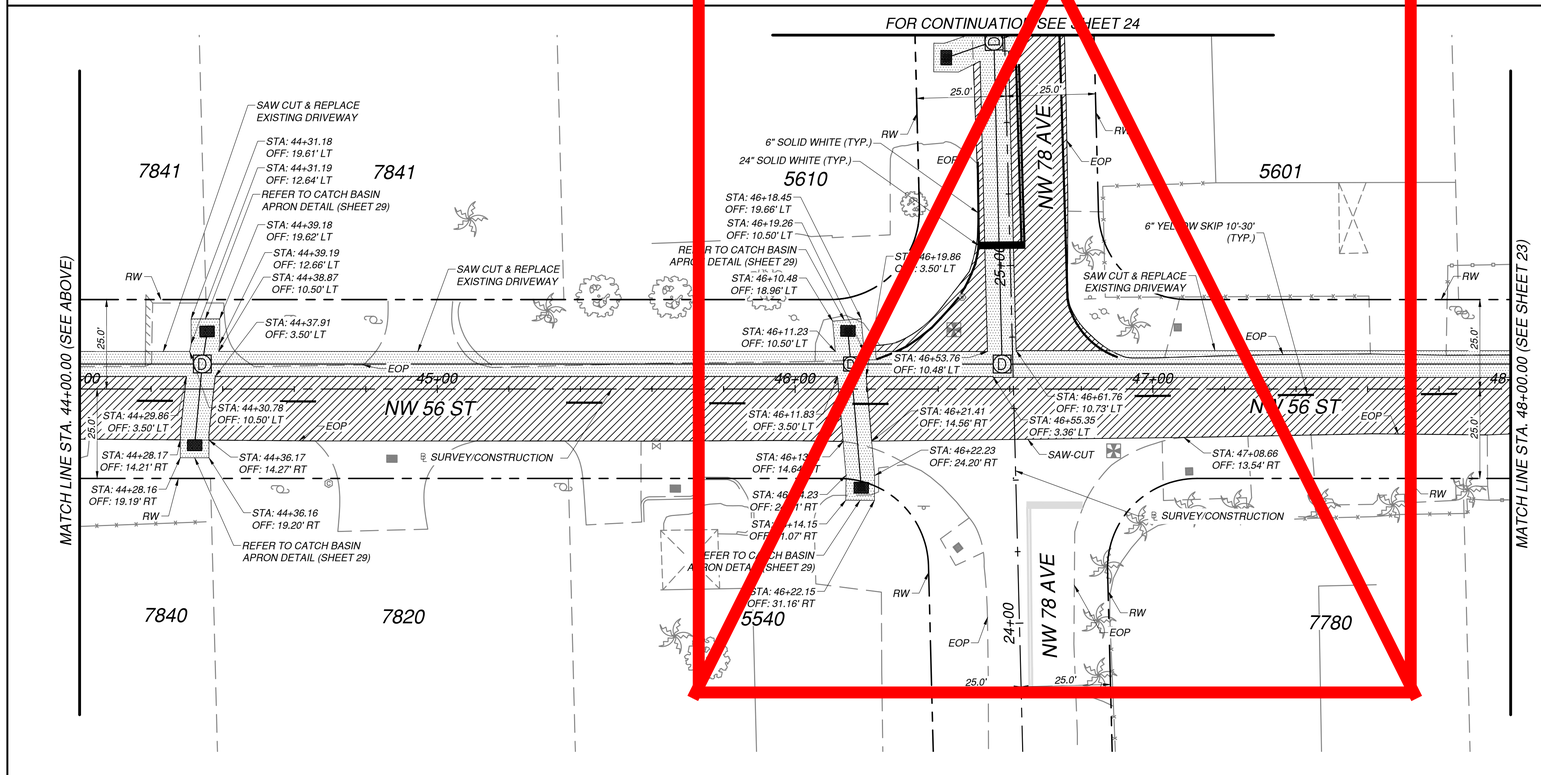
FILE NAME: PLANPVMK (NW 77 CT).dwg
DATE: MAY 2020
SHEET NO.
21

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 11:00 AM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANPVMK (NW 77 CT).dwg





N

0 20' 40'
Feet

LEGEND

- PROPOSED 1" MILLING & RESURFACING
- PROPOSED FULL PAVEMENT SECTION RECONSTRUCTION
- PROPOSED SOD

NOTE

1. ALL PAVEMENT MARKINGS ARE PER FDOT INDEX 706-001, 711-001, 711-002, 711-003

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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Sunshine811.com

PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
ROADWAY RESTORATION PLAN (NW 56TH STREET)
(3 OF 6)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANPVMK (NW 56 ST).dwg
DATE: MAY 2020
SHEET NO.
22

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 11:04 AM
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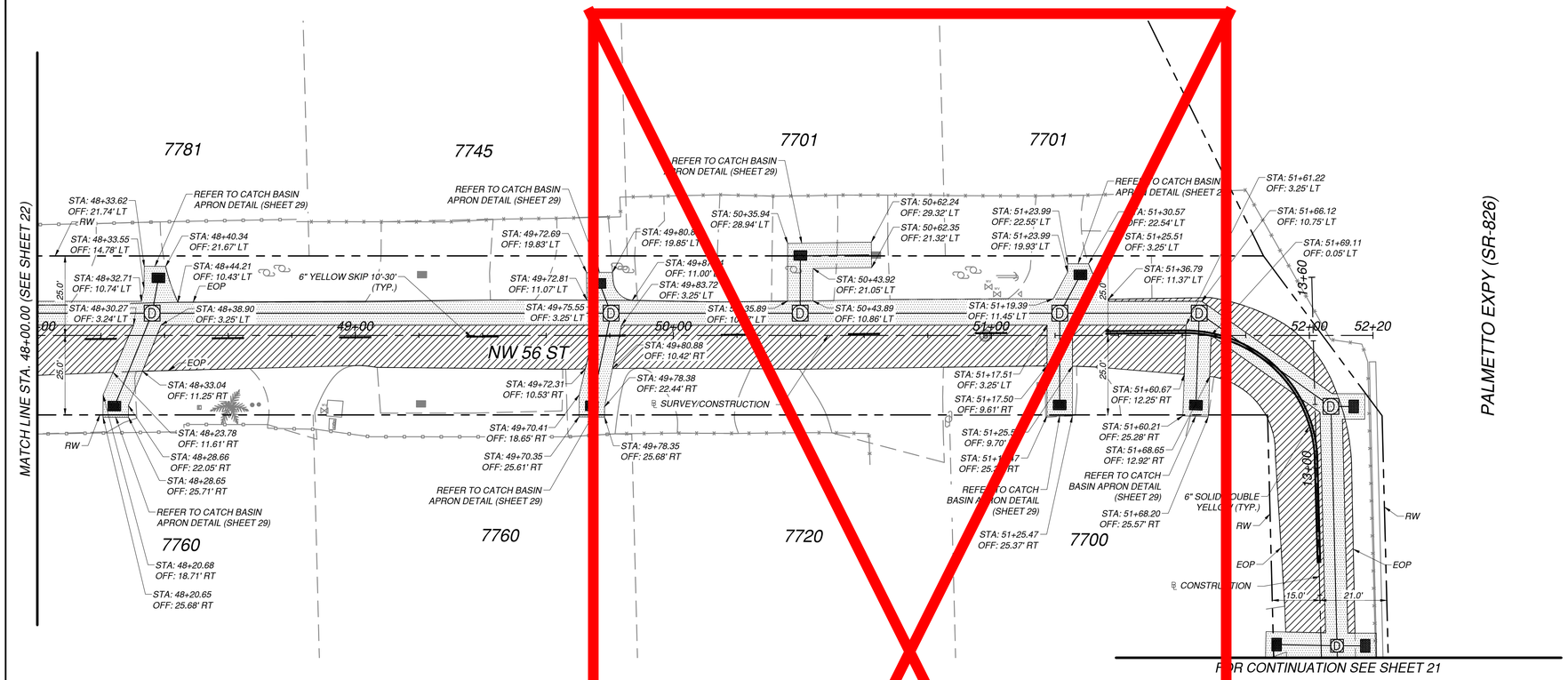

NOTE: THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

N

0 20' 40'
Feet

LEGEND

- PROPOSED 1" MILLING & RESURFACING
- PROPOSED FULL PAVEMENT SECTION RECONSTRUCTION
- PROPOSED SOD

NOTE

1. ALL PAVEMENT MARKINGS ARE PER FDOT INDEX 706-001, 711-001, 711-002, 711-003

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB-BASIN H-8 STORMWATER IMPROVEMENTS (PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE: **ROADWAY RESTORATION PLAN (NW 56TH STREET) (4 OF 6)**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

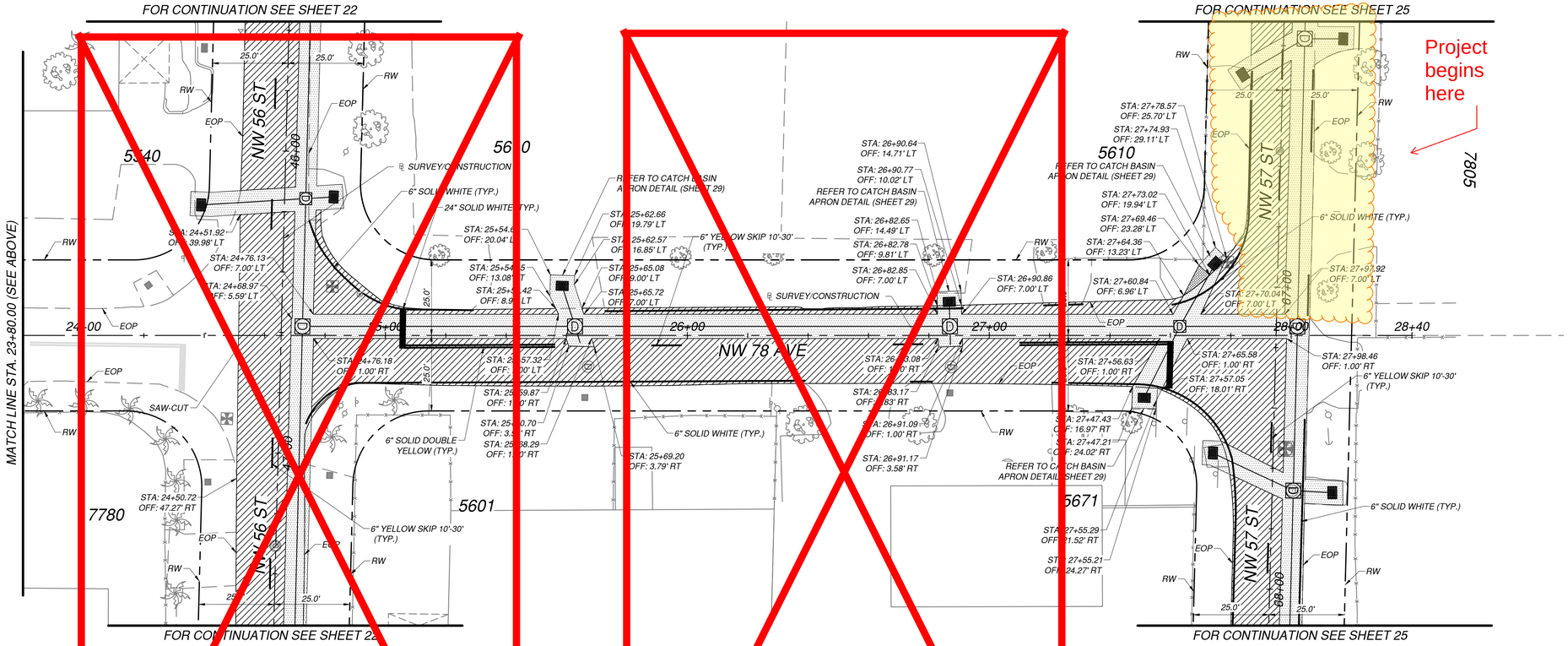
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANPVMK (NW 56 ST).dwg
DATE: MAY 2020
SHEET NO. **23**

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 11:04 AM
L:\Project\17 Project\17077.WW01-00 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANPVMK (NW 56 ST).dwg



NOTE: THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

LEGEND

- PROPOSED 1" MILLING & RESURFACING
- PROPOSED FULL PAVEMENT SECTION RECONSTRUCTION
- PROPOSED SOD

NOTE

1. ALL PAVEMENT MARKINGS ARE PER FDOT INDEX 706-001, 711-001, 711-002, 711-003

0 20' 40'
Feet

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
ROADWAY RESTORATION PLAN (NW 78TH AVENUE)
(5 OF 6)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML

SEAL

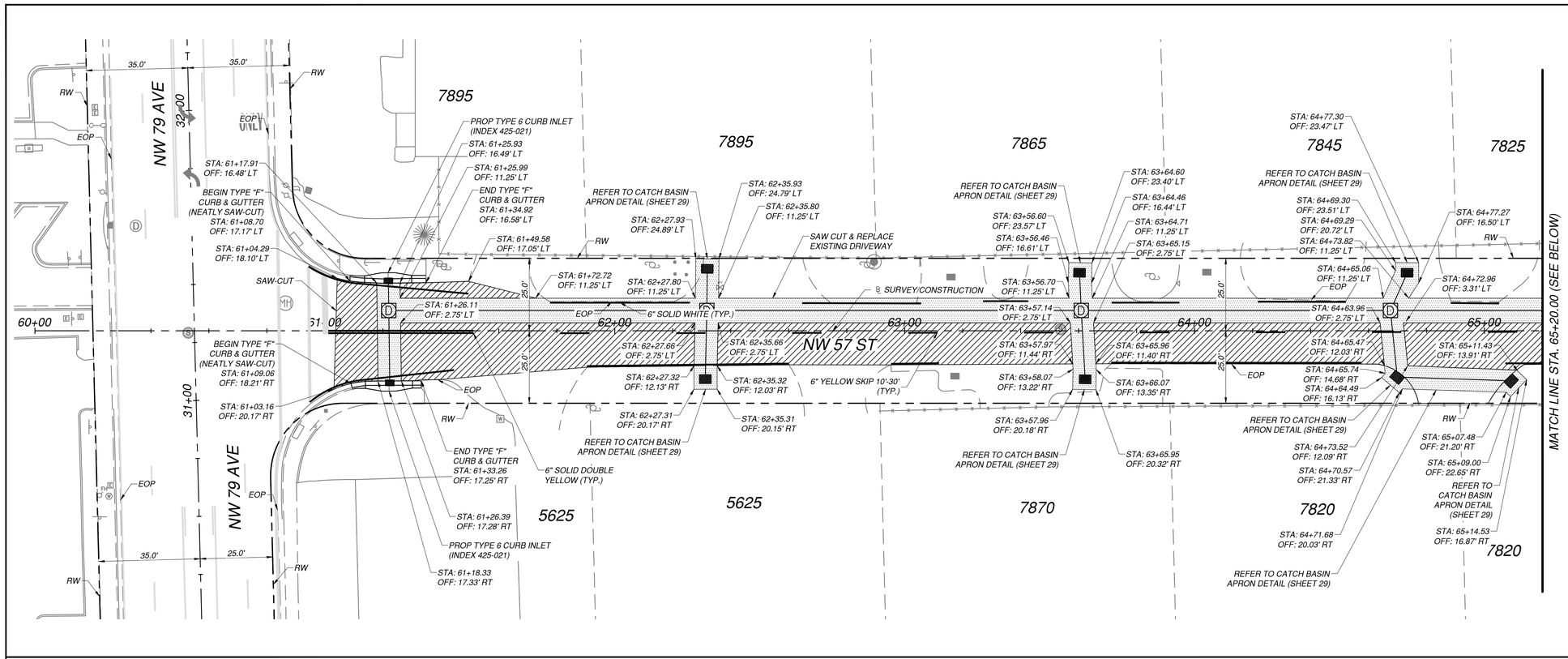
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

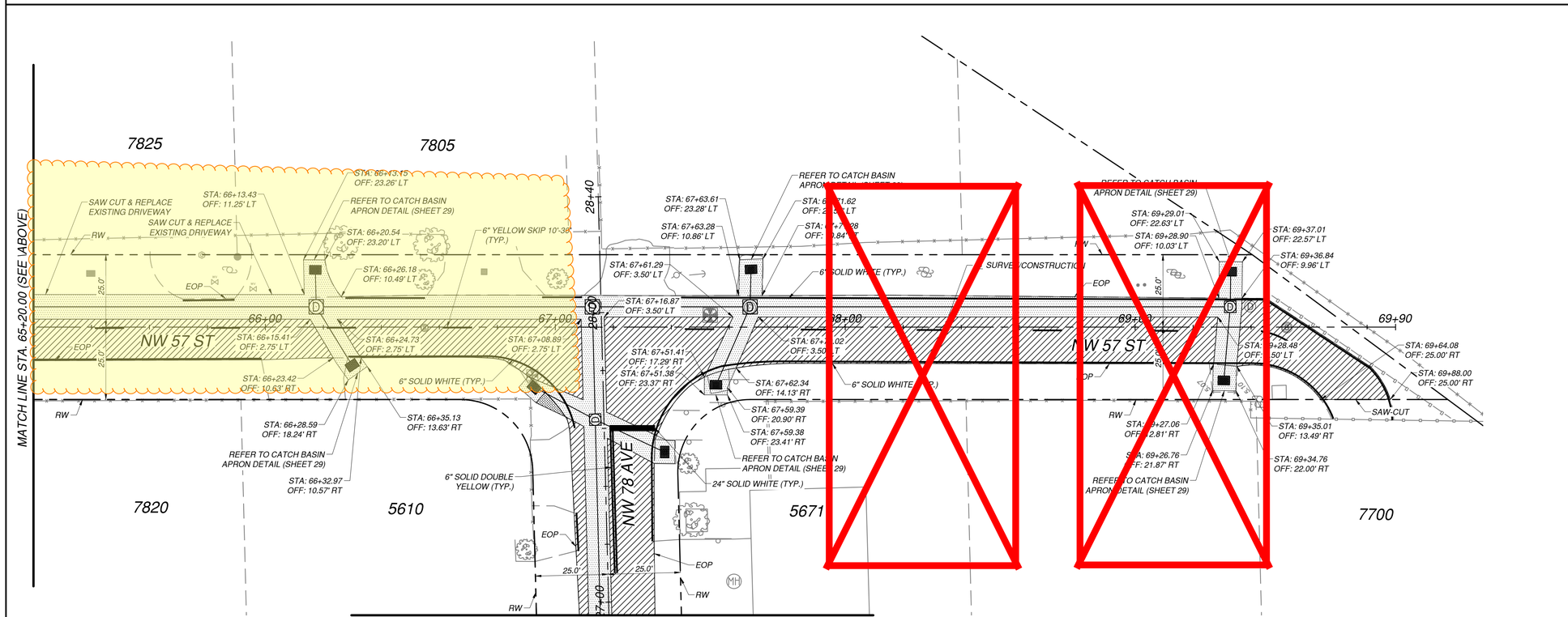
FILE NAME: PLANPVMK (NW 78 AVE).dwg
DATE: MAY 2020
SHEET NO.
24

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 11:05 AM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANPVMK (NW 78 AVE).dwg





FOR CONTINUATION SEE SHEET 24

LEGEND

- PROPOSED 1" MILLING & RESURFACING
- PROPOSED FULL PAVEMENT SECTION RECONSTRUCTION
- PROPOSED SOD

NOTE

1. ALL PAVEMENT MARKINGS ARE PER FDOT INDEX 706-001, 711-001, 711-002, 711-003

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB-BASIN H-8 STORMWATER IMPROVEMENTS (PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE: **ROADWAY RESTORATION PLAN (NW 57TH STREET) (6 OF 6)**

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

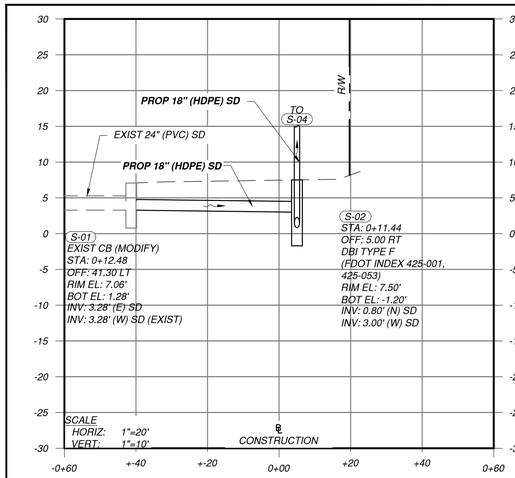
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: PLANPVMK (NW 57 ST).dwg
DATE: MAY 2020
SHEET NO. **25**

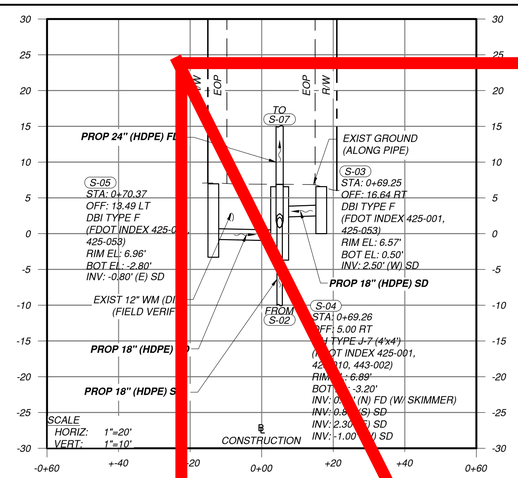
BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

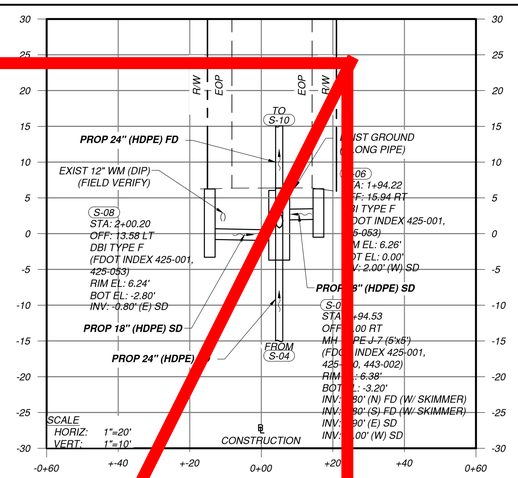
DANIEL GIRALDO
July 30, 2020 11:08 AM
L:\Project\17 Project\17077.WW01-00 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\PLANPVMK (NW 57 ST).dwg



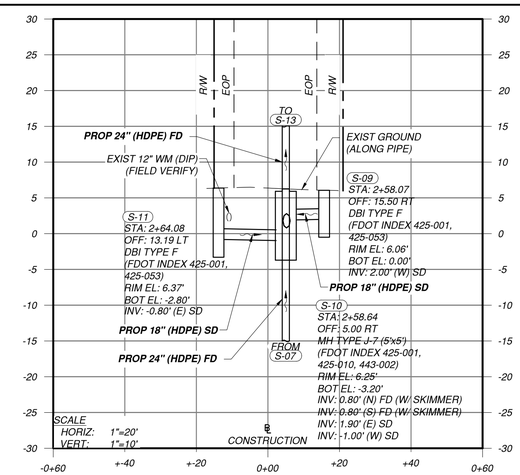
STA: 0+11.54
(S-01, S-02)



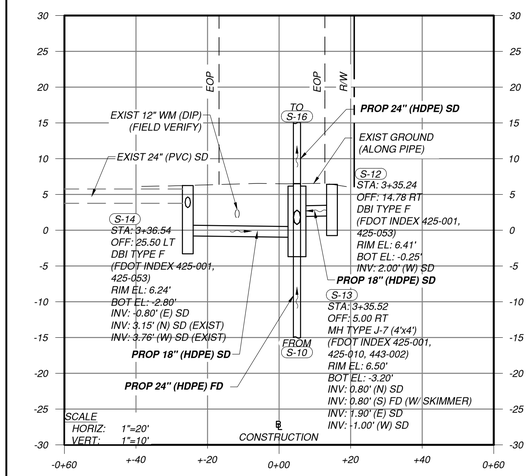
STA: 0+69.54
(S-03, S-04, S-05)



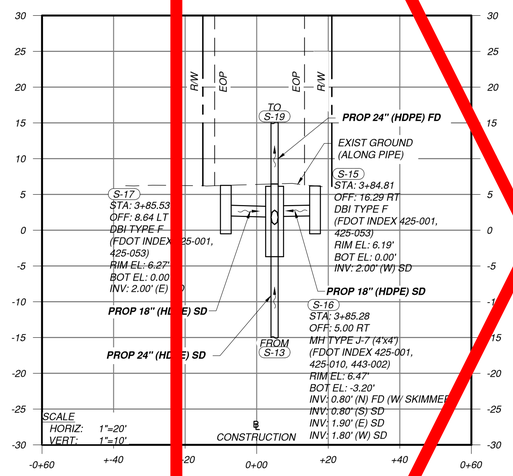
STA: 1+94.70
(S-06, S-07, S-08)



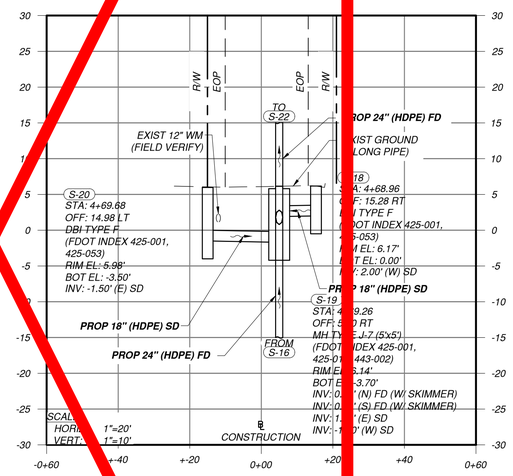
STA: 2+58.77
(S-09, S-10, S-11)



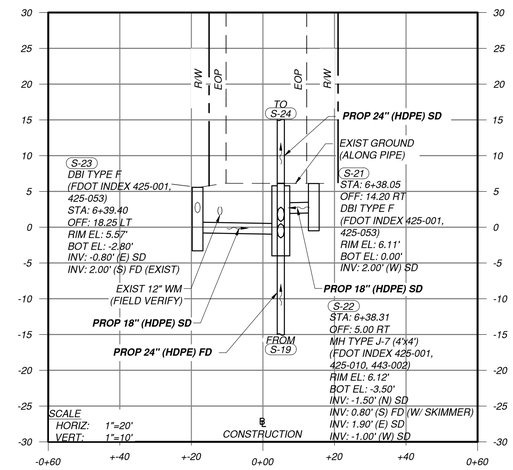
STA: 3+35.68
(S-12, S-13, S-14)



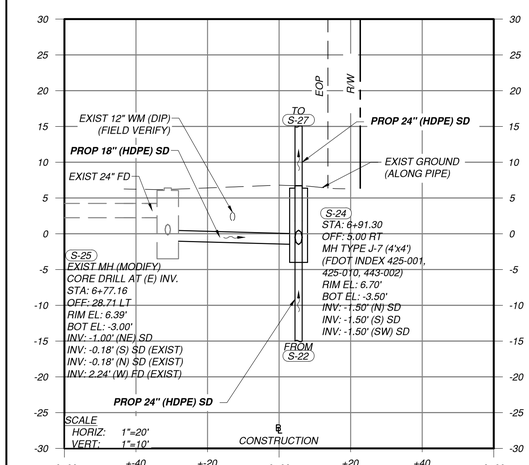
STA: 3+85.37
(S-15, S-16, S-17)



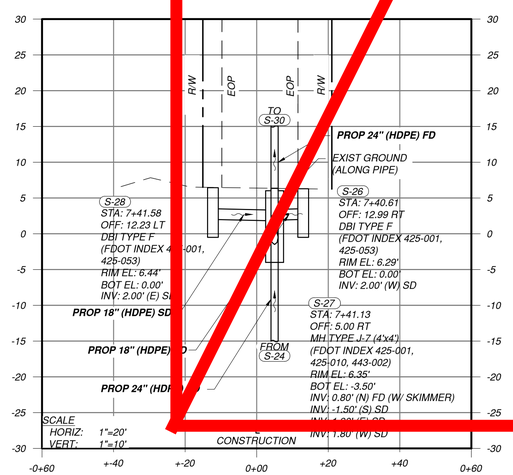
STA: 4+69.36
(S-18, S-19, S-20)



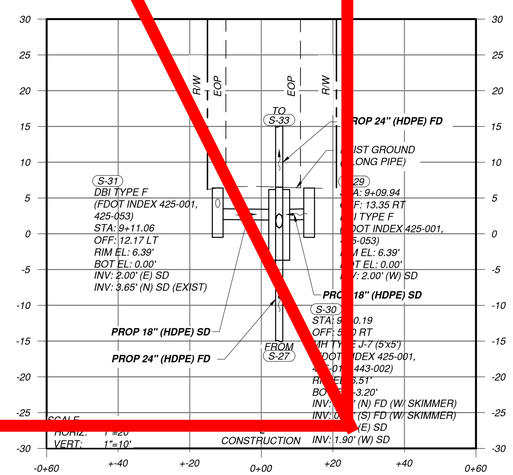
STA: 6+38.48
(S-21, S-22, S-23)



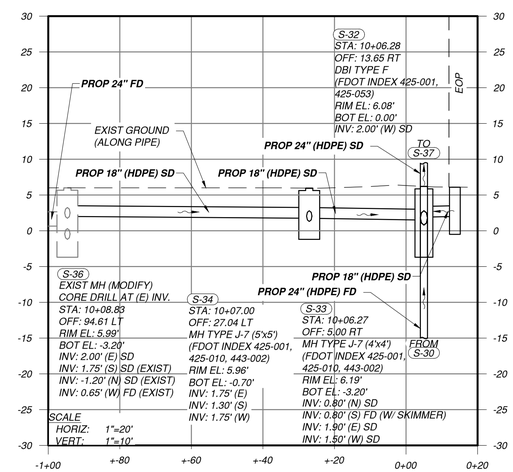
STA: 6+89.14
(S-24, S-25)



STA: 7+41.11
(S-26, S-27, S-28)



STA: 9+10.45
(S-29, S-30, S-31)



STA: 10+06.39
(S-32, S-33, S-34, S-36)

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: SUB-BASIN H-8 STORMWATER IMPROVEMENTS (PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE: DRAINAGE STRUCTURE CROSS SECTIONS (1 OF 3)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

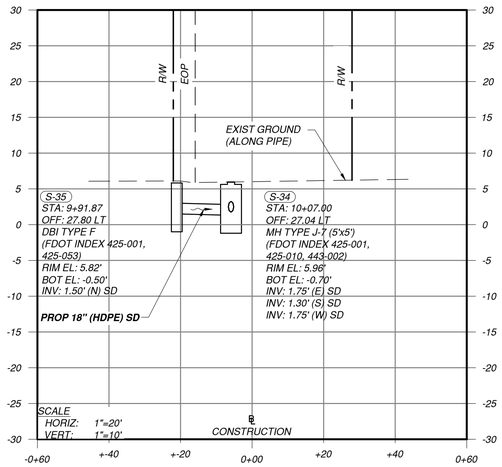
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: DRPRRD01.dwg
DATE: MAY 2020
SHEET NO. 26

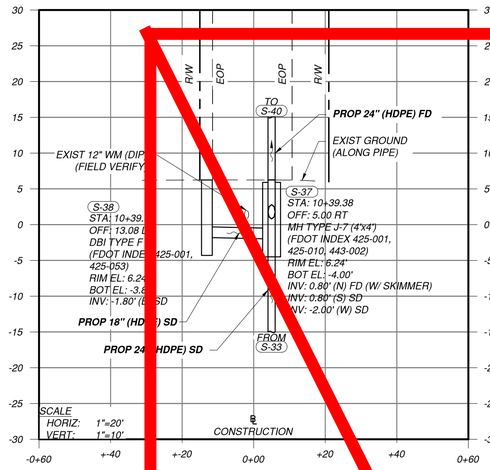
BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

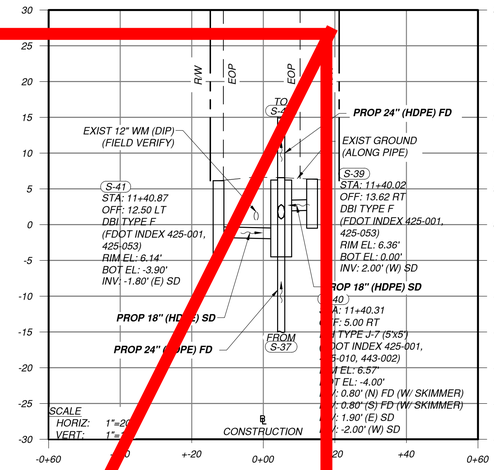
DANIEL GIRALDO
July 30, 2020 11:26 AM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\DRPRRD01.dwg



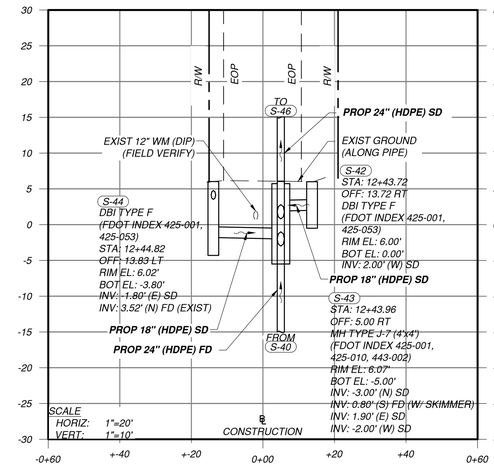
STA: 10+12.88
(S-34, S-35)



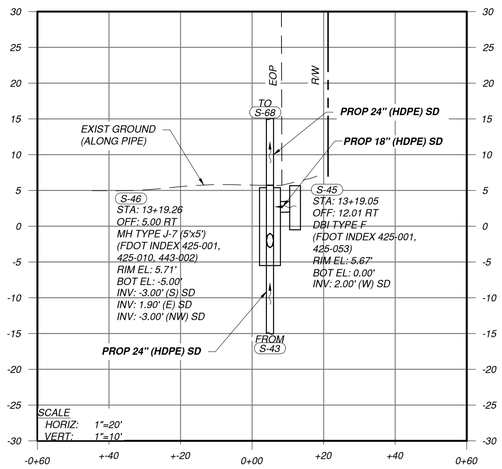
STA: 10+39.54
(S-37, S-38)



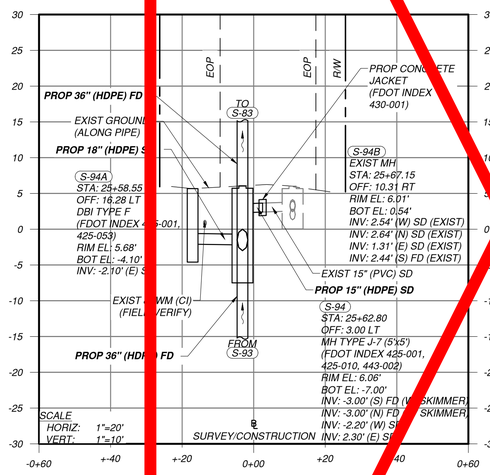
STA: 11+40.4
(S-39, S-40, S-4



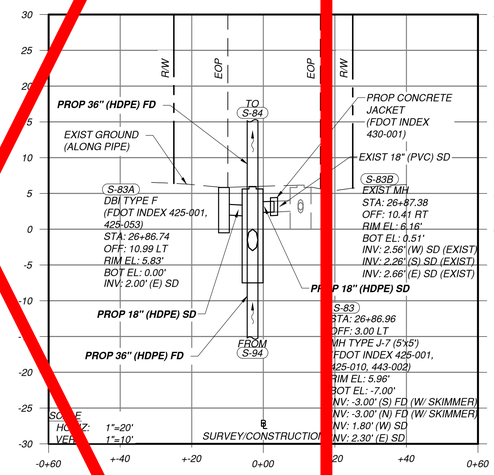
STA: 12+44.21
(S-42, S-43, S-44)



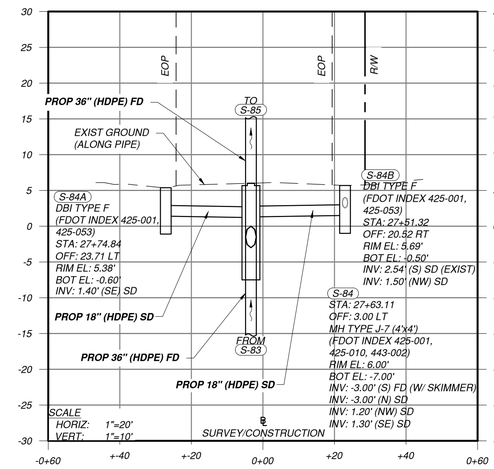
STA: 13+19.46
(S-45, S-46, S-68)



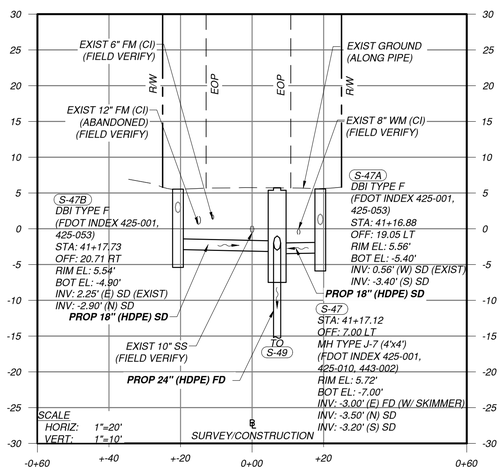
STA: 25+63.68
(S-94, S-94A, S-94B)



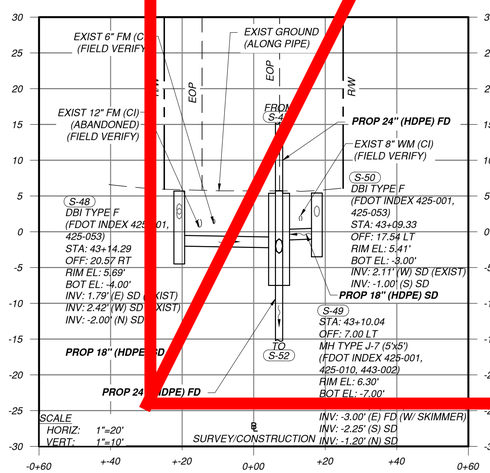
STA: 26+87.0
(S-83, S-83A, S-8



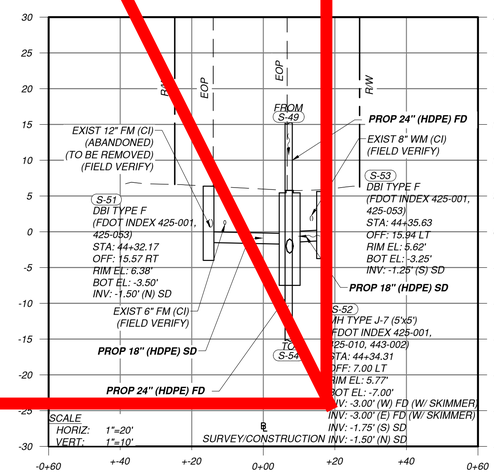
STA: 27+61.61
(S-84, S-84A, S-84B)



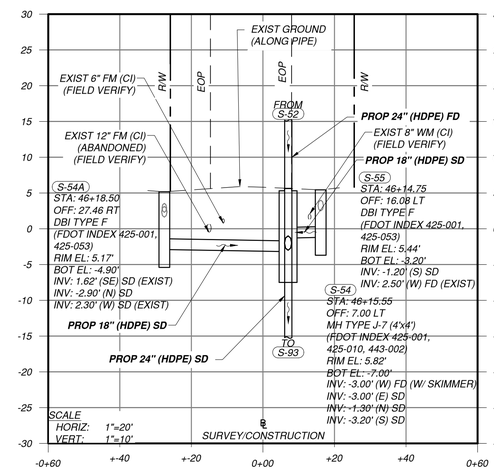
STA: 41+18.81
(S-47, S-47A, S-47B)



STA: 43+12.70
(S-48, S-49, S-50)



STA: 44+33.32
(S-51, S-52, S-53)



STA: 46+17.69
(S-54, S-54A, S-55)

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: STORMWATER IMPROVEMENTS (PHASE 1) SUB-BASIN H-8
CITY PROJECT RFQ 2017-21

SHEET TITLE: DRAINAGE STRUCTURE CROSS SECTIONS (2 OF 3)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: DRPRRD01.dwg
DATE: MAY 2020
SHEET NO. 27

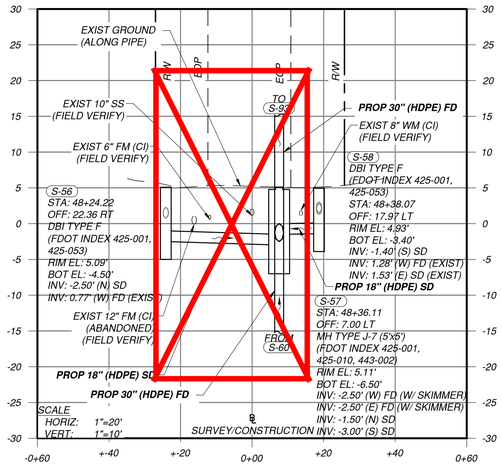
BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

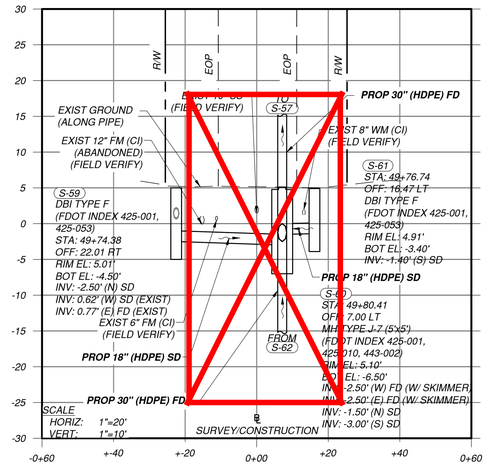
DANIEL GIRALDO

July 30, 2020 11:26 AM

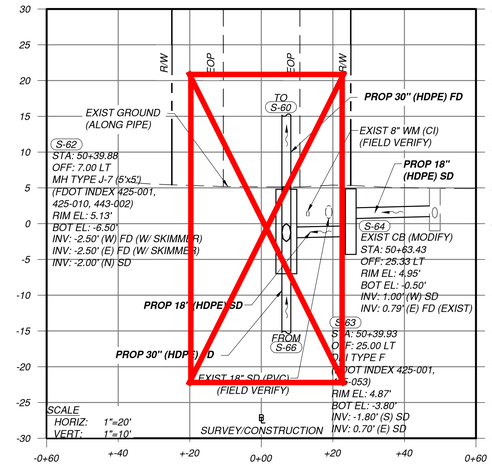
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CAD\roadway\DRPRRD01.dwg



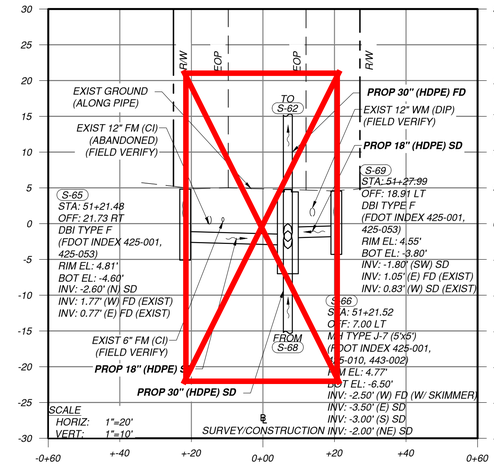
STA: 48+34.78
(S-56, S-57, S-58)



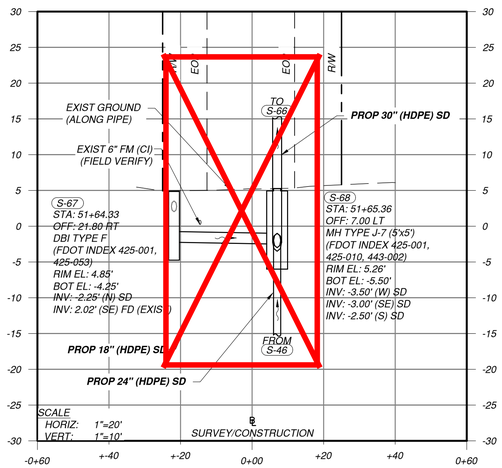
STA: 49+80.54
(S-59, S-60, S-61)



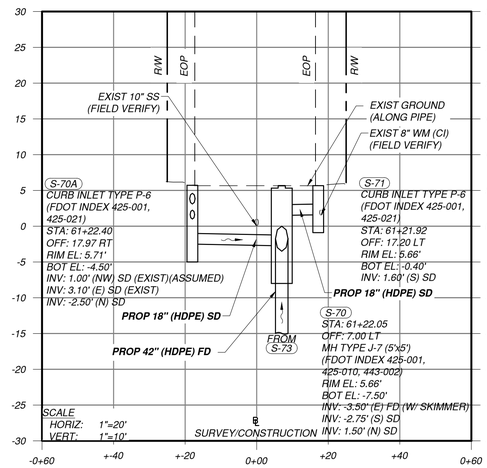
STA: 50+41.39
(S-62, S-63)



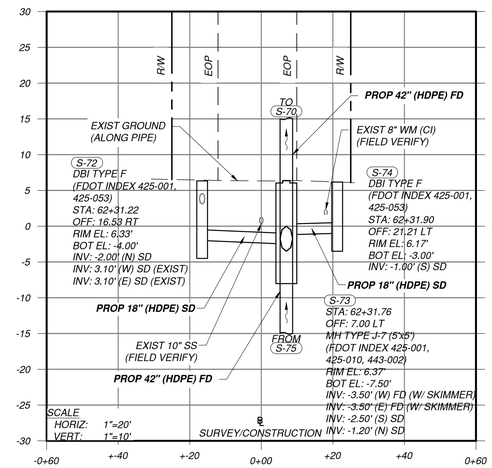
STA: 51+23.03
(S-65, S-66, S-69)



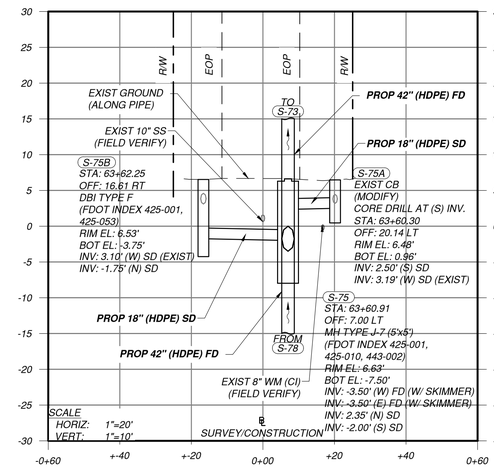
STA: 51+66.65
(S-67, S-68)



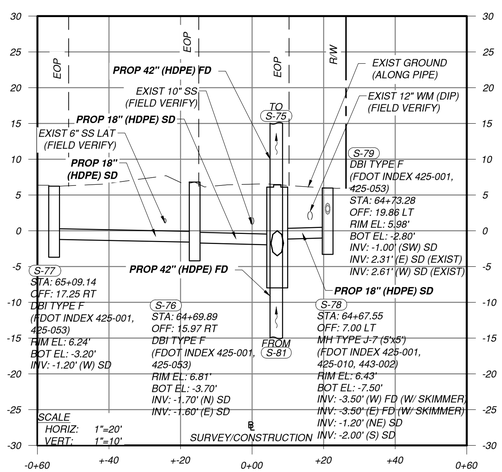
STA: 61+22.16
(S-70, S-70A, S-71)



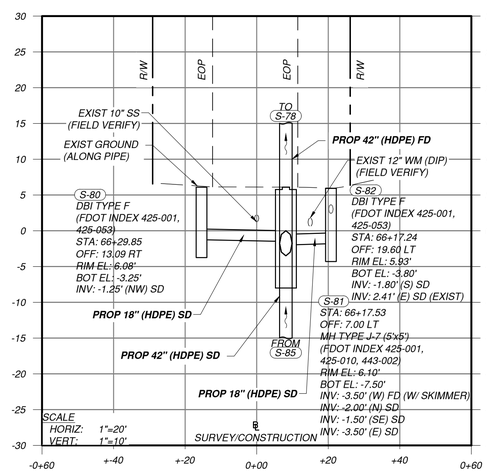
STA: 62+31.60
(S-72, S-73, S-74)



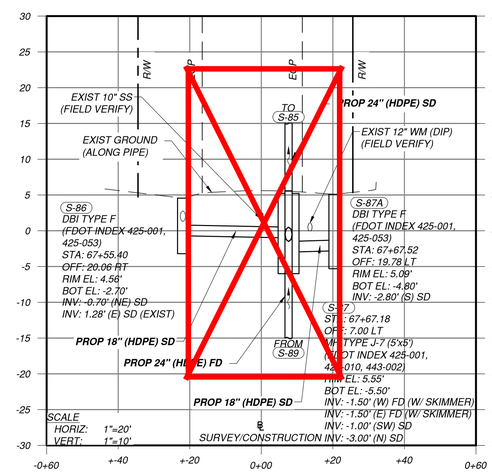
STA: 63+61.34
(S-75, S-75A, S-75B)



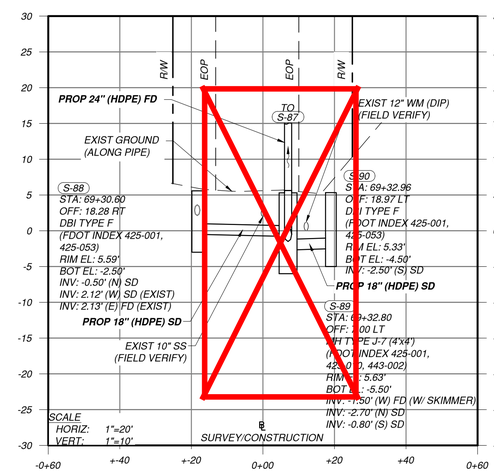
STA: 64+68.82
(S-76, S-77, S-78, S-79)



STA: 66+21.7
(S-80, S-81, S-82)



STA: 67+64.24
(S-86, S-87, S-87A)



STA: 69+32.20
(S-88, S-89, S-90)

DORAL FLORIDA

CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:

EAC Consulting, Inc.
eacconsult.com
5959 BLUE LAGOON DRIVE, SUITE 410
MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT: STORMWATER IMPROVEMENTS (PHASE 1) SUB-BASIN H-8
CITY PROJECT RFQ 2017-21

SHEET TITLE: DRAINAGE STRUCTURE CROSS SECTIONS (3 OF 3)

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

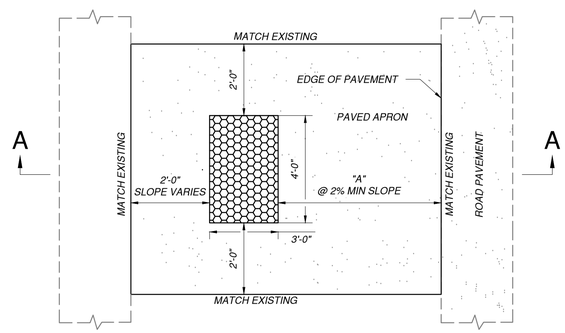
HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: DRPRRD01.dwg
DATE: MAY 2020
SHEET NO. 28

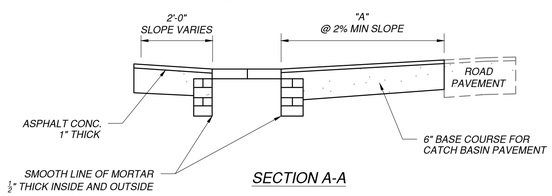
BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 11:26 AM
L:\Project\17 Project\17077 WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\roadway\DRPRRD01.dwg



PLAN

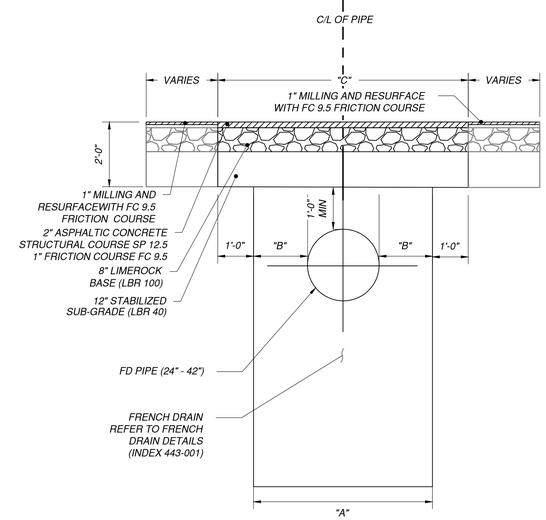


SECTION A-A

NOTES:
1. FRAME ELEVATION SHALL BE AT LEAST 3" BELOW SWALE GRADE ELEVATIONS.
2. FRAME ELEVATION SHALL BE AT LOW POINT OF CATCH BASIN PAVEMENT.

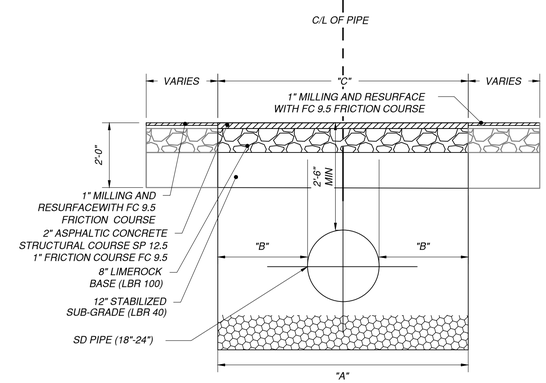
CATCH BASIN APRON DETAIL
NTS

STRUCT. No.	"A"
S-01	1.7'
S-02	4.3'
S-03	0.4'
S-05	2.4'
S-06	0.4'
S-08	4.1'
S-09	0.5'
S-11	2.6'
S-12	0.6'
S-14	3.7'
S-15	1.5'
S-18	1.0'
S-20	3.5'
S-21	0.6'
S-23	6.6'
S-26	0.1'
S-28	1.1'
S-29	1.0'
S-31	0.9'
S-32	1.3'
S-35	3.8'
S-38	0.3'
S-39	2.0'
S-41	0.1'
S-42	1.7'
S-44	1.5'
S-45	2.4'
S-47A	6.9'
S-47B	6.4'
S-48	5.0'
S-50	9.1'
S-51	0.0'
S-53	8.3'
S-54A	11.6'
S-55	6.8'
S-56	9.2'
S-58	6.3'
S-59	10.4'
S-61	3.8'
S-63	12.8'
S-65	10.7'
S-67	7.9'
S-69	6.2'
S-72	3.1'
S-74	10.0'
S-75B	3.9'
S-76	0.0'
S-77	0.0'
S-79	7.3'
S-80	0.0'
S-82	7.9'
S-83	0.0'
S-84A	0.0'
S-84B	2.1'
S-86	3.2'
S-87A	7.6'
S-88	3.8'
S-90	7.6'
S-94A	6.3'



FRENCH DRAIN RESTORATION DETAIL
NTS

FRENCH DRAIN			
SIZE (I.D.)	"A"	"B"	"C"
24"	5.00'	1.50'	7.00'
30"	5.50'	1.50'	7.50'
36"	6.00'	1.50'	8.00'
42"	6.50'	1.50'	8.50'



SOLID PIPE RESTORATION DETAIL
NTS

SOLID PIPE			
SIZE (I.D)	"A"	"B"	"C"
18"	8.00'	3.25'	8.00'
24"	7.00'	2.50'	7.00'
30"	7.50'	2.50'	7.50'
36"	8.00'	2.50'	8.00'
42"	8.50'	2.50'	8.50'

DORAL FLORIDA
CITY OF DORAL
PUBLIC WORKS DEPARTMENT
8401 NW 53rd TERRACE
DORAL, FL 33166

CONSULTANT:
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MIAMI, FL 33126
CA # 7011
EAC PROJECT No.: 17077.WW01-06

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PROJECT:
SUB-BASIN H-8
STORMWATER IMPROVEMENTS
(PHASE 1)
CITY PROJECT RFQ 2017-21

SHEET TITLE:
DRAINAGE DETAILS

REVISIONS

NO.	DESCRIPTION	DATE	BY

DESIGNED BY: HDT
DRAWN BY: DG
REVIEWED BY: ML
SEAL

HERMAN D. TIRADO, P.E.
FL LICENSE NO. : 36910

FILE NAME: STM-DETAILS.dwg
DATE: MAY 2020
SHEET NO.
29

BID SET

DRAWING SCALE SHOWN CORRESPONDS TO PLOT SIZE OF 24"X36". IF THIS DRAWING IS PLOTTED ON OTHER SIZE SHEET, ENGINEER OF RECORD DOES NOT WARRANT ACCURACY OF DRAWING SCALE.

DANIEL GIRALDO
July 30, 2020 2:56 PM
L:\Project\17 Project\17077.WW01-06 City of Doral\17077.WW01-06 - NW 58th St Outfall\CADD\drainage\STM-DETAILS.dwg