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ABBREVIATIONS

A/C	AIR CONDITIONING UNIT
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
B.M.	BENCH MARK
CALC	CALCULATED
CB	CATCH BASIN
CE	CONSTRUCTION ENTRANCE
CI	CAST IRON
CONC	CONCRETE
DI	DUCTILE IRON
DIA	DIAMETER
DS	DOWN SPOUT
EA	EACH
EASMT	EASEMENT
ELEC	ELECTRICAL
ELEV	ELEVATION
EXIST	EXISTING
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FP	FIRE PROTECTION
GV	GATE VALVE
HDPE	CORRUGATED PLASTIC PIPE
HORIZ	HORIZONTAL
INV	INVERT
IP	INLET PROTECTION
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
MG	MATCH GRADE
PIV	POST INDICATOR VALVE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RED	REDUCER
RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
R/W	RIGHT OF WAY
SCH	SCHEDULE
SD	STORM DRAIN
SF	SILT FENCE
SS	GRAVITY SEWER LINE
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STRUCT	STRUCTURAL
TC	TOP OF CURB
TEL	TELEPHONE
TP	TREE PROTECTION
TYP	TYPICAL
VERT	VERTICAL
W	WATER LINE
WM	WATER METER
WV	WATER VALVE

LEGEND

EXISTING		PROPOSED
	BORING/INFILTRATION TEST LOCATION	
	UTILITY MANHOLE	
	LIGHT POLE	
	DROP INLET-GRATE	
WM	WATER METER	WM
	DOWNSPOUT	
	GATE VALVE	
	FIRE HYDRANT	
	FIRE DEPT. CONNECTION	
	POST INDICATOR VALVE	
	SANITARY SEWER CLEAN-OUT	
	TRAFFIC. LIGHT POLE	
	HANDICAP PARKING SYMBOL	
	LIMIT OF DISTURBANCE	LOD LOD LOD
	SIGN	
	FIRE PROTECTION SERVICE	FP FP
SSx SSx	SANITARY SEWER	SAN
	STORM DRAIN	SD SD
Wx Wx	WATERLINE	W
	CURB AND GUTTER	
	CENTERLINE	
	TREE LINE	
x x x	CHAIN LINK FENCE	
	TREE PROTECTION FENCE	TP TP TP TP
	SILT FENCE	SF SF SF

SHEET INDEX

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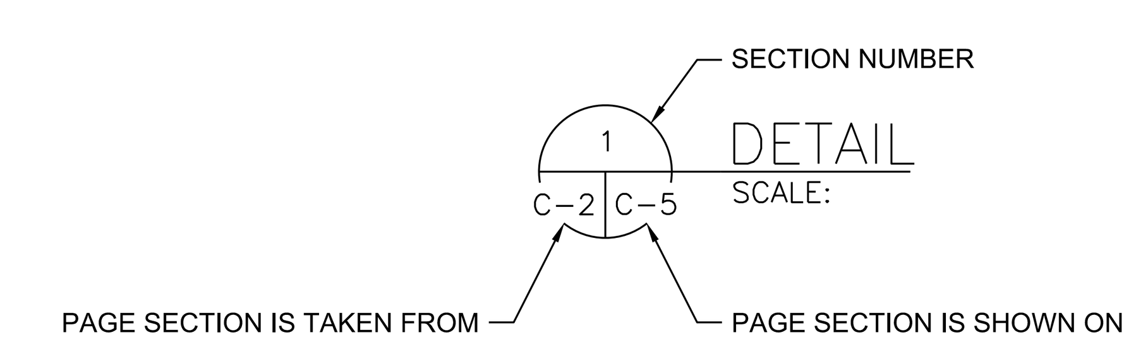
20	C5.06	C5.06 - UTILITY DETAILS 3	03/26/25

SYMBOLS



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786-391-2646
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State of Florida: AR 93574

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HOLLY B. ADAMS
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No 96658
04/01/25
STATE OF FLORIDA
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DULLES, VA 20166
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TITLE: SHEET INDEX AND LEGEND

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GENERAL CIVIL NOTES

GENERAL NOTES

ALL WORK PERFORMED ON THIS PROJECT SHALL CONFORM TO THE LOCAL LAND DEVELOPMENT CODE. SECONDARY, THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE LATEST EDITIONS AND ALL APPLICABLE SECTIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION, STATE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION, PROJECT SPECIFICATIONS, AND ALL APPLICABLE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

ALL PROPOSED ITEMS ARE INTENDED TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY ASSOCIATED WITH THE WORK RELATED TO THIS PROJECT AND FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL HEALTH AND SAFETY LAWS, CODES, REGULATIONS, AND ORDINANCES INCLUDING, BUT NOT LIMITED TO, THOSE CURRENTLY MANDATED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

THIS DRAWING REFLECTS THE CONDITIONS AT THE TIME OF SURVEY AND MAY NOT REPRESENT CURRENT CONDITIONS.

THIS PLAN IS NOT INTENDED AS A SUBSTITUTE FOR THE PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATION, AND JUDGEMENT OF THE CONTRACTOR.

BEFORE BEGINNING ANY WORK, CONTRACTOR SHALL SURVEY THE SITE AND EXAMINE THE DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF THEIR WORK. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. CONTRACTOR SHALL ALSO VERIFY THE ENGINEER'S LINES AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY THE DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL DECIDE WHICH GOVERNS. GENERALLY, THE MORE RESTRICTIVE, MORE SPECIFIC, OR STRICTER PROVISION SHALL GOVERN. IF ANY DISCREPANCIES ARE DISCOVERED ON THE PLANS OR BETWEEN THE PLANS AND THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OBTAIN CLARIFICATION OF THE INTENT FROM THE ENGINEER PRIOR TO CONSTRUCTION OR INSTALLATION OF PROPOSED IMPROVEMENTS.

CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR CONSTRUCTION TO EXISTING OR BETTER CONDITIONS. ROADS, SIDEWALKS, UTILITIES, AND OTHER APPURTENANCES THAT ARE PLANNED TO REMAIN WHICH HAVE BEEN DAMAGED DURING CONSTRUCTION SHALL BE RESTORED, RECONSTRUCTED, REPLACED, OR PROTECTED BY THE CONTRACTOR AT HIS/HER EXPENSE. ALL DAMAGE TO EXISTING IMPROVEMENTS, EXCAVATION, AND/OR REMOVAL OF ANY EXISTING IMPROVEMENTS SHALL BE KEPT TO A MINIMUM AND RESTORED OR REPLACED TO AT LEAST THEIR ORIGINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF CONTRACT.

CONTRACTOR SHALL KEEP THE RELEVANT ENGINEER INFORMED RELATIVE TO THE PROGRESS OF THE CONSTRUCTION. FAILURE OF CONTRACTOR TO KEEP THE ENGINEER INFORMED MAY REQUIRE UNCOVERING OF WORK TO VERIFY COMPLIANCE WITH PLANS AND SPECIFICATIONS. ANY COST ASSOCIATED WITH UNCOVERING WORK AND/OR VERIFYING COMPLIANCE SHALL BE BORNE BY THE CONTRACTOR. RELEVANT ENGINEER OF RECORD SHALL OBSERVE CONSTRUCTION ACTIVITIES AS REQUIRED.

CONTRACTOR IS SOLELY RESPONSIBLE FOR PREPARING AS-BUILT DRAWINGS UPON COMPLETION OF CONSTRUCTION. AS-BUILT DRAWINGS SHALL NOTE ANY DEVIATIONS FROM THE LOCATIONS AND/OR ELEVATIONS SHOWN ON THESE PLANS. AS-BUILT DRAWINGS SHALL SHOW ALL INSTALLED FACILITIES, AT A MINIMUM.

PERMITTING NOTES

ALL LOCAL, STATE, AND/OR FEDERAL PERMITS MUST BE OBTAINED PRIOR TO BEGINNING ANY WORK.

EROSION CONTROL NOTES

LIMITS OF CONSTRUCTION INCLUDE LIMITS OF DISTURBANCE, DEMOLITION, EARTHWORK, AND SELECTIVE CLEARING. ALL AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION SHALL BE LEFT IN A NATURALIZED STATE.

CONTRACTOR SHALL MINIMIZE THE REMOVAL OF TREES AND LAND DISTURBANCE TO THE MAXIMUM EXTENT POSSIBLE AND REMOVE ONLY THOSE TREES NECESSARY FOR THE COMPLETION OF CONSTRUCTION.

CONTRACTOR SHALL TAKE EXTRA PRECAUTIONS TO ENSURE SURVIVAL OF EXISTING TREES TO REMAIN. ALL TREES AND LANDSCAPING NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. DIGGING, DRIVING, OR TRENCHING IS NOT PERMITTED WITHIN THE DRIPLINE OF ANY PROTECTED TREE.

CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY DRAINAGE MEASURES WITH APPROVED EROSION AND SEDIMENT CONTROL DEVICES AS NEEDED THROUGHOUT CONSTRUCTION TO PREVENT PONDING OF WATER AND SOIL EROSION AS THE CONDITIONS CHANGE.

CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES TO CONTROL RUNOFF FROM CONSTRUCTION AREA(S). CONTRACTOR IS RESPONSIBLE FOR ANY FINES THAT MAY BE LEVIED DUE TO POLLUTION CREATED DURING CONSTRUCTION.

CONTRACTOR SHALL REMOVE SILT AND DEBRIS DEPOSITED IN DRAINAGE AND SEWERAGE SYSTEMS, ROADWAYS, AND OTHER AREAS RESULTING FROM CONSTRUCTION ACTIVITIES AS REQUIRED BY THE CLEAN WATER ACT.

CONTRACTOR SHALL KEEP PROJECT AREA AND SURROUNDING AREAS FREE FROM DUST IN ACCORDANCE WITH LOCAL AND STATE POLLUTION CONTROL STANDARDS AND REGULATIONS.

UNLESS OTHERWISE INDICATED, ALL EXISTING VEGETATION AND TOPSOIL SHALL BE REMOVED FROM WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO PLACING FILL.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL THE DISTURBED AREAS RECEIVE APPROPRIATE THICKNESS OF TOPSOIL PRIOR TO THE PLACEMENT OF PERMANENT SEEDING.

INLET PROTECTION SHALL BE INSTALLED ON ALL PROPOSED CULVERTS AND STORM INLETS AT THE TIME OF INSTALLATION, AS APPLICABLE.

CONTRACTOR IS RESPONSIBLE FOR DEWATERING AND DRYING OF AREAS TO BE EXCAVATED OR FILLED.

CONTRACTOR SHALL HAVE PORTABLE PUMP WITH FILTER AVAILABLE THROUGHOUT ALL STAGES OF CONSTRUCTION FOR AREAS OF PONDING.

GRADING AND DRAINAGE NOTES

ALL EARTHWORK, GRADING, AND PAVING OPERATIONS FOR THIS PROJECT SHALL COMPLY WITH THE RECOMMENDATIONS AS PRESENTED IN THE PROJECT GEOTECHNICAL REPORT.

BRING ALL AREAS TO GRADE AS SHOWN ON DRAWINGS. GRADED AREAS SHALL BE REASONABLY SMOOTH, COMPACTED AS SPECIFIED ABOVE AND FREE FROM IRREGULAR SURFACE CHANGES. PROVIDE SMOOTH GRADED SURFACES IN DITCHES AND SWALES WHERE SHOWN. GRADE SO THAT WATER DRAINS AWAY FROM BUILDING PERIMETER AND OFF OF PAVEMENTS.

ALL AREAS WITHIN PROJECT LIMITS SHALL BE GRADED TO DRAIN. THE SITE WILL BE GRADED TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE PROPOSED BUILDINGS. ALL GRADES WILL SLOPE AWAY FROM THE FINISHED FLOORS. THE GRADE ELEVATIONS IMMEDIATELY ADJACENT TO THE BUILDINGS ARE TO BE 6.0-8.0 INCHES BELOW THE FINISHED FLOOR ELEVATION. THE SLOPE ACROSS ROADWAYS, PARKING AREAS AND DRIVE AISLES WILL VARY FROM 1.0% TO 3.0% EXCEPT AT HANDICAP-ACCESSIBLE PARKING SPACES, CROSSWALKS, LOADING AREAS, TRASH ENCLOSURES, AND THE AIRCRAFT PARKING APRON WHICH ARE 2.0% MAXIMUM IN ANY DIRECTION.

GRADES AND CONTOURS SHOWN REPRESENT FINAL CONSTRUCTED SURFACE. PAVEMENT AND OTHER IMPROVEMENTS MUST BE CONSIDERED WHEN PERFORMING GRADING.

UTILITY RIMS, LIDS, COVERS, OR ACCESS POINTS ARE INTENDED TO BE 1/4" HIGHER THAN PROPOSED GRADE. IN NO CASE SHALL THEY BE COVERED OVER AND CONCEALED BY THE PROPOSED SURFACE MATERIAL. ANY HIDDEN UTILITY BOXES, COVERS, ETC. DISCOVERED DURING CONSTRUCTION SHALL BE ADJUSTED TO MATCH PROPOSED GRADE.

ALL STORM DRAINAGE STRUCTURES SHALL BE REINFORCED, PRECAST CONCRETE UNLESS OTHERWISE NOTED.

TOP OF GRATE AND RIM ELEVATIONS INDICATED FOR DROP INLETS AND MANHOLES ARE AT THE CENTER OF THE GRATE OR COVER UNLESS OTHERWISE NOTED. STORM MANHOLES SHALL BE SUCH THAT THE MANHOLE TOP IS FLUSH WITH ADJACENT GRADES UNLESS OTHERWISE NOTED.

ALL PIPES ENTERING STORM STRUCTURES SHALL BE GROUTED TO ASSURE THE CONNECTION IS WATERTIGHT.

PIPE BEDDING, BACKFILL, AND COMPACTION SHALL BE IN COMPLIANCE WITH PROJECT SPECIFICATIONS.

ALL STORM AND SANITARY PIPING QUANTITIES SHOWN IN THESE PLANS ARE CENTER OF STRUCTURE TO CENTER OF STRUCTURE. PIPING LENGTHS INCLUDE END SECTIONS WHEN APPLICABLE.

STORM SEWER PIPE SHALL BE RCP, PVC SDR-35, OR HDPE N-12. WHERE DRAINAGE IS SUBJECT TO VEHICULAR LOADING, PIPES SHALL BE REINFORCED CONCRETE PIPE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

- RCP SHALL BE REINFORCED CONCRETE PIPE WITH A MINIMUM CLASS III RATING AND O-RING TYPE RUBBER GASKETED JOINTS.
- PVC STORM PIPE SHALL BE SDR 35, CONFORMING TO ASTM D3034. JOINTS SHALL HAVE FLEXIBLE ELASTOMERIC SEALS PER ASTM D3212.
- HDPE STORM PIPE SHALL BE SMOOTH INTERIOR DOUBLE WALL HIGH DENSITY POLYETHYLENE PIPE WITH WATER JOINTS, N12WT, CONFORMING TO AASHTO M294, WITH HDPE FITTINGS CONFORMING TO ASTM F1336. FOR HDPE STORM SEWER UNDER PAVEMENT, CONTRACTOR TO TAKE EXTRA PRECAUTION TO PROVIDE PROPERLY COMPACTED BACKFILL UNDER PIPE HAUNCHES.

ALL STORM LINE JOINTS FOR CONCRETE PIPE SHALL BE FLEXIBLE WATERTIGHT JOINTS AND SHALL HAVE GASKETS CONFORMING TO ASTM C443 STANDARDS. ALL STORM LINE JOINTS FOR PVC PIPE SHALL BE AN INTEGRAL BELL GASKETED JOINT, WHICH FORMS A WATERTIGHT SEAL.

STORMWATER CONTROL MEASURES ARE TO BE INSTALLED AFTER CONSTRUCTION (PHASE) IS COMPLETE AND STABILIZED MEASURES HAVE BEEN IMPLEMENTED. OTHERWISE, STRICT IMPLEMENTATION OF PROTECTIVE EROSION CONTROL MEASURES MUST BE INSTALLED TO PREVENT PREMATURE CLOGGING AND FAILURE.

ALL CONSTRUCTION AREAS SHALL BE STABILIZED AT THE END OF EACH WORKING DAY.

PAVING NOTES

ALL PAVING AND CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS SET FORTH IN PROJECT GEOTECHNICAL REPORT, THESE PLANS, PROJECT SPECIFICATIONS, AND SHALL BE IN COMPLIANCE WITH DEPARTMENT OF TRANSPORTATION REQUIREMENTS.

PROVIDE POSITIVE DRAINAGE IN ALL AREAS. AFTER BINDER HAS BEEN PLACED, WATER SHALL BE USED TO CHECK FOR BIRD BATH CONDITIONS. ANY BIRD BATH LOCATIONS SHALL BE CUT OUT AND REPLACED PRIOR TO PLACEMENT OF PAVEMENT SURFACE COURSE.

A SMOOTH TRANSITION SHALL BE PROVIDED FROM PROPOSED WORK IN THIS CONTRACT TO ALL ADJACENT EXISTING FEATURES.

THE EXISTING ASPHALT EDGE SHALL BE PROPERLY SEALED WITH TACK COAT PRIOR TO PROPOSED PAVING IN ALL AREAS WHERE EXISTING ASPHALT PAVEMENT MEETS PROPOSED ASPHALT PAVEMENT.

GENERAL UTILITY NOTES

THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OF UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, DEPTH, AND SIZE OF OR NON-EXISTENCE OF ALL UNDERGROUND UTILITIES (HORIZONTAL AND VERTICAL) WHETHER THEY ARE SHOWN ON THESE PLANS. EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE WAY THEY ARE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITIES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH CONSTRUCTION, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT THE CONFLICT MAY BE RESOLVED.

CONTRACTOR SHALL COORDINATE WITH ALL REGULATING AUTHORITIES REGARDING THE RELOCATION AND/OR ABANDONMENT OF EXISTING UTILITIES AND THE INSTALLATION OF NEW UTILITIES PRIOR TO ANY WORK.

CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OVERHEAD UTILITY OWNER WHEN WORKING NEAR POLES AND IS RESPONSIBLE FOR ALL WORK ASSOCIATED WITH BRACING & SUPPORTING THE POLES DURING CONSTRUCTION.

UTILITY OPERATIONS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. CONNECTION TO UTILITIES SHALL BE DONE WITH THE MINIMUM AMOUNT OF DISRUPTION AND SHALL BE COORDINATED WITH REGULATING AUTHORITY.

CONTRACTOR SHALL PROVIDE/FURNISH SERVICES OF A QUALIFIED PRIVATE UTILITY LOCATOR 48 HOURS PRIOR TO START OF CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR LOCATING, MARKING, AND PROTECTING EXISTING UNDERGROUND UTILITIES, INCLUDING, SANITARY, WATER, STORM, GAS, ELECTRIC, FIBER OPTIC LINES, CATV CABLE LINES, TELEPHONE LINES, ETC., PRIOR TO DIGGING, EXCAVATING, OR ANY OTHER ACTIVITY THAT COULD POSSIBLY IMPACT UTILITIES. CONTRACTOR IS RESPONSIBLE FOR TEST PITS.

CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATION, SIZE, AND ELEVATION OF ALL BUILDING UTILITY CONNECTIONS PRIOR TO INSTALLATION.

CONTRACTOR SHALL VERIFY THE CONNECTION POINTS OF ALL UTILITY LINES (WATER, STORM, SANITARY, TELEPHONE, ELECTRIC, AND GAS) WITHIN THE PROJECT AREA PRIOR TO INSTALLATION OF THOSE LINES TO DETERMINE IF THE CONNECTION CAN BE MADE AS PER THE PLANS. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE PROPOSED UTILITY CONNECTION CANNOT BE MADE PER THE PLANS.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING PIPE DIAMETER AND MATERIAL OF ALL EXISTING MAINS TO BE TAPPED PRIOR TO PURCHASING THE TAPPING SLEEVE TO INSURE PROPER SIZING.

ALL PIPE LENGTHS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MATERIALS AND APPURTENANCE NECESSARY FOR THE COMPLETE INSTALLATION OF THE UTILITY SYSTEMS.

NO LANDSCAPING OF ANY TYPE SHALL BE PLACED WITHIN A 3.0 FT RADIUS OF ANY FIRE HYDRANT, FIRE DEPARTMENT CONNECTION, WATER METER, SEWER SERVICE VALVE BOX, PUMP STATION RIM, VALVE VAULT, OR ELECTRIC TRANSFORMER.

UTILITIES AND APPURTENANCES TO REMAIN IN THEIR PRESENT LOCATION SHALL BE ADJUSTED TO PROPOSED GRADE WHERE NECESSARY.

ALL PROPOSED UTILITIES SHALL BE LAID IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE PROJECT TECHNICAL SPECIFICATIONS. SHOULD A DISCREPANCY EXIST, THE MORE STRINGENT REQUIREMENTS SHALL CONTROL.

CONTRACTOR SHALL MAINTAIN A MINIMUM OF 10.0 FT HORIZONTAL AND/OR 18.0 INCHES VERTICAL SEPARATION BETWEEN ALL WATER AND SEWER LINES.

UNLESS OTHERWISE SPECIFIED:

A. WATER OVER SEWER, 18.0 INCHES MINIMUM
B. WATER OVER STORM, 18.0 INCHES MINIMUM
C. STORM OVER SEWER, 24.0 INCHES MINIMUM

UTILITY TRENCHES WITHIN THE ROADWAY SHALL BE BACKFILLED WITH A MINIMUM CBR15 MATERIAL. TRENCH BACKFILL SHALL BE FREE OF STONES AND ANY FOREIGN MATERIAL AND SHALL BE PLACED IN SIX INCH LAYERS COMPACTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.

ALL TRENCH EXCAVATION FOR ALL UTILITIES WITHIN TWO FEET OF ANY PAVEMENT SURFACE (INCLUDING SIDEWALK) SHALL BE BACKFILLED WITH GRANULAR BACKFILL IN ACCORDANCE WITH THE UTILITY TRENCH DETAIL INCLUDED IN THESE PLANS.

DETECTABLE TERRA TAPE D IS TO BE INSTALLED APPROXIMATELY 18.0 INCHES BELOW FINISHED GRADE AND DIRECTLY OVER ALL WATER, FIRE, GRAVITY SEWER, AND SEWER FORCE MAIN PIPING.

10-GAUGE STRANDED OR BRAIDED COPPER WIRE SHALL BE AFFIXED TO ALL PVC PIPE. THE TRACER WIRE SHALL BE TERMINATED IN A MANNER THAT MAKES THEM ACCESSIBLE AT ALL MANHOLES, HANDHOLES, PEDESTALS, VALVES, HYDRANT LEGS, OR OTHER TERMINATION POINTS.

CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF TESTING OF ALL LINES IN ACCORDANCE WITH STATE AND LOCAL STANDARDS. ANY DEFICIENCIES NOTED SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL PROVIDE CERTIFICATIONS OF ALL PRESSURE, LEAKAGE, & CHLORINATION TESTS.

CONTRACTOR SHALL NOTIFY THE GOVERNING AUTHORITY OR UTILITY SYSTEM OWNER IMMEDIATELY OF DAMAGES TO EXISTING UTILITIES CAUSED BY CONSTRUCTION ACTIVITIES. AFTER THE GOVERNING AUTHORITY INSPECTS ALL DAMAGES, CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REPAIR SUCH DAMAGES IN A MANNER THAT WILL RESULT IN MINIMAL IMPACT TO UTILITY USERS. ALL REPAIRS ARE SUBJECT TO APPROVAL BY OWNER OF DAMAGED UTILITY.

CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR THE INSTALLATION AND/OR RELOCATION OF UTILITIES WITHIN THE PROJECT AREAS AND FOR PLACEMENT OF ALL NECESSARY CONDUIT PRIOR TO PAVING OPERATIONS. EXISTING UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT ADVANCE NOTIFICATION TO THE UTILITY OWNER AND USER(S). ALL UTILITY INSTALLATIONS SHALL COMPLY WITH ALL APPLICABLE ORDINANCES, REGULATIONS, CODES, AND THE RESPECTIVE UTILITY REQUIREMENTS.

ALL CONSTRUCTION SHALL BE INSPECTED BY THE OWNER'S REPRESENTATIVE AND/OR UTILITY OWNER, AS REQUIRED. ALL TRENCHES, PIPING, AND TAPS SHALL BE LEFT EXPOSED AND PROTECTED UNTIL INSPECTED AND APPROVED.

CONTRACTOR SHALL PROVIDE A LIST OF SEWER AND WATER SERVICE AS-BUILT MEASUREMENTS TO THE CONTRACTING OFFICER AND TO THE PROJECT ENGINEER AT THE CONCLUSION OF THE JOB.

CONTRACTOR SHALL CLEAN ALL CONDUITS AND PIPES THAT COLLECT DEBRIS, MUD, CONCRETE, TRASH, ETC. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

MANHOLE COVERS FOR ALL UTILITIES SHALL BE CLEARLY LABELED WITH RESPECTIVE UTILITY TYPE CAST (I.E. "WATER", "SANITARY").

PRIVATE WATER NOTES

ALL PIPING LESS THAN 4-INCHES SHALL BE PVC PLASTIC PIPING, ASTM B 1785, SCHEDULE 40 SDR.

ALL PIPING 4-INCHES TO 12-INCHES SHALL BE PVC, AWWA C900 WITH CAST IRON PIPE EQUIVALENT OUTSIDE DIAMETER OR DIP CONFORMING TO ANSI/AWWA C150/C151/ A21.51 WITH INTERIOR CEMENT MORTAR LINING AND AN EXTERIOR ASPHALTIC COATING FOR CORROSION RESISTANCE.

ALL PIPING SHALL PROVIDE A MINIMUM PRESSURE RATING OF 150 PSI.

36.0 INCH MINIMUM COVER SHALL BE PROVIDED OVER ALL DOMESTIC WATER LINES.

48.0 INCH MINIMUM COVER SHALL BE PROVIDED OVER ALL FIRE SERVICE LINES.

GATE VALVES 3-INCHES AND LARGER SHALL BE AWWA C500, C509 OR C515, MUST HAVE RESILIENT SEATING, AND SHALL BE INSTALLED AT APPROPRIATE POINTS TO ALLOW FOR INTERRUPTION OF FLOW.

PROVIDE THRUST RESTRAINT AS REQUIRED AT ALL BENDS, TEES, WYES, STOPS, VALVES, OR CHANGES IN PIPE SIZE. INSTALL RESTRAINTS IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

CONCRETE THRUST BLOCKING SHALL NOT OBSTRUCT WEEPHOLES ON ANY FIRE HYDRANT ASSEMBLY, STEEL CASING PIPE, OR BOLTS ON ANY FITTINGS.

FIRE HYDRANTS SHALL BE WET-BARREL TYPE, AWWA C503 OR UL246.

CONTRACTOR SHALL PROVIDE "AS-BUILT" PLANS INCLUDING THE LOCATION OF ALL BRANCHES, TEES, FITTINGS, VALVES, AND HYDRANTS.

PRIVATE SEWER NOTES

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING ANY CONSTRUCTION ON ANY SANITARY SEWER SYSTEM EXTENSION OR MODIFICATION SHALL BE LICENSED BY THE STATE.

ALL SANITARY SEWER MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH FACILITY SEWER STANDARDS AND SPECIFICATIONS. ADDITIONS, DELETIONS, AND/OR REVISIONS TO THE SANITARY SEWER FACILITIES SHALL NOT BE MADE WITHOUT APPROVAL OF FACILITY.

ALL GRAVITY SEWER PIPING SHALL BE PVC PLASTIC PIPING, ASTM D3034 OR F949, SCHEDULE 40 UNLESS OTHERWISE SPECIFIED.

24.0 INCH MINIMUM COVER SHALL BE PROVIDED OVER ALL PROPOSED GRAVITY SEWER LINES.

MINIMUM INSIDE DIAMETER OF SANITARY SEWER MANHOLES WITH DROP CONNECTIONS IS 5.0 FT.

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

TRAFFIC CONTROL NOTES

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. REFER TO THE MUTCD FOR LOCATION OF TRAFFIC CONTROL DEVICES, SIGNAGE, STRIPING, AND ASSOCIATED DETAILS.

CONTRACTOR SHALL PROVIDE WARNING SIGNS AT THE LIMITS OF CONSTRUCTION STATING THAT ACCESS IS RESTRICTED TO AUTHORIZED PERSONNEL AND HARD HATS ARE REQUIRED, AS WELL AS WARNING SIGNS TO WARN PEDESTRIANS AND DRIVERS AROUND POTENTIALLY DANGEROUS AREAS.

CONTRACTOR SHALL NOTIFY THE PROPER LOCAL AUTHORITIES, INCLUDING POLICE AND FIRE, AT LEAST 24 HOURS PRIOR TO ANY ROAD BEING CLOSED FOR CONSTRUCTION AND NOTIFY THE CONTRACTING OFFICER AT LEAST 30 DAYS PRIOR TO THE PROPOSED MODIFICATION DATE.

ONCE TRAFFIC CONTROL HAS BEEN INSTALLED AND BEFORE WORK BEGINS, CONTRACTOR SHOULD OBSERVE TRAFFIC FLOW AND MOVEMENTS. IF PROBLEMS OCCUR OR ARE ANTICIPATED, CONTRACTOR SHALL MAKE APPROPRIATE CHANGES TO TRAFFIC CONTROL MEASURES BEFORE WORK BEGINS.

ALL WORK SHALL BE ARRANGED IN A MANNER THAT WILL CAUSE MINIMUM DISTURBANCE TO VEHICULAR AND PEDESTRIAN TRAFFIC.

CONSTRUCTION TRAFFIC SHALL YIELD TO ALL PEDESTRIANS.

ALL CONSTRUCTION VEHICLES, INCLUDING CONTRACTOR EMPLOYEE VEHICLES, SHALL BE LIMITED TO DESIGNATED PARKING AREAS ONLY AS COORDINATED WITH THE FACILITY AND SHALL USE DESIGNATED ACCESS ROUTES AS COORDINATED WITH FACILITY.

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida:
HOLLY B. ADAMS
LICENSE
No 96658
04/01/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ALPHA CORPORATION

OWNER:

Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

TITLE: C0.02 - GENERAL CIVIL NOTES

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C0.02

SEQUENCE OF CONSTRUCTION - CIVIL

THE FOLLOWING SEQUENCE OF CONSTRUCTION IS GENERAL AND COVERS MAJOR WORK ITEMS. IT IS NOT INTENDED TO LIMIT THE CONTRACTOR TO CERTAIN MEANS, METHODS, AND/OR TIMES FOR DOING WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SCHEDULING AND PERFORMING HIS/HER WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD THERE BE ANY FORESEEN SIGNIFICANT CONFLICTS WITH THE INTENT OF THIS SEQUENCE AND SHALL PROVIDE IN WRITING TO THE ENGINEER RECOMMENDATIONS FOR ALTERING THIS SEQUENCE.

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PROPOSED WORK TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION.
3. CONTRACTOR SHALL PERFORM SUBSURFACE UTILITY INVESTIGATION PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL CALL SUNSHINE (811) AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
4. CONTRACTOR SHALL SET UP A PRE-CONSTRUCTION MEETING WITH THE PERMIT APPROVING AUTHORITIES AND INSPECTOR AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK REQUIRING ENGINEERING CERTIFICATIONS WITH THE ENGINEER OF RECORD.
6. INSTALL SAFETY HAZARD FENCE AROUND ANY CONSTRUCTION OPERATION THAT POSES ANY TYPE OF HAZARD IF AREA IS LEFT UNATTENDED. THE FENCE MUST, AT A MINIMUM, BE OF A DURABLE REFLECTIVE UV RESISTANT MATERIAL AND REMOVED UPON COMPLETION AND ACCEPTANCE OF WORK.
7. ESTABLISH AREAS OF STAGING & STOCKPILE AND ENCAPSULATE PERIMETER WITH SILT FENCE AND/OR SOCK FILTERS. TEMPORARILY SEED STOCKPILE. ALL EARTHEN STOCKPILES GREATER THAN TEN FEET IN HEIGHT OR HAVING SIDE SLOPES GREATER THAN 3:1 SHALL BE ENCAPSULATED BY A DOUBLE ROW OR SILT FENCE AND/OR SOCK FILTERS. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. LOCATIONS MAY BE MODIFIED AS APPROVED BY THE DESIGNATED INSPECTOR.
8. ANY AND ALL MATERIAL OR DEBRIS TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND MAY BE TRANSPORTED TO A SEDIMENT CONTROLLED DISPOSAL AREA.
9. ESTABLISH A WORKING PERIMETER WITH SILT FENCE AND TREE PROTECTION. SILT FENCE AND TREE PROTECTION ARE TO BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES ONE THIRD HEIGHT TO THE TOP OF THE BARRIER. WHERE PUBLIC SIDEWALK EXISTS, CONTRACTOR SHALL ENSURE THAT SILT FENCE DOES NOT IMPEDE PEDESTRIAN TRAFFIC AND PROVIDE TEMPORARY BYPASS ROUTES, AS NECESSARY.
10. ALL AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE ARE NOT TO BE DISTURBED AND SHALL BE LEFT IN AN EXISTING STATE.
11. INSTALL INLET/CULVERT INLET AND/OR OUTLET PROTECTION ON ALL STORMWATER CONVEYANCE SYSTEMS RECEIVING RUNOFF FROM CONSTRUCTION ACTIVITIES.
12. INSTALL OTHER TEMPORARY EROSION CONTROL MEASURES AS REQUIRED IN AREAS RECEIVING RUNOFF FROM CONSTRUCTION ACTIVITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY CONTRACTOR TO ENSURE COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CHECK REGULARLY FOR SETTLEMENT, EROSION, AND DISPLACEMENT TO ENSURE THEY ARE STRUCTURALLY SOUND AND HAVE NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. REPAIR OR REPLACE IMMEDIATELY. SEDIMENT SHALL BE REMOVED IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS AND SPECIFICATIONS.
13. ALL E&S MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATION. THESE E&S MEASURES SHALL BE INSTALLED BEFORE CONSTRUCTION AND MAINTAINED UNTIL FINAL VEGETATIVE COVER IS ESTABLISHED. E&S MEASURES ARE TO BE CHECKED WEEKLY UNLESS OTHERWISE SPECIFIED AND AFTER EACH SIGNIFICANT RAINFALL EVENT.
14. CONTRACTOR SHALL CONTROL DUST THROUGHOUT THE PROJECT DURATION, WITHIN THE PROJECT AREA AND AT ALL OTHER AREAS AFFECTED BY PROJECT CONSTRUCTION.
15. DO ALL WORK REQUIRED TO CLEAR AND GRUB THE SITE WITHIN THE LIMITS SPECIFIED ON THIS PLAN. REMOVE EXISTING STRUCTURES, PAVED SURFACES, UTILITIES, VEGETATION, TREES, FENCING, AND OTHER FACILITIES AS REQUIRED TO PREPARE THE SITE FOR CONSTRUCTION. BRACE LIGHT POLES AND OTHER STRUCTURES TO REMAIN WITHIN OR IMMEDIATELY ADJACENT TO THE PROPOSED WORK.
16. EXCAVATE UNSUITABLE MATERIALS IN BUILDING, PARKING, AND SIDEWALK AREAS. REPLACE WITH SAND MATERIAL JUDGED SUITABLE AND AS DIRECTED BY A LICENSED GEOTECHNICAL ENGINEER.
17. ROUGH GRADE. TEMPORARY WORKING ELEVATIONS ARE TO BE DETERMINED BY THE CONTRACTOR. INSTALL TEMPORARY DRAINAGE MEASURES AS NEEDED THROUGHOUT CONSTRUCTION TO ENSURE THE SITE DRAINS AND TO PREVENT PONDING OF WATER AND SOIL EROSION AS SITE CONDITIONS CHANGE. THE CONTRACTOR SHALL ENSURE ADEQUATE STABILIZATION MEASURES ARE PROVIDED THROUGHOUT CONSTRUCTION.
18. CONTRACTOR SHALL ENSURE ADEQUATE STABILIZATION MEASURES ARE PROVIDED THROUGHOUT CONSTRUCTION, INCLUDING FOR CONSTRUCTION VEHICLES, AS TO NOT FURTHER DAMAGE EXISTING SECTIONS TO REMAIN.
19. SET BUILDING PAD(S).
20. INSTALL UNDERGROUND UTILITIES AND STORM DRAINAGE, PROVIDING APPROVED SEDIMENT PROTECTION AT NEW DRAINAGE CONVEYANCE STRUCTURES AS REQUIRED. IF TEMPORARY DIVERSIONS ARE REQUIRED, TEMPORARY SEDIMENT FILTRATION AND VELOCITY CONTROL MEASURES MUST BE INSTALLED.
21. INSTALL CURB AND/OR GUTTER, OR EDGE RESTRAINTS.
22. CONTRACTOR SHALL VERIFY THE BASE IS DRY AND MEETS ALL MATERIAL, INSTALLATION, AND GRADE SPECIFICATIONS AND ENSURE THAT THE BASE IS READY TO SUPPORT THE IMPOSED LOADS.
23. PLACE BASE STONE IN PARKING AND SIDEWALK AREAS.
24. PAVE PARKING AREAS AND SIDEWALK AREAS.
25. INSTALL PERMEABLE PAVERS IN PARKING AREAS DURING FINAL LOT GRADING WITH EQUIPMENT WORKING FROM THE SIDES. CONTRACTOR SHALL TAKE EXTRA PRECAUTIONS TO PREVENT CLOGGING AND COMPACTION TO THE BASE AND THE SUBBASE. CONSTRUCTION MAY ONLY BEGIN AFTER ENTIRE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED AND TEMPORARY EROSION CONTROLS ARE INSTALLED TO DIVERT RUNOFF AWAY FROM PAVER AREAS UNTIL CONSTRUCTION IS COMPLETE. AFTER FINAL GRADING IS COMPLETE, DEEPLY TILL BOTTOM AND SIDES 6-12 INCHES TO PROVIDE WELL AERATED, HIGHLY POROUS SURFACE TEXTURE. PAVERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND SPECIFICATIONS.
26. ESTABLISH FINAL GRADES FOR POSITIVE DRAINAGE. ALL DISTURBED AREAS SHALL BE GRADED TO A SMOOTH SURFACE AND FREE FROM ALL ROCKS GREATER THAN 3-INCHES IN DIAMETER, DIRT CLOGS, EQUIPMENT TRACKS, RUTS, AND BUMPS.
27. INSTALL FINAL SITE IMPROVEMENTS, INCLUDING PAVEMENT MARKINGS AND SIGNAGE.
28. INSTALL PERMANENT LANDSCAPING AND SEEDING. ALL AREAS TO BE LANDSCAPED AND/OR SEEDED SHALL BE LOOSENED TO A DEPTH OF 6 INCHES MINIMUM.
29. AFTER USE OF STOCKPILE AREA IS COMPLETED, REMOVE ALL TEMPORARY EQUIPMENT, MATERIALS, AND DEBRIS FROM THE SITE. EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF-SITE IN A LAWFUL MANNER.
30. AFTER VEGETATION AND PERMANENT BEST MANAGEMENT STRATEGIES HAVE BEEN ESTABLISHED, SITE HAS BEEN RESTORED, AND UPON AUTHORIZATION FROM THE DESIGNATED INSPECTOR, REMOVE REMAINING E&S MEASURES WITHIN 30 DAYS AFTER FINAL SITE IS STABILIZED WITH VEGETATIVE COVER.
31. CONTRACTOR SHALL PROVIDE CONSTRUCTION CERTIFICATIONS AS REQUIRED UPON COMPLETION OF CONSTRUCTION.

3

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

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HOLLY B. ADAMS
LICENSE
No 96658
04/01/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER
ALPHA CORPORATION

OWNER:

Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

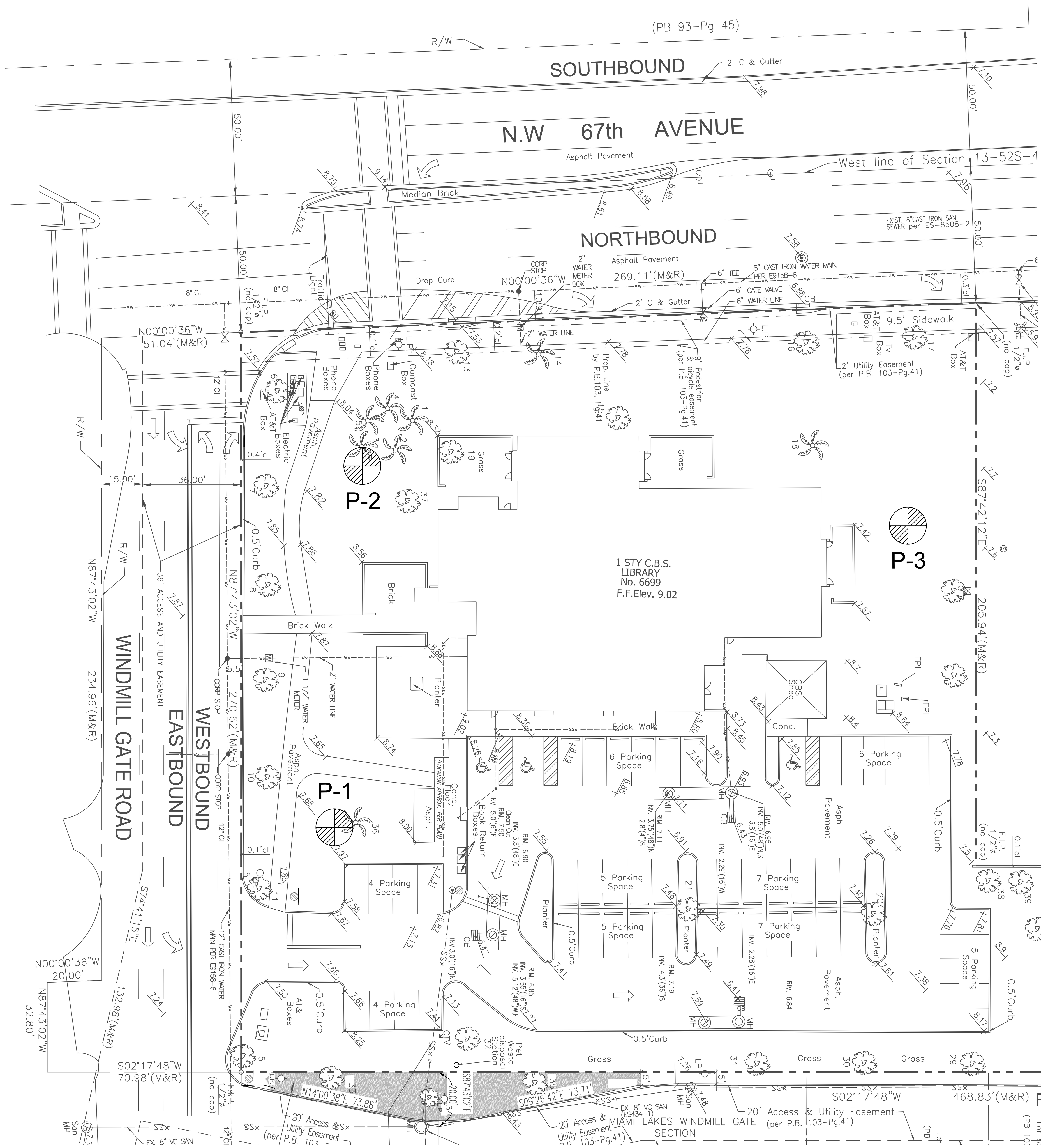
TITLE: SEQUENCE OF CONSTRUCTION

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C0.03



20 0 20 40

SCALE OF FEET

1" = 20'

LEGEND	
P-1	SOIL BORING (LOCATION APPROX.)

GENERAL SHEET NOTES

1. REFER TO SHEET C0.01 FOR LEGEND AND ABBREVIATIONS.
2. SEE REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATIONS FOR MIAMI LAKES BRANCH LIBRARY EXPANSION BY GEOSOL, INC. DATED MAY 20, 2021.

TABLE 4 - SUMMARY OF CONSTANT HEAD BOREHOLE PERCOLATION TEST RESULTS

Proposed Miami Lakes Branch Library Expansion
Located at 6699 Windmill Gate Road
Town of Miami Lakes, Florida
GEOSOL Proposal No. 221115

GEOSOL, Inc.

Test No.	Date Performed	Diameter Casing (Inches)	Diameter Hole (Inches)	Depth of Hole (Feet)	Depth to Groundwater Level Below Ground Surface (Feet) Prior to Test	Depth to Groundwater Level Below Ground Surface (Feet) During Test	SATURATED HOLE DEPTH Ds (Feet)	Corrected Depth of Hole (Feet)	Average Flow Rate (gpm)	K, Hydraulic Conductivity (cfs/ft²-Ft Head)
P-1	05/07/21	6	6.75	15	5.0	0.00	10.00	15.00	10.7	2.13E-04
P-2	05/10/21	6	6.75	15	6.3	0.00	8.70	15.00	12.3	2.06E-04
P-3	05/10/21	6	6.75	15	6.1	0.00	8.90	15.00	11.8	2.02E-04
P-4	05/07/21	6	6.75	15	4.8	0.00	10.20	15.00	12.4	2.56E-04

NOTES:

(1) The above hydraulic conductivity values are for a French drains installed to the same depth as the borehole test. The values represent an ultimate value. The designer should decide on the required factor of safety.

(2) The hydraulic conductivity values were calculated based on the South Florida Water Management Districts's USUAL OPEN HOLE CONSTANT HEAD exfiltration test procedure as shown on the following page.

(3) The diameter of the CASING was used in the computation of the hydraulic conductivity values presented in the above table.

(4) Loss of circulation was NOT encountered during the performance of the borehole percolation tests.

SUBSURFACE STRATIFICATION

TEST No.	TEST LOCATION (FEET) LATITUDE	TEST LOCATION (FEET) LONGITUDE	DEPTH (FEET) FROM	DEPTH (FEET) TO	GENERAL MATERIAL DESCRIPTION
P-1	25.923195	-80.308630	0.00	0.50	Dark Brown Organic Silty Fine Sand with Grass (TOPSOIL)
			0.50	1.00	Brown Slightly Silty Fine to Medium SAND with Some Limerock Fragments (FILL)
			1.00	6.00	Brown Fine to Medium SAND
			11.00	10.50	Brown Sandy LIMESTONE
			10.50	15.00	Brown Fine to Medium SAND with Some Limerock Fragments
P-2	25.923206	-80.309024	0.00	0.50	Dark Brown Organic Silty Fine Sand with Grass (TOPSOIL)
			0.50	1.00	Brown Slightly Silty Fine to Medium SAND with Trace of Limerock Fragments (FILL)
			1.00	3.00	Brown Slightly Silty Fine to Medium SAND with Some Limerock Fragments (FILL)
			3.00	5.50	Brown Fine to Medium SAND
			5.50	13.00	Brown Sandy LIMESTONE
			13.00	15.00	Brown Fine to Medium SAND with Some Limestone Fragments
P-3	25.923769	-80.308955	0.00	0.50	Dark Brown Organic Silty Fine Sand with Grass (TOPSOIL)
			0.50	1.50	Brown Slightly Silty Fine to Medium SAND with Trace of Limerock Fragments (FILL)
			1.50	3.20	Brown Slightly Silty Fine to Medium SAND with Some Limerock Fragments (FILL)
			3.20	5.70	Brown Fine to Medium SAND
			5.70	13.00	Brown Sandy LIMESTONE
			13.00	15.00	Brown Fine to Medium SAND with Some Limerock Fragments
P-4	25.924093	-80.308446	0.00	0.50	Dark Brown Organic Silty Fine Sand with Grass (TOPSOIL)
			0.50	1.00	Brown Slightly Silty Fine to Medium SAND with Trace of Limerock Fragments (FILL)
			1.00	6.00	Brown Fine to Medium SAND
			11.00	10.50	Brown Sandy LIMESTONE
			10.50	15.00	Brown Fine to Medium SAND with Some Limerock Fragments

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ALPHA CORPORATION

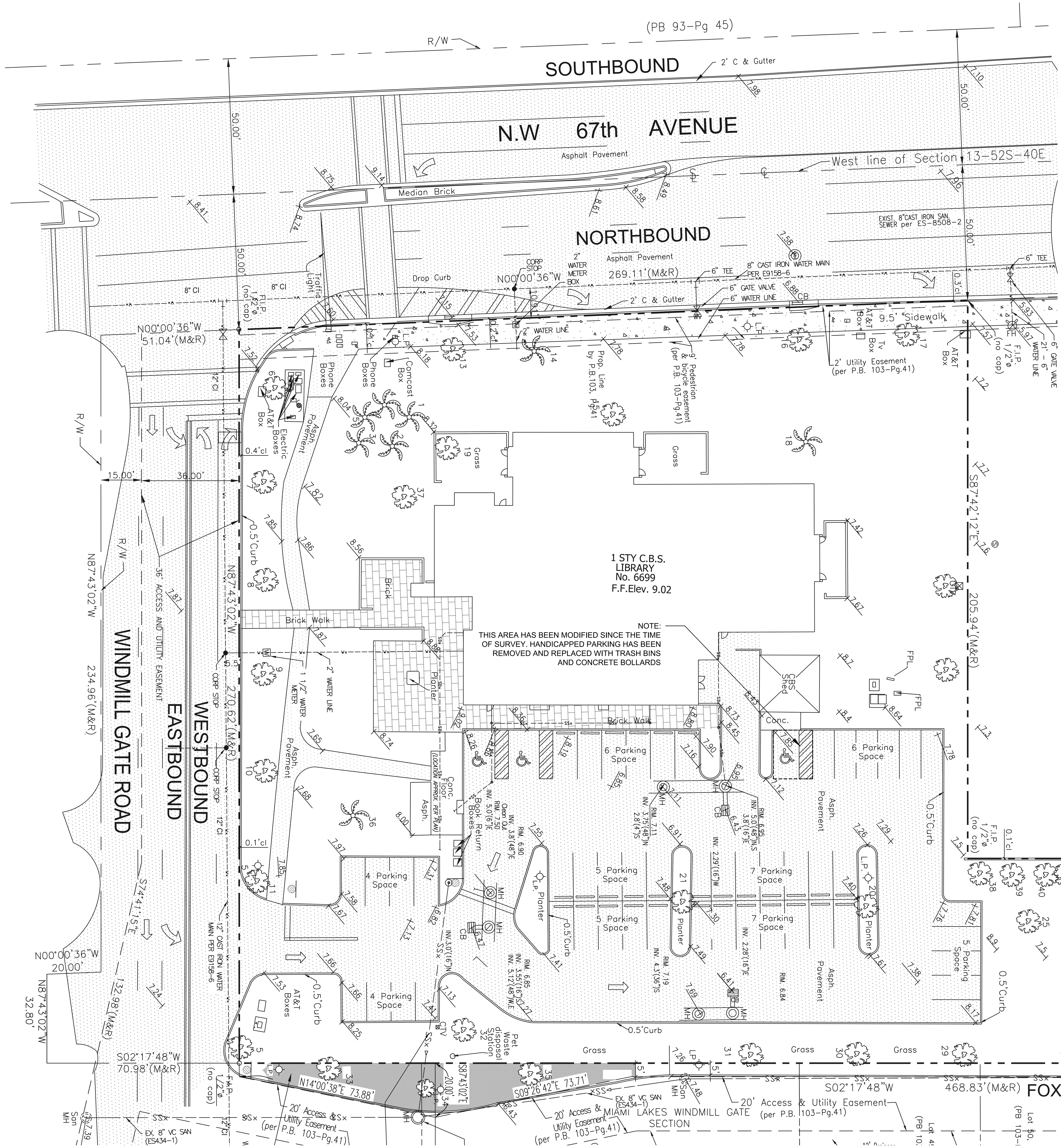
OWNER:

Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

TITLE: C0.04 - SOIL BORING PLAN

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25
PROJECT NUMBER
19119
SHEET NUMBER
C0.04



SURVEY BY: AMERICAN SERVICES OF MIAMI, CORP.
SITE ADDRESS: 6699 WINDMILL GATE RD, MIAMI LAKES, FL. 33014
DATE OF SURVEY: OCTOBER 25, 2019, JUNE 22, 2021 UPDATE

THE PROPERTY DESCRIBED ON THIS SURVEY DOES LIE WITHIN A SPECIAL HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY; THE PROPERTY LIES WITHIN A FLOOD ZONE **"AE"** OF THE FLOOD INSURANCE RATE MAP IDENTIFIED AS COMMUNITY PANEL No. **120686-0116L**, WITH AN EFFECTIVE DATE OF SEPTEMBER 11, 2009. **BASE FLOOD ELEVATION OF 6.00 FEET** (NGVD)

LAND AREA OF SUBJECT PROPERTY: **89,514 SF (+/-)** AS PER OFFICIAL RECORDS **89,316 SF (+/-)** CALCULATED

ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) OF 1929, AS PER MIAMI DADE COUNTY **BENCH MARK No. N-357**, WITH AN ELEVATION OF **7.41 FEET**.

BEARINGS SHOWN HEREON ARE BASED ON AN ASSUME MERIDIAN OF N.00°00'36"W., BEING THE RECORDED BEARING FOR THE CENTERLINE OF N.W. 67th AVE., AS SHOWN ON PLAT BOOK 103 AT PAGE 41 OF THE PUBLIC RECORD OF MIAMI DADE COUNTY, FLORIDA.

GENERAL SURVEYOR NOTES:

- THE SHOWN LEGAL DESCRIPTION USED TO PERFORM THIS BOUNDARY SURVEY WAS PROVIDED BY THE CLIENT.
- SURVEY IS BASED ON RECORDED INFORMATION PROVIDED BY CLIENT. NO SPECIFIC SEARCH OF THE PUBLIC RECORD HAS BEEN MADE BY OUR OFFICE.
- UNLESS OTHERWISE NOTED, AN EXAMINATION OF THE ABSTRACT OF TITLE WAS NOT DONE BY THE SIGNING SURVEYOR TO DETERMINE WHICH INSTRUMENTS, IF ANY ARE AFFECTING THE SUBJECT PROPERTY.
- THIS SURVEY IS EXCLUSIVELY FOR THE USE OF THE PARTIES TO WHOM IT WAS CERTIFIED.
- PURSUANT TO RULE 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE THE EXPECTED USE OF LAND IS SUBURBAN, THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF SURVEY IS 1 FOOT IN 7,500 FEET. THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATIONS OF CLOSED GEOMETRIC FIGURES WAS FOUND TO EXCEED THIS REQUIREMENT.
- THERE ARE NO VISIBLE, ABOVE GROUND ENCROACHMENTS (a) BY THE IMPROVEMENTS OF THE SUBJECT PROPERTY UPON ADJOINING PROPERTIES, STREETS OR ALLEYS, OR (b) BY THE IMPROVEMENTS OF THE ADJOINING PROPERTIES, STREETS OR ALLEYS UPON THE SUBJECT PROPERTY OTHER THAN THOSE SHOWN ON THIS BOUNDARY SURVEY.
- THERE ARE NO VISIBLE EASEMENTS OR RIGHT-OF-WAY OF WHICH THE UNDERSIGNED HAS BEEN ADVISED OTHER THAN THOSE SHOWN ON THIS SURVEY.
- THE MAP OF SURVEY IS INTENDED TO BE DISPLAYED AT THE SHOWN GRAPHIC SCALE IN ENGLISH UNITS OF MEASUREMENT. IN SOME CASES GRAPHIC REPRESENTATION HAVE BEEN EXAGERATED TO MORE CLEARLY ILLUSTRATE A PARTICULAR AREA WHERE DIMENSIONS SHALL HAVE PREFERENCE OVER GRAPHIC LOCATION.
- THE ELEVATIONS (IF ANY) OF WELL-IDENTIFIED FEATURES AS DEPICTED ON THIS SURVEY AND MAP WERE MEASURED TO AN ESTIMATED VERTICAL POSITIONAL ACCURACY OF $\frac{1}{10}$ FOOT FOR NATURAL GROUND SURFACES AND $\frac{1}{100}$ FOOT FOR HARDSCAPE SURFACES, INCLUDING PAVEMENT, CURBS, SIDEWALKS AND OTHER MANMADE STRUCTURES.
- THE SURVEYOR MAKES NO REPRESENTATION AS TO OWNERSHIP, POSSESSION OR OCCUPATION OF THE SUBJECT PROPERTY BY ANY ENTITY OR INDIVIDUAL.
- ANY FEMA FLOOD ZONE INFORMATION PROVIDED ON THIS SURVEY IS FOR INFORMATIONAL PURPOSE ONLY AND IT WAS OBTAINED AT WWW.FEMA.COM.
- IF YOU ARE READING THIS BOUNDARY SURVEY IN AN ELECTRONIC FORMAT, THE INFORMATION CONTAINED ON THIS DOCUMENT IS ONLY VALID IF THIS DOCUMENT IS ELECTRONICALLY SIGNED AS SPECIFIED IN CHAPTER 5J-17.062 (3) OF THE FLORIDA ADMINISTRATIVE CODE. IF THIS DOCUMENT IS IN PAPER FORMAT, IT IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE PROFESSIONAL LAND SURVEYOR AND MAPPER OF RECORD.

LEGAL DESCRIPTION:

TRACT P-55, OF MIAMI LAKES WINDMILL GATE SECTION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 103 AT PAGE 41, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA.

-THERE ARE NO VISIBLE ENCROACHMENT OF THE SUBJECT PROPERTY
-THE SUBJECT PROPERTY IS WITHIN A FLOOD ZONE AE (SEE NOTE 1)
-THERE IS A 2' UTIL. EASEMENT ON THE SIDE OF THE SUBJECT PROPERTY
-THERE IS A 9' PEDESTRIAN AND BICYCLE EASEMENT ON THE SIDE OF THE SUBJECT PROPERTY

No.	TREE NAME	BOTANICAL NAME	HEIGHT	D.B.H.	SPREAD
1-5	MEXICAN PALM	WASHINGTONIA ROBUSTA	25'	0.9'	10'
6-12	BLACK OLIVE	BUCIDA BUCERAS	55'	2'	50'
13	BLACK OLIVE	BUCIDA BUCERAS	20'	1.3'	20'
14	MEXICAN PALM	WASHINGTONIA ROBUSTA	27'	0.9'	10'
15	UNKNOWN	UNKNOWN			
16	BLACK OLIVE	BUCIDA BUCERAS	11.5'	1.5'	29'
17	BLACK OLIVE	BUCIDA BUCERAS	33'	1.5'	30'
18	MEXICAN PALM	WASHINGTONIA ROBUSTA	45'	2.0'	50'
19	UNKNOWN	UNKNOWN			
20-21	BLACK OLIVE	BUCIDA BUCERAS	32'	1.8'	33'
22	MEXICAN PALM	WASHINGTONIA ROBUSTA	35'	0.7'	20'
23	BLACK OLIVE	BUCIDA BUCERAS	45'	1.2'	45'
24	BLACK OLIVE	BUCIDA BUCERAS	40'	2.5'	45'
25	BLACK OLIVE	BUCIDA BUCERAS	25'	1.1'	30'
26	BLACK OLIVE	BUCIDA BUCERAS	52'	2'	50'
27-28	BLACK OLIVE	BUCIDA BUCERAS	35'	0.9'	30'
29-32	BLACK OLIVE	BUCIDA BUCERAS	50'	2.1'	50'
33-35	BLACK OLIVE	BUCIDA BUCERAS	20'	1.3'	20'
36	MEXICAN PALM	WASHINGTONIA ROBUSTA	35'	1.0'	46'
37	BLACK OLIVE	BUCIDA BUCERAS	45'	2'	50'
38-54	BLACK OLIVE	BUCIDA BUCERAS	50'	2'	57'
55-63	BLACK OLIVE	BUCIDA BUCERAS	45'	1.3'	50'

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
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Sign & Seal:
State of Florida

HOLLY B. ADAMS LICENSE No 96658 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION
21000 ATLANTIC BLVD, SUITE 400
DULLES, VA 20166
703-450-0800
www.alphacorporation.com

OWNER:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HOLLY ADAMS 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.

Miami Lakes Branch Library

6699 Windmill Gate Road
Miami Lakes, FL 33014

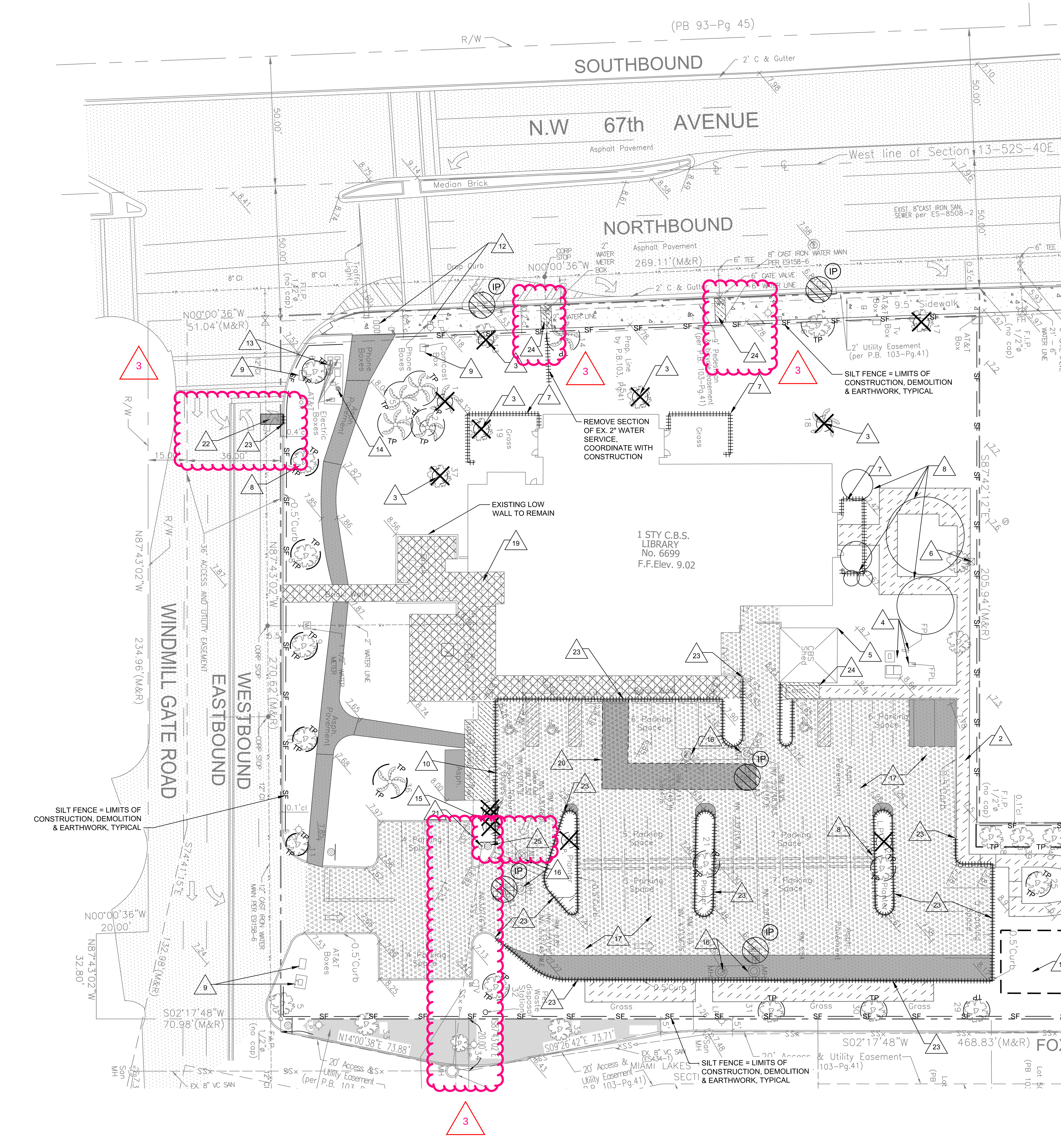
TITLE: C1.00 - EXISTING CONDITIONS

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C1.00



DEMOLITION GENERAL SHEET NOTES:

A. SEE CIVIL GENERAL SHEETS FOR CONSTRUCTION SEQUENCING, LEGEND, AND ADDITIONAL NOTES.

B. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DEMOLITION WORK WITH CONSTRUCTION WORK.

C. ALL ITEMS TO BE STORED ON SITE SHALL BE LOCATED IN DESIGNATED AREAS.

D. ALL AREAS REQUIRING FILL SHALL BE CLEARED AND GRUBBED PRIOR TO PLACEMENT OF FILL.

E. ANY MATERIALS SCHEDULED FOR DEMOLITION SHALL BE REMOVED ENTIRELY BY THE CONTRACTOR. ALL MATERIALS, INCLUDING CLEARING AND GRUBBING WASTE AND DEBRIS, SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A LAWFUL MANNER.

F. COMPLETELY REMOVE EXISTING BELOW-GRADE STRUCTURES AND UTILITIES WITHIN PROJECT BUILDING PADS, UNLESS OTHERWISE NOTED.

G. ALL STRUCTURES AND/OR UTILITIES NOT DESIGNATED FOR REMOVAL AND/OR RELOCATION SHALL BE PROTECTED THROUGHOUT CONSTRUCTION AND REMAIN IN WORKING ORDER. CONTRACTOR SHALL RESTORE ANY ITEMS DAMAGED DURING CONSTRUCTION TO THE PRE-CONSTRUCTION STATE OR BETTER.

H. CONTRACTOR SHALL BRACE ALL LIGHT/UTILITY POLES WITHIN WORK AREA TO REMAIN AS REQUIRED. SEE ELECTRICAL PLANS FOR LOCATIONS AND DETAILS OF ALL LIGHT/UTILITY POLES TO BE RELOCATED. COORDINATE ALL WORK WITH FRANCHISE UTILITY.

I. STAGING AND STORAGE MUST BE SCREENED FROM PUBLIC/VISITOR'S VIEW OF ALL MATERIALS AND EQUIPMENT.

J. RESTROOMS ARE NOT AVAILABLE AT PROJECT SITE AND CAN BE HOUSED WITHIN WORK AREA.

K. CONTRACTOR SHALL COORDINATE ALL OFF-SITE WORK WITH APPLICABLE OWNERS AND REGULATORY AUTHORITIES. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ACCESS EASEMENTS AS REQUIRED TO COMPLETE WORK.

L. TOTAL DISTURBED AREA = 1.70 ACRES, INCLUDING OFF-SITE AREAS OF DISTURBANCE

DEMOLITION KEY NOTES:

1. WATER PUMP\WATER VALVE TO BE PROTECTED AND REMAIN IN PLACE
2. REMOVE PORTION OF LANDSCAPE TO PREPARE FOR NEW SIDEWALK
3. TREE TO BE REMOVED, COORDINATE WITH LANDSCAPE PLANS
4. TRANSFORMER & FPL EQUIPMENT TO BE PROTECTED AND REMAIN IN PLACE
5. MECHANICAL ROOM TO BE PROTECTED AND REMAIN IN PLACE AS IS
6. CTV BOX TO BE RELOCATED TO FACILITATE NEW SIDEWALK CONSTRUCTION. CONTRACTOR SHALL COORDINATE RELOCATION WITH UTILITY OWNER
7. LOW WALLS AND ASSOCIATED FOOTING TO BE DEMOLISHED. COORDINATE WITH ARCHITECTURAL PLANS
8. LANDSCAPE / TREE TO BE PROTECTED AND REMAIN IN PLACE
9. AT&T / COMCAST BOX TO BE PROTECTED AND REMAIN IN PLACE
10. REMOVE ADA RAMP
11. STAGING & STOCKPILE AREA
12. PHONE BOX TO BE PROTECTED AND REMAIN IN PLACE, TYPICAL
13. ELECTRIC BOX TO BE PROTECTED AND REMAIN IN PLACE, TYPICAL
14. TRAFFIC POLE TO BE PROTECTED AND REMAIN IN PLACE, TYPICAL
15. BOOK RETURN BOX TO BE REMOVED AND REPLACED. COORD WITH ARCH
16. MANHOLE COVER TO BE PROTECTED AND REMAIN IN PLACE, TYPICAL
17. REMOVE WHEEL STOPS, SIGNAGE, ETC. THROUGHOUT PARKING LOT, TYPICAL TO PREPARE PARKING LOT FOR MILL & OVERLAY, COORDINATE WITH CONSTRUCTION
18. PLANTERS AND/OR LIGHT POLES TO BE PROTECTED AND REMAIN IN PLACE
19. REMOVE FULL DEPTH BRICK/PAVER SECTION
20. SAWCUT AND REMOVE FULL DEPTH ASPHALT FOR UTILITY INSTALLATION
21. ~~CLEANOUT TO BE PROTECTED AND REMAIN IN PLACE~~
22. SAWCUT AND REMOVE FULL DEPTH ASPHALT FOR UTILITY INSTALLATION, COORDINATE WITH CONSTRUCTION
23. SAWCUT AND REMOVE PORTION OF CURB/CURB & GUTTER AT NEAREST JOINT, TYPICAL, COORDINATE WITH CONSTRUCTION
24. SAWCUT AND REMOVE PORTION OF EXISTING CONCRETE SIDEWALK AT NEAREST JOINT, TYPICAL, COORDINATE WITH CONSTRUCTION
25. REMOVE AND REPLACE EXISTING SIGN, COORDINATE WITH CONSTRUCTION

3

LEGEND

(hatch)	LIMITS OF BRICK REMOVAL
(solid)	LIMITS OF ASPHALT REMOVAL
(hatch)	LIMITS OF CONCRETE REMOVAL
(hatch)	LIMITS OF TURF REMOVAL
(stipple)	LIMITS OF MILLING / REMOVAL
(line)	LIMITS OF REMOVAL, LINEAR
X	ITEM TO BE REMOVED
— LOD —	LIMITS OF DISTURBANCE
— SF —	SILT FENCE (SF)
— TP —	TREE PROTECTION (TP)
⊘	INLET PROTECTION (IP)

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646

Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida:
HOLLY B. ADAMS LICENSE No 96658 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION
21000 ATLANTIC BLVD, SUITE 400
DULLES,VA 20166
703-450-0800
www.alphacorporation.com

OWNER:

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TITLE: C1.01 - DEMOLITION & EROSION CONTROL PLAN

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C1.01

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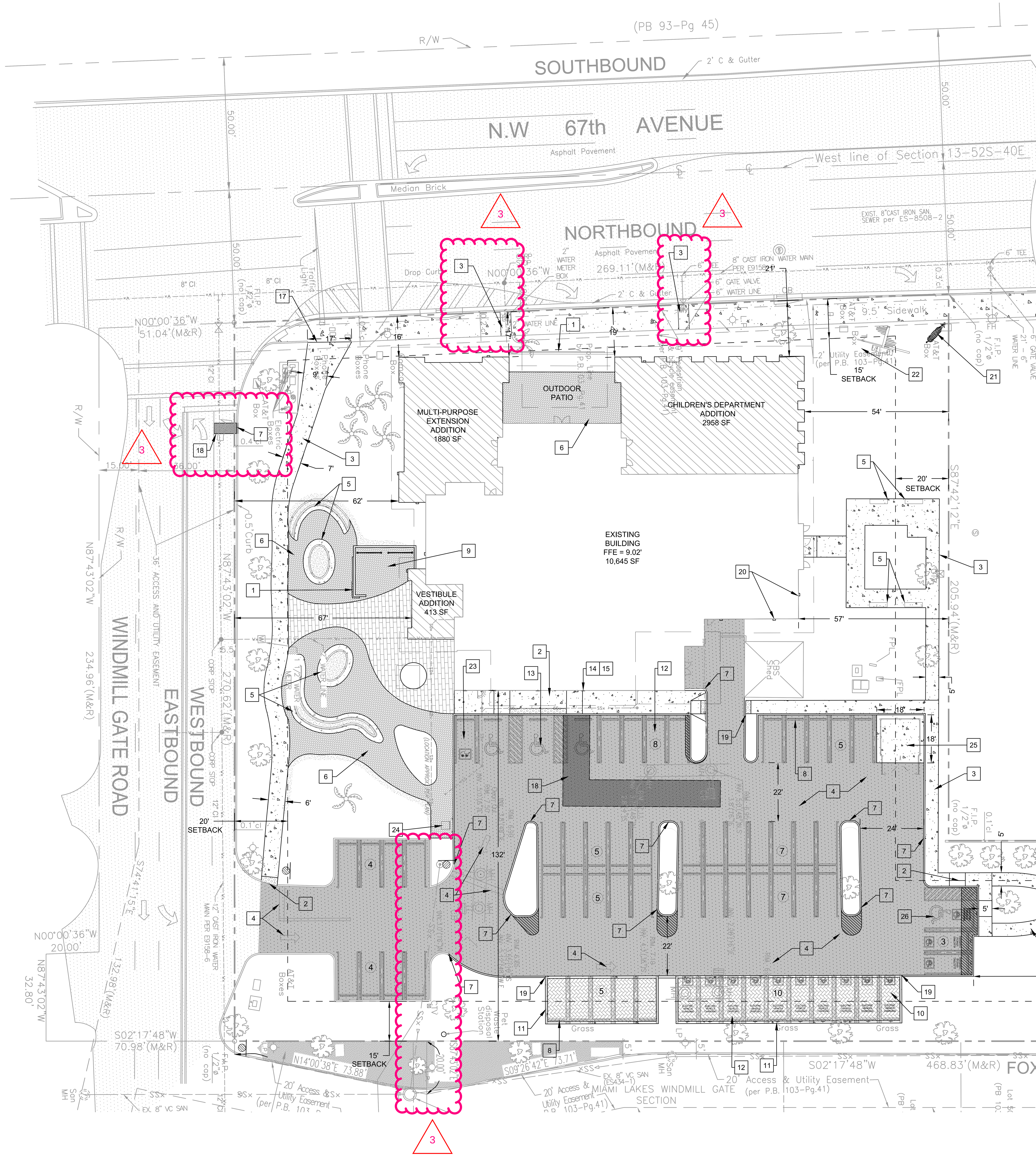

SITE PLAN GENERAL SHEET NOTES:

A. SEE CIVIL GENERAL SHEETS FOR CONSTRUCTION SEQUENCING, LEGEND, AND ADDITIONAL NOTES.

B. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL SITE CIVIL WORK WITH ARCHITECTURAL WORK.

C. DIMENSIONS SHOWN ARE FROM FACE OF CURB, EDGE OF PAVEMENT, OR FACE OF STRUCTURE UNLESS OTHERWISE NOTED.

D. BUILDING FOOTPRINTS SHOWN ARE WITH RESPECT TO OUTER WALL LINES.

E. BUILDING FOOTPRINTS AND/OR UTILITY LATERAL ENTRANCE LOCATIONS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS TO REFER TO THE LATEST SET OF ARCHITECTURAL DRAWINGS FOR ACTUAL DIMENSIONS AND EXACT ENTRANCE LOCATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE EXACT BUILDING UTILITY ENTRANCES WITH THE CONNECTION TO SERVICES OUTSIDE OF THE BUILDING FOOTPRINT.

F. ALL BUILDING ENTRANCES, SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT "AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) AND THE ARCHITECTURAL BARRIERS ACT ACCESSIBILITY GUIDELINES (ABAAG) AS THEY PERTAIN TO THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS, AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE ADAAG AND ABAAG GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR, PRIOR TO ANY CONSTRUCTION, SHALL NOTIFY THE PROJECT ENGINEER.

G. ALL ROADWAY AND PARKING STRIPING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST MUTCD.

H. A 10.0 FT X 70.0 FT AREA OF UNOBSTRUCTED SIGHT DISTANCE SHALL BE PROVIDED AT ALL ENTRANCES AS MEASURED FROM THE EDGE OF PAVEMENT WHERE TWO STREETS INTERSECT. SHRUBS, TREES, OR ANY OTHER OBJECT IMPEDING VISIBILITY BETWEEN THE HEIGHT OF 2.0 - 8.0 FT IS NOT PERMITTED TO ENCROACH WITHIN SIGHT VISIBILITY LIMITS.

I. HATCHING SHOWN ON THIS PLAN IS FOR GENERAL INFORMATION PURPOSES.

SITE PLAN KEY NOTES:

1. MONUMENT / ENTRY SIGN(S). PERMIT BY OTHERS. SEE ARCHITECTURAL PLANS FOR DETAILS
2. ADA RAMP, TYPICAL. SEE DETAIL 6/C5.02
3. CONCRETE SIDEWALK. SEE DETAIL 1/C5.02
4. RE-STRIPING OF PARKING LOT AND SPACES, TYPICAL
5. BENCH SEATING, TYPICAL. SEE ARCHITECTURAL PLANS FOR DETAILS
6. DECORATIVE PAVER WALK/PATIO. SEE ARCHITECTURAL PLANS FOR DETAILS
7. 6" CURB, TYPICAL. SEE DETAIL 5/C5.02
8. 6.0 FT CONCRETE WHEEL STOP, TYPICAL. SEE DETAIL 3/C5.01
9. BICYCLE PARKING AREA, SEE ARCHITECTURAL PLANS FOR DETAILS
10. PERMEABLE PAVER PARKING, TYPICAL. SEE DETAIL 7/C5.01
11. 10" CONCRETE BAND FOR PERMEABLE PAVERS, TYPICAL. SEE DETAIL 5/C5.01
12. 8.5 FT x 18.0 FT STANDARD PARKING SPACE, TYPICAL. SEE DETAIL 4/C5.01
13. 11.0 FT x18.0 FT HANDICAP PARKING SPACE, TYPICAL. SEE DETAIL 1/C5.01
14. R7-8 WALL MOUNTED HANDICAP SIGN, TYPICAL. SEE DETAIL 8/C5.01
15. R7-8A WALL MOUNTED VAN ACCESSIBLE HANDICAP SIGN, TYP. SEE DETAIL 8/C5.01
16. TIE TO EXISTING ASPHALT PAVEMENT, TYPICAL. SEE DETAIL 2/C5.02
17. TIE TO EXISTING CONCRETE SIDEWALK, TYPICAL
18. ASPHALT PAVEMENT PATCH, TYPICAL. SEE DETAIL 2/C5.02
19. WIPEDOWN CURB OVER 3.0 FT. SEE DETAIL 6/C5.01
20. METAL DOWNSPOUT, TYPICAL
21. NEW LOCATION OF ART COW. SEE ARCHITECTURAL PLANS FOR DETAILS
22. FUTURE MONUMENT SIGN, LOCATION APPROXIMATE. PERMIT BY OTHERS
23. 8.5 FT x 18.0 FT STROLLER PARKING SPACE. SEE DETAIL 1/C5.01
24. BOOK RETURN BOX WITH CONCRETE BOLLARDS. SEE ARCHITECTURAL PLANS FOR DETAILS
25. DUMPSTER ENCLOSURE AND PAD TO MEET MIAMI DETAILS AND SPECIFICATIONS. SEE ARCHITECTURAL PLANS FOR DETAILS
26. 11.0 FT x20.0 FT EV HANDICAP PARKING SPACE, TYPICAL. SEE DETAIL 4/C5.03
27. OUTDOOR READING AREA. SEE ARCHITECTURAL PLANS FOR DETAILS

LEGEND

- CONCRETE (COLOR = WHITE)
- BRICK WALKWAY
- ASPHALT PAVEMENT
- PERMEABLE PAVERS
- DECORATIVE PAVERS
- BUILDING ADDITION
- ASPHALT RESTORATION
- EXISTING ASPHALT
- MILL & OVERLAY (2" MIN.)
- EXISTING BRICK WALKWAY

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

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State of Florida
HOLLY B. ADAMS
LICENSE
No 96658
04/01/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ALPHA CORPORATION

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TITLE: C1.02 - SITE LAYOUT PLAN

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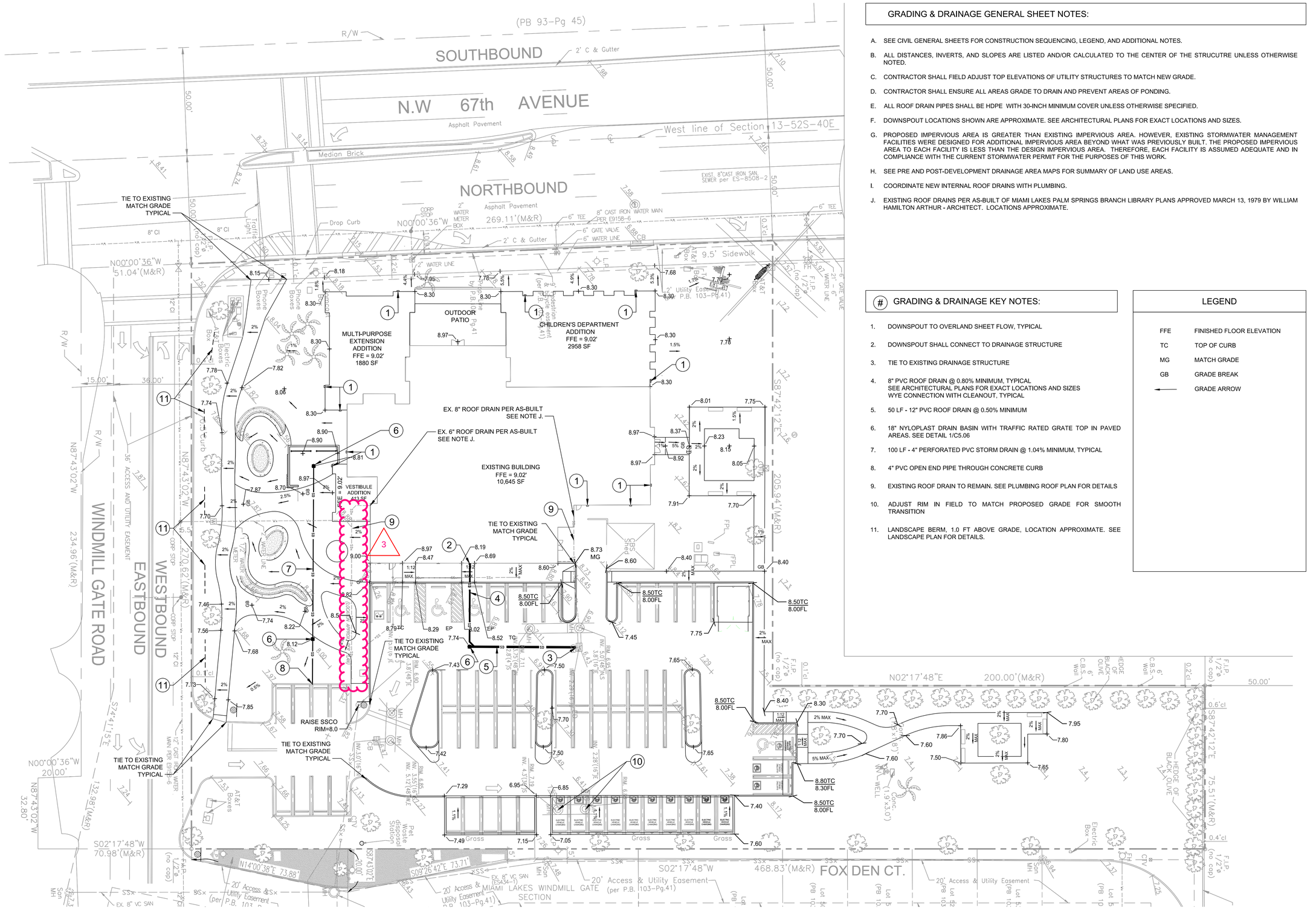

GRADING & DRAINAGE GENERAL SHEET NOTES:

A. SEE CIVIL GENERAL SHEETS FOR CONSTRUCTION SEQUENCING, LEGEND, AND ADDITIONAL NOTES.

B. ALL DISTANCES, INVERTS, AND SLOPES ARE LISTED AND/OR CALCULATED TO THE CENTER OF THE STRUCUTRE UNLESS OTHERWISE NOTED.

C. CONTRACTOR SHALL FIELD ADJUST TOP ELEVATIONS OF UTILITY STRUCTURES TO MATCH NEW GRADE.

D. CONTRACTOR SHALL ENSURE ALL AREAS GRADE TO DRAIN AND PREVENT AREAS OF PONDING.

E. ALL ROOF DRAIN PIPES SHALL BE HDPE WITH 30-INCH MINIMUM COVER UNLESS OTHERWISE SPECIFIED.

F. DOWNSPOUT LOCATIONS SHOWN ARE APPROXIMATE. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND SIZES.

G. PROPOSED IMPERVIOUS AREA IS GREATER THAN EXISTING IMPERVIOUS AREA. HOWEVER, EXISTING STORMWATER MANAGEMENT FACILITIES WERE DESIGNED FOR ADDITIONAL IMPERVIOUS AREA BEYOND WHAT WAS PREVIOUSLY BUILT. THE PROPOSED IMPERVIOUS AREA TO EACH FACILITY IS LESS THAN THE DESIGN IMPERVIOUS AREA. THEREFORE, EACH FACILITY IS ASSUMED ADEQUATE AND IN COMPLIANCE WITH THE CURRENT STORMWATER PERMIT FOR THE PURPOSES OF THIS WORK.

H. SEE PRE AND POST-DEVELOPMENT DRAINAGE AREA MAPS FOR SUMMARY OF LAND USE AREAS.

I. COORDINATE NEW INTERNAL ROOF DRAINS WITH PLUMBING.

J. EXISTING ROOF DRAINS PER AS-BUILT OF MIAMI LAKES PALM SPRINGS BRANCH LIBRARY PLANS APPROVED MARCH 13, 1979 BY WILLIAM HAMILTON ARTHUR - ARCHITECT. LOCATIONS APPROXIMATE.

GRADING & DRAINAGE KEY NOTES:

1. DOWNSPOUT TO OVERLAND SHEET FLOW, TYPICAL
2. DOWNSPOUT SHALL CONNECT TO DRAINAGE STRUCTURE
3. TIE TO EXISTING DRAINAGE STRUCTURE
4. 8" PVC ROOF DRAIN @ 0.80% MINIMUM, TYPICAL
   SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND SIZES
   WYE CONNECTION WITH CLEANOUT, TYPICAL
5. 50 LF - 12" PVC ROOF DRAIN @ 0.50% MINIMUM
6. 18" NYLOPLAST DRAIN BASIN WITH TRAFFIC RATED GRATE TOP IN PAVED AREAS. SEE DETAIL 1/C5.06
7. 100 LF - 4" PERFORATED PVC STORM DRAIN @ 1.04% MINIMUM, TYPICAL
8. 4" PVC OPEN END PIPE THROUGH CONCRETE CURB
9. EXISTING ROOF DRAIN TO REMAIN. SEE PLUMBING ROOF PLAN FOR DETAILS
10. ADJUST RIM IN FIELD TO MATCH PROPOSED GRADE FOR SMOOTH TRANSITION
11. LANDSCAPE BERM, 1.0 FT ABOVE GRADE, LOCATION APPROXIMATE. SEE LANDSCAPE PLAN FOR DETAILS.

LEGEND

FFE	FINISHED FLOOR ELEVATION
TC	TOP OF CURB
MG	MATCH GRADE
GB	GRADE BREAK
←	GRADE ARROW

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646

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HOLLY B. ADAMS No 96658 04/01/25

ALPHA CORPORATION
21000 ATLANTIC BLVD, SUITE 400
DULLES,VA 20166
703-450-0800
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TITLE: C2.00 - GRADING & DRAINAGE PLAN

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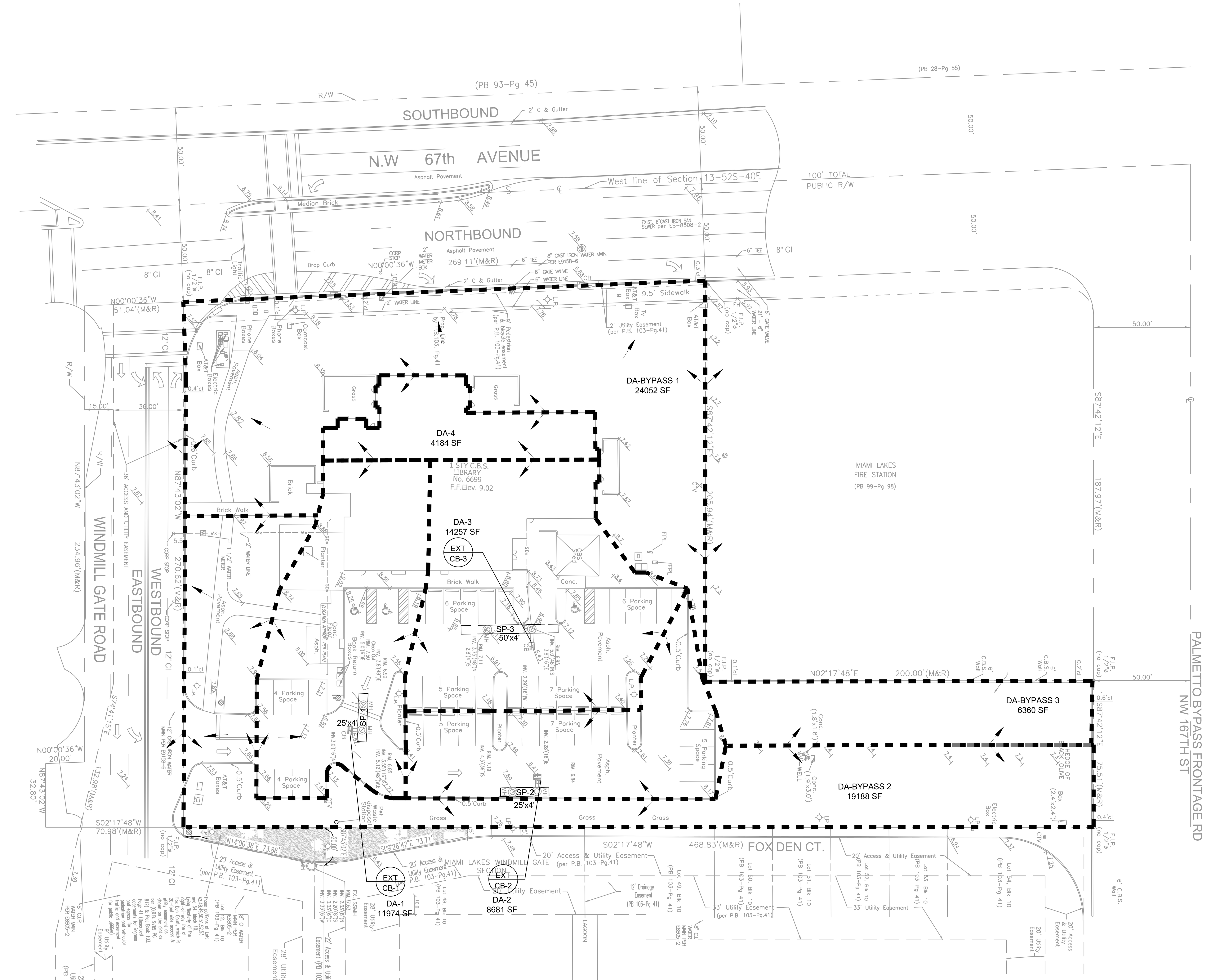
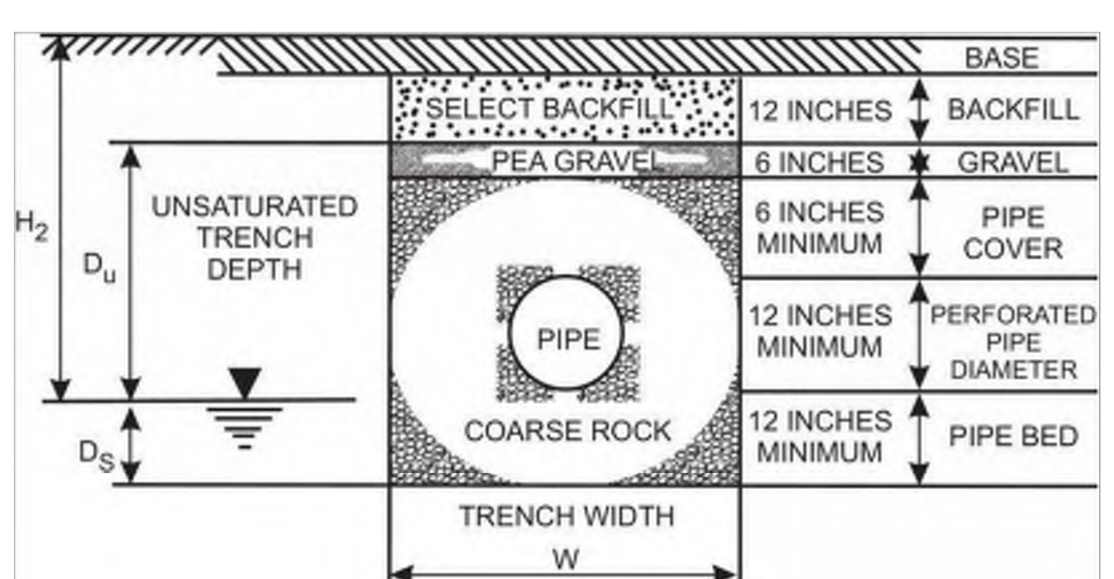


Description		Units
H_2	THE HEIGHT OF THE GROUND SURFACE ABOVE THE DESIGN WATER TABLE	FT
K	HYDRAULIC CONDUCTIVITY	CFS/FT^2-FT.HEAD
D_s	THE DEPTH OF THE TRENCH BELOW WATER TABLE	FT
D_u	UNSATURATED TRENCH DEPTH	FT
W	TRENCH WIDTH	FT
L	TRENCH LENGTH	FT
V_s	VOLUME RUNOFF THAT CAN STORED $V_S = 0.5W\ D_u L$	FT^3
0.5	AVERAGE VOID RATIO WITHIN THE TRENCH (STORAGE IN THE PERFORATED PIPE HAS BEEN NEGLECTED)	UNITLESS
V_B	THE VOLUME OF RUNOFF EXFILTRATED OUT OF THE BOTTOM OF THE TRENCH WITHIN 1 HOUR $V_B = KH_2WL(3{,}600)$	FT^3
V_S	THE VOLUME OF RUNOFF EXFILTRATED OUT OF THE SIDES OF THE TRENCH WITHIN 1 HOUR $V_S = 2KL[D_u(H_2 - 0.5D_u) + D_sH_2](3{,}600)$	FT^3
V	SETTING THE WATER-QUALITY VOLUME EQUAL TO THE VOLUME OF RUNOFF STORED IN THE TRENCH PLUS THE VOLUME EXFILTRATED WITHIN 1 HOUR $V = 0.5WD_uL + KH_2WL(3{,}600) + 2KL[D_u(H_2 - 0.5D_u) + D_sH_2](3{,}600)$.	FT^3
BASE	ASSUMED 4" ASHPHALT	IN
SELECT BACKFILL	ASSUMED 12" BACKFILL	IN
WATER TABLE	AVERAGE WET SEASON WATER TABLE EVEVATION IS 5.8 FT	FT



EXPLANATION

H_2 Height of ground surface above the design water table

D_u Volume of runoff that can be stored

D_S Depth of trench below the water table

Site Data	Surface Type		Area
Property Area			89,179.0
Impervious Area	Concrete	Sidewalk	3,093.5
		Wall	357.0
	Asphalt	Sidewalk	1,724.8
		Driveway	22,310.4
	Brick Sidewalk		3,161.5
	Building Roof		11,127.9
	Total Impervious		41,774.9
Green Space Area	Landscape		47,404.1

EXISTING DRAINAGE AREA (5-YEAR-1 HOUR STORM)								
DRAINAGE AREA	A (AC)	C	I (IN/HR)	DEPTH (IN)	Q (CFS)	V (AC-FT)	V (CF)	Outfall
DA-1	0.275	0.9	3.20	3.3	0.791	0.076	3293	SP-1
DA-2	0.199	0.9	3.20	3.3	0.573	0.055	2387	SP-2
DA-3	0.327	0.9	3.20	3.3	0.942	0.090	3921	SP-3
DA-4	0.096	0.9	3.20	3.3	0.276	0.026	1151	LANDSCAPE
DA-BYPASS 1	0.563	0.4	3.20	3.3	0.716	0.155	6739	LANDSCAPE
DA-BYPASS 2	0.440	0.4	3.20	3.3	0.507	0.121	5277	LANDSCAPE
DA-BYPASS 3	0.146	0.3	3.20	3.3	0.140	0.040	1749	LANDSCAPE
TOTAL DA	2.05							

Existing Water-Quality and Water-Quantity Capacity of the site										
Existing SWM Devices	W	L	H_2	D_u	D_s	K	V_s (Stored)	V_B	V_S (Exfiltrated from sides)	V
SOAK PIT 1 (SP-1)	4	25	5.8	4.47	9.20	2.0200E-04	223.33	421.78	2519.42	3164.53
SOAK PIT 2 (SP-2)	4	25	5.8	4.47	9.20	2.0200E-04	223.33	421.78	2519.42	3164.53
SOAK PIT 3 (SP-3)	4	50	5.8	4.47	9.20	2.0200E-04	446.67	843.55	5038.85	6329.07

SWM LEGEND

EXISTING DRAINAGE DIVIDE

SP-X EXISTING SOAK PIT (EXFILTRATION)

N

30 0 30 60

SCALE OF FEET

1" = 30'

ELM ARCH

8950 SW 74TH Court

Suite 1204

Miami, FL 33156

786-391-2646

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TITLE: C2.01 - PRE-DEVELOPMENT DRAINAGE AREA MAP

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DESIGN NARRATIVE:

THE PROJECT INCLUDES THE EXPANSION OF THE MIAMI LAKES BRANCH LIBRARY LOCATED AT 6699 WINDMILL GATE ROAD IN MIAMI LAKES FLORIDA. THE PROPOSED IMPROVEMENTS INCLUDE THREE BUILDING ADDITIONS TO THE EXISTING ONE-STORY BUILDING, RESTRIPING AND REPAIR OF THE EXISTING PARKING LOT, NEW PERMEABLE PAVER PARKING SPACES NEW LANDSCAPING, NEW WALKWAYS WITH BENCHES AND SEATING, AND ADDITIONAL UTILITY SERVICES

EXISTING STORMWATER FACILITIES INCLUDE THREE EXISTING SOAK PITS IDENTIFIED ON SITE IN THE PARKING LOT THAT CAPTURE AND INFILTRATE STORMWATER RUNOFF FROM THE ENTIRE SITE.

IN ORDER TO DETERMINE THE HYDRAULIC CONDUCTIVITY (K) VALUES FOR USE IN DRAINAGE EVALUATION, A PERCOLATION TEST WAS PERFORMED ON SITE BY GEOSOL, INC. AND THE RESULT HAS BEEN PROVIDED IN THE REPORT ON MAY 20, 2021.

THE GROUNDWATER DEPTHS ENCOUNTERED RANGED FROM ABOUT 5.0 TO 6.3 FEET BELOW EXISTING GRADES WITH AN AVERAGE OF ABOUT 5.8 FEET.

THE TEST RESULTS FROM FOUR SOIL BORING LOCATIONS ON SITE INDICATES THE LOWEST HYDRAULIC CONDUCTIVITY RATE IS 0.000202 (CFS/FT^2-FT HEAD) AND THE HIGHEST RATE IS 0.000256 (CFS/FT^2-FT HEAD).

THE SIZE OF SOAK PITS AND LOCATION OF THEM ON SITE WAS INDICATED ON THE RECORD AND AS-BUILT DRAWING AND VERIFIED BY SURVEYOR ON SITE.

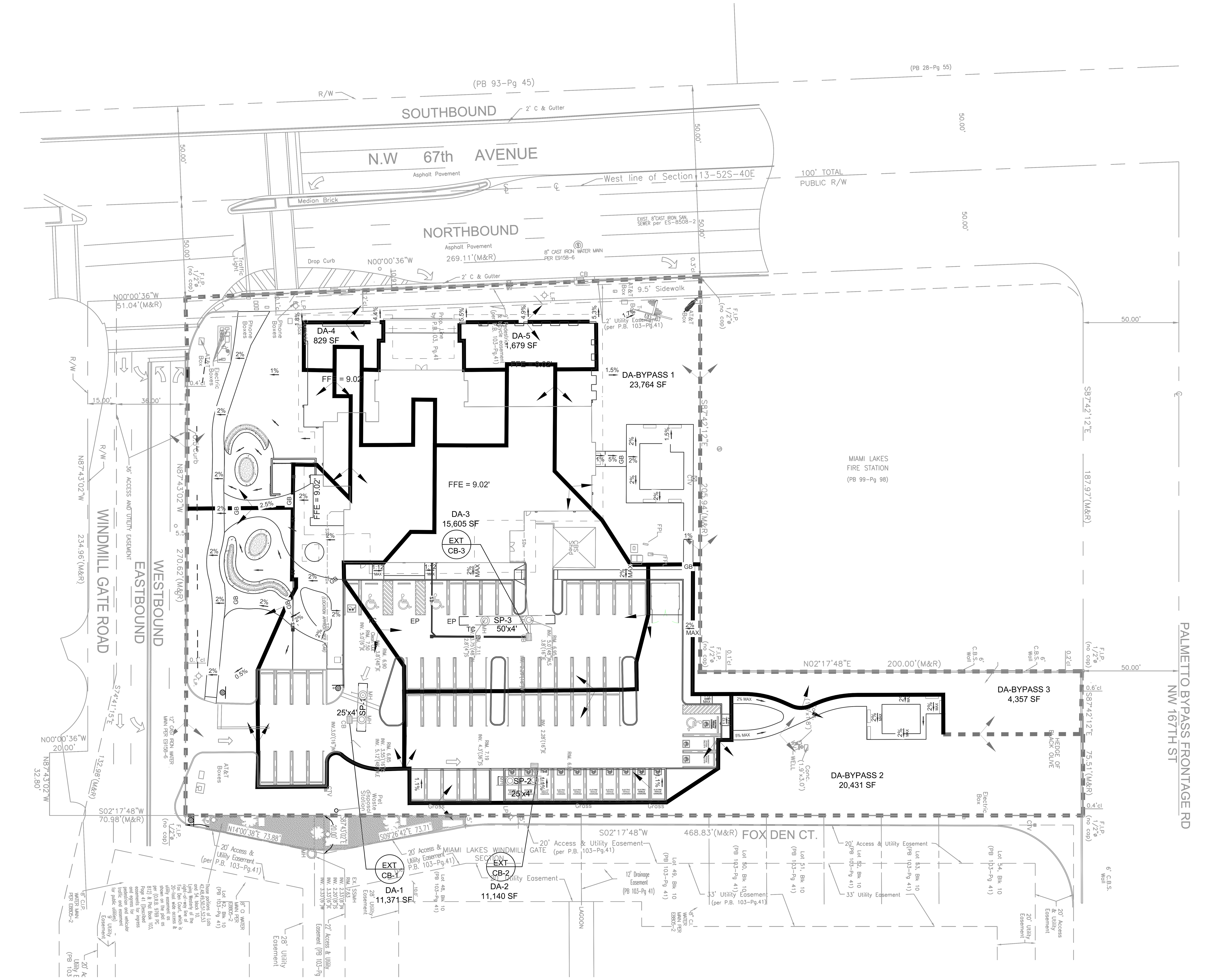
THE EXISTING AND PROPOSED RESULTS HAVE BEEN SUMMARIZED IN THE TABLE BELOW AND INDICATES THAT THE DRAINAGE AREA-3 HAS BEEN IMPROVED TO MAXIMIZE AND USE THE ENTIRE CAPACITY OF EXISTING SOAK PIT 3.

RESULT SUMMARY

EXISTING SUMMARY				PROPOSED SUMMARY			EXISTING SOAK PITS	
DRAINAGE AREA	*A (AC)*	*V (CF)*	*Outfall*	*A (AC)*	*V (CF)*	*Outfall*	*Existing SWM Devices*	*V (CF)*
DA-1	0.275	3293	SP-1	0.261	3127	SP-1	*SOAK PIT 1 (SP-1)*	3164.53
DA-2	0.199	2387	SP-2	0.256	3064	SP-2	*SOAK PIT 2 (SP-2)*	3164.53
DA-3	0.327	3921	SP-3	0.358	4291	SP-3	*SOAK PIT 3 (SP-3)*	6329.07

	Description	Units
H_2	THE HEIGHT OF THE GROUND SURFACE ABOVE THE DESIGN WATER TABLE	FT
K	HYDRAULIC CONDUCTIVITY	CFS/FT^2-FT.HEAD
D_s	THE DEPTH OF THE TRENCH BELOW WATER TABLE	FT
D_u	UNSATURATED TRENCH DEPTH	FT
W	TRENCH WIDTH	FT
L	TRENCH LENGTH	FT
V_s	VOLUME RUNOFF THAT CAN STORED $V_S = 0.5W\ D_u L$	FT^3
0.5	AVERAGE VOID RATIO WITHIN THE TRENCH (STORAGE IN THE PERFORATED PIPE HAS BEEN NEGLECTED)	UNITLESS
V_B	THE VOLUME OF RUNOFF EXFILTRATED OUT OF THE BOTTOM OF THE TRENCH WITHIN 1 HOUR $V_B = KH_2WL(3{,}600)$	FT^3
V_S	THE VOLUME OF RUNOFF EXFILTRATED OUT OF THE SIDES OF THE TRENCH WITHIN 1 HOUR $V_S = 2KL[D_u(H_2-0.5D_u)+D_sH_2](3{,}600)$	FT^3
V	SETTING THE WATER-QUALITY VOLUME EQUAL TO THE VOLUME OF RUNOFF STORED IN THE TRENCH PLUS THE VOLUME EXFILTRATED WITHIN 1 HOUR $V = 0.5WD_uL + KH_2WL(3{,}600) + 2KL[D_u(H_2-0.5D_u)+D_sH_2](3{,}600).$	FT^3
BASE	ASSUMED 4" ASHPHALT	IN
SELECT BACKFILL	ASSUMED 12" BACKFILL	IN
WATER TABLE	AVERAGE WET SEASON WATER TABLE EVEVATION IS 5.8 FT	FT

Site Data	Surface Type		Area
Property Area			89,179.0
Impervious Area	Concrete	*Sidewalk*	8,317.9
		Seating	790.8
	Asphalt	*Sidewalk*	0.0
		Parking Lot	20,342.8
	Brick Sidewalk		5,014.9
	Pervious Pavers		2,030.9
	Building Roof		15,896.0
	Total Impervious		52,393.2
Green Space Area	Landscape		36,785.8



SWM LEGEND

EXISTING DRAINAGE DIVIDE

PROPOSED DRAINAGE DIVIDE

SP-X EXISTING SOAK PIT (EXFILTRATION)

PROPOSED DRAINAGE AREA (5-YEAR-1 HOUR STORM)

DRAINAGE AREA	*A (AC)*	*C*	*I (IN/HR)*	*DEPTH (IN)*	*Q (CFS)*	*V (AC-FT)*	*V (CF)*	*Outfall*
DA-1	0.261	0.9	3.20	3.3	0.751	0.072	3127	SP-1
DA-2	0.256	0.9	3.20	3.3	0.736	0.070	3064	SP-2
DA-3	0.358	0.9	3.20	3.3	1.031	0.099	4291	SP-3
DA-4	0.019	0.9	3.20	3.3	0.055	0.005	228	LANDSCAPE
DA-5	0.039	0.9	3.20	3.3	0.111	0.011	462	LANDSCAPE
DA-BYPASS 1	0.546	0.9	3.20	3.3	1.570	0.150	6535	LANDSCAPE
DA-BYPASS 2	0.469	0.5	3.20	4.3	0.750	0.168	7321	LANDSCAPE
DA-BYPASS 3	0.100	0.3	3.20	5.3	0.096	0.044	1924	LANDSCAPE
TOTAL DA	2.05							

Existing Water-Quality and Water-Quantity Capacity of the site

Existing SWM Devices	W	L	H_2	D_u	D_s	K	V_s *(Stored)*	V_B	V_S *(Exfiltrated from sides)*	V
SOAK PIT 1 (SP-1)	4	25	5.8	4.47	9.20	2.0200E-04	223.33	421.78	2519.42	3164.53
SOAK PIT 2 (SP-2)	4	25	5.8	4.47	9.20	2.0200E-04	223.33	421.78	2519.42	3164.53
SOAK PIT 3 (SP-3)	4	50	5.8	4.47	9.20	2.0200E-04	446.67	843.55	5038.85	6329.07

30 0 30 60 1" = 30'

SCALE OF FEET

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida:
HOLLY B. ADAMS LICENSE No 96658 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION
21000 ATLANTIC BLVD, SUITE 400
DULLES,VA 20166
703-450-0800
www.alphacorporation.com

OWNER:

Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

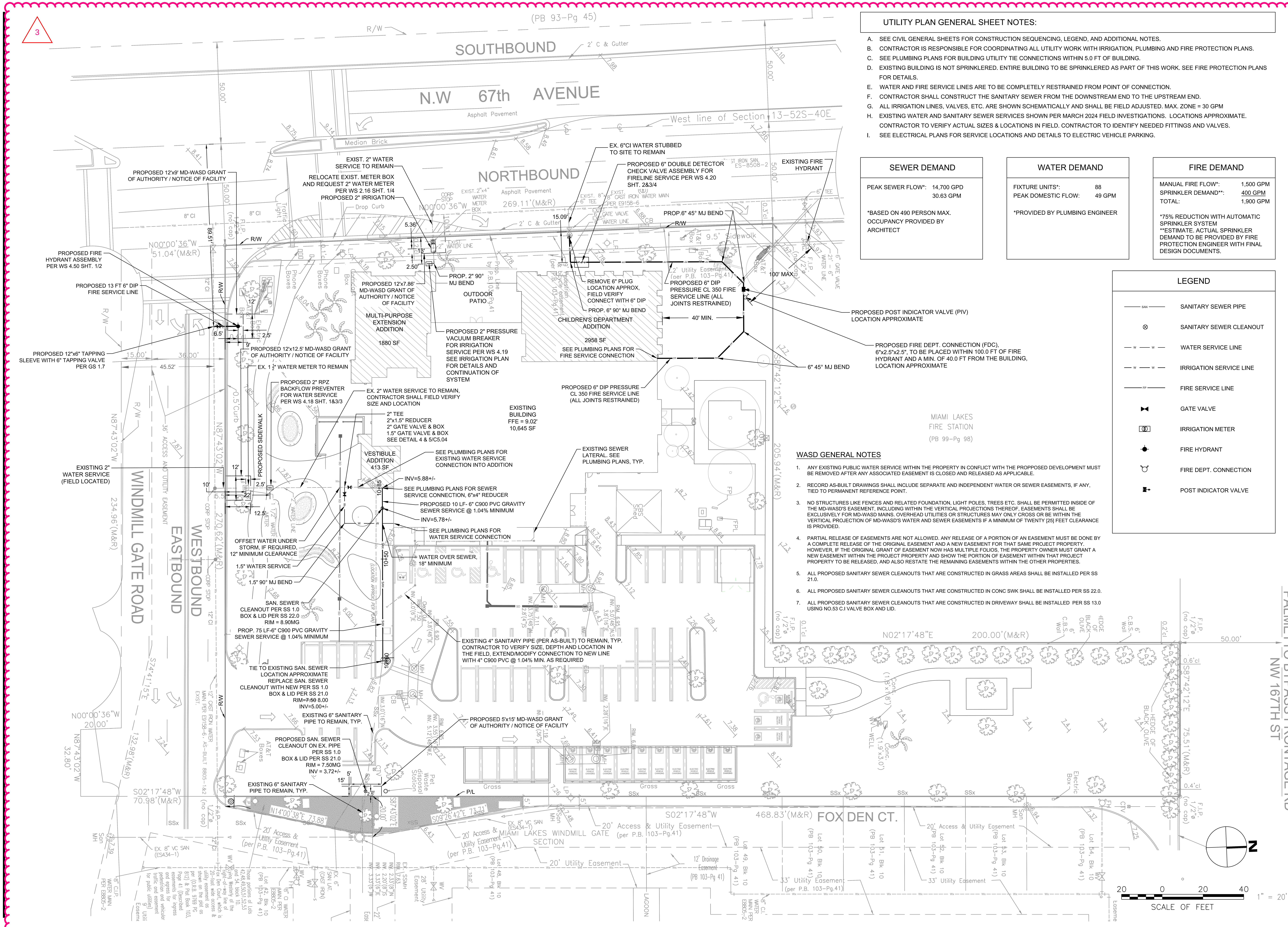
TITLE: C2.02 - POST-DEVELOPMENT DRAINAGE AREA MAP

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C2.02



UTILITY PLAN GENERAL SHEET NOTES:

A. SEE CIVIL GENERAL SHEETS FOR CONSTRUCTION SEQUENCING, LEGEND, AND ADDITIONAL NOTES.
B. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL UTILITY WORK WITH IRRIGATION, PLUMBING AND FIRE PROTECTION PLANS.
C. SEE PLUMBING PLANS FOR BUILDING UTILITY TIE CONNECTIONS WITHIN 5.0 FT OF BUILDING.
D. EXISTING BUILDING IS NOT SPRINKLERED. ENTIRE BUILDING TO BE SPRINKLERED AS PART OF THIS WORK. SEE FIRE PROTECTION PLANS FOR DETAILS.
E. WATER AND FIRE SERVICE LINES ARE TO BE COMPLETELY RESTRAINED FROM POINT OF CONNECTION.
F. CONTRACTOR SHALL CONSTRUCT THE SANITARY SEWER FROM THE DOWNSTREAM END TO THE UPSTREAM END.
G. ALL IRRIGATION LINES, VALVES, ETC. ARE SHOWN SCHEMATICALLY AND SHALL BE FIELD ADJUSTED. MAX. ZONE = 30 GPM
H. EXISTING WATER AND SANITARY SEWER SERVICES SHOWN PER MARCH 2024 FIELD INVESTIGATIONS. LOCATIONS APPROXIMATE. CONTRACTOR TO VERIFY ACTUAL SIZES & LOCATIONS IN FIELD. CONTRACTOR TO IDENTIFY NEEDED FITTINGS AND VALVES.
I. SEE ELECTRICAL PLANS FOR SERVICE LOCATIONS AND DETAILS TO ELECTRIC VEHICLE PARKING.

SEWER DEMAND

PEAK SEWER FLOW*:	14,700 GPD
	30.63 GPM

*BASED ON 490 PERSON MAX. OCCUPANCY PROVIDED BY ARCHITECT

WATER DEMAND

FIXTURE UNITS*:	88
PEAK DOMESTIC FLOW:	49 GPM

*PROVIDED BY PLUMBING ENGINEER

FIRE DEMAND

MANUAL FIRE FLOW*:	1,500 GPM
SPRINKLER DEMAND**:	400 GPM
TOTAL:	1,900 GPM

*75% REDUCTION WITH AUTOMATIC SPRINKLER SYSTEM
**ESTIMATE. ACTUAL SPRINKLER DEMAND TO BE PROVIDED BY FIRE PROTECTION ENGINEER WITH FINAL DESIGN DOCUMENTS.

LEGEND

- SANITARY SEWER PIPE
- SANITARY SEWER CLEANOUT
- WATER SERVICE LINE
- IRRIGATION SERVICE LINE
- FIRE SERVICE LINE
- GATE VALVE
- IRRIGATION METER
- FIRE HYDRANT
- FIRE DEPT. CONNECTION
- POST INDICATOR VALVE

WASD GENERAL NOTES

1. ANY EXISTING PUBLIC WATER SERVICE WITHIN THE PROPERTY IN CONFLICT WITH THE PROPPOSED DEVELOPMENT MUST BE REMOVED AFTER ANY ASSOCIATED EASEMENT IS CLOSED AND RELEASED AS APPLICABLE.
2. RECORD AS-BUILT DRAWINGS SHALL INCLUDE SEPARATE AND INDEPENDENT WATER OR SEWER EASEMENTS, IF ANY, TIED TO PERMANENT REFERENCE POINT.
3. NO STRUCTURES LIKE FENCES AND RELATED FOUNDATION, LIGHT POLES, TREES ETC. SHALL BE PERMITTED INSIDE OF THE MD-WASD'S EASEMENT, INCLUDING WITHIN THE VERTICAL PROJECTIONS THEREOF, EASEMENTS SHALL BE EXCLUSIVELY FOR MD-WASD MAINS. OVERHEAD UTILITIES OR STRUCTURES MAY ONLY CROSS OR BE WITHIN THE VERTICAL PROJECTION OF MD-WASD'S WATER AND SEWER EASEMENTS IF A MINIMUM OF TWENTY [25] FEET CLEARANCE IS PROVIDED.
4. PARTIAL RELEASE OF EASEMENTS ARE NOT ALLOWED. ANY RELEASE OF A PORTION OF AN EASEMENT MUST BE DONE BY A COMPLETE RELEASE OF THE ORIGINAL EASEMENT AND A NEW EASEMENT FOR THAT SAME PROJECT PROPERTY. HOWEVER, IF THE ORIGINAL GRANT OF EASEMENT NOW HAS MULTIPLE FOLIOS, THE PROPERTY OWNER MUST GRANT A NEW EASEMENT WITHIN THE PROJECT PROPERTY AND SHOW THE PORTION OF EASEMENT WITHIN THAT PROJECT PROPERTY TO BE RELEASED, AND ALSO RESTATE THE REMAINING EASEMENTS WITHIN THE OTHER PROPERTIES.
5. ALL PROPOSED SANITARY SEWER CLEANOUTS THAT ARE CONSTRUCTED IN GRASS AREAS SHALL BE INSTALLED PER SS 21.0.
6. ALL PROPOSED SANITARY SEWER CLEANOUTS THAT ARE CONSTRUCTED IN CONC SWK SHALL BE INSTALLED PER SS 22.0.
7. ALL PROPOSED SANITARY SEWER CLEANOUTS THAT ARE CONSTRUCTED IN DRIVEWAY SHALL BE INSTALLED PER SS 13.0 USING NO.53 C.I VALVE BOX AND LID.

ELM ARCH
8950 SW 74TH Court
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DULLES,VA 20166
703-450-0800
www.alphacorporation.com

OWNER:

Miami Lakes Branch Library

6699 Windmill Gate Road
Miami Lakes, FL 33014

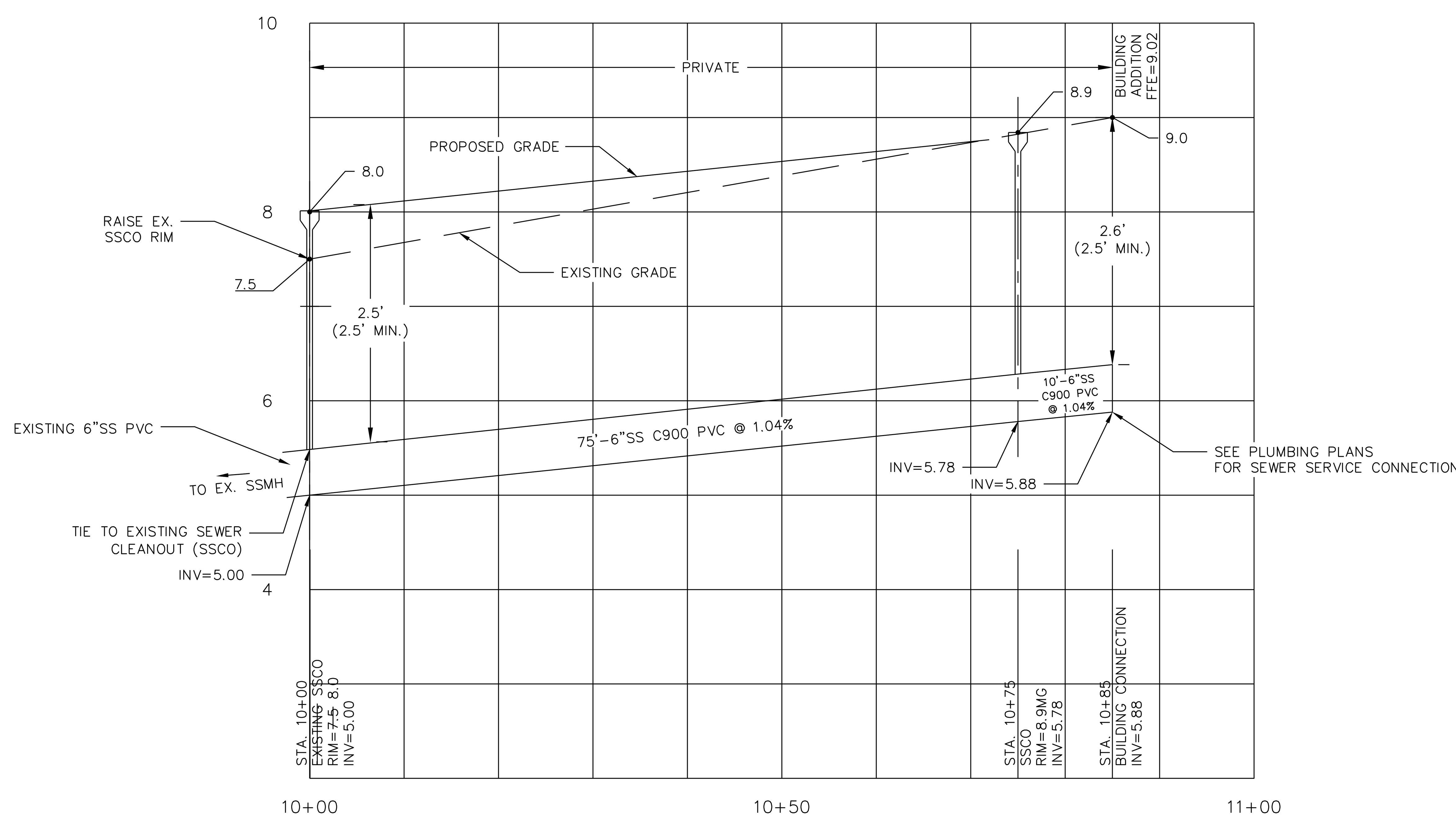
SHEET TITLE: C3.00 - UTILITY PLAN

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C3.00



SEWER PROFILE

STA. 10+00 – 10+85

SCALE: 1"=10' HORIZONTAL
SCALE: 1" = 1' VERTICAL

3

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DULLES,VA 20166
703-450-0800
www.alphacorporation.com

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Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

SHEET TITLE: C3.01 SEWER PROFILE

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C3.01

STORMWATER POLLUTION PREVENTION PLAN

NARRATIVE DESCRIPTION

The Stormwater Pollution Prevention Plan (SWPPP) Narrative Description contains references to the Contract Documents, the State of Florida Erosion & Sediment Control Designer and Reviewer Manual (E&SC Manual), the FDOT Design Standards, and other sheets of these Construction Documents. The complete SWPPP is comprised of several items including: this narrative description, the documents referenced in this narrative, the Contractor's approved Erosion Control Plan (ECP) prepared and submitted in accordance with the Contract Documents, and reports of inspections made during construction. All of which are complementary to the signed and certified SWPPP. The Contractor is required to maintain copies of the aforementioned items on site, including all applicable permits.

1. Site Description

a. Nature of Construction Activities: This project consists of exterior and interior improvement of existing library including additional building square footage, improved facade, new roof, new windows, new courtyard, new landscape and irrigation and construction of new walking paths, and parking lot reconfiguration.

b. The Contractor shall provide in the ECP a detailed sequence of construction for all construction activities. Each construction phase requires the installation of perimeter controls, after clearing and grubbing as necessary for the installation of controls, prior to beginning work. The Contractor shall follow the sequence of major activities below, unless the Contractor proposes an alternative sequence that is equal or improves the control of erosion and trapping sediment, and is approved by the Inspector.

1) Earthwork for proposed surface and underground improvements, construction of improvements.

2) Final grading, landscaping, and stabilization.

c. Area Estimates

1) Total Site Area: 2.05 AC

2) Total Pre-Develoment Pervious Area: 1.09 AC

3) Total Pre-Development Impervious Area: 0.96 AC

4) Total Post-Development Pervious Area: 0.85 AC

5) Total Post-Development Impervious Area: 1.20 AC

d. Existing data describing the soil or the quality of any discharge from the site and an estimate of the size of the drainage area for each discharge point

4) The generated discharge does not leave the site. Additionally, the proposed work does not create additional discharge due to the site infiltration rates, thus no changes to hydrology occur.

e. Site Map: The associated construction plan sheets shall be used as the site map. Locations of the required information are described below.

5) The slopes and drainage divides of the site can be seen on the construction plan sheets

6) The areas to be disturbed are indicated on the construction plan sheets. Any areas where permanent features are shown to be constructed above or below ground will be disturbed.

7) The areas of the site that are outside of the limits of construction are not expected to be disturbed.

8) Temporary sediment control devices shall be installed at all location where disturbance of soils will occur. Additional measures may be required as necessary where stormwater runoff has the potential to reach surface waters or offsite collections facilities.

9) Areas of permanent stabilization are shown on the construction plan sheets

f. Discharge Point(s): This site does not have a discharge point.

2. Controls

a. Erosion & Sediment Controls: The Contractor shall describe in the ECP the proposed stabilization and structural practices. The Contractor may choose to accept the following guidelines or modify them in the ECP, subject to approval by the Inspector. As work progresses, the Contractor shall modify the plan to adapt to seasonal variation, changes in construction activities, and the need for better management practices. For each construction phase install perimeter controls after clearing and grubbing necessary for installation of controls but before beginning other work for the construction phase. Remove perimeter controls only after all upstream areas are stabilized. In addition:

- Furnish and place inlet protection systems to control erosion and siltation.
- Install soil tracking prevention devices (STPDs) at all common areas where construction vehicles will be entering and exiting the construction site.
- Sediment barriers shall be installed at the toe of slope of embankments and at locations as described in the Erosion and Sediment Control Details and the E&SC Manual.
- Inlet protection systems shall be used for all existing and proposed inlets subject to sediment runoff.
- Clearing and grubbing operations will be controlled as to minimize unprotected erodible areas exposed to weather. Areas outside the limits of construction shall not be disturbed.
- Excavated materials shall not be deposited in locations where the material could be washed away by high water, rain or stormwater runoff. Stockpiles shall be covered or encircled with sediment barriers.

1) Stabilization Practices: In the ECP, the contractor shall describe the stabilization practices proposed to control erosion. The Contractor shall initiate all stabilization measures as soon as practical, but in no case more than 7 days in portions of the site where construction activities have temporarily or permanently ceased. The stabilization practices shall include at least the following, unless otherwise approved by the Inspector.

a) Temporary: Sod, mulch, and artificial coverings in accordance with the Contract Documents.

b) Permanent: Asphalt or concrete surface, sod, roadside swales, and endwalls in accordance with the Contract documents.

2) Structural Practices: In the ECP, the Contractor shall describe the proposed structural practices to control or trap sediment and otherwise prevent the discharge of pollutants from exposed areas of the site. Sediment controls shall be in place before disturbing soil upstream of the control. The structural practices shall include at least the following, unless otherwise approved by the Inspector.

a) Temporary: Inlet protection systems, sediment barriers and soil tracking prevention devices as per the E&SC Manual and the Contract Documents. See Erosion and Sediment Control details for more information. All sediment controls shall be in place prior to any soil disturbing activity.

b. Permanent Stormwater Management Controls: Stormwater runoff will be conveyed in grass swale systems and roadway trench drains.

c. Control for Other Potential Pollutants: The Contractor shall practice good housekeeping by instituting a clean, orderly construction site. The following controls shall be implemented to further reduce pollution at the project site:

1) Waste Disposal: In the ECP, the contractor shall describe the proposed methods to prevent the discharge of solid materials, including building materials, to waters of the United States. The proposed methods shall include at least the following, unless otherwise approved by the Inspector.

a) The Contractor shall demonstrate the proper disposal of all construction waste generated within the project limits. Waste may include, but not limited to, vegetation from clearing and grubbing, packaging materials, scrap building materials, litter from traveling public, sewage from sanitary facilities, herbicides and pesticides and their containers, and hydrocarbon products. The Contractor shall designate a waste collection area onsite and delineate the area on the SWPPP Site Map.

b) Sanitary/Septic facilities shall be provided and maintained in a neat and sanitary condition, for the use of the Contractor's employees as necessary to comply with the requirements and regulations of the State and local boards of health. A licensed Sanitary Waste Management Contractor as required by State regulations shall collect all sanitary waste for the portable units.

c) The Contractor will provide litter control and collection within the Project limits during construction activities. The Contractor shall provide an adequate number of litter containers with lids at the staging, stockpile, and field office areas. Waste collection will be scheduled so that containers are emptied prior to overflow. Spilled litter containers shall be cleaned up immediately.

2) Offsite Vehicle Tracking & Generation of Dust: In the ECP, the Contractor shall describe the proposed methods for minimizing offsite vehicle tracking of sediments and generating dust. The proposed methods shall include at least the following, unless otherwise approved by the Inspector.

a) Stabilizing construction entrances as necessary according to the E&SC Manual and the Contract Documents.

b) The Contractor shall take measures to insure the cleanup of sediments that have been tracked by vehicles or have been transported by wind or stormwater around the site or onto nearby roadways.

c) Removing excess dirt from roads daily.

d) Using roadway sweepers during dust generating activities such as excavation and milling operations.

e) Loaded haul trucks shall be covered with tarpaulin.

3) In the ECP, the Contractor shall describe the proposed procedures to comply with applicable State and Local regulations for waste disposal, and sanitary sewer or septic systems.

4) Application of Fertilizer and Pesticides

a) The application and handling of herbicides and pesticides shall be in compliance with the manufacturer's recommended method and in accordance with FDOT Standard Specifications for Road and Bridge Construction as modified by the Contract Documents.

5) Toxic Substances and Materials

a) In The ECP, the Contractor shall provide a list of toxic substances and materials that are likely to be used on the project, and provide a plan addressing the generation, application, migration, storage, and disposal of these substances.

b) Contractor shall provide equipment necessary to contain and clean up spills of hazardous materials, including petroleum products. Spills shall be contained and cleaned up immediately. Spilled material and the equipment used to clean up the spill shall not come in contact with surface waters or be introduced into stormwater systems.

c) The Contractor shall provide a project specific Hazardous Materials Spill Control Plan in order to address the handling of hydrocarbon and hazardous materials.

d) Petroleum products shall be stored in covered areas with secondary containment surrounding the primary containers.

e) Toxic/hazardous materials exposed during construction shall be handled per the FDOT Standard Specifications for Road and Bridge Construction as modified by the Contract Documents.

3. Maintenance: In the ECP, the Contractor shall provide a plan for maintaining all erosion and sediment controls throughout construction. The maintenance plan at a minimum shall comply with the following:

a. Sediment Barriers: 12 Months, or as required, replacement interval in accordance with Contract Specifications.

b. Inlet Protection Systems: Check after every rainfall event. Clean if clogging occurs.

c. The maintenance of these devices shall occur until the Inspector has deemed an area permanently stabilized. It will be the responsibility of the Contractor to remove erosion and sediment control devices.

4. Inspection

a. The Contractor shall be required to conduct daily inspections of all temporary and permanent erosion and sediment control measures within the project area. The Contractor shall maintain, repair and/or replace these items as necessary.

b. The Owner's Representative shall have an inspector review and submit a written report for the project's temporary and permanent erosion and sediment controls for the items listed below at least once every 7 calendar days and/or within 24 hours of a storm that produces 0.5 inches or greater of rain.

1) Points of discharge to municipal separated storm systems.

2) Disturbed areas that have not been stabilized.

3) Areas used for storage of materials that are exposed to precipitation.

4) Structural controls.

5) Stormwater management systems.

6) Construction entrances.

7) Check that the approved Erosion Control Plan has been adhered to.

8) Where sites have been stabilized, inspections shall be conducted at least once every month.

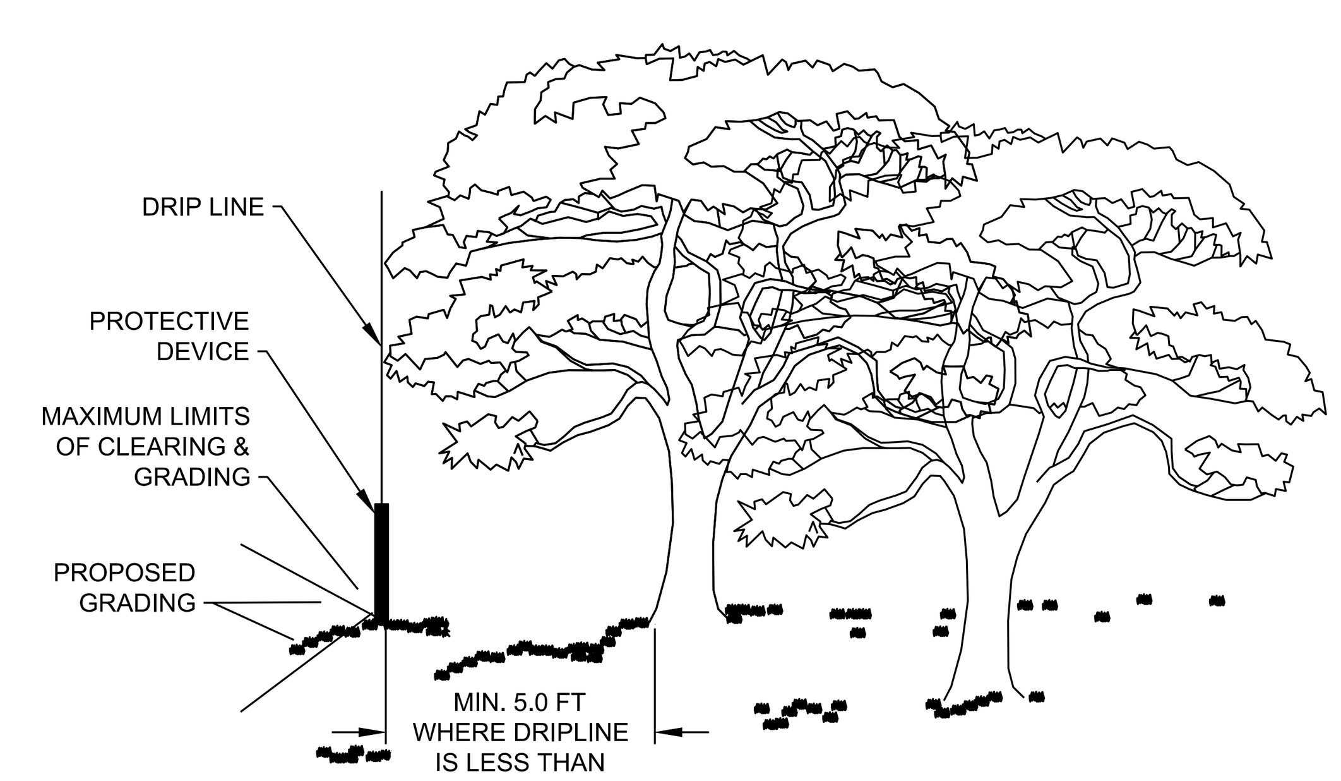
c. The Contractor shall initiate repairs within 24 hours of inspections that indicate items are not in working order.

d. If inspections indicate that the installed stabilization and structural practices are not sufficient to minimize erosion, retain sediment, and prevent discharging pollutants, the Contractor shall provide additional measures, as approved by the Owner.

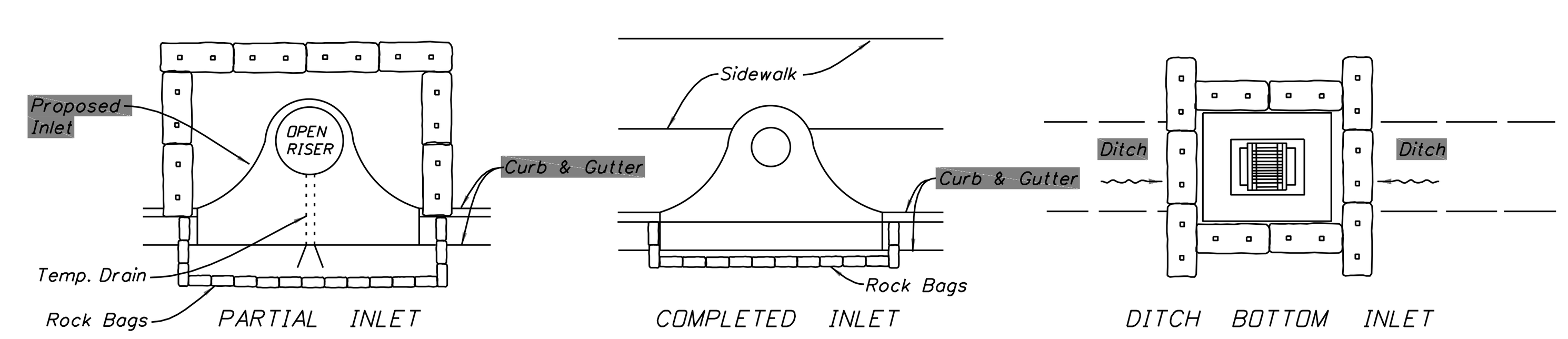
5. Non-Stormwater Discharges

a. In the ECP, the Contractor shall identify all anticipated non-stormwater discharges (except flows from fire fighting activities). The Contractor shall describe the proposed measures to prevent pollution from any identified non-stormwater discharges.

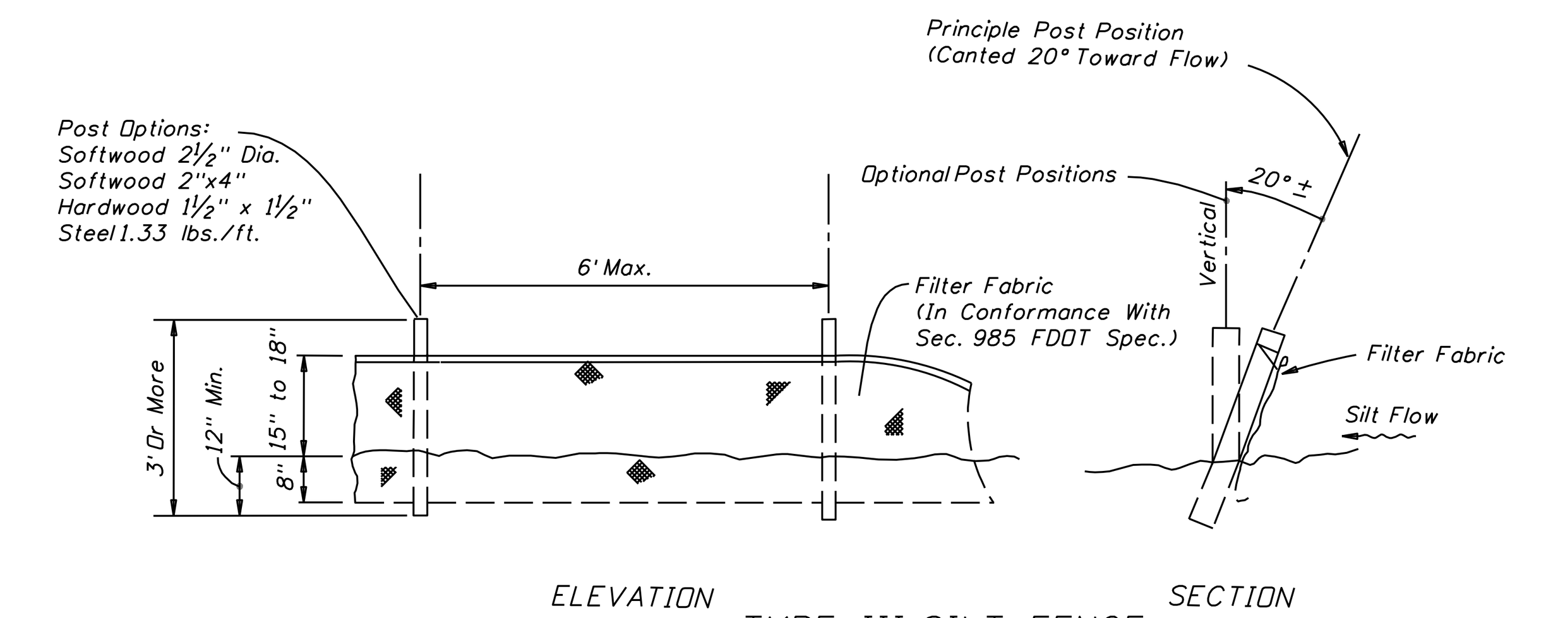
b. If contaminated soil or groundwater is encountered during construction, the Contractor is to cease operations in that area and contact the Miami-Dade County Regulatory and Economic Resources Compliance Desk, at (305) 372-6955.



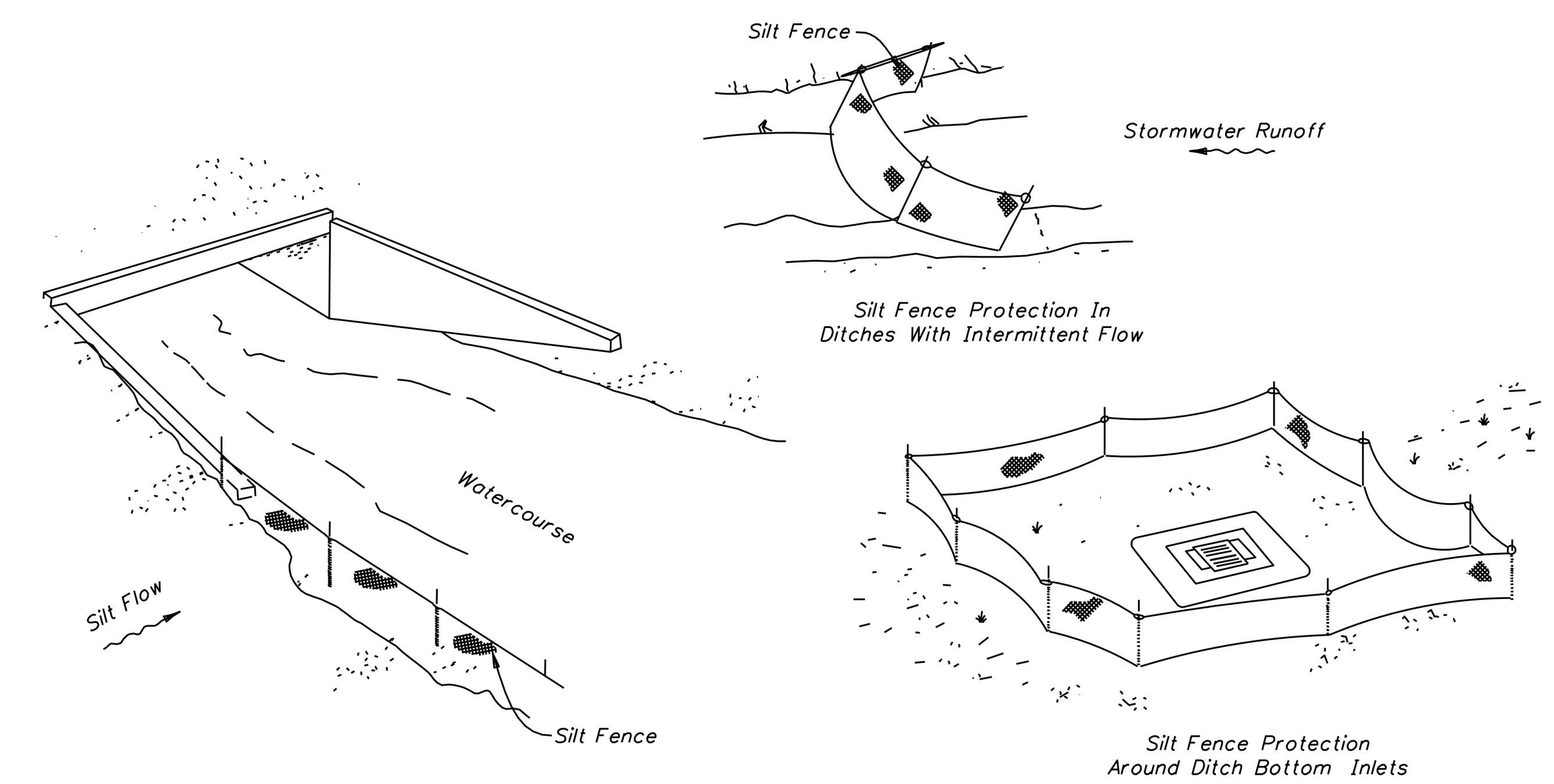
TREE PROTECTION



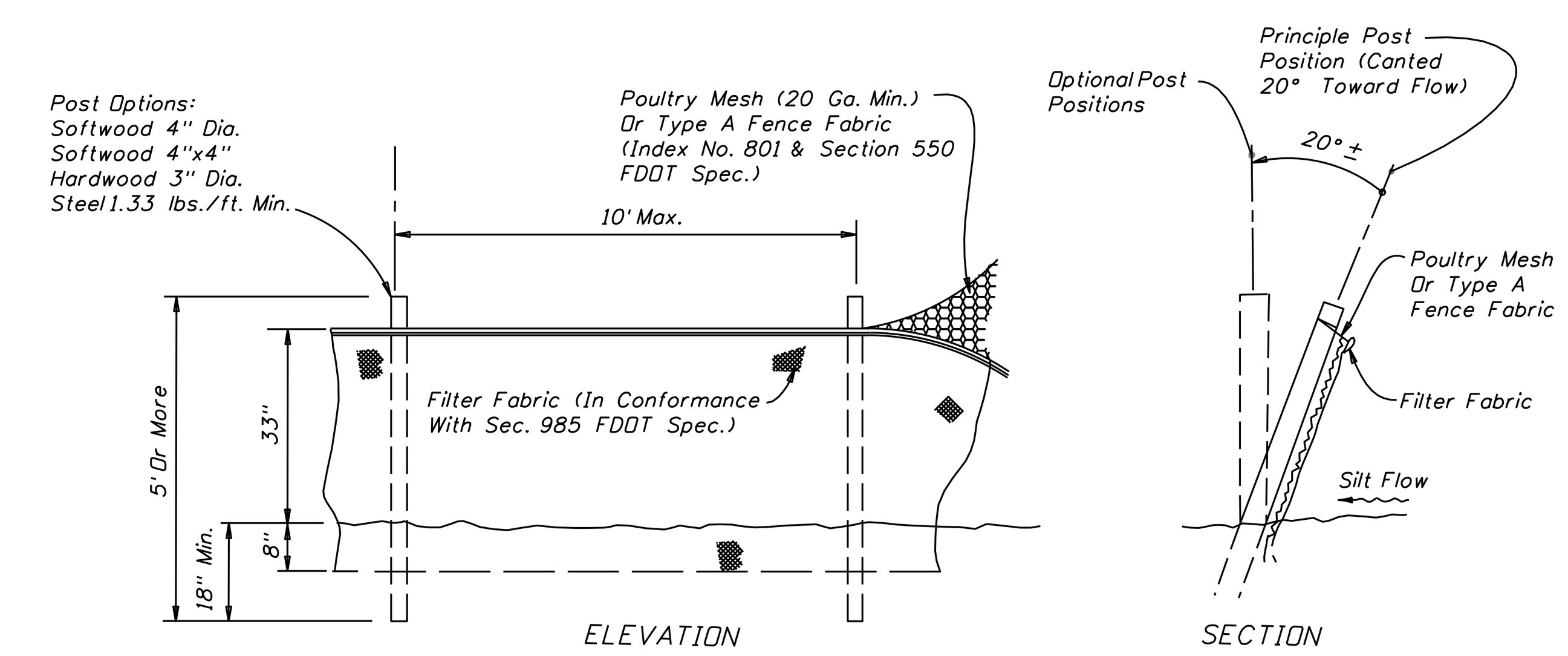
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



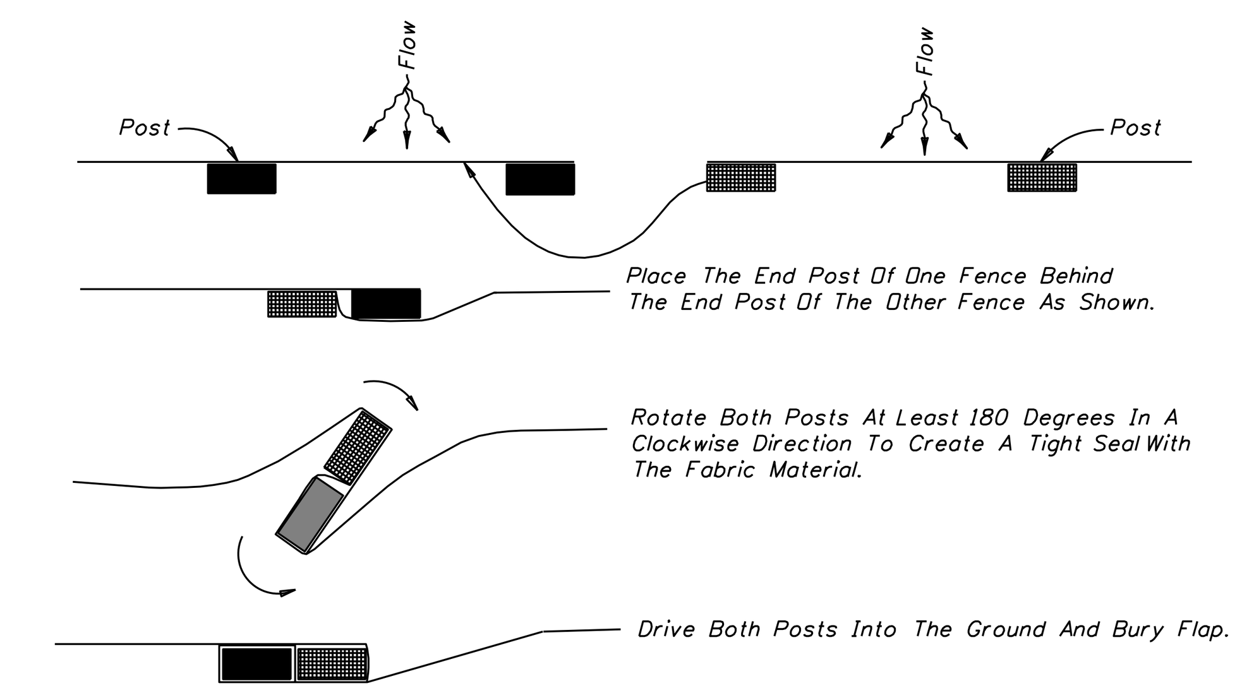
TYPE III SILT FENCE



SILT FENCE APPLICATIONS



TYPE IV SILT FENCE



PLAN VIEW

JOINING TWO SILT FENCES

NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart I, Sheet 1.

2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travellanes or off the right of way.

3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.

4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.

5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
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State of Florida

HOLLY B. ADAMS
LICENSE
No 96658
04/01/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ALPHA CORPORATION

OWNER:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HOLLY ADAMS 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.

Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

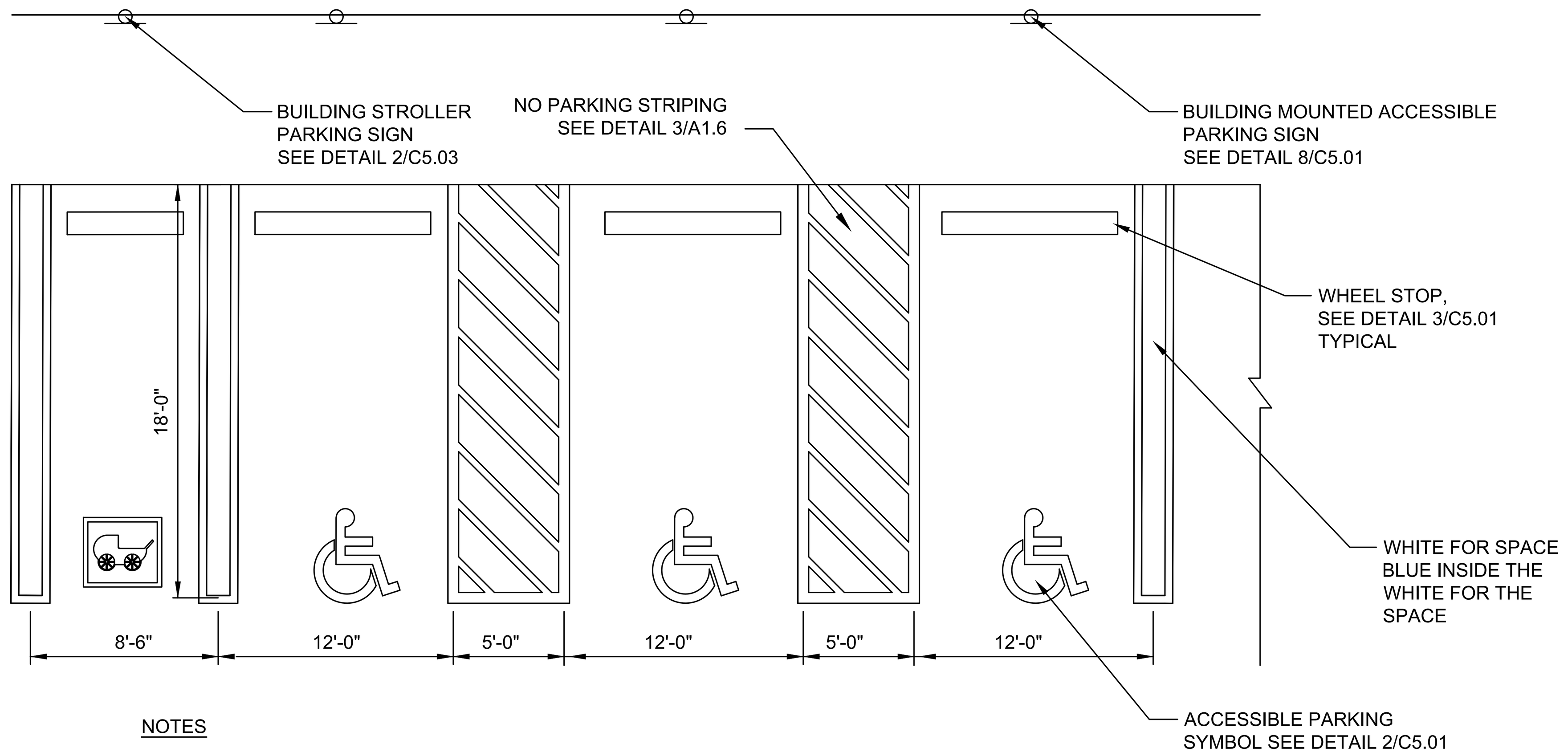
TITLE: EROSION CONTROL NOTES AND DETAILS

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C5.00

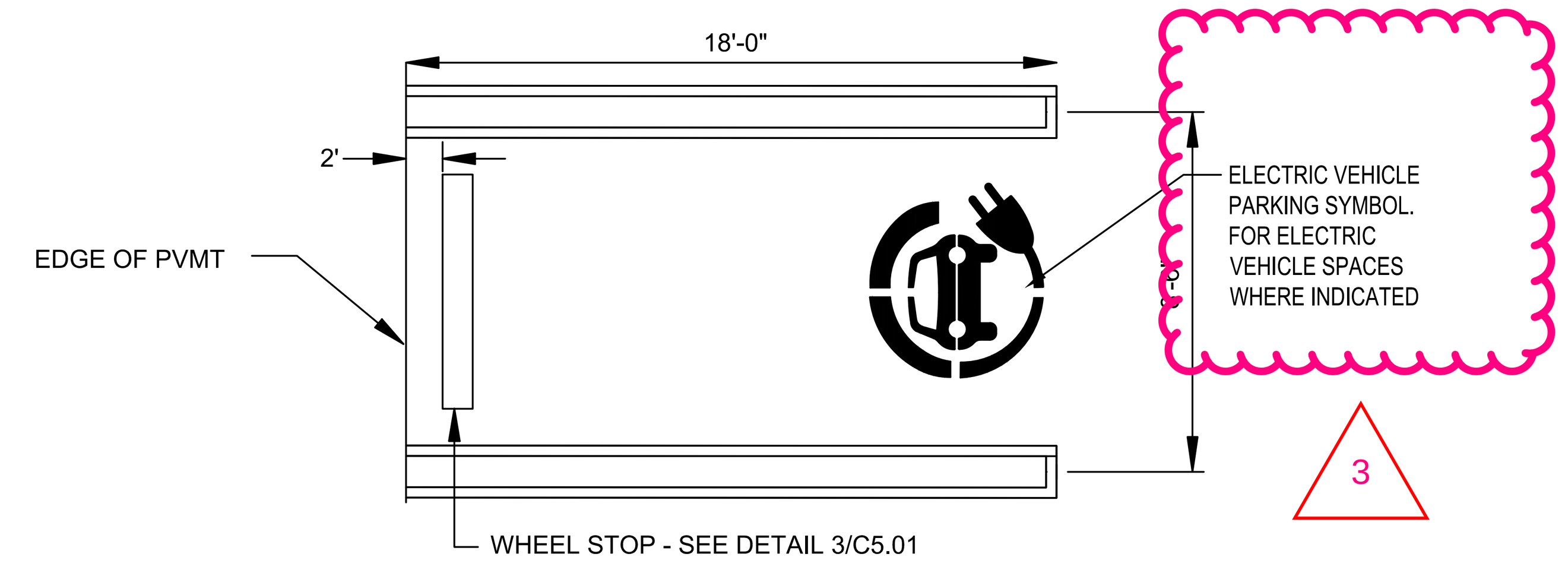


NOTES

1. 2.0% MAX SLOPE ALL DIRECTIONS.
2. CONTRACTOR SHALL COORDINATE ALL PAVEMENT MARKINGS WITH THE COORDINATING OFFICER PRIOR TO COMMENCEMENT OF MARKING.

1 ACCESSIBLE PARKING PAVEMENT MARKING

C1.02 | C5.01 SCALE NTS

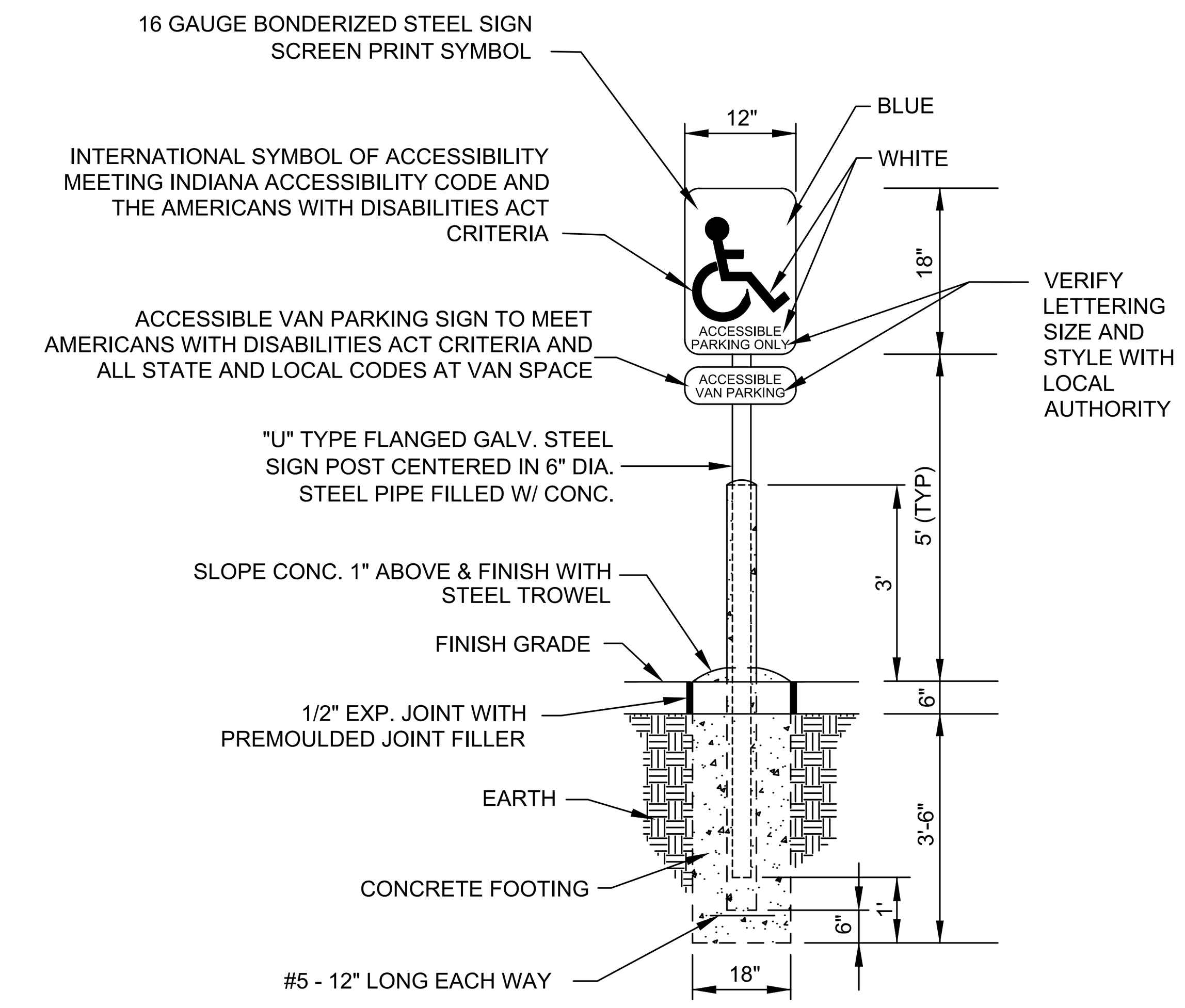


NOTES

1. CONTRACTOR SHALL COORDINATE ALL PAVEMENT MARKINGS WITH THE COORDINATING OFFICER PRIOR TO COMMENCEMENT OF MARKING.

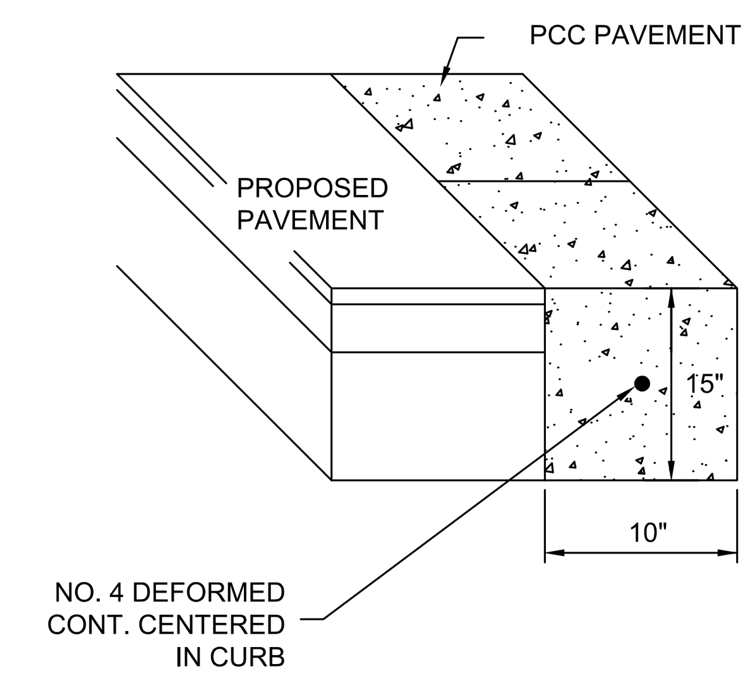
4 TYP PARKING STRIPING

C1.02 | C5.01 SCALE NTS



8 ADA PARKING SIGN

C1.02 | C5.01 SCALE NTS

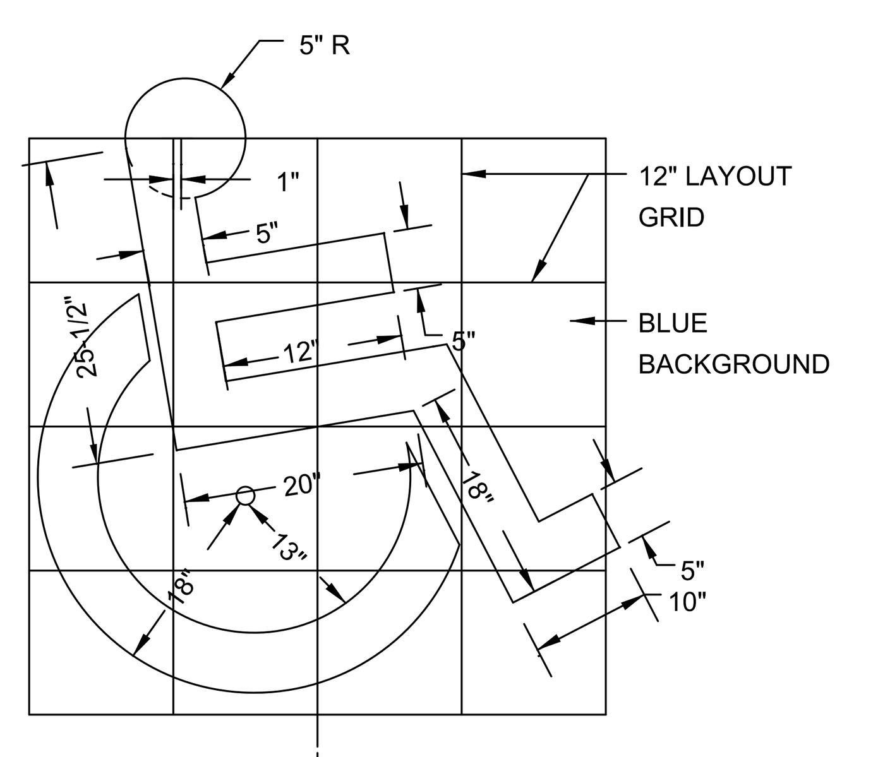


NOTES:

1. CONTROL JOINTS AT FIFTEEN (15) FEET ON CENTER (MAX)

5 CONCRETE PAVER BAND

C1.02 | C5.01 SCALE NTS

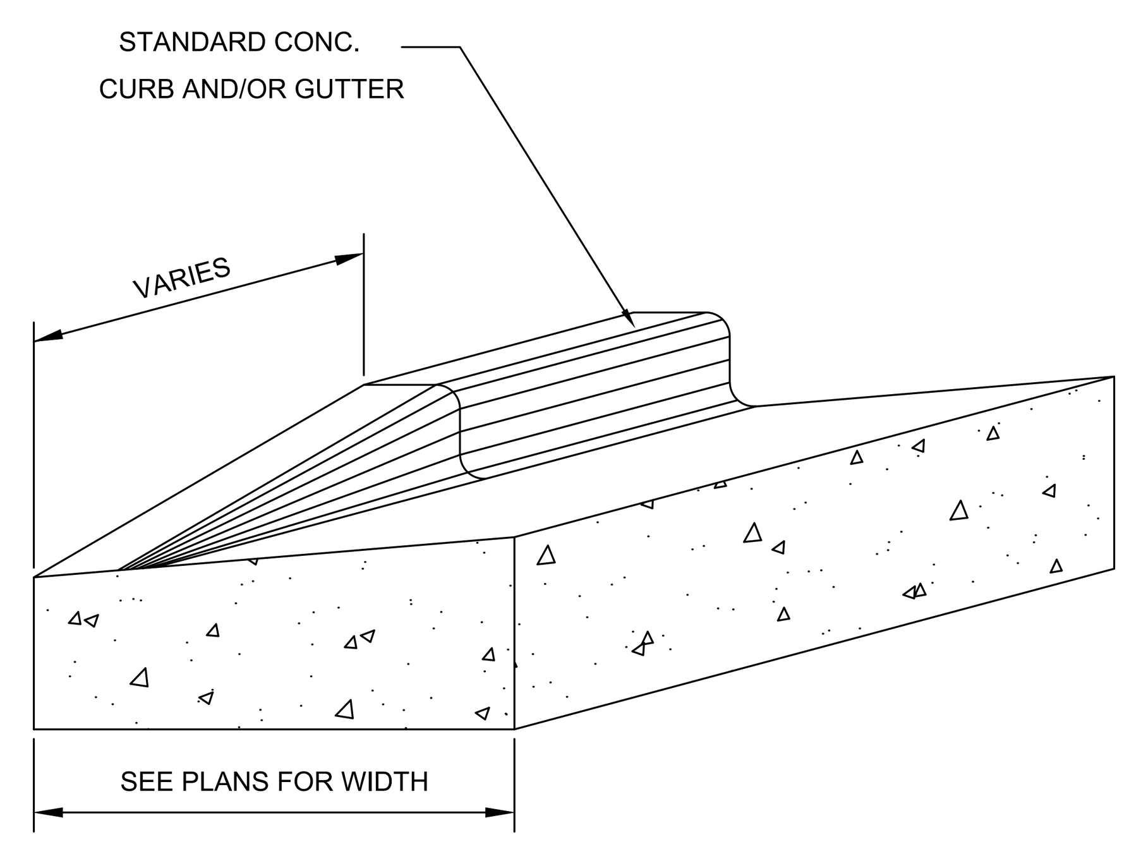


NOTE

1. SYMBOL TO BE WHITE PAINTED WITH BLUE BACKGROUND.

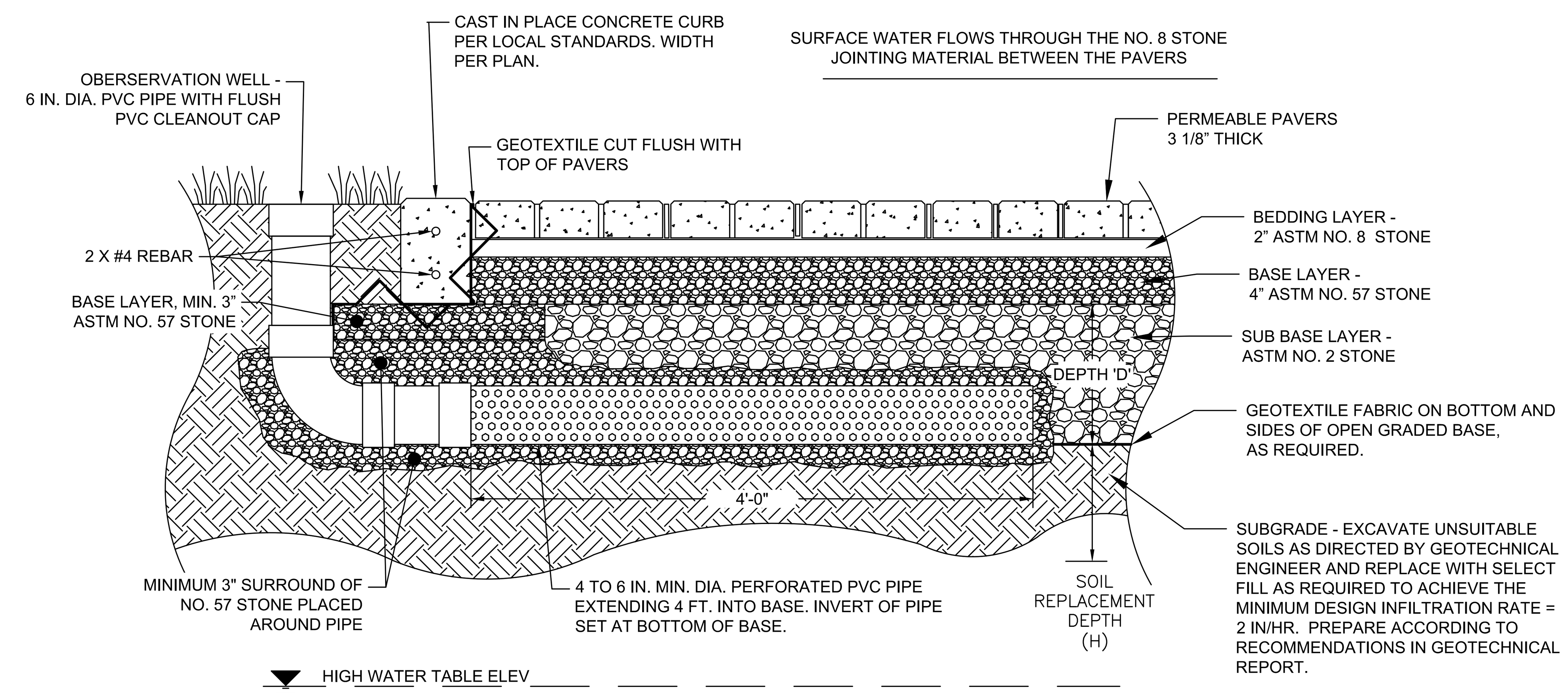
2 ACCESSIBLE PARKING SYMBOL

C5.01 | C5.01 SCALE NTS



6 CURB WIPEDOWN

C1.02 | C5.01 SCALE NTS



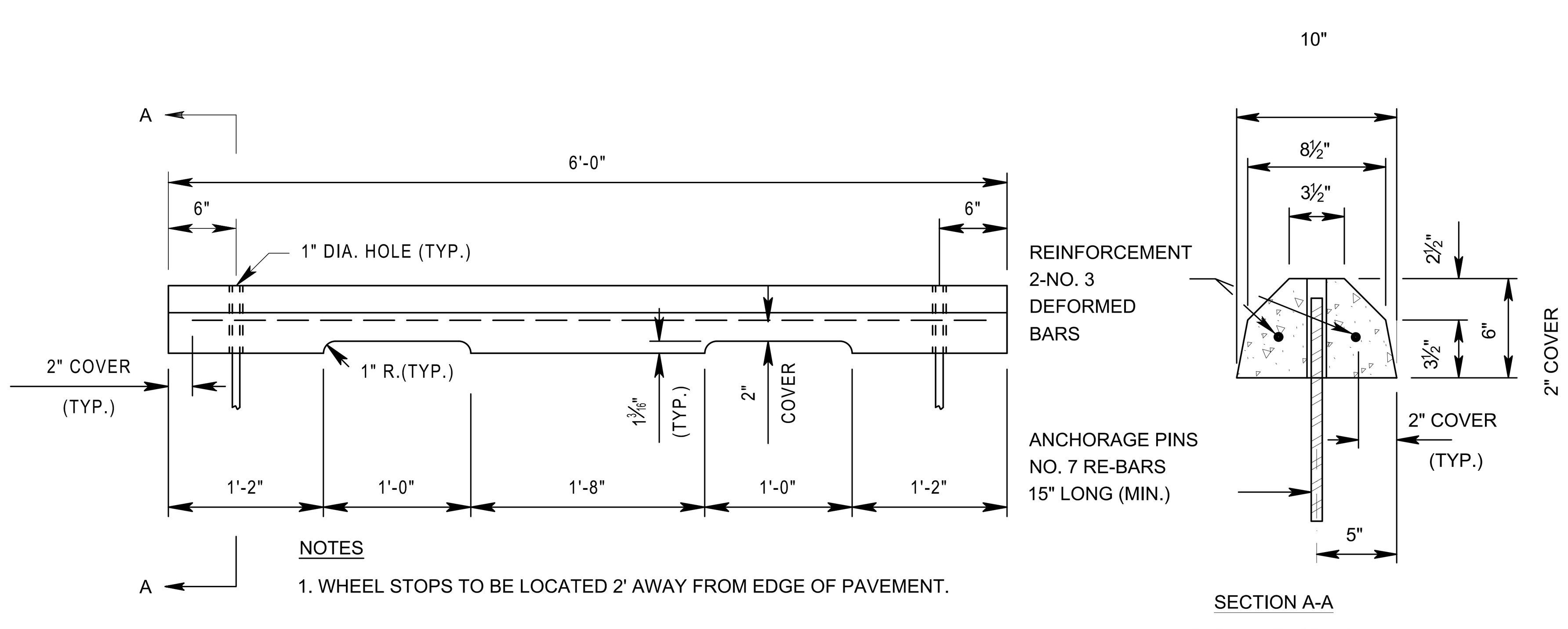
DESIGN NOTES:

1. DEPTH OF SUBBASE SUBJECT TO SITE SPECIFIC HYDRAULIC AND STRUCTURAL REQUIREMENTS.
2. PAVER DIMENSIONS SUBJECT TO ASPECT AND PLAN RATIO REQUIREMENTS BASED ON TRAFFIC LOADING.
3. GEOTECHNICAL ENGINEER NEEDS TO BALANCE STRUCTURAL STABILITY AND SOIL INFILTRATION WHEN RECOMMENDING SUBGRADE CONDITIONS.
4. WHERE THE FILTRATION GEOTEXTILE IS USED, VERIFY THAT THE MATERIAL MEETS REQUIREMENTS OF AASHTO M-288.
5. ASTM NO. 2 STONE MAY BE SUBSTITUTED WITH NO. 3 OR NO. 4 STONE.
6. DRAIN PIPES ARE REQUIRED WITHIN THE AGGREGATE BASE.
7. OBSERVATION PORT SHALL BE LOCATED AT LOWEST SUBGRADE ELEVATION TO MONITOR WATER LEVEL AND INFILTRATION RATE.
8. OBSERVATION PORTS SHOULD BE FITTED WITH A FLUSH PVC CLEANOUT CAP.

LOCATION	ASTM NO. 2 STONE DEPTH (D)	SOIL REPLACEMENT DEPTH (H)
	IN	IN
PARKING LOT	8	AS REQUIRED

7 TYPICAL PERMEABLE PAVER PARKING SECTIOIN

C1.02 | C5.01 SCALE NTS



NOTES

1. WHEEL STOPS TO BE LOCATED 2' AWAY FROM EDGE OF PAVEMENT.

SECTION A-A
(TYPICAL-TYPE I & II)

3 CONCRETE WHEEL STOP

C1.02 | C5.01 SCALE NTS

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OWNER:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HOLLY ADAMS ON THE DATE ADJACENT TO THE SEAL.

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Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

TITLE: C5.01 - SITE DETAILS 1

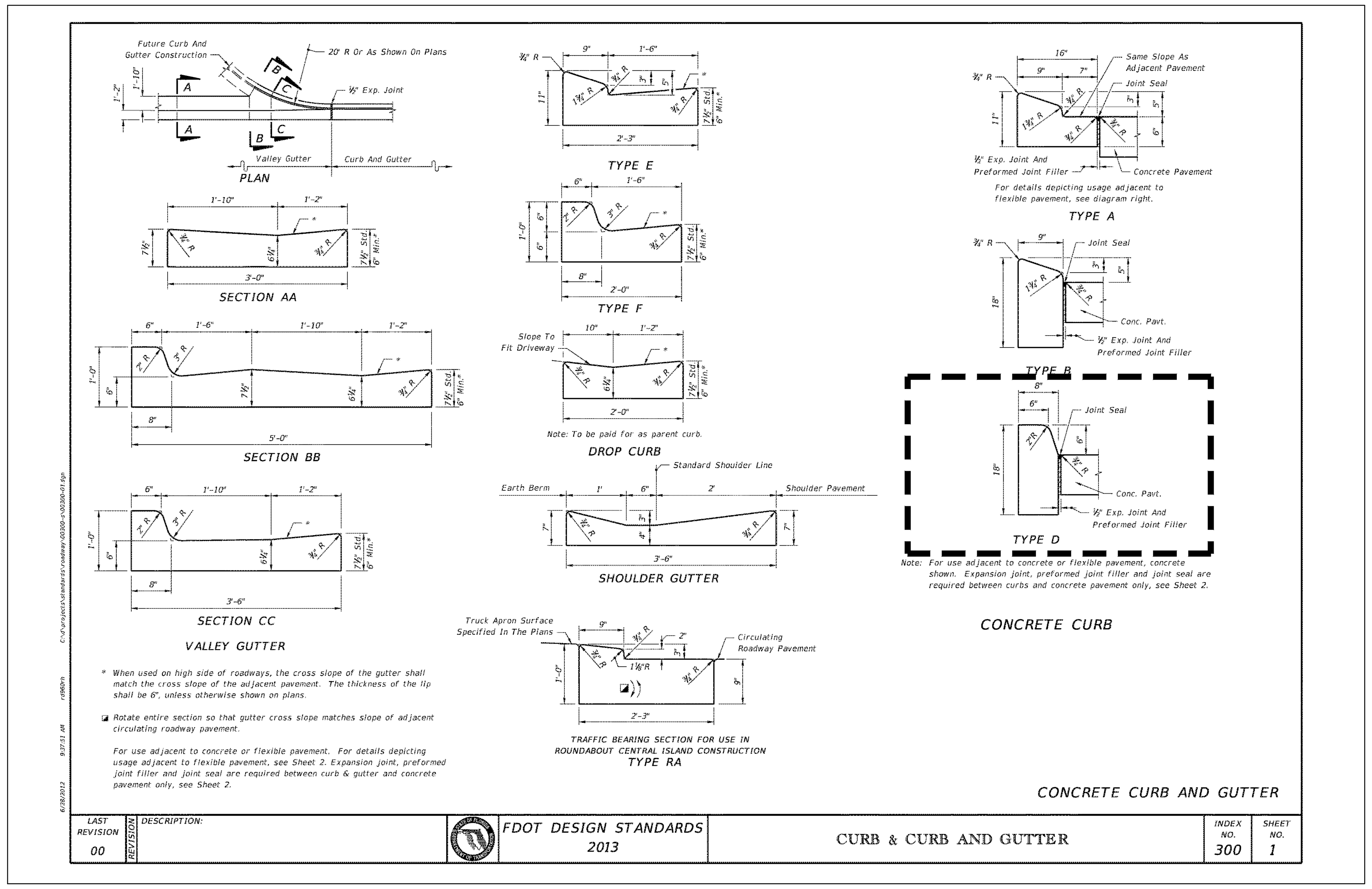
REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

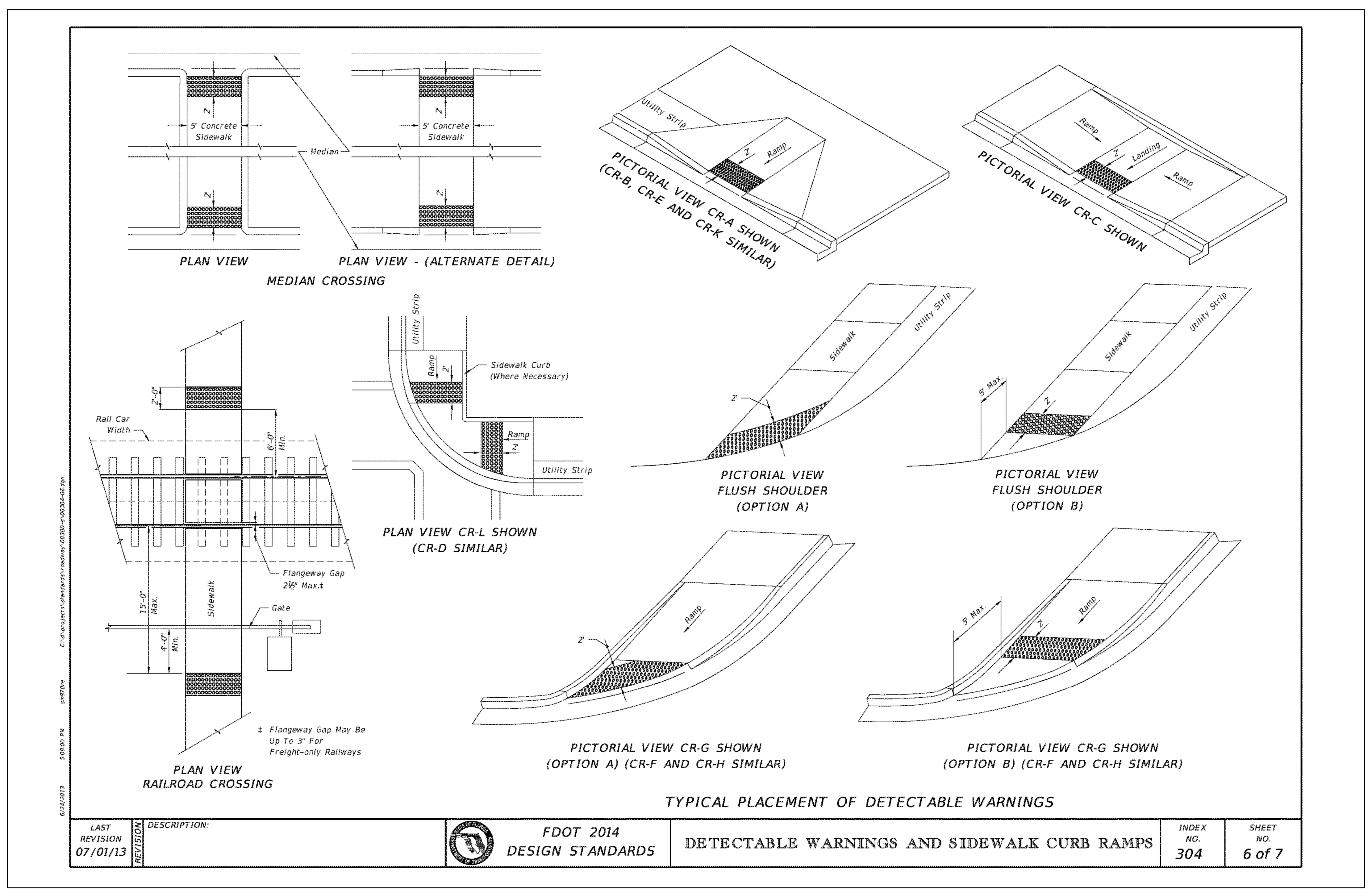
PROJECT NUMBER
19119

SHEET NUMBER
C5.01

15 OF 18



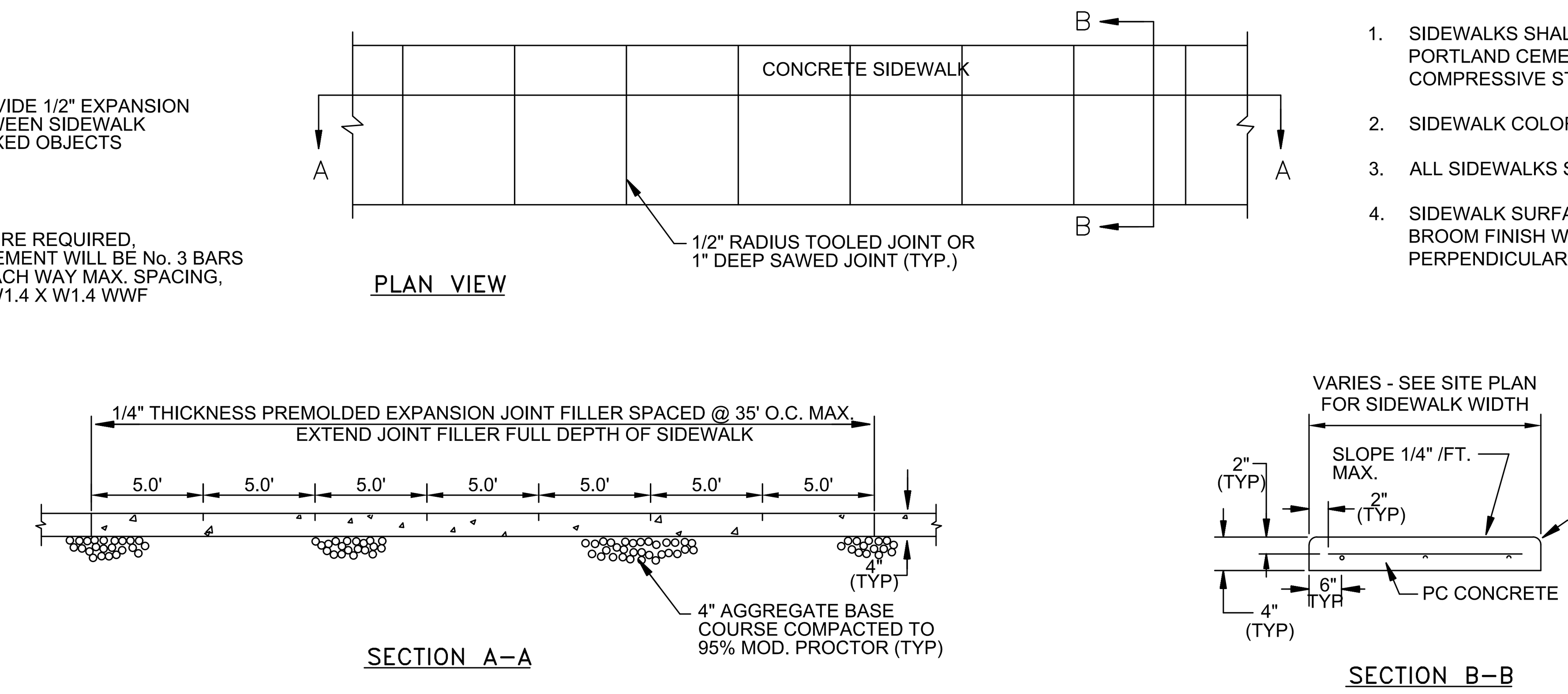
5 6" CONCRETE CURB
C1.02 C5.02 SCALE NTS



6 DETECTABLE WARING SURFACE AND SIDEWALK CURB RAMPS
C1.02 C5.02 SCALE NTS

NOTE: PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS

NOTE: WHERE REQUIRED, REINFORCEMENT WILL BE No. 3 BARS 24" O.C. EACH WAY MAX. SPACING, OR 6 x 6 - W1.4 X W1.4 WWF



CONSTRUCTION NOTES:

1. SIDEWALKS SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE WITH A MIN. COMPRESSIVE STRENGTH OF 3,000 PSI.
2. SIDEWALK COLOR = WHITE.
3. ALL SIDEWALKS SHALL BE A MIN. OF 5 FT WIDE.
4. SIDEWALK SURFACE SHALL BE GIVEN A LIGHT BROOM FINISH WITH THE BRUSH MARKS PERPENDICULAR TO THE TRAFFIC.

1 CONCRETE SIDEWALK
C1.02 C5.02 SCALE NTS

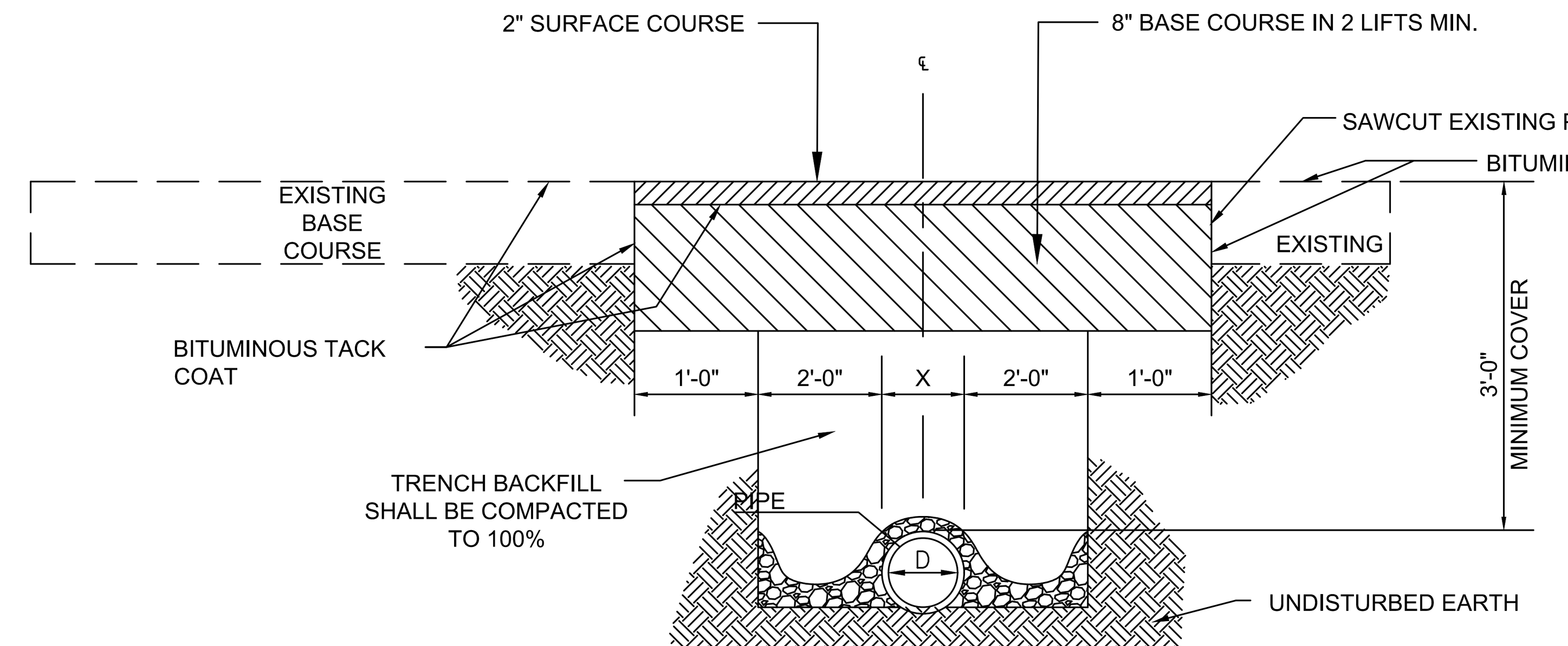


TABLE A	
D	X
8" OR LESS	1'–0"
12"	1'–4"
14"	1'–6"
15"	1'–7"
18"	1'–10"
24"	2'–6"

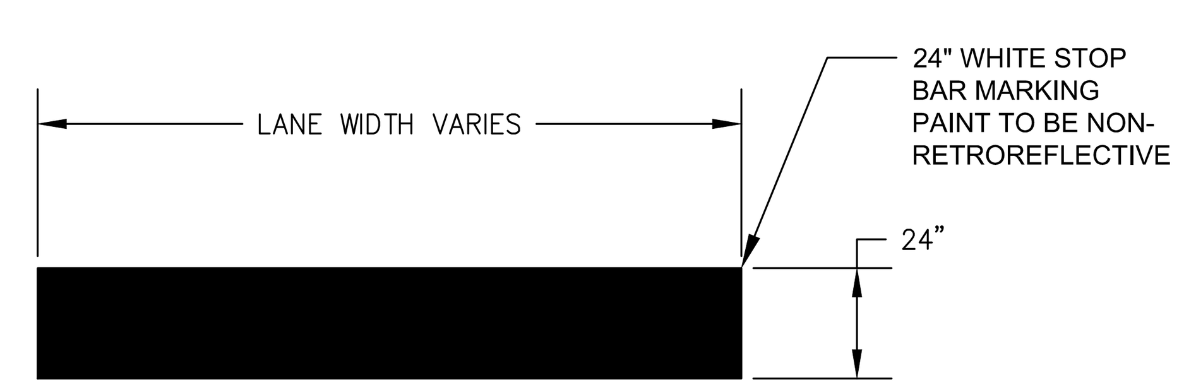
PAVEMENT REPAIRS ON ROADS NOT TO BE RESURFACED

NOTES

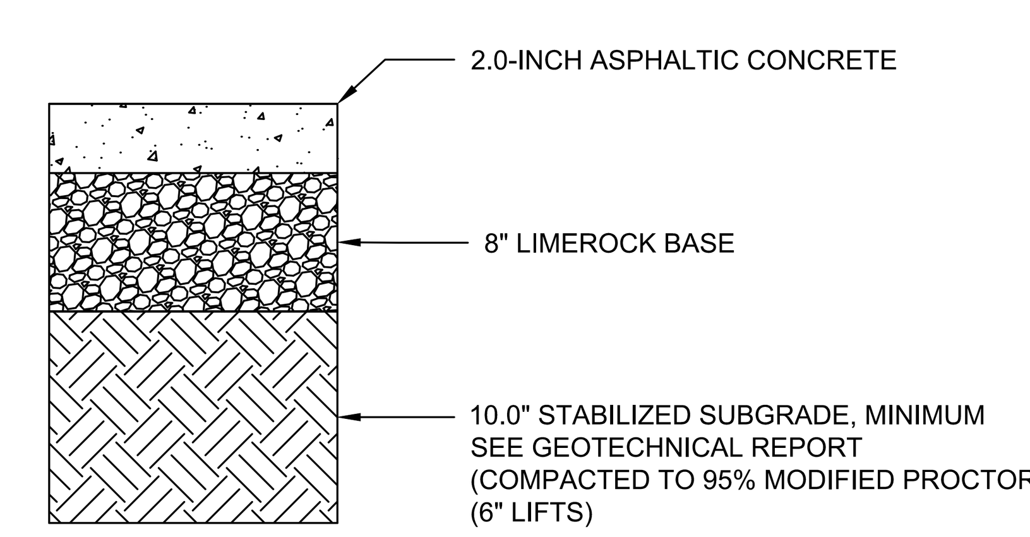
1. EDGE TO BE SAWED WITH A CONCRETE SAW TO A NEAT SQUARED EDGE AND CLEANED OF DUST BEFORE TACK COAT IS APPLIED.
2. EDGES TO BE TACKED WITH CRS-I OR CRS-II.
3. THICKNESS OF BASE COURSE AND SURFACE COURSE SHALL MATCH EXISTING CONDITIONS IF GREATER THAN SHOWN ON DETAILS.
4. CONTRACTOR RESPONSIBLE FOR REPLACEMENT OF ANY PAVEMENT MARKINGS DISTURBED OR COVERED BY OVERLAY.

1. COORDINATE WITH GEOTECHNICAL REPORT FOR PAVEMENT SECTION, DENSIFICATION, SUBGRADE PREPARATION, AND ENGINEERED FILL PLACEMENT RECOMMENDATIONS. SHOULD A CONFLICT EXIST, NOTIFY ENGINEER PRIOR TO CONSTRUCTION.
2. UNDERCUT ANY UNSUITABLE MATERIAL UP TO 24" AS REQUIRED AND REPLACE WITH SELECT MATERIAL AS DETERMINED BY LICENSED GEOTECHNICAL ENGINEER.
3. NO BASE COURSE SHALL BE PLACED ON MULCH, PINE CLAY, ORGANIC MATTER OR OTHER UNSUITABLE MATERIAL.
4. WHEN CURBING IS NOT SPECIFIED, BASE COURSE SHALL EXTEND A MINIMUM OF 12" BEYOND EDGE OF ASPHALT.
5. THE PAVEMENT DESIGN SHOWN REPRESENTS THE MINIMUM THICKNESS OF SURFACE AND BASE COURSE TO BE USED. SUBGRADE SOILS TESTS MAY DETERMINE HEAVIER PAVEMENT DESIGNS ARE REQUIRED.
6. ALL MATERIALS SHALL MEET THE REQUIREMENTS SET FORTH IN THE LATEST DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
7. CONTRACTOR SHALL NOTIFY ENGINEER IF SATURATED SUBGRADE IS ENCOUNTERED DURING CONSTRUCTION AS ADDITIONAL DRAINAGE MEASURES MAY BE REQUIRED.
8. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE SPECIFIED.

2 ASPHALT PAVEMENT RESTORATION
C1.02 C5.02 SCALE NTS



3 STOP BAR
C1.02 C5.02 SCALE NTS



NOTE:

1. SEE PAVEMENT SECTION CONSTRUCTION NOTES THIS SHEET.
2. MATCH EXISTING PAVEMENT SECTION OR WHICHEVER IS GREATER.

4 TYPICAL ASPHALT PAVEMENT SECTION
C1.02 C5.02 SCALE NTS

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida

HOLLY B. ADAMS LICENSE No 96658 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION

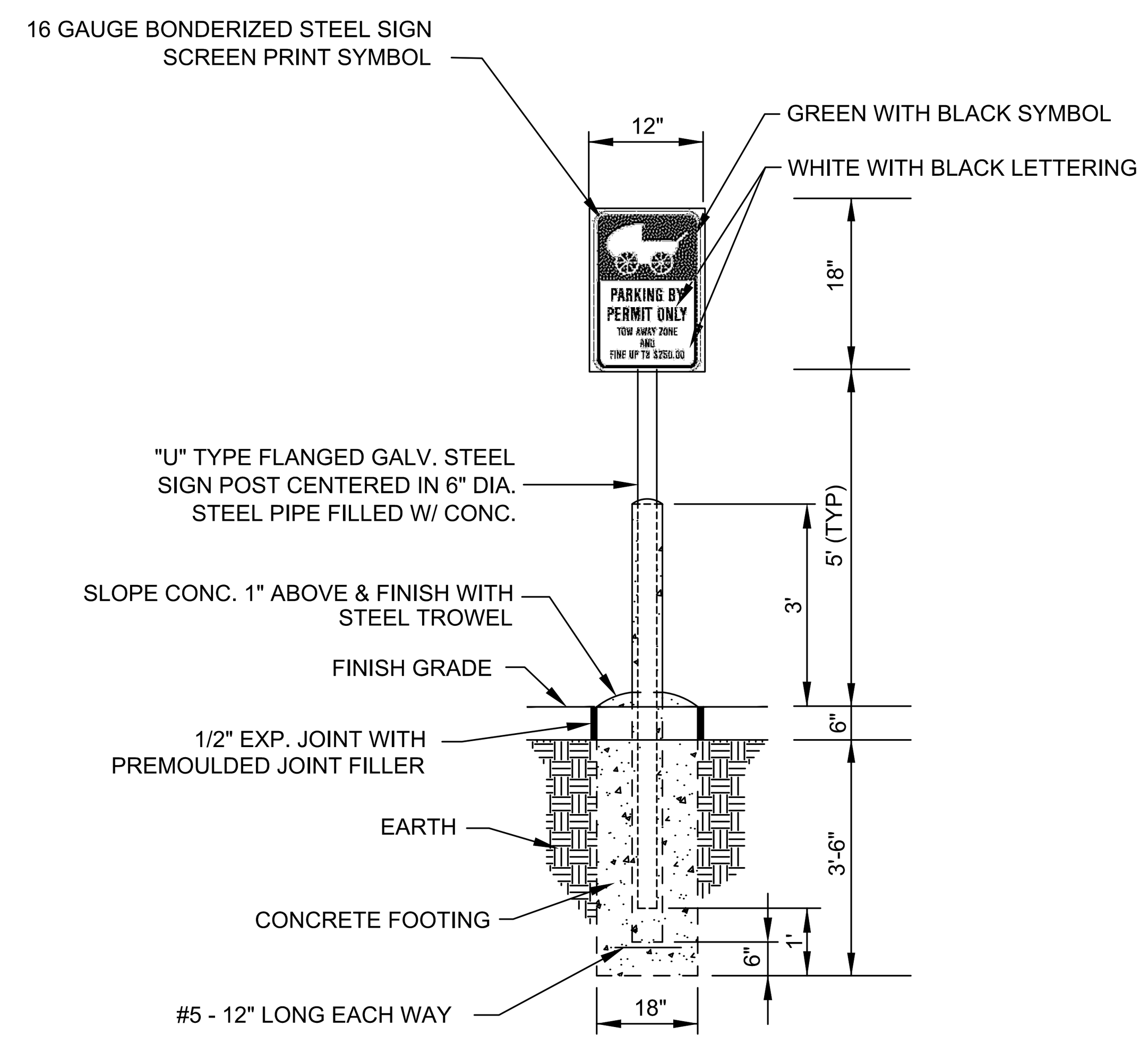
OWNER:

Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

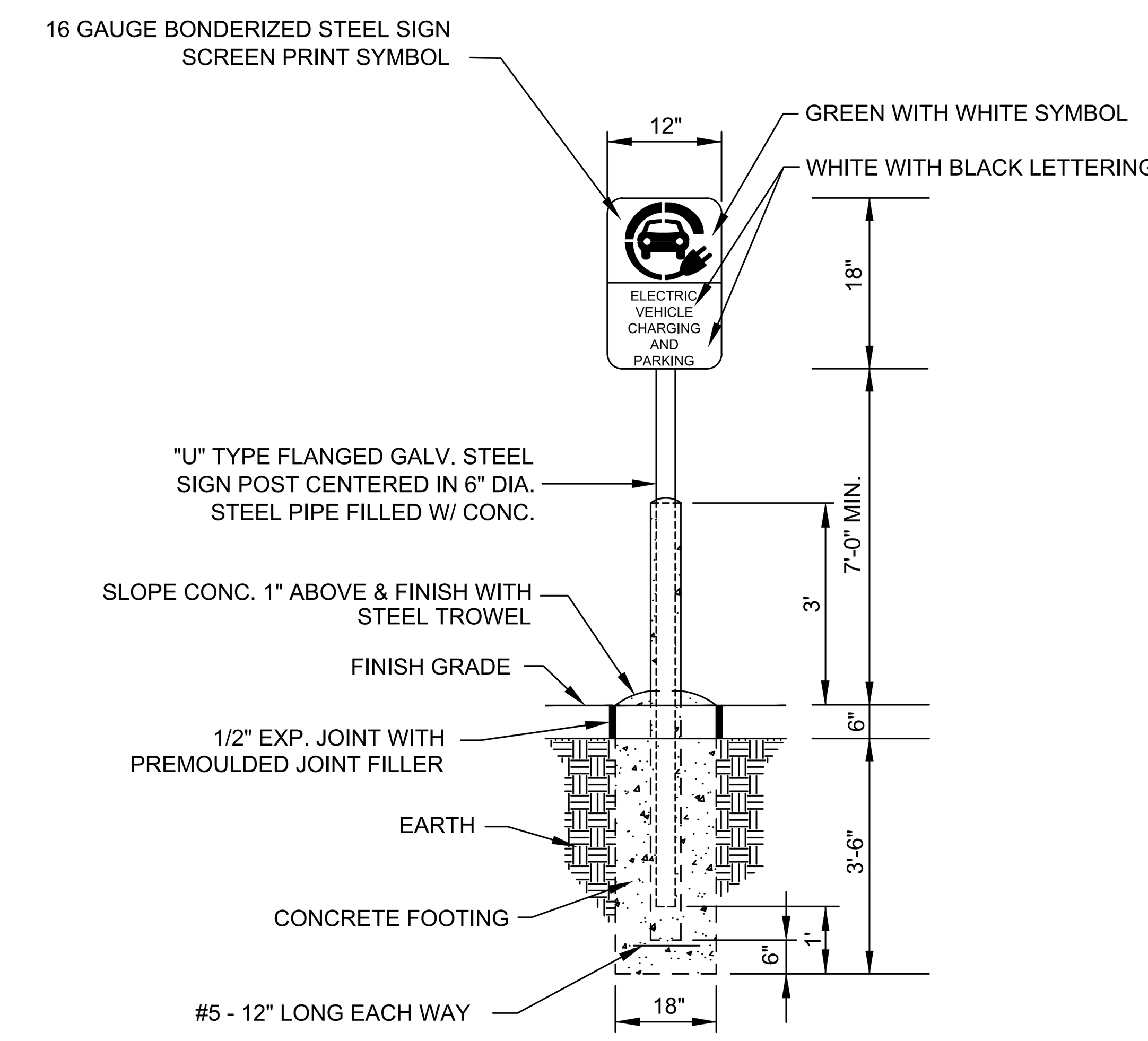
TITLE: C5.02 - SITE DETAILS 2

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

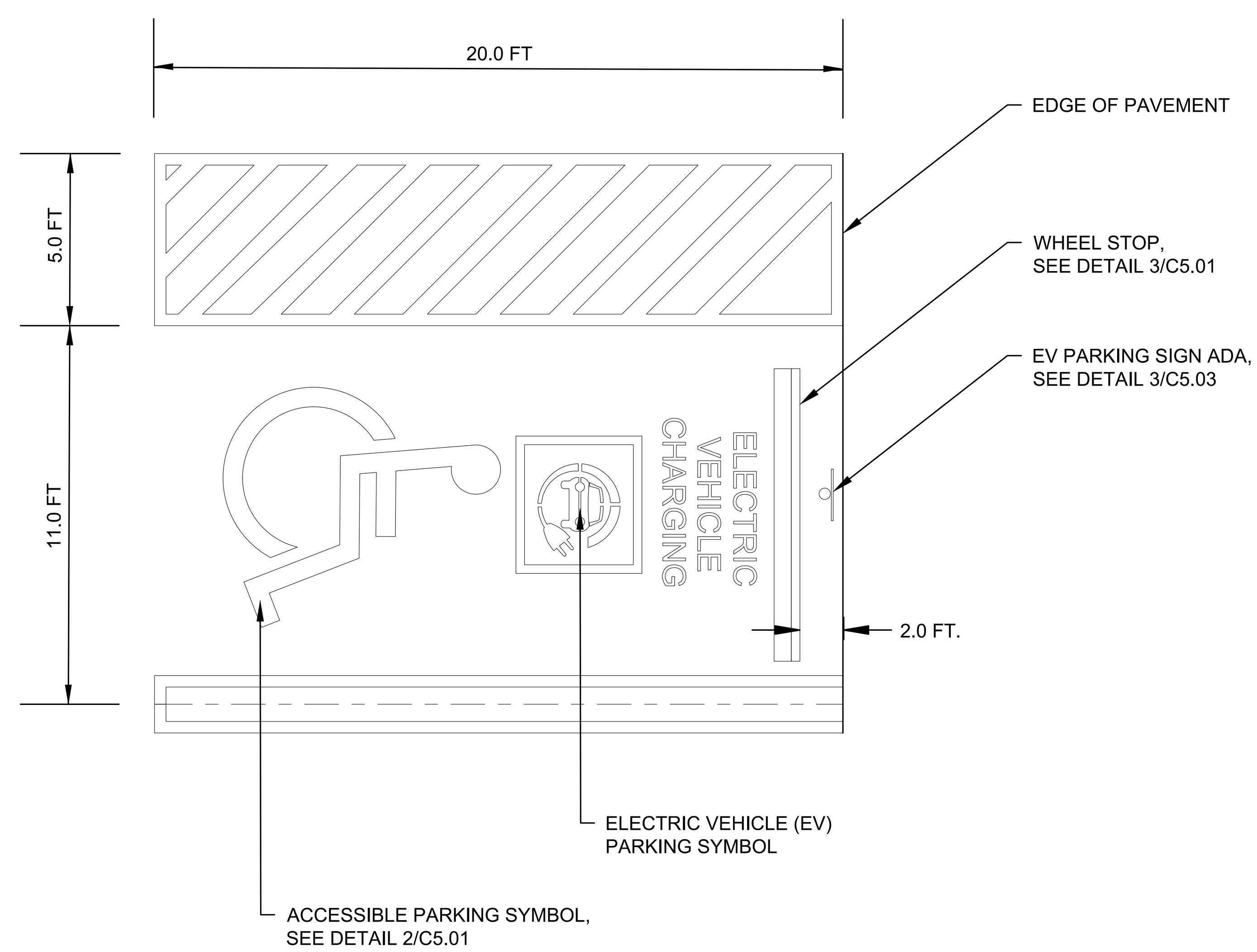
DATE
03-26-25
PROJECT NUMBER
19119
SHEET NUMBER
C5.02



2 STROLLER PARKING SIGN
C1.02 C5.03 SCALE NTS



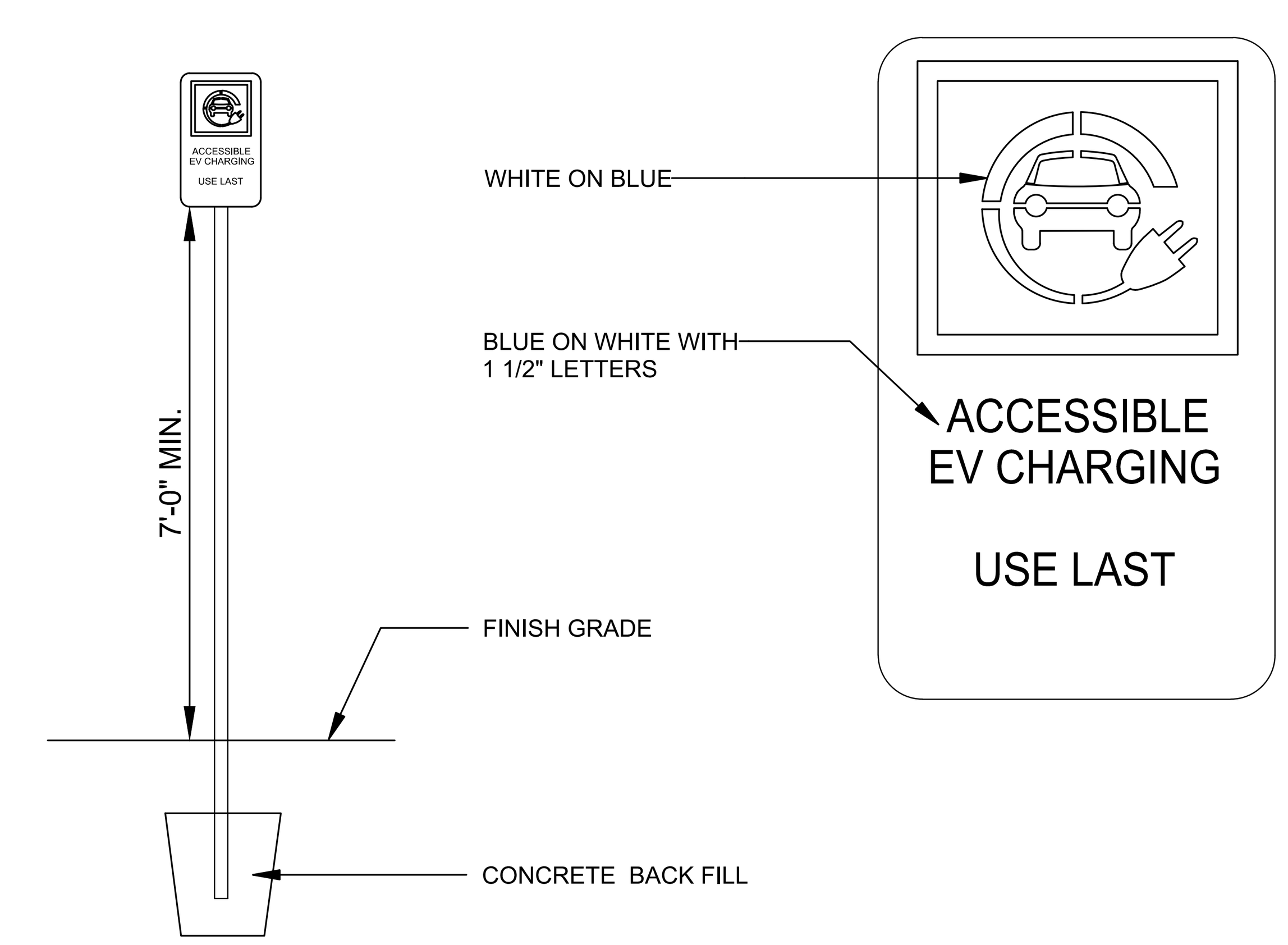
1 ELECTRIC VEHICLE PARKING SIGN
C1.02 C5.03 SCALE NTS



NOTES

1. 2.0% MAX SLOPE ALL DIRECTIONS
2. CONTRACTOR SHALL COORDINATE ALL PAVEMENT MARKINGS WITH THE COORDINATING OFFICER PRIOR TO COMMENCEMENT OF MARKING.

4 TYP EV PARKING STRIPING – ADA
C1.02 C5.03 SCALE NTS



3 ELECTRIC VEHICLE PARKING SIGN ADA
C1.02 C5.03 SCALE NTS

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574
Sign & Seal:
State of Florida:
HOLLY B. ADAMS
LICENSE
No 96658
04/01/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER
ALPHA CORPORATION

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Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

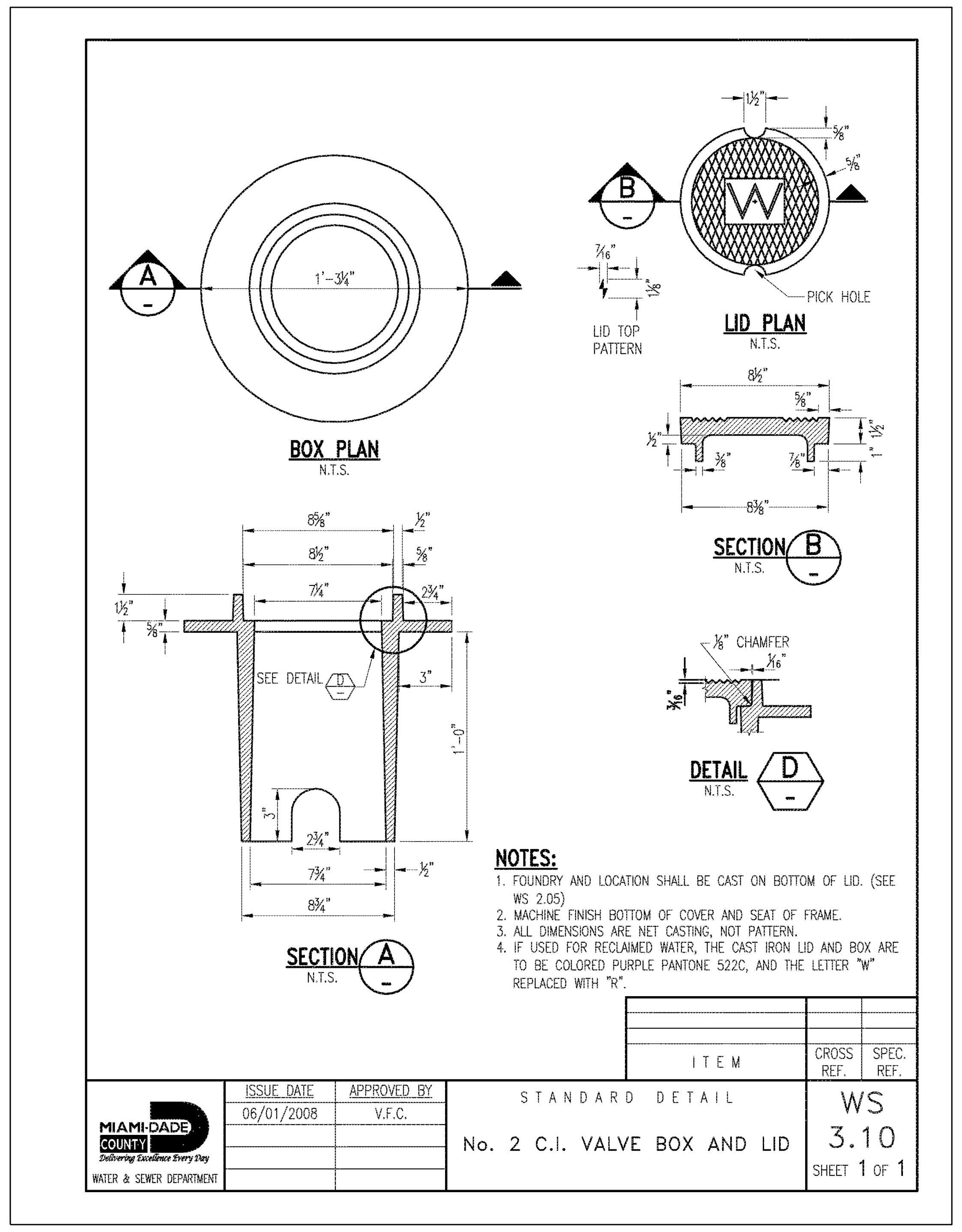
TITLE: C5.03 - SITE DETAILS 3

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

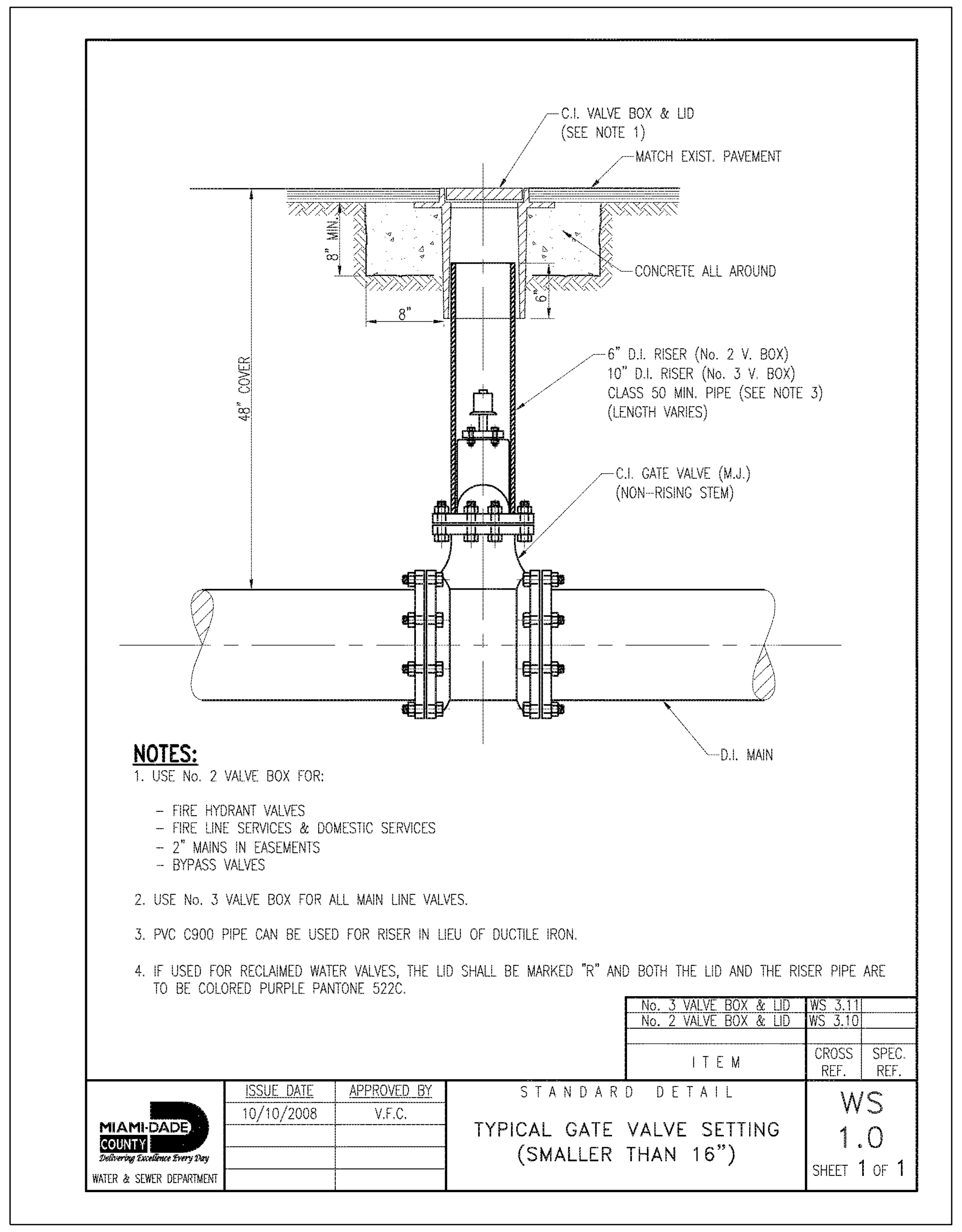
DATE
03-26-25

PROJECT NUMBER
19119

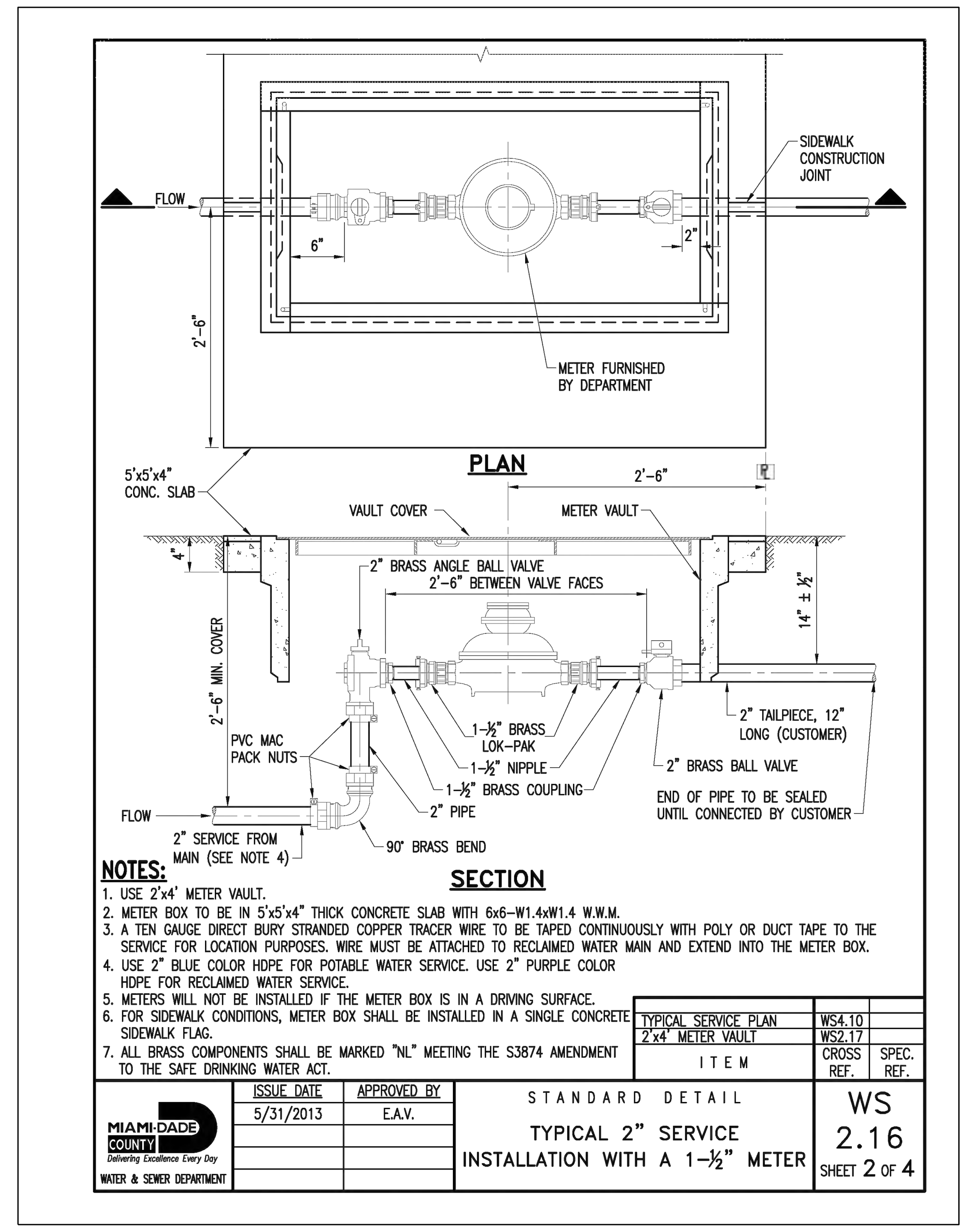
SHEET NUMBER
C5.03



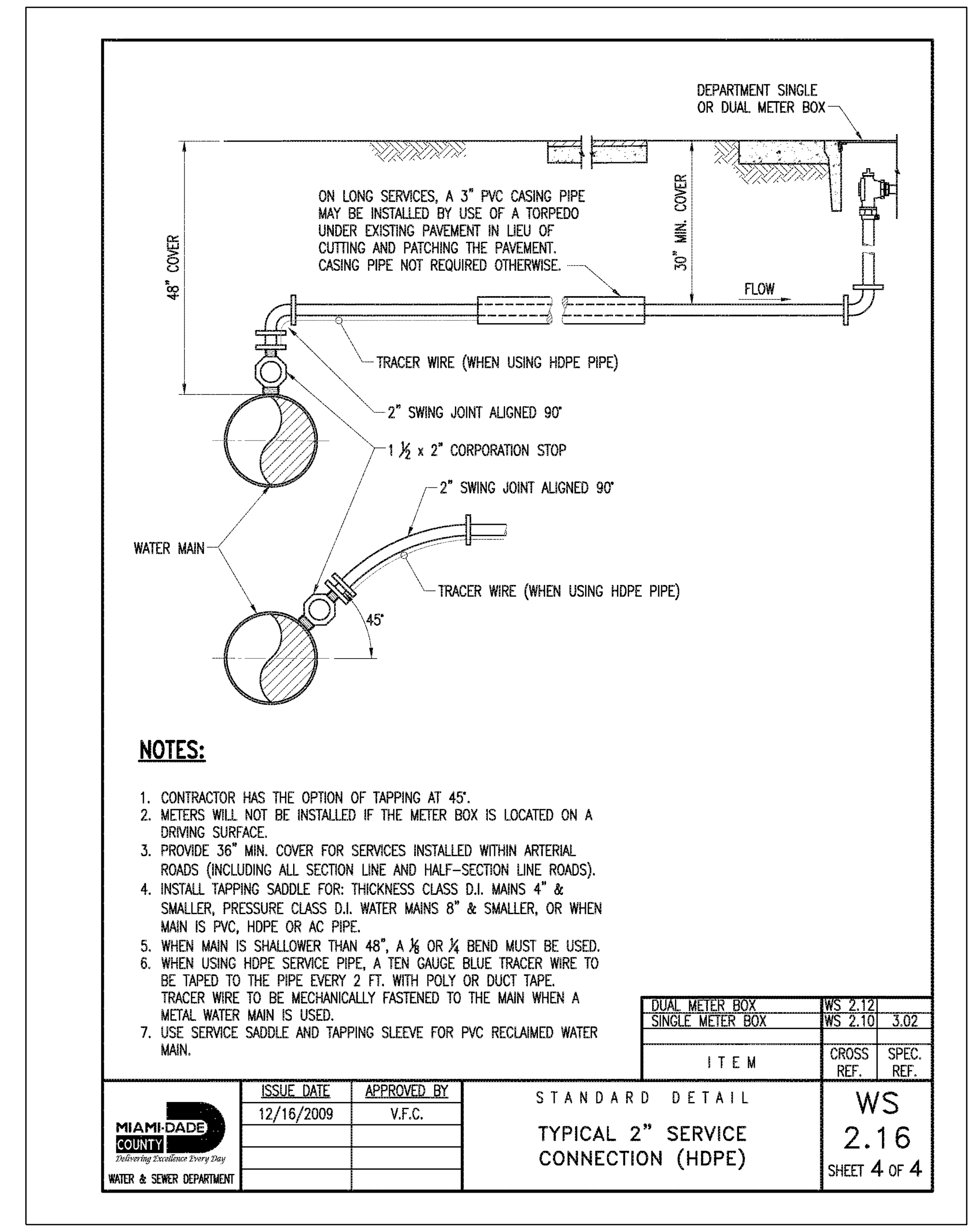
4 VALVE BOX & LID
C3.00 | C5.04 SCALE NTS



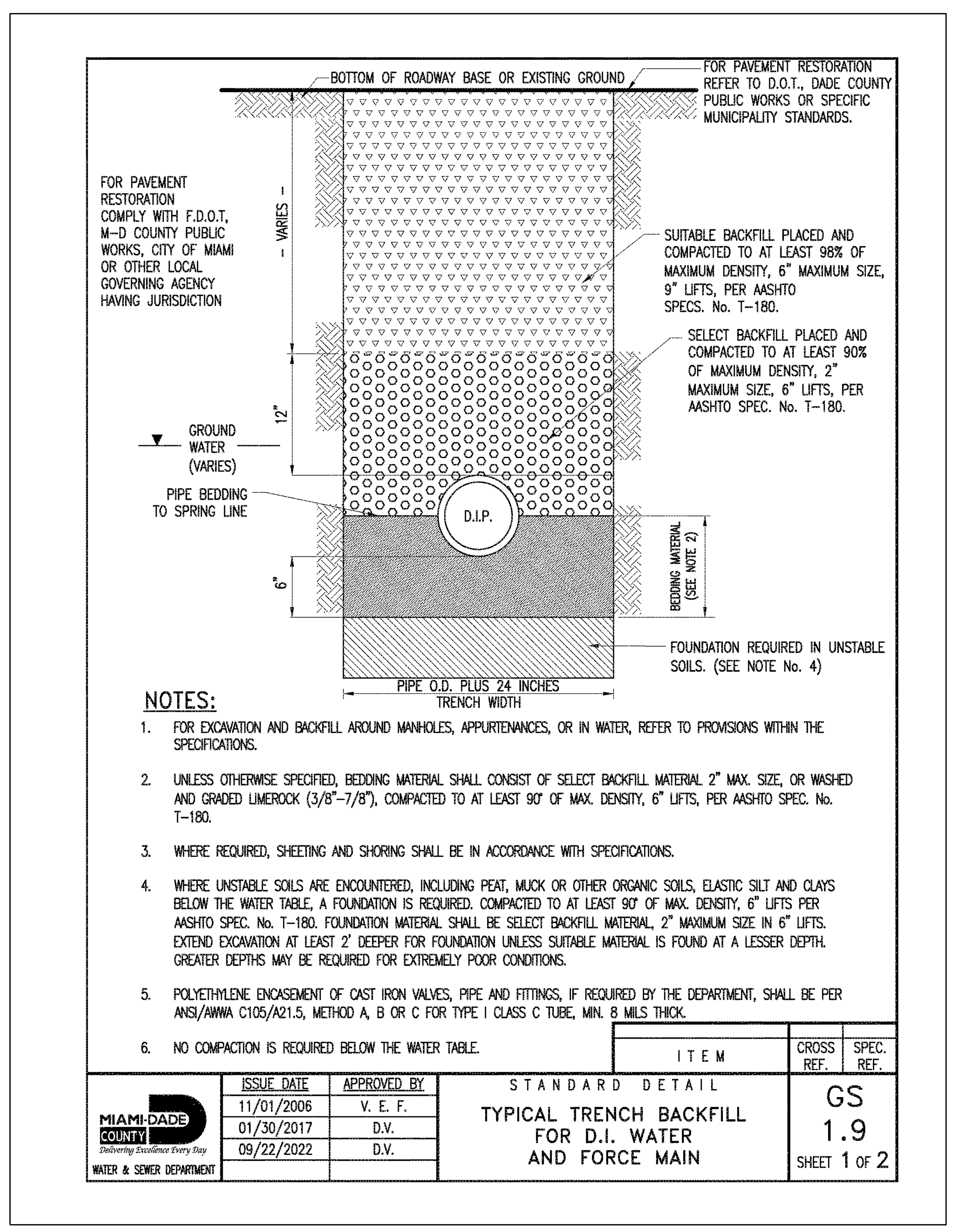
3 TYPICAL GATE VALVE
C3.00 | C5.04 SCALE NTS



2 1-1/2" WATER METER
C3.00 | C5.04 SCALE NTS

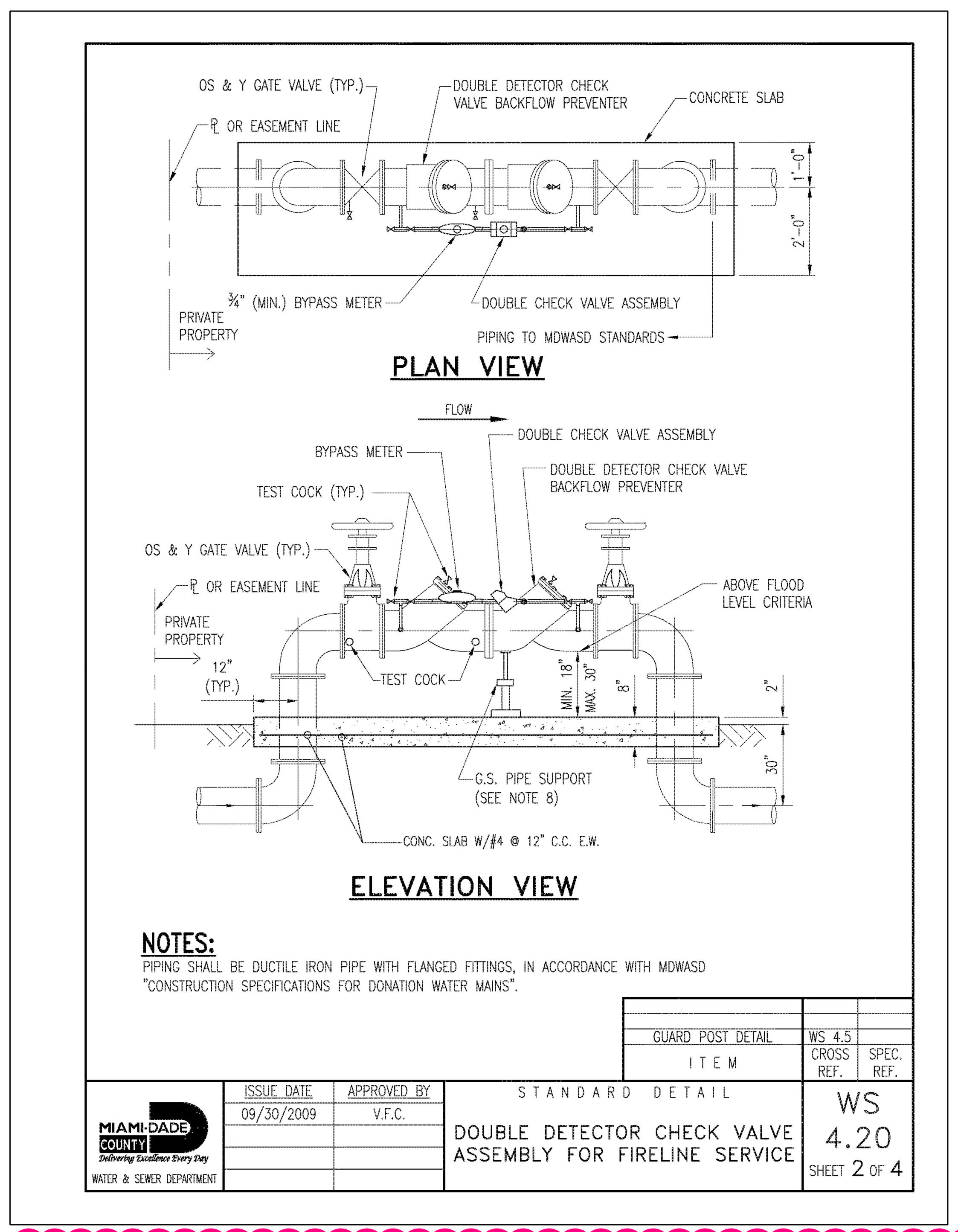


1 2" SERVICE CONNECTION
C3.00 | C5.04 SCALE NTS

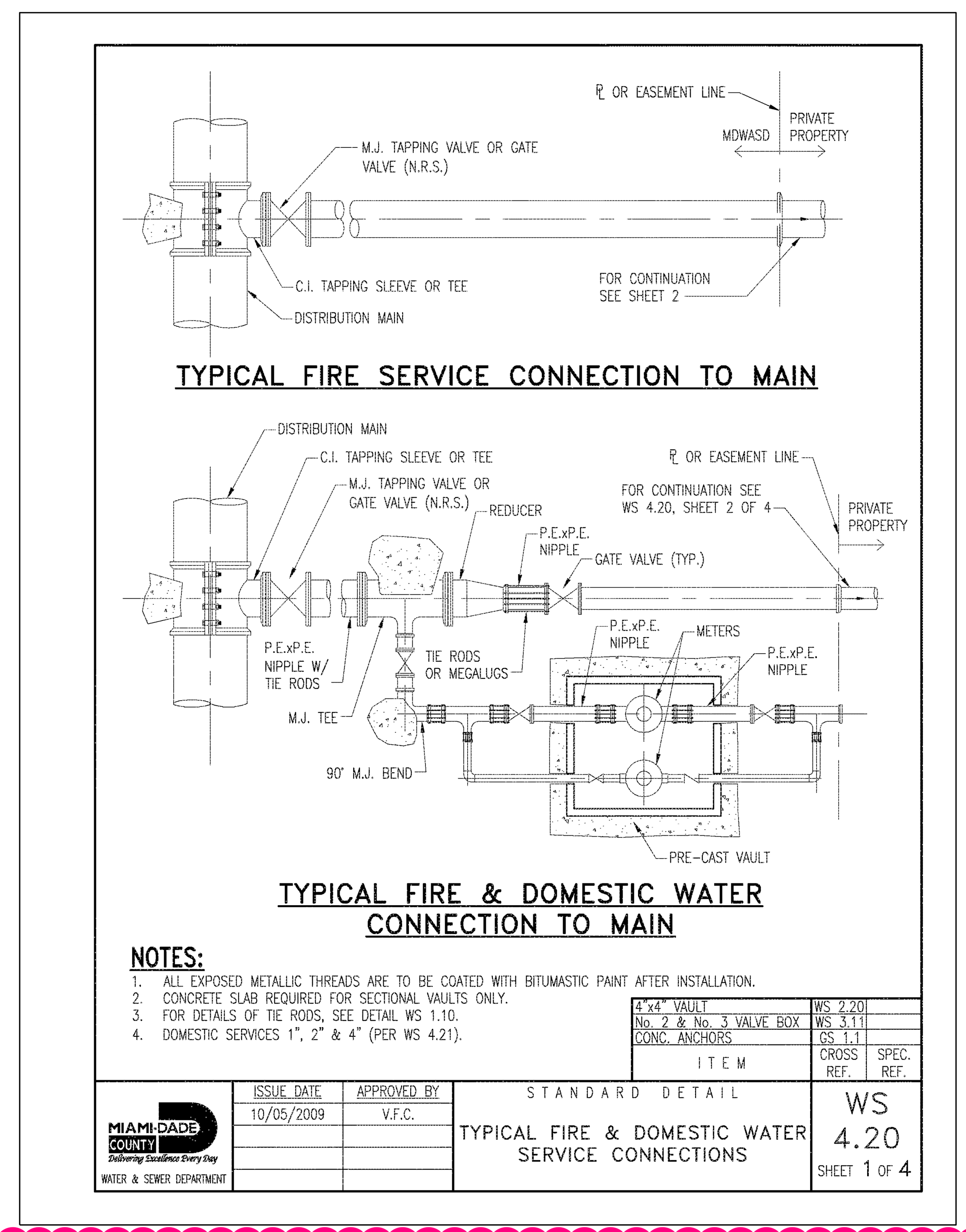


5 TRENCH FOR D.I. WATER
C3.00 | C5.04 SCALE NTS

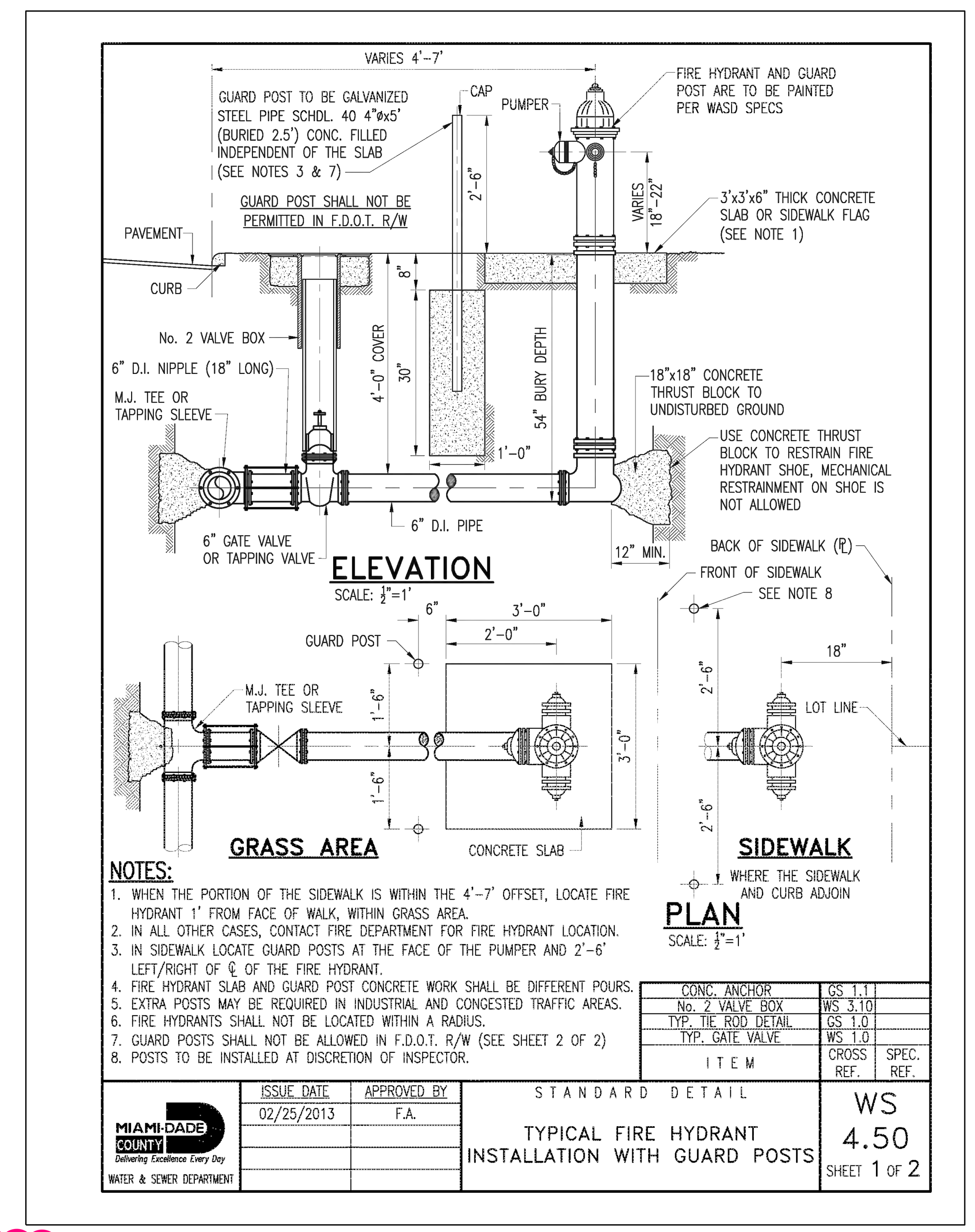
3



6 DBL DET. CHECK VALVE
C3.00 | C5.04 SCALE NTS



7 FIRE SERVICE CONNECTION
C3.00 | C5.04 SCALE NTS



8 FIRE HYDRANT INSTALLTION
C3.00 | C5.04 SCALE NTS

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646

Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida

HOLLY B. ADAMS LICENSE No 96658 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION

OWNER:

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Miami Lakes, FL 33014

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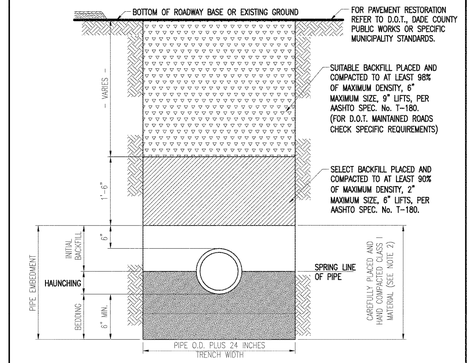
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C5.04

18 OF 18



NOTES:

1. FOR EXCAVATION AND BACKFILL AROUND MANHOLES, APPURTENANCES, OR IN WATER, REFER TO PROVISIONS WITHIN THE SPECIFICATIONS.
2. CLASS I MATERIALS ARE ANGULAR, 1/4 TO 3/4 INCH WELL GRADED STONE INCLUDING WASHED AND GRADED LIMEROCK.
3. WHERE REQUIRED, SHEETING AND SHORING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
4. WHERE UNSTABLE SOILS ARE ENCOUNTERED, INCLUDING PEAT, MUCK OR OTHER ORGANIC SOILS, ELASTIC SILT AND CLAYS BELOW THE WATER TABLE, AND FINE SANDS BELOW THE WATER TABLE, TRENCH CONSTRUCTION SHALL CONFORM TO STANDARD DETAIL SS18.0, SHEET 3 OF 3.

ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

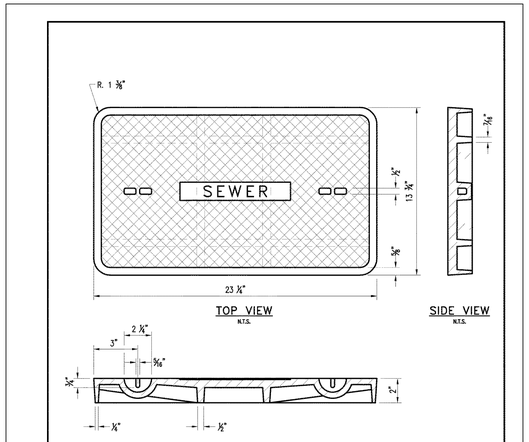
ISSUE DATE	APPROVED BY
11/01/2006	V.E.F.

STANDARD DETAIL
TYPICAL TRENCH CONSTRUCTION (PVC PIPE GRAVITY SEWERS IN STABLE SOILS)

CROSS REF.	SPEC. REF.
	SS 18.0

SHEET 2 OF 3

4 TRENCH FOR PVC SEWER
C3.00 | C5.05 SCALE NTS



NOTES:

1. CAST IRON LID TO BE A MODIFIED VERSION OF USF No. 7715 (OR EQUIVALENT) WITHOUT BOLT HOLES, MARKED "SEWER" AND A.D.A. COMPLIANT FOR USE IN SIDEWALKS. LID WT.: APPROX. 55 LBS.

WYE BRANCH CONNECTION	SS 1.0	
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

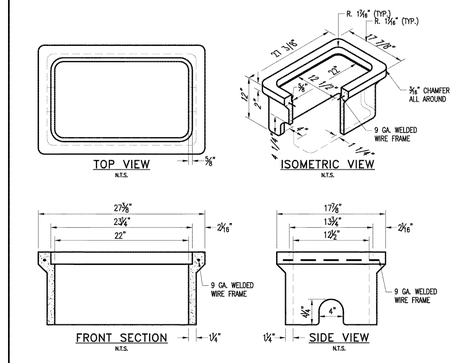
ISSUE DATE	APPROVED BY
01/14/2010	V.F.C.

STANDARD DETAIL
SANITARY SEWER CLEAN-OUT LID DETAIL

CROSS REF.	SPEC. REF.
	SS 22.0

SHEET 1 OF 2

3 CLEAN-OUT BOX LID
C3.00 | C5.05 SCALE NTS



WYE BRANCH CONNECTION	SS 1.0	
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

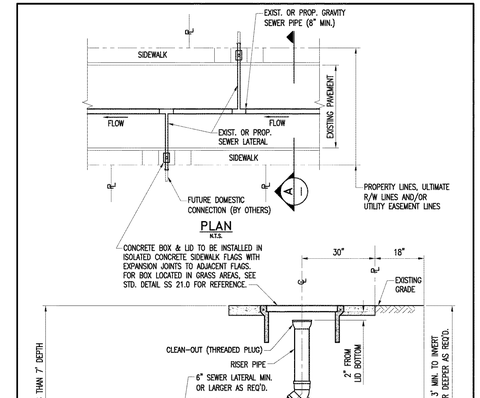
ISSUE DATE	APPROVED BY
01/14/2010	V.F.C.

STANDARD DETAIL
SANITARY SEWER CLEAN-OUT CONCRETE BOX DETAIL

CROSS REF.	SPEC. REF.
	SS 22.0

SHEET 2 OF 2

2 CLEAN-OUT CONC. BOX
C3.00 | C5.05 SCALE NTS



SAN. SEWER CLEAN-OUT	SS 22.0	
GRAVITY SEWER SERVICE LATERALS		UC-310
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

ISSUE DATE	APPROVED BY
08/26/2010	V.F.C.

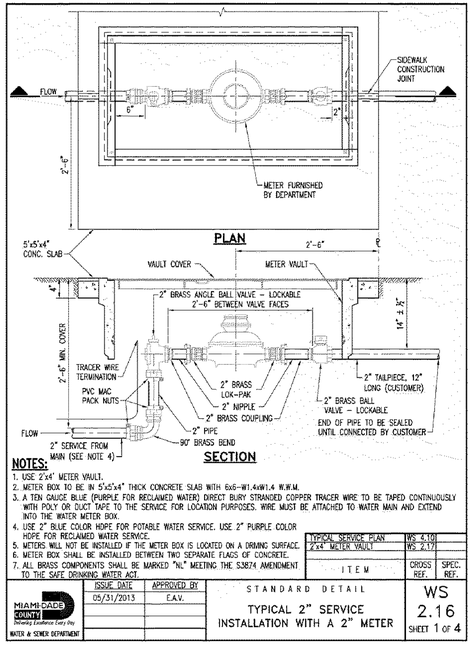
STANDARD DETAIL
GRAVITY SEWER SERVICE LATERAL FOR "SHALLOW" SEWERS

CROSS REF.	SPEC. REF.
	SS 1.0

SHEET 1 OF 2

1 SANITARY SEWER CLEAN-OUT
C3.00 | C5.05 SCALE NTS

3



NOTES:

1. USE 2'x4' METER VAULT.
2. METER BOX TO BE IN 5'x5'x4" THICK CONCRETE SLAB WITH 6x6–W1.4xW1.4 W.W.M.
3. A TEN GAUGE BLUE (PURPLE FOR RECLAIMED WATER) DIRECT BURY STRANDED COPPER TRACER WIRE TO BE TAPED CONTINUOUSLY WITH POLY OR DUCT TAPE TO THE SERVICE FOR LOCATION PURPOSES. WIRE MUST BE ATTACHED TO WATER MAIN AND EXTEND INTO THE WATER METER BOX.
4. USE 2" BLUE COLOR HDPE FOR POTABLE WATER SERVICE. USE 2" PURPLE COLOR HDPE FOR RECLAIMED WATER SERVICE.
5. METERS WILL NOT BE INSTALLED IF THE METER BOX IS LOCATED ON A DRIVING SURFACE.
6. METER BOX SHALL BE INSTALLED BETWEEN TWO SEPARATE FLAGS OF CONCRETE.
7. ALL BRASS COMPONENTS SHALL BE MARKED "NL" MEETING THE S3874 AMENDMENT TO THE SAFE DRINKING WATER ACT.

TYPICAL SERVICE PLAN	WS 4.10	
2'x4' METER VAULT	WS 2.17	
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

ISSUE DATE	APPROVED BY
05/31/2013	E.A.V.

STANDARD DETAIL
TYPICAL 2" SERVICE INSTALLATION WITH A 2" METER

CROSS REF.	SPEC. REF.
	WS 2.16

SHEET 1 OF 4

8 2" WATER METER
C3.00 | C5.05 SCALE NTS

NOTES:

1–. THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.

2–. GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, AS DETERMINED BY THE DEPARTMENT.

3–. THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.

4–. ADJUSTABLE PIPE SADDLE SUPPORT (GRINNELL FIG. 264, OR EQUAL) SIZED TO FIT CURVATURE OF DOUBLE DETECTOR CHECK VALVE ASSEMBLY, WITH GALVANIZED STEEL PIPE AND FLOOR FLANGE. ATTACH FLOOR FLANGE TO CONCRETE SLAB WITH GALVANIZED EXPANSION BOLTS.

5–. THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE BACKFLOW PREVENTION ASSEMBLY.

6–. PIPING 2" AND SMALLER SHALL BE SCHEDULE 40 BRASS OR TYPE K COPPER PIPE WITH FITTINGS. PIPING 4" AND LARGER SHALL BE DUCTILE IRON PIPE WITH FLANGED FITTINGS. ALL PIPING SHALL BE IN ACCORDANCE WITH WASD CONSTRUCTION SPECIFICATIONS FOR DONATION WATER MAINS, PVC PIPING IS NOT ACCEPTED BY WASD.

7–. ALL OUTLETS SHALL BE PLUGGED WITH BRASS PLUGS.

8–. ALL ABOVE GROUND PIPING AND EQUIPMENT, EXCEPT FOR BRASS AND STAINLESS STEEL PORTIONS, SHALL BE FINISHED WITH BLUE ENAMEL PAINT (KOP–COAT 650B LEAD–FREE) IN ACCORDANCE WITH DEPARTMENT STANDARDS.

9–. COPPER ALLOY MATERIALS SHALL BE "LEAD FREE" AND IN FULL COMPLIANCE WITH THE FEDERAL "REDUCTION OF LEAD IN DRINKING WATER ACT".

10–. FOR A LIST OF BACKFLOW PREVENTERS APPROVED TO BE USED IN WASD FACILITIES, REFER TO PRE–APPROVED PRODUCT LIST SHEET NUMBER 4.6 AND/OR THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES AT WWW.USCLIST.COM. OR foodtr.usc.edu/list.html

GUARD POST DETAIL	WS 4.5	
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

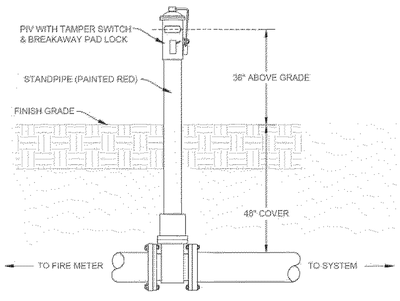
ISSUE DATE	APPROVED BY
8/20/2012	F.A.
3/22/2022	S.G.

STANDARD DETAIL
REDUCED PRESSURE ZONE BACKFLOW PREVENTER FOR WATER SERVICE – NOTES –

CROSS REF.	SPEC. REF.
	WS 4.18

SHEET 3 OF 3

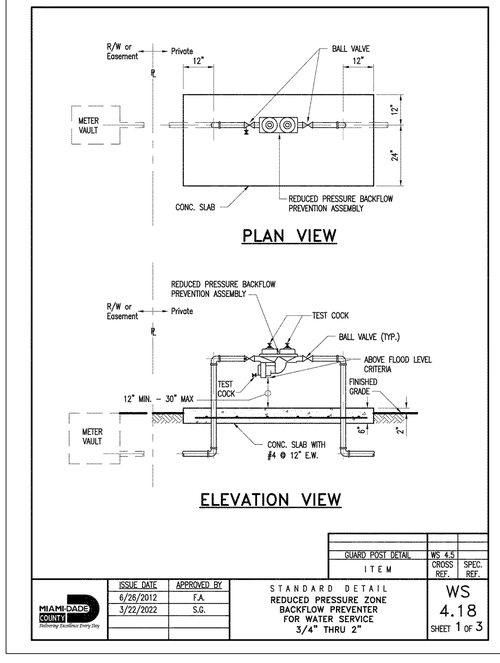
9 BACKFLOW NOTES
C3.00 | C5.05 SCALE NTS



NOTES:

1. PIV SHALL BE LOCATED AT LEAST 5' FROM BUILDING OR STRUCTURE.
2. PIV REQUIRES 30" OF UNOBSTRUCTED CLEARANCE AROUND THE PERIMETER OF PIV STANDPIPE

7 POST INDICATOR VALVE
C3.00 | C5.05 SCALE NTS



GUARD POST DETAIL	WS 4.5	
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day

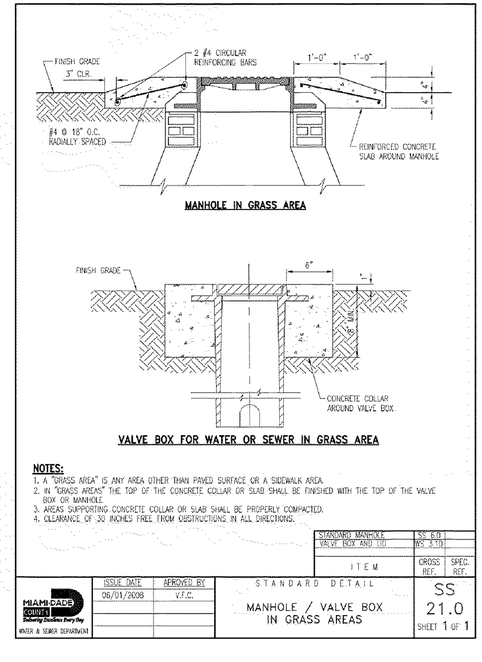
ISSUE DATE	APPROVED BY
6/28/2012	F.A.
3/22/2022	S.G.

STANDARD DETAIL
REDUCED PRESSURE ZONE BACKFLOW PREVENTER FOR WATER SERVICE 3/4" THRU 2"

CROSS REF.	SPEC. REF.
	WS 4.18

SHEET 1 OF 3

6 BACKFLOW PREVENTER
C3.00 | C5.05 SCALE NTS



NOTES:

1. A "GRASS AREA" IS ANY AREA OTHER THAN PAVED SURFACE OR A SIDEWALK AREA.
2. IN "GRASS AREAS" THE TOP OF THE CONCRETE COLLAR OR SLAB SHALL BE FINISHED WITH THE TOP OF THE VALVE BOX OR MANHOLE.
3. AREAS SUPPORTING CONCRETE COLLAR OR SLAB SHALL BE PROPERLY COMPACTED.
4. CLEARANCE OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.

STANDARD MANHOLE	SS 6.0	
VALVE BOX AND LID	WS 2.13	
ITEM	CROSS REF.	SPEC. REF.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

ISSUE DATE	APPROVED BY
06/01/2006	V.F.C.

STANDARD DETAIL
MANHOLE / VALVE BOX IN GRASS AREAS

CROSS REF.	SPEC. REF.
	SS 21.0

SHEET 1 OF 1

5 VALVE BOX IN GRASS AREAS
C3.00 | C5.05 SCALE NTS

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida:

HOLLY B. ADAMS LICENSE No 96658 ★ 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION
21000 ATLANTIC BLVD. SUITE 400
DULLES, VA 20166
703-300-0900
www.alphacorporation.com

OWNER:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HOLLY ADAMS ON THE DATE ADJACENT TO THE SEAL.

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Miami Lakes Branch Library
6699 Windmill Gate Road
Miami Lakes, FL 33014

TITLE: C5.05 - UTILITY DETAILS 2

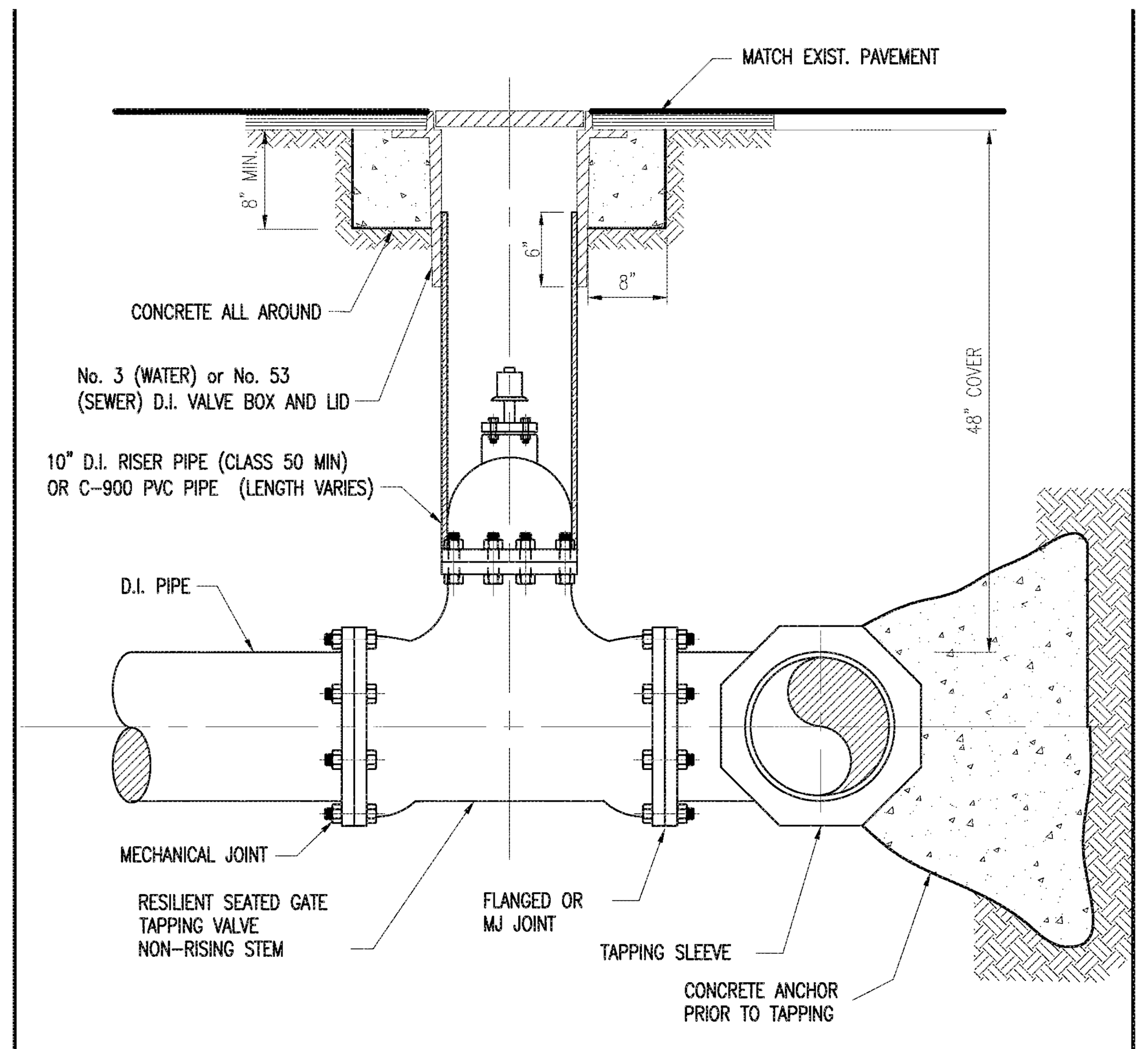
REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE
03-26-25

PROJECT NUMBER
19119

SHEET NUMBER
C5.05

19 OF 18



NOTES:

1. RESILIENT SEATED GATE TAPPING VALVE CAN BE USED FOR SEWER CONNECTION.
2. 18" CLEARANCE FROM FITTINGS AND BELLS.
3. TAPPING VALVE AND SLEEVE SHALL BE PRESSURE TESTED AT 150 "psi" PRIOR TO BEING TAPPED.
4. TAPPING ON CONCRETE MAINS SHALL BE PRESSURE TESTED AT A LOWER PRESSURE THAN THE ACTIVE OPERATING PRESSURE OF THE MAIN.

ITEM	CROSS REF.	SPEC. REF.
No.53 Valve Box	SS 13.0	
No.3 Valve Box	WS 3.11	
INSTALLATION	GS 1.8	

ISSUE DATE	APPROVED BY
01/22/2009	V.F.C.
07/20/2016	D.V.

MIAMI-DADE COUNTY — Delivering Excellence Every Day — WATER & SEWER DEPARTMENT

STANDARD DETAIL
TYPICAL TAPPING VALVE SETTING (16" AND SMALLER)
GS 1.7 SHEET 1 OF 1

5 — TYPICALTAPPING SETTING
C3.00 | C5.06 SCALE NTS

NOTES:

1. THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
2. GUARD POST SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, AS DETERMINED BY THE DEPARTMENT.
3. THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.
4. ALL JOINTS SHALL BE FLANGED OR RESTRAINED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
5. ALL ABOVE GROUND PIPING AND EQUIPMENT, EXCEPT FOR BRASS AND STAINLESS STEEL PORTIONS, SHALL BE FINISHED WITH RED ENAMEL PAINT (KOP-COAT 0508 LEAD-FREE), IN ACCORDANCE WITH DEPARTMENT STANDARDS.
6. THE DEPARTMENT WILL PROVIDE CHAINS AND LOCKS FOR GATE VALVES.
7. FOR RETROFIT PROJECTS, REPLACE THE EXISTING SINGLE CHECK VALVE DEVICE WITH A SPOOL PIECE AND INSTALL A NEW DOUBLE DETECTOR CHECK VALVE ASSEMBLY WITHIN PRIVATE PROPERTY.
8. ADJUSTABLE PIPE SADDLE SUPPORT (GRINNELL FIG. 264, OR EQUAL) SIZED TO FIT CURVATURE OF DOUBLE DETECTOR CHECK VALVE ASSEMBLY, WITH GALVANIZED STEEL PIPE AND FLOOR FLANGE. ATTACH FLOOR FLANGE TO CONCRETE SLAB WITH GALVANIZED EXPANSION BOLTS.
9. THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE DOUBLE DETECTOR CHECK VALVE ASSEMBLY.
10. ALL OUTLETS SHALL BE PLUGGED WITH BRASS PLUGS.

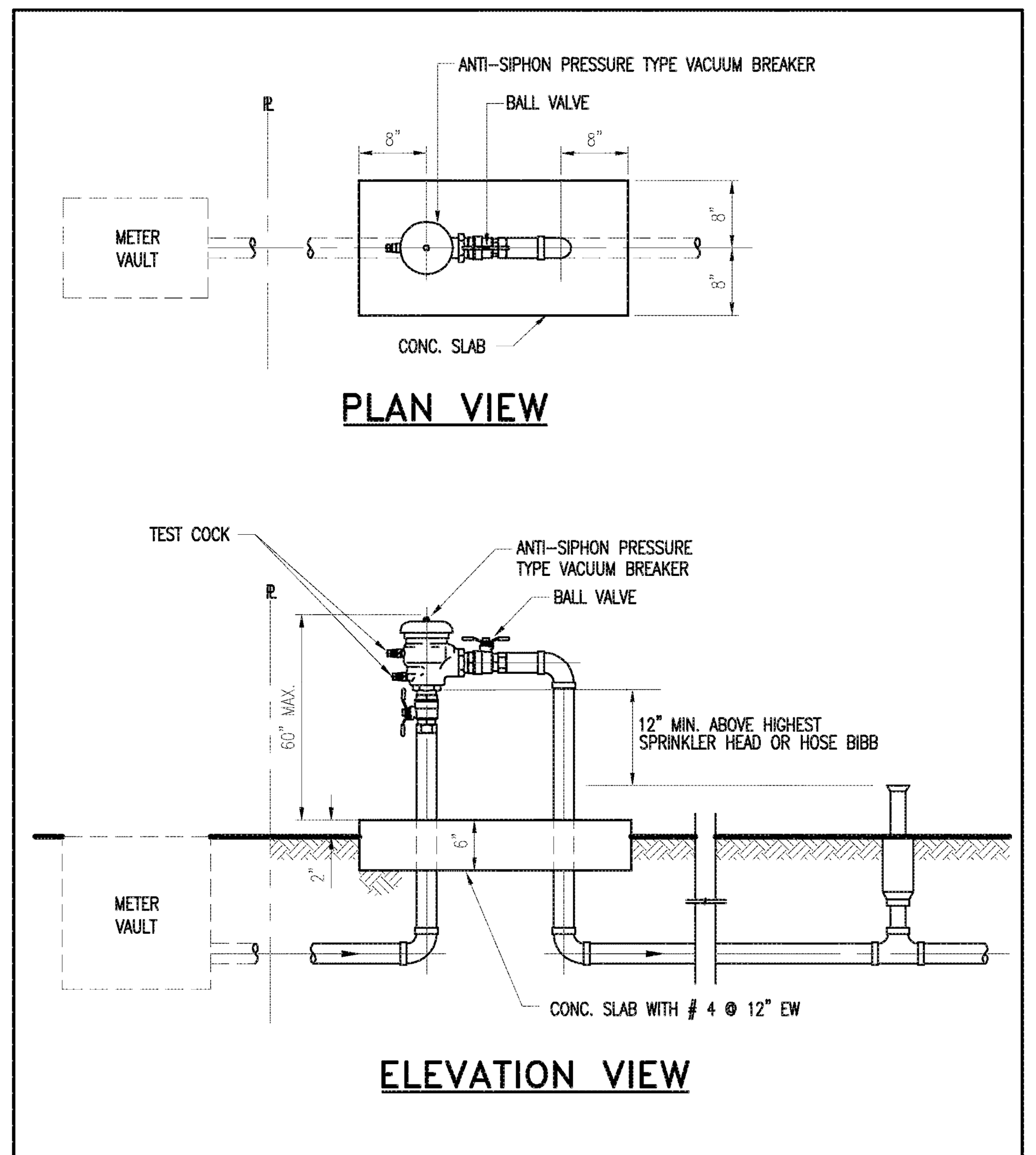
ITEM	CROSS REF.	SPEC. REF.
GUARD POST DETAIL	WS 4.5	

ISSUE DATE	APPROVED BY
09/30/2009	V.F.C.

MIAMI-DADE COUNTY — WATER & SEWER DEPARTMENT

STANDARD DETAIL
DOUBLE DETECTOR CHECK VALVE ASSEMBLY FOR FIRELINE SERVICE NOTES
WS 4.20 SHEET 3 OF 4

6 — DD CHECK VALVE NOTES
C3.00 | C5.06 SCALE NTS



ITEM	CROSS REF.	SPEC. REF.
GUARD POST DETAIL	WS4.5	XX 0.0

ISSUE DATE	APPROVED BY
11/01/2006	V.E.F.

MIAMI-DADE COUNTY — Delivering Excellence Every Day

STANDARD DETAIL
PRESSURE VACUUM BREAKER IRRIGATION SYSTEM ONLY
WS 4.19 SHEET 1 OF 2

NOTES:

1. THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
2. GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, AS DETERMINED BY THE DEPARTMENT.
3. THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE DEPARTMENT.
4. PIPING SHALL BE SCHEDULE 40 BRASS OR TYPE K COPPER PIPE WITH THREADED FITTINGS IN ACCORDANCE WITH WASD CONSTRUCTION SPECIFICATIONS FOR DONATION WATER MAINS. PVC PIPING IS NOT ACCEPTED BY WASD.
5. THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE VACUUM BREAKER ASSEMBLY.
6. SEE SPECIFICATIONS AND CONTACT DEPARTMENT FOR CURRENTLY APPROVED TYPES OF BACKFLOW PREVENTION ASSEMBLIES AND PRESSURE VACUUM BREAKERS (SEE WS 4.18 SHEET 4 OF 4)

ITEM	CROSS REF.	SPEC. REF.
XXXXX	XX 0.0	XX 0.0

ISSUE DATE	APPROVED BY
11/01/2006	V.E.F.

MIAMI-DADE COUNTY — Delivering Excellence Every Day

STANDARD DETAIL
PRESSURE VACUUM BREAKER IRRIGATION SYSTEM -NOTES-
WS 4.19 SHEET 2 OF 2

3 — IRR. VACUUM BRKR
C3.00 | C5.06 SCALE NTS

MINIMUM LENGTH OF PIPE (FEET) TO BE RESTRAINED

(SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1, AND DIPRA THRUST RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2)

FITTING TYPE	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"
90° HORIZONTAL BEND	14	20	25	30	35	45	54	62	73	84	93	101
45° HORIZONTAL BEND	6	8	11	13	15	19	22	26	30	35	38	42
22.5° HORIZONTAL BEND	3	4	5	6	7	9	11	12	15	17	18	20
11.25° HORIZONTAL BEND	1	2	3	3	4	4	5	6	7	8	9	10
90° VERTICAL OFFSET — UPPER BEND	55	79	103	125	147	189	228	266	319	368	412	454
90° VERTICAL OFFSET — LOWER BEND	22	38	49	59	69	88	106	123	145	165	184	201
45° VERTICAL OFFSET — UPPER BEND	22	32	42	51	60	77	93	109	131	151	170	187
45° VERTICAL OFFSET — LOWER BEND	10	14	19	23	28	35	43	50	59	67	75	82
22.5° VERTICAL OFFSET — UPPER BEND	7	12	17	21	26	34	42	49	60	70	78	87
22.5° VERTICAL OFFSET — LOWER BEND	2	4	6	8	10	14	17	21	25	29	33	36
11.25° VERTICAL OFFSET — UPPER BEND	3	4	6	9	11	15	19	22	28	32	37	41
11.25° VERTICAL OFFSET — LOWER BEND	1	1	1	2	3	5	7	6	10	12	14	16
PLUG (DEAD END)	32	45	59	70	83	107	129	151	190	220	244	270
IN-LINE VALVE	32	45	59	70	83	107	129	151	100	110	125	135
TEE (BRANCH RESTRAINT) 4"x 0	23											
TEE (BRANCH RESTRAINT) 6"x 0	21	35										
TEE (BRANCH RESTRAINT) 8"x 0	18	34	47									
TEE (BRANCH RESTRAINT) 10"x 0	16	32	46	58								
TEE (BRANCH RESTRAINT) 12"x 0	13	30	44	57	69							
TEE (BRANCH RESTRAINT) 16"x 0	7	26	41	55	67	90						
TEE (BRANCH RESTRAINT) 20"x 0	1	21	38	52	65	88	109					
TEE (BRANCH RESTRAINT) 24"x 0	1	16	34	49	62	86	108	129				
TEE (BRANCH RESTRAINT) 30"x 0	8	28	44	58	83	106	127	154				
TEE (BRANCH RESTRAINT) 36"x 0	1	1	22	39	54	80	103	124	153	179		
TEE (BRANCH RESTRAINT) 42"x 0	1	1	15	33	49	77	100	122	151	177	201	
TEE (BRANCH RESTRAINT) 48"x 0	1	1	7	27	44	73	97	120	149	176	200	222
REDUCER (LARGER PIPE RESTRAINT) 6"x 0	23											
REDUCER (LARGER PIPE RESTRAINT) 8"x 0	38	25										
REDUCER (LARGER PIPE RESTRAINT) 10"x 0	57	43	24									
REDUCER (LARGER PIPE RESTRAINT) 12"x 0	72	60	44	41								
REDUCER (LARGER PIPE RESTRAINT) 16"x 0	99	90	78	75	45							
REDUCER (LARGER PIPE RESTRAINT) 20"x 0	123	116	107	105	81	45						
REDUCER (LARGER PIPE RESTRAINT) 24"x 0	146	140	132	131	111	82	45					
REDUCER (LARGER PIPE RESTRAINT) 30"x 0	157	153	148	141	133	113	87	56				
REDUCER (LARGER PIPE RESTRAINT) 36"x 0	182	179	175	169	163	147	126	101	56			
REDUCER (LARGER PIPE RESTRAINT) 42"x 0	205	202	199	194	189	175	158	138	100	54		
REDUCER (LARGER PIPE RESTRAINT) 48"x 0	226	224	221	217	213	201	187	169	138	98	53	

NOTES:

1. THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
   - 1A: SOIL TYPE-SAND
   - 1B: TEST PRESSURE-150 PSI
   - 1C: DEPTH OF BURY-4'
   - 1D: TRENCH TYPE-3
   - 1E: SAFETY FACTOR-1.5
   - 1F: VERTICAL OFFSET-3'
   - 1G: MINIMUM PIPE LENGTH ALONG TEE RUN-5'
2. THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON AND PVC PIPE.
3. ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
4. RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.

ISSUE DATE	APPROVED BY
04/10/2014	J.F.
07/20/2016	D.V.

MIAMI-DADE COUNTY — WATER & SEWER DEPARTMENT

STANDARD DETAIL
STANDARD REQUIREMENTS FOR WATER AND SEWER MECHANICAL THRUST RESTRAINT
GS 2.0 SHEET 1 OF 1

4 — THRUST RESTRAINT REQS
C3.00 | C5.06 SCALE NTS

1. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS.
2. COVER OVER WATER OR SEWER FORCE MAINS SHALL BE 4'-0" MIN.
3. ALL MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 OR 53 VALVE BOXES FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO. 2 VALVE BOXES.
4. ALL FORCE MAIN SERVICE CONNECTIONS INTO PRESSURE TRANSMISSION MAINS SHALL HAVE A SHUT OFF VALVE AND CHECK VALVE AT THE POINT OF ENTRY.
5. ALL GRAVITY SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
6. ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER DEPARTMENT, PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID.
7. FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY MIAMI-DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATION IN ACCORDANCE WITH DEPARTMENT STANDARDS.
8. CONTRACTOR MUST CALL MDWASD INSPECTION DIVISION TO ARRANGE FOR A PRECONSTRUCTION MEETING 2 FULL BUSINESS DAYS PRIOR TO PROPOSED START OF CONSTRUCTION. CONTACT ONE CALL CENTER 48 HRS PRIOR TO EXCAVATION.
9. CONTRACT INSPECTOR WILL INSPECT ANY FACILITIES APPROVED BY THE DEPARTMENT. ALL OTHER REQUIREMENTS OF THE PERMITTING AGENCY SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.
10. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE SYSTEM BY THE DEPARTMENT AND UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED AND APPROVED BY THE DEPARTMENT.
   - a. EASEMENTS, IF REQUIRED
   - b. CONTRACTOR'S WAIVER AND RELEASE OF LIEN
   - c. ABSOLUTE BILL OF SALE
   - d. i. CONTRACTOR'S LETTER OF WARRANTY (I.E., LETTER AGREEMENT). ii. DEVELOPER'S CONTRACT BOND (I.E., CONTRACT AGREEMENT).
   - e. "RECORD DRAWING" PRINTS (24"x 36") SHOWING SPECIFIC LOCATIONS, DEPTH, ETC. OF ALL WATER AND SEWER FACILITIES AS LOCATED BY A LICENSED SURVEYOR & MAPPER, ALONG WITH PRINTS OF "RECORD DRAWINGS" WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED SURVEYOR & MAPPER. (No. OF PRINTS: 3-FOR WATER, 4-FOR GRAVITY SEWER AND 5-FOR FORCE MAIN OR PUMP STATION PROJECTS). Submittal of final CAD Files required.
   - f. H.R.S. LETTER OF RELEASE REQUIRED FOR ALL WATER PROJECTS
   - g. BILL OF SALE SKETCH (8½"x 11") FOR WATER AND SEWER, SEPARATELY
11. ALL NEW CONNECTIONS FROM EXISTING DEPARTMENT MAINS TO BE MADE BY DEPARTMENT FORCES ONLY. THE CONTRACTOR TO EXCAVATE AT REQUIRED LOCATIONS, PROVIDE AND INSTALL MATERIAL WITH FITTINGS, PRIOR TO TAP.
12. AN APPROVED PAVING AND DRAINAGE PLAN MUST BE SUBMITTED TO MDWASD FOR ALL NEW SUBDIVISIONS PRIOR TO APPROVAL OF WATER AND SEWER PERMIT PLANS, UPON REQUEST.
13. UNLESS OTHERWISE SPECIFIED, ALL TAPS 20 INCHES AND SMALLER FOR CONNECTIONS TO EXISTING MAINS WILL BE DONE BY DEPARTMENT FORCES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED TO TAP EXISTING MAINS IN THE SIZE RANGE SPECIFIED ABOVE. THE TAPPING SLEEVE AND TAPPING VALVE ARE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER THE SUPERVISION OF THE INSPECTOR.

ISSUE DATE	APPROVED BY
03/01/2010	V.F.C.
07/20/2016	D.V.

MIAMI-DADE COUNTY — WATER & SEWER DEPARTMENT

STANDARD DETAIL
STANDARD REQUIREMENTS WATER AND SEWER CONSTRUCTION
GS 0.5 SHEET 1 OF 2

1. AT THE COMPLETION OF ANY WATER AND SEWER JOB EITHER DONATION OR CONTRACT, THE CONTRACTOR SHALL SUBMIT:
   - a. RECORD DRAWING PRINTS WHICH HAVE BEEN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER (QTY. OF PRINTS AS REQUIRED BY THE DEPARTMENT).
2. "RECORD DRAWING" FORMAT:
   - a. 24"x 36" PRINTS
   - b. PDF FILE
   - c. CADD FILE (DWG OR DXF) ROTATED AND TRANSLATED TO STATE PLANE COORDINATES NAD 83 FLORIDA EAST ZONE
   - d. THE WORDS "RECORD DRAWING" IN LARGE LETTERS
   - e. TITLE BLOCK WITH DEPARTMENT DS, DW OR ER NUMBER AND PERTINENT INFORMATION
   - f. PREFERRED SCALE TO BE 1"= 40' HORIZONTALLY AND 1"= 4' VERTICALLY*
   - g. STREET NOMENCLATURE
   - h. SEPARATE RECORD DRAWINGS FOR WATER AND SEWER
   - i. SEPARATE WATER AND SEWER PROFILE
   - j. STATIONING STARTING WITH 0+00 AT PERMANENT REFERENCE POINT (I.E. ℄, ℄, ETC.) OR AS SHOWN ON DESIGN PERMIT PLANS, AND TO RUN CONTINUOUSLY TO END OF MAIN
   - k. EASEMENTS, IF ANY, TIED TO PERMANENT REFERENCE POINT
   - l. IDENTIFY ALL CONTROL LINES (I.E. BLDG. LINE, PROPERTY LINE, R/W, ETC.)
   - m. ALL "PROPOSED" INFORMATION TO BE REMOVED FROM PRINTS, LEAVING ONLY RECORD DRAWING INFORMATION REFLECTED IN DRAWINGS
3. WATER "RECORD DRAWINGS" MUST INCLUDE:
   - a. PLANS SHOWING PIPE SIZE, MATERIAL AND OFFSET OF MAIN, DEFLECTIONS (IF ANY), STATION OF SERVICES, HYDRANTS, VALVES, FITTINGS, IF ANY, ALL IN STATE PLANE COORDINATES. UTILITY CROSSINGS SHALL BE CLEARLY IDENTIFIED AND LOCATED.
   - b. PROFILE SHOWING TOP OF GROUND AND TOP OF PIPE ELEVATIONS AT EVERY 100' STATION AND AT ANY CHANGE IN GRADE (WITH CORRESPONDING STATION), PIPE SIZE AND PIPE MATERIALS REFERENCED TO PLAN.
4. SEWER "RECORD DRAWINGS" MUST INCLUDE:
   - a. PLAN SHOWING MANHOLE NUMBER, PIPE SIZE AND PIPE MATERIAL OF PIPE, DEFLECTION, SLOPE OF GRAVITY SEWER, LOCATION OF LATERALS WITH REFERENCE TO MANHOLE AND CLEANOUTS.
   - b. THE NORTHERLY AND EASTERLY COORDINATES ON ALL FIELD OBTAINED MEASUREMENTS AND PROVIDED ON ALL RECORD DRAWING SUBMITTALS
   - c. PROFILE SHOWING MANHOLE NUMBER (AS PER PLAN), RIM AND INVERT ELEVATIONS (IF MORE THAN ONE INVERT, LABEL NORTH, SOUTH, ETC.), AND STATION STARTING AT 0+00 AT DOWNSTREAM MANHOLE.
5. FORCE MAIN "RECORD DRAWING" SAME AS WATER MAIN.
6. EACH RECORD DRAWING SHALL SHOW THE FLORIDA STATE PLANE COORDINATES (CURRENT READJUSTMENT) OF ALL THE MANHOLES AND VALVES AND OF AT LEAST TWO HORIZONTAL CONTROL POINTS PROPERLY IDENTIFIED AND LOCATED WITHIN THE PROJECT.

* OTHER SCALE MAY BE PERMITTED, BUT MUST BE APPROVED BY THE DEPARTMENT PRIOR TO PREPARATION OF DRAWINGS.

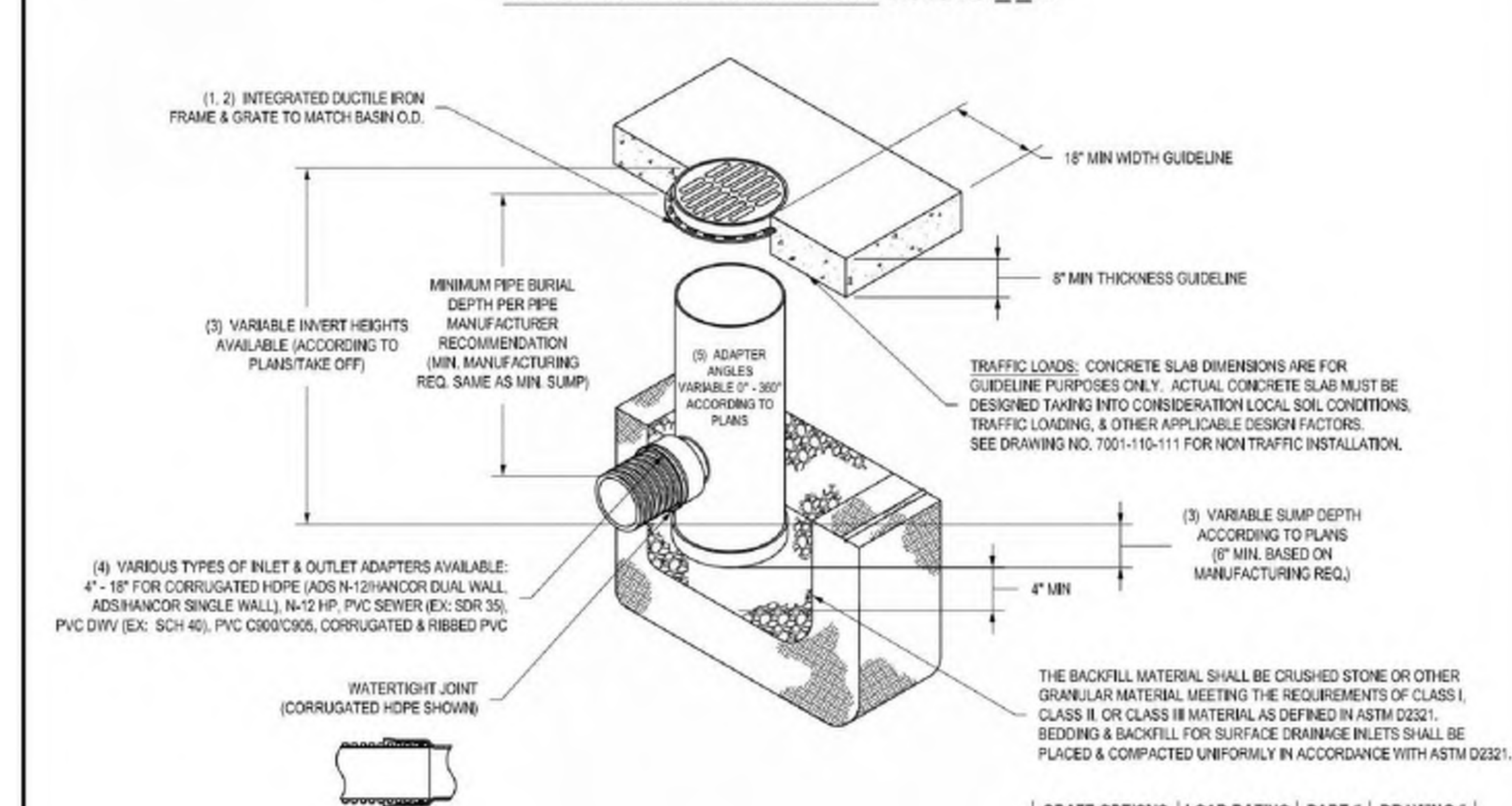
ISSUE DATE	APPROVED BY
03/11/2009	V.F.C.
07/20/2016	D.V.

MIAMI-DADE COUNTY — WATER & SEWER DEPARTMENT

STANDARD DETAIL
"RECORD DRAWING" REQUIREMENTS
GS 0.5 SHEET 2 OF 2

2 — WASD REQUIREMENTS
C3.00 | C5.06 SCALE NTS

NYLOPLAST 18" DRAIN BASIN: 2818AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899CGP	7001-110-212
STANDARD	MEETS H-20	1899CGS	7001-110-213
SOLID COVER	MEETS H-20	1899CGC	7001-110-214
DOME	N/A	1899CGD	7001-110-215
DROP IN GRATE	LIGHT DUTY	1801DI	7001-110-074

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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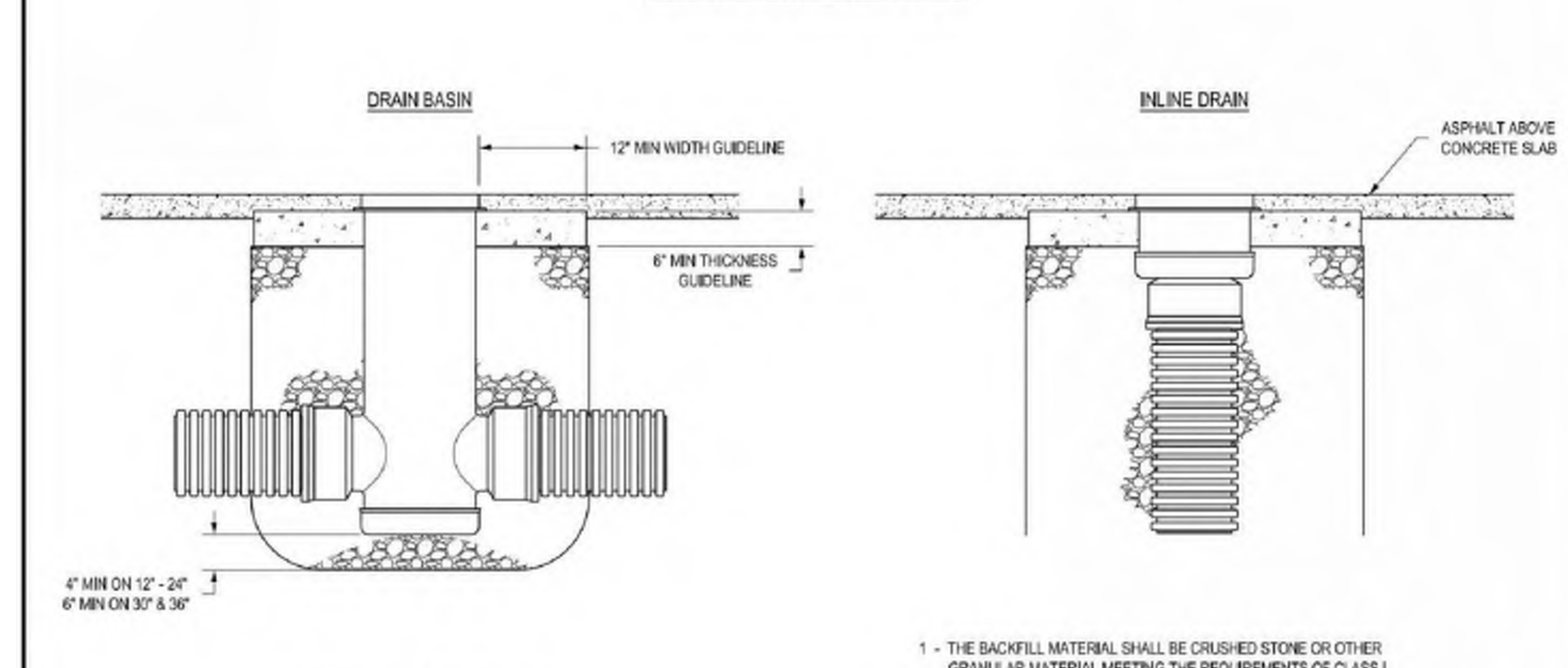
DRAWN BY EBC — DATE 04-03-06 — REVISED BY NMH — DATE 03-14-16 — DWG SIZE A — SCALE 1:30 — SHEET 1 OF 1
MATERIAL — PROJECT NO./NAME
ADS Nyloplast — 3130 VERONA AVE, BUFORD, GA 30518 — PHN (770) 932-2443 — FAX (770) 932-2490 — www.nyloplast-us.com
TITLE: 18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL — DWG NO. 7001-110-191 — REV E

ASPHALT INSTALLATION



STRUCTURE SIZE	H-10 GRATE OPTIONS
12"	12" PEDESTRIAN
15"	15" PEDESTRIAN
18"	18" PEDESTRIAN
24"	24" PEDESTRIAN
30"	30" PEDESTRIAN
36"	36" PEDESTRIAN

1. THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.
2. MEDIUM DUTY TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS.
3. 36" DRAIN BASINS REQUIRE 36"X30" REDUCING CONE. REDUCING CONE REQUIRES 2.25 FT FROM GRADE TO TOP OF PIPE.

DRAWN BY EBC — DATE 03-14-16 — REVISED BY NMH — DATE 11-09-20 — DWG SIZE A — SCALE 1:25 — SHEET 1 OF 1
ADS Nyloplast — 3130 VERONA AVE, BUFORD, GA 30518 — PHN (770) 932-2443 — FAX (770) 932-2490 — www.nyloplast-us.com
TITLE: DRAIN BASIN & INLINE DRAIN (H-10 TRAFFIC LOAD) ASPHALT INSTALLATION DETAIL — DWG NO. 7001-110-392 — REV E

1 — NYLOPLAST DRAIN BASIN
C2.00 | C5.06 SCALE NTS

ELM ARCH
8950 SW 74TH Court
Suite 1204
Miami, FL 33156
786-391-2646
Qualifier: Erik Lloyd Myers
State of Florida: AR 93574

Sign & Seal:
State of Florida:
HOLLY B. ADAMS LICENSE No 96658 04/01/25 STATE OF FLORIDA PROFESSIONAL ENGINEER

ALPHA CORPORATION

OWNER:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HOLLY ADAMS ON THE DATE ADJACENT TO THE SEAL.

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Miami Lakes Branch Library
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Miami Lakes, FL 33014

TITLE: C5.06 - UTILITY DETAILS 3

REVISION
REV 1 08-28-23
REV 2 11-14-23
REV 3 03-26-25

DATE 03-26-25
PROJECT NUMBER 19119
SHEET NUMBER
C5.06
20 OF 18