SITE AND STREETSCAPE **IMPROVEMENTS AT** CHERRY STREET, FIRST STREET, **AND COTTON AVENUE**

VICINITY MAP

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ARCHITECT:

LANDSCAPE ARCHITECT: MANLEY LAND DESIGN, INC.

CIVIL ENGINEER: TRIPLE POINT ENGINEERING

ELECTRICAL ENGINEER: ELECTRICAL DESIGN CONSULTANTS

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RRY AND STRI COT **S**

Revisions

Sheet Title: TITLE SHEET

5/7/202



STRIPING AND SIGNAGE

- 1. WARNING DEVICES SHALL BE PLACED PRIOR TO THE COMMENCEMENT OF WORK WITHIN A PUBLIC RIGHT-OF-WAY AND SHALL REMAIN IN PLACE UNTIL THE WORK WITHIN THE RIGHT-OF-WAY HAS BEEN COMPLETED.
- 2. ALL WARNING DEVICES SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND LOCAL ORDINANCES FOR COLOR, SIZE, REFLECTIVITY, HEIGHT, AND PLACEMENT.
- 3. ALL SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND LOCAL ORDINANCES FOR COLOR, SIZE, REFLECTIVITY, HEIGHT, AND PLACEMENT.
- 4. PAVEMENT MARKINGS, STRIPING (WHITE AND YELLOW), AND ARROW MARKINGS SHALL BE APPLIED USING PAINT MEETING THE STANDARDS OF THE GEORGIA DOT OR LOCAL ORDINANCE.
- 5. WHEN NECESSARY, EXISTING STRIPING SHALL BE REMOVED BY GRINDING, UNLESS SPECIFIED OTHERWISE BY THE LOCAL TRAFFIC ENGINEER.

CONTRACTOR/DEVELOPER NOTES:

- 1. FOR OTHER SITE, MISCELLANEOUS AND/OR SPECIAL NOTES SPECIFIC TO VARIOUS CONSTRUCTION PHASES, REFER TO EACH INDIVIDUAL SHEET FOR SAID NOTES AND/OR CONDITIONS.
- 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TO THE STORMWATER CONVEYANCE SYSTEM. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. TOP OF GROUND CONTACT AT A BUILDING SLAB SHALL BE AT AN ELEVATION 8" BELOW THE SLAB ELEVATION (FFE).
- 3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT PRIOR TO ORDERING PROJECT MATERIALS THE MOST CURRENT SET OF CONSTRUCTION DOCUMENTS HAVE BEEN OBTAINED FROM THE ENGINEER INCLUDING, BUT NOT LIMITED TO, THE APPROVED SET(S) FROM ALL APPLICABLE AGENCIES AS APPROPRIATE.
- 4. THE DEVELOPER AND/OR DEVELOPERS CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, SIZE AND MATERIAL OF ANY EXISTING UTILITIES, WATER OR SEWER FACILITY PROPOSED FOR CONNECTION OR USE BY THIS PROJECT.
- 5. DISTURBANCE TO ANY SURVEY MARKER MAY REQUIRE RE-ESTABLISHMENT OF THE MARKER OR MONUMENT BY A LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.

DEMOLITION

- 1. CONTRACTOR SHALL REVIEW SITE DEVELOPMENT PLANS, AND SHALL REMOVE ALL EXISTING SITE FEATURES REQUIRED FOR CONSTRUCTING THE PROPOSED IMPROVEMENTS.
- 2. ALL PAVEMENT TO BE REMOVED (CONCRETE & ASPHALT) SHALL BE SAW CUT AT THE EDGE OF THE REMOVAL
- 3. THE CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY OWNERS TO ENSURE UNINTERRUPTED UTILITY SERVICE TO USERS. SERVICE LINES TO BE REMOVED SHALL BE REMOVED TO THE MAIN LINE
- 4. CLEAN-UP AND DISPOSAL: TRANSPORT TRASH, RUBBISH AND DEBRIS FROM SITE DAILY AND DISPOSE OF THEM IN A LEGAL FASHION. REMOVE AND PROMPTLY DISPOSE OF CONTAMINATED, VERMIN INFESTED, OR DANGEROUS MATERIALS ENCOUNTERED. DO NOT BURN OR BURY MATERIALS ON SITE. REMOVE TOOLS, EQUIPMENT AND PROTECTIONS WHEN WORK IS COMPLETE AND WHEN AUTHORIZED TO DO SO BY THE OWNER AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE WORK.

GRADING AND EARTHWORK NOTES:

- SURVEYOR LISTED ON THE TITLE SHEET.
- RESOLVED.
- GRADES.
- SUBGRADE AND FOUNDATION PREPARATION FILL MATERIAL WILL BOND WITH EXISTING SURFACE.
- WHEN EXISTING GROUND SURFACE HAS A DENSITY LESS THAN THAT SPECIFIED UNDER THE SPECIFICATIONS LISTED BELOW.

SATISFACTORY SOIL MATERIALS

- DEBRIS, WASTE, FROZEN MATERIALS, VEGETABLE AND OTHER DELETERIOUS MATTER. FILLING AND BACKFILLING ARE THOSE CLASSIFIED AS MH, CH, OL, OH AND PT IN ACCORDANCE WITH SHALL NOT BE CLASSIFIED UNSUITABLE DUE TO HIGH MOISTURE CONTENT ALONE.
- SOIL PLACEMENT, COMPACTION, AND TESTING REQUIREMENTS
- MATERIAL COMPACTED BY HAND OPERATED TAMPERS.
- DENSITY
- LISTED ABOVE.
- TEST AND OBSERVATIONS OF PRE-DENSIFICATION TO OWNER AND ENGINEER.
- OF FILL AREA FOR DAMS OR 5,000 SQ. FT. FOR NON-DAM EARTHWORK AREAS.
- PLAN, THE ANTI-SEEP COLLARS ARE PRESENT AND PROPERLY PLACED.
- SUBGRADE OR FILLS WHICH HAVE BEEN PLACED ARE BELOW SPECIFIED DENSITY, THE COMPACTED TO THE SPECIFICATIONS ABOVE.
- REGISTERED GEOTECHNICAL ENGINEER TO INSPECT THE SITE, AND TO MAKE ANY WATERS.
- THE CONTRACTOR SHALL INCLUDE IN THE BID COSTS RELATED TO TEMPORARY AND/OR THE BID SET.
- 3:1 (HORIZONTAL: VERTICAL). UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
- WORK IS TO BE INITIATED UNTIL PERMITS ARE RECEIVED.
- AS-BUILT SURVEY REQUIRED: STRUCTURE.
- FOLLOWING COMPLETION OF THE PROJECT. AT HIS OPTION. IF NOT REQUIRED BY LOCAL CONSTRUCTION DRAWINGS.

THE VERTICAL AND HORIZONTAL DATUM FOR THIS PROJECT CAN BE OBTAINED FROM THE

THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF EXISTING CONDITIONS ENCOUNTERED ON THE PROJECT SITE DIFFER FROM THOSE DEPICTED ON THE PLANS. IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR IMMEDIATELY AND SHALL NOT COMMENCE OR CONTINUE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, AND/OR OTHER UNSATISFACTORY CONDITIONS ARE

UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AS DEPICTED ON THE DRAWINGS, INCLUDING ADJACENT TRANSITION AREAS. SMOOTH FINISHED SOIL SURFACE WITHIN 0.1' OF THE PROPOSED CONTOURS AS DEPICTED ON THE DRAWINGS, COMPACT WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN. OR BETWEEN SUCH POINTS AND EXISTING

REMOVE ALL TOPSOIL, VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACEMENT OF FILLS. TOPSOIL SHALL BE CONSIDERED TO MEAN ORIGINAL SURFACE SOIL, TYPICAL OF AREA, WHICH IS CAPABLE OF SUPPORTING NATIVE PLANT GROWTH, AND SHALL BE FREE OF LARGE STONES, ROOTS, BRUSH, WASTE CONSTRUCTION DEBRIS AND OTHER UNDESIRABLE MATERIAL OR CONTAMINATION. PLOW, STRIP, OR BREAK-UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO THAT

"COMPACTION" FOR PARTICULAR AREA CLASSIFICATIONS, BREAK UP GROUND SURFACE, PULVERIZE MOISTURE-CONDITION TO OPTIMUM MOISTURE CONTENT, AND COMPACT TO REQUIRED DEPTH AND PERCENTAGE OF MAXIMUM DENSITY. REMOVE AND REPLACE ANY EXISTING GROUND MATERIAL THAT DOES NOT MEET THE CRITERIA FOR SATISFACTORY SOIL MATERIAL OR WILL NOT COMPACT TO

SATISFACTORY SOIL MATERIALS FOR FILL MATERIAL SHALL BE LIMITED TO SOILS CLASSIFIED IN ACCORDANCE WITH ASTM D2487 AS SM, SC, ML AND CL. SATISFACTORY SOIL MATERIALS DESCRIBED ABOVE MUST BE FREE OF CLAY. ROCK OR GRAVEL LARGER THAN 2" IN ANY DIMENSION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING INCLUDING TESTING OF BORROW MATERIALS TO DETERMINE SUITABILITY FOR USE AS FILL MATERIAL. UNSUITABLE MATERIALS FOR

THE UNIFIED SOIL CLASSIFICATION SYSTEM. EXCAVATED SOILS THAT ARE TOO WET TO COMPACT

CONTROL SOIL COMPACTION DURING CONSTRUCTION PROVIDING NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY (ASTM D-698) FOR SOILS WHICH EXHIBIT A WELL-DEFINED MOISTURE DENSITY RELATIONSHIP DETERMINED IN ACCORDANCE WITH ASTM STANDARDS.

ADDITIONAL COMPACTION SPECIFICATIONS MAY BE ASSOCIATED WITH THE CONSTRUCTION DETAILS

PLACE BACKFILL AND MATERIALS IN LAYERS NOT MORE THAN 6" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND NOT MORE THAN 4" IN LOOSE DEPTH FOR

BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE OPTIMUM (OR UP TO 3% ABOVE OPTIMUM FOR DETENTION OR SEDIMENT POND DAMS) MOISTURE CONTENT. COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY OR RELATIVE DRY DENSITY FOR EACH AREA CLASSIFICATION. DO NOT PLACE BACKFILL OR FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED

PLACE BACKFILL AND FILL MATERIALS EVENLY ADJACENT TO STRUCTURES TO REQUIRED ELEVATIONS. TAKE CARE TO PREVENT WEDGING ACTION OF BACKFILL AGAINST STRUCTURES BY CARRYING MATERIAL UNIFORMLY AROUND STRUCTURE TO APPROXIMATELY SAME ELEVATION IN EACH LIFT. COMPACTION OF SOILS ADJACENT TO STRUCTURES MUST MEET THE SPECIFICATIONS

THE CONTRACTOR SHALL PROVIDE AN INDEPENDENT GEOTECHNICAL TESTING SERVICE TO INSPECT AND APPROVE ALL SEDIMENT POND AND DETENTION POND SUBGRADES AND FILL LAYERS. AN EXPERIENCED GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE SHALL OBSERVE THE PREPARATION OF A DAM FOUNDATION AREA. SUBMIT ONE COPY OF RESULTS OF ALL COMPACTION

PERFORM FIELD DENSITY TESTS IN ACCORDANCE WITH ASTM D 2937 (DRIVE CYLINDER METHOD). ASTM D 1556 (SAND CONE METHOD), AS APPLICABLE, OR NUCLEAR METHOD ASTM D 2922. MAKE AT LEAST ONE FIELD DENSITY TEST FOR EACH 12" LAYER OF FILL PLACEMENT FOR EVERY 2,500 SQ. FT.

THE CONTRACTOR SHALL ENGAGE A GEOTECHNICAL FIRM TO HAVE A QUALIFIED REPRESENTATIVE ON SITE ON A FULL-TIME BASIS DURING SUBGRADE EVALUATION AND FILL PLACEMENT FOR ALL EDIMENT POND AND DETENTION POND DAM CONSTRUCTION. THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE SHALL ALSO INSPECT AND VERIFY IN WRITING THAT, IF REQUIRED BY THE

IF IN THE OPINION OF THE ENGINEER, BASED ON TESTING SERVICE REPORTS AND INSPECTIONS, CONTRACTOR SHALL REMOVE THE UNSUITABLE FILL AND REPLACE IT WITH FILL MATERIAL

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THE DISCOVERY OF ANY GROUNDWATER, SUB-SURFACE SEEPAGE, OR SPRINGS DISCOVERED DURING THE COURSE OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO CONSULT WITH A RECOMMENDATIONS REGARDING EVIDENCE AND REMEDIATION (IF ANY) OF SAID SUB-SURFACE

PERMANENT MEASURES PROVIDED TO REMOVE SUBSURFACE SEEPAGE, SPRINGS OR OTHER GROUND WATER DURING AND PERMITTING, FRENCH DRAIN, ETC. WHETHER OR NOT DEPICTED IN

ALL CUT AND FILL SLOPES (WHERE NO WALL IS PROPOSED) SHALL BE EQUAL TO OR FLATTER THAN

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL PERMITS; INCLUDING, BUT NOT LIMITED TO BUILDING, EROSION CONTROL, LAND DISTURBANCE, AND ENCROACHMENT PERMITS. NO

THE CONTRACTOR OR OWNER SHALL CONTRACT WITH A REGISTERED LAND SURVEYOR TO OBTAIN AN "AS-BUILT" SURVEY OF ALL DETENTION PONDS AND SEDIMENT PONDS (INCLUDING THE DAM AND OUTLET STRUCTURES.) THE SURVEY SHALL RECORD THE TOPOGRAPHY AND SIZE OF THE ENTIRE SEDIMENT POND OR DETENTION POND BASIN (MEASURED FROM THE LOW-POINT OF THE BASIN TO THE HIGH-POINT OF THE DAM,) THE GEOMETRY OF THE OUTLET STRUCTURES (INCLUDING THE EMERGENCY SPILLWAY), AND THE SIZE/TYPE/INVERTS OF ALL PIPES ASSOCIATED WITH THE

THE CONTRACTOR OR OWNER SHALL KEEP THE AS-BUILT DAM SURVEY INFORMATION AND SOIL COMPACTION TESTING DOCUMENTATION ON FILE FOR A PERIOD OF AT LEAST THREE YEARS

JURISDICTION, THE CONTRACTOR/OWNER MAY SUBMIT THE AS-BUILT SURVEY INFORMATION TO THE DESIGN ENGINEER FOR VERIFICATION THAT THE SEDIMENT POND AND/OR DETENTION POND CONSTRUCTION MEETS THE INTENT OF THE DESIGN AND THE LINES AND GRADES DEPICTED ON THE

ELECTRONIC CAD FILE NOTICE

THE DWG FILE ASSOCIATED WITH THIS PLAN IS ONLY SUITABLE FOR USE BY THE DESIGN PROFESSIONAI FOR PRODUCING PRINTS OF THE DESIGN INTENT. ANY OTHER USE OF THE DWG FILE IS AT THE RISK OF THE USER.

UTILITY LOCATION:

1. THE CONTRACTOR SHALL LOCATE UTILITIES BY CALLING (TOLL FREE) 811 A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY EXCAVATION AS SHOWN ON THIS PLAN. ABOVE GROUND UTILITY LOCATIONS SHOWN ON THIS PLAN WERE OBTAINED FROM FIELD OBSERVATIONS. UNDERGROUND UTILITY LOCATIONS AND EASEMENT LOCATIONS AND/OR REFERENCES WERE FURNISHED TO US BY AGENCIES OR INDIVIDUALS AND WE DO NOT CERTIFY THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. UTILITY LOCATIONS SHALL BE CONFIRMED IN THE FIELD PRIOR TO PROCEEDING WITH CONSTRUCTION. THE OWNER SHALL COORDINATE WITH EASEMENT AND UTILITY OWNERS PRIOR TO COMMENCING CONSTRUCTION.

- 2. ALL EXISTING UTILITIES , UTILITIES EASEMENTS, AND UTILITY RIGHT-OF-WAY MAY NOT BE DEPICTED ON THESE DRAWINGS. UNDERGROUND UTILITY LOCATIONS SHOWN ON THIS PLAN (IF ANY) ARE APPROXIMATE ONLY, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF ANY SUCH UTILITIES. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE UTILITY LOCATIONS SHOWN ON THIS PLAN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY TO VERIFY ALL UTILITY LOCATION. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY EXISTING UTILITIES WILL AFFECT OR IMPEDE THE PROGRESSION OR COMPLETION OF THE DESIGN INTENT OF THESE CONSTRUCTION DOCUMENTS.
- 3. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ANY EXISTING UTILITIES WITH THE APPROPRIATE UTILITY OWNER PRIOR TO THE START OF ANY CONSTRUCTION.
- 4. UTILITY OWNERS SHALL BE NOTIFIED IN ADVANCE OF THE WORK.

JTILITY NOTES

1. CONTRACTOR SHALL PLACE BLACK PLASTIC BAGS OVER TOP OF ALL OUT-OF-SERVICE FIRE HYDRANTS UNTIL THE HYDRANTS ARE IN SERVICE.

2. METALLIC TAPE LOCATOR SHALL BE USED ON ALL SANITARY SEWER LATERALS.

3. THE CONTRACTOR SHALL NOTIFY THE MACON WATER AUTHORITY INSPECTIONS DEPARTMENT 48 HOURS PRIOR TO BEGINNING CONSTRUCTION- CALL CHIEF INSPECTOR JOEL HERNDON (478) 464-5639.

4. ALL WORK PERFORMED IN ASSOCIATION WITH THIS PROJECT MUST CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE MACON WATER AUTHORITY (MWA OR THE AUTHORITY).

5. ALL BACKFLOW PREVENTION DEVICES MUST BE INSTALLED AND TESTED WITHIN SEVEN (7) BUSINESS DAYS AFTER METER INSTALLATIONS AND ESTABLISHED USE OF THE METER ACCOUNTS.

3. ALL HAND SINKS, COMPARTMENT SINKS, MOP SINKS, FLOOR SINKS/DRAINS AND FOOD PROCESSOR UNITS (GARBAGE DISPOSAL UNITS) WILL BE REQUIRED TO CONNECT TO THE GREASE INTERCEPTOR PRIOR TO DISPOSAL INTO MWA SANITARY SEWER SYSTEM.

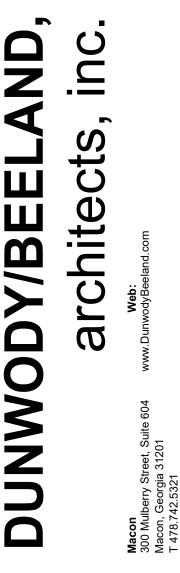
7. PLEASE CONTACT MWA GREASE MANAGEMENT INSPECTOR, MR. SYLVESTER MARCUS, AT (478) 256-9402 BEFORE THE INSTALLATION OF THE GREASE INTERCEPTOR AND FOR FINAL INSPECTION.

STORMWATER:

- 1. THE CONTRACTOR MUST PROTECT DRAINAGE STRUCTURES DURING CONSTRUCTION. ONCE A PIPE IS PLACED, ADDITIONAL PROTECTIVE FILL MAY BE NEEDED OVER STORM DRAIN PIPES DURING THE CONSTRUCTION PROCESS.
- 2. ALL PIPE THAT IS PART OF A ROADWAY DRAINAGE SYSTEM, IF ANY, SHALL BE 14 GAUGE MINIMUM BCCMP UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
- 3. PIPE SHALL TO BE INSTALLED PER GA DOT STD 1030D.
- 4. CORRUGATED METAL PIPE, IF SHOWN, SHALL TO BE INSTALLED IN LENGTHS TO PREVENT JOINTS FROM BEING LOCATED UNDER THE PAVEMENT.
- 5. ALL DROP INLETS SHALL BE PER CONSTRUCT GA DOT STANDARDS & DETAILS.
- 6. ALL HEADWALLS SHALL BE CONSTRUCTED PER GA DOT STANDARDS.
- 7. ALL CATCH BASINS SHALL BE CONSTRUCTED PER GA DOT STD 1033D OR 1034D UNLESS AN ALTERNATE DETAIL IS PROVIDED.
- 8. ALL FLARED END SECTIONS SHALL BE PER GA DOT STD 1120.
- 9. ALL JUNCTION BOXES SHALL BE PER GA DOT STANDARDS & DETAILS
- 10. ALL PAVEMENT SHALL BE CONSTRUCTED PER GA DOT STANDARDS & SPECIFICATIONS

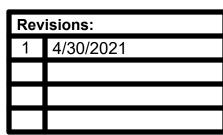
EROSION AND CONTROL:

- 1. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING AS SHOWN AND/OR AS DIRECTED BY THE LOCAL INSPECTOR. GRADING SHALL NOT BE INITIATED UNTIL THE PERIMETER SILT BARRIER INSTALLATION AND SEDIMENT STORAGE FACILITIES ARE CONSTRUCTED.
- 2. ADDITIONAL EROSION CONTROL MEASURES SHALL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS.
- 3. PROVISIONS TO PREVENT EROSION OF SOIL FROM THE SITE SHALL BE, AT A MINIMUM, IN CONFORMANCE WITH THE REQUIREMENTS OF THE MANUAL FOR SEDIMENT AND EROSION CONTROL IN GEORGIA AND IN CONFORMANCE WITH LOCAL ORDINANCES.
- 4. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED AT EACH SITE ENTRY/EXIT. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. PERIODIC REPAIR AND/OR TOP DRESSING WITH STONE MAY BE REQUIRED.
- 5. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR INSIDE THE APPROVED LIMITS AS INDICATED ON THE APPROVED PLANS.
- 6. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND SEDIMENT STORAGE DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- 7. STORM DRAIN SYSTEMS SHALL BE PROTECTED AND MAINTAINED SUCH THAT THEY REMAIN CLEAN AND FREE OF SILT AND DEBRIS.
- 8. SEEDING SPECIFICATIONS AND APPLICATION RATES ARE SHOWN IN THIS PLAN. ANY SUBSTITUTIONS WILL REQUIRE APPROVAL OF THE LOCAL GOVERNMENTAL AGENCY AND THE OWNER.
- 9. EROSION CONTROL MEASURES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY NEED TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DIFFICULTY IN CONTROLLING EROSION DURING CONSTRUCTION TO THE ENGINEER.



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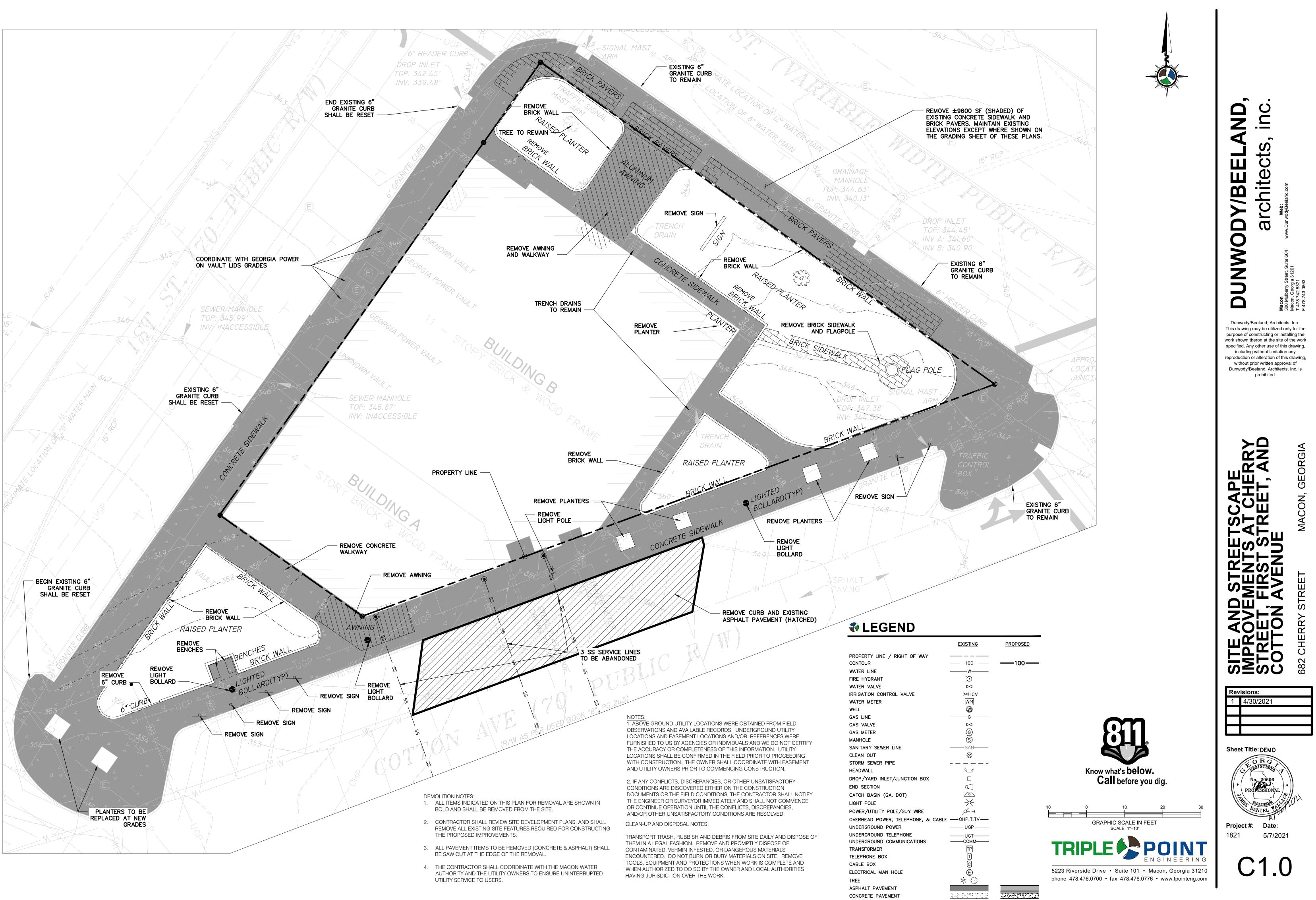


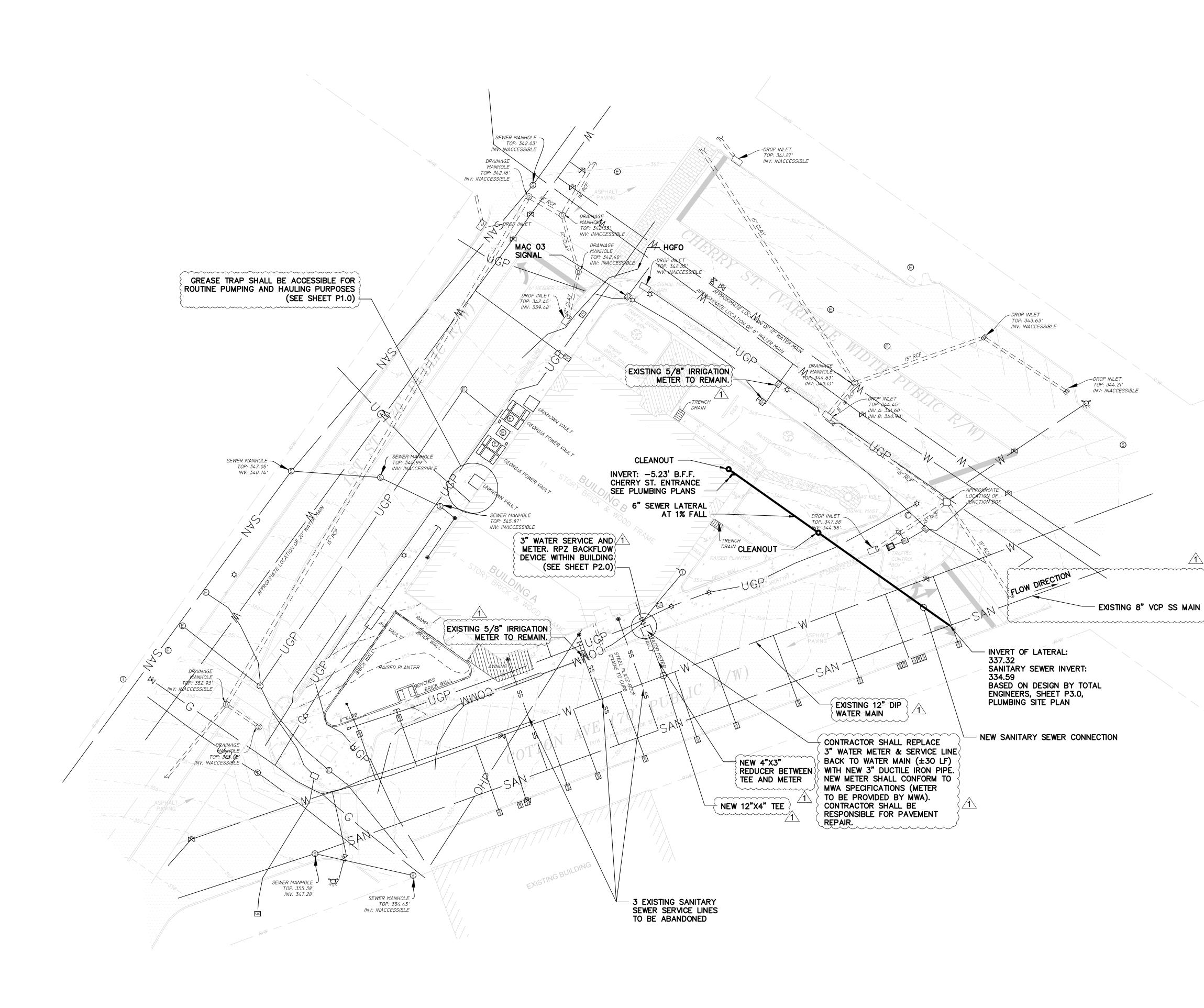
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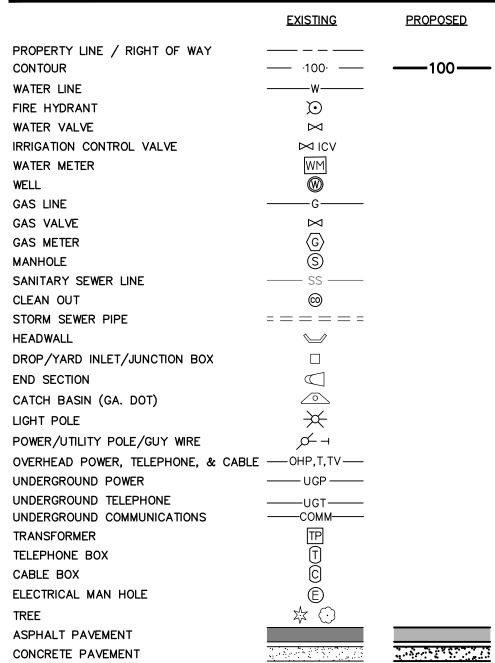
WATER EXISTING WATER MAIN - COTTON AVE EXISTING FIRE SERVICE LINE - 1ST STREET

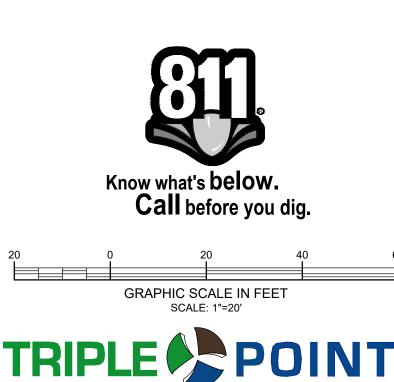
PROPOSED 3" DUCTILE IRON PIPE POTABLE WATER SERVICE: ±30 LF PROPOSED RPZ BACKFLOW DEVICE (SHEET P2.0)

<u>SEWER:</u> EXISTING 8" VCP SS MAIN - COTTON AVE PROPOSED 6" SDR-26 PVC SEWER SERVICE LATERAL: ±105 LF

1. ABOVE GROUND UTILITY LOCATIONS WERE OBTAINED FROM FIELD OBSERVATIONS AND AVAILABLE RECORDS. UNDERGROUND UTILITY LOCATIONS AND EASEMENT LOCATIONS AND/OR REFERENCES WERE FURNISHED TO US BY AGENCIES OR INDIVIDUALS AND WE DO NOT CERTIFY THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. UTILITY LOCATIONS SHALL BE CONFIRMED IN THE FIELD PRIOR TO PROCEEDING WITH CONSTRUCTION. THE OWNER SHALL COORDINATE WITH EASEMENT AND UTILITY OWNERS PRIOR TO COMMENCING CONSTRUCTION.

2. IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR IMMEDIATELY AND SHALL NOT COMMENCE OR CONTINUE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, AND/OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.





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ENGINEERING

S rchitect Y/BEE **UNWOD** σ **Macon** 300 Mulberry Str Macon, Georgia T 478.742.5321 F 478.743.0863

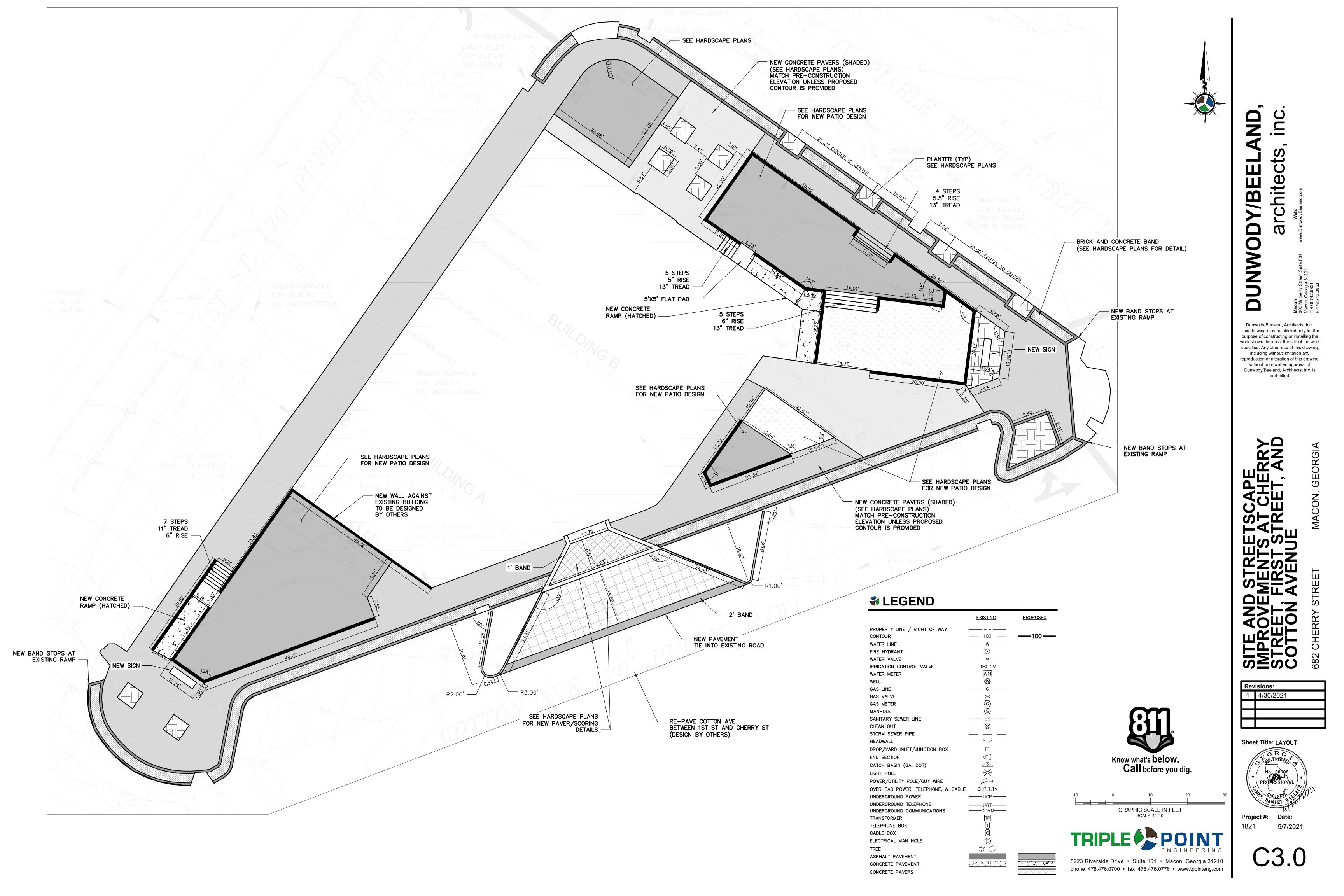
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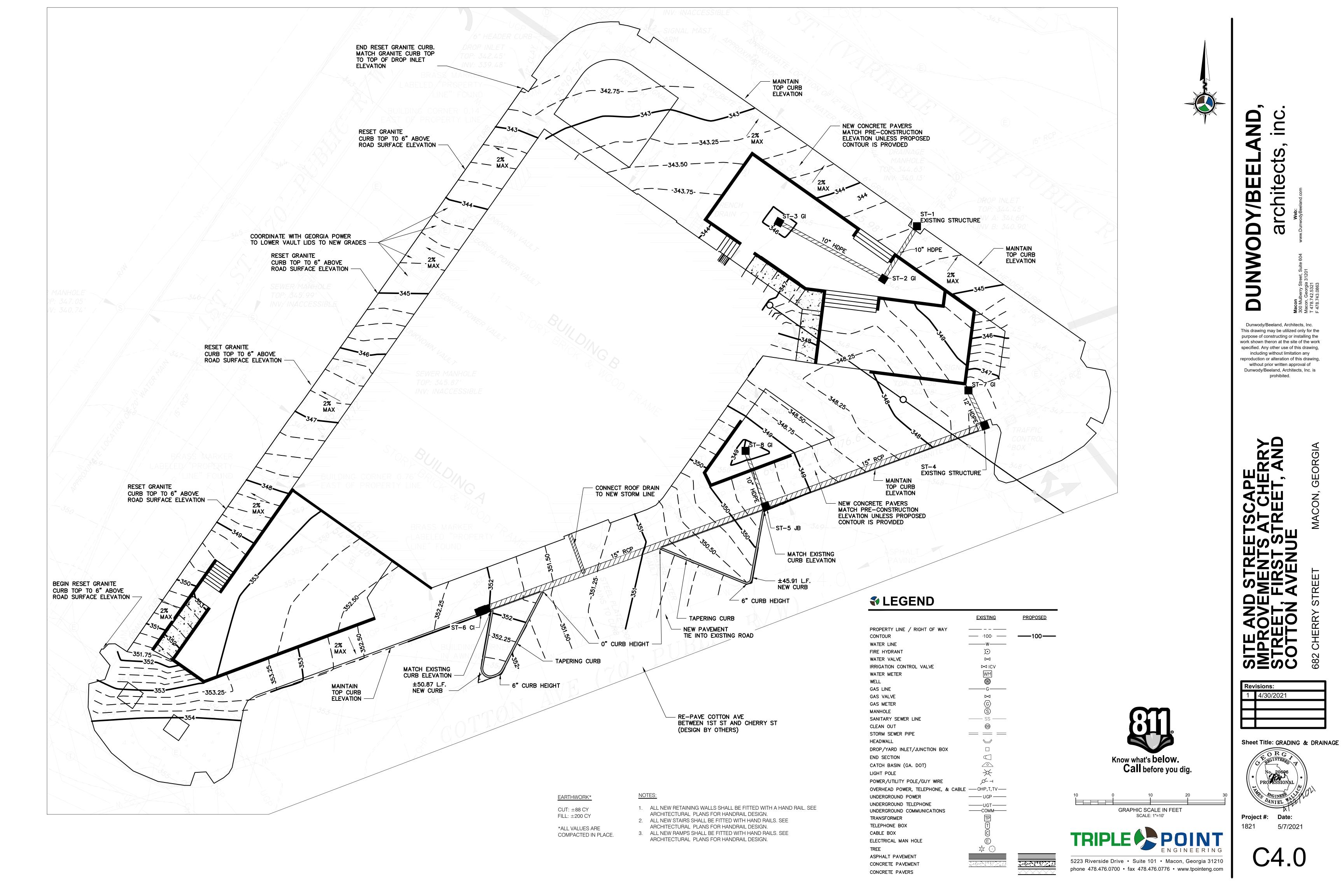
prohibited.



Project #: Date: 1821 5/7/2021









SW PATIO

S ENTRANCE

	EXISTING	PROPOSED
PROPERTY LINE / RIGHT OF WAY		
CONTOUR	<u> </u>	<u> </u>
WATER LINE	W	
FIRE HYDRANT	\mathfrak{O}	
WATER VALVE	\bowtie	
IRRIGATION CONTROL VALVE		
WATER METER	WM	
WELL	<u></u>	
GAS LINE	G	
GAS VALVE	\bowtie	
GAS METER	G	
MANHOLE	(C) (S)	
SANITARY SEWER LINE	SS	
CLEAN OUT	6	
STORM SEWER PIPE		
HEADWALL		
DROP/YARD INLET/JUNCTION BOX		
CATCH BASIN (GA. DOT)		
LIGHT POLE	×	
POWER/UTILITY POLE/GUY WIRE	jс– ч	
OVERHEAD POWER, TELEPHONE, & CAB	LEOHP,T,TV	
UNDERGROUND POWER	UGP	
UNDERGROUND TELEPHONE	UGT	
UNDERGROUND COMMUNICATIONS	COMM	
TRANSFORMER	TP	
TELEPHONE BOX	$\overline{(T)}$	
CABLE BOX	T C	
ELECTRICAL MAN HOLE	Ē	
TREE	$\stackrel{\circ}{\Rightarrow}$	
ASPHALT PAVEMENT	44	
CONCRETE PAVEMENT		
CONCRETE PAVERS		
Kno	w what's below	, N-
	Call before yo	
10 0 E	10 RAPHIC SCALE IN F	20 5 EET
TRIPLE	SCALE: 1"=10'	ΟΙΝΤ
	EN	GINEERING

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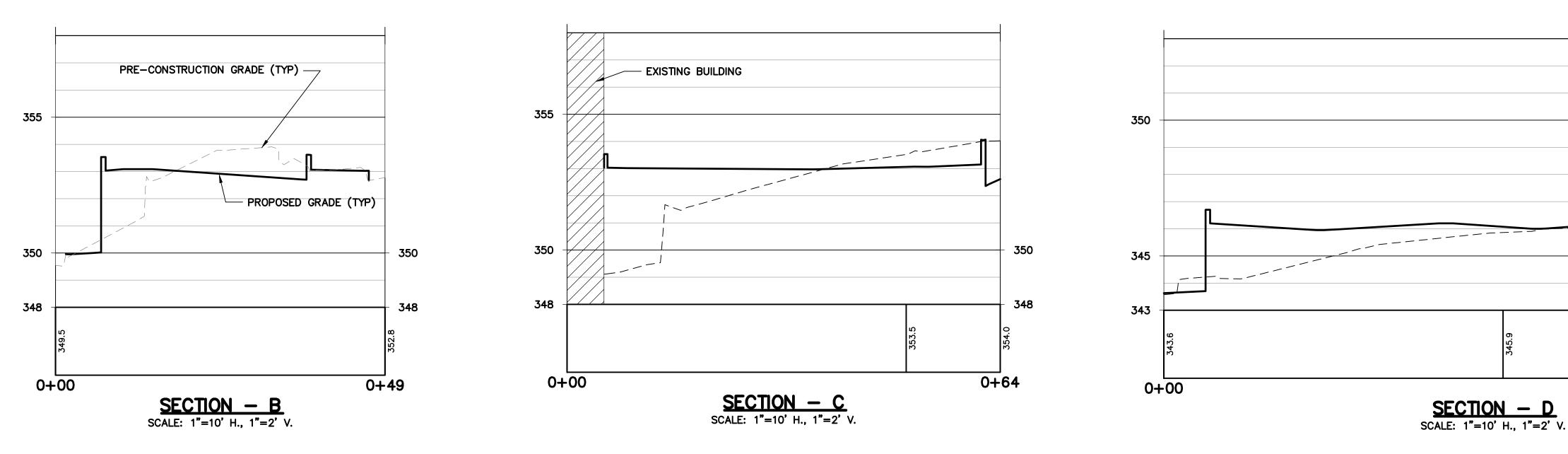
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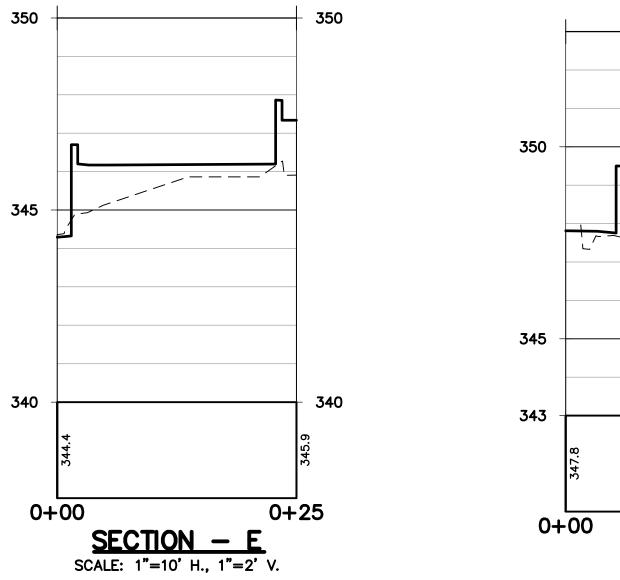


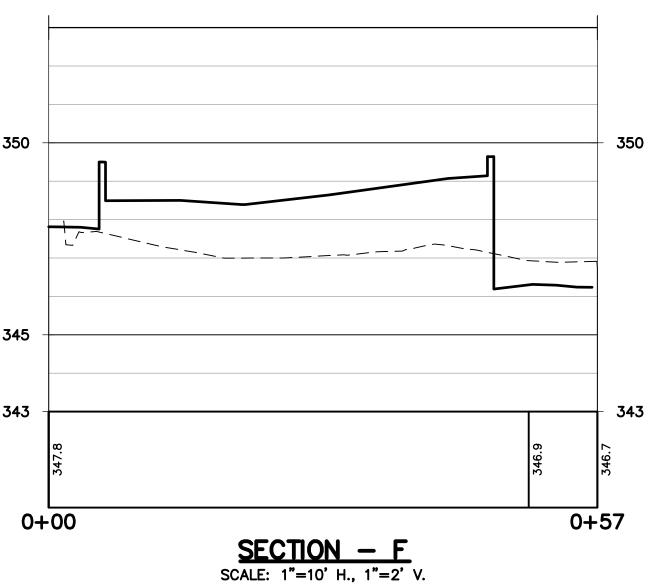


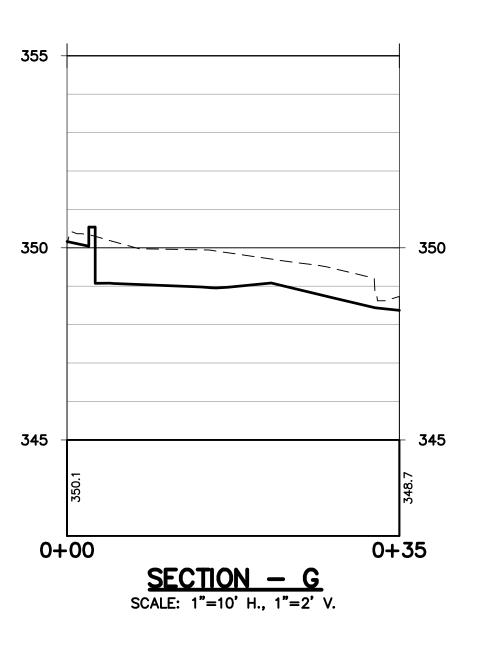
Project #: Date: 5/7/2021 1821

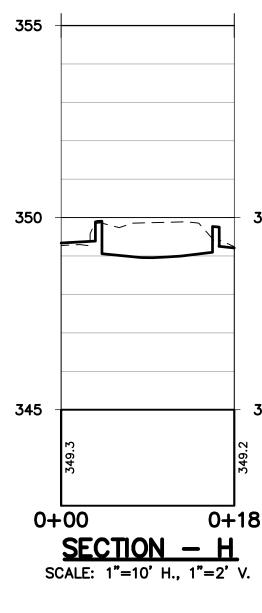


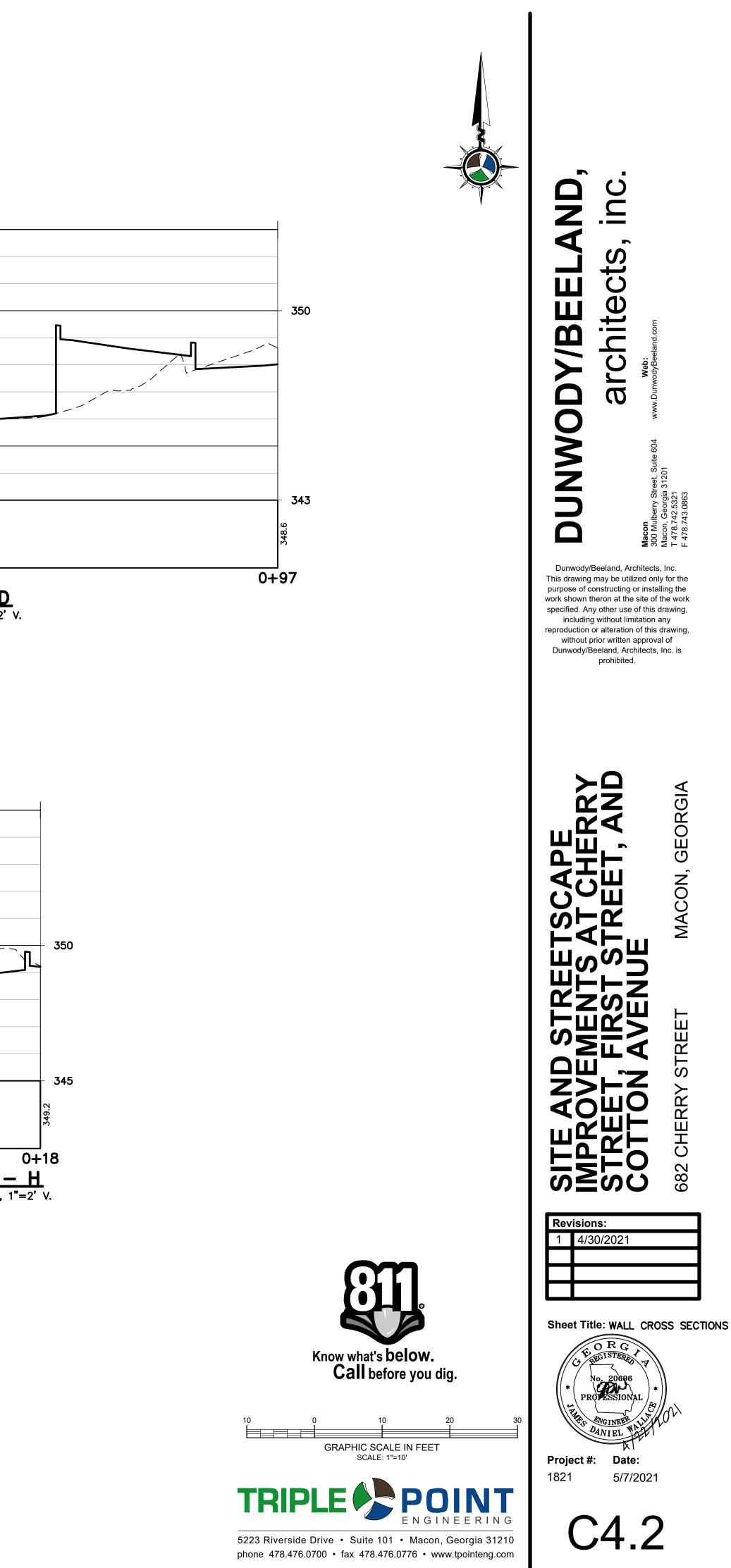


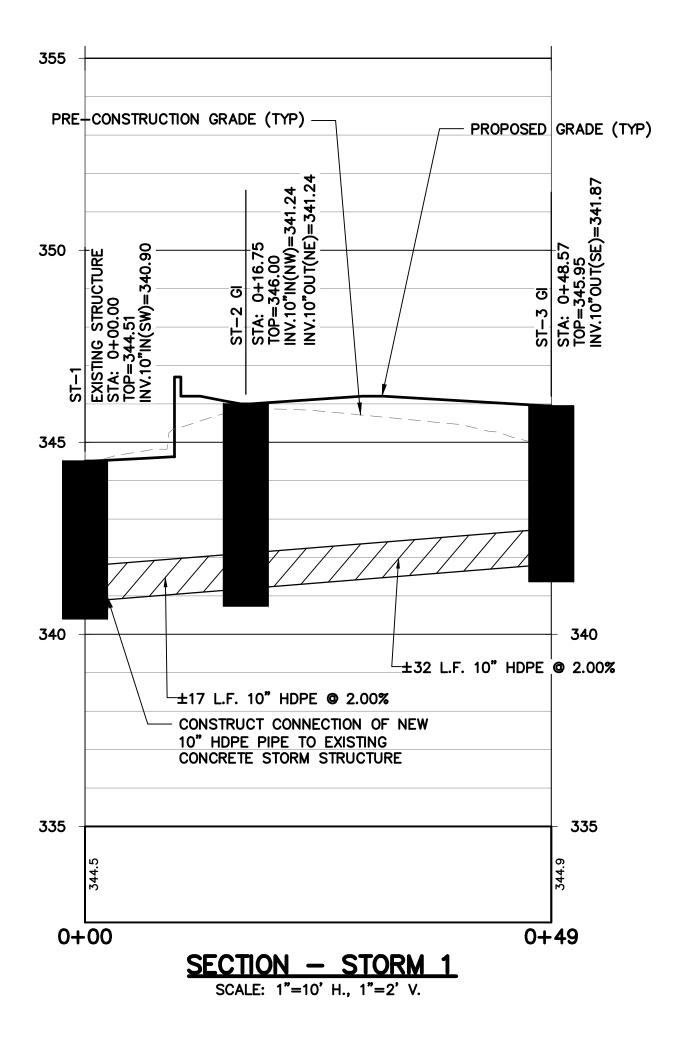


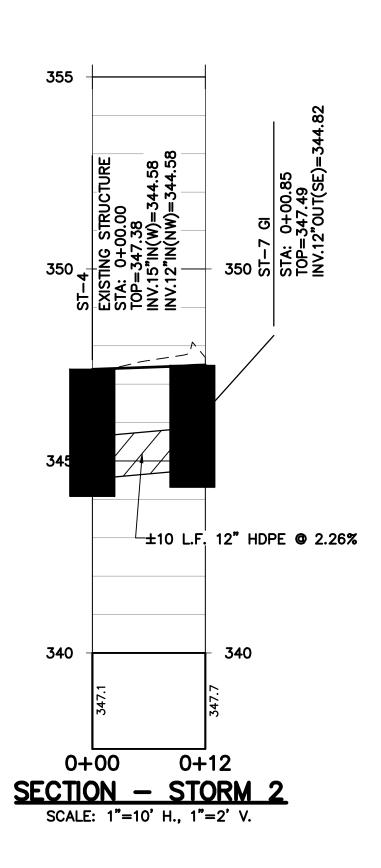


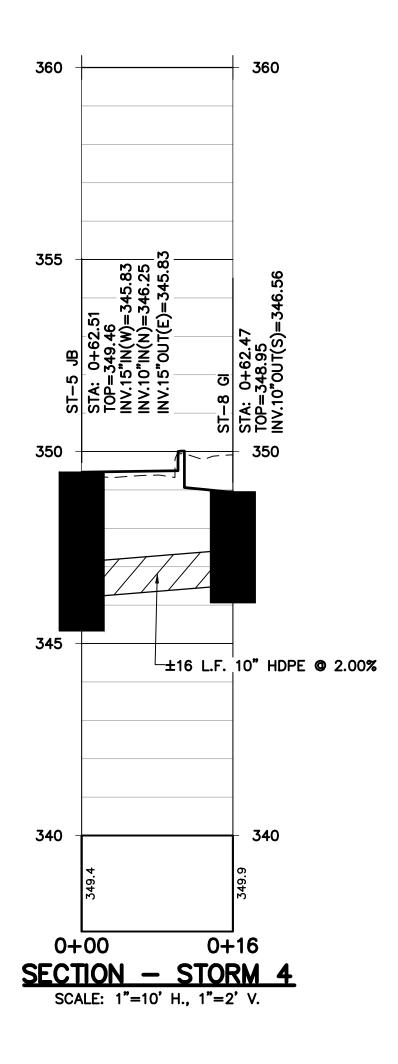


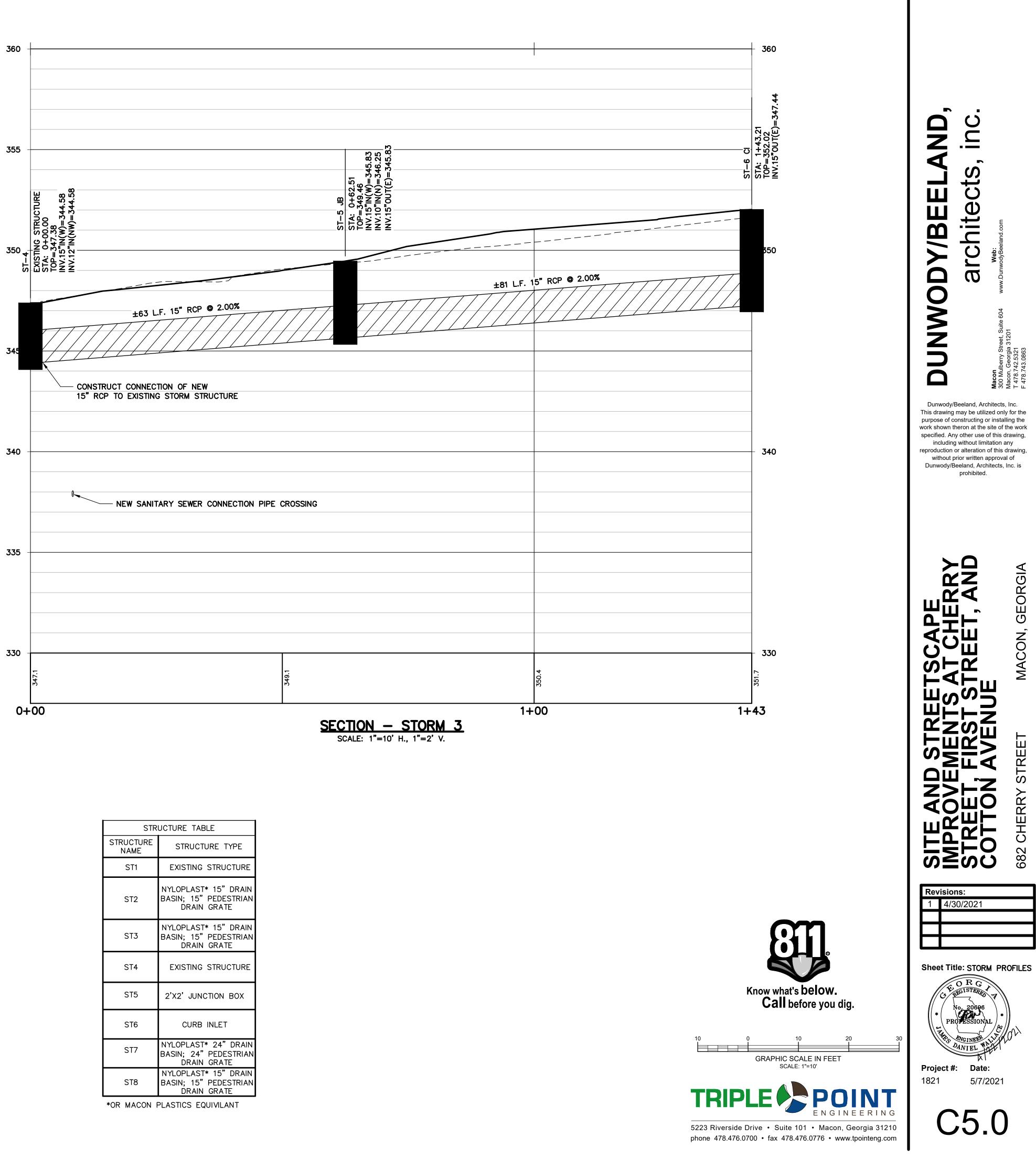




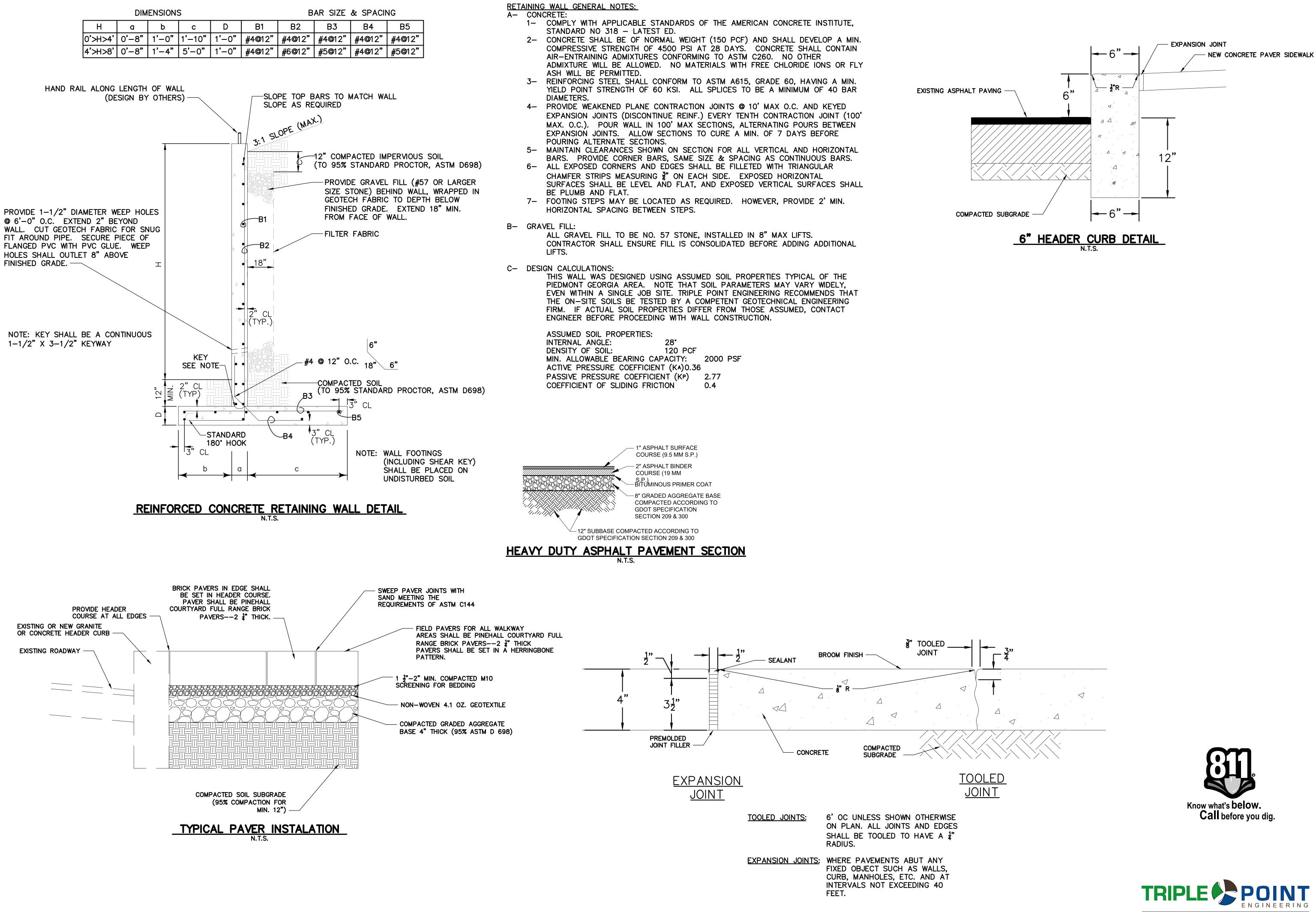


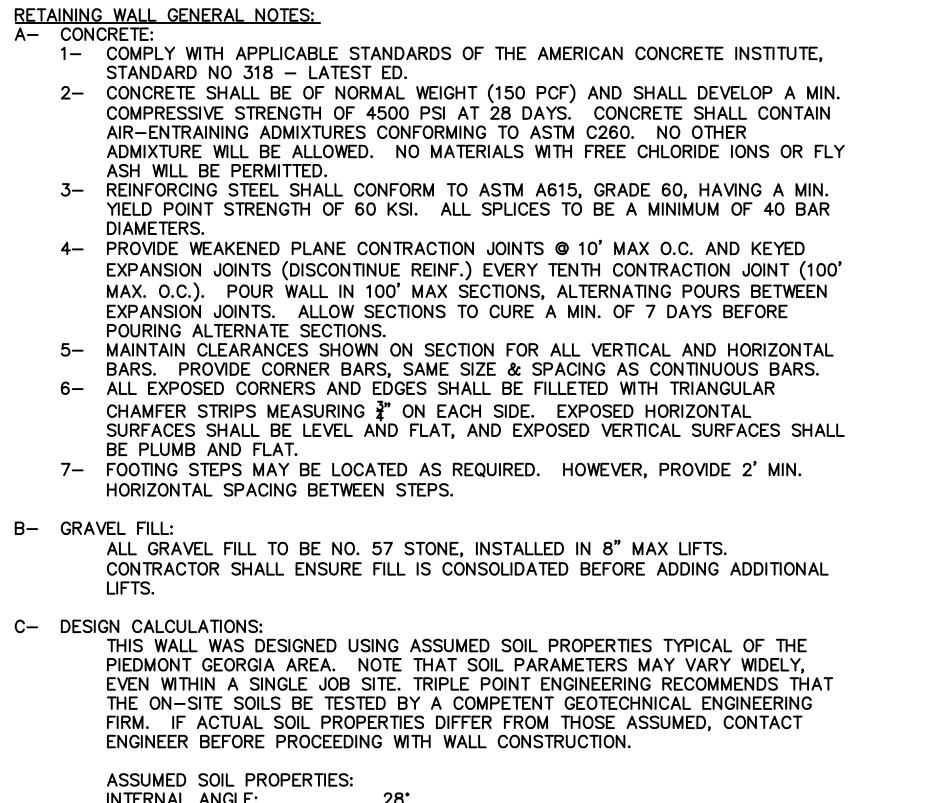


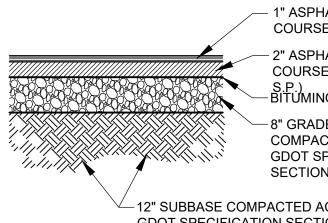




STRUCTURE TABLE				
STRUCTURE NAME	STRUCTURE TYPE			
ST1	EXISTING STRUCTURE			
ST2	NYLOPLAST* 15" DRAIN BASIN; 15" PEDESTRIAN DRAIN GRATE			
ST3	NYLOPLAST* 15" DRAIN BASIN; 15" PEDESTRIAN DRAIN GRATE			
ST4	EXISTING STRUCTURE			
ST5	2'X2' JUNCTION BOX			
ST6	CURB INLET			
ST7	NYLOPLAST* 24" DRAIN BASIN; 24" PEDESTRIAN DRAIN GRATE			
ST8	NYLOPLAST* 15" DRAIN BASIN; 15" PEDESTRIAN DRAIN GRATE			









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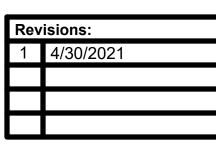
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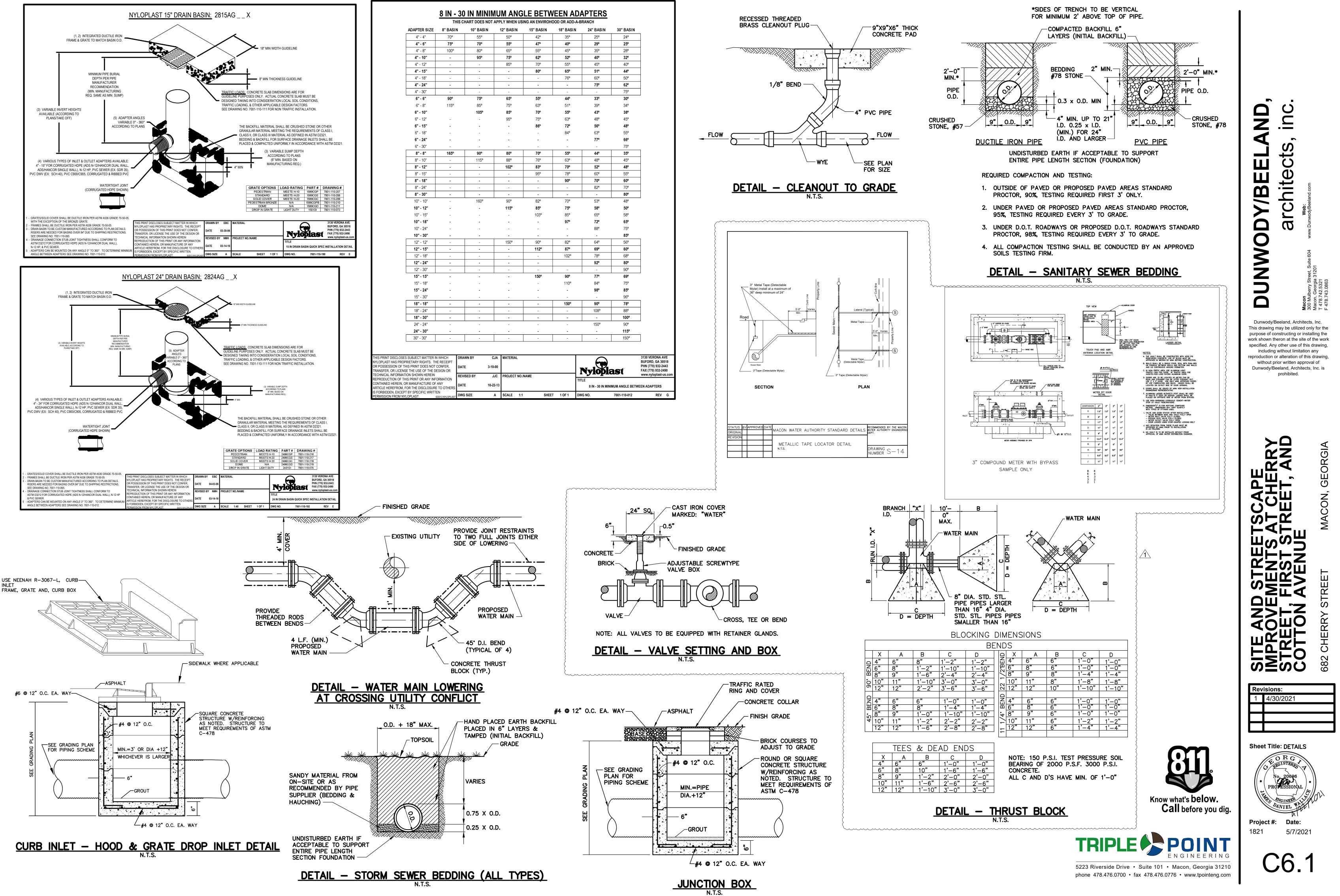
Sheet Title: DETAILS



Project #: Date: 1821 5/7/2021

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NWG	917E		1 QUEE	T 10E1		7001 110 012	DEV C
DATE	10-2	2-13				NIMUM ANGLE BET	WEEN ADAPTERS
DATE		-00 JC PROJECT NO)./NAME		Nylopi	ast	PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
		JA MATERIAL					3130 VERONA AVE BUFORD, GA 30518
		I		1	I]
	-	-	-	-	-	150°	
	-	-	-	-	-	90° 115°	
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_	-	-	-	-	108°	88°	
	-	-	-	150°	90°	78º	_
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	-	-	112º	87º	69°	60°	_
	-	150°	90°	82°	64°	56°	
	-	-	-	-	-	85°	
	-	-	-	-	88°	75°	
	-	-	-	97°	72°	65°	
	-	-	103°	85°	65°	58°	
	-	115°	85°	75°	58°	50°	
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	-	-	-	90°	70°	60°	
	-	-	95°	78°	60°	55°	
	-	102º	83º	70°	52°	48°	
	115°	88°	76°	63°	48°	45°	
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	80° 105°	85°	70°	51°	39° 43°	34° 38°	
	7 3 ° 85°	63 ° 75°	55 °	44 ° 51°	33 ° 39°	30 ° 34°	
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	95°	75°	62º	52°	40°	32°	_
	80°	65°	55°	45°	35°	28°	
	70°	55°	47°	40°	29º	25º	
	55°	50°	42°	35°	25°	24°	_

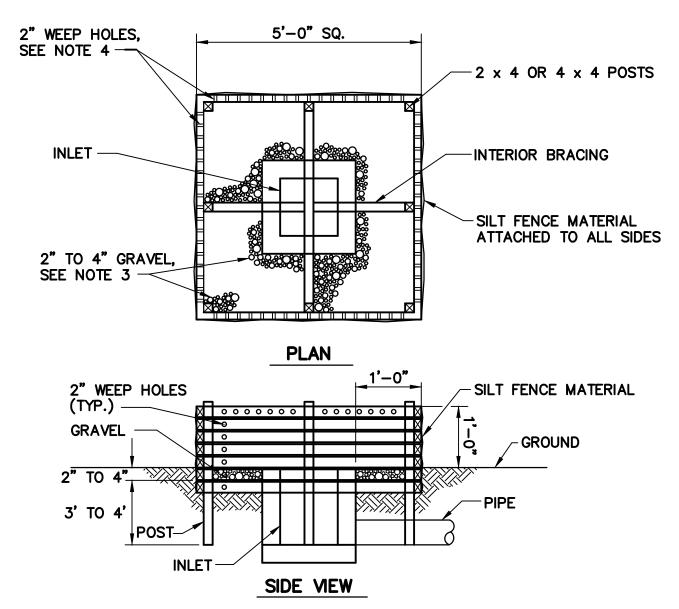
- DUST SHALL BE CONTROLLED ON THIS SITE BY APPLYING DU A WATER SPRAY TO DISTURBED AREAS AS NEEDED.
- MULCHING RATES: Ds1 DRY STRAW OR HAY -SPREAD ST A RATE OF 2 1/2 TONS PER ACRE. WOOD WASTE, CHIPS, SAWDUST, OR BARK -SPREAD 2 TO 3 INCHES DEEP. EROSION CONTROL MATTING OR NETTING -APPLY IN ACCORDANCE WITH MFG. REC'S. CUTBACK ASPHALT, SLOW CURING - APPLY AT 1200 GALLONS PER ACRE. POLYETHYLENE FILM - SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR PROTECTION.

TEMPORARY VEGETATIVE SPECIFICATIONS; Ds2 TEMP. GRASSING SHALL BEGIN 2 WEEKS FOLLOWING INITIAL DISTURBANCE.

TEMI : GRASSING SHALE DEGIN Z WEEKS I DEEDWING I			
SPECIES	RATE PER 1000 SQ.FT.	RATE PER ACRE	PLANTING DATES
RYE	3.9 POUNDS	3 BU.	9—1 TO 1—1
RYE GRASS, ANNUAL	1 POUND	40-50 lbs.	9–1 TO 4–15
SUDAN GRASS	1.4 POUNDS	60 lbs.	4–1 TO 10–1
BROWN TOP MILLET	1 POUND	40 lbs.	4–1 TO 7–15
WHEAT	4.1 POUNDS	3 BU.	10—1 TO 1—1
	RYE RYE GRASS, ANNUAL SUDAN GRASS BROWN TOP MILLET	1000 SQ.FT.RYE3.9 POUNDSRYE GRASS, ANNUAL1 POUNDSUDAN GRASS1.4 POUNDSBROWN TOP MILLET1 POUND	1000 SQ.FT.PER ACRERYE3.9 POUNDS3 BU.RYE GRASS, ANNUAL1 POUND40-50 lbs.SUDAN GRASS1.4 POUNDS60 lbs.BROWN TOP MILLET1 POUND40 lbs.

PERMANENT VEGETATIVE SPECIFICATIONS: Ds3

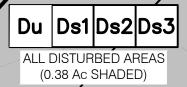
3	GRASS	SEEDING RATE	PLANTING DATES	FERTILIZER RATE	
			DATES	N P K Year Per Acre	
	HULLED COMMON BERMUDA	8lbs./Ac	3-1 TO 6-15	6 12 12 1st. 1500 Lbs.	
	UNHULLED COMMON BERMUDA	10lbs./Ac	10-1 TO 3-1	SAME AS ABOVE	
	PENSACOLA BAHIA	60 Lb/Ac	Year Round	SAME AS ABOVE	
	MULCH - 2 1/2 TON/Ac.				
	LIME – 1 TON/Ac.				

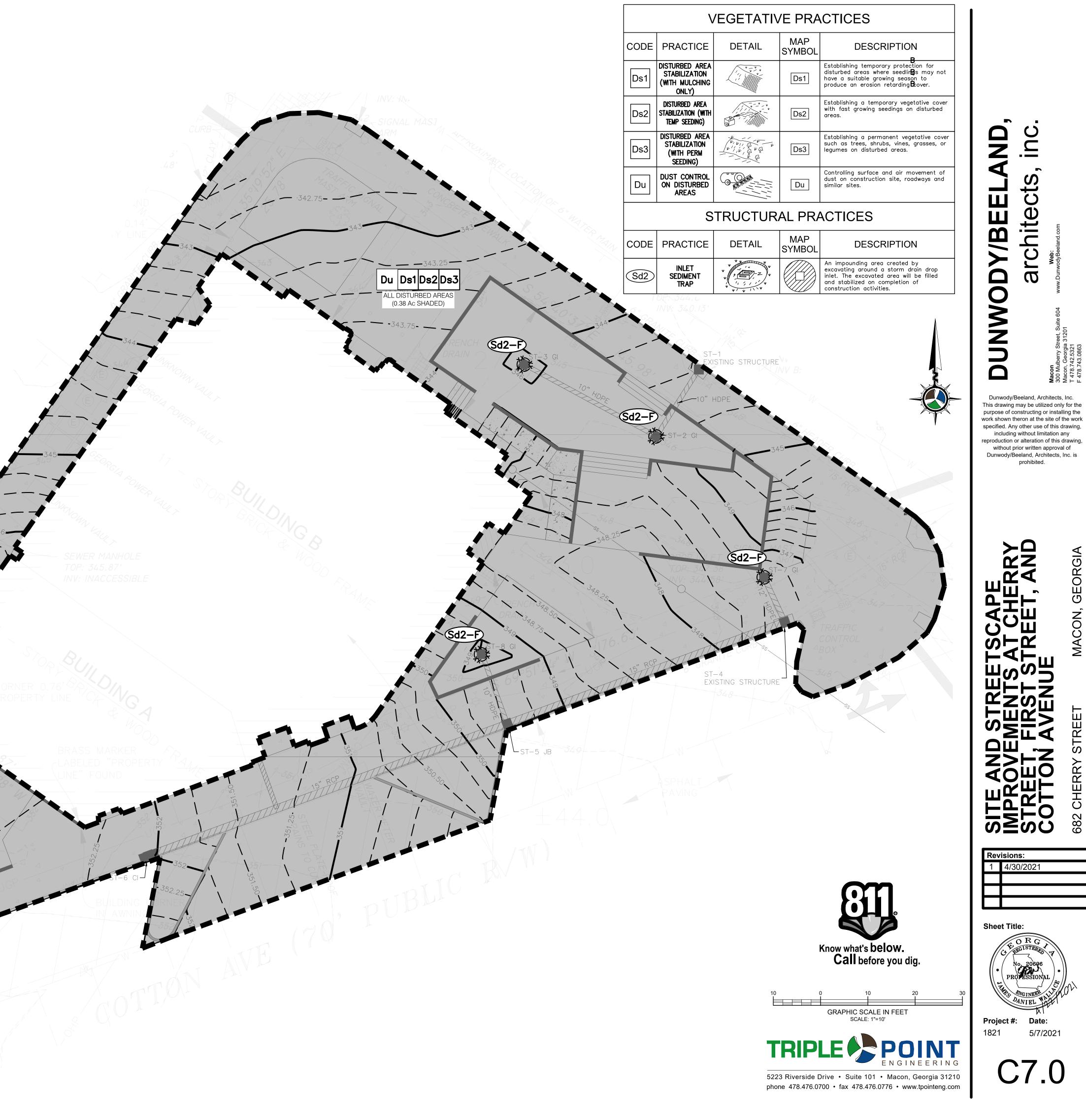


NOTES:

- 1. THE SEDIMENT BOX TO BE MADE OF 1x4" BOARDS SPACED A
- MAXIMUM OF 1" APART OR OF PLYWOOD WITH 2" WEEP HOLES.
- DIMENSIONS OF THE BOX WILL VARY ACCORDING TO THE SIZE OF THE INLET AND THE DEPTH OF THE BASIN.
 PLACE GRAVEL INSIDE THE BOX ALL AROUND THE INLET TO A
- DEPTH OF 3. 2" TO 4".
- 4. SPACE THE WEEP HOLES APPROXIMATELY 6" O.C. VERTICAL AND 6" O.C. HORIZONTAL WHERE PLYWOOD IS USED.

Sd2-F DETAIL - TEMPORARY SEDIMENT TRAP





PLANT LIST

Qty	Botanical Name	Common Name	Scheduled Size	R
	Trees			
5	Acer palmatum var. atropurpureum 'Bloodgood'	Blood Good Japanese Maple	7'-8' Hgt.	Si
4	Cercis canadensis	Eastern Redbud	8'-10' Hgt. x 5'-6' Spr.	В
3	Lagerstroemia indica x Sioux	Sioux Crepe Myrtle	7'-8' Hgt.	Si
2	Ligustrum japonicum 'Tree Form'	Tree Form Ligustrum	6'-8' Hgt. x 3'-4' Spr.	В
2	Nyssa sylvatica	Black Gum	3" Cal; 12' Hgt.	В
3	Prunus 'Okame'	Okame Cherry	2" Cal.	
3	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	6" Hgt.	
6	Ulmus americana 'Princeton'	Princeton Elm	3" Cal; 14' Hgt.	В
	Shrubs			
26	Cleyera japonica 'Bronze Beauty'	Bronze Beauty Cleyera	3 Gal.	
3	Illicum parviflorum	Yellow Anise	7 Gal.	
12	Loropetalum chinense 'Purple Pixie'	Purple Pixie Loropetalum	3 Gal.	
	Groundcovers			
292	Liriope muscari 'Big Blue'	Big Blue Liriope	1 Gal.	PI
58	Color Bed	Annual Color Bed	SF; Prep & Plant	
	Other			

GENERAL LANDSCAPE NOTES

- 1. Landscape Contractor to read and understand the Landscape Details and Specifications (sheet L-101) prior to finalizing bids. The Landscape Specifications shall be adhered to throughout the construction process.
- 2. Contractor is responsible for locating and protecting all underground utilities prior to digging.
- Contractor is responsible for protecting existing trees from damage during construction.
 Contracor is responsible for understanding and adhearing to all constraints and limits of the site ie: Code requirements as stated on the landscape plan, minimum plant sizes in the plant list, property boundaries, limits
- of disturbance, easements and buffers.5. All tree protection devices to be installed prior to the start of land disturbance, and maintained until final landscaping.
- 6. All tree protection areas to be protected from sedimentation.
- 7. All tree protection fencing to be inspected daily, and repaired or replaced as needed.
- No parking, storage or other construction activities are to occur within tree protection areas.
 All planting areas shall be cleaned of construction debris (ie. concrete, rock, rubble, building materials, etc) prior
- to adding and spreading of the topsoil. 10. Minimum 4" depth of topsoil shall be added to all planting and sodded areas. Graded areas shall be held down
- the appropriate elevation to account for topsoil depth. See Landscape Specifications for required topsoil characteristics.
- 11. Remove debris from all parking lot islands, fracture/loosen subgrade to a min. 24" depth and add topsoil to a 6"-8" bermed height above island curbing; refer to sheet L-101 for landscape specifications and landscape island detail.
- 12. Prior to beginning work, the Landscape Contractor shall inspect the subgrade, general site conditions, verify elevations, utility locations, irrigation, approve topsoil provided by the General Contractor and observe the site conditions under which the work is to be done. Notify the General Contractor of any unsatisfactory conditions, work shall not proceed until such conditions have been corrected and are acceptable to the Landscape Contractor.
- 13. Any deviations from the approved set of plans are to be approved by the Landscape Architect.
- 14. Landscaping shall be installed in conformance with ANSI Z60.1 the "American Standard for Nursery Stock" and the accepted standards of the American Association of Nurserymen.
- Existing grass in proposed planting areas shall be killed and removed. Hand rake to remove all rocks and debris larger than 1 inch in diameter, prior to adding topsoil and planting shrubs.
 Sed to be delivered freeb (Cut less theory 24 hours prior to arriving on site), loid immediately, rolled, and watered
- 16. Sod to be delivered fresh (Cut less than 24 hours prior to arriving on site), laid immediately, rolled, and watered thoroughly immediately after planting. Edge of sod at planting beds are to be "V" trenched; see Landscape Details.
- 17. Any existing grass disturbed during construction to be fully removed, regraded and replaced. All tire marks and indentions to be repaired.
- Soil to be tested to determine fertilizer and lime requirements prior to laying sod.
 Annual and perennial beds: add min. 4 inch layer of organic material and till to a min. depth of 12 inches. Mulch
- annual and perennial beds with 3 inch depth of mini nuggets.20. All shrubs beds (existing and new) to be mulched with a min. 3 inch layer of mulch (double shredded hardwood mulch).
- 21. Planting holes to be dug a minimum of twice the width of the root ball, for both shrubs and trees. Set plant material 2-3" above finish grade. Backfill planting pit with planting mix as specified in the Landscape
- Specifications. 22. Water thoroughly twice in first 24 hours and apply mulch immediately.
- 23. The Landscape Contractor shall guarantee all plants installed for one full year from date of acceptance by the owner. All plants shall be alive and at a vigorous rate of growth at the end of the guarantee period. The Landscape Contractor shall not be responsible for acts of God or vandalism. See Landscape Specifications for Warranty requirements/expectations.
- 24. Any plant that is determined dead, in an unhealthy, unsightly condition, lost its shape due to dead branches, or other symptoms of poor, non-vigorous growth, shall be replaced by the Landscape Contractor. See Landscape Specifications for warranty requirements/expectations.
- 25. Stake all evergreen and deciduous trees as shown in the planting detail and as per the Landscape Specifications.
- 26. Remove stakes and guying from all trees after one year from planting.

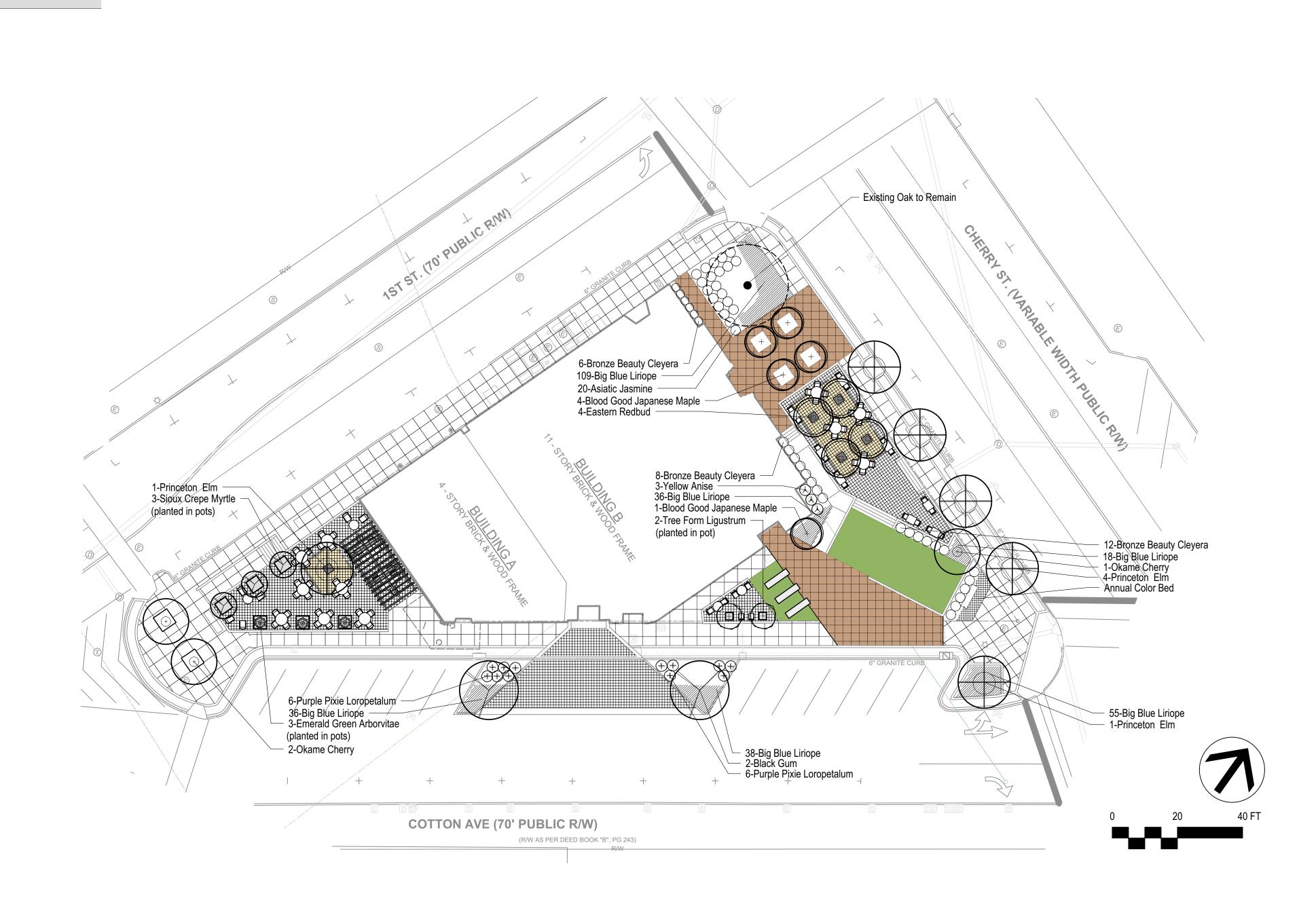


Single Trunked B & B Single Trunked

B & B; Tree Form B & B; single straight leader

B & B

Plant 18" O.C.





Manley Land Design, Inc. 51 Old Canton Street Alpharetta, Georgia 30009

manleylanddesign.com





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Revisions:		

Sheet Title: LANDSCAPE PLAN

Project #: E 2020159 5/

Date: 5/7/2021



LANDSCAPE SPECIFICATIONS

PART 1 - GENERAL

DESCRIPTION

Provide trees, shrubs, ground covers, sod, and annuals/perennials as shown and specified on the landscape plan. The work includes:

- 1. Soil preparation 2. Trees, shrubs, ground covers, and annuals/perennials.
- 3. Planting mixes.
- 4. Top Soil, Mulch and Planting accessories. 5. Maintenance.
- 6. Decorative stone.

Related Work:

1. Irrigation System; see irrigation specifications (sheet L-206)

QUALITY ASSURANCE

Plant names indicated; comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.

Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of 2 years.

Nursery Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable. at no additional cost, and providing that the larger plants will not be cut back to size indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.

Before submitting a bid, the Contractor shall have investigated the sources of supply and be satisfied that they can supply the listed plants in the size, variety and quality as specified. Failure to take this precaution will not relieve the Contractor from their responsibility for furnishing and installing all plant materials in strict accordance with the Contract Documents without additional cost to the Owner. The Landscape Architect shall approve any substitutes of plant material, or changes in plant material size, prior to the Landscape Contractor submitting a bid.

DELIVER. STORAGE AND HANDLING

Take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after digging to prevent dehydration. Dig, pack, transport, and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches. Cover plants transported on open vehicles with a protective covering to prevent wind burn.

PROJECT CONDITIONS

Protect existing utilities, paving, and other facilities from damage caused by landscape operations.

A complete list of plants, including a schedule of sizes, quantities, and other requirements are shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

The irrigation system will be installed prior to planting. Locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components damaged during planting operations; at the Contractor's expense. Refer to the irrigation specifications, irrigation plan and irrigation details.

Do not begin landscape accessory work before completion of final grading or surfacing.

WARRANTY

Warrant plant material to remain alive, be healthy and in a vigorous condition for a period of 1 year after completion and final acceptance of entire project.

Replace, in accordance with the drawings and specifications, all plants that are dead or, are in an unhealthy, or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. The cost of such replacement(s) is at the Contractor's expense. Warrant all replacement plants for 1 year after installation.

Warranty shall not include damage, loss of trees, plants, or ground covers caused by fires, floods, freezing rains, lightning storms, winds over 75 miles per hour, winter kill caused by extreme cold, severe winter conditions not typical of planting area, and/or acts of vandalism or negligence on a part of the Owner.

Remove and immediately replace all plants, found to be unsatisfactory during the initial planting

installation.

Maintain and protect plant material, lawns, and irrigation until final acceptance is made.

ACCEPTANCE

- Inspection of planted areas will be made by the Owner's representative.
- 1. Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.

Upon acceptance, the Contractor shall commence the specified plant maintenance.

CODES, PERMITS AND FEES

Obtain any necessary permits for this Section of Work and pay any fees required for permits.

The entire installation shall fully comply with all local and state laws and ordinances, and with all established codes applicable thereto; also as depicted on the landscape and irrigation construction set.

PART 2 - PRODUCTS

MATERIALS

Plants: Provide typical of their species or variety; with normal, densely developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held on storage will be rejected if they show signs of growth during the storage period.

- 1. Balled and plants wrapped with burlap, to have firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls, or signs of circling roots are not acceptable.
- 2. Container- grown stock: Grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole. a. No plants shall be loose in the container.
- b. Container stock shall not be pot bound.
- 3. Plants planted in rows shall be matched in form. 4. Plants larger than those specified in the plant list may be used when acceptable to the
- Landscape Architect. a. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
- 5. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.
- 6. No pruning wounds shall be present with a diameter of more than 1" and such wounds must show vigorous bark on all edges.
- 7. Evergreen trees shall be branched to the ground or as specified in plant list. 8. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant
- a. The measurements for height shall be taken from the ground level to the height of the top
- of the plant and not the longest branch. b. Single stemmed or thin plants will not be accepted.
- c. Side branches shall be generous, well-twigged, and the plant as a whole well-bushed to the ground.
- d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

ACCESSORIES

Topsoil: Shall be Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well-drained arable site, reasonably free from clay, lumps, coarse sands, stones, roots, sticks, and other foreign materials, with acidity range of between pH 6.0 and 6.8.

Note: All planting areas shall be cleaned of construction debris (ie. Concrete, rubble, stones, building material, etc.) prior to adding and spreading of the top soil.

- 1. Sod Areas: Spread a minimum 4" layer of top soil and rake smooth. 2. Planting bed areas: Spread a minimum 4" layer of top soil and rake smooth. 3. Landscape Islands/Medians: Fracture/loosen existing subgrade to a minimum 24" depth. Remove and replace any subgrade unsuitable for planting. Once subgrade is clean of debris and loosened, add topsoil to a minimum berm 6"-8" height above
- island curbing. 4. Annual/Perennial bed areas: Add a minimum of 4" organic matter and till to a minimum 12" depth.
- Mulch: Type selected dependent on location of plantings. Hold mulch 4" from tree trunks and shrub stems.
- 1. Hardwood: 6 month old well rotted double shredded native hardwood bark mulch not larger than 4" in length and $\frac{1}{2}$ " in width, free of wood chips and sawdust. Install minimum depth of 3". Color: Dark brown
- 2. Mini Nuggets: Install to a minimum depth of 2"-3" at all locations of annual and perennial beds. Lift the stems and leaves of the annuals and carefully spread the mulch
- to avoid injuring the plants. Gently brush the mulch off the plants. 3. River Rock (when needed): (color) light gray to buff to dark brown, washed river rock, $1^{\circ} - 3^{\circ}$ in size. Install in shrub beds to an even depth of 3° . Weed control barrier to be
- installed under all rock mulch areas. Use caution during installation not to damage plant material.

Guying/Staking:

1. As per Gwinnett County details; see sheet L-105. 2. Remove Guying/Staking after one year from planting.

Tree Wrap: Tree wraps should be used on young, newly planted thin-barked trees (Cherry, Crabapple, Honey Locust, Linden, Maple, Mountain Ash, Plum) that are most susceptible to sun scald/Sunburn. Standard waterproofed tree wrapping paper, 2-1/2" wide, made of 2 layers

of crepe Draft paper weighing not less than 30 lbs. per ream, cemented together with asphalt. Wrap the tree in the fall and leave the wrap in place throughout the winter and early spring. Tree wraps are temporary and no longer needed once trees develop corky bark.

PART 3 – EXECUTION

INSPECTION

Prior to beginning work, the Landscape Contractor shall inspect the subgrade, general site conditions, verify elevations, utility locations, irrigation, approve top soil if provided by the General Contractor and observe the site conditions under which the work is to be done. Notify the General Contractor of any unsatisfactory conditions, and work shall not proceed until such conditions have been corrected and are acceptable to the Landscape Contractor.

PREPARATION

Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.

Locate plants as indicated on the plans or as approved in the field after staking by the Landscape Contractor. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected and approved by the Landscape Architect; spacing of plant material shall be as shown on the landscape plan.

Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 12" greater than the diameter of the root system and 24" greater for trees. Depth of pit shall accommodate the root system. Provide undisturbed sub grade to hold root ball at nursery grade as shown on the drawings.

INSTALLATION

Set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. Set plant material 2" – 3" above the finish grade. No filling will be permitted around trunks or stems. Backfill the pit with topsoil mix and excavated material. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.

After balled and wrapped in burlap plants are set, muddle planting soil mixture around bases of balls and fill all voids

1. Remove all burlap, ropes, and wires from the top 1/3 of the root ball Space ground cover plants in accordance with indicated dimensions. Adjust spacing as

necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 24" of the trunks of trees and shrubs within planting bed and to within 18" of edge of bed. Mulching

1. Mulch tree and shrub planting pits and shrub beds with required mulching material; depth of mulch as noted above. Hold mulch back 4" away from tree trunks and shrub stems. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.

Decorative Stone: (where indicated on landscape plan or as approved during installation)

1. Install weed control barrier over sub-grade prior to installing stone. Lap 6" on all sides. 2. Place stone without damaging weed barrier.

- 3. Arrange stones for best appearance and to cover all weed barrier fabric.
- Wrapping, guying, staking:
 - before wrapping.
- 2. Wrapping:
- a. Wrap trunks of all young newly planted trees known to have thin bark. Wrap spirally from bottom to top with specified tree wrap and secure in place. b. Overlap $\frac{1}{2}$ the width of the tree wrap strip and cover the trunk from the ground to the
- height of the second branch. c. Secure tree wrap in place with twine wound spirally downward in the opposite
- direction, tied around the tree in at least 3 places in addition to the top and bottom. d. Wrap the trees in the fall and leave the wrap in place throughout the winter and early
- d. Tree wraps are temporary and no longer needed once the trees develop corky bark.
- 3. Staking/Guying: a. Stake/guy all trees immediately after lawn sodding operations and prior to acceptance.
- b. Stake deciduous trees as per Gwinnett County details. 1. Stakes are placed in line with prevailing wind direction and driven into
- undisturbed soil. Ties are attached to the tree, usually at the lowest branch.
- c. Guy deciduous trees as per Gwinnett County details. 4. Remove all guying and staking after one year from planting.
- Pruning:

1. Prune deciduous trees and evergreens only to remove broken or damaged branches. WORKMANSHIP

During landscape/irrigation installation operations, all areas shall be kept neat and clean. Precautions shall be taken to avoid damage to existing structures. All work shall be performed in a safe manner to the operators, the occupants and any pedestrians.

Upon completion of installation operations, all excess materials, equipment, debris and waste material shall be cleaned up and removed from the site; unless provisions have been granted by the owner to use on-site trash receptacles. Sweep parking and walks clean of dirt and debris. Remove all plant tags and other debris from lawns and planting areas.

Any damage to the landscape, the structure, or the irrigation system caused by the landscape contractor shall be repaired by the landscape contractor without charge to the owner.

and not less than twice per week until final acceptance.

MAINTENANCE

lawns free of insects and disease.

material and remove dead material.

weather and season permit.

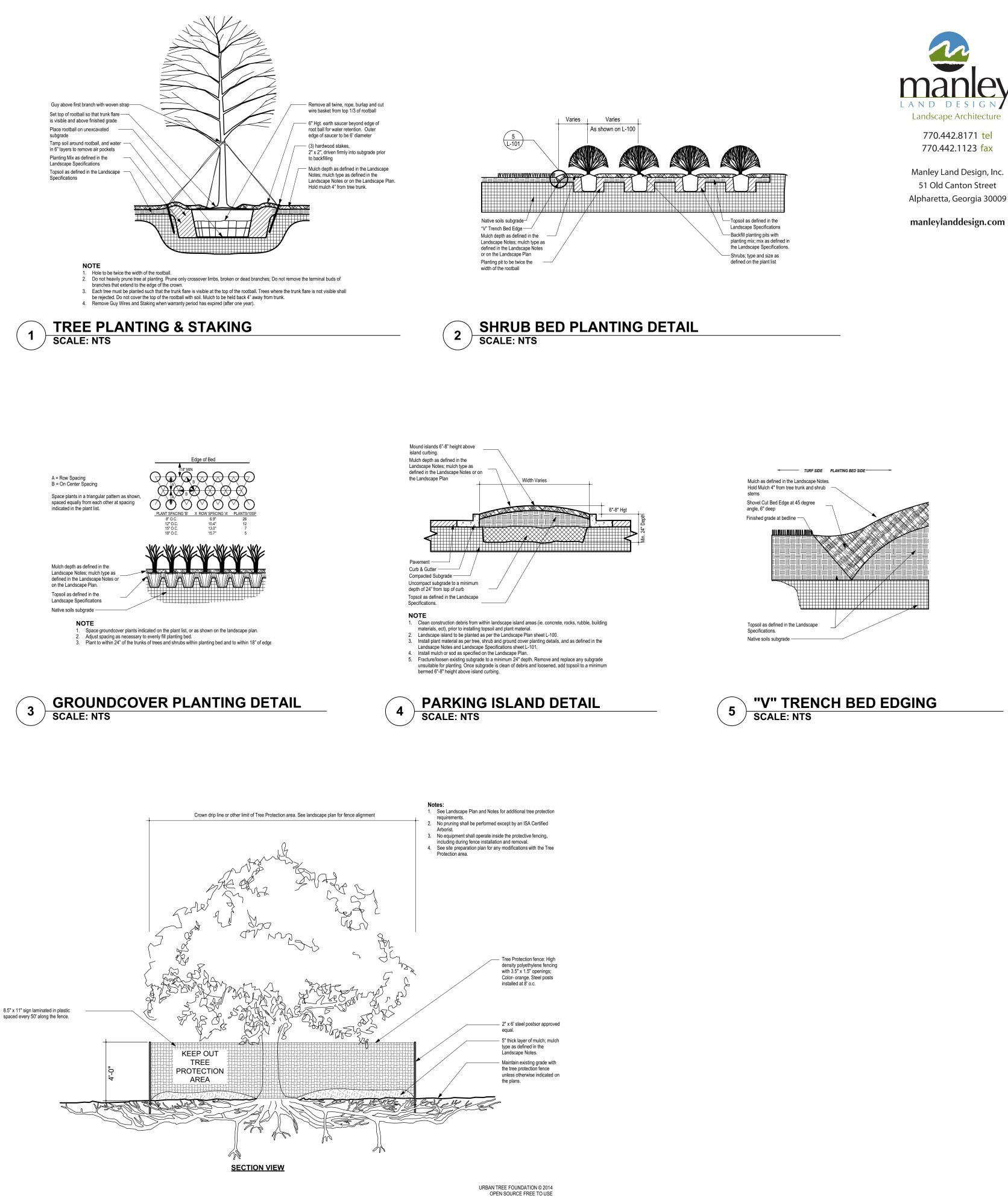
Contractor shall provide maintenance until work has been accepted by the Owner's Representative.

1. Inspect trees for injury to trunks, evidence of insect infestation, and improper pruning

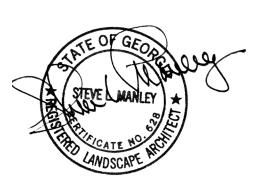
Maintenance shall include mowing, fertilizing, mulching, pruning, cultivation, weeding, watering, and application of appropriate insecticides and fungicides necessary to maintain plants and

1. Re-set settled plants to proper grade and position. Restore planting saucer and adjacent 2. repair guy wires and stakes as required. Remove all stakes and guy wires after 1 year. 3. Correct defective work as soon as possible after deficiencies become apparent and

4. Water trees, plants and ground cover beds within the first 24 hours of initial planting,



TREE PROTECTION FENCING DETAIL SCALE: NTS



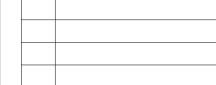
Ζ \mathbf{C} **rchite** \mathbf{m} **O**M Z Dunwody/Beeland, Architects, Inc. This drawing may be utilized only for the purpose of constructing or

site of the work specified. Any other use of this drawing, including without limitation any reproduction or alteration of this drawing, without prior written approval of Dunwody/Beeland, Architects, Inc. is prohibited.

installing the work shown theron at the

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Revisions



Sheet Title: LANDSCAPE **DETAILS AND SPECIFICATIONS**

Project # 2020159

Date: 5/7/2021

IRRIGATION ZONES

SMART CONTROLLER		
1	DRIP	
2	DRIP	
3	DRIP	
4	DRIP	

NOTE: **SEE SHEET L-201 FOR IRRIGATION SPECIFICATIONS & DETAILS**

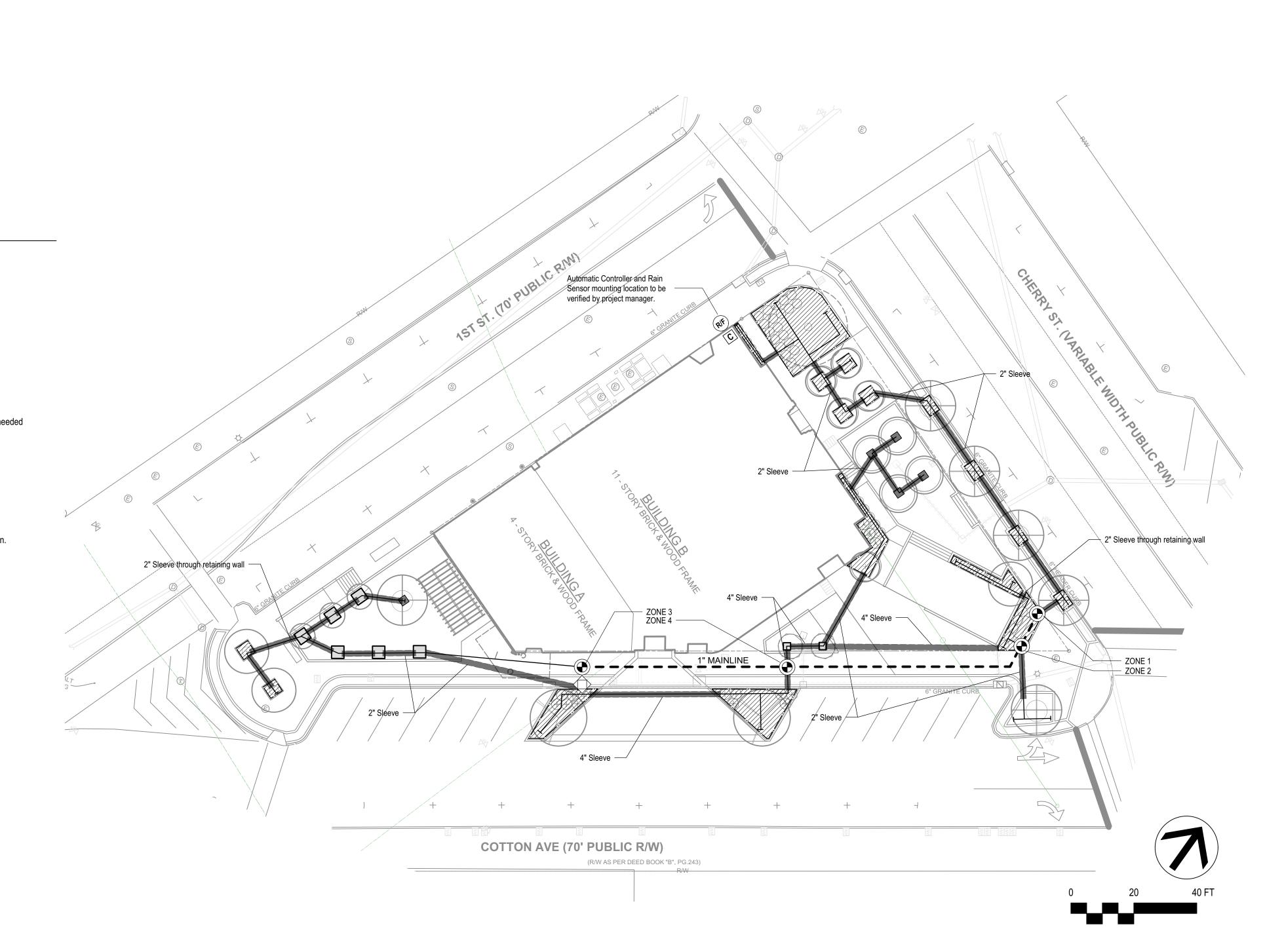
IRRIGATION NOTES

- 1. Irrigation contractor is responsible for locating and protecting all underground utilities prior to trenching. 2. Pressure regulator required by local code if static water pressure at point of connection for site is greater than
- 80 psi.
- Irrigation meter and backflow preventor to be provided by the general contractor.
 All valves to be located in valve box with cover at grade; Locate box in grass area when possible.
- 5. Automatic controller to be located as indicated on the irrigation plan, or as directed by Owners Representative. Rain/Freeze Sensor shall be located in a location free from obstructions and exposed to the weather, no more than 200 feet from the controller.
- 6. All automatic valves, backflow preventor, manual valve and meter to be located within property lines. Shown
- outside on drawing for clarity only.
- 7. 45 psi required per rotor station, 30 psi required per spray station, 40 psi required per drip station. All spray and
- rotor bodies to have PRS (In-stem pressure regulation) as indicated in the legend. 8. Pop-up height of spray heads to be as follows: 4" in Turf Zones, 12" in Shrub Zones, and 12" in Seasonal/color
- beds. Rotor height to be 4". MPR Rotor Nozzle size is indicated on drawing for each rotor. 9. SCH 40 PVC sleeves to be located as shown on drawing. Extend sleeve 18" beyond back of curb or pavement.
- Sleeves to be located and exposed by the general contractor prior to start of irrigation installation.
- 10. All 1" mainlines (class 200 PVC pipe) to have a minimum of 18" cover. 11. All lateral and sub-main pipe (class 200 PVC pipe) to have a minimum of 12" and a maximum of 18" cover.
- 12. No rocks, boulders, or other extraneous materials to be used in backfilling trenches.
- 13. All threaded joints to be coated with Teflon Tape or Liquid Teflon.
- All lines to be thoroughly flushed before installation of sprinkler heads.
 Must use products specified on this drawing, unless otherwise approved by the Landscape Architect. Refer to the Irrigation Legend for product specs.
- 16. Irrigation is to be installed as designed, unless otherwise approved by the Landscape Architect. 17. All pipe, valves, drip, spray heads, rotors, controllers, and weather sensors to be installed as per manufacturers
- specifications. For any questions on Rainbird products or installation of rainbird products call Donn Mann 520-904-1146
- 18. Irrigation Contractor to perform a walk-thru inspection with the Owners Representative of the functioning system prior to opening but no later than one week after opening.

IRRIGATION LEGEND - RAINBIRD PRODUCTS ONLY

Μ	1" IRRIGATION METER	PROVIDED BY THE GENERAL CONTRACTOR
S	1" MANUAL SHUTOFF VALVE	1 REQUIRED
BF	BACKFLOW PREVENTER	AS REQUIRED BY CITY
PR	1" PRESSURE REGULATOR	AS REQUIRED
EV	1" ELECTRICAL MASTER VALVE	1 REQUIRED
	LANDSCAPE DRIPLINE	RAINBIRD XFD-09-18
	1" DRIP CONTROL ZONE VALVE	RAINBIRD XCZ-100-PRB-COM
C	AUTOMATIC CONTROLLER	RAINBIRD ESP-ME3 (120V required); expansion modules as nee
(R/F)	RAIN/FREEZE SENSOR	RAINBIRD WR2-RFC
	1" LATERAL LINE	CLASS 200 PVC IRRIGATION PIPE AND FITTINGS - 1" LATERAL LINES
	1.5" MAINLINE	CLASS 200 PVC IRRIGATION PIPE AND FITTINGS - 1.5" MAINLINE
	IRRIGATION SLEEVE - 4" SCH 40 PVC	4" SCH 40 PVC SLEEVE UNDER PAVEMENT

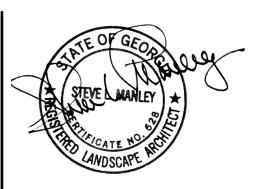
4" SCH 40 PVC SLEEVE UNDER PAVEMENT installation of sleeves by contractor in location as shown on plan.





Manley Land Design, Inc. 51 Old Canton Street Alpharetta, Georgia 30009

manleylanddesign.com



DN \bigcirc 742. 742. Ċ 4 ts UNWODY/BEEL Architect:

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Sheet Title: IRRIGATION PLAN

Project #: 2020159

Date: 5/7/2021

L-200

IRRIGATION COMPONENTS AND/OR SYSTEMS

PART 1 – GENERAL

SECTION INCLUDES

Work to be performed under this Section shall consist of furnishing all labor and materials necessary to construct a complete working and tested sprinkler irrigation system as per all drawings and specifications.

REFERENCES

- A. ANSI American National Standards Institute
- B. ASIC American Society of Irrigation Consultants: ASIC Grounding Guideline. C. ASSE – American Society of Sanitary Engineering: ASSE 1013, 1015: Backflow Preventers,
- Pressure Reducers.
- D. ASTM American Society of Testing and Materials
- E. IA The Irrigation Association: Main BMP Document. F. NFPA – National Fire Protection Association: NFPA 70 National Electrical Code.
- G. UL Underwriters Laboratories: UL Wires and Cables.

PERFORMANCE REQUIREMENTS

- A. All work to be performed to current standards of SEI and of the local governing municipality.
- B. PVC Pipe: Must be stamped with certified NFS. C. Contractor shall be responsible to obtain all necessary permits and to comply with electrical
- company requirements.
- D. No substitutions of materials are allowed unless approved by Landscape Architect.

QUALITY ASSURANCE

- A. Contractor shall have considerable experience and demonstrate ability in the installation of irrigation system(s) of specified type(s) in a neat, orderly, and responsible manner in accordance with recognized standards of workmanship.
- B. All work shall be performed in accordance with the best standards of practice relating to the trade.

WARRANTY

A. Contractor shall provide a one year warranty that covers all workmanship and labor.

B. Contractor shall provide a five year warranty that covers all materials. **PART 2 - PRODUCTS**

PIPE AND FITTINGS

- A. Material: PVC B. Pressure Pipe: Class 200.
- C. Lateral Pipe: Class 200, Polyethylene for Northeastern Climate.
- D. Fittings: Schedule 40, solvent welded or threaded.
- E. Risers: Schedule 80, threaded. F. Sleeves: Schedule 40, minimum 4".

AUTOMATIC CONTROLLER

- A. Irrigation controller specifications include but are not limited to: 1. The controller shall be of a hybrid type that is microelectronic circuitry capable of fully automatic or manual operation.
- 2. All stations shall have the capability of independently obeying or ignoring the weather sensor as well as using or not using the master valve.
- 3. The controller shall have the capability of shutting off the system on rainy days.
- B. Control zone kit for drip zones with flows from 3 to 15 gpm (11.4 to 56.8 l/m), including control valve (CV) and pressure-regulating filter (PRF). 1. Control Valve (CV) component specifications include:
 - a. Valve body and bonnet constructed of high impact, weather-resistant plastic, stainless steel VALVE BOX
 - and other chemical/ultra-violet resistant materials. b. One unit diaphragm constructed of durable Buna-N rubber with a clog resistant metering
 - orifice. c. Inlet pressure rating of 15 to 150 psi (1.0 to 10.3 bar).
- 2. Pressure Regulating Filter (PRF) component specifications include:
- a. Compact "Y" filter body and cap configuration constructed of glass-filled, ultra-violet resistant polypropylene, with 150 psi (10.3 bar) operating pressure rating.
- 200 mesh (75 micron) filter screen constructed of stainless steel.
- c. Normally-open pressure regulating device with preset outlet pressure of 40 psi (2.8 bar). Regulated pressure of 40 psi (2.8 bar). C. Low flow control zone kit for drip zones with flows from 0.2 to 5.0 gpm (0.8 to 18.9 l/m), including
- Low Flow Valve (LFV) and Pressure-Regulating Filter (PRF). Low flow valve (LFV) component specifications include:
- a. Valve body and bonnet constructed of high impact, weather-resistant plastic, stainless steel and other chemical/ultra-violet resistant materials. b. One unit diaphragm constructed of durable Buna-N rubber material with a clog resistant
- metering orifice. c. Inlet pressure rating of 15 to 150 psi (1.0 to 10.3 bar).
- 2. Pressure regulating filter (PRF) component specifications include:
- a. Compact "Y" filter body and cap configuration constructed of glass-filled, ultra-violet resistant polypropylene, with 150 psi (10.3 bar) operating pressure rating.
- b. 200 mesh (75 micron) filter screen constructed of stainless steel. c. Normally-open pressure regulating device with preset outlet pressure of 30 psi (2.1 bar). Regulated pressure of 30 psi (2.1 bar).

POP-UP SPRINKLERS

A. Irrigation spray body for small turf areas (2.5-24 feet (0.8-7.3m) with a 30 psi (2.0 bar) pressure regulating device specifications include but are not limited to: 1. Parts and components to withstand harsh operating conditions using chemically treated

- recycled water (reclaimed/non-potable), dirty water containing grit, debris, and other particulates, high operating pressures common in commercial irrigation and resistant to ultra-violet light.
- 2. Pressure-activated, co-molded soft elastomer wiper seal composed of three wipers and a base seal to ensure a positive seal without excess "flow-by" which enables more heads to be installed on the same valve.
- 3. Recessed debris pockets located in the base of the spray body to prevent recirculation of harmful debris during operation.
- 4. Shall include a check valve to prevent low head drainage of up to 14 feet (4.3 m); 6 psi (0.4 bar). 5. Shall include technology built into the stem to prevent water loss and alert maintenance when a
- spray nozzle is removed 6. Flow by rating of 0 at 15 psi (1.0 bar) or greater, 0.5 gpm (0.1 m3/h; 0.03 l/s) otherwise.
- 7. Shall include ¹/₂" (15/21) NPT female threaded bottom inlet.
- 8. The spray body, stem, nozzle, and screen shall be constructed of heavy-duty and ultra-violet
- resistant plastic. B. Irrigation spray body for small turf areas (2.5-24 feet (0.8-7.3m) with a 45 psi (3.1 bar) pressure
- regulating device specifications include but are not limited to: 1. Parts and components to withstand harsh operating conditions using chemically treated recycled water (reclaimed/non-potable), dirty water containing grit, debris, and other particulates, high operating pressures common in commercial irrigation and resistant to ultra-violet light.
- 2. Pressure-activated, co-molded soft elastomer wiper seal composed of three wipers and a base seal to ensure a positive seal without excess "flow-by" which enables more heads to be installed on the same valve.
- 3. Recessed debris pockets located in the base of the spray body to prevent recirculation of harmful debris during operation.
- 4. Shall include a check valve to prevent low head drainage of up to 14 feet (4.3 m); 6 psi (0.4
- 5. Shall include technology built into the stem to prevent water loss and alert maintenance when a spray nozzle is removed.
- 6. Flow by rating of 0 at 15 psi (1.0 bar) or greater, 0.5 gpm (0.1 m3/h; 0.03 l/s) otherwise. 7. Shall include $\frac{1}{2}$ (15/21) NPT female threaded bottom inlet.
- 8. The spray body, stem, nozzle, and screen shall be constructed of heavy-duty and ultra-violet resistant plastic.

ROTOR HEADS

- A. Pop-up rotor sprinkler for medium turf areas (25-47 feet (7.6-14.3 m), max specifications include but are not limited to: 1. Shall have adjustable arc rotation of 40 to 360 degrees (0.7 to 6.3 rad)
- rotation. 2. Shall have a flow shut-off device that is integrated into the flow path o
- 3. Shall have a pressure-activated, multi-function wiper seal that protects and assures positive pop-up and retraction.
- 4. Shall contain additional o-rings and seals for extra protection in "gritty" 5. Operating precipitation rate of 0.20 to 1.01 inches per hour (5 to 26 mn
- 6. Operating flow rate of 0.73 to 8.31 gpm (0.17 to 1.85 m3/h). 7. The body, stem, nozzle, and screen shall be constructed of heavy-duty
- 8. Shall include a 45 psi (3.1 bar) pressure regulating device to prevent
- the nozzle stream. 9. Shall include an internal check valve to prevent low head drainage of u
- prevent puddling, run-off and erosion. 10. Shall include a set of twelve interchangeable nozzles, 8 nozzles with
- trajectory and 4 low-angle nozzles with 10 degree (0.2 rad) trajectory.

FLEXIBLE SWING PIPE

- A. Swing pipe specifications include but are not limited to:
- 1. Swing pipe shall be flexible black tubing constructed of linear low dens with a wall thickness of 0.098" (0.3 cm) with a nominal inside diameter 2. Pipe shall be capable of a flow up to 8 gpm (0.5 l/s).
- DRIPLINE
- A. Distribution tubing specifications include but are not limited to:
- 1. The blank tubing shall be manufactured from flexible polyethylene mat of 0.049" (1.2 mm), outside diameter of 0.634" (16.1 mm), and inside of

INLINE EMITTER DRIPLINE

- A. Sub-surface inline emitter tubing specifications include but are not limited 1. The tubing shall be manufactured from flexible polyethylene material
- 0.049" (1.2 mm), outside diameter of 0.634" (16 mm), and inside diameter 2. The tubing shall have factory installed pressure-compensating, inline e
- shield device installed every 12, 18, or 24 inches (30.5, 45.7, 61 cm) construction drawings.
- B. Operating pressure range of 8.5 to 60 psi (0.6 to 4.1 bar). 4. Operating emitter flow rates of 0.6 and 0.9 gph (2.3 l/hr and 3.5 l/hr).
- DISTRIBUTION TUBING
- A. 1/4" distribution tubing for emitters and other devices specifications include 1. The blank tubing shall be extruded from ultra-violet resistant polyethyle wall thickness of 0.04" (1 mm), outside diameter of 0.250" (6.3 mm), a 0.170" (4.3 mm).
- 2. Operating pressure range from 0 to 60 psi (0 to 4.1 bar).

EMITTERS

- A. Point source emission device specifications include but are not limited to: The emitter shall be constructed of ultra-violet resistant acetyl material 2. Shall have a pressure-compensating design to deliver a uniform flow range of 15 to 50 psi (1.0 to 3.4 bar).
- 3. Flow rates that range from 0.5 to 2 gph (1.89 to 7.57 l/h) at a pressure (1.0 to 3.4 bar).

- A. Valve boxes specifications include but are not limited to:
- 1. Shall be made of structural foam HPDE resin that is resistant to ultramoisture and chemical action of soils.
- 2. Lids shall be clearly marked with the words "IRRIGATION CONTROL
- 3. Lid colors are available in black, green and purple designating non-po

SPRAY NOZZLES

EXCAVATION

INSTALLATION

- A. Fixed or variable arc matched precipitation rate spray nozzle for small turf m), maximum 30 psi (2.1 bar) specifications include but are not limited to: 1. Shall be constructed of ultra-violet resistant plastic.
- 2. Shall contain a stainless steel flow and radius adjustment screw allowi reduction 3. Nozzle shall have a precipitation rate that is matched across sets and

preventers and at lowest point along main pressure pipe.

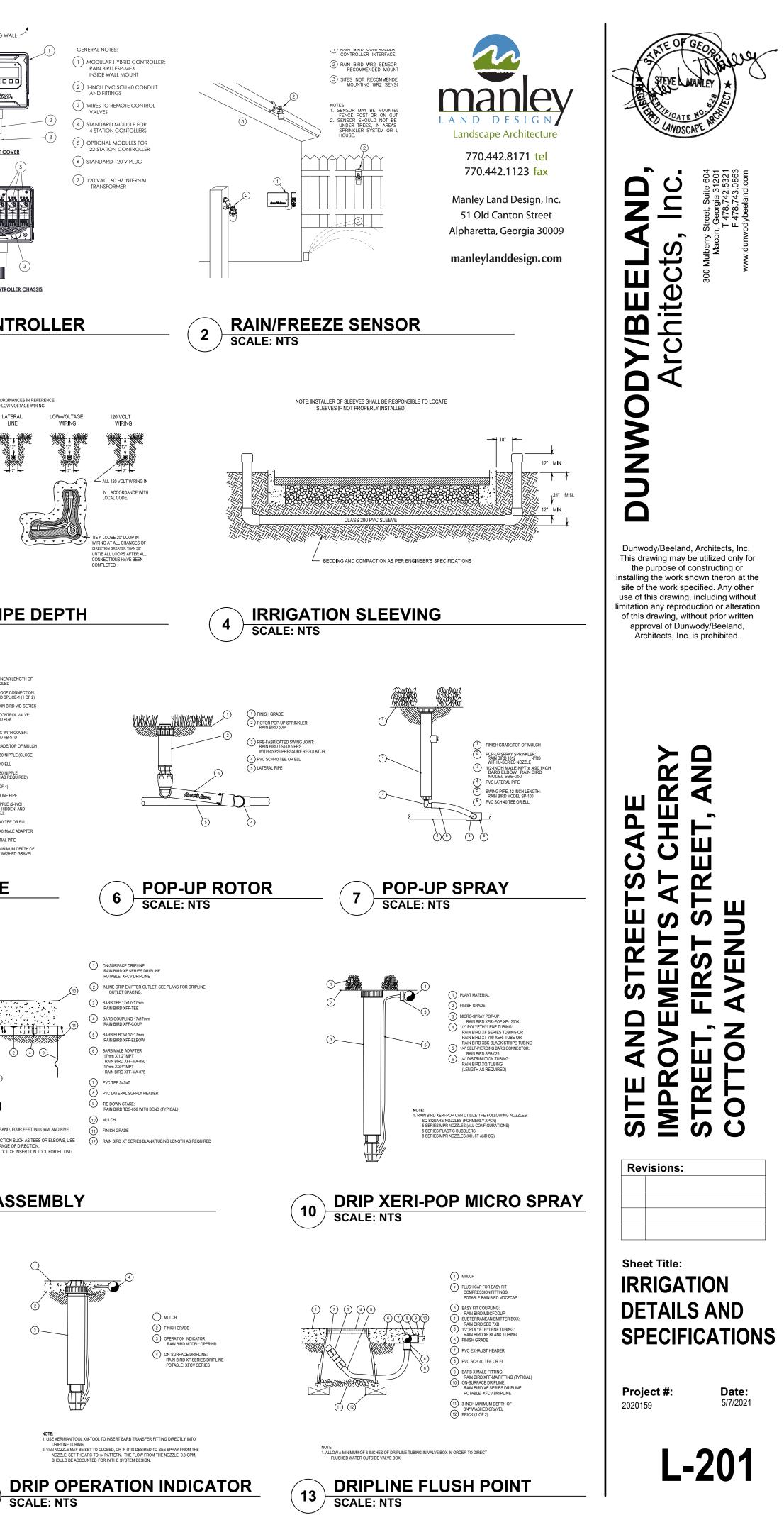
ROTOR HEADS	F. Quick-Coupling Valves:	· · · · ·
 A. Pop-up rotor sprinkler for medium turf areas (25-47 feet (7.6-14.3 m), maximum 75 psi (5.2 bar) specifications include but are not limited to: Shall have adjustable arc rotation of 40 to 360 degrees (0.7 to 6.3 rad) and reversing full circle rotation. Shall have a flow shut-off device that is integrated into the flow path of the sprinkler. Shall have a pressure-activated, multi-function wiper seal that protects internals from debris and assures positive pop-up and retraction. Shall contain additional o-rings and seals for extra protection in "gritty" water. Operating precipitation rate of 0.20 to 1.01 inches per hour (5 to 26 mm/h). Operating flow rate of 0.73 to 8.31 gpm (0.17 to 1.85 m3/h). The body, stem, nozzle, and screen shall be constructed of heavy-duty and ultra-violet resistant plastic. Shall include a 45 psi (3.1 bar) pressure regulating device to prevent high pressure misting to the nozzle stream. Shall include an internal check valve to prevent low head drainage of up to 7 feet (2.1 m) to 	 Install using 1 inch PVC nipples and schedule 40 ells as detailed. Location as indicated on plans. G. Backflow Preventer: Install assembly complete for irrigation system with 2 drain valves and 2 shut off valves per detail, local laws and regulations, and per manufacturer's specifications. Install assemblies with drain valves in below grade installations. Provide open box floor with gravel drain sump. H. Valve Boxes Install over all remote control valves, manual control valves, zone shutoff valves, gate valves, or globe valves. Size to provide adequate room for maintenance. Install boxes on level subgrade with proper drainage so that top of boxes are flush with finish 	MOUNTING WALL 1 1 1 1 1 1 1 1 1 1 1 1 1
prevent puddling, run-off and erosion. 10. Shall include a set of twelve interchangeable nozzles, 8 nozzles with 25 degree (0.4 rad)	automatic controller. Coordinate controller installation with other electrical work.Connect remote control valves to controller in numerical sequence as shown on Plans.	
 trajectory and 4 low-angle nozzles with 10 degree (0.2 rad) trajectory. FLEXIBLE SWING PIPE A. Swing pipe specifications include but are not limited to: Swing pipe shall be flexible black tubing constructed of linear low density polyethylene material with a wall thickness of 0.098" (0.3 cm) with a nominal inside diameter of 0.49" (1.2 cm). Pipe shall be capable of a flow up to 8 gpm (0.5 l/s). DRIPLINE A. Distribution tubing specifications include but are not limited to: The blank tubing shall be manufactured from flexible polyethylene material with a wall thickness of 0.049" (1.2 mm), outside diameter of 0.634" (16.1 mm), and inside diameter of 0.536" (13.6 mm). The tubing shall be dual-layered (brown over black). INLINE EMITTER DRIPLINE A. Sub-surface inline emitter tubing specifications include but are not limited to: The tubing shall be manufactured from flexible polyethylene material with wall thickness of 0.049" (1.2 mm), outside diameter of 0.634" (16.1 mm), and inside diameter of 0.536" (13.6 mm). The tubing shall be dual-layered (brown over black). INLINE EMITTER DRIPLINE A. Sub-surface inline emitter tubing specifications include but are not limited to: The tubing shall be manufactured from flexible polyethylene material with wall thickness of 0.049" (1.2 mm), outside diameter of 0.634" (16 mm), and inside diameter of 0.536" (13.6 mm). The tubing shall have factory installed pressure-compensating, inline emitters with a copper shield device installed every 12, 18, or 24 inches (30.5, 45.7, 61 cm) as indicated on construction drawings. 	 J. Wire and Electrical Work Use electrical control and ground wire suitable for sprinkler control cable. Provide 120-volt power connection (by others) to automatic controller to conform to local codes, ordinances and authorities having jurisdiction. Low Voltage Wiring: Bury control wiring between controller and electric valves in pressure supply line trenches, strung as close as possible to main pipe lines with such wires to be consistently located below and to one side of the pipe, or in separate trenches. Bundle all 24-volt wires at 10-foot intervals and lay with pressure supply line pipe to one side of trench. Install control wire for each control valve. 	<image/>
 Operating pressure range of 8.5 to 60 psi (0.6 to 4.1 bar). Operating emitter flow rates of 0.6 and 0.9 gph (2.3 l/hr and 3.5 l/hr). 	 Install flush caps as indicated on details. Install drip indicator on all drip zones. 	
DISTRIBUTION TUBING	 M. Thrust Blocks and/or Joint Restraints 1. Install on pipe sized 2" or larger wherever the main pipe line: a. Changes any direction at tees, angles, and crosses vertical and horizontal. 	
 A. ¼" distribution tubing for emitters and other devices specifications include but are not limited to: 1. The blank tubing shall be extruded from ultra-violet resistant polyethylene resin materials with a wall thickness of 0.04" (1 mm), outside diameter of 0.250" (6.3 mm), and inside diameter of 0.170" (4.3 mm). 2. Operating pressure range from 0 to 60 pci (0 to 4.1 hor). 	b. Changes at reducers.c. Stops at a dead-end.d. Valves at which thrust develops when closed.	All MAIN SUPPLY LINES TAPE AND BUNDLE TUBING OR WIRING MANUFACTURER'S INSTAL- AT 20' INTERVALS.
2. Operating pressure range from 0 to 60 psi (0 to 4.1 bar). EMITTERS	BACKFILLING	
 A. Point source emission device specifications include but are not limited to: The emitter shall be constructed of ultra-violet resistant acetyl materials. Shall have a pressure-compensating design to deliver a uniform flow throughout a pressure range of 15 to 50 psi (1.0 to 3.4 bar). Flow rates that range from 0.5 to 2 gph (1.89 to 7.57 l/h) at a pressure range of 15 to 50 psi (1.0 to 3.4 bar). 	 A. Do not begin backfilling operations until system tests and approvals have been completed. B. Bed all pipe a minimum of 2 inches. Backfill to 6 inches above pipe with soil free of rocks over 1-inch diameter, debris, or organic matter. Backfill remainder of trench with soil of like quality to adjacent areas. Haul away all material not suitable for backfill. C. Compact backfill in 6-inch lifts thoroughly to prevent settling damage to grades or plant material. Leave trenches slightly mounded to allow for settlement after backfilling is completed. Low areas and damage caused by settling will be repaired by Contractor at no additional cost to the Project or Owner. 	3 TRENCHING AND PIPE DEPT 3 SCALE: NTS (1) SOUNCH LINEAR LENGTH OF WIRE, COLLED (2) WATERPROOF CONNECTION: RAIN BIRD SPLICE: 1(1 OF 2)
VALVE BOX	 D. Prevent soil, rocks, or debris from entering pipes or sleeves. FLUSHING AND TESTING 	1 2 3 4 5 6 3 id TaG: RAIN BIRD Vid Series 4 Remote control Val Ve: RAIN BIRD Pool
 A. Valve boxes specifications include but are not limited to: 1. Shall be made of structural foam HPDE resin that is resistant to ultra-violet light, weather, moisture and chemical action of soils. 2. Lids shall be clearly marked with the words "IRRIGATION CONTROL VALVE" molded onto the top. 	A. Flushing: After piping, risers, and valves are in place and connected, but prior to installation of sprinkler heads, thoroughly flush piping system under full head of water pressure from dead end fittings. Maintain flushing for 5 minutes through furthermost valves. Cap risers after flushing.	3" MIN. 3" MIN. 3" MIN. 3" MIN. 3" VALVE BOX WITH COVER: RAINBIRD VB-STD 9 3" VALVE BOX WITH COVER: RAINBIRD VB-STD 9 4 6 FINISH GRADETOP OF MULCH 7 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
3. Lid colors are available in black, green and purple designating non-potable water use.	INSPECTION	(1) BRICK (1 OF 4) (16) (15) (14) (13) (12) (11) (11) PVC MAINLINE PIPE (16) (15) (14) (13) (12) (11) (11) PVC MAINLINE PIPE
 SPRAY NOZZLES A. Fixed or variable arc matched precipitation rate spray nozzle for small turf areas (3-15 feet (.91-4.6 m), maximum 30 psi (2.1 bar) specifications include but are not limited to: Shall be constructed of ultra-violet resistant plastic. Shall contain a stainless steel flow and radius adjustment screw allowing up to 25% radius reduction. Nozzle shall have a precipitation rate that is matched across sets and patterns of spray nozzles up to 15 feet (4.6 m). Shall include color coding marking on top of nozzle for easy identification of spray radius. B. Dual orifice fixed arc nozzle for small turf areas (5-15 feet (1.7-4.6 m), maximum 30 psi (2.1 bar) 	 A. Arrange for Owner's presence 48 hours in advance of inspection walk-through. B. Examine areas and conditions under which work of this section is to be performed and ensure a complete and operating installation prior to scheduling a walk-through. C. Operate each zone in its entirety for Owner at time of walk-through and open all valve boxes as directed. D. Expose all drip emitters under operations for observation by Owner to demonstrate they are performing and installed as designed prior to placing of mulch material. Schedule separate walk-through as necessary. E. As necessary Owner will generate a list of items to be corrected prior to Final Acceptance. 	 (1) (1) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (1) (2) (1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1
 specifications include but are not limited to: Shall be constructed of ultra-violet resistant plastic. Shall contain a stainless steel flow and radius adjustment screw allowing up to 25% radius reduction. The nozzle shall have dual orifices for both in-close watering and standard pattern watering with a matched precipitation rate between sets and matched flow and with other matched precipitation rate fixed spray nozzles up to 15 feet (4.6 m). Shall include color coding marking on top of nozzle for easy identification of spray radius. 	 A. Flush dirt and debris from piping before installing sprinklers and other devices. B. Adjust automatic control valves to provide flow rate of rated operating pressure required for each sprinkler circuit. C. Restore all damaged areas to original condition unless otherwise shown on plans at no additional cost to the Project or Owner. FINSH GRADETOP OF MULCH VALVE BOX WITH COVER: 	
 C. Multi stream rotating nozzle for small turf areas (8-24 feet (2.4-7.4m), maximum 55 psi (3.8 bar) specifications include but are not limited to: Shall be constructed of ultra-violet resistant plastic. Shall contain a stainless steel radius adjustment screw allowing reduction to 13 feet (4.0 m). Shall have a matched precipitation rate of 0.60 in/hr (15.2 mm/hr). Shall have a color coded radius reduction plug to allow for easy identification of fixed arc pattern. 	1 2 3 4 5 6 7 8 9 10 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
PART 3 - EXECUTION EXCAVATION		
 A. Stake pipe and equipment layout for Owner's review and approval. Review does not relieve installer from coverage problems due to improper placement after staking. B. Excavate trenches for irrigation system pipe to provide minimum cover per plans and details. C. Barricade trenches that are left open overnight. 	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) (NOTES: 1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY. 2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, US TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION. 3. SAVE YOUR HANDS. USE THE RAIN BIRD FITTINS-TOOL XF INSERTION TOOL FOR FITTING ASSEMBLY.
INSTALLATION		
 A. General: Plans are diagrammatic. Proceed with installation in accordance with the following: Install stop and waste valves, backflow preventers, and other equipment required by local authorities according to laws and regulations in order to make system complete. a. Coordinate with the General Contractor the responsible for installing the backflow preventer and other irrigation items at the connection point. b. Coordinate with the General Contractor the for exact location of the irrigation connection point. 2. Thoroughly flush main lines before installing automatic control valves, and laterals before installing sprinklers. Flush supply lines thoroughly before installing backflow preventers or other 	8 SCALE: NTS	SCALE: NTS BARB X BARB INSERT EL, TEE OR CROSS: RAIN BIRD XFF-ELBOW (TYPICAL) RAIN BIRD XFF-TEE (TYPICAL) RAIN BIRD XFD-CROSS (TYPICAL) SEE RAIN BIRD DETAIL "XFD FLUSH POINT" ON-SURFACE DRIPLINE PIPE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFD DRIPLINE POTABLE: XFD DRIPLINE POTABLE: XFD DRIPLINE POTABLE: XFD DRIPLINE POTABLE: XFD DRIPLINE POTABLE: XFD DRIPLINE 2
 regulating devices. B. Piping: Assemble all mainline and lateral lines in accordance with manufacturer's recommendations with no cul-de-sacs. Assure positive drainage. C. Sleeves: Irrigation Contractor shall install sleeves before concrete/paving work. Sleeves should be a minimum two times the diameter of the pipe passing through them. General Contractor shall stub-up and flag sleeve locations for the Irrigation Contractors ease of locating. 	Image: Constraint of the second se	FOLD 5 PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PARKING ISLAND CURB (1) (1) (2) (1) (3) (1) (3) (1) (3) (1) (1) (2) (2) (3) (3) (4) (3) (5) PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PARKING ISLAND CURB (3) (3) (4) (5) (5) PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PARKING INFORMATION CONTROL IN
 Sleeve locations shall be approximate to that shown on the Irrigation Plan. Control Valves: 	NOTES: 1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN LEUXITON. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING. 12° Spacing 13° Spacing	(1) MULCH BED FOR TREE Image: Constraint of the second s
 Install one valve per valve box and provide 12 inches of expansion loop slack wire at all connections inside valve box. Manual Drains: 	2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE. Initel Pressure psi (gph) Nominal Flow (gph) Nominal Flow (gph) 3. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY. 0.4 0.9 0.6 0.9 4. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE 30 289 205 402 337 TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION. 40 350 244 484 416	A WART STOLE PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND) NOTE: 1. USE XERIMAN DRPLINE TI DRPLINE TI

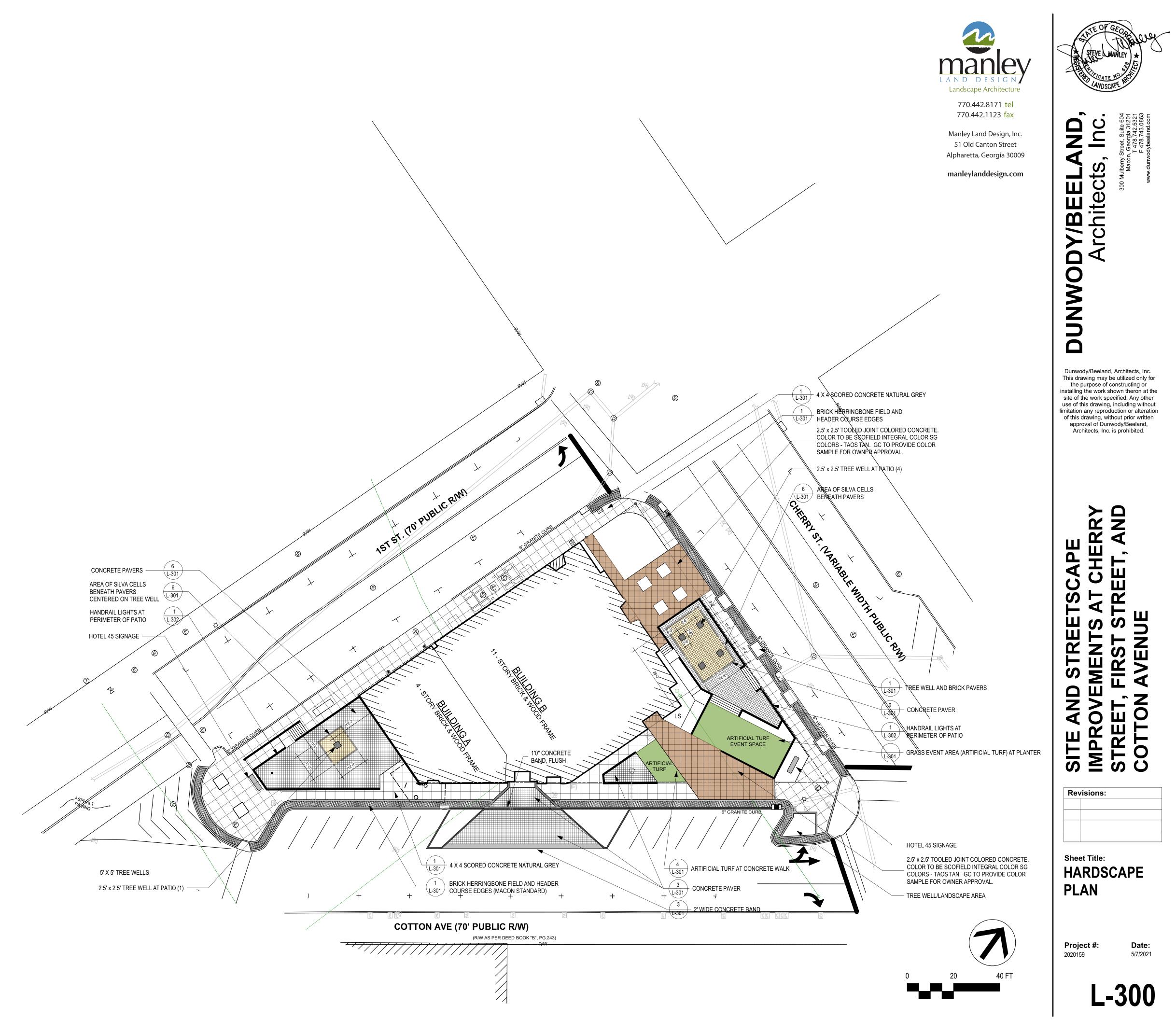
1. Install per manufacturer's recommendations on upstream and downstream side of backflow

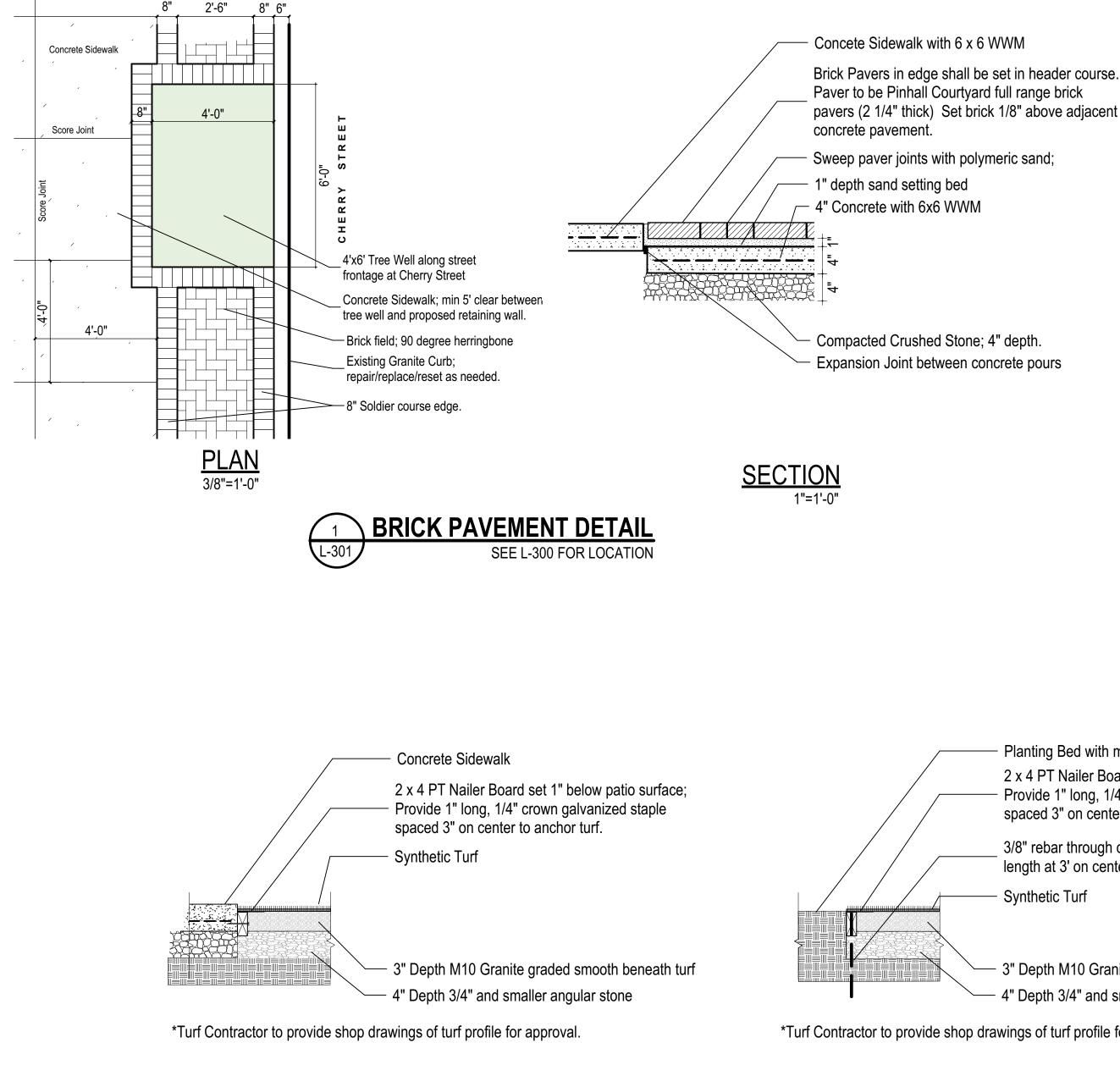
DRIP LAYOUT SCALE: NTS

TITINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE DWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION. EN USING TAYMI INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

12 SCALE: NTS





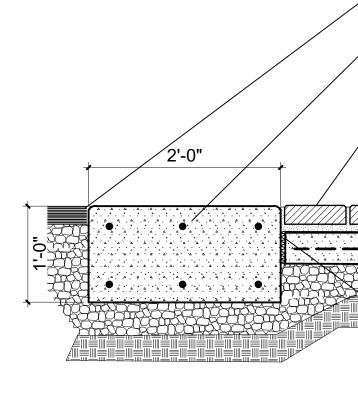




1. Synthetic Turf to be Dupont Foreverlawn Select HD with T-Cool infill. Contractor to provide shop drawings and samples for product approvals

L-301 1"=1'-0"

Tooled Control Joint (min 1/4 depth of slab) Medium Broom Finish Conc Sidewalk 6"x6" WWM Crushed stone base







Planting Bed with mulch 2 x 4 PT Nailer Board set 1" below patio surface; Provide 1" long, 1/4" crown galvanized staple spaced 3" on center to anchor turf. 3/8" rebar through center drilled holes 12" - 18" length at 3' on center to anchor nailer board. - Synthetic Turf

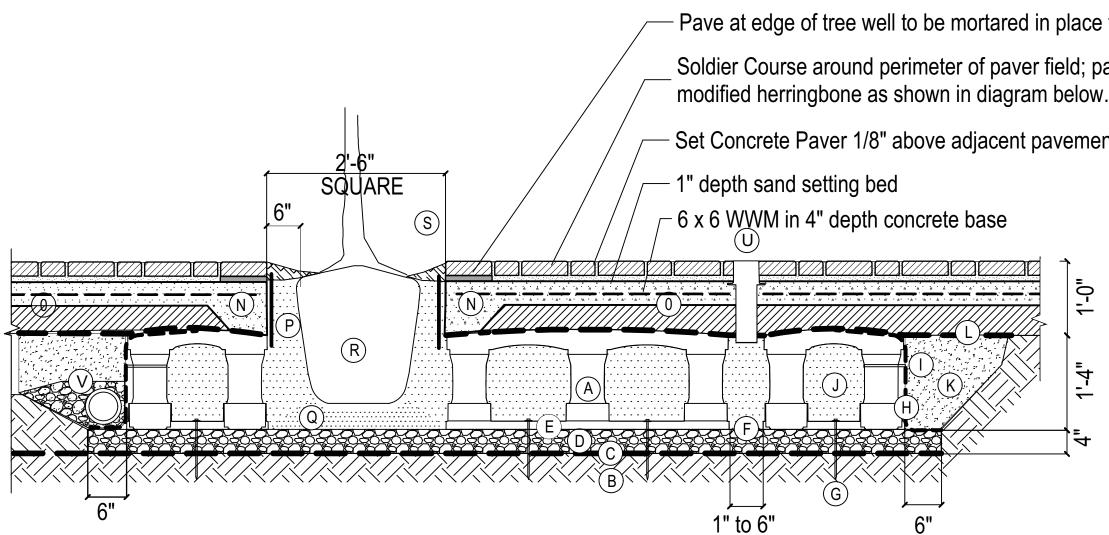
Compacted subgrade

- 3" Depth M10 Granite graded smooth beneath turf
- 4" Depth 3/4" and smaller angular stone
- *Turf Contractor to provide shop drawings of turf profile for approval.

SYNTHETIC TURF / PLANTER DETAIL

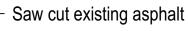
SEE L-300 FOR LOCATION

- KEY PLAN
- (A) SILVA CELL SYSTEM (DECK, BASE, AND POSTS)
- (B) SUBGRADE, COMPACTED
- (C) GEOTEXTILE FABRIC, PLACED ABOVE SUBGRADE
- (D) 4" MIN AGGREGATE SUB BASE, COMPACTED TO 95% PROCTOR
- (E) SILVA CELL BASE SLOPE, 10% MAX
- (F) 1" TO 6" SPACING BETWEEN SILVA CELLS AT BASE
- (G) ANCHORING SPIKES, CONTACT DEEPROOT FOR ALTERNATIVE
- (H) GEOGRID, WRAPPED AROUND PERIMETER OF SYSTEM, WITH 6" TOE (OUTWARD FROM BASE) AND 12" EXCESS (OVER TOP OF DECK)
- (I) CABLE TIE, ATTACHING GEOGRID TO SILVA CELL AT BASE OF UPPER LEG FLARE, AS NEEDED



- (J) PLANTING SOIL, PER PROJECT SPECIFICATIONS, PLACED IN LIFTS AND WALK-IN COMPACTED TO 75-85% PROCTOR
- (K) COMPACTED BACKFILL, PER PROJECT SPECIFICATIONS
- (L) GEOTEXTILE FABRIC TO EDGE OF EXCAVATION
- (M) RIBBON CURB AT TREE OPENING (TO BE USED WITH PAVERS OR ASPHALT)
- (N) THICKENED EDGE AT TREE OPENING (TO BE USED WITH CONCRETE)
- 0 4" AGGREGATE BASE





Concete Band with continuous rebar as required.

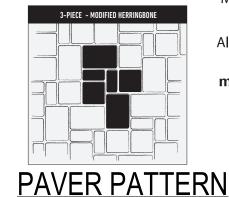
Soldier Course around perimeter of paver - field; pavers in 3 piece modified herringbone as shown in diagram below.

 Set Concrete Paver 1/8" above adjacent pavement — 1" depth sand setting bed

____ 6 x 6 WWM

4" Crushed Stone

- Expansion Joint between concrete pours

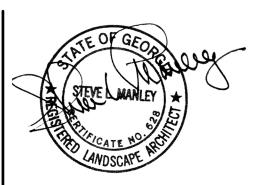


manley LAND DESIGN Landscape Architecture

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Manley Land Design, Inc. 51 Old Canton Street Alpharetta, Georgia 30009

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SEE L-300 FOR LOCATION

Pave at edge of tree well to be mortared in place to concrete base

Soldier Course around perimeter of paver field; pavers in 3 piece

- Set Concrete Paver 1/8" above adjacent pavement

(P) DEEPROOT ROOT BARRIER, 12", DEPTH, INSTALL DIRECTLY ADJACENT TO CONCRETE EDGE RESTRAINT

Q PLANTING SOIL BELOW ROOT BALL, COMPACTED WELL TO PREVENT SETTLING

(R) ROOT BALL

(S) TREE OPENING TREATMENT, PER PROJECT SPECIFICATIONS

(T) DEEPROOT WATER AND AIR VENT, ROOTBALL, WHEN REQUIRED

(U) DEEPROOT WATER AND AIR VENT, WHEN REQUIRED

(V) UNDERDRAIN SYSTEM, WHEN REQUIRED (LOCATION AND DETAILS BY OTHERS) NOTES

1.EXCAVATION SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE HEALTH AND SAFETY REGULATIONS 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

3. PROVIDE SUPPLEMENTAL IRRIGATION

4.DO NOT SCALE DRAWINGS

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Revisions:

Sheet Title: HARDSCAPE DETAILS

Project #: 2020159

Date: 5/7/2021

L-301



KORNEGAY DESIGN LANDSCAPE CONTAINERS



SOCRATES BENCH BY LANDSCAPE FORMS



CHIPMAN TABLES AND CHAIRS BY LANDSCAPE FORMS



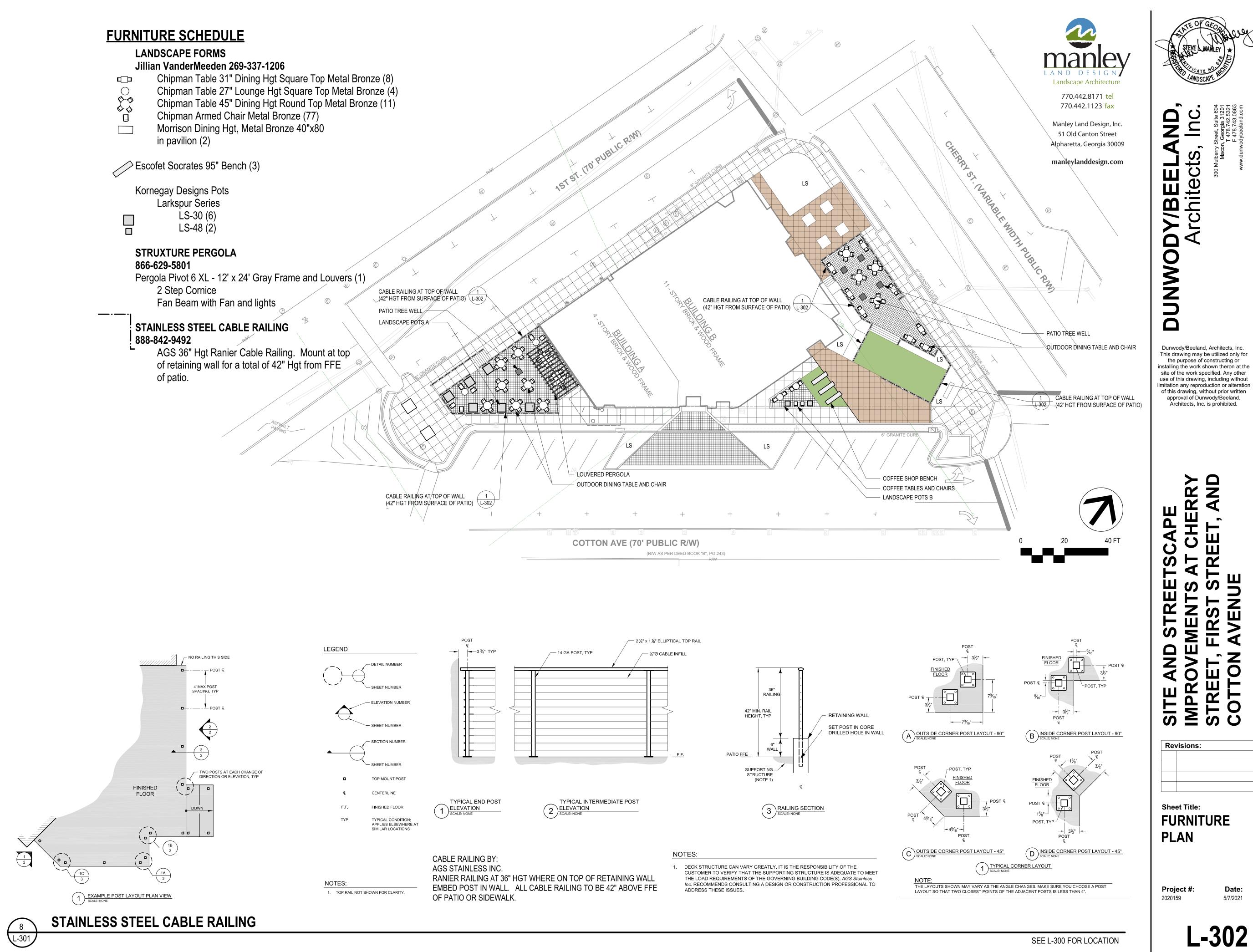
CHIPMAN TABLES AND CHAIRS BY LANDSCAPE FORMS



PERGOLA

Larkspur Series LS-30 (6)

2 Step Cornice



L-302

Date:

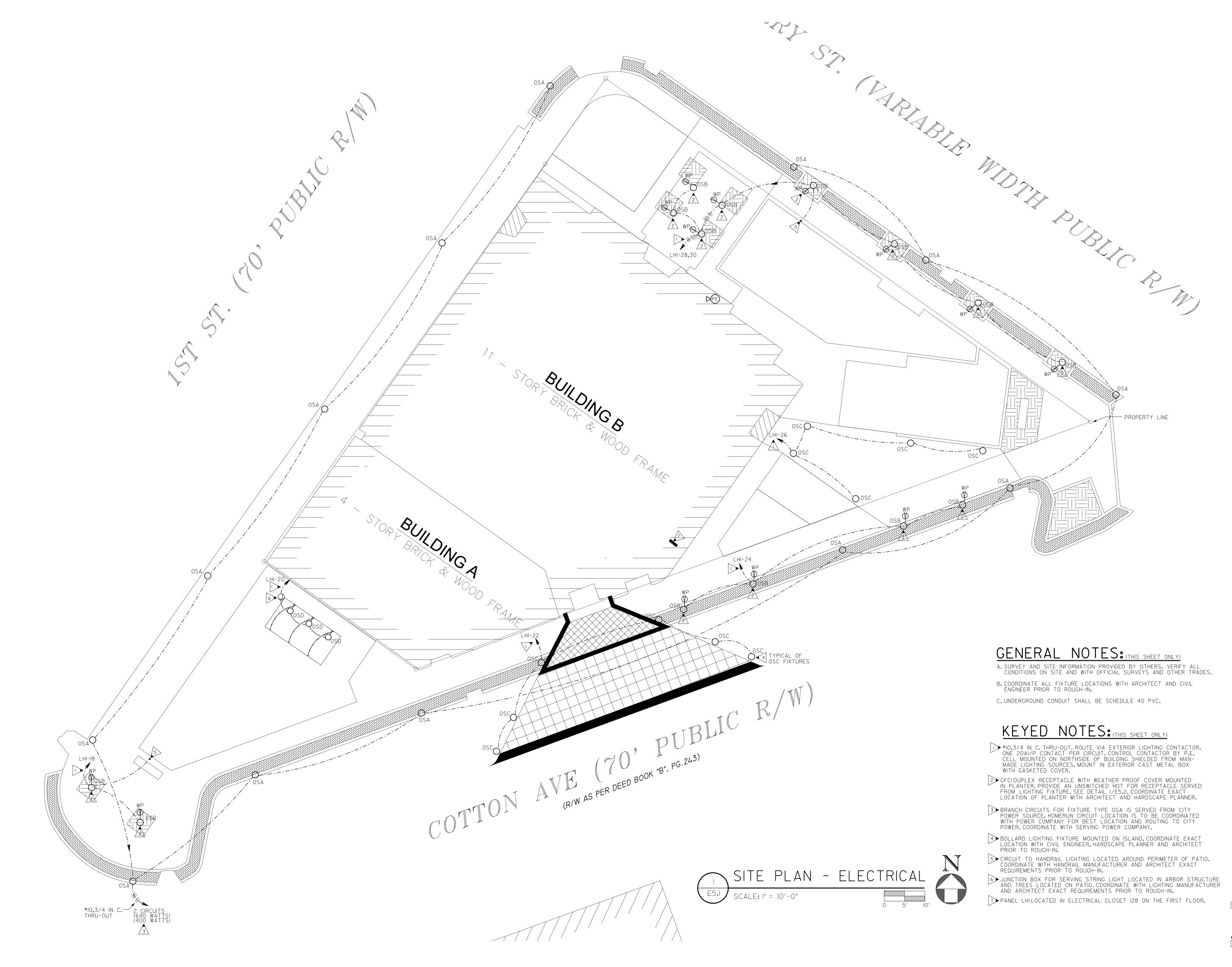
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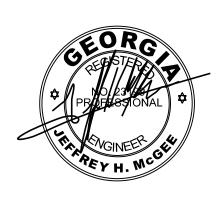
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Street, Suite 604), Georgia 31201 T 478.742.5321 F 478.743.0863



- S CIRCUIT TO HANDRAIL LIGHTING LOCATED AROUND PERIMETER OF PATIO. COORDINATE WITH HANDRAIL MANUFACTURER AND ARCHITECT EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
- JUNCTION BOX FOR SERVING STRING LIGHT LOCATED IN ARBOR STRUCTURE AND TREES LOCATED ON PATIO. COORDINATE WITH LIGHTING MANUFACTURER AND ARCHITECT EXACT REQUIREMENTS PRIOR TO ROUGH-IN. > PANEL LHILOCATED IN ELECTRICAL CLOSET 128 ON THE FIRST FLOOR.



Suite 604 gia 31201 742.5321 743.0863 \mathbf{O} Georg 478 478 DUNWODY/BEEL/ Architects

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Sheet Title:						
Oneet Thie.						
SITE PLAN -						
ELECTRICAL						

Project #: Date: 1901 5/07/2021

ELECTRICAL DESIGN

CONSULTANTS, INC.

175 NEW ST.,STE.1 MACON, GA 31201 EDC* M19015



ELECTRICAL SPECIFICATIONS

DIVISION 26

ELECTRICAL

SECTION A: GENERAL ELECTRICAL REQUIREMENTS

I. THESE PLANS AND SPECIFICATIONS APPLY TO THE RENOVATIONS TO SITE AND STREETSCAPE IMPROVEMENTS AT CHERRY STREET, FIRST STREET AND COTTON AVENUE, MACON, GEORGIA. THE WORK DESCRIBED BY THESE PLANS AND SPECIFICATIONS 2. ALL WORK SHALL BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR WITH MINIMUM OF TWO YEARS OF EXPERIENCE. LIST OF PREVIOUS JOBS AND REFERENCES SHALL BE MADE AVAILABLE UPON REQUEST. CONTRACTOR SHALL PROVIDE ADEQUATE INSURANCE FOR PERSONNEL AND SHALL REPAIR ANY DAMAGE OCCURRING AS THE RESULT OF THIS PROJECT SITE AND RELATED PROPERTY. 3. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE,LIFE SAFETY CODE NFPA IOI, ADA CODE, GA ACCESSIBILITY CODE, STATE OF GEORGIA ENERGY CODE 4. ALL PERMITS AND FEES SHALL BE OBATINED AND PAID FOR BY THE

5. ALL EQUIPMENT, MATERIAL, AND DEVICES SHALL BE LISTED OR RECOGNIZED BY UNDERWRITER'S LABORATORY OR ELECTRICAL TESTING LABORATORY AND USED AND INSTALLED IN ACCORDANCE WITH IT'S LISTING.

6. ALL WORK PERFORMED SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE THE FINAL COMPLETION DATE EXCEPT FOR FUSES AND LAMPS IN LIGHT FIXTURES. UPON NOTIFICATION OF A PROBLEM, THE CONTRACTOR SHALL INVESTIGATE THE PROBLEM WITHIN 48 HOURS UNLESS A DIFFERENT TIME PERIOD IS AGREED TO. THE CONTRACTOR SHALL INVESTIGATE, REPAIR OR REPLACE ALL 7. THE TERM "PROVIDE" SHALL BE UNDERSTOOD TO MEAN, OBTAIN THE ITEM DESCRIBED, INSTALL ITEM IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, 8. ALL PENETRATIONS MADE IN FIRE RATED BUILDING PORTIONS SHALL BE SEALED WITH A LISTED RESISTANT MATERIAL SUITABLE FOR THE APPLICATION. 9. ALL INSTALLATIONS OF ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION. IO. PLANS ARE DIAGRAMMATIC AND SHOW THE LOCATION OF THE EQUIPMENT, RACEWAY AND FIXTURES, AND ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL II. CONTRACTOR SHALL VERIFY AND COORDINATE ALL EQUIPMENT AND DEVICE LOCATIONS WITH OWNER'S PROJECT MANAGER PRIOR TO INSTALLATION.

SECTION B: BASIC MATERIALS

I. ALL CONDUCTORS USED FOR 600 VOLTS OR LESS SHALL BE HIGH GRADE COPPER CONDUCTORS WITH 75 DEGREE C, THHN OR THWN THERMOPLASTIC INSULATION. ALL CONDUCTORS SHALL BE MADE IN THE USA. ALL CONDUCTORS 2. ALL INTERIOR 120/277 VOLT, 20 AMP POWER AND LIGHTING WIRING SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING OR "MC" CABLE (IF NOT EXPOSED) FOR ALL INTERIOR CIRCUITS UNLESS OTHERWISE NOTED. IF "MC" CABLE IS USED, HOMERUNS SHALL BE IN 3/4 IN. EMT. POWER CIRCUITS FOR HVAC EQUIPMENT SHALL BE IN 3/4" ELECTRICAL METALIC CONDUIT MINIMUM. ALL CONDUIT SHALL BE SUPPORTED FROM BUILDING STRUCTURE. IT SHALL NOT BE SUPPORTED FROM DUCTWORK, PIPING, CEILING GRID OR CEILING GRID SUPPORTS, OR ANY OTHER NON-STRUCTURAL ITEM. CONDUIT SHALL DE CURPORTED IN ACCORDINGS WITH NON-STRUCTURAL ITEM. CONDUIT SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC. CONDUIT IN EXPOSED STRUCTURE AREAS SHALL BE EMT.GALVANIZED 3. CONDUIT UNDERGROUND SHALL BE SCHEDULE 40 PVC. IF MORE THAN ONE CONDUIT IS PROVIDED IN A SINGLE TRENCH, THE CONDUIT SHALL BE RACKED WITH SPACERS EVERY FOUR FEET TO MAINTAIN A MINIMUM SPACING BETWEEN CONDUIT OF TWO INCHES. BACKFILL USED FOR UNDERGROUND INSTALLATIONS SHALL BE FREE OF FOREIGN MATTER. WHERE EXPOSED TO WEATHER, CONDUIT SHALL BE GALVANIZED RIGID STEEL OR INTERMEDIATE METALLIC CONDUIT. TH CONDUIT SHALL BE TERMINATED WITH LISTED FITTINGS AND ALL CONDUIT ENDS SHALL BE REAMED AND SMOOTH. ALL CONDUIT ENDS IN BOXES SHALL BE 4. A #12 INSULATED COPPER GROUND CONDUCTOR SHALL BE INCLUDED IN ALL BRANCH CIRCUITS RATED 20 AMPERES. ALL OTHER CIRCUITS AND FEEDERS WILL BE PROVIDED WITH AN INSULATED COPPER CONDUCTOR SIZED AS NOTED OR IN 5. THE MINIMUM SIZE OF ALL CONDUCTORS NOT OTHERWISE INDICATED IS #12 AND THE MINIMUM SIZE OF ALL CONDUIT UNLESS OTHERWISE INDICATED IS 1/2 6. ALL JUNCTION BOXES SHALL BE PROVIDED WITH COVERS AND ALL UNUSED OPENINGS SHALL BE PLUGGED. ALL JUNCTION BOXES SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE. COVERS OF BOXES SHALL BE LABELED WITH THE CIRCUIT NUMBER WITH A BLACK PERMANENT MARKER IN 3/4 IN. HIGH LETTERS EGIBLE HANDWRITTEN LETTERING 7. ALL OUTLET BOXES SHALL BE SQUARE METAL BOXES. PROVIDE PLASTER RINGS FOR ALL OUTLET BOXES CONTAINING DEVICES TO PROVIDE A FIRM

8.ALL CONVENIENCE RECEPTACLES SHALL BE SPECIFICATION GRADE 20 AMP RECEPTACLES, OWNER TO SELECT COLOR. 9. ALL LIGHT SWITCHES SHALL BE SPECIFICATION GRADE 20 AMP TOGGLE SWITCHES FULL LOAD RATED FOR TUNGSTEN-HALOGEN LAMPS, OWNER TO IO. PROVIDE FACEPLATES FOR ALL RECEPTACLES AND SWITCHES. COORDINATE STYLE AND COLOR WITH OWNER'S PROJECT MANAGER.

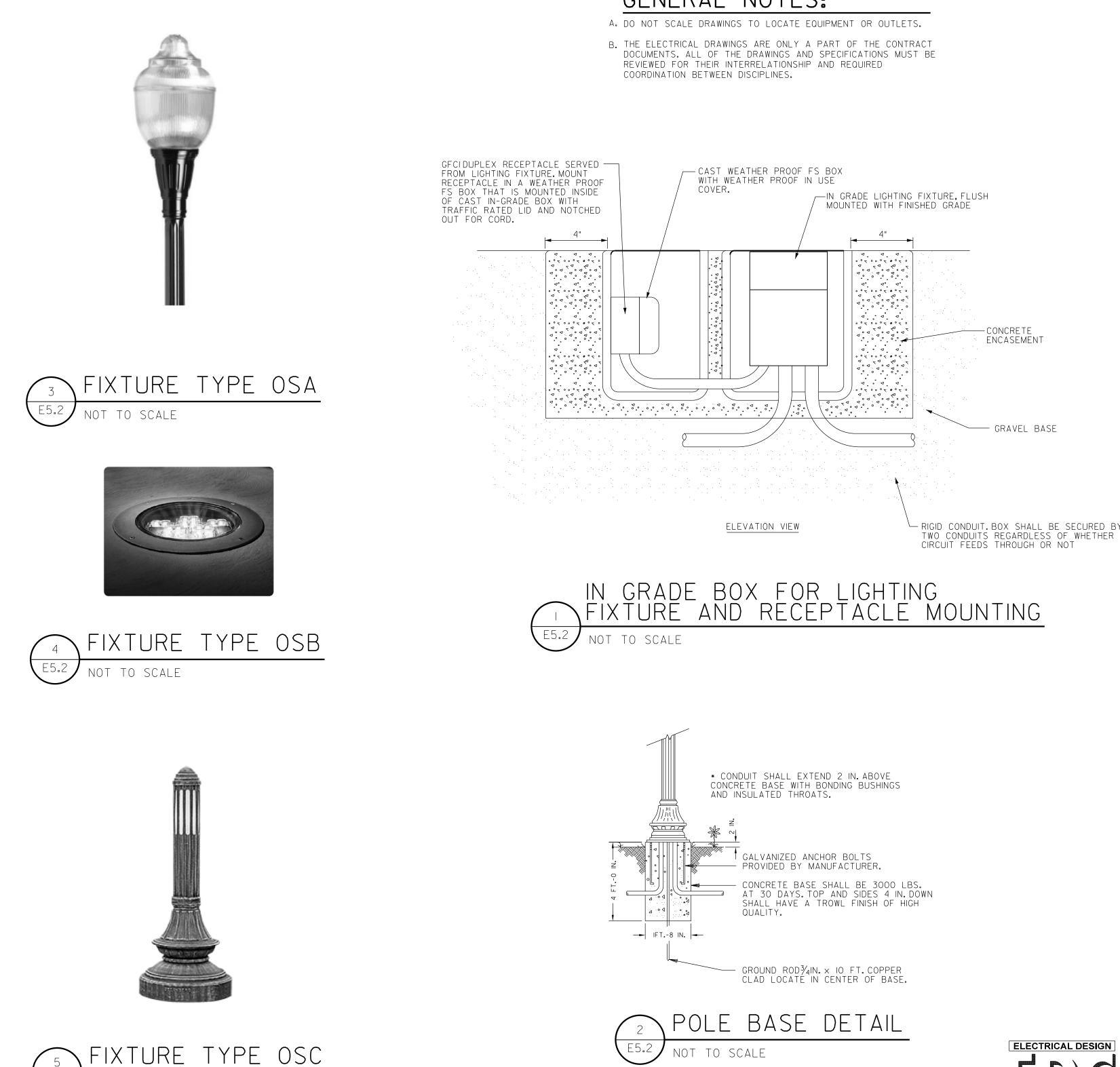
SECTION C: LIGHTING

I. TYPES AND SPECIFIC REQUIREMENTS ARE PROVIDED ON THE LIGHTING FIXTURE SCHEDULE ON THE PLANS. ALL LIGHT FIXTURES SHALL BE PROVIDED WITH LAMPS, DRIVERS, BALLASTS, AND FULLY FUNCTIONING AT COMPLETION OF 2. ALL LED FIXTURES SHALL BE U.L. LISTED AND HAVE A MINIMUM OF 5 YEAR ON-SITE REPLACEMENT WARRANTY FOR DEFECTIVE OR NON-STARTING LED SOURCE ASSEMBLIES, DRIVERS, AND FOR LUMINAIRES EXHIBITING INADEQUATE LUMEN OUTPUT.IT SHALL COVER MATERIAL, FIXTURE FINISH, WORKMANSHIP, AND SHIPPING, ON-SITE REPLACEMENT SHALL INCLUDE TRANSPORTATION, REMOVAL. AND INSTALLATION OF NEW FIXTURE.

3. RATED LUMINAIRE WATTAGE SHALL BE ACTUAL, ACCOUNTING FOR ANY REDUCTION IN EFFICIENCY DUE TO SUB-OPTIMAL LOADING OF DRIVERS. 4. DRIVERS SHALL BE CAPABLE OF ACCEPTING THE VOLTAGE INDICATED ON THE LIGHTING FIXTURE SCHEDULE AND CAPABLE OF DIMMING IF REQUIRED. DRIVERS SHALL HAVE A CLASS A RATING, TOTAL HARMONIC DISTORTION OF LESS THAN

5. ALL LED FIXTURES SHALL BE TESTED TO IES LM-79 AND IES LM-80 STANDARDS. OUTDOOR FIXTURES SHALL BE IP65 RATED. LED'S, DRIVERS AND ALL COMPONENTS SHALL HAVE A SYSTEM LIFETIME OF 50,000 HOURS OR MORE AT 25 DEGREES CELSIUS AND SHALL MAINTAIN A MINIMUM OF 85% OF INITIAL LUMEN 6. ALL LENSES ON FIXTURES SHALL BE 0.125 INCH THICK MINIMUM. ALL HOUSINGS SHALL BE 22 GAUGE STEEL MIN. AND HAVE A POST FABRICATION HIGH

		SITE LIGHTING FIXTURE SCHE	EDULE		
ΤY	PE	DESCRIPTION	MANUFACTURER		
0	SA	ONE-PIECE, SEAMLESS, PRESSURE MODLED COLORLESS BOROSILICATE GLASS GLOBE HAVING INTERNAL PRISMS WITH SMOOTH EXTERNAL SELF CLEANING SURFACE. 48 HIGH-PERFORMANCE LEDS. 14FT POLE.	PHILIPS LUMEC S56 Series, pole lumec rta40-14-BKTX		LIGHTIN
		LAMPS: LED,7400 LUMENS,80 WATTS,4000 DEGREE K Driver: unv.volt driver		XHH	CONDUIT NUMBER
0	SB	8IN IN GRADE UP LIGHT, SEALED IP68 RATED LED LIGHT ENGINE.	KIM LIGHTING LTV8FF SERIES OR APPORVED EQUAL	_++++-	CONDUIT
		LAMPS: LED,1253 LUMENS,14 WATTS,4000 DEGREE K DRIVER: UNV.VOLT DRIVER		A-2,4	HOMERUN NUMBERS
0	SC	HEAVY 356 ALLOY CAST ALUMINUM BOLLARD WITH REMOVABLE CAP.	STERNBERG LIGHTING 420ILED AUGUSTA SERIES	Ю	LIGHTING ARCHITEC
		LAMPS: LED,590 LUMENS,15 WATTS,4000 DEGREE K Driver: unv.volt driver	OR APPROVED EQUAL	0	LIGHTING
	SD	ROOFTOP BAR FESTOON LIGHT.	CELESTIAL LIGHTING	\bigcirc	JUNCTION
			"HYDRA STL" SERIES	Ð	DUPLEX ("WP" WHEF
				_	PANELBOA





ELECTRICAL LEGEND

NG AND POWER

RUN CONCEALED ABOVE CEILING OR IN WALL, HASH MARKS INDICATE OF CONDUCTORS.(3 WIRE UNLESS SHOWN)

RUN CONCEALED BELOW FLOOR SLAB, OR UNDERGROUND.

JN TO PANELBOARD, LETTER OR LETTERS INDICATE PANELBOARD. RS INDICATES CIRCUIT NUMBERS.

FIXTURE, WALL BRACKET MOUNTED. (MOUNTING HEIGHT AS NOTED ON ECTURAL DRAWINGS.)

FIXTURE, SEE SCHEDULE FOR MOUNTING AND TYPE.

ON BOX.

CONVENIENCE OUTLET, GFI TYPE. 18 IN. TO CENTERLINE UNLESS OTHERWISE NOTED. IERE SHOWN INDICATES WEATHERPROOF.

OARD.

GENERAL NOTES:





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