

EXHIBIT A:

*ARCADIS U.S., INC. SITE
DEVELOPMENT PLANS*

DATED DECEMBER 2023

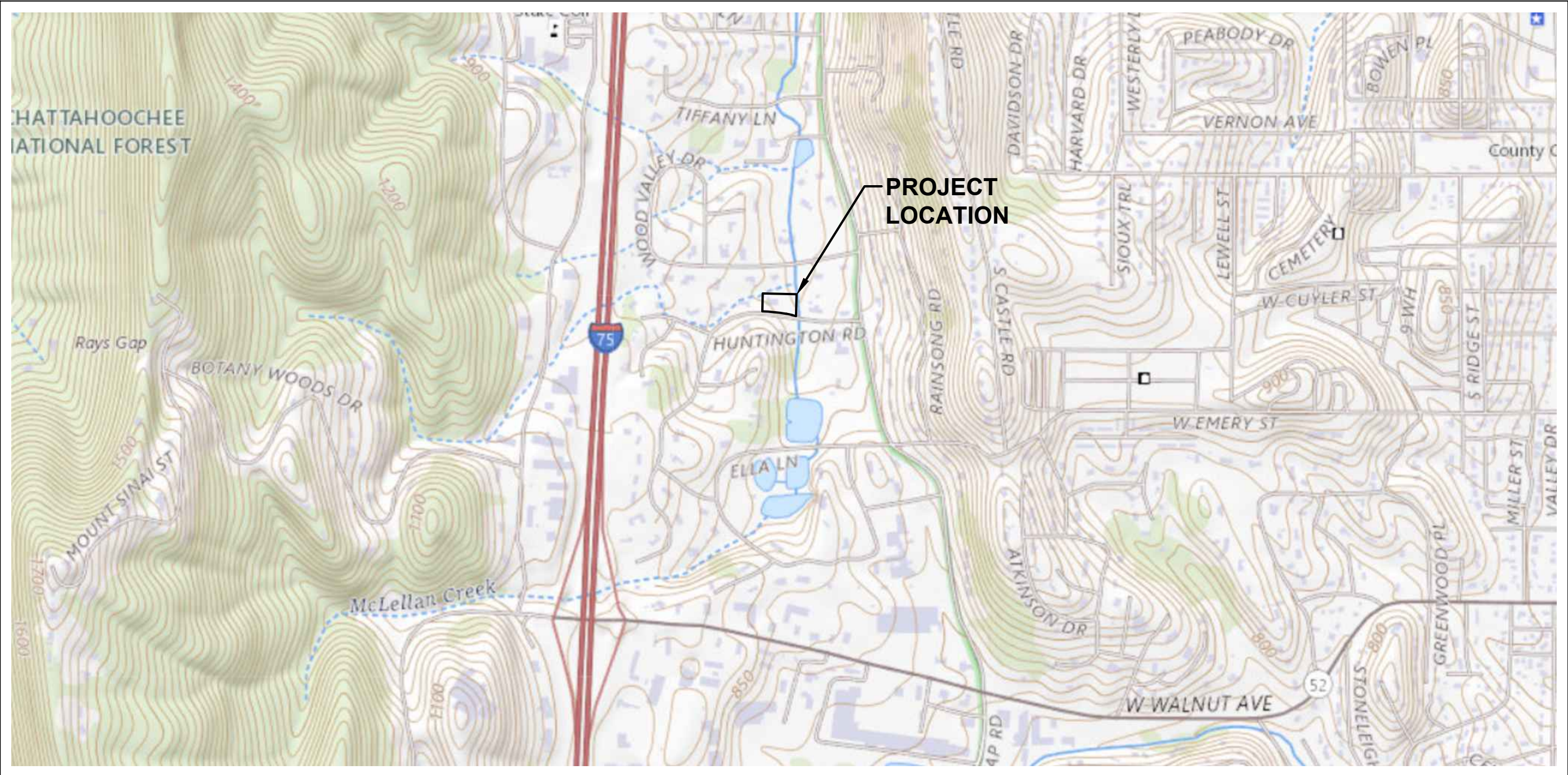
FOR

*HUNTINGTON ROAD POND
DESIGN*

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CITY OF DALTON, GEORGIA

HUNTINGTON ROAD POND DESIGN



LOCATION MAP
1" = 1,000'

MARCH 2024

RE-ISSUED FOR
PERMITTING

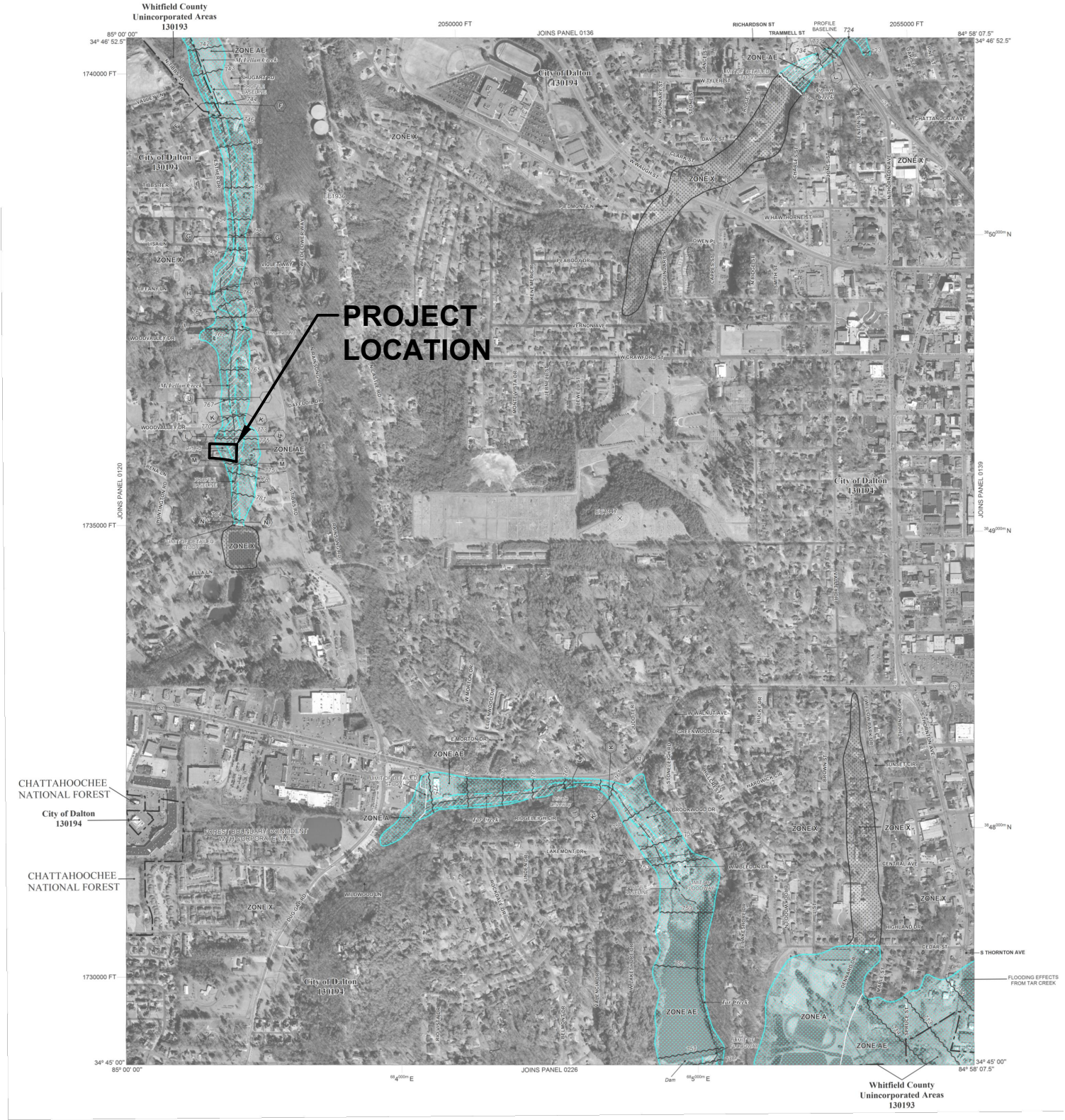


PROJECT ENGINEER: RICH GREUEL, PE
GEORGIA REGISTRATION NO: 28402
PHONE: 770-384-6574

LEGAL ENTITY: ARCADIS-U.S., INC.

ARCADIS
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FEMA MAP NUMBER: 13313C0138D



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GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH ALL MATERIALS FOR, AND PROPERLY RESTORE ALL PAVEMENT, DRIVES, SIDEWALK, AND CURBS, WHICH MAY HAVE BEEN DAMAGED, REMOVED OR DISTURBED AS RESULT OF ACCOMPLISHING THE WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING GRADES AND DIMENSIONS AND NOTIFYING THE ENGINEER IN ADVANCE AND IN WRITING OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK.
3. EXISTING UTILITY LOCATIONS SHOWN ARE BASED ON SURFACE OBSERVATION AND LIMITED DETECTION SERVICES. NOT ALL EXISTING UTILITIES ARE SHOWN ON THE DRAWING. CONTRACTOR IS RESPONSIBLE FOR DETERMINING BOTH THE EXACT LOCATION OF ALL EXISTING UTILITIES AND FOR DETERMINING THEIR PROTECTION DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL OPERATIONS WITH ALL UTILITIES WHICH MAY BE IN CONFLICT WITH THE WORK. CONTRACTOR TO COORDINATE CONFLICTS WITH DALTON UTILITIES AND NOTIFY THE CITY OF DALTON PUBLIC WORKS.
4. A COPY OF THE APPROVED SET OF CONSTRUCTION PLANS MUST BE ON THE JOBSITE AT ALL TIMES DURING CONSTRUCTION.
5. ALL EROSION AND SEDIMENTATION CONTROLS AND TREE PROTECTION SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
6. NO WORK SHALL TAKE PLACE PRIOR TO 7:00AM OR AFTER 5:30PM, MONDAY THROUGH FRIDAY. WORK ON WEEKENDS SHALL BE PROHIBITED UNLESS AUTHORIZED BY THE CITY OF DALTON PUBLIC WORKS PROJECT MANAGER.
7. UNLESS NOTED OTHERWISE ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF DALTON AND STATE OF GEORGIA STANDARDS AND SPECIFICATIONS.
8. WHERE SHOWN ON DRAWINGS ALL SUBSURFACE TOPOGRAPHICAL FEATURES WHICH INCLUDE GROUND WATER TABLE, PARTIALLY WEATHERED ROCK, AND ROCK SHOWN ARE APPROXIMATE. THE CONTRACTOR AT HIS EXPENSE SHALL CONDUCT ADDITIONAL SUBSURFACE SOIL EXPLORATION IF DEEMED NECESSARY.
9. ALL WORK AROUND THE EXISTING UTILITIES AND UTILITY STRUCTURES WHETHER ABOVE OR BELOW GROUND SHALL BE PERFORMED IN A MANNER THAT WILL AVOID DAMAGE TO THE UTILITIES AND STRUCTURES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL ACCURATELY LOCATE ABOVE AND BELOW UTILITIES WHICH MAY BE AFFECTED BY THE WORK AND PROTECT ALL UTILITIES NOT DESIGNATED FOR REMOVAL, RESTORATION, OR REPLACEMENT IN THE COURSE OF CONSTRUCTION. PROVIDE 72 HOURS OF ADVANCE NOTICE TO DALTON UTILITIES PRIOR TO BEGINNING CONSTRUCTION IN THE VICINITY OF THE EXISTING UTILITIES. FOR EXISTING UTILITY LOCATION ASSISTANCE CALL THE UNDERGROUND UTILITIES PROTECTION CENTER (GA 811).
10. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR, CONTRACTOR'S CREW AND/OR EQUIPMENT SHALL BE THE CONTRACTOR'S COST AND RESPONSIBILITY TO REPLACE PER OWNER'S STANDARDS AND SPECIFICATIONS.
11. ANY REFUSE RESULTING FROM CLEARING AND GRUBBING OPERATIONS SHALL BE HAULED TO A DISPOSAL SITE SECURED BY THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, COUNTY AND MUNICIPAL REGULATIONS. NO DEBRIS OF ANY KIND SHALL BE DEPOSITED IN ANY STREAM OR BODY OF WATER, OR IN ANY STREET OR ALLEY. NO DEBRIS SHALL BE DEPOSITED UPON ANY PRIVATE PROPERTY EXCEPT BY WRITTEN CONSENT OF THE PROPERTY OWNER. IN NO CASE SHALL ANY MATERIAL BE LEFT ON THE PROJECT, PLACED ONTO ABUTTING PRIVATE PROPERTIES, OR BE BURIED IN THE EMBANKMENTS OR TRENCHES ON THE PROJECT.
12. FINISHED GRADING OF THE DISTURBED AREA SHALL BE ACCORDING TO CIVIL DRAWINGS. NO STANDING WATER OR PONDING OF ANY KIND IS ALLOWED.
13. THIS PROJECT IS LOCATED IN THE VICINITY OF POLES AND POWER LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITIES TO OBTAIN AN OVERHEAD UTILITY TICKET PRIOR TO WORKING ADJACENT TO THE POWER LINES AND POLES.
14. THE CONTRACTOR SHALL COMPLY WITH THE STATE OF GEORGIA MANUAL FOR EROSION AND SEDIMENT CONTROL STANDARDS, LATEST EDITION.
15. IN THE EVENT ACTIVE UTILITY SERVICES REQUIRE INTERRUPTION, THE CONTRACTORS SHALL COORDINATE AND CONSULT WITH DALTON UTILITIES AND OBTAIN APPROVAL FROM THEM PRIOR TO SERVICES BEING DISRUPTED.
16. THE CONTRACTOR SHALL ALL TIMES CONTROL DUST AND DEBRIS FROM THE OPERATIONS TO A LEVEL ACCEPTABLE TO THE CITY OF DALTON AND LOCAL BUSINESSES AT ALL TIMES. CONTRACTOR TO STREET SWEEP DAILY TO ENSURE THAT THERE IS NO MUD TRACKING OFFSITE ONTO ADJACENT ROADWAYS.
17. ALL UTILITY WORK SHALL BE PERFORMED IN ACCORDANCE WITH DALTON UTILITIES STANDARDS AND SPECIFICATIONS LATEST EDITION. ALL WORK SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
18. TEMPORARY DISCONNECTION, REMOVAL AND/OR REPLACEMENT OF THE FOLLOWING ITEMS INCLUDING BUT NOT LIMITED TO: FIRE HYDRANTS, WATER METERS, BACK FLOW PREVENTION DEVICES, VAULTS, MANHOLE AND OTHER POTABLE WATER SYSTEM APPURTENANCES SHALL BE IN STRICT ACCORDANCE WITH THE LATEST DALTON UTILITIES STANDARDS AND SPECIFICATIONS. BEFORE CONNECTION, REMOVAL AND/OR REPLACEMENT OF ANY UTILITIES. THE CONTRACTOR SHALL CONTACT AND OBTAIN APPROVAL FROM DALTON UTILITIES REPRESENTATIVES PRIOR TO CONSTRUCTION.
19. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH DALTON UTILITIES OR LOCAL AUTHORITY FIRE MARSHAL PRIOR TO REMOVING ANY FIRE HYDRANTS OR ANY FIRE PROTECTION UTILITIES. ANY WORK OR MATERIALS REQUIRED BY THE FIRE MARSHAL TO TEMPORARILY PROVIDE FOR FIRE PROTECTION TO THE LOCAL BUSINESS SHALL BE PART OF THE CONTRACTOR'S SCOPE OF WORK. "OUT-OF-SERVICE RINGS" WILL BE REQUIRED FOR HYDRANTS WHILE OUT OF SERVICE.
20. ALL EXCAVATION SHALL BE ADEQUATELY SHORED TO ENSURE WORKER SAFETY. ALL PIPE LAYING OPERATIONS SHALL COMPLY WITH OSHA REQUIREMENTS FOR TRENCH SAFETY.
21. 72 HOURS NOTICE IS REQUIRED TO GEORGIA 811 UTILITY PROTECTION CENTER BEFORE ANY PLANNED DIGGING. <http://www.georgia811.com>
22. CONTRACTOR SHALL PROVIDE A CONSTRUCTION SEQUENCING PLAN TO THE CITY OF DALTON PUBLIC WORKS DEPARTMENT PRIOR TO CONSTRUCTION COMMENCEMENT.

MATERIAL NOTES

1. ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL MILL AND OVERLAY THE FULL WIDTH OF HUNTINGTON ROAD WITHIN THE LIMITS OF DISTURBANCE UPON COMPLETION OF THE STORMWATER DETENTION POND CONSTRUCTION.
3. MILLING/REMOVAL OF ASPHALT AROUND MANHOLE, GAS VALVE, OR WATER VALVE TO PREPARE FOR RESURFACING:
 - 3.1. THIS MILLING WILL REQUIRE A SMALL MILLING MACHINE TO APPROPRIATELY MILL AROUND THE UTILITY INFRASTRUCTURE AT THE SAME MILLING DEPTH SPECIFIED FOR THIS STREET TO PREPARE FOR RESURFACING. THE UNIT PRICE FOR THIS WORK SHOULD INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK.

STAKING NOTES

1. THE EXISTING CONDITIONS SITE FEATURES ARE BASED ON FIELD SURVEY CONDUCTED BY SOUTHERN ENGINEERING, INC IN MARCH OF 2023.
2. HORIZONTAL DATUM IS REFERENCED TO NAD-83 GEORGIA STATE PLANE, WEST ZONE.
3. VERTICAL DATUM IS REFERENCED TO NAVD 88.

GRADING NOTES:

1. CONTRACTOR SHALL NOT PERMIT EQUIPMENT TO BE USED IN SUCH A MANNER AS TO CAUSE EQUIPMENT TO EXCESSIVELY BUMP OR RUT THE SUBGRADE OR OTHER PREPARED AREAS.
2. CONTRACTOR SHALL GRADE IN A MANNER TO ESTABLISH LONG SMOOTH GRADIENTS IN ORDER TO REDUCE ABRUPT CHANGES, DIPS AND SHARP TRANSITIONS IN THE FINISHED GRADE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE POSITIVE DRAINAGE ON GRADED SURFACE AREAS AT 1% MINIMUM ON HARDSCAPE AT 2% MINIMUM ON GRADE UNLESS OTHERWISE INDICATED.
4. ANY REQUIRED DETENTION FACILITIES AND EROSION CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
5. ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN.
6. SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
7. UNLESS SHOWN ON THE EROSION & SEDIMENT CONTROL PLANS AND / OR LANDSCAPING PLANS, ALL DISTURBED AREAS NOT RECEIVING A SURFACE SHALL BE COVERED IN GRASS.
8. GENERALLY TAKE STANDARD PRECAUTIONS TO PROTECT TREES. SEE EROSION & SEDIMENT PLANS FOR TREE PROTECTION REQUIREMENTS WHEN APPLICABLE.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING, PAVEMENT, SIDEWALK, CURB, GUTTER, PAVERS, ETC., NOTED TO BE REMOVED WITHIN THE DEMOLITION LIMITS AS SHOWN ON THIS PLAN UNLESS OTHERWISE NOTIFIED.
2. CONTRACTOR TO PROVIDE AND MAINTAIN NECESSARY FENCES, BARRICADES, LIGHTS, SIGNS AND OTHER TRAFFIC CONTROL MEASURES AS REQUIRED FOR THE PROTECTION AND SAFETY OF THE PUBLIC THROUGHOUT THE DEMOLITION AND CONSTRUCTION ACTIVITIES ON THE SITE.
3. CONTRACTOR SHALL MINIMIZE THE IMPACT OF CONSTRUCTION ACTIVITIES ON THE TRAFFIC FLOW TO SURROUNDING FACILITIES TO REMAIN.
4. CONTRACTOR SHALL SAW CUT PAVEMENT, SIDEWALKS AND CURB & GUTTER AT THE LIMIT OF DEMOLITION FOR REMOVAL.
5. ALL EXISTING PIPE TO BE ABANDONED SHALL BE CUT, AND PLUGGED OR CAPPED AT EACH END. WHERE EXISTING PIPING INTERFERES WITH NEW PIPING OR CONSTRUCTION, IT SHALL BE REMOVED 3-FT BEYOND THE LIMITS REQUIRED FOR THE PROPER COMPLETION OF THE WORK AND THE OPEN ENDS PLUGGED OR CAPPED UNLESS OTHERWISE SHOWN.
6. THE CONTRACTOR SHALL INSTALL ALL INITIAL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO BEGINNING DEMOLITION OPERATIONS.

TRAFFIC CONTROL:

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ROAD PERMITS FROM THE CITY OF DALTON DEPARTMENT OF PUBLIC WORKS INCLUDING PROVIDING ANY RESTORATION BONDS. THE CONTRACTOR SHALL PROVIDE A DETAILED PHASED TRAFFIC CONTROL PLAN BASED ON THE PROPOSED WORK PHASING AS DETERMINED BY THE CONTRACTOR. THE DETAILED PHASED TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY OF DALTON PUBLIC WORKS FOR APPROVAL. THE CONTRACTOR SHALL UTILIZE THE LATEST EDITION OF THE "MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES" TO DEVELOP PLANS.
2. THE CONTRACTOR SHALL COORDINATE WITH AND OBTAIN APPROVAL FROM THE CITY OF DALTON DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION PRIOR TO ANY LANE CLOSURES.
3. BECAUSE THE PROJECT CONSTRUCTION SITE IS LOCATED ON RESIDENTIAL STREETS AND ADJACENT TO OCCUPIED RESIDENCES, ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN SUCH A MANNER THAT WILL PROVIDE ACCEPTABLE LEVELS OF SAFETY AND MAINTENANCE OF UTILITIES, ROADWAY, TRAFFIC, DRIVEWAYS, SIDEWALKS, ETC. TO ALL OWNERS, CITY OF DALTON DEPARTMENT OF PUBLIC WORKS, MANAGEMENT, AND UTILITY COMPANIES. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN AND PROTECT ALL UTILITY SERVICES AND DRIVEWAY ACCESS, INCLUDING BUT NOT LIMITED TO, RESIDENTS, EMERGENCY SERVICES, VEHICLES, AND PEDESTRIAN TRAFFIC, ETC.
4. CONTRACTOR TO PROVIDE HOMEOWNERS 72 HRS NOTICE OF ANY DRIVEWAY ACCESS DISRUPTION.

PROJECT COMPLETION

1. PRIOR TO ACCEPTANCE AND FINAL PAYMENT, CONTRACTOR IS TO PROVIDE AN AS-BUILT SURVEY, WHICH IS A DRAWING PREPARED AND SIGNED BY A REGISTERED LAND SURVEYOR REGISTERED IN THE STATE OF GEORGIA ILLUSTRATING THE LOCATIONS, DIMENSIONS AND ELEVATIONS OF A DEVELOPMENT AS IT HAS BEEN CONSTRUCTED FOLLOWING COMPLETION OF CONSTRUCTION ON DIRECT FIELD MEASUREMENTS AND SHOWN TO SCALE.



LEGAL ENTITY:
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CONSULTANTS

ISSUED FOR PERMITTING

SEALS



WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

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2023

DATE: DECEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: T. TITTLE

DRAWN BY: A. DOTTL

CHECKED BY: R. GREUEL

SHEET TITLE

GENERAL

GENERAL NOTES

SCALE:










































AS SHOWN

G-01



Know what's below.
Call before you dig.

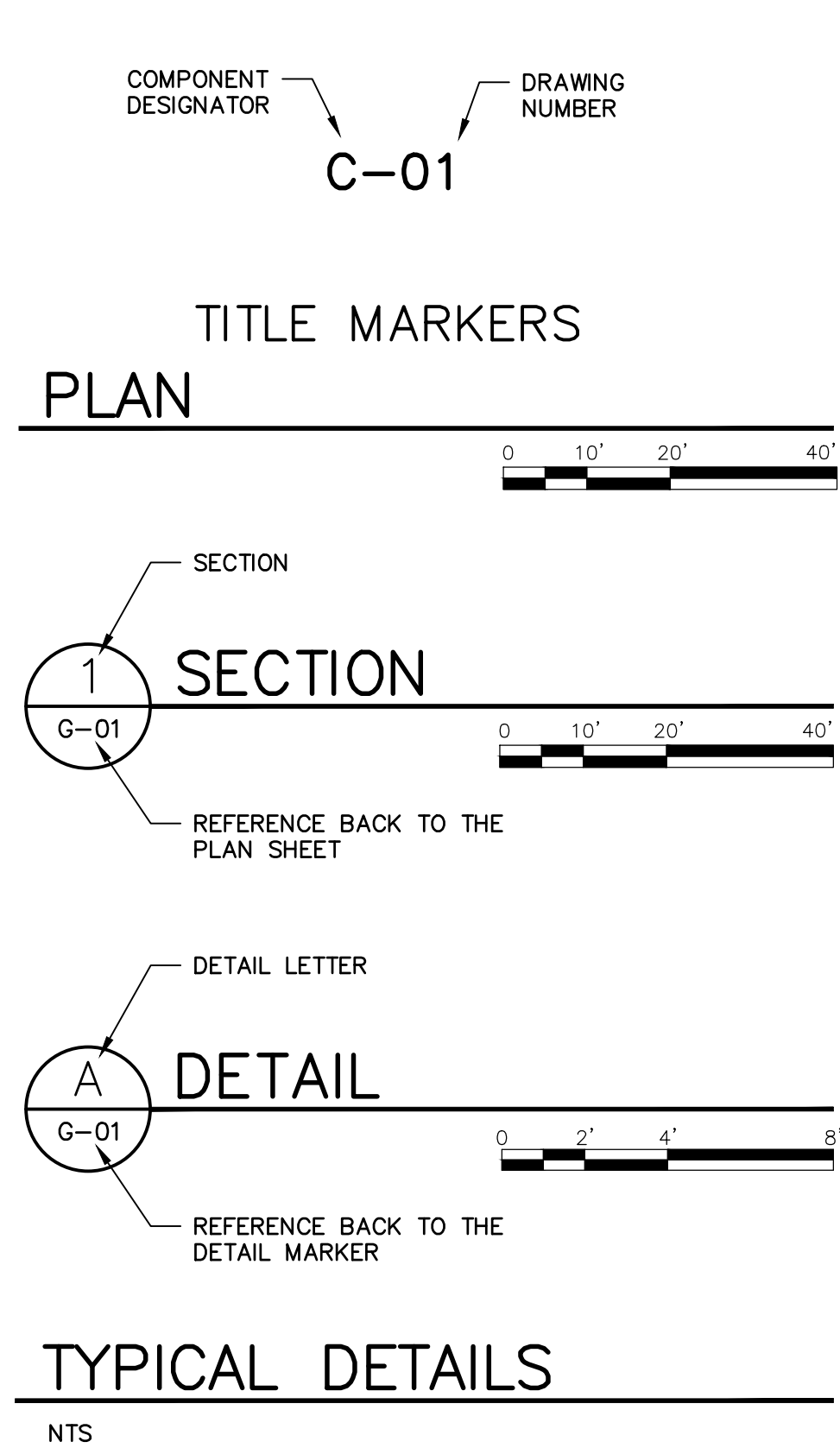
SYMBOLS

	EXISTING SANITARY SEWER
	EXISTING STORM PIPE
	EXISTING GAS LINE
	ELECTRIC LINE (UNDERGROUND)
	ELECTRIC LINE (OVERHEAD)
	WATER LINE
	RIGHT-OF-WAY
	PROPERTY BOUNDARY
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING FENCE
	EXISTING TREES
	EXISTING UTILITY POLE
	EXISTING SIGN
	EXISTING STORM SEWER MANHOLE
	EXISTING CATCH BASIN
	EXISTING SANITARY SEWER MANHOLE
	EXISTING UTILITY VALVE
	EXISTING FIRE HYDRANT
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED STORM SEWER MANHOLE
	PROPOSED STORM PIPE
	PROPOSED CATCH BASIN
	PROPOSED SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER
	PIPE FLOW DIRECTION
	WETLAND (NWI)
	100-YEAR FLOOD PLAIN
	FLOODWAY
	25-FT STATE BUFFER
	50-FT MUNICIPAL BUFFER
	OPEN CHANNEL CENTERLINE
	LIMITS OF DISTURBANCE
	SEDIMENT BARRIER
	TO BE REMOVED
	TO BE REMOVED
	ABANDON IN PLACE
	TEMPORARY AND PERMANENT EASEMENT
	PROPOSED RIP RAP
	PERMANENT GRASSING

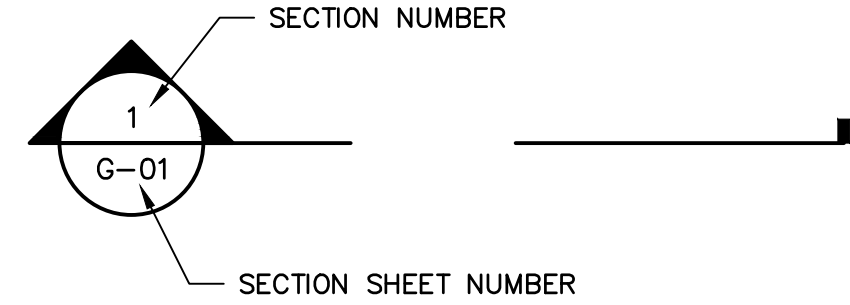
GENERAL, CIVIL, AND MECHANICAL ABBREVIATIONS

ABAN.	ANCHOR BOLT	ID	INSIDE DIAMETER
ADD'L.	ABANDONED	IF	INSIDE FACE
ADJ.	ADDITIONAL	IN.	INCHES
AH	ADJUSTABLE	INFL.	INFLUENT
ALUM.	ACCESS HATCH	INV.	INVERT
ALT.	ALUMINUM	JST.	JOIST
BF	ALTERNATE	JT.	JOINT
BITUM.	BLIND FLANGE	K	KIP (1000 POUNDS)
BL	BITUMINOUS	KSF	KIPS PER SQUARE FOOT
BLDG.	BASELINE	LF	LINEAR FEET
BMK	BUILDING	LG.	LONG
BM.	BENCH MARK	LLH	LONG LEG HORIZONTAL
BOP	BEAM	LLV	LONG LEG VERTICAL
BOT.	BOTTOM OF PIPE	LR	LONG RADIUS
BRG	BOTTOM	LSH	LEVEL SWITCH HIGH
BRP	BEARING	LSL	LEVEL SWITCH LOW
C	BUILDING REFERENCE POINT	LSX	LEVEL SWITCH LOW LOW
C/C	CENTERLINE	MAX.	MAXIMUM
CB	CENTER TO CENTER	MCC	MOTOR CONTROL CENTER
CFB	CATCH BASIN	MFR.	MANUFACTURER
CIPP	CHEMICAL FEED BANK	MGD	MILLION GALLONS PER DAY
CJ	CURED-IN-PLACE PIPE	MH	MANHOLE
CLR.	CONSTRUCTION JOINT	MIN.	MINIMUM
CMH	CLEAR, CLEARANCE	MJ	MECHANICAL JOINT
CO	COMMUNICATION MANHOLE	MO	MASONRY OPENING
COL.	CLEANOUT	NC	NORMALLY CLOSED
CONC.	COLUMN	NF	NEAR FACE
CONT.	CONCRETE	NO	NORMALLY OPEN
CPLG.	CONTINUED	NO.	NUMBER
CG.	COUPLING	NTS	NOT TO SCALE
CY	CUBIC YARD(S)	NWI	NATIONAL WETLANDS INVENTORY
DET.	DETAIL	OC	ON CENTER
DIP	DUCTILE IRON PIPE	OD	OUTSIDE DIAMETER
DIA.	DIAMETER	OF	OUTSIDE FACE
DISCH.	DISCHARGE	OPNG.	OPENING
DMH	DROP MANHOLE	OPP.	OPPOSITE
DN.	DOWN	PC	POINT OF CURVATURE
DWL.	DOWELS	PE	POINT END
EA.	EACH	PI	POINT OF INTERSECTION
EFF.	EACH FACE	PLP	PLATE OR PROPERTY LINE
EJ	EFFLUENT	PSF	POUNDS PER SQUARE FOOT
EL.	EXPANSION JOINT	PSI	POUNDS PER SQUARE INCH
ELEC.	ELEVATION	PT	POINT OF TANGENCY
EMH	ELECTRIC	PROP	PROPOSED
EQ.	ELECTRICAL MANHOLE	R	RISER
EW.	EQUAL	RBF	REBAR FOUND
EX., EXST	EACH WAY	RBR	REBAR
FCA	EXISTING	RED.	REDUCER
FD	FLANGED COUPLING ADAPTER	REINF.	REINFORCEMENT OR REINFORCE
FDN	FLOOR DRAIN	REQ'D.	REQUIRED
FDND	FOUNDATION	RJ	RESTRAINED JOINT
FF	FOUNDATION DRAIN	RM.	ROOM
FIN.	FAR FACE	ROW	RIGHT OF WAY
FL	FINISHED	SHT.	SHEET
FLEX.	FLUSHING	STMH	STORM MANHOLE
FLG.	FLEXIBLE	SR	SHORT RADIUS
FLR.	FLANGE	SS	STAINLESS STEEL
FM	FLOOR	STD.	STANDARD
FTG.	FLOWMETER	STL.	STEEL
FTG.,	FLOW SWITCH	STRUC.	STRUCTURAL
FT.	FOOTING	T&B	TOP AND BOTTOM
GA.	FEET	TCB	TOP CURB BACK
GALV.	GAGE OR GAUGE	THK.	THICK
GE	GALVANIZED	TYP.	TYPICAL
GRD.	GROOVED END JOINT	UON	UNLESS OTHERWISE NOTED
GRAT.	GROUND	USG	UNITED STATES STANDARD GAGE
HB	GRATING	VERT.	VERTICAL
HORIZ.	HOSE BIB	W/	WITH
HW	HORIZONTAL	WP	WORK POINT
	HEADWALL	WS	WATER STOP
		WWF	WELDED WIRE FABRIC

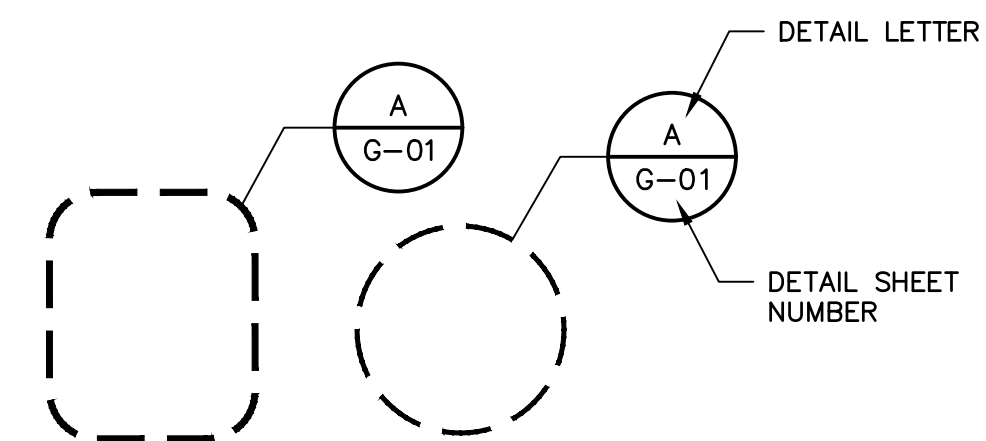
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307	308	309
310	311	312
313	314	315
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325	326	327
328	329	330
331	332	333
334	335	336
337	338	339
340	341	342
343	344	345
346	347	348
349	350	351
352	353	354
355	356	357
358	359	360
361	362	363
364	365	366
367</		



SECTION MARKERS



DETAIL MARKERS



LEGAL ENTITY:
ARCADIS U.S., INC.
2839 PACES FERRY RD SUITE 900
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

ISSUED FOR PERMITTING

SEALS



WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/T
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

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2023

DATE: DECEMBER 2023

PROJECT NO.: 30156442

FILE NAME: _____

DESIGNED BY: T. TITTLE

DRAWN BY: A. DOTTL

CHECKED BY: R. GREUEL

SHEET TITLE

GENERAL

LEGEND AND ABBREVIATIONS

SCALE: AS SHOWN

G-02



Know what's **below**.
Call before you dig.

User:ACRAIN Spec:AUS-NSMOD File:C:\USERS\ACRAIN\DC\ACCRDGS\ARCADIS ACC US\AUS-30156442-HUNTINGTON RD\PROJECT FILES\10_WIP\CIVIL\SHEETS\C-01.DWG Scale:1:1 SavedDate:3/21/2024 Time:06:20 Plot Date: Dottl, Angela, 3/21/2024, 10:04 Layout: C-01

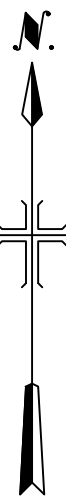
LEGEND

- PROPERTY BOUNDARY
- 800 --- EXISTING MAJOR CONTOUR
- 801 --- EXISTING MINOR CONTOUR
- C --- C --- EXISTING COMMUNICATIONS LINE
- G --- EXISTING GAS PIPE
- OHE --- EXISTING OVERHEAD ELECTRICAL
- SAN --- EXISTING SANITARY SEWER
- --- EXISTING STORM PIPE
- UGE --- EXISTING UNDERGROUND ELECTRICAL
- W --- EXISTING WATER PIPE

N/F
TUNNELL LINDA T
DB 6971, PG 237

N/F
HANSON STARR RICHARDS
DB 5203, PG 28

N/F
SMITH STEVEN
DB 6772, PG 46



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WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

NO.	DATE	ISSUED FOR	BY
D	03/21/24	RE-ISSUED FOR PERMITTING	RG/TT
C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG

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2024

DATE: MARCH 2024

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: T. TITTLE

DRAWN BY: A. DOTTL

CHECKED BY: R. GREUEL

SHEET TITLE

EXISTING CONDITIONS
PLAN

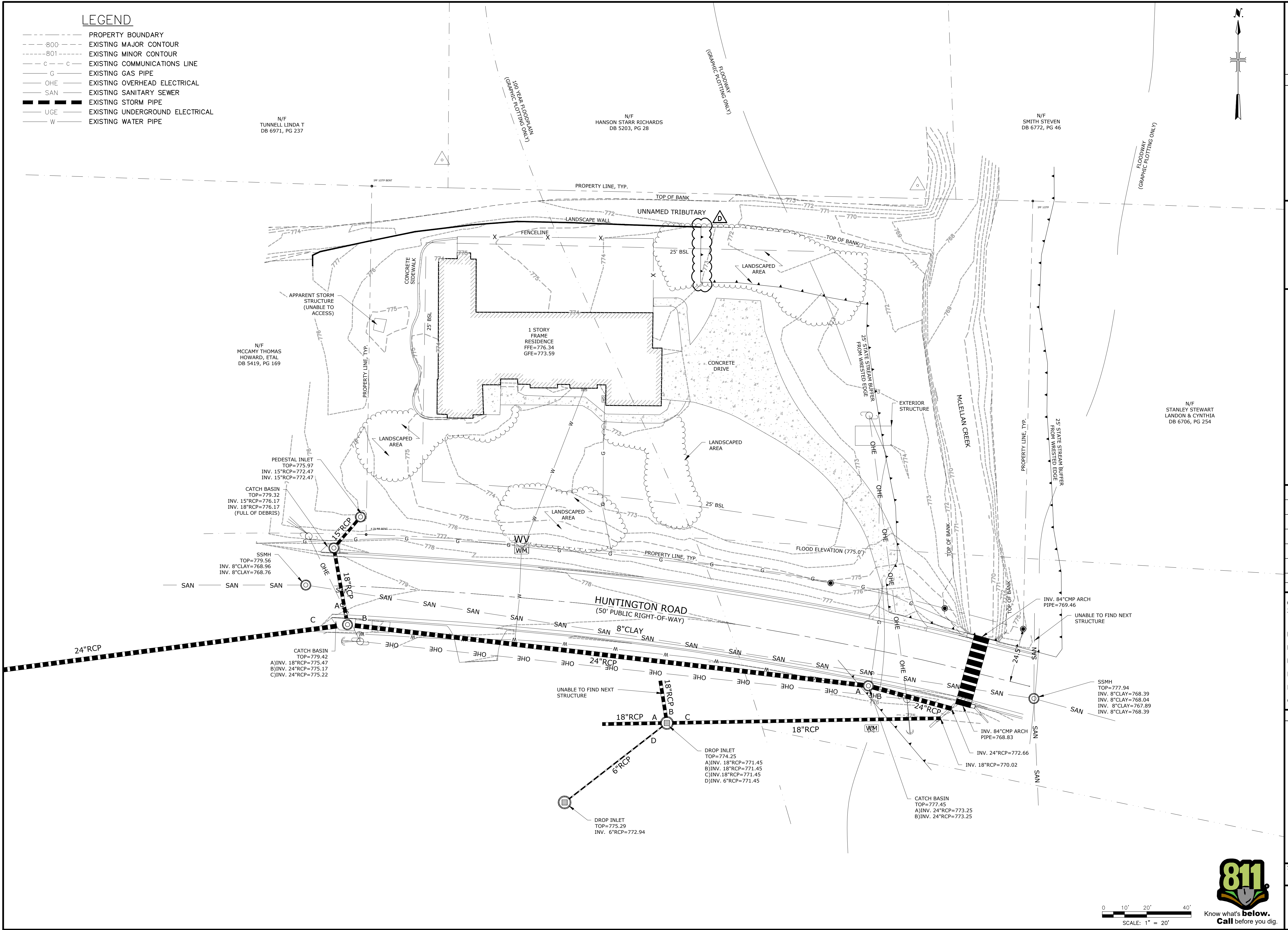
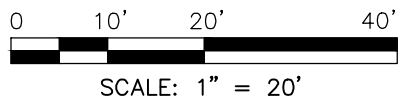
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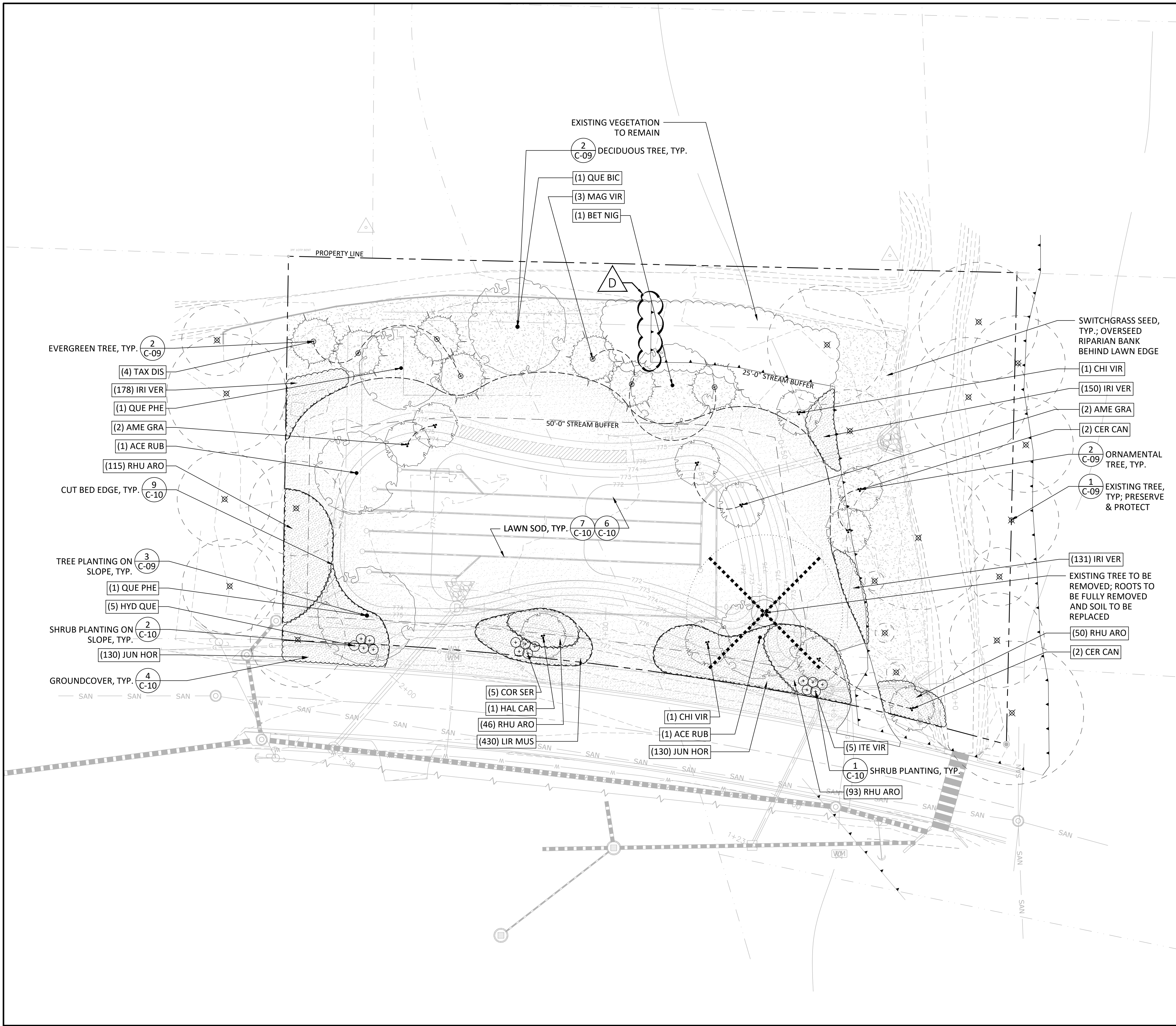
AS SHOWN

C-01



Know what's below.
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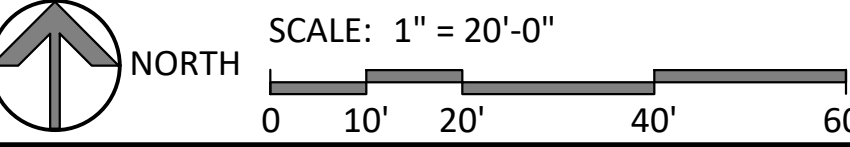


PLANTING LEGEND

	EXISTING TREE TO BE REMOVED (DEMO)	
	EXISTING TREE TO REMAIN (TREE PROTECTION)	$\frac{1}{C-09}$
	DECIDUOUS TREE	$\frac{2}{C-09}$ $\frac{3}{C-09}$
	ORNAMENTAL TREE	$\frac{2}{C-09}$ $\frac{3}{C-09}$
	EVERGREEN TREE	$\frac{2}{C-09}$ $\frac{3}{C-09}$
	SHRUBS	$\frac{1}{C-10}$ $\frac{2}{C-10}$
	GROUNDCOVER / PERENNIALS	$\frac{4}{C-10}$
	LAWN	$\frac{6}{C-10}$
	SWITCHGRASS SEED	
	CUT BED EDGE	$\frac{9}{C-10}$
	PLANT SPECIES ID / QUANTITY	

PLANTING NOTES:

- ALL NEW PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION. ANSI Z-60.1.
- ALL NEW PLANTS SHALL BE BALLED AND BURLAPPED UNLESS OTHERWISE NOTED ON THE PLANT SCHEDULE.
- THE GENERAL CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
- ALL NEW PLANTS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- THE GENERAL CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER'S REPRESENTATIVE.
- TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE PLUS PLANTING SOIL AS THEY BORE TO PREVIOUS GRADE. SEE DECIDUOUS TREE PLANTING DETAILS.
- STAKE LOCATION OF ALL TREES AND PLANT BED LINES FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF PLANTING.
- ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE ONLY AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- PREPARE ALL PLANT BEDS WITH PINE STRAW MULCH. ALL MULCH SHALL BE PLACED OUTSIDE OF THE 25'-0" STREAM BUFFER. SEE DETAIL 5/C-10.
- PREPARE ALL PLANT BEDS WITH PLANTING SOIL TO A MINIMUM DEPTH MATCHING THE DEPTH OF ROOT BALLS. PLANTING SOIL SHALL BE CONTINUOUS WITHIN EACH PLANT BED.
- LOCATION OF EXISTING TREES IS APPROXIMATE. VERIFY IN FIELD.
- SOD SHALL BE TURF-TYPE SOUTHERN US DROUGHT TOLERANT BERMUDA BLEND. SOD SHALL BE TIFWAY BERMUDA BLEND OR APPROVED EQUAL.



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CONSULTANTS

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CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

D	3/21/24	RE-ISSUED FOR PERMITTING	RG/TT
C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
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NO.	DATE	ISSUED FOR	BY

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DATE: SEPTEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: N. HUNTER

DRAWN BY: E. ELLIS

CHECKED BY: C. BROOKS

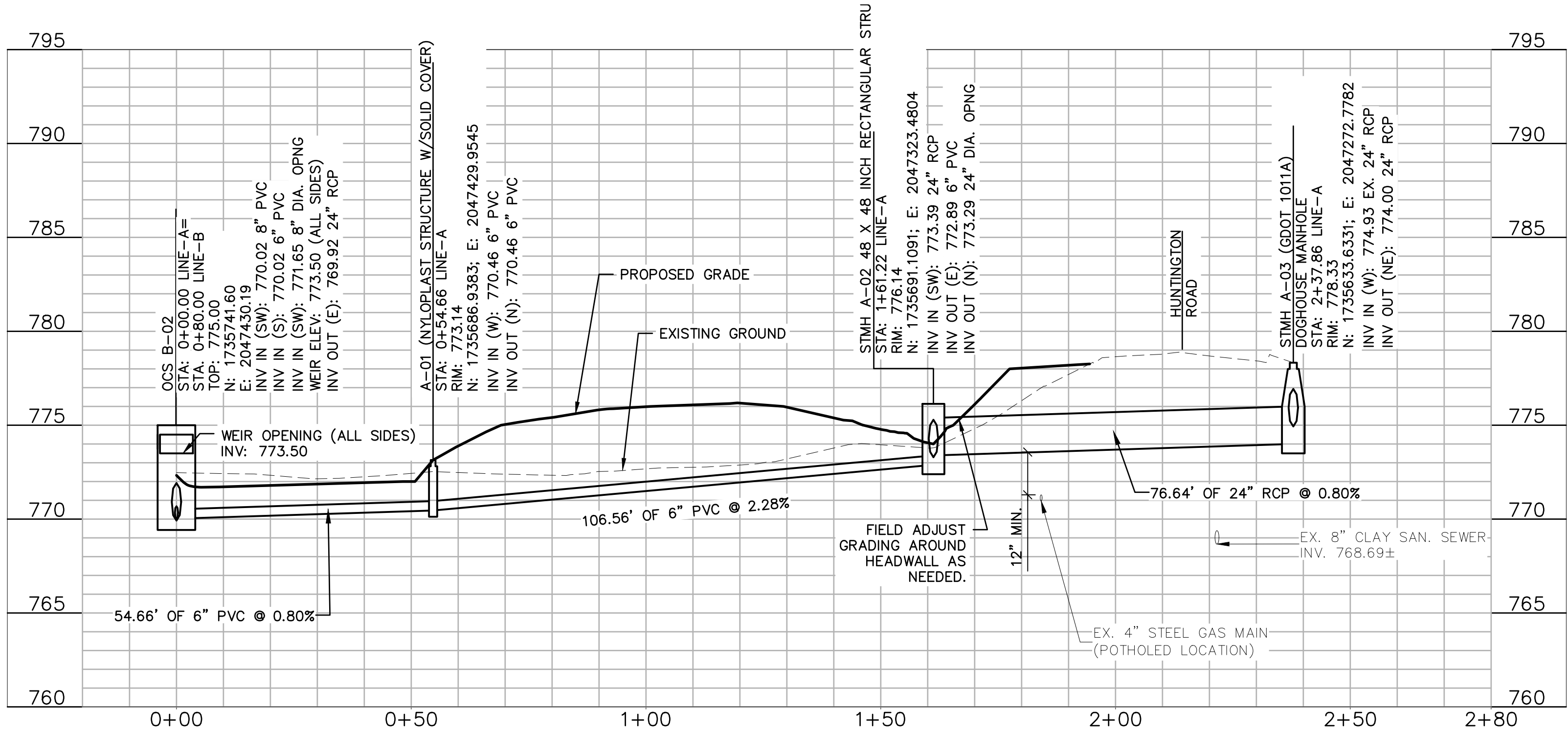
SHEET TITLE

LANDSCAPE PLAN

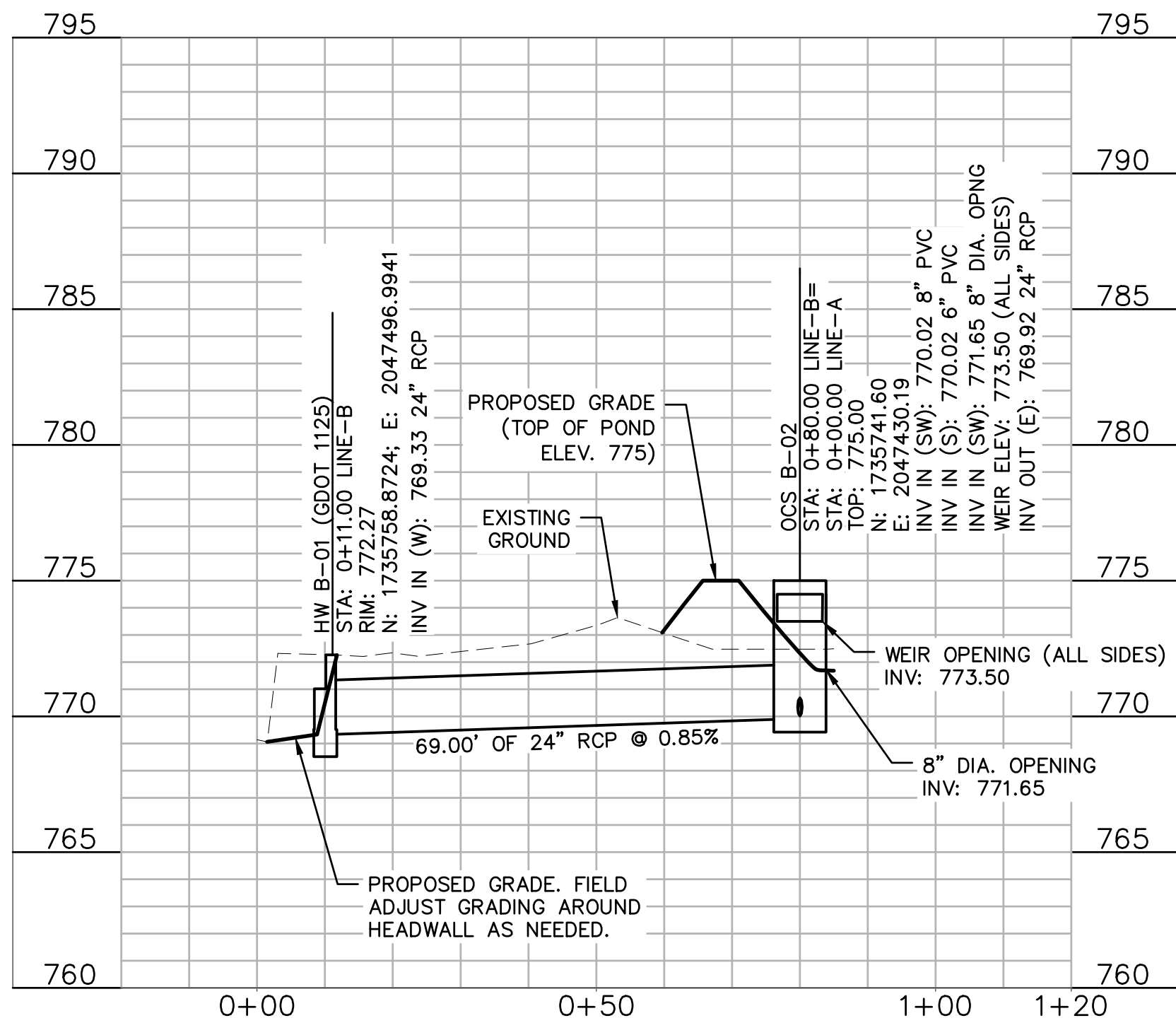
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C-04

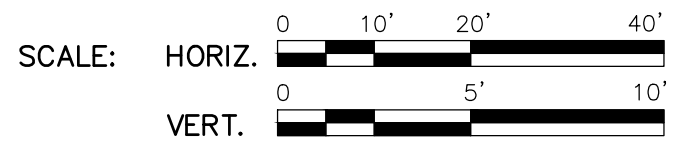
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LINE-A STORMWATER PROFILE
OCS B-02 TO STMH A-03



LINE-B STORMWATER PROFILE
HW B-01 TO OSC B-02



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WHITFIELD COUNTY, GEORGIA
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NO.	DATE	ISSUED FOR	BY

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DATE: DECEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: T. TITTLE

DRAWN BY: A. DOTTL

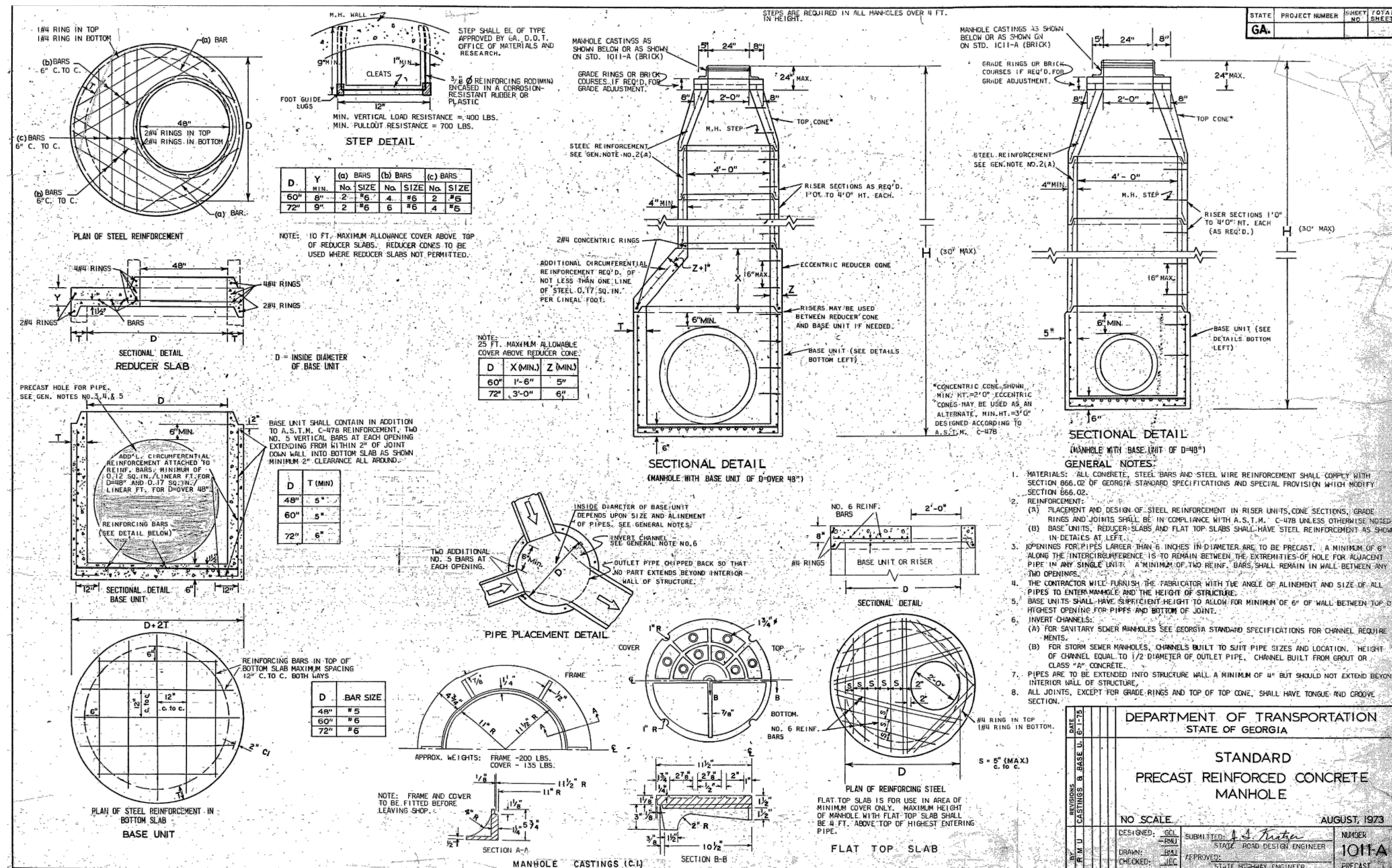
CHECKED BY: R. GREUEL

SHEET TITLE

CIVIL
LINE-A AND LINE-B
PROFILES

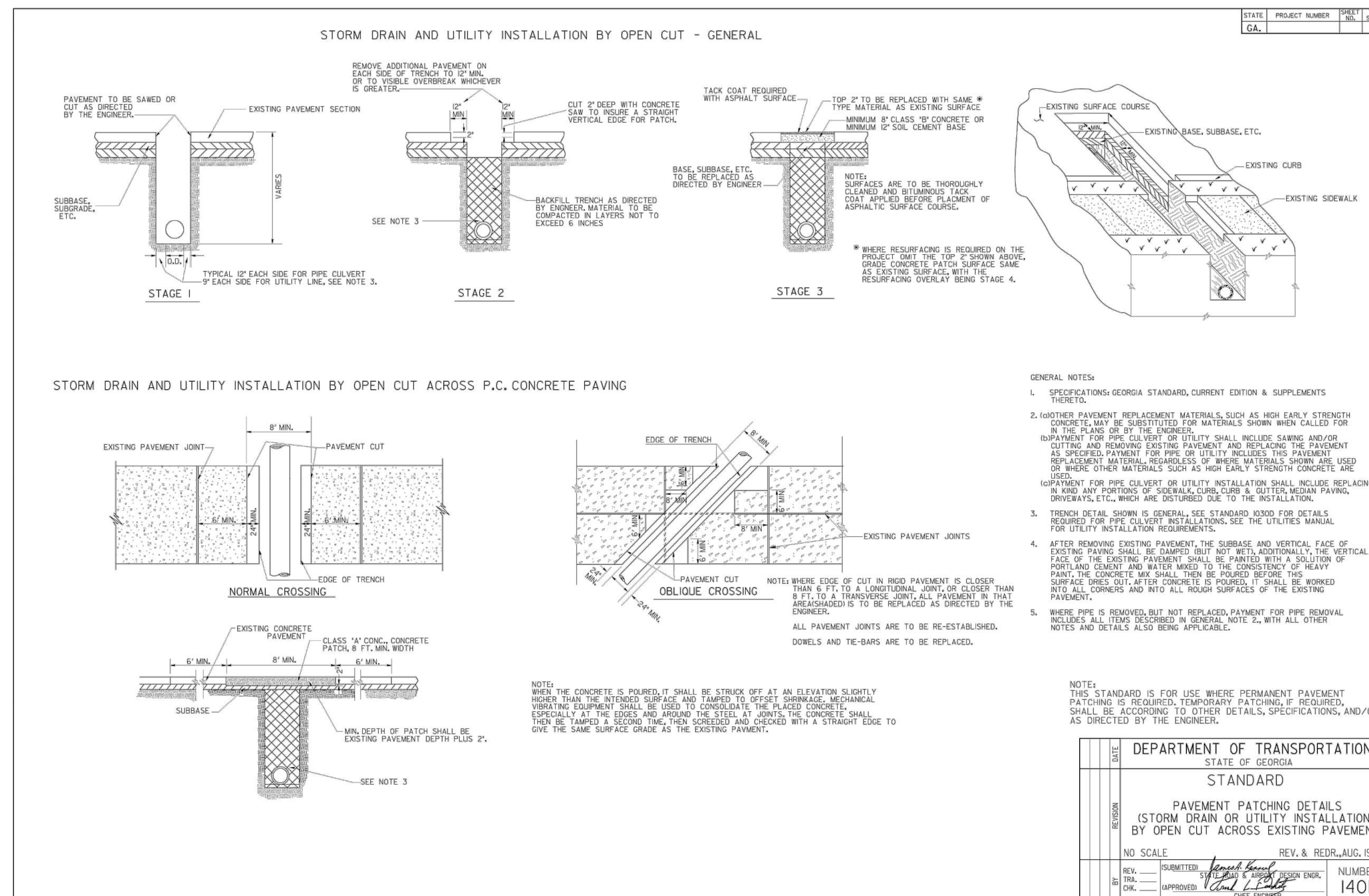
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C-05



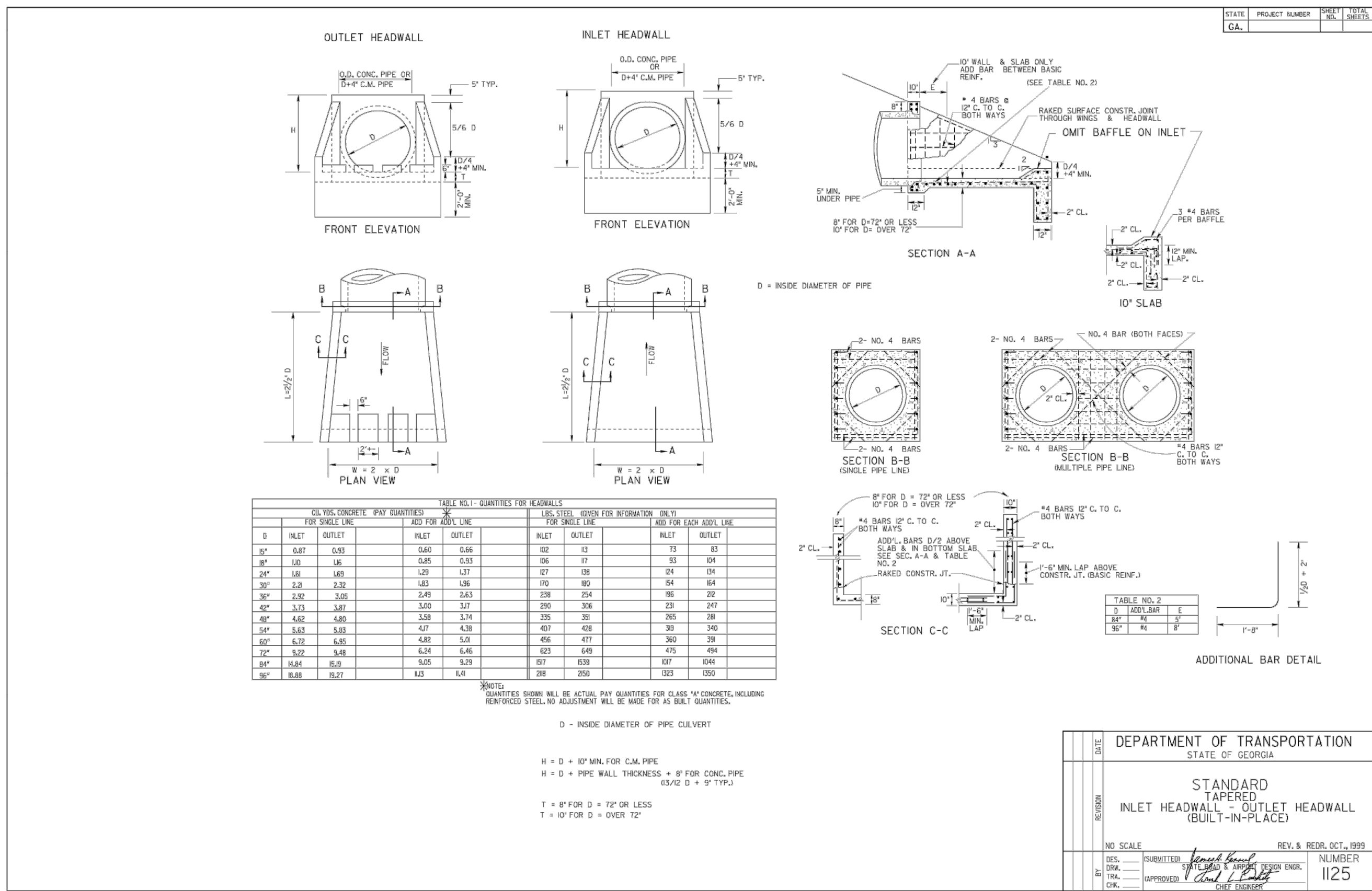
STANDARD PRECAST CONCRETE MANHOLE

NOT TO SCALE - SEE GDOT DETAIL 1011A



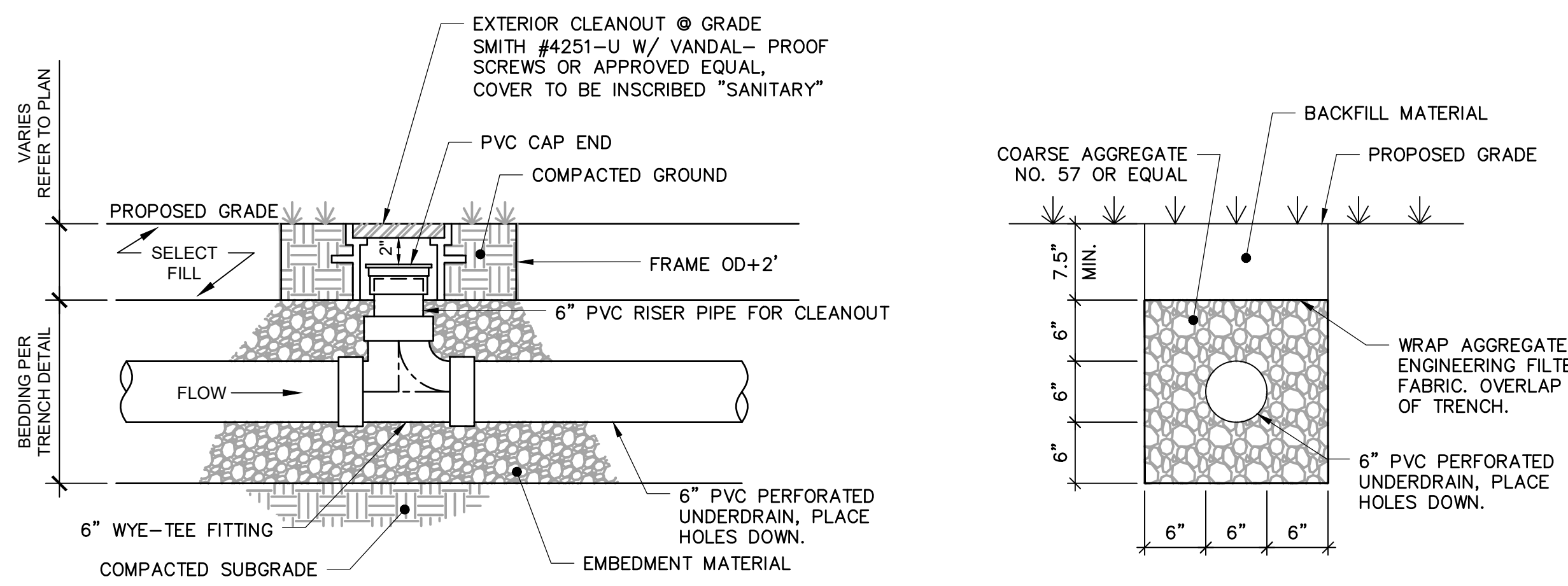
STANDARD PAVEMENT PATCHING

NOT TO SCALE - SEE GDOT DETAIL 1401



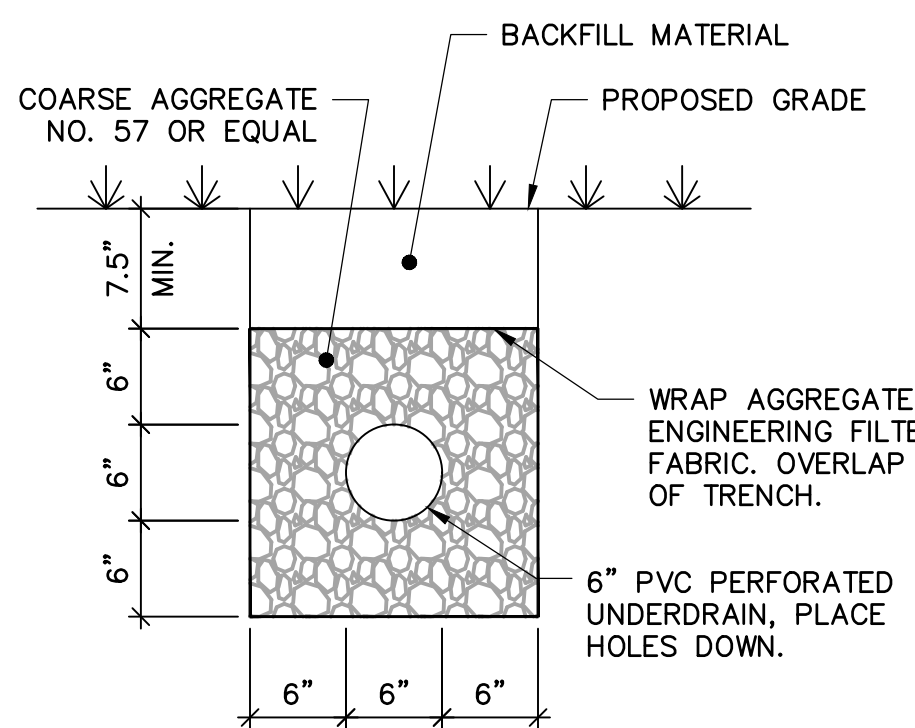
STANDARD BUILT-IN-PLACE CONCRETE HEADWALL

NOT TO SCALE - SEE GDOT DETAIL 1125



TYPICAL CLEANOUT DETAIL

NOT TO SCALE



TYPICAL UNDERDRAIN DETAIL

NOT TO SCALE

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CHECKED BY: R. GREUEL

SHEET TITLE

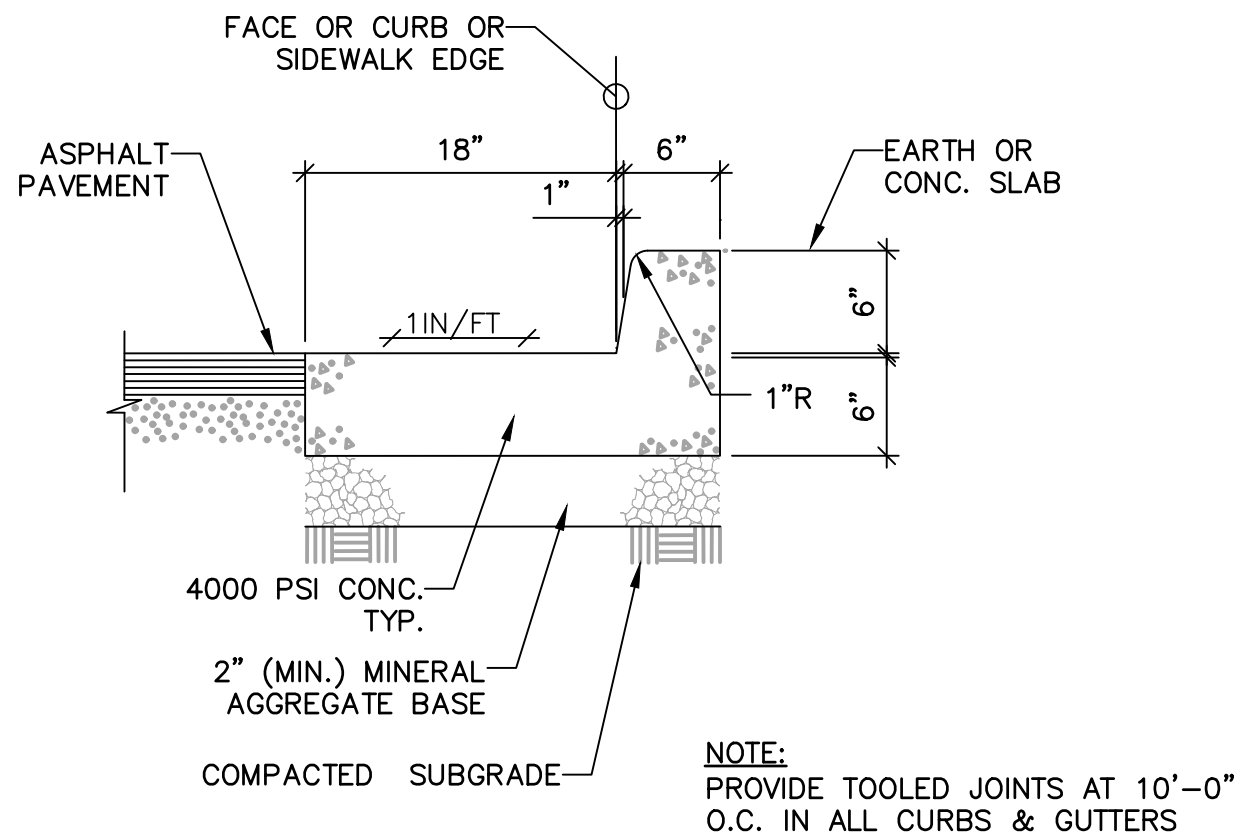
CIVIL

STANDARD DETAILS
(SHEET 1 OF 3)

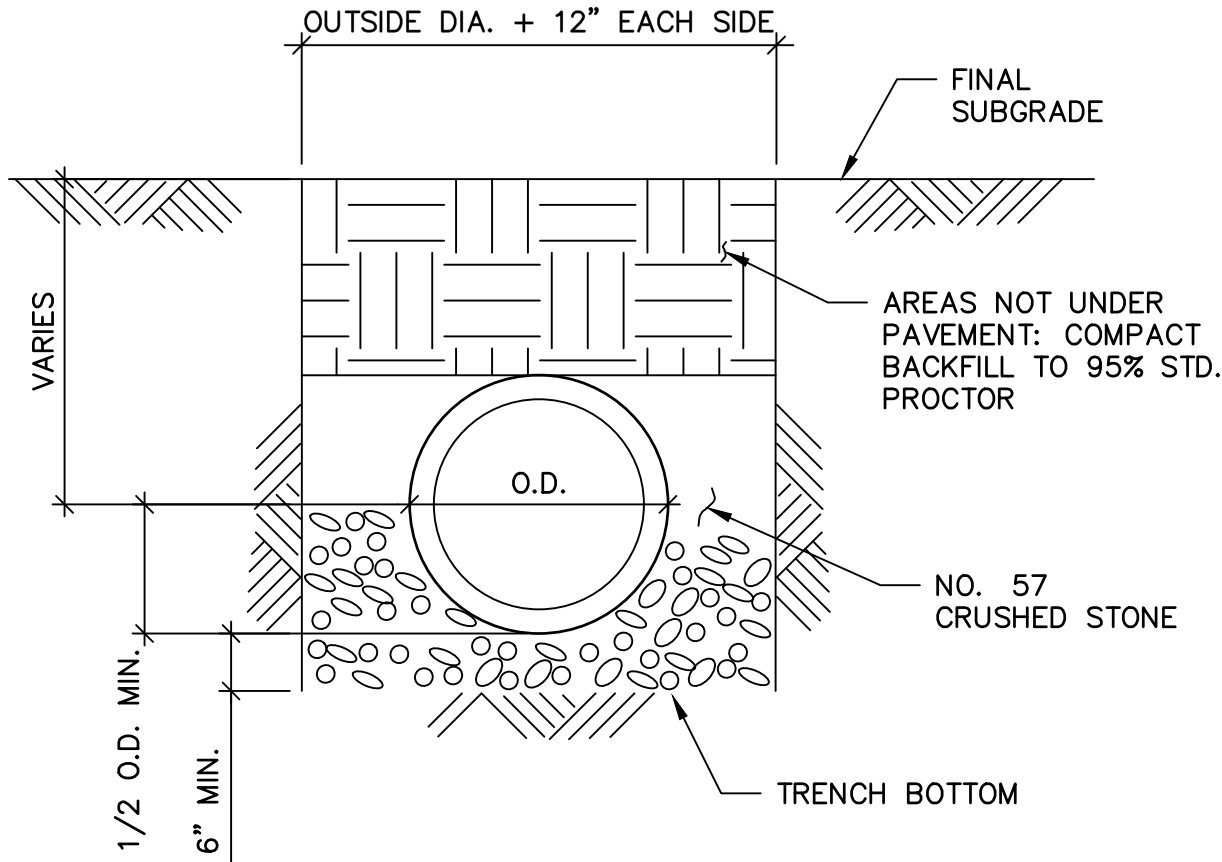
SCALE: AS SHOWN

C-06

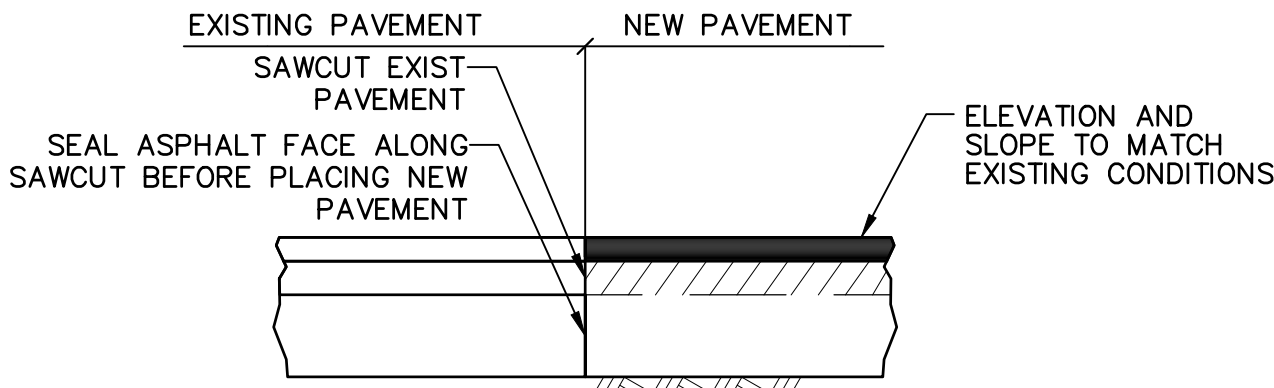
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CONCRETE CURB & GUTTER
NOT TO SCALE

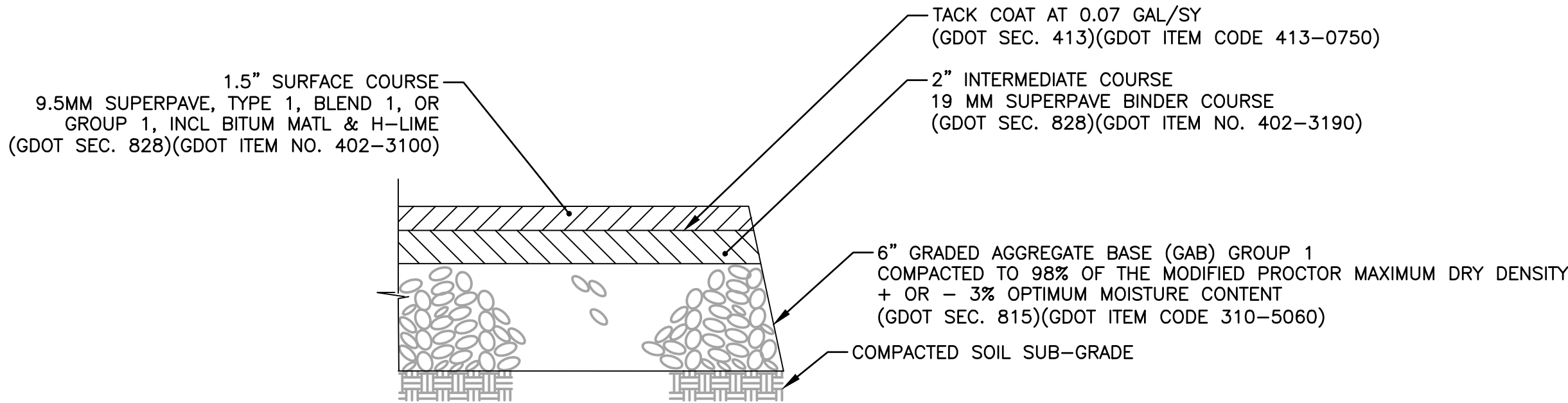


REINFORCED CONCRETE PIPE BEDDING
NOT TO SCALE

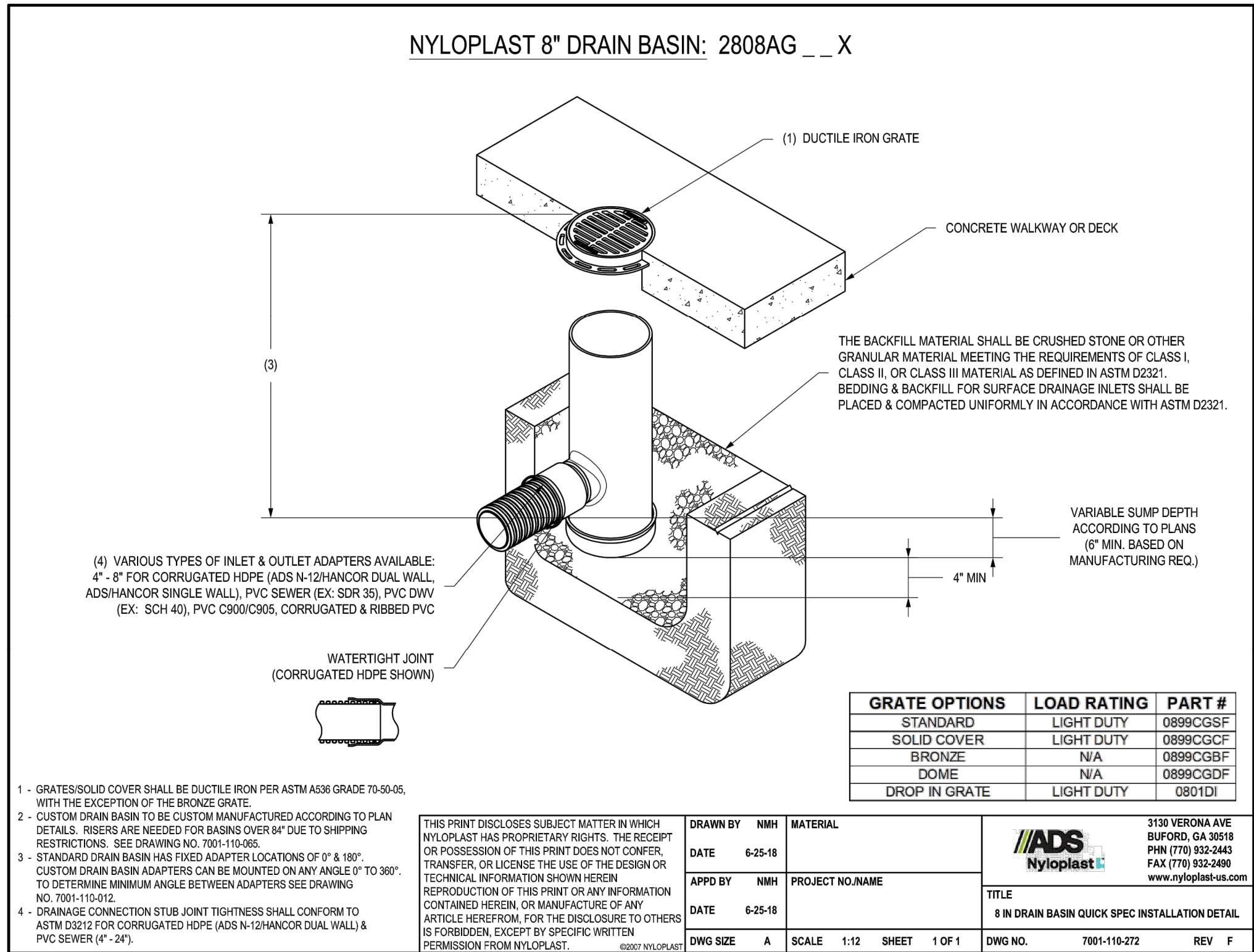


NOTES:
1. JOINT SHALL BE SMOOTH AND PATCH TO BE LEVEL FROM ONE END TO THE OTHER. IF SURFACE IS NOT SMOOTH, GRIND ASPHALT TO PROVIDE SMOOTH SURFACE.

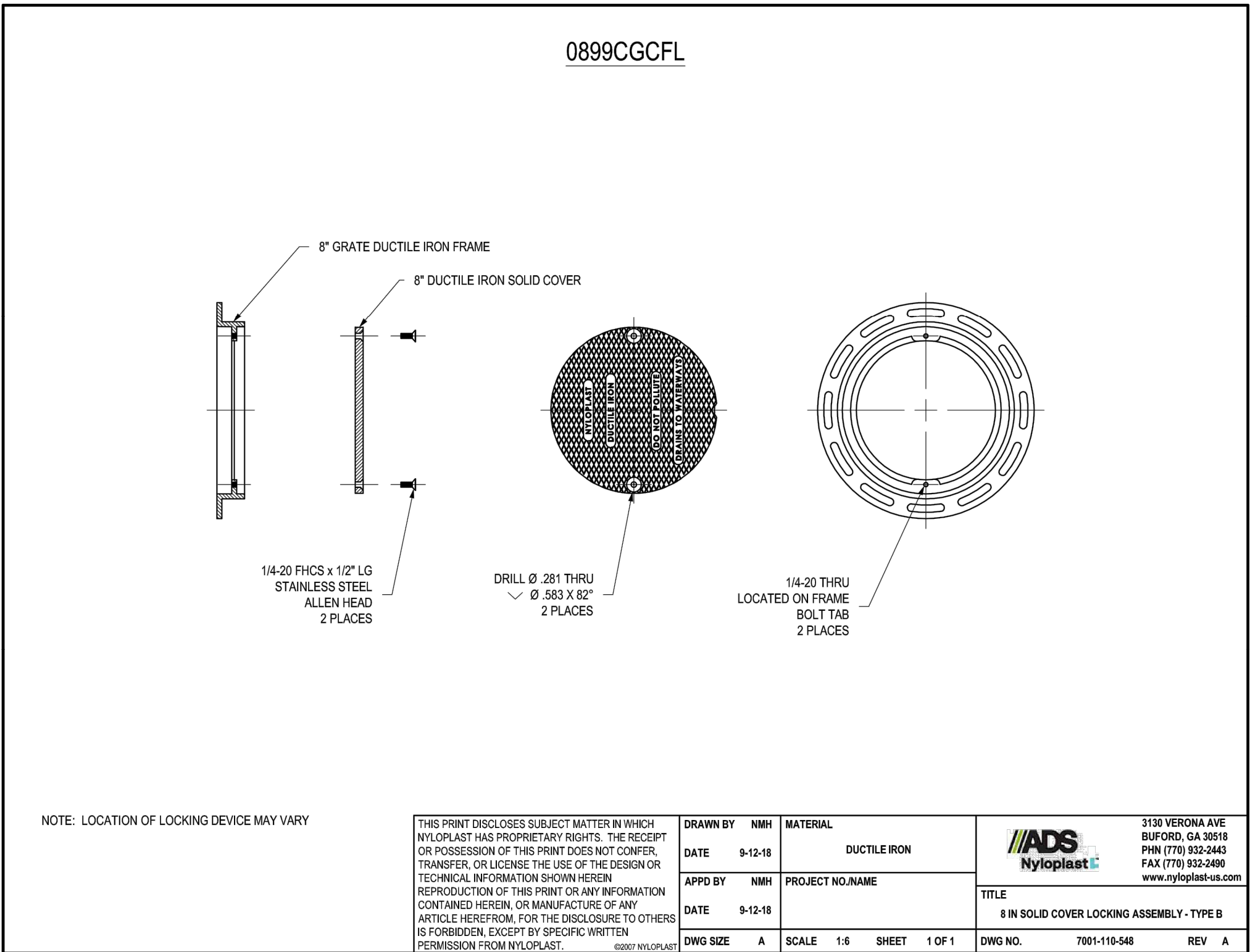
ASPHALT TO ASPHALT TRANSITION
PAVEMENT TRANSITION
NOT TO SCALE



ASPHALT TYPICAL PAVEMENT
NOT TO SCALE



10" DRAIN BASIN – NYLOPLAST OR EQUIVALENT
NOT TO SCALE



10" SOLID COVER LOCKING ASSEMBLY
NOT TO SCALE



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NO.	DATE	ISSUED FOR	BY

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2023

DATE: DECEMBER 2023
PROJECT NO.: 30156442
FILE NAME:
DESIGNED BY: T. TITTLE
DRAWN BY: A. DOTTL
CHECKED BY: R. GREUEL

SHEET TITLE

CIVIL

STANDARD DETAILS
(SHEET 2 OF 3)

SCALE:

AS SHOWN

C-07

PLANT SCHEDULE

QTY	ABBREV.	SCIENTIFIC NAME	COMMON NAME	MIN. SIZE	SPACING	NOTES
-----	---------	-----------------	-------------	-----------	---------	-------

DECIDUOUS SHADE TREES

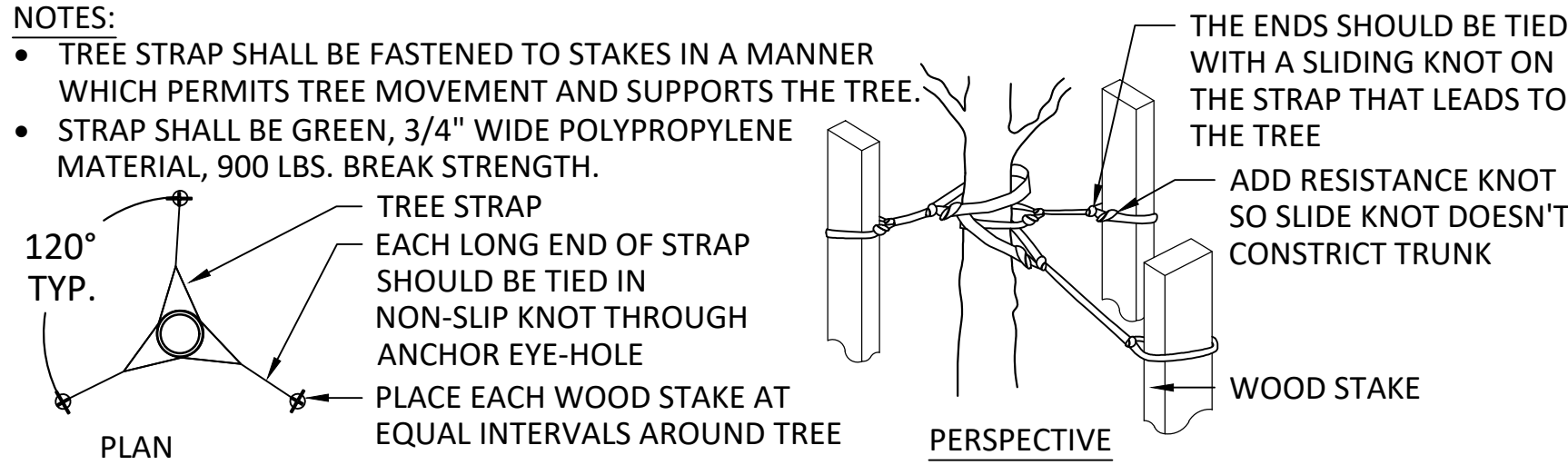
2	ACE RUB	<i>Acer rubrum</i> 'October Glory'	October Glory Red Maple	2" CAL.	SEE PLANTING PLANS
1	BET NIG	<i>Betula nigra</i> 'BMMTF'	Dura Heat River Birch	2" CAL.	
1	QUE BIC	<i>Quercus bicolor</i>	Swamp White Oak	2" CAL.	
2	QUE PHE	<i>Quercus phellos</i> 'Hightower'	Hightower Willow Oak	2" CAL.	
6	TOTAL				

EVERGREEN TREES

3	MAG VIR	<i>Magnolia virginiana</i> 'Apalachee'	Apalachee Sweetbay Magnolia	6' MIN. HT.	SEE PLANTING PLANS
4	TAX DIS	<i>Taxodium distichum</i>	Bald Cypress	6' MIN. HT.	
7	TOTAL				

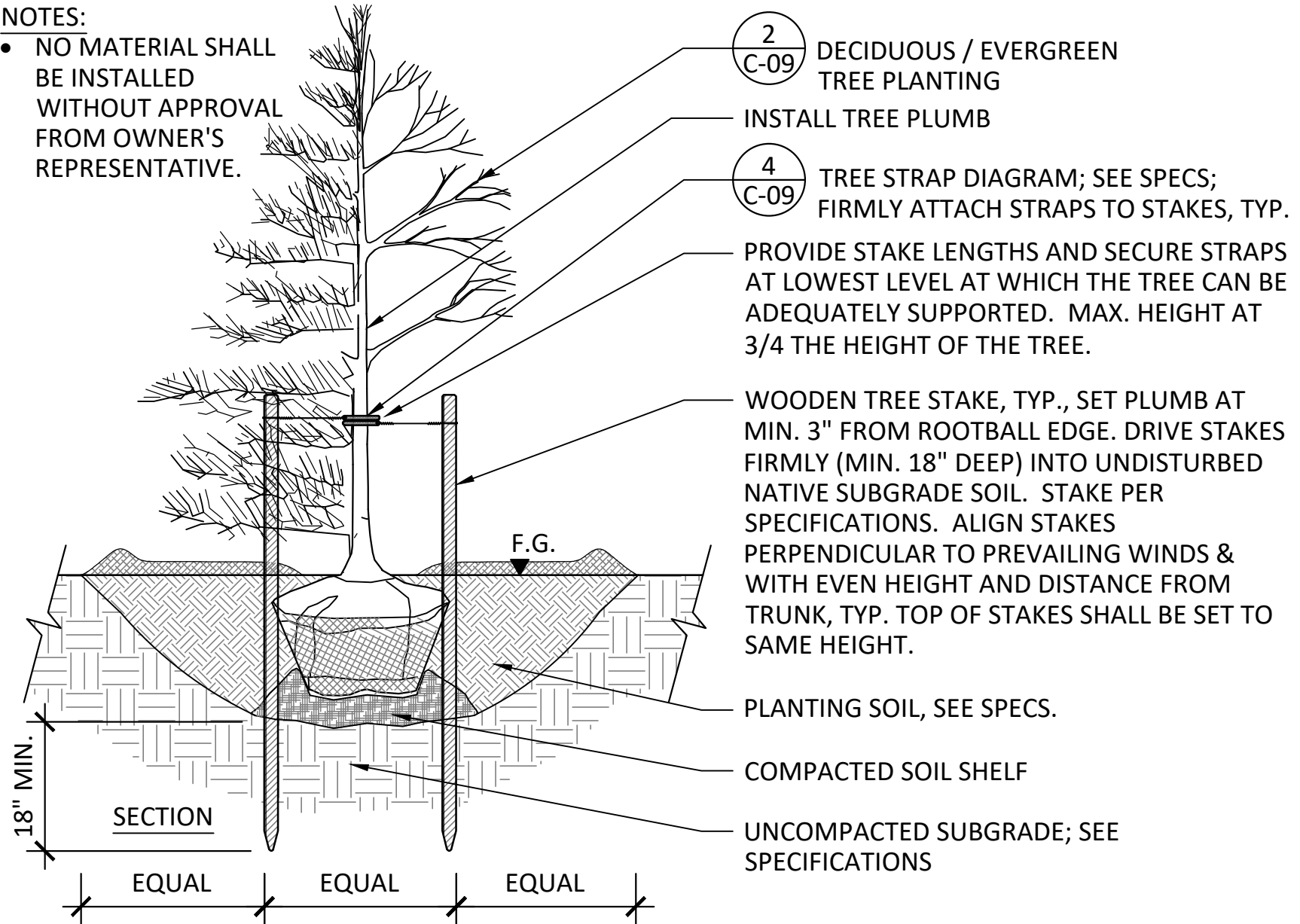
ORNAMENTAL TREES

4	AME GRA	<i>Amelanchier x grandiflora</i> 'Autumn Brilliance'	Autumn Brilliance Serviceberry	6' MIN. HT.	SEE PLANTING PLANS
4	CER CAN	<i>Cercis canadensis</i> 'Forest Pansy'	Forest Pansy Redbud	6' MIN. HT.	
2	CHI VIR	<i>Chionanthus virginicus</i>	American Fringe Tree	6' MIN. HT.	
1	HAL CAR	<i>Halesia carolina</i>	Carolina Silver Bells	6' MIN. HT.	
11	TOTAL				



4 TREE STRAPPING

N.T.S.



5 TREE STAKING

N.T.S.

PLANT SCHEDULE CONT.

QTY	ABBREV.	SCIENTIFIC NAME	COMMON NAME	MIN. SIZE	SPACING	NOTES
-----	---------	-----------------	-------------	-----------	---------	-------

SHRUBS

5	COR SER	<i>Cornus servicea</i>	Red Twig Dogwood	#3 CONT.	48" O.C.	36" HT. MIN.
5	HYD QUE	<i>Hydrangea quercifolia</i> 'Alice'	Alice Oakleaf Hydrangea	#5 CONT.	48" O.C.	24" HT. MIN.
5	ITE VIR	<i>Itea virginica</i> 'Henry's Garnet'	Henry's Garnet Virginia Sweetspire	#3 CONT.	36" O.C.	36" HT. MIN.
15 TOTAL						

GROUNDCOVER / PERENNIALS / BULBS

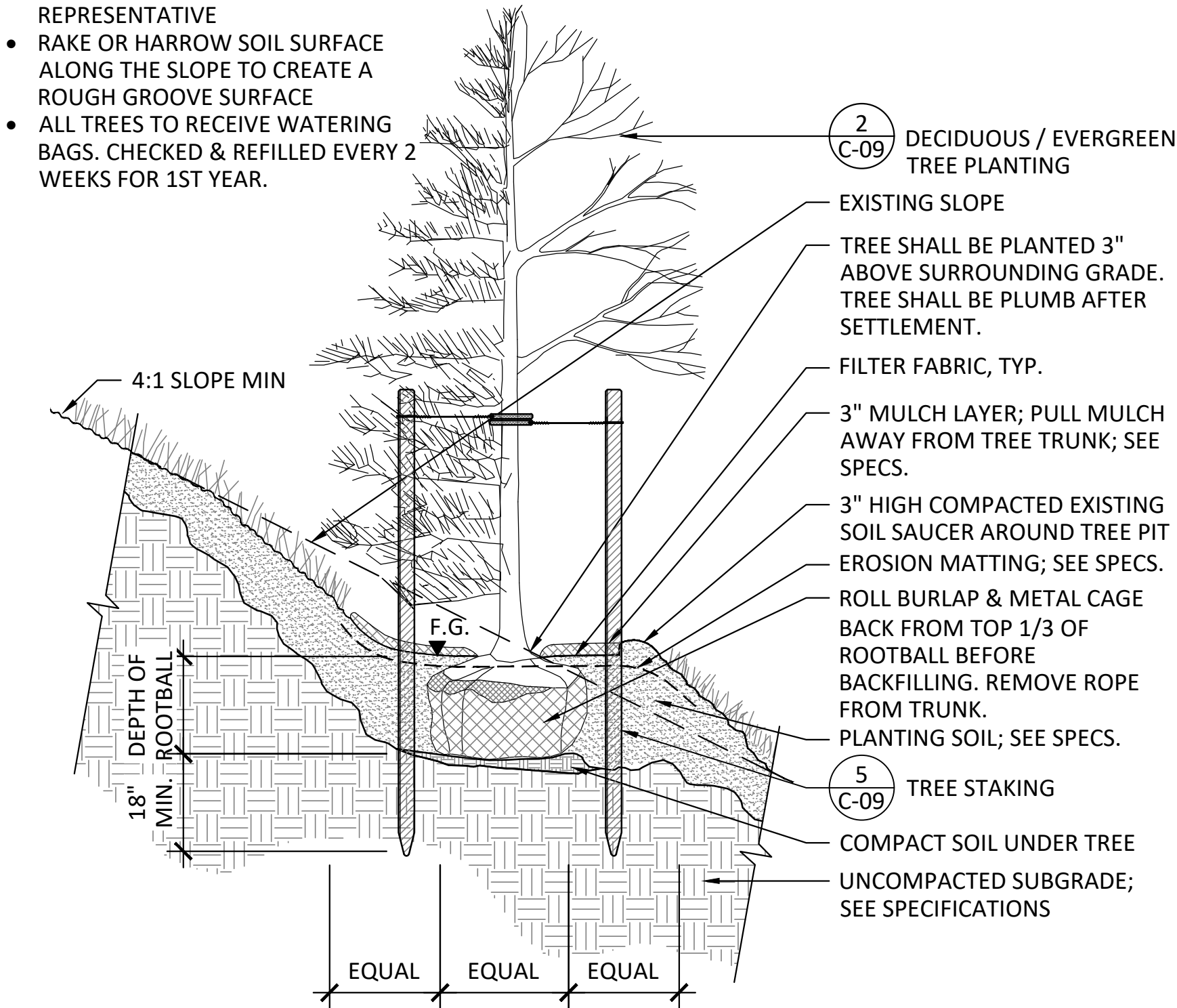
459	IRI VER	<i>Iris versicolor</i> 'Blue Flag'	Northern Blue Flag Iris	#1 CONT.	18" O.C.	12" HT. MIN.
268	JUN HOR	<i>Juniperus horizontalis</i> 'Blue Chip'	Blue Chip Creeping Juniper	#1 CONT.	36" O.C.	9" HT. MIN.
488	LIR MUS	<i>Liriope muscari</i> 'Big Blue'	Big Blue Liriope	#1 CONT.	12" O.C.	6" HT. MIN.
313	RHU ARO	<i>Rhus arnata</i> 'Gro-Low'	Gro-Low Sumac	#1 CONT.	36" O.C.	15" HT. MIN.
1,528 TOTAL						

MISC ACCESSORIES

22477	SF	BERMUDA SOD; SEE NOTES
5852	SF	PINE STRAW MULCH; SEE PLANS & DETAILS
9053	SF	'SHENANDOAH' SWITCHGRASS SEED; BROADCAST OVERSEED IN NON-PLANTED AREAS

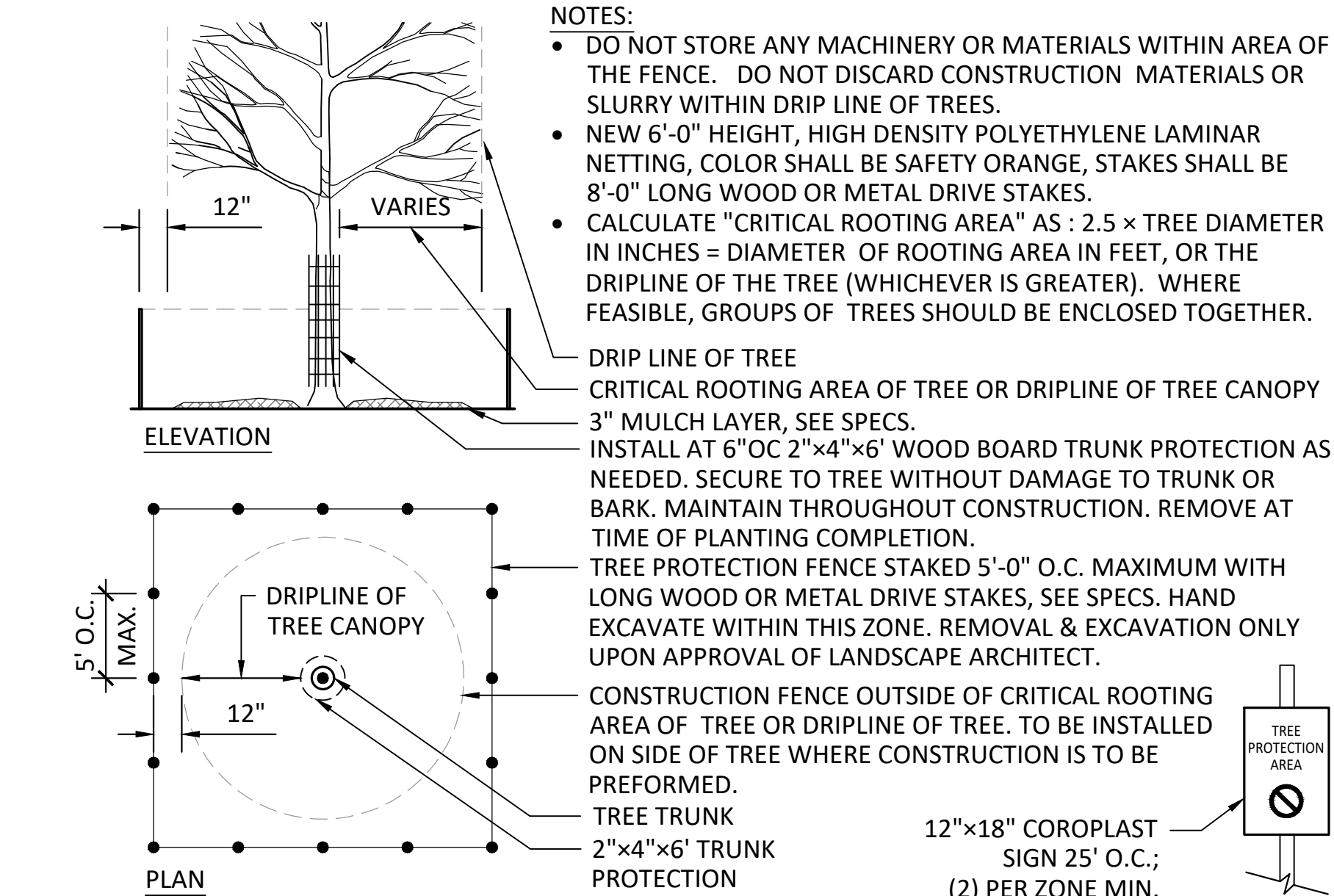
NOTES:

- ALL TREES SHALL BE FLOODED TWICE DURING FIRST 24-HOURS AFTER PLANTING
- EROSION CONTROL MATTING ON ALL SLOPES 3:1 OR STEEPER
- STAKE AS NECESSARY TO ENSURE PLUMB CONDITION
- NO MATERIAL SHALL BE INSTALLED WITHOUT APPROVAL BY OWNER'S REPRESENTATIVE
- RAKE OR HARROW SOIL SURFACE ALONG THE SLOPE TO CREATE A ROUGH GROOVE SURFACE
- ALL TREES TO RECEIVE WATERING BAGS. CHECKED & REFILLED EVERY 2 WEEKS FOR 1ST YEAR.



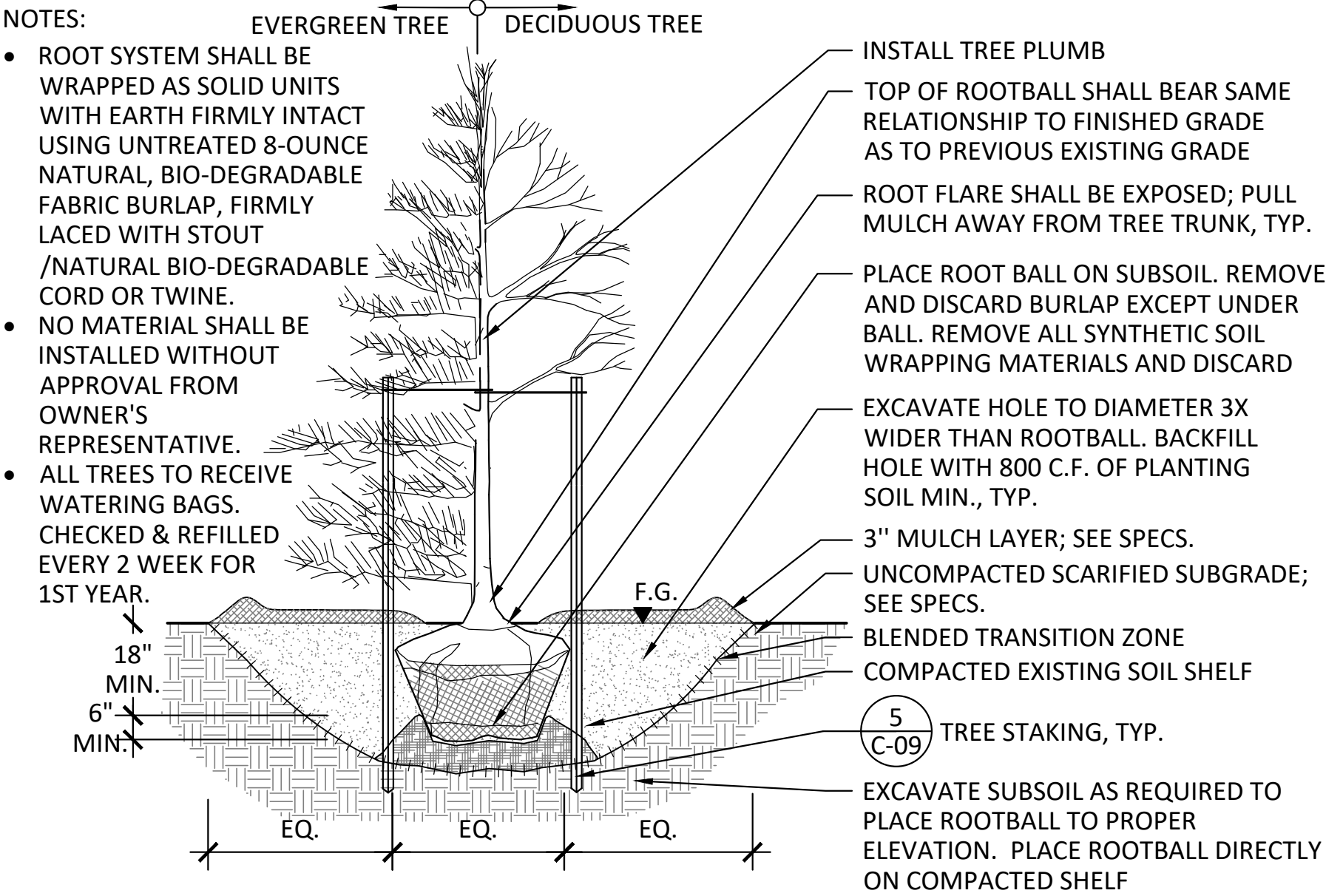
3 TREE PLANTING ON SLOPE

N.T.S.



1 TREE PROTECTION FENCE

N.T.S.



2 TREE PLANTING

N.T.S.



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DATE: SEPTEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: N. HUNTER

DRAWN BY: E. ELLIS

CHECKED BY: C. BROOKS

SHEET TITLE

LANDSCAPE
PLANTING DETAILS

SCALE: AS SHOWN

C-09

C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
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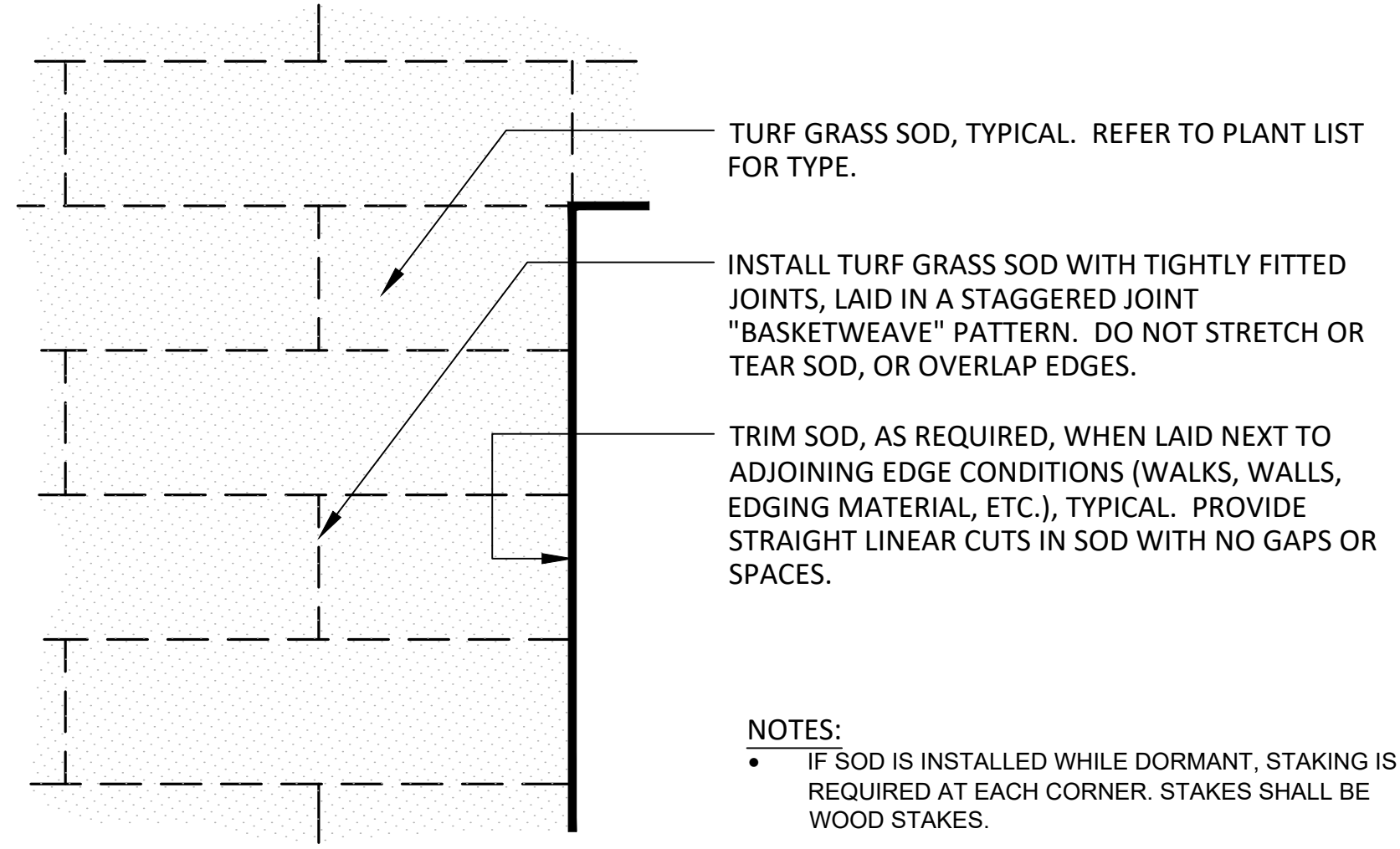
DATE: SEPTEMBER 2023
PROJECT NO.: 30156442
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DRAWN BY: E. ELLIS
CHECKED BY: C. BROOKS

SHEET TITLE

LANDSCAPE
PLANTING DETAILS

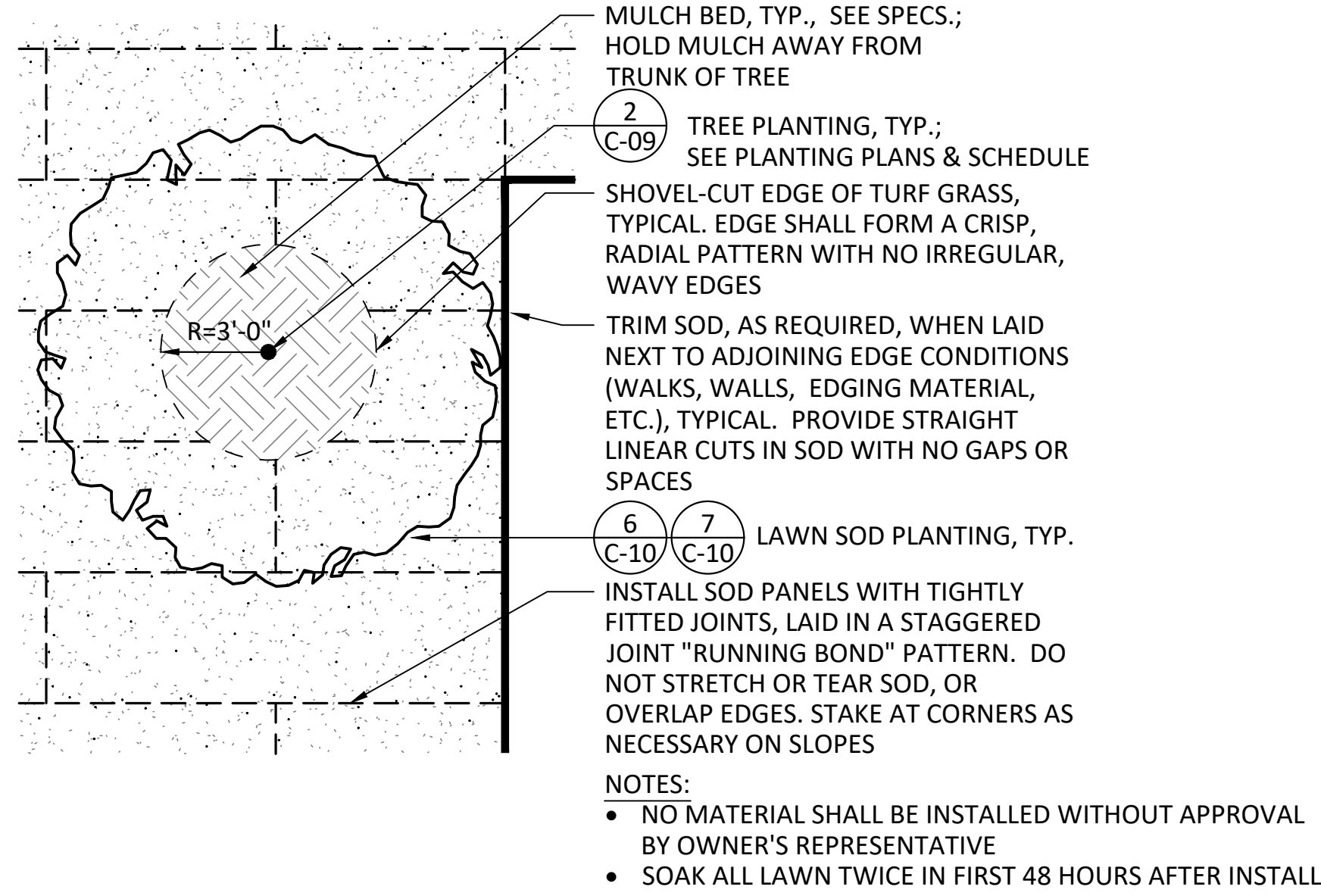
SCALE: AS SHOWN

C-10



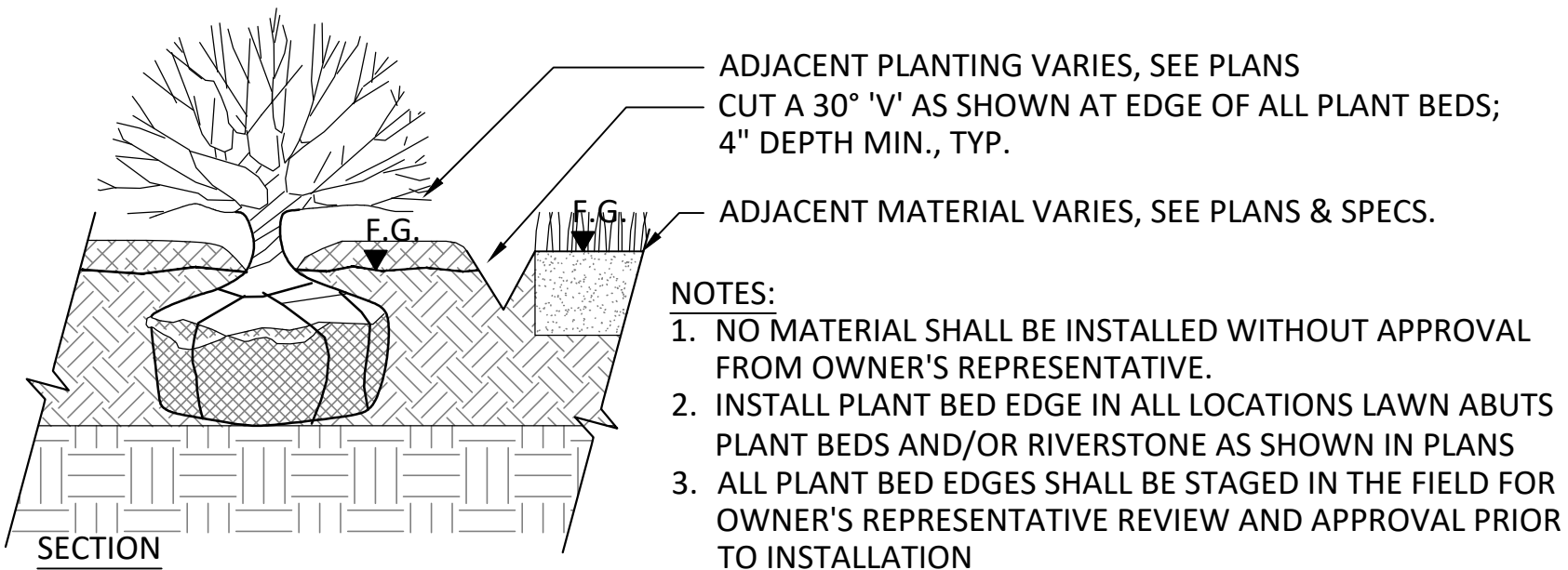
7 LAWN SOD LAYOUT

N.T.S.



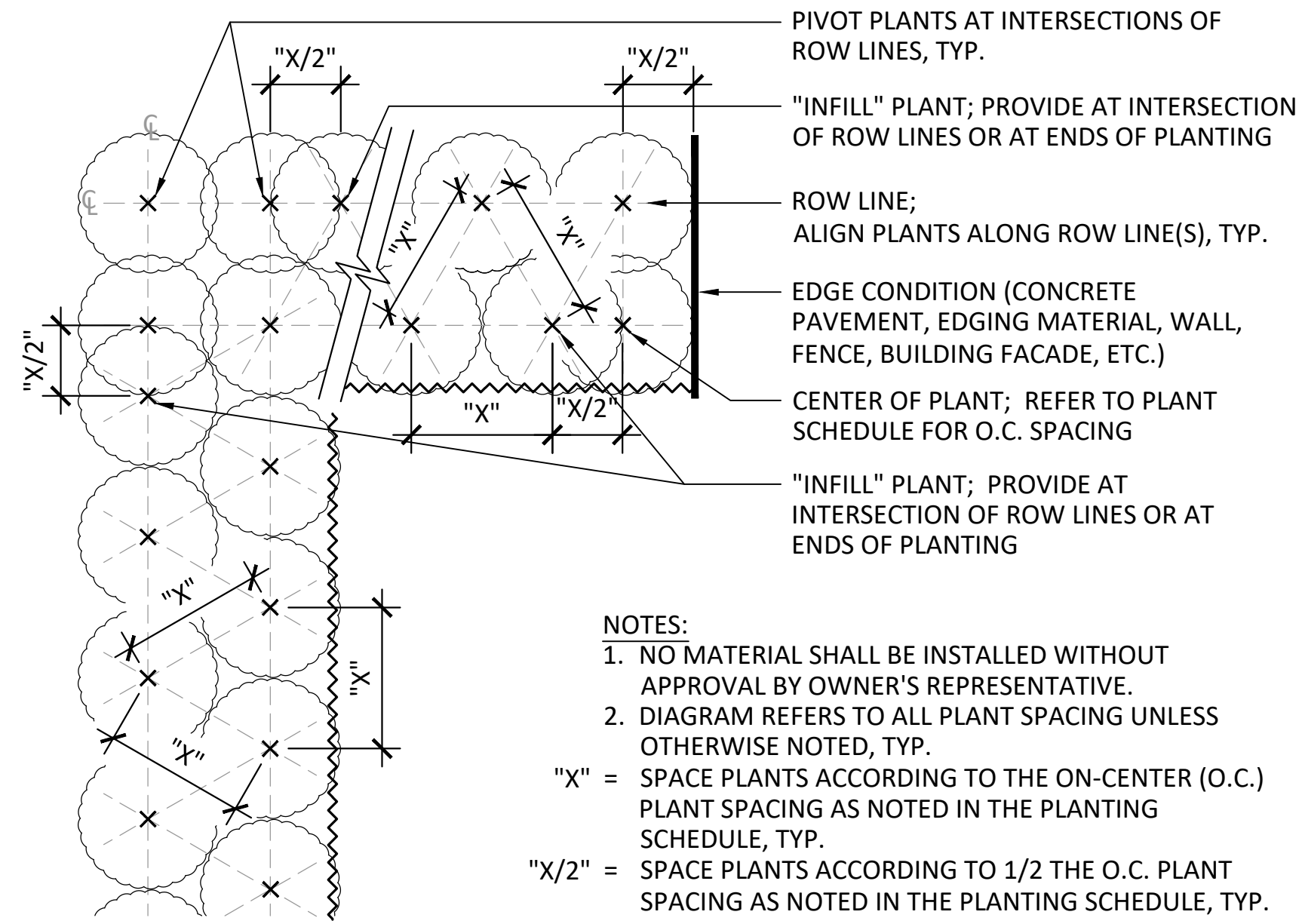
8 LAWN SOD LAYOUT (AT TREE MULCH RING)

N.T.S.



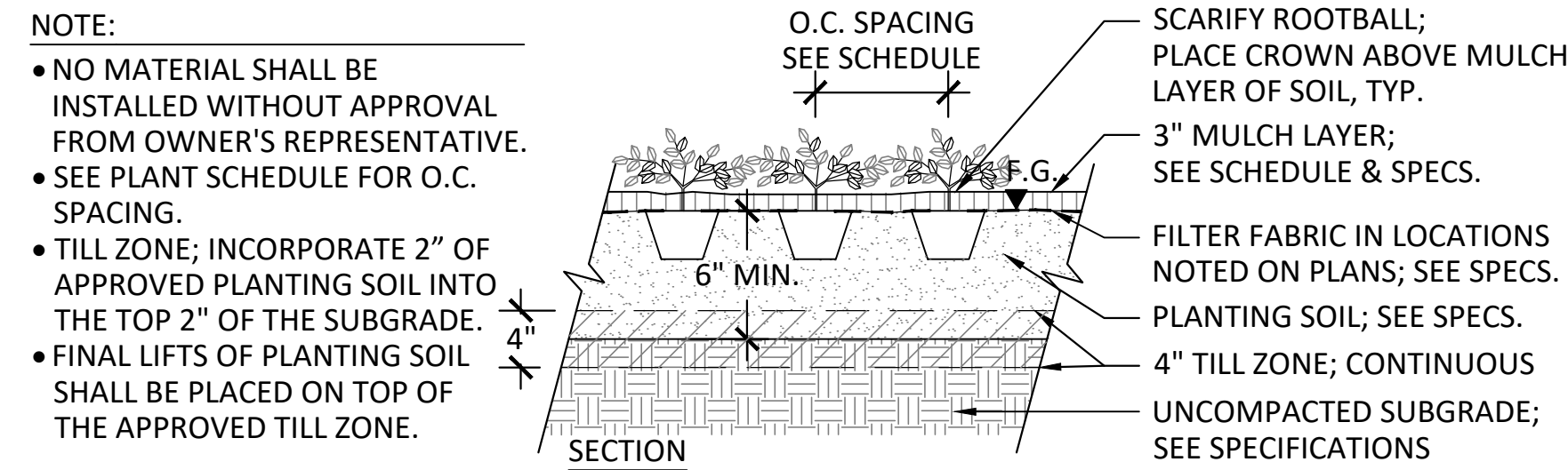
9 CUT BED EDGE

N.T.S.



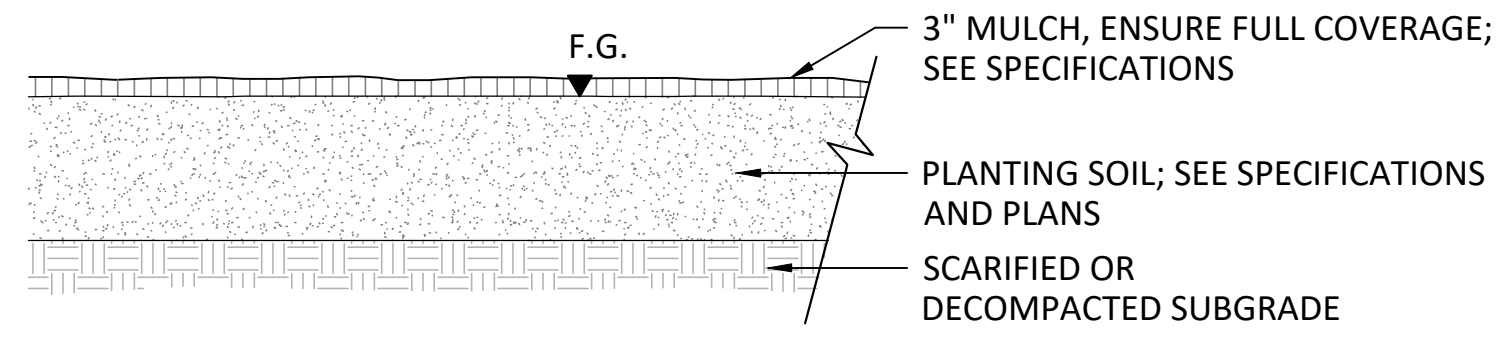
3 SHRUB SPACING DIAGRAM

N.T.S.



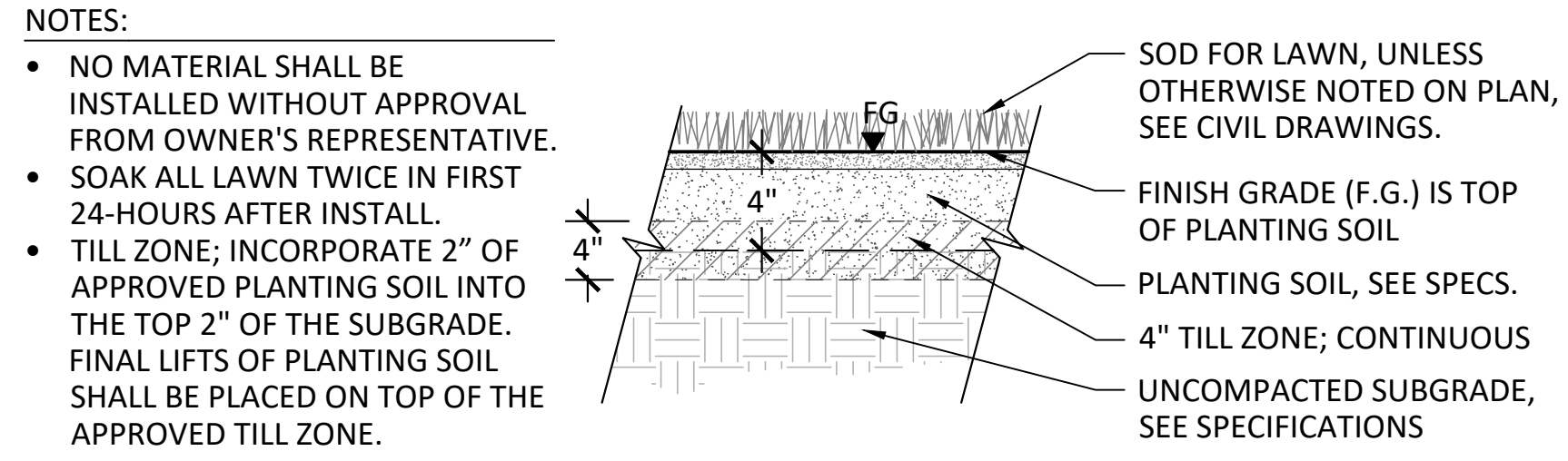
4 GROUNDCOVER/PERENNIAL PLANTING

N.T.S.



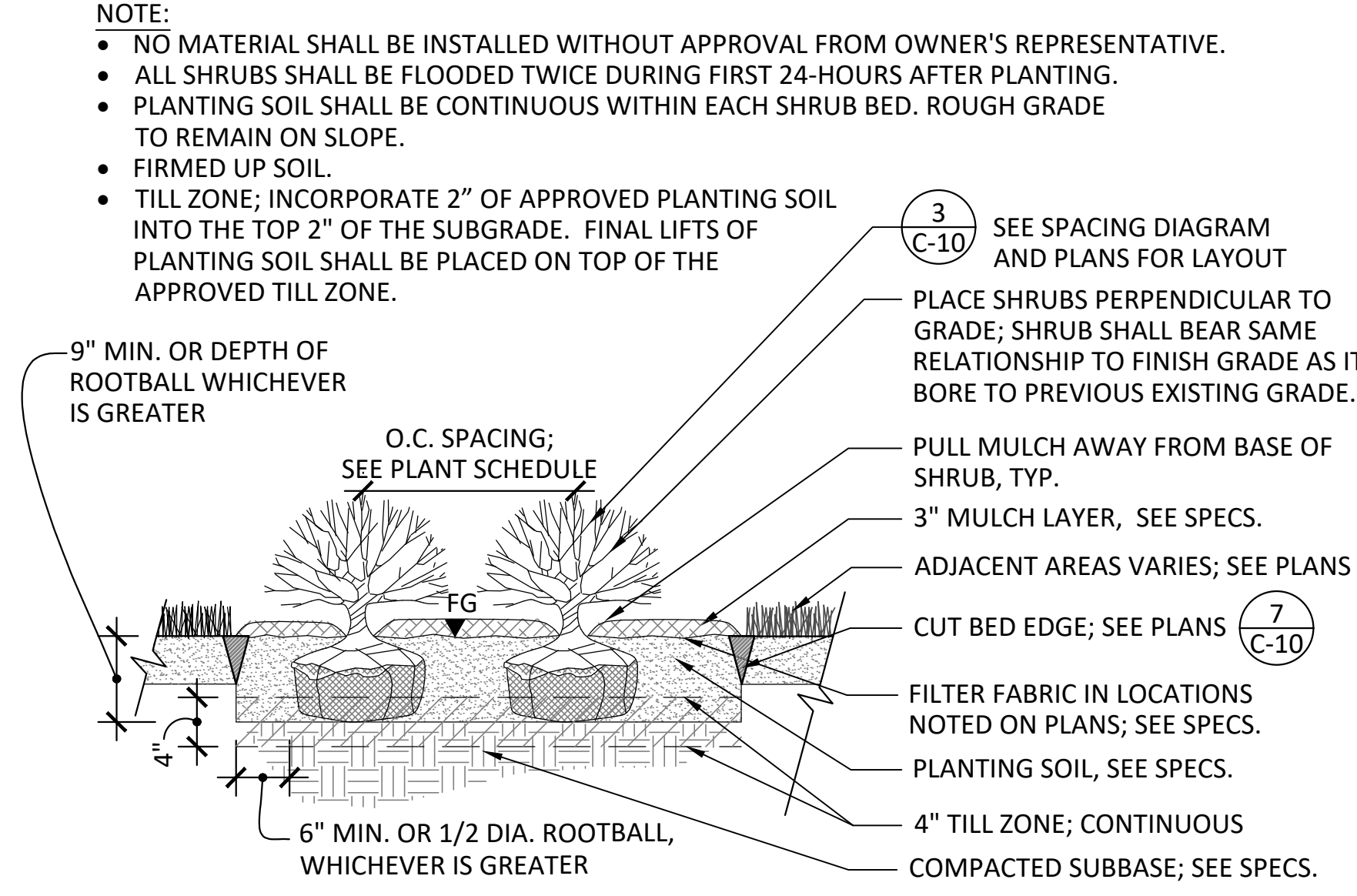
5 PINE STRAW MULCH

N.T.S.



6 LAWN SOD PLANTING

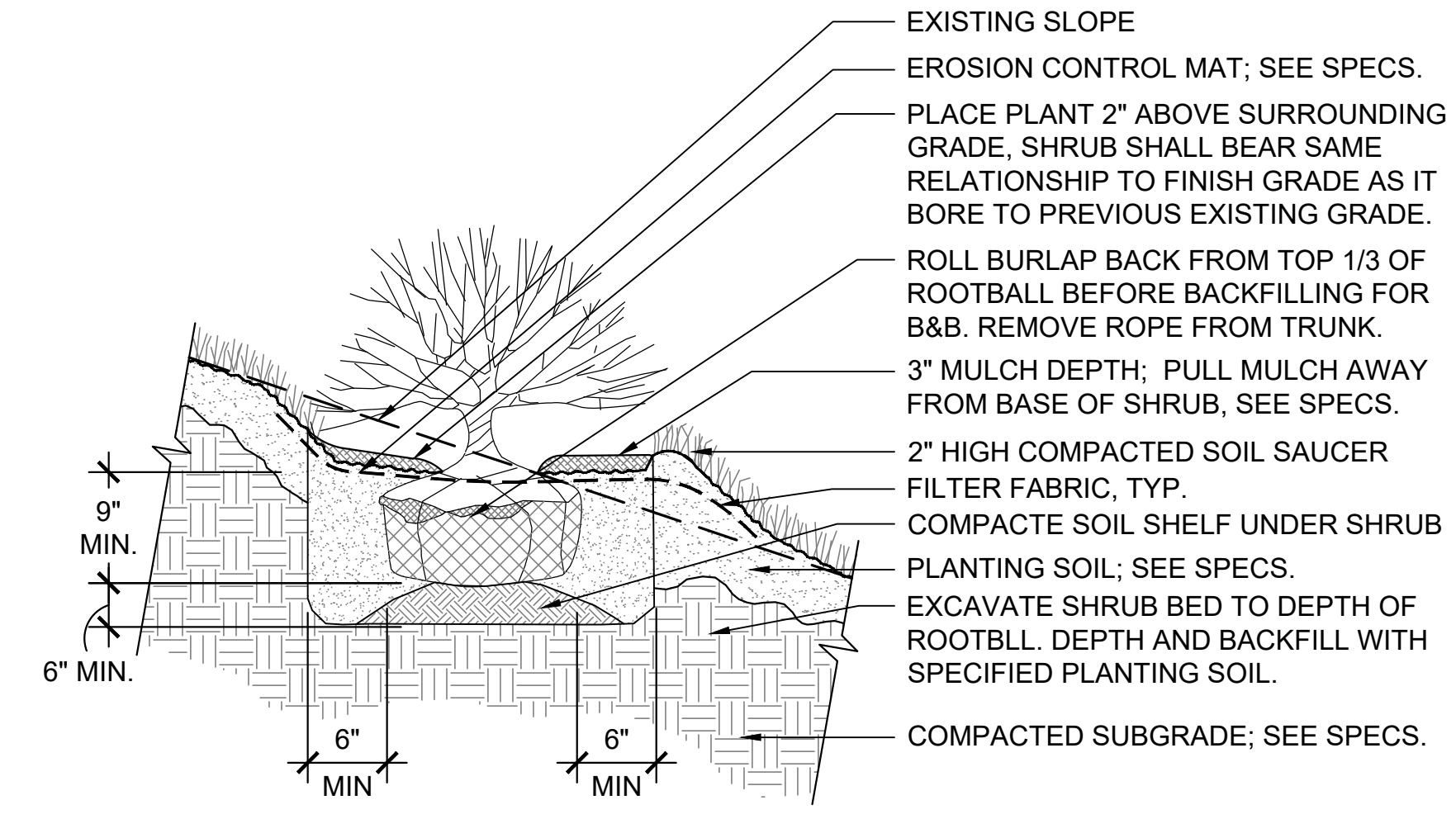
N.T.S.



1 SHRUB PLANTING

N.T.S.

NOTES:
ALL SHRUBS SHALL BE FLOODED TWICE DURING FIRST 24-HOURS AFTER PLANTING
EROSION CONTROL MATTING ON ALL SLOPES 3:1 OR STEEPER
RAKE OR HARROW SOIL SURFACE ALONG THE SLOPE TO CREATE A ROUGH GROOVED SURFACE
NO MATERIAL SHALL BE INSTALLED WITHOUT APPROVAL FROM OWNER'S REPRESENTATIVE
PLANTING SOIL TO BE CONTINUOUS WITHIN SHRUB BED. ROUGH GRADE TO REMAIN ON SLOPE



2 SHRUB PLANTING ON SLOPE

N.T.S.

1.1 EXAMINATION OF CONDITIONS

- The Contractor and any sub-Contractor responsible for the execution of the Work of this Section shall confirm by email to the Landscape Architect that the subsoil elevations have been brought to the proper subgrade elevations prior to proceeding with the spreading of the planting soils.
- Carefully review the requirements of this Section to understand the requirements of percolation testing, compaction, slope and absence of debris of the subgrade prior to spreading of the planting soils.
- The Contractor shall be solely responsible for judging the full extent of work requirements involved, including but not limited to sampling and testing of on-site stockpiles of delivered off-site planting soils prior to final planting installation.

1.2 SUBMITTALS

- At least 30 days prior to ordering materials, submit for approvals representative samples, certifications, manufacturer's product data and certified test results for materials specified below. No materials shall be ordered or delivered until the required submittals have been reviewed and approved. Delivered materials shall closely match the approved samples. Approval shall not constitute final acceptance. The Landscape Architect reserves the right to reject, on or after delivery, any material that does not meet these Specifications.
 - Planting soils for turf areas and plant beds: provide a one cubic foot representative sample per 1,000 cubic yard stockpile of proposed, blended planting soils and horticultural subsoil for testing. All stockpile sampling shall be per ASTM D75 and Appendixes for securing samples from stockpiles.
- Testing of proposed planting soils shall be at the Contractor's expense. Contractor shall deliver all samples to testing laboratories via overnight courier and shall have the testing report sent directly to the Landscape Architect. Perform all tests for gradation, organic content, soil chemistry and pH by Waypoint Analytical laboratories, Inc., 2790 Whitten Road, Memphis, TN, 38133 (901) 213-2400 or approved equal. Submit Waypoint Turf & Landscape Soil Sample Information Sheet with specific crop codes indicated. Testing reports shall include the following tests and recommendations. Testing reports shall include the following tests and recommendations.
 - Mechanical and chemical analysis shall be conducted in accordance with the current "standards" of the Association of Official Agriculture Chemists.
 - Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.
 - Soil Fertility Testing: S3M (S1M: Soil pH, Buffer pH, Calcium, Magnesium, Potassium, Phosphorus and Percentage Organic Matter, calculated CEC, Base Sat.% + Boron, Copper, Iron, Manganese, Sodium, Sulfur, and Zinc)
 - Individual Analysis for Soluble Salts using a Conductivity Meter in a 1:2 soil/water (v/v), Nitrate Nitrogen, Ammoniacal Nitrogen, Exchangeable Aluminum.
 - Toxins including but not limited to lead, cadmium, arsenic and mercury.
 - Saturated hydraulic conductivity per ASTM D5856.
 - Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies as necessary, and for additives necessary to accomplish the work as specified.
 - Test results: test data and recommendations for soil amendments including but not limited to: nitrogen, phosphorus, potassium and limestone.

2.1 PLANTING SOIL

- Planting soils shall be A) approved off-site topsoil or B) manufactured from 3 components: 1) topsoil, 2) coarse and medium sands, and 3) approved compost.

2.2 TOPSOIL

- Topsoil shall be free of subsoil, large stones, earth clods, sticks, stumps, clay lumps, roots or other objectionable, extraneous matter or debris. Base topsoil shall also be free of quack-grass rhizomes, *Agropyron Repens*, and the nut-like tubers of nutgrass, *Cyperus Esculentus*, and all other primary noxious weeds. Base topsoil shall not be delivered or used for planting while in a frozen or muddy condition.
- Topsoil shall be a named soil identified in a County Soil Survey, published by the United States Department of Agriculture, Natural Resources Conservation Service. Soil shall be the top horizon as identified in Table 15 - Engineering Index Properties of the Soil Survey. The soil shall be silt loam, loam, fine sandy loam or sandy loam classified under the USDA texture classification as described in Table 15 of the Soil Survey.
- Maximum size shall be one inch largest dimension. The maximum retained on the #10 sieve shall be 20% by weight of the total sample.
- The organic content shall be between 3.0 and 8.0 percent
- The pH shall be between 5.5 and 7.0
- The ratio of the particle size for 80% passing (D80) to the particle size for 30% passing (D30) shall be 8 or less. (D80/D30 < 8).

2.3 COMPOST

- Compost for amending planting soil: stable, humus-like material produced from the aerobic decomposition of organic residues. Compost products shall be the result of the biological degradation and transformation of Type I or III feed stocks under controlled conditions designed to promote aerobic decomposition, which shall have undergone thermophilic decomposition for a minimum of one year (12 months). Compost shall be free of debris such as plastics, metal, concrete or other debris and stones larger than 1/2", larger branches and roots and wood chips over 1/2" in length or diameter. Compost shall be a dark brown to black color and be capable of supporting plant growth with appropriate management practices in conjunction with addition of fertilizer and other amendments as applicable, with a moisture content that has no visible free water or dust when handling, with no unpleasant odor. Compost shall be stable with regard to oxygen consumption and carbon dioxide generation. Compost shall be mature with regard to its suitability for serving as a soil amendment or an erosion control BMP as defined below and meeting the following criteria as reported by laboratory tests performed within 60 days of intended use as planting soil amendment.
 - Compost material shall meet the following TMECC standards for Test Method 02.02-B, "Sample Sieving for Aggregate Size Classification":

Percentage Passing	Minimum	Maximum
1"	99%	100%
5/8"	90%	100%
1/4"	40%	90%
 - Organic Content: between 45 and 65 percent (dry weight). One hundred percent of the material shall pass a 3/8-inch (or smaller) screen. Organic content shall be determined by TMECC 05.07A, "Loss-On-Ignition Organic Matter Method."
 - pH: between 6.5 to 7.2 when tested in accordance with TMECC 04.11-A, "1:5 Slurry pH."
 - Stability shall be 7 or below in accordance with TMECC 05.08-B, "Carbon Dioxide Evolution Rate."
 - The compost product must originate a minimum of 65 percent by volume from recycled plant waste. A maximum of 35 percent by volume of other approved organic waste, not including biosolids, may be substituted for recycled plant waste. The supplier shall provide written verification of feedstock sources.

- The compost supplier shall test all compost products within 90 calendar days prior to application. Samples shall be collected using the Seal of Testing Assurance (STA) sample collection protocol. The sample collection protocol can be obtained from the U.S. Composting Council, 4250 Veterans Memorial Highway, Suite 275, Holbrook, NY 11741 Phone: 631-737-4931, www.compostingcouncil.org. The sample shall be sent to an independent STA Program approved laboratory. The compost supplier shall pay for the test. A copy of the approved independent STA Program laboratory test report shall be submitted to the Engineer prior to initial application of the compost. Seven days prior to application, the Contractor shall submit a sample of each type of compost to be used on the project to the Engineer.
1. Compost not conforming to the above requirements or taken from a source other than those tested and accepted shall be immediately removed from the project and replaced at no cost to the Owner.
- C. The Contractor shall submit the following information to the Engineer for approval:
1. A copy of the producer's STA certification as issued by the U.S. Composting Council. Acceptance shall be based upon a satisfactory Test Report from an independent STA Program certified laboratory and the sample(s) submitted to the Engineer.
- 2.4 SAND FOR PLANTING SOIL
- A. Sand: for mixing with base topsoil to meet specification requirements shall be uniformly graded coarse sand consisting of clean, inert, sharp grains of quartz or other durable rock and free from limestone, shale, slate, loam or clay, surface coatings, mica, other deleterious materials meeting the requirements of ASTM C-33 Fine Aggregate with the following gradation.
- Percent Passing
- U.S.Sieve
- | Size Number | Minimum | Maximum |
|-------------|---------|---------|
| 10 | 100 | -- |
| 18 | 65 | 90 |
| 35 | 25 | 45 |
| 60 | 08 | 20 |
| 140 | 00 | 08 |
| 270 | 00 | 03 |
| 0.002 mm | 00 | 0.3 |
- V. The pH of the sand shall be below 7.5.
- W. The ratio of particle size for 70% passing (D70) to the particle size for 20% passing (D20) shall be 3.0 or less. (D70/D20 <3.0).
- X. Tests shall be combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

- A. Topsoil, Sand and Compost, each as specified above, shall be combined to create a uniform blend which meets the following requirements. The contractor shall have planting soil tested and have test results submitted to the Landscape Architect for review and approval.
- B. Planting soil may be approved topsoil meeting the requirements for topsoil as noted herein.
- C. Gradation for Material Passing the Number 10 Sieve:
 1. Coarse and medium sands in proportion of 55 to 65 percent by weight.
 2. Maximum size shall be one inch largest dimension. The maximum retained on the #10 sieve shall be 20% by weight of the total sample.
 3. Ratio of the particle size for 80% passing (D80) to the particle size for 30% passing (D30) shall be 6.5 or less. (D80/D30 <6.5)
 4. Saturated hydraulic conductivity of the mix: not less than 2 inches per hour according to ASTM D5856-95 (2000) when compacted to a minimum of 86% Standard Proctor, ASTM 698.
 5. Organic content: between 4.0 and 6.0 percent by weight
 6. The pH shall be between 5.5 and 7.0

- A. Fertilizer for planting shall be formulated for top-dressing, soil surface application to plants. Fertilizer shall be designed and certified by the manufacturer to provide controlled release of fertilizer continuously for not less than 9 months. One hundred percent of the nitrogen content shall be derived from organic materials. Nitrogen source shall be coated to ensure slow release. Fertilizer percentages of weight of ingredients shall be as recommended by the soil testing and analysis specified.
- B. Acidulant shall be commercial grade flours of sulfur, ferrous sulfate, of aluminum sulfate that are unadulterated. Acidulants shall be delivered in unopened containers with the name of the manufacturer, material, analysis and net weight appearing on each container.
- C. Ground limestone for adjustment of planting soils pH shall contain not less than 85 percent of total carbonates and shall be ground to such fineness that 40 percent will pass through 100 mesh sieve and 95 percent will pass through a 20 mesh sieve. Contractor shall be aware of planting soils pH and the amount of lime needed to adjust pH to meet the requirements of the testing lab recommendations.

A. After the placement of each lift, perform percolation tests to determine if the soil has been over compacted. Perform the following percolation test procedure in presence of landscape architect and field engineer:

1. Dig a hole in the installed soil that is a minimum of 4 inches in diameter. Holes in 6-inch lift in turf areas shall be 4 inches deep. Holes in 12-inch lifts in plant beds shall be 8 inches deep. Do not penetrate through the lift being tested.
2. Fill the hole with water and let it drain completely. Immediately refill the hole with water and measure the rate of fall in the water level.
3. In the event that the water drains at a rate less than (1) one inch per hour, till the soil to a depth required to break the over compaction.
4. Perform a minimum of one soil percolation test per each 10,000 square feet area of turf area and each 2,500 square feet of tree and shrub planting area as directed by the Landscape Architect.

3.2 ACCEPTANCE

A. Confirm that the final grade of the planting soils is at the proper finish grade elevations. Adjust grade as required to meet the contours and spot elevations noted on the Plans. Request the presence of the Landscape Architect to inspect final grade. Do not proceed with the remaining work of this Contract until the Landscape Architect has given his/her written approval of the final grade.

1. REFERENCES

A. The following standards shall apply to the work of this Section.

1. *American Standard for Nursery Stock, ANSI Z60.1.* American Nursery and Landscape Association, 1250 Eye Street, NW, Suite 500, Washington, D.C. 20005

2. SUBMITTALS

A. At least 30 days prior to ordering materials, the Contractor shall submit to the Landscape Architect the following. The Landscape Architect reserves the right to reject, on or after delivery, any material that does not meet these Specifications.

B. Material Sampling and Testing:

1. Planting Mulch: Submit a one cubic foot sample.

2. Organic Matter: Submit a one cubic foot sample and manufacturer's certification of contents.

3. Inoculants:

a. Submit manufacturer's product data certifying that inoculant being supplied conforms to these Specifications.

b. Submit proof of purchase.

4. Tree Staking System: Submit manufacturer's product data of system.

5. Soil Additives: Submit manufacturer's product data for all soil additives needed to amend a specific soil.

A. Qualification of Arborist: All work of pruning shall be performed by an arborist certified by the International Society of Arboriculture.

A. Loam borrow for planting shall be from the SOIL SPECIFICATION of these drawings.

A. Soil additives shall be from the SOIL SPECIFICATION of these drawings.

- A. The Contractor shall furnish all plants shown on the PLANT SCHEDULE. No substitutions will be permitted, without written approval by the Landscape Architect.
- B. Unless approved by the Landscape Architect, plants shall have been grown at latitude not more than 200 miles north or south of the latitude of the project unless the provenance of the plant can be documented to be compatible with the latitude and cold hardness zone of the planting location.
- C. All deciduous trees shall meet the following standards:

1. Trees shall be specimen quality, defined as being exceptionally heavy, symmetrical, and so managed and trained in the nursery so that their appearance is superior in silhouette, form and mass in the opinion of the Landscape Architect, who shall be the sole judge of specimen quality.
 2. Trees shall be free of disease, insects, insect eggs or larvae.
 3. Trees shall be free from physical damage or other conditions that would prevent vigorous growth.
 4. Trees shall have a single, straight trunk, well formed, and sturdy. No part of the trunk shall be conspicuously crooked as compared with normal trees of the same variety.
 5. Trees with multiple leaders, unless so specified on the Planting Plan, shall be rejected. If specified on the Planting Plan, trees with multiple leaders shall conform to all standards noted in this Section for single leader trees.
 6. The bark of all trees shall be vigorous and healthy.
 7. Pruning scars shall be clean cut and shall leave no protrusion beyond the branch collar.
 8. All trees shall have healthy, vigorous leaves or needles of normal size, color, shape, and texture.
 9. Deciduous trees shall have fall color typical for their species and variety.
 10. The height and spread of deciduous shade trees shown on the PLANT SCHEDULE shall be minimum requirements.
 11. No deciduous tree shall be pruned after selection in the nursery unless pruning is mandated by the Landscape Architect.
- D. Evergreen trees shall meet the following standards:
1. Measure the height of the evergreen trees from the trunk flare to the midpoint of the terminal leader.
 2. No trees with double-leaders or twin-heads will be permitted.
 3. Evergreen trees shall be well-branched to the ground.
 4. No evergreen tree shall be pruned after selection in the nursery.
 5. All trees shall have healthy, vigorous leaves or needles of normal size, color, shape, and texture.
- E. All shrubs shall meet the following standards:
1. All shrubs shall be healthy and vigorous plants which are very well shaped, heavily branched, densely foliated, and true to form for the variety.
 2. Canes or trunk(s) and branches shall be well formed and sturdy, branching uniformly from the ground.
 3. No shrub with pest or mechanical damage will be accepted.
 4. Shrubs shall show no signs of frost or winter damage to the foliage. Foliage shall not be in a state of drought stress. Leaves or needles shall show no signs of wilt or desiccation due to weather stress at any season of the year.
- F. All ground cover plants and vines shall meet the following standards:
1. Ground cover plants and vines shall be of size, pot size, age, and condition listed in the PLANT SCHEDULE. When indicated on the PLANT SCHEDULE, the number of runners and the lengths of the runners of vines shall be minimums.
 2. Plants shall be healthy, free of insects, and diseases.
- G. All perennials shall meet the following standards:
1. Perennials shall be listed in the PLANT SCHEDULE.
 2. Perennials shall be healthy and well cared for, with no evidence of insects or diseases present. Insect-ridden or diseased plants shall be rejected. Plants shall have a richly colored foliage and dense, compact growth. Perennials shall have multi-stemmed bases and shall be two year potted stock minimum, one year in cutting bench and one year in pots.

A. Pine Straw Mulch: Mulch shall be baled and clean. Mulch shall have been aged for a minimum of six months and not longer than two years. Mulch must be free of stringy material or chunks over 3 inches in size and shall not contain an excess of fine particles.

B. Geotextile fabric shall be a woven polypropylene fabric with a porosity of not greater than 5 percent open. It shall be greater than 90 percent opaque and shall be guaranteed against ultraviolet light for no less than 5 years.

A. The Contractor shall be responsible to furnish his own supply of water to the site at no extra cost.

A. Antidesiccants shall be emulsions or other materials which will provide a protective film over plant surfaces permeable enough to permit transpiration and specifically manufactured for that purpose.

- A. Seasons for Planting:
 1. Plant trees, shrubs, groundcover, perennials and vines when temperatures are between 35 and 60 degrees Fahrenheit and there are sufficient degree days (35 to 60 degrees F) before freeze or high temperatures threaten plant establishment.

- B. Plant Material Inspection: inspection should be in locations and conditions that allow direct and un-obscured inspection by the Landscape Architect.
- C. Inspection and approval of plants shall not limit the right of subsequent inspection and rejection upon delivery to the site, or during the progress of the work if the Landscape Architect finds that plants do not meet the requirements of the PLANT SCHEDULE or this Contract, have declined noticeably due to handling abuse, lack of maintenance, or other causes. Cost of replacements, as required, shall be borne by the Contractor.
- C. Trucking, transport and stockpiling of plant material at the construction site:
1. Avoid abrasion of bark and branches. Do not damage bark or branches by tying operations.
 2. Cover all plants during transport. Plant material arriving on site in anyway damaged, with dry rootballs, branches broken or bark skinned or torn will be rejected and replaced at no additional cost to the Owner.
 3. Upon delivery, all plants shall be protected against drying out by excessive exposure to sunlight or wind. Plant material that cannot be planted within 24 hours of delivery to the construction site shall be healed in by covering with soil or wood chip mulch and watered daily until the time of planting. Plant material stockpile areas shall be protected against theft and damage by construction equipment.
- D. Planting:
1. Plant pits dug by machine shall have the sides of the holes scraped with hand shovels to prevent glazing or compaction of the sides of the hole. Remove and discard soils dug from plant pits.
 2. Groundcover, Bulb, and Perennial Beds:
 - a. Planting beds for groundcover, bulbs and perennials shall be dug to a continuous depth of one foot below final grade, or as shown on the Contract Documents.
 3. Prior to placing plants, spread a 4 inch thick layer of planting soil on the bottom of all planting beds, shrub pits and tree pits and rototill the planting soil into the subsoil.
 5. Trees and shrubs shall be placed plumb, with root flares exposed.
- E. Installation of Planting Soil Mix
1. Review PLANTING PREPARATION, to see full scope of planting soil work in this Contract.
 2. Do not proceed with the installation of planting soil mix and amended topsoil until all utility work has been completed in the area and underneath the planting beds.
 3. Backfill plant beds with planting soil mix in 6 to 8 inch lifts. Install soil higher than shown on the drawings, anticipating some amount of settlement of planting soil.
 4. A saucer shall be formed around each stand-alone tree and shrub at a depth of 3 inches.
 5. Maintain moisture conditions within the soil during installation to properly compact the soil.
 6. Fertilizer shall be spread over the plant saucer or plant bed between the saucer and the edge of the rootball. Till the fertilizer into the soil to a depth of 4 inches prior to the placement of the planting mulch.
 7. All plants shall be inoculated with mycorrhizal fungi.
- F. All plants shall be watered immediately following planting as necessary to thoroughly moisten rootball and plant pit loam and thereafter shall be inspected frequently for watering needs and watered, as required, to provide adequate moisture in the planting pit.

A. Maintenance shall begin immediately after each plant is planted and shall continue for a minimum 30-day Monitoring Period and for 12 months following Final Acceptance.

B. Maintenance shall consist of keeping the plants in a healthy growing condition and shall include but is not limited to watering, weeding, cultivating, pruning, re-mulching, tightening and repairing of guys, straightening of trees to a plumb position, removal of dead material, resetting plants to proper grades or upright position, and maintaining the planting saucer.

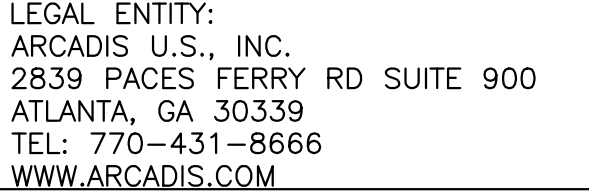
1. Planting beds and individual plant pits shall be kept free of weeds, and mulch shall be replaced as required to maintain the specified layer of mulch. Beds and individual pits shall be neat in appearance and maintained to the designed layout.

2. Plants that die during the maintenance period shall be removed and replaced by the Contractor within one week of notification and replaced during that growing season, unless directed otherwise by the Landscape Architect.

C. During the maintenance period, any decline in the condition of plantings shall require the Contractor to take immediate action to identify potential problems and undertake corrective measures.

- A. Upon completion of all planting work, the Contractor shall request in writing that the Landscape Architect formally inspect the planting work.
- B. If plant materials and workmanship are acceptable, the Landscape Architect will issue a written Certificate of Conditional Acceptance to the Contractor.
- C. Following the issuance of the Certificate of Conditional Acceptance to the Contractor, the Contractor shall maintain the plants for a minimum 30 day Monitoring Period.
- D. Acceptance Standards at end of the Monitoring Period: If plant material is reviewed when it is in full leaf, leaves shall be plump with water with a shape indicative of the species and shall be free of insect, pest and disease damage. Twigs shall have living cambium for their full length. Twigs and branches shall have a full bud set for their full length, including terminal buds. Trunks and branches shall be free of frost cracks; sun scald; damage due to insects, pests, and disease; structural defects; and damage resulting from machinery or tools. Plant material inspected and reviewed when the plants are not in full leaf shall have twigs, branches and trunks meeting the above requirements. All plants regardless of the season of review shall have a minimum of 75 percent healthy, balanced branching structure with a healthy terminal leader(s) with viable terminal bud(s).
- E. If any number of plants does not meet these Acceptance Standards at the time of inspection, or if in the Landscape Architect's opinion, workmanship is unacceptable, written notice will be given by the Landscape Architect to the Contractor in the form of a punch list, which itemizes necessary planting replacements and/or other deficiencies to be remedied. The Contractor's responsibility for maintenance of all plants shall be extended until replacements are made or other deficiencies are corrected. All plants that do not meet these Acceptance Standards shall be removed from the project within seven days of receipt of the punch list. Replacements shall conform in all respects to the Specifications for new plants and shall be planted in the same manner.
- F. Following the correction of all Punch List deficiencies, the Contractor shall request in writing that the Landscape Architect formally inspect the planting work. If plant materials and workmanship are acceptable, the Landscape Architect will issue a written Certificate of Final Acceptance to the Contractor.

- A. The date of the Certificate of Final Acceptance shall establish the beginning of the maintenance period and the commencement of the required one-year guarantee and establishment period for planting work.
- B. At the end of the guarantee and establishment period, a final inspection will be held to determine whether any plant material replacements are required. Each plant shall be plumb, shall have a character that is natural for its species as determined by the Landscape Architect. Plants found to be unacceptable shall be removed promptly from the site and replaced. A final inspection will be made after the replacement plants have lived through one year.
- C. At the end of the one-year guarantee and establishment period, remove all tree stakes, guys, or anchors installed on trees during the course of the work of this contract.
- D. All replacements shall be plants of the same kind and size specified in the PLANT SCHEDULE. The cost shall be borne by the Contractor, except for possible replacements due to vandalism or neglect on the part of others.



ISSUED FOR PERMITTING

WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/T
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC.
2023

DATE: SEPTEMBER 2023

PROJECT NO.: 30156442

FILE NAME: _____

DESIGNED BY: N. HUNTER

DRAWN BY: E. ELLIS

CHECKED BY: C. BROOKS

SHEET TITLE

LANDSCAPE PLANTING SPECIFICATIONS

SCALE: AS SHOWN

LAWN & SEED SPECIFICATIONS:

- 1.1 SUBMITTALS

A. At least 30 days prior to intended use, the Contractor shall provide the following samples and submittals for approval. Do not order materials until Owner's Representative's acceptance has been obtained. Delivered materials shall closely match the approved samples. Acceptance of samples or submittals will not constitute final acceptance of the material. The Owner's Representative reserves the right to reject on or after delivery any material that does not meet these Specifications.

1. Seed: Submit a manufacturer's Certificate of Compliance to the Specifications with each shipment of each type of seed. These certificates shall include the guaranteed percentages of purity, weed content and germination of the seed, and also the net weight and date of shipment. No seed may be sown until the Contractor has submitted the certificates.

2. Tackifier: Submit manufacturer's product literature.

3. All additives needed to amend a specific soil in order to meet these specifications.

4. Wood Cellulose Fiber Mulch: Submit copies of manufacturer's product literature and one material sample.

5. Certified Weed-Free Straw Mulch: Submit copies of certification and one material sample.

6. Flocculant: Submit copies of manufacturer's product literature and statement of compliance to EPA as well as applicable state and local regulations.

7. Proof of Experience: Proof of experience or certification installing conservation seed and use of compost manufactured topsoil shall be submitted for approval prior to installation.
- 1.2 QUALITY ASSURANCE

A. The ratio of laborers to certified landscape professionals or certified horticulturist shall not exceed twelve to one. Certified Landscape Professional or Certified Horticulturist shall be on the project site throughout the day-to-day performance of the work described in this Section.
- 2.1 SEED

A. Seed mixture shall be fresh, clean, new crop seed. Seed shall be of the previous year's crop and in no case shall the weed seed content exceed 0.25% by weight. The seed shall be furnished and delivered in the proportion specified below in new, clean, sealed and properly labeled containers. All seed shall comply with State and Federal seed laws. Seed that has become wet, moldy or otherwise damaged shall not be acceptable.

B. In addition, Percent Pure Live Seed (PLS) shall be calculated for all seed lots using each seed lot's own unique purity and germination test results. Percent Pure Live Seed is defined by the following formula: Percent (%) Purity x Percent (%) Germination/100 = Percent (%) Pure Live Seed (PLS). The minimum % PLS shall be 75% for each seed lot. A "PLS Pound" is defined as the bulk weight of seed required to equal one pound of 100% pure, germinable seed.

C. Seed should be packaged according to size and method of seeding.

D. Meadow Seed shall be: Switchgrass seed or approximate equal.
- 2.2 SOD

A. Sod shall be turf-type southern US drought tolerant bermuda blend.

B. Sod shall be machine cut from an established sod farm specializing in the production and harvesting of top quality, grass turf products. Sod shall be machine cut at a uniform soil thickness of 3/4-inch +/- 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the supplier's standard width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable. Sod shall be at least one year old from time of original seeding.

C. Sod shall be free of grass species other than those specified. Sod shall be free of weeds.

D. Sod shall be harvested, delivered and installed within a period of 36 hours. Soil on sod pads shall be kept moist at all times.

E. Stakes: Stakes for pegging the sod shall be sound hardwood approximately one inch by 2 inches and of sufficient length to penetrate the mat, the seed bed and to a minimum depth of 2 inches of subsoil. Stakes shall be free from insects and fungi and capable of remaining in the ground at least 2 years.

F. If sod is installed while dormant, staking is required at each corner. Stakes shall be wood stakes.
- 2.3 BONDED FIBER MATRIX FOR EROSION CONTROL

A. Erosion control for covering hydromulch areas with slopes steeper than or equal to three to one (3:1) shall be a bonded fiber matrix. The bonded fiber matrix shall be a hydraulically applied product that upon drying shall adhere to the soil in the form of a continuous 100% coverage, biodegradable erosion control blanket.

B. The bonded fiber matrix shall meet the following requirements. The binder shall not dissolve or disperse upon re-wetting. The matrix shall have no holes greater than 0.04 inch (1mm) in size. The matrix shall have no gaps between product and soil. The matrix shall have water-holding capacity of 1.2 gallons per pound of matrix (1000g/100g). The matrix shall have no germination or growth inhibiting factors and shall not form a water insensitive crust. The matrix shall be composed of materials that are 100% biodegradable and are beneficial to plant growth.
- 2.4 HERBICIDES, CHEMICALS AND INSECTICIDES

A. Provide chemicals and insecticides as needed for fungus or pest control. All chemicals and insecticides shall be approved by the Tennessee Department of Agriculture for the intended uses and application rates. Application of herbicides, chemicals and insecticides shall be done by personnel licensed to do so in the state of Tennessee and in accordance with the manufacturer's instructions on the label.

B. Provide post emergent crab grass control throughout the maintenance period to ensure a germinated and mown lawn free of crab grass.
- 2.5 WATER

A. The Contractor shall be responsible to furnish his own supply of water to the site at no extra cost. If possible, the Owner shall furnish the Contractor upon request with an adequate source and supply of water at no charge. However, if the Owner's water supply is not available or not functioning, the Contractor shall be responsible to furnish adequate supplies at his own cost. All work injured or damaged due to the lack of water, or the use of too much water, shall be the Contractor's responsibility to correct. Water shall be free from impurities injurious to vegetation.
- 3.1 SOIL PREPARATION

A. Preparation for seeding:

1. Apply 100% strength isopropylamine salt of glyphosate to all seeding areas 2 weeks before seed mix applications to deter weed germination.

2. Apply pre-emergent across entire site, during the fall planting window specified herein, 3 months prior to seeding if seeding is done in the fall season.
- 3.2 SEEDING

A. The season for seeding switchgrass begins in late April and ends in early May. Seeding can occur from April through late August, however, the spring planting season is highly recommended as the chance of drought damage is less likely at this time. The actual planting of seed shall be done, however, only during periods within this season that are normal for such work as determined by weather conditions and by accepted practice in this locality.

B. Seed based on distributors required pounds per acre.
- 3.3 SODDING

A. The season for sodding shall be from October 1 through May 21. Bermuda sod enters a dormancy period as the temperatures drop in fall and winter and remains dormant throughout winter. Bermuda sod can be installed either during this dormant period or during active phase of growth. Do not lay sod when weather reports indicate approaching freezing temperatures. Do not lay sod on frozen ground. The actual lawn construction work shall be done, however, only during periods within this season that are normal for such work as determined by weather conditions and by accepted practice in this locality.

B. Immediately prior to sodding operations, the loam bed shall be lightly scratched with a fine toothed harrow or hand rake to provide a slightly roughened surface to accept the sodding application.

- C. Sodding shall start at the base of slopes and progress upwards in continuous parallel rows. Vertical joints between sods shall be staggered. Immediately after laying, press the sod firmly into contact with the soil bed by tamping, rolling, or by other approved methods so as to eliminate all air pockets. Provide true and even surfaces, insure knitting and protect all exposed sod edges, but without displacement of the sod or deformation of the sod surface.
- D. On all swales, and on all slopes steeper than or equal to three to one (3:1) and elsewhere as specified or as directed by the Owner's Representative, sods shall be held in place by stakes.
- E. If sod is installed while dormant, staking is required at each corner. Stakes shall be wood stakes.

3.4 MAINTENANCE OF SEEDED AREAS

A. Maintenance shall begin immediately after any area is seeded and mulched and shall continue until Final Acceptance of the project.

B. Maintenance shall include reseeding, watering, and selective weeding.

C. Weeding: Spot application of 50% strength isopropylamine salt of glyphosate to emerged weed species.

D. During the maintenance period, any decline in the condition of seeded areas shall require immediate action to identify potential problems and to undertake corrective measures.

E. Watering, during the spring planting window specified herein, shall be performed during the first 6 to 8 weeks after seeding. Water in a manner that will provide uniform coverage, prevent erosion due to application of excessive quantities over small areas, and prevent damage to the finished surface by the watering equipment. Do not water during the fall planting window.

F. After the seeded areas have germinated, reseed all areas and parts of areas that fail to show a uniform stand. Reseed such areas and parts of areas repeatedly until all areas are covered with a satisfactory growth of grass. Reseeding together with necessary grading, and trimming shall be done at the Contractor's expense.

3.5 MAINTENANCE OF SODDED AREAS

A. Maintenance shall begin immediately after any area is sodded and shall continue until Final Acceptance of the project.

B. Maintenance shall include watering, and selective weeding.

C. Weeding: Spot application of 50% strength isopropylamine salt of glyphosate to emerged weed species.

D. During the maintenance period, any decline in the condition of sod areas shall require immediate action to identify potential problems and to undertake corrective measures.

E. If turf installed during dormant phase, watering shall continue until turf greens up. Watering shall occur weekly. Watering shall be adequate to support turf health, but not so much as to slick the soils underneath.

3.6 MEADOW MAINTENANCE

A. Maintenance shall begin immediately after any area is seeded or sodded and shall continue for a 90 day active growing period for seeded areas or until Final Acceptance, whichever is longer; following the completion of all lawn construction work, and until final acceptance of the project.

B. Maintenance shall include reseeding, mowing, watering, weeding, fertilizing a minimum of two times in addition to the fertilizer incorporated by harrowing into the spread loam, and resetting and straightening of protective barriers. Lawn work maintenance shall also include chemical treatments as required for fungus and/or pest control.

C. During the maintenance period, any decline in the condition of seeded areas shall require immediate action to identify potential problems and to undertake corrective measures.

D. Watering shall be done in a manner that will provide uniform coverage, prevent erosion due to application of excessive quantities over small areas, and prevent damage to the finished surface by the watering equipment. The Contractor shall provide all labor and arrange for all watering necessary to establish an acceptable lawn.

E. Performance Requirements for Seeded Areas: After the grass in seeded areas has germinated, reseed all areas and parts of areas that fail to show a uniform stand of grass. Reseed such areas and parts of areas repeatedly until all areas are covered with a satisfactory growth of grass with no less than 20 grass shoots per square inch. Reseeding together with necessary grading, fertilizing, and trimming shall be done at the Contractor's expense.

F. Performance Requirements for Sodded Areas: All sod shall have become established. Dead portions of sod shall be removed and replaced. All joints between sod pieces shall be filled with loam. All pieces of sod shall have knit to loam.

G. Fertilizing Meadows: Apply starter fertilizer as required to support seed germination and to establish an acceptable stand of grass. Provide an application of nitrogen fertilizer to seeded areas approximately two months after germination. This application shall correspond to the following application rates dependent upon the month of application.

1. September 1-15: Apply 1.0 pound of nitrogen per 1,000 square feet.

2. November 1 - 15: Apply 1.0 pound of nitrogen per 1,000 square feet.

3. March 15 - 31: Apply 1.0 pound of nitrogen per 1,000 square feet.

3.7 APPLYING LIMESTONE

H. The Contractor shall return to the site at the beginning of the next seeding and sodding season and spread limestone across all lawn areas installed under this Contract.

3.8 ACCEPTANCE

A. Following the minimum required maintenance periods for lawn construction, the Contractor shall request the Owner's Representative in writing for a formal inspection of the completed work. Request for inspection shall be received by the Owner's Representative at least 10 Days before anticipated date of inspection.

B. Acceptance Requirements:

1. At the end of the maintenance period, seeded areas shall have a close stand of grass as defined above with no weeds present and no bare spots greater than 3 inches in diameter over greater than 5 percent of the overall seeded area. At least 90 percent of the grass established shall be permanent grass species. If seeded areas are deficient, the Contractor's responsibility for maintenance of all seeded areas shall be extended until deficiencies are corrected.



LEGAL ENTITY:
ARCADIS U.S., INC.
2839 PACES FERRY RD SUITE 900
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

ISSUED FOR PERMITTING

SEALS

WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC.
2023

DATE: SEPTEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: N. HUNTER

DRAWN BY: E. ELLIS

CHECKED BY: C. BROOKS

SHEET TITLE

LANDSCAPE
PLANTING
SPECIFICATIONS

SCALE: AS SHOWN

User:ACRMIN Spec:AUS-NSW00D File:C:\USERS\ACRMIN\CA\ACCD005\ARCADIS ACC US\AUS-30156442-HUNTINGTON RD\PROJECT FILES\10_WPI\CIVIL\SHEETS\ESC-01.DWG Scale:1:1 SavedDate:12/6/2023 Time:09:58 Plot Date: Dattl, Angela, 12/14/2023; 08:04 : Layout:18

GEORGIA

UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES				
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
	CHOCODAM			A small temporary barrier or dam constructed across a small drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A gravelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filler baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored, allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins of a controlled rate of flow.
Spb	SEEP BEAM			A linear control device constructed as a diversion perpendicular to the direction of the runoff to enhance dissipation and infiltration of runoff, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES				
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or stacked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Vvt	VEGETATED WATERWAY OR CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES				
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)			Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)			Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion reducing cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP. SEEDING)			Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM. SEEDING)			Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (COCONING)			A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS			Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS			Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PLANT VEGETATION)			The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION			A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKERS AND BINDERS			Substance used to anchor straw or hay mulch by causing the organic material to bind together.

CONSTRUCTION SEQUENCE:

- FOR EACH STAGE OF CONSTRUCTION THE FOLLOWING SEQUENCE WILL APPLY:
 - CONFIRM LOCATIONS OF AND CONSTRUCT/INSTALL INITIAL EROSION AND SEDIMENT CONTROL BMPs WITHIN THE LIMITS OF THE STAGE PRIOR TO ANY OTHER CONSTRUCTION ACTIVITIES ON SITE. INITIAL EROSION AND SEDIMENT CONTROL BMPs SHALL INCLUDE THE FOLLOWING: CONSTRUCTION FENCING, TREE PROTECTION FENCING, SILT FENCING, INLET SEDIMENT TRAPS, SAND BAG SEDIMENT BARRIER, AND CONSTRUCTION ENTRANCES. ALL EROSION AND SEDIMENT CONTROL BMPs TO BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS.
 - CLEAR AND GRUB TO THE LIMITS REQUIRED FOR CONSTRUCTION AND REMOVE EXISTING TREES AS SHOWN ON THE PLANS.
 - EXCAVATE TRENCHES FOR INSTALLATION OF THE STORM WATER MANAGEMENT SYSTEM. AS NECESSARY, CONSTRUCT PIPE DIVERSIONS TO DIVERT AND BYPASS RUNOFF FROM EXISTING SYSTEM.
 - BEGIN INTERMEDIATE PHASE EXCAVATION AND GRADING ACTIVITIES AFTER ALL REQUIRED INITIAL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND CONSTRUCTED.
 - BEGIN CONSTRUCTION OF STORM DRAINAGE INFRASTRUCTURE, UTILITY RELOCATIONS, CURB AND GUTTER, DRIVEWAYS, ROADWAYS, AND REMAINING STRUCTURES AS SHOWN ON PLANS. INSTALL INLET PROTECTION AS SHOWN ON PLANS.
 - ESTABLISH FINISHED GRADES AT EARLIEST POSSIBLE DATE. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY VEGETATION AND MULCH IF LAND DISTURBING ACTIVITIES CEASE FOR MORE THAN 14 CALENDAR DAYS IN ACCORDANCE WITH NPDES REQUIREMENTS. ONCE FINAL GRADES ARE ESTABLISHED, APPLY PERMANENT SOIL STABILIZATION IN ACCORDANCE WITH PLANS. ANY DISTURBED AREA REMAINING IDLE FOR 30 DAYS SHALL BE STABILIZED WITH PERMANENT VEGETATION.
- THE FOLLOWING SHALL APPLY AFTER ALL CONSTRUCTION STAGES ARE COMPLETE:
 - AFTER FINAL STABILIZATION FOR THE PROJECT AS DEFINED BY NPDES GAR100002 IS ACHIEVED, RETURN TO THE SITE AND REMOVE ALL TEMPORARY MEASURES INCLUDING SILT FENCES, SEDIMENT TRAPS, AND DIVERSIONS. INSTALL PERMANENT VEGETATION TO ALL AREAS (EXCEPT IMPERVIOUS SURFACES) DISTURBED BY THE TEMPORARY MEASURES.
 - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES INCLUDING CONSTRUCTION FENCING, TREE PROTECTION FENCING, AND CONSTRUCTION ENTRANCES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION.

LANDSCAPING:

- CONTRACTOR TO REPLACE ANY DISTURBED LANDSCAPED AREAS TO EXISTING CONDITIONS. CONTRACTOR TO DOCUMENT EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND PROVIDE CITY OF DALTON PUBLIC WORKS WITH DOCUMENTATION OF POST-CONSTRUCTION RESTORATION.

MANAGEMENT PLAN:

ALL EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY AND AFTER EVERY RAINFALL. ALL NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO PREVENT FURTHER DAMAGE AND EROSION. STRUCTURES THAT SHALL BE INSPECTED INCLUDE:

- SEDIMENT BARRIER – SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. SEDIMENT BARRIERS SHALL BE REPLACED PER MANUFACTURER’S RECOMMENDATIONS OR THE HEIGHT OF THE PRODUCT IS NOT MAINTAINING 80% OF ITS PROPERLY INSTALLED HEIGHT.
- CHECK DAM – SEDIMENT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF ONE-HALF THE ORIGINAL DAM HEIGHT.
- STORM DRAIN OUTLET PROTECTION – INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
- SLOPE STABILIZATION – ALL EROSION CONTROL BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION. PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED.
- TEMPORARY SEDIMENT TRAP – REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE SPECIFIED CLEANOUT ELEVATION. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO A STREAM OR FLOODPLAIN.
- INLET SEDIMENT TRAP – TRAP SHOULD BE CLEARED OUT AFTER HEAVY RAIN EVENTS. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP.
- SEEDING, FERTILIZING, AND MULCHING – SEEDED AREAS SHALL BE INSPECTED FOR FAILURE AND NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
- STOCKPILES – STOCKPILES SHALL BE CHECKED FOR EROSION AND STABILIZATION.
- CONSTRUCTION ENTRANCE/EXIT – INSPECT CONSTRUCTION ROAD SURFACE DAILY, MAINTAIN WHEN NEEDED IN A CONDITION TO PREVENT SEDIMENT AND TOPSOIL FROM LEAVING THE SITE.
- DIVERSION – INSPECT FOR ANY EROSION. REMOVE SEDIMENT WHEN SEDIMENT ACCUMULATES TO 4 INCHES.

SITE SOILS

THE LIMIT OF DISTURBANCE INCLUDES THE FOLLOWING SOIL TYPES AS IDENTIFIED IN THE NRCS WEB SOIL SURVEY:

- CoA: CHENNEBY-URBAN LAND COMPLEX, 0 TO 2% SLOPES, OCCASIONALLY FLOODED

SITE NOTES:

- PROJECT IS LOCATED IN WHITFIELD COUNTY WITHIN THE CITY OF DALTON, GEORGIA.
- THE TOTAL LAND DISTURBANCE IS 0.79 ACRES. THE CALCULATION FOR DISTURBED AREA FOR THIS PROJECT INCLUDES THE SUM OF ALL AREAS WITHIN THE LOD (LIMITS OF DISTURBANCE), AS SHOWN ON THE ATTACHED DRAWINGS.
- THE RECEIVING WATER FOR THIS PROJECT IS McLELLAN CREEK.
- THE TOTAL CONTRIBUTING DRAINAGE AREA IS APPROXIMATELY 2.86 ACRES.
- IT IS ANTICIPATED THAT THE PROJECT WILL NOT HAVE ANY BUFFER ENCROACHMENTS THAT REQUIRE A BUFFER VARIANCE. THERE WILL BE A MINOR BUFFER ENCROACHMENT TO INSTALL THE DOWNSTREAM DRAINAGE STRUCTURE INTO McLELLAN CREEK
- WETLAND CERTIFICATION: THE DESIGN PROFESSIONAL, WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLAND INVENTORY MAPS HAVE BEEN CONSULTED; AND, 2) THE APPROPRIATE PLAN SHEET DOES / TXI DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND, 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLAND SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION ("SECTION 404") PERMIT HAS BEEN OBTAINED.
- A PORTION OF THIS SITE LIES WITHIN A SPECIAL FLOOD HAZARD ZONE "AE" OR "A" PART OF THE SITE IS IN THE FLOOD ZONE PER THE FIRM MAPS OF THE CITY OF DALTON FLOOD INSURANCE STUDY. FIRM MAP NUMBER: 13313C0138D, EFFECTIVE DATE: SEPTEMBER 19, 2007.
- THE PRE-DEVELOPMENT RUNOFF COEFFICIENT (CN) IS 75.00 AND THE POST-DEVELOPMENT RUNOFF COEFFICIENT IS 71.00.
- MAINTENANCE AND TRAFFIC: THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ROAD PERMITS FROM THE CITY OF DALTON DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION INCLUDING PROVIDING ANY RESTORATION BONDS. THE CONTRACTOR SHALL PROVIDE A DETAILED PHASED TRAFFIC CONTROL PLAN BASED ON THE PROPOSED WORK PHASING AS DETERMINED BY THE CONTRACTOR.
- PRIMARY PERMITTEE & 24-HOUR CONTACT: DALTON PUBLIC WORKS DEPARTMENT ATTN: JACKSON SHEPPARD P.O. BOX 1205 535 ELM STREET PH: 706-277-2606
- CONTRACTOR TO COORDINATE LAYDOWN AND MATERIAL STORAGE AREA WITH CITY OF DALTON PUBLIC WORKS. ALL MATERIAL STORAGE AREA AND LAYDOWN AREAS MUST BE WITHIN THE PERMITTED LIMITS OF DISTURBANCE AND OUTSIDE OF THE STREAM BUFFER.

EROSION CONTROL

- EROSION CONTROL PRACTICES MUST COMPLY WITH THE MINIMUM BEST MANAGEMENT PRACTICES FOR EROSION CONTROL AS REQUIRED BY THE STANDARDIZATION PRACTICE SPECIFICATIONS IN THE "MANUAL FOR EROSION CONTROL AND SEDIMENT CONTROL IN GEORGIA", LATEST EDITION.
- EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE.
- PERMANENT VEGETATION SHALL BE PLACED AT ALL AREAS GRADED TO FINAL GRADE IMMEDIATELY UPON COMPLETION. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER (DS1). ON SLOPES THAT ARE 2:1 OR STEEPER, MULCH WILL BE ANCHORED.
- IN CONCENTRATED FLOW AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND WITH THE HEIGHT TEN FEET OR GREATER, AND CUTS AND FILLS WITHIN STREAM BUFFER, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
- SEDIMENT / EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN ANY ADDITIONAL EROSION CONTROL MEASURES AS DIRECTED BY THE GOVERNING JURISDICTION AND/OR THE ENGINEER.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES AND ENSURE THAT THEY ARE PROPERLY FUNCTIONING PRIOR TO ANY LAND DISTURBANCE ACTIVITIES.
- AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- ANY DISTURBED AREAS LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- BUILDING MATERIALS AND BUILDING PRODUCTS NOT IN USE SHALL BE COVERED BY HEAVY PLASTIC.
- NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25 FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

TREE PROTECTION

- WHEN DIGGING NEAR TREES, THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE INCH IN DIAMETER OR LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.
- THE CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON SITE EXCEPT AS APPROVED BY THE ENGINEER AND/OR CITY OF DALTON.
- PROTECT THE TRUNKS OF ANY TREES BEING PRESERVED WITHIN THE TEMPORARY OR PERMANENT EASEMENTS WITH STRAPPED ON PLANKING OR SIMILAR PROTECTIVE DEVICE.
- TREE PROTECTION DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY CLEARING, GRUBBING OR GRADING.

- CONTRACTOR TO CONSULT CITY OF DALTON ARBORIST PRIOR TO ANY EXCAVATION NEAR TREES OR TREE PRUNING.

CONSTRUCTION SCHEDULE						
ACTIVITY	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6
SITE PREPARATION						
EROSION CONTROL						
STORMWATER INSTALLATION						
PAVEMENT REPLACEMENT						
RESTORATION						

POLLUTION CONTROLS

- BMP'S SUCH AS CONSTRUCTION EXITS, WATERING STATIONS, AND SWEEPERS MAY BE UTILIZED TO MINIMIZE OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST.
- NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25- FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
- PETROLEUM BASED PRODUCTS- CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS, TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.
 - SOLVENTS- ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
 - CONCRETE TRUCK WASHING- WASHOUT OF CONCRETE DRUMS AT THE CONSTRUCTION SITE IS PROHIBITED. CONTRACTOR IS TO SELECT LOCATIONS ON THE SITE FOR CONCRETE WASH DOWN THAT MEET THE CONDITIONS OF THE NPDES STAND ALONE PERMIT. CONCRETE WASH DOWN AREA SHOULD BE OUTSIDE OF THE AREA THAT IS MARKED FOR EXCAVATION. CONTRACTOR SHALL SELECT A RECOMMENDED WASHOUT BMP TO BE USED AND SUBMIT LOCATIONS AND WASH OUT BMP TYPE FOR ENGINEER'S APPROVAL.
 - FERTILIZER/HERBICIDES- THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.
- CONSTRUCTION MATERIALS- NO CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF ACCORDING TO APPLICABLE STATE AND LOCAL REGULATIONS.
- WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- SOIL CLEANUP AND CONTROL PRACTICES
 - LOCAL STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES MADE AVAILABLE TO SITE PERSONNEL.
 - MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: BROOMS, DUSTPANS, MOTOR RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST AND PROPERTY LABELED PLASTIC AND METAL WASTE CONTAINERS.
 - SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
 - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.
 - FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
 - FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS A 1-800-424-8802.
 - FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
 - FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
 - THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY A LICENSED PROFESSIONAL.
- SANITARY UNIT WILL BE ONSITE TO COLLECT ALL SANITARY WASTE DURING CONSTRUCTION ACTIVITY.

PROJECT DESCRIPTION

THE PROPOSED HUNTINGTON ROAD POND DESIGN PROJECT WILL PROVIDE A GREENSPACE IN THE COMMUNITY THAT WILL PROVIDE SOME STORMWATER DETENTION TO HELP MITIGATE LOCALIZED FLOODING IN THE AREA.



ARCADIS

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ATLANTA, GA 30339
TEL: 770-431-8666
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CONSULTANTS

ISSUED FOR PERMITTING

SEALS



PW 30156442
GSWCC NO. 000008369
EXPIRES 7/8/2025

WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

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DATE: DECEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: T. TITLE

DRAWN BY: A. DOTTL

CHECKED BY: R. GREUEL

SHEET TITLE

EROSION & SEDIMENT CONTROL

EROSION AND
SEDIMENT CONTROL
LEGEND AND NOTES

SCALE: AS SHOWN

ESC-01

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EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE CONSTRUCTION PROJECTS

SWCD: CITY OF DALTON

Project Name: HUNTINGTON ROAD POND DESIGN
Address: 133 HUNTINGTON ROAD
City/County: DALTON, GA

Date on Plans: AUGUST 2023

Name & email of person filling out checklist: ANGELA CRAIN; ANGELA.CRAIN@ARCADIS.COM

Plan Included
Page # Y/N
TO BE SHOWN ON ES&PC PLAN

ESC-02 Y

ESC-01 TO
ESC-07 Y

N/A

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- 1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.
(The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
- 2 Level II certification number issued by the Commission, signature and seal of the certified design professional.
(Signature, seal and level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)
- 3 Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the GAEPD District Office. If GAEPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist and the GAEPD approval letter. *
(A copy of the written approval by GAEPD must be attached to the plan for the Plan to be reviewed.)
- 4 The name and phone number of the 24-hour contact responsible for erosion, sedimentation and pollution controls.
- 5 Provide the name, address, email address, and phone number of primary permittee.
- 6 Note total and disturbed acreages of the project or phase under construction.
- 7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
- 8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
- 9 Description of the nature of construction activity and existing site conditions.
- 10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
- 11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
- 12 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on **Part IV page 19** of the permit.
- 13 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on **Part IV page 19** of the permit. *
- 14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with **Part IV.A.5 page 25** of the permit. *
- 15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
- 16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
- 17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." *
- 18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
- 19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."
- 20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
- 21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
- 22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
- 23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *
- 24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *
- 25 Provide BMPs for the remediation of all petroleum spills and leaks.
- 26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *
- 27 Description of practices to provide cover for building materials and building products on site. *
- 28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *
- 29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).

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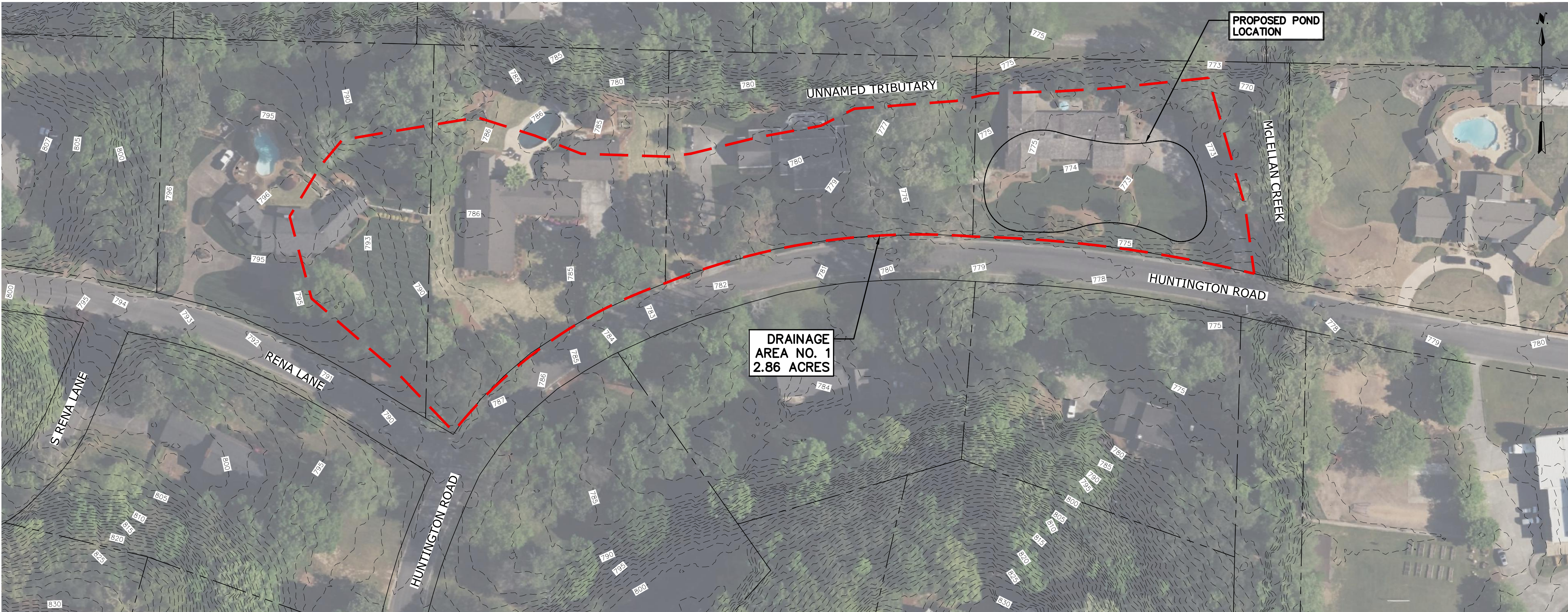
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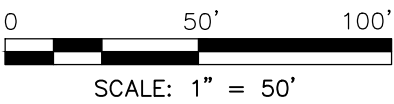
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NOTES:
1. THE PROPERTY BOUNDARIES SHOWN ON THIS SHEET ARE PROVIDED BY THE CITY OF DALTON GEOGRAPHIC INFORMATION SYSTEM DATASETS.

DRAINAGE AREA MAP



SEDIMENT STORAGE CALCULATIONS

MCCLELLAN CREEK					
Drainage Area No.	Total Drainage Area (Acres)	Required Sediment Storage Volume (CY)	Perimeter Silt Fence		Total Volume (CY)
			LF OF PRIMARY SILT FENCE @ 20:1 (0.340 CY/LF)	LF OF SECONDARY SILT FENCE @ 20:1 (0.154 CY/LF)	
No. 1	2.86	191.62	466.00	466.00	230.20
TOTAL	2.86	191.62	466.00	466.00	230.20

DRAINAGE AREA=	2.86 ACRES
REQUIRED STORAGE VOLUME=	191.62 CY
PROVIDED STORAGE VOLUME=	230.20 CY

Assumptions:
Minimum slope 20:1 (conservative).
Minimum 5-ft separation between double row silt fence

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SEALS



PV 30156442
GSWCC NO. 0000088369
EXPIRES 7/8/2025

WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

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2023

DATE: DECEMBER 2023
PROJECT NO.: 30156442
FILE NAME:
DESIGNED BY: T. TITTLE
DRAWN BY: A. DOTTL
CHECKED BY: R. GREUEL

SHEET TITLE

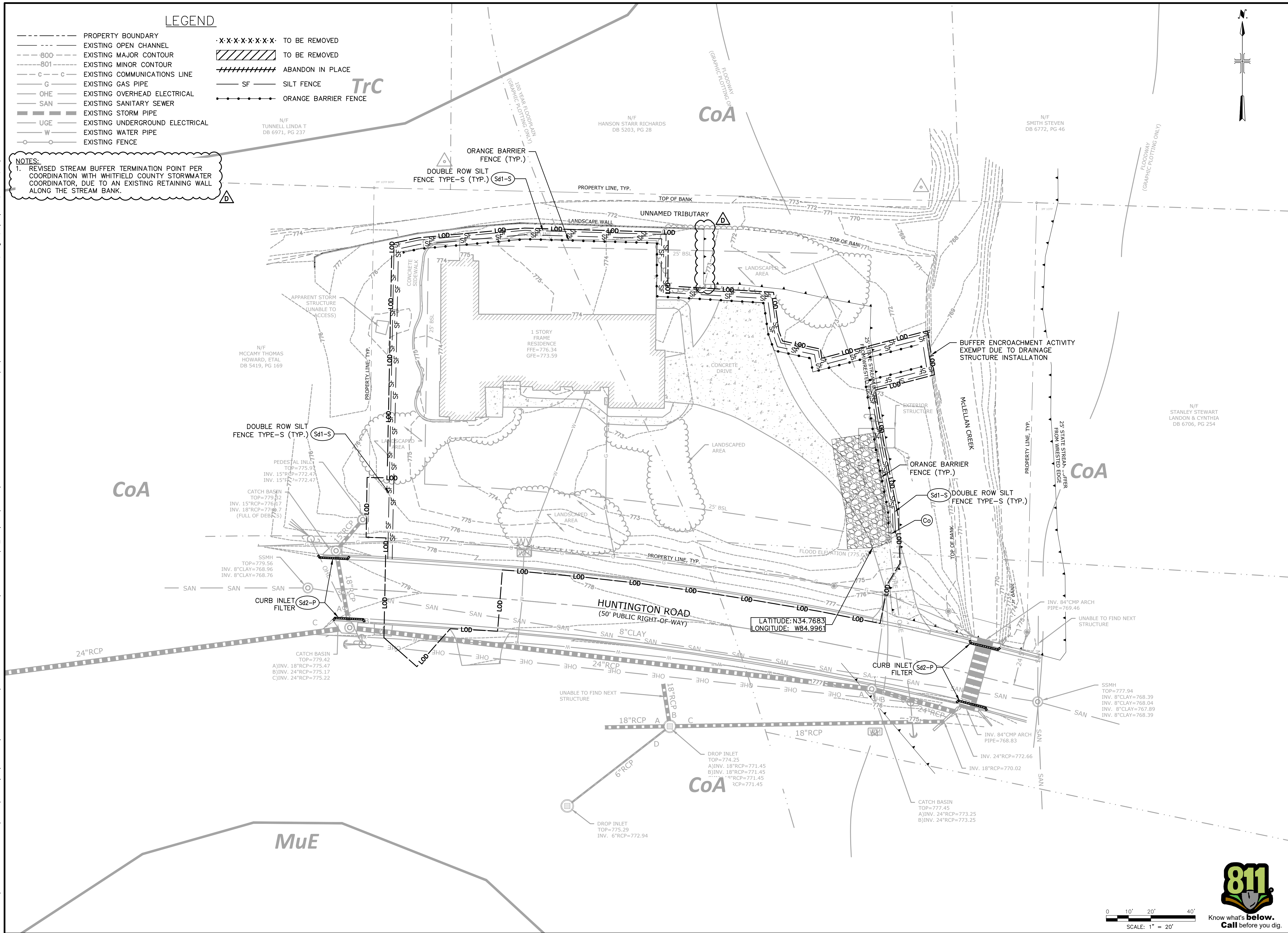
EROSION & SEDIMENT CONTROL



DRAINAGE AREA AND
SEDIMENT STORAGE
CALCULATIONS

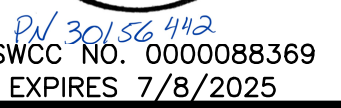
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 <i>03-21-24</i> <i>043536442</i> GSWCC NO. 0000088369 EXPIRES 7/8/2025			
WHITFIELD COUNTY, GEORGIA CITY OF DALTON			
HUNTINGTON ROAD			
ARCADIS PROJ. NO. 30156442			
D	03/21/24	RE-ISSUED FOR PERMITTING	RC/TT
C	12/15/23	ISSUED FOR PERMITTING	RC/TT
B	8/18/23	60% SUBMITTAL	RC
A	6/16/23	30% SUBMITTAL	RC
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COPYRIGHT: ARCADIS U.S., INC. 2024			
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PROJECT NO.:		<u>30156442</u>	
FILE NAME:		_____	
DESIGNED BY:		<u>T. TITTLE</u>	
DRAWN BY:		<u>A. DOTTL</u>	
CHECKED BY:		<u>R. GREUEL</u>	
SHEET TITLE			
EROSION & SEDIMENT CONTROL PLAN – INITIAL PHASE			
SCALE:			
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ESC-04			

SEALS 

HUNTINGTON ROAD

D	03/21/24	RE-ISSUED FOR PERMITTING	RG/TT
C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
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DATE: MARCH 2024

PROJECT NO.: 30156442

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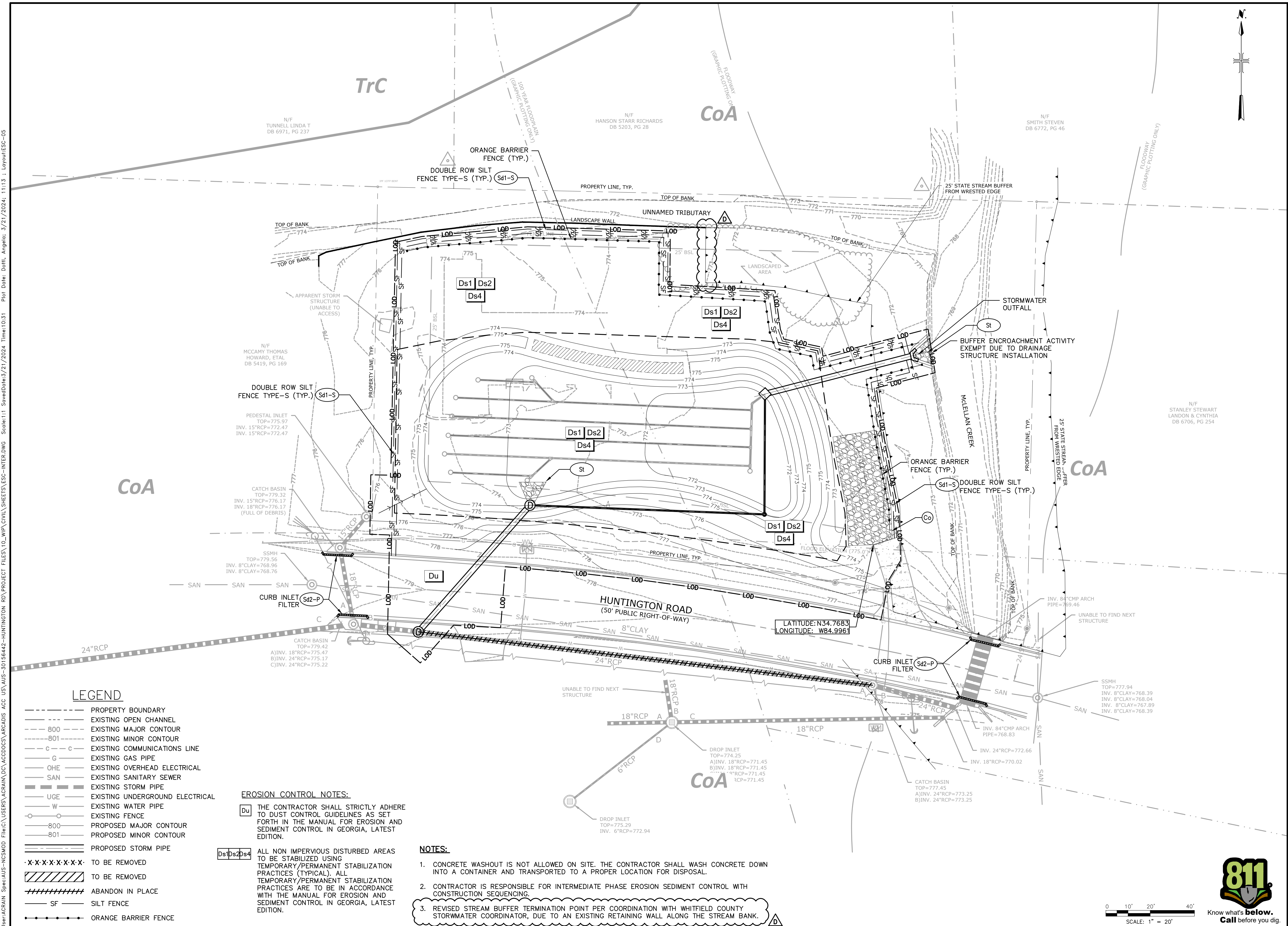
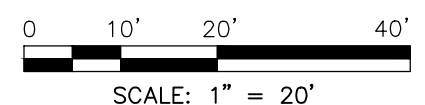
DESIGNED BY: T. TITTLE

DRAWN BY: A. DOTTL

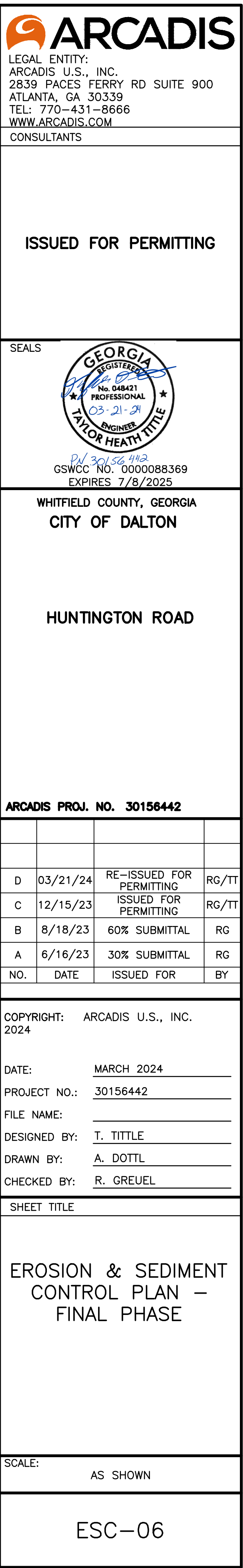
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EROSION & SEDIMENT CONTROL PLAN – INTERMEDIATE PHASE

ESC-05



User:ACRAIN Spec:AUS-NCSMOD File:C:\USERS\ACRAIN\DC\ACCDGCS\ARCAUS ACC US\AUS-30156442--HUNTINGTON RD\PROJECT FILES\10_WIP\CIVIL SHEETS\ESC-FINAL.DWG Scale:1:1 SavedDate:3/21/2024 Time:10:33 Plot Date: Datli, Angela; 3/21/2024; 11:11 ; LayoutESC-06



User:ACRAIN Spec:AUS-NSMOD File:C:\USERS\ACRAIN\DC\ACCORDS\ARCADIS ACC US\AUS-30156442-HUNTINGTON RD\PROJECT FILES\10_WIP\CIVIL SHEETS\ESC-DETAILS.DWG Scale:1:1 Saved Date:12/14/2023 Time:07:56 Plot Date: Dotti, Angelo: 12/14/2023: 08:05 : Layout:13

SEEDING SCHEDULE TEMPORARY COVER

SPECIES	BROADCAST RATES - PLS PER ACRE	BROADCAST RATES - PLS PER 1000 SQ. FT.	RESOURCE AREA'S	PLANTING DATES (SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATED PERMISSIBLE BUT MARGINAL DATES.)
BARLEY (HORDEUM VULGARE)				J F M A M J J J A S O N D
ALONE	3 BU. (144 LBS.)	3.3 LB.	M-L	
IN MIXTURES	½ BU. (24 LBS.)	0.6 LB.	P	
LESPEDEZA, ANNUAL (LEZPEDEZA STRATA)				J F M A M J J J A S O N D
ALONE	40 LBS.	0.9 LB.	P	
IN MIXTURES	10 LBS.	0.2 LB.	C	
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)				J F M A M J J J A S O N D
ALONE	4 LBS.	0.1 LB.	M-L	
IN MIXTURES	2 LBS.	0.05 LB.	P	
MILLET, BROWNTOP (Panicum fasciculatum)				J F M A M J J J A S O N D
ALONE	40 LBS.	0.9 LB.	P	
IN MIXTURES	10 LBS.	0.2 LB.	C	
MILLET, PEARL (Pennisetum glaucum)				J F M A M J J J A S O N D
ALONE	50 LBS.	1.1 LB.	P	
IN MIXTURES			C	
OATS (Avena sativa)				J F M A M J J J A S O N D
ALONE	4 BU. (128 LBS.)	2.9 LB.	M-L	
IN MIXTURES	1 BU. (32 LBS.)	0.7 LB.	P	
RYE (Secale cereale)				J F M A M J J J A S O N D
ALONE	3 BU. (168 LBS.)	3.9 LB.	M-L	
IN MIXTURES	½ BU. (28 LBS.)	0.6 LB.	P	
TRITICALE (X-Triticosecale)				J F M A M J J J A S O N D
ALONE	3 BU. (144 LBS.)	3.3 LB.	C	
IN MIXTURES	½ BU. (24 LBS.)	0.6 LB.	C	
RYEGRASS, ANNUAL (Lolium temulentum)				J F M A M J J J A S O N D
ALONE	40 LBS.	0.9 LB.	M-L	
IN MIXTURES			P	
SUDANGRASS (Sorghum sudanese)				J F M A M J J J A S O N D
ALONE	60 LBS.	1.4 LB.	M-L	
IN MIXTURES			P	
WHEAT (Triticum aestivum)				J F M A M J J J A S O N D
ALONE	3 BU. (180 LBS.)	4.1 LB.	M-L	
IN MIXTURES	½ BU. (30 LBS.)	0.7 LB.	P	

LIME: APPLY AT A RATE OF ONE TON PER ACRE
FERTILIZER: APPLY 500-700 POUNDS OF 10-10-10 OR EQUIVALENT PER ACRE

SEEDING SCHEDULE PERMANENT COVER

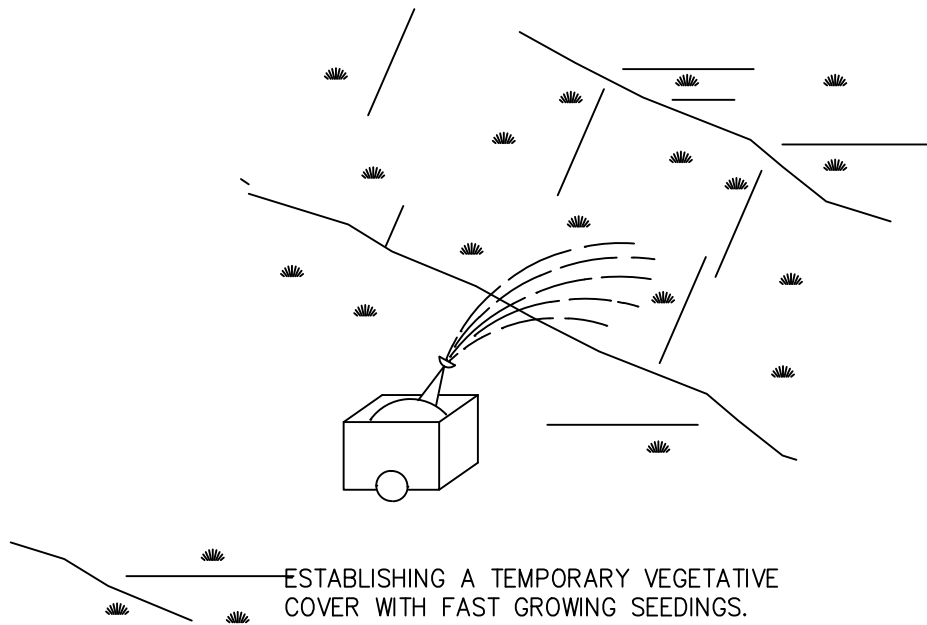
SPECIES	BROADCAST RATES - PLS PER ACRE	BROADCAST RATES - PLS PER 1000 SQ. FT.	RESOURCE AREA'S	PLANTING DATES (SOLID LINES INDICATE OPTIMUM DATES, DOTTED LINES INDICATED PERMISSIBLE BUT MARGINAL DATES.)
BERMUDA, SPRIGS (CYNODON DACTYLON)				J F M A M J J J A S O N D
ALONE	40 CU. FT. OR SOD PLUGS 3'x3'	0.9 CU. FT.	M-L	
COASTAL COMMON OR TIFT 44			P	
BERMUDA, COMMON (CYNODON DACTYLON)				J F M A M J J J A S O N D
ALONE	10 LBS.	0.2 LB.	C	
W/ OTHER PERRENIALS	6 LBS.	0.1 LB.	C	
FESCUE, TALL (FESTUCA ARUNDINACEA)				J F M A M J J J A S O N D
ALONE	50 LBS.	1.1 LB.	M-L	
W/OTHER PERRENIALS	30 LBS.	0.7 LB.	P	
CROWNVTech (CORONILLA VARIA)				J F M A M J J J A S O N D
W/WINTER ANNUALS OR COOL SEASON GRASSES	15 LBS.	0.3 LB.	M-L	
REED CANARY GRASS (PHALARIS ARUNDINACEA)				J F M A M J J J A S O N D
ALONE	50 LBS.	1.1 LB.	M-L	
W/OTHER PERRENIALS	30 LBS.	0.7 LB.	P	
CENTPEDE (EREMOCHLOA OPHIUROIDES)				J F M A M J J J A S O N D
ALONE	BLACK SOD ONLY		P	
W/OTHER PERRENIALS			C	
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)				J F M A M J J J A S O N D
ALONE	4 LBS.	0.1 LB.	M-L	
W/OTHER PERRENIALS	2 LBS.	0.05 LB.	P	
LESPEDEZA, SERICEA (LESPEDEZA CUNEATA)				J F M A M J J J A S O N D
SCARIFIED	60 LBS.	1.4 LB.	M-L	
UNSCARIFIED	75 LBS.	1.7 LB.	P	
SEED-BEARING HAY	3 TONS	138 LB.	C	

- NOTE:
- YOU MAY USE ANY OTHER SPECIES IF APPROVED BY MANUAL OF EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.
 - ALL FERTILIZER RATE AND APPLICATION, SEED QUALITY, SEEDBED PREPERATION, INNOCULANTS, PLANTING, AND MULCHING SHALL COMPLY WITH MANUAL OF EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

FERTILIZER REQUIREMENTS PERMANENT COVER

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST	6-12-12	1500 lbs./AC.	50-100 lbs./AC. 1/2/
	SECOND	6-12-12	1000 lbs./AC.	---
	MAINTENANCE	10-10-10	400 lbs./AC.	30 lbs./AC.
2. COOL SEASON GRASSES & LEGUMES	FIRST	6-12-12	1500 lbs./AC.	0-50 lbs./AC. 1/
	SECOND	10-10-10	1000 lbs./AC.	---
	MAINTENANCE	10-10-10	400 lbs./AC.	---
3. GROUND COVERS	FIRST	10-10-10	1300 lbs./AC. 3/	---
	SECOND	10-10-10	1300 lbs./AC. 3/	---
	MAINTENANCE	10-10-10	1100 lbs./AC.	---
4. PINE SEEDLINGS	FIRST	20-10-5	ONE 21-GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	---
5. SHRU LESPEDEZA	FIRST	0-10-10	700 lbs./AC.	---
MAINTENANCE	0-10-10	700 lbs./AC. 4/	---	---
7. WARM SEASON GRASSES	FIRST	6-12-12	1500 lbs./AC.	50-100 lbs./AC. 2/6/
	SECOND	6-12-12	800 lbs./AC.	50-100 lbs./AC. 2/
	MAINTENANCE	10-10-10	400 lbs./AC.	30 lbs./AC.
8. WARM SEASON GRASSES & LEGUMES	FIRST	6-12-12	1500 lbs./AC.	50 lbs./AC. 6/
	SECOND	0-10-10	1000 lbs./AC.	---
	MAINTENANCE	0-10-10	400 lbs./AC.	---

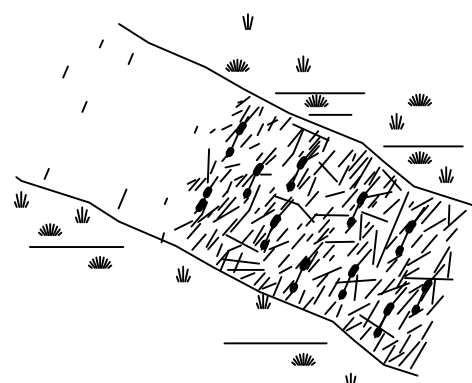
- LIME: APPLY AT A RATE OF ONE TON PER ACRE
- APPLY IN SPRING FOLLOWING SEEDING.
 - APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
 - APPLY IN 3 SPLIT APPLICATIONS.
 - APPLY WHEN PLANTS ARE PRUNED.
 - APPLY TO GRASS SPECIES ONLY.
 - APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.



- < 12 MONTHS OR UNTIL ESTABLISHMENT OF FINISHED GRADE OR PERMANENT VEGETATION.
- SITE PREPARATION:
 - GRADING AND SHAPING
 - SEEDBED PREPARATION
 - APPLY LIME AND FERTILIZER
 - PLANT SEEDINGS, SELECT SPECIES BY SEASON AND REGION
 - APPLY MULCHING MATERIAL IF NEEDED
 - IRRIGATE IF NEEDED BUT NOT @ RATE TO CAUSE EROSION
- PLANTING DATES DEPEND ON SPECIES AND REGION (MOUNTAIN, PIEDMONT OR COASTAL)

NOTES:
CONTRACTOR SHALL STABILIZE ALL AREAS WITH TEMPORARY VEGETATION THAT ARE TO BE EXPOSED WITHOUT STORM WATER PROTECTION FOR LONGER THAN 7 DAYS.

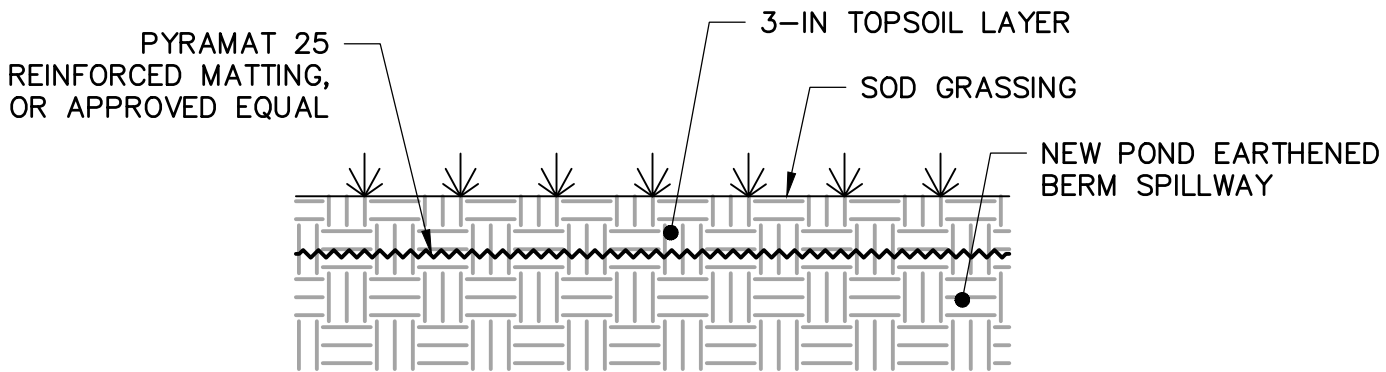
Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDINGS)



ESTABLISHING A TEMPORARY PROTECTION FOR DISTURBED AREAS USING SPECIFIC MULCH MATERIALS.

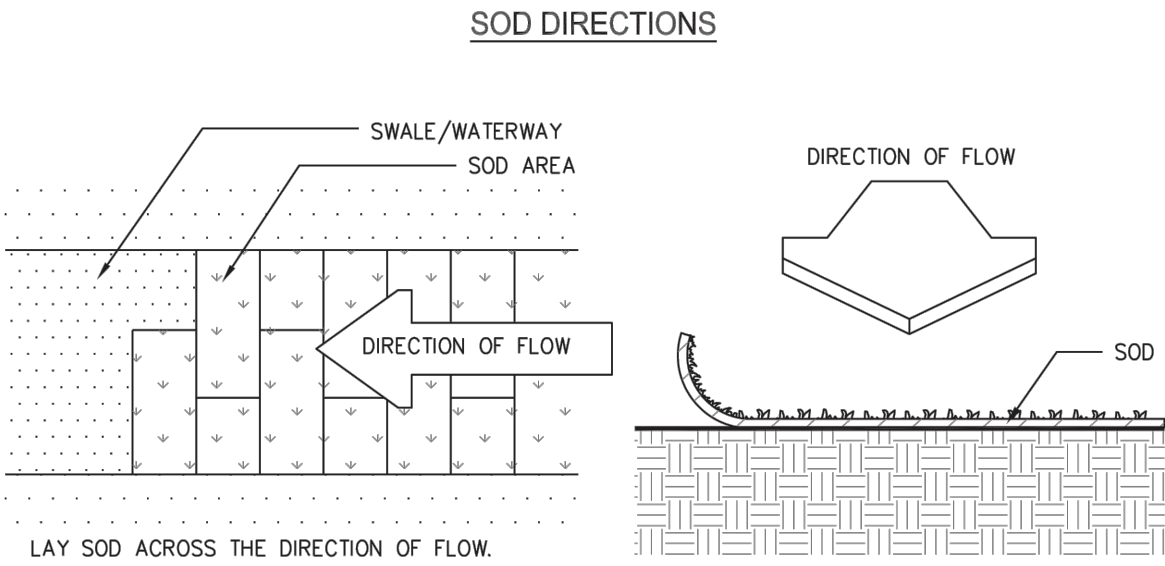
- MULCH MATERIALS SHALL CONSIST OF DRY STRAW OR HAY AT 2.5 TONS PER ACRE, WOOD CHIPS AT 6 TO 9 TONS PER ACRE, EROSION CONTROL MATTING OR NETTING, OR POLYETHYLENE FILM.
- THIS STANDARD APPLIED TO GRADES OR CLEARED AREAS WHICH MAY BE SUBJECTED TO EROSION CONTROL FOR 6 MONTHS OR LESS, AND CAN BE STABILIZED WITH A MULCH COVER.

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING)

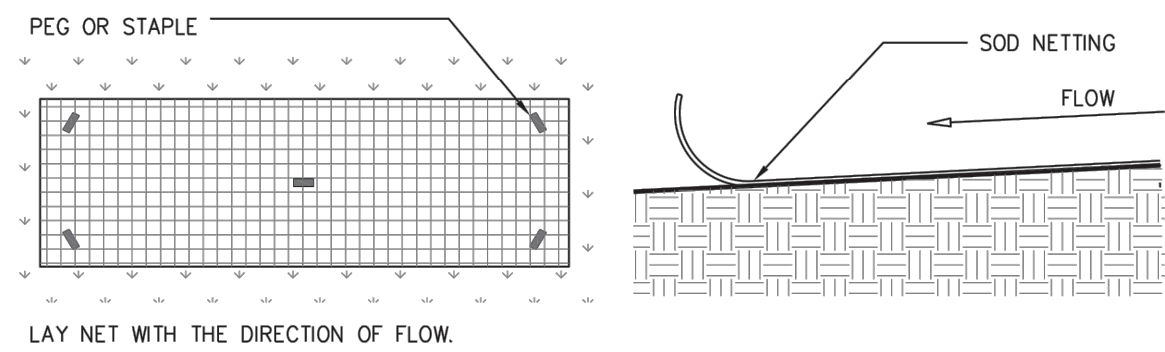


TYPICAL VEGETATED EMERGENCY SPILLWAY SECTION NOT TO SCALE

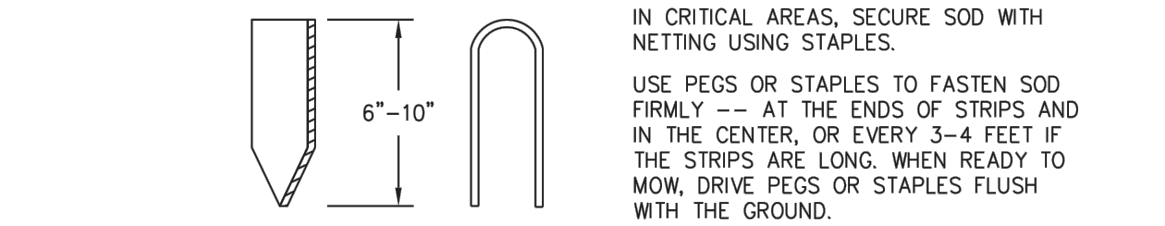
SODDED WATERWAYS



NETTING DIRECTIONS



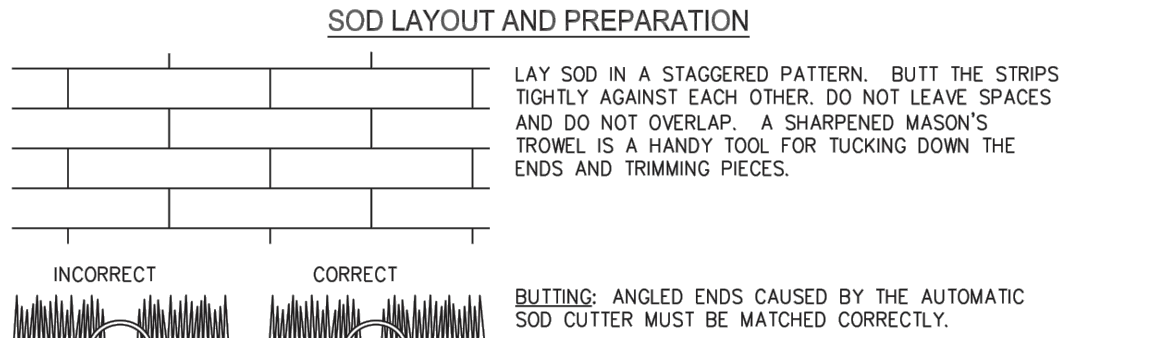
PEG DETAIL



Source: Va. DSWC

Figure 6-6.1

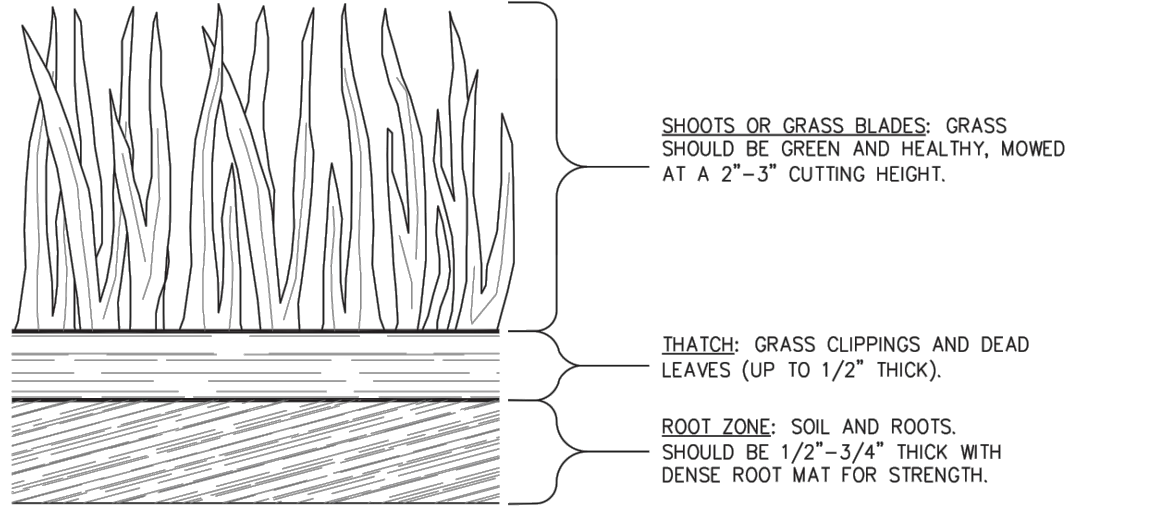
SOD MAINTENANCE AND INSTALLATION



DIRECTIONS FOR INITIAL MAINTENANCE

- ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL
- WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.
- MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

APPEARANCE OF GOOD SOD



Source: Va. DSWC

Figure 6-6.2

Ds4 DISTURBED AREA STABILIZATION (WITH SOD)

ARCADIS
LEGAL ENTITY:
ARCADIS U.S., INC.
2839 PACES FERRY RD SUITE 900
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

ISSUED FOR PERMITTING

SEALS



GSWCC NO. 0000088369
EXPIRES 7/8/2025

WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG
NO.	DATE	ISSUED FOR	BY

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DATE: DECEMBER 2023
PROJECT NO.: 30156442
FILE NAME:
DESIGNED BY: T. TITLE
DRAWN BY: A. DOTTL
CHECKED BY: R. GREUEL

SHEET TITLE

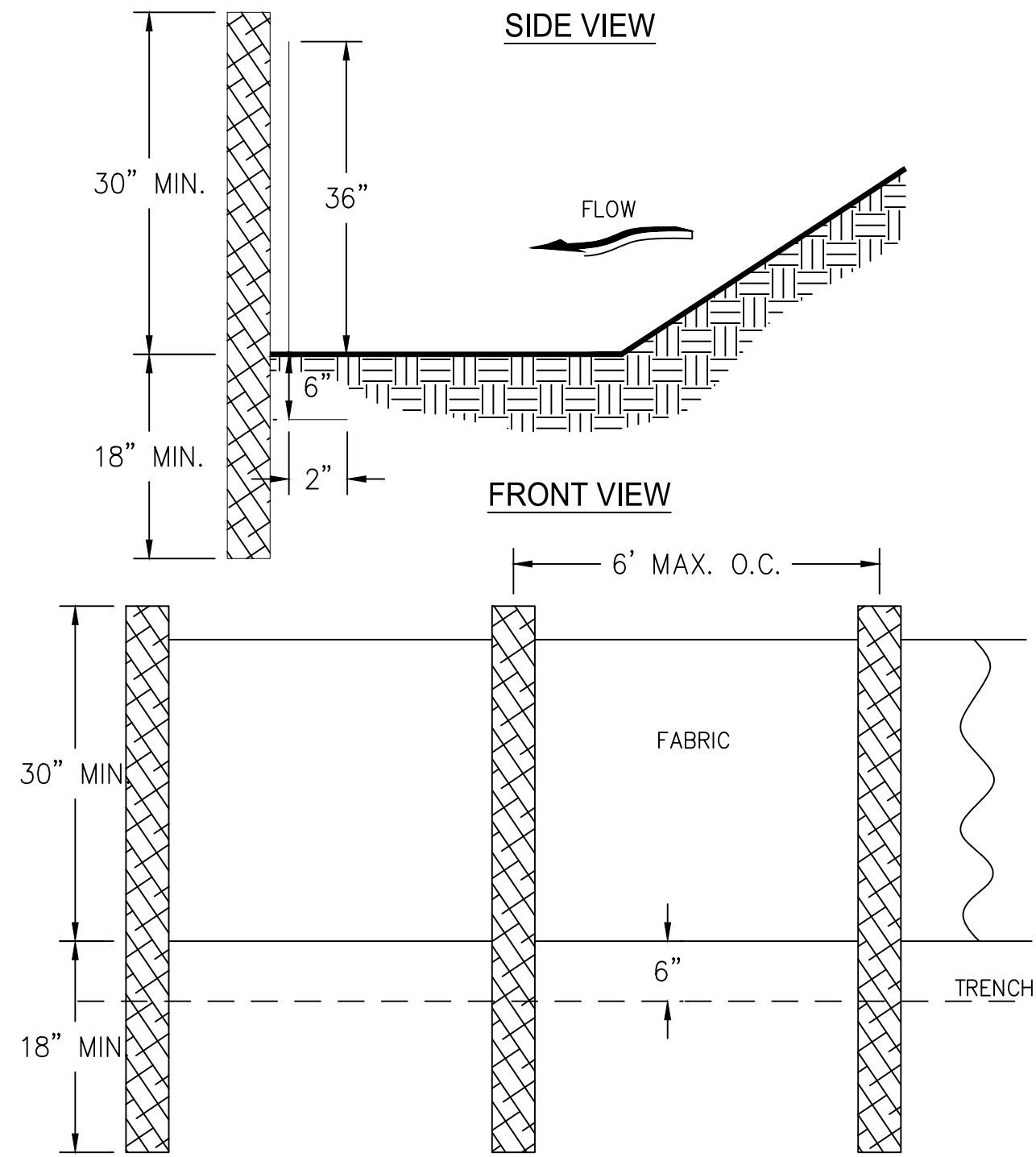
EROSION & SEDIMENT CONTROL

EROSION & SEDIMENT CONTROL DETAILS (SHEET 1 OF 3)

SCALE: AS SHOWN

ESC-07

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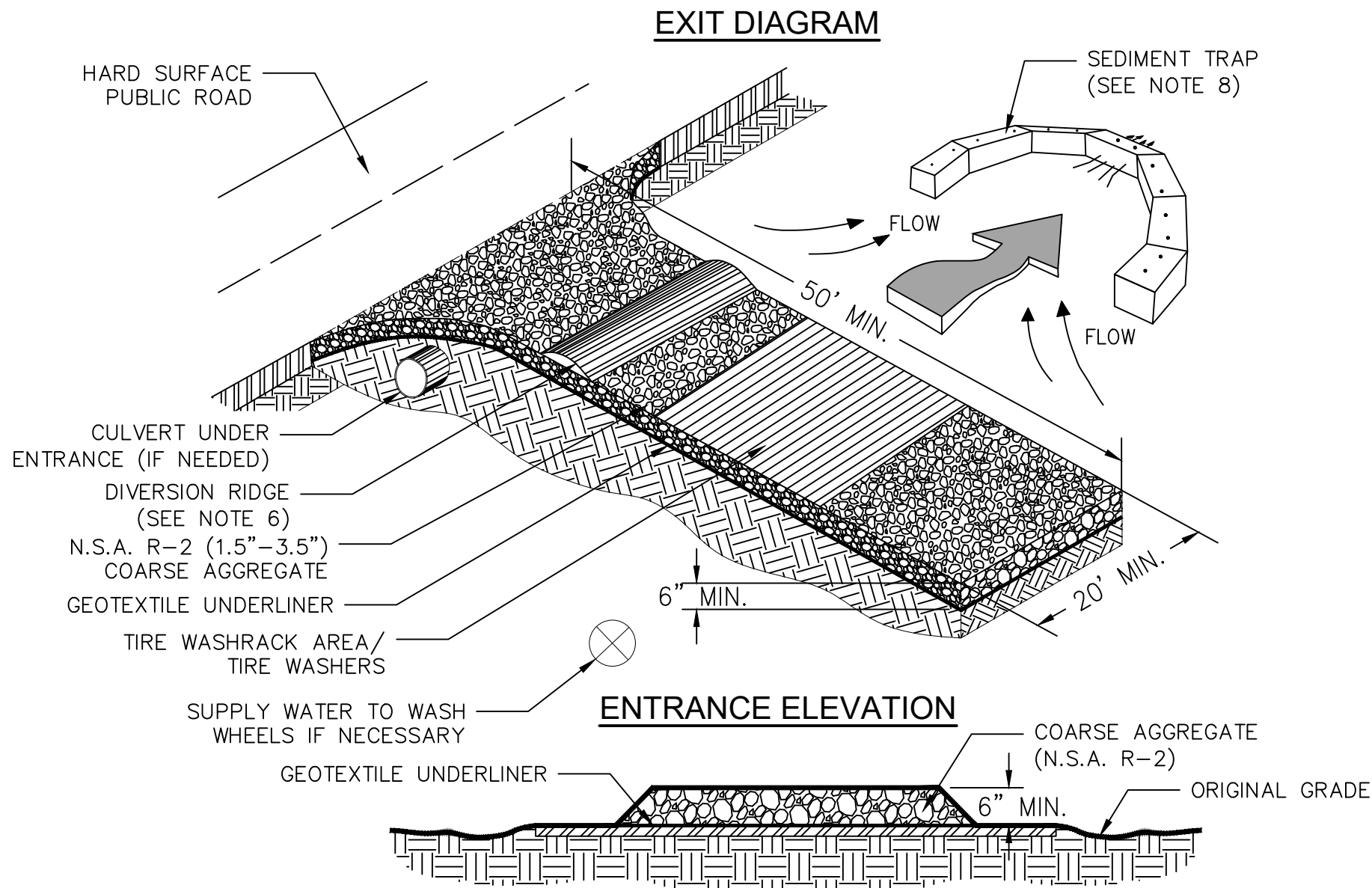


- NOTES:**
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
 2. SILT FENCE – TYPE NON-SENSITIVE (SD1-NS) SHALL MEET THE SPECIFICATIONS OF SILT FENCE, TYPE A AS DESCRIBED IN SECTION 171 OF THE "GDOT STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS", 2013 EDITION.
 3. Sd1-NS = TYPE A SILT FENCE.

**SILT FENCE –
TYPE NON-SENSITIVE**

Sd1-NS

NOT TO SCALE

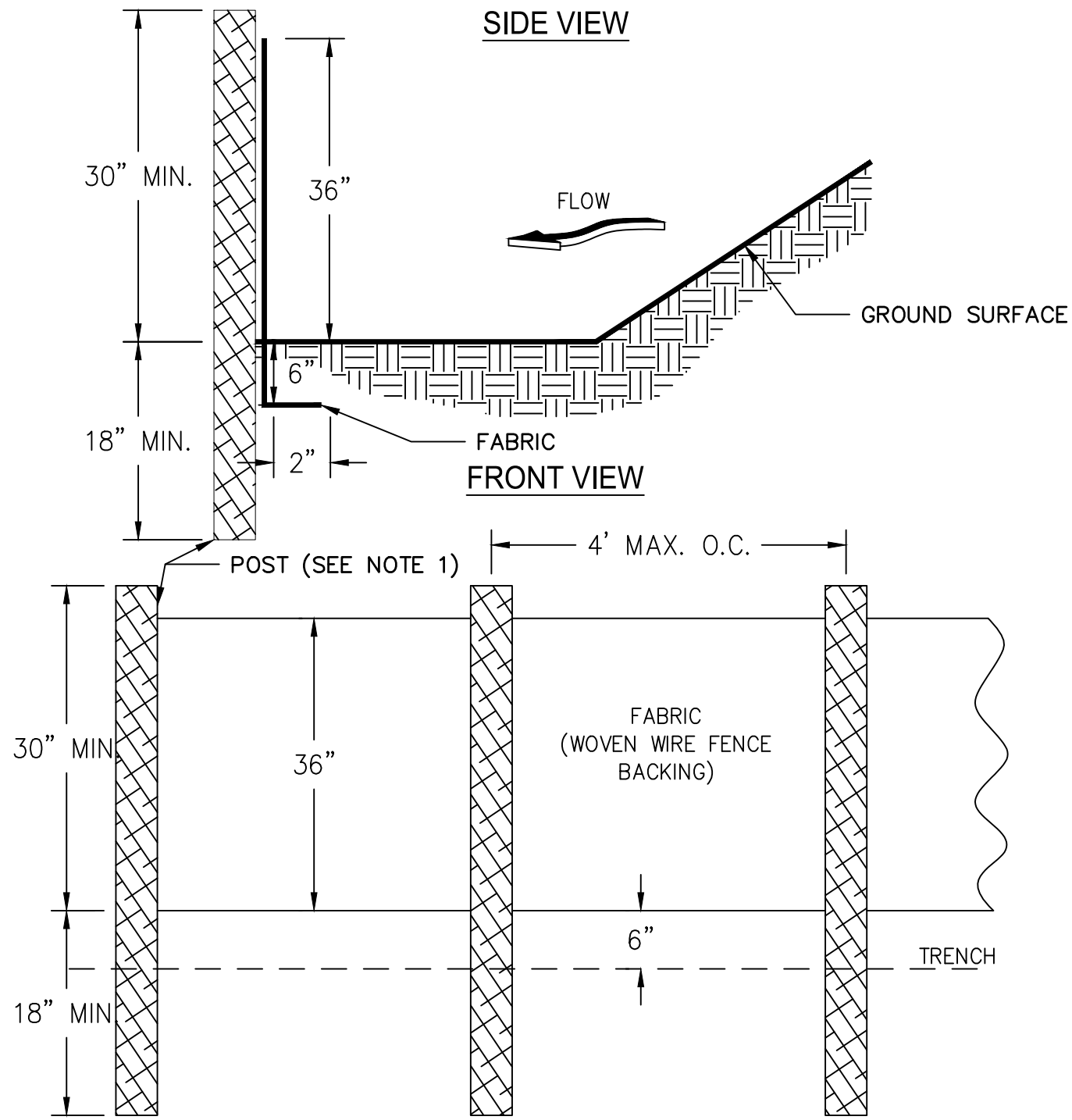


- NOTES:**
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"–3.5" STONE).
 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
 10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

CRUSHED STONE CONSTRUCTION EXIT

Co

N.T.S.



- NOTES:**
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
 2. SILT FENCE – TYPE SENSITIVE (Sd1-S) SHALL MEET THE SPECIFICATIONS OF SILT FENCE, TYPE C AS DESCRIBED IN SECTION 171 OF THE "GDOT STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS", 2013 EDITION.
 3. Sd1-S = TYPE C SILT FENCE.

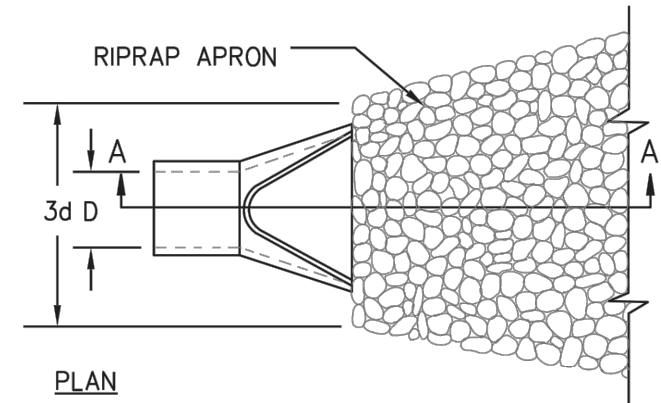
SILT FENCE – TYPE SENSITIVE

Sd1-S

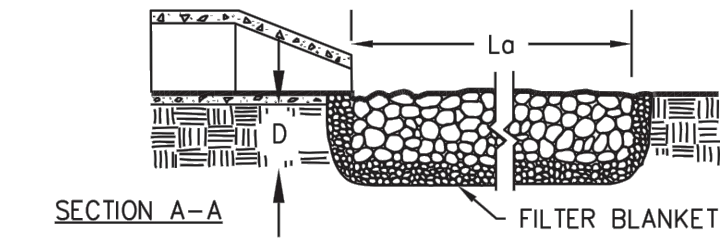
NOT TO SCALE

RIPRAP OUTLET PROTECTION

PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL



- NOTES:**
1. L_o IS THE LENGTH OF THE RIPRAP APRON.
 2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
 3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
 4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.



PIPE OUTLET TO WELL DEFINED CHANNEL

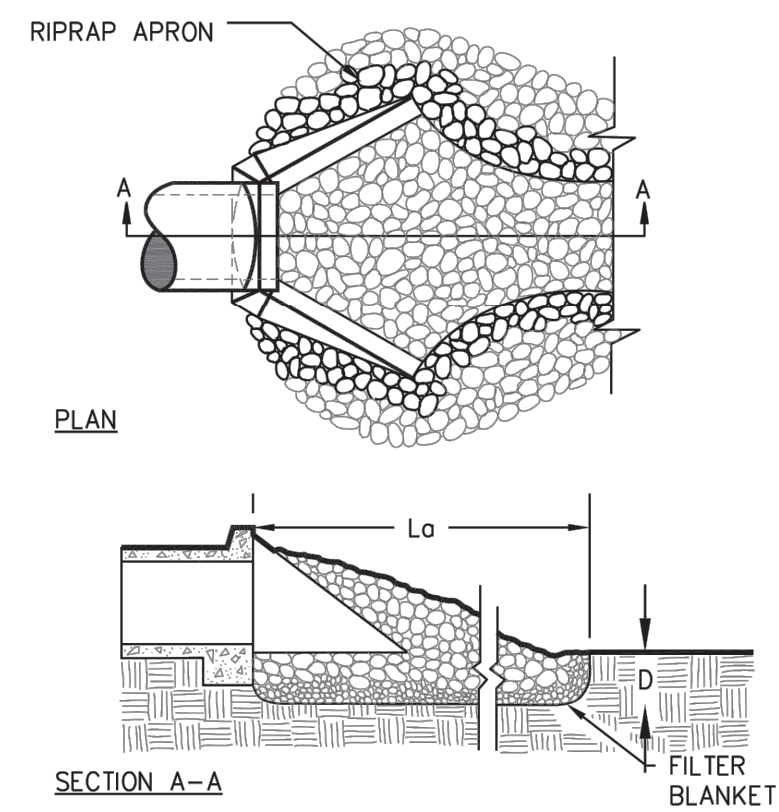


Figure 6-34.3 - Riprap Outlet Protection (Modified From Va SWCC)

RIPRAP APRON SUMMARY CHART

OUTLET	PIPE DIAMETER (D _o)	25-YR FLOW (CFS)	25-YR VELOCITY (FPS)	TAILWATER	RIPRAP SIZE (d ₅₀)	STONE DEPTH (D)	APRON LENGTH (L _a)	WIDTH OF APRON (W ₁)	WIDTH OF APRON (W ₂)
HW B-01	24"	24.5	7.82	> 0.5D _o	6"	9"	18'	6'	10'
STMH A-02	24" DIA. OPNG	20.2	6.44	< 0.5D _o	5"	8"	13'	6'	8'

RIPRAP OUTLET PROTECTION

St

NOT TO SCALE



LEGAL ENTITY:
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2839 PACES FERRY RD SUITE 900
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

ISSUED FOR PERMITTING

SEALS



PN 30156442
GSWCC NO. 0000088369
EXPIRES 7/8/2025

WHITFIELD COUNTY, GEORGIA
CITY OF DALTON

HUNTINGTON ROAD

ARCADIS PROJ. NO. 30156442

NO.	DATE	ISSUED FOR	BY
C	12/15/23	ISSUED FOR PERMITTING	RG/TT
B	8/18/23	60% SUBMITTAL	RG
A	6/16/23	30% SUBMITTAL	RG

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DATE: DECEMBER 2023

PROJECT NO.: 30156442

FILE NAME:

DESIGNED BY: T. TITTLE

DRAWN BY: A. DOTTL

CHECKED BY: R. GREUEL

SHEET TITLE

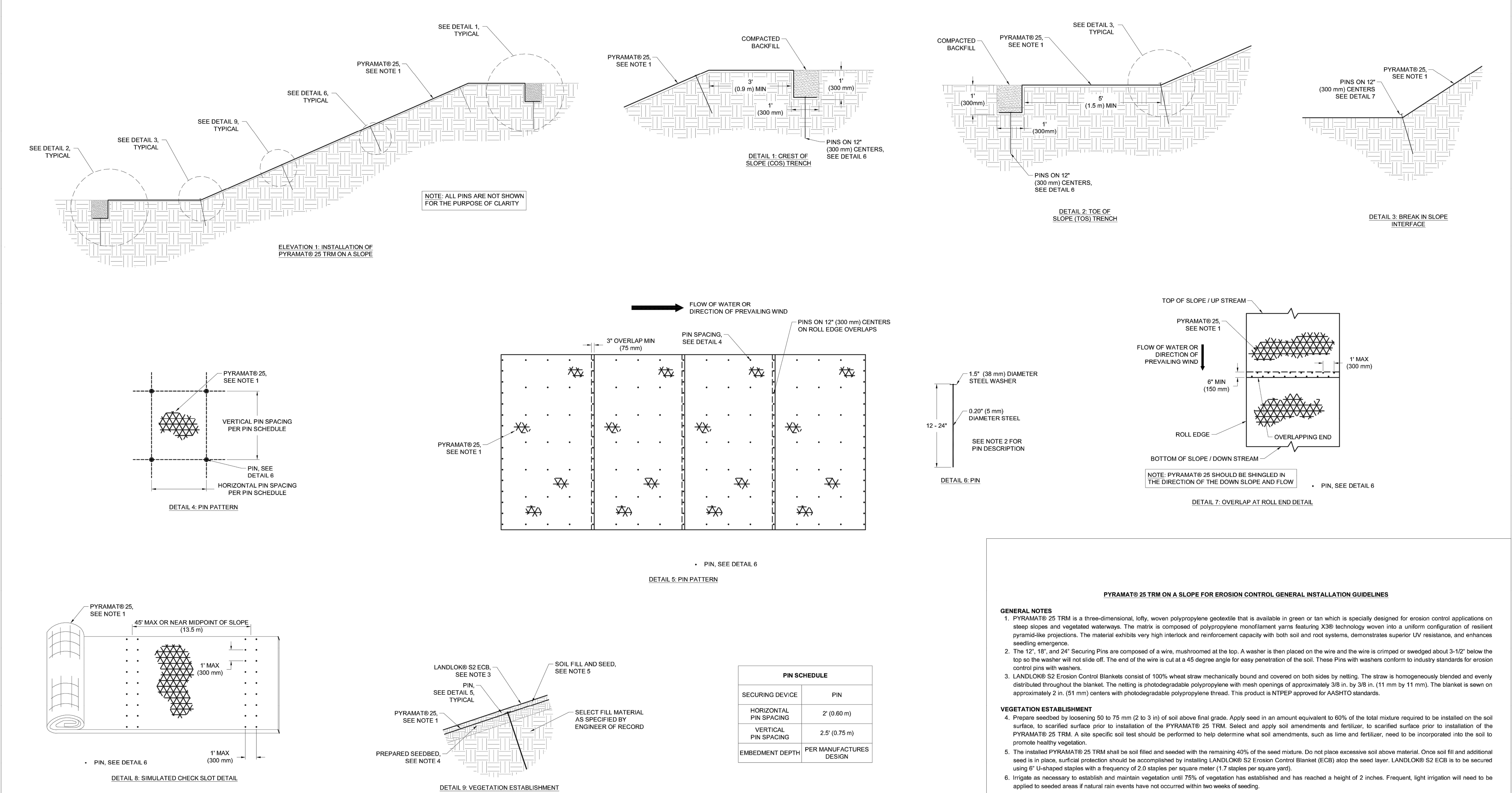
EROSION & SEDIMENT CONTROL


**EROSION & SEDIMENT
CONTROL DETAILS
(SHEET 2 OF 3)**

SCALE: AS SHOWN

ESC-08

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Propex
GEOSOLUTIONS

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EROSION CONTROL INSTALLATION DETAILS

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TURF REINFORCEMENT MAT (TRM)
PYRAMAT® 25 INSTALLATION DETAILS FOR SLOPES

1 of 1

Date: 02/15/2017 Drawn By: J. HILL Scale: NTS

*ALL DIMENSIONS ARE TO BE VERIFIED BY ENGINEER OF RECORD

- PYRAMAT® 25 TRM ON A SLOPE FOR EROSION CONTROL GENERAL INSTALLATION GUIDELINES**
- GENERAL NOTES**
- PYRAMAT® 25 TRM is a three-dimensional, lofty, woven polypropylene geotextile that is available in green or tan which is specially designed for erosion control applications on steep slopes and vegetated waterways. The matrix is composed of polypropylene monofilament yarns featuring X3® technology woven into a uniform configuration of resilient pyramid-like projections. The material exhibits very high interlock and reinforcement capacity with both soil and root systems, demonstrates superior UV resistance, and enhances seeding emergence.
 - The 12", 18", and 24" Securing Pins are composed of a wire, mushroomed at the top. A washer is then placed on the wire and the wire is crimped or swaged about 3-12" below the top so the washer will not slide off. The end of the wire is cut at a 45 degree angle for easy penetration of the soil. These Pins with washers conform to industry standards for erosion control pins with washers.
 - LANDLOK® S2 Erosion Control Blankets consist of 100% wheat straw mechanically bound and covered on both sides by netting. The straw is homogeneously blended and evenly distributed throughout the blanket. The netting is photodegradable polypropylene with mesh openings of approximately 3/8 in. by 3/8 in. (11 mm by 11 mm). The blanket is sewn on approximately 2 in. (51 mm) centers with photodegradable polypropylene thread. This product is NTPEP approved for AASHTO standards.
- VEGETATION ESTABLISHMENT**
- Prepare seedbed by loosening 50 to 75 mm (2 to 3 in) of soil above final grade. Apply seed in an amount equivalent to 60% of the total mixture required to be installed on the soil surface, to scarified surface prior to installation of the PYRAMAT® 25 TRM. Select and apply soil amendments and fertilizer, to scarified surface prior to installation of the PYRAMAT® 25 TRM. A site specific soil test should be performed to help determine what soil amendments, such as lime and fertilizer, need to be incorporated into the soil to promote healthy vegetation.
 - The installed PYRAMAT® 25 TRM shall be soil filled and seeded with the remaining 40% of the seed mixture. Do not place excessive soil above material. Once soil fill and additional seed is in place, surficial protection should be accomplished by installing LANDLOK® S2 Erosion Control Blanket (ECB) atop the seed layer. LANDLOK® S2 ECB is to be secured using 6" U-shaped staples with a frequency of 2.0 staples per square meter (1.7 staples per square yard).
 - Irrigate as necessary to establish and maintain vegetation until 75% of vegetation has established and has reached a height of 2 inches. Frequent, light irrigation will need to be applied to seeded areas if natural rain events have not occurred within two weeks of seeding.
- BEFORE INSTALLATION BEGINS**
- Coordinate with a Propex Representative: A pre-construction meeting is suggested with the construction team and a representative from Propex. This meeting should be scheduled by the contractor with at least a two week notice.
 - Gather the Tools Needed: Tools that you will need to install PYRAMAT® 25 include a pair of industrial shears to cut PYRAMAT® 25 and tape measure.
 - Determine how to Establish Vegetation: The method of vegetation establishment should be determined prior to the start of installation. Different vegetation establishment methods require different orders of installation. Refer to Establish Vegetation for further guidance.
 - Please consult the Propex Website for the most up to date installation guidelines.

ISSUED FOR PERMITTING

SEALS

GSWCC NO. 0000088369
EXPIRES 7/8/2025

WHITFIELD COUNTY, GEORGIA
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HUNTINGTON ROAD

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NO.	DATE	ISSUED FOR	BY

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2023

DATE: DECEMBER 2023
PROJECT NO.: 30156442
FILE NAME:
DESIGNED BY: T. TITTLE
DRAWN BY: A. DOTTL
CHECKED BY: R. GREUEL

SHEET TITLE

EROSION & SEDIMENT CONTROL

EROSION & SEDIMENT
CONTROL DETAILS
(SHEET 3 OF 3)

SCALE: AS SHOWN

ESC-09