INDEX OF SHEETS TITLE SHEET CONVENTIONAL SYMBOLOGY AND LEGEND QUANTITY SHEET GENERAL NOTES SHEET DETAIL SHEETS ALIGNMENT SHEET PLAN & PROFILE SHEETS 10-13 WETLAND TREATMENT AREA PROFILE SHEET ۱4 EPSC NARRATIVE 15 EPSC PLANS EPSC DETAILS 20-23 24-26 WETLAND TREATMENT AREA CROSS SECTIONS PRE-TREATMENT SWALE CROSS SECTIONS BARTLETT BROOK CULVERT REPAIR CROSS SECTIONS 28 CONSTRUCTION APPROACH SIGNING 29 TRAFFIC CONTROL PLANS 30 PEDESTRIAN TRAFFIC CONTROL PLANS 3 I

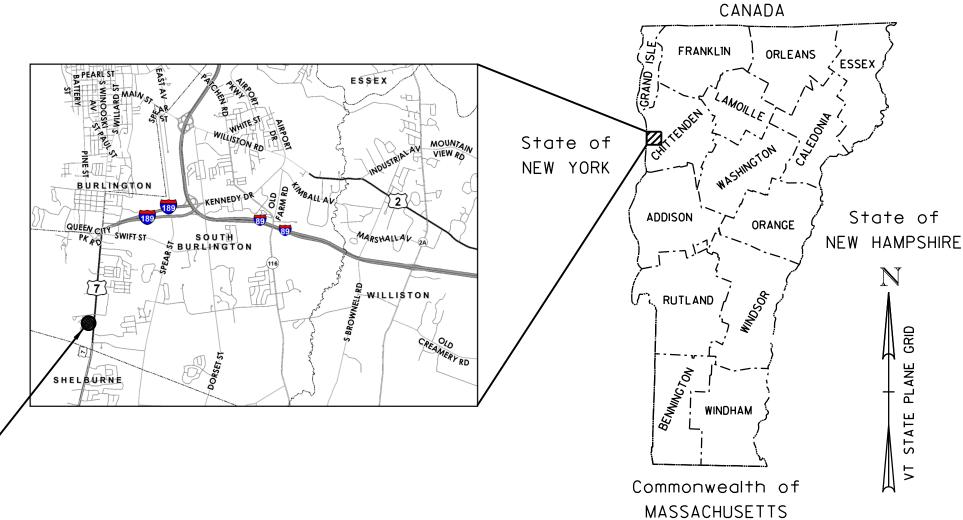
INDEX OF STANDARDS

3-71 C-3A	STANDARDS FOR RESIDENTIAL AND COMMERCIAL DRIVES SIDEWALK RAMPS	7/8/2009
2-3b 2-10	SIDEWALK RAMPS AND MEDIAM ISLANDS CURBING	3/10/200 2/11/200
	CONCRETE CATCH BASIN PRECAST REINF.CONC. MH-GRATES, CAST IRON	1/3/2000 6/1/199
) - 34	REINFORCED CONCRETE CRADLE HEADWALL TREE PLANTING	
- I - 2	CHAIN LINK FENCE, TYPE I DETAILS	6/1/199
- I - I O	TRAFFIC CONTROL GENERAL NOTES CONVENTIONAL ROAD CONSTRUCTION APPROACH SIGNING	4/25/201 8/6/2013
i 2	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	8/6/201

CITY OF SOUTH BURLINGTON PUBLIC WORKS



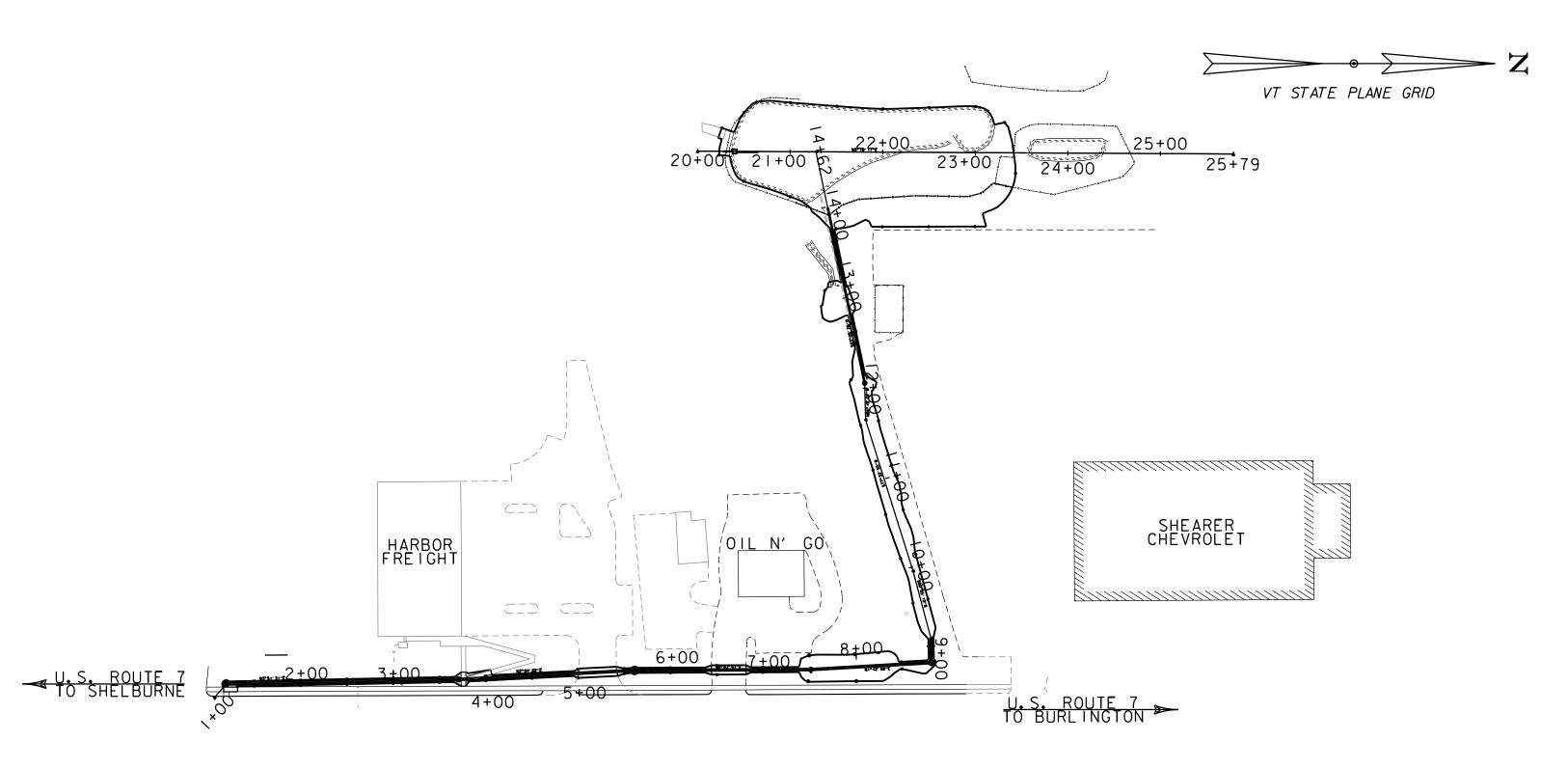
PROJECT LOCATION —



PROPOSED IMPROVEMENT BARTLETT BROOK STORMWATER TREATMENT SYSTEM US ROUTE 7 (PRINCIPAL ARTERIAL)

PROJECT LOCATION: THE PROJECT IS LOCATED ALONG ROUTE 7 IN SOUTH BURLINGTON, VERMONT. FROM HARBOR VIEW DRIVE TO THE EXISTING STORMWATER TREATMENT SYSTEM WEST OF SHEARER CHEVROLET.

PROJECT DESCRIPTION: CLOSED DRAINAGE ALONG ROUTE 7 TO THE EXISTING STORMWATER TREATMENT WETLANDS BEHIND SHEARER CHEVROLET, EXPANSION OF THE EXISTING TREATMENT WETLANDS.



PRELIMINARY PLANS 2/11/2019

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL I

SURVEYED BY: LATITUDES LANE SURVEYING
SURVEYED DATE: OCTOBER 2017

DATUM

VERTICAL: NAVD 83
HORIZONTAL: NAD83 sFT

SCALE IN FEET



www.stantec.com

Stantec Consulting Services Inc.
55 Green Mountain Drive
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
Fax: (802) 864-0165

MUNCIPAL PROJECT MANAGER

APPROVED ROSS GOUIN DATE _____

CITY REPRESENATIVE

APPROVED **EMMALEE CHERRINGTON** DATE ____

PROJECT MANAGER : ISRAEL MAYNARD, P.E.

PROJECT NAME : BARTLETT BROOK STORMWATER TREATMENT SYSTEM

PROJECT NUMBER : STP MM 18 (17)

SHEET I OF 31 SHEETS

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

110 00 110	ADDIVE V	TATTONS (CODES) & STMDOES
POINT	CODE	DESCRIPTION
	СН	CHANNEL EASEMENT
	CONST	CONSTRUCTION EASEMENT
	CUL	CULVERT EASEMENT
	D&C	DISCONNECT & CONNECT
	DIT	DITCH EASEMENT
	DR	DRAINAGE EASEMENT
	DRIVE	DRIVEWAY EASEMENT
	EC	EROSION CONTROL
	HWY	HIGHWAY EASEMENT
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
	BNDNS	BOUND SET
	BNDNS	BOUND TO BE SET
(a)	IPNF	IRON PIN FOUND
	IPNS	IRON PIN TO BE SET
	CALC	EXISTING ROW POINT
\bigcirc	PROW	PROPOSED ROW POINT
[LENG	TH]	LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

COMMON	N TOPOGE	RAPHIC POINT SYMBOLS
POINT	CODE	DESCRIPTION
۲۰۶ ۲۰۶	APL	BOUND APPARENT LOCATION
•	ВМ	BENCHMARK
•	BND	BOUND
	СВ	CATCH BASIN
Þ	COMB	COMBINATION POLE
	DITHR	DROP INLET THROATED DNC
¢	EL	ELECTRIC POWER POLE
⊙	FPOLE	FLAGPOLE
\odot	GASFIL	GAS FILLER
\odot	GP	GUIDE POST
M	GSO	GAS SHUT OFF
⊙	GUY	GUY POLE
0	GUYW	GUY WIRE
M	GV	GATE VALVE
(F)	Н	TREE HARDWOOD
Δ	HCTRL	CONTROL HORIZONTAL
	HVCTRL	CONTROL HORIZ. & VERTICAL
\Diamond	HYD	HYDRANT
@	ΙP	IRON PIN
•	IPIPE	IRON PIPE
¢	LI	LIGHT - STREET OR YARD
0	MB	MAILBOX
0	MH	MANHOLE (MH)
•	MM	MILE MARKER
⊖	PM	PARKING METER
•	PMK	PROJECT MARKER
⊙	POST	POST STONE/WOOD
5 5	RRSIG	RAILROAD SIGNAL
~	RRSL	RAILROAD SWITCH LEVER
	S	TREE SOFTWOOD
Э	SAT	SATELLITE DISH
	SHRUB	SHRUB
$\overline{\circ}$	SIGN	SIGN
A	STUMP	STUMP
-0-	TEL	TELEPHONE POLE
0	TIE	TIE
0 · 0	TSIGN	SIGN W/DOUBLE POST
\downarrow	VCTRL	CONTROL VERTICAL
0	WELL	WELL
M	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

PROPOSE	D GEOMETRY CODES
CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
ΑН	AHEAD STATION SUFFIX
ВК	BACK STATION SUFFIX
D	CURVE DEGREE OF (IOOFT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY SYMBOLOGY

UNDERGROUND UTILI	TIES
	UTILITY (GENERIC-UNKNOWN)
<i>UT</i> · · · _ · · -	TELEPHONE
— UE — · · · -	ELECTRIC
— uc — · · - · -	CABLE (TV)
— UEC — · ·	ELECTRIC+CABLE
— UET — · · -	ELECTRIC+TELEPHONE
— ист — · · - · · -	CABLE+TELEPHONE
— UECT — · · · -	ELECTRIC+CABLE+TELEP.
— G — · · · -	GAS LINE
— w — · · · · -	WATER LINE
— s — · · -	SANITARY SEWER (SEPTIC)
ABOVE GROUND UTIL — AGU — · · · - · · -	ITIES (AERIAL) UTILITY (GENERIC-UNKNOWN)
— т — · · - · · -	TELEPHONE
— E — · · - · · -	ELECTRIC
— c — · · - · · -	CABLE (TV)
— EC — · · · -	
	ELECTRIC+TELEPHONE
— AER E&T — · · — ·	
— CT — · · -	
	ELECTRIC+CABLE+TELEP.
<u> </u>	UTILITY POLE GUY WIRE
PROJECT CONSTRUCT	ION SYMBOLOGY
PROJECT DESIGN 9	

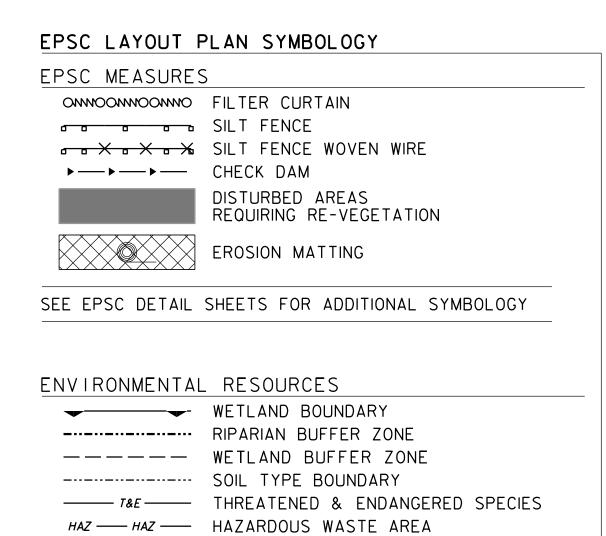
PROJECT DESIGN 8	د ا	LAYOUT SYMBOLOGY
— — CZ —	_	CLEAR ZONE
	-	PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

△—		<u> </u>		<u> </u>	——	TOP OF CUT SLOPE
Θ—		0		Э—	— ●	TOE OF FILL SLOPE
80	89	80	89	80	89	STONE FILL
		- —				BOTTOM OF DITCH €
=	_==	==:		=	==	CULVERT PROPOSED
						STRUCTURE SUBSURFACE
PDF	-		—PD	F		PROJECT DEMARCATION FENCE
ВF	-×-	-××	– BF			BARRIER FENCE
$\overline{\times}\overline{\times}\overline{\times}$	XXX	××××	××××	××××	$\overline{\times}\overline{\times}\overline{\times}$	TREE PROTECTION ZONE (TPZ)
//	///	///	///	///	//	STRIPING LINE REMOVAL
	_	<u></u>	<u></u>	<u> </u>	<u></u>	SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES	
TOWN LINE	TOWN BOUNDARY LINE
COUNTY LINE	COUNTY BOUNDARY LINE
STATE LINE	STATE BOUNDARY LINE
	PROPOSED STATE R.O.W. (LIMITED ACCESS)
	PROPOSED STATE R.O.W.
	STATE ROW (LIMITED ACCESS)
	STATE ROW
	TOWN ROW
<u> </u>	PERMANENT EASEMENT LINE (P)
	TEMPORARY EASEMENT LINE (T)
+ + +	SURVEY LINE
$\frac{P}{L}$ $\frac{P}{L}$ $\frac{P}{L}$	PROPERTY LINE (P/L)
SR SR SR SR O	SLOPE RIGHTS
6f ————————————————————————————————————	6F PROPERTY BOUNDARY
4f ————————————————————————————————————	4F PROPERTY BOUNDARY
HAZ HAZ	HAZARDOUS WASTE



ARCHEOLOGICAL & HISTORIC

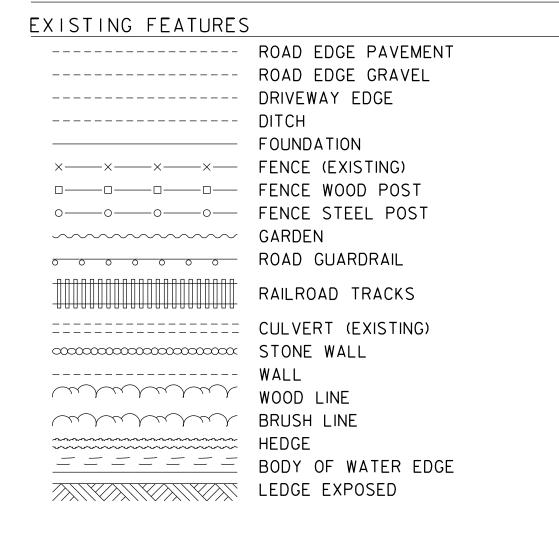
- FLOOD PLAIN - FLOOD PLAIN

→ → STORM WATER

-√-OHW-√- ORDINARY HIGH WATER (OHW)

——— ARCH ———	ARCHEOLOGICAL BOUNDARY
HISTORIC DIST	HISTORIC DISTRICT BOUNDARY
—— HISTORIC ——	HISTORIC AREA
(H)	HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY





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File Name:

Dwn. Chkd. Dsgn. YY.MM.DD

Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

CONVENTIONAL LEGEND AND SYMBOLOGY SHEET

Project No.
195311551
Scale
1" = 20'

Drawing No.
Sheet
Revision

2 of 31

0

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES			тот	ALS		DESCRIPTIONS		DETAILED SUMMARY OF QUANTITIES				
ROADWAY	LANDSCAPIN	IG EROSION CONTROL	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER ROUND	QUANTITIES UNIT ITEMS				
		CONTROL			1.0	CLEADING AND COLIDDING INCLUDING INDIVIDUAL TREES AND STUDIO	004.40					
1			1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10					
6			6		EACH	REMOVING MEDIUM TREES	201.15					
2900			2900		CY	COMMON EXCAVATION	203.15					
400			1500		CY	MUCK EXCAVATION OF FARTH	203.20					
1500					CY	TRENCH EXCAVATION OF EARTH EXPLORATORY (N.A. P. I.)	204.20					
75			75		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22					
50			50		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35					
30			30		SY	HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES	406.38					
567			567		LB	REINFORCING STEEL, LEVEL I	507.11					
4			4		CY	CONCRETE, CLASS B	541.25					
10			10		LF	12" CPEP(SL)	601.2605					
192			192		LF	18" CPEP(SL)	601.2615					
770			770		LF	30" CPEP(SL)	601.2625					
5			5		EACH	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER	604.21					
70			70		CY	STONE FILL, TYPE II	613.11					
35			35		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10					
250			250		LF	CHAIN-LINK FENCE, 6 FEET	620.12					
70			70		LF	REMOVAL OF EXISTING FENCE	620.55					
1			1		EACH	RELOCATE HYDRANT	629.29					
365			365		TON	CRUSHED STONE BEDDING	629.54					
40			40		HR	UNIFORMED TRAFFIC OFFICERS	630.10					
300			300		HR	FLAGGERS	630.15					
1			1		LS	MOBILIZATION/DEMOBILIZATION	635.11					
1			1		LS	TRAFFIC CONTROL	641.10					
125			125		SY	GEOTEXTILE UNDER STONE FILL	649.31					
		55	55		LB	SEED	651.15					
		500	500		LB	FERTILIZER	651.18					
		2	2		TON	AGRICULTURAL LIMESTONE	651.20					
		490	490		CY	TOPSOIL	651.35					
		1	1		LS	EPSC PLAN	653.01					
		20	20		HR	MONITORING EPSC PLAN	653.02					
		1	1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03					
		2	2		TON	HAYMULCH	653.10					
		1490	1490		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20					
		5	5		CY	CHECK DAM, TYPE I	653.25					
		80	80		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35					
		240	240		LF	SILT FENCE, TYPE II	653.476					
		310	310		LF	BARRIER FENCE	653.50					
		1800	1800		LF	PROJECT DEMARCATION FENCE	653.55					
	5		5		EACH	DECIDUOUS TREES (TO BE DETERMINED)	656.30					
	2		2		MGAL	LANDSCAPE WATERING	656.65					
	10		10		CY	LANDSCAPE BACKFILL, TRUCK MEASUREMENT	656.80					
1			1		EACH	SPECIAL PROVISION (OUTLET CONTROL STRUCTURE)	900.620					
3			3		EACH	SPECIAL PROVISION (RELOCATE COPPER WATER SERVICE)	900.620					
1			1		EACH	SPECIAL PROVISION (RELOCATE DUCTILE IRON WATER PIPE)	900.620					
2			2		EACH	SPECIAL PROVISION (RELOCATE SEWER SERVICE)	900.620					
1			1		EACH	SPECIAL PROVISION (REMOVE AND RESET COMMERCIAL SIGN)	900.620					
1			1		EACH	SPECIAL PROVISION (THROAT DROP INLET)	900.620					



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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM
STP MM18(17)

Title QUANTITY SHEET 1

Permit-Seal

Project No.
195311551

Drawing No.

Scale

N.T.S.

Revision

3 of 31

GENERAL PROJECT NOTES:

- I. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE BASED ON LIMITED INFORMATION. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES WHERE A POTENTIAL CONFLICT EXISTS SHALL BE VERIFIED IN THE FIELD WITH EXPLORATORY EXCAVATION AS REQUIRED PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. PAYMENT OF EXPLORATORY EXCAVATION SHALL BE MADE UNDER ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY. CONTRACTORS MUST CONTACT "DIG SAFE" AT I (888) 344-7233 [I (888) DIG-SAFE] AND TOWN UTILITY DEPARTMENTS BEFORE EXCAVATING, DRILLING OR DRIVING SIGN POSTS.
- 2. CARE SHALL BE TAKEN TO AVOID DAMAGE TO NEARBY FENCES, DRIVEWAYS, BUILDINGS, MONUMENTS, IRON PINS, AND ANY OTHER APPURTENANCES DURING CONSTRUCTION. DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3. IF PROPERTY INCLUDING BUT NOT LIMITED TO IRON PINS, FENCES, BUILDINGS, MONUMENTS, ETC. NEEDS TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION, CONTRACTOR SHALL DOCUMENT EXACT EXISTING LOCATION AND RESET IN THE SAME LOCATION UPON COMPLETION OF WORK. THE CONTRACTOR SHALL WORK WITH THE PROPERTY OWNER AS REQUIRED. PROPERTY SHALL BE RESET TO ITS ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER. PROPERTY MONUMENTS SHALL BE SET BY A LICENSED LAND SURVEYOR, LICENSED IN THE STATE OF VERMONT. COST TO COMPLETE THIS WORK SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
- 4. CONTRACTOR SHALL PROVIDE AT LEAST TWO WEEKS NOTICE TO ADJACENT PROPERTY OWNERS AND BUSINESSES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL INFORM PROPERTY OWNER OF WORK TO BE COMPLETED AND SHALL WORK WITH PROPERTY OWNER TO MAINTAIN ACCESS TO PROPERTY AT ALL TIMES. COST TO COMPLETE THIS WORK SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
- 5. CONTRACTOR SHALL RESTORE PROPERTY IN AN ACCEPTABLE MANNER SATISFACTORY TO THE ENGINEER IN ACCORDANCE WITH SECTION 107 OF THE 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION. TOPSOIL, SEED, FERTILIZER, LIMESTONE AND MULCH SHALL BE PAID PER THEIR RESPECTIVE PAY ITEMS. ANY OTHER WORK OR MATERIALS NECESSARY SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
- 6. PAYMENT FOR SAW CUTTING SHALL BE INCIDENTAL TO ITEM 203. 15.

PAVING NOTES:

- 7. PAVEMENT PATCHING FOR DRIVE CROSSINGS SHALL MATCH THE DEPTH OF EXISTING PAVEMENT.
 PAVEMENT SHALL BE BITUMINOUS CONCRETE PAVEMENT, TYPE III. PAVEMENT LIFTS SHALL NOT EXCEED 2-1/2". BITUMINOUS CONCRETE PAVEMENT SHALL BE PAID AS ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE PAVEMENT, DRIVES.
- 8. EMULSIFIED ASPHALT SHALL BE APPLIED ON EXISTING PAVEMENT SURFACES, BETWEEN ALL COURSES OF PAVEMENT AND ON THE FACE OF CURB OR SAWCUT. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404. EMULSIFIED ASPHALT SHALL BE APPLIED TO ALL OTHER PAVED SURFACED AT A RATE BETWEEN 0.025 AND 0.04 GAL/SY, AS DIRECTED BY THE ENGINEER. EMULSIFIED ASPHALT SHALL BE PAID INCIDENTAL TO ITEM 406.38 HAND-PLACED BITUMINOUS CONCRETE PAVEMENT, DRIVES.

EROSION PREVENTION AND SEDIMENT CONTROL:

9. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) CONSISTS OF INLET PROTECTION AND TEMPORARY AND PERMANENT STABILIZATION OF ALL DISTURBED SURFACES. THE CONTRACTOR SHALL REFER TO EPSC PLANS AND DETAILS AND THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR PRACTICES AND DETAILS. EPSC REQUIREMENTS SHALL BE GOVERNED BY SUBSECTION 105.23 OF THE 2018 VTRANS STANDARD SPECIFICATIONS.

SIDEWALK AND CROSSWALK:

- 10. THE REMOVAL OF ALL EXISTING SIDEWALK, AS NECESSARY TO TIE IN CONSTRUCT STORM DRAINS SHALL BE PAID AS ITEM 203. 15 COMMON EXCAVATION.
- II.SIDEWALK RAMPS AND DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH VTRANS STD DRAWINGS C-3A AND C-3B. ALL SIDEWALK RAMPS SHALL BE PORTLAND CEMENT CONCRETE, 5" THICK AND PAID AS ITEM 618.10 PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH.

DRIVEWAYS:

- 12. THE PROJECT WILL INVOLVE A NUMBER OF TRENCHES TO BE DUG THROUGH EXISTING SIDEWALK, DRIVEWAYS, PARKING AREAS AND LAWNS FOR STOWMWATER DRAINAGE INSTALLATIONS. THESE TRENCHES SHALL BE BACKFILLED OR PROPERLY PROTECTED AT THE END OF EACH WORK DAY TO ENSURE SAFE MOTORIST AND PEDESTRIAN TRAVEL THROUGH THE WORK ZONE. BACKFILL MATERIALS INCLUDING TEMPORARY SUBBASE SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS.
- 17. ALL DRIVES AND PARKING LOTS SHALL BE PAVED BACK TO THE LIMITS SHOWN ON THE PLANS AND CROSS-SECTIONS. PAVEMENT TO RESURFACE SMALL DRIVEWAYS AND PARKING LOTS LESS THAN 200 SQUARE FEET OR THOSE THAT CAN'T BE RESURFACED USING MACHINE METHODS SHALL BE PAID AS ITEM 406.38 HAND PLACED BITUMINOUS CONCRETE PAVEMENT, DRIVES.

UTILITY GENERAL NOTES

THE EXACT LOCATIONS AND DEPTHS OF EXISTING WATER AND SEWER SERVICES ARE UNKNOWN. CONTRACTOR SHALL ANTICIPATE AT LEAST ONE WATER AND ONE SEWER SERVICE FOR EACH BUILDING AND/OR PARCEL, OR AS DEPICTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE LOCATIONS AND SIZES OF ALL EXISTING WATER AND SEWER BUILDING SERVICES AT THE RIGHT-OF-WAY LINE BY EXPLORATORY EXCAVATION. THE CONTRACTOR SHALL USE EXTREME CAUTION TO PREVENT DAMAGE TO EXISTING UTILITIES DURING EXPLORATORY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING WATER AND SEWER MAINS AND SERVICES.

IF EXPLORATORY EXCAVATION REVEALS THAT NEW SERVICE CONNECTIONS WILL BE LOCATED IN CONFLICT WITH OTHER PROPOSED INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO, MANHOLES, DRAINAGE PIPES, CATCH BASINS, UTILITY DUCTS, TRANSFORMERS AND PEDESTALS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE CONSTRUCTION OF ALL WATER AND SEWER MAINS AND SERVICE CONNECTIONS. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR TO MITIGATE CONFLICTS DUE TO THE CONTRACTOR'S FAILURE TO FORECAST THESE CONFLICTS.

THE EXPLORATORY EXCAVATION SHALL CONFIRM EXISTING PIPE SIZE, MATERIAL, EXACT LOCATION, INVERT, AND THE STATUS OF THE EXISTING PIPE, WHETHER ACTIVE OR ABANDONED. PAYMENT FOR EXPLORATORY EXCAVATION FOR LOCATING EXISTING WATER AND SANITARY SEWER BUILDING SERVICES SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (TRANSFER TO NEW SYSTEM, WATER) AND ITEM 900.645 SPECIAL PROVISION (TRANSFER TO NEW SYSTEM, SANITARY SEWER), RESPECTIVELY. PAYMENT FOR ALL OTHER REQUIRED EXPLORATORY EXCAVATION, INCLUDING BUT NOT LIMITED TO, WATER/STORM PIPING CROSSINGS AS DEPICTED ON THE PLANS, SHALL BE MADE UNDER ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.).

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF EXISTING WATER AND SANITARY SEWER FLOWS AT ALL TIMES DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, BYPASS PUMPING, TEMPORARY RELOCATION OF EXISTING PIPING, AND INSTALLATION OF NEW PIPING AS REQUIRED. PAYMENT FOR MAINTENANCE OF EXISTING WATER AND SANITARY SEWER FLOWS SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.620 SPECIAL PROVISION (RELOCATE COPPER WATER SERVICE), OR 900.620 SPECIAL PROVISION (RELOCATE SEWER SERVICE).

THE CONTRACTOR'S SCHEDULE SHALL TAKE INTO CONSIDERATION THE TIME TO CROSS AND, IF REQUIRED, TO RELOCATE EXISTING SANITARY SEWER/WATER MAINS AND SERVICES AFFECTED BY THE WORK OR TO INSTALL NEW PIPING AS REQUIRED, AND THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL TIME OR COSTS ASSOCIATED WITH THESE ROUTINE RELOCATIONS.

- 6. THE LOCATION OF EXISTING PIPES, DUCTS, AND OTHER UNDERGROUND STRUCTURES SHOWN ON THESE PLANS ARE NOT WARRANTED TO BE EXACT NOR IS IT WARRANTED THAT ALL UNDERGROUND STRUCTURES ARE SHOWN.
- 7. ALL WORK TO BE COMPLETED, UNLESS OTHERWISE NOTED, SHALL BE WITHIN THE PUBLIC RIGHT OF WAY (ROW) OR EASEMENT.
- 8. THE CONTRACTOR SHALL INSTALL FOUR INCH POLYSTYRENE RIGID INSULATION AT ALL WATER MAIN/WATER SERVICE AND STORM DRAIN CROSSINGS, AND AS DIRECTED BY THE ENGINEER. PAYMENT FOR POLYSTYRENE RIGID INSULATION AND SAND BEDDING SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.620, SPECIAL PROVISION (RELOCATE COPPER WATER SERVICE), OR 900.620 SPECIAL PROVISION (RELOCATE DUCTILE IRON WATER PIPE)
- 9. THE CONTRACTOR SHALL FURNISH AND INSTALL NITRILE GASKETS AT ALL NEW WATER PIPING JOINTS AND FITTINGS UNLESS OTHERWISE NOTED. ALL BRASS FITTINGS, INCLUDING CORPORATIONS AND CURB STOPS, SHALL BE FURNISHED WITH NITRILE O-RINGS.
- IO. IN THE EVENT OF A CONFLICT BETWEEN AN EXISTING FIRE HYDRANT FEED LINES, WATER SERVICES, OR SANITARY SEWER SERVICES, THE CONTRACTOR SHALL RELOCATE THE EXISTING WATER PIPE AND/OR SEWER PIPE PER THE DETAILS AND IN ACCORDANCE WITH GENERAL NOTE # 13 BELOW. ALL NEW PIPING AND FITTINGS REQUIRED FOR UTILITY RELOCATION SHALL MATCH EXISTING MATERIALS AND SIZES. IT IS ASSUMED THAT ALL EXISTING SEWER SERVICES ARE FORCE MAINS DUE TO THE EXISTING CONDITION GRADE DIFFERENCES.
- II. WITHIN THE ROW, THE CONTRACTOR SHALL INSTALL ALL WATER AND SEWER PIPE WITH THE SEPARATION REQUIREMENTS, BOTH HORIZONTALLY AND VERTICALLY, IN ACCORDANCE WITH THE VERMONT ENVIRONMENTAL PROTECTION RULES, CHAPTER I, WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES, EFFECTIVE SEPTEMBER 29, 2007, AND CHAPTER 21, WATER SUPPLY RULE, AS REVISED ON DECEMBER 1, 2010.
- 12. THE MINIMUM CLEARANCE BETWEEN NEW STORM DRAINS AND ALL EXISTING UTILITIES, EXCEPT WATER UNLESS OTHERWISE NOTED, SHALL BE SIX INCH AT CROSSING LOCATIONS.
- 13. WHEN REPLACING STRUCTURES AND/OR CONNECTING TO EXISTING PIPING SYSTEMS, CONFIRM EXISTING LOCATIONS, SIZES. AND ELEVATIONS OF INVERTS PRIOR TO ORDERING PRECAST CONCRETE STRUCTURES.
- 14. THE STANDARD FOR EXISTING GATE VALVES AND CURB STOPS IS OPEN LEFT OR COUNTER CLOCKWISE. THE CONTRACTOR SHALL NOT BE ALLOWED TO OPERATE ANY EXISTING GATE VALVES, FIRE HYDRANTS, OR CURB STOPS WITHOUT PRIOR APPROVAL BY THE DEPARTMENT OF PUBLIC WORKS.
- 15. IN THE EVENT OF A PLANNED TEMPORARY WATER SERVICE SHUTDOWN, THE CONTRACTOR SHALL NOTIFY ALL CUSTOMERS TO BE TEMPORARILY OUT OF WATER A MINIMUM OF 48 HOURS PRIOR TO THE SHUTDOWN ACTIVITY. AT NO TIME SHALL A CUSTOMER BE WITHOUT WATER FOR MORE THAN 4 HOURS.
- 16. THE CONTRACTOR SHALL PROMPTLY RESTORE ALL GRASS AREAS DISTURBED AS DIRECTED BY THE ENGINEER.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT RECORDS TO THE CITY OF SOUTH BURLINGTON, PUBLIC WORKS DEPARTMENT. AS-BUILT RECORDS SHALL BE DEVELOPED AS DIRECTED BY THE CITY OF SOUTH BURLINGTON, PUBLIC WORKS DEPARTMENT.
- 8. CONTRACTOR SHALL MAINTAIN ACCESS TO AFFECTED COMMERCIAL AND RESIDENTIAL PROPERTIES AT ALL TIMES DURING CONSTRUCTION. SEE TRAFFIC CONTROL PLANS FOR FURTHER DETAILS.
- 19. IN THE EVENT THAT AN UNKNOWN BUILDING SERVICE PIPE IS ENCOUNTERED THAT CONNECTS TO THE EXISTING SEWER MAIN, THE CONTRACTOR, ENGINEER, AND DEPARTMENT OF PUBLIC WORKS PERSONNEL WILL WORK COOPERATIVELY TO EVALUATE AND IDENTIFY THE PIPE'S SOURCE AS EITHER ROOF DRAIN, SANITARY SEWER, AND/OR COMBINED WASTE. AND REROUTE THE EXISTING PIPE ACCORDINGLY.



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Permit-Seal

Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

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STP MM18(17)

GENERAL NOTES SHEET

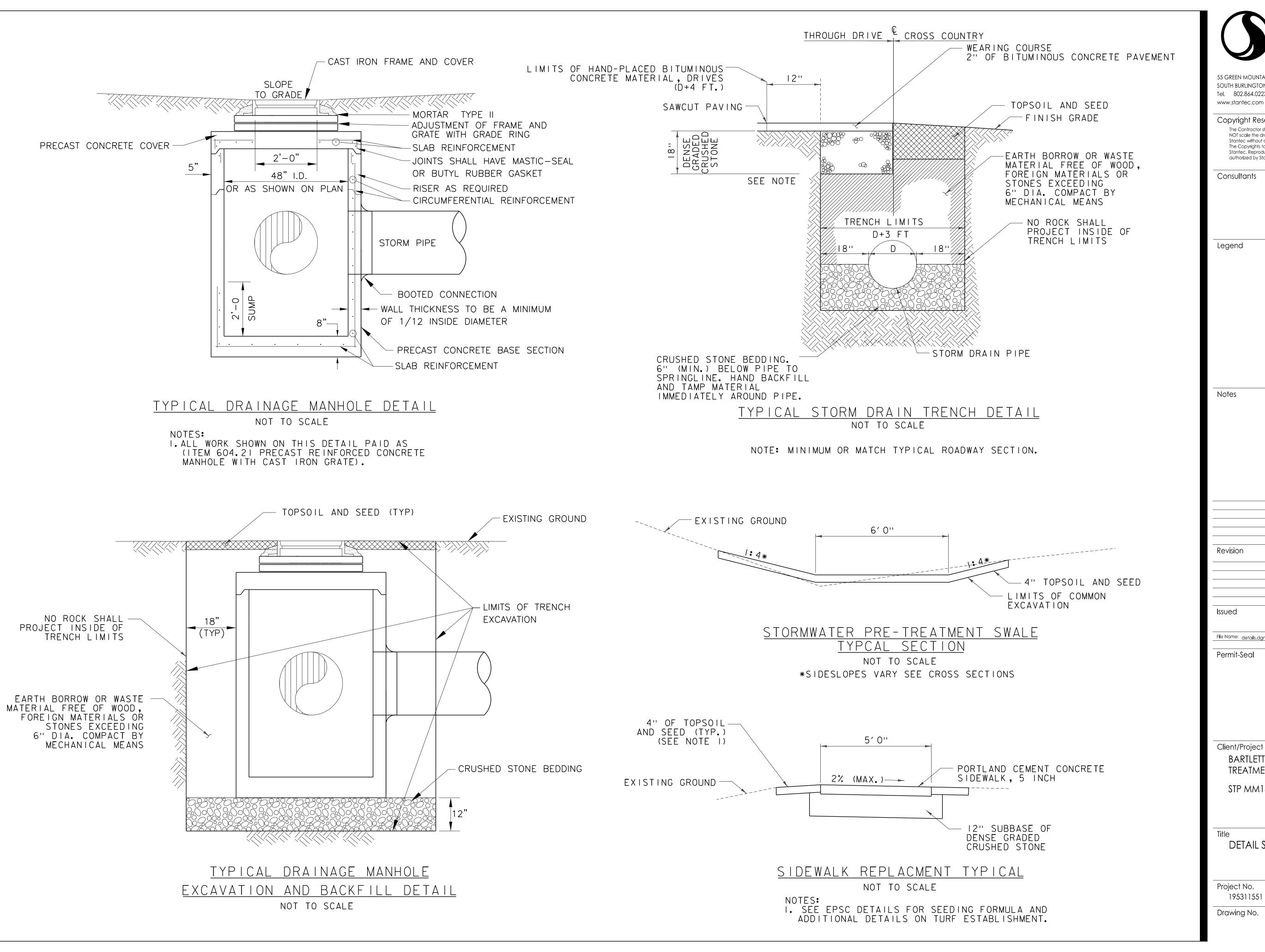
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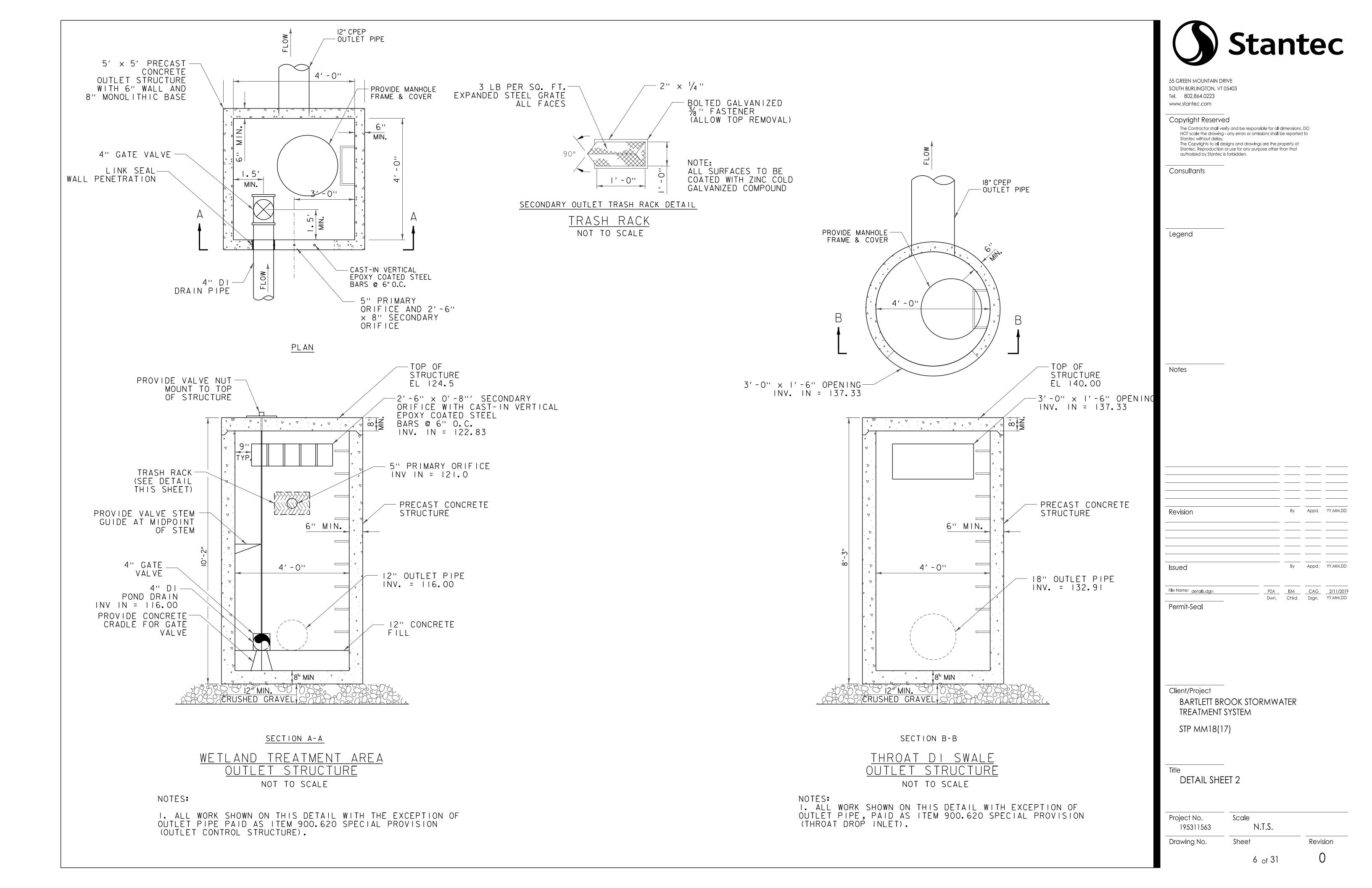
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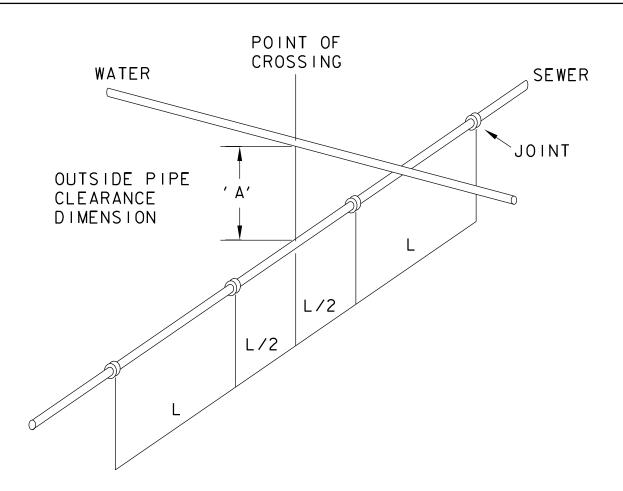
Client/Project BARTLETT BROOK STORMWATER TREATMENT SYSTEM

STP MM18(17)

DETAIL SHEET 1

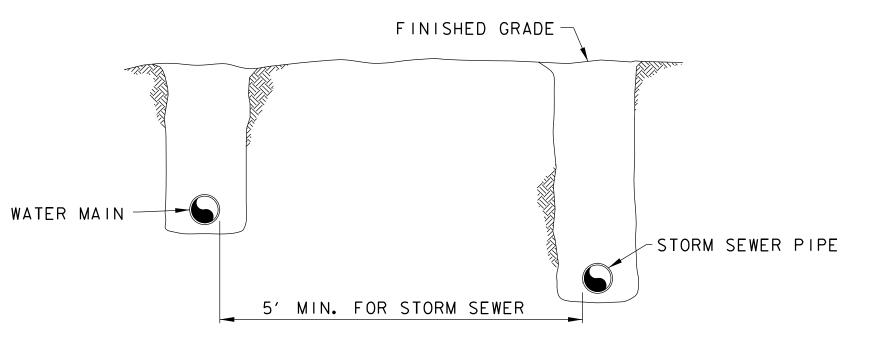
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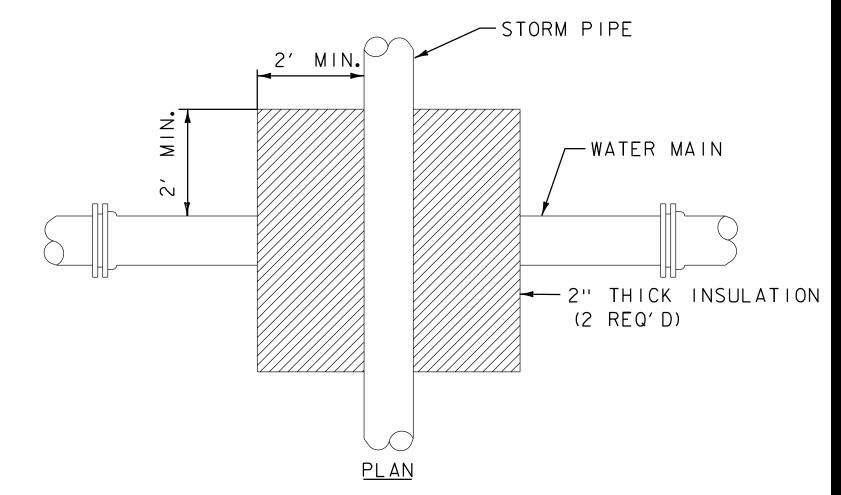
CONSTRUCTION RESTRICTIONS:

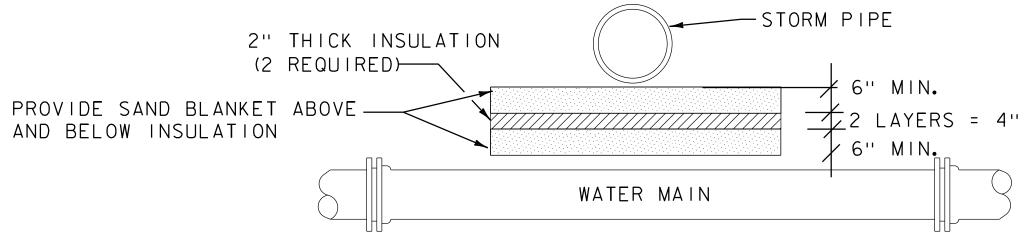
- I. IN ALL NEW CONSTRUCTION, DIMENSION 'A' SHALL NEVER BE LESS THAN 18 INCHES.
- 2. WITH ALL NEW CONSTRUCTION, THE CROSSING SHALL BE ARRANGED AS SHOWN IN THIS DIAGRAM, SO THAT THE STORM SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
- 3. IF IT IS IMPOSSIBLE TO MAINTAIN THE 18 INCH SEPERATION DUE TO EXISTING UTILITY, THEN ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE STORM SEWER, PLUS THE WATER MAIN OR THE STORM SEWER SHALL BE COMPLETELY ENCASED IN A SEAMLESS SLEEVE CONSISTING OF A FULL (MINIMUM 19 FEET) LENGTH OF PIPE (E.G. SDR 35 PVC), CENTERED ON THE CROSSED UTILITY.





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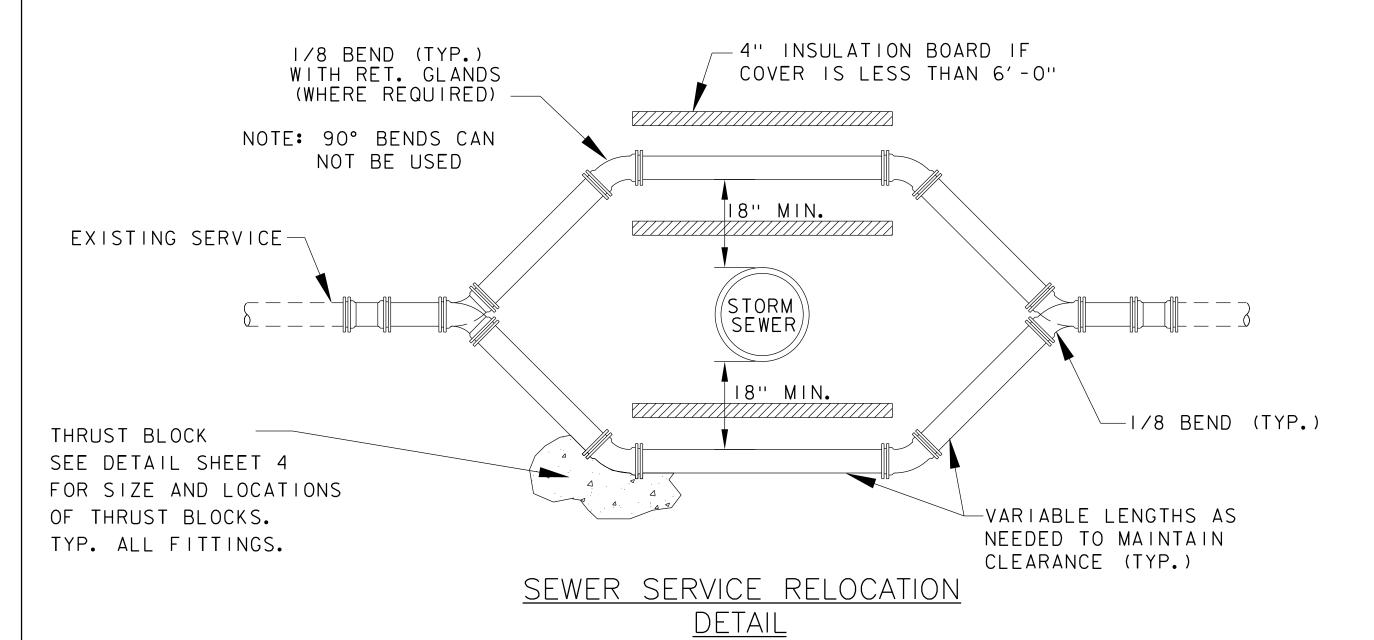
SECTION

STORM SEWER CROSSING INSULATION DETAIL

NOT TO SCALE

NOTES:

- I. PAYMENT FOR POLYSTYRENE RIGID BOARD INSULATION AND SAND BEDDING SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.620, SPECIAL PROVISION (RELOCATE COPPER WATER SERVICE), OR 900.920 SPECIAL PROVISION (RELOCATE DUCTILE IRON WATER PIPE)
- 2. SAND BLANKET MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 703.03 AND POLYSTYRENE INSULATION BOARD SHALL MEET THE REQUIREMENTS OF SUBSECTION 735.01 AS STATED IN THE VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION.

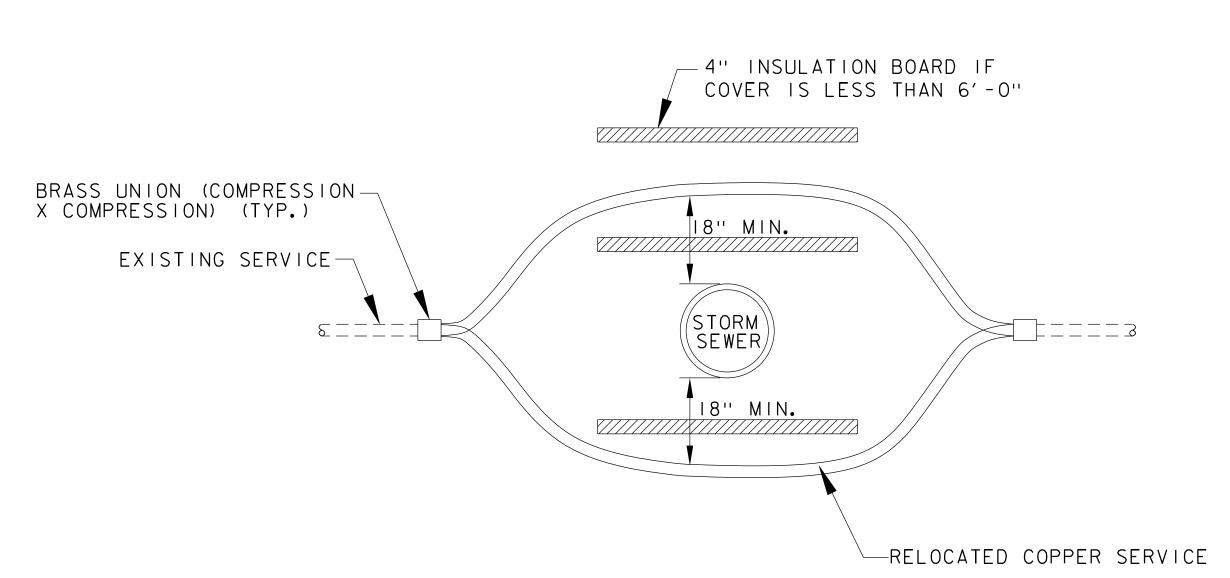


NOTES:

I. ALLOWABLE SEWER PIPE DEFLECTIONS MAY BE USED TO ACCOMPLISH THE RELOCATIONS IN LIEU OF ELBOWS AND FITTINGS.

NOT TO SCALE

- 2. SEE SPECIFICATION 628.13 FOR DETAILS, DESCRIPTIONS AND INSTRUCTIONS.
- 3. MATCH EXISTING SEWER SERVICE PIPE SIZE AND MATERIAL.
- 4. POLYSTYRENE INSULATION BOARD SHALL MEET THE REQUIREMENTS OF SUBSECTION 735.01 AS STATED IN VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION.



WATER SERVICE RELOCATION DETAIL

NOT TO SCALE

I. SEE SPECIFICATION 628.13 FOR DETAILS, DESCRIPTIONS AND INSTRUCTIONS.

- 2. MATCH EXISTING WATER SERVICE PIPE SIZE AND MATERIAL.
- 3. POLYSTYRENE INSULATION BOARD SHALL MEET THE REQUIREMENTS OF SUBSECTION 735.01 AS STATED IN VTRANS STANDARD SPECIFICIATION FOR CONSTRUCTION.



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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

DETAIL SHEET 3

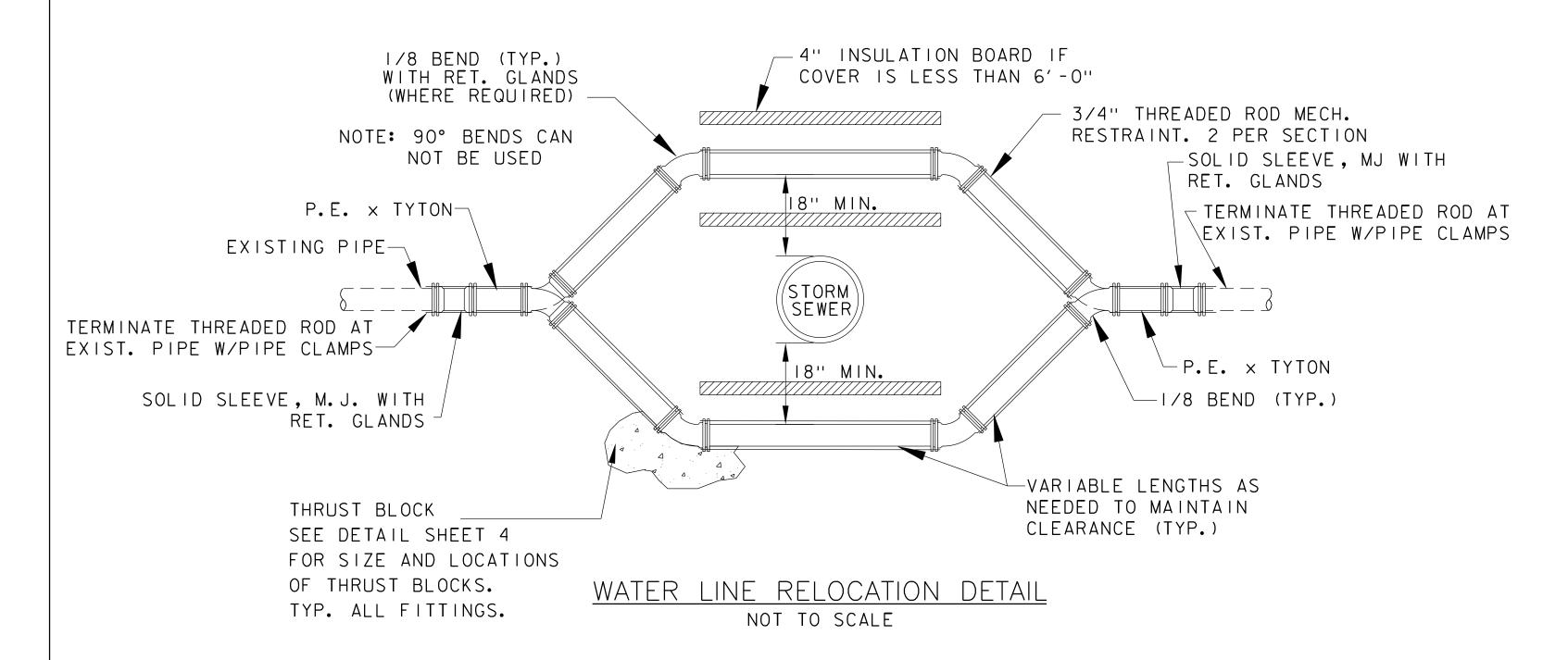
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195311563

Drawing No.

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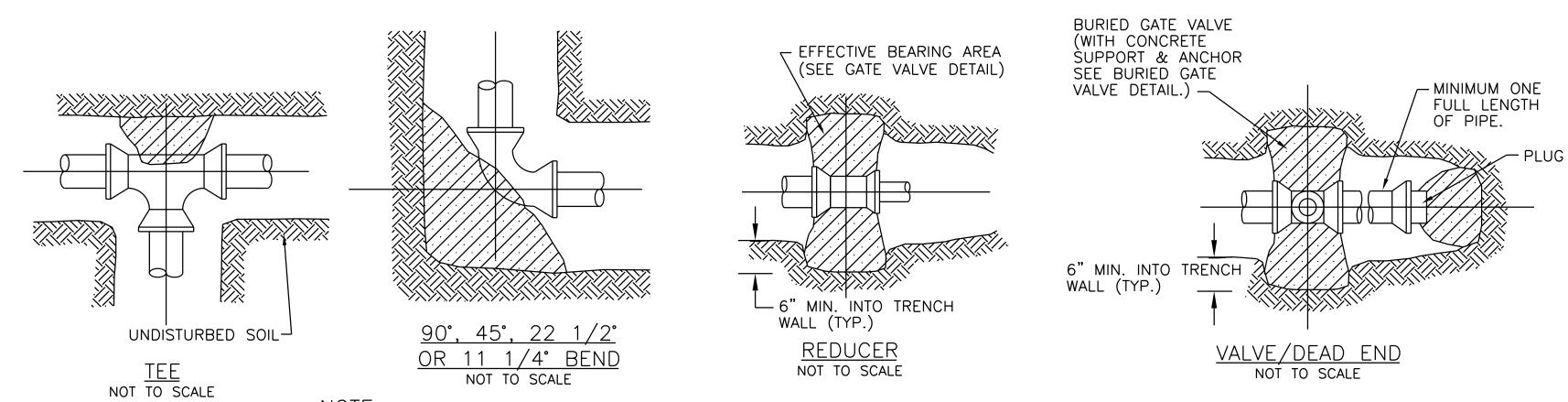
Revision





NOTES:

- I. ALLOWABLE WATER PIPE DEFLECTIONS MAY BE USED TO ACCOMPLISH THE RELOCATIONS IN LIEU OF ELBOWS AND FITTINGS.
- 2. SEE SPECIFICATION 628.13 FOR DETAILS, DESCRIPTIONS AND INSTRUCTIONS.
- 3. MATCH EXISTING WATER SERVICE PIPE SIZE AND MATERIAL.
- 4. POLYSTYRENE INSULATION BOARD SHALL MEET THE REQUIREMENTS OF SUBSECTION 735.01 AS STATED IN VTRANS STANDARD SPECIFICIATIONS FOR CONSTRUCTION.



NOTE: place 3 mil. (min) polyethylene sheet between all concrete thrust blocks and pipe and/or fittings to prevent bond.

MINIMUM AREA OF BEARING SURFACE OF CONCRETE THRUST BLOCKS

-	IN SQUARE FEET —————————————————————————————————																				
	3" ø				4"	Ø		6" ø				8" ø				12" ø				TYPICAL	ASSUMED SAFE
ENDS & TEES	90° ELB.	45 ° ELB.	22.5° ELB.	ENDS & TEES	90° ELB.	45° ELB.	22.5° ELB.	TYPICAL SOIL CONDITION	BEARING LOAD (PSF)												
0.5	0.5	0.5	0.5	0.5	1.0	0.5	0.5	1.0	1.5	1.0	0.5	2.0	2.5	1.5	1.0	4.0	5.5	3.0	1.5	SOUND SHALE	10,000
1.0	1.0	1.0	0.5	1.5	2.0	1.0	0.5	3.0	4.0	2.0	1.0	4.5	6.5	3.5	2.0	10.0	14.0	7.5	4.0	CEMENTED GRAVEL & SAND	4,000
1.0	1.5	1.0	0.5	2.0	2.5	1.5	1.0	3.5	5.0	3.0	1.5	6.0	8.5	5.0	2.5	13.0	18.5	10.0	5.0	COARSE & FINE COMPACT SAND	3,000
1.5	2.5	1.5	1.0	2.5	3.5	2.0	1.0	5.5	7.5	4.0	2.0	9.0	13.0	7.0	3.5	20.0	27.5	15.0	8.0	MEDIUM CLAY (CAN BE SPADED)	2,000
3.0	4.5	2.5	1.5	5.0	7.0	4.0	2.0	10.5	15.0	8.0	4.0	18.0	25.0	14.0	7.0	39.0	55.0	30.0	15.0	SOFT CLAY	1,000
			MAX	XIMUM W	ATER PR	RESSURE	= 300	PSI NOT	E: REDU	CER BEA	ARING AF	REA = 4	5° BEND	. LARGE	R PIPE:	GATE VA	LVE = E	ND			

THRUST BLOCK DETAILS

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TREATMENT SYSTEM

STP MM18(17)

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DETAIL SHEET 4

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195311563

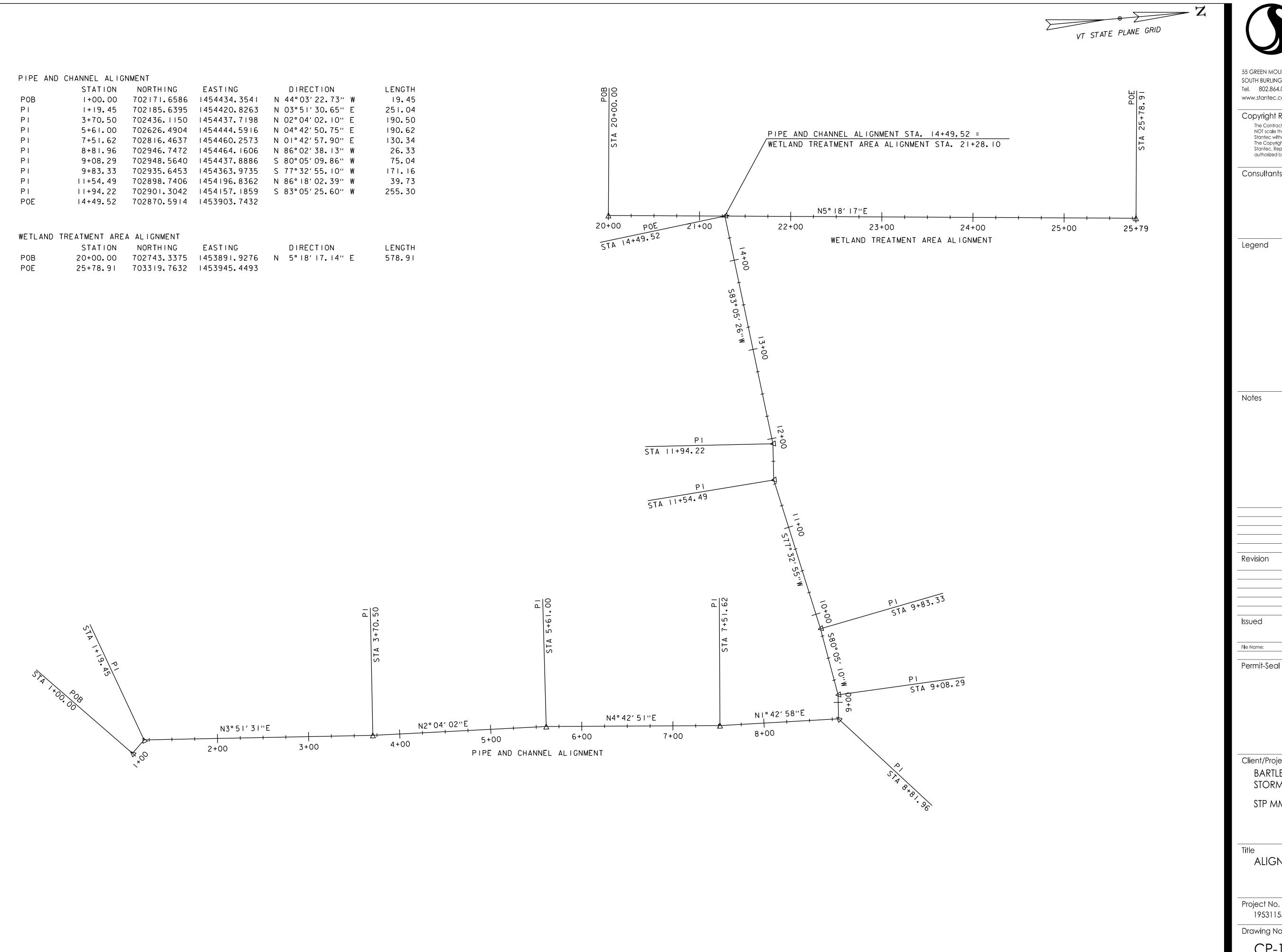
Drawing No.

Scale

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Revision

8 of 31





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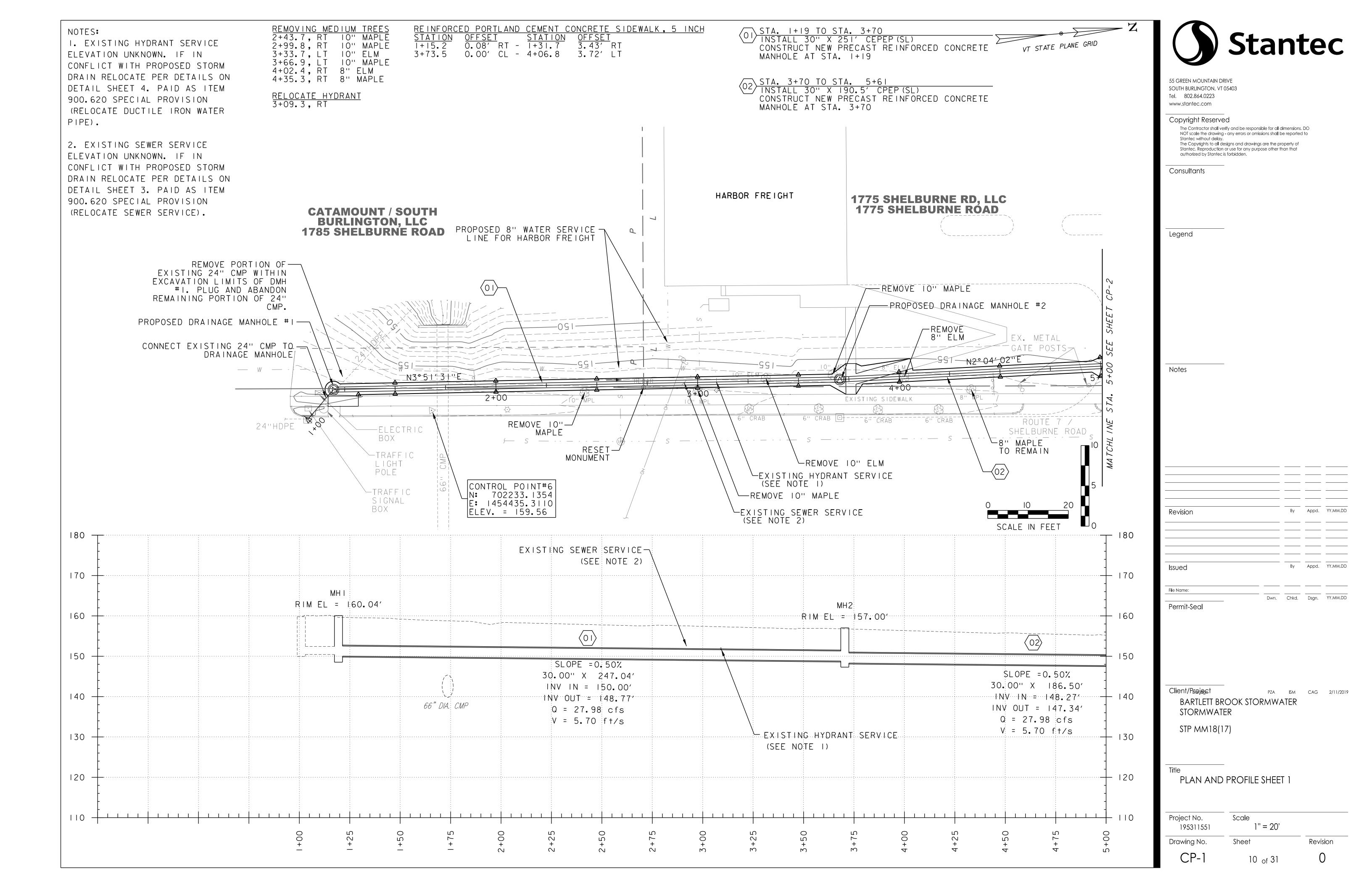
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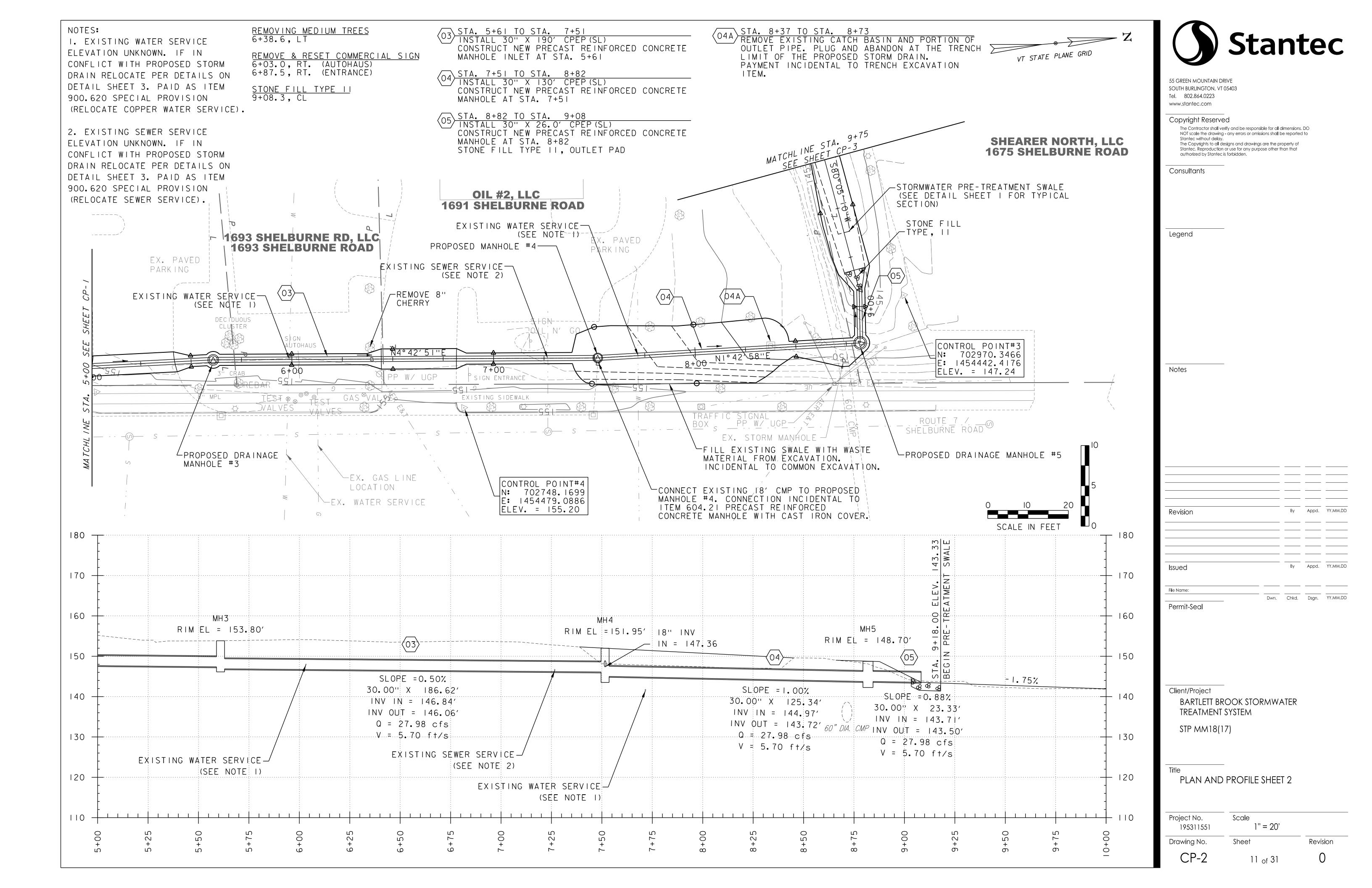
Client/Project BARTLETT BROOK STORMWATER STORMWATER

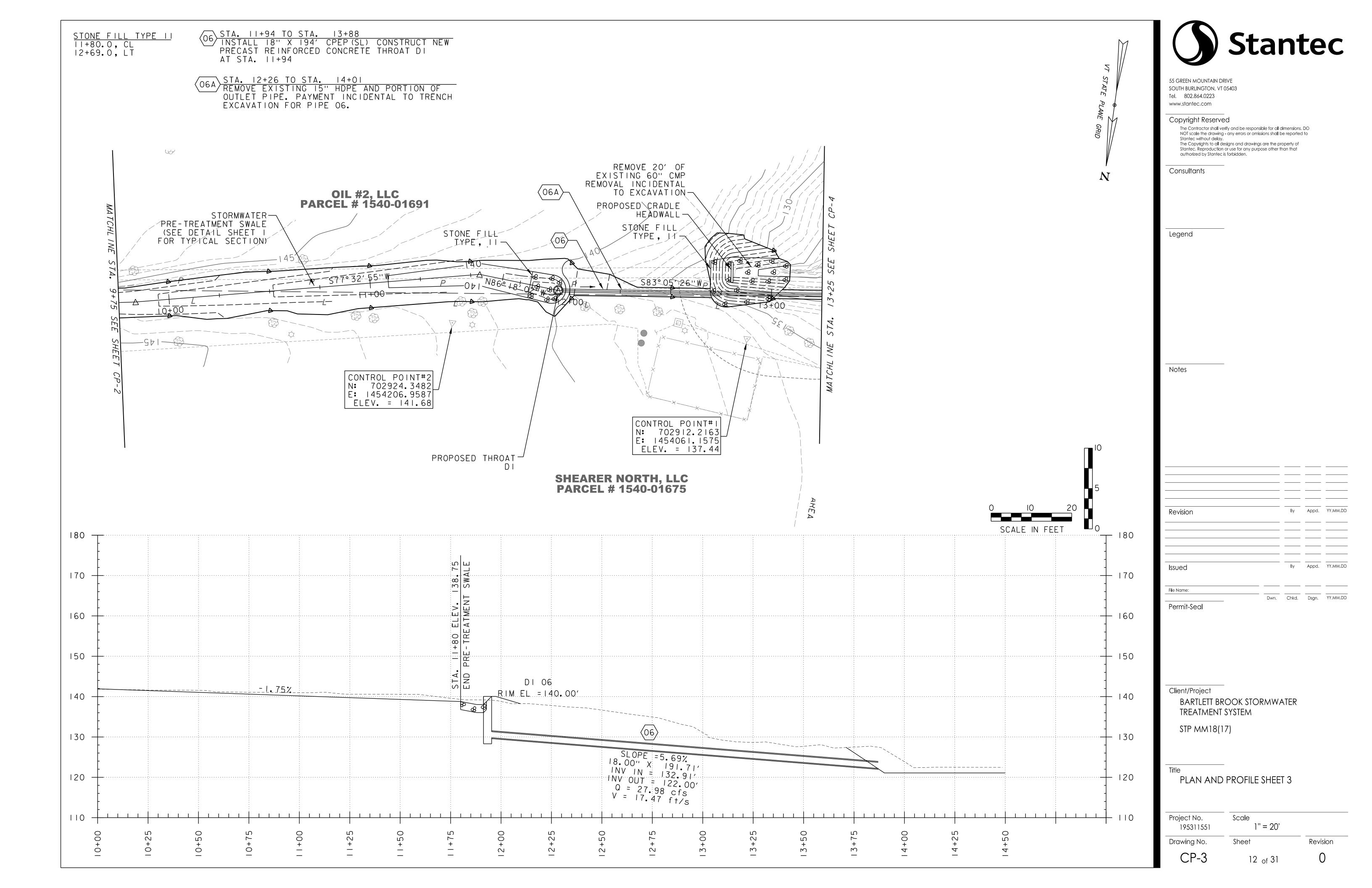
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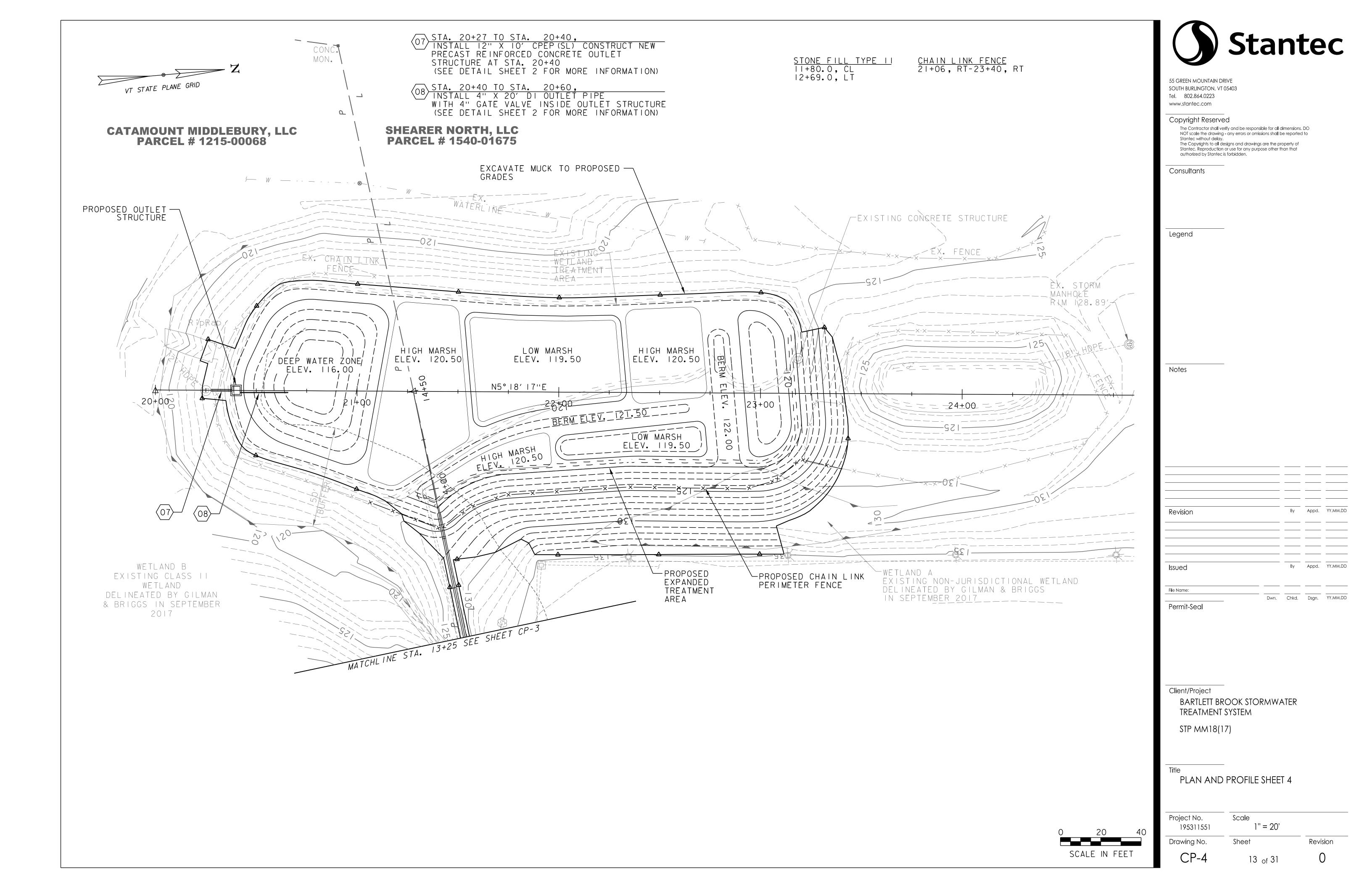
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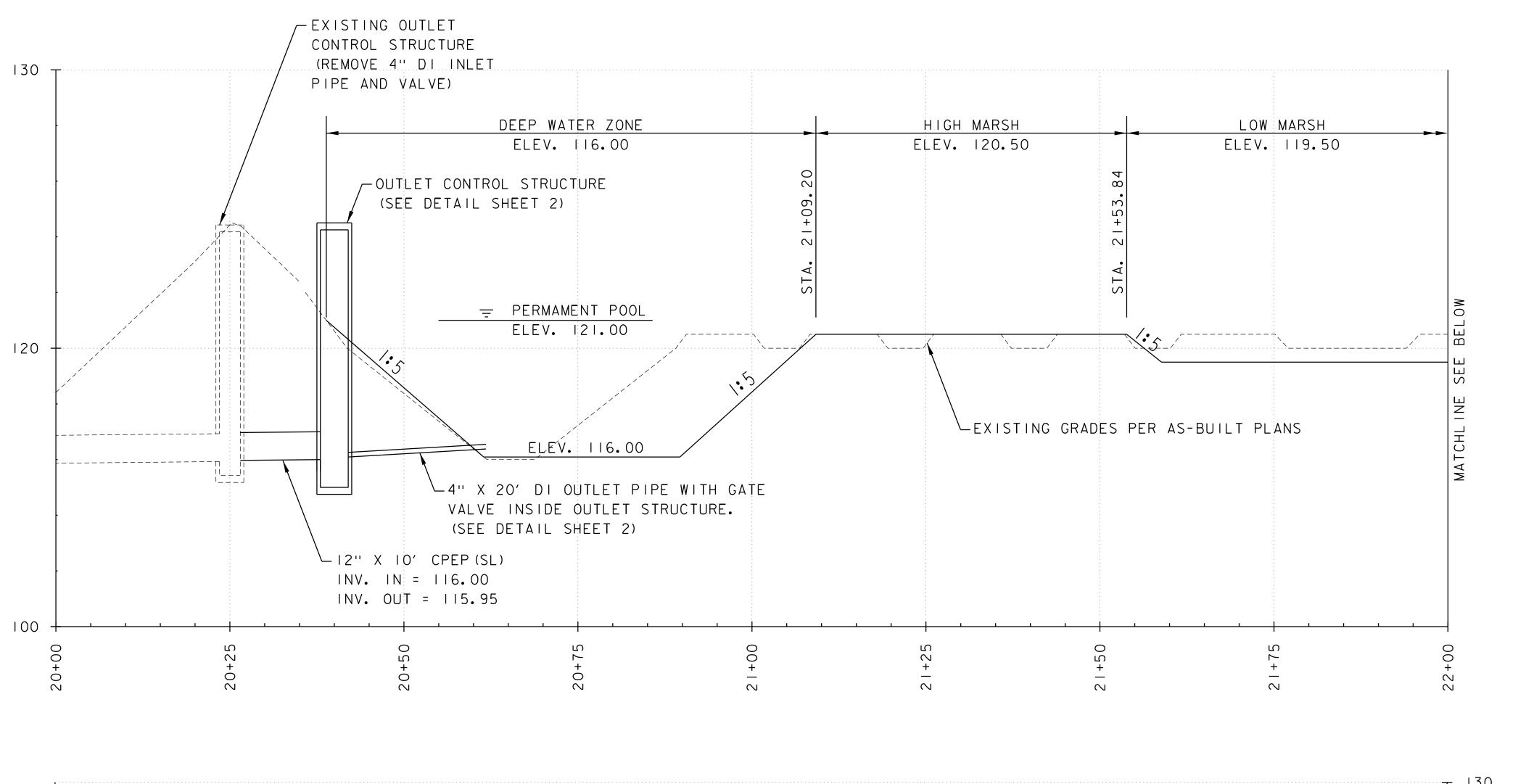
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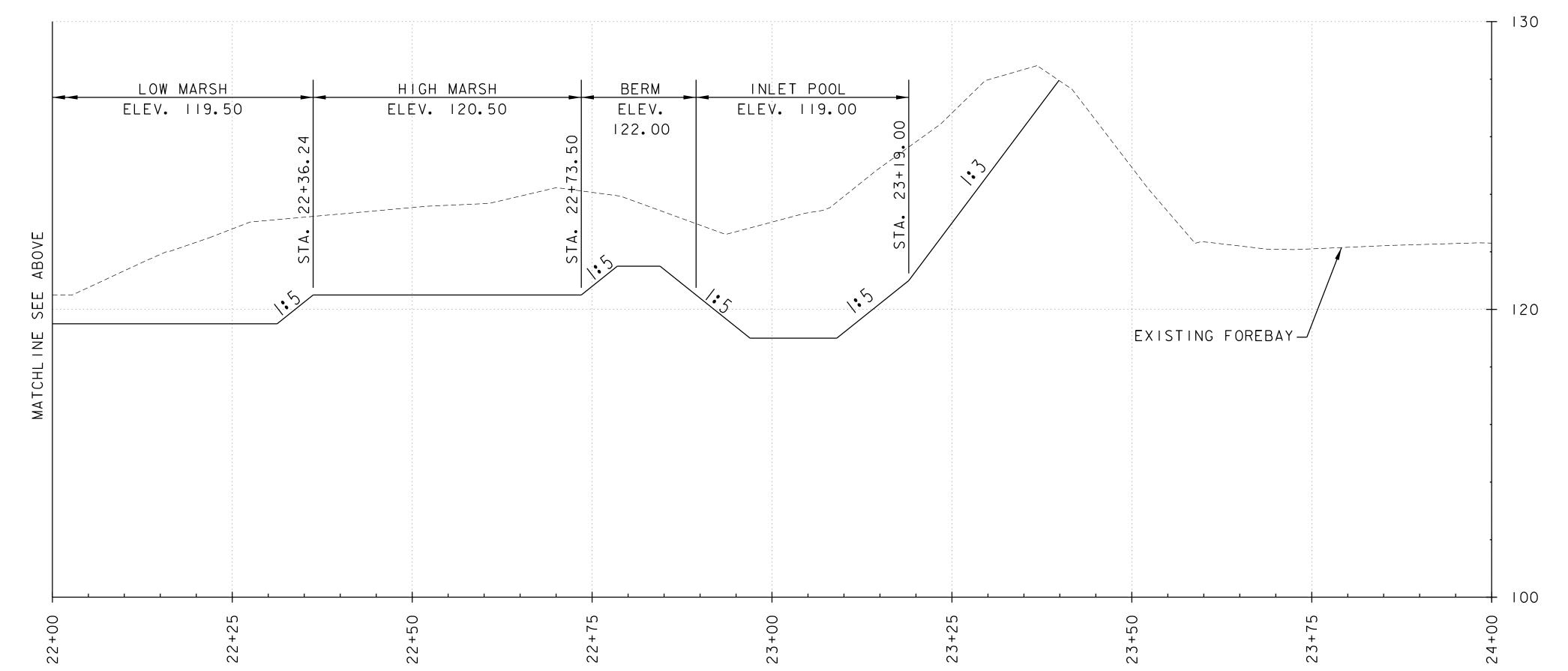


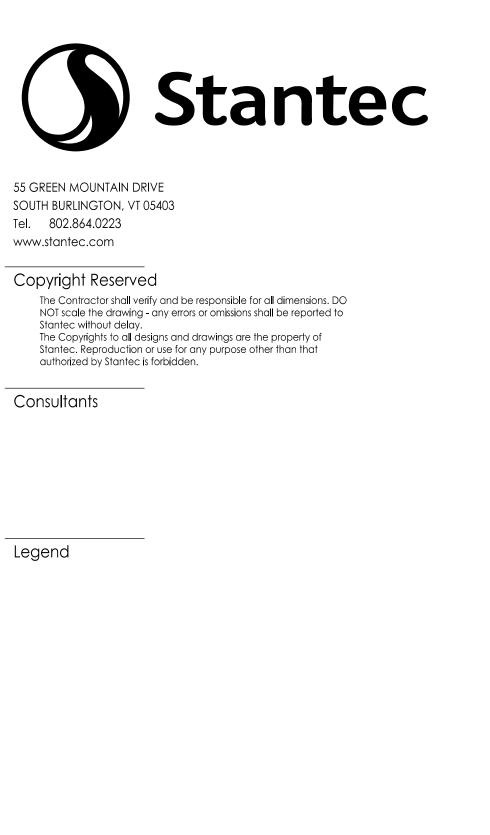


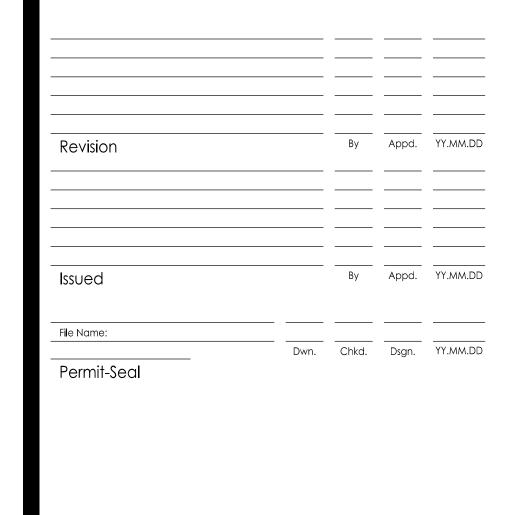












Client/Project

Title

2.5 WETLAND TREATMENT AREA
PROFILE

SCALE IN FEET

Project No.	Scale	
195311551	H: 1"=10' V: 1"=2.5'	
Drawing No.	Sheet	Revisio



EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE EXPANSION OF THE EXISTING STORMWATER TREATMENT AREA BEHIND SHEARER CHEVROLET ON US ROUTE 7 IN SOUTH BURLINGTON. THE PROJECT REROUTING STORM DRAINAGE VIA CLOSED DRAINAGE FROM HARBOR VIEW ROAD ALONG US ROUTE 7 AND OUTLETTING AT THE EXPANDED WETLAND AREA.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 1.55 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE AREA IS FLAT WITH A MIX OF COMMERCIAL, UNDEVELOPED PARCELS. THE UNDEVELOPED PORTION BETWEEN OIL N'GO AND SHEARER INCLUDES AN EXISTING DRAINAGE SWALE THAT WILL BE REGRADED WHICH WILL REQUIRE MINOR CLEARING.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THERE IS AN EXISTING STORMWATER TREATMENT WETLAND THAT WILL BE EXPANDED AS PART OF THE PROJECT. THE CULVERT CARRYING BARTLETT BROOK UNDER US ROUTE 7 IS WITHIN THE PROJECT AREA AND WILL UNDERGO REPAIRS TO THE ERODED OUTLET. CLOSED DRAINAGE WILL BE ADDED ALONG US ROUTE 7 BEHIND THE SIDEWALK AND WILL OUTLET TO A PRE-TREATMENT SWALE BEFORE ENTERING THE EXPANDED WETLAND TREATMENT AREA.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF GRASSED AND LAWN AREAS. STREET TREES EXIST ALONG ROUTE 7. THERE WILL BE MINOR CLEARING NEEDED OF THE WOODED AREA BETWEEN OIL N'GO AND SHEARER. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE NEW CLOSED DRAINAGE AND TREATMENT SWALE. UPON PROJECT COMPLETION, DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES. ADDITIONALLY, SOME REPLACEMENT TREES WILL BE INCLUDED.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF CHITTENDED COUNTY, VERMONT. SOILS ON THE PROJECT SITE ARE VERGENNES CLAY, 2% TO 6% & 25% TO 60% SLOPES, "K FACTOR" = 0.49 (HIGH EROSION POTENTIAL), AND BELGRADE AND ELDRIDGE, 3% TO 8%, "K FACTOR" = 0.32 (MODERATE EROSION POTENTIAL).

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:

0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: YES, POTENTIAL NLEB HABITAT
WATER RESOURCE: BARTLETT BROOK
WETLANDS: BUFFER IMPACTS TO CLASS II WETLAND ADJACENT TO BARTLETT BROOK.

1.3 RISK EVALUATION

THIS PROJECT FALLS UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR LOW RISK PROJECTS. ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE

SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP-SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

CHECK DAMS WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN, AT A MINIMUM.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT, TYPE I OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE ROLLED EROSION CONTROL PRODUCT, TYPE I OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

TREATMENT OF DEWATERING IS ANTICIPATED. A LOCATION FOR TREATMENT HAS BEEN PROPOSED AND IS SHOWN ON THE PLANS. HOWEVER THE SPECIFIC MEANS FOR TREATMENT OF DISCHARGE SHALL BE PROVIDED BY THE CONTRACTOR.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SPECIFICATION 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1.5.3 UPDATES



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Revision

By Appd. YY.MM.DD

Issued

By Appd. YY.MM.DD

Dwn. Chkd. Dsgn. YY.MM.DD

Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM
STP MM18(17)

EROSION CONTROL NARRATIVE

Project No.
195311551

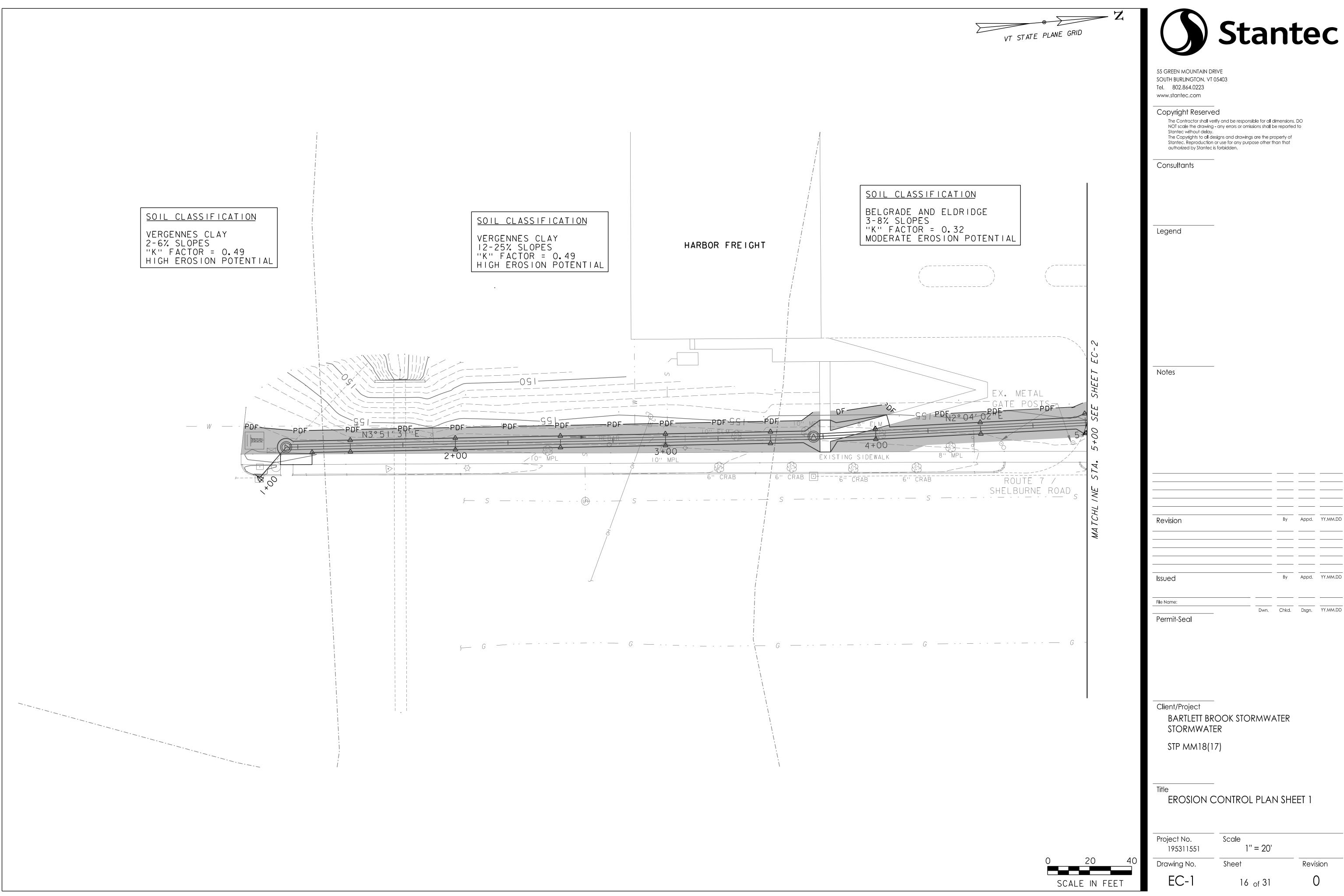
Drawing No.

Scale

N.T.S.

Revision







Dwn. Chkd. Dsgn. YY.MM.DD

Revision

VT STATE PLANE GRID SHEARER NORTH, LLC 1675 SHELBURNE ROAD Legend STORMWATER PRE-TREATMENT SWALE (SEE DETAIL SHEET I FOR TYPICAL OIL #2, LLC 1691 SHELBURNE ROAD SECTION) STONE FILL
TYPE, II 1693 SHELBURNE RD, LLC 1693 SHELBURNE ROAD EX. PAVED PARKING EX. PAVED PARKING 14° 42′ 51'' E PP W/ UGP EXISTING SIDEWALK EX. STORM MANHOLE — SOIL CLASSIFICATION SOIL CLASSIFICATION BELGRADE AND ELDRIDGE 3-8% SLOPES VERGENNES CLAY -EX. GAS LINE "K" FACTOR = 0.32 25-60% SLOPES MODERATE EROSION POTENTIAL LOCATION "K" FACTOR = 0.49 HIGH EROSION POTENTIAL EX. WATER SERVICE Permit-Seal



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Client/Project

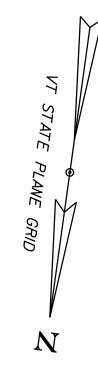
BARTLETT BROOK STORMWATER TREATMENT SYSTEM

STP MM18(17)

SCALE IN FEET

EROSION CONTROL PLAN SHEET 2

Project No. Scale 1'' = 20' 195311551 Drawing No. Sheet Revision 17 of 31





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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

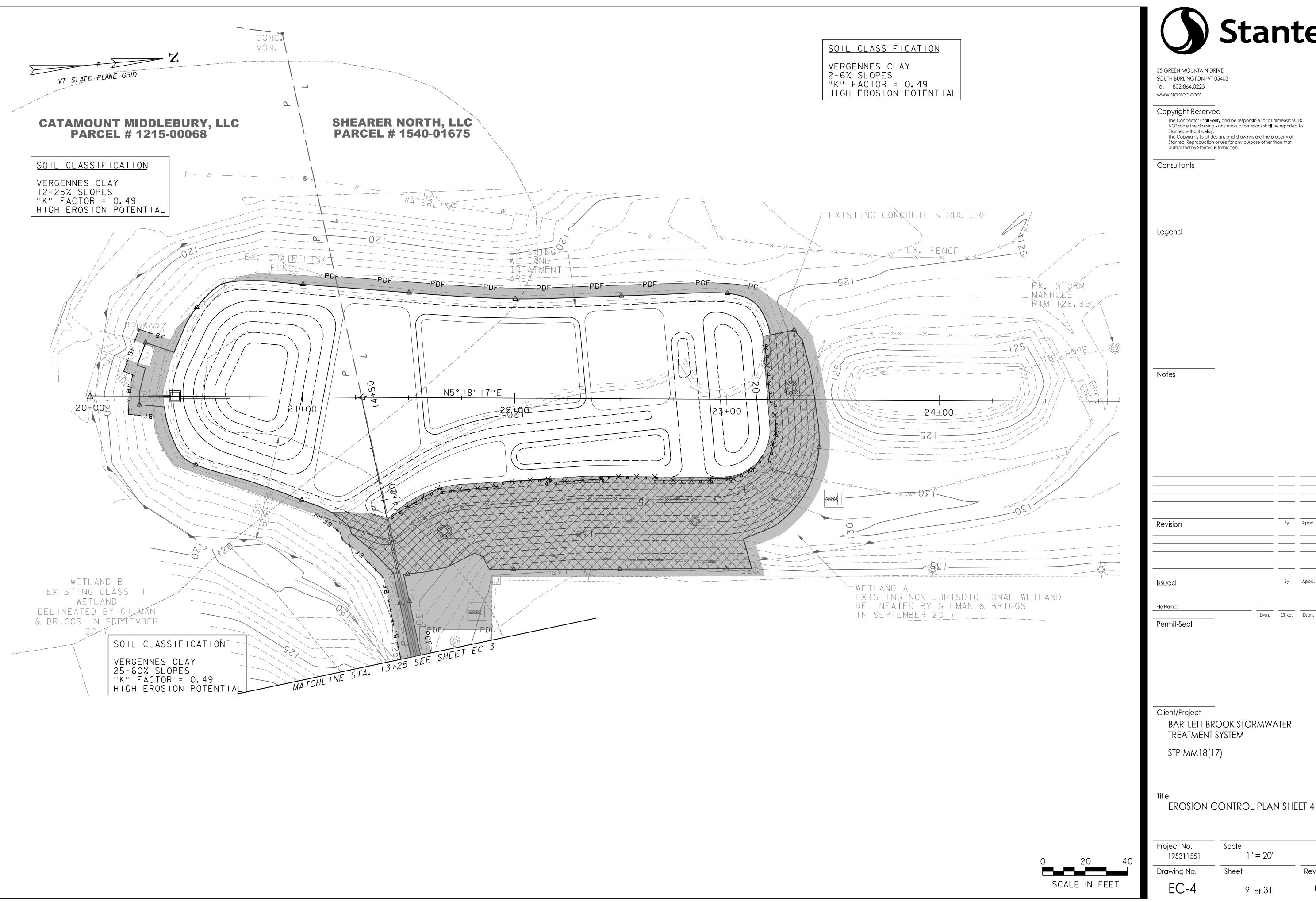
EROSION CONTROL PLAN SHEET 3

Project No. 195311551 1" = 20'

Drawing No. Sheet Revision

EC-3 18 of 31 0

20 40 SCALE IN FEET

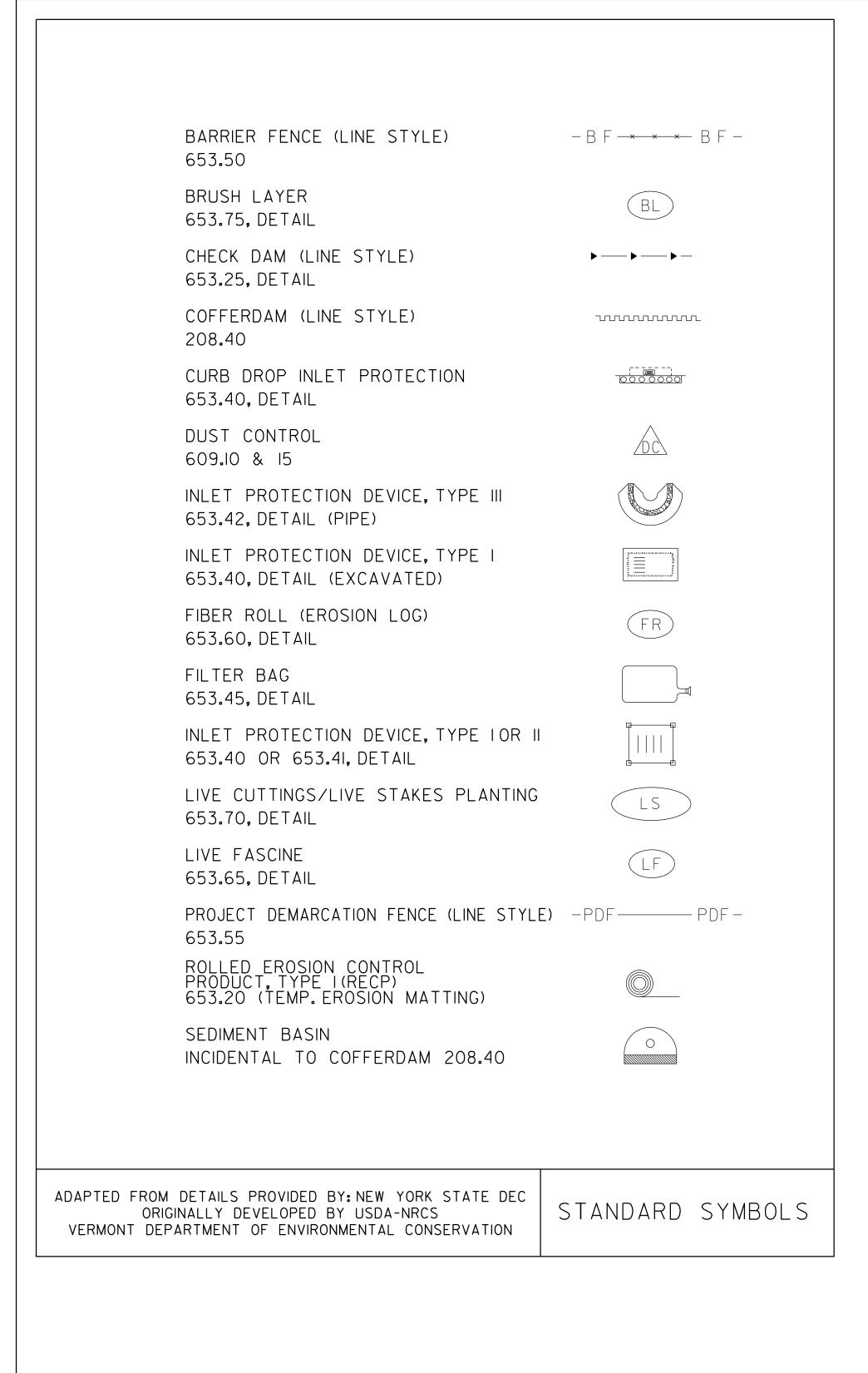


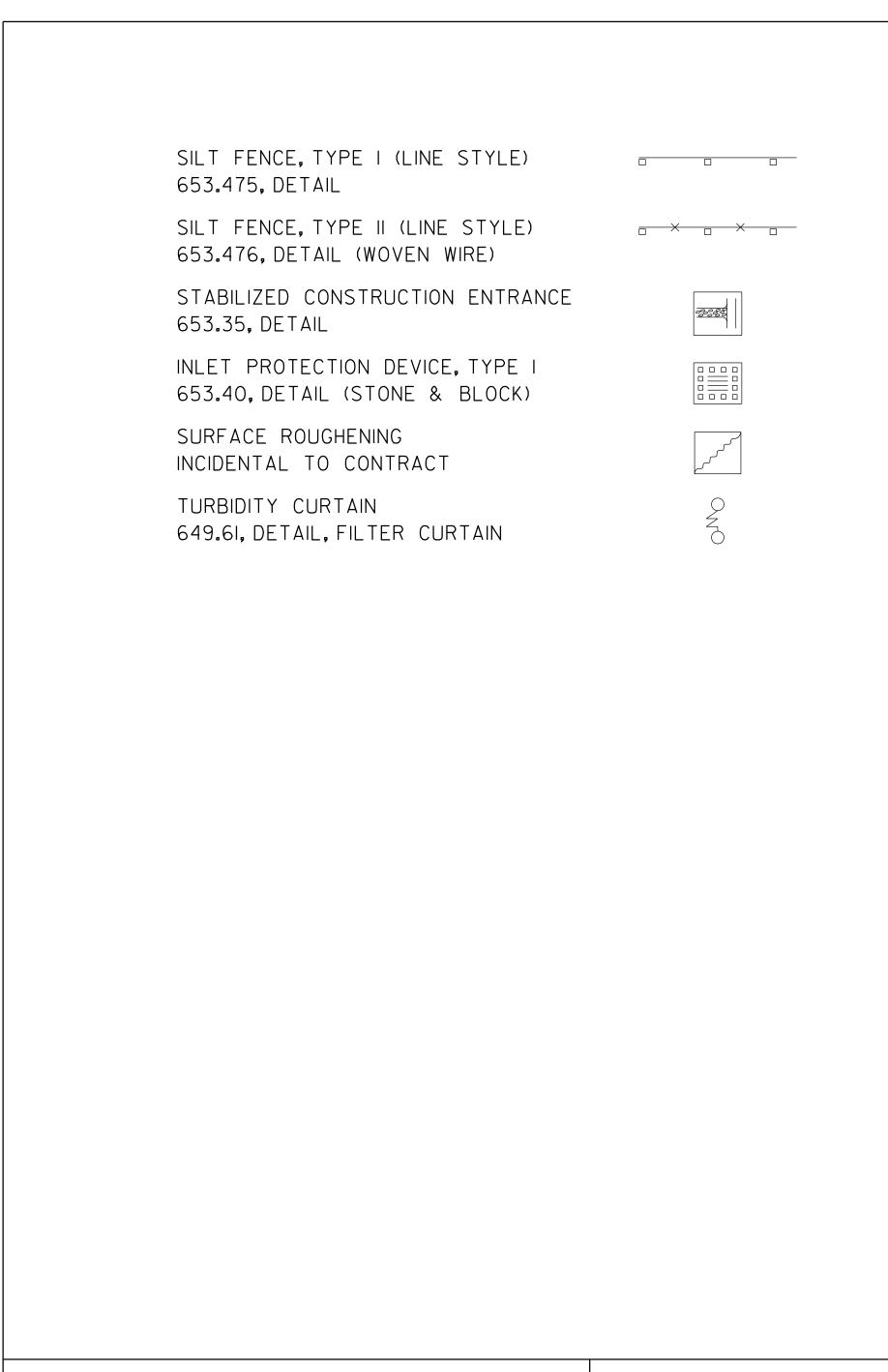


By Appd. YY.MM.DD

BARTLETT BROOK STORMWATER

Revision





STANDARD SYMBOLS

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC

ORIGINALLY DEVELOPED BY USDA-NRCS

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION



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Dwn. Chkd. Dsgn. YY.MM.DD

Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

Permit-Seal

EROSION CONTROL DETAIL SHEET 1

Project No.
195311551

Drawing No.

Scale

N.T.S.

Revision

VAOT URBAN LAWN MIX

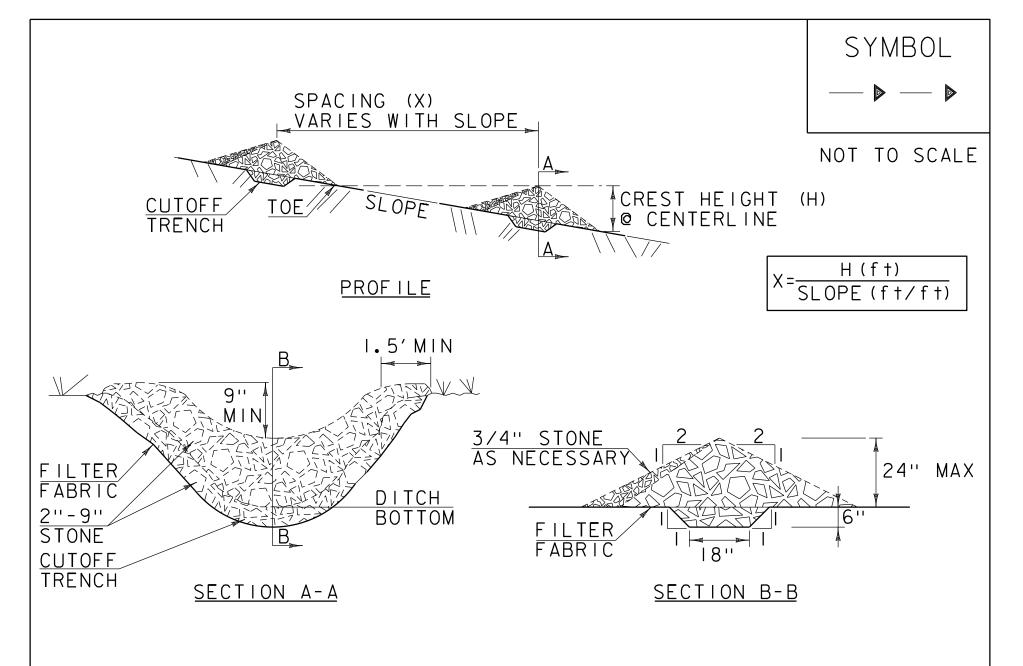
	VAOT ORDAN EAVIT MIX					
	LBS	/AC				
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
42.5%	34	68	CREEPING RED FESCUE	FESTUCA RUBRA X RUBRA	85%	98%
20.0%	16	32	PERENNIAL RYE GRASS	LOLIUM PERENNE	90%	95%
32.5%	26	52	KENTUCKY BLUE GRASS	POA PRATENSIS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	80	160				

GENERAL AMENDMENT GUIDANCE			
FERTILIZER	LIME		
10/20/10	AG LIME	PELLITIZED	
500 LBS/AC	2 TONS/AC	1 TONS/AC	

CONSTRUCTION GUIDANCE

- I.SEED MIX: THE URBAN AREA MIX SHALL NOT BE USED IN WETLANDS OR ANY WATERS OF THE STATE OF VERMONT.
- 2. SEED MIX: USE ONLY AS INDICATED IN THE PLANS.
- 3. SEED MIX: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- 4.FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
- 5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
- 6.HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
- 7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES	TURF ESTABLISHMENT
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651FOR SEED (PAY ITEM 651.15)	REVISIONS JANUARY 22, 2015 WHF



CONSTRUCTION SPECIFICATIONS

- I. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
- 2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
- 3.3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
- 4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- 5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
- 7. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:

REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR CHECK DAM, TYPE I (PAY ITEM 653.25)

REVISIONS
MARCH 21, 2008 WHF
JANUARY 8, 2009 WHF



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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

Permit-Seal

EROSION CONTROL DETAIL SHEET 2

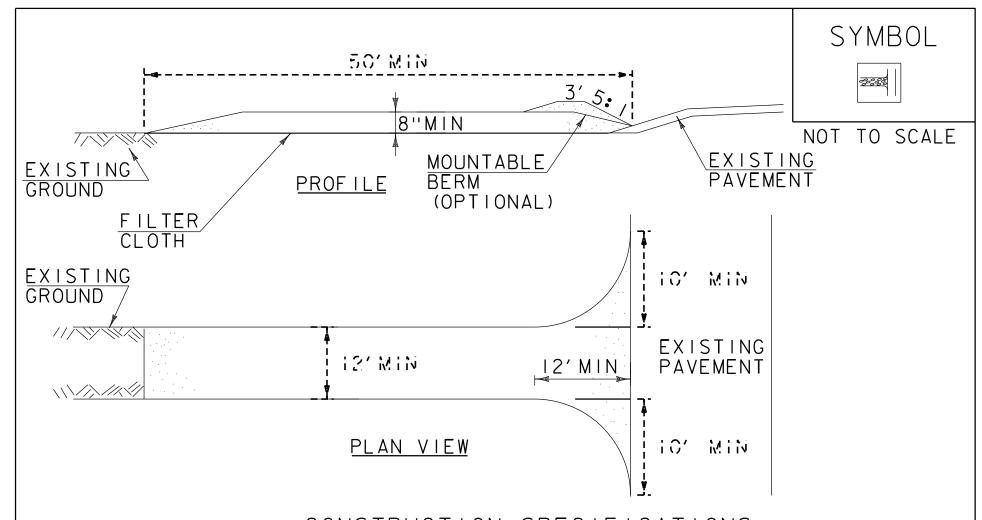
Project No.
195311551

Drawing No.

Scale

N.T.S.

Revision



CONSTRUCTION SPECIFICATIONS

- I.STONE SIZE- USE I-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2.LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
- 3. THICKNESS- NOT LESS THAN 8".
- 4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
- 5.GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
- 6.SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5: I SLOPES WILL BE PERMITTED.
- 7. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9.PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

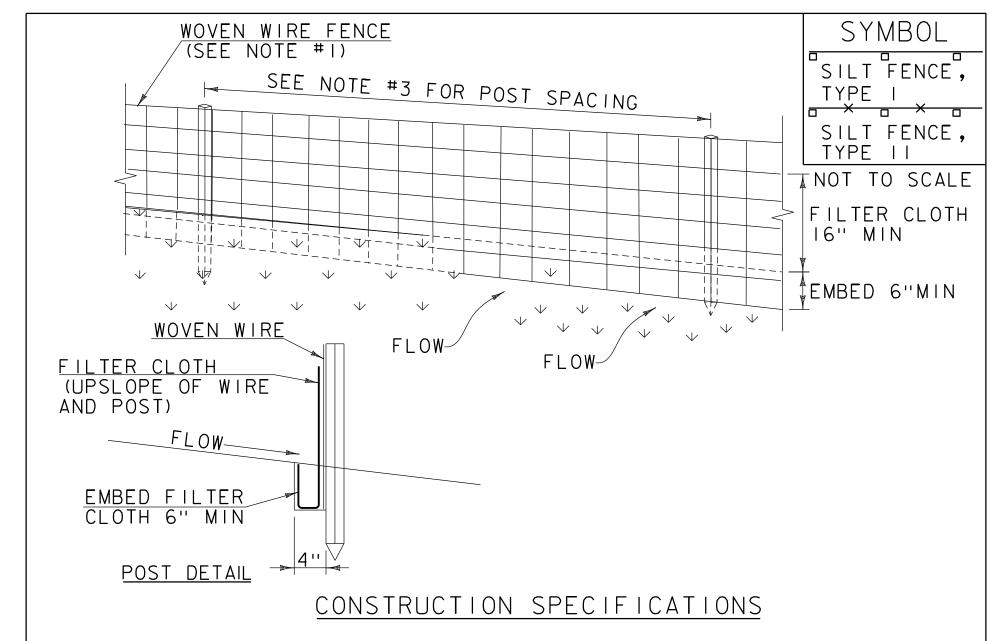
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION STABILIZED CONSTRUCTION ENTRANCE

NOTES:

REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR STABILIZED CONSTRUCTION ENTRANCE (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS
MARCH 24, 2008 WHF
JANUARY 13, 2009 WHF



- . WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
- 2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFIIOOX, STABILINKA TI4ON OR APPROVED EQUIVALENT.
- 3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
- 4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
- 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "EROM

EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR SILT FENCE, TYPE I (PAY ITEM 653.475) OR SILT FENCE, TYPE II (PAY ITEM 653.476).

REVISIONS

MARCH 21, 2008 WHF

DECEMBER II, 2008 WHF

JANUARY 13, 2009 WHF



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Legend

Not

Revision

By Appd. YY.MM.DD

Issued

By Appd. YY.MM.DD

Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM
STP MM18(17)

Permit-Seal

EROSION CONTROL DETAIL SHEET 3

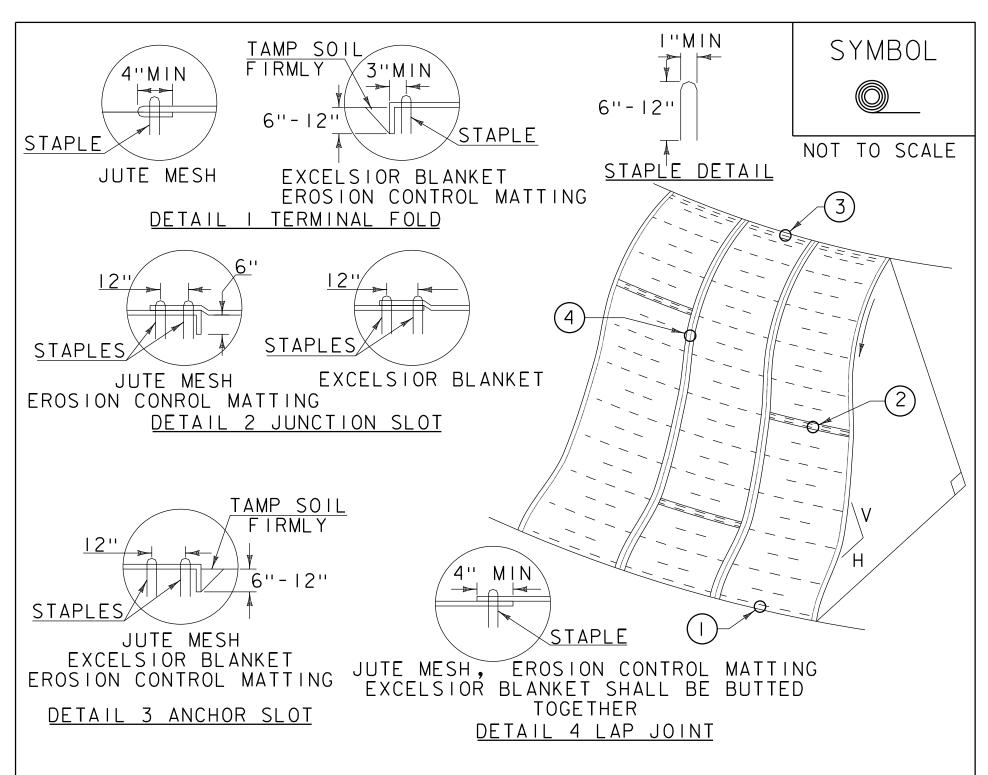
Project No. Scale

195311551 N.T.S.

Drawing No. Sheet Revision

22 of 31

U



CONSTRUCTION SPECIFICATIONS

- I. APPLY TO SLOPES GREATER THAN 3H: IV OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
- 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
- 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2'
 APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES
 ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE
 REQUIRED PER 4'X150' ROLL OF MATERIAL.
- 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
- 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

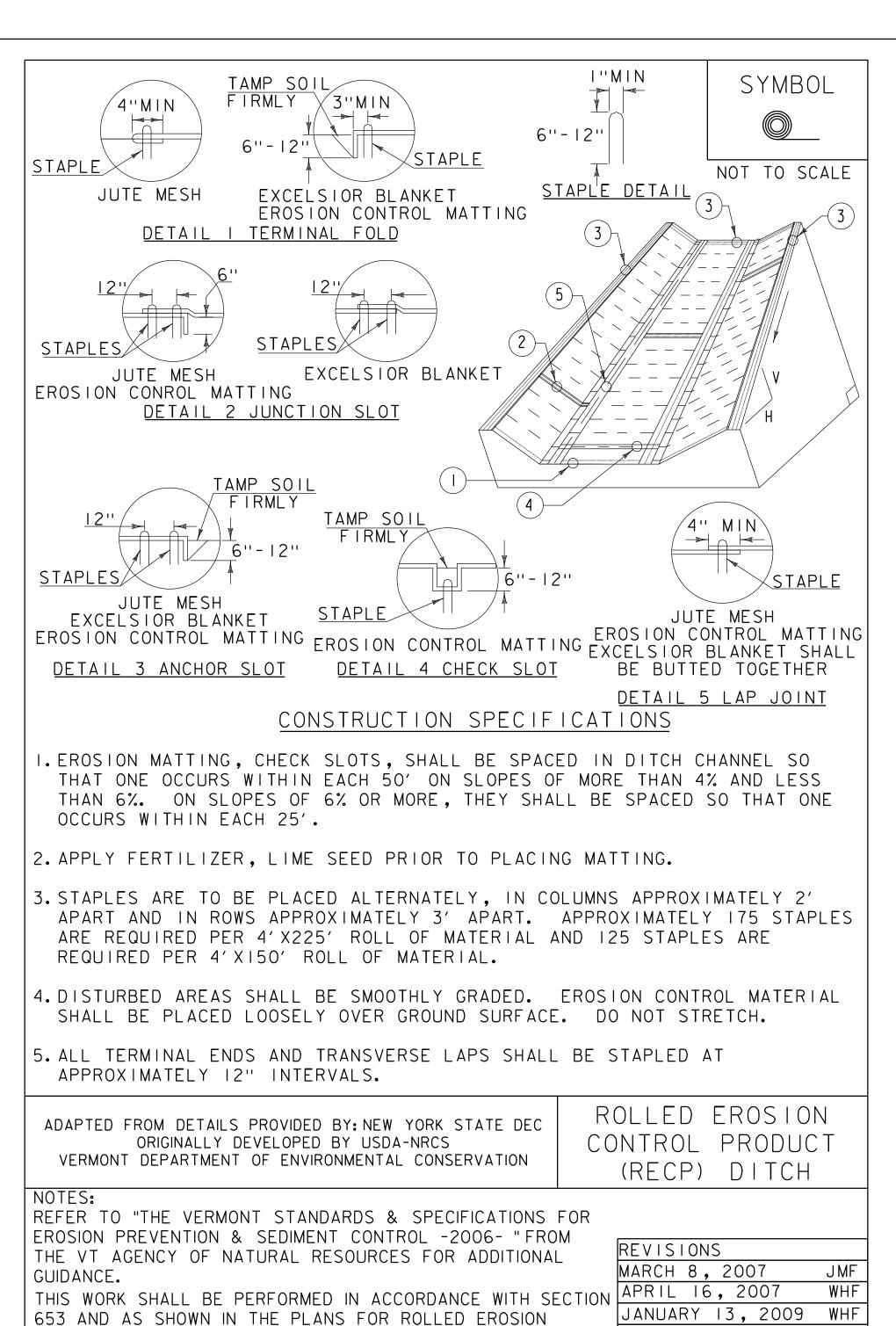
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:

REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR ROLLED EROSION CONTROL PRODUCT, TYPE I (PAY ITEM 653.20)

REVISIONS
APRIL 16, 2007 JMF
JANUARY 13, 2009 WHF



CONTROL PRODUCT, TYPE I (PAY ITEM 653.20)

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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM
STP MM18(17)

Permit-Seal

EROSION CONTROL DETAIL SHEET 4

Project No.
195311551

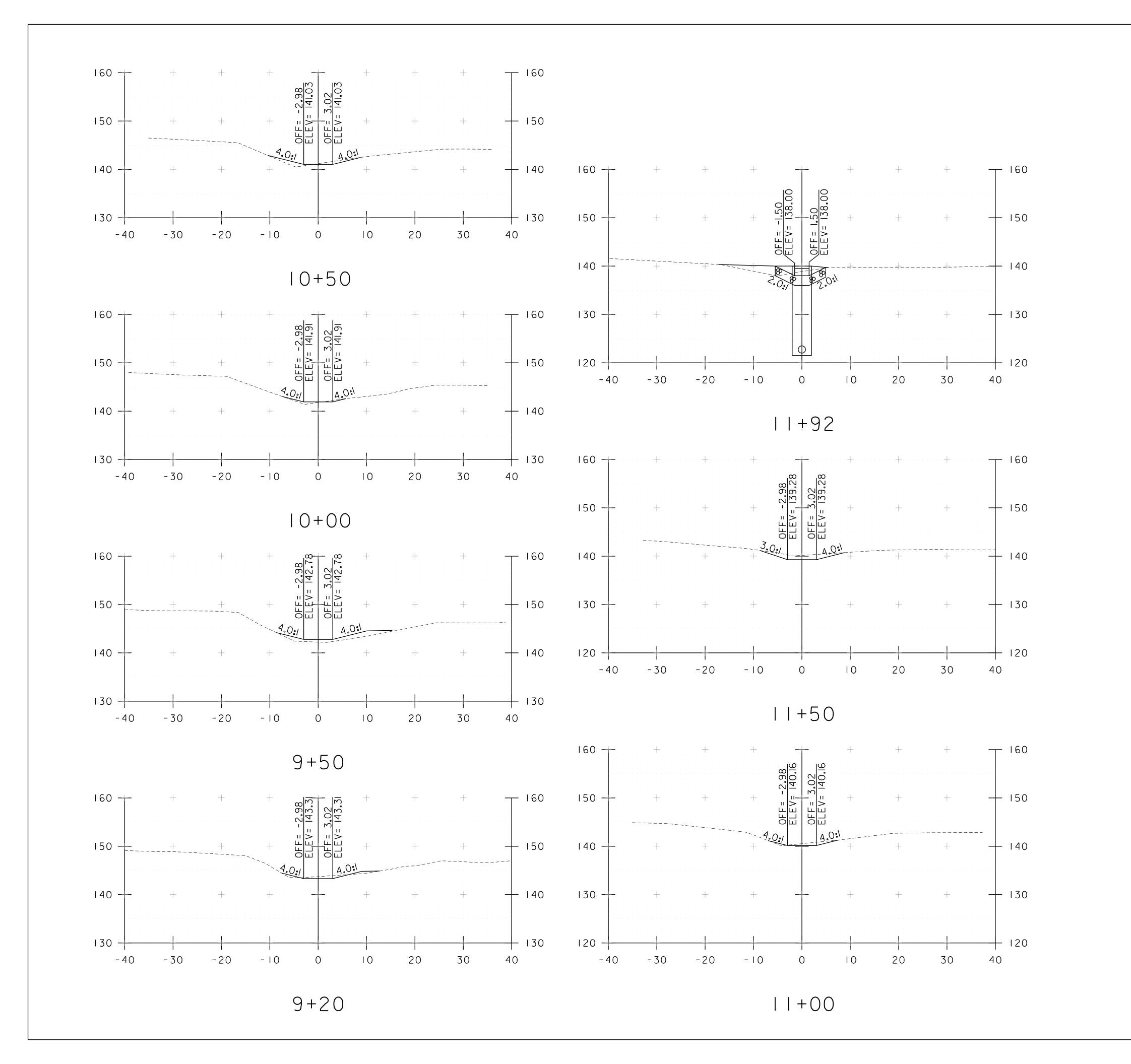
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Client/Project
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TREATMENT SYSTEM
STP MM18(17)

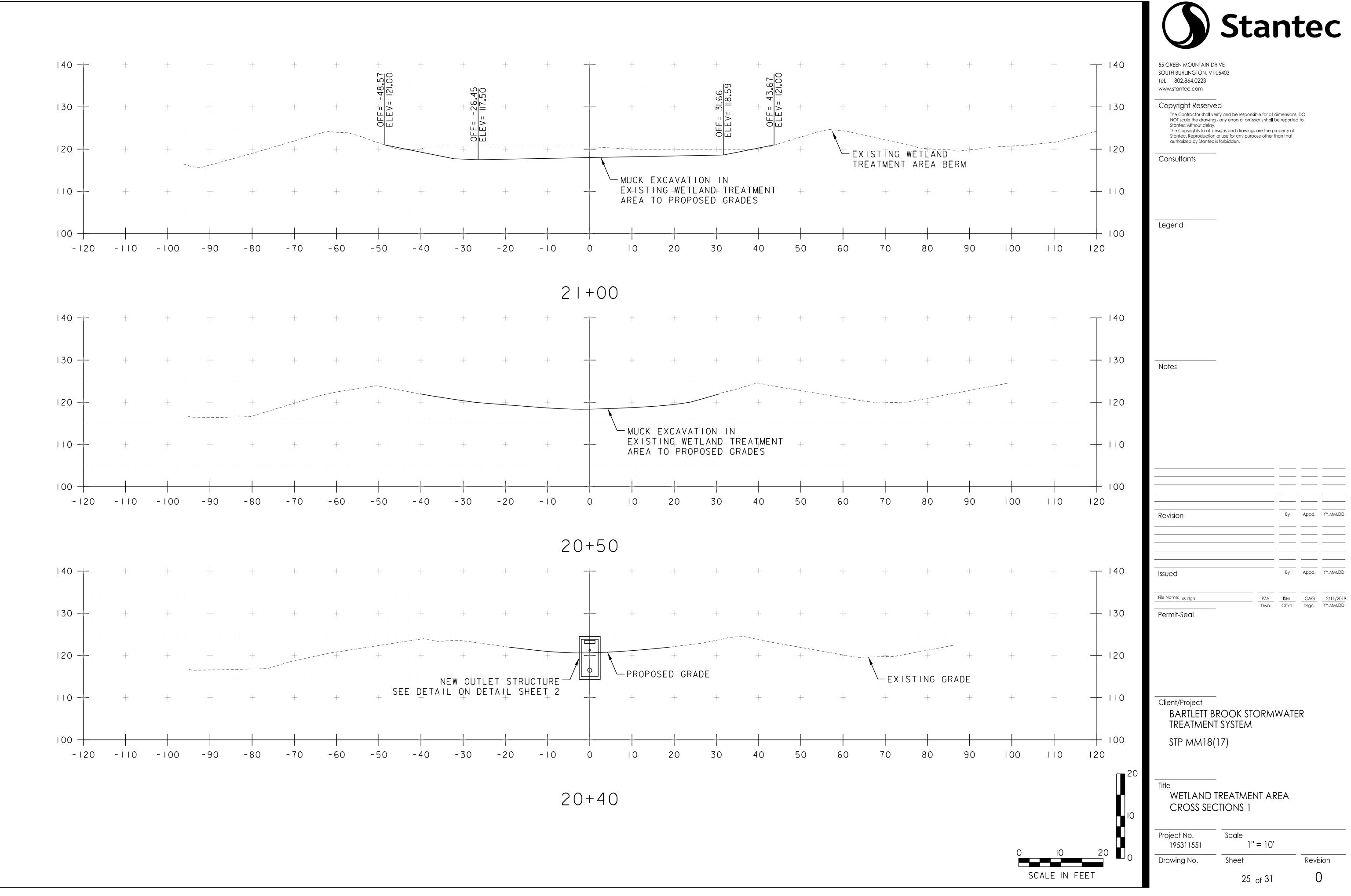
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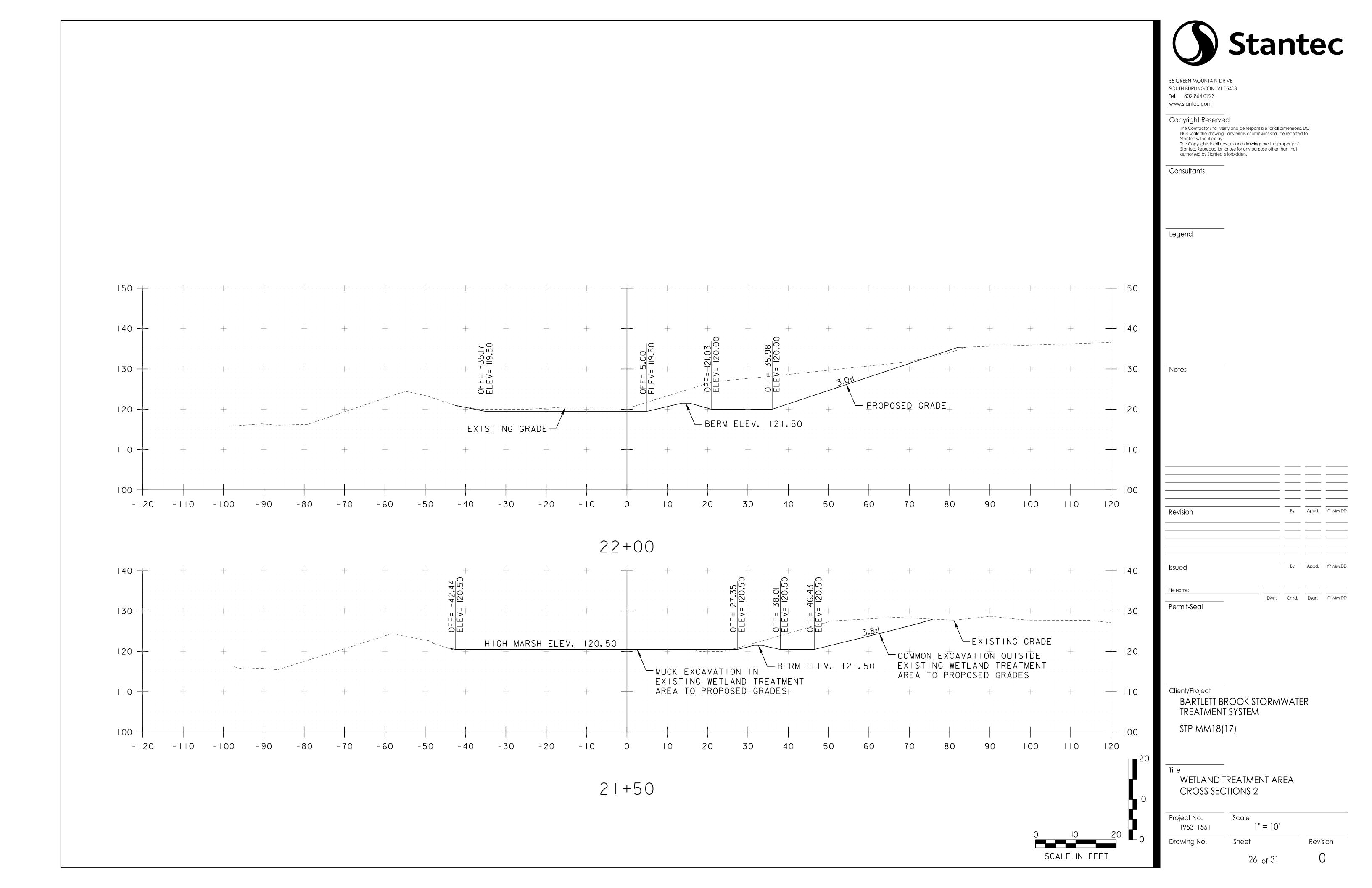
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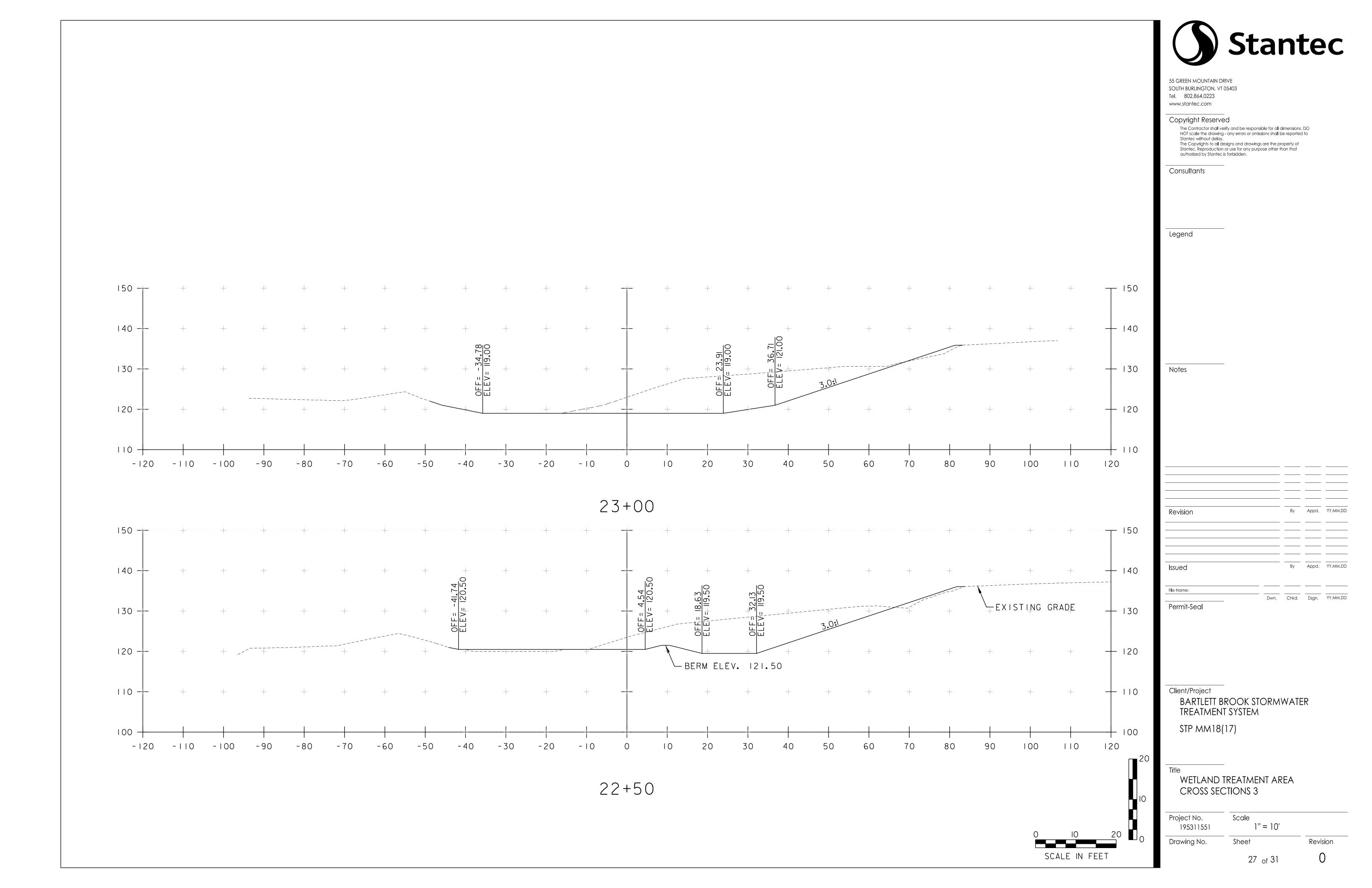
PRE-TREATMENT SWALE
CROSS SECTIONS

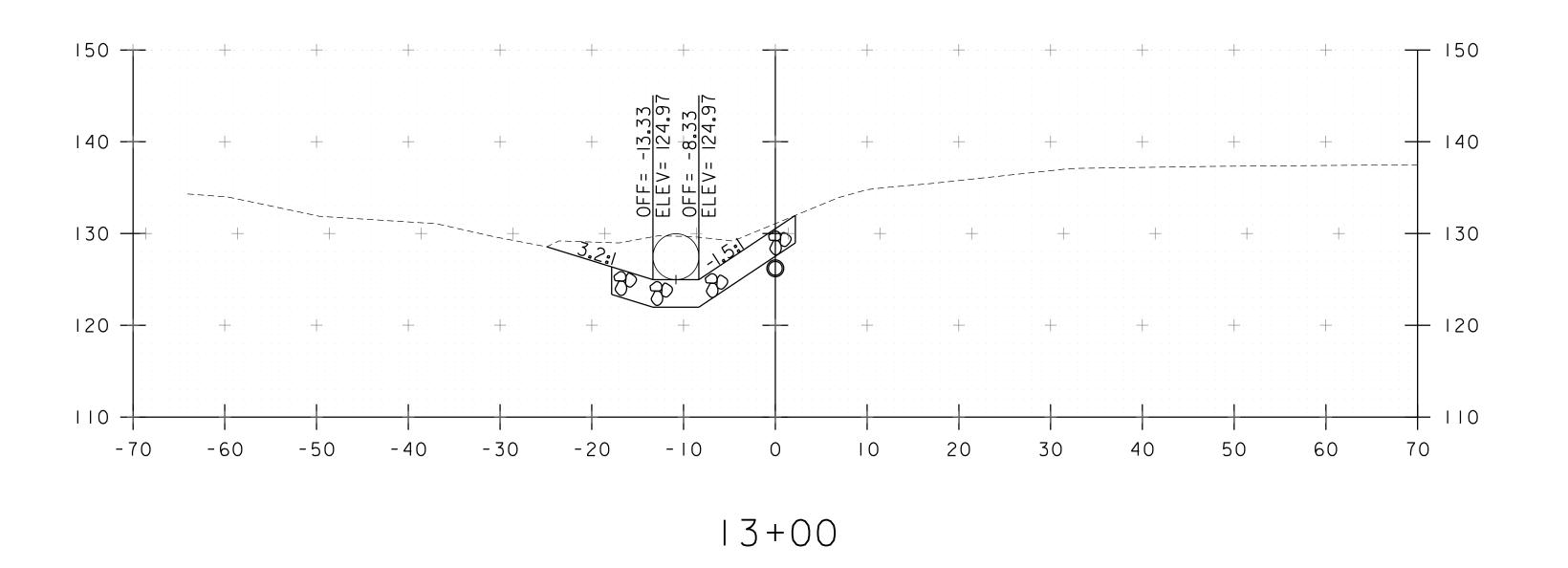
Project No. 195311551 Scale 1'' = 10'Drawing No. Sheet Revision 0

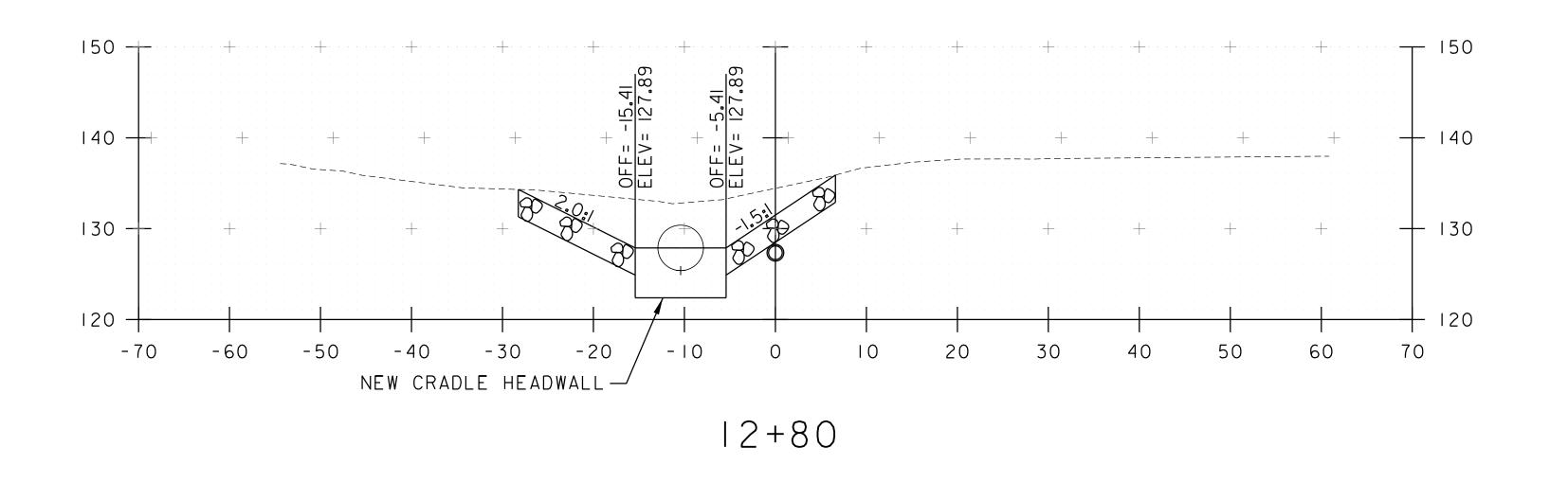














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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

Permit-Seal

BARTLETT BROOK CULVERT REPAIR
CROSS SECTIONS

Project No.
195311551

Drawing No.

Scale

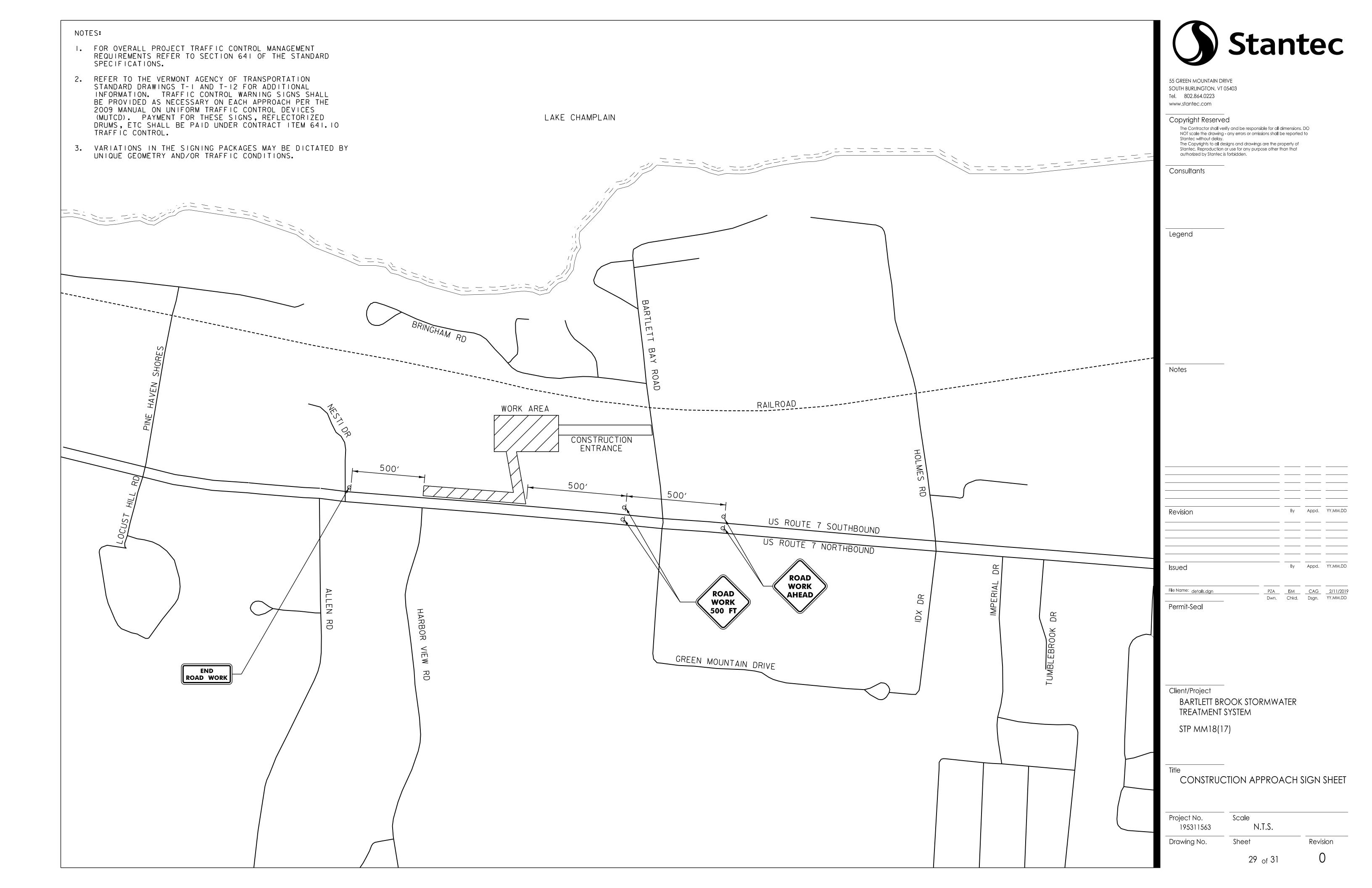
1" = 10'

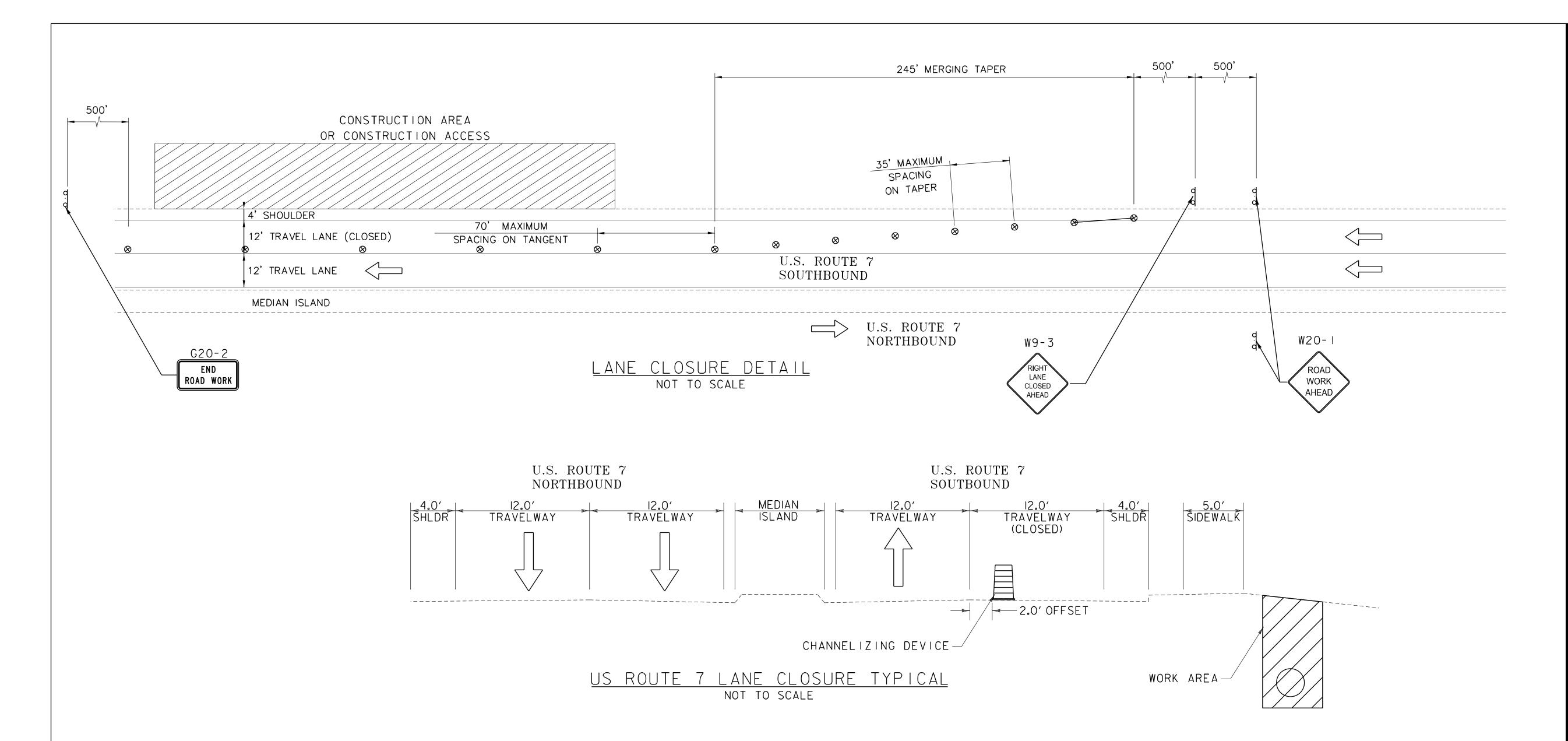
Revision

28 of 31

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O IO 20
SCALE IN FEET





TRAFFIC CONTROL NOTES

- I. THE FOLLOWING TRAFFIC CONTROL INFORMATION IS INTENDED TO BE A GENERAL OUTLINE FOR HOW THE WORK SHOULD PROCEED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SITE SPECIFIC DETAILS TO ADDRESS SPECIFIC SITUATIONS. THIS RESPONSIBILITY INCLUDES PROVIDING A PLAN DETAILING THE USE AND PLACEMENT OF SIGNS, CHANNELING DEVICES, ARROW PANELS, FLAGGERS DURING LANE CLOSURES. ALL TRAFFIC CONTROL DETAILS MUST BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE MUTCD AND VAOT STANDARDS T-I, AND T-IO. WHERE CONFLICTS EXIST, THE MUTCD SHALL GOVERN. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL AT LEAST 14 DAYS PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 641.10, TRAFFIC CONTROL.
- 2. IT IS ANTICIPATED THAT SHORT TERM LANE CLOSURES FOR MATERIAL DELIVERY MAY BE REQUIRED. LANE CLOSURE ON US ROUTE 7 SHALL BE LIMITED TO THE OFF PEAK HOURS OF 10:00AM TO 3:00PM. THE CONTRACTOR SHALL NOTIFY THE CITY 24HRS PRIOR TO PLANNED LANE CLOSURES FOR APPROVAL.
- 3. ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THESE PROJECT PLANS, APPLICABLE VAOT STANDARD DRAWINGS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), DATED 2009, AND ITS LATEST REVISIONS, OR AS DIRECTED BY THE ENGINEER.
- 4. THE CONTRACTOR MUST PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES.
- 5. SIGNS SHALL ONLY BE VISIBLE TO MOTORISTS AT THE TIMES WHEN THE MESSAGE IS PERTINENT, I.E. A "FLAGGER AHEAD" SIGN SHALL ONLY BE VISIBLE TO MOTORISTS WHEN THE FLAGGER IS ACTUALLY PRESENT PERFORMING THEIR DUTIES.
- 6. MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES FOR EMERGENCY VEHICLES. MAINTAIN ACCESS TO ALL COMMERCIAL AND MUNICIPAL PROPERTIES DURING BUSINESS HOURS. ACCESS TO RESIDENTIAL PROPERTIES MAY BE RESTRICTED FOR A SHORT DURATION (A FEW HOURS). THIS WORK WILL BE COORDINATED WITH THE OWNER. COORDINATE MAJOR WORK ON COMMERCIAL OR MUNICIPAL ACCESSES WITH THE OWNER AT LEAST ONE WEEK PRIOR TO STARTING THE WORK. ALL ACCESSES SHALL ALSO BE KEPT FREE OF WORK AND TRAFFIC CONTROLLED BY UTO'S OR FLAGGERS AS REQUIRED.

- 7.ALL REASONABLE EFFORTS SHALL BE MADE TO ACCOMMODATE PEDESTRIAN TRAVEL AT ALL TIMES. THIS CAN INCLUDE, BUT IS NOT LIMITED TO A DEDICATED PEDESTRIAN ESCORT, SIGNAGE AND CONED OFF WALKING AREAS WITHIN CLOSED LANES. FLAGGERS SHALL NOT BE USED AS PEDESTRIAN ESCORTS. WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TEMPORARY TRAFFIC CONTROL ZONE, THE TEMPORARY FACILITIES SHALL BE DETECTABLE, SHALL MAINTAIN ADA STANDARDS AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE FOR ITEM 641.10 TRAFFIC CONTROL.
- 8. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS. EXISTING SIGNS WHICH CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED OR REMOVED.
- 9. CONSTRUCTION ZONE SIGN LAYOUT SHALL BE IN ACCORDANCE WITH SECTION 6 OF THE LATEST EDITION OF THE MUTCD, AND AS OUTLINED IN THE SPECIAL PROVISIONS.
- IO. DIAMOND SHAPED SIGNS SHALL BE 4'X 4'WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND.
- II. RETROREFLECTIVE SHEETING SHALL BE AS NOTED ON VAOT STANDARD T-IAND IN SUBSECTION 750.08
- 12. AS THE CONSTRUCTION OPERATION MOVES, FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. AT NO TIME SHOULD THE FLAGGER SYMBOL SIGN BE MORE THAN 500 FEET FROM THE FLAGGER STATION. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY FROM TRAFFIC WHEN FLAGGING OPERATIONS CEASE FOR LONGER THAN 15 MINUTES.
- 13. BARRELS/DRUMS SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK SPACE ALONG ITS ENTIRE LENGTH. REFLECTORIZED CONES OR DRUMS MAY BE USED TO DELINEATE COMMERCIAL DRIVEWAYS WITHIN THE WORK ZONE.



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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

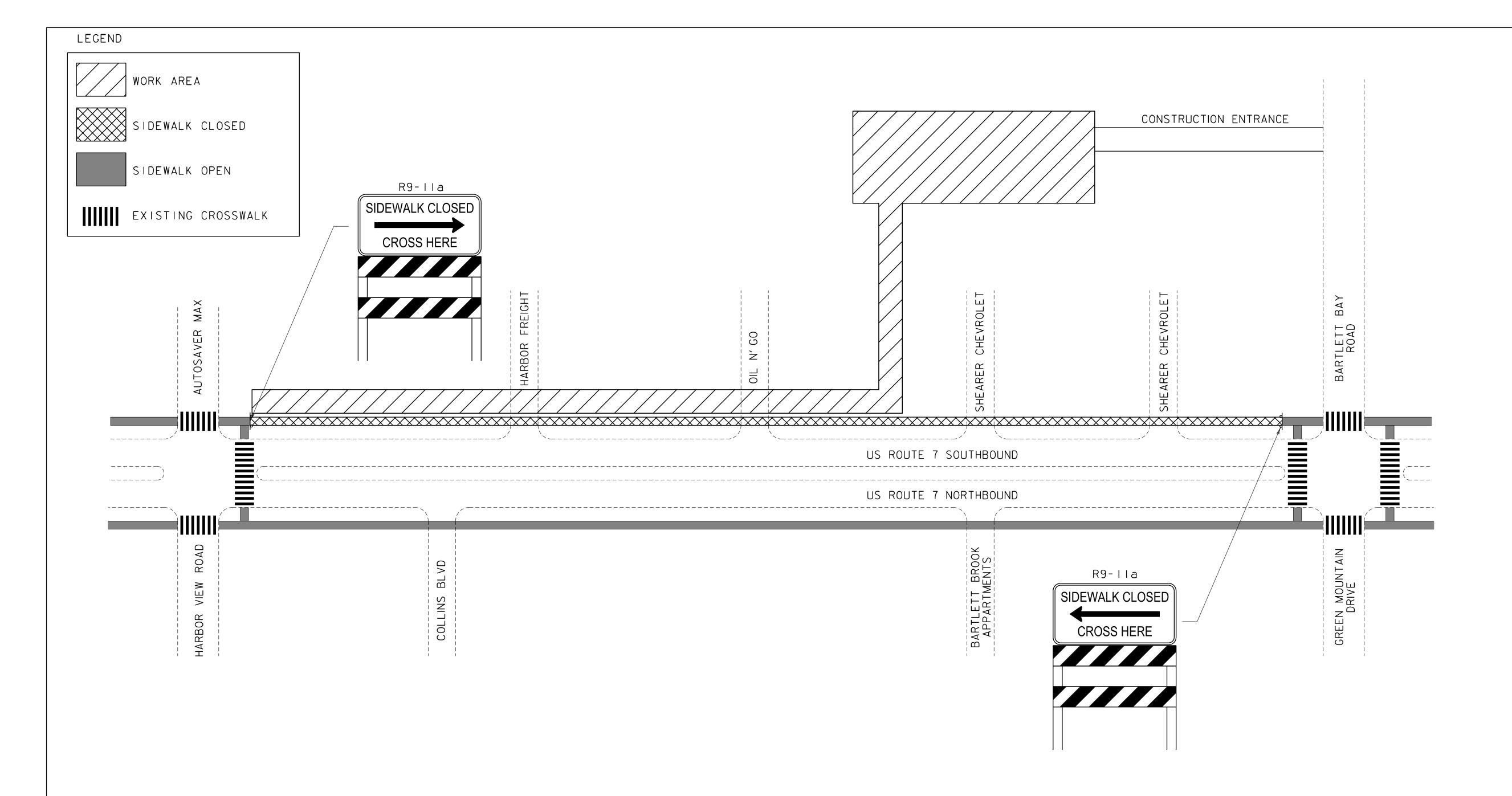
TRAFFIC CONTROL PLAN

Project No.
195311563

Drawing No.

Scale
N.T.S.

Revision



- I. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) FOR REVIEW AND WRITTEN APPROVAL BY THE RESIDENT ENGINEER A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC.
- 2. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PART 6.
- 3. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES, COMMERCIAL PROPERTIES AND TRANSIT STOPS. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
- 4. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE MUST BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE FIRM, STABLE AND SLIP-RESISTANT AND CONTINUOUS WITH A MINIMUM 80 INCHES OVERHEAD CLEARANCE FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT. OR CONSTRUCTION OPERATIONS.
- 5. WHEN TEMPORARY CROSSWALKS ARE UTILIZED FOR THE TPAR, TEMPORARY DETECTABLE WARNINGS SHALL BE PLACED AT EACH END OF THE TEMPORARY CROSSWALKS. THE TEMPORARY CROSSWALK SHALL BE DELINEATED WITH TEMPORARY PAVEMENT MARKINGS OR TAPE. THE MARKINGS SHALL BE PARALLEL 12-INCH-WIDE WHITE LINES PLACE 7 FEET ON CENTER APART. IT SHOULD BE NOTED THAT CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF MIDBLOCK CROSSWALKS. TEMPORARY CROSSWALK SIGNS SHALL BE PROVIDED FOR THE CROSSWALK.

- 6. IF THERE IS WORK OCCURRING OVER AN OPEN SIDEWALK, PROTECTIVE OVERHEAD COVERING MUST BE PROVIDED AS NECESSARY TO ENSURE PROTECTION FROM FALLING OBJECTS AND DRIPPING FROM OVERHEAD STRUCTURES. COVERED WALKWAYS SHOULD BE STURDILY CONSTRUCTED AND ADEQUATELY LIGHTED FOR NIGHTTIME USE.
- 7. INDIVIDUAL CHANNELIZING DEVICES, TAPE, OR ROPE USED TO CONNECT INDIVIDUAL DEVICES AND OTHER DISCONTINUOUS BARRIERS AND DEVICES, PAVEMENT MARKINGS ARE NOT DETECTABLE BY PERSONS WITH VISUAL DISABILITIES. THESE MEASURES DO NOT PROVIDE ACCEPTABLE PATH GUIDANCE ON TEMPORARY OR RE-ALIGNED SIDEWALKS OR OTHER PEDESTRIAN FACILITIES. PEDESTRIAN CHANNELIZING DEVICES SHALL INCLUDE A CONTINUOUSLY DETECTABLE BOTTOM AND TOP EDGE THROUGHOUT THE LENGTH OF THE FACILITY SUCH THAT IT CAN BE FOLLOWED BY PEDESTRIANS USING LONG CANES FOR GUIDANCE.
- 8. CHANNELIZING DEVICES ON BOTH SIDES OF THE TPAR SHALL INCLUDE A CONTINUOUS SOLID TOP AND BOTTOM RAILS. THE TOP EDGE OF THE TOP RAIL SHALL BE BETWEEN 32 INCHES AND 38 INCHES ABOVE THE GROUND LEVEL. THE BOTTOM RAIL SHALL BE AT LEAST 6 INCHES WIDE, WITH THE BOTTOM EDGE OF THE BOTTOM RAIL SURFACE NO HIGHER THAN 2 INCHES ABOVE THE GROUND.
- 9. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP- OFFS, THEN CRASHWORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.
- IO. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.
- II. PROVISION OF THE TPAR AND ALL ITS ELEMENTS, INCLUDING BUT NOT LIMITED TO SIGNS, CHANNELIZING DEVICES, BARRICADES, TEMPORARY CURB RAMPS, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES IS TO BE PAID FOR INCIDENTAL TO TRAFFIC CONTROL (ITEM 641.10.)



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Client/Project
BARTLETT BROOK STORMWATER
TREATMENT SYSTEM

STP MM18(17)

PEDESTRIAN TRAFFIC CONTROL PLAN

Project No.
195311563

Drawing No.

Scale

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Revision

31 of 31