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LIST OF STRUCTURES DETAILS

SD-516.10 BRIDGE JOINT ASPHALTIC PLUG 05-07-2010

LIST OF STANDARDS

D-30 UNDERDRAIN CONSTRUCTION DETAILS 08-13-2007
 E-100 CONSTRUCTION APPROACH SIGNS 01-02-2004
 E-101 CONSTRUCTION SIGN DETAILS 01-02-2004
 E-102 CONSTRUCTION SIGN DETAILS 06-30-2003
 E-102A CONSTRUCTION SIGN DETAILS 05-01-2004
 G-1 STEEL BEAM GUARDRAIL DETAILS 01-03-2000

STATE OF VERMONT AGENCY OF TRANSPORTATION

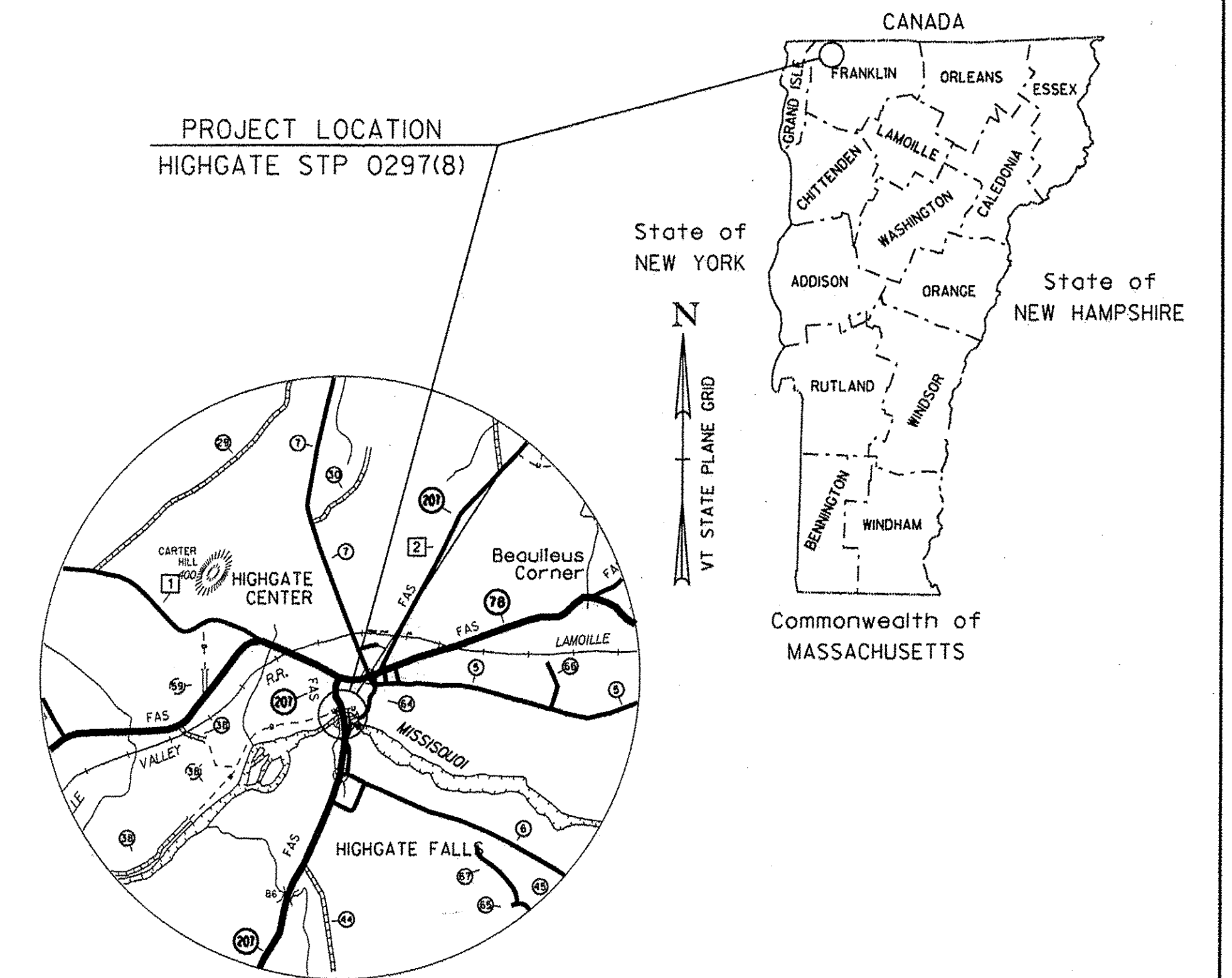
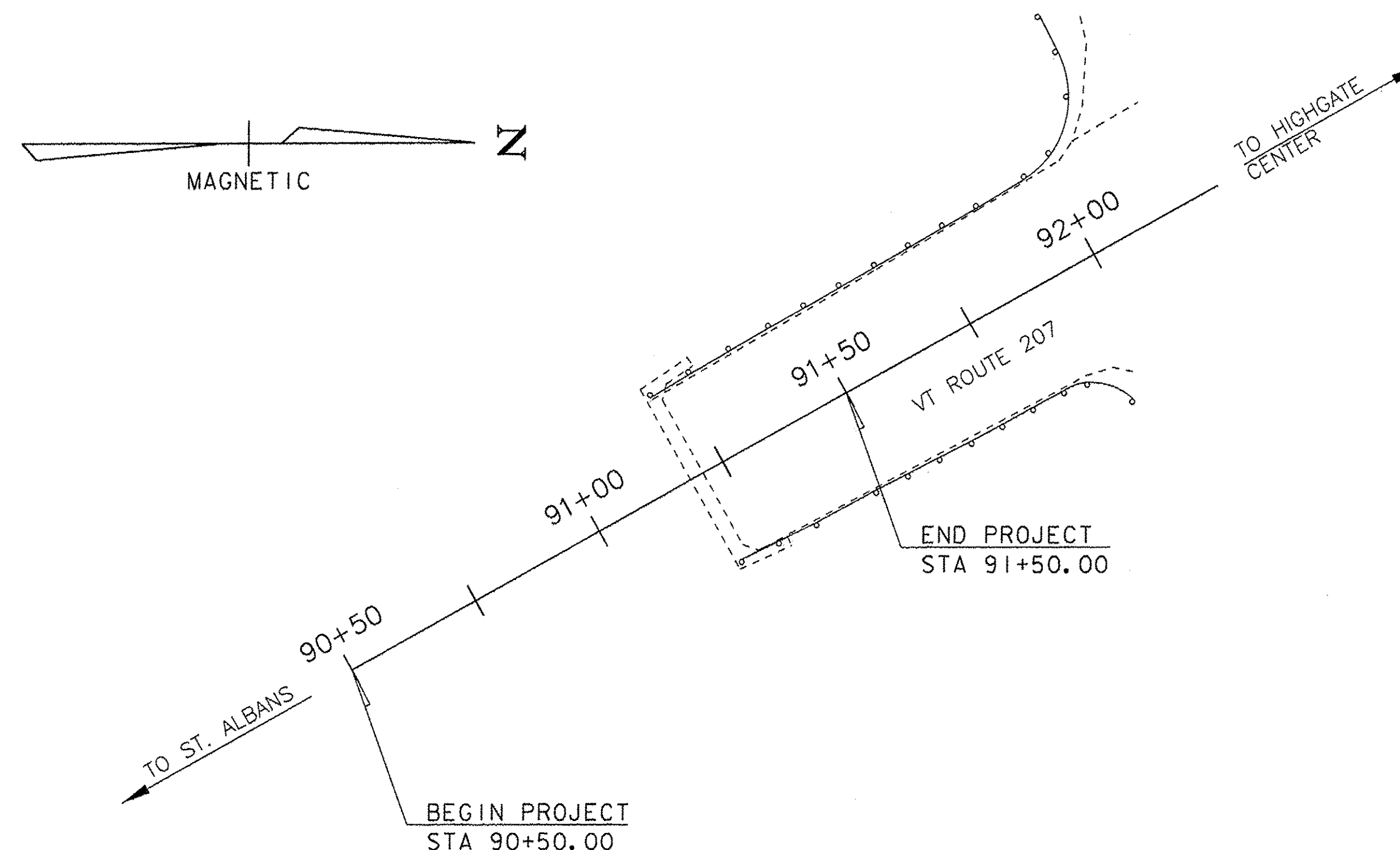


PROPOSED IMPROVEMENT BRIDGE PROJECT TOWN OF HIGHGATE CENTER, FRANKLIN COUNTY BRIDGE #6, VERMONT ROUTE 207

PROJECT LOCATION : TRAVELLING SOUTH ON VERMONT ROUTE 207 FROM THE INTERSECTION OF VERMONT ROUTE 78 TO MM 1.714 (STA 90+50) AND PROCEEDING NORTH TO MM 1.733 (STA 91+50)

PROJECT DESCRIPTION : INSTALLATION OF SLOPE STABILIZATION AND UNDERDRAIN AT EXISTING BRIDGE ABUTMENT, WITH MINOR APPROACH WORK.

LENGTH OF PROJECT: 100.00 FEET



RECORD PLANS	
CONTRACTOR:	ENGINEERS CONSTR., INC. - SO. BURLINGTON, VT
RESIDENT ENGINEER:	SCOTT WHEATLEY
CONSTRUCTION BEGAN:	JULY 8, 2013
CONSTRUCTION COMPLETE:	NOVEMBER 2, 2013
RECORD PLANS BY:	SCOTT WHEATLEY & JENNA HYDE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY:	<i>Scott Wheatley</i> RESIDENT ENGINEER
DATE:	1-6-2016
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.	

QUALITY ASSURANCE PROGRAM: LEVEL 2

CONVENTIONAL SYMBOLS	
COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

SURVEYED BY :	CLD ENGINEERS
SURVEYED DATE :	JULY 2008
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83/07

SCALE 1" = 20'-0"
20 0 20

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
 CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>Richard Johnson</i>	DATE 1-2-13
PROJECT MANAGER : KRISTIN HIGGINS	
PROJECT NAME : HIGHGATE	
PROJECT NUMBER : STP 0297 (8) (RE-ADVERTISED)	
SHEET 1 OF 20 SHEETS	

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE BEGINNING ANY CONSTRUCTION ACTIVITIES.
2. ITEM 404.65 "EMULSIFIED ASPHALT" IS TO BE APPLIED AT A RATE OF 0.025 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT, OR AS DIRECTED BY THE ENGINEER.
3. THERE ARE UNDERGROUND TELEPHONE LINES THAT RUN PARELLEL WITH VT 207 ON THE EAST SIDE. NO PROVISIONS HAVE BEEN MADE TO RELOCATE THESE LINES. THE CONTRACTOR SHALL WORK AROUND THESE LINES. ANY EXCAVATION REQUIRED TO LOCATE AND EXPOSE THE LINES, OUTSIDE THE LIMITS OF EXCAVATION PAID UNDER OTHER CONTRACT ITEMS AND ALL WORK REQUIRED ENSURING THAT THESE LINES ARE PROTECTED DURING CONSTRUCTION OF THIS PROJECT, WILL BE INCLUDED FOR PAYMENT UNDER CONTRACT ITEM 204.22. ANY DAMAGE DONE TO THE LINES AS A RESULT OF THE CONTRACTOR'S OPERATIONS, AS DETERMINED BY THE ENGINEER, WILL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL REMOVE ACCUMULATED DEBRIS FROM THE BEARINGS AT FRAME LEG 2 AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 201.10 CLEARING AND GRUBBING, (INCLUDING INDIVIDUAL TREES AND STUMPS).
5. THE LOCATIONS OF THE CONCRETE BASE AND GABION WALL SHOWN WERE SELECTED BASED ON THE BEDROCK SURFACE EXPOSED DURING THE 2008 SURVEY. THE FINAL WALL LOCATION SHALL BE DETERMINED BY THE ENGINEER FOLLOWING THE EXPOSURE OF BEDROCK TO SUIT FIELD CONDITIONS.
6. THE WIRE MESH SLOPE STABILIZATION AREA SHALL BE CLEARED AND GRUBBED TO THE SATISFACTION OF THE ENGINEER.
7. THE WELDED WIRE MESH IN THE CONCRETE BASE SHALL BE PAID FOR UNDER CONTRACT ITEM 507.11, STEEL REINFORCING, LEVEL I.

TRAFFIC CONTROL

8. THE CONTRACTOR WILL BE ALLOWED TO CLOSE THE BRIDGE COMPLETELY FOR ONE WEEKEND (TWO CONSECUTIVE DAYS) FOR THE INSTALLATION OF THE UNDERDRAIN, BEGINNING ON A FRIDAY AT 6PM AND REOPENING TO A MINIMUM OF ONE-WAY TRAFFIC THE FOLLOWING MONDAY AT 6AM. DURING THAT TIME THE CONTRACTOR SHALL BE ALLOWED TO WORK 24 HOURS PER DAY. THE CONTRACTOR SHALL SCHEDULE THEIR WORK SUCH THAT THE BRIDGE IS NOT CLOSED DURING HOLIDAY PERIODS. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
9. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR APPROVAL PER SUBSECTION 105.03. THE PLAN SHALL INCLUDE A LAYOUT SHOWING THE LOCATION OF ALL ON AND OFF PROJECT SIGNS AND BARRICADES, DETAILS FOR ANY LANE CLOSURES THAT MAY OCCUR AND ANY OTHER DETAILS ASSOCIATED WITH THE TRAFFIC CONTROL. PAYMENT WILL BE INCLUDED IN THE UNIT BID PRICE FOR CONTRACT ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).
10. WITH THE EXCEPTION OF THE TIME PERIOD SPECIFIED IN NOTE 8, THE BRIDGE SHALL BE OPEN TO A MINIMUM OF ONE-WAY TRAFFIC AT ALL TIMES.
11. THE CONTRACTOR SHALL ERECT ALL ON PROJECT SIGNAGE AND REQUIRED BARRICADES. THE SIGNS SHALL BE INSTALLED PER MUTCD, VTRANS STANDARD DRAWINGS AND SECTION 641 OF THE STANDARD SPECIFICATIONS.
12. ALL ITEMS REQUIRED TO IMPLEMENT THE CONTRACTOR'S TRAFFIC CONTROL PLAN, EXCEPT FOR ITEM 630.15 FLAGGERS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCLUDED IN THE BID PRICE FOR ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).

EARTHWORK

13. PRIOR TO BEGINNING ANY EARTHWORK, THE EXISTING ROADWAY PROFILE SHALL BE DETERMINED. THE CONTRACTOR SHALL TAKE ELEVATIONS ALONG THE EXISTING CENTERLINE OF THE ROADWAY AT 10'-0" INTERVALS BETWEEN STATIONS 90+50 AND 92+00.

PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

FILE NAME: si0c2l8gen.dgn	PLOT DATE: 24-JAN-2013
PROJECT LEADER: K. HIGGINS	DRAWN BY: J. SALVATORI
DESIGNED BY: J. SALVATORI	CHECKED BY: T. FILLBACH
GENERAL NOTES	SHEET 2 OF 20

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
								ROADWAY	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								1			1	1.0	LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10				
								300			300	386.1	CY	COMMON EXCAVATION	203.15				
								200			200	312.3	CY	SAND BORROW	203.31				
								40			40	112.4	CY	TRENCH EXCAVATION OF EARTH	204.20				
								1			1	0	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22				
								140			140	191.0	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30				
								90			90	84.9	CY	SUBBASE OF GRAVEL	301.15				
								1			1	0.46	CWT	EMULSIFIED ASPHALT	404.65				
								1			1	30.31	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50				
								25			25	83.1	CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34				
								2500			2500	262.5	LB	REINFORCING STEEL, LEVEL I	507.11				
								30			30	32.5	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10				
								10			10	3.4	CY	CONTROLLED DENSITY (FLOWABLE) FILL	541.45				
								70			70	60	LF	12 INCH UNDERDRAIN PIPE	605.13				
								30			30	34.5	LF	12 INCH UNDERDRAIN CARRIER PIPE	605.23				
								2			2	1	EACH	UNDERDRAIN FLUSHING BASIN	605.95				
								40			40	14.5	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25				
								1			1	0	MGAL	DUST CONTROL WITH WATER	609.10				
								90			90	123.5	CY	STONE FILL, TYPE I	613.10				
								5			5	4.2	CY	STONE FILL, TYPE II	613.11				
								190			190	172.0	CY	GABION WALL	613.25				
								63			63	50	LF	HD STEEL BEAM GUARDRAIL, GALVANIZED	621.21				
								63			63	50	LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
								400			400	403	HR	FLAGGERS	630.15				
										1	1	1	LS	TESTING EQUIPMENT, CONCRETE	631.16				
										1	1	0	LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
								1			1	1	LS	MOBILIZATION/DEMOBILIZATION	635.11				
								58			58	148	LF	4 INCH WHITE LINE	646.20				
								58			58	156	LF	4 INCH YELLOW LINE	646.21				
								460			460	698	SY	GEOTEXTILE UNDER STONE FILL	649.31				
								80			80	157.1	SY	GEOTEXTILE FOR SILT FENCE	649.51				
								10			10	10.9	LB	SEED	651.15				
								80			80	80.5	LB	FERTILIZER	651.18				
								1			1	0.32	TON	AGRICULTURAL LIMESTONE	651.20				
								1			1	0.21	TON	HAY MULCH	651.25				
								100			100	16	CY	TOPSOIL	651.35				
								1			1	1	LS	EPSC PLAN	652.10				
								40			40	0	HR	MONITORING EPSC PLAN	652.20				
								1			1	0.2	LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
								600			600	743.8	SY	TEMPORARY EROSION MATTING	653.20				

PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

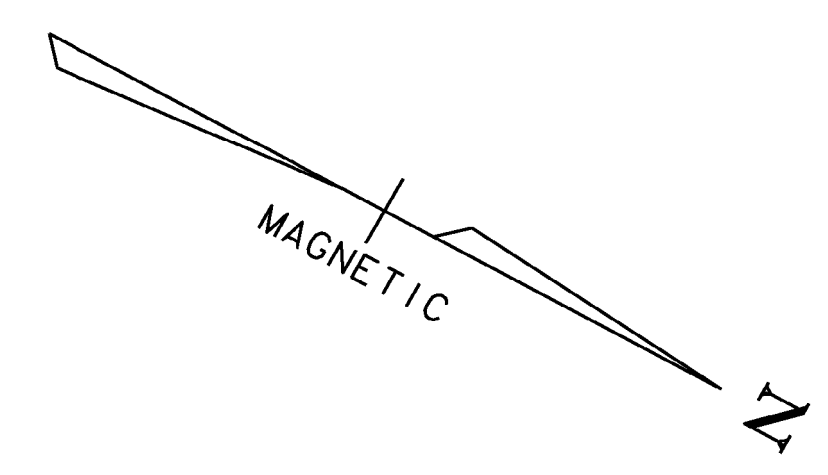
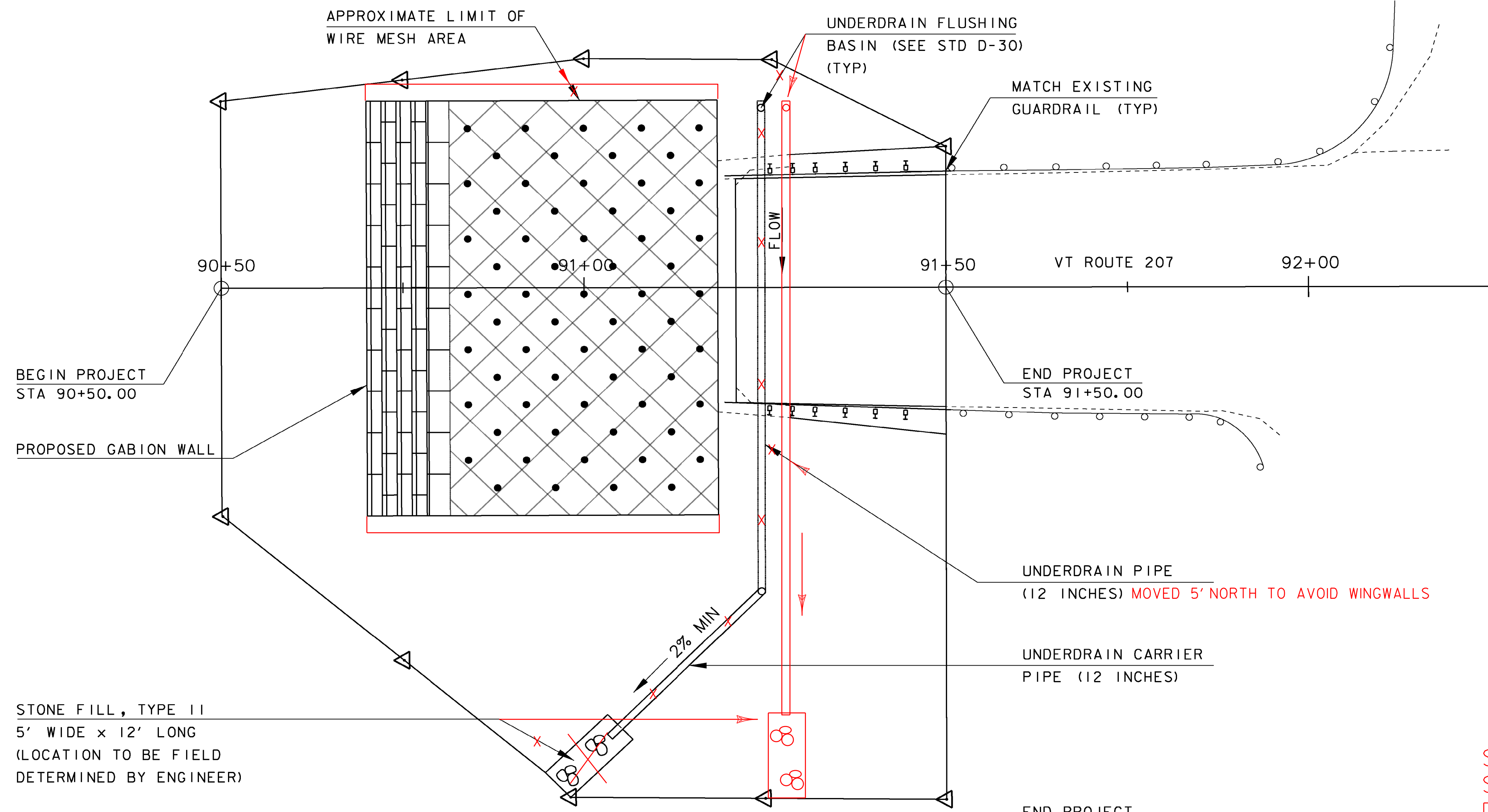
FILE NAME: sl0c218qs.xls
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
QUANTITY SHEET - 1

PLOT DATE: 24-JAN-2013
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 3 OF 20

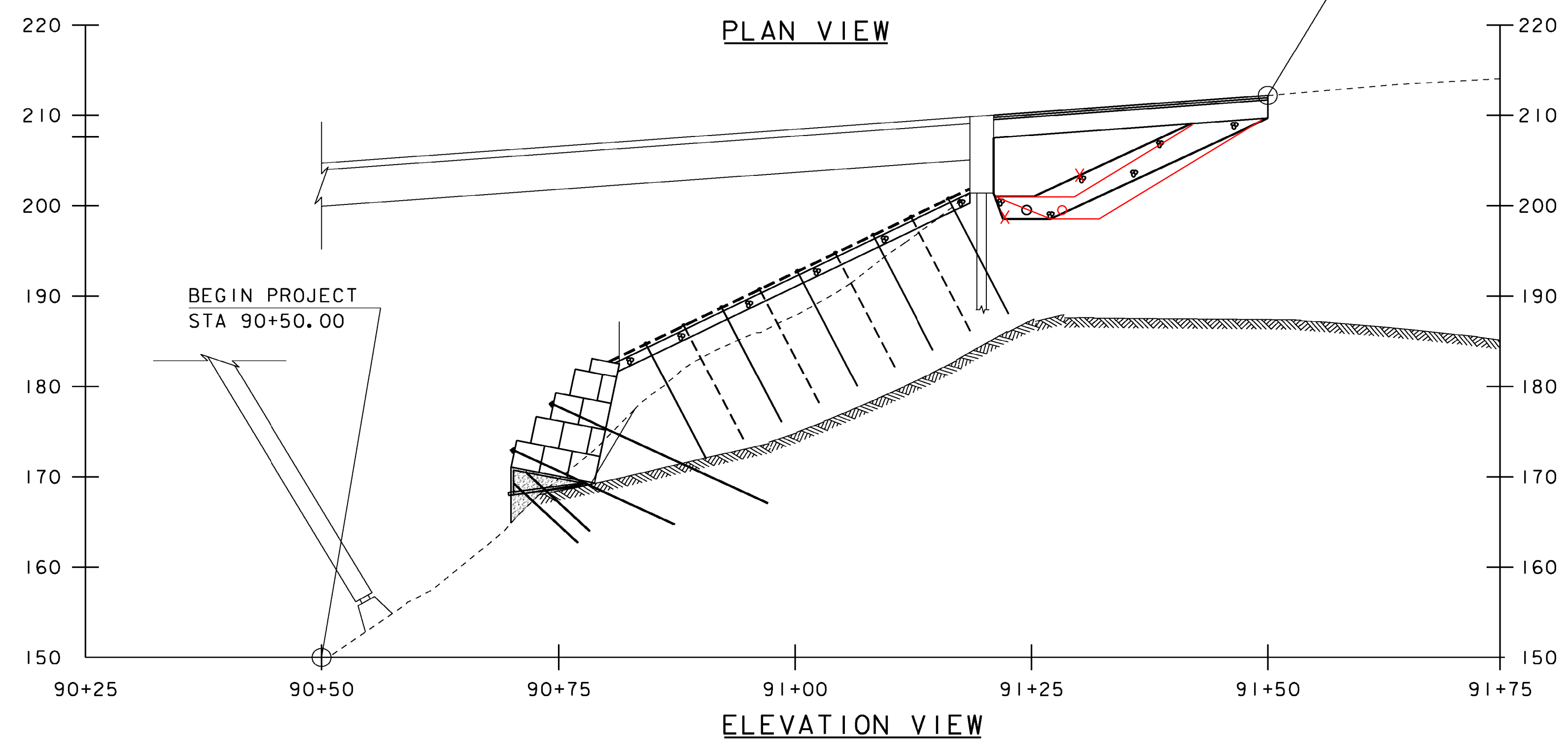
QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
								ROADWAY	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
									30		30	12.7	CY	VEHICLE TRACKING PAD	653.35				
									350		350	475	LF	PROJECT DEMARCATION FENCE	653.55				
								90			90	82.6	CY	SPECIAL PROVISION (COARSE AGGREGATE BACKFILL)	900.608				
								13			13	13	EACH	SPECIAL PROVISION (ROCK ANCHOR TESTING)	900.620				
								350			350	519.7	LF	SPECIAL PROVISION (ROCK ANCHOR)	900.640				
								312			312	433.0	LF	SPECIAL PROVISION (ROCK DOWELING)	900.640				
								1260			1260	1078.3	LF	SPECIAL PROVISION (SOIL ANCHOR)	900.640				
								1			1	0	LS	SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)	900.645				
								1			1	5926	LU	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE)(N.A.B.I.)	900.650				
								1			1	0	LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650				
								1			1	0	LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)(N.A.B.I.)	900.650				
								2500			2500	3136	SF	SPECIAL PROVISION (WIRE MESH SLOPE STABILIZATION SYSTEM)	900.670				
								60			60	78.7	SY	SPECIAL PROVISION (GEOMEMBRANE LINER)	900.675				
								40			40	41.83	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680				
											0	1	LS	S.P. (TRAFFIC CONTROL, ALL INC.) (INCREASE DETOUR SIGNAGE) COD#2	900.645				
											0	1	LS	S.P. (STRUCTURE EXC.) COD #3	900.545				
											0	1	LS	S.P. (SOIL ANCHOR ROD CUTTING) COD #4	900.545				

PROJECT NAME: HIGHGATE
 PROJECT NUMBER: STP 0297(8)
 FILE NAME: sl0c218qs.xls
 PROJECT LEADER: K. HIGGINS
 DESIGNED BY: J. SALVATORI
 QUANTITY SHEET - 2
 PLOT DATE: 24-JAN-2013
 DRAWN BY: J. SALVATORI
 CHECKED BY: W. LAMMER
 SHEET 4 OF 20



SEE SECTIONS DRAFTED ON SECTION PAPER FOR MORE DETAILS & QUANTITIES



SCALE 1" = 10' - 0"

PROJECT NAME: HIGHGATE	PLOT DATE: 24-JAN-2013
PROJECT NUMBER: STP 0297(8)	DRAWN BY: J. SALVATORI
FILE NAME: sl0c218pe.dgn	CHECKED BY: W. LAMMER
PROJECT LEADER: K. HIGGINS	SHEET 5 OF 20
DESIGNED BY: J. SALVATORI	
PLAN & ELEVATION	

BRIDGE JOINT
ASPHALTIC PLUG
SEE SD-516.10

BITUMINOUS
CONCRETE PAVEMENT*

SUBBASE

MATERIAL TOLERANCES
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

EXISTING
GROUND

EXISTING
ABUTMENT

LIMITS OF GRANULAR
BACKFILL FOR STRUCTURES

GEOTEXTILE UNDER
STONE FILL
(TYP)

CONTROLLED DENSITY
(FLOWABLE) FILL
AS REQUIRED UNDER
ABUTMENT
(TYP)

EXISTING
PILE

UNDERDRAIN PIPE
(12 INCHES)

SPECIAL PROVISION
(GEOMEMBRANE LINER)

SPECIAL PROVISION
(COARSE AGGREGATE
BACKFILL)

PAVEMENT
MARKING
EDGE LINE

PAVED SHOULDER

1" - 4"

WEARING COURSE (1-2 LIFTS)

INTERMEDIATE COURSE

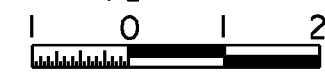
AND / OR

BASE COURSE

GRADED
SHOULDER

EARTHWORK TYPICAL SECTION

SCALE 1/2" = 1'-0"

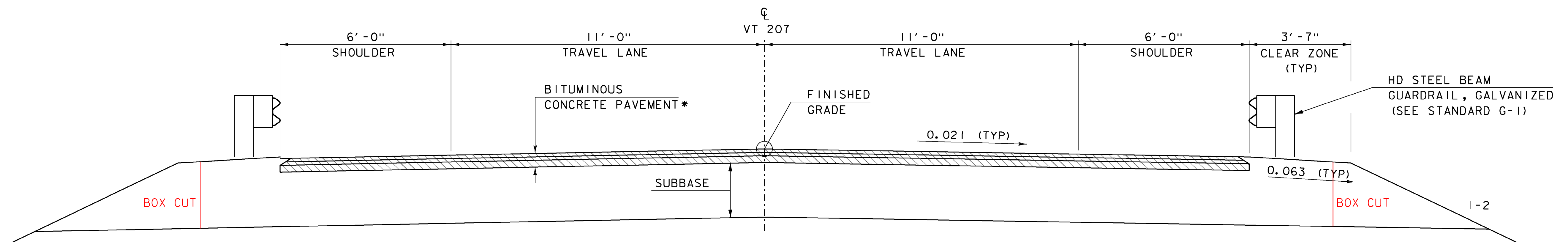


- * 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE 111S
- 1 1/2" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE 111S
- 3" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, TYPE 111S
- 24" SUBBASE OF GRAVEL

SAFETY EDGE DETAIL

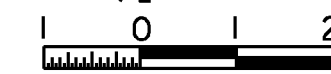
NOT TO SCALE

NOTE: LEVELING COURSE MAY INCLUDE THE "SAFETY EDGE"
AT THE CONTRACTOR'S CHOICE.



ROADWAY TYPICAL SECTION

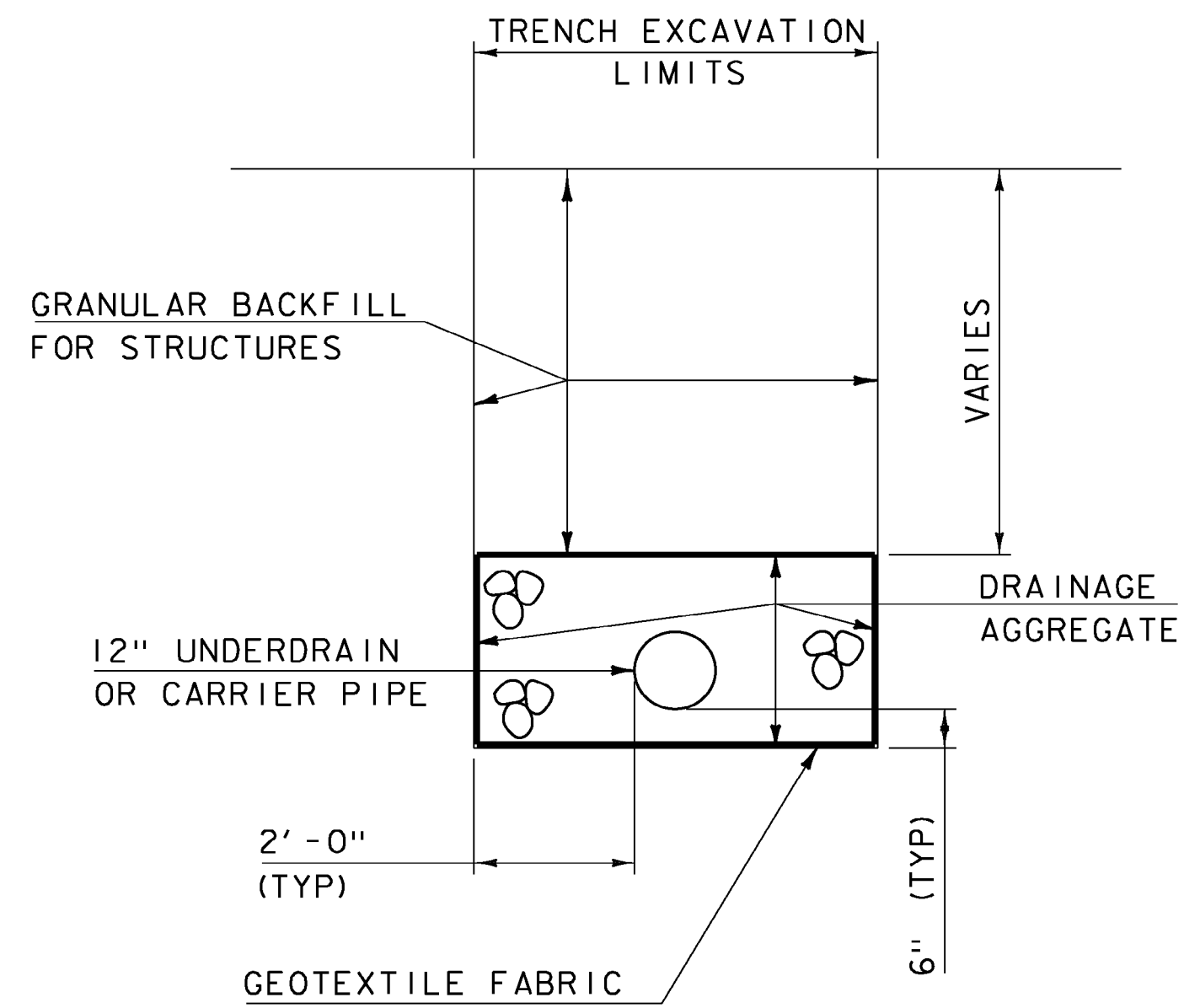
SCALE 1/2" = 1'-0"



PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

FILE NAME: Str/sl0c218typ.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
TYPICAL SECTIONS - 1

PLOT DATE: 24-JAN-2013
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 6 OF 20



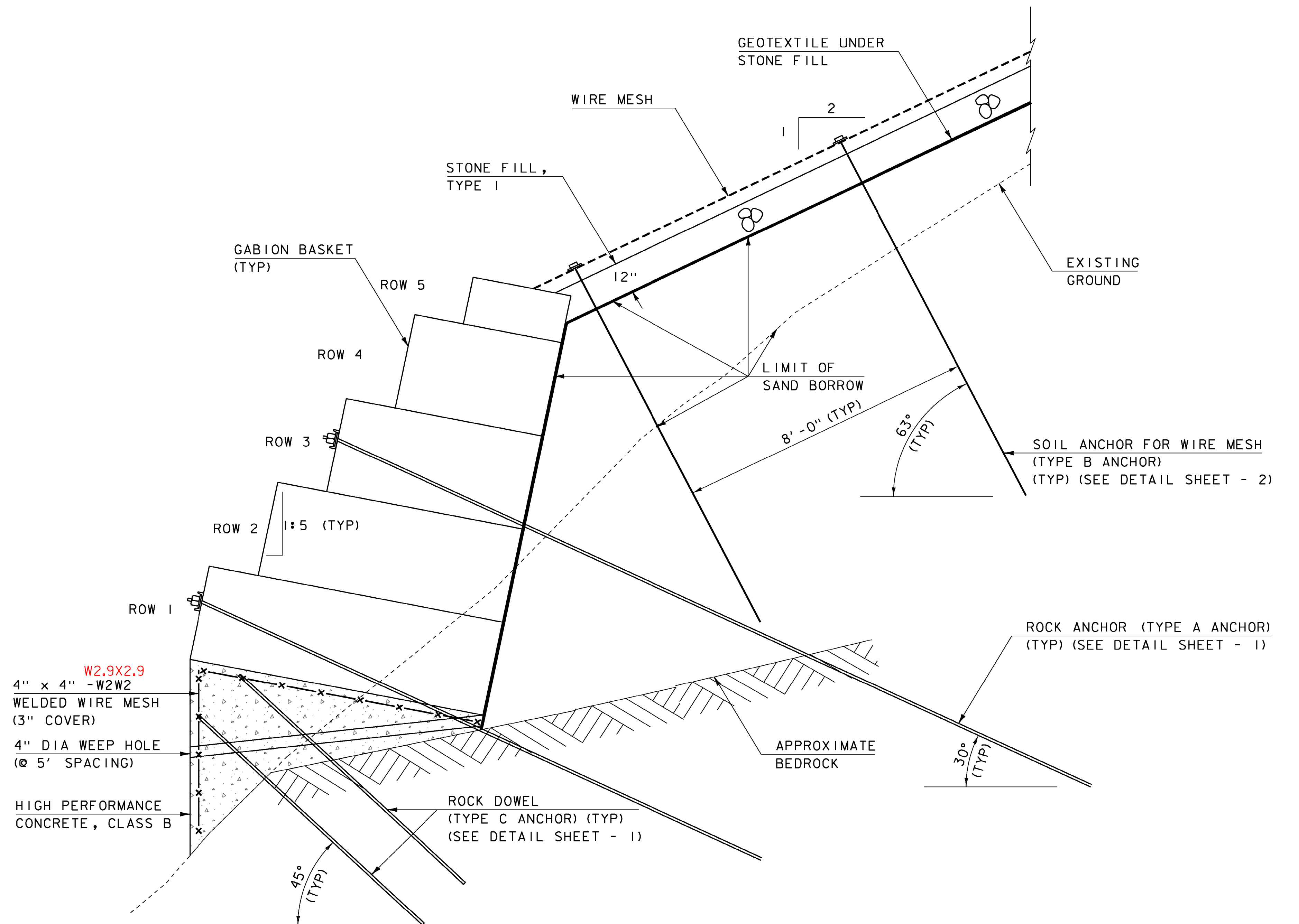
UNDERDRAIN TYPICAL
SCALE 1/2" = 1'-0"

GABION SCHEDULE

ROW FROM BOTTOM	WIDTH (MIN)
ROW 1	9'-0"
ROW 2	7'-6"
ROW 3	6'-0"
ROW 4	4'-6"
ROW 5	3'-0"

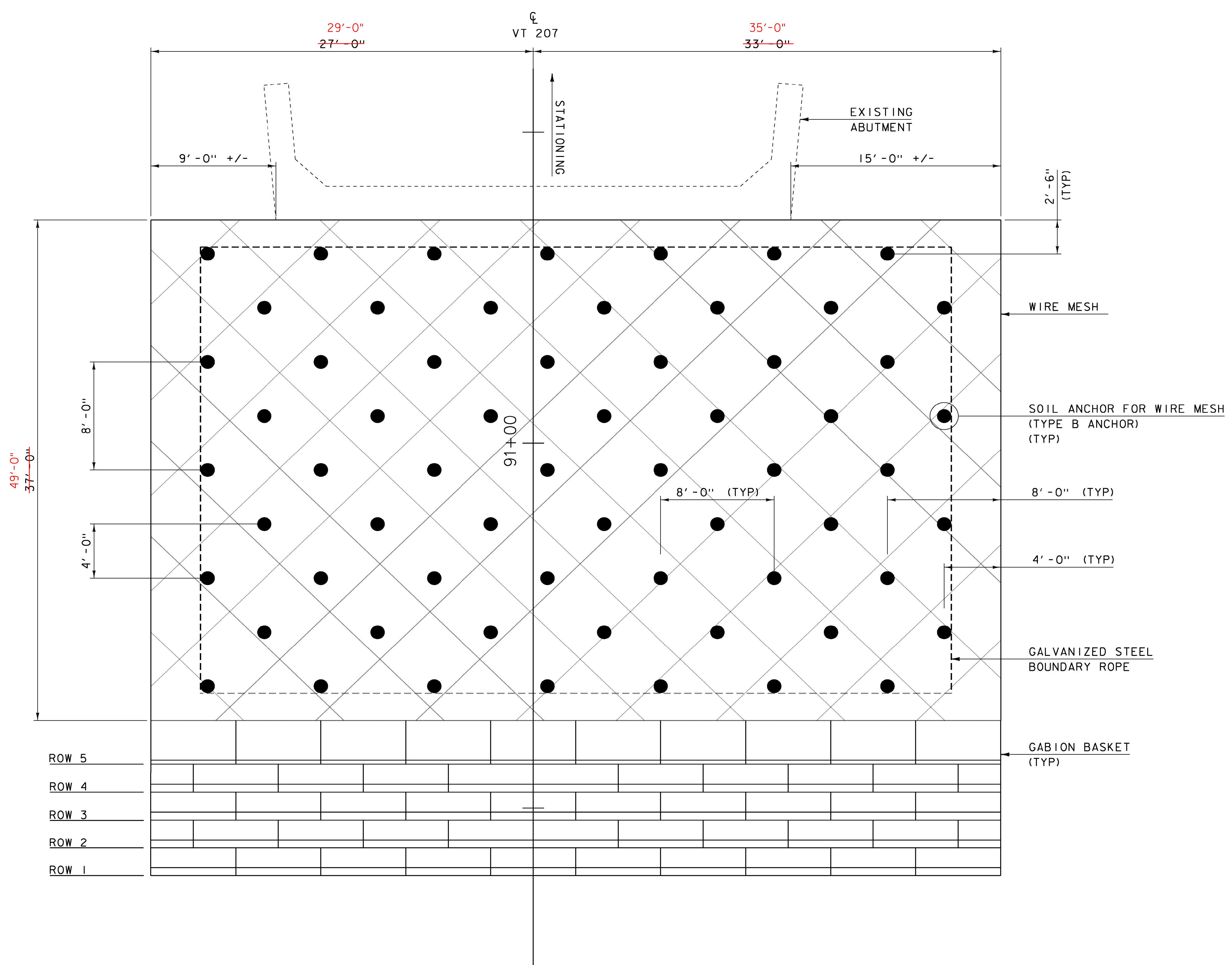
NOTES:

- AT BOTH ENDS OF THE GABION WALL, THE CONCRETE BASE AND GABION BASKETS ALIGNMENT SHALL BE FIELD ADJUSTED TO FIRMLY ABUT THE WALL INTO THE EXISTING SLOPE. ALL ADJUSTMENTS SHALL BE SUBJECT TO ENGINEER'S APPROVAL.
- ANY ADJUSTMENT TO SIZE OR LENGTH OF THE GABION BASKETS SHALL BE APPROVED BY THE ENGINEER.



GABION WALL TYPICAL
SCALE 1/2" = 1'-0"

PROJECT NAME: HIGHGATE	PLOT DATE: 24-JAN-2013
PROJECT NUMBER: STP 0297(8)	DRAWN BY: J. SALVATORI
FILE NAME: Str/s10c218typ.dgn	DESIGNED BY: J. SALVATORI
TYPICAL SECTIONS - 2	CHECKED BY: W. LAMMER
	SHEET 7 OF 20



SLOPE STABILIZATION SYSTEM TYPICAL

SCALE 1/4" = 1'-0"

PROJECT NAME: HIGHGATE	PLOT DATE: 24-JAN-2013
PROJECT NUMBER: STP 0297(8)	DRAWN BY: J. SALVATORI
FILE NAME: Str/sl0c218typ.dgn	CHECKED BY: W. LAMMER
TYPICAL SECTIONS - 3	SHEET 8 OF 20

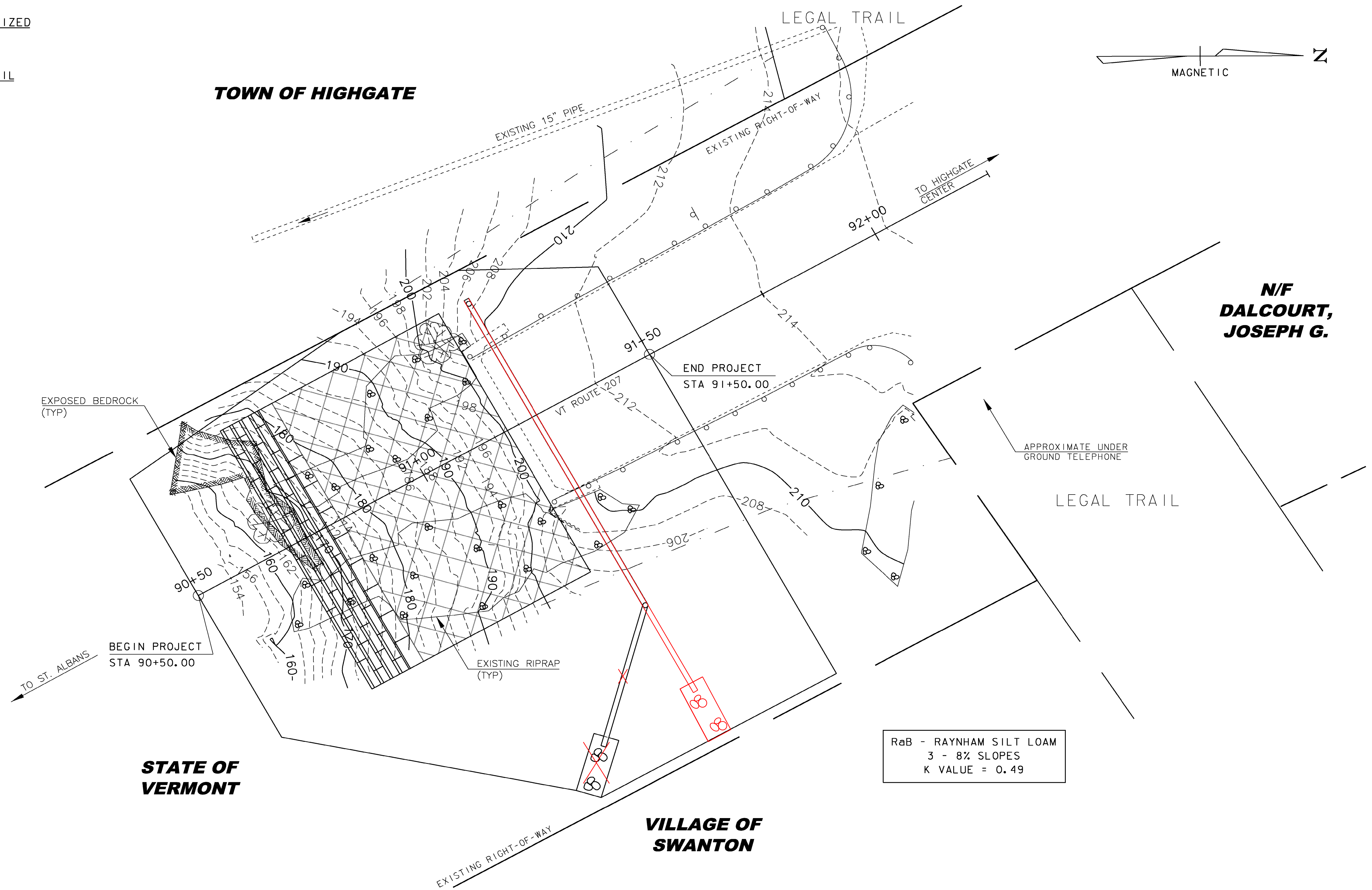
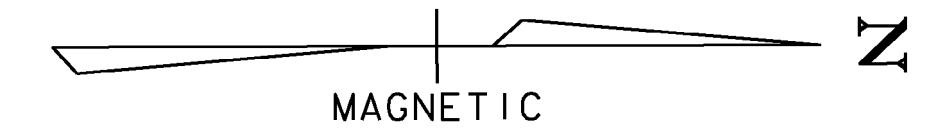
HD STEEL BEAM GUARDRAIL, GALVANIZED
 STA 91+18.50 TO 91+50.00 LT/RT

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA 91+18.50 TO 91+50.00 LT/RT

4 INCH WHITE LINE
 STA 91+21.00 TO 91+50.00 LT/RT

4 INCH YELLOW LINE (DOUBLE)
 STA 91+18.50 TO 91+50.00

TOWN OF HIGHGATE



**N/F
 DALCOURT,
 JOSEPH G.**

**STATE OF
 VERMONT**

**VILLAGE OF
 SWANTON**

RaB - RAYNHAM SILT LOAM
 3 - 8% SLOPES
 K VALUE = 0.49

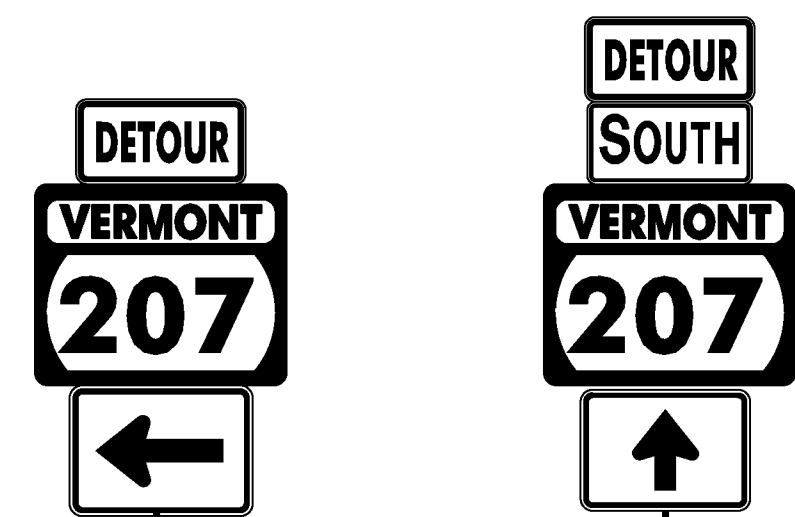
NOTES

1. BRIDGE SUPERSTRUCTURE IS NOT SHOWN FOR CLARITY.

LAYOUT SHEET

SCALE 1" = 10'-0"

PROJECT NAME: HIGHGATE	PLOT DATE: 24-JAN-2013
PROJECT NUMBER: STP 0297(8)	DRAWN BY: J. SALVATORI
FILE NAME: i0c218/str/s10cl28bdr.dgn	CHECKED BY: W. LAMMER
DESIGNED BY: J. SALVATORI	SHEET 9 OF 20
LAYOUT SHEET	



1



2



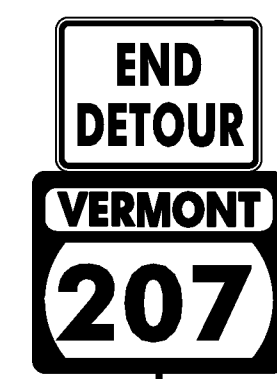
3



4



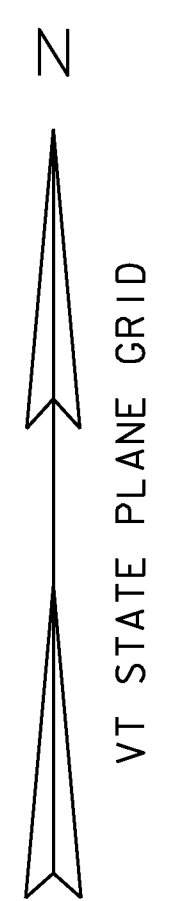
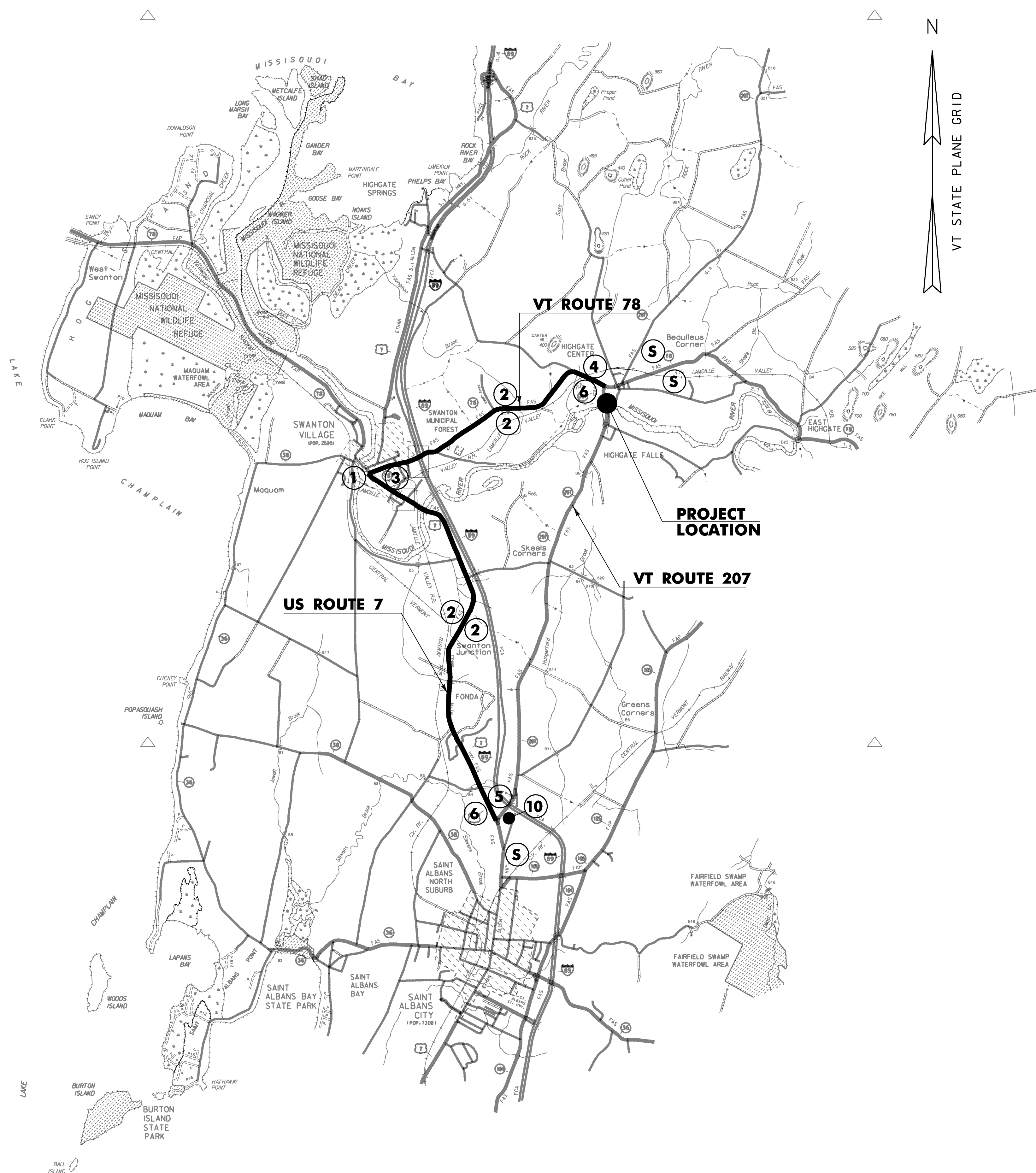
5



6

ROAD CLOSED
10 MILES AHEAD
LOCAL TRAFFIC ONLY

10



NOTES:

THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE FULLY OPERATIONAL A MINIMUM OF TWO WEEKS PRIOR TO THE CLOSURE OF VT 207.

V	T	2	0	7		
C	L	O	S	E	D	

PORTABLE CHANGABLE SIGN - PHASE 1

T	O	T	H	R	U	
T	R	A	F	F	I	C

PORTABLE CHANGABLE SIGN - PHASE 2

*	M	M	M	D	D	-
*	M	M	M	D	D	

PORTABLE CHANGABLE SIGN - PHASE 3

* M=MONTH
D=DAY



DETOUR PLAN
NOT TO SCALE

PROJECT NAME:	HIGHGATE	FILE NAME:	I0c218/str/si0cl28bdr.dgn	PLLOT DATE:	24-JAN-2013
PROJECT NUMBER:	STP 0297(8)	PROJECT LEADER:	K. HIGGINS	DRAWN BY:	J. SALVATORI
		DESIGNED BY:	J. SALVATORI	CHECKED BY:	W. LAMMER
		DETOUR PLAN		SHEET	10 OF 20

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF SLOPE STABILIZATION AND UNDERDRAIN AT AN EXISTING BRIDGE ABUTMENT, WITH MINOR APPROACH WORK.

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 0.22 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 STEEP WITH WELL ESTABLISHED FOREST & VEGETATION BELOW AND TO EITHER SIDE OF THE PROJECT SITE. THE PROJECT SITE BELOW THE ABUTMENT CONSISTS OF EXPOSED EARTH WITH NO VEGETATION. VT ROUTE 207 IS WITHIN THE PROJECT SITE.

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

THE MISSISQUOI RIVER IS THE ONLY WATER SOURCE ON THE PROJECT SITE. THE RIVER IS CLASSIFIED AS STEEP WITH A STREAM BED THAT CONSISTS OF GRAVEL, COBBLES AND BOULDERS. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM NEARBY SLOPES. THERE IS AN EXISTING 15" CULVERT ON THE WEST SIDE OF THE PROJECT THAT WILL NOT BE AFFECTED.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF TREES AND UNDERGROWTH TO EITHER SIDE OF THE PROJECT AREA. THE VEGETATION LOCATED DIRECTLY BELOW THE PROJECT SITE CONSISTS OF UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY CONSTRUCTION OF THE CONCRETE BASE AND PLACEMENT OF THE GABION BASKETS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF FRANKLIN, VERMONT.

SOILS ON THE PROJECT SITE ARE RAYNHAM SILT LOAM, 3% TO 8% SLOPES, "K FACTOR" = 0.49. THE SOIL IS CONSIDERED HIGHLY ERODIBLE DUE TO SIGNIFICANT SLOPES.

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: NO
WATER RESOURCE: MISSISQUOI RIVER
WETLANDS: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, 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 CONTRACTOR'S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED 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 TO THE SATISFACTION OF THE ENGINEER.

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 NEED TO DIVERT UPLAND RUNOFF IS NOT ANTICIPATED ON THIS PROJECT.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

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

THE USE OF CHECK STRUCTURES IS NOT ANTICIPATED ON THIS PROJECT

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 OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING 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 EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

NO DE-WATERING ACTIVITIES ARE ANTICIPATED ON THIS PROJECT.

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 SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1.5.3 UPDATES

PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

FILE NAME: si0c218epsc_nor.dgn
PROJECT LEADER: K.HIGGINS
DESIGNED BY: J.SALVATORI
EPSC NARRATIVE

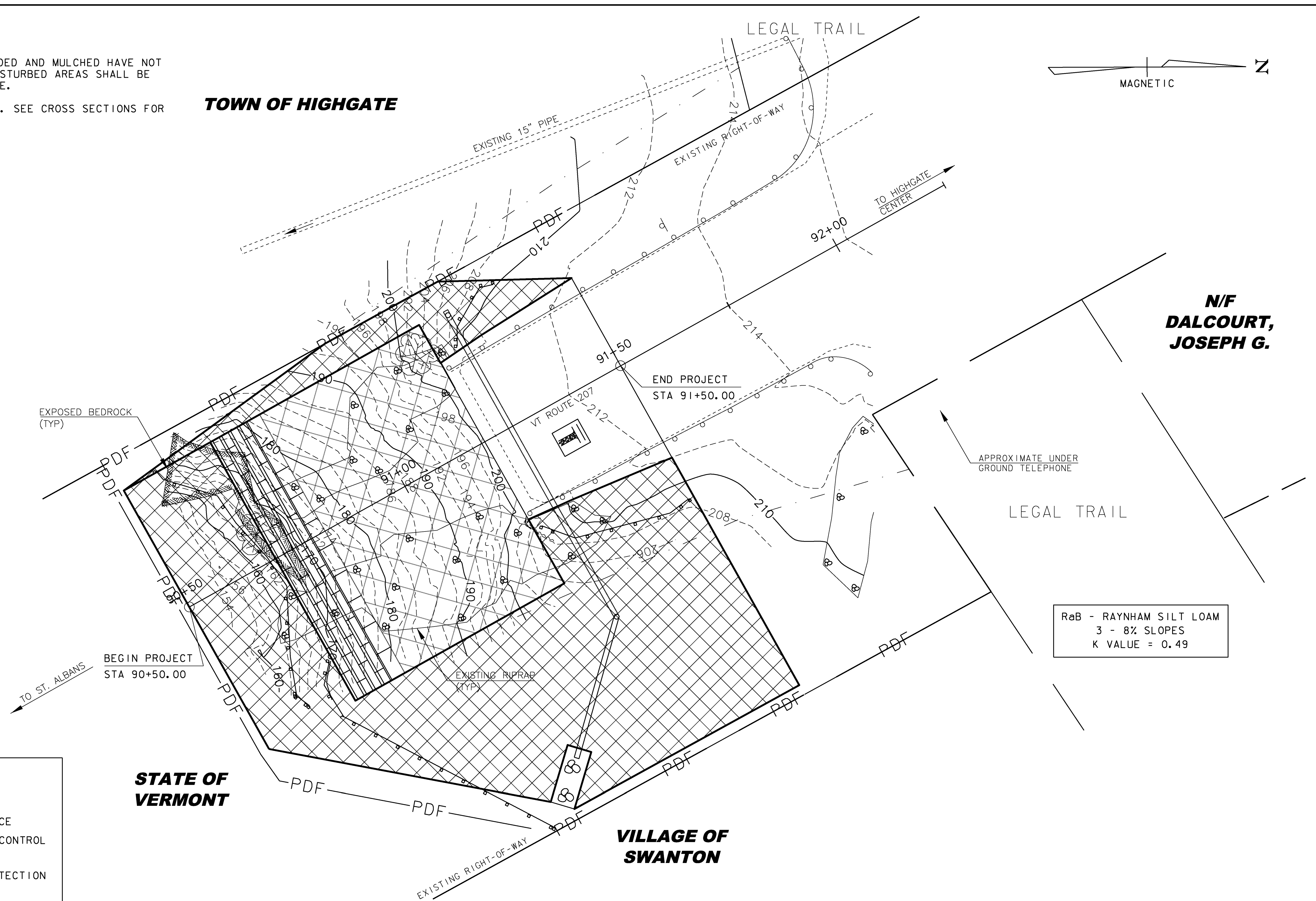
PLOT DATE: 24-JAN-2013
DRAWN BY: K. FRIEDLAND
CHECKED BY: J. SALVATORI
SHEET II OF 20

NOTES:

1. FOR CLARITY, AREAS TO BE SEEDED AND MULCHED HAVE NOT BEEN INDICATED; HOWEVER, ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS APPLICABLE.

2. EXISTING CONTOURS ARE SHOWN. SEE CROSS SECTIONS FOR FINAL CONDITIONS.

TOWN OF HIGHGATE



RaB - RAYNHAM SILT LOAM
 3 - 8% SLOPES
 K VALUE = 0.49

LEGEND

	CUT/FILL LIMITS
	PROJECT DEMARCATION FENCE
	ROLLED EROSION CONTROL PRODUCT (RECP)
	ROCK OUTLET PROTECTION
	SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE

STATE OF VERMONT

VILLAGE OF SWANTON

EPSC PLAN

SCALE 1" = 10' - 0"
 10 0 10

PROJECT NAME: HIGHGATE
 PROJECT NUMBER: STP 0297(8)

FILE NAME: I0c218/str/si0c128bdr.dgn PLOT DATE: 24-JAN-2013
 PROJECT LEADER: K. HIGGINS DRAWN BY: J. SALVATORI
 DESIGNED BY: J. SALVATORI CHECKED BY: W. LAMMER
 EPSC PLAN SHEET 12 OF 20

VAOT RURAL AREA MIX						
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %	
37.5%	22.5	45	CREeping RED FESCUE	85%	98%	
37.5%	22.5	45	TALL FESCUE	90%	95%	
5.0%	3	6	RED TOP	90%	95%	
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%	
5.0%	3	6	ANNUAL RYE GRASS	85%	95%	
100%	60	120				

VAOT URBAN AREA MIX						
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %	
42.5%	34	68	CREeping RED FESCUE	85%	98%	
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%	
42.5%	34	68	KENTUCKY BLUE GRASS	85%	95%	
5.0%	4	8	ANNUAL RYE GRASS	85%	95%	
100%	80	160				

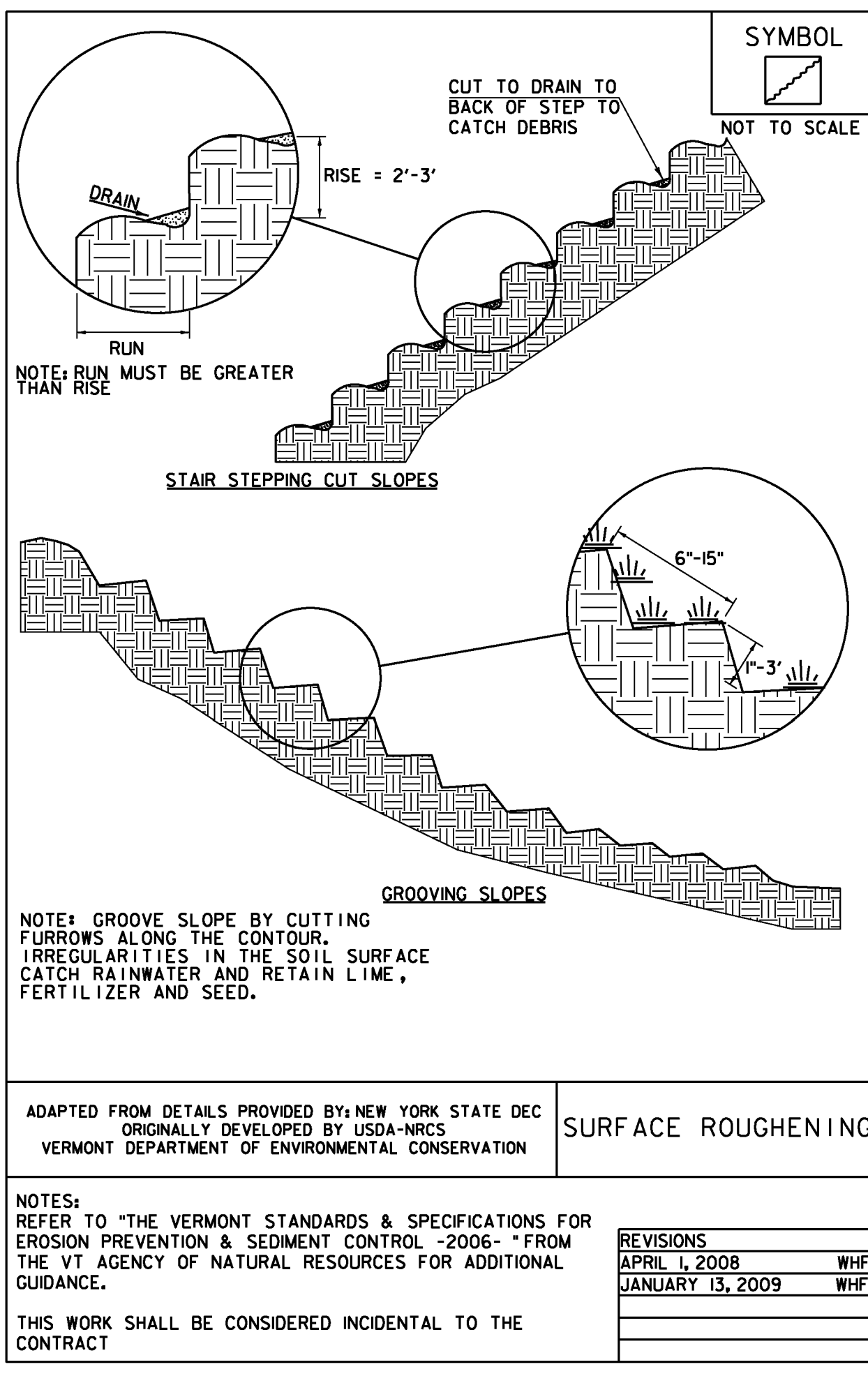
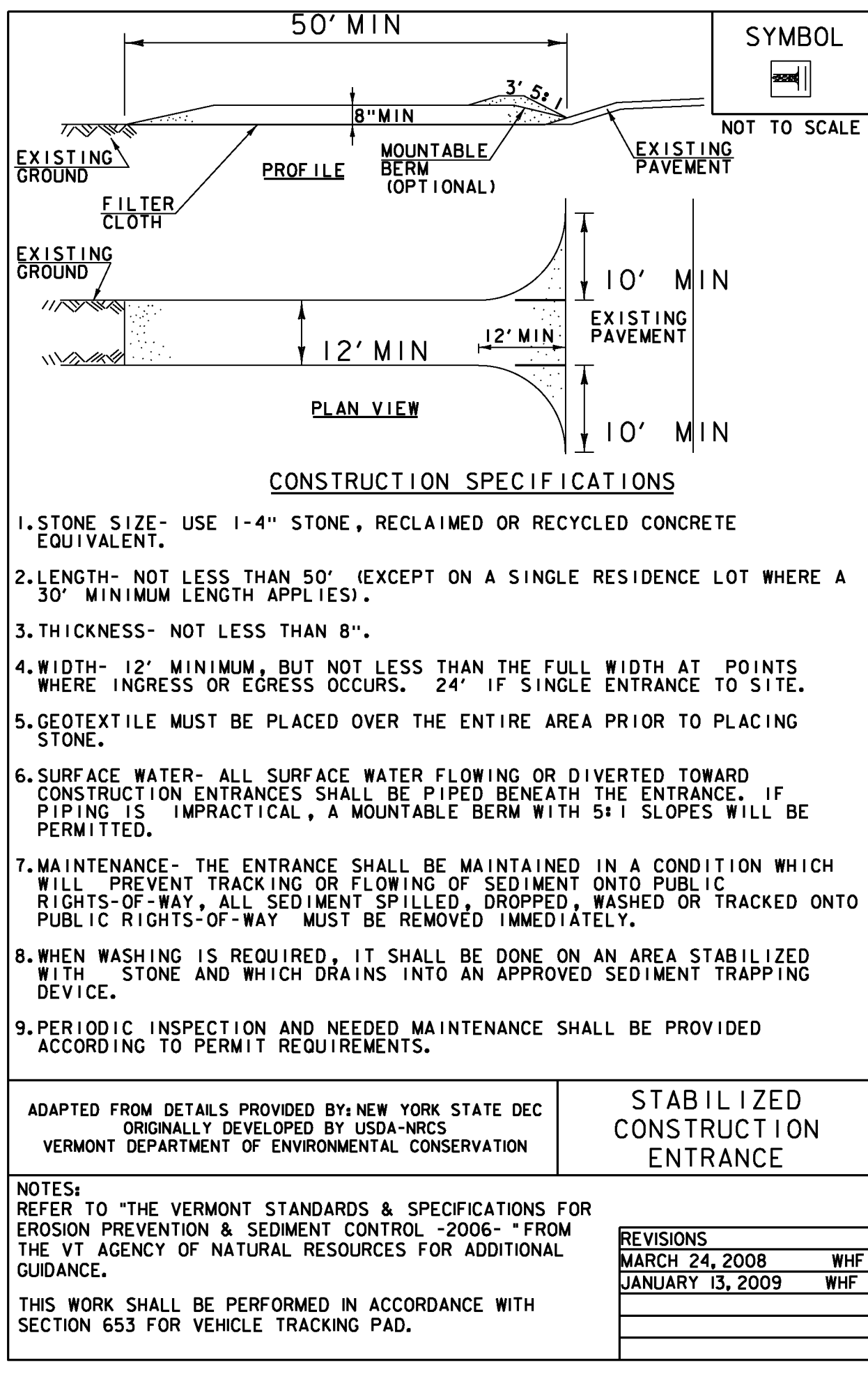
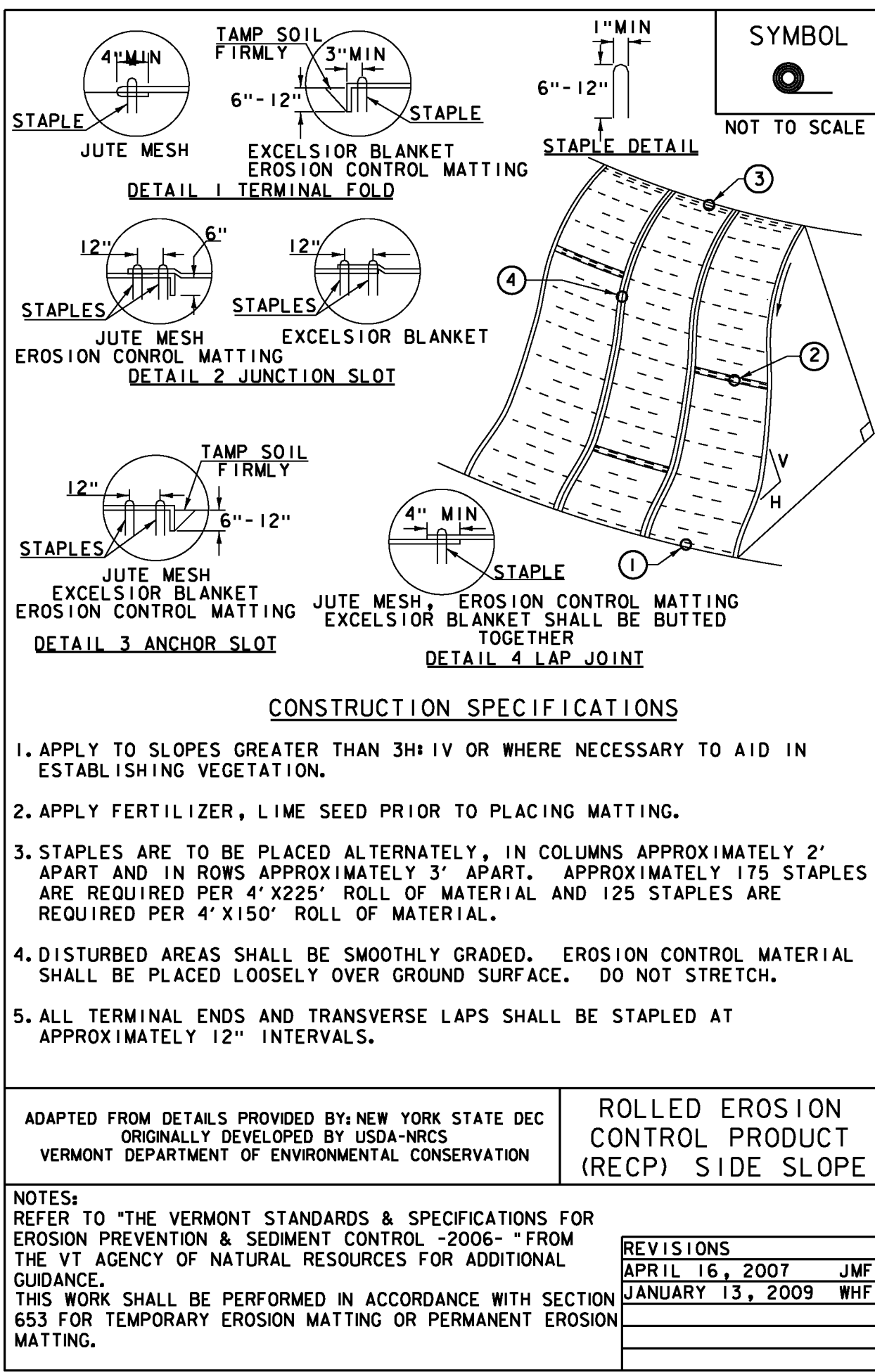
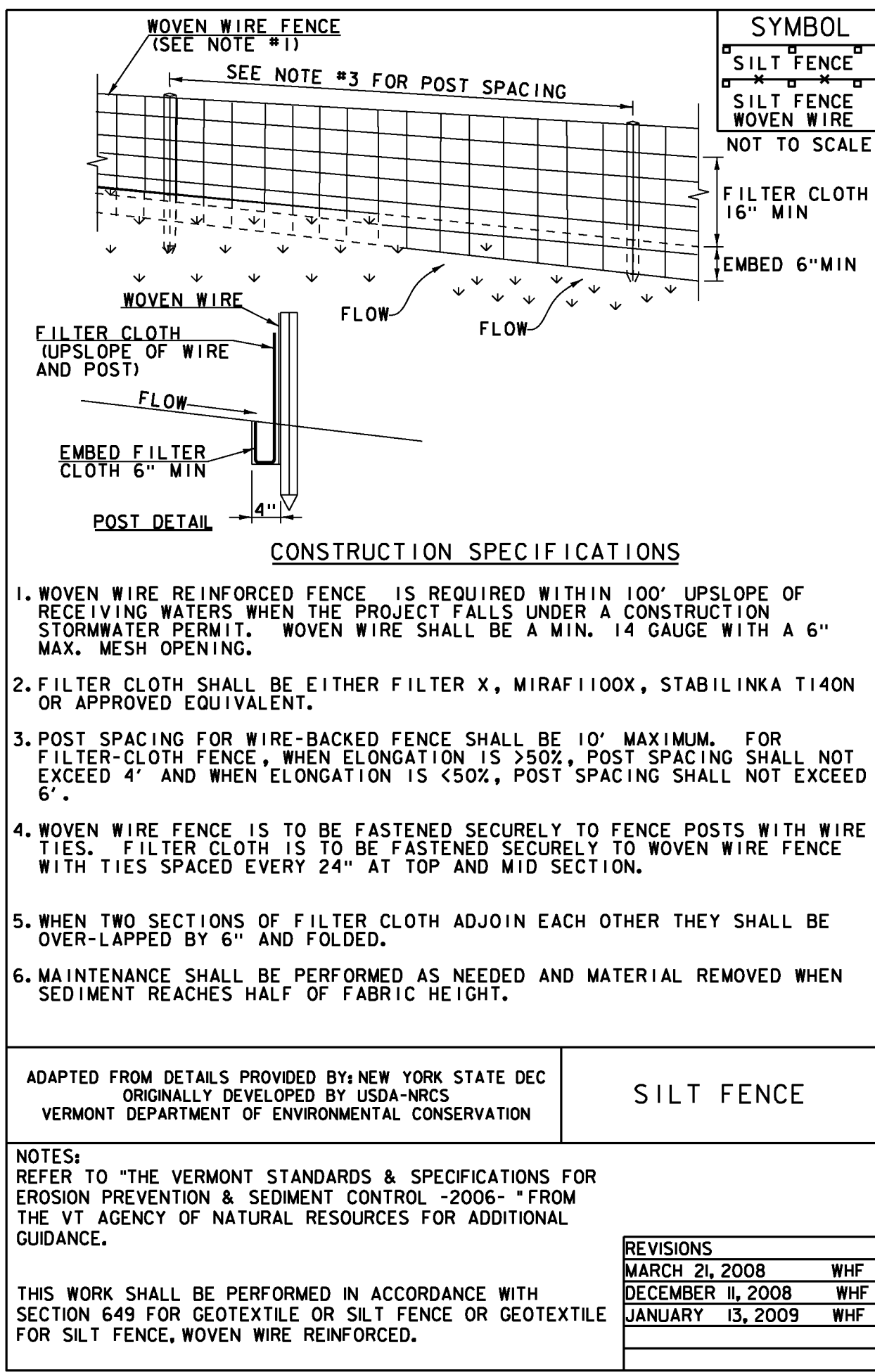
SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

CONSTRUCTION GUIDANCE

- RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
- URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
- ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
- 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.
- TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- 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.
- 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 VTTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

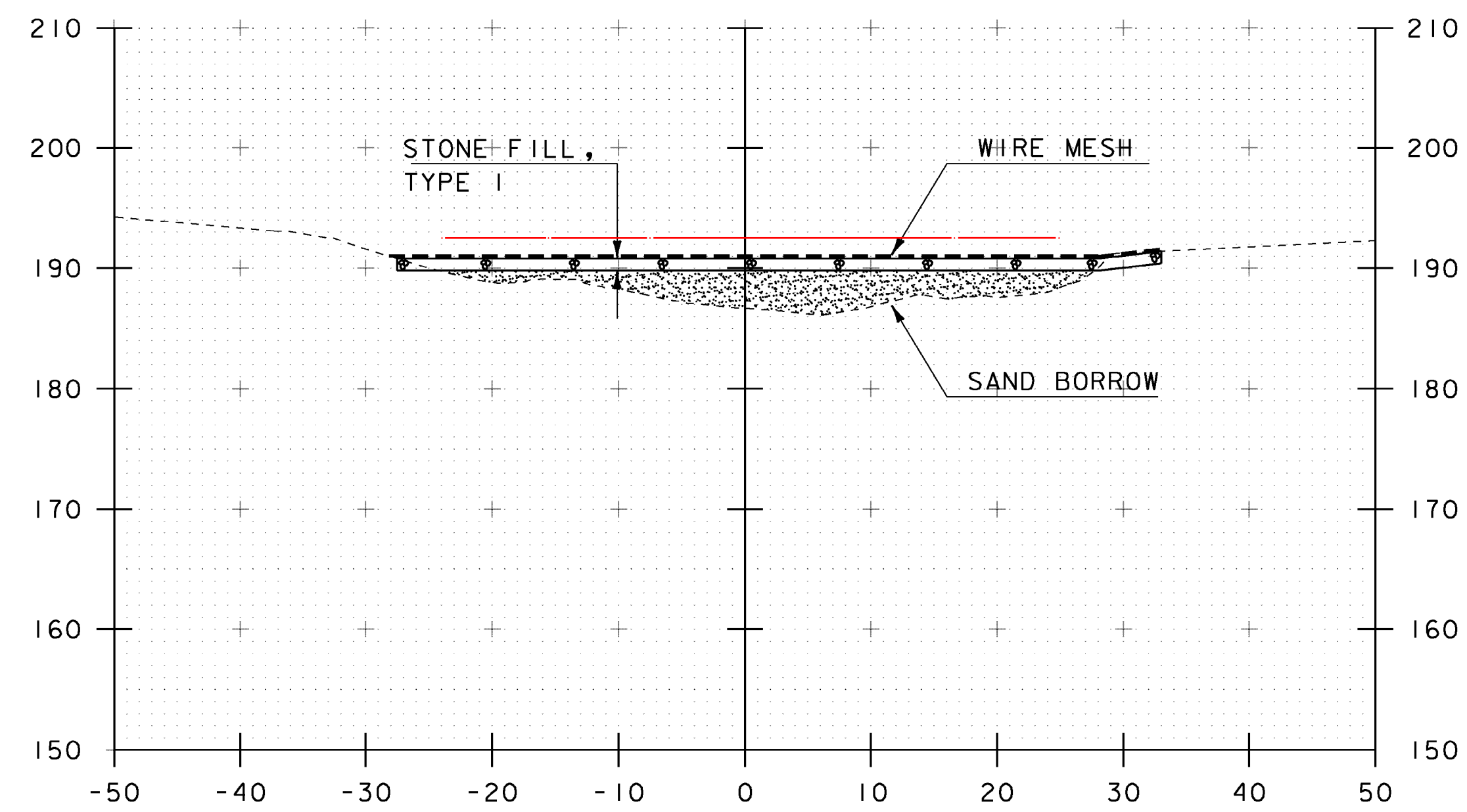
TURF ESTABLISHMENT	
REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF
FEBRUARY 16, 2011	WHF



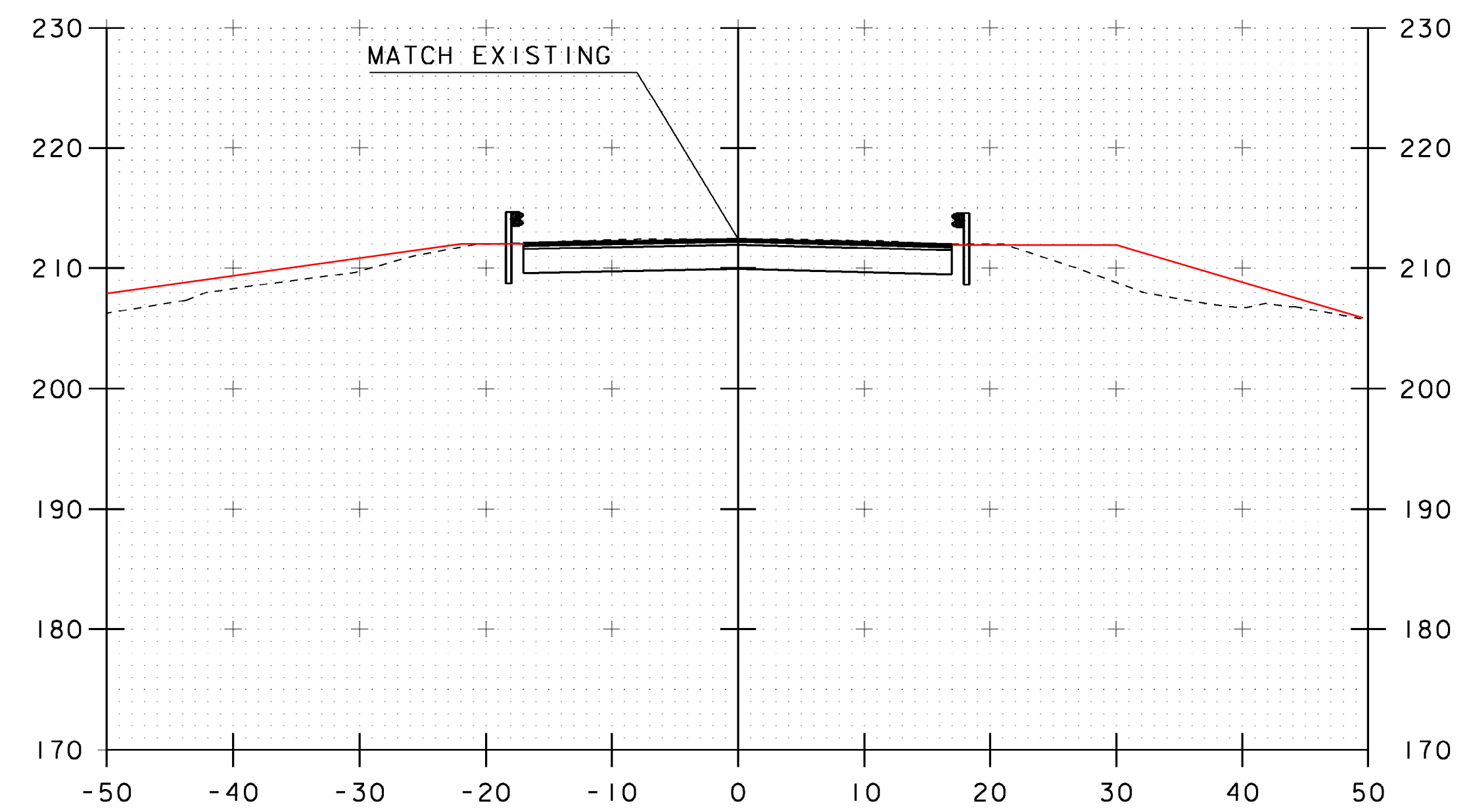
PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

FILE NAME: sl0c218det.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
EPSC - DETAILS

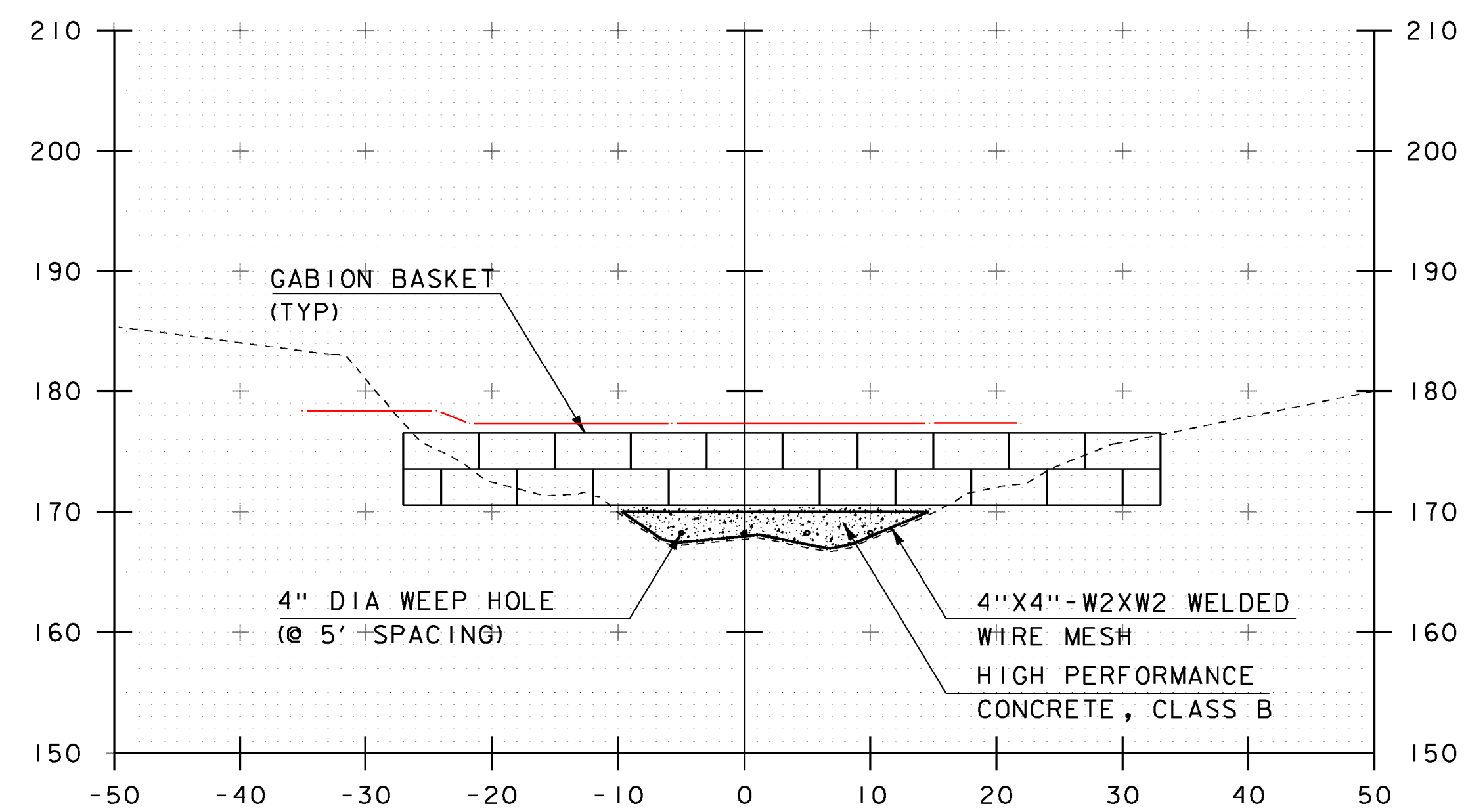
PLOT DATE: 24-JAN-2013
DRAWN BY: K. FRIEDLAND
CHECKED BY: J. SALVATORI
SHEET 13 OF 20



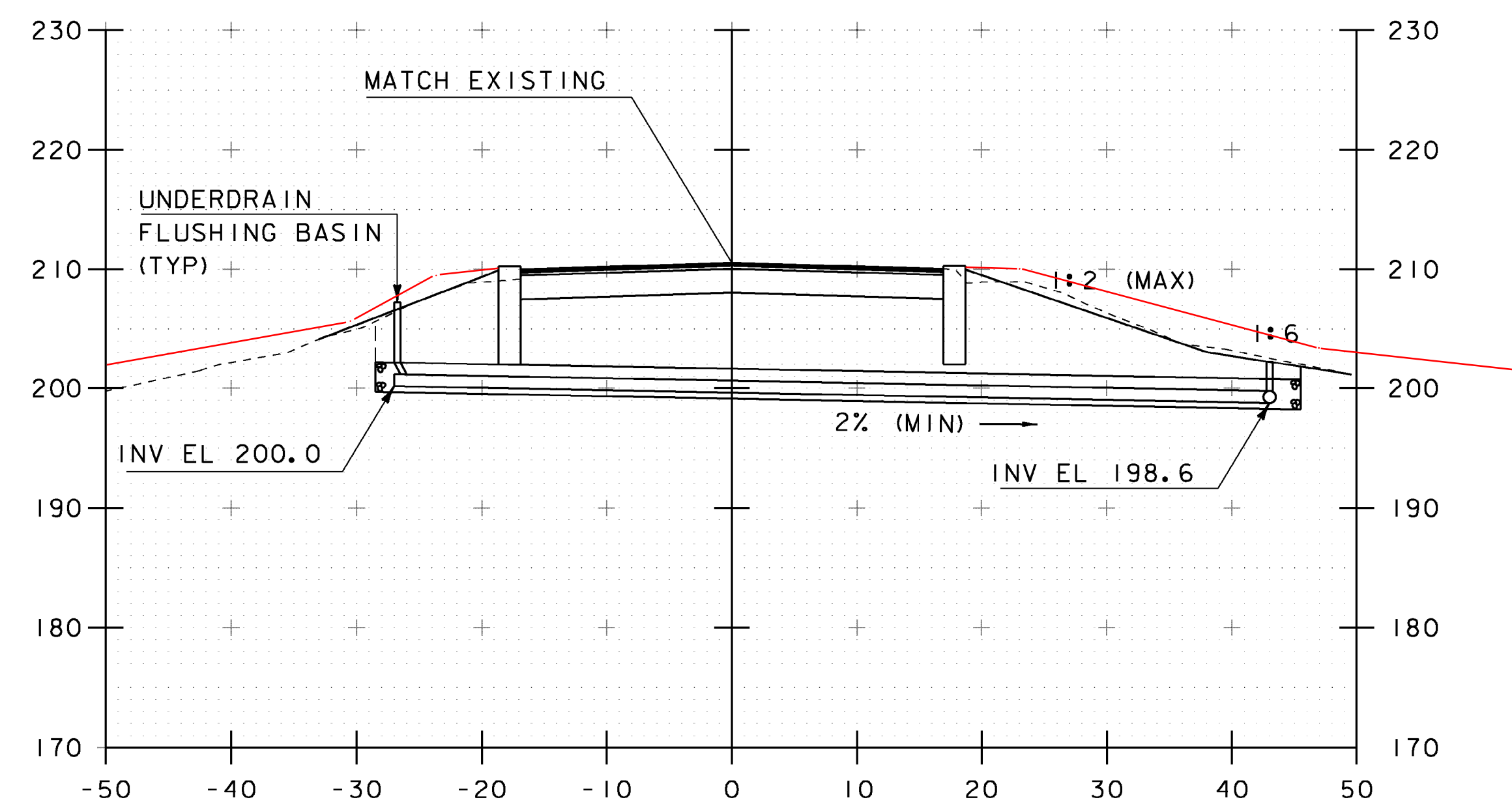
91+00



91+50
END PROJECT



90+75
BEGIN PROJECT @ 90+50.00



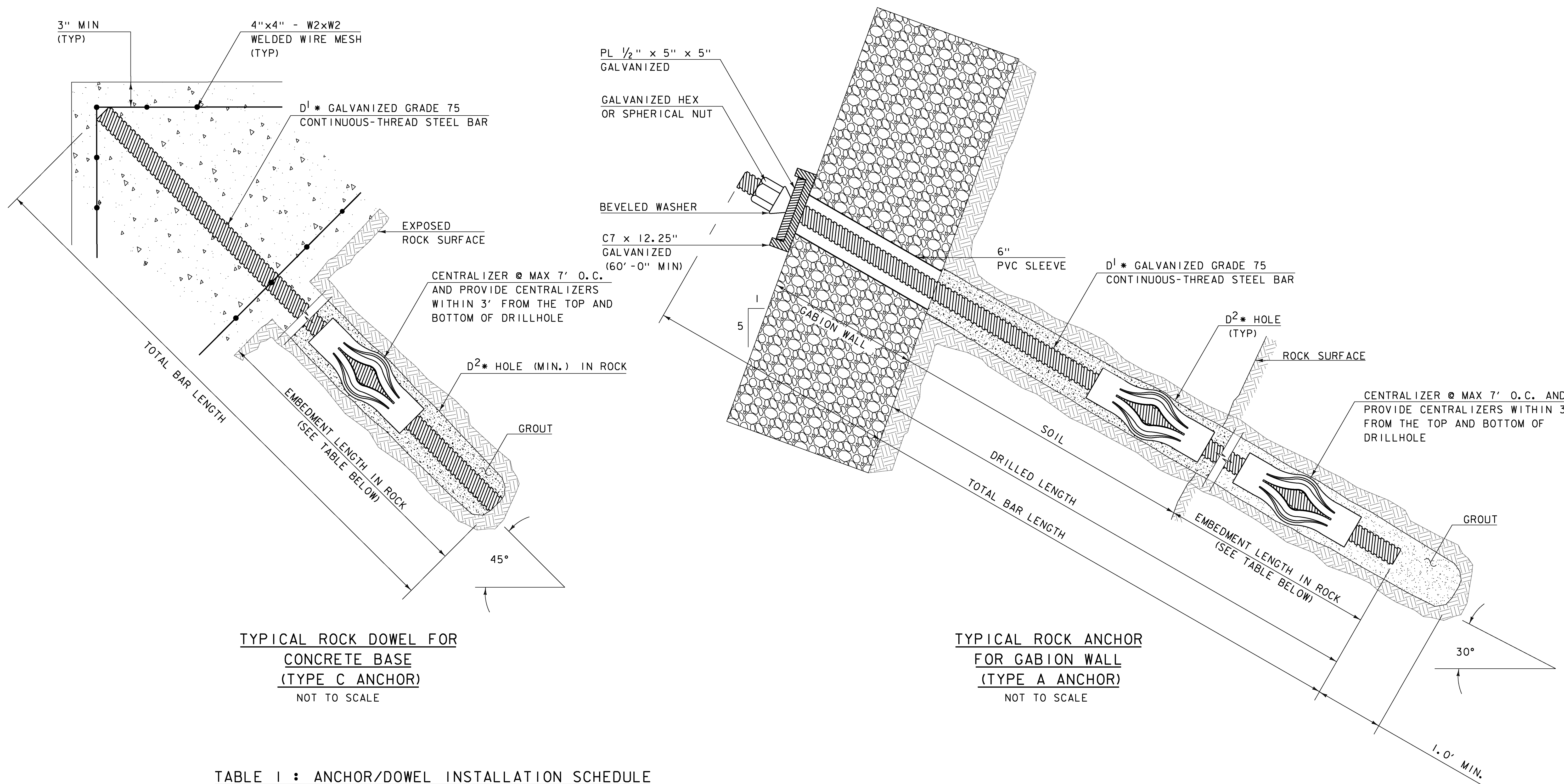
91+25

SCALE 1" = 10' - 0"
10 0 10

PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

FILE NAME: s10c218xs.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
MAINLINE CROSS SECTIONS

PLOT DATE: 24-JAN-2013
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 14 OF 20



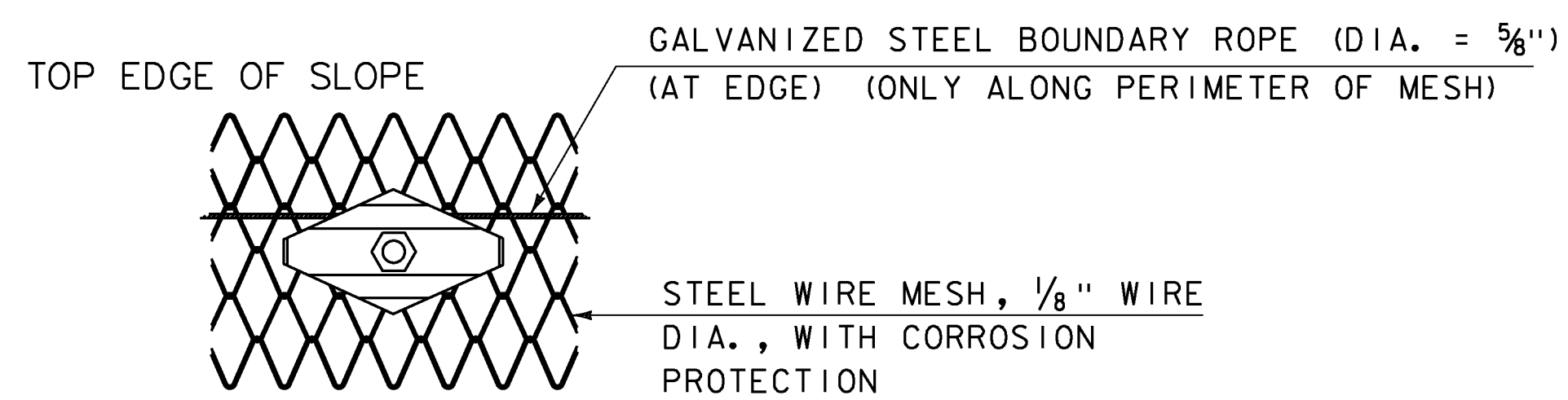
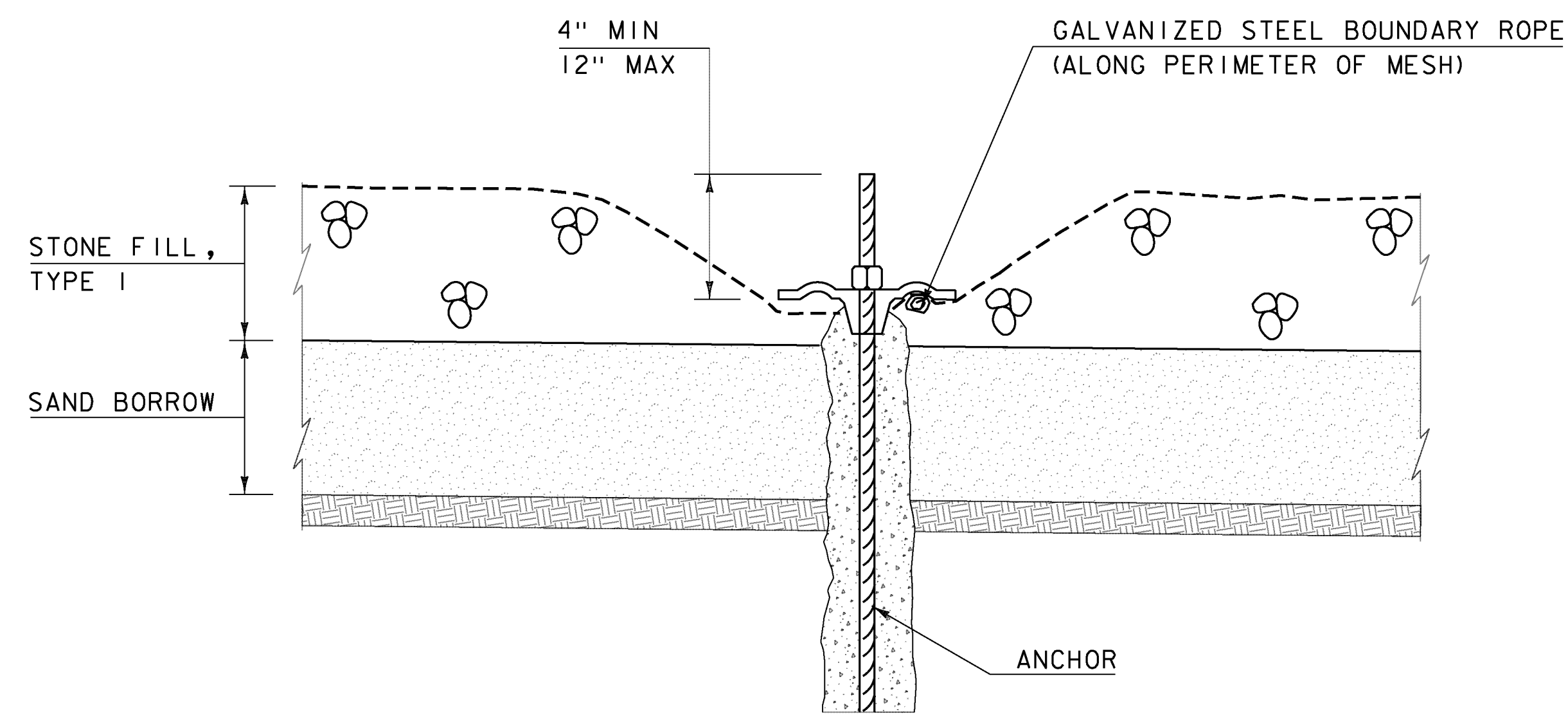
TYPICAL ROCK DOWEL FOR CONCRETE BASE (TYPE C ANCHOR)
NOT TO SCALE

TYPICAL ROCK ANCHOR FOR GABION WALL (TYPE A ANCHOR)
NOT TO SCALE

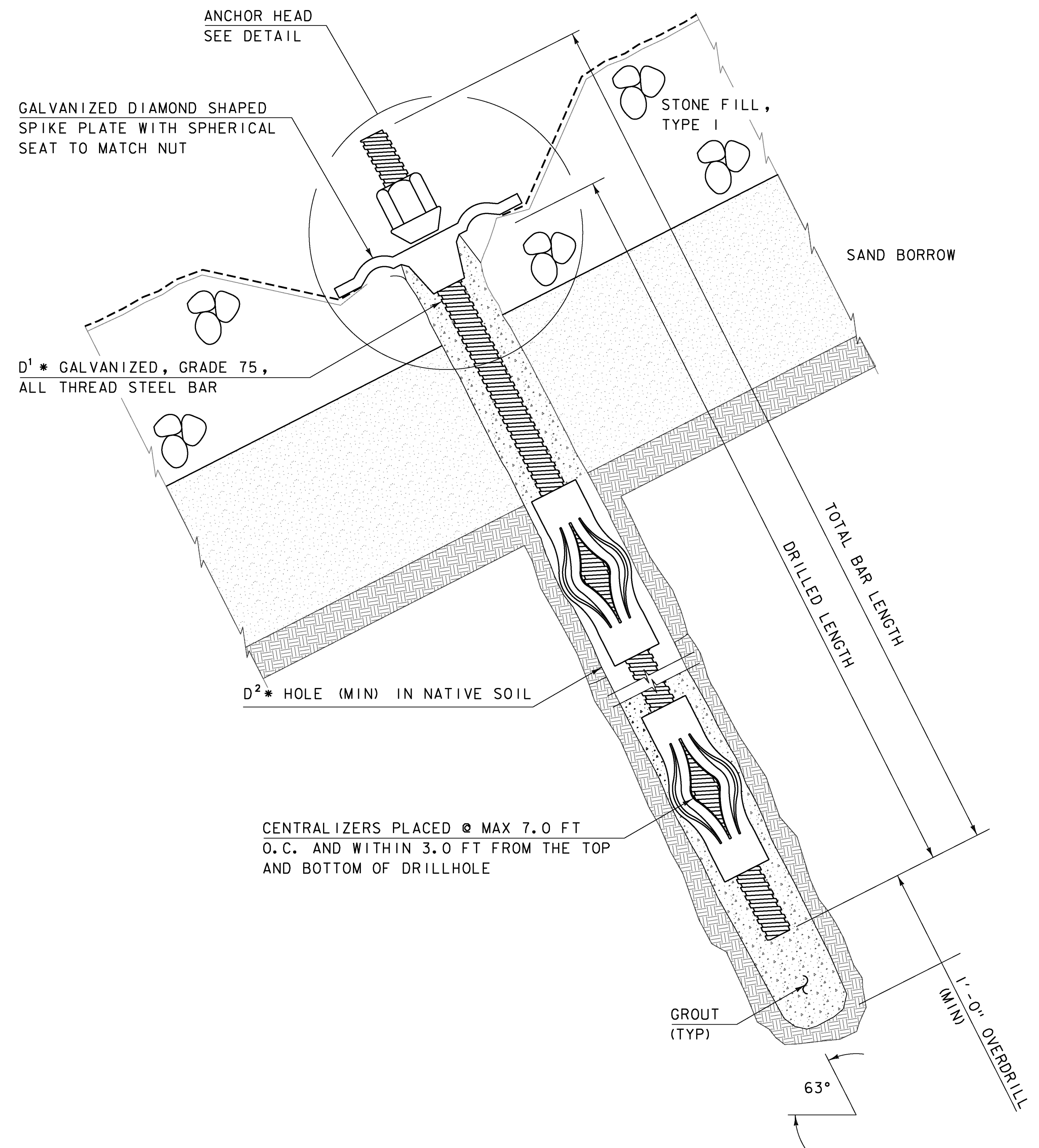
TABLE I : ANCHOR/DOWEL INSTALLATION SCHEDULE

TYPE	DESCRIPTION	HOLE DIAMETER (D ²) (IN)	BAR DIAMETER (D ¹) (IN)	DOWEL SPACING (FT)	INCLINATION (DEGREES) TO HORIZONTAL	EMBEDMENT LENGTH (FT) IN SOUND ROCK	EMBEDMENT LENGTH (FT) IN SOIL	DOWEL PRE-TENSIONING LOAD (DL)
A	ROCK ANCHOR (FOR GABION)	4" MIN	1"	8'	30° FROM HORIZONTAL	10 (MIN.)	VARIES	11.2Kips
B	SOIL ANCHOR (FOR WIRE/MESH)	4" MIN	1"	8'	63° FROM HORIZONTAL	0	14'	5.6Kips
C	ROCK DOWEL (FOR CONCRETE)	4" MIN	1"	5'	45° FROM HORIZONTAL	10 (MIN.)	0	0

PROJECT NAME: HIGHGATE
 PROJECT NUMBER: STP 0297(8)
 FILE NAME: sl0c218det.dgn
 PROJECT LEADER: K. HIGGINS
 DESIGNED BY: J. SALVATORI
 DRAWN BY: J. SALVATORI
 CHECKED BY: W. LAMMER
 PLOT DATE: 24-JAN-2013
 SHEET 15 OF 20
 DETAIL SHEET - 1



TYPE B ANCHOR HEAD DETAIL
NOT TO SCALE



**TYPICAL SOIL ANCHOR
FOR WIRE MESH
(TYPE B ANCHOR)**
NOT TO SCALE

NOTES:

- SEE TABLE 1 ON DETAIL SHEET - 1 FOR ANCHOR PARAMETERS.

PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

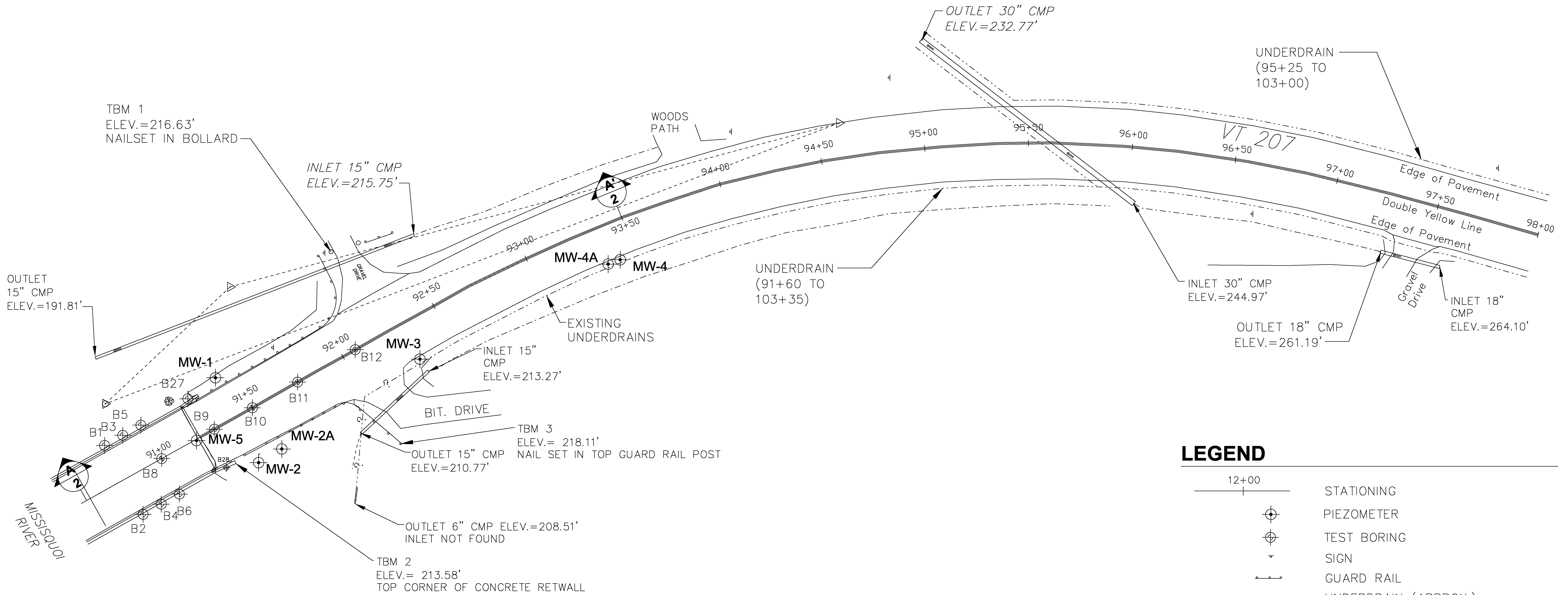
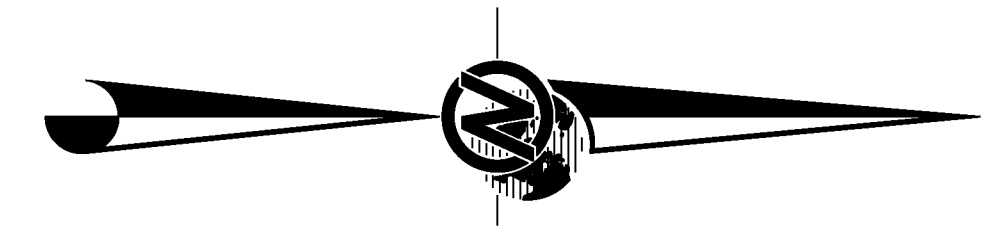
FILE NAME: sl0c218det.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
DETAIL SHEET - 2

PLOT DATE: 24-JAN-2013
DRAWN BY: J. SALVATORI
CHECKED BY: B. LAMMER
SHEET 16 OF 20

REFERENCE

1.) BASE PLAN WAS PROVIDED BY CLD CONSULTING ENGINEERS, INC., TITLED "HIGHWAY 2007 AND MISSISQUOI RIVER EMBANKMENT SURVEY WORKSHEET", DATED AUGUST 2008.

2.) UNDERDRAIN LAYOUT WAS OBTAINED FROM DRAWINGS ENTITLED, "RECORD PLANS-MATERIAL" DATED 1975, PROVIDED BY VTRANS.



NOTES

1.) THE APPROXIMATE STATIONING SHOWN WAS OBTAINED FROM VAOT RECORD PLANS.

1) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS OF A PORTION OF THE MISSISQUOI RIVER EMBANKMENT AND HIGHWAY 207 AS SHOWN HEREON.

2) THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND DURING JULY 2008.

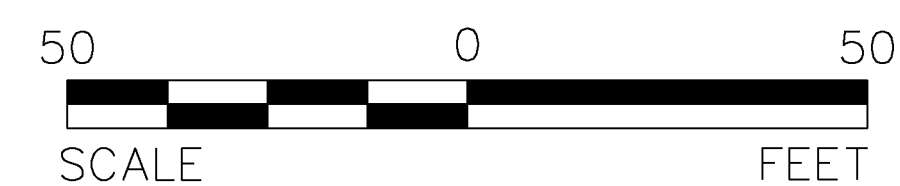
3) BASIS OF BEARING IS VT GRID NORTH.

4) HORIZONTAL DATUM IS NAD83/07 AND VERTICAL DATUM IS NAVD88.

**FOR INFORMATIONAL PURPOSES ONLY
NOT FOR CONSTRUCTION**

LEGEND

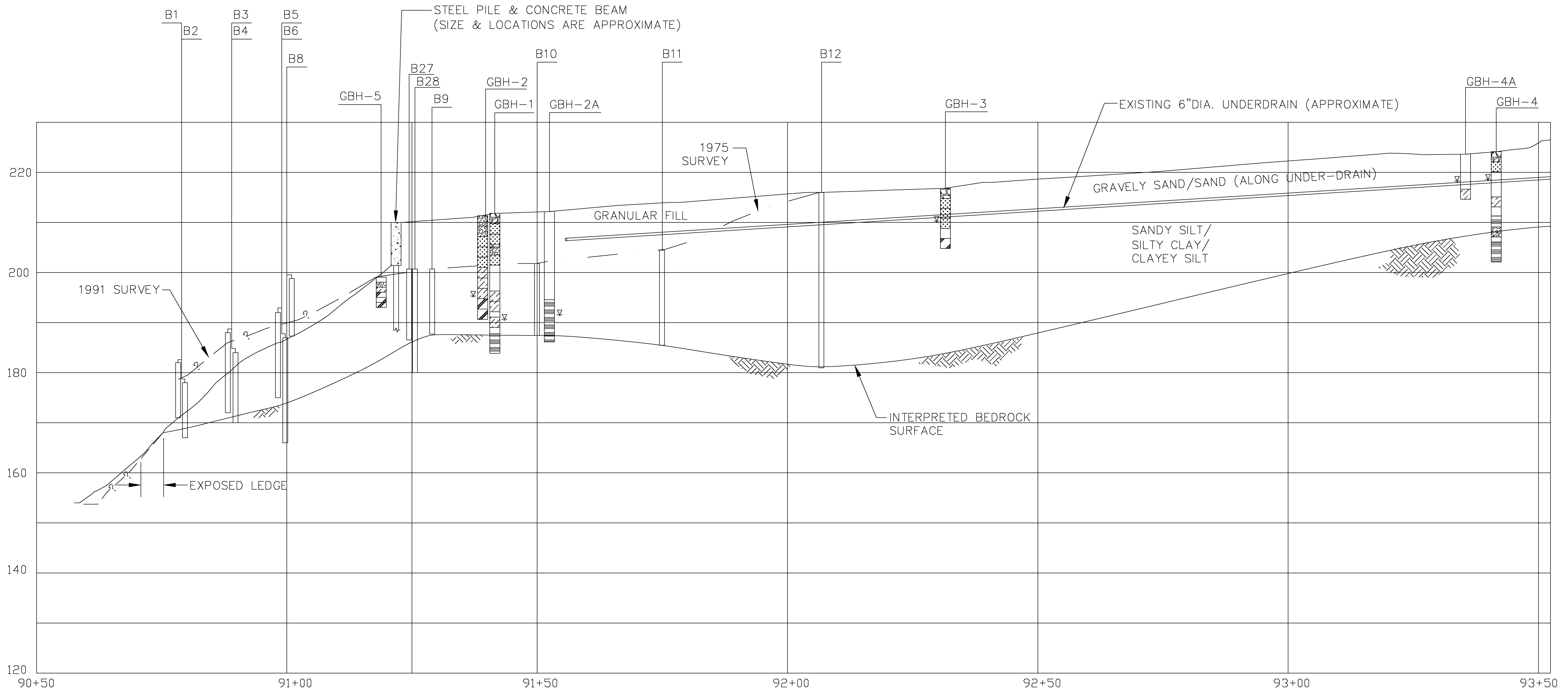
12+00	STATIONING
⊕	PIEZOMETER
⊗	TEST BORING
▽	SIGN
— —	GUARD RAIL
- - - - -	UNDERDRAIN (APPROX.)
- · - · - · -	ASSUMED UNDERDRAIN
▲ A' 2	CROSS SECTION LOCATION



BORING & MONITORING LAYOUT SHEET

PROJECT NAME: HIGHGATE
PROJECT NUMBER: STP 0297(8)

FILE NAME: cl0c218lay.dgn	PLOT DATE: 24-JAN-2013
PROJECT LEADER: K. HIGGINS	DRAWN BY: MIKE BOISVERT
DESIGNED BY: MAHENDRA THILLIYAR	CHECKED BY: -----
BORING & MONITORING LAYOUT SHEET	SHEET 17 OF 20



A
2 SECTION A-A'

**FOR INFORMATIONAL PURPOSES ONLY
NOT FOR CONSTRUCTION**

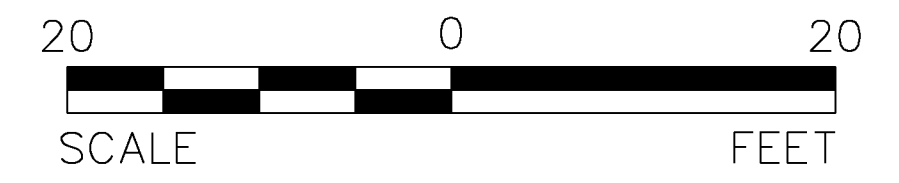
SOIL LITHOLOGY GRAPHICS LEGEND

- A-1-b Gr-Sa
- A-4 Cl-Si
- A-3 Sa
- A-6 Si-Cl
- A-2-4 Sa-Si-Gr
- LIMESTONE

- 2008 SURVEY
- 1991 SURVEY
- ASSUMED PROFILES
- 1975 SURVEY

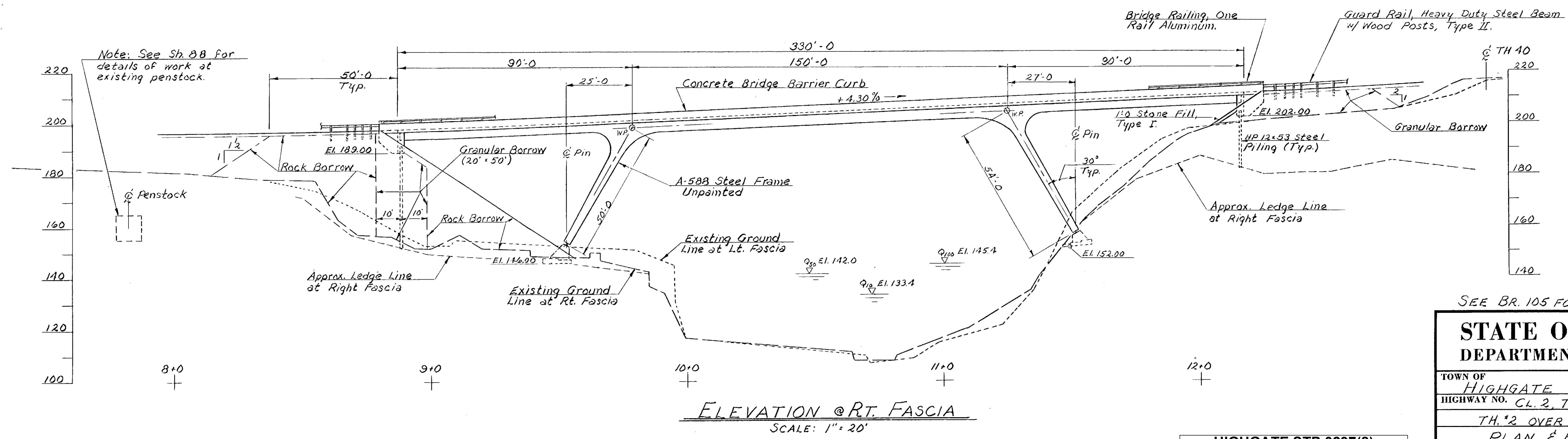
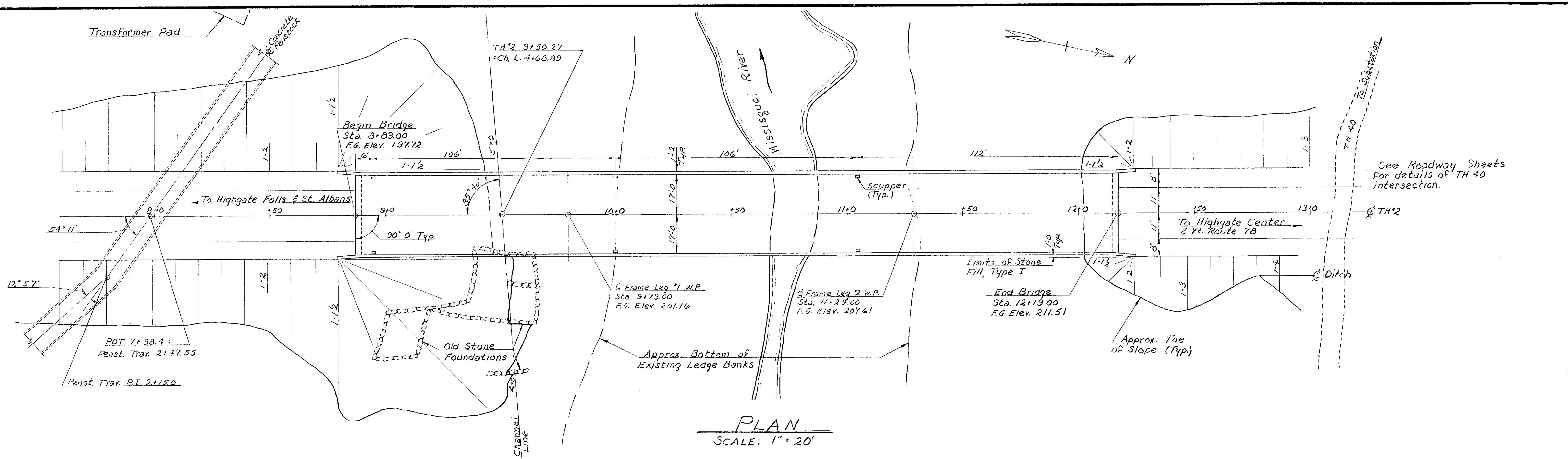
NOTES

- 1.) INFORMATION FROM THE BORINGS IS PROJECTED TO CENTERLINE OF THE ROAD TO CREATE THIS PROFILE.
- 2.) PIEZOMETERS (MH-1 THROUGH MH-5) INSTALLED AT GBH SERIES BORINGS.
- 3.) BORINGS B1 THROUGH B6 WERE COMPLETED IN APRIL 1991. B8, B9, B10, B11, B12, B27 AND B28 WERE COMPLETED IN 1975 AND GBH-1 THROUGH GBH-5 WERE COMPLETED IN JULY 2008.
- 4.) UNDER-DRAIN LOCATIONS / DEPTHS WERE OBTAINED FROM DRAWINGS ENTITLED "RECORD PLANS - MATERIAL" DATED 1975, PROVIDED BY VTRANS.



SUBSURFACE PROFILE

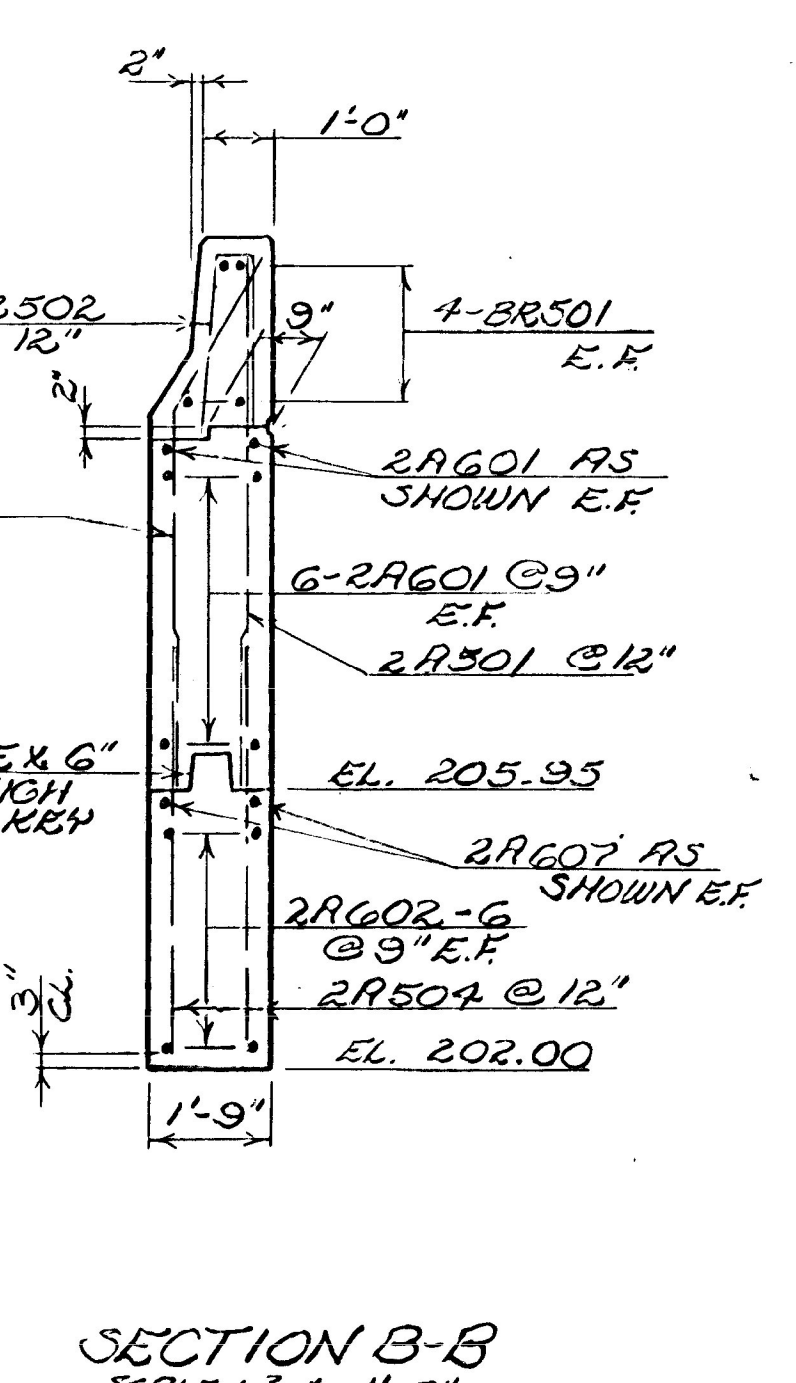
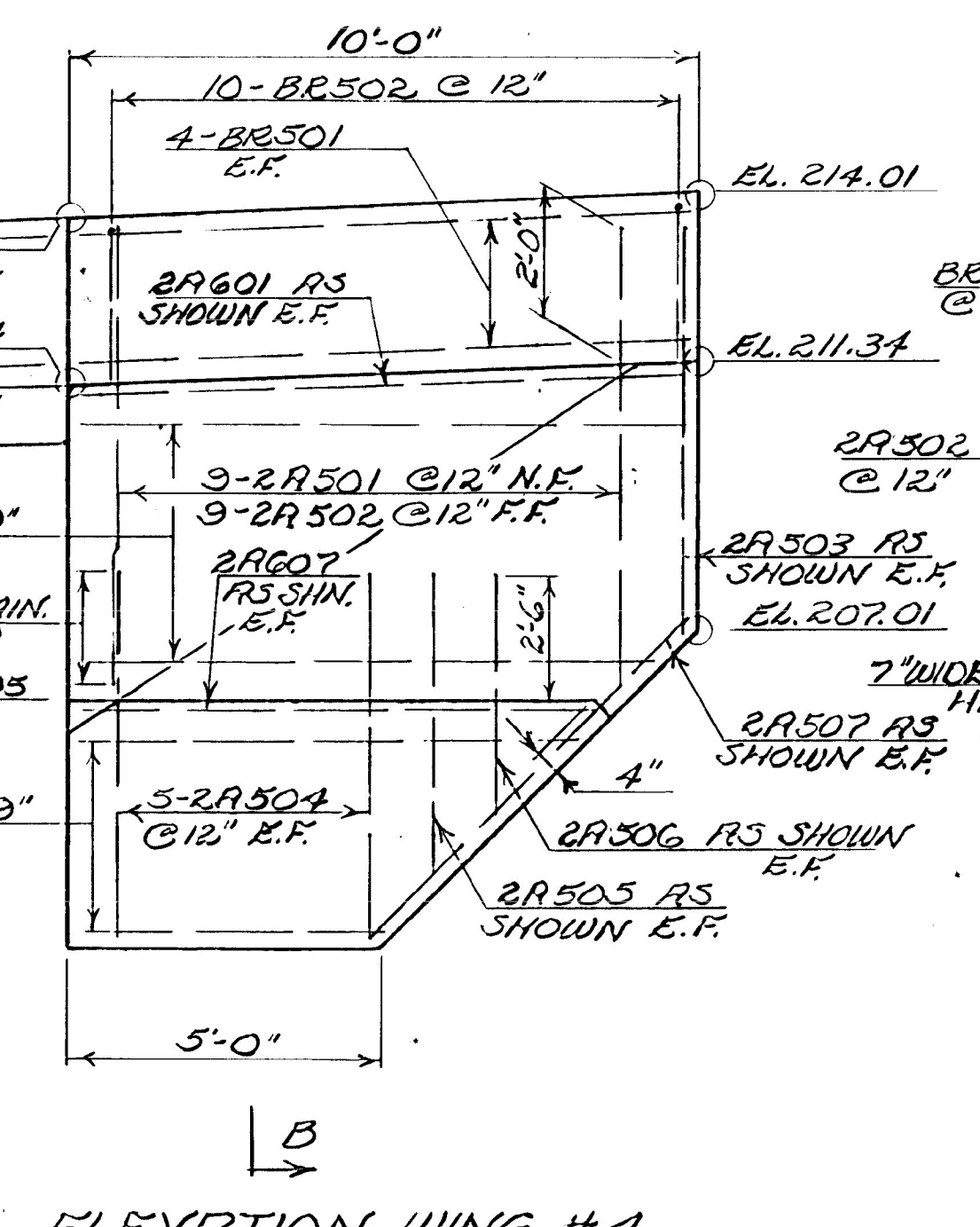
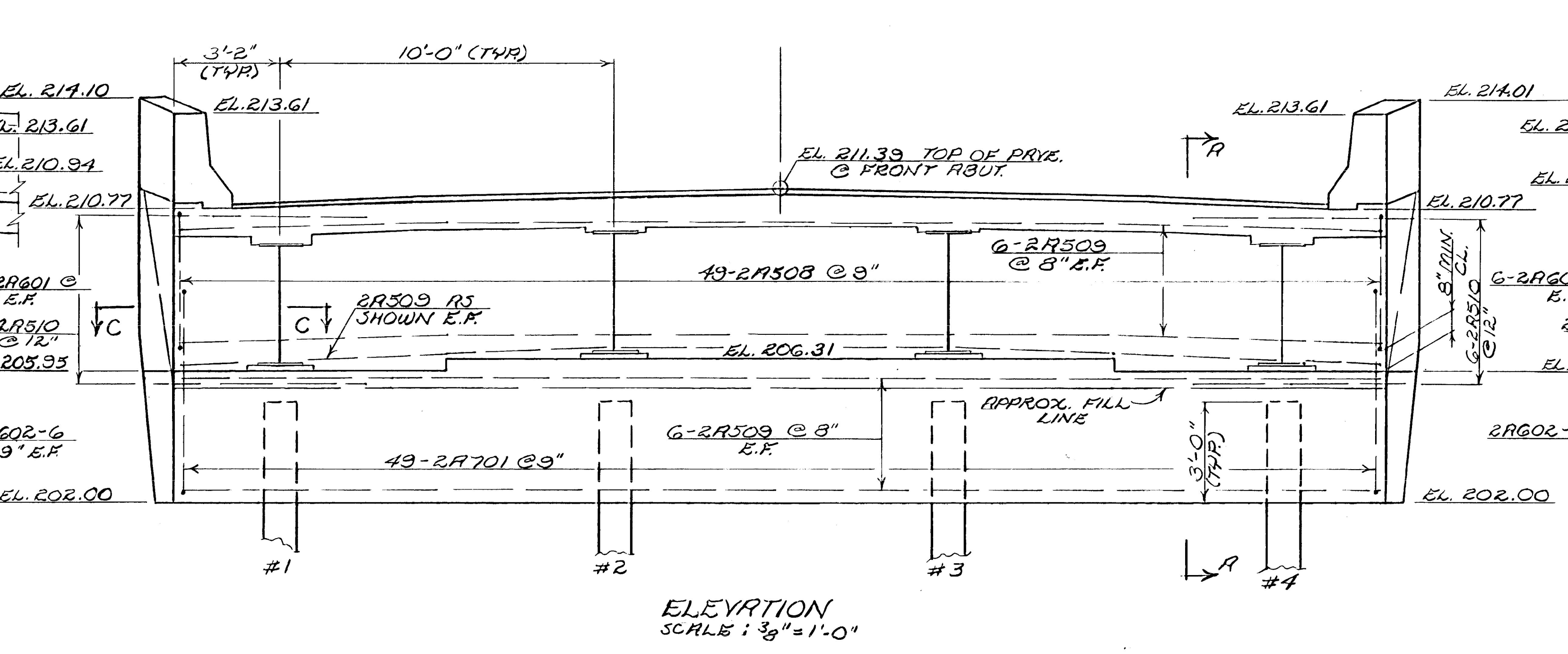
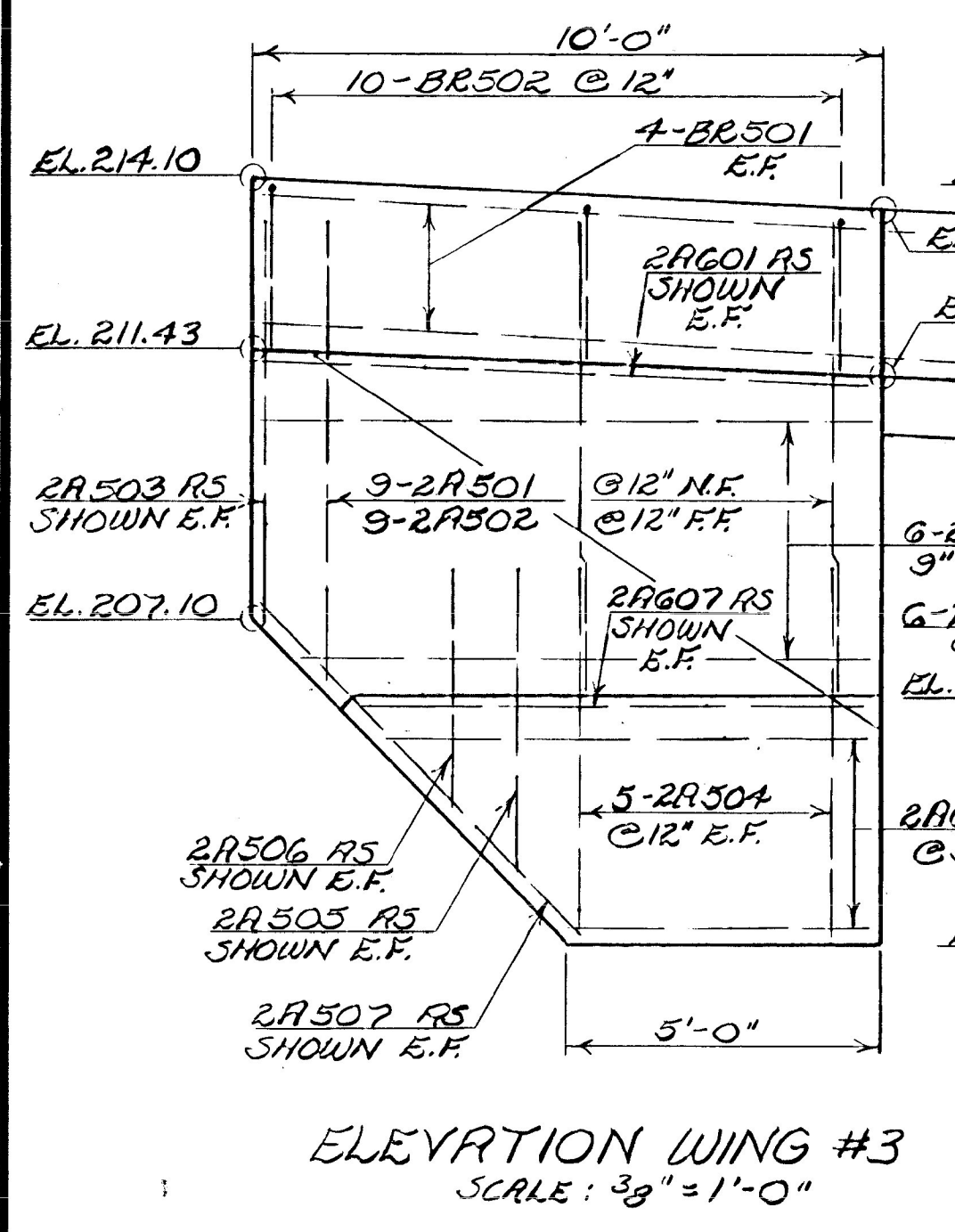
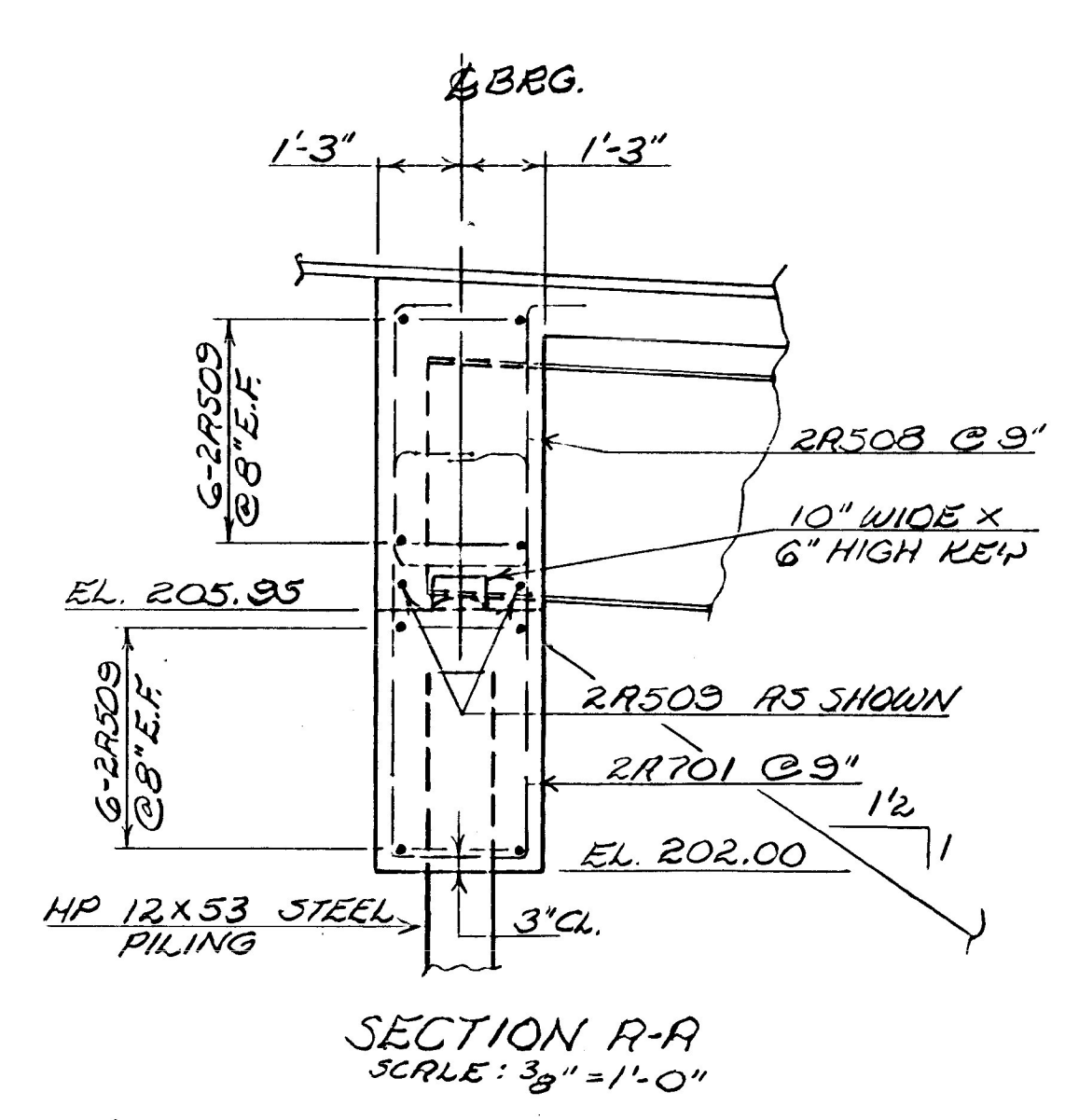
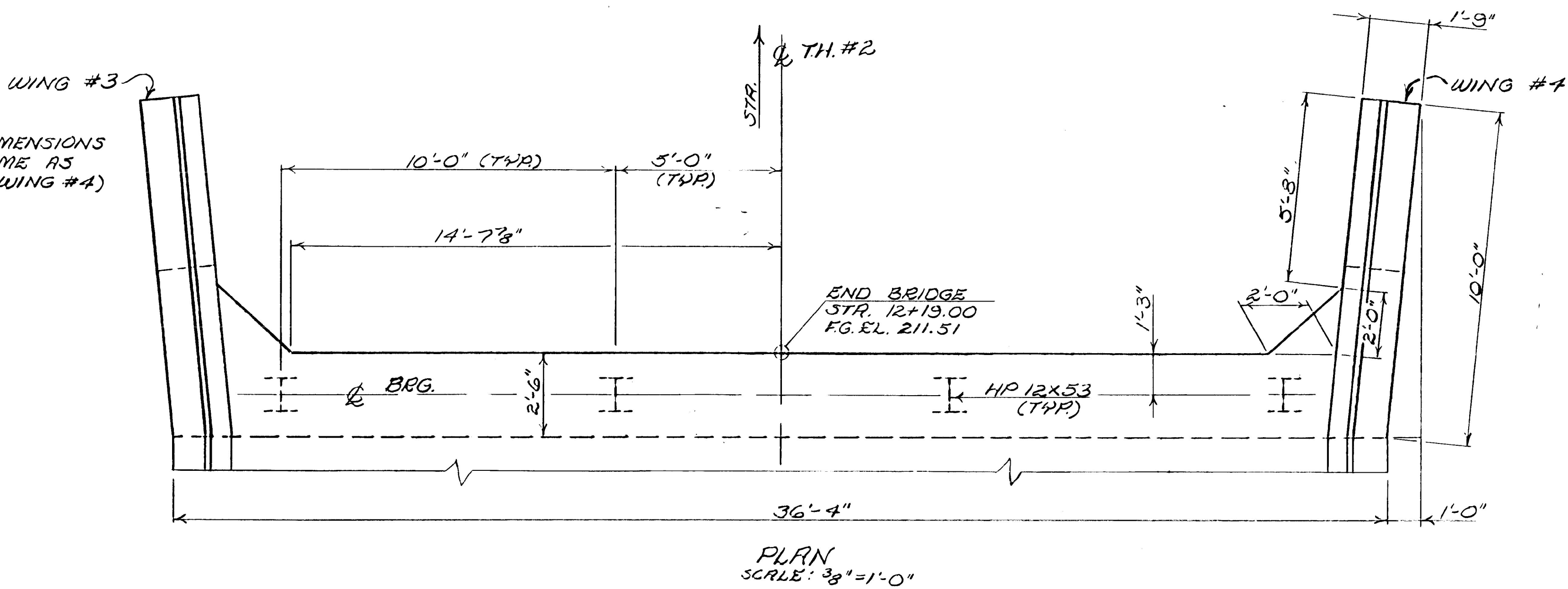
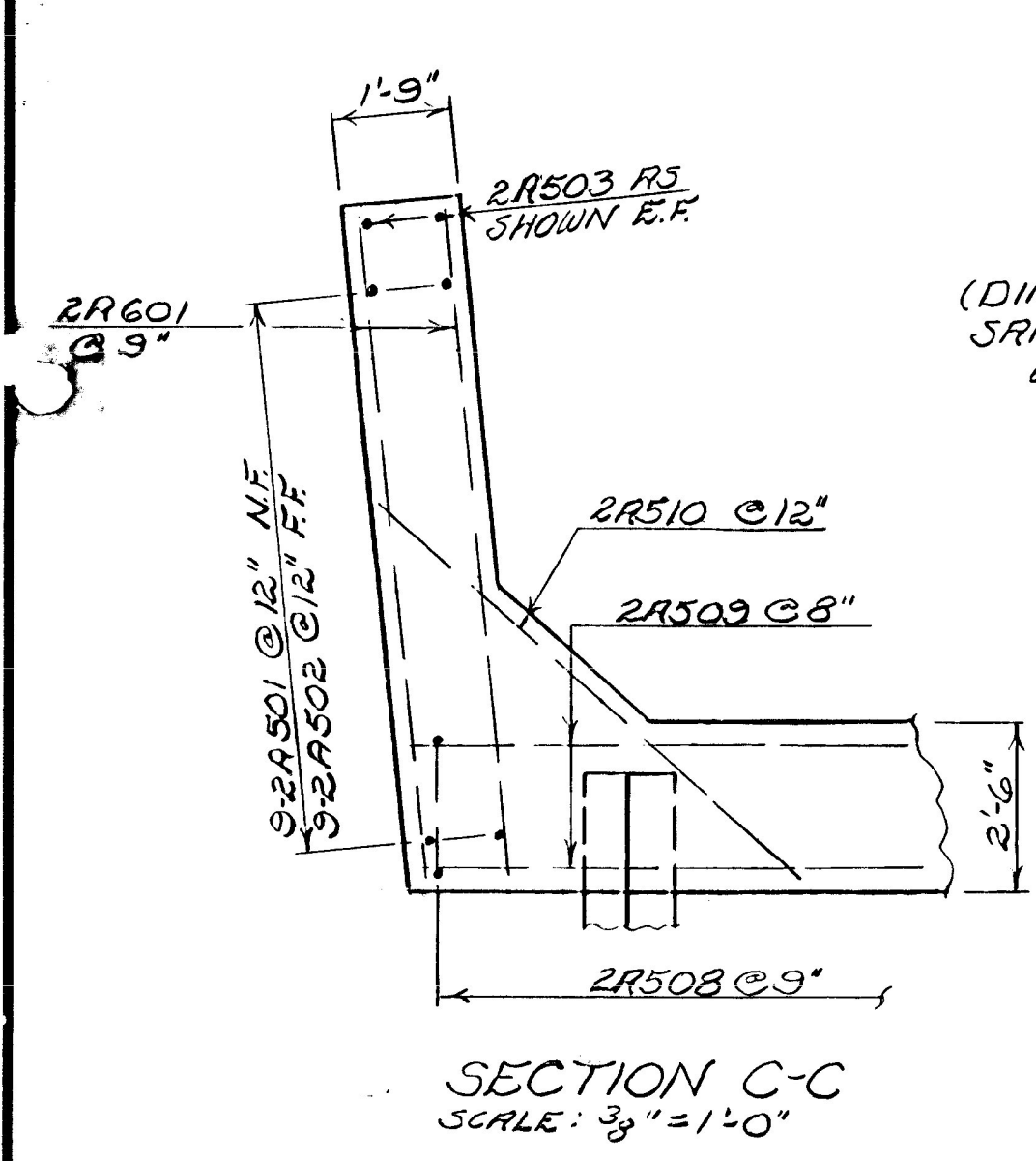
PROJECT NAME: HIGHGATE	PLOT DATE: 24-JAN-2013
PROJECT NUMBER: STP 0297(8)	DRAWN BY: MIKE BOISVERT
FILE NAME: 07386908B008.dwg	DESIGNED BY: MAHENDRA THILLIYAR
PROJECT LEADER: K. HIGGINS	CHECKED BY: -----
SUBSURFACE PROFILE	SHEET 18 OF 20



HIGHGATE STP 0297(8)
SHEET 19 OF 20
FOR INFORMATION ONLY

SEE BR. 105 FOR GENERAL NOTES

STATE OF VERMONT	
DEPARTMENT OF HIGHWAYS	
TOWN OF HIGHGATE	Bridge No. 8
HIGHWAY NO. CL. 2, TH. 2	Log Sta. Surv. Sta. 10+50 ±
TH. 2 OVER MISSISQUOI RIVER	
PLAN & ELEVATION	
Designed by W. TRIPP	Drawn by W. TRIPP
Checked by D. PERKINS date 1-75	Bridge Design Supervisor J. WOOD date
PROJECT HIGHGATE	PROJECT NO. BRS-0297(6)SA
Bridge Sheet No. 102	Sheet 19 of 104



LOCATION	NO. PILES	SIZE	ESTIMATED LENGTH OF PILES	SPLICES ESTIMATED FOR PILES EXCEEDING PLAN LENGTH (TO BE PRID FOR ONLY IF USED)
ABUT.#1	4	HP 12x53	45'	1
ABUT.#2	4	HP 12x53	25'	1

PILING TABLE

1. ALL PILES TO HAVE REINFORCED TIPS.
2. FOR ABUTMENT NOTES SEE BR. 113.

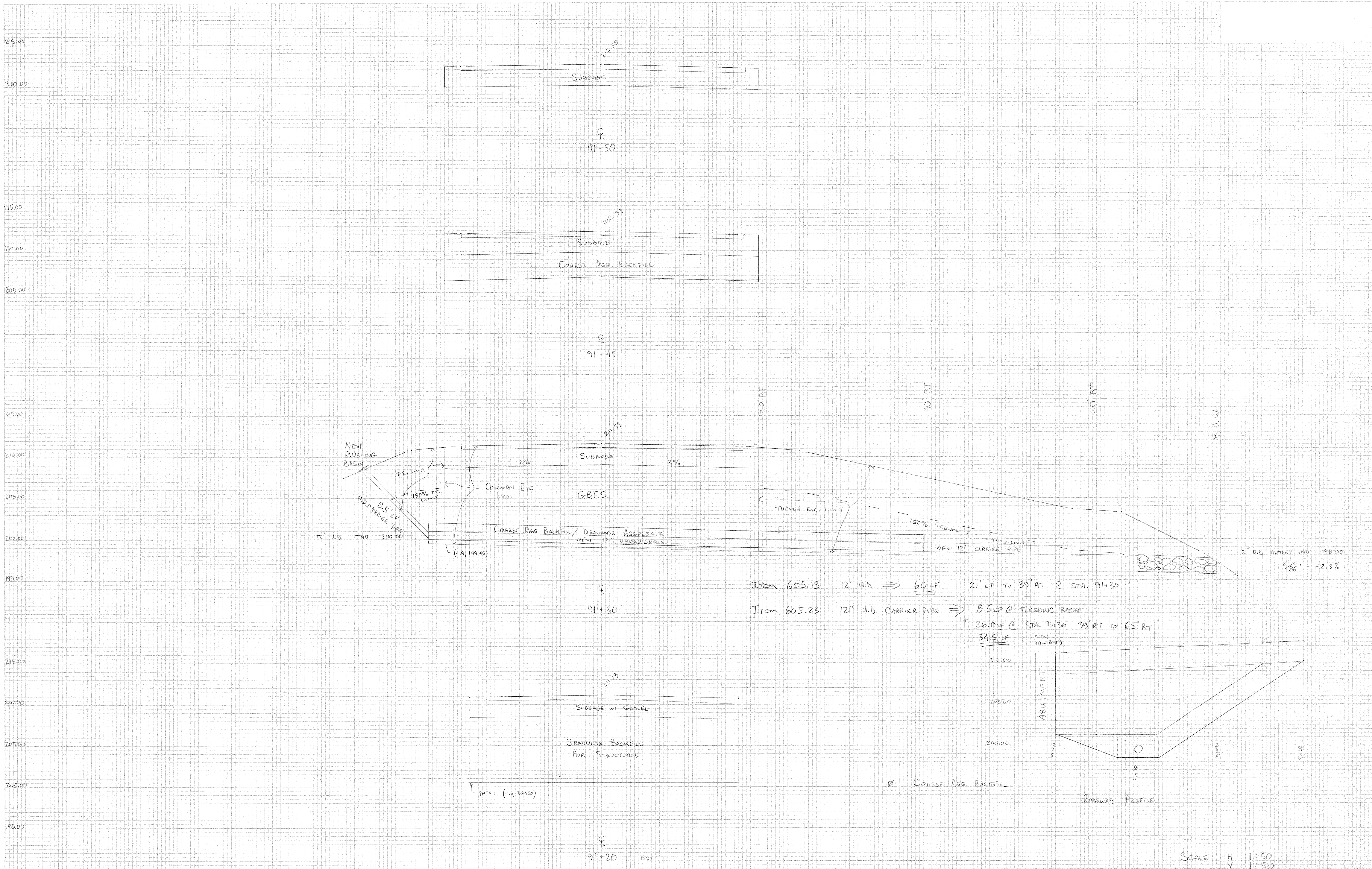
HIGHGATE STP 0297(8)
SHEET 20 OF 20
FOR INFORMATION ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF	HIGHGATE	Bridge No.	8
HIGHWAY NO.	CL. 2 T.H. #2	Log Sta.	
		Surv. Sta.	10+50±
T.H. #2 OVER MISSISQUOI RIVER			
ABUTMENT #2 DETAILS			
Designed by	W. TRIPP	Drawn by	J. WEAVER
Checked by	J. WEAVER	Bridge Design Supervisor	
W. TRIPP	date	J. WOOD	date
PROJECT	HIGHGATE	PROJECT NO.	BR 0297 (6) SR
Bridge Sheet No.	114	Sheet	31 of 104

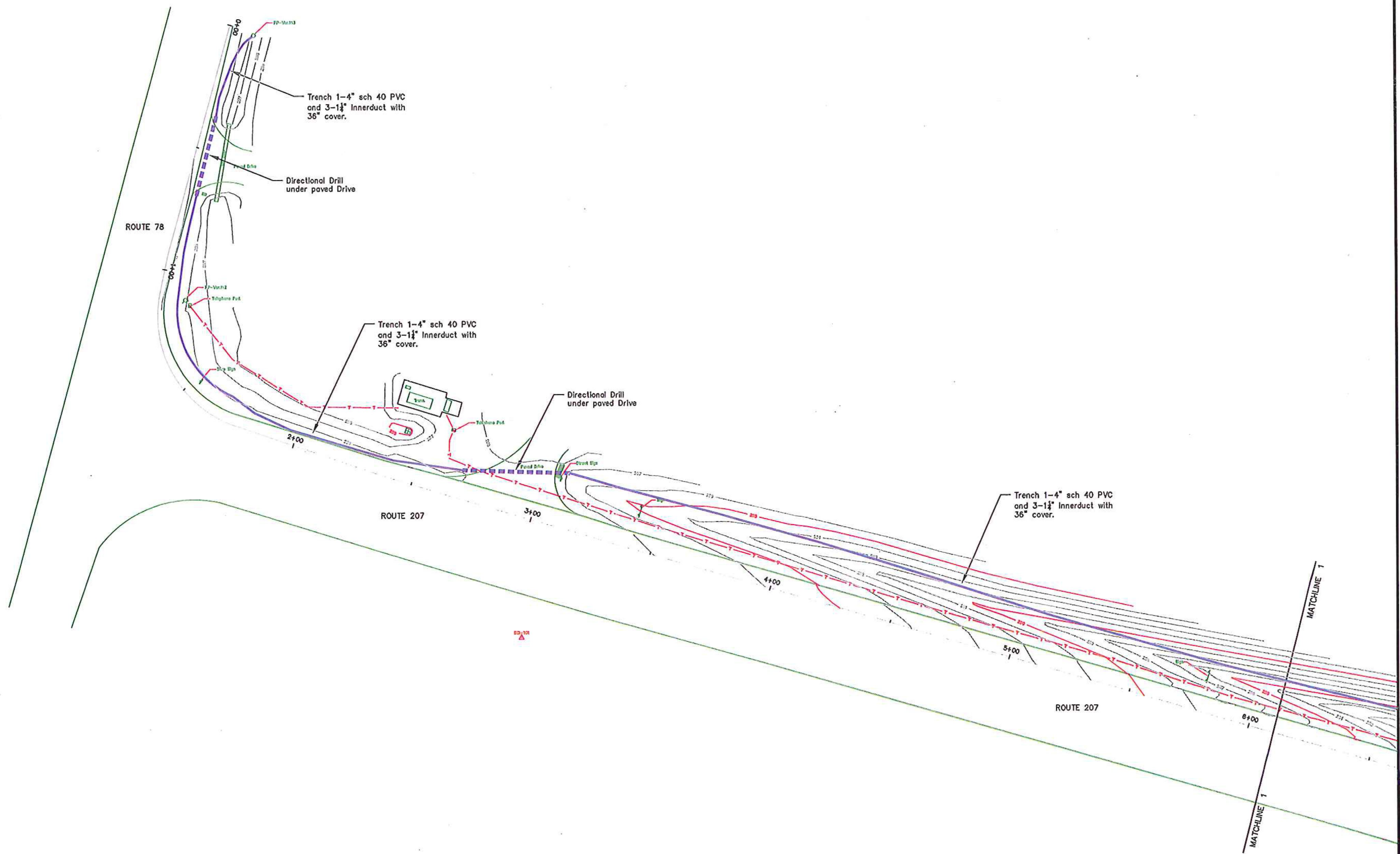
FINAL SURVEY
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____
 NO. _____
 DATE: _____
 BY: _____
 CHECKED: _____

ORIGINAL SURVEY
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____
 NO. _____
 DATE: _____
 BY: _____
 CHECKED: _____



ITEM 605.13 12" U.D. ⇒ 60 LF 21' LT TO 39' RT @ STA. 91+30
 ITEM 605.23 12" U.D. CARRIER PIPE ⇒ 8.5 LF @ FLUSHING BASIN
 + 26.0 LF @ STA. 91+30 39' RT TO 65' RT
 34.5 LF

SCALE H 1:50
 V 1:50
 HIGHGATE STP 0297 (B) RE-AD.
 S. WHEATLEY
 10-18-2013
 DH 11-8-13

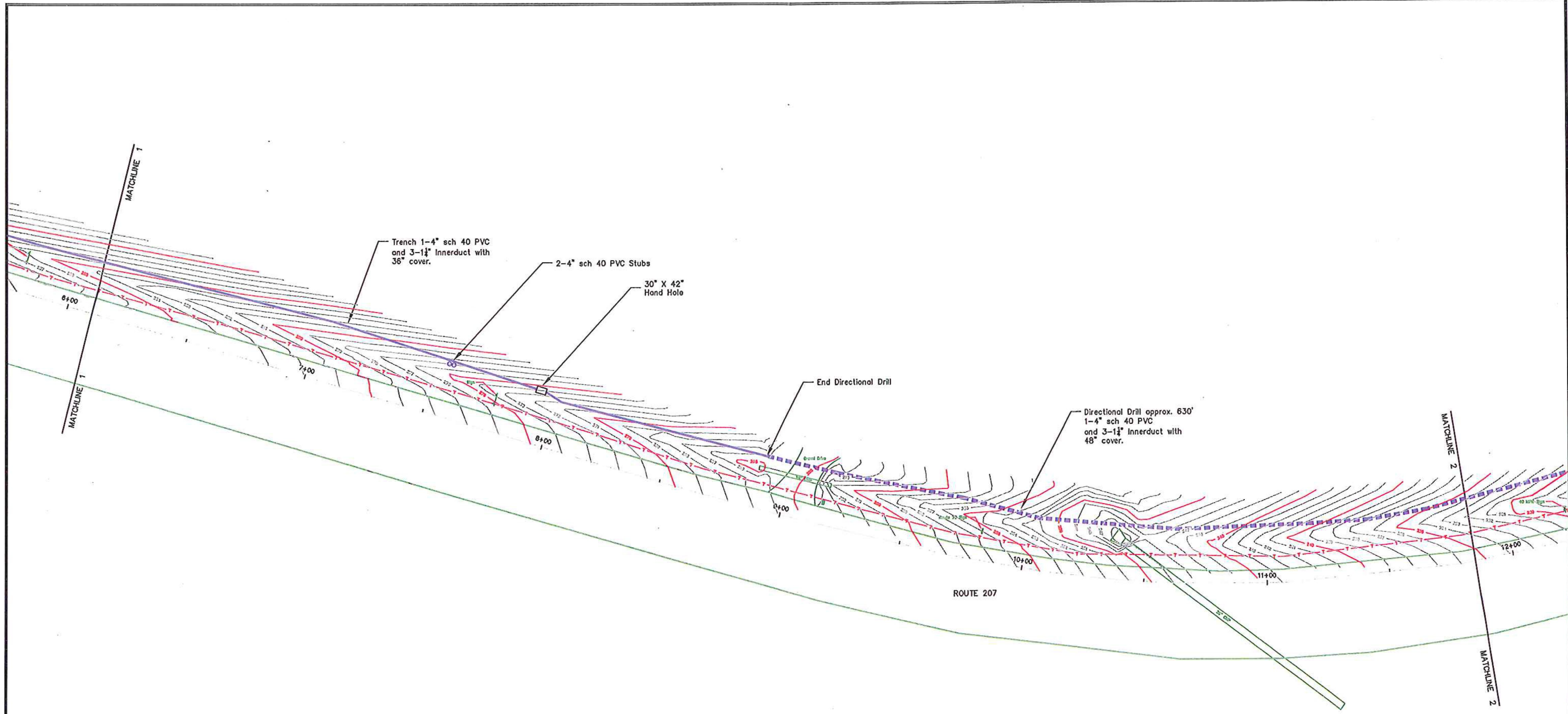


Note: Datum is USGS Topography

- Legend:**
- Trench 1-4" PVC and 3-1 1/4" Innerduct
 - Directionally Drill 1-4" SDR 13.5 HDPE and 3-1 1/4" Innerduct Conduits


HIGHGATE STP 0297(8) RE-AD.

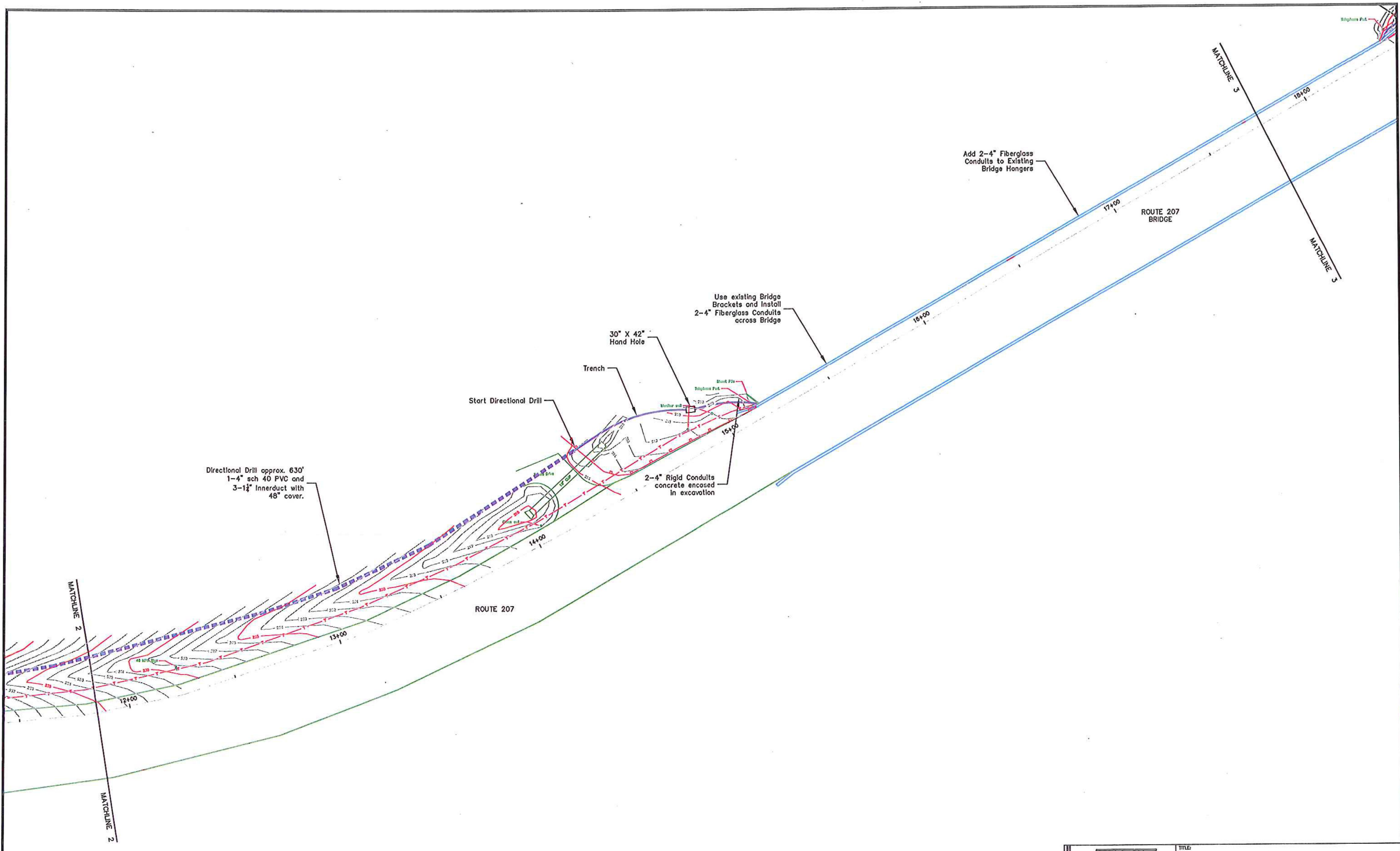
ECT		TITLE: FAIRPOINT COMMUNICATIONS Route 207 Highgate, Vermont		
ENGINEERS CONSTRUCTION, INC. P.O. BOX 2187 SOUTH BURLINGTON, VT 05407 (802) 583-6359		SCALE: 1" = 20'	DATE: 6/20/11	SHEET: 1 OF 5
DRAWN BY: NKP	CHECKED BY: AWP	APPROVED BY: AWP	RECORD LOCATION DRAWING	



Note: Datum is USGS Topography

- Legend:**
- Trench 1-4" PVC and 3-1/4" Innerduct
 - - - - - Directionally Drill 1-4" SDR 13.5 HDPE and 3-1/4" Innerduct Conduits

 ENGINEERS CONSTRUCTION, INC. P.O. BOX 2187 SOUTH BURLINGTON, VT 05407 (802) 883-6359		TITLE: FAIRPOINT COMMUNICATIONS Route 207 Highgate, Vermont		
		DRAWN BY: <u>AKP</u>	SCALE: <u>1" = 20'</u>	DATE: <u>6/20/11</u>
CHECKED BY: <u>AHP</u>	RECORD LOCATION DRAWING			REV: <u>-</u>
APPROVED BY: <u>AHP</u>				



Directional Drill approx. 630'
 1-4" sch 40 PVC and
 3-1 1/4" Innerduct with
 48" cover.

Start Directional Drill

Trench

30" X 42"
 Hand Hole

Use existing Bridge
 Brackets and Install
 2-4" Fiberglass Conduits
 across Bridge

Add 2-4" Fiberglass
 Conduits to Existing
 Bridge Hangers

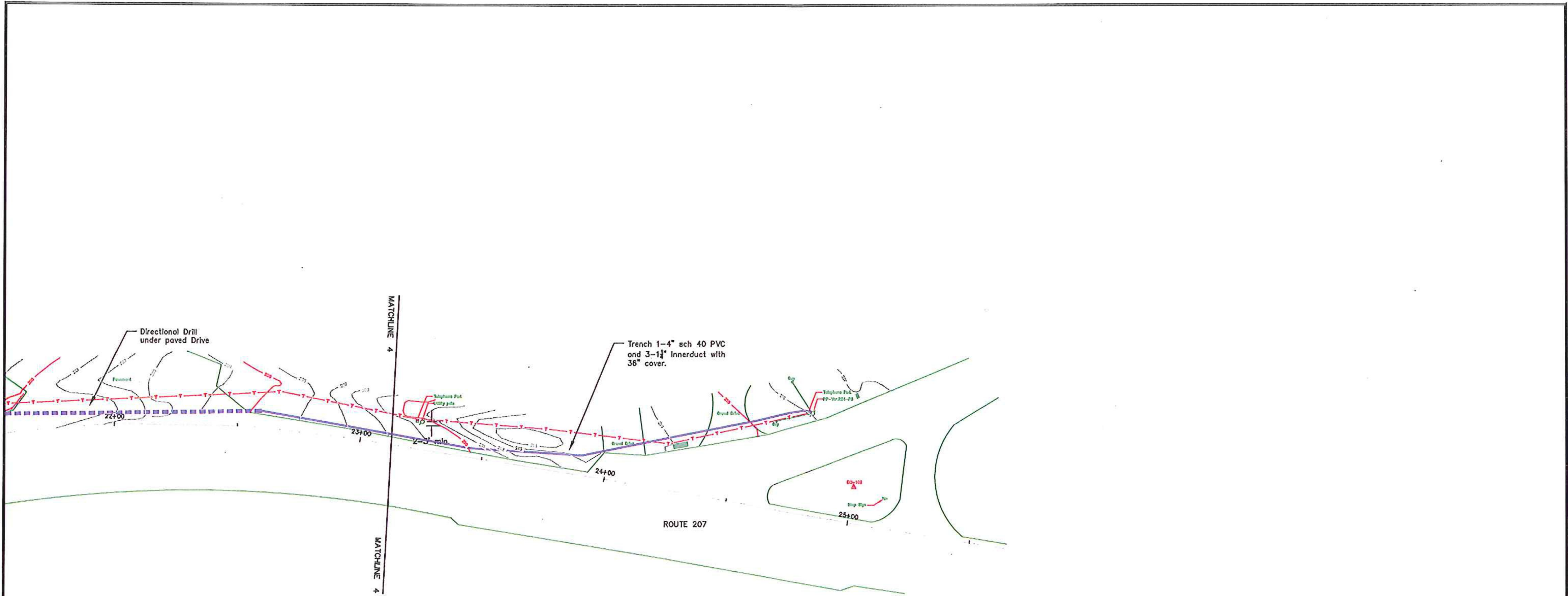
2-4" Rigid Conduits
 concrete encased
 in excavation

Note: Datum is USGS Topography

- Legend:**
- Trench 1-4" PVC and 3-1 1/4" Innerduct
 - Directionally Drill 1-4" SDR 13.5 HDPE and 3-1 1/4" Innerduct Conduits

		ENGINEERS CONSTRUCTION, INC. P.O. BOX 2187 SOUTH BURLINGTON, VT 05407 (802) 683-6389			TITLE: FAIRPOINT COMMUNICATIONS Route 207 Highgate, Vermont	
		DRAWN BY: NKP CHECKED BY: AWP APPROVED BY: AWP	SCALE: 1" = 20' DATE: 6/20/11 SHEET: 3 OF 5	REV -		

RECORD LOCATION DRAWING



Note: Datum is USGS Topography

- Legend:**
- Trench 1-4" PVC and 3-1 1/2" Innerduct
 - - - - - Directionally Drill 1-4" SDR 13.5 HDPE and 3-1 1/2" Innerduct Conduits

		TITLE: FAIRPOINT COMMUNICATIONS Route 207 Highgate, Vermont		
		<small>ENGINEERS CONSTRUCTION, INC. P.O. BOX 2187 SOUTH BURLINGTON, VT 05407 (802) 563-8389</small>		
<small>DRAWN BY:</small> NXP	<small>CHECKED BY:</small> AHP	<small>SCALE:</small> 1" = 20'	<small>DATE:</small> 8/20/11	<small>SHEET:</small> 5 OF 5
<small>APPROVED BY:</small> AHP	<small>DWG NO.:</small> RECORD LOCATION DRAWING	<small>REV:</small> -		