

# STATE OF VERMONT AGENCY OF TRANSPORTATION

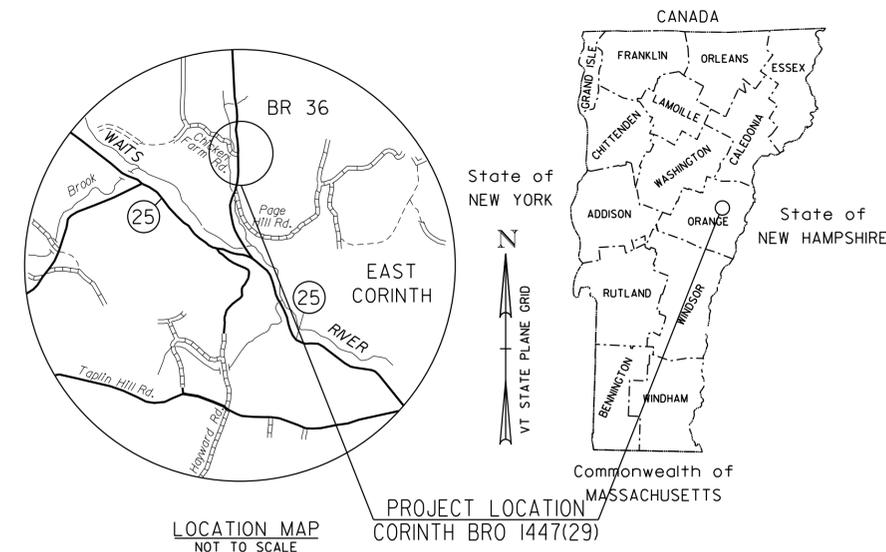


## PROPOSED IMPROVEMENT

### BRIDGE PROJECT

TOWN OF CORINTH  
COUNTY OF ORANGE

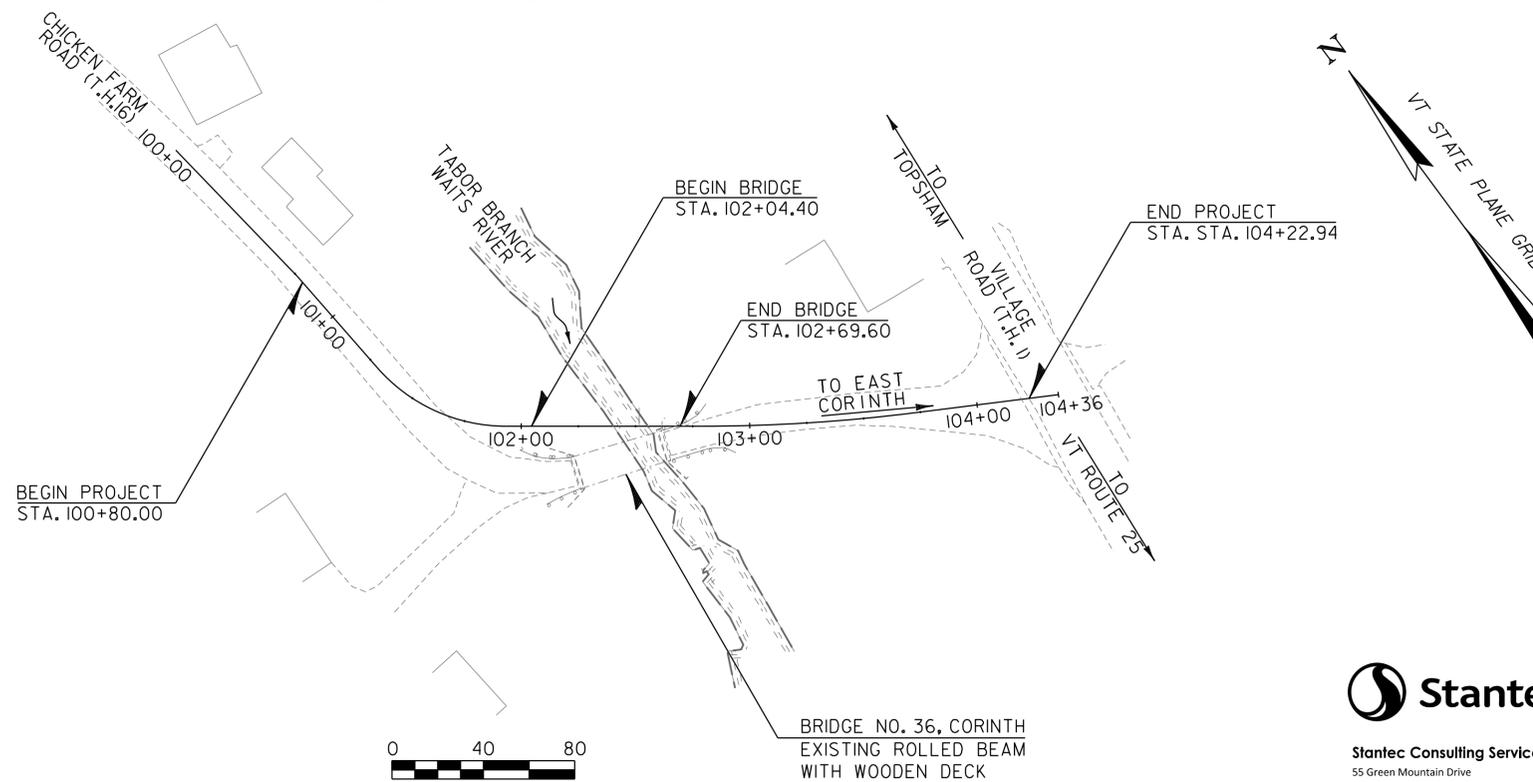
### CHICKEN FARM ROAD (T.H.16) CLASS 3 LOCAL ROAD BRIDGE NO. 36



**PROJECT LOCATION:** BEGINNING AT A POINT ON (T.H.16) CHICKEN FARM ROAD APPROXIMATELY 0.065 MILES WEST OF THE INTERSECTION OF (T.H.16) CHICKEN FARM ROAD AND (T.H. #1) VILLAGE ROAD AND EXTENDING EASTERLY ALONG (T.H.16) CHICKEN FARM ROAD FOR 0.065 MILES.

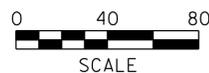
**PROJECT DESCRIPTION:** REPLACEMENT OF EXISTING BRIDGE WITH A PRECAST CONCRETE NEXT BEAM SUPERSTRUCTURE AND CONCRETE SUBSTRUCTURE, WITH ROADWAY APPROACH WIDENING WORK.

**LENGTH OF BRIDGE:** 65.20 FEET = 0.012 MILES  
**LENGTH OF ROADWAY:** 277.74 FEET = 0.053 MILES  
**LENGTH OF PROJECT:** 342.94 FEET = 0.065 MILES



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.

QUALITY ASSURANCE PROGRAM : LEVEL 2	
SURVEYED BY : VSE	
SURVEYED DATE : 11/05/2012	
DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (2011)



**Stantec Consulting Services Inc.**  
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 South Burlington VT U.S.A. 05403  
 Phone: (802) 864-0223  
 Fax: (802) 864-0165  
 www.stantec.com

DIRECTOR OF PROJECT DELIVERY	
APPROVED _____	DATE _____
PROJECT MANAGER : DANNY LANDRY	
PROJECT NAME : CORINTH	
PROJECT NUMBER : BRO 1447 (29)	
SHEET 1 OF 57 SHEETS	

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STANDARDS LIST

B-71	STANDARD FOR RESIDENTIAL AND COMMERCIAL DRIVES	07-08-2005
C-10	CURBING	02-11-2008
D-1	PRECAST REINFORCED CONCRETE DROP INLET DETAILS	06-01-1994
D-3	TREATED GUTTERS	06-01-1994
D-9	REINFORCED CONCRETE DROP INLET WITH VERTICAL CURB & THROAT ADAPTER	06-01-1994
D-11	STEEL OR IRON GRATES & COVERS (TYPE A)	06-01-1994
E-120	STANDARD SIGN PLACEMENT - EXPRESSWAY & FREEWAY	08-08-1995
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	08-08-1995
E-140	REGULATORY SIGN DETAILS	08-30-1996
E-172	VEHICLE DETECTOR LOOP DETAILS	08-09-1995
E-193	PAVEMENT MARKING DETAILS	08-18-1995
G-1B	BOX BEAM GUARD RAIL	06-01-1994
J-3	MAIL BOX SUPPORT DETAILS	08-07-1995
S-352A	BRIDGE RAILING, GALVANIZED STEEL TUBING/CONC. COMBINATION	08-22-2012
S-352B	BRIDGE RAILING, GALVANIZED STEEL TUBING/CONC. COMBINATION	08-22-2012
S-352C	BRIDGE RAILING, GALVANIZED STEEL TUBING/CONC. COMBINATION	08-22-2012
T-1	TRAFFIC CONTROL GENERAL NOTES	08-06-2012
T-10	CONVENTIONAL ROADS AND CONSTRUCTION APPROACH SIGNING	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	08-06-2012
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	08-06-2012
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING	08-06-2012
T-42	BRIDGE NUMBER PLAQUE	04-09-2014
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: February 2014

DRAINAGE AREA : 29.04 sq. mi.  
 CHARACTER OF TERRAIN : Hilly to mountainous  
 STREAM CHARACTERISTICS : Perennial, flashy, sinuous  
 NATURE OF STREAMBED : Gravel, cobbles, small boulders, ledge

PEAK FLOW DATA

Q 2.33 =	900 cfs	Q 50 =	2875 cfs
Q 10 =	1825 cfs	Q 100 =	3300 cfs
Q 25 =	2350 cfs	Q 500 =	4620 cfs

DATE OF FLOOD OF RECORD : November 1927  
 ESTIMATED DISCHARGE : unknown  
 WATER SURFACE ELEV. : unknown  
 NATURAL STREAM VELOCITY : @ Q25 = 8.3 cfs  
 ICE CONDITIONS : moderate  
 DEBRIS : moderate  
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY?  yes  
 IS ORDINARY RISE RAPID?  yes  
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?  no  
 IF YES, DESCRIBE :

WATERSHED STORAGE : <1% HEADWATERS :  
 UNIFORM :  X  
 IMMEDIATELY ABOVE SITE :

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE : Rolled beam with wooden deck  
 YEAR BUILT : 1912  
 CLEAR SPAN(NORMAL TO STREAM) : 37'  
 VERTICAL CLEARANCE ABOVE STREAMBED : 16'  
 WATERWAY OF FULL OPENING : 500 sq. ft.  
 DISPOSITION OF STRUCTURE : Remove and replace  
 TYPE OF MATERIAL UNDER SUBSTRUCTURE : Ledge

WATER SURFACE ELEVATIONS AT:

Q2.33 =	690.1'	VELOCITY =	8.2 fps
Q10 =	693.0'	"	9.5 fps
Q25 =	694.4'	"	10.5 fps
Q50 =	695.7'	"	11.1 fps
Q100 =	696.7'	"	11.7 fps

LONG TERM STREAMBED CHANGES : Minimal due to ledge

IS THE ROADWAY OVERTOPPED BELOW Q100 :  no  
 FREQUENCY : N/A  
 RELIEF ELEVATION : 703.6'  
 DISCHARGE OVER ROAD @Q100 : None

UPSTREAM STRUCTURE

TOWN : Topsham DISTANCE : 3435'  
 HIGHWAY # : TH 65 STRUCTURE # : BR 12  
 CLEAR SPAN : 32' CLEAR HEIGHT : 7'  
 YEAR BUILT : 1963 FULL WATERWAY : 220 sq. ft.  
 STRUCTURE TYPE : Prestress Concrete

DOWNSTREAM STRUCTURE

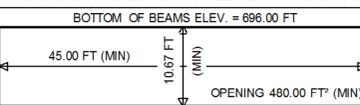
TOWN : Corinth DISTANCE : 1410'  
 HIGHWAY # : TH 1 STRUCTURE # : BR 8  
 CLEAR SPAN : 31' CLEAR HEIGHT : 12'  
 YEAR BUILT : 1934 FULL WATERWAY : 370 sq. ft.  
 STRUCTURE TYPE : Concrete T-beam

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEM
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY	1.88	1.01					
POSTING							
OPERATING	2.44	1.31	2.2	1.35	1.74	1.57	1.79
COMMENTS:							

AS BUILT "REBAR" DETAIL		
LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

TEMPORARY BRIDGE PROFILE ALONG TEMP CL



STRUCTURE DETAIL SHEETS

SD-501.00	CONCRETE DETAILS AND NOTES	02-09-2012
SD-502.00	CONCRETE DETAILS AND NOTES	10-10-2012
SD-516.10	BRIDGE JOINT ASPHALTIC PLUG	08-29-2011

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2014	60	20	55	9.2	5
2034	60	20	55	10.7	5

20 year ESAL for flexible pavement from 2014 to 2024 : 5,000  
 40 year ESAL for flexible pavement from 2014 to 2034 : 10,000  
 Design Speed : 15 mph

PROPOSED STRUCTURE

STRUCTURE TYPE : NEXT beam bridge  
 CLEAR SPAN(NORMAL TO STREAM) : 46'  
 VERTICAL CLEARANCE ABOVE STREAMBED : ~17'  
 WATERWAY OF FULL OPENING : 720 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	688.8'	VELOCITY=	9.0 fps
Q10 =	691.2'	"	10.7 fps
Q25 =	692.3'	"	11.9 fps
Q50 =	693.3'	"	13.0 fps
Q100 =	694.1'	"	13.7 fps

IS THE ROADWAY OVERTOPPED BELOW Q100 :  no  
 FREQUENCY : N/A  
 RELIEF ELEVATION : 703.4'  
 DISCHARGE OVER ROAD @Q100 : None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE : 701.2'  
 VERTICAL CLEARANCE : @ Q25 = 8.9'

SCOUR : Abutments will be founded on ledge and streambed is mostly ledge, so scour is not a concern.  
 REQUIRED CHANNEL PROTECTION : N/A

PERMIT INFORMATION

AVERAGE DAILY FLOW : 60 cfs DEPTH OR ELEVATION :  
 ORDINARY LOW WATER : 30 cfs 683.2'  
 ORDINARY HIGH WATER : 390 cfs 688.0'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE : Bridge - to be removed before winter  
 CLEAR SPAN (NORMAL TO STREAM) : 45' minimum  
 VERTICAL CLEARANCE ABOVE STREAMBED : Minimum elevation 696.0'  
 WATERWAY AREA OF FULL OPENING : 480 sq. ft.

ADDITIONAL INFORMATION

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN ONE-WAY TRAFFIC ON A TEMPORARY BRIDGE.
2. INSTALL AND MAINTAIN TRAFFIC SIGNALS.
3. SIDEWALKS ARE NOT NECESSARY
4. THE APPROACHES FOR THE TEMPORARY BRIDGE SHALL BE PAVED.

DESIGN VALUES

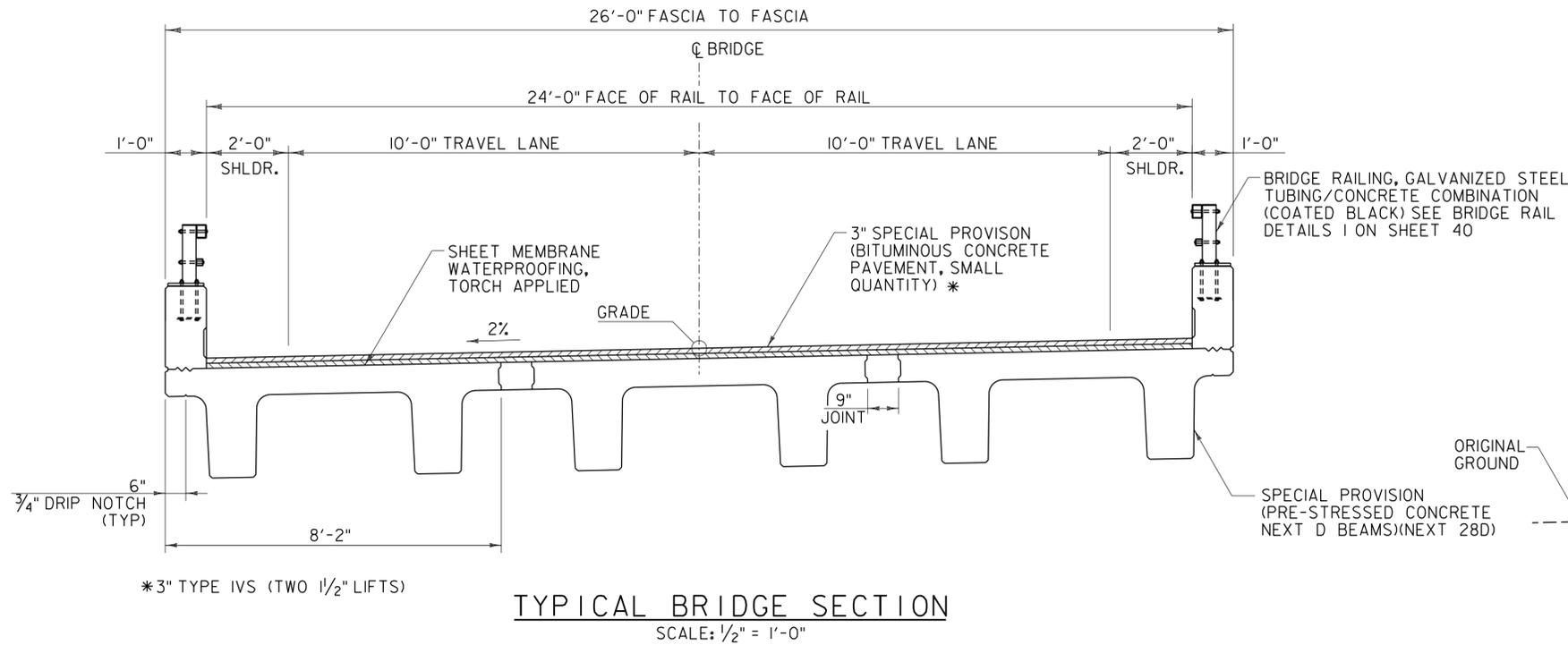
1. DESIGN LIVE LOAD	HL-93
2. FUTURE PAVEMENT	dp: ---
3. DESIGN SPAN	L: 60.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ: ---
5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX)	fy: 270 KSI
6. PRESTRESSED CONCRETE STRENGTH	f'c: 7.0 KSI
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'ci: 5.5 KSI
8. CONCRETE, HIGH PERFORMANCE CLASS AA	f'c: ---
9. CONCRETE, HIGH PERFORMANCE CLASS A	f'c: ---
10. CONCRETE, HIGH PERFORMANCE CLASS B	f'c: 3.5 KSI
11. CONCRETE, CLASS C	f'c: ---
12. REINFORCING STEEL	fy: 60 KSI
13. STRUCTURAL STEEL AASHTO M270	fy: ---
14. SOIL UNIT WEIGHT	γ: 0.140 KCF
15. NOMINAL BEARING RESISTANCE OF SOIL	qn: 3.0 KSF
16. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	φ: 0.45
17. NOMINAL BEARING RESISTANCE OF ROCK	qn: 10.0 KSF
18. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	φ: 0.45
19. NOMINAL AXIAL PILE RESISTANCE	qp: ---
20. PILE YIELD STRENGTH ASTM A572	fy: ---
21. PILE SIZE	---
22. EST. PILE LENGTH	Lp: ---
23. PILE RESISTANCE FACTOR	φ: ---
24. LATERAL PILE DEFLECTION	Δ: ---
25. BASIC WIND SPEED	V3s: ---
26. MINIMUM GROUND SNOW LOAD	ps: ---
27. SEISMIC DATA	PGA: --- Ss: --- S1: ---

PROJECT NAME : CORINTH  
 PROJECT NUMBER : BRO 1447(29)

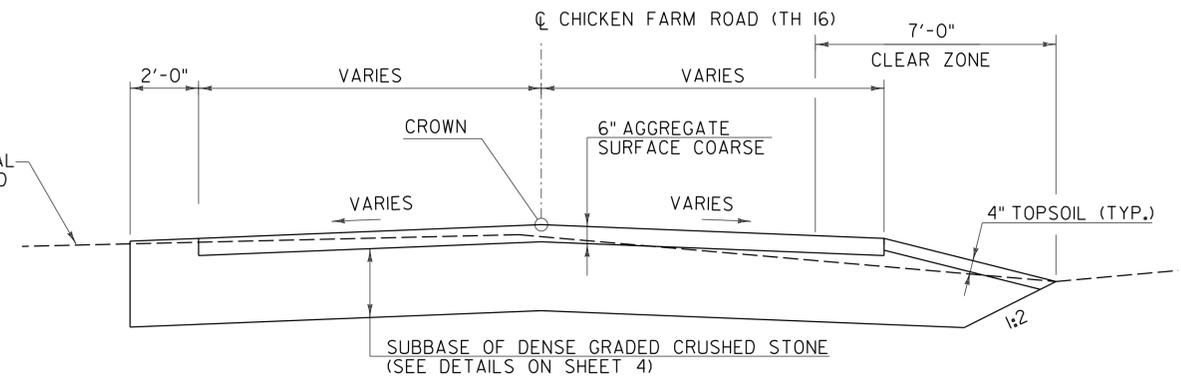
FILE NAME : z01j292\_pi.xls PLOT DATE : 7/9/2014  
 PROJECT LEADER : G. BOGUE DRAWN BY : J. SOTER  
 DESIGNED BY : M. CHENETTE CHECKED BY : G. BOGUE  
 PRELIMINARY INFORMATION SHEET SHEET 2 OF 57

**NOTES:**

1. ALL STEEL COMPONENTS FOR BRIDGE RAIL AND BOX BEAM GUARDRAIL SHALL BE COATED BLACK IN ACCORDANCE WITH ASTM D7803 FOLLOWING GALVANIZING.
2. FOR PG BINDER REQUIREMENTS, SEE SPECIAL PROVISIONS FOR CONTRACT ITEM 900.680.



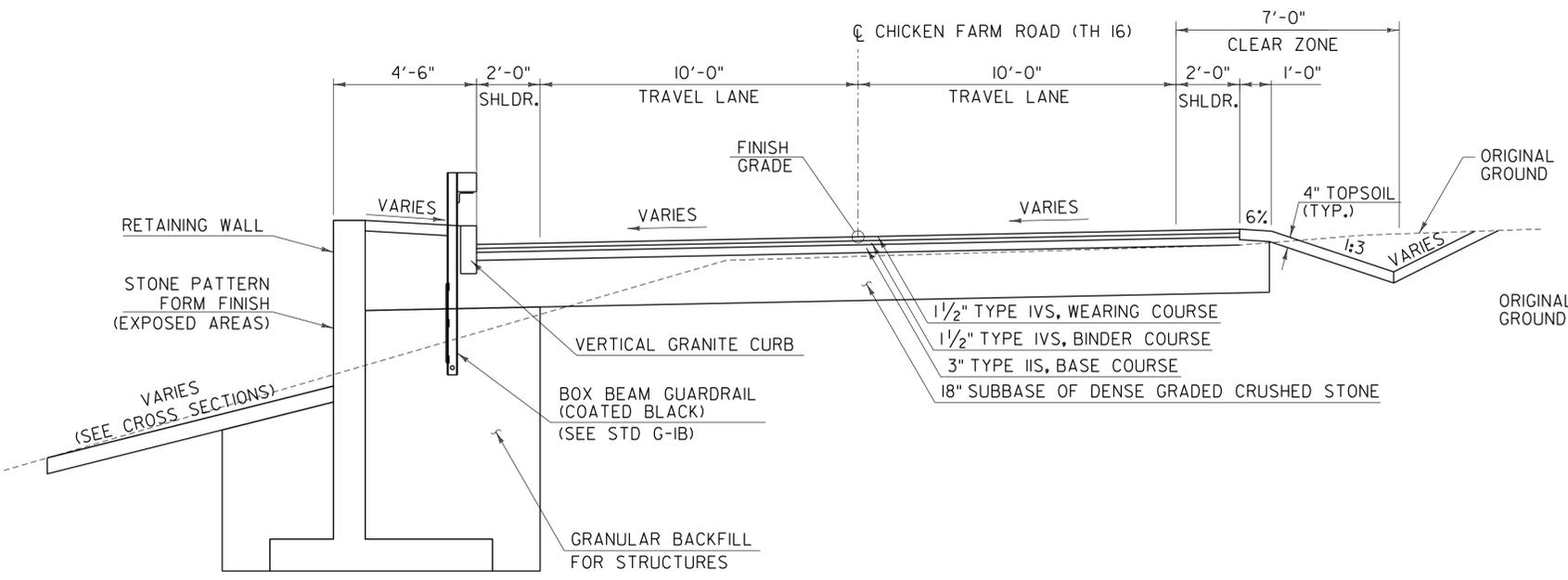
**TYPICAL BRIDGE SECTION**  
SCALE: 1/2" = 1'-0"



**ROADWAY APPROACH SECTION (GRAVEL)**  
SCALE: 3/8" = 1'-0"  
STA. 100+30.00 - STA. 100+80.00

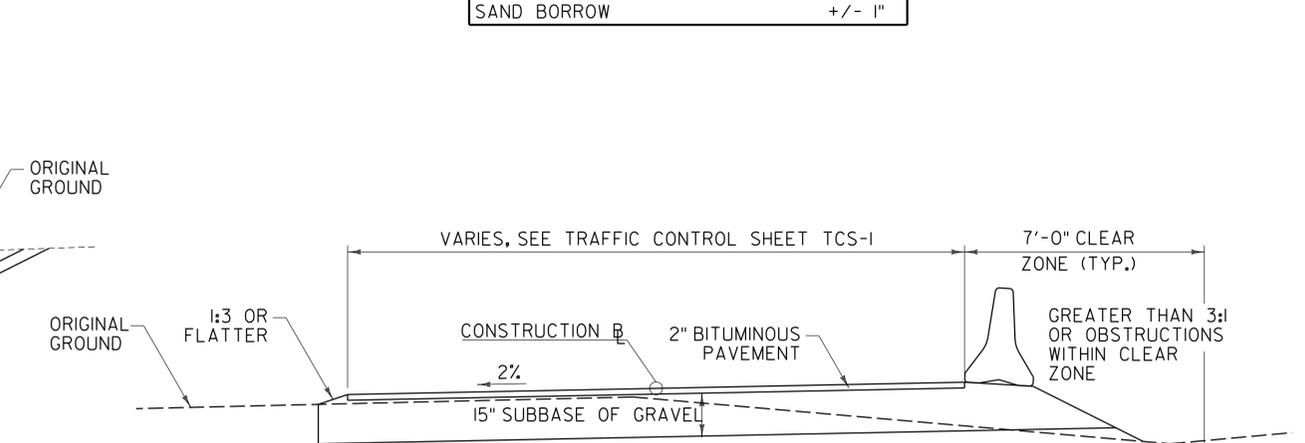
**MATERIAL TOLERANCES (IF USED ON PROJECT)**

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



**TYPICAL ROADWAY SECTION (PAVED)**  
SCALE: 3/8" = 1'-0"

STA. 100+80.00 - STA. 102+04.40  
STA. 102+69.60 - STA. 104+22.94



**TYPICAL TEMPORARY DETOUR SECTION**  
SCALE: 3/8" = 1'-0"

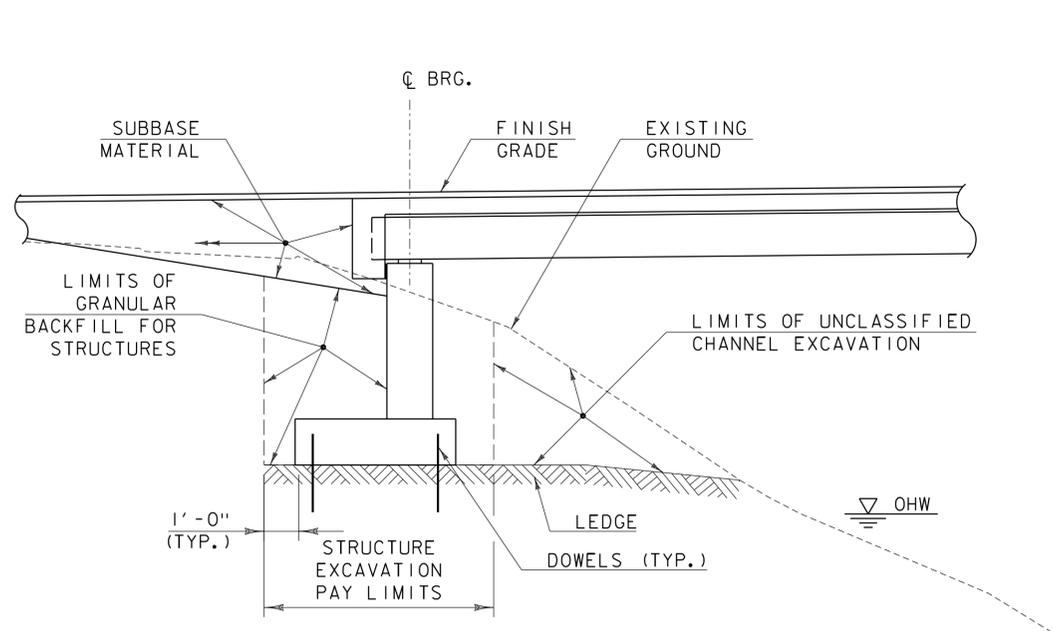
PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\201292.typ.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
**TYPICAL SECTIONS - TP 1**

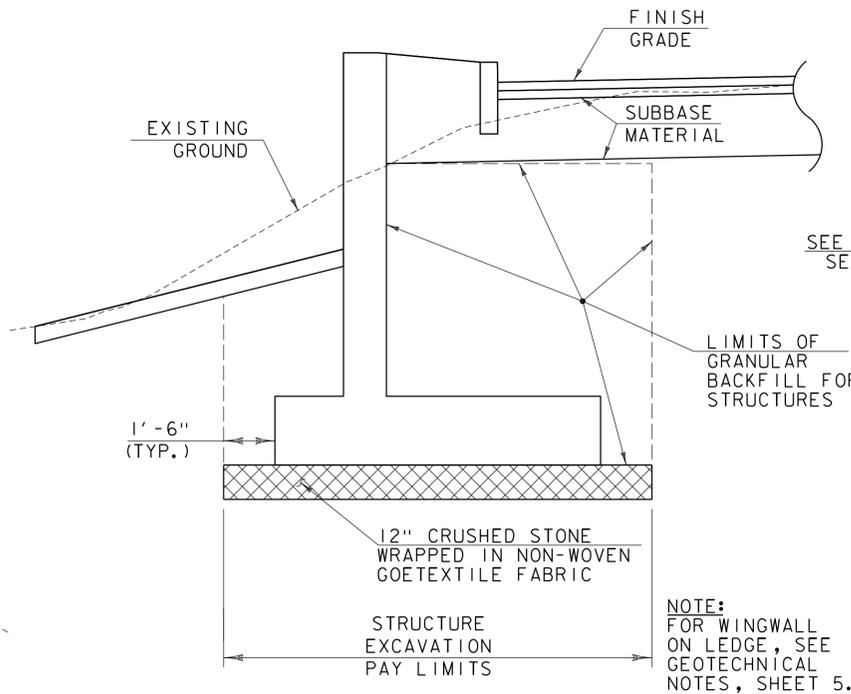
PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 3 OF 57



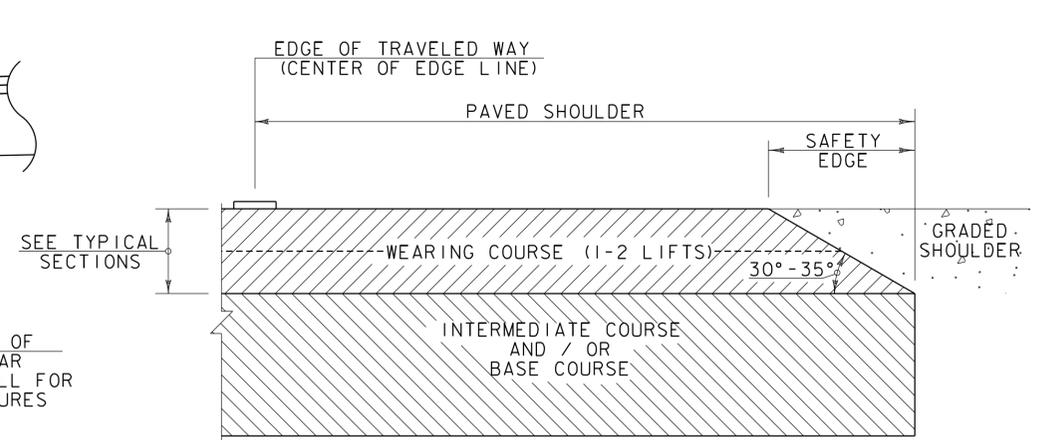
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**TYPICAL ABUTMENT EARTHWORK SECTION**  
(NOT TO SCALE)



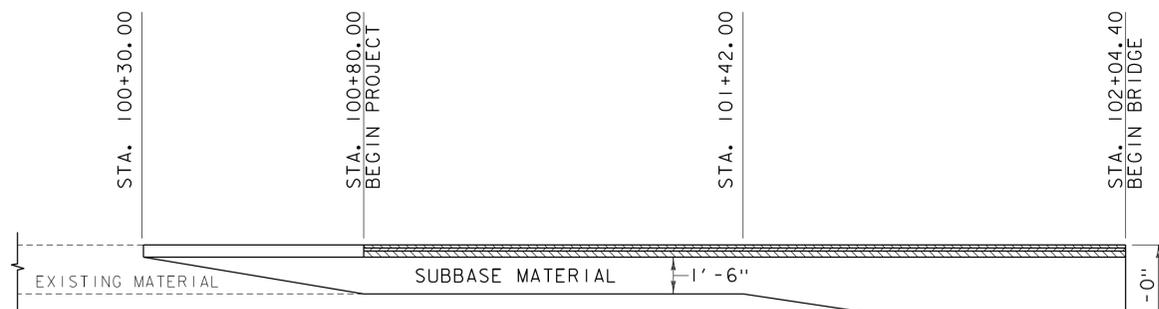
**TYPICAL WINGWALL EARTHWORK SECTION ON SOIL**  
(NOT TO SCALE)



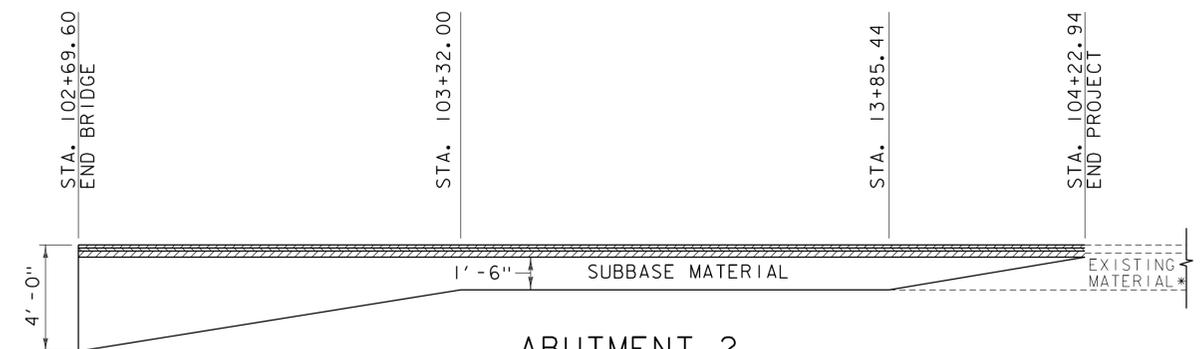
**SAFETY EDGE DETAIL**  
NOT TO SCALE

**NOTES:**

1. THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
2. THE PAVED SHOULDER EXTENDS FROM THE EDGE OF TRAVELED WAY TO THE EDGE OF THE WEARING COURSE, INCLUDING THE "SAFETY EDGE".



**ABUTMENT 1 SUBBASE DETAIL**  
(ELEVATION IN CUT AND FILL)  
(NOT TO SCALE)



**ABUTMENT 2 SUBBASE DETAIL**  
(ELEVATION IN CUT AND FILL)  
(NOT TO SCALE)

\* THICKNESSES OF EXISTING PAVEMENT AND SUBBASE NOT KNOWN.

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PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\201292.typ.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
**TYPICAL SECTIONS - TYP 2**

PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 4 OF 57

GENERAL PROJECT NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 2011, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION DATED 2010, AND ITS LATEST REVISIONS AND PCI NORTHEAST'S NEXT D BEAM STANDARDS DATED JANUARY 2010.
- THE BRIDGE IS DESIGNED FOR AN HL-93 LIVE LOAD.
- REMOVAL OF ANY PORTION OF THE EXISTING SUBSTRUCTURE ENCOUNTERED WITHIN THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION SHALL BE CONSIDERED INCIDENTAL TO THOSE ITEMS.
- ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
- ALL CONSTRUCTION AND ACCESS SHALL BE WITHIN THE RIGHT OF WAY UNLESS SHOWN ON THE ROW PLANS OR APPROVED IN WRITING BY THE PROPERTY OWNER AND VTRANS ENVIRONMENTAL PERMITTING. THE CONTRACTOR SHALL COORDINATE DIRECTLY WITH THE PROPERTY OWNER(S) TO OBTAIN WRITTEN APPROVAL OF LAND USE OUTSIDE THE RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT COPIES OF THE WRITTEN PROPERTY AGREEMENTS TO THE RESIDENT ENGINEER.
- TEMPORARY BRIDGE APPROACHES SHALL BE REMOVED AFTER CONSTRUCTION OF BRIDGE NO. 36 AND THE AREA DISTURBED SHALL BE RE-GRADED AND RE-VEGETATED. PAYMENT FOR REMOVAL OF TEMPORARY BRIDGE APPROACHES AND RE-VEGETATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 528.10.

CONCRETE AND REINFORCING STEEL

- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1 INCH.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- REINFORCING PLACEMENT TOLERANCES SHALL BE:  
SPACING 1 INCH  
CLEARANCE +/- 1/4 INCH
- ITEM 514.10 WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF DECK BETWEEN DRIP BEADS.
- ALL MILD STEEL REINFORCEMENT IN THE SUPERSTRUCTURE (INCLUDING BRIDGE RAILING AND CURTAIN WALLS) SHALL PROVIDE LEVEL II CORROSION RESISTANCE. LEVEL I CORROSION RESISTANCE IS ACCEPTABLE FOR THE SUBSTRUCTURE. PAYMENT FOR STEEL REINFORCEMENT IN BRIDGE RAILING WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 525.45. PAYMENT FOR ALL OTHER STEEL REINFORCEMENT IN SUPERSTRUCTURE WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 900.640. PAYMENT FOR STEEL REINFORCEMENT IN SUBSTRUCTURE CONCRETE WILL BE PAID UNDER CONTRACT ITEM 507.11.
- CONCRETE FOR THE SUBSTRUCTURE SHALL BE HIGH PERFORMANCE CLASS B AND WILL BE PAID FOR UNDER ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B UNLESS OTHERWISE NOTED.
- SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 1/4 INCH PER FOOT. THE ABUTMENT SEAT'S SHALL BE SLOPED FULL WIDTH TOWARD MIDSPAN. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE GIVEN A MAGNESIUM FLOAT FINISH.
- NO CONCRETE SHALL BE PLACED IN THE ABUTMENTS OR WINGWALLS ABOVE THE ADJACENT BEAM SEAT ELEVATIONS UNTIL THE BEAMS HAVE BEEN SET.
- ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE.
- MINIMUM COVER FOR REINFORCING STEEL IN THE ABUTMENTS AND WINGWALLS SHALL BE 3 INCHES UNLESS DETAILED OTHERWISE.
- ALL EXPOSED VERTICAL FACES OF THE WINGWALLS SHALL BE FORMED WITH A "RIVER ROCK" TYPE FORM LINER PATTERN AND SHALL EXTEND ONE FOOT BELOW GRADE LINES. THE STONE PATTERN SHALL BE STAINED IN NATURAL COLORS USING CONCRETE ACID COLOR STAINS. THE FORM LINER SYSTEM AND STAIN COLORS SHALL BE DEMONSTRATED TO THE RESIDENT ENGINEER FOR APPROVAL IN A SAMPLE POUR, PRIOR TO CASTING THE ACTUAL SUBSTRUCTURE COMPONENTS. ALL COSTS ASSOCIATED WITH THE CONCRETE FORM LINER, COLOR STAINING, AND TEST POUR WILL BE CONSIDERED INCIDENTAL TO ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B.

NEXT D BEAMS

- NEXT D BEAMS ARE A NON-PROPRIETARY SHAPE DEVELOPED BY PCI NORTHEAST (PCINE). STANDARDIZED SECTION PROPERTIES AND DETAILS MAY BE FOUND AT [HTTP://PCINE.ORG](http://pcine.org).
- DESIGN VALUES
  - CONCRETE COMPRESSIVE STRENGTH  $f_c = 7000$  PSI
  - CONCRETE COMPRESSIVE STRENGTH AT RELEASE  $f_{ci} = 5500$  PSI
  - PRE-STRESSING STRANDS: 0.6 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7-WIRE STRANDS
  - ASSUMED MODULUS OF ELASTICITY IS 28,500 KSI
  - JACKING FORCE PER STRAND = 44 KIPS
  - SERVICE LOADS

MEMBER MOMENT		637.0	K-FT (PER MEMBER)
SUPERIMPOSED DEADLOAD MOMENT	244.0	1056.2	K-FT (PER MEMBER)
LIVE LOAD AND IMPACT MOMENT		58.8	KIPS (PER MEMBER)
DEAD LOAD REACTION		94.0	KIPS (PER MEMBER)
LIVE LOAD AND IMPACT REACTION		152.8	KIPS (PER MEMBER)
TOTAL REACTION		3	INCHES
FINAL CAMBER			

- THE CURTAIN WALLS MAY BE CAST ONTO THE ENDS OF THE NEXT BEAMS BY THE FABRICATOR OR CAST-IN-PLACE. THE CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 540. PAYMENT FOR THE CURTAIN WALLS SHALL BE INCLUDED IN ITEM 900.640 "SPECIAL PROVISION (PRE-STRESSED CONCRETE NEXT D BEAMS) (NEXT 28D)." IF THE CURTAIN WALLS ARE CAST-IN-PLACE THE CONTRACTOR SHALL SUBMIT DETAILED FABRICATION DRAWINGS SHOWING SEQUENCE OF CONSTRUCTION, LIMIT OF CONCRETE PLACEMENT AND REINFORCING DETAILS FOR APPROVAL.
- A RETARDING ADMIXTURE MAY BE PLACED ON THE FORMS FOR THE FLANGE KEYWAYS WHERE THE ENDS OF FLANGES ARE IN CONTACT WITH GROUT. THE FORMS FOR THE FLANGE ENDS SHALL THEN BE STRIPPED AND THE FLANGE ENDS POWER WASHED WITH WATER TO EXPOSE THE AGGREGATE DURING FABRICATION OF THE BEAMS. THE FLANGE ENDS SHALL BE POWER WASHED WITH WATER AGAIN PRIOR TO ERECTION OF THE BEAMS. THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 900.640 SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS)(NEXT 28D).
- FILLING FLANGE CONNECTION WILL BE PAID UNDER TIEM 900.608 SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ).
- GROUT AND CURE THE FLANGE CONNECTION BETWEEN BEAMS PRIOR TO CASTING THE BRIDGE RAIL. THE DESIGN OF THE NEXT BEAMS IS BASED ON THE FLANGES BEING FULLY CONNECTED PRIOR TO CONSTRUCTION OF THE RAIL.
- METHOD OF FORMING FLANGE CONNECTION SHALL BE DETERMINED BY THE CONTRACTOR. THE FORMS SHALL BE REMOVABLE AND ABLE TO ACCOMMODATE DIFFERENTIAL CAMBER. FORM SUPPORTS SHALL NOT PENETRATE THROUGH THE TOP OF THE POUR UNLESS APPROVED BY THE ENGINEER. FIELD DRILLING INTO THE NEXT BEAMS WILL NOT BE ALLOWED.
- THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. ANY ALTERATIONS MUST BE DETAILED AND DESIGNED BY A PROFESSIONAL ENGINEER AND SUBMITTED AS FABRICATION DRAWINGS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GEOTECHNICAL

- THE TOP OF THE FOOTING ELEVATION WAS SET BASED ON THE LOWEST ANTICIPATED LEDGE ELEVATION DETERMINED FROM THE BORINGS. LEDGE ELEVATIONS MAY VARY AND ADJUSTMENTS IN BOTTOM OF FOOTING ELEVATION AND GEOMETRY ARE EXPECTED.
- IN AREAS WHERE THE FOOTINGS WILL BEAR ON BEDROCK ALL SOIL, WEATHERED ROCK AND FRACTURED ROCK SHALL BE REMOVED FROM THE BEDROCK SURFACE PRIOR TO PLACING CONCRETE FOR THE FOOTING.
- UPON COMPLETION OF THE EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND THE VTRANS STATE GEOLOGIST. THE GEOLOGIST WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE NOMINAL BEARING RESISTANCE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE GEOLOGIST 72 HOURS IN ADVANCE WHEN THE ANALYSIS WILL BE NEEDED.
- AT THE FOOTING SUBGRADE THE SLOPE OF THE BEDROCK SURFACE SHALL BE FLATTER THAN 6 HORIZONTAL TO 1 VERTICAL. WHERE THE BEDROCK SURFACE EXCEEDS A SLOPE OF 6 HORIZONTAL TO 1 VERTICAL THE BEDROCK SURFACE SHALL BE BENCHED TO CREATE STEPS OR EXCAVATED COMPLETELY TO A SLOPE FLATTER THAN 6 HORIZONTAL TO 1 VERTICAL.
- A MAXIMUM OF 6" OVER BREAKAGE WILL BE REPLACED WITH "HIGH PERFORMANCE CLASS B CONCRETE. OVER BREAKAGE BEYOND 6" SHALL BE REPLACED WITH "HIGH PERFORMANCE CLASS B CONCRETE" AT THE EXPENSE OF THE CONTRACTOR.
- THE LIMITS OF THE SUBFOOTING SHALL BE 1'-0" OUTSIDE THE LIMITS OF THE FOOTING.
- THE ABUTMENTS HAVE BEEN DESIGNED FOR THE TOP OF THE FOOTING ELEVATIONS AS SHOWN ON THE PLANS. IF THE LEDGE ELEVATION IS GREATER THAN 1'-0" BELOW THE DESIGN BOTTOM OF FOOTING, A SUBFOOTING SHALL BE POURED SO THAT THE DESIGN TOP OF FOOTING IS AT THE REQUIRED ELEVATION, USING "CONCRETE, CLASS C"
- FOR ALL SUBSTRUCTURES, WHERE LEDGE IS WITHIN ONE FOOT FROM THE BOTTOM OF THE FOOTING AS DESIGNED, THE FOOTING MAY BE POURED TO THE TOP OF THE LEDGE USING "CONCRETE, HIGH PERFORMANCE CLASS B"
- IF LEDGE IS ABOVE THE DESIGN BOTTOM OF FOOTING, THE FOOTING MAY BE RAISED. BEFORE ANY UPWARD ADJUSTMENT IS MADE IN FOOTING ELEVATION, THE PROJECT MANAGER SHALL BE CONTACTED AND PROVIDED WITH A LEDGE PROFILE. NO FURTHER WORK SHALL BE DONE UNTIL APPROVAL OF THE CONFIGURATION IS RECEIVED.
- #8 DOWELS SHALL BE DRILLED AND GROUTED INTO THE LEDGE AS SHOWN ON THE PLANS. THE DOWELS SHALL HAVE A MINIMUM 2'-0" EMBEDMENT INTO THE LEDGE AND SHALL EXTEND INTO THE FOOTING A MINIMUM OF 1'-6". IN AREAS WHERE A SUBFOOTING IS REQUIRED #8 DOWELS WILL ALSO BE USED AT THE INTERFACE BETWEEN SUBFOOTING AND FOOTING. THE DRILLING AND GROUTING SHALL BE PAID FOR UNDER THE ITEM 507.16, "DRILLING AND GROUTING DOWELS".
- ABUTMENT FOOTINGS SHALL BEAR ON LEDGE. WINGWALL FOOTINGS MAY BEAR ON LEDGE OR SOIL.
- WHERE THE WINGWALL FOOTINGS BEAR ON SOIL, THE SUBGRADE SHALL BE OVER-EXCAVATED AND REPLACED WITH 12 INCHES OF CRUSHED STONE WRAPPED IN A NON-WOVEN GEOTEXTILE FABRIC.
- PEAT OR OTHER ORGANIC SOILS ENCOUNTERED WITHIN THE LIMITS OF WORK SHALL BE REMOVED THROUGH OVER-EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE IN ACCORDANCE WITH THE GOVERNING EXCAVATION ITEM. IN FOUNDATION BEARING AREAS, OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH GRANULAR BACKFILL FOR STRUCTURES.

TRAFFIC CONTROL

- THE TRAFFIC CONTROL PLAN INCLUDED IN THIS PLAN SET IS SCHEMATIC ONLY AND SHOULD BE USED AS A REFERENCE. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR TEMPORARY BRIDGE PER THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL ALLOW THE ENGINEER 14 CALENDAR DAYS TO REVIEW AND ACCEPT THE PROPOSED PLANS BEFORE THEY ARE TO BE IMPLEMENTED. NO WORK SHALL COMMENCE UNTIL THE TRAFFIC CONTROL PLAN HAS BEEN APPROVED.
- DEVELOPMENT AND IMPLEMENTATION OF TRAFFIC CONTROL PLAN SHALL BE PAID FOR UNDER ITEM 641.10 TRAFFIC CONTROL.

- ACCESS TO ALL EXISTING SIDE ROADS, DRIVES AND PARKING AREAS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- DESIGN OF THE SIGNAL SUPPPORTS AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- SIGNAL TIMING / TIMING ADJUSTMENTS REQUESTED BY THE ENGINEER SHALL BE ACCOMPLISHED WITHIN A 48 HOUR PERIOD AND PAYMENT SHALL BE INCIDENTAL TO ITEM 678.40, "TEMPORARY TRAFFIC SIGNAL SYSTEM". THE ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.
- SIGNAL FACES SHALL BE LED AND CONSIST OF 12" LENSES. (RED, YELLOW, AND GREEN).
- THE BOTTOM OF THE HOUSING OF A SIGNAL FACE SUSPENDED OVER A ROADWAY SHALL NOT BE LESS THAN 16.5 FEET NOR MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY. THE BOTTOM OF A SIGNAL FACE NOT MOUNTED OVER A ROADWAY SHALL NOT BE LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE GROUND. CAUTION SHOULD BE USED TO INSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROAD GRADE.
- SIGNAL FACES FOR ANY ONE APPROACH SHALL NOT BE LESS THAN 8 FEET APART MEASURED HORIZONTALLY BETWEEN CENTER FACES.
- SIGNAL HEADS MAY BE HUNG ON A SPAN WIRE OR ON A CANTILEVER MAST ARM. AT LEAST ONE SIGNAL HEAD SHALL BE UNMISTAKABLY IN LINE WITH THE CENTER OF APPROACHING TRAFFIC AT ALL TIMES. THE SECOND SIGNAL HEAD MAY BE POST MOUNTED, LOCATED AT A DISTANCE OF NO GREATER THAN 14.5 FEET FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 40 FEET FROM THE SIGNAL HEAD. CONSULT THE CURRENT EDITION OF THE M.U.T.C.D. FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.
- THE SIGNAL SYSTEM SHALL CONSIST OF POLES, SIGNS AND POSTS, WARNING SIGNS, LUMINARIES, FLASHING BEACONS, ASSOCIATED PAVEMENT MARKINGS, AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN. IT ALSO INCLUDES PERMITS AND COSTS ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
- INSTALL WIRING BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION. ATTACHMENT TO UTILITY POLES TO BE COORDINATED BY THE CONTRACTOR WITH THE UTILITY COMPANY.
- PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE POSSIBLE.
- POLES SUPPORTING SPAN WIRES AND/OR MAST ARMS SHALL BE ADEQUATELY BRACED OR GUYED AND SHALL BE PLACED SO AS NOT TO CREATE A HAZARD TO THE TRAVELING PUBLIC.
- ALL TEMPORARY SIGNAL EQUIPMENT, SIGNS, ETC., SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR REMOVAL INCLUDING ANY TEMPORARY PAVEMENT MARKINGS, UTILITY POLES, WIRES, ETC.
- A 250 WATT MER/150 WATT HSP LUMINAIRE AND MAST ARM SHALL BE PROVIDED ON A POLE ON EACH APPROACH AT A MOUNTING HEIGHT OF 30 FEET ABOVE THE ROADWAY CENTERLINE. THE INTENT IS TO LIGHT UP THE AREA AROUND THE SIGNAL HEADS AND STOP BAR FOR INCREASED VISIBILITY. THE ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT. LIGHTING SHALL BE PAID INCIDENTAL TO ITEM 678.40, "TEMPORARY TRAFFIC SIGNAL SYSTEM".
- STOP BARS SHALL BE LOCATED A MINIMUM OF 40' AND A MAXIMUM OF 120' FROM THE NEAREST SIGNAL HEAD.
- SEE STD. E-140 FOR "STOP HERE ON RED" SIGN DETAIL. SEE STD. E-121 FOR SIGN PLACEMENT, SEE STD. E-172 FOR ADDITIONAL INFORMATION ON SIGNALS.
- ALL ELECTRIC WORK SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND STATE INSPECTOR.
- ALL STOP SIGNS AND ANY TRAFFIC SIGNS MADE IRRELEVANT DUE TO THE TEMPORARY SIGNAL SHALL BE COVERED DURING OPERATION OF THE TEMPORARY SIGNAL, OR AT THE DISCRETION OF THE ENGINEER. THE COSTS OF COVERING AND UNCOVERING THESE SIGNS SHALL BE PAID INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING SIGNAL PHASING. THE CONTRACTOR SHALL SUBMIT PHASING DIAGRAM TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL MAKE SIGNALS OPERATIONAL ONLY AFTER RECEIVING APPROVAL OF THE PHASING DIAGRAM BY THE ENGINEER. DEVELOPMENT OF THE PHASING DIAGRAM SHALL BE PAID INCIDENTAL TO ITEM 678.40, "TEMPORARY TRAFFIC SIGNAL SYSTEM".

PROJECT NAME:	CORINTH
PROJECT NUMBER:	BRO 1447(29)
FILE NAME: ...drawing\z01j292_gen.nts.dgn	PL0T DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: L. BUXTON
DESIGNED BY: G. BOGUE	CHECKED BY: M. CHENETTE
<b>PROJECT NOTES</b>	SHEET 5 OF 57



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# QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
							ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10		21	CY	<b>FILL REQUIRED</b>
							1				1		EACH	REMOVING MEDIUM TREES	201.15		39	CY	MEASURED AREA FILL
							570				570		CY	COMMON EXCAVATION	203.15		0	CY	LESS FACTORED SOLID ROCK EXCAVATION
							30		125		155		CY	SOLID ROCK EXCAVATION	203.16		-18	CY	LESS DISPLACEMENT OF ANY LARGE BURIED STRUCTURES
									70		70		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27		-21	CY	NET MEASURED AREA FILL
							220				220		CY	TRENCH EXCAVATION OF EARTH	204.20				1.15 X NET MEASURED AREA FILL = FACTORED FILL
							11				11		CY	TRENCH EXCAVATION OF ROCK	204.21		564	CY	<b>MEASURED AREA MATERIAL AVAILABLE FOR FILL</b>
							1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22		220	CY	EARTH EXCAVATION
									770		770		CY	STRUCTURE EXCAVATION	204.25		70	CY	TRENCH EXCAVATION OF EARTH
									620		620		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30		770	CY	CHANNEL EXCAVATION
							610				610		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35		1624	CY	STRUCTURE EXCAVATION
							15				15		CY	AGGREGATE SURFACE COURSE	401.10				TOTAL MATERIAL AVAILABLE FOR FILL
							1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50		<b>1624</b>	<b>CY</b>	<b>WASTE</b>
									280		280		CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34				
									21900		21900		LB	REINFORCING STEEL, LEVEL I	507.11				
									216		216		LF	DRILLING AND GROUTING DOWELS	507.16				
									20		20		GAL	WATER REPELLENT, SILANE	514.10				
									56		56		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10				
									175		175		SY	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20				
									131		131		LF	BRIDGE RAILING, GALVANIZED STEEL TUBING/CONCRETE COMBINATION (COATED BLACK)	525.45				
									1		1		LS	ONE-WAY TEMPORARY BRIDGE (1620 SF - EST.)	528.10				
									1		1		EACH	REMOVAL OF STRUCTURE (650 SF - EST.)	529.15				
									12		12		EACH	BEARING DEVICE ASSEMBLY, STEEL REINFORCED ELASTOMERIC PAD	531.17				
									25		25		CY	CONCRETE, CLASS C	541.30				
														BEGIN OPTION AA					
							172				172		LF	18" CAAP .060 (2-2/3 X 1/2)	601.0215				
							172				172		LF	18" PCCSP .064 (2-2/3 X 1/2)	601.0415				
							172				172		LF	18" RCP CLASS III	601.0815				
							172				172		LF	18" CPEP(SL)	601.2615				
														END OPTION AA					
														BEGIN OPTION BB					
							1				1		EACH	18" CSPES .064 (2-2/3 X 1/2)	601.6015				
							1				1		EACH	18" CAAPES .060 (2-2/3 X 1/2)	601.6215				
							1				1		EACH	18" RCPES CLASS III	601.6815				
														END OPTION BB					
							3				3		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE	604.18				
							10				10		HR	BULLDOZER RENTAL, TYPE I	608.10				
							10				10		HR	POWER GRADER RENTAL	608.15				
							10				10		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25				
							5				5		HR	POWER BROOM RENTAL, TYPE I	608.30				

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_frm.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
**QUANTITY SHEET - QTY 1**

PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 6 OF 57



# QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
							ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							10				10		HR	TRUCK RENTAL	608.37				
							10				10		HR	LOADER RENTAL, TYPE I	608.40				
							0.5				0.5		MGAL	DUST CONTROL WITH WATER	609.10				
							0.5				0.5		TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15				
							10				10		CY	STONE FILL, TYPE III	613.12				
							150				150		LF	VERTICAL GRANITE CURB	616.21				
							2				2		EACH	RELOCATE MAILBOX, SINGLE SUPPORT	617.10				
							40				40		LF	REMOVAL OF EXISTING FENCE	620.55				
							141				141		LF	BOX BEAM GUARDRAIL (COATED BLACK)	621.30				
									4		4		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM (COATED BLACK)	621.72				
							95				95		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
							160				160		HR	FLAGGERS	630.15				
										1	1		LS	FIELD OFFICE, ENGINEERS	631.10				
										1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
										3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26				
							1				1		LS	MOBILIZATION/DEMOLITION	635.11				
							1				1		LS	TRAFFIC CONTROL	641.10				
							3				3		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15				
							100				100		LF	4 INCH YELLOW LINE	646.21				
							20				20		LF	24 INCH STOP BAR	646.26				
							4				4		EACH	LETTER OR SYMBOL	646.30				
							30		150		180		SY	GEOTEXTILE UNDER STONE FILL	649.31				
								75			75		SY	GEOTEXTILE FOR SILT FENCE	649.51				
							25				25		LB	SEED	651.15				
							25				25		LB	SEED, WINTER RYE	651.17				
							150				150		LB	FERTILIZER	651.18				
							0.7				0.7		TON	AGRICULTURAL LIMESTONE	651.20				
							0.7				0.7		TON	HAY MULCH	651.25				
							170				170		CY	TOPSOIL	651.35				
								1			1		LS	EPSC PLAN	652.10				
								80			80		HR	MONITORING EPSC PLAN	652.20				
								1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
								800			800		SY	TEMPORARY EROSION MATTING	653.20				
								10			10		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25				
								40			40		CY	VEHICLE TRACKING PAD	653.35				
								2			2		EACH	INLET PROTECTION DEVICE, TYPE I	653.40				
							700				700		LF	PROJECT DEMARCATION FENCE	653.55				
							54				54		SF	TRAFFIC SIGNS, TYPE A	675.20				
							140				140		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341				
							8				8		EACH	REMOVING SIGNS	675.50				

900.680 SPECIAL PROVISION (BITUMINOUS  
CONCRETE PAVEMENT, SMALL QUANTITY)  
136 TON TYPE IIS  
171 TON TYPE IVS  
307 TON SUBTOTAL  
8 TON ROUND  
315 TON TOTAL

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_frm.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
QUANTITY SHEET - QTY 2  
PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 7 OF 57



# QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
							ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		EACH	TEMPORARY TRAFFIC SIGNAL SYSTEM	678.40				
									3		3		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)	900.608				
								1			1		EACH	SPECIAL PROVISION (INLET PROTECTION DEVICE, FILTER FIBER)	900.620				
									189		189		LF	SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS)(NEXT 28 D)	900.640				
							1				1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	900.650				
							1				1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)(N.A.B.I.)	900.650				
							280		35		315		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680				
							4		1		5		CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT)(RS-1H OR CRS-1H)	900.683				

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_frm.dgn

PROJECT LEADER: G. BOGUE

DESIGNED BY: M. CHENETTE

QUANTITY SHEET - QTY 3

PLOT DATE: 8/26/2014

DRAWN BY: E. ALLING

CHECKED BY: G. BOGUE

SHEET 8 OF 57



**GENERAL INFORMATION**

**SYMBOLGY LEGEND NOTE**

THE SYMBOLGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLGY. THE SYMBOLGY 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. SYMBOLGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

**COMMON TOPOGRAPHIC POINT SYMBOLS**

POINT	CODE	DESCRIPTION
⊕	APL	BOUND APPARENT LOCATION
□	BM	BENCH MARK
□	BND	BOUND
⊕	CB	CATCH BASIN
⊕	COMB	COMBINATION POLE
⊕	DITHR	DROP INLET THROATED DNC
⊕	EL	ELECTRIC POWER POLE
○	FPOLE	FLAGPOLE
○	GASFIL	GAS FILLER
○	GP	GUIDE POST
×	GSO	GAS SHUT OFF
○	GUY	GUY POLE
○	GUYW	GUY WIRE
×	GV	GATE VALUE
⊕	H	TREE HARDWOOD
△	HCTRL	CONTROL HORIZONTAL
△	HVCTRL	CONTROL HORIZ. & VERTICAL
◇	HYD	HYDRANT
●	IP	IRON PIN
●	IPIPE	IRON PIPE
⊕	LI	LIGHT - STREET OR YARD
⊕	MB	MAILBOX
○	MH	MANHOLE (MH)
□	MM	MILE MARKER
●	PM	PARKING METER
□	PMK	PROJECT MARKER
POST	POST	POST STONE/WOOD
RRSIG	RRSIG	RAILROAD SIGNAL
RRSL	RRSL	RAILROAD SWITCH LEVER
S	S	TREE SOFTWOOD
SAT	SAT	SATELLITE DISH
SHRUB	SHRUB	SHRUB
SIGN	SIGN	SIGN
STUMP	STUMP	STUMP
TEL	TEL	TELEPHONE POLE
TIE	TIE	TIE
TSIGN	TSIGN	SIGN W/DOUBLE POST
VCTRL	VCTRL	CONTROL VERTICAL
WELL	WELL	WELL
WSO	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**

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
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

**UTILITY SYMBOLGY**

**UNDERGROUND UTILITIES**

— UT —	TELEPHONE
— UE —	ELECTRIC
— UC —	CABLE (TV)
— UEC —	ELECTRIC+CABLE
— UET —	ELECTRIC+TELEPHONE
— UCT —	CABLE+TELEPHONE
— UECT —	ELECTRIC+CABLE+TELEP.
— G —	GAS LINE
— W —	WATER LINE
— S —	SANITARY SEWER (SEPTIC)

**ABOVE GROUND UTILITIES (AERIAL)**

— T —	TELEPHONE
— E —	ELECTRIC
— C —	CABLE (TV)
— EC —	ELECTRIC+CABLE
— ET —	ELECTRIC+TELEPHONE
— AER E&T —	ELECTRIC+TELEPHONE
— CT —	CABLE+TELEPHONE
— ECT —	ELECTRIC+CABLE+TELEP.
—	UTILITY POLE GUY WIRE

**PROJECT CONSTRUCTION SYMBOLGY**

**PROJECT DESIGN & LAYOUT SYMBOLGY**

— CZ —	CLEAR ZONE
—	PLAN LAYOUT MATCHLINE

**PROJECT CONSTRUCTION FEATURES**

△	TOP OF CUT SLOPE
○	TOE OF FILL SLOPE
⊗	STONE FILL
—	BOTTOM OF DITCH
—	CULVERT PROPOSED
—	STRUCTURE SUBSURFACE
PDF	PROJECT DEMARCATION FENCE
BF	BARRIER FENCE
XXXXXX	TREE PROTECTION ZONE (TPZ)
////	STRIPING LINE REMOVAL
~~~~	SHEET PILES

**CONVENTIONAL BOUNDARY SYMBOLGY**

**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
—	PERMANENT EASEMENT LINE (P)
—	TEMPORARY EASEMENT LINE (T)
+	SURVEY LINE
P	PROPERTY LINE (P/L)
L	
SR	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

**EPSC MEASURES**

ONNOONNOONNO	FILTER CURTAIN
—	SILT FENCE
—	SILT FENCE WOVEN WIRE
—	CHECK DAM
—	DISTURBED AREAS REQUIRING RE-VEGETATION
—	EROSION MATTING

**ENVIRONMENTAL RESOURCES**

—	WETLAND BOUNDARY
—	RIPARIAN BUFFER ZONE
—	WETLAND BUFFER ZONE
—	SOIL TYPE BOUNDARY
T&E	THREATENED & ENDANGERED SPECIES
HAZ	HAZARDOUS WASTE AREA
AG	AGRICULTURAL LAND
HABITAT	FISH & WILDLIFE HABITAT
FLOOD PLAIN	FLOOD PLAIN
OHW	ORDINARY HIGH WATER (OHW)
—	STORM WATER
—	USDA FOREST SERVICE LANDS
—	WILDLIFE HABITAT SUIT/CONN

**ARCHEOLOGICAL & HISTORIC**

— ARCH —	ARCHEOLOGICAL BOUNDARY
— HISTORIC DIST —	HISTORIC DISTRICT BOUNDARY
— HISTORIC —	HISTORIC AREA
Ⓜ	HISTORIC STRUCTURE

**CONVENTIONAL TOPOGRAPHIC SYMBOLGY**

**EXISTING FEATURES**

—	ROAD EDGE PAVEMENT
—	ROAD EDGE GRAVEL
—	DRIVEWAY EDGE
—	DITCH
—	FOUNDATION
×	FENCE (EXISTING)
□	FENCE WOOD POST
○	FENCE STEEL POST
—	GARDEN
—	ROAD GUARDRAIL
—	RAILROAD TRACKS
—	CULVERT (EXISTING)
—	STONE WALL
—	WALL
—	WOOD LINE
—	BRUSH LINE
—	HEDGE
—	BODY OF WATER EDGE
—	LEDGE EXPOSED

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

POINT	CODE	DESCRIPTION
CH	CHANNEL EASEMENT	
CONST	CONSTRUCTION EASEMENT	
CUL	CULVERT EASEMENT	
D&C	DISCONNECT & CONNECT	
DIT	DITCH EASEMENT	
DR	DRAINAGE EASEMENT	
DRIVE	DRIVEWAY EASEMENT	
EC	EROSION CONTROL	
I&M	INSTALL & MAINTAIN EASEMENT	
LAND	LANDSCAPE EASEMENT	
SR	SLOPE RIGHT	
UE	UTILITY EASEMENT	
(P)	PERMANENT EASEMENT	
(T)	TEMPORARY EASEMENT	
■	BNDNS BOUND SET	
□	BNDNS BOUND TO BE SET	
●	IPNS IRON PIN SET	
⊕	IPNS IRON PIN TO BE SET	
⊗	CALC CALCULATED ROW POINT	
[DISTANCE]	DISTANCE CARRIED ON NEXT SHEET	

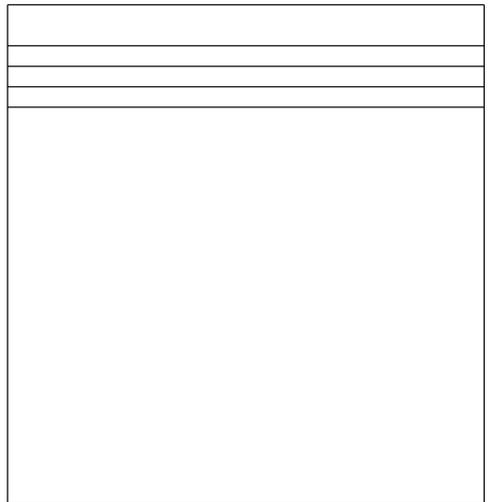
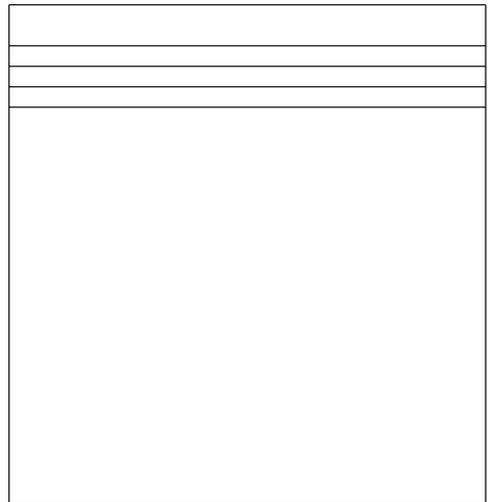
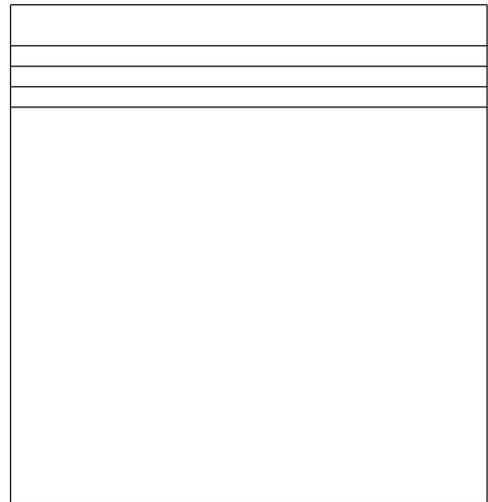
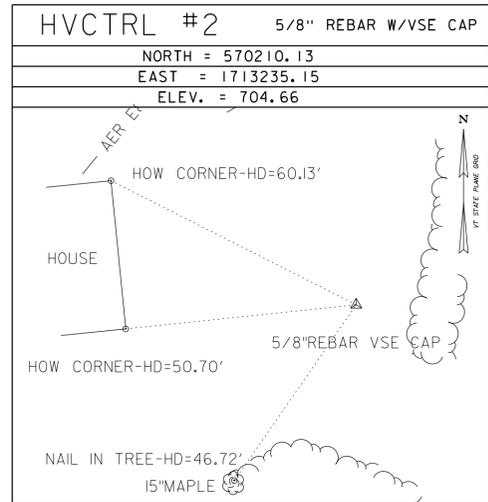
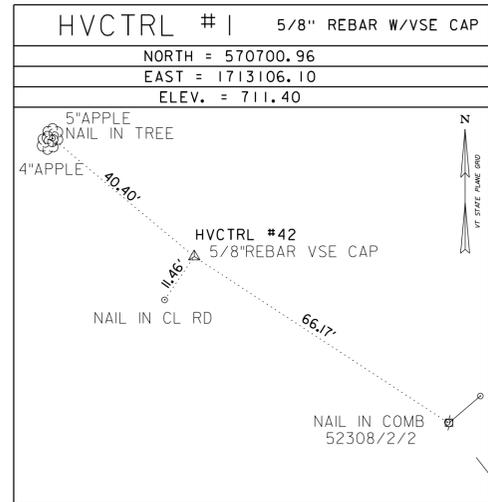
PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: z01j292\_legend.dgn PLOT DATE: 8/26/2014  
PROJECT LEADER: G. BOGUE DRAWN BY: VTRANS  
DESIGNED BY: VTRANS CHECKED BY: VTRANS  
CONVENTIONAL SYMBOLGY LEGEND SHEET 9 OF 57

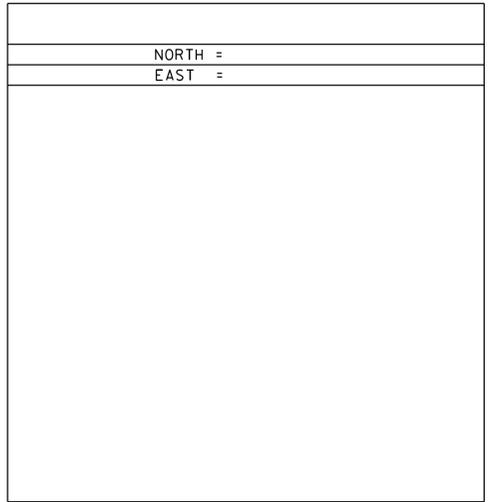
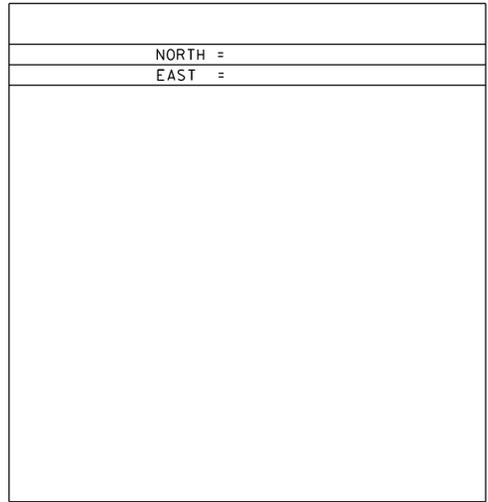
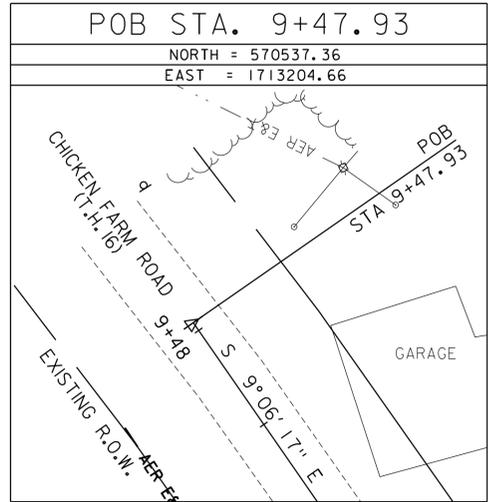
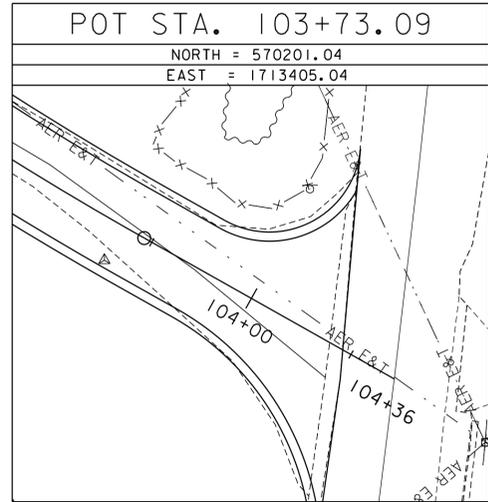
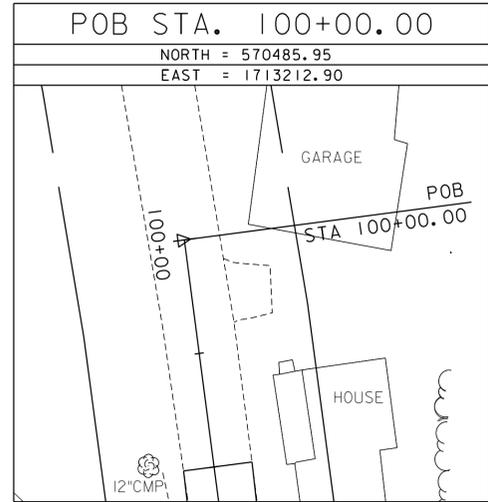


GPS/NGS CONTROL POINTS

TRAVERSE TIES



BASELINE TIES

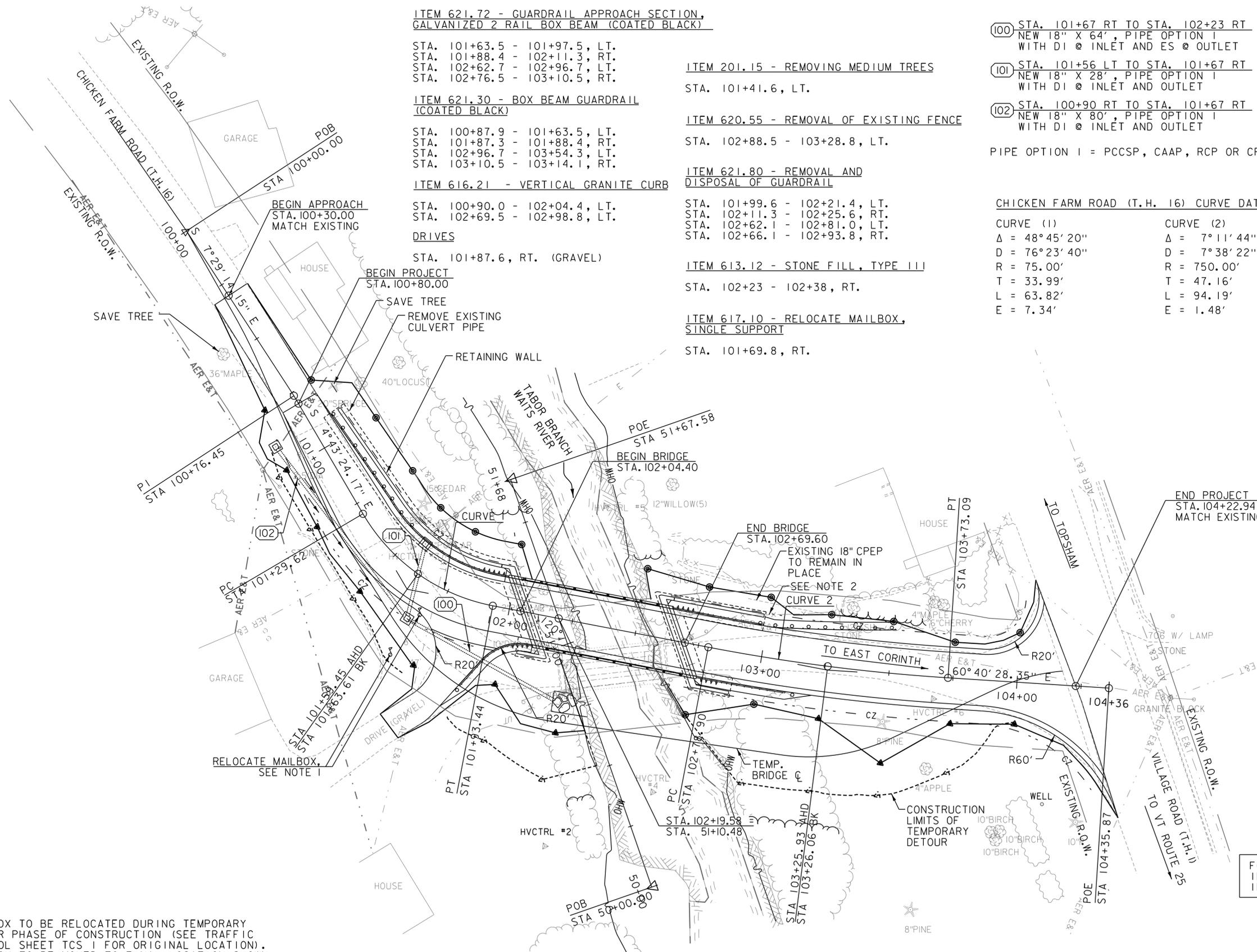
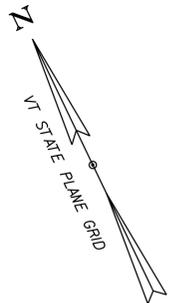


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DATUM	
VERTICAL	NAVD 88 FT
HORIZONTAL	NAD 83(2011) SFT
ADJUSTMENT	LSQ

PROJECT NAME:	CORINTH	PLLOT DATE:	8/26/2014
PROJECT NUMBER:	BRO 1447(29)	DRAWN BY:	E. ALLING
FILE NAME:	...drawing\z01j292_tie.dgn	CHECKED BY:	G. BOGUE
PROJECT LEADER:	G. BOGUE	TIE SHEET	SHEET 10 OF 57
DESIGNED BY:	M. CHENETTE		





**ITEM 621.72 - GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM (COATED BLACK)**

STA. 101+63.5 - 101+97.5, LT.  
 STA. 101+88.4 - 102+11.3, RT.  
 STA. 102+62.7 - 102+96.7, LT.  
 STA. 102+76.5 - 103+10.5, RT.

**ITEM 621.30 - BOX BEAM GUARDRAIL (COATED BLACK)**

STA. 100+87.9 - 101+63.5, LT.  
 STA. 101+87.3 - 101+88.4, RT.  
 STA. 102+96.7 - 103+54.3, LT.  
 STA. 103+10.5 - 103+14.1, RT.

**ITEM 616.21 - VERTICAL GRANITE CURB**

STA. 100+90.0 - 102+04.4, LT.  
 STA. 102+69.5 - 102+98.8, LT.

**DRIVES**

STA. 101+87.6, RT. (GRAVEL)

**ITEM 201.15 - REMOVING MEDIUM TREES**

STA. 101+41.6, LT.

**ITEM 620.55 - REMOVAL OF EXISTING FENCE**

STA. 102+88.5 - 103+28.8, LT.

**ITEM 621.80 - REMOVAL AND DISPOSAL OF GUARDRAIL**

STA. 101+99.6 - 102+21.4, LT.  
 STA. 102+11.3 - 102+25.6, RT.  
 STA. 102+62.1 - 102+81.0, LT.  
 STA. 102+66.1 - 102+93.8, RT.

**ITEM 613.12 - STONE FILL, TYPE III**

STA. 102+23 - 102+38, RT.

**ITEM 617.10 - RELOCATE MAILBOX, SINGLE SUPPORT**

STA. 101+69.8, RT.

100 STA. 101+67 RT TO STA. 102+23 RT  
 NEW 18" X 64", PIPE OPTION 1  
 WITH DI @ INLET AND ES @ OUTLET

101 STA. 101+56 LT TO STA. 101+67 RT  
 NEW 18" X 28", PIPE OPTION 1  
 WITH DI @ INLET AND OUTLET

102 STA. 100+90 RT TO STA. 101+67 RT  
 NEW 18" X 80", PIPE OPTION 1  
 WITH DI @ INLET AND OUTLET

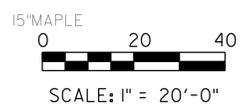
PIPE OPTION 1 = PCCSP, CAAP, RCP OR CPEP (SL)

**CHICKEN FARM ROAD (T.H. 16) CURVE DATA**

CURVE (1)	CURVE (2)
Δ = 48° 45' 20"	Δ = 7° 11' 44"
D = 76° 23' 40"	D = 7° 38' 22"
R = 75.00'	R = 750.00'
T = 33.99'	T = 47.16'
L = 63.82'	L = 94.19'
E = 7.34'	E = 1.48'

**NOTES:**

- MAILBOX TO BE RELOCATED DURING TEMPORARY DETOUR PHASE OF CONSTRUCTION (SEE TRAFFIC CONTROL SHEET TCS 1 FOR ORIGINAL LOCATION). MAILBOX TO BE MOVED TO FINAL LOCATION SHOWN ON THIS SHEET IMMEDIATELY AFTER THE TEMPORARY DETOUR IS CLOSED AND T.H. 16 IS REOPENED TO TRAFFIC.
- EXISTING WOODEN FENCES SHALL BE REMOVED AND RETURNED TO LAND OWNERS AS DIRECTED BY THE ENGINEER.



FOR EXISTING BRIDGE INFORMATION, SEE PRELIMINARY INFORMATION SHEET

PROJECT NAME: CORINTH	PLOT DATE: 8/26/2014
PROJECT NUMBER: BRO 1447(29)	DRAWN BY: E. ALLING
FILE NAME: ...drawing\z01j292.bdr.dgn	DESIGNED BY: M. CHENETTE
PROJECT LEADER: G. BOGUE	CHECKED BY: G. BOGUE
<b>PLAN LAYOUT SHEET - PL 1</b>	SHEET II OF 57



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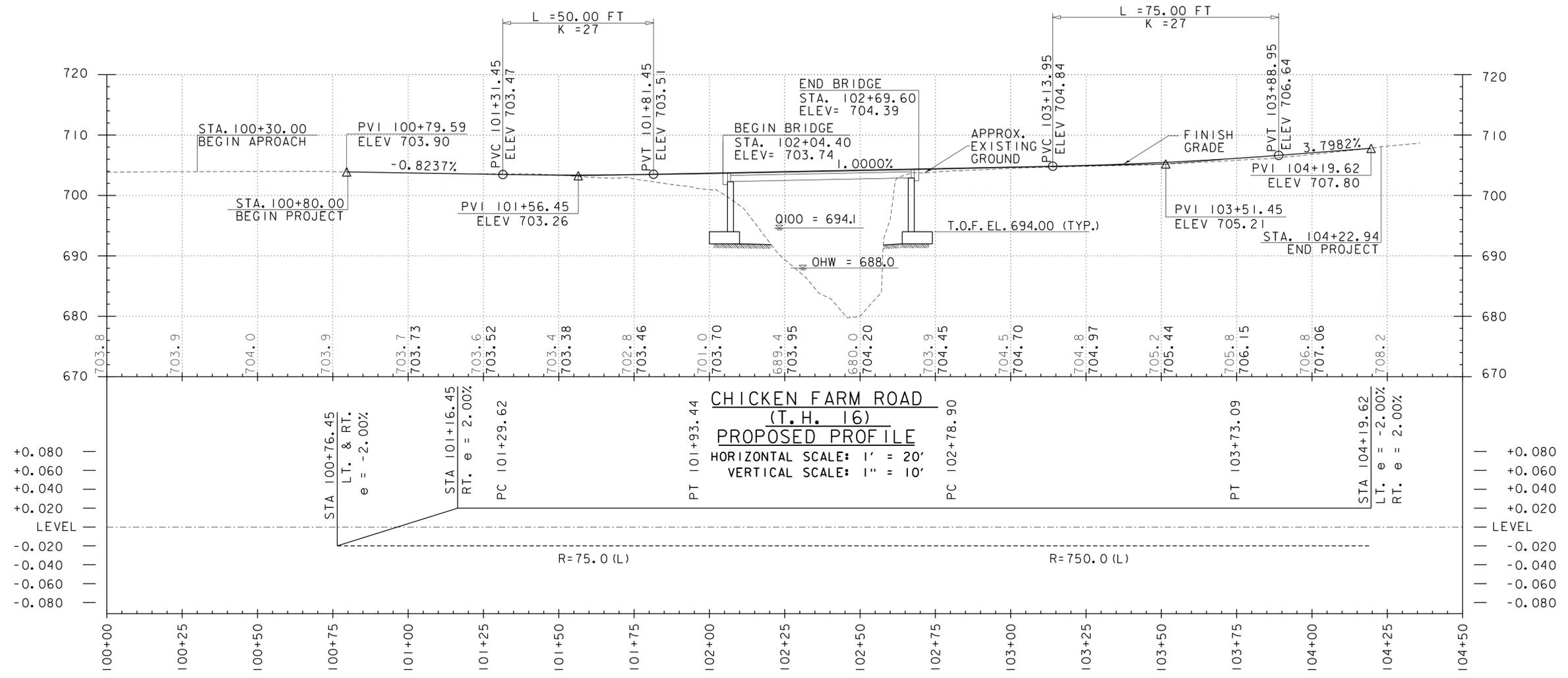
# DRAINAGE DETAIL SHEET

STATION	STATION	POS.	ASKEW NO. DEG.	INLET/OUTLET TYPE		DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW NO. DEG.	ES EA	CB EA	P R C D I	DEPTH DI FT	CONC CLASS B CY	REINF STEEL LBS	DI GRATE TYPE	CHAN ELEV EA	CRM CY	TRENCH EXCAVATION		COMM EXC CY	UNC CHAN EXC CY	STRUCT EXCAV CY	GRAN BK FILL STRUCT CY	GRAN BORR CY	EROS MATT SY	STONE FILL		MARKER POSTS		REMARKS
				INLET	OUTLET	IN	OUT	SPAN IN	RISE IN	L FT	D IN	L FT	PCCSP TH	CAAP TH	RCP CL	CSP TH	CPEP SL	PCCSP PI TH											EARTH CY	ROCK CY							EARTH CY	TYPE	EA	EA	
101+67	102+23	RT		DI	ES						18	64	X	X	III					1																			DI @ INLET (2' SUMP); ES @ OUTLET		
101+56	101+67	LT-RT		DI	DI						18	28	X	X	III					1																		DI @ INLET (2' SUMP); DI @ OUTLET (2' SUMP); USE ECCENTRIC CONE AT 10+56 TO AVOID GR POSTS			
100+90	101+67	RT		DI	DI						18	80	X	X	III					1																		DI @ INLET (2' SUMP); DI @ OUTLET (2' SUMP)			

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_frm.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
PLOT DATE: 8/26/2014  
SHEET 12 OF 57





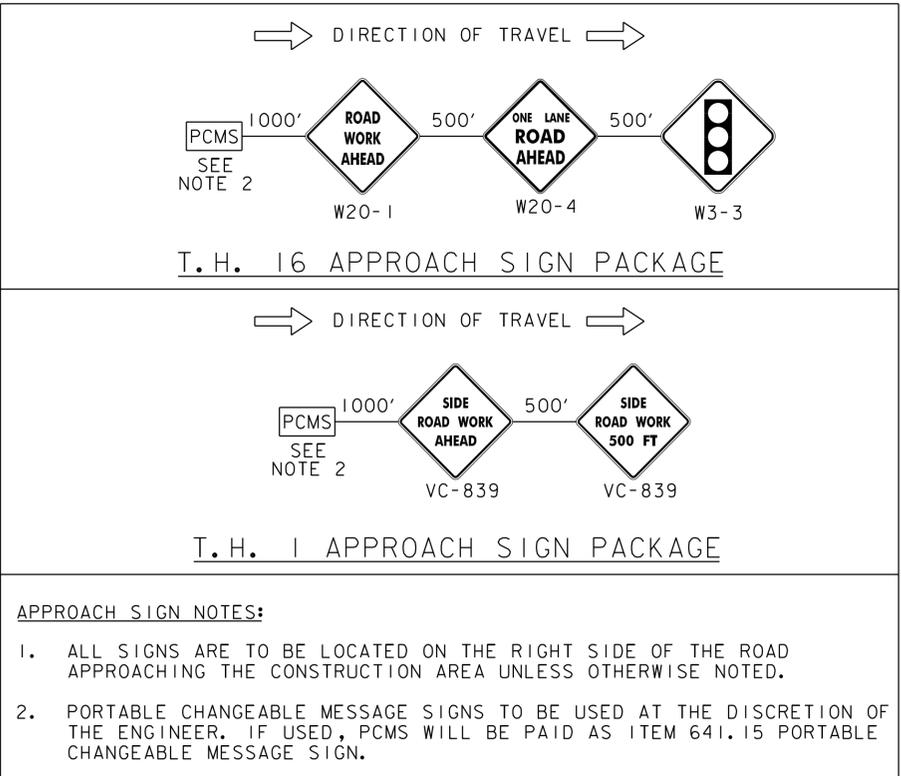
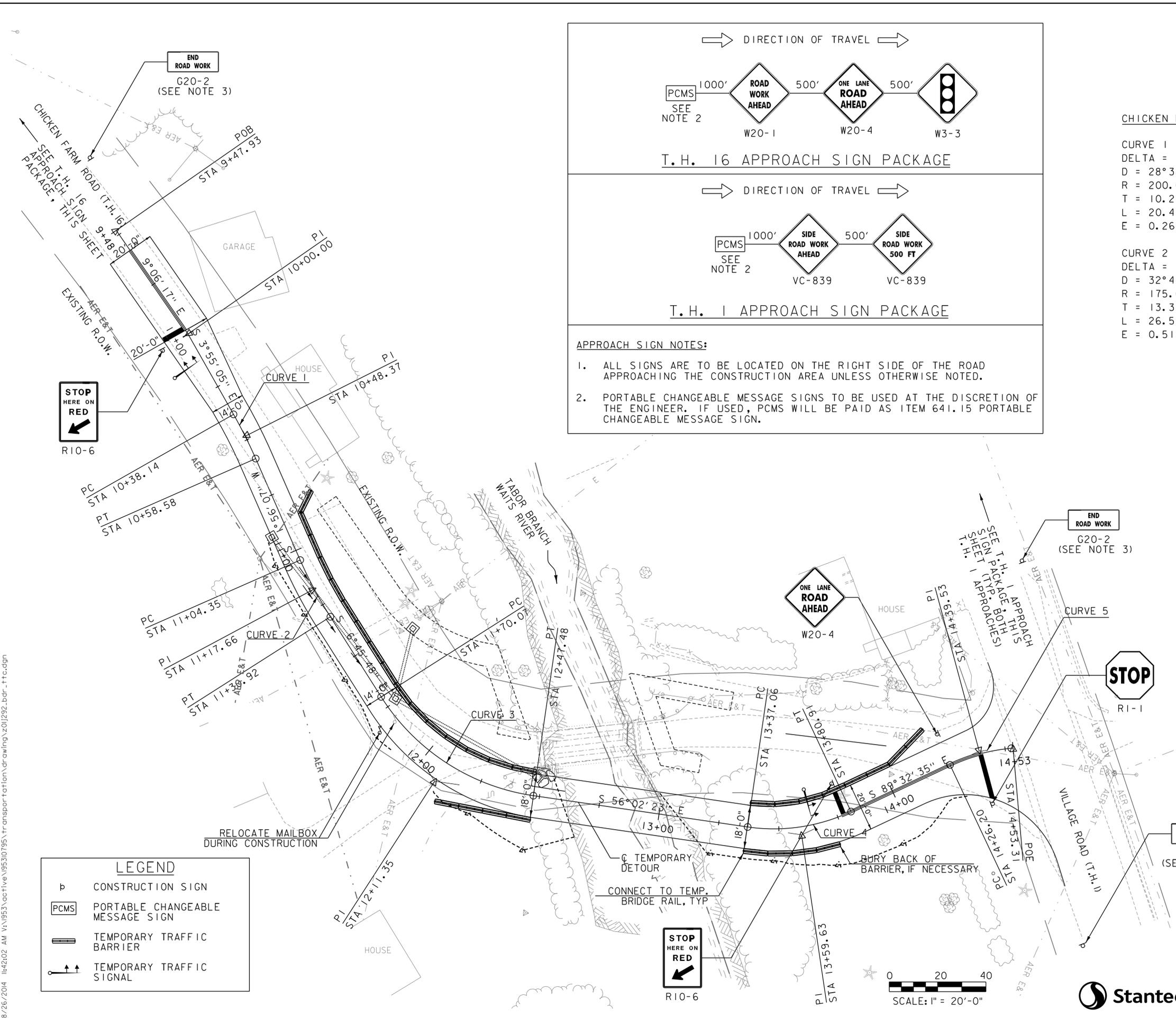
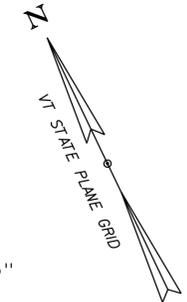
**BANKING DIAGRAM**  
 HORIZONTAL SCALE: 1' = 20'

**NOTE:**  
 ELEVATIONS SHOWN TO THE NEAREST TENTHS ARE EXISTING GROUND ALONG PROPOSED CENTERLINE.  
 ELEVATIONS SHOW TO THE NEAREST HUNDREDTHS ARE FINISHED GRADE ALONG PROPOSED CENTERLINE.

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PROJECT NAME: CORINTH	
PROJECT NUMBER: BRO 1447(29)	
FILE NAME: ...drawing\z01j292_xs.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: M. CHENETTE	CHECKED BY: G. BOGUE
<b>PROFILE SHEET - PRO 1</b>	
SHEET 13 OF 57	





CHICKEN FARM ROAD (T.H. 16) DETOUR CURVE DATA

CURVE 1	CURVE 2	CURVE 3	CURVE 4	CURVE 5
DELTA = 5°51'12"	DELTA = 8°41'55"	DELTA = 49°16'35"	DELTA = 33°30'13"	DELTA = 20°09'23"
D = 28°38'52"	D = 32°44'26"	D = 63°39'43"	D = 76°23'40"	D = 76°23'40"
R = 200.00'	R = 175.00'	R = 90.00'	R = 75.00'	R = 75.00'
T = 10.23'	T = 13.31'	T = 41.28'	T = 22.57'	T = 13.33'
L = 20.43'	L = 26.57'	L = 77.40'	L = 43.86'	L = 26.38'
E = 0.26'	E = 0.51'	E = 9.01'	E = 3.32'	E = 1.18'

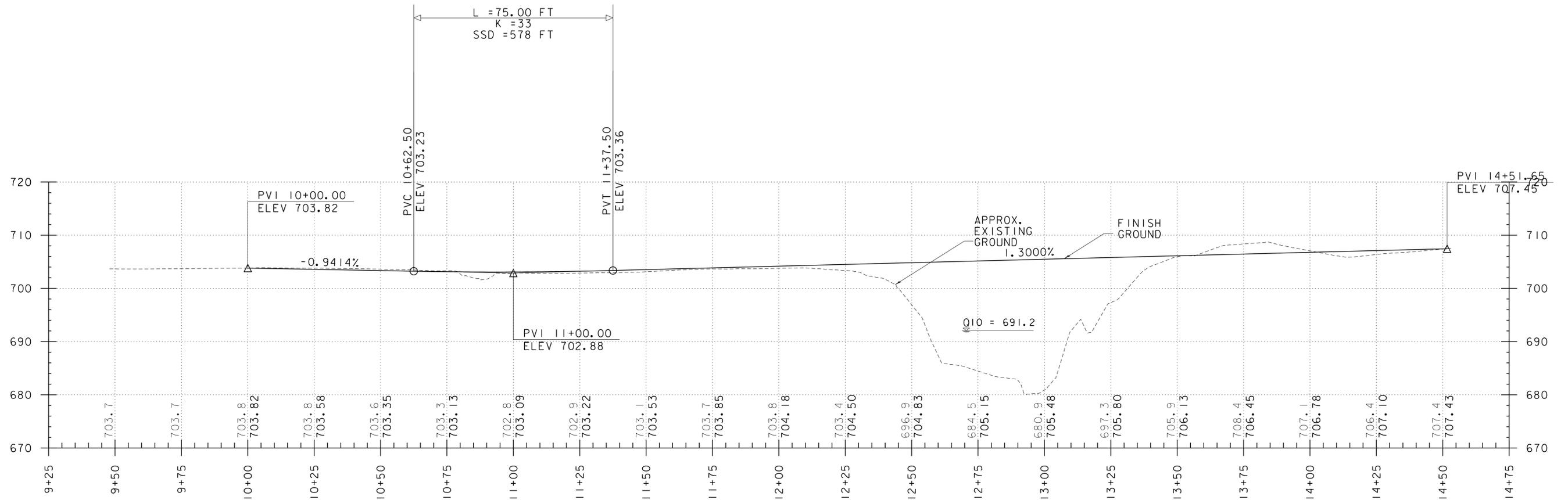
- TRAFFIC CONTROL NOTES:**
- ALL TRAFFIC SIGNS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
  - "END ROAD WORK" SIGNS TO BE LOCATED 500' PAST END OF WORK IN THE THREE DIRECTIONS SHOWN ON THIS SHEET.
  - AT THE DISCRETION OF THE ENGINEER, TEMPORARY EDGE LINES MAY BE USED THROUGHOUT THE LENGTH OF THE SINGLE-LANE SECTION OF THE TEMPORARY DETOUR.

**LEGEND**

	CONSTRUCTION SIGN
	PORTABLE CHANGEABLE MESSAGE SIGN
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY TRAFFIC SIGNAL

PROJECT NAME: CORINTH  
 PROJECT NUMBER: BRO 1447(29)  
 FILE NAME: ...drawing\201292.bdr.ttc.dgn PLOT DATE: 8/26/2014  
 PROJECT LEADER: G. BOGUE DRAWN BY: E. ALLING  
 DESIGNED BY: E. ALLING CHECKED BY: T. LUTHER  
**TRAFFIC CONTROL SHEET - TCS 1** SHEET 14 OF 57

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**TEMPORARY DETOUR PROPOSED PROFILE**

HORIZONTAL SCALE: 1' = 20'      VERTICAL SCALE: 1" = 10'

**NOTE:**

ELEVATIONS SHOWN TO THE NEAREST TENTHS ARE EXISTING GROUND ALONG PROPOSED CENTERLINE.

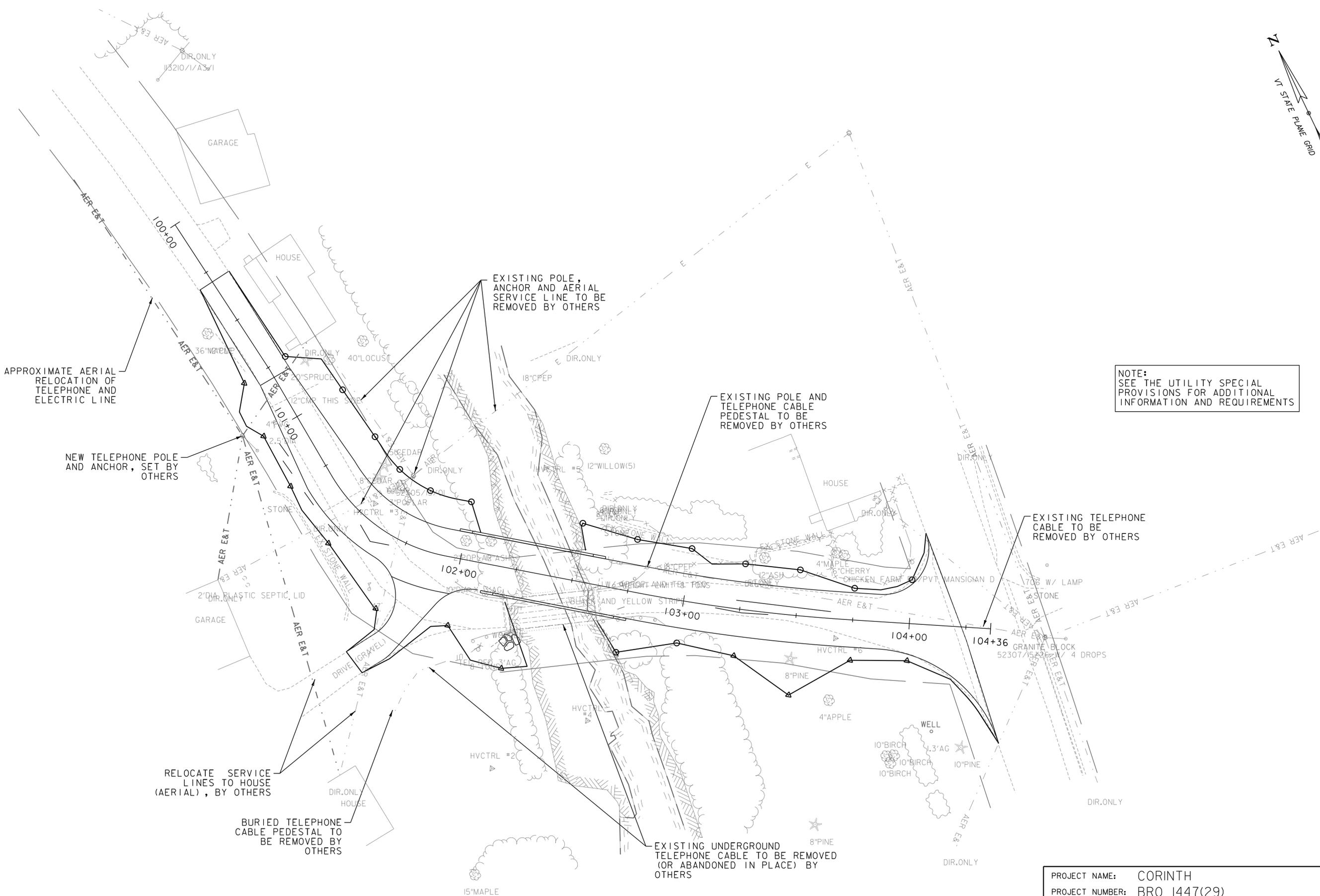
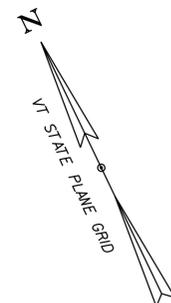
ELEVATIONS SHOW TO THE NEAREST HUNDREDTHS ARE FINISHED GRADE ALONG PROPOSED CENTERLINE.

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_xs.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: E. ALLING  
**DETOUR PROFILE SHEET - TPS 1**

PLOT DATE: 8/26/2014  
DRAWN BY: T. LUTHER  
CHECKED BY: G. BOGUE  
SHEET 15 OF 57





**NOTE:**  
SEE THE UTILITY SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS

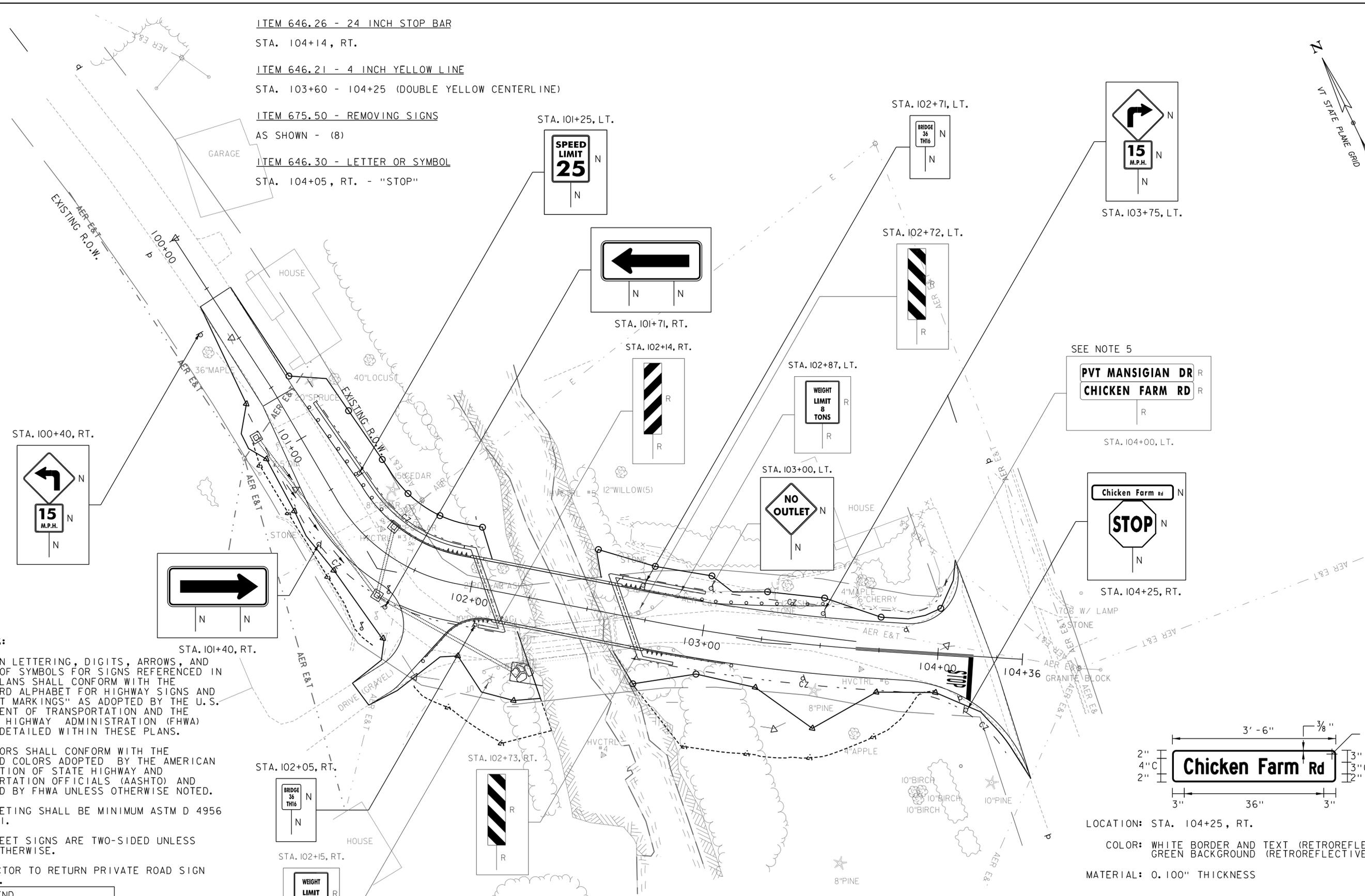
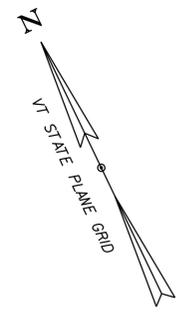
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PROJECT NAME:	CORINTH	PLOT DATE:	8/26/2014
PROJECT NUMBER:	BRO 1447(29)	DRAWN BY:	E. ALLING
FILE NAME:	...drawing\z01j292.bdr_ufl.dgn	CHECKED BY:	G. BOGUE
PROJECT LEADER:	G. BOGUE	SHEET 16	OF 57
DESIGNED BY:	M. CHENETTE	<b>UTILITY LAYOUT SHEET - UTL 1</b>	



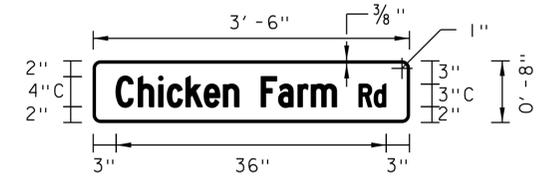
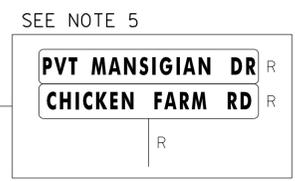
- ITEM 646.26 - 24 INCH STOP BAR  
STA. 104+14, RT.
- ITEM 646.21 - 4 INCH YELLOW LINE  
STA. 103+60 - 104+25 (DOUBLE YELLOW CENTERLINE)
- ITEM 675.50 - REMOVING SIGNS  
AS SHOWN - (8)
- ITEM 646.30 - LETTER OR SYMBOL  
STA. 104+05, RT. - "STOP"



- SIGN NOTES:**
1. ALL SIGN LETTERING, DIGITS, ARROWS, AND DESIGN OF SYMBOLS FOR SIGNS REFERENCED IN THESE PLANS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AS ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) UNLESS DETAILED WITHIN THESE PLANS.
  2. ALL COLORS SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) AND APPROVED BY FHWA UNLESS OTHERWISE NOTED.
  3. ALL SHEETING SHALL BE MINIMUM ASTM D 4956 TYPE III.
  4. ALL STREET SIGNS ARE TWO-SIDED UNLESS NOTED OTHERWISE.
  5. CONTRACTOR TO RETURN PRIVATE ROAD SIGN TO TOWN.

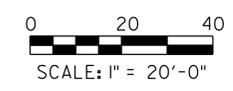
**SIGN LEGEND**

N	= NEW
R	= REMOVE
R&S	= REMOVE & SALVAGE
S	= SALVAGE SIGN
RET	= RETAIN
B-B	= BACK TO BACK



LOCATION: STA. 104+25, RT.  
 COLOR: WHITE BORDER AND TEXT (RETROREFLECTIVE)  
 GREEN BACKGROUND (RETROREFLECTIVE)  
 MATERIAL: 0.100" THICKNESS

PROJECT NAME:	CORINTH
PROJECT NUMBER:	BRO 1447(29)
FILE NAME:	...drawing\z01j292.bdr_spm.dgn
PROJECT LEADER:	G. BOGUE
DESIGNED BY:	E. ALLING
TRAFFIC SIGNS AND LINES LAYOUT - TSL 1	
PLOT DATE:	8/26/2014
DRAWN BY:	E. ALLING
CHECKED BY:	T. LUTHER
SHEET	17 OF 57



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**SOIL CLASSIFICATION**

**AASHTO**

A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

**ROCK QUALITY DESIGNATION**

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

**SHEAR STRENGTH**

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

**CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY**

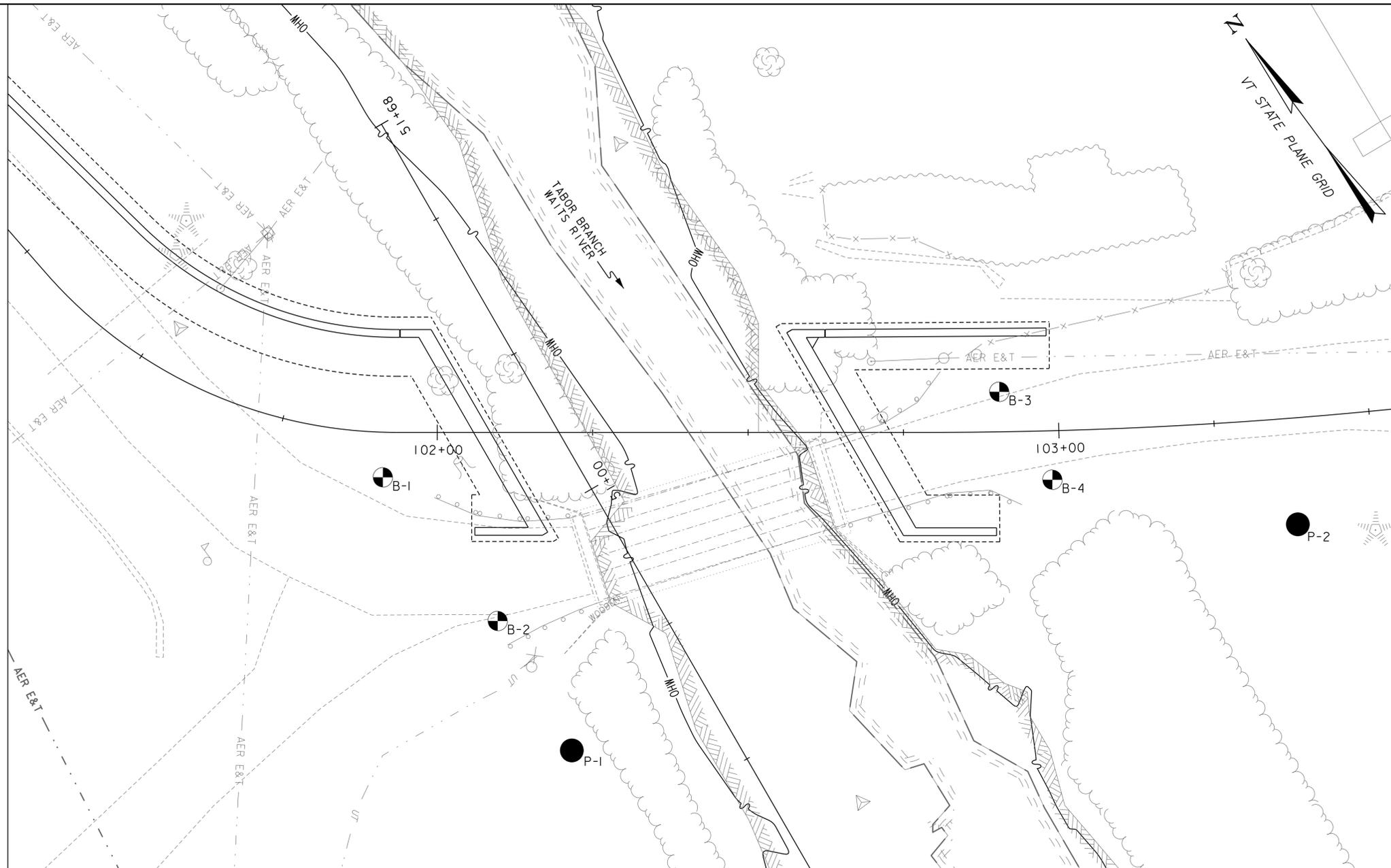
DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

**COMMONLY USED SYMBOLS**

- ▼ Water Elevation
- ⊕ Standard Penetration Boring
- ⊗ Auger Boring
- Rod Sounding
- Sample
- N Standard Penetration Test
- Blow Count Per Foot For:
- 2" O.D. Sampler
- 1 3/8" I.D. Sampler
- Hammer Weight Of 140 Lbs.
- Hammer Fall Of 30"
- VS Field Vane Shear Test
- US Undisturbed Soil Sample
- B Blast
- DC Diamond Core
- MD Mud Drill
- WA Wash Ahead
- HSA Hollow Stem Auger
- AX Core Size 1 1/8"
- BX Core Size 1 5/8"
- NX Core Size 2 1/8"
- M Double Tube Core Barrel Used
- LL Liquid Limit
- PL Plastic Limit
- PI Plasticity Index
- NP Non Plastic
- w Moisture Content (Dry Wgt. Basis)
- D Dry
- M Moist
- MTW Moist To Wet
- W Wet
- Sat Saturated
- Bo Boulder
- Gr Gravel
- Sa Sand
- Sl Silt
- Cl Clay
- HP Hardpan
- Le Ledge
- NLTD No Ledge To Depth
- CNPF Can Not Penetrate Further
- TLOB Top of Ledge Or Boulder
- NR No Recovery
- Rec. Recovery
- %Rec. Percent Recovery
- RQD Rock Quality Designation
- CBR California Bearing Ratio
- < Less Than
- > Greater Than
- R Refusal (N > 100)
- VTSPG NAD83 - See Note 7

**COLOR**

bk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		



**BORING LAYOUT**

SCALE: 1" = 10'-0"



**LEGEND:**

- ⊕ BRIDGE BORING
- PROBE

**BORING CHART**

BORING NUMBER	SURVEY STATION	OFFSET	GROUND ELEVATION
B-1	101+91.42	7.21' RT	702.7
B-2	102+09.71	30.25' RT	703.0
B-3	102+90.38	6.46' LT	704.2
B-4	102+98.75	7.83' RT	704.1
P-1	102+21.64	51.00' RT	702.0
P-2	103+37.46	17.00' RT	707.3

**DEFINITIONS (AASHTO)**

- BEDROCK (LEDGE)** - Rock in its native location of indefinite thickness.
- BOULDER** - A rock fragment with an average dimension > 12 inches.
- COBBLE** - Rock fragments with an average dimension between 3 and 12 inches.
- GRAVEL** - Rounded particles of rock < 3" and > 0.075" (#10 sieve).
- SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0025" (#200 sieve).
- SILT** - Soil < 0.0025" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY** - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.
- VARVED** - Alternate layers of silt and clay.
- HARDPAN** - Extremely dense soil, cemented layer, not softened when wet.
- MUCK** - Soft organic soil (containing > 10% organic material).
- MOISTURE CONTENT** - Weight of water divided by dry weight of soil.
- FLOWING SAND** - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
- STRIKE** - Angle from magnetic north to line of intersection of bed with a horizontal plane.
- DIP** - Inclination of bed with a horizontal plane.

**GENERAL NOTES**

- The subsurface explorations shown herein were made in February 2013 by New Hampshire Boring.
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by Stantec and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Stantec design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.
- Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...z01j292\_bdr\_bor layout.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
**BORING INFORMATION SHEET**

PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 19 OF 57



8/26/2014 11:42:14 AM V:\1953\loc\live\19530795\VT-anspor+of\on\dr-awing\z01j292\_bdr\_bor layout.dgn

VTTrans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <b>B-1</b>				
				CORINTH BRO 1447(29) Bridge #36		Page No.: 1 of 1				
						Pin No.:				
						Checked By: TAD				
Boring Crew: NH Boring, Derry, NH, Burke (Stantec)		Casing		Sampler		Groundwater Observations				
Date Started: 2/22/13 Date Finished: 2/22/13		Type: H.S.A. SS		Date		Date				
VTSPG NAD83: N 570298.60 ft E 1713251.31 ft		I.D.: 4.25 in 1.38 in		Depth (ft)		Notes				
Station: 101+91.41 Offset: 7.21 RT		Hammer Wt: N.A. 140								
Ground Elevation: 702.7 ft		Hammer Fall: N.A. 30								
		Hammer/Rod Type: Safety/N								
		Rig: CME 750 <<SUB>><<SUB>> = 1								
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg)	Core Rec. % (RCD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Not Sampled, Soil was frozen topsoil								
		Visual Classification, Sa, brn, Moist, Rec. = 0.7 ft				16-9-7-7 (16)				
		Visual Classification, SiSa, brn, Moist, Rec. = 0.7 ft								
2.5		A-2-4, SiSa, brn, Moist, Rec. = 1.0 ft				13-15-13-9 (28)	15.7	9.2	63.8	27.0
		Visual Classification, SiSa, Dk/brn, Moist, Rec. = 1.5 ft				2-2-1-1 (3)				
		A-2-4, SiSa, Dk/brn, Moist, Rec. = 0.5 ft					26.9	6.2	62.8	31.0
7.5		A-8, Peat, organic content = 18.4%, Dk/brn, Moist, Rec. = 0.8 ft				3-4-100/1 (R)	106.4			
		Visual Classification, SiSa, Dk/gry, Moist, Rec. = 0.1 ft								
		Probable weathered rock, 8.1 ft - 8.5 ft								
		8.5 ft - 13.5 ft, Gry, Phyllite, Hard, Fresh, Fair rock, NXDC, Joints are low angle, closely spaced, smooth to rough, and tight. RMR = 44	1 (30)	95 (65)	7					
					5					
					6					
					6					
					7					
		13.5 ft - 18.5 ft, Gry, Phyllite, Hard, Fresh, Fair rock, NXDC, Joints are low angle, close to moderately close spaced, smooth, and tight. RMR = 51	2 (30)	97 (97)	6					
					6					
					7					
					7					
					5					
		Hole stopped @ 18.5 ft								

ABUTMENT I  
TOP OF FOOTING  
EL. 694.00

BORING LOG VTRANS\_CORINTHVT.GPJ VERMONT AOT.GDT 3/26/13

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> is the hammer energy correction factor.  
 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

VTTrans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <b>B-2</b>	
				CORINTH BRO 1447(29) Bridge #36		Page No.: 1 of 1	
						Pin No.:	
						Checked By: TAD	
Boring Crew: NH Boring, Derry, NH, Burke (Stantec)		Casing		Sampler		Groundwater Observations	
Date Started: 2/21/13 Date Finished: 2/21/13		Type: H.S.A. SS		Date		Date	
VTSPG NAD83: N 570269.09 ft E 1713252.43 ft		I.D.: 4.25 in 1.38 in		Depth (ft)		Notes	
Station: 102+09.71 Offset: 30.25 RT		Hammer Wt: N.A. 140					
Ground Elevation: 703.0 ft		Hammer Fall: N.A. 30					
		Hammer/Rod Type: Safety/N					
		Rig: CME 750 <<SUB>><<SUB>> = 1					
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Not Sampled, Frozen soil					
		Visual Classification, Sa, gry, Moist, Rec. = 1.7 ft	29-40-53-68 (93)				
2.5		Visual Classification, GrSa, gry, Moist, Rec. = 0.2 ft	29-21-22-24 (43)				
		Visual Classification, Peat, Dk/brn, Moist, Rec. = 0.8 ft					
5.0		Visual Classification, Peat, Dk/brn, Moist, Rec. = 0.2 ft	2-1-1-2 (2)				
		Visual Classification, Peat, Dk/brn, Moist, Rec. = 0.5 ft	2-2-1-2 (3)				
7.5		A-8, Peat, organic content = 8.6%, Dk/brn, Moist, Rec. = 2.0 ft	1-2-1-2 (3)	58.3			
		Visual Classification, Peat, Dk/brn, Moist, Rec. = 1.5 ft	3-3-4-8 (7)				
		A-1-b, SiSa, gry, Moist, Rec. = 0.3 ft		27.1	15.0	61.0	24.0
15.0		No Recovery, Rec. = 0.0 ft, 15.0 ft - 15.1 ft	100% (R)				
		Hole stopped @ 15.1 ft					
		Remarks: Auger refusal on probable bedrock at 15.1 feet below ground surface.					

ABUTMENT I  
TOP OF FOOTING  
EL. 694.00

BORING LOG VTRANS\_CORINTHVT.GPJ VERMONT AOT.GDT 3/26/13

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> is the hammer energy correction factor.  
 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_bor1.dgn PLOT DATE: 8/26/2014  
 PROJECT LEADER: G. BOGUE DRAWN BY: J. SOTER  
 DESIGNED BY: M. CHENETTE CHECKED BY: G. BOGUE  
**BORING LOG 1** SHEET 20 OF 57



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VTTrans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <b>B-3</b>		
				CORINTH BRO 1447(29) Bridge #36		Page No.: 1 of 1		
						Pin No.:		
						Checked By: TAD		
Boring Crew: NH Boring, Derry, NH, Burke (Stantec)		Casing		Sampler		Groundwater Observations		
Date Started: 2/22/13 Date Finished: 2/22/13		Type: H.S.A. SS		Date		Depth (ft)		
VTSPG NAD83: N 570250.62 ft E 1713339.17 ft		I.D.: 4.25 in 1.38 in		Notes				
Station: 102+90.38 Offset: 6.46 LT		Hammer Wt: N.A. 140						
Ground Elevation: 704.2 ft		Hammer Fall: N.A. 30						
		Hammer/Rod Type: Safety/N						
		Rig: CME 750 <<SUB><<SUB> = 1						
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Not Sampled, Frozen soil						
		Visual Classification, GrSa, brn, Moist, Rec. = 1.3 ft		27-53-76-59 (129)				
2.5		A-2-4, SiSa, brn, Moist, Rec. = 1.2 ft		37-23-36-33 (59)	24.4	7.0	66.0	27.0
5.0		Visual Classification, SiSa, brn, Moist, Rec. = 1.3 ft		4-3-3-5 (6)				
7.5		Visual Classification, GrSiSa, Dark brown, Moist, Rec. = 0.7 ft		7-9-13-22 (22)				
10.0		Visual Classification, Sa, tan, Wet, Rec. = 1.5 ft		8-8-8-20 (16)				
12.5		Visual Classification, Sa, brn, Wet, Rec. = 0.2 ft		100/2 (R)				
15.0		Hole stopped @ 13.5 ft		Top of Bedrock @ 13.5 ft				
17.5		Remarks: Auger refusal on probable bedrock at 13.5 feet below ground surface.						
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. <<SUB><<SUB> is the hammer energy correction factor. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.								

ABUTMENT 2  
TOP OF FOOTING  
EL. 694.00

VTTrans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <b>B-4</b>					
				CORINTH BRO 1447(29) Bridge #36		Page No.: 1 of 1					
						Pin No.:					
						Checked By: TAD					
Boring Crew: NH Boring, Derry, NH, Burke (Stantec)		Casing		Sampler		Groundwater Observations					
Date Started: 2/21/13 Date Finished: 2/21/13		Type: H.S.A. SS		Date		Depth (ft)					
VTSPG NAD83: N 570234.19 ft E 1713337.64 ft		I.D.: 4.25 in 1.38 in		Notes							
Station: 102+98.75 Offset: 7.83 RT		Hammer Wt: N.A. 140									
Ground Elevation: 704.1 ft		Hammer Fall: N.A. 30									
		Hammer/Rod Type: Safety/N									
		Rig: CME 750 <<SUB><<SUB> = 1									
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (RCD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Not Sampled, Frozen soil									
		Visual Classification, SiSa, brn, Moist, Rec. = 1.5 ft					33-34-27-7 (61)				
2.5		A-2-4, SiSa, brn, Moist, Rec. = 0.7 ft					8-20-15-10 (35)	17.9	6.4	63.6	30.0
5.0		Visual Classification, GrSa, Dk/brn, Moist, Rec. = 0.3 ft					4-100/4 (R)				
7.5		Probable weathered rock, Rec. = 0.2 ft, 5.5 ft - 6.0 ft									
10.0		6.0 ft - 11.0 ft, Gry, Phyllite, Hard, Fresh, Fair rock, NXDC, Joints are low angle, closely spaced, smooth to rough, and tight. RMR = 64		1 (30)	90 (59)	6					Top of Bedrock @ 6.0 ft
12.5						5					
15.0						6					
17.5						5					
		11.0 ft - 16.0 ft, Gry, Phyllite, Hard, Fresh, Good rock, NXDC, Joints are low angle, moderately spaced, smooth, and tight. RMR = 47		2 (30)	97 (97)	7					
						7					
						6					
						7					
						7					
		Hole stopped @ 16.0 ft									
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. <<SUB><<SUB> is the hammer energy correction factor. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.											

ABUTMENT 2  
TOP OF FOOTING  
EL. 694.00

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PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)  
FILE NAME: ...drawing\z01j292\_bor2.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
**BORING LOG 2**

PLOT DATE: 8/26/2014  
DRAWN BY: J. SOTER  
CHECKED BY: G. BOGUE  
SHEET 21 OF 57

 STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <b>P-1</b>				
		<b>CORINTH</b> <b>BRO 1447(29)</b> <b>Bridge #36</b>		Page No.: 1 of 1				
Boring Crew: <u>NH Boring, Derry, NH, Burke (Stantec)</u> Date Started: <u>2/21/13</u> Date Finished: <u>2/21/13</u> VTSPG NAD83: <u>N 570245.30 ft E 1713249.67 ft</u> Station: <u>102+21.64</u> Offset: <u>51.00 RT</u> Ground Elevation: <u>702.0 ft</u>		Casing Sampler Type: <u>H.S.A.</u> I.D.: <u>4.25 in</u> Hammer Wt: <u>N.A.</u> <u>N.A.</u> Hammer Fall: <u>N.A.</u> <u>N.A.</u> Hammer/Rod Type: Rig: <u>CME 750 &lt;&lt;SUB&gt;&lt;&lt;SUB&gt;&gt; =</u>		Groundwater Observations Date Depth (ft) Notes				
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5								
5.0								
7.5								
10.0								
12.5								
15.0		Top of Bedrock @ 14.5 ft						
17.5		Remarks: Advanced auger probe to refusal on probable bedrock at 14.5 feet below the ground surface.						
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. <<SUB><<SUB>> is the hammer energy correction factor. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.								

 STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <b>P-2</b>				
		<b>CORINTH</b> <b>BRO 1447(29)</b> <b>Bridge #36</b>		Page No.: 1 of 1				
Boring Crew: <u>NH Boring, Derry, NH, Burke (Stantec)</u> Date Started: <u>2/21/13</u> Date Finished: <u>2/21/13</u> VTSPG NAD83: <u>N 570204.94 ft E 1713365.12 ft</u> Station: <u>103+37.46</u> Offset: <u>17.00 RT</u> Ground Elevation: <u>707.3 ft</u>		Casing Sampler Type: <u>H.S.A.</u> I.D.: <u>4.25 in</u> Hammer Wt: <u>N.A.</u> <u>N.A.</u> Hammer Fall: <u>N.A.</u> <u>N.A.</u> Hammer/Rod Type: Rig: <u>CME 750 &lt;&lt;SUB&gt;&lt;&lt;SUB&gt;&gt; =</u>		Groundwater Observations Date Depth (ft) Notes				
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5								
5.0		Top of Bedrock @ 3.2 ft						
7.5		Remarks: Advanced auger probe to refusal on probable bedrock at 3.2 feet below the ground surface.						
10.0								
12.5								
15.0								
17.5								
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. <<SUB><<SUB>> is the hammer energy correction factor. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.								

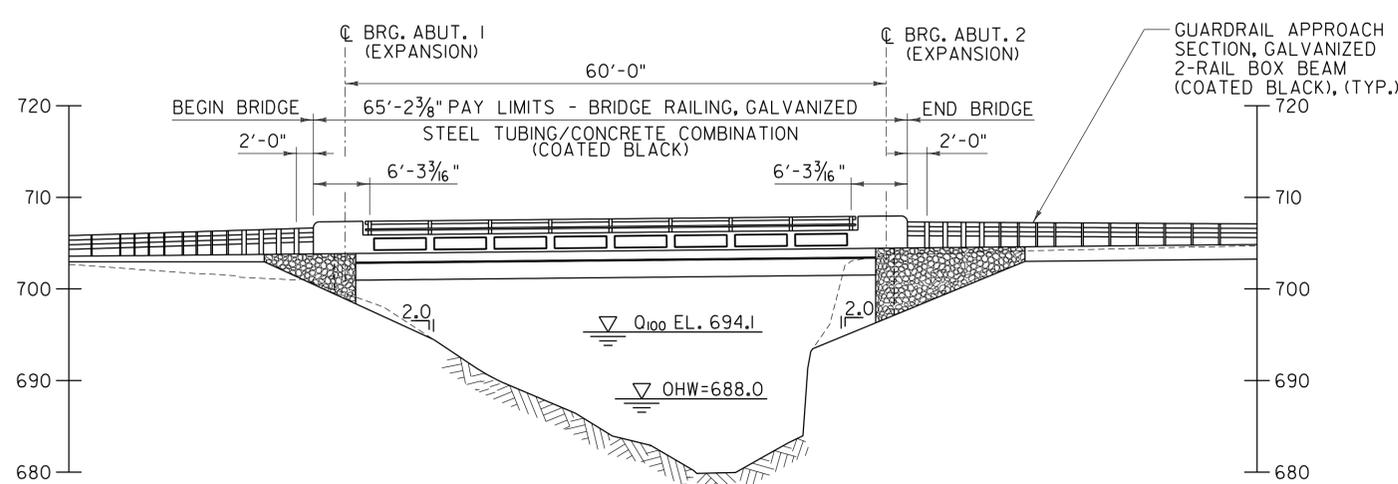
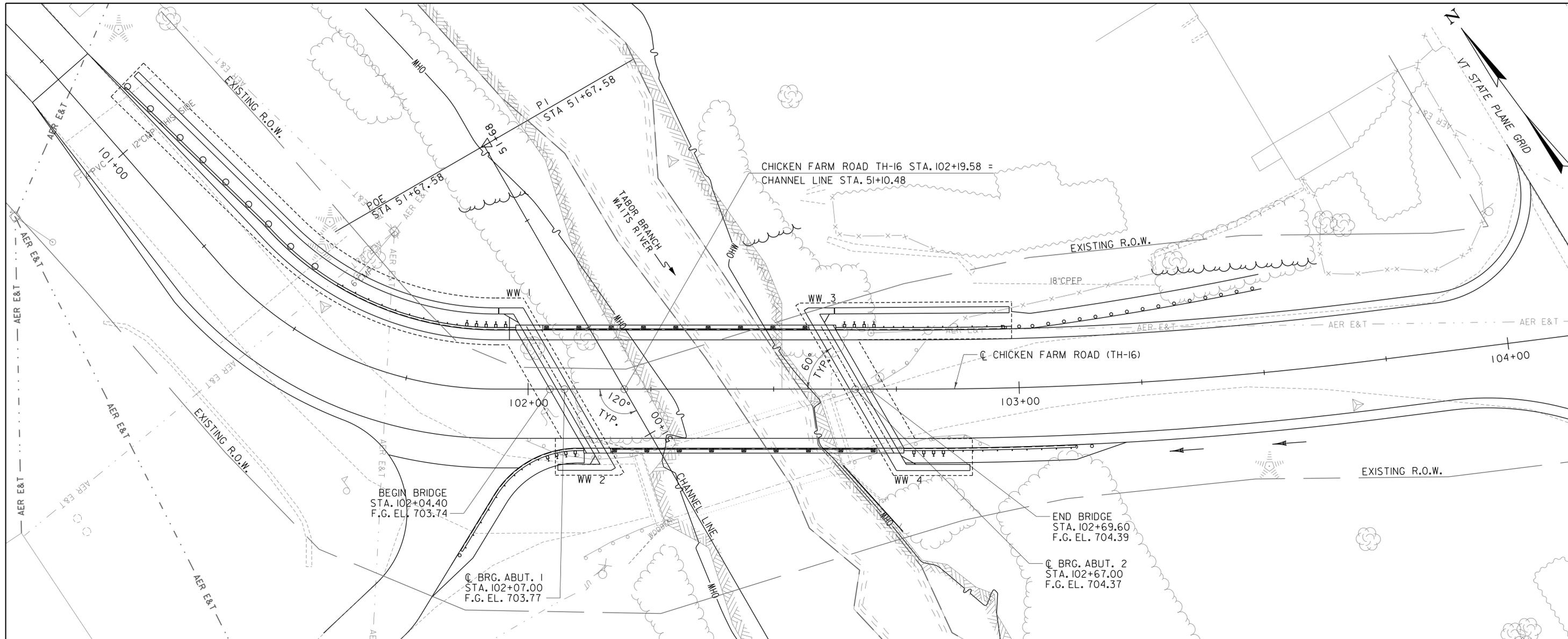
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PROJECT NAME: CORINTH  
 PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_bor-3.dgn  
 PROJECT LEADER: G. BOGUE  
 DESIGNED BY: M. CHENETTE  
**BORING LOG 3**

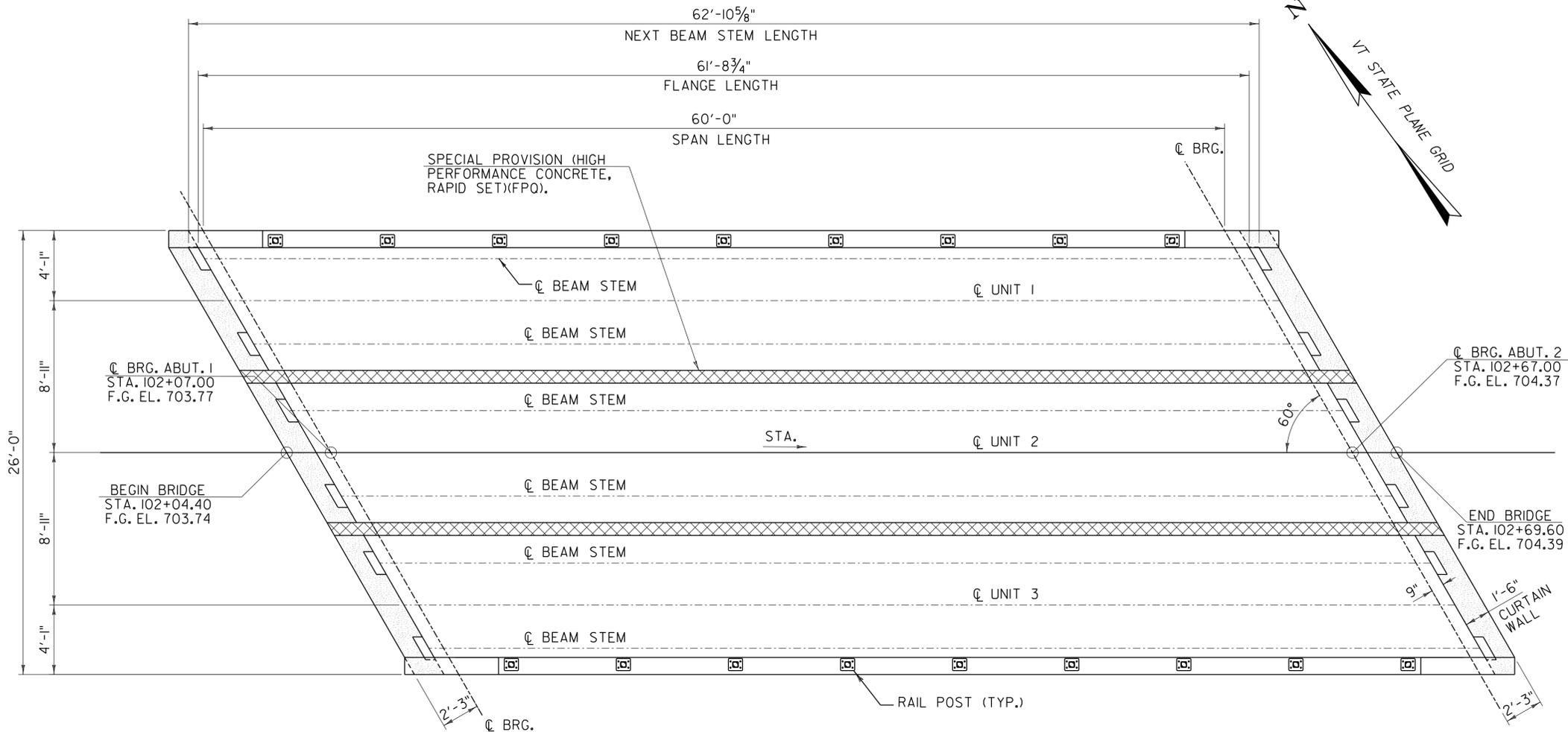
PLOT DATE: 8/26/2014  
 DRAWN BY: J. SOTER  
 CHECKED BY: G. BOGUE  
 SHEET 22 OF 57



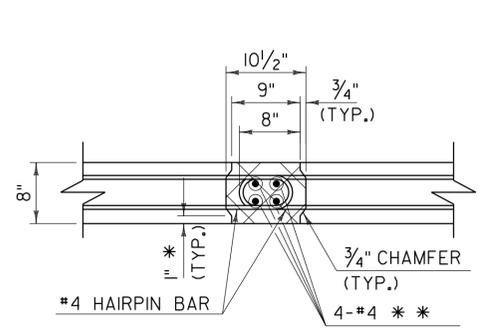
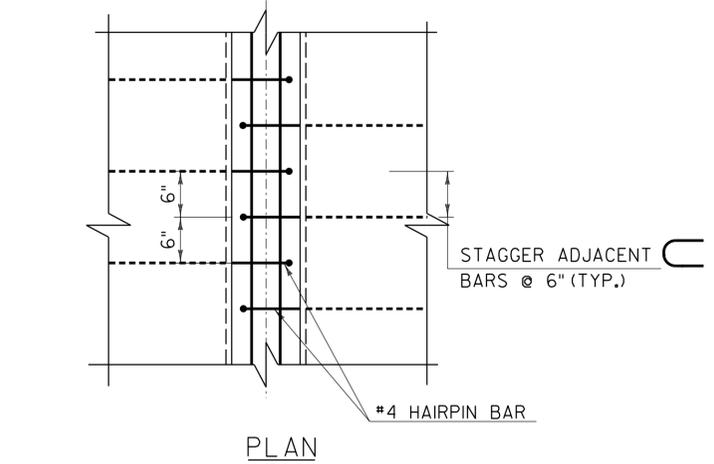
PROJECT NAME:	CORINTH	FILE NAME:	...drawing\z01j292_bdr_pe.dgn	PLOT DATE:	8/26/2014
PROJECT NUMBER:	BRO 1447(29)	PROJECT LEADER:	G. BOGUE	DRAWN BY:	J. SOTER
		DESIGNED BY:	M. CHENETTE	CHECKED BY:	G. BOGUE
		<b>PLAN AND ELEVATION</b>		SHEET	23 OF 57



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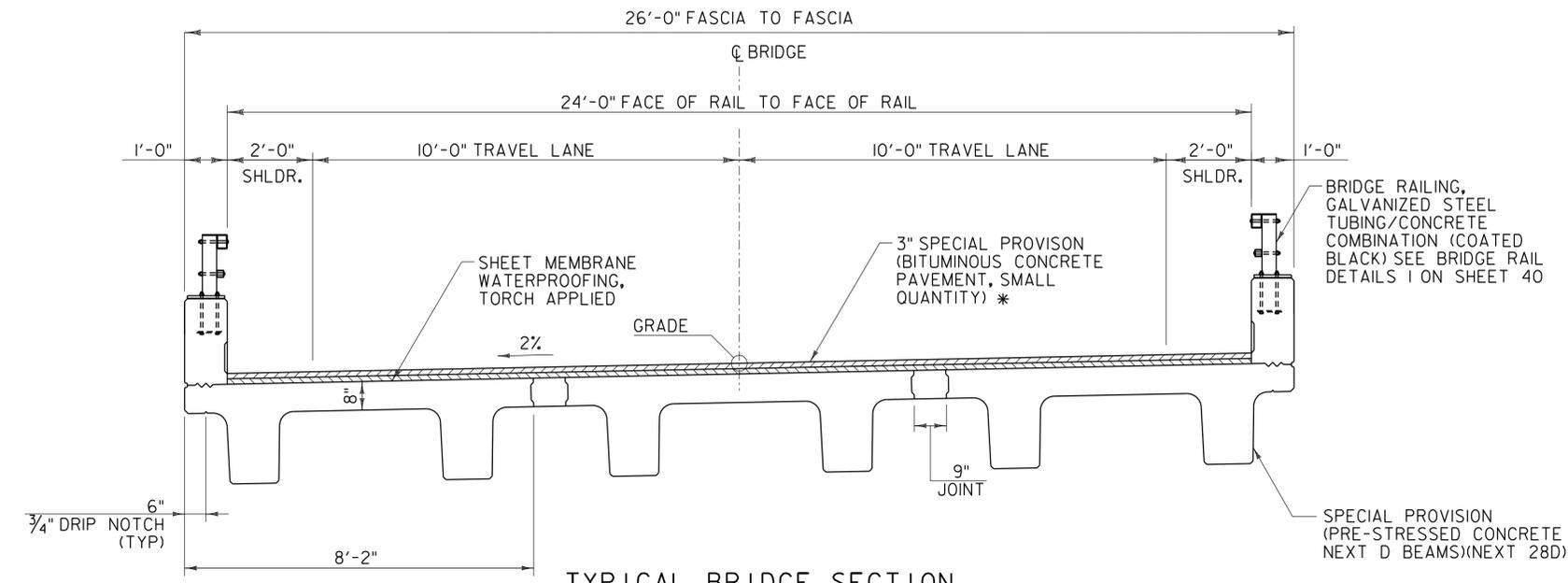
PLAN  
 SCALE: 1/4" = 1'-0"



SECTION  
 FLANGE CONNECTION DETAILS  
 SCALE: 1" = 1'-0"

SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPO).

\* DIMENSIONS ARE TO KEY IN JOINT.  
 \*\* FOUR #4 BARS SHALL BE PLACED AS SHOWN ALONG ENTIRE LENGTH OF JOINT. PAYMENT SHALL BE INCIDENTAL TO SPECIAL PROVISION (PRE-STRESSED CONCRETE NEXT D BEAMS)(NEXT 28D).



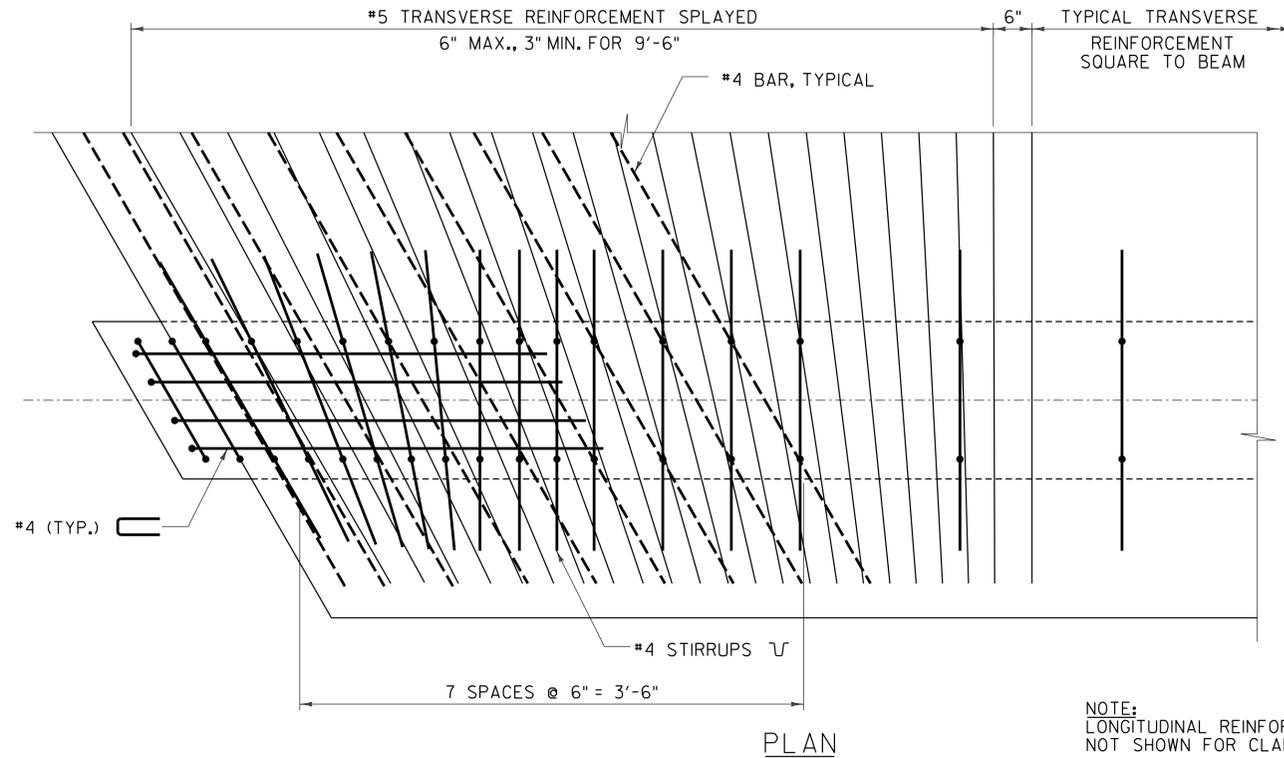
TYPICAL BRIDGE SECTION  
 SCALE: 1/2" = 1'-0"

\* 3" TYPE IVS (TWO 1 1/2" LIFTS)

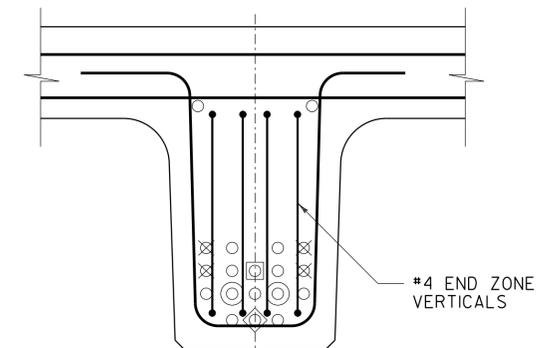
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PROJECT NAME:	CORINTH	PLLOT DATE:	8/26/2014
PROJECT NUMBER:	BRO 1447(29)	DRAWN BY:	L. BUXTON
FILE NAME:	...drawing\201292_framing.dgn	DESIGNED BY:	G. BOGUE
PROJECT LEADER:	G. BOGUE	CHECKED BY:	T. KNIGHT
FRAMING PLAN		SHEET 24 OF 57	

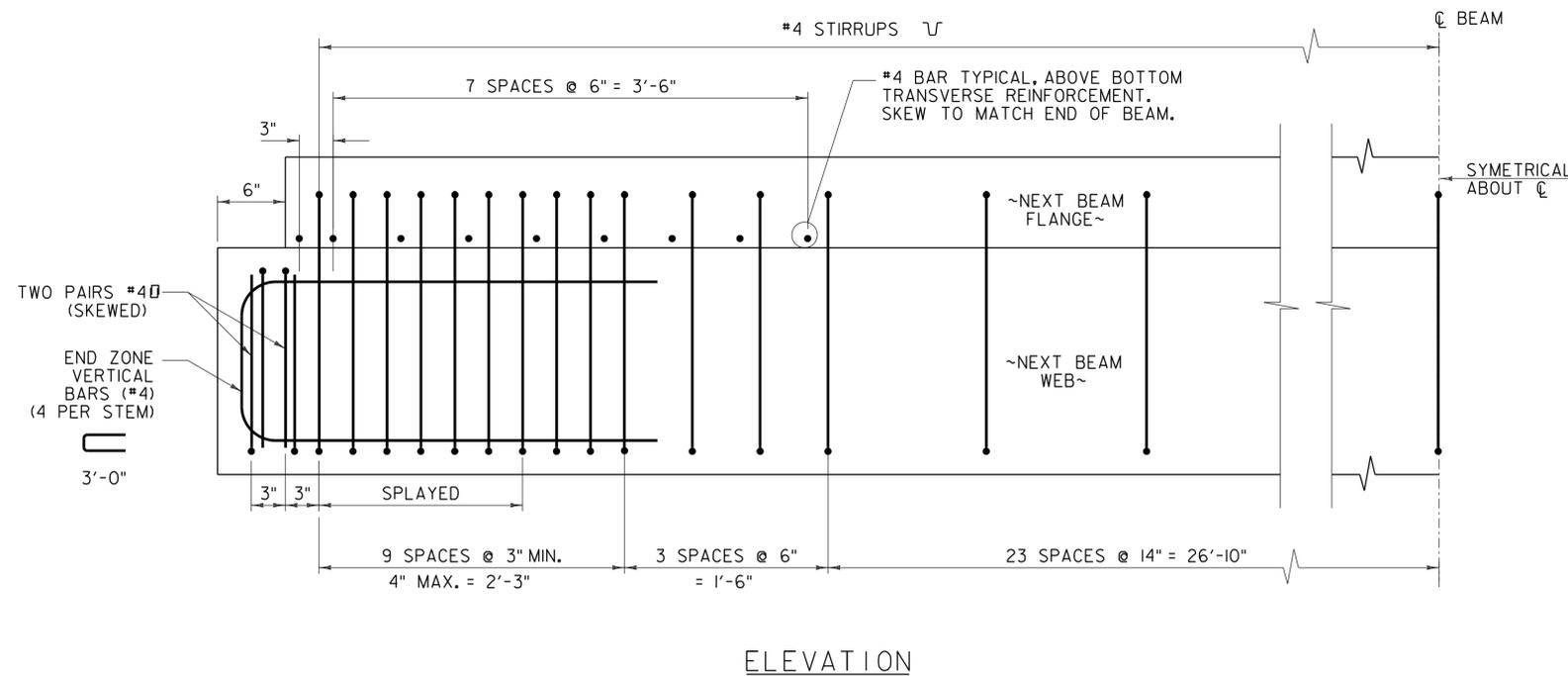


NOTE:  
LONGITUDINAL REINFORCEMENT  
NOT SHOWN FOR CLARITY.



END SECTION  
SCALE 1 1/2" = 1'-0"

- ⊗ DEBONDED 0'-6" OPTIONAL
- ⊠ DEBONDED 4'
- ⊙ DEBONDED 8'
- ◇ DEBONDED 12'



ELEVATION

ADDITIONAL END BEAM REINFORCEMENT

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

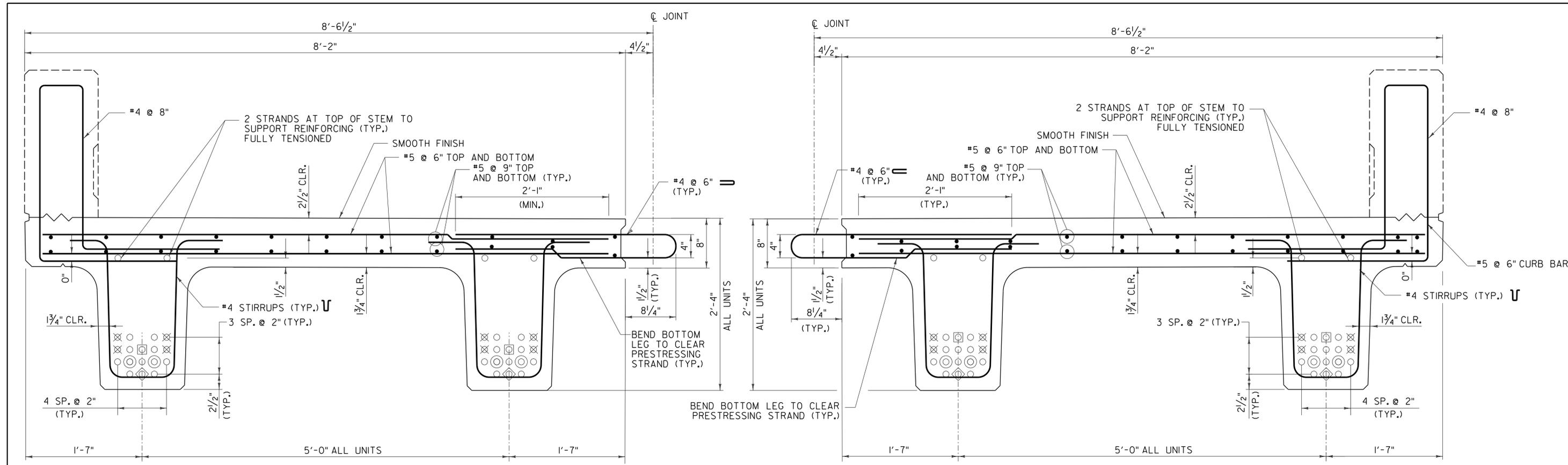
NOTE:  
TYPICAL DECK REINFORCING AND NEXT BEAM  
PRESTRESSING TENDONS NOT SHOWN FOR CLARITY

8/26/2014 11:42:20 AM V:\1953\loc\five\19530795\Tran\spport\of\ton\dr\awing\z01292\_next\_beam\_dets.dgn



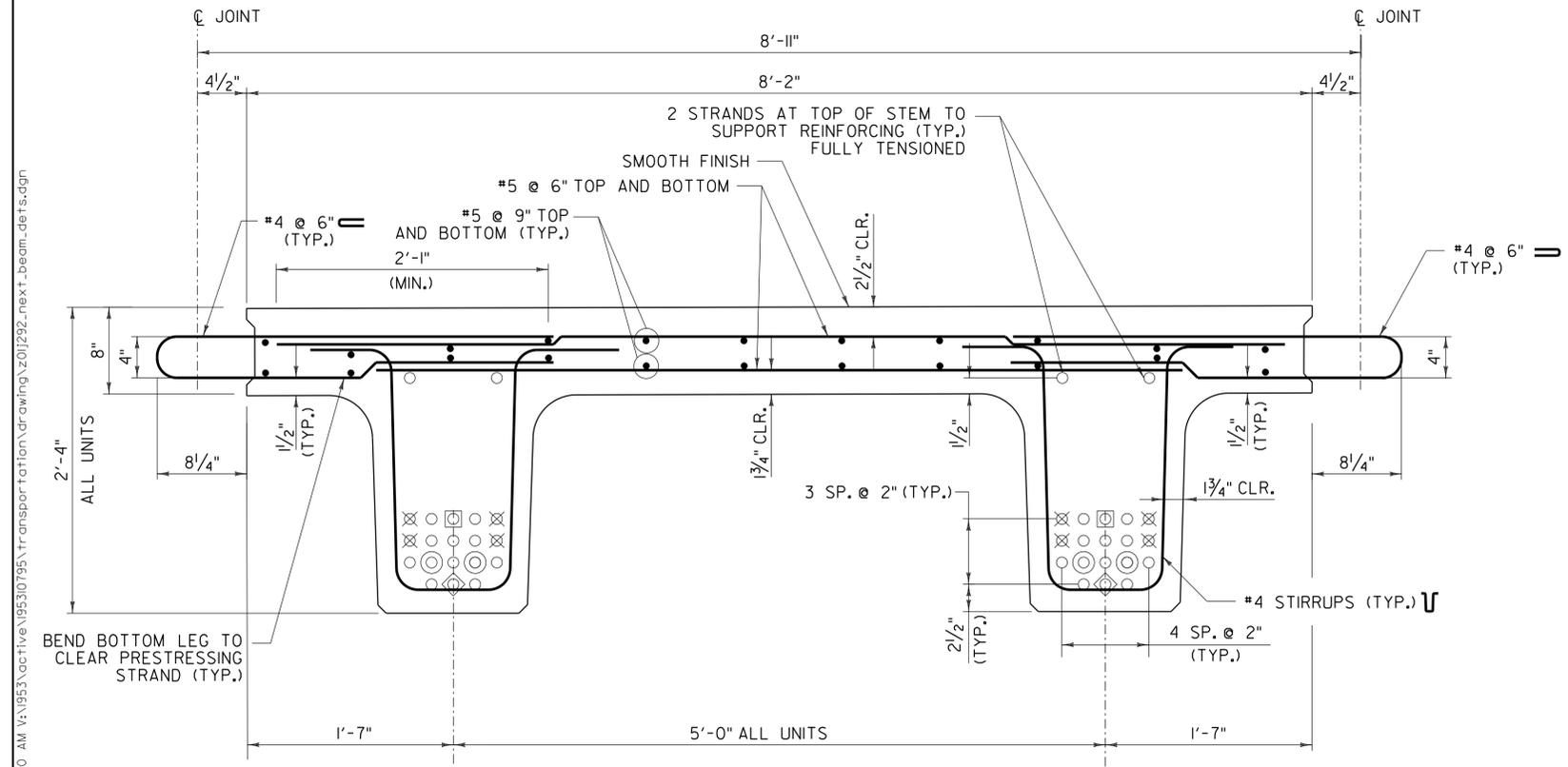
PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...z01292\_next\_beam\_dets.dgn PLOT DATE: 8/26/2014  
PROJECT LEADER: G. BOGUE DRAWN BY: L. BUXTON  
DESIGNED BY: G. BOGUE CHECKED BY: T. KNIGHT  
**NEXT BEAM DETAILS 1** SHEET 25 OF 57



UNIT 1  
TYPICAL BEAM REINFORCING  
SCALE 1 1/2" = 1'-0"

UNIT 3  
TYPICAL BEAM REINFORCING  
SCALE 1 1/2" = 1'-0"



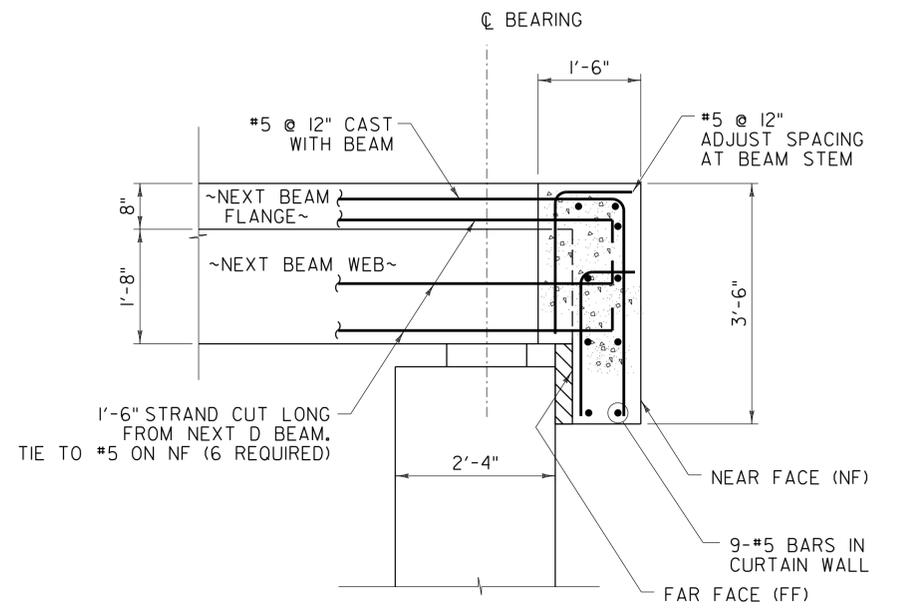
UNIT 2  
TYPICAL BEAM REINFORCING  
SCALE 1 1/2" = 1'-0"

- NOTES:
1. LEAVE SIX STRANDS 1'-6" LONG AT BOTH ENDS OF BEAM. SEE PRECAST CURTAIN WALL REINFORCING SECTION A-A ON SHEET 27.
  2. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCING STEEL.

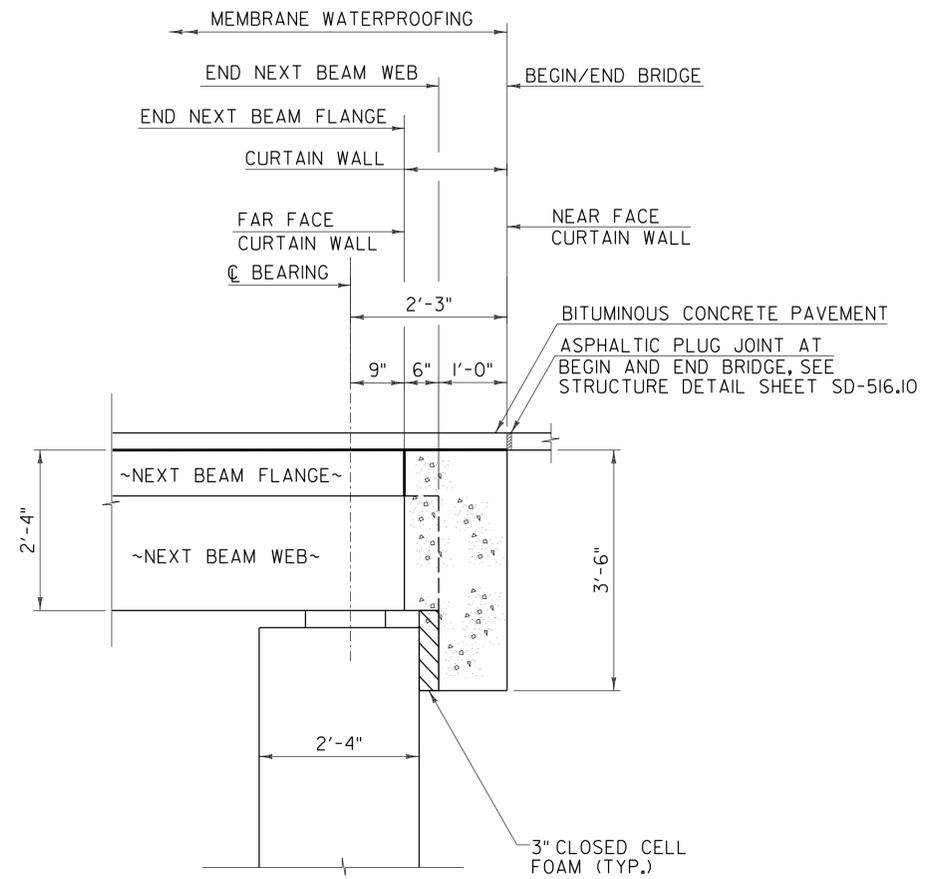
PROJECT NAME:	CORINTH
PROJECT NUMBER:	BRO 1447(29)
FILE NAME:	...z01j292_next_beam_dets.dgn
PROJECT LEADER:	G. BOGUE
DESIGNED BY:	G. BOGUE
NEXT BEAM DETAILS	2
PLOT DATE:	8/26/2014
DRAWN BY:	L. BUXTON
CHECKED BY:	T. KNIGHT
SHEET	26 OF 57



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PRECAST CURTAIN WALL REINFORCING SECTION A-A  
SCALE  $\frac{3}{4}'' = 1'-0''$



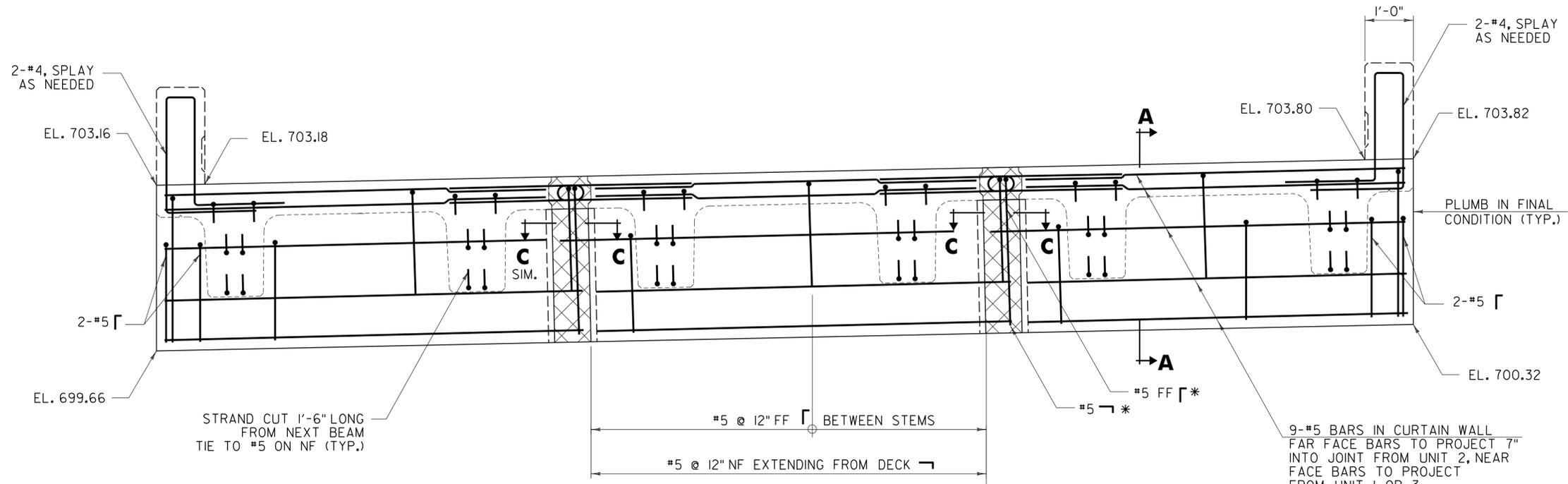
BRIDGE END DETAIL  
SCALE  $\frac{3}{4}'' = 1'-0''$

NOTE:  
FOR LOCATION OF SECTION A-A,  
REFER TO SHEET 28.

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...z01j292.curtain.wall.dets.dgn PLOT DATE: 8/26/2014  
PROJECT LEADER: G. BOGUE DRAWN BY: L. BUXTON  
DESIGNED BY: G. BOGUE CHECKED BY: T. KNIGHT  
CURTAIN WALL DETAILS 1 SHEET 27 OF 57

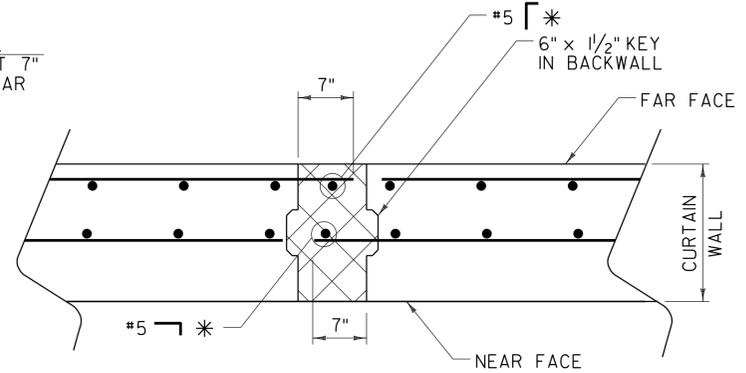




ABUTMENT 1 CURTAIN WALL ELEVATION

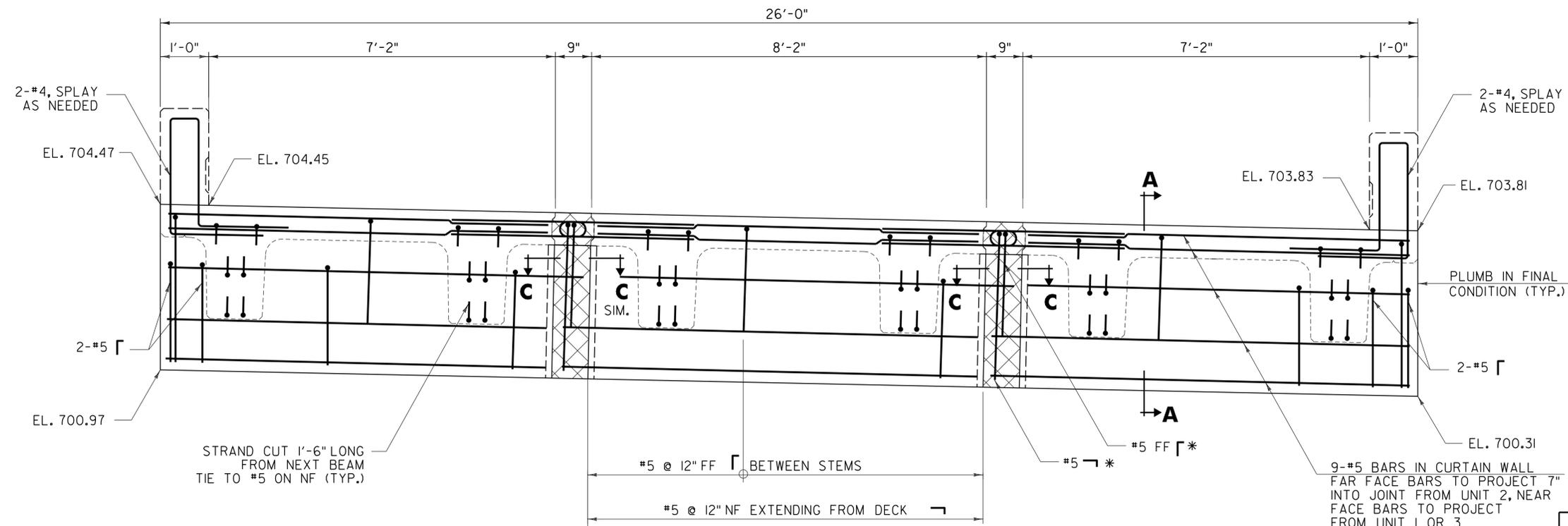
SCALE 3/4" = 1'-0"

\* BARS FOR CLOSURE POUR INCIDENTAL TO PRECAST ITEM (TYP.)



SECTION C-C

SCALE 1" = 1'-0"



ABUTMENT 2 CURTAIN WALL ELEVATION

SCALE 3/4" = 1'-0"

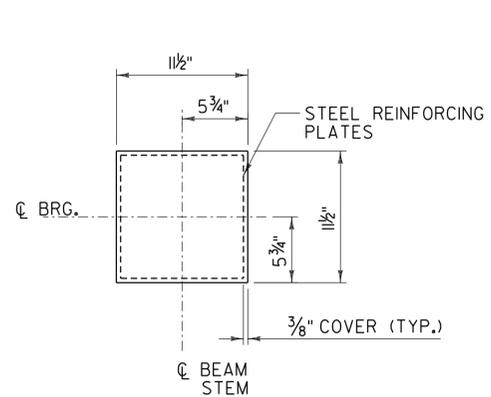
\* BARS FOR CLOSURE POUR INCIDENTAL TO PRECAST ITEM (TYP.)

NOTE:  
FOR SECTION A-A,  
REFER TO SHEET 27.

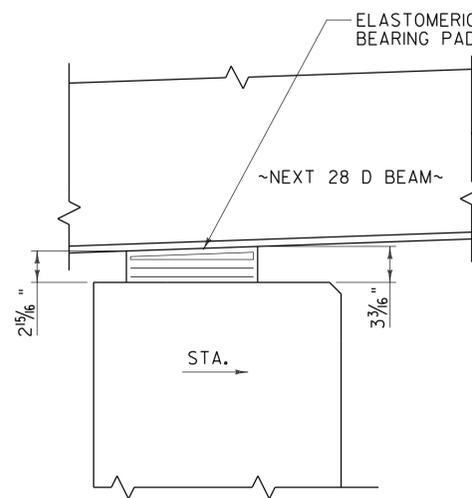
PROJECT NAME:	CORINTH
PROJECT NUMBER:	BRO 1447(29)
FILE NAME: ...z01j292.curtain.wall.dets.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: L. BUXTON
DESIGNED BY: G. BOGUE	CHECKED BY: T. KNIGHT
<b>CURTAIN WALL DETAILS 2</b>	SHEET 28 OF 57



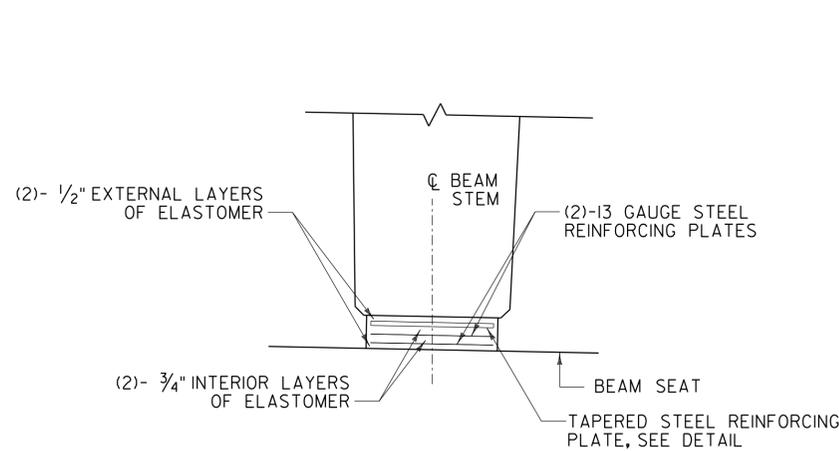
8/26/2014 11:42:22 AM V:\1953\oc\live\19530795\tr-anspor-tation\drawing\z01j292.curtain.wall.dets.dgn



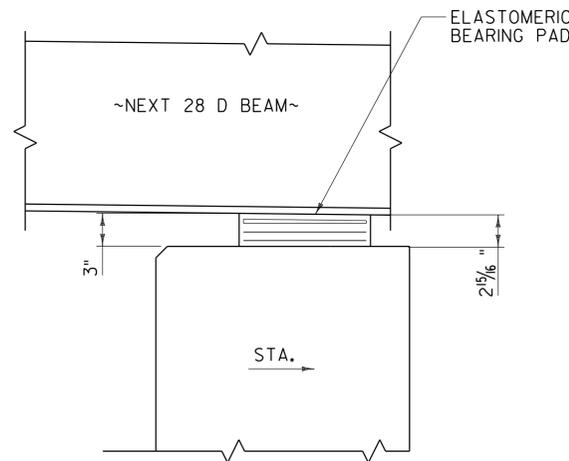
ELASTOMERIC BEARING PLAN



SIDE ELEVATION - ABUTMENT 1



FRONT ELEVATION



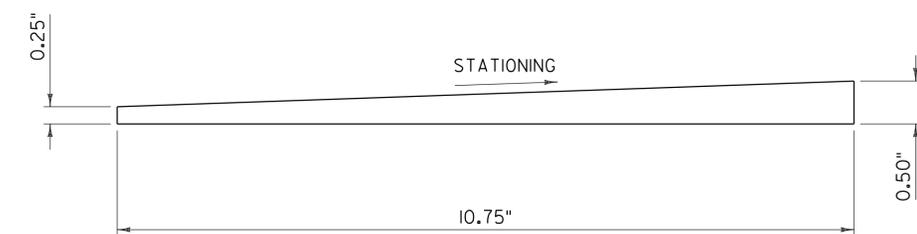
SIDE ELEVATION - ABUTMENT 2

ELASTOMERIC BEARING ASSEMBLY

SCALE 1/2" = 1'-0"

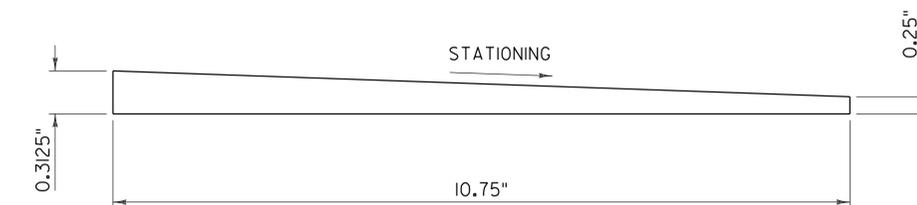
BEARING NOTES:

1. BEARINGS SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF STANDARD SPECIFICATIONS SECTIONS 531 AND 731.
2. ALL REINFORCEMENT BETWEEN LAYERS OF ELASTOMER SHALL BE STEEL MEETING THE REQUIREMENTS OF SUBSECTION 714.02. ALL INTERNAL STEEL PLATES SHALL BE SAND BLASTED AND FREE OF COATING, RUST AND MILL SCALE. THE PLATES SHALL BE FREE OF SHARP EDGES AND BURRS.
3. THE BEARINGS ARE DESIGNED SO THAT THE SUPERSTRUCTURE MAY BE ERECTED WHEN THE BEAM TEMPERATURE IS WITHIN THE RANGE OF 20 DEGREES F AND 70 DEGREES F WITHOUT ADJUSTING THE BEARINGS FOR TEMPERATURE. IF THE BEAM TEMPERATURE IS OUTSIDE THIS RANGE, THE BEARINGS SHALL BE RESET AS DIRECTED BY THE RESIDENT.
4. STEEL REINFORCED ELASTOMERIC BEARINGS WERE DESIGNED PER METHOD = A.
5. THE ELASTOMER WAS DESIGNED WITH A SHEAR MODULUS OF 152 PSI +/- 15%.
6. ABUTMENT 1 AND 2 BEARINGS
  - A. DESIGN DEAD LOAD REACTION = 34.87 KIPS/BEARING
  - B. DESIGN LIVE LOAD REACTION = 37.68 KIPS/BEARING (NO IMPACT)
  - C. ROTATION CAPACITY = 0.018 RADIANS
  - D. LONGITUDINAL DESIGN TRANSLATION = 0.432"
7. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND SHALL BE VISIBLE AFTER THE BEARING IS INSTALLED.
8. THE ELASTOMER SHALL BE NEOPRENE MEETING THE REQUIREMENTS OF SUBSECTION 731.03.
9. BEARING DESIGN SHALL BE PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 5TH EDITION AND ITS LATEST REVISIONS.
10. ALTERNATE CONFIGURATIONS FOR BEARINGS MAY BE SUBMITTED FOR APPROVAL. ANY ALTERNATE SUBMITTED SHALL BE DESIGNED AND CERTIFIED TO MEET THE DESIGN LOADS AND CRITERIA SHOWN ON THE PLANS.



ABUTMENT 1 STEEL REINFORCING PLATE DETAIL

NOT TO SCALE



ABUTMENT 2 STEEL REINFORCING PLATE DETAIL

NOT TO SCALE

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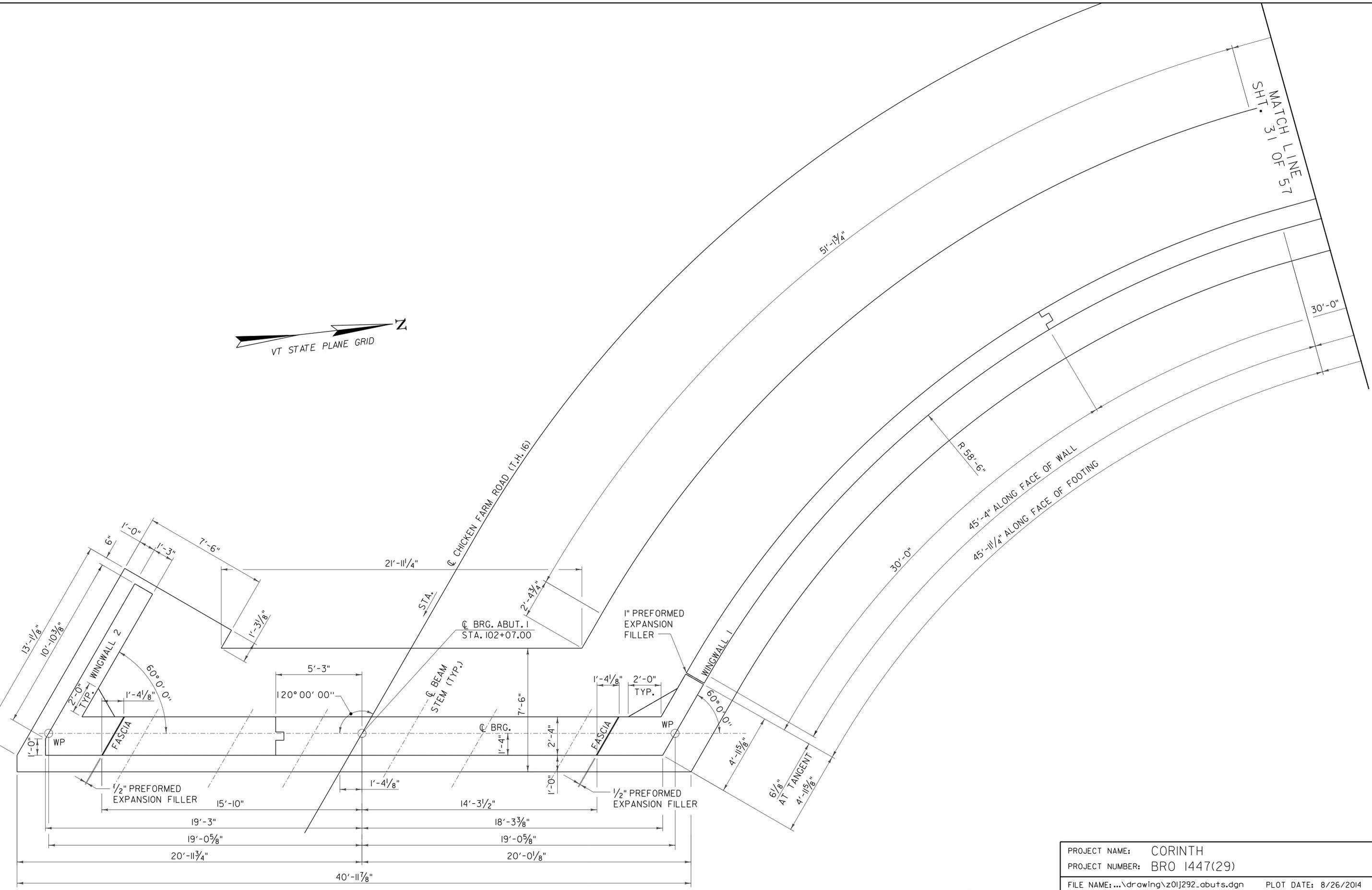
PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_brgs.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: J. HUNGERFORD  
**BEARING DETAILS**

PLOT DATE: 8/26/2014  
DRAWN BY: L. BUXTON  
CHECKED BY: G. BOGUE  
SHEET 29 OF 57



8/26/2014 11:42:26 AM V:\1953\oc\five\19530795\Tronsp\Tofion\drawing\201292\_abut1.dgn



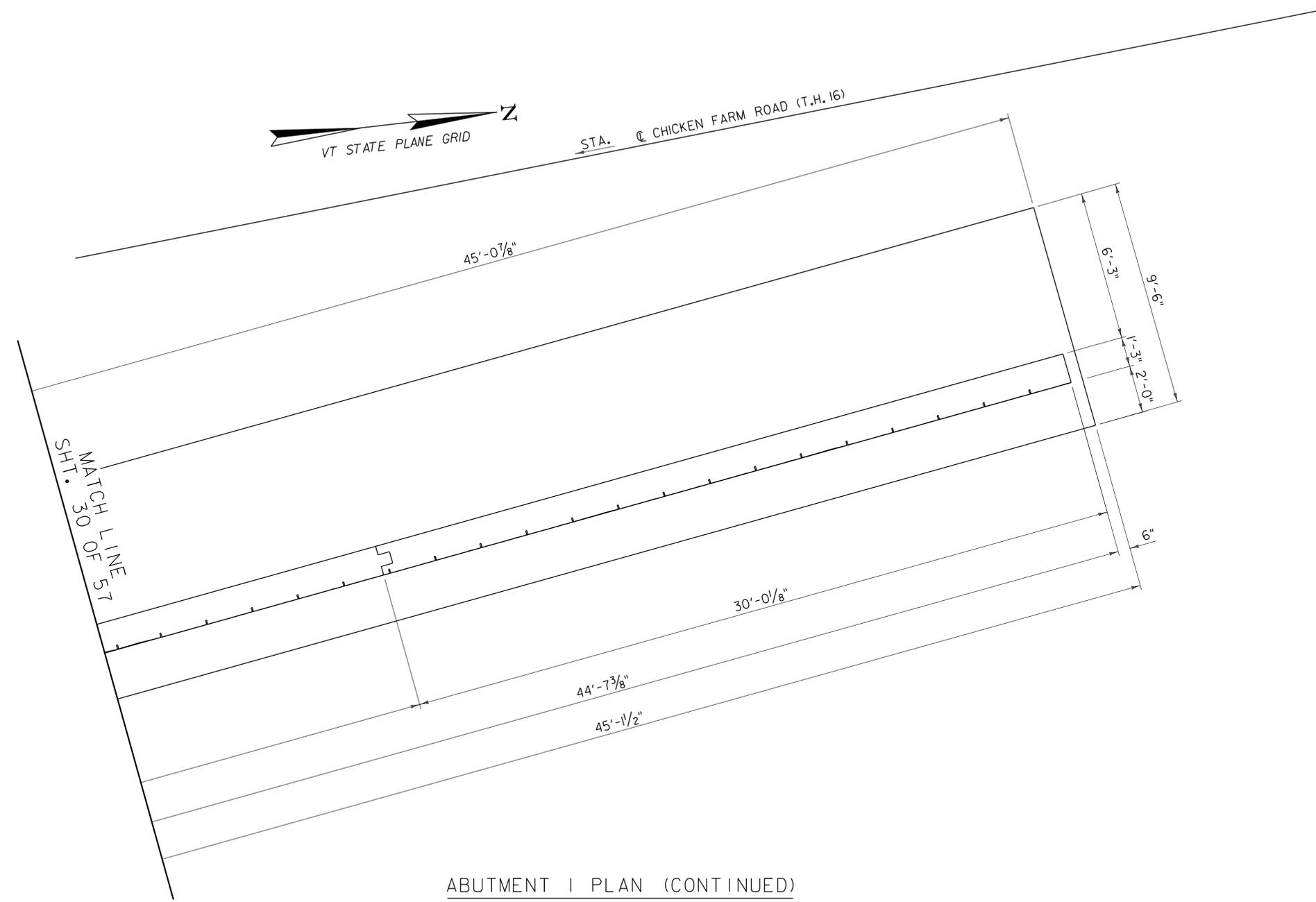
ABUTMENT 1 PLAN  
SCALE 3/8" = 1'-0"

PROJECT NAME: CORINTH	
PROJECT NUMBER: BRO 1447(29)	
FILE NAME: ...drawing\201292_abut1.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: L. BUXTON
DESIGNED BY: J. HUNGERFORD	CHECKED BY: G. BOGUE
<b>ABUTMENT 1 MASONRY 1</b>	SHEET 30 OF 57





STA. & CHICKEN FARM ROAD (T.H. 16)



ABUTMENT I PLAN (CONTINUED)

SCALE 3/8" = 1'-0"

8/26/2014 11:42:28 AM V:\1953\active\19530795\transport\oflon\drawing\z01292.abuts.dgn

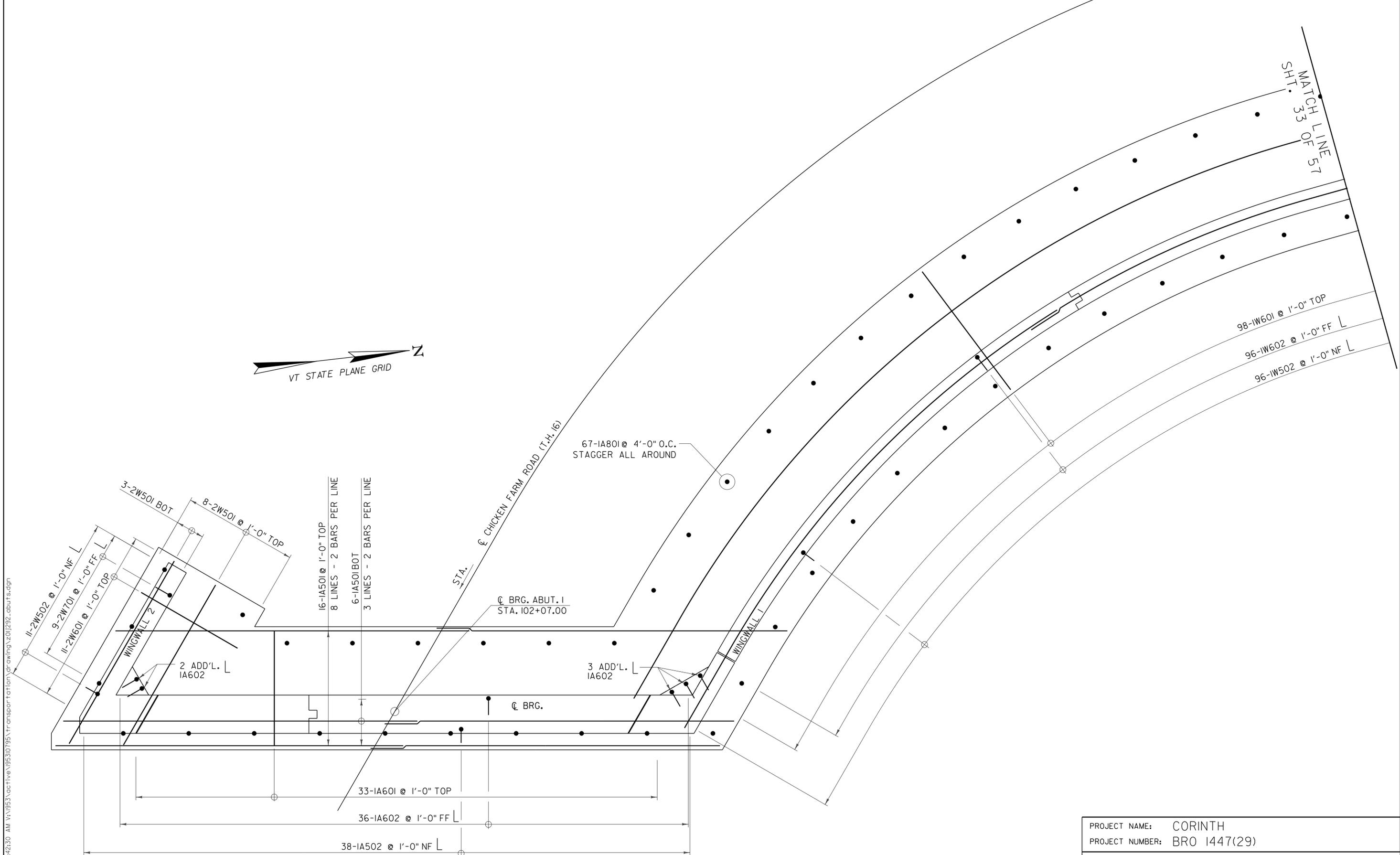


PROJECT NAME: CORINTH	PLLOT DATE: 8/26/2014
PROJECT NUMBER: BRO 1447(29)	DRAWN BY: L. BUXTON
FILE NAME: ...drawing\z01292.abuts.dgn	DESIGNED BY: J. HUNGERFORD
PROJECT LEADER: G. BOGUE	CHECKED BY: G. BOGUE
DESIGNED BY: J. HUNGERFORD	SHEET 31 OF 57
<b>ABUTMENT 1 MASONRY 2</b>	

8/26/2014 11:42:30 AM V:\1953\oc\hive\19530795\Transport\off\on\drawing\201292\_abuts.dgn



MATCH LINE  
SHT. 33 OF 57



CHICKEN FARM ROAD (T.H. 16)  
STA. 102+07.00

67-IA801 @ 4'-0" O.C.  
STAGGER ALL AROUND

98-IW601 @ 1'-0" TOP  
96-IW602 @ 1'-0" FF L  
96-IW502 @ 1'-0" NF L

11-2W502 @ 1'-0" NF L  
9-2W701 @ 1'-0" FF L  
11-2W601 @ 1'-0" TOP  
3-2W501 BOT  
8-2W501 @ 1'-0" TOP

16-IA501 @ 1'-0" TOP  
8 LINES - 2 BARS PER LINE  
6-IA501 BOT  
3 LINES - 2 BARS PER LINE

BRG. ABUT. 1  
STA. 102+07.00

3 ADD'L. IA602

2 ADD'L. IA602

BRG.

33-IA601 @ 1'-0" TOP

36-IA602 @ 1'-0" FF L

38-IA502 @ 1'-0" NF L

ABUTMENT 1 FOOTING REINFORCEMENT

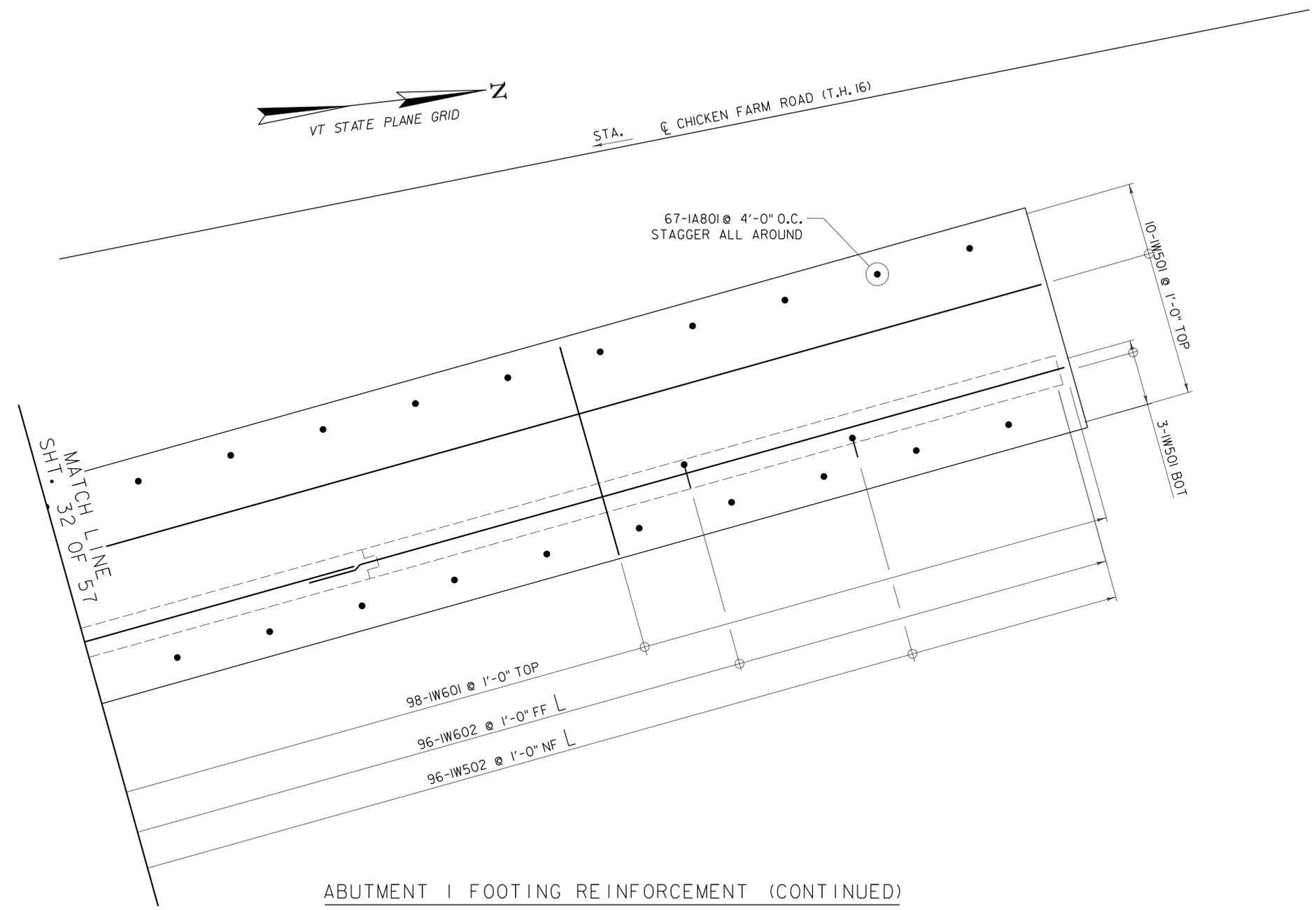
SCALE 3/8" = 1'-0"

PROJECT NAME: CORINTH	
PROJECT NUMBER: BRO 1447(29)	
FILE NAME: ...drawing\201292_abuts.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: L. BUXTON
DESIGNED BY: J. HUNGERFORD	CHECKED BY: G. BOGUE
<b>ABUTMENT 1 FOOTING REINFORCEMENT 1</b> SHEET 32 OF 57	





STA.  $\bar{C}$  CHICKEN FARM ROAD (T.H. 16)



ABUTMENT 1 FOOTING REINFORCEMENT (CONTINUED)

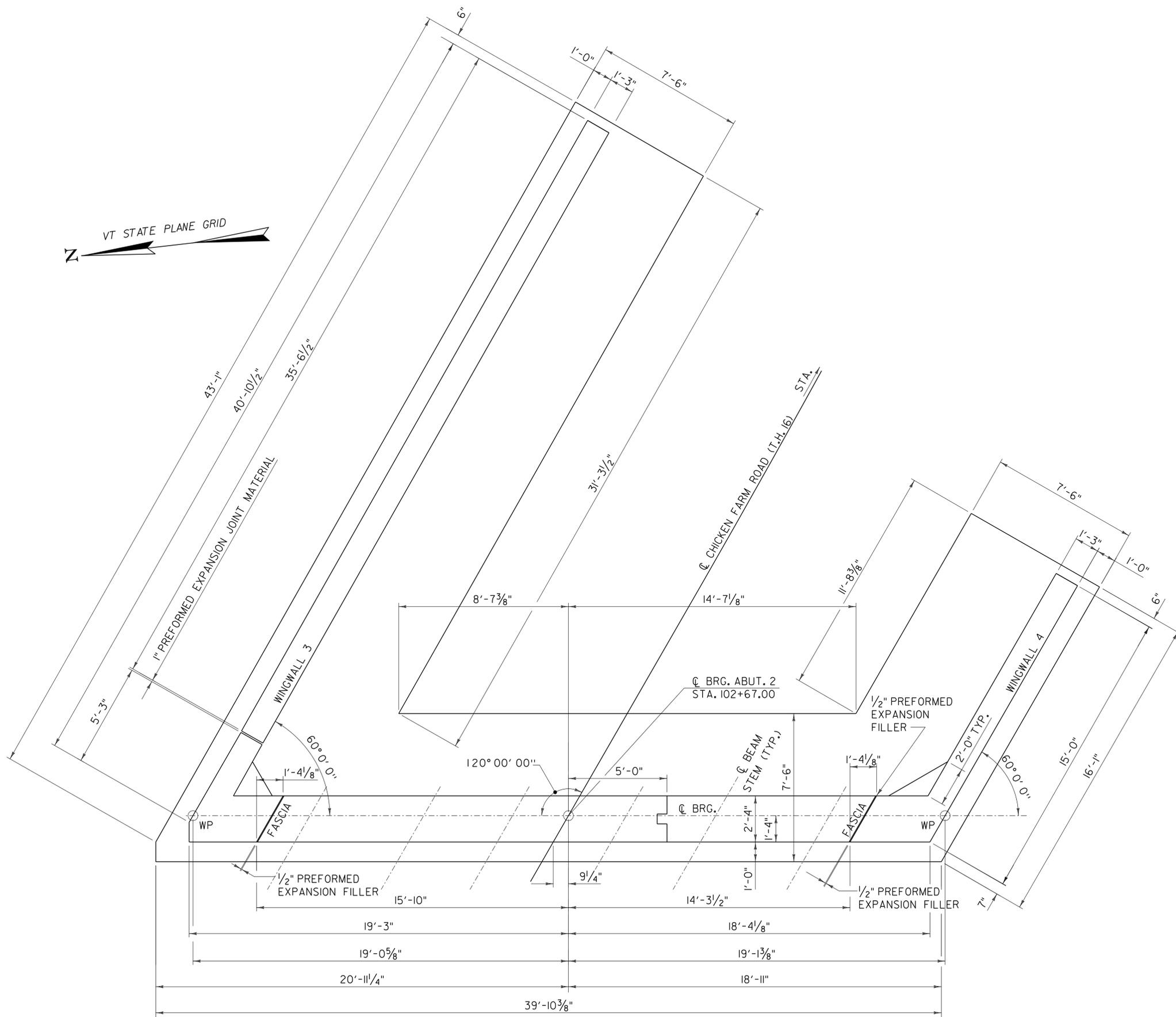
SCALE  $\frac{3}{8}$ " = 1'-0"

8/26/2014 11:42:32 AM V:\1953\oc\hive\19530795\tr-anspor\of\on\drawing\z01j292-abuts.dgn



PROJECT NAME: CORINTH	PLOT DATE: 8/26/2014
PROJECT NUMBER: BRO 1447(29)	DRAWN BY: L. BUXTON
FILE NAME: ...drawing\z01j292-abuts.dgn	DESIGNED BY: J. HUNGERFORD
PROJECT LEADER: G. BOGUE	CHECKED BY: G. BOGUE
<b>ABUTMENT 1 FTG. REINFORCEMENT 2</b>	
SHEET 33 OF 57	





ABUTMENT 2 PLAN

SCALE  $\frac{3}{8}'' = 1'-0''$

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

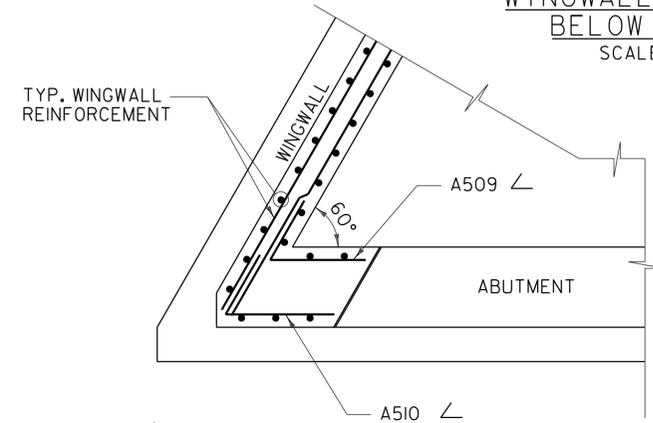
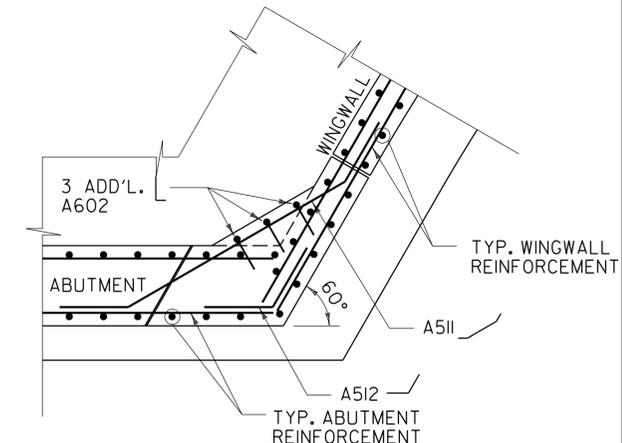
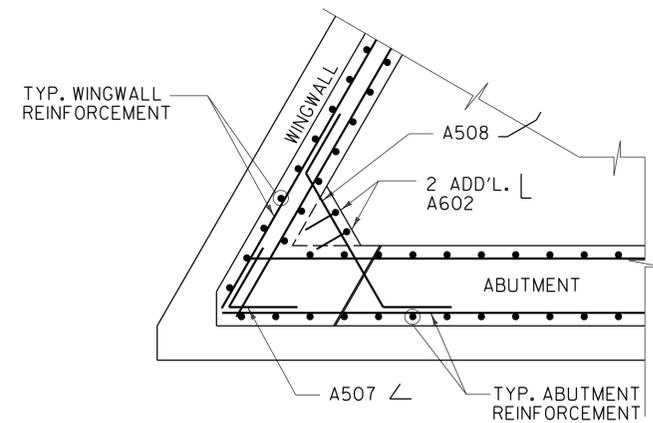
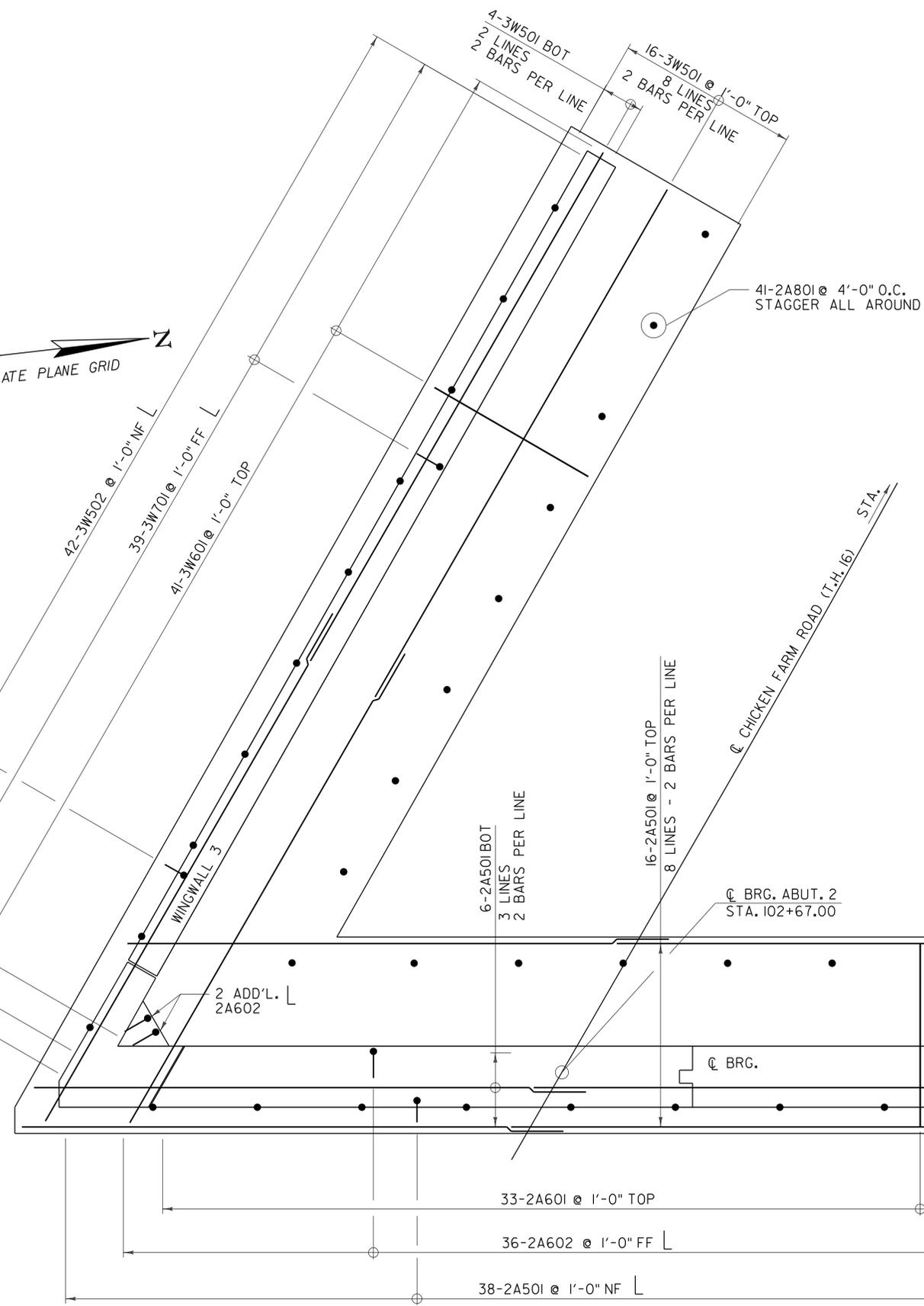
FILE NAME: ...drawing\z01j292\_abuts.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: J. HUNGERFORD  
**ABUTMENT 2 MASONRY**

PLOT DATE: 8/26/2014  
DRAWN BY: L. BUXTON  
CHECKED BY: G. BOGUE  
SHEET 35 OF 57

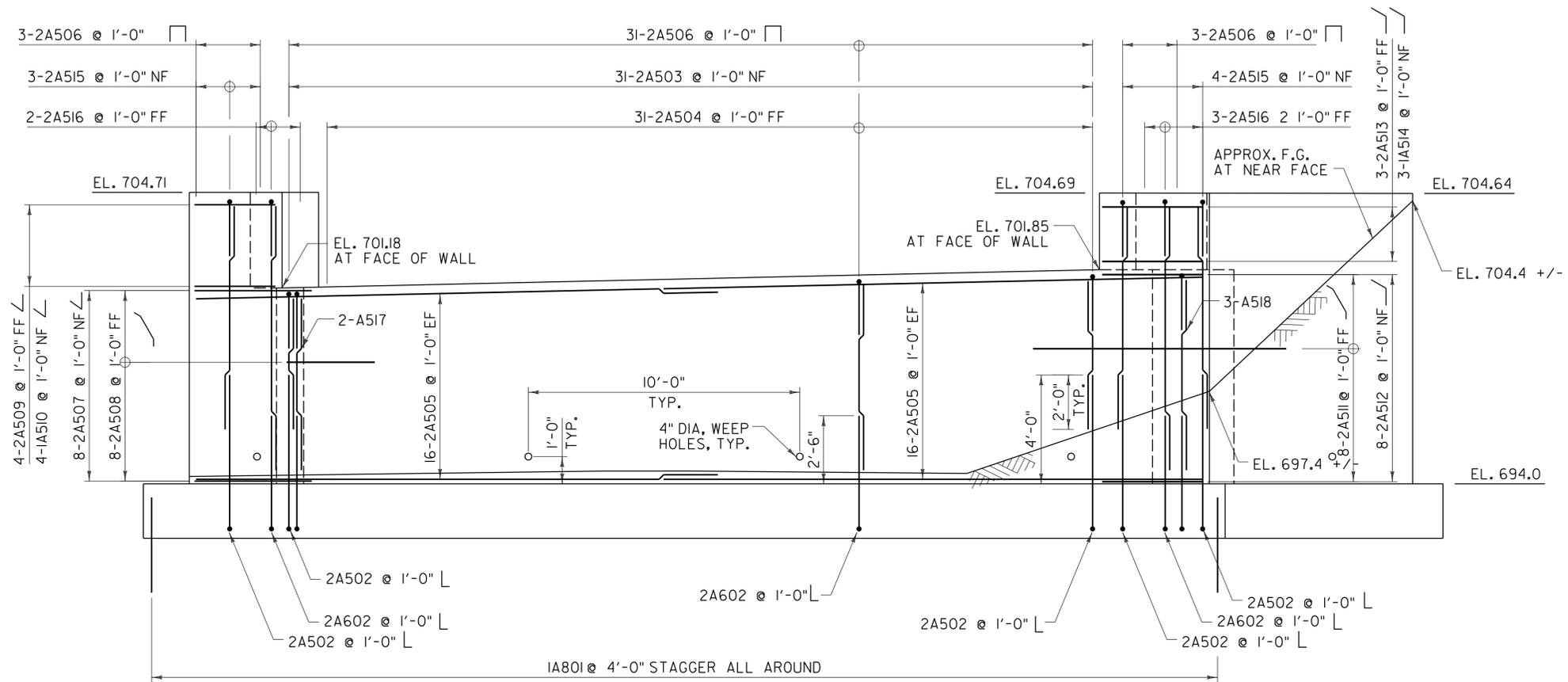


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8/26/2014 11:42:38 AM V:\1953\oc\five\19530795\transport\off\om\drawing\z01j292\_abuts.dgn



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### ABUTMENT 2 REINFORCEMENT

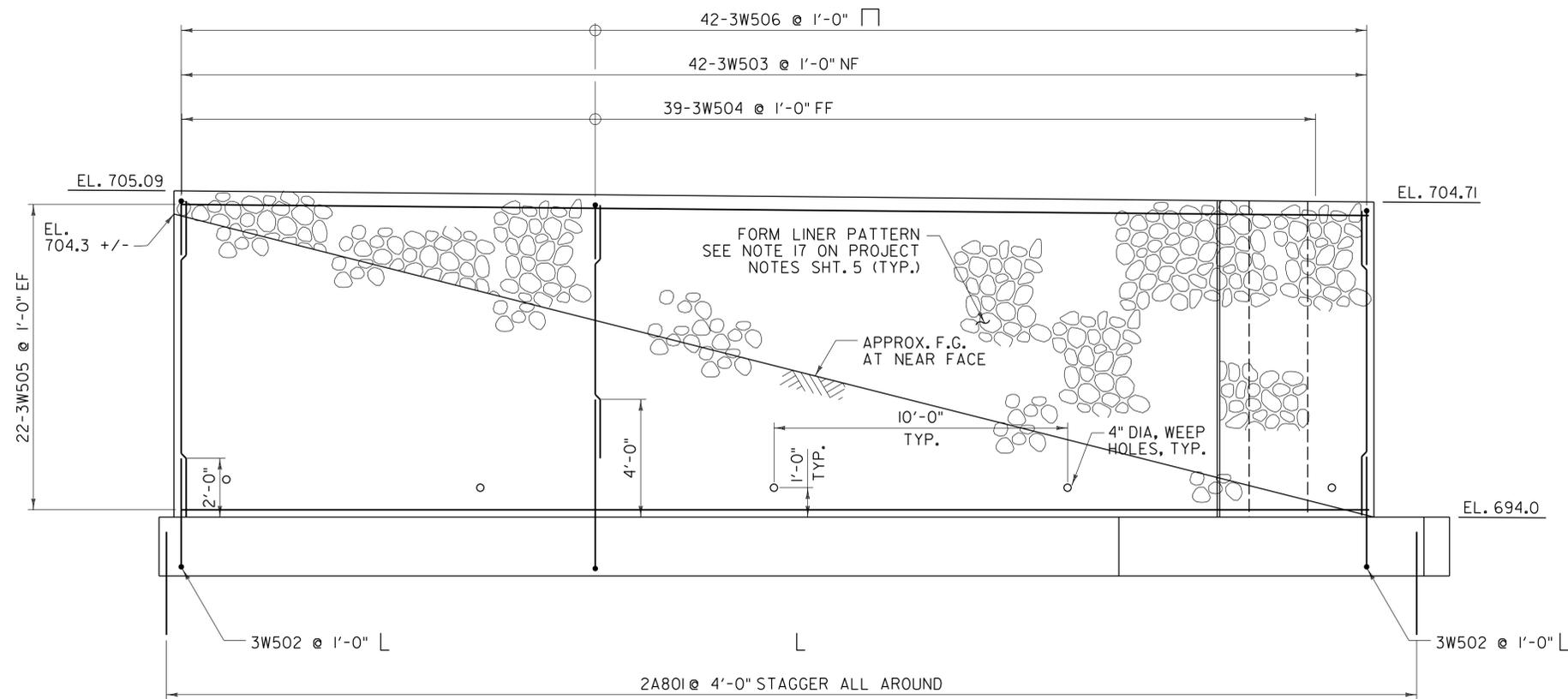
SCALE 3/8" = 1'-0"

PROJECT NAME: CORINTH  
 PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292.abuts.dgn  
 PROJECT LEADER: G. BOGUE  
 DESIGNED BY: J. HUNGERFORD  
 PLOT DATE: 8/26/2014  
 DRAWN BY: L. BUXTON  
 CHECKED BY: G. BOGUE  
 SHEET 37 OF 57

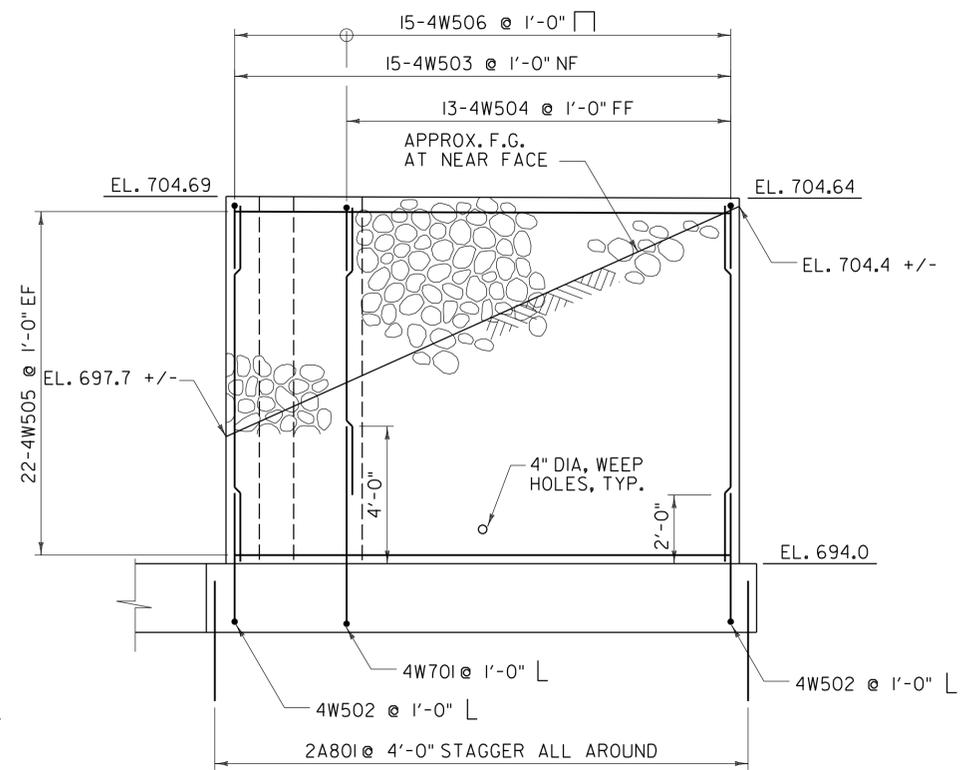


**ABUTMENT 2 REINFORCEMENT**



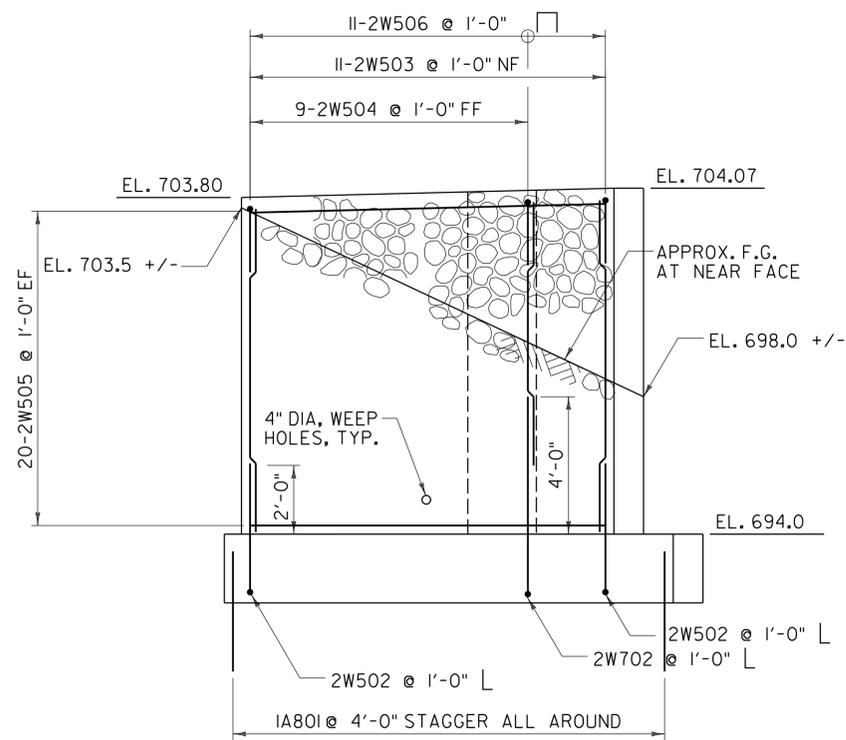
WINGWALL 3 ELEVATION

SCALE 3/8" = 1'-0"



WINGWALL 4 ELEVATION

SCALE 3/8" = 1'-0"



WINGWALL 2 ELEVATION

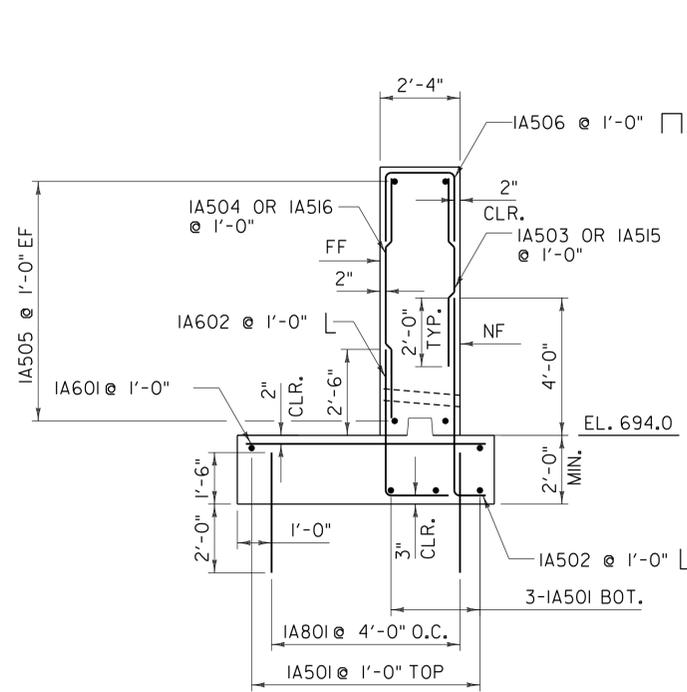
SCALE 3/8" = 1'-0"

8/26/2014 11:42:42 AM V:\1953\oc\five\19530795\tr-anspor\offon\drawing\z01j292\_abuts.dgn

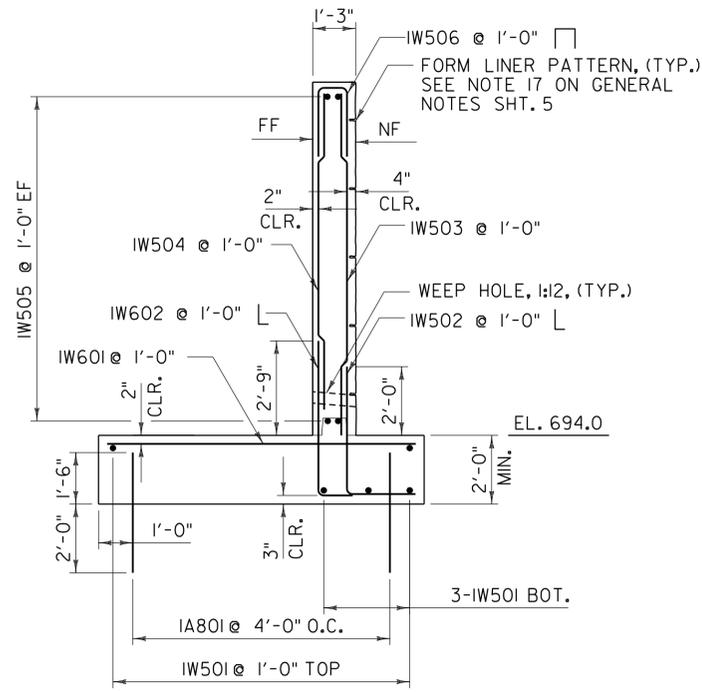
PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_abuts.dgn PLOT DATE: 8/26/2014  
PROJECT LEADER: G. BOGUE DRAWN BY: L. BUXTON  
DESIGNED BY: J. HUNGERFORD CHECKED BY: G. BOGUE  
WINGWALL 2, 3 & 4 REINFORCEMENT SHEET 38 OF 57

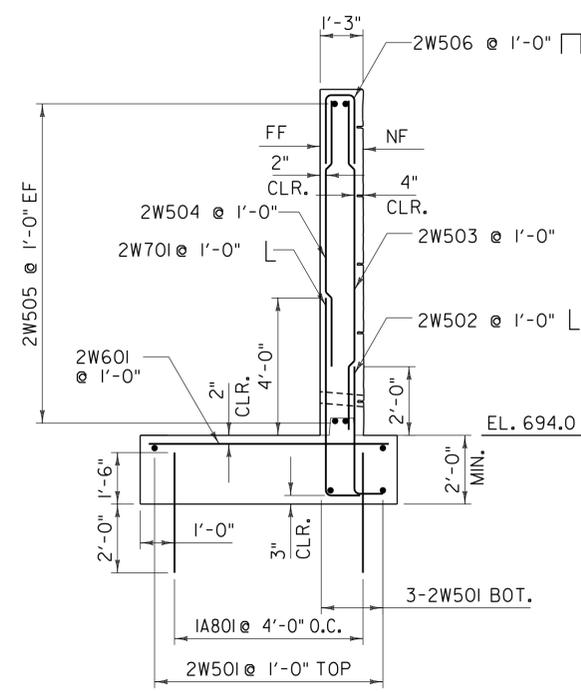




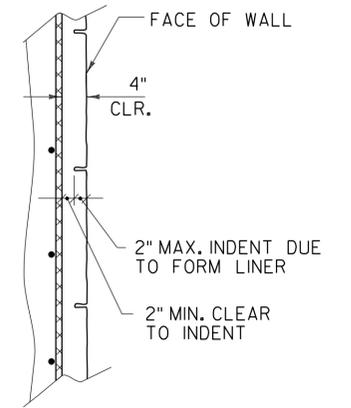
ABUTMENT No. 1 SECTION  
SCALE: 3/8" = 1'-0"



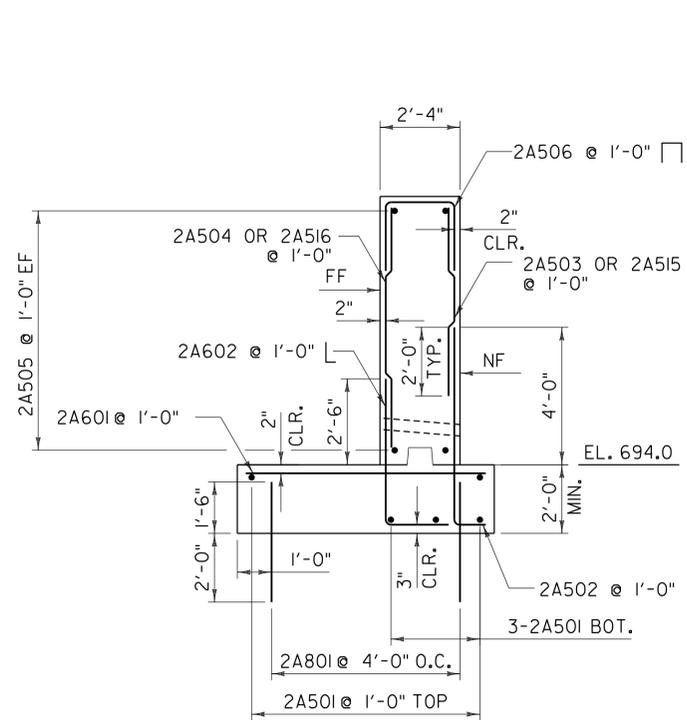
WINGWALL No. 1 SECTION  
SCALE: 3/8" = 1'-0"



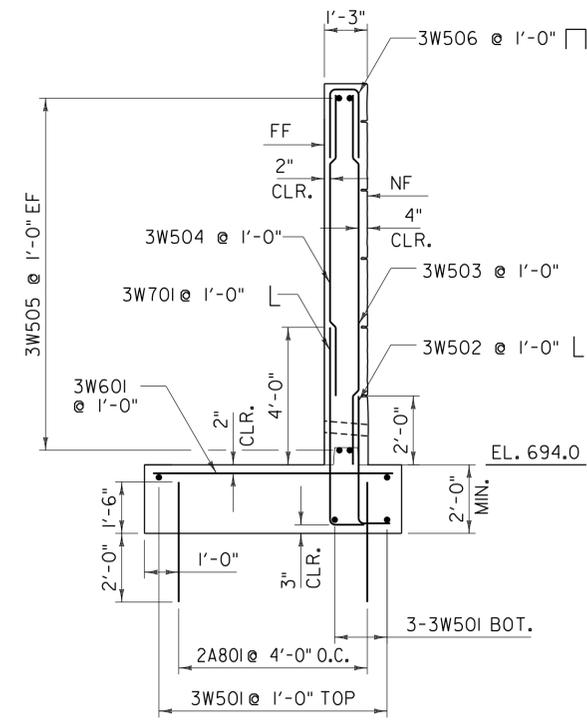
WINGWALL No. 2 SECTION  
SCALE: 3/8" = 1'-0"



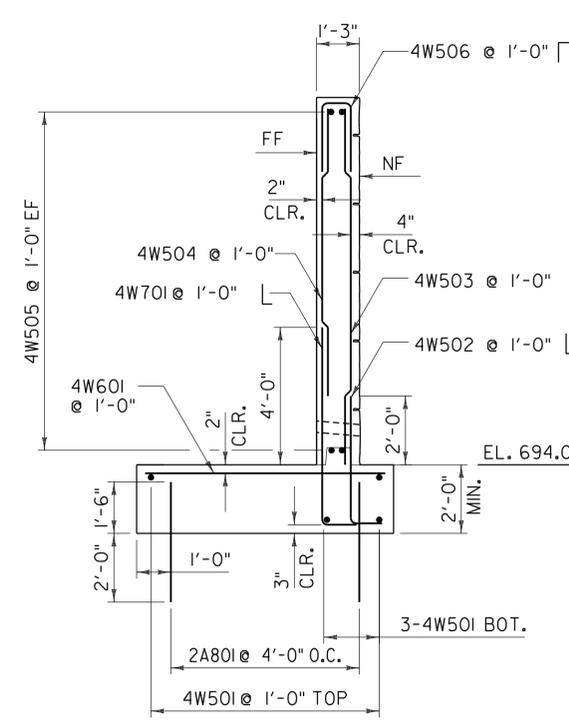
FORM LINER  
CLEAR COVER DETAIL  
NOT TO SCALE



ABUTMENT No. 2 SECTION  
SCALE: 3/8" = 1'-0"



WINGWALL No. 3 SECTION  
SCALE: 3/8" = 1'-0"



WINGWALL No. 4 SECTION  
SCALE: 3/8" = 1'-0"

NOTE:  
IA801 AND 2A801 ARE DOWELS INTO LEDGE.

NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
▲ = CUT TO FIT IN FIELD

3" CLEAR UNLESS OTHERWISE SPECIFIED ON PLANS.

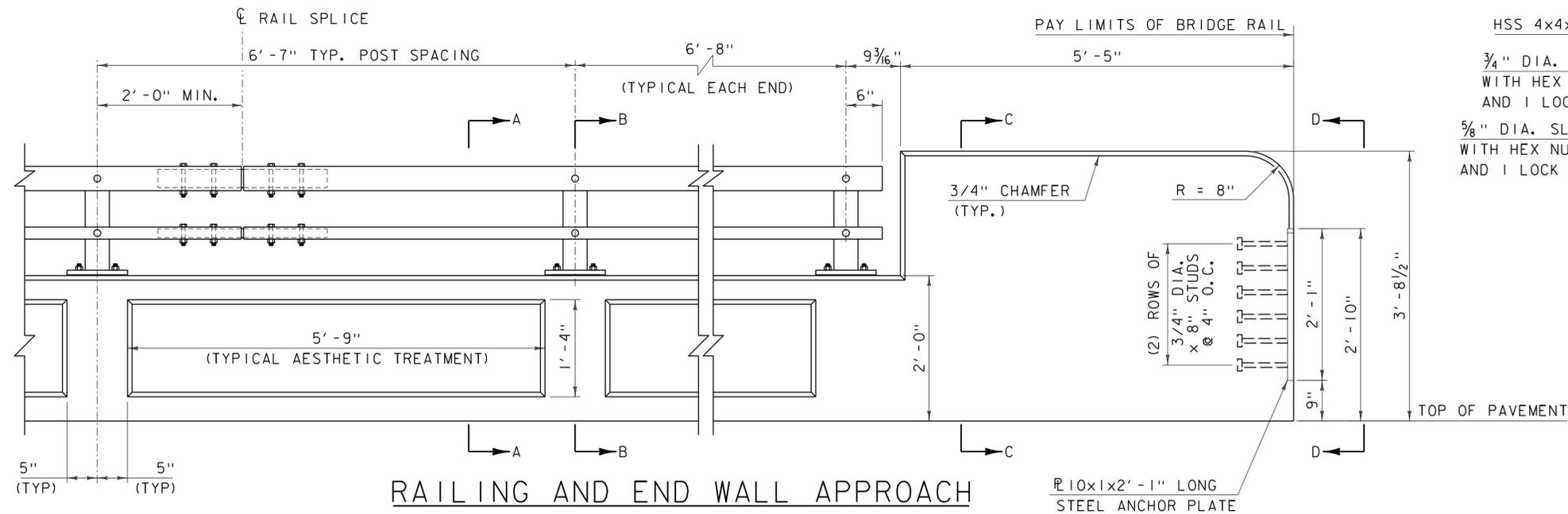
ALL LAPS ARE 2'-0" UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

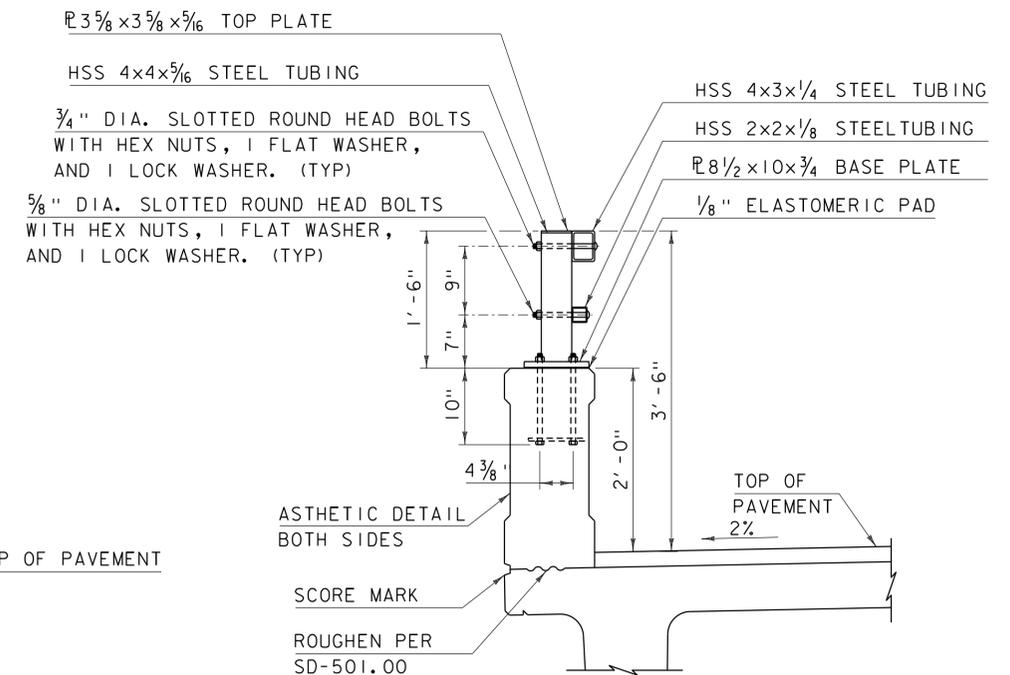
FILE NAME: ...drawing\z01j292.abuts.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: J. HUNGERFORD  
ABUTMENT & WINGWALL SECTIONS

PLOT DATE: 8/26/2014  
DRAWN BY: L. BUXTON  
CHECKED BY: G. BOGUE  
SHEET 39 OF 57

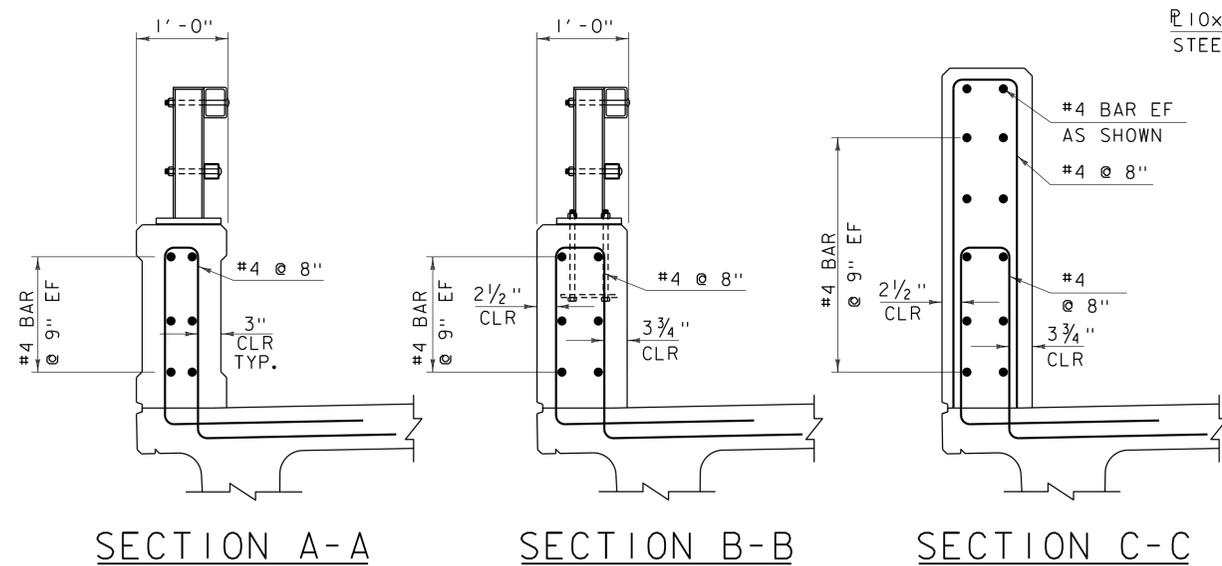




RAILING AND END WALL APPROACH



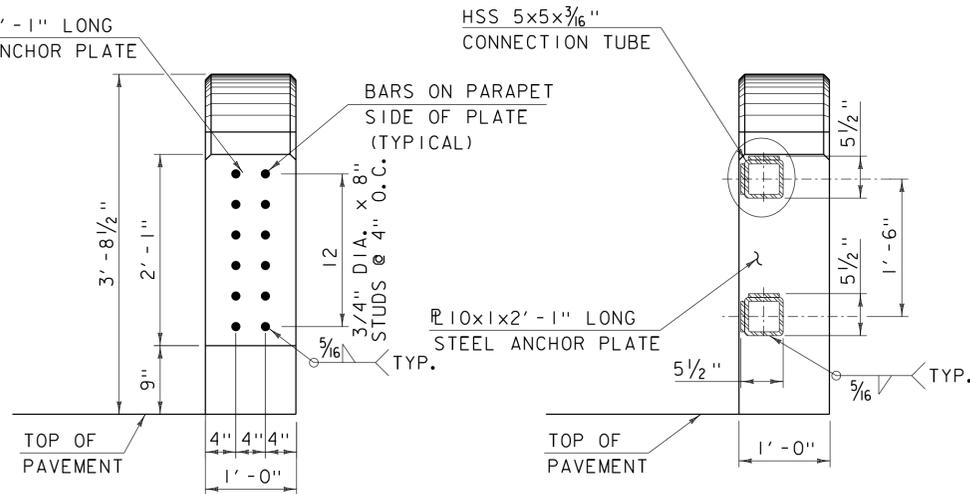
RAIL TYPICAL SECTION



SECTION A-A

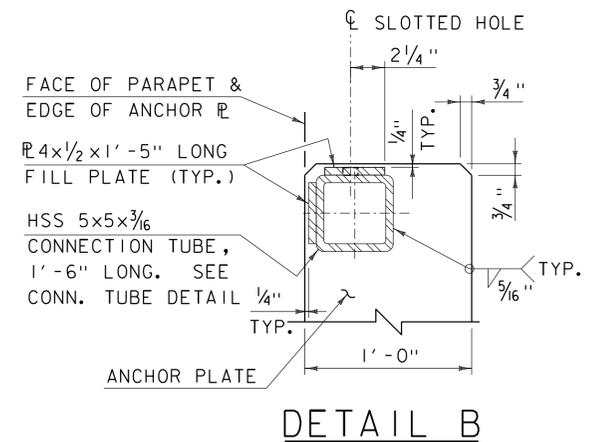
SECTION B-B

SECTION C-C



SHOWING EMBEDDED BAR WITH HSS CONNECTOR TUBE

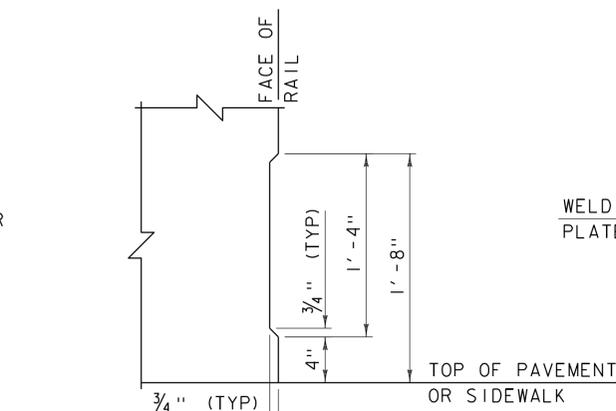
SECTION D-D



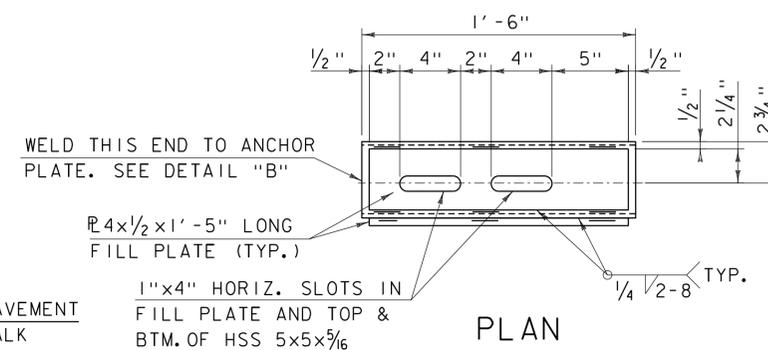
DETAIL B

NOTES:

- BRIDGE RAIL SHALL HAVE A RUBBED FINISH IN ACCORDANCE WITH SECTION 501.
- HOLES AND RECESSES ARE TO BE FORMED OR CORED, PERCUSSION DRILLING IS NOT ALLOWED.
- ALL STEEL COMPONENTS SHALL BE COATED BLACK IN ACCORDANCE WITH ASTM D7803 FOLLOWING GALVANIZING.
- SEE STANDARD DRAWINGS S-352A, S-352B AND S-352C FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- AESTHETIC TREATMENT SHALL BE APPLIED TO BOTH SIDES OF THE RAIL.
- CONCRETE FOR BRIDGE RAIL SHALL BE CONCRETE, HIGH PERFORMANCE CLASS A AND WILL BE PAID FOR UNDER CONTRACT ITEM 525.45. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL 1 REINFORCING AND WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 525.45.



AESTHETIC TREATMENT DETAIL



CONNECTION TUBE DETAIL

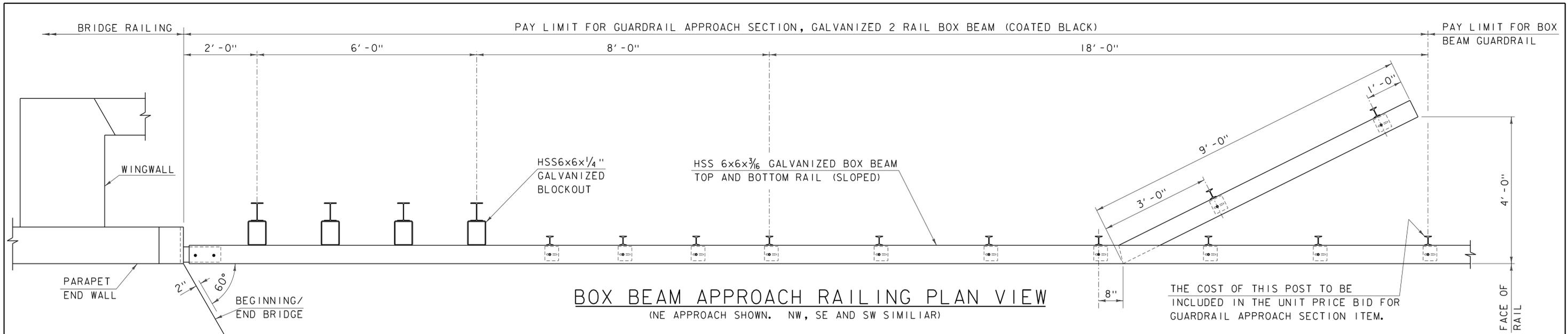
NOTE:

- NF = NEAR FACE  
 FF = FAR FACE  
 EF = EACH FACE  
 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON PLANS.

PROJECT NAME: CORINTH  
 PROJECT NUMBER: BRO 1447(29)

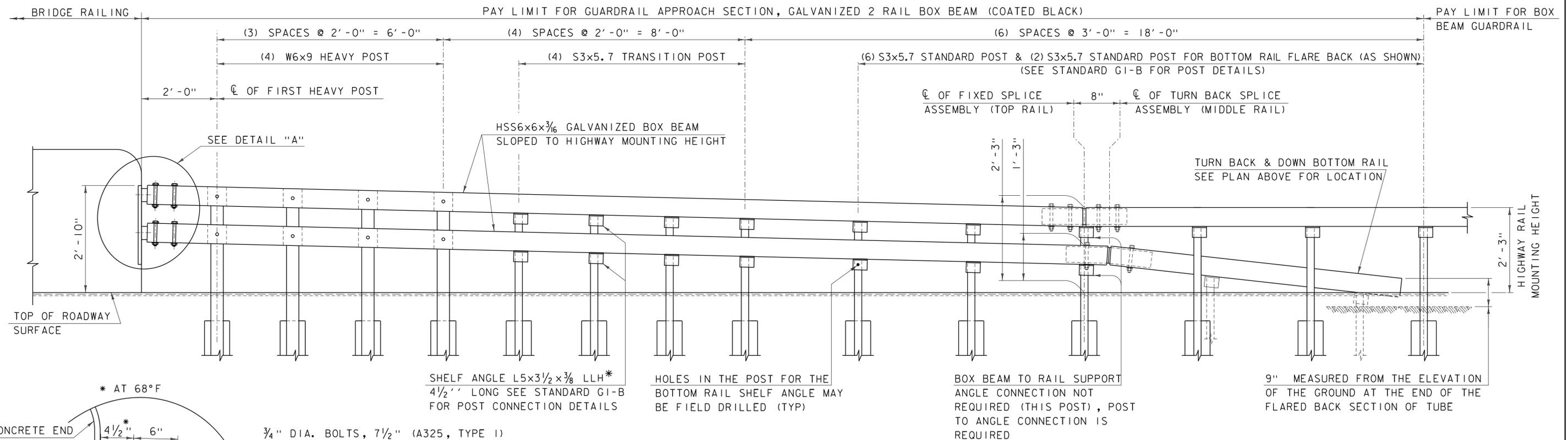
FILE NAME: ...z01j292.br\_app\_raildets.dgn PLOT DATE: 8/26/2014  
 PROJECT LEADER: G. BOGUE DRAWN BY: E. ALLING  
 DESIGNED BY: M. CHENETTE CHECKED BY: G. BOGUE  
**BRIDGE RAIL DETAILS 1** SHEET 40 OF 57





**BOX BEAM APPROACH RAILING PLAN VIEW**  
(NE APPROACH SHOWN. NW, SE AND SW SIMILIAR)

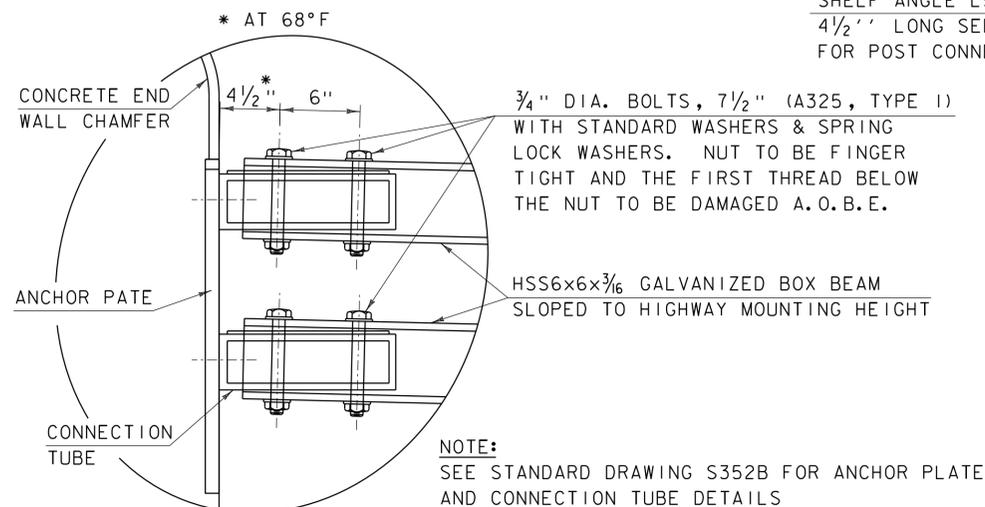
THE COST OF THIS POST TO BE INCLUDED IN THE UNIT PRICE BID FOR GUARDRAIL APPROACH SECTION ITEM.



**BOX BEAM APPROACH RAILING ELEVATION**

\*LONG LEG HORIZONTAL

NOTE:  
ALL STEEL COMPONENTS TO BE PAINTED BLACK



**DETAIL A**



PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...z01j292\_br\_app\_raildets.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
APPROACH RAIL DETAILS

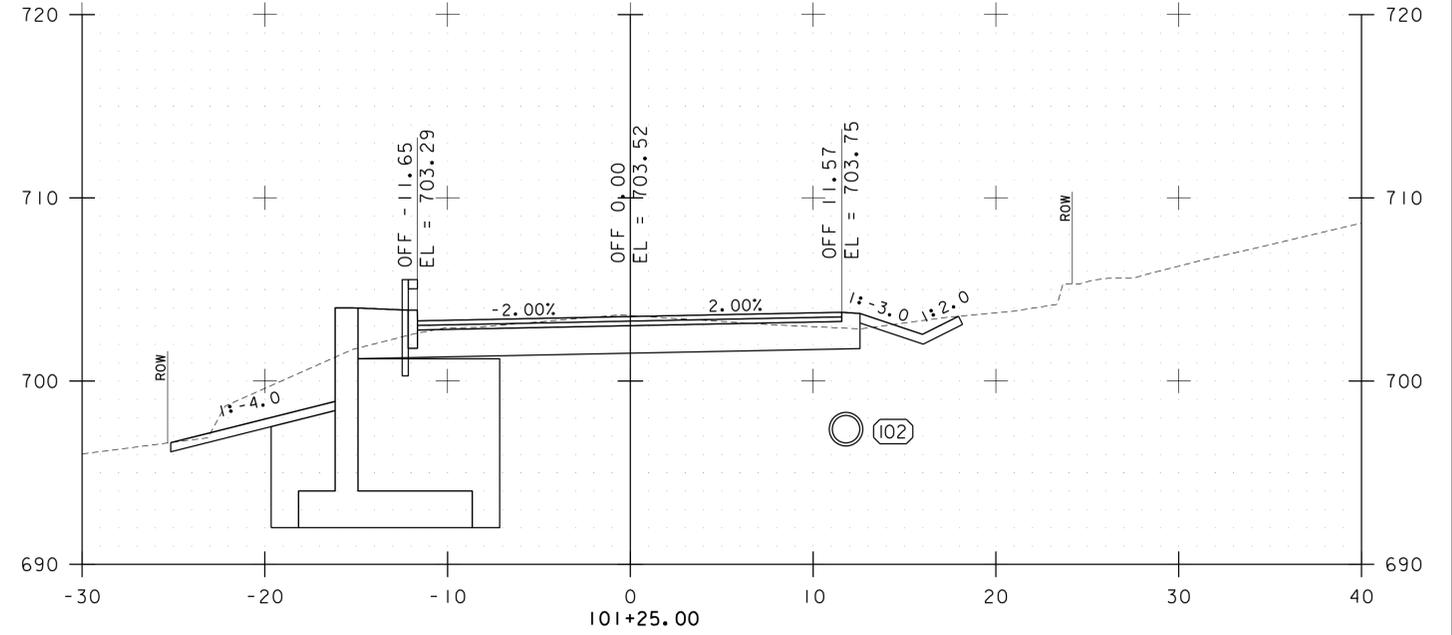
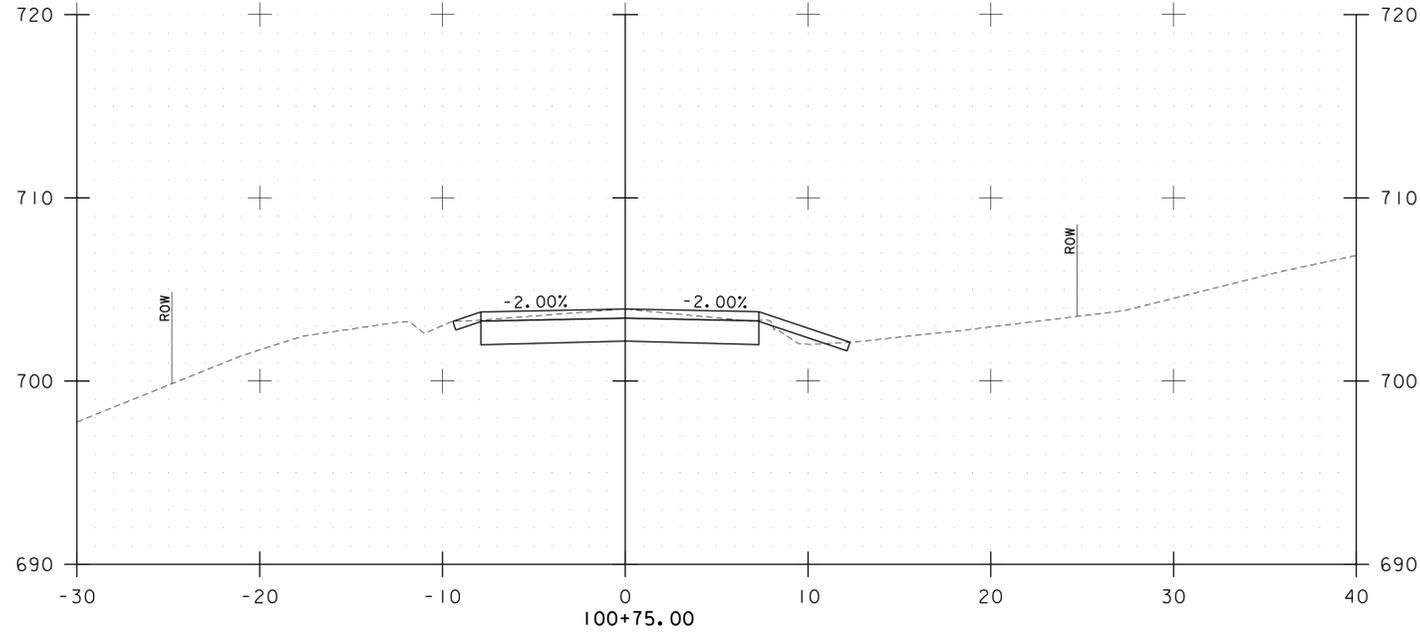
PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 41 OF 57

# REINFORCING STEEL SCHEDULE

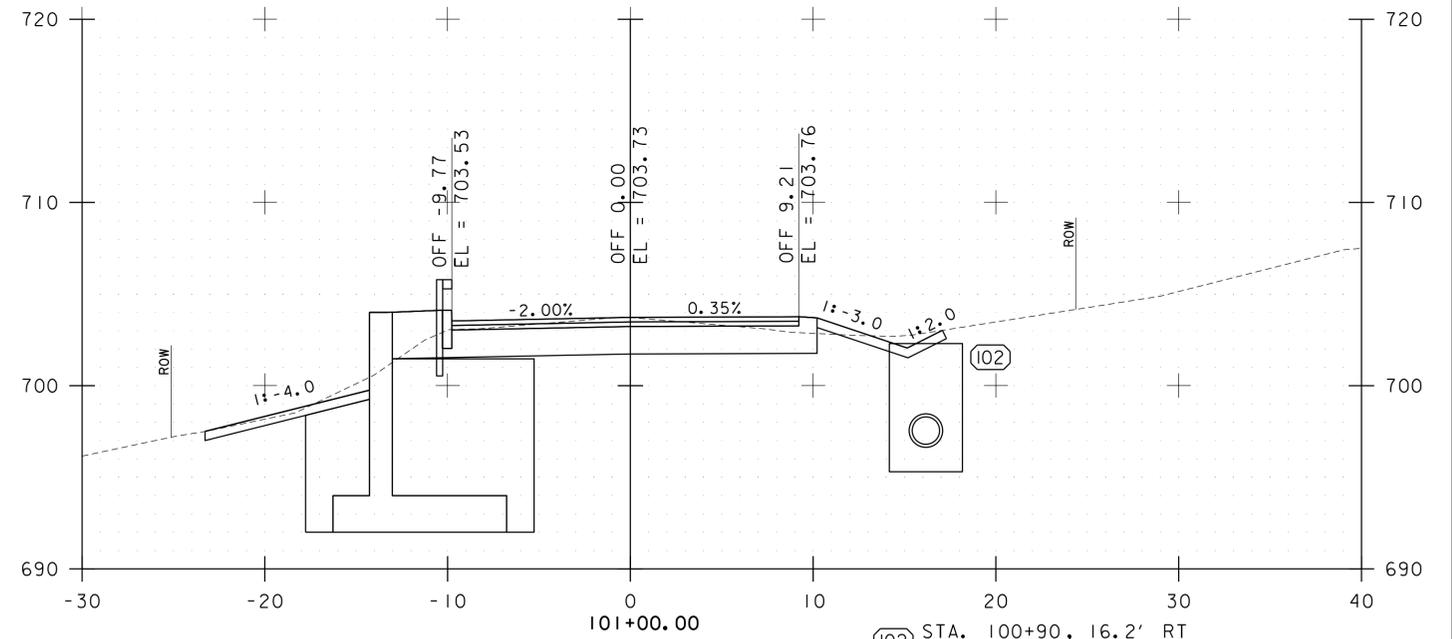
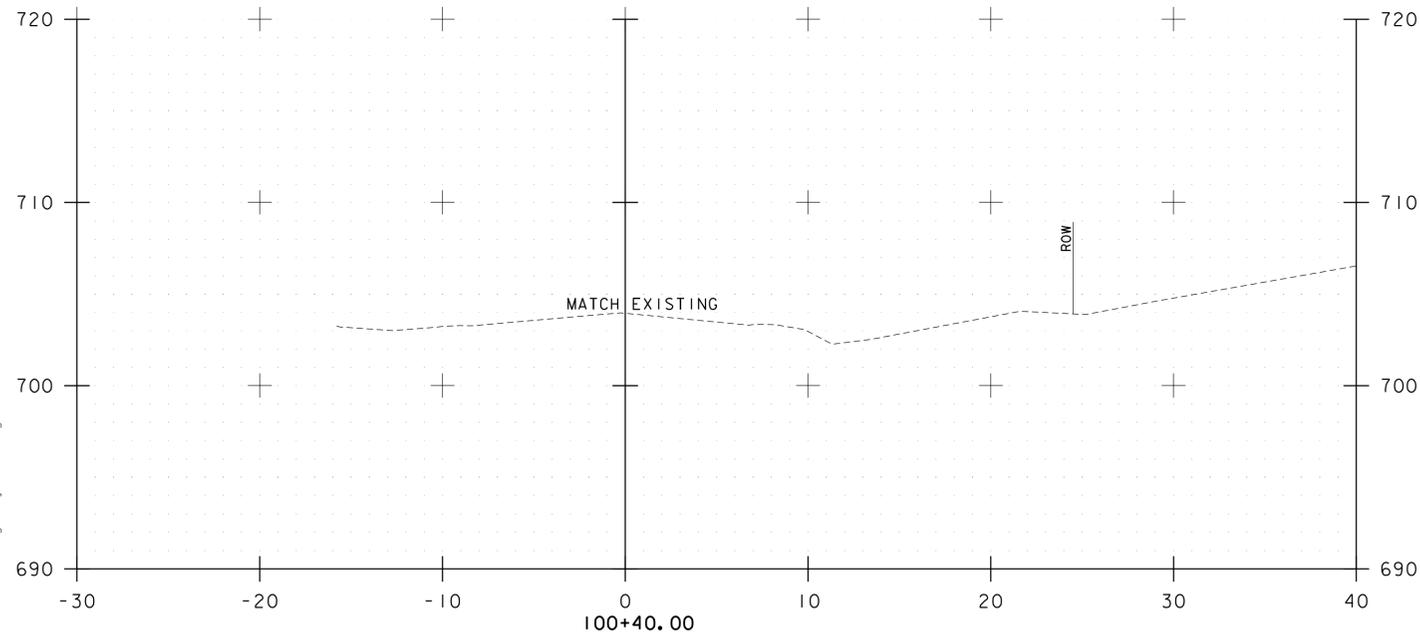
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<b>ABUTMENT NO. 1</b>																																						
22	5	21'-6"	1A501	STR														39	5	8'-6"	3W504	STR																
38	5	6'-8"	1A502	17														22	5	40'-8"	3W505	STR																
31	5	4'-4"	1A503	STR														42	5	5'-7"	3W506	S10		2'-5"	0'-9"	2'-5"												
31	5	5'-11"	1A504	STR														▲	42	6	7'-0"	3W601	STR															
32	5	19'-6"	1A505	STR															39	7	6'-11"	3W701	17		---	5'-9"	1'-2"											
37	5	7'-4"	1A506	S10				2'-8"	2'-0"	2'-8"																												
8	5	4'-0"	1A507	22				2'-0"	2'-0"	---				1'-9"	---	1'-0"	---																					
8	5	8'-10"	1A508	22				2'-0"	4'-10"	2'-0"				1'-9"	1'-9"	1'-0"	1'-0"																					
3	5	4'-6"	1A509	22				2'-0"	2'-6"	---				1'-9"	---	1'-0"	---																					
3	5	5'-4"	1A510	22				2'-0"	3'-4"	---				1'-9"	---	1'-0"	---																					
8	5	12'-8"	1A511	22				2'-0"	8'-8"	2'-0"				1'-0"	1'-0"	1'-9"	1'-9"																					
8	5	4'-0"	1A512	22				2'-0"	2'-0"	---				1'-10"	---	1'-0"	---																					
4	5	4'-9"	1A513	22				---	2'-9"	2'-0"				---	1'-9"	---	1'-0"																					
4	5	5'-2"	1A514	22				---	3'-2"	2'-0"				---	1'-9"	---	1'-0"																					
7	5	7'-10"	1A515	STR																																		
5	5	9'-5"	1A516	STR																																		
2	5	6'-7"	1A517	STR																																		
3	5	5'-11"	1A518	STR																																		
<b>WINGWALL NO. 4</b>																																						

8/26/2014 11:43:01AM V:\1953\active\19530795\transport\off\drawing\201292\_xs.dgn

BEGIN PROJECT  
STA. 100+80.00



MATCH EXISTING

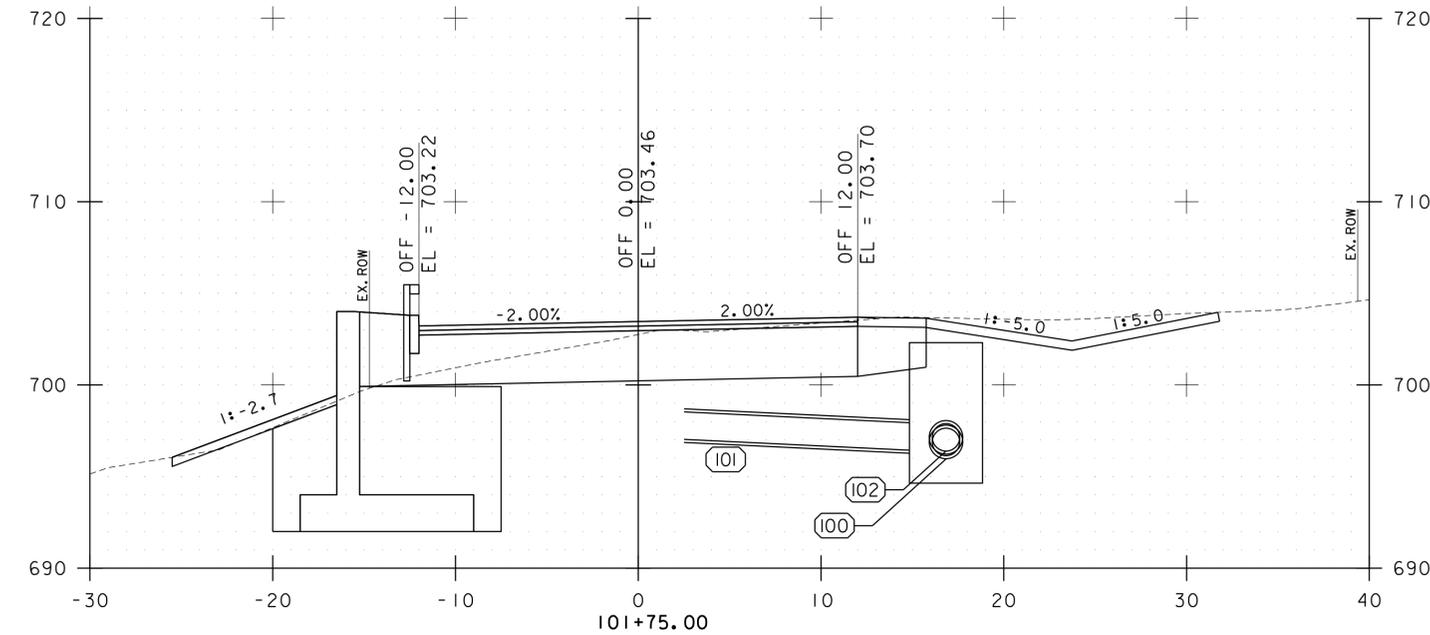


(102) STA. 100+90, 16.2' RT  
 18" PIPE OPTION  
 INV EL. = 696.80'  
 DI INLET  
 GRATE EL. = 702.30'

STA. 100+40.00 TO STA. 101+25.00

PROJECT NAME: CORINTH	
PROJECT NUMBER: BRO 1447(29)	
FILE NAME: ...drawing\201292_xs.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: M. CHENETTE	CHECKED BY: G. BOGUE
<b>ROADWAY CROSS SECTIONS - RXS 1</b>	
SHEET 43 OF 57	

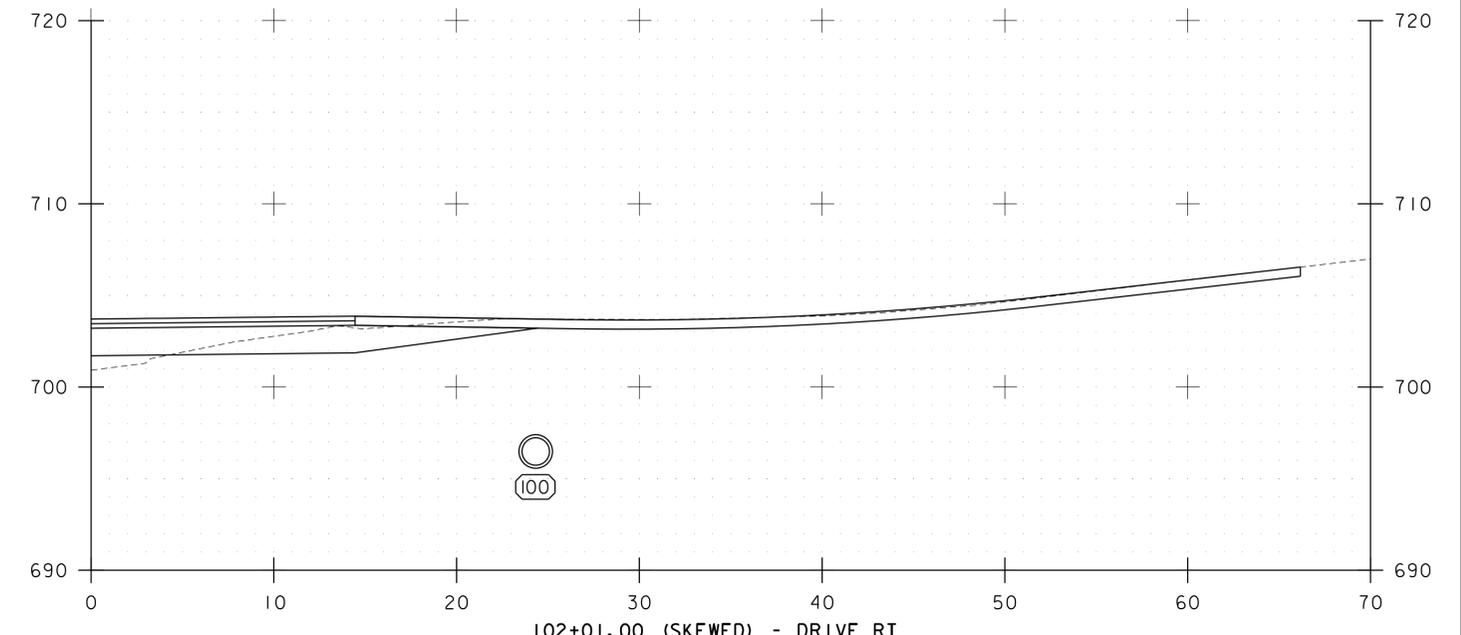




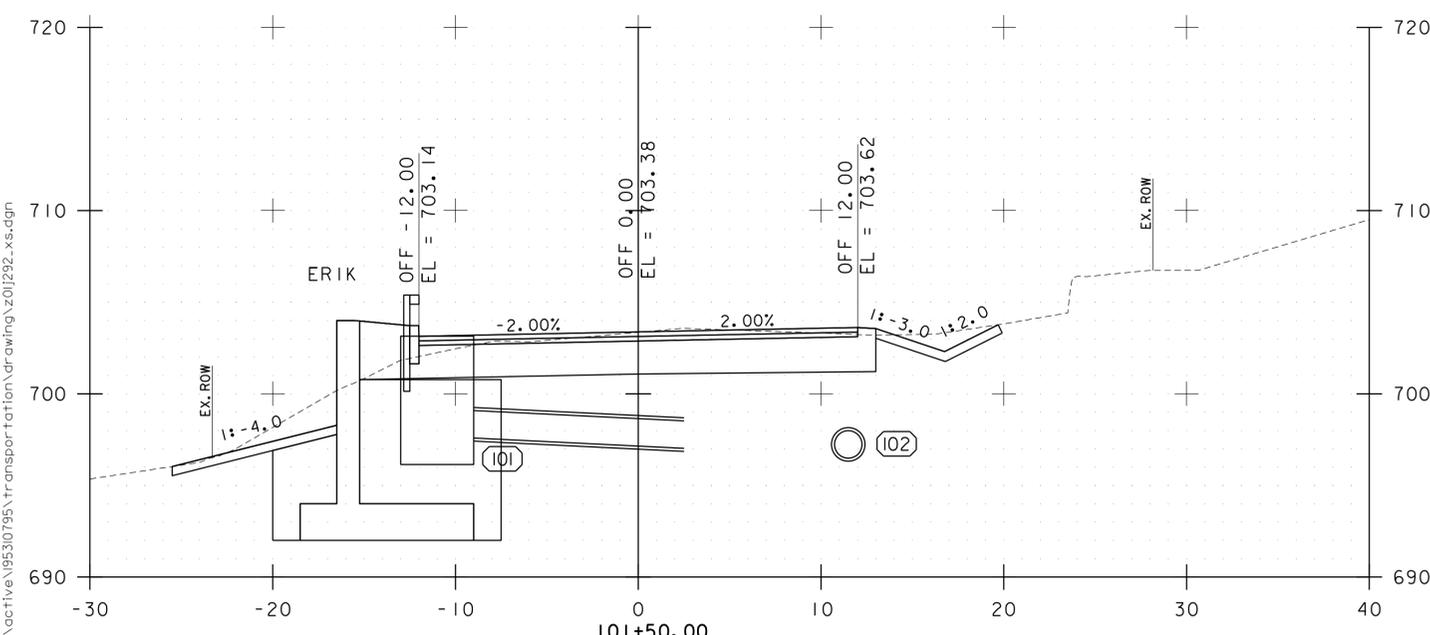
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 18" PIPE OPTION  
 INV EL. = 696.14'  
 DI INLET  
 GRATE EL. = 702.31'

(101) STA. 101+67, 16.8' RT  
 18" PIPE OPTION  
 INV EL. = 696.39'

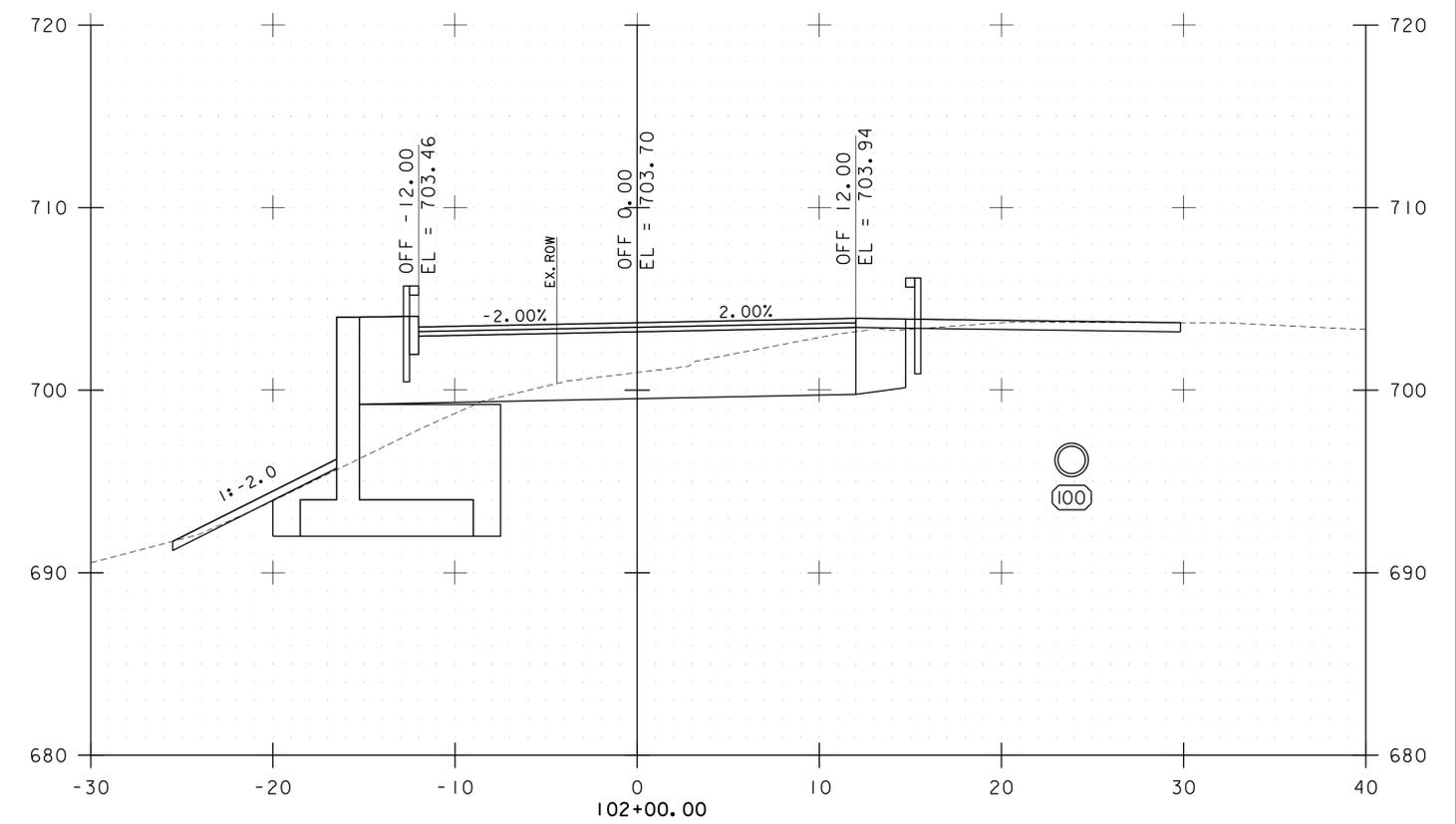
(102) STA. 101+67, 16.8' RT  
 18" PIPE OPTION  
 INV EL. = 696.39'



102+01.00 (SKEWED) - DRIVE RT



(101) STA. 101+57, 11.0' LT  
 18" PIPE OPTION  
 INV EL. = 696.80'  
 DI INLET  
 GRATE EL. = 703.14'  
 USE ECCENTRIC CONE TO  
 AVOID CONFLICT WITH  
 GUARDRAIL POSTS



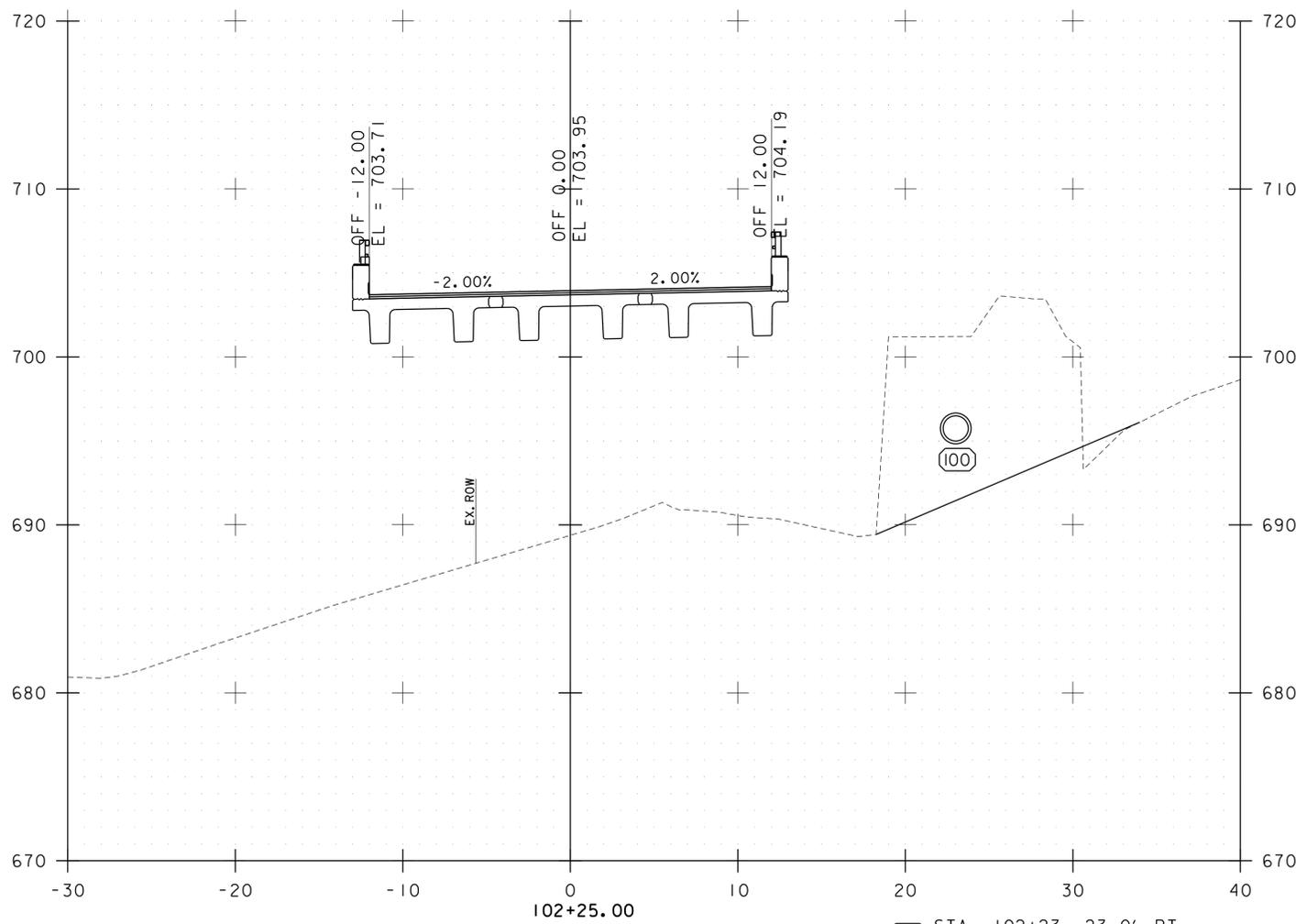
STA. 101+50.00 TO STA. 102+01.00

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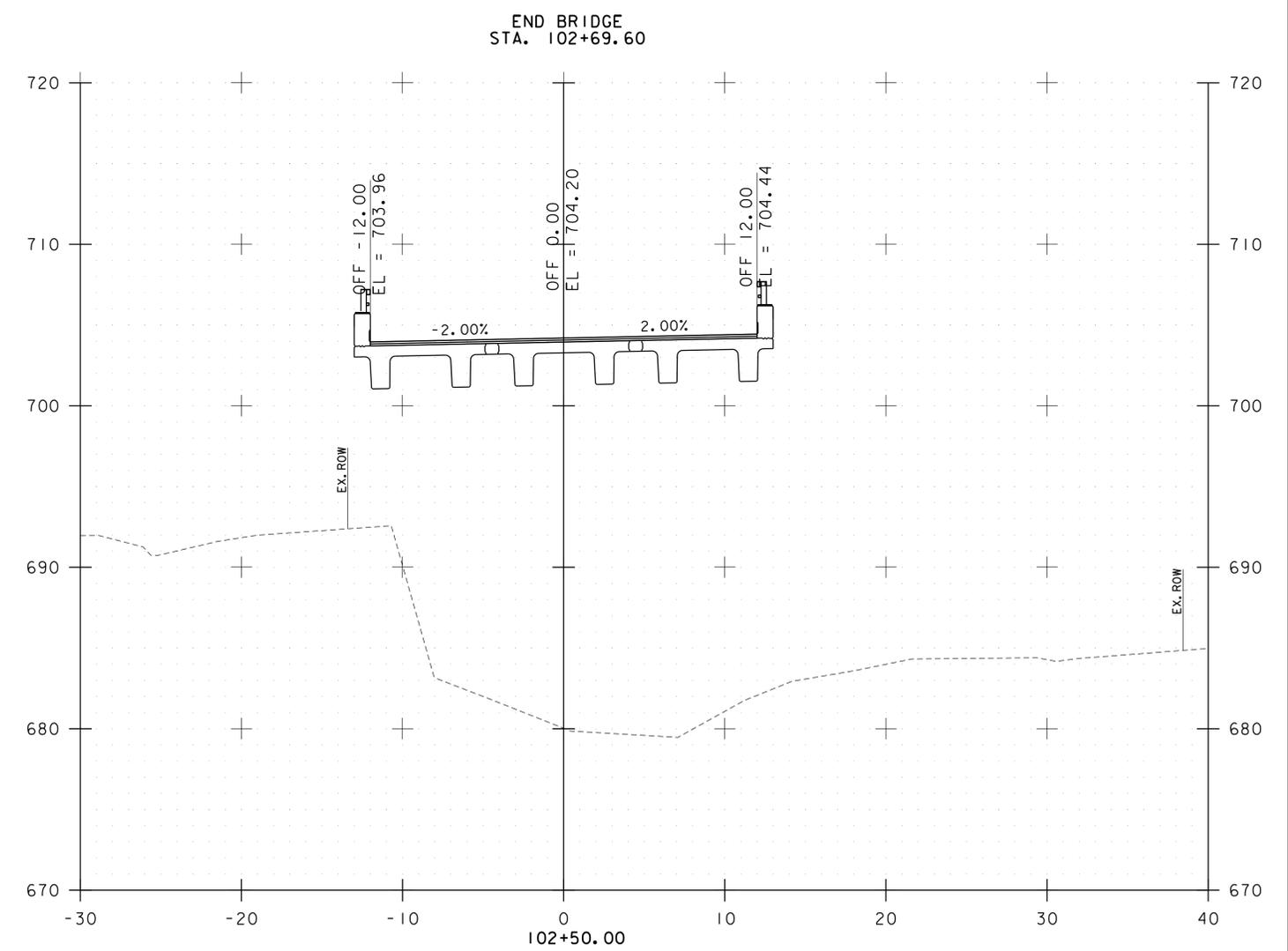
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PROJECT NUMBER: BRO 1447(29)	
FILE NAME: ...drawing\201292.xs.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: M. CHENETTE	CHECKED BY: G. BOGUE
<b>ROADWAY CROSS SECTIONS - RXS 2</b>	
SHEET 44 OF 57	

8/26/2014 11:43:02 AM V:\1953\oc\Hive\1953\0795\TranSPORT\offton\drawing\201292\_xs.dgn



BEGIN BRIDGE  
STA. 102+04.40

100 STA. 102+23.23.0' RT  
18" PIPE OPTION  
INV EL. = 695.14'

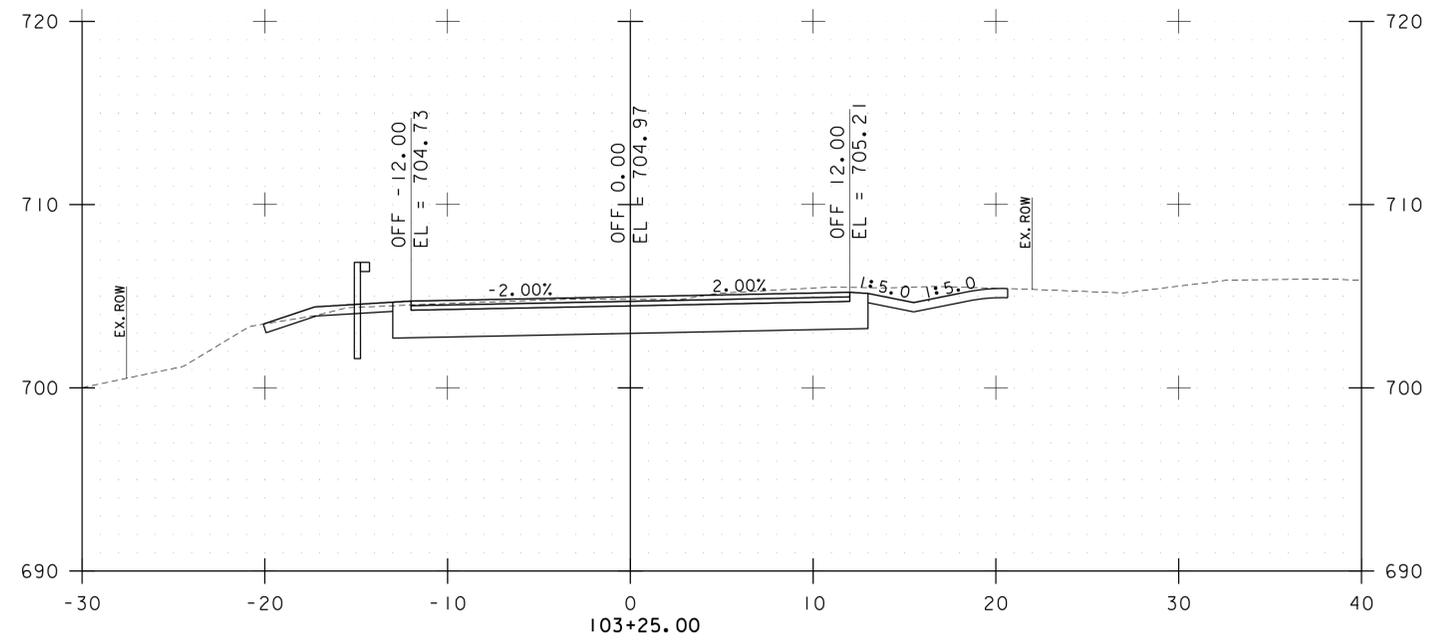
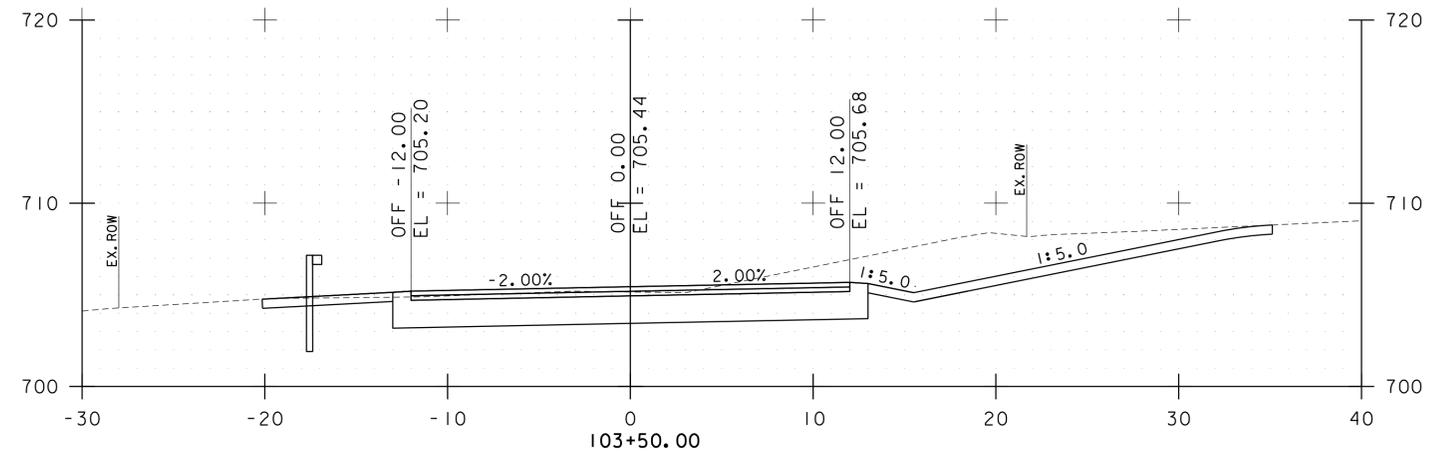
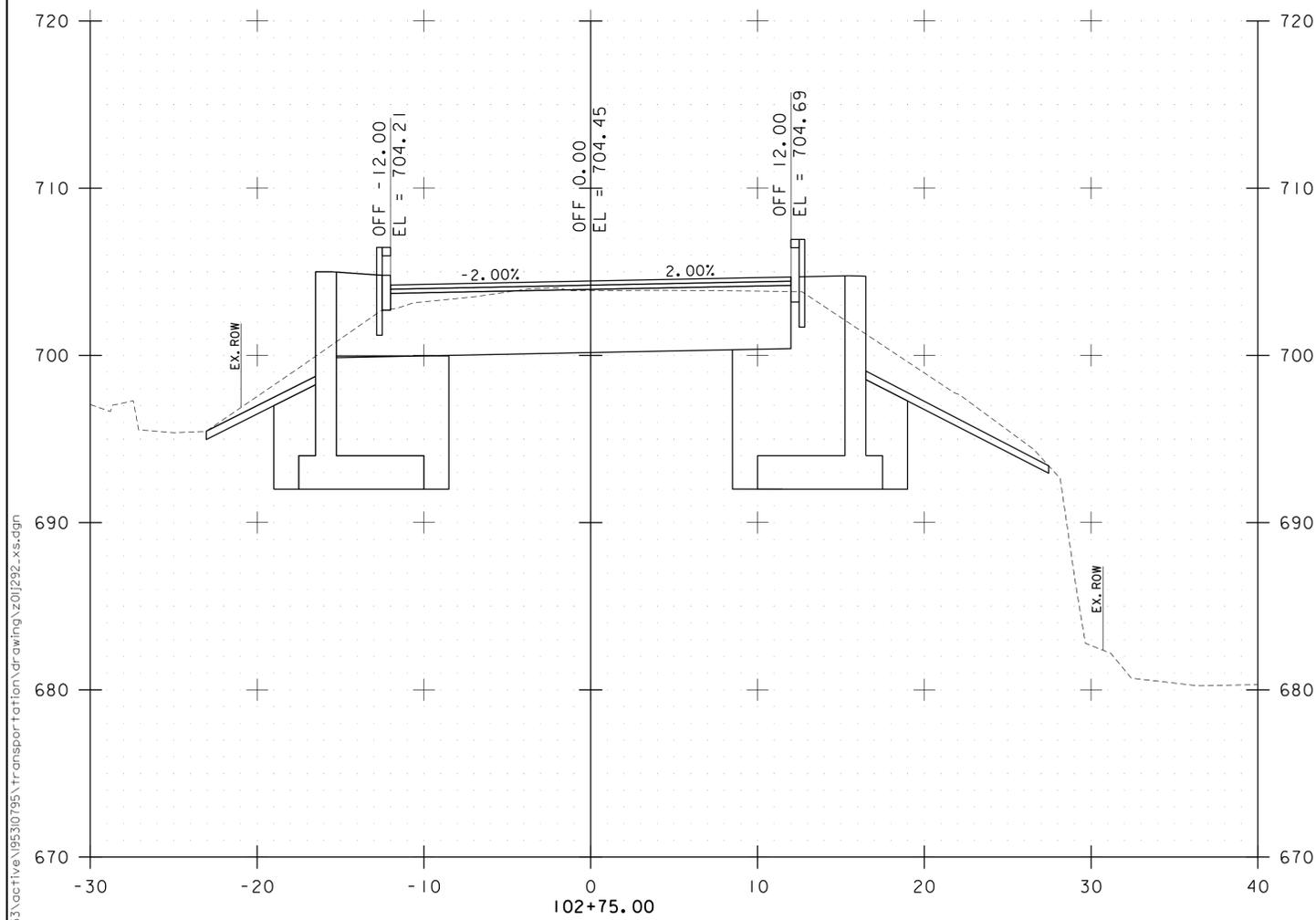
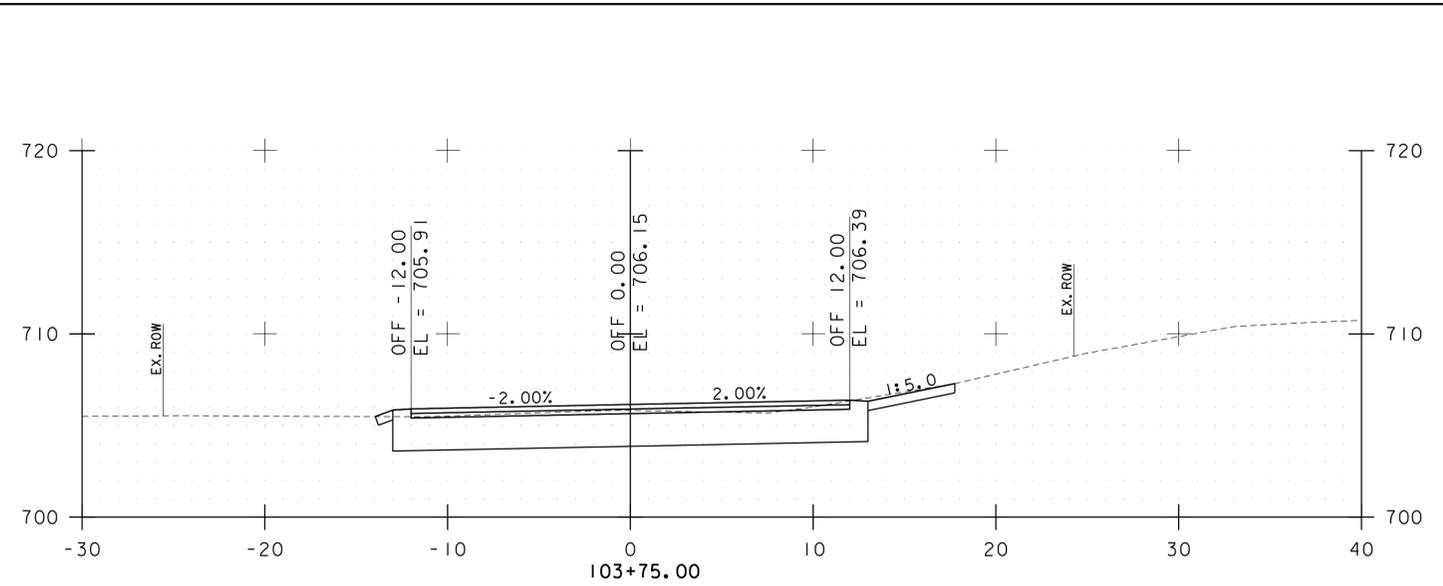
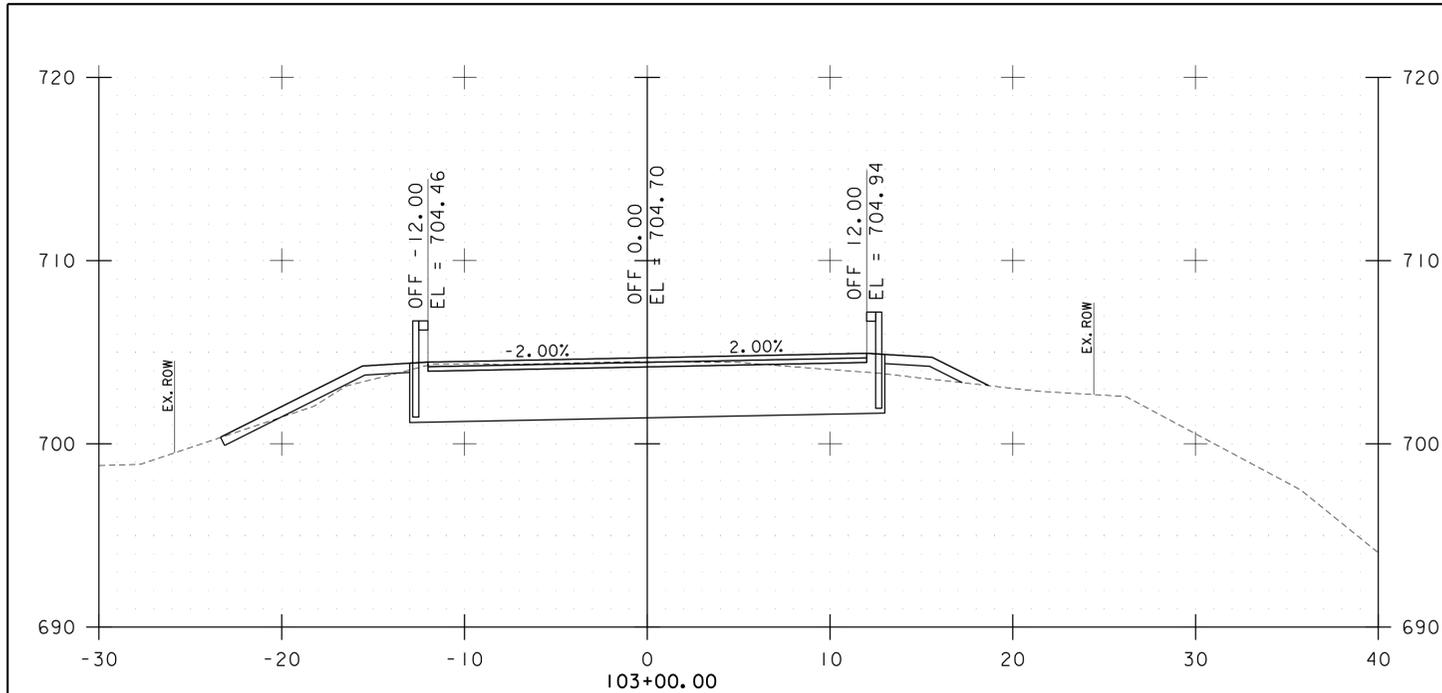


END BRIDGE  
STA. 102+69.60

STA. 102+25.00 TO STA. 102+50.00



PROJECT NAME: CORINTH	
PROJECT NUMBER: BRO 1447(29)	
FILE NAME: ...drawing\201292_xs.dgn	PLOT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: M. CHENETTE	CHECKED BY: G. BOGUE
<b>ROADWAY CROSS SECTIONS - RXS 3</b>	
SHEET 45 OF 57	



STA. 102+75.00 TO STA. 103+75.00

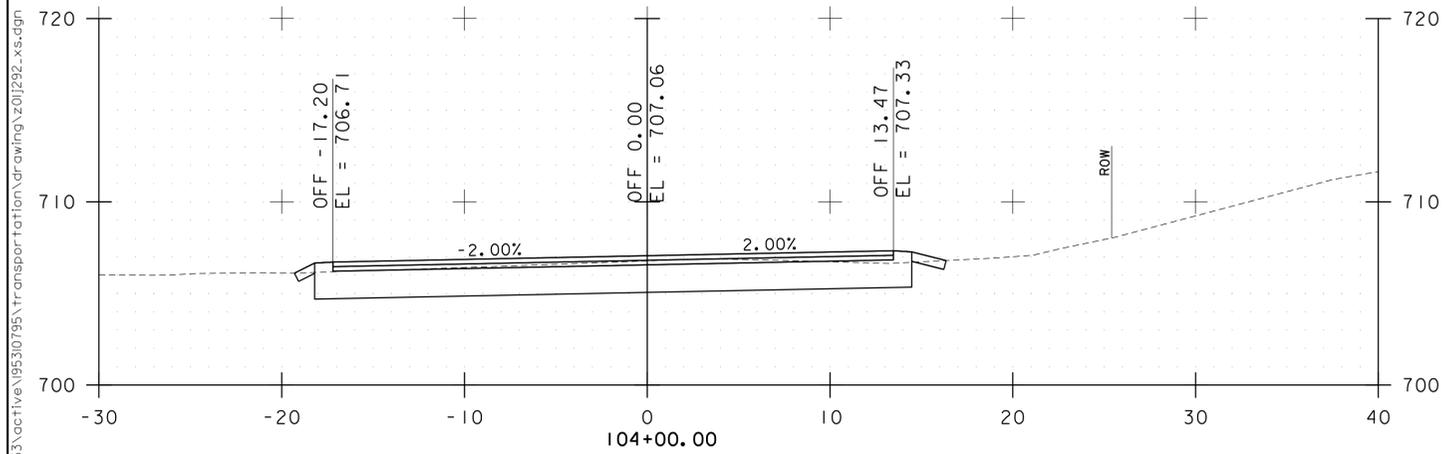
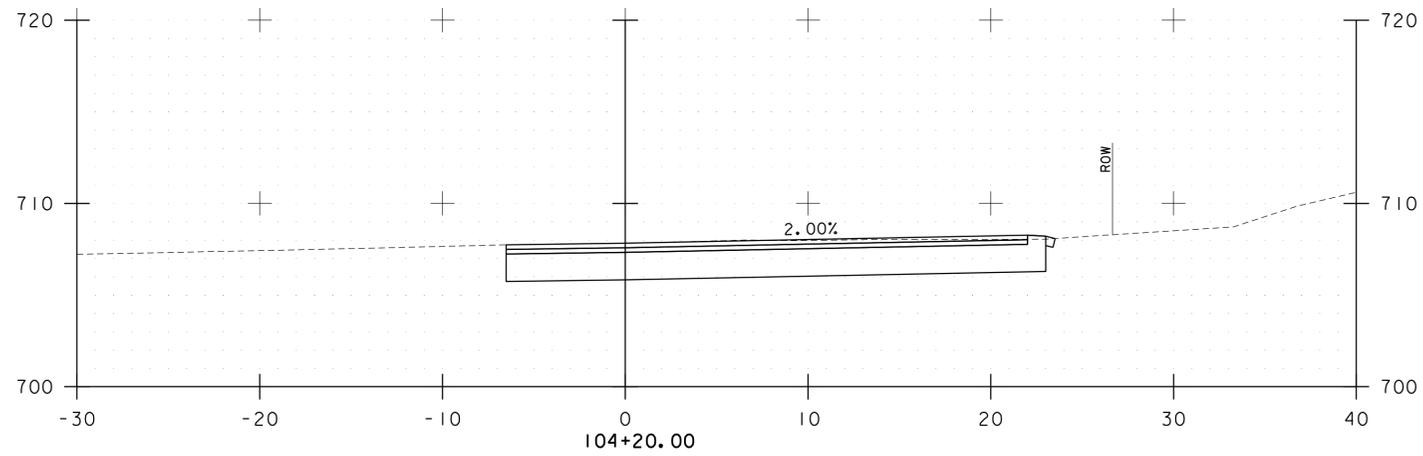
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PROJECT NUMBER:	BRO 1447(29)
FILE NAME:	...drawing\z01j292_xs.dgn
PROJECT LEADER:	G. BOGUE
DESIGNED BY:	M. CHENETTE
<b>ROADWAY CROSS SECTIONS - RXS 4</b>	
PLOT DATE:	8/26/2014
DRAWN BY:	E. ALLING
CHECKED BY:	G. BOGUE
SHEET	46 OF 57



8/26/2014 11:43:02 AM V:\1953\loc\live\1953\0795\Transportation\drawing\z01j292\_xs.dgn

104+22.94  
END PROJECT

MATCH EXISTING



STA. 104+00.00 TO STA. 104+20.00

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

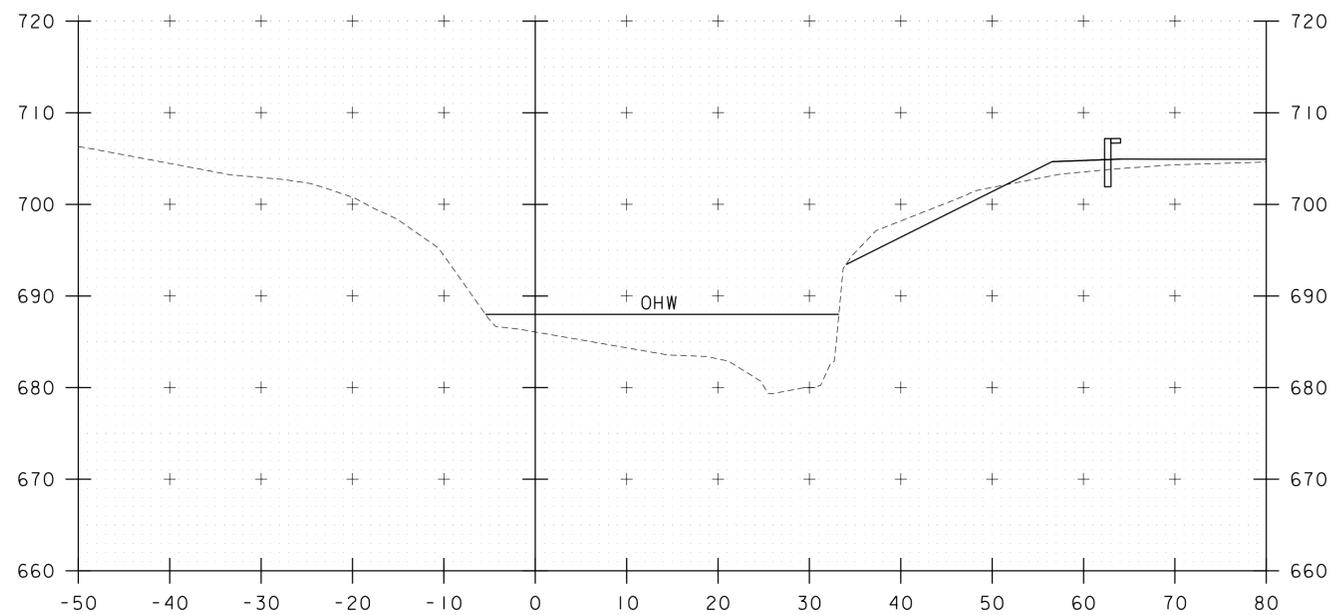
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PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
**ROADWAY CROSS SECTIONS - RXS 5**

PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 47 OF 57



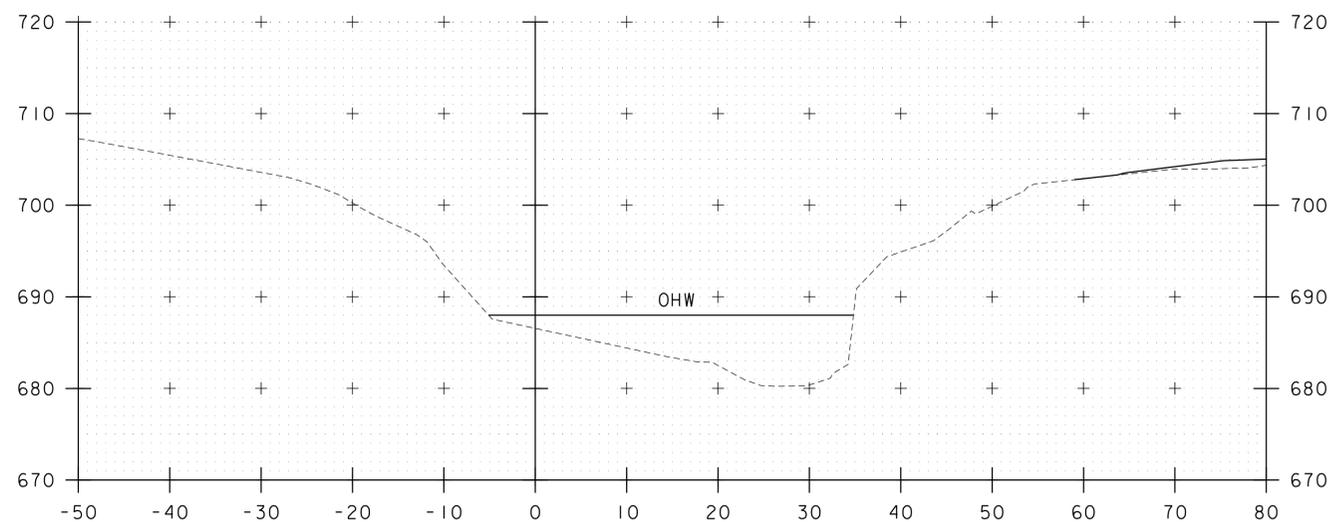
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8/26/2014 11:43:04 AM V:\1953\loc\live\19530795\Transportation\drawing\201292\_xs\_channel.dgn

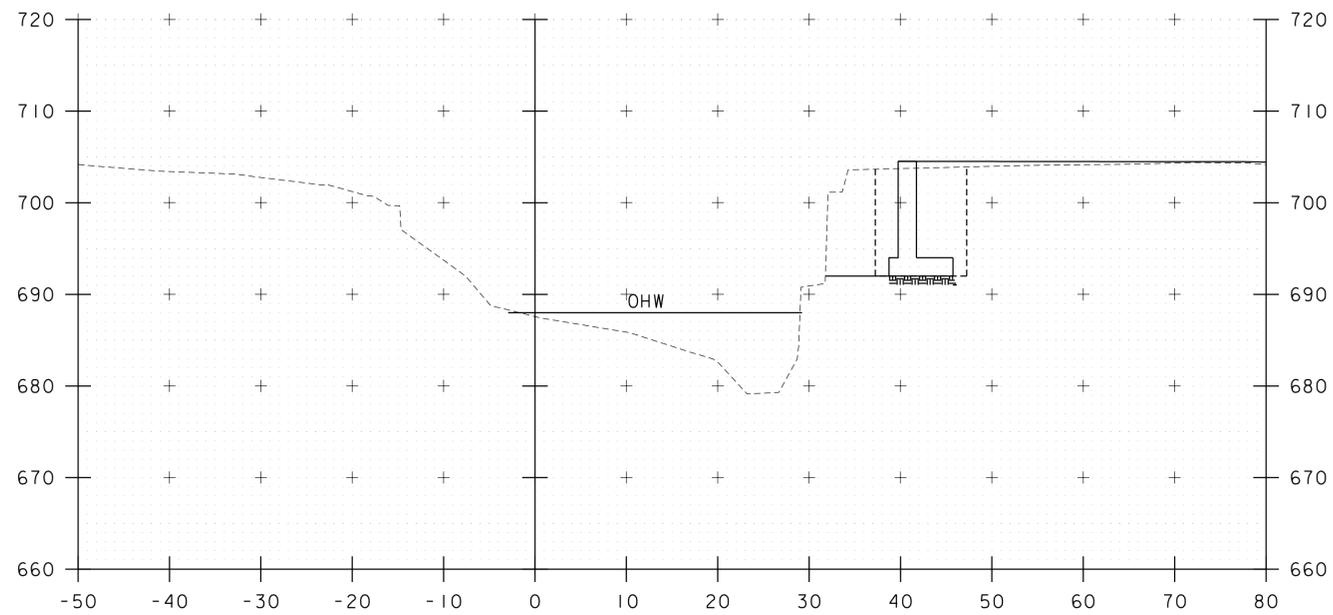


50+60

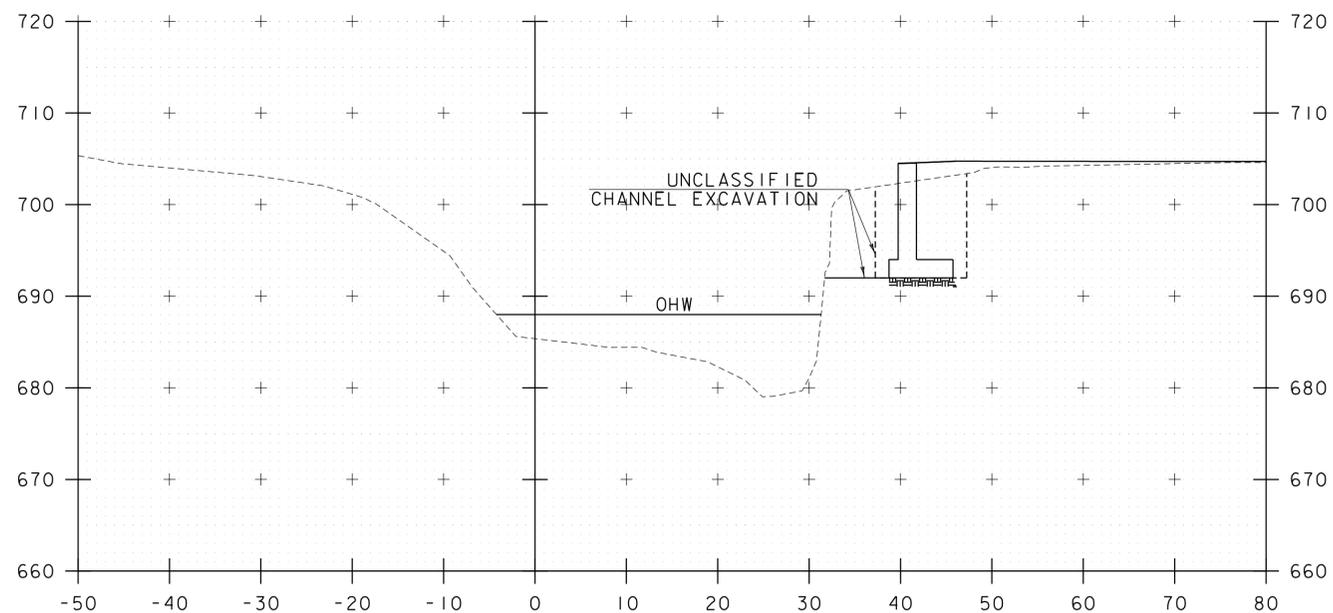
STA. 50+57 RT.  
BEGIN UNCLASSIFIED CHANNEL EXCAVATION



50+50



50+80



50+70

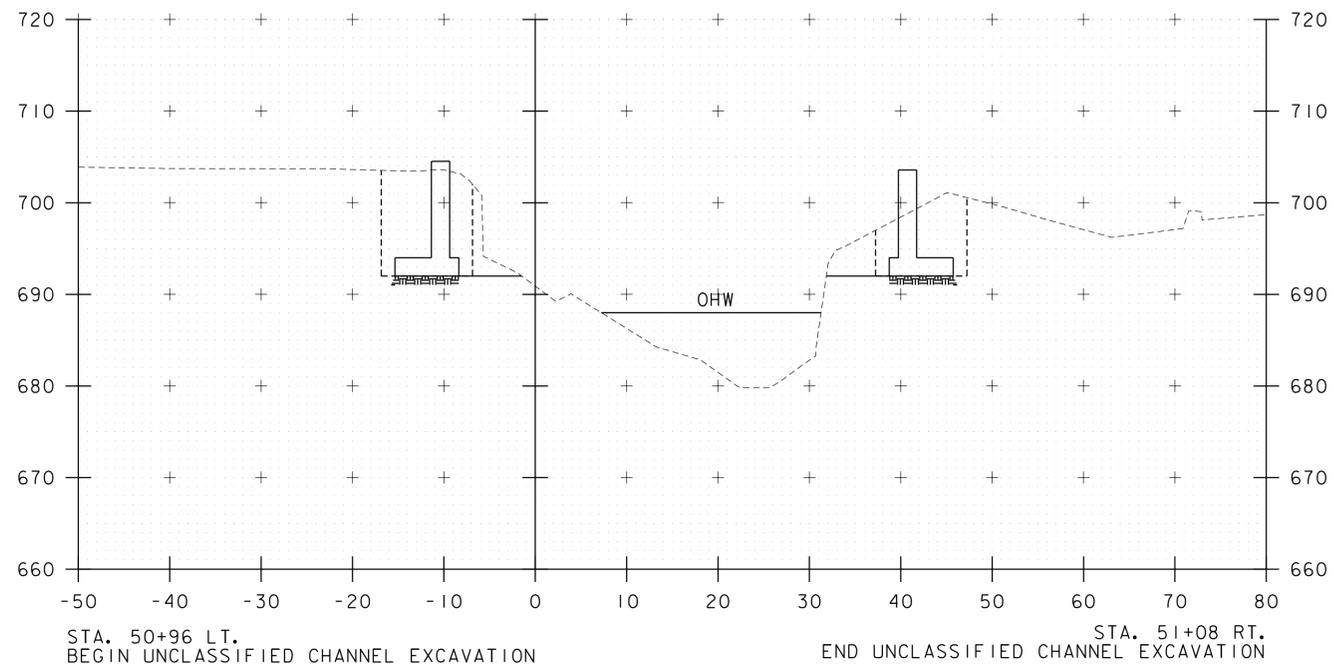
STA. 50+50 TO STA. 50+80



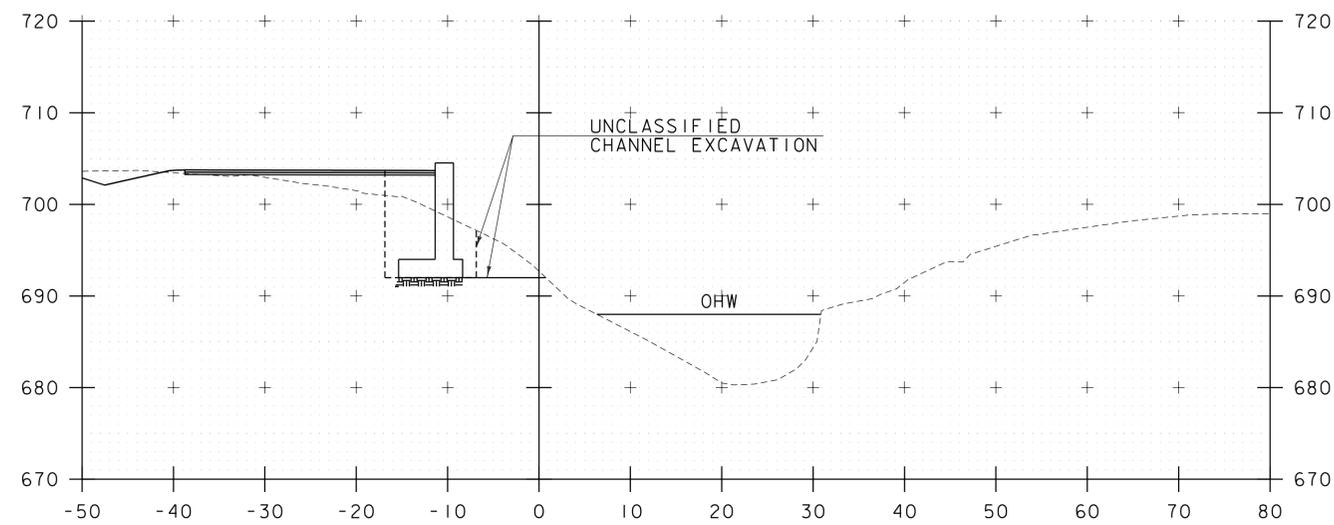
PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\201292_xs_channel.dgn	PLT DATE: 8/26/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: M. CHENETTE	CHECKED BY: G. BOGUE
<b>CHANNEL CROSS SECTIONS - CXS 1</b>	SHEET 48 OF 57

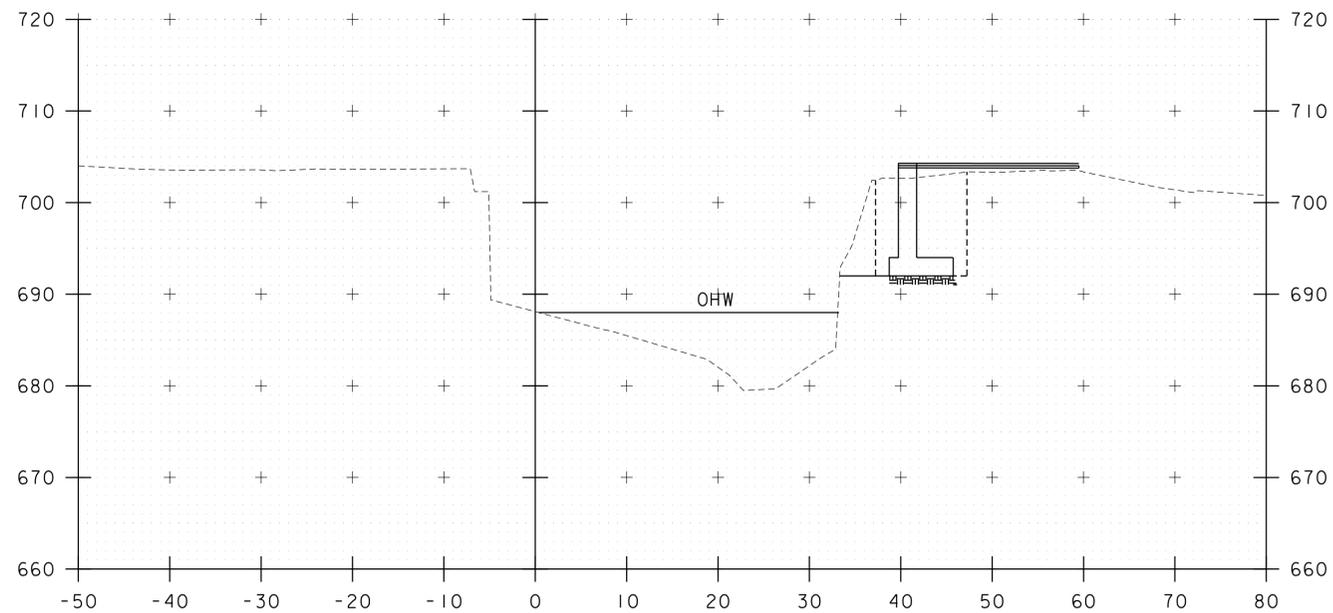
8/26/2014 11:43:05 AM V:\1953\oc\live\19530795\transport\of\ton\drawing\201292\_xs\_channel.dgn



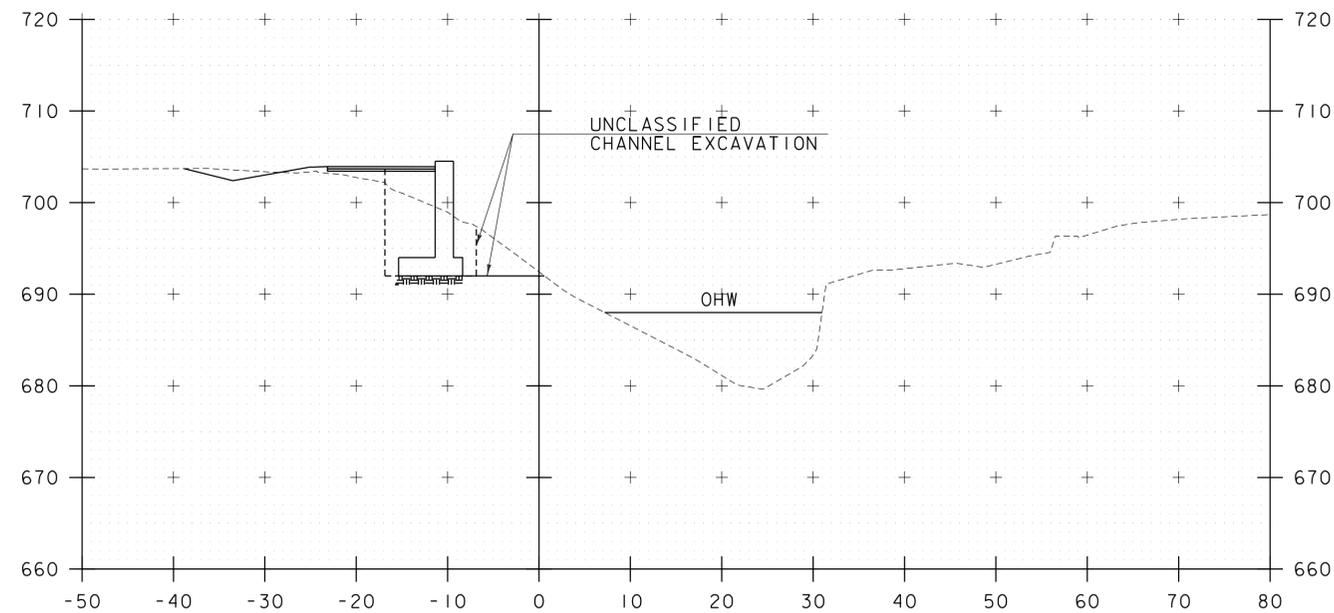
51+00



51+20



50+90



51+10

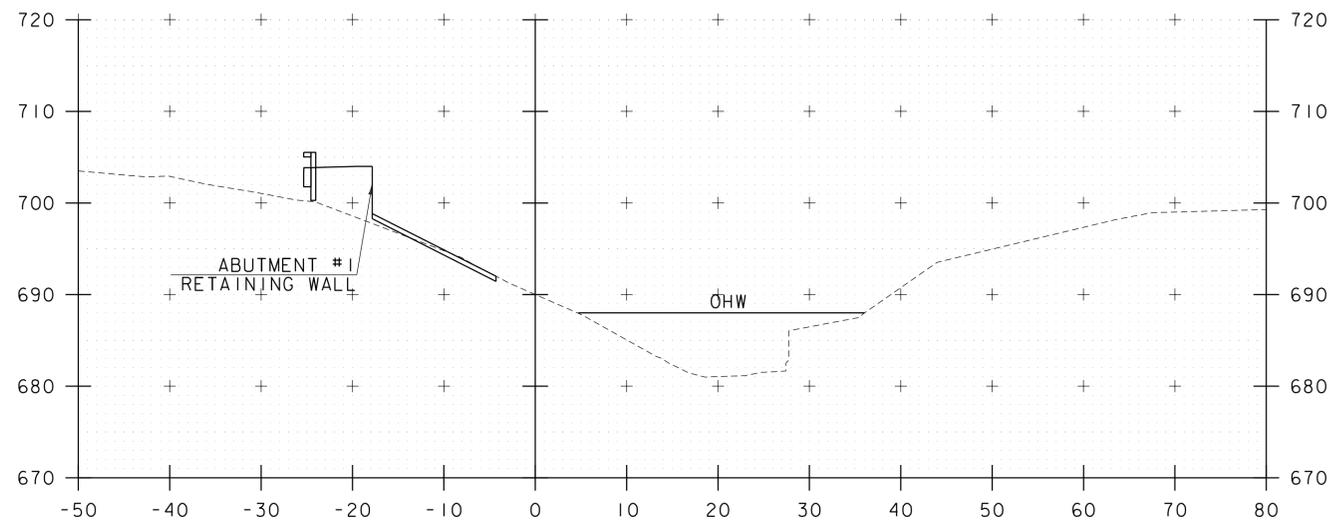
STA. 50+90 TO STA. 51+20



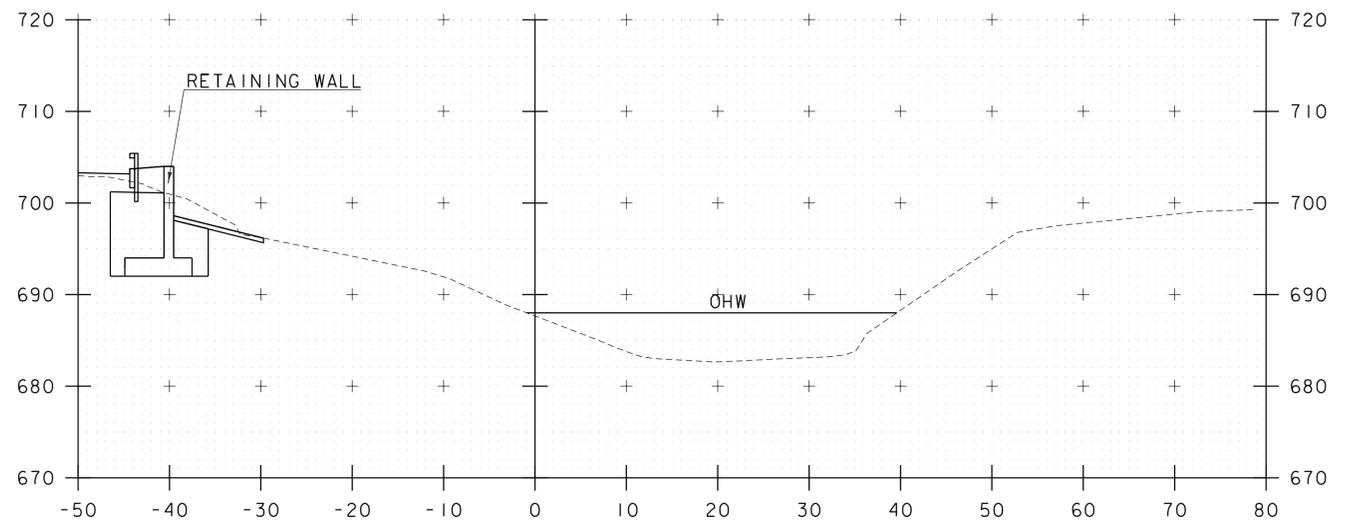
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 PROJECT LEADER: G. BOGUE DRAWN BY: E. ALLING  
 DESIGNED BY: M. CHENETTE CHECKED BY: G. BOGUE  
**CHANNEL CROSS SECTIONS - CXS 2** SHEET 49 OF 57

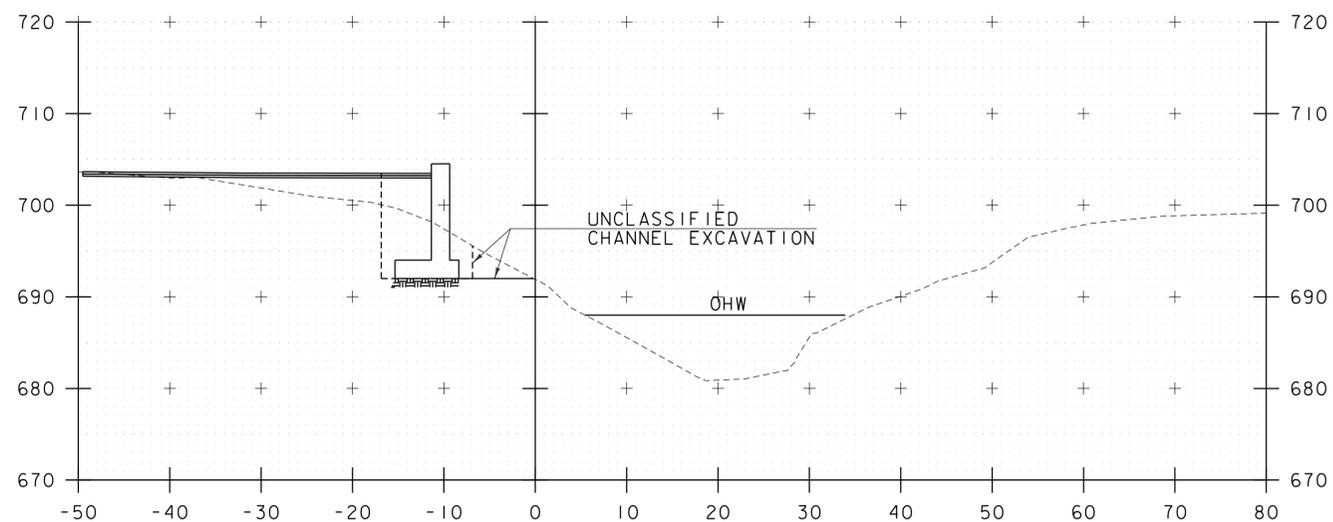
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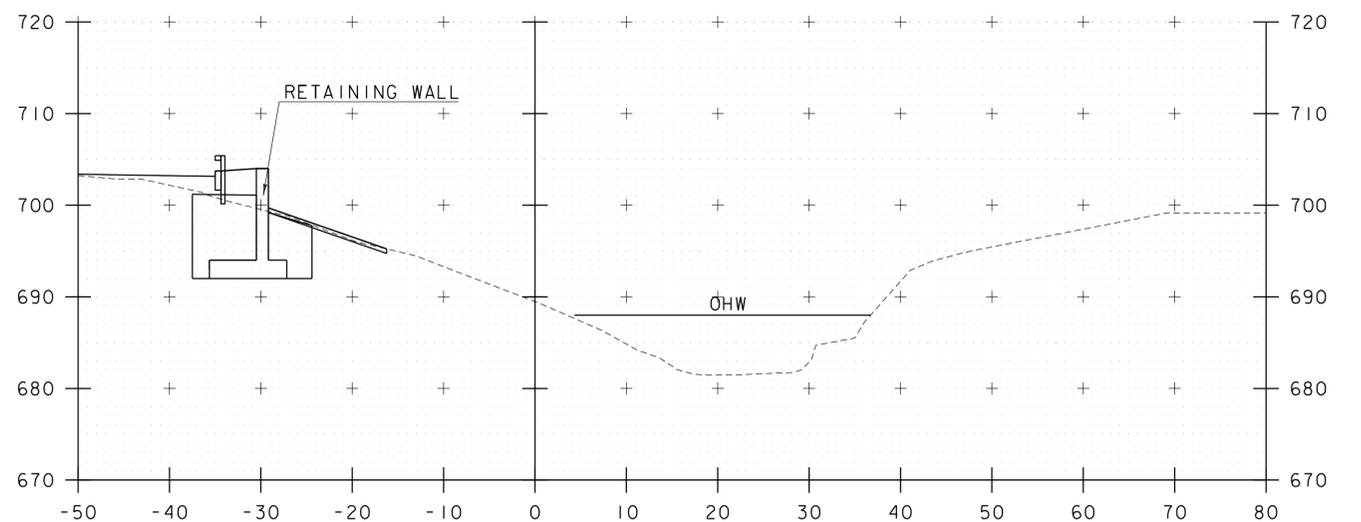
51+40



51+67



51+30



51+50

STA. 51+42.33 LT.  
END UNCLASSIFIED CHANNEL EXCAVATION

STA. 51+30 TO STA. 51+67



PROJECT NAME: CORINTH  
 PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\201292\_xs\_channel.dgn  
 PROJECT LEADER: G. BOGUE  
 DESIGNED BY: M. CHENETTE  
 CHANNEL CROSS SECTIONS - CXS 3

DATE: 8/26/2014  
 DRAWN BY: E. ALLING  
 CHECKED BY: G. BOGUE  
 SHEET 50 OF 57

# EPSC PLAN NARRATIVE

## 1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF BRIDGE #36, RELATED ROADWAY APPROACH AND CHANNEL WORK AND INCIDENTALS. BRIDGE #36 WILL BE REPLACED WITH A PRECAST CONCRETE BRIDGE OVER TABOR BRANCH, ON NEW FOOTINGS AND ON A NEW ALIGNMENT. BRIDGE #36 IS LOCATED IN THE TOWN OF CORINTH, CHICKEN FARM ROAD (T.H. 16), AT THE INTERSECTION WITH EAST CORINTH ROAD (T.H. 1). THE LENGTH OF THE BRIDGE WILL BE INCREASED TO 65 FEET.

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 0.55 ACRES.

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

## 1.2 SITE INVENTORY

### 1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE IMMEDIATE PROJECT AREA IS RELATIVELY FLAT AND FEATURES GRASSED LAWN AREAS, UNDERGROWTH ALONG BOTH BANKS OF TABOR BRANCH AND SMALL TO MEDIUM-SIZED TREES. EAST CORINTH ROAD AND TABOR BRANCH ROAD ARE WITHIN THE PROJECT SITE. THERE ARE THREE HOUSES ADJACENT TO THE SITE, AND SEVERAL ADDITIONAL HOUSES ALONG BOTH CHICKEN FARM AND EAST CORINTH ROADS.

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

THE TABOR BRANCH IS THE ONLY WATER SOURCE ON THE PROJECT SITE. THE TABOR BRANCH IS CLASSIFIED AS STRAIGHT AND NARROW, WITH A CONFINED CHANNEL THAT CUTS THROUGH LEDGE AT THE SITE. THE STREAM BED CONSISTS OF FINES, GRAVEL, COBBLES AND BOULDERS. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES.

### 1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF OPEN GRASSED AREAS, HARDWOOD TREES AND UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THE PROPOSED TOE OF SLOPE SHOWN ON THE PLANS. THE CHANNEL WILL NOT BE AFFECTED BY CONSTRUCTION. 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 THE WESTERLY BANK FEATURES AGAWAM FINE SANDY LOAM, "K FACTOR" = 0.28 AND THE EASTERLY BANK CONSISTS OF WINDSOR LOAMY FINE SAND, "K FACTOR" = 0.17. THE AGAWAM FINE SANDY LOAM IS CONSIDERED MODERATELY ERODIBLE DUE TO K-VALUE WHILE THE WINDSOR LOAMY FINE SAND IS CONSIDERED TO HAVE LOW 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: EAST CORINTH HISTORIC DISTRICT  
PRIME AGRICULTURAL LAND: NO  
THREATENED AND ENDANGERED SPECIES: NO  
WATER RESOURCE: TABOR BRANCH  
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 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 AND INLET PROTECTION DEVICES SHALL BE USED AT THE LOCATIONS SHOWN 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 WITH MINIMAL OFF-SITE RUNOFF FLOWING THROUGH THE SITE. THEREFORE DIVERSION MEASURES WILL NOT BE NECESSARY.

### 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.

CHECK DAMS TO BE INSTALLED AT THE LOCATIONS SHOWN ON THE EPSC PLAN.

### 1.4.7 CONSTRUCT PERMANENT CONTROLS

THERE ARE NO PERMANENT STORMWATER TREATMENT DEVICES TO BE INSTALLED WITH THIS PROJECT.

### 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

IT IS NOT ANTICIPATED THAT DEWATERING ACTIVITIES WILL BE REQUIRED.

### 1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS.

## 1.5 SEQUENCE AND STAGING

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

### 1.5.2 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.

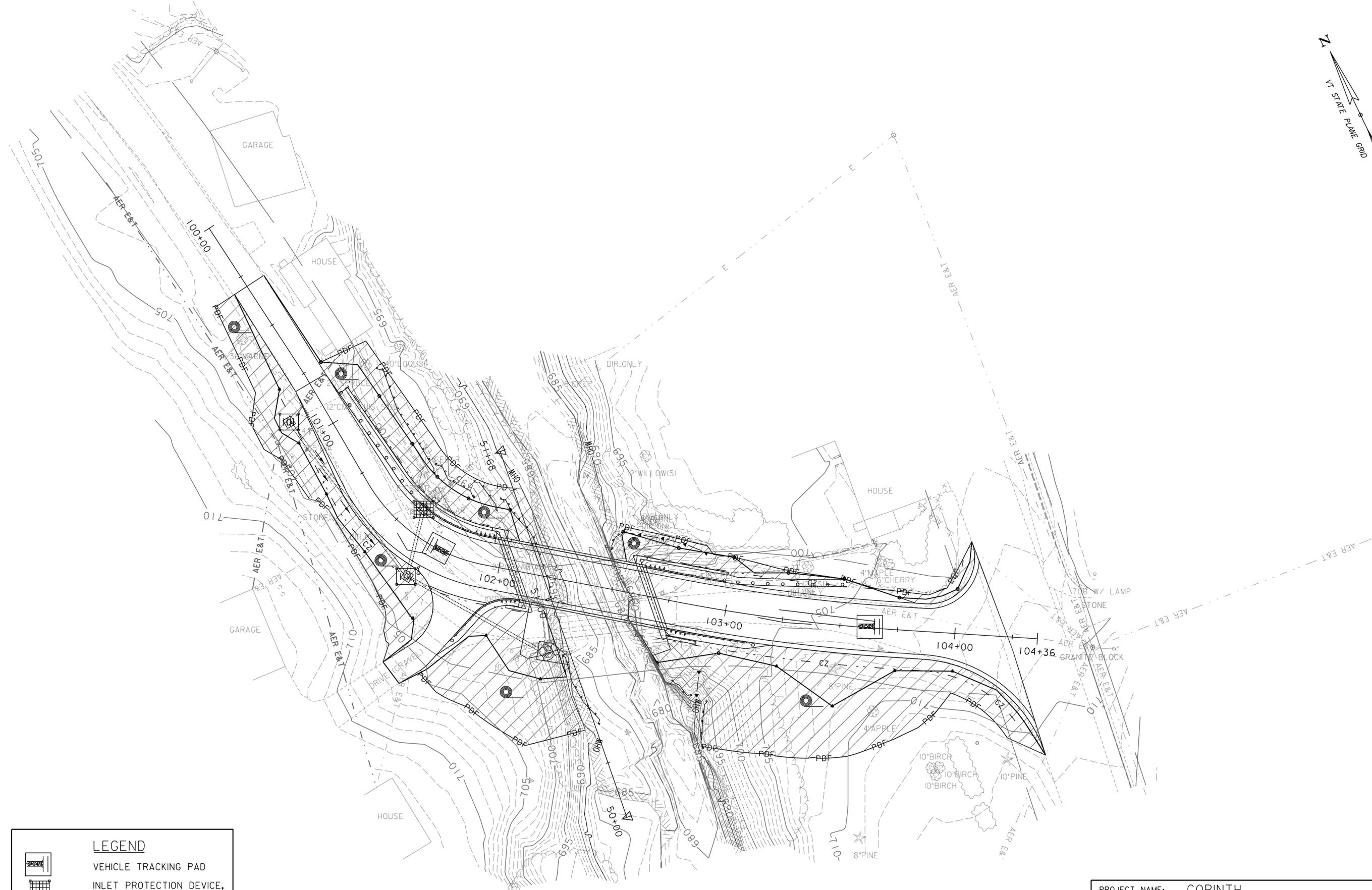
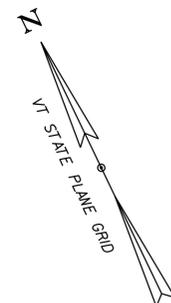
### 1.5.3 UPDATES

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_frm.dgn  
PROJECT LEADER: G. BOGUE  
DESIGNED BY: M. CHENETTE  
EPSC NARRATIVE SHEET - ECN 1

PLOT DATE: 8/26/2014  
DRAWN BY: E. ALLING  
CHECKED BY: G. BOGUE  
SHEET 51 OF 57





**LEGEND**

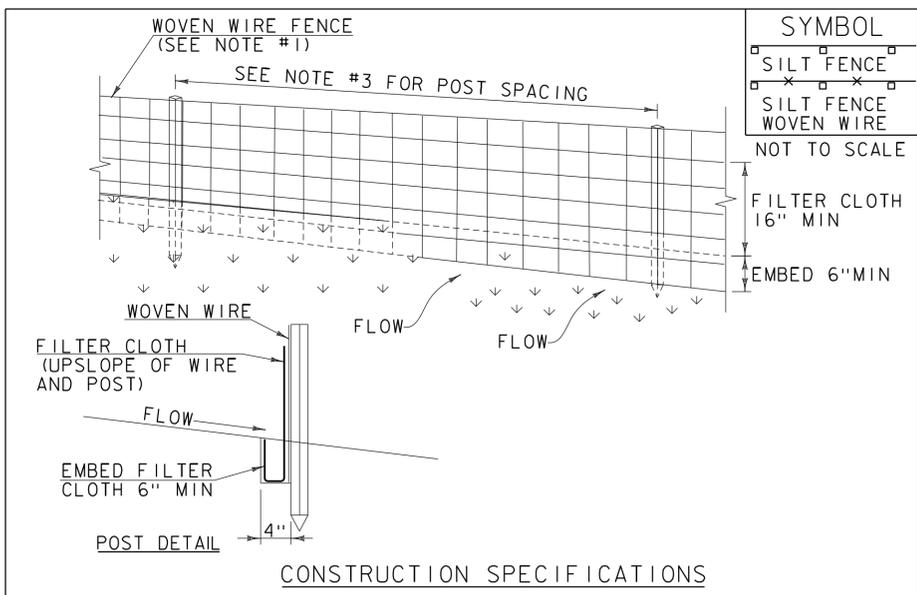
-  VEHICLE TRACKING PAD
-  INLET PROTECTION DEVICE, FILTER FIBER
-  STONE & BLOCK INLET PROTECTION

0 20 40  
SCALE: 1" = 20'-0"



PROJECT NAME:	CORINTH	PLOT DATE:	8/26/2014
PROJECT NUMBER:	BRO 1447(29)	DRAWN BY:	E. ALLING
FILE NAME:	...drawing\2014\292.bdr_ero.dgn	DESIGNED BY:	E. ALLING
PROJECT LEADER:	G. BOGUE	CHECKED BY:	T. LUTHER
<b>EPSC CONSTRUCTION SITE PLAN - ECP 1</b>		SHEET 52 OF 57	

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- CONSTRUCTION SPECIFICATIONS**
1. 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, MIRAF1100X, STABILINKA T140N 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.

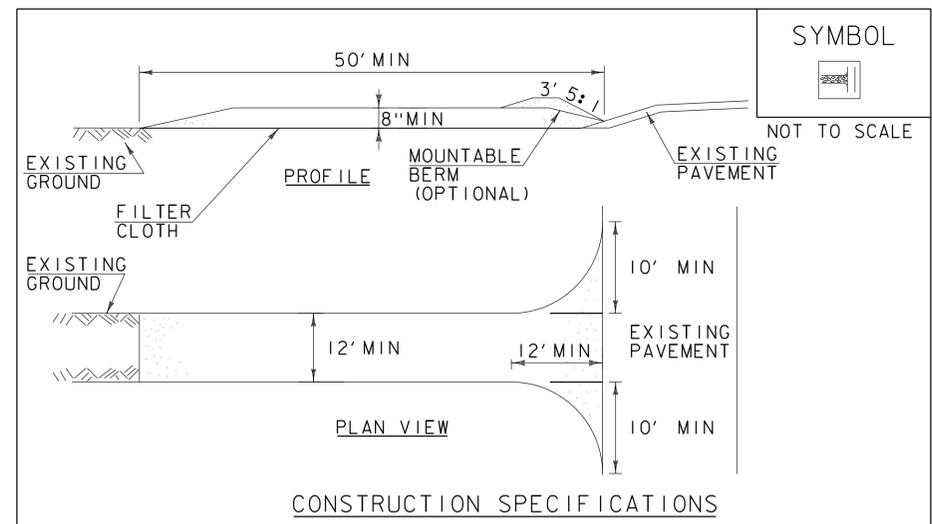
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SILT FENCE**

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

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.5) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).



- CONSTRUCTION SPECIFICATIONS**
1. STONE SIZE- USE 1-4" 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 5:1 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.

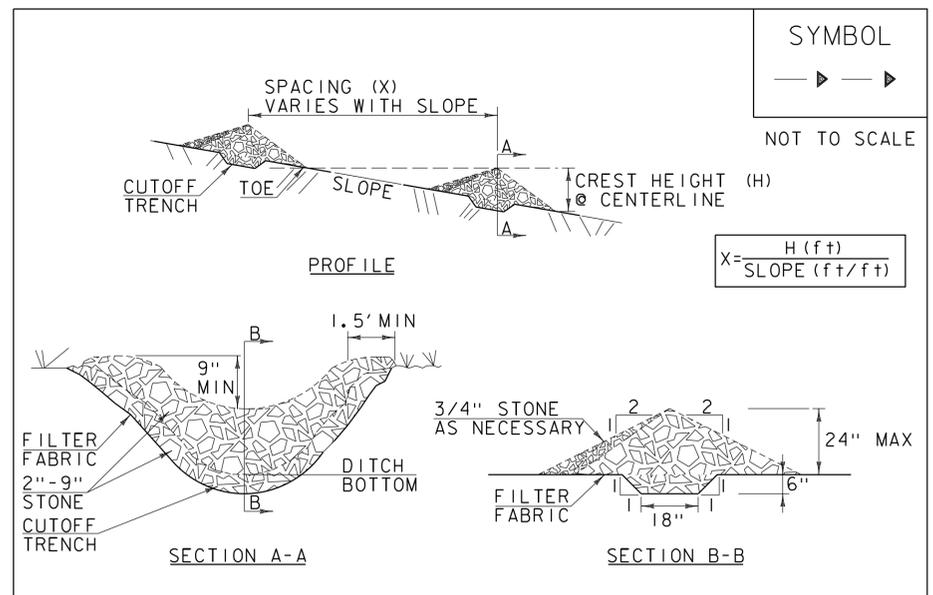
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**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.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.



- CONSTRUCTION SPECIFICATIONS**
1. 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.

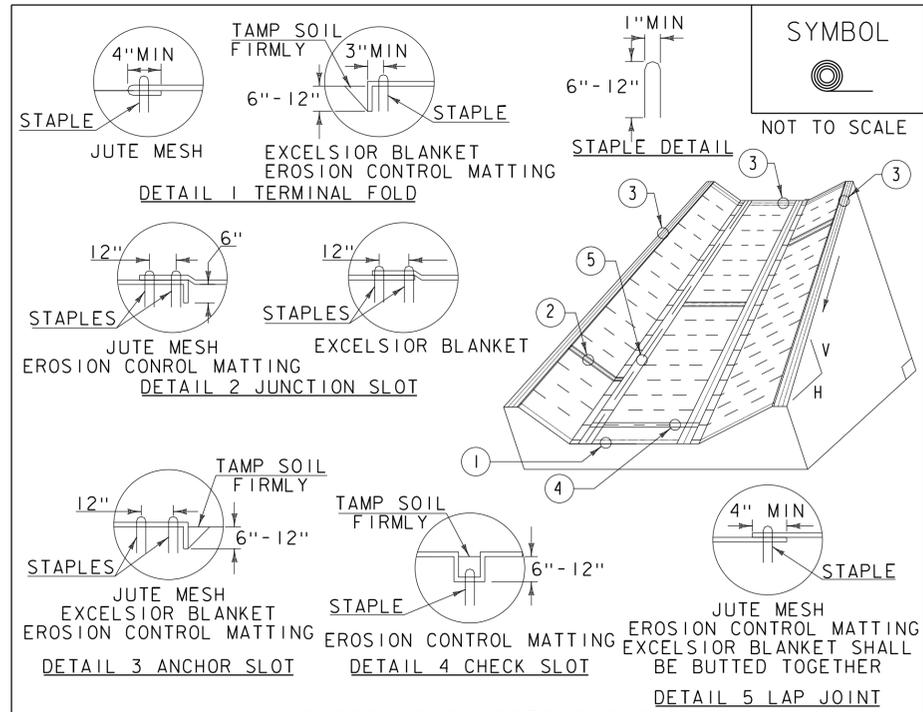
REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF

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

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\z01j292\_.typ.dgn  
PROJECT LEADER: VTRANS  
DESIGNED BY: VTRANS  
**EPSC DETAIL SHEET - ECD 1**

PLOT DATE: 8/26/2014  
DRAWN BY: VTRANS  
CHECKED BY: VTRANS  
SHEET 53 OF 57



**CONSTRUCTION SPECIFICATIONS**

1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
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.

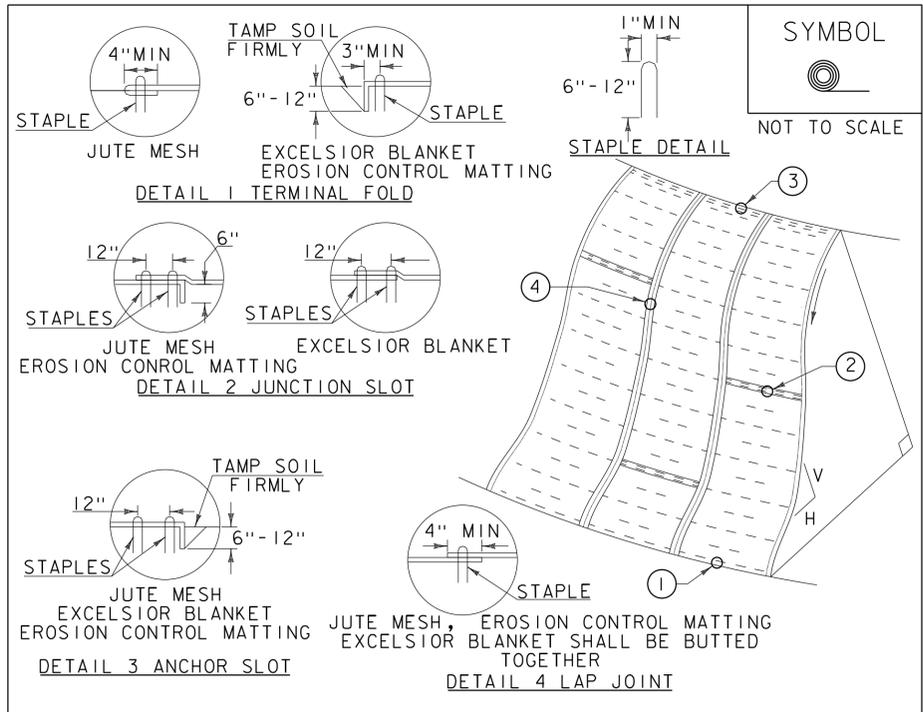
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**ROLLED EROSION CONTROL PRODUCT (RECP) DITCH**

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 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS		
MARCH 8, 2007	JMF	
APRIL 16, 2007	WHF	
JANUARY 13, 2009	WHF	



**CONSTRUCTION SPECIFICATIONS**

1. APPLY TO SLOPES GREATER THAN 3H:1V 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.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS		
APRIL 16, 2007	JMF	
JANUARY 13, 2009	WHF	

VAOT RURAL AREA MIX						
% WEIGHT	LBS/AC			NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED				
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	LBS/AC			NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED				
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%	85%
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**

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: 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. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. 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
8. 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

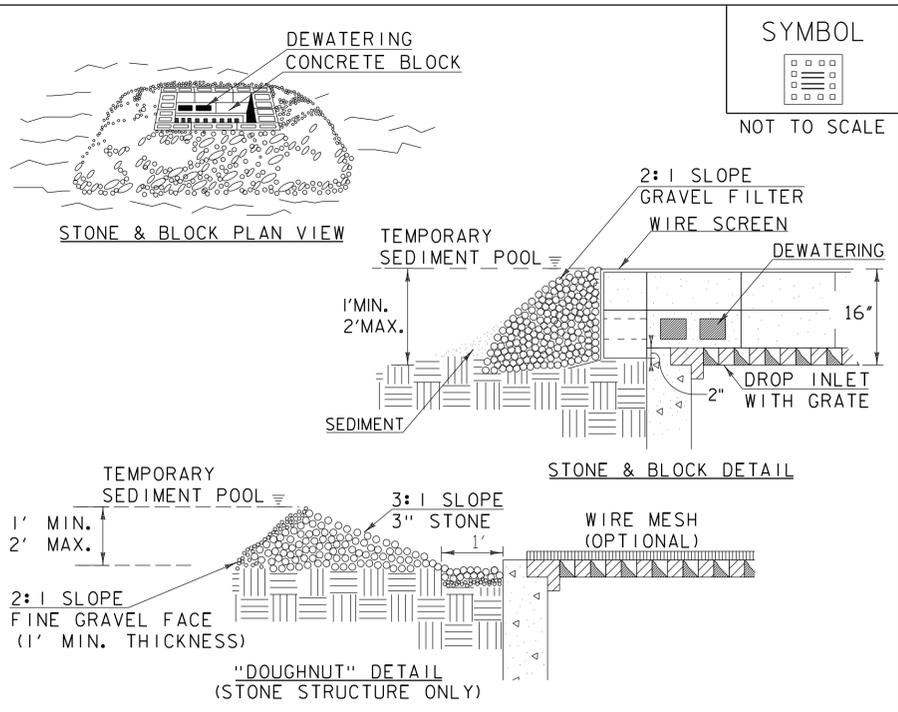
**TURF ESTABLISHMENT**

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

PROJECT NAME: CORINTH  
PROJECT NUMBER: BRO 1447(29)

FILE NAME: ...drawing\201j292.typ.dgn  
PROJECT LEADER: VTRANS  
DESIGNED BY: VTRANS  
EPC DETAIL SHEET - ECD 2

PLOT DATE: 8/26/2014  
DRAWN BY: VTRANS  
CHECKED BY: VTRANS  
SHEET 54 OF 57



SYMBOL  
  
 NOT TO SCALE

**CONSTRUCTION SPECIFICATIONS**

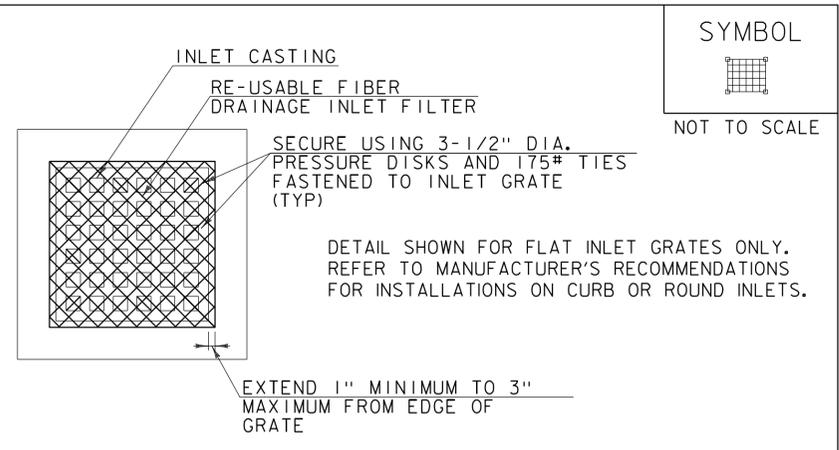
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2" MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2" - 3/4" IN DIAMETER PLACED 2" BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1' THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3" STONE AS SHOWN ON THE DRAWINGS.
5. MAXIMUM DRAINAGE AREA 1 ACRE

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

STONE & BLOCK DROP  
 INLET PROTECTION

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 INLET PROTECTION DEVICE, TYPE I (PAY ITEM 653.40).

REVISIONS	
MARCH 6, 2008	WHF
JANUARY 13, 2009	WHF



SYMBOL  
  
 NOT TO SCALE

**CONSTRUCTION SPECIFICATIONS**

1. FILTERS SHALL RETAIN ALL CONSTRUCTION DEBRIS AND SHALL RETAIN OR OTHERWISE CONTROL MOST OF THE SEDIMENT PRODUCED BY CONSTRUCTION OPERATIONS.
2. IF CLOGGING OCCURS, INLETS SHALL BE ABLE TO BE EASILY UNCLOGGED BY BROOMING THE SIDES AND TOP OF THE FILTER.
3. INSTALLED FILTERS SHALL BE RESISTANT TO TRAFFIC DAMAGE, INCLUDING TRAFFIC BY STREET CLEANING MACHINES.
4. FILTER UNITS SHALL BE BIODEGRADABLE AND MAY OFTEN BE RE-USED.
5. INSTALL FILTER UNIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. MINIMUM NUMBER OF ANCHORS PER FILTER UNIT: 7 FOR CURB INLETS, 8 FOR FLAT GRATES.
7. INSPECT ALL INSTALLED FILTER UNITS AFTER EVERY RAIN.
8. INSPECT ALL INSTALLED FILTER UNITS PRIOR TO INITIATING CONSTRUCTION ACTIVITIES FOR THE DAY IF RAIN PERSISTS OVERNIGHT.
9. IF, UPON VISUAL INSPECTION, 50% OR MORE OF FILTER FABRIC SURFACE AREA IS INUNDATED WITH SEDIMENT OR FILTER FABRIC IS CLOGGED, CONTRACTOR SHALL BROOM COLLECTED MATERIAL OFF FILTER UNIT SURFACES AND AWAY FROM EDGES.
10. REMOVE SEDIMENT AND DEBRIS COLLECTED AROUND FILTER UNITS. DISPOSE OF COLLECTED SEDIMENT AND DEBRIS OFF-SITE IN ACCORDANCE WITH THE VERMONT AGENCY OF NATURAL RESOURCES, SOLID WASTE MANAGEMENT RULES.

ORIGINALLY DEVELOPED BY STANTEC

INLET PROTECTION  
 DEVICE, FILTER  
 FIBER

NOTES:  
 THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 900 FOR PAY ITEM 900.620 SPECIAL PROVISION (INLET PROTECTION DEVICE, FILTER FIBER).

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PROJECT NAME: CORINTH	PLOT DATE: 8/26/2014
PROJECT NUMBER: BRO 1447(29)	DRAWN BY: VTRANS
FILE NAME: ...drawing\z01j292_.typ.dgn	CHECKED BY: VTRANS
PROJECT LEADER: VTRANS	SHEET 55 OF 57
DESIGNED BY: VTRANS	
<b>EPSC DETAIL SHEET - ECD 3</b>	



