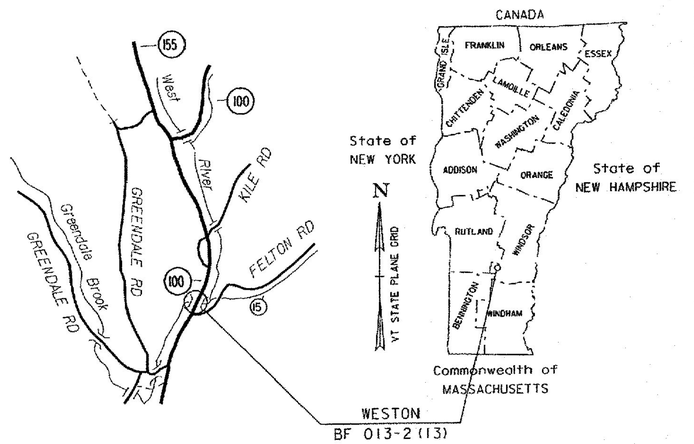
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

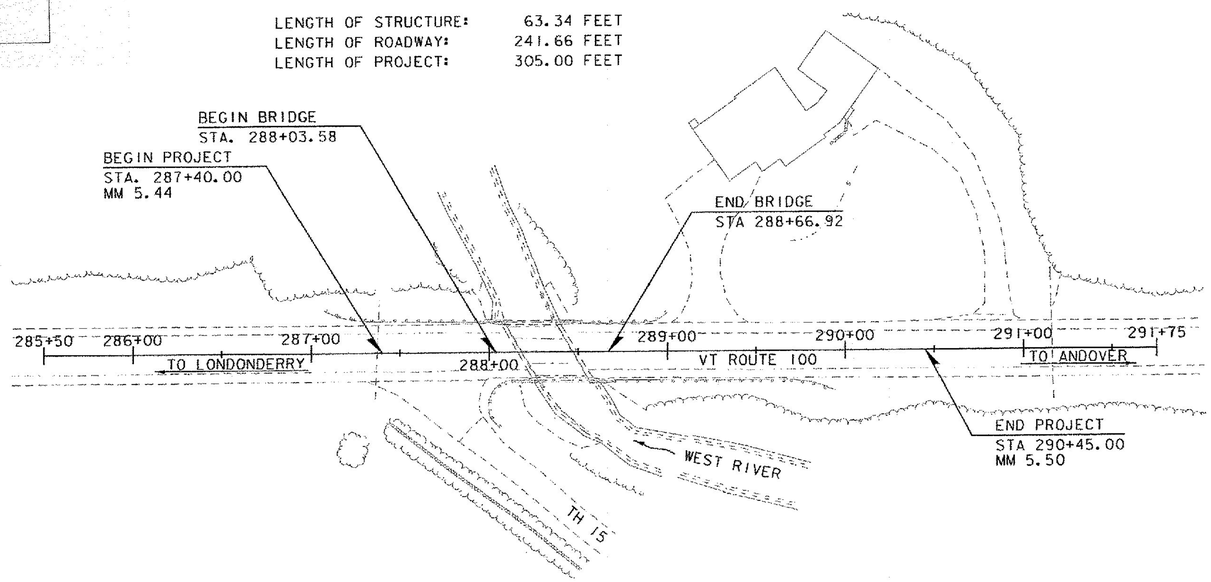
TOWN OF WESTON
COUNTY OF WINDSOR
VT ROUTE 100 (RURAL MINOR ARTERIAL), BRIDGE NO 98



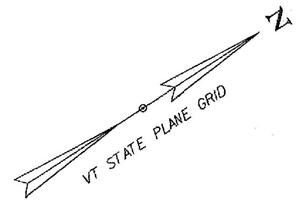
PROJECT LOCATION: LOCATED IN THE COUNTY OF WINDSOR, IN THE TOWN OF WESTON, ON VT ROUTE 100; BRIDGE NO. 98 OVER THE WEST RIVER; APPROXIMATELY 1.1 MILES SOUTH OF THE INTERSECTION OF VT ROUTE 100 AND VT ROUTE 155.

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES THE REMOVAL AND REPLACEMENT OF BRIDGE NO. 98 ON THE EXISTING ALIGNMENT, WITH ASSOCIATED ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE:	63.34 FEET
LENGTH OF ROADWAY:	241.66 FEET
LENGTH OF PROJECT:	305.00 FEET



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



RECORD PLANS

CONTRACTOR:	THE BELDEN CO. INC. - RUTLAND, VT
RESIDENT ENGINEER:	CHRISTOPHER D. WILLIAMS
CONSTRUCTION BEGAN:	MAY 2, 2016
CONSTRUCTION COMPLETE:	JULY 8, 2016
RECORD PLANS BY:	CHRISTOPHER D. WILLIAMS & JESSE IVES

I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY _____ RESIDENT ENGINEER

DATE 4/6/2017

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

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 :	R. GILMAN
SURVEYED DATE :	05/15/2013
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (2011)



vhb

DIRECTOR OF PROJECT DELIVERY
APPROVED _____ DATE 10/2/2015

PROJECT MANAGER : JENNIFER M.V. FITCH, PE

PROJECT NAME : WESTON
PROJECT NUMBER : BF 013-2(13)

SHEET 1 OF 68 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version
LRFD

INDEX OF SHEETS

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39	NEXT BEAM ABUTMENT REINFORCEMENT
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STANDARDS LIST

B-71	STANDARD FOR RESIDENTIAL AND COMMERCIAL DRIVES	07-08-2005
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	08-08-1995
E-136B	STATE ROUTE MARKER SIGN DETAILS	08-08-1995
E-193	PAVEMENT MARKING DETAILS	08-18-1995
G-19	GENERIC GRADING PLANS FOR GUARDRAIL END TERMINALS	11-15-2002
J-3	MAIL BOX SUPPORT DETAILS	08-07-1995
S-364A	BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM	02-10-2014
S-364B	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	02-10-2014
S-364C	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	02-10-2014
S-364D	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	04-23-2012
T-1	TRAFFIC CONTROL GENERAL NOTES	08-06-2012
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08-06-2012
T-17	TRAFFIC CONTROL MISCELLANEOUS DETAILS	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	08-06-2012
T-35	CONSTRUCTION ZONE LONGITUDNAL DROP-OFFS	08-06-2012
T-40	DELINEATORS AND MILEPOSTS	01-02-2013
T-42	BRIDGE NUMBER PLAQUE	04-09-2014
T-44	MILEMARKER DETAILS STATE AND TOWN HIGHWAYS	04-09-2014
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013

STRUCTURES DETAIL SHEETS

SD-501.00	CONCRETE DETAILS AND NOTES	2/9/2012
SD-502.00	CONCRETE DETAILS AND NOTES	10/10/2012
SD-516.10	BRIDGE JOINT ASHPALTIC PLUG	8/29/2011
SD-601.00	STRUCTURAL STEEL DETAILS AND NOTES	6/4/2010
SD-602.00	STRUCTURAL STEEL PLATE GIRDER DETAILS AND NOTES	5/2/2011

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2016	1900	330	57	8.9	150
2036	2000	350	57	14.2	250

20 year ESAL for flexible pavement from 2016 to 2036 : 768000
40 year ESAL for flexible pavement from 2016 to 2056 : 1753000
Design Speed : 50 mph

AS BUILT "REBAR" DETAIL

LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: November 2014

DRAINAGE AREA : 9.1 sq. mi.
CHARACTER OF TERRAIN : Hilly to mountainous, mostly wooded
STREAM CHARACTERISTICS : Sinuous, incised and alluvial
NATURE OF STREAMBED : Boulders, cobbles, gravel

PEAK FLOW DATA

Q 2.33 =	800 cfs	Q 50 =	3275 cfs
Q 10 =	1885 cfs	Q 100 =	4070 cfs
Q 25 =	2580 cfs	Q 500 =	6800 cfs

DATE OF FLOOD OF RECORD: Unknown
ESTIMATED DISCHARGE: Unknown
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ Q50 = 7.9 fps
ICE CONDITIONS : Moderate
DEBRIS: Low to moderate
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No
IS ORDINARY RISE RAPID? No
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: Steel beam and concrete deck
YEAR BUILT: 1959
CLEAR SPAN(NORMAL TO STREAM): ~25'
VERTICAL CLEARANCE ABOVE STREAMBED: ~8'
WATERWAY OF FULL OPENING: 180 sq. ft.
DISPOSITION OF STRUCTURE: Remove and replace
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See borings

WATER SURFACE ELEVATIONS AT:

Q2.33 =	1426.1'	VELOCITY =	7.4 fps
Q10 =	1429.3'	"	9.2 fps
Q25 =	1432.1'	"	12.6 fps
Q50 =	1432.4'	"	12.9 fps
Q100 =	1432.4'	"	13.7 fps

LONG TERM STREAMBED CHANGES: None noted

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
FREQUENCY: Below Q25
RELIEF ELEVATION: 1431.7'
DISCHARGE OVER ROAD @Q100: 1640 cfs

UPSTREAM STRUCTURE

TOWN: Weston
HIGHWAY # : 14
CLEAR SPAN:
YEAR BUILT:
STRUCTURE TYPE:
DISTANCE: 2920'
STRUCTURE #:
CLEAR HEIGHT:
FULL WATERWAY:

DOWNSTREAM STRUCTURE

TOWN: Weston
HIGHWAY # : 22
CLEAR SPAN: ~67'
YEAR BUILT: 1939
STRUCTURE TYPE: Rolled beam bridge
DISTANCE: 2530'
STRUCTURE #: 29
CLEAR HEIGHT:
FULL WATERWAY:

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
TONNAGE	**20**	**36**	**36**	**66**	**30**	**34.5**	**38**
INVENTORY	1.94	1.04					
POSTING							
OPERATING	2.60	1.39	2.42	1.49	1.93	1.74	1.98
COMMENTS:	FOR NEXT BEAM SUPERSTRUCTURE						

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
TONNAGE	**20**	**36**	**36**	**66**	**30**	**34.5**	**38**
INVENTORY	2.41	1.28					
POSTING							
OPERATING	3.12	1.65	2.19	1.40	1.80	1.62	1.82
COMMENTS:	FOR PBU SUPERSTRUCTURE						

PROPOSED STRUCTURE

STRUCTURE TYPE: Prestressed Concrete NEXT beams or PBUs

CLEAR SPAN(NORMAL TO STREAM): 50'
VERTICAL CLEARANCE ABOVE STREAMBED: ~8.5'
WATERWAY OF FULL OPENING: 360 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	1425.4'	VELOCITY=	6.7 fps
Q10 =	1427.5'	"	9.0 fps
Q25 =	1427.7'	"	12.0 fps
Q50 =	1428.4'	"	13.4 fps
Q100 =	1429.2'	"	14.3 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: No
FREQUENCY: N/A
RELIEF ELEVATION: 1432.3'
DISCHARGE OVER ROAD @Q100: N/A

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 1429.4'
VERTICAL CLEARANCE: @ Q50 = 1.0'

SCOUR: 0' of contraction scour up through Q500

REQUIRED CHANNEL PROTECTION: Stone Fill, Type IV

PERMIT INFORMATION

AVERAGE DAILY FLOW:	20 cfs	DEPTH OR ELEVATION:
ORDINARY LOW WATER:	10 cfs	~0.5'
ORDINARY HIGH WATER:	345 cfs	~3.0'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: N/A
CLEAR SPAN (NORMAL TO STREAM):
VERTICAL CLEARANCE ABOVE STREAMBED:
WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY

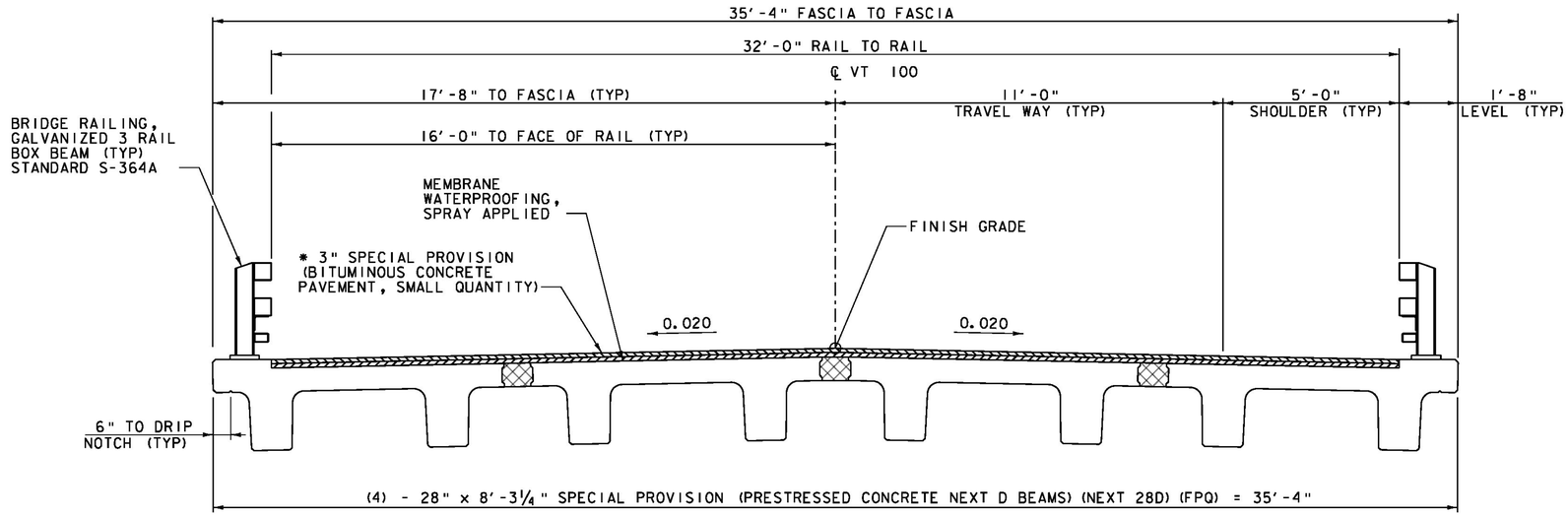
DESIGN VALUES

1.	DESIGN LIVE LOAD		HL-93
2.	FUTURE PAVEMENT	d_P:	0.0 INCH
3.	DESIGN SPAN	L:	60.50 FT
4.	MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	1.60 INCH
5.	PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX)	f_y:	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:	4.0 KSI
10.	CONCRETE, HIGH PERFORMANCE CLASS B	f'_c:	---
11.	CONCRETE, CLASS C	f'_c:	---
12.	REINFORCING STEEL	f_y:	60 KSI
13.	STRUCTURAL STEEL AASHTO M270 (GALVANIZED OR METALIZED)	f_y:	50 KSI
14.	NOMINAL BEARING RESISTANCE OF SOIL	q_n:	---
15.	SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
16.	NOMINAL BEARING RESISTANCE OF ROCK	q_n:	---
17.	ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
18.	PILE RESISTANCE FACTOR	ϕ:	---
19.	LATERAL PILE DEFLECTION	Δ:	---
20.	BASIC WIND SPEED	V_{3s}:	---
21.	MINIMUM GROUND SNOW LOAD	p_g:	---
22.	SEISMIC DATA PGA: 0	S_s:	---
		S_1:	---
23.			---
24.			---
25.			---
26.			---

PROJECT NAME: **WESTON**
PROJECT NUMBER: **BF 013-2(13)**

FILE NAME: **57673pi Sheet.xls**
PROJECT LEADER: **M.A. COLGAN**
DESIGNED BY: **J.J. WESTCOTT**
PRELIMINARY INFORMATION SHEET
PLOT DATE: 9/30/2015
DRAWN BY: **J.J. WESTCOTT**
CHECKED BY: **S.E. BURBANK**
SHEET 2 OF 68

VHB 57673

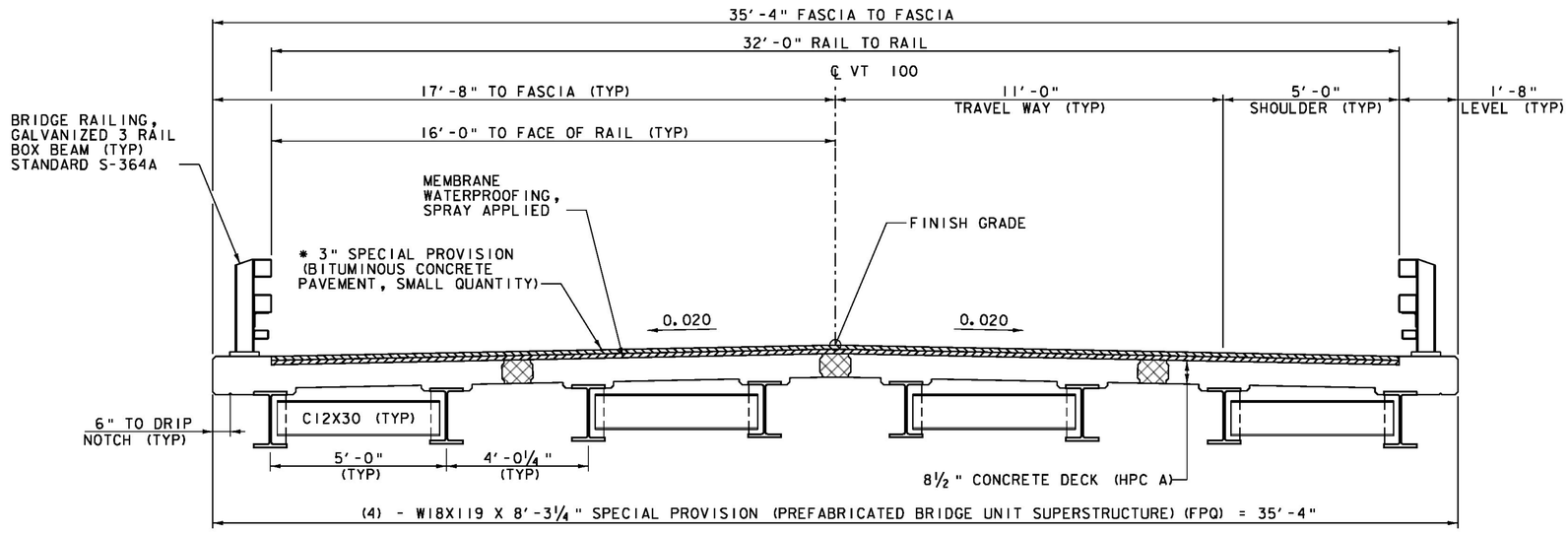


* - (2) - 1½" LIFTS OF TYPE IVS

TYPICAL NEXT BEAM BRIDGE SECTION ALTERNATE

SCALE ½" = 1'-0"

= SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)



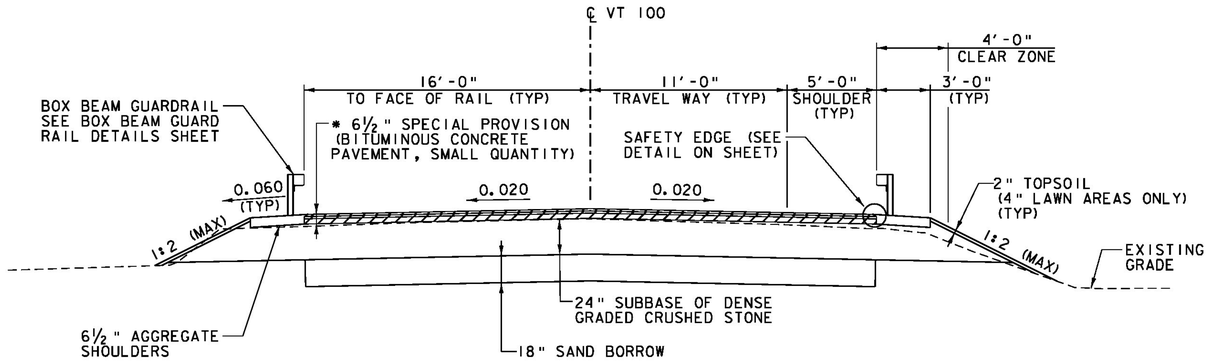
* - (2) - 1½" LIFTS OF TYPE IVS

TYPICAL PBU BRIDGE SECTION ALTERNATE

SCALE ½" = 1'-0"

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076typ.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TYPICAL BRIDGE SECTION	SHEET 3 OF 68

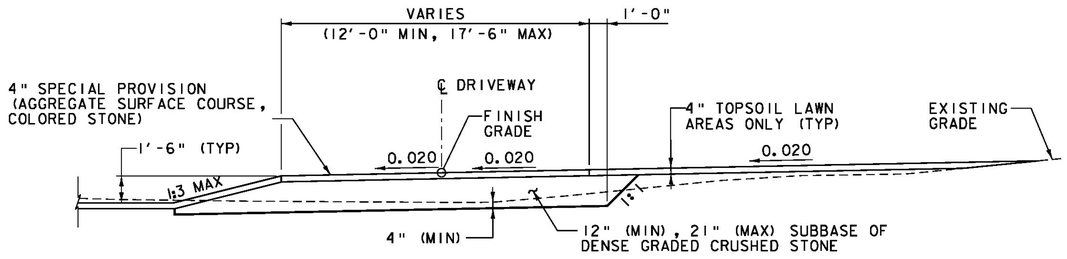
VHB 57673



*(2)-1½" LIFTS OF TYPE IVS OVER
(1)-3½" LIFT OF TYPE IIS

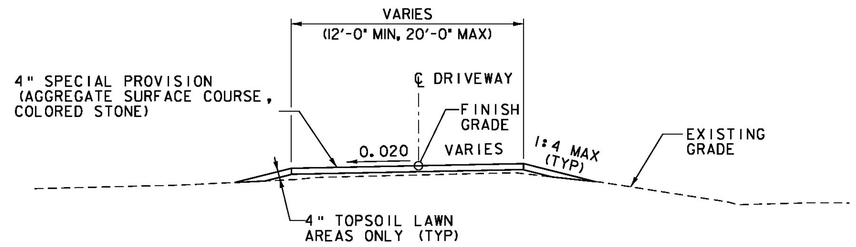
VT 100 TYPICAL ROADWAY SECTION

SCALE ¼" = 1'-0"



STA. 10+13 - 11+74 DRIVEWAY TYPICAL SECTION

SCALE ¼" = 1'-0"



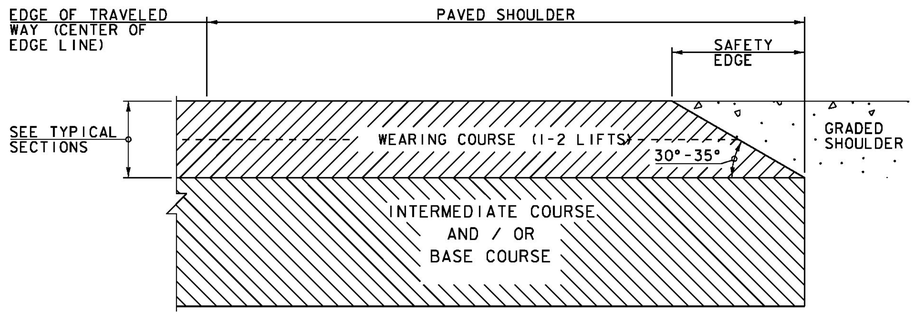
STA. 1+16 - 2+25 DRIVEWAY TYPICAL SECTION

SCALE ¼" = 1'-0"

MATERIAL TOLERANCES

(IF USED ON PROJECT)

SURFACE	
PAVEMENT (TOTAL THICKNESS)	+/- ¼"
AGGREGATE SURFACE COURSE	+/- ½"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"



SAFETY EDGE DETAIL

NOT TO SCALE

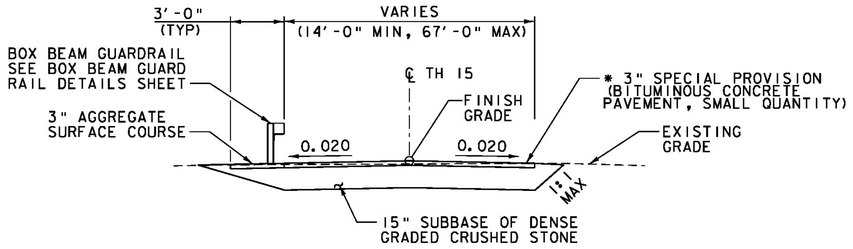
1. THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
2. THE PAVED SHOULDER EXTENDS FROM THE EDGE OF TRAVELED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

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: zl3b076typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
TYPICAL SECTIONS (1 OF 2)

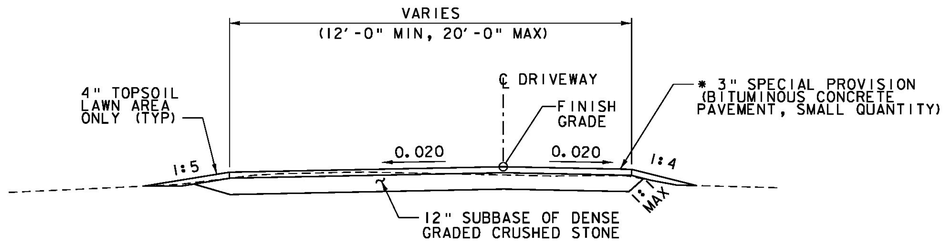
PLOT DATE: 10/19/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 4 OF 68



TH 15 (FELTON ROAD) TYPICAL PAVED SECTION

STA. 50+16 - 50+51

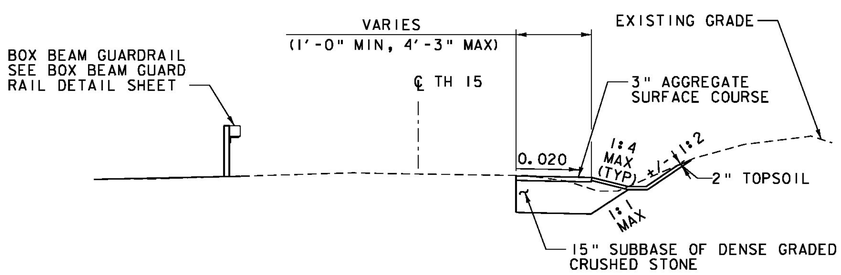
SCALE 1/4"= 1'-0"



*(2)-1 1/2" LIFTS OF TYPE IVS

DRIVEWAY TYPICAL PAVED SECTION

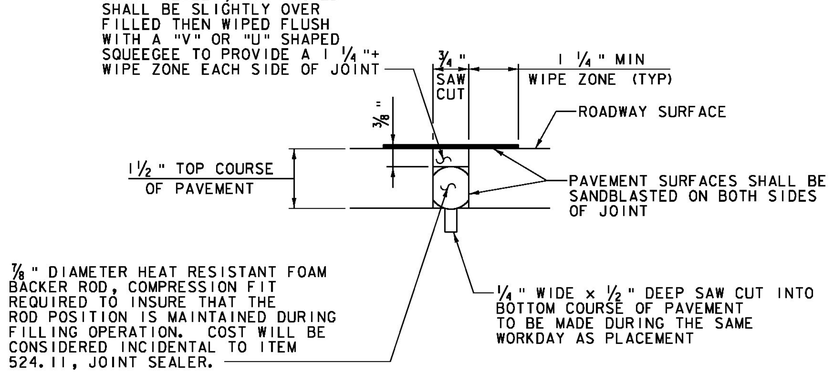
SCALE 1/4"= 1'-0"



TH 15 (FELTON ROAD) TYPICAL BOX CUT SECTION

STA. 50+51 - 51+41.51

SCALE 1/4" = 1'-0"



SAW CUT JOINT DETAIL

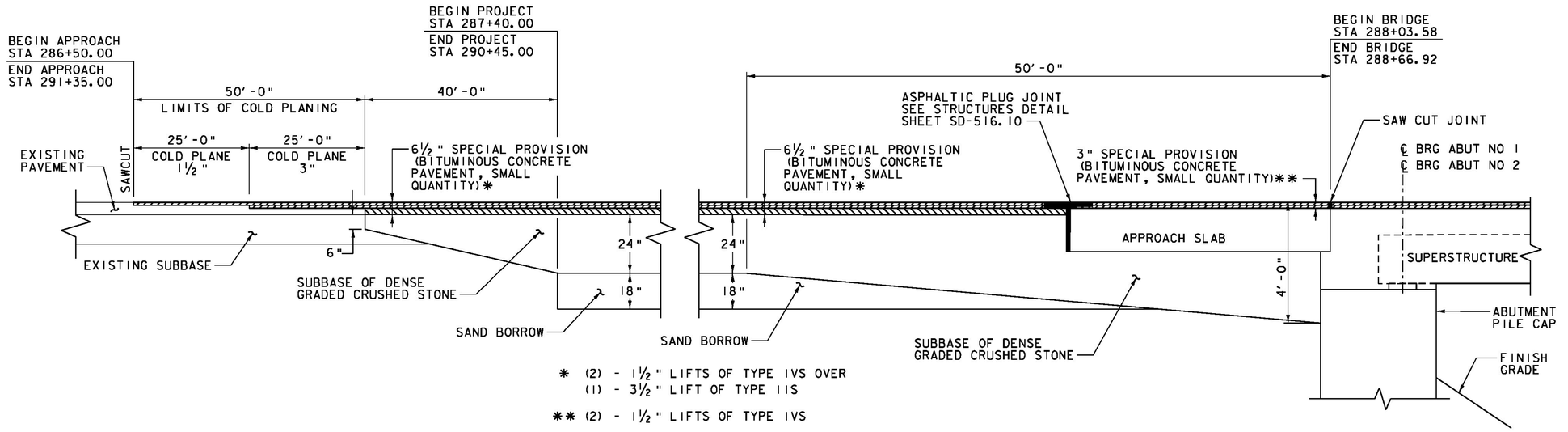
NOT TO SCALE

1. JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF THE CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.

2. SAWED PAVEMENT JOINTS SHALL BE LOCATED BETWEEN THE APPROACH SLABS AND EACH END OF THE BRIDGE AND BETWEEN THE APPROACH SLABS AND ANY PAVED APRONS FOR DRIVES.

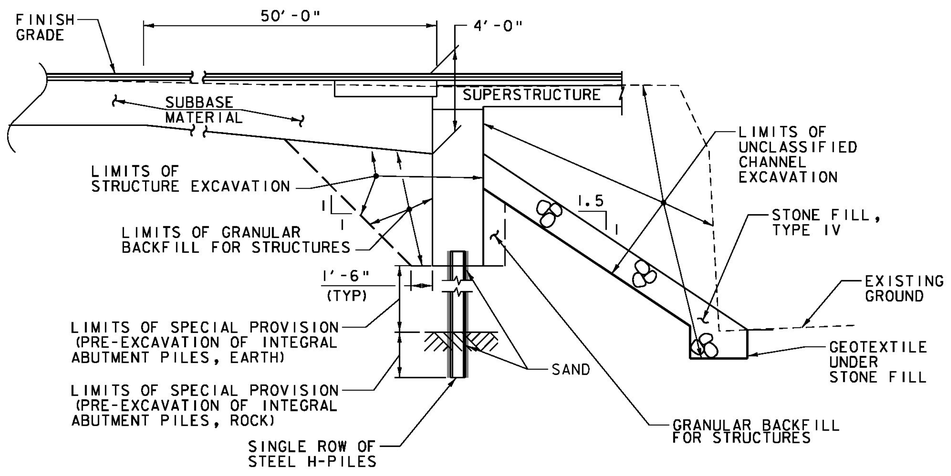
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076typ.dgn	PLOT DATE: 10/19/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TYPICAL SECTIONS (2 of 2)	SHEET 5 OF 68

VHB 57673



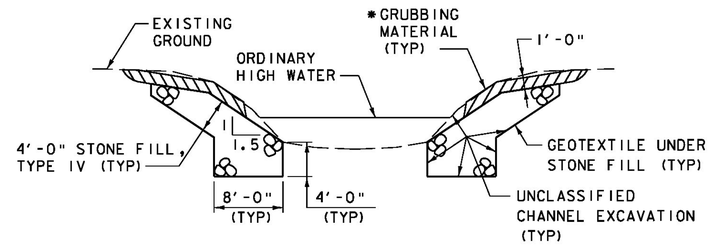
NOTE: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.040 GAL/SY BETWEEN SUCCESSIVE COURSES OF BITUMINOUS CONCRETE PAVEMENT AND ON THE APPROACH SLAB PRIOR TO PLACING THE FIRST LIFT AND AT A RATE OF 0.080 GAL/SY ON ALL COLD PLANED SURFACES, AS DIRECTED BY THE ENGINEER.

APPROACH SECTION
NOT TO SCALE



NOTE: ACTUAL STRUCTURE EXCAVATION LIMITS SHALL BE DETERMINED BY THE CONTRACTOR. HOWEVER, ONLY THE EXCAVATION BETWEEN THE LIMITS SHOWN FOR STRUCTURE EXCAVATION WILL BE PAID FOR UNDER ITEM 204.25, "STRUCTURE EXCAVATION". EXCAVATION OUTSIDE OF THESE LIMITS WILL BE AT THE EXPENSE OF THE CONTRACTOR.

ABUTMENT EARTHWORK SECTION
NOT TO SCALE



TYPICAL CHANNEL SECTION
NOT TO SCALE

*GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076typ.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
APPROACH AND TYPICAL EARTHWORK SECTION	SHEET 6 OF 68

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PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2011, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, AND ITS LATEST REVISIONS.

2. ALL PRECAST CONCRETE ELEMENTS TO BE FABRICATED TO THE SPECIFIED DIMENSIONS WITHIN THE TOLERANCES DICTATED IN THE PRECAST/PRESTRESSED CONCRETE INSTITUTE TOLERANCE MANUAL FOR PRECAST AND PRESTRESSED CONCRETE CONSTRUCTION, MNL 135-00, AND ITS LATEST REVISIONS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CONSISTENCY BETWEEN FABRICATOR'S SHOP DRAWINGS AND ENSURING THAT ALL PRECAST AND RAIL COMPONENTS FIT TOGETHER.

4. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.

5. NO ADJUSTMENTS TO THE BITUMINOUS WEARING SURFACE ON THE BRIDGE SHALL BE MADE TO ACCOUNT FOR THE DIFFERENCE BETWEEN THE ACTUAL BEAM CAMBER AND THE THEORETICAL ROADWAY PROFILE. THE WEARING SURFACE SHALL BE SHIMMED TRANSVERSELY AS NECESSARY TO ACCOUNT FOR POTENTIAL DIFFERENTIAL CAMBER OF THE ADJACENT BEAMS.

6. NO CAST-IN-PLACE SUBSTITUTIONS WILL BE PERMITTED FOR PRECAST CONCRETE.

7. THE EXISTING BRIDGE CONTAINS STRUCTURAL STEEL. THE STRUCTURAL STEEL MAY BE PAINTED WITH MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.

8. THE REMOVAL OF THE EXISTING BRIDGE WILL BE PAID FOR UNDER ITEM 529.15 "REMOVAL OF STRUCTURE". THIS WORK WILL INCLUDE THE COMPLETE REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE SUPERSTRUCTURE, INCLUDING ALL BEARINGS, ANCHOR BOLTS, AND THE BRIDGE SUBSTRUCTURE THAT FALL OUTSIDE THE LIMITS COVERED BY THE CONTRACT EXCAVATION ITEMS.

TRAFFIC CONTROL

9. THE CONTRACTOR SHALL IMPLEMENT THE ROAD CLOSURE, TRAFFIC CONTROL, AND DETOUR AS SHOWN ON THE PLANS.

10. THE CONTRACTOR SHALL NOTIFY THE TOWN AND RESIDENTS WITHIN THE PROJECT LIMITS A MINIMUM OF TWO (2) WEEKS PRIOR TO CLOSING THE ROAD.

11. FULL ACCESS TO ALL SIDE ROADS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".

12. ACCESS TO ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH MS. PROCTOR AND THE ENGINEER ON CONSTRUCTING MS. PROCTOR'S DRIVEWAYS. MS. PROCTOR SHALL NOT BE DELAYED BY NO MORE THAN TEN (10) MINUTES DUE TO CONSTRUCTION. MS. PROCTOR SHALL BE NOTIFIED AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO ANY DELAY GREATER THAN TEN (10) MINUTES. THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".

13. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS OR NOTED OTHERWISE, ALL COSTS FOR WORK SHOWN ON THE TRAFFIC CONTROL SHEETS AND FOR TEMPORARY TRAFFIC CONTROL DEVICES WILL BE INCLUDED IN THE CONTRACT ITEM 641.10, "TRAFFIC CONTROL". THIS INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING ITEMS:

    TEMPORARY TRAFFIC BARRIERS
    RETROREFLECTIVE DRUMS & CONES
    TEMPORARY SIGNS
    SIGN POSTS
    INSTALLATION OF TEMPORARY SIGNS AND SIGN POSTS

    TEMPORARY TRAFFIC BARRIER SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 621.

14. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) DATED 2009 AND ITS LATEST REVISIONS AND THE "STANDARD HIGHWAY SIGNS AND MARKINGS" BOOK (SHSM), AND THE 2012 SUPPLEMENT TO THE 2004 EDITION (SHSM) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).

EARTHWORK

15. THE "STONE FILL, TYPE IV" UNDER THE BRIDGE AS SHOWN IN THE PLANS SHALL BE PLACED BEFORE THE NEW BEAMS ARE SET.

16. REMOVAL OF EXISTING BRIDGE PAVEMENT WILL BE PAID UNDER ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT".

17. THE CONTRACTOR MAY SUBSTITUTE SUBBASE MATERIAL FOR THE SAND BORROW SHOWN IN THE MATERIALS TRANSISTION. THE SUBBASE MATERIAL SHALL BE THE TYPE SPECIFIED IN THE CONTRACT AND SHALL BE PLACED TO MEET THE SUBBASE SPECIFICATIONS. IF SUBBASE IS PLACED IN LIEU OF SAND BORROW, A GEOTEXTILE MEETING THE REQUIREMENTS OF ITEM 649.11 "GEOTEXTILE FOR ROAD BED SEPARATOR" SHALL BE PLACE BETWEEN THE SUBGRADE AND SUBBASE MATERIAL. ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING THE GEOTEXTILE SHALL BE INCIDENTAL TO 203.31 "SAND BORROW".

CONCRETE

18. ALL LIFTING POINTS IN THE SUPERSTRUCTURE SHALL BE REMOVABLE TO THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SPECIFIED IN THE PLANS. THE LIFTING POINTS SHALL BE DETAILED IN THE APPROPRIATE FABRICATION DRAWING. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM.

19. ALL RECESSED LIFTING POINTS AND BLOCKOUTS SHALL BE FILLED WITH A TYPE IV MORTAR PER SUBSECTIONS 707.03. PAYMENT WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM.

20. THE METHOD OF FORMING FOR SUBSEQUENT POURS AFTER PLACING PRECAST/PRESTRESSED SUPERSTRUCTURE UNITS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR IS ENCOURAGED TO WORK WITH THE FABRICATOR IF ADDITIONAL SUPPORTS MAY BE REQUIRED. IN NO CASE SHALL THE CONTRACTOR ATTACH ADDITIONAL FORM OF SCREED SUPPORTS BY DRILLING OR SIMILAR MEANS INTO ANY PRECAST/PRESTRESSED SUPERSTRUCTURE UNIT.

21. ALL FORM SUPPORTS AND FORM TIES THAT ARE TO REMAIN PERMANENTLY IN THE CONCRETE ABOVE THE BRIDGE SEAT SHALL BE AT A MINIMUM PROTECTION LEVEL OF GALVANIZED AND CONFORM TO SECTION 726 OF THE STANDARD SPECIFICATIONS.

22. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE, WITH THE EXCEPTION OF THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.

23. ALL EXPOSED EDGES SHALL HAVE A 1"X1" CHAMFER UNLESS OTHERWISE NOTED.

REINFORCING STEEL

24. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).

25. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE. A MINIMUM OF TWO TEST SECTIONS ARE REQUIRED FOR EACH SIZE, BRAND, AND GRADE OR TYPE OF REINFORCING. SEE THE MANUAL FOR ACCEPTABLE DIMENSIONS OF TEST SECTIONS. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE INCLUDED IN THE UNIT BID PRICE FOR THE APPROPRIATE PRECAST ITEM.

26. ALL REINFORCEMENT SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCING STEEL. PAYMENT FOR STEEL REINFORCEMENT IN NEXT D BEAMS OR PBUS, INCLUDING REINFORCING FOR THE CLOSURE POUR WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS)(NEXT 28D)(FPQ)" OR ITEM 900.640, "SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE)(FPQ)". PAYMENT FOR STEEL REINFORCEMENT IN PRECAST SUBSTRUCTURE UNITS AND APPROACH SLABS, INCLUDING REINFORCING FOR THE CLOSURE POUR, WILL BE INCLUDED IN THE APPROPRIATE PRECAST CONTRACT ITEM.

27. CUTTING AND REPAIRING DAMAGED AREAS OF COATED REINFORCING STEEL SHALL BE PERFORMED IN ACCORDANCE WITH SUBSECTION 507.04.

28. MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

ALONG TOP SURFACE OF DECK SLAB:	2½ INCH
ALONG BOTTOM SURFACE OF NEXT BEAM:	1¾ INCH
ALONG BOTTOM SURFACE OF PBUS:	1½ INCH
ELSEWHERE UNLESS OTHERWISE NOTED:	3 INCH

PRECAST ABUTMENTS AND POST-TENSIONING

29. IF A VERTICAL CONSTRUCTION JOINT IS REQUIRED BY THE CONTRACTOR FOR SHIPMENT OF THE ABUTMENTS, THEN THE SECTIONS SHALL BE KEYED AND MATCH CAST. A JOINT DETAIL SHALL BE SHOWN ON THE FABRICATION DRAWINGS. NO LESS THAN TWO PILES SHALL SUPPORT EACH PRECAST ABUTMENT SECTION.

30. EPOXY BONDING COMPOUND SHALL BE APPLIED TO ALL VERTICAL MATCH CAST CONSTRUCTION JOINTS. SEE AGENCY WEBSITE FOR LIST OF APPROVED EPOXY BONDING COMPOUNDS. PAYMENT FOR EPOXY WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.

31. ITEM 524.21, JOINT SEALER, POLYURETHANE, SHALL BE APPLIED TO THE OUTSIDE FAR FACE OF ALL VERTICAL MATCH CAST CONSTRUCTION JOINTS.

32. POST-TENSIONING AND ASSOCIATED ITEMS ARE ONLY REQUIRED IF THE PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT. ANY POST-TENSIONING STRANDS AND CONDUIT SHALL ADHERE TO THE REQUIREMENTS OF SECTION 510 - PRESTRESSED CONCRETE. GALVANIZED ANCHOR ASSEMBLIES, CONDUIT AND POST-TENSIONING STRANDS SHALL BE INCLUDED UNDER ITEM 540.10, "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)" OR "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)" AS APPROPRIATE. POST-TENSIONING STRANDS SHALL BE COVERED WITH SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITOR GREASE BETWEEN SHEATH AND STRAND) FOR THE LENGTH OF THE STRAND, EXCEPT AT ANCHORAGE LOCATIONS.

33. GALVANIZE ANCHOR ASSEMBLIES AFTER FABRICATION ACCORDING TO AASHTO M232M/M232.

34. DESIGN VALUES
    A. CONCRETE COMPRESSIVE STRENGTH: f'c = 5,000 PSI.
    B. POST-TENSIONING STRANDS: 0.5 INCH DIAMETER, 270 KSI, LOW RELAXATION 7-WIRE STRANDS.
    C. ASSUMED MODULUS OF ELASTICITY IS 28,500 KSI.
    D. THERE SHALL BE 2 STRANDS PER CONDUIT.
    E. JACKING FORCE PER STRAND = 32 KIPS.

35. THE CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF SUBSECTION 711.01 AND SHALL BE GALVANIZED PER SUBSECTION 726.08 OF THE STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH FURNISHING AND PLACING THE CORRUGATED STEEL PIPE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.

36. THE CONCRETE FOR THE ABUTMENT PILE CAVITIES WILL BE PAID FOR UNDER ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)". SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

37. THE BACKFILL BEHIND THE ABUTMENTS SHALL BE LIMITED TO A HEIGHT OF 3'-0" BELOW THE BRIDGE SEAT AND NO CRANES SHALL BE CLOSER THAN 3'-0" TO THE ABUTMENT DURING THE ERECTION OF THE SUPERSTRUCTURE.

38. THE CONTRACTOR SHALL PROVIDE THREE (3) ASSEMBLED SPLICE TUBES PER SPLICE CONNECTOR SIZE FOR TESTING. THE CONNECTION SHALL BE ASSEMBLED IN THE FIELD BY THE CONTRACTOR AND WITNESSED BY THE ENGINEER. THE MECHANICAL COUPLER CONNECTORS SHALL BE PAID FOR UNDER ITEM 540.10, "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)" AND "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)".

NEXT D BEAMS ALTERNATE

39. NEXT D BEAMS ARE A NON-PROPRIETARY SHAPE DEVELOPED BY PCI NORTHEAST ("PCINE"). STANDARDIZED SECTION PROPERTIES AND DETAILS MAY BE FOUND AT http://www.pcine.org

40. DESIGN VALUES
    A. CONCRETE COMPRESSIVE STRENGTH: f'c = 7,000 PSI.
    B. CONCRETE COMPRESSIVE STRENGTH AT RELEASE: f'ci = 5,500 psi.
    C. PRESTRESSING STRANDS: 0.6 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7-WIRE STRANDS
    D. ASSUMED MODULUS OF ELASTICITY = 28,5000 KSI
    E. PRESTRESSING STRANDS SHALL EACH BE PULLED TO HAVE A NET TENSION FORCE OF 44.0 KIPS AFTER ACCOUNTING FOR CHUCK SLIPPAGE.
    F. SERVICE LOADS

MEMBER MOMENT	653 K-FT
NON-COMPOSITE SUPERIMPOSED DEAD LOAD MOMENT	60 K-FT
COMPOSITE SUPERIMPOSED DEAD LOAD MOMENT	169 K-FT
LIVE LOAD AND IMPACT MOMENT	1,181 K-FT
DEAD LOAD REACTION	59 KIPS
LIVE LOAD AND IMPACT REACTION	95 KIPS
TOTAL REACTION	154 KIPS
FINAL CAMBER AT ERECTION	2.6 INCHES

41. THE FABRICATOR SHALL PROVIDE A CALCULATED CAMBER ESTIMATE FOR THE NEXT D BEAMS AT RELEASE, ERECTION, AND FINAL CONDITIONS PRIOR TO ANY SUPERIMPOSED LOADING OF THE BEAM. MINOR ADJUSTMENTS TO THE BRIDGE SEAT ELEVATIONS AND NEXT BEAM FLANGE THICKNESS MAY BE REQUIRED DURING THE FABRICATION REVIEW PROCESS BASED OFF OF THESE VALUES. ALL WORK ASSOCIATED WITH PROVIDING AN ESTIMATED CAMBER ALONG WITH ANY ADJUSTMENTS TO THE BRIDGE SEAT ELEVATIONS OR NEXT BEAM FLANGE THICKNESS BE WILL CONSIDERED INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (PRESTRESSED NEXT D BEAMS)(NEXT 28D) (FPQ)" AND THE APPROPRIATE ABUTMENT PAY ITEM.

42. DUE TO STABILITY CONCERNS AT THE ABUTMENTS DURING THE ERECTION OF THE SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 WORKING DAYS PRIOR TO THE BRIDGE CLOSURE PERIOD. UNDER NO CIRCUMSTANCES SHALL A BRIDGE CLOSURE PERIOD BEGIN PRIOR TO HAVING AN ACCEPTED ERECTION PLAN.

43. THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS ALTERATION SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT TO MEET THE ABOVE CRITERIA AND SHALL BE APPROVED BY THE PROJECT MANAGER.

44. FORMING THE ENDS OF THE FLANGES ALONG THE LONGITUDINAL CLOSURE POUR SHALL BE TREATED WITH CONCRETE SURFACE RETARDER OR SIMILAR, TO PROVIDE A ROUGHENED/EXPOSED AGGREGATE SURFACE THAT SHALL BE POWER WASHED WITH WATER PRIOR TO ERECTION OF BEAMS.

45. THE CONCRETE FOR FLANGE CLOSURE POURS WILL BE PAID FOR UNDER ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)". SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

46. 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 BE ATTACHED TO ANY PREFABRICATED SUPERSTRUCTURE ELEMENT BY DRILLING OR SIMILAR MEANS.

47. NEXT BEAMS WILL BE PAID FOR UNDER ITEM 900.640, "SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS)(NEXT 28D) (FPQ)".

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076pn.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
PROJECT NOTES (1 OF 2)

PLOT DATE: 10/2/2015
DRAWN BY: K.C. BARRY
CHECKED BY: J.J. WESTCOTT
SHEET 7 OF 68

PREFABRICATED BRIDGE UNITS ALTERNATE

48. PREFABRICATED BRIDGE UNITS ARE NON-PROPRIETARY PRODUCTS.

49. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01.

50. ANY HOLES IN THE WEBS OF THE FASCIA BEAMS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD BOLTS. THESE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.

51. ANY CONNECTIONS NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL.

52. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH STRENGTH BOLTS IN 15/16" DIAMETER HOLES, PER SECTION 506 UNLESS OTHERWISE NOTED.

53. FLEMING BRACKETS OR SIMILAR FALSE WORK SHALL BE PLACED AT A MAXIMUM SPACING OF 4 FEET. THE BRACKETS SHALL BEAR NEAR THE BOTTOM FLANGE AND IN NO CASE SHALL THEY BEAR ABOVE THE BOTTOM QUARTER WEB.

54. AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED AT THE DECK CASTING SITE, AND BEFORE ANY FORMWORK OR OTHER LOADS ARE ADDED TO THE GIRDERS, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE RESIDENT ENGINEER FOR USE IN DETERMINING DECK FORMWORK ELEVATIONS.

55. DURING THE FABRICATION OF THE PBU'S THE CONTRACTOR SHALL LOAD THE UNITS EVENLY TO MINIMIZE DIFFERENTIAL CAMBER BETWEEN UNITS.

56. BEAM WEBS AND CROSS FRAMES SHALL BE PLUMB IN FINAL POSITION.

57. PBU DECKS SHALL MEET THE REQUIREMENTS OF "CONCRETE, HIGH PERFORMANCE CLASS A".

58. PBU STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF SECTION 506 OF THE STANDARD SPECIFICATIONS.

59. ALL CORNERS AND EDGES OF THE STRUCTURAL STEEL SHALL BE GROUND TO A 1/16 INCH RADIUS PRIOR TO GALVANIZING OR METALLIZING.

60. DUE TO STABILITY CONCERNS AT THE ABUTMENTS DURING THE ERECTION OF THE SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN A MINIMUM OF 30 WORKING DAYS PRIOR TO THE BRIDGE CLOSURE PERIOD. UNDER NO CIRCUMSTANCES SHALL A BRIDGE CLOSURE PERIOD BEGIN PRIOR TO HAVING AN ACCEPTED ERECTION PLAN.

61. ALL WELDING TO THE STRUCTURAL STEEL SHALL BE COMPLETED PRIOR TO GALVANIZING OR METALIZING.

62. THE FABRICATOR MAY ALTER THE DESIGN AS DETAILED IN THESE PLANS TO ACCOMMODATE THEIR SPECIFIC OPERATION. THIS INCLUDES THE SUBSTITUTION OF THE W18X119 ROLLED BEAMS WITH A WELDED STRUCTURAL STEEL PLATE GIRDER FOR THE PREFABRICATED BRIDGE UNITS. THE FLANGES AND WEB SIZES OF THE WELDED STRUCTURAL STEEL PLATE GIRDER SHALL BE EQUAL TO OR GREATER THAN THAT OF THE ROLLED BEAMS (Sx AND Ix MUST BE EQUAL TO OR GREATER THAN THOSE VALUES FOR THE W18X119) AND THE OVERALL DEPTH OF THE WELDED STRUCTURAL STEEL PLATE GIRDER (TOP OF TOP FLANGE TO BOTTOM OF BOTTOM FLANGE) SHALL BE 19". ALL COSTS ASSOCIATED WITH ALTERING THE DESIGN WILL BE INCLUDED IN BID PRICE FOR THE PREFABRICATED BRIDGE UNITS.

63. IF THE FLANGE AND WEB SIZES INCREASED (Sx AND Ix ARE GREATER THAN THOSE VALUES FOR THE W18X119) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING CHANGES TO THE DEAD LOAD DEFLECTION AND THE RESULTING CAMBER.

64. THE ALTERATION SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT TO MEET SPECIFIED CRITERIA AND SHALL BE APPROVED BY THE PROJECT MANAGER.

65. PREFABRICATED BRIDGE UNITS WILL BE PAID UNDER ITEM 900.640, "SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPQ)".

APPROACH SLAB AND SUPERSTRUCTURE LONGITUDINAL CLOSURE POURS

66. THE CONCRETE EDGES ALONG THE LONGITUDINAL CLOSURE POURS SHALL BE TREATED TO PROVIDE A ROUGHENED/EXPOSED AGGREGATE SURFACE. THE AMPLITUDE OF THE EXPOSED AGGREGATE SHALL BE A MINIMUM OF 1/8" AND BE COMPLETED PRIOR TO ERECTION OF THE BEAMS OR THE APPROACH SLABS. THE FABRICATOR SHALL INDICATE THE METHOD USED TO ACHIEVE THIS PROFILE ON THE FABRICATION DRAWINGS AND METHOD USED TO PROTECT THE REINFORCING STEEL.

67. THE CONCRETE FOR LONGITUDINAL CLOSURE POURS SHALL BE ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)". SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

68. THE LONGITUDINAL CLOSURE POUR CONCRETE SHALL OBTAIN A STRENGTH OF 4,000 PSI PRIOR TO ANY VEHICULAR LOADING.

H-PILES

69. THE PILES SHALL BE HP12X63.

70. TO PREVENT DAMAGE TO THE PILES, PILE SHOES ARE REQUIRED AND SHALL CONFORM TO SUBSECTION 505.04 (f).

71. THE TOPS OF THE PILES AFTER INSTALLATION SHALL NOT VARY FROM THE POSITION SHOWN ON THE PLANS BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET. THESE MEASURES SHALL BE DEMONSTRATED IN A SUBMITTAL TO BE ACCEPTED BEFORE PILE DRIVING COMMENCES.

72. PRE-EXCAVATION IS REQUIRED AT ALL PILE LOCATIONS. PAYMENT WILL BE MADE UNDER ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)" OR 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, EARTH)" AS APPROPRIATE. SAND PLACED AROUND THE PILES WILL BE INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)".

73. THE PILE LOCATIONS AT THE ABUTMENTS SHALL BE PRE-EXCAVATED THREE (3) FEET MINIMUM INTO COMPETENT BEDROCK. THE MINIMUM REQUIRED PILE LENGTH IS SEVENTEEN (17) FEET AND TWELVE AND A HALF (12.5) FEET BELOW THE ABUTMENT PILE CAP AT ABUTMENT 1 AND ABUTMENT 2 RESPECTIVELY. THE PRE-EXCAVATED HOLES SHALL BE A MINIMUM OF TWENTY THREE (23 INCHES) IN DIAMETER. THE ENTIRE PRE-EXCAVATED HOLE SHALL BE BACKFILLED WITH SAND. SAND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 703.03. REFER TO THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

74. PILES THAT ARE PRE-EXCAVATED INTO COMPETENT BEDROCK SHALL BE SEATED ON BEDROCK IN A METHOD APPROVED BY THE ENGINEER. ANY WORK REQUIRED FOR THIS WILL BE INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)".

75. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATION WERE ASSUMED AND ARE SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

ABUTMENT CLOSURE/END DIAPHRAGM

76. THE CONCRETE FOR THE ABUTMENT CLOSURE POUR SHALL BE ITEM 900.608, "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)." SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

77. AFTER THE CONCRETE HAS BEEN PLACED AND THE FINISHING OPERATIONS CONCLUDED, IT SHALL NOT BE WALKED ON OR DISTURBED IN ANY MANNER, INCLUDING THE REMOVAL OF FORMS FOR 12 HOURS.

78. THE END DIAPHRAGM CLOSURE POUR CONCRETE SHALL OBTAIN A STRENGTH OF 4000 PSI PRIOR TO ANY VEHICULAR LOADING.

APPROACH SLABS

79. PRECAST CONCRETE COMPRESSIVE STRENGTH: f'c = 5,000 PSI.

80. CORRUGATED POST-TENSIONING DUCTS IN THE PRECAST APPROACH SLABS FOR DOWEL CONNECTIONS SHALL BE CONSTRUCTED FOR EITHER POLYETHYLENE OR POLYPROPYLENE. THE DUCT SHALL HAVE A MINIMUM MATERIAL THICKNESS OF 0.080 IN. +/- 0.010 IN. AND SHALL HAVE A WHITE COATING ON THE OUTSIDE OR SHALL BE OF WHITE MATERIAL WITH ULTRAVIOLET STABILIZERS ADDED. POLYETHYLENE DUCT SHALL BE FABRICATED FROM RESINS MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D 3350 WITH A CELL CLASSIFICATION OF 345464A. POLYPROPYLENE DUCT SHALL BE FABRICATED FROM RESINS MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D 4101 WITH A CELL CLASSIFICATION RANGE OF PP0340B44544 TO PP340B65884. ALL COSTS ASSOCIATED WITH PLACING THE DUCTS WILL BE INCLUDED IN THE BID PRICE FOR THE APPROPRIATE PRECAST APPROACH SLAB OPTION.

81. GROUT USED TO FILL DOWEL DUCTS IN THE PRECAST APPROACH SLABS FOR DOWEL CONNECTION SHALL BE MORTAR TYPE IV IN ACCORDANCE WITH SECTION 540 - PRECAST CONCRETE. ALL COSTS ASSOCIATED WITH PROVIDING AND PLACING GROUT FOR THE APPROACH SLAB DOWEL CONNECTION WILL BE INCLUDED IN THE BID FOR THE APPROPRIATE PRECAST APPROACH SLAB OPTION.

MISCELLANEOUS

82. ITEM 520.10, "SHEET MEMBRANE WATERPROOFING, SPRAY APPLIED" SHALL BE APPLIED TO THE BRIDGE DECK AS PER THE MANUFACTURER'S INSTRUCTIONS AND EXTEND ONTO THE APPROACH SLAB 2'-0" BEYOND THE BEGIN BRIDGE/END OF BRIDGE.

REV.	DESCRIPTION	DATE
1	REVISED NOTE 74	12/01/2015

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076pn.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
PROJECT NOTES (2 OF 2)

PLOT DATE: 12/1/2015
DRAWN BY: K.C. BARRY
CHECKED BY: J.J. WESTCOTT
SHEET 8 OF 68

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEM	BRIDGE (ALTERNATE A)	BRIDGE (ALTERNATE B)	BRIDGE (ALTERNATE C)	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
1							1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	
1435							1435		CY	COMMON EXCAVATION	203.15	
		645					645		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	
400							400		CY	SAND BORROW	203.31	
65							65		CY	TRENCH EXCAVATION OF EARTH	204.20	
1							1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	
		225					225		CY	STRUCTURE EXCAVATION	204.25	
60		90					150		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	
360							360		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	
1200							1200		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	
3							3		CY	AGGREGATE SURFACE COURSE	401.10	
50							50		CY	AGGREGATE SHOULDERS, IN PLACE	402.10	
16							16		CWT	EMULSIFIED ASPHALT	404.65	
1							1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	
		225					225		LF	STEEL PILING, HP 12 X 63	505.155	
		13					13		GAL	WATER REPELLENT, SILANE	514.10	
		70					70		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	
		245					245		SY	MEMBRANE WATERPROOFING, SPRAY APPLIED	520.10	
		70					70		LF	JOINT SEALER, HOT POURED	524.11	
		30					30		LF	JOINT SEALER, POLYURETHANE	524.21	
		134					134		LF	BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM	525.335	
		230					230		SY	REMOVAL OF BRIDGE PAVEMENT	529.10	
		1					1		EACH	REMOVAL OF STRUCTURE (2020 SF - EST)	529.15	
		16					16		EACH	BEARING DEVICE ASSEMBLY, STEEL REINFORCED ELASTOMERIC PAD	531.17	
										BEGIN OPTION AA		
		1					1		LS	PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)	540.10	
		1					1		LS	SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE)(ABUTMENT NO. 1)	900.645	
										END OPTION AA		
										BEGIN OPTION BB		
		1					1		LS	PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)	540.10	
		1					1		LS	SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE)(ABUTMENT NO. 2)	900.645	
										END OPTION BB		
										BEGIN OPTION CC		
		1					1		LS	PRECAST CONCRETE STRUCTURE (APPROACH SLAB NO. 1)	540.10	
		1					1		LS	SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE)(APPROACH SLAB NO. 1)	900.645	
										END OPTION CC		

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		EARTHWORKS SUMMARY
1435	CY	COMMON EXCAVATION (1435 * 1.0)
484	CY	UNCLASSIFIED CHANNEL EXCAVATION (645*0.75)
49	CY	TRENCH EXCAVATION (65* 0.75)
169	CY	STRUCTURE EXCAVATION (225 * 0.75)
2136	CY	SUBTOTAL
4	CY	ROUNDING
2140	CY	TOTAL
2140	CY	FILL AVAILABLE
40	CY	FILL REQUIRED
2,100	CY	TOTAL WASTE
		SPECIAL PROVISION
		(BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)
296	TONS	TYPE IVS - WEARING COURSE
204	TONS	TYPE IIS - BASE COURSE
10	TONS	ROUNDING
510	TONS	TOTAL

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076qs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: M.C. SCOTT
QUANTITY SHEET #1

PLOT DATE: 11/02/2015
DRAWN BY: M.C. SCOTT
CHECKED BY: J.J. WESTCOTT
SHEET 9 OF 82

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES								TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEM	BRIDGE (ALTERNATE A)	BRIDGE (ALTERNATE B)	BRIDGE (ALTERNATE C)		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
											BEGIN OPTION DD					
		1						1		LS	PRECAST CONCRETE STRUCTURE (APPROACH SLAB NO. 2)	540.10				
		1						1		LS	SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE)(APPROACH SLAB NO. 2)	900.645				
											END OPTION DD					
											BEGIN OPTION EE					
58								58		LF	18" CAAP .060 (2-2/3 X 1/2)	601.0215				
58								58		LF	18" PCCSP .079 (2-2/3 X 1/2)	601.0416				
58								58		LF	18" RCP CLASS III	601.0815				
58								58		LF	18" CPEP	601.0915				
58								58		LF	18" CPPP (SL)	601.2815				
											END OPTION EE					
	1							1		MGAL	DUST CONTROL WITH WATER	609.10				
	570							570		CY	STONE FILL, TYPE IV	613.13				
1								1		EACH	RELOCATE MAILBOX, SINGLE SUPPORT	617.10				
209								209		LF	BOX BEAM GUARDRAIL	621.30				
4								4		EACH	MANUFACTURED TERMINAL SECTION, TANGENT	621.51				
4								4		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	621.725				
302								302		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
240								240		HR	FLAGGERS	630.15				
			1					1		LS	FIELD OFFICE, ENGINEERS	631.10				
			1					1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
			1					1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
			3000					3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26				
1								1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
1								1		LS	TRAFFIC CONTROL	641.10				
5								5		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15				
890								890		LF	4 INCH WHITE LINE	646.20				
900								900		LF	4 INCH YELLOW LINE	646.21				
	350							350		SY	GEOTEXTILE UNDER STONE FILL	649.31				
	480							480		SY	GEOTEXTILE FOR SILT FENCE	649.51				
	130							130		SY	GEOTEXTILE FOR FILTER CURTAIN	649.61				
	25							25		LB	SEED	651.15				
	175							175		LB	FERTILIZER	651.18				
	1							1		TON	AGRICULTURAL LIMESTONE	651.20				
	1							1		TON	HAY MULCH	651.25				
	140							140		CY	TOPSOIL	651.35				
	250							250		SY	GRUBBING MATERIAL	651.40				
	1							1		LS	EPSC PLAN	652.10				
	20							20		HR	MONITORING EPSC PLAN	652.20				
	1							1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076qs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: M.C. SCOTT
QUANTITY SHEET #2

PLOT DATE: 10/19/2015
DRAWN BY: M.C. SCOTT
CHECKED BY: J.J. WESTCOTT
SHEET 10 OF 82

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
			ROADWAY	EROSION CONTROL	BRIDGE	FULL C.E. ITEM	BRIDGE (ALTERNATE A)	BRIDGE (ALTERNATE B)	BRIDGE (ALTERNATE C)	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
				610						610		SY	TEMPORARY EROSION MATTING	653.20				
				30						30		CY	VEHICLE TRACKING PAD	653.35				
				250						250		LF	BARRIER FENCE	653.50				
				1125						1125		LF	PROJECT DEMARCATION FENCE	653.55				
			10							10		SF	TRAFFIC SIGNS, TYPE A	675.20				
			75							75		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341				
			4							4		EACH	REMOVING SIGNS	675.50				
			1							1		EACH	ERECTING SALVAGED SIGNS	675.60				
			1							1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50				
			90							90		CY	SPECIAL PROVISION (AGGREGATE SURFACE COURSE, COLORED STONE)	900.608				
			72000							72000		DL	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE)(N.A.B.I.)	900.615				
					3					3		EACH	SPECIAL PROVISION (CPM SCHEDULE)	900.620				
				4						4		EACH	SPECIAL PROVISION (DECIDUOUS SHRUBS AND TREES)	900.620				
					197					197		LF	SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, EARTH)	900.640				
					30					30		LF	SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK)	900.640				
			1							1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT)(N.A.B.I.)	900.650				
			1							1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)(N.A.B.I.)	900.650				
			510							510		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680				
													BEGIN ALTERNATE ZA1					
							35			35		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)	900.608				
							254			254		LF	SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS)(NEXT 28D) (FPQ)	900.640				
													END ALTERNATE ZA1					
													BEGIN ALTERNATE ZA2					
								45		45		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)	900.608				
								254		254		LF	SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPQ)	900.640				
								1		1		LS	SPECIAL PROVISION (GALVANIZING STRUCTURAL STEEL)	900.645				
													END ALTERNATE ZA2					
													BEGIN ALTERNATE ZA3					
									45	45		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)	900.608				
									254	254		LF	SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPQ)	900.640				
									1	1		LS	SPECIAL PROVISION (METALIZING STRUCTURAL STEEL)	900.645				
													END ALTERNATE ZA3					

PROJECT NAME: **WESTON**
PROJECT NUMBER: **BF 013-2(13)**

FILE NAME: **z13b076qs.dgn**
PROJECT LEADER: **S.E. BURBANK**
DESIGNED BY: **M.C. SCOTT**
QUANTITY SHEET #3

PLOT DATE: **11/02/2015**
DRAWN BY: **M.C. SCOTT**
CHECKED BY: **J.J. WESTCOTT**
SHEET **11** OF **82**

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

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

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

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

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 STONE/WOOD
	RRSIG	RAILROAD SIGNAL
◆	RRSL	RAILROAD SWITCH LEVER
	S	TREE SOFTWOOD
⊙	SAT	SATELLITE DISH
	SHRUB	SHRUB
	SIGN	SIGN
	STUMP	STUMP
⊙	TEL	TELEPHONE POLE
⊙	TIE	TIE
	TSIGN	SIGN W/DOUBLE POST
	VCTRL	CONTROL VERTICAL
⊙	WELL	WELL
⋈	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 SYMBOLOGY

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 SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- 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
- PROJECT DEMARCATION FENCE
- BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

- TOWN LINE — TOWN BOUNDARY LINE
- COUNTY LINE — COUNTY BOUNDARY LINE
- STATE LINE — STATE BOUNDARY LINE
- PROPOSED STATE R.O.W. (LIMITED ACCESS)
- PROPOSED STATE R.O.W.
- STATE ROW (LIMITED ACCESS)
- STATE ROW
- TOWN ROW
- PERMANENT EASEMENT LINE (P)
- TEMPORARY EASEMENT LINE (T)
- SURVEY LINE
- P/L — PROPERTY LINE (P/L)
- SR SR SR — SLOPE RIGHTS
- 6F — 6F PROPERTY BOUNDARY
- 4F — 4F PROPERTY BOUNDARY
- HAZ — HAZ HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

- 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 — 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 SYMBOLOGY

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

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076LegendSheet.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: VTRANS
CONVENTIONAL SYMBOLOGY LEGEND

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 12 OF 68

VHB 57673

GPS CONTROL POINTS

HVCTRL #1

WEST AZ MK

NORTH = 300963.067
EAST = 1565731.875
ELEV. = 1441.280

GENERAL LOCATION, WESTON, VT.
TO REACH FROM THE INTERSECTION OF VT ROUTES 100 AND 155. GO SOUTH ALONG VT ROUTE 100 FOR 0.9 MI (1.4 KM) TO A FIELD DRIVE ON THE LEFT LEADING TO A HOUSE LOCATED PAST A WOODEN BRIDGE AND THE SITE OF THE MARK ON THE LEFT.
THE MARK IS SET 3 CM (1 INCH) BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT.
IT IS 24.5 M (80.4 FT) SOUTHEAST OF AND ABOUT 2.0 M (6.6 FT) LOWER THAN THE CENTERLINE OF VT ROUTE 100, 6.0 M (19.7 FT) WEST-SOUTHWEST OF THE CENTERLINE OF THE FIELD DRIVE, 18.6 M (61.0 FT) EAST OF POLE NO 6/162/338, 16.5 M (54.1 FT) EAST-NORTHEAST OF A GUY ANCHOR AND 29.0 M (95.1 FT) NORTHWEST OF THE CENTER OF THE WOODEN BRIDGE ALONG THE FIELD DRIVE.

HVCTRL #2

WEST

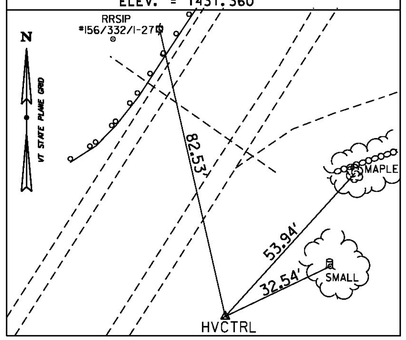
NORTH = 299849.204
EAST = 1565089.519
ELEV. = 1432.239

GENERAL LOCATION, WESTON, VT.
TO REACH FROM THE INTERSECTION OF VT ROUTES 100 AND 155 IN WESTON, GO SOUTH ALONG VT ROUTE 100 FOR 1.1 MI (1.8 KM) TO THE SITE OF THE MARK ON THE RIGHT SET IN THE WEST END OF THE NORTHWEST CORNER OF BRIDGE NO 98 OVER THE WEST RIVER.
IT IS 4.8 M (15.7 FT) NORTH OF THE CENTERLINE OF VT ROUTE 100, 15 CM (6 INCHES) SOUTH OF THE NORTH EDGE OF THE BRIDGE, 25 CM (10 INCHES) NORTH OF THE SOUTH FACE OF THE GRANITE CURB.

TRAVERSE TIES

HVCTRL #3

NORTH = 299725.605
EAST = 1565072.485
ELEV. = 1431.360



NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

ALIGNMENT TIES

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

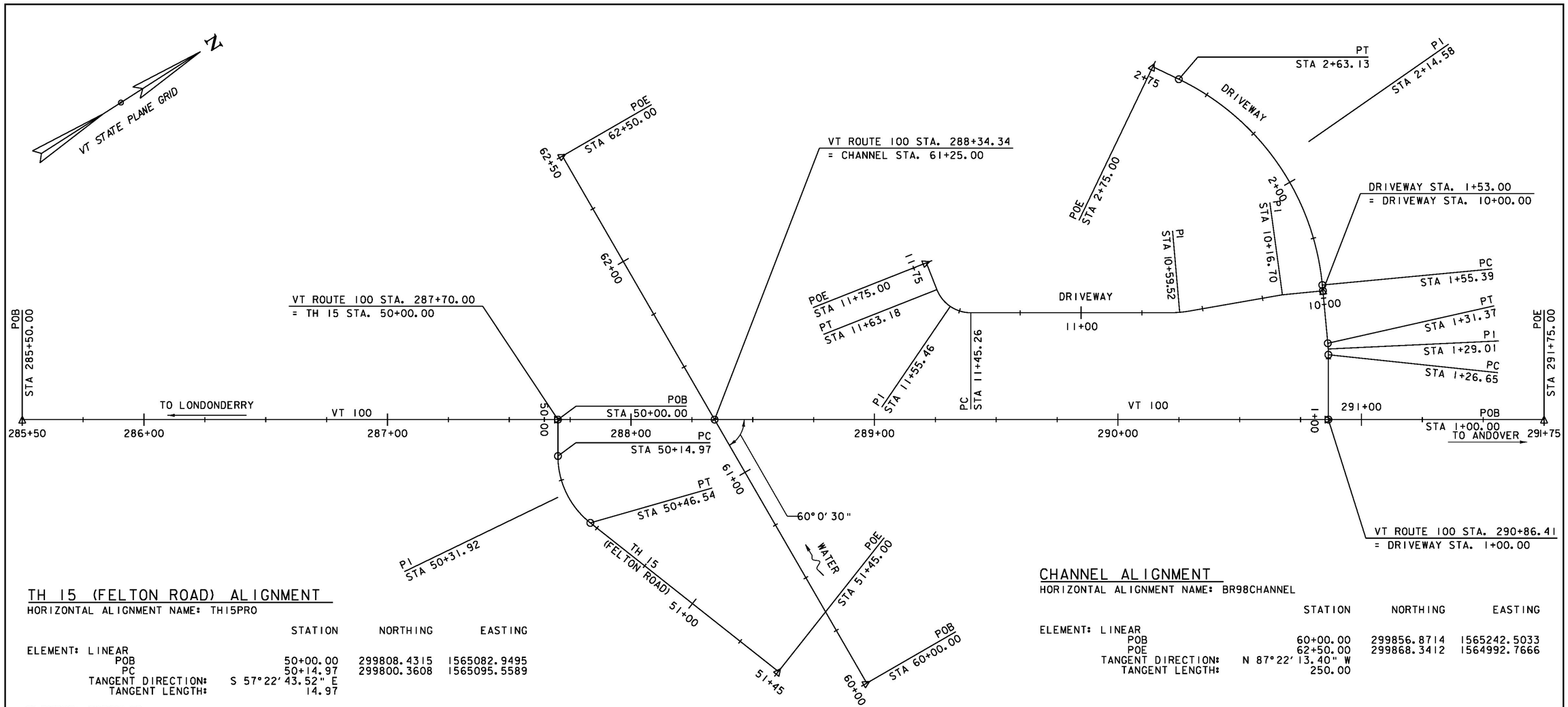
DATUM

VERTICAL	NAVD 88
HORIZONTAL	NAD 83(2011)
ADJUSTMENT	COMPASS

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076t1.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
TIE SHEET

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 13 OF 68



TH 15 (FELTON ROAD) ALIGNMENT

HORIZONTAL ALIGNMENT NAME: TH15PRO

		STATION	NORTHING	EASTING
ELEMENT:	LINEAR			
	POB	50+00.00	299808.4315	1565082.9495
	PC	50+14.97	299800.3608	1565095.5589
	TANGENT DIRECTION:	S 57°22'43.52" E		
	TANGENT LENGTH:	14.97		
ELEMENT:	CIRCULAR			
	PC	50+14.97	299800.3608	1565095.5589
	PI	50+31.92	299791.2241	1565109.8340
	PT	50+46.54	299796.7576	1565125.8539
	RADIUS:	35.00		
	DELTA:	51°40'36.95" LEFT		
	DEGREE OF CURVATURE (ARC):	163°42'08.02"		
	LENGTH:	31.57		
	TANGENT:	16.95		
	CHORD:	30.51		
	MIDDLE ORDINATE:	3.50		
	EXTERNAL:	3.89		
ELEMENT:	LINEAR			
	PT	50+46.54	299796.7576	1565125.8539
	POE	51+45.00	299828.9044	1565218.9209
	TANGENT DIRECTION:	N 70°56'39.52" E		
	TANGENT LENGTH:	98.46		

CHANNEL ALIGNMENT

HORIZONTAL ALIGNMENT NAME: BR98CHANNEL

		STATION	NORTHING	EASTING
ELEMENT:	LINEAR			
	POB	60+00.00	299856.8714	1565242.5033
	POE	62+50.00	299868.3412	1564992.7666
	TANGENT DIRECTION:	N 87°22'13.40" W		
	TANGENT LENGTH:	250.00		

VT ROUTE 100 ALIGNMENT

HORIZONTAL ALIGNMENT NAME: VT100PROP

		STATION	NORTHING	EASTING
ELEMENT:	LINEAR			
	POB	285+50.00	299623.1359	1564964.3512
	POE	291+75.00	300149.5437	1565301.2782
	TANGENT DIRECTION:	N 32°37'16.48" E		
	TANGENT LENGTH:	625.00		

NOTE: SEE NEXT SHEET FOR DRIVEWAY ALIGNMENT INFORMATION.

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83(2011)
ADJUSTMENT	COMPASS

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076alfgn.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
ROADWAY ALIGNMENT LAYOUT SHEET (1 OF 2)	SHEET 14 OF 68

VHB 57673

DRIVEWAY STA. 1+00 - 2+75

HORIZONTAL ALIGNMENT NAME: MAINDRIVE

		STATION	NORTHING	EASTING
ELEMENT:	LINEAR			
	POB	1+00.00	300074.9296	1565253.5215
	PC	1+26.65	300089.2969	1565231.0744
	TANGENT DIRECTION:	N 57°22'43.52" W		
	TANGENT LENGTH:	26.65		
ELEMENT:	CIRCULAR			
	PC	1+26.65	300089.2969	1565231.0744
	PI	1+29.01	300090.5688	1565229.0872
	PT	1+31.37	300091.6479	1565226.9891
	RADIUS:	50.00		
	DELTA:	5°24'11.58" LEFT		
	DEGREE OF CURVATURE (ARC):	114°35'29.61"		
	LENGTH:	4.72		
	TANGENT:	2.36		
	CHORD:	4.71		
	MIDDLE ORDINATE:	0.06		
	EXTERNAL:	0.06		
ELEMENT:	LINEAR			
	PT (12)	1+31.37	300091.6479	1565226.9891
	PC (17)	1+55.39	300102.6364	1565205.6243
	TANGENT DIRECTION:	N 62°46'55.10" W		
	TANGENT LENGTH:	24.03		
ELEMENT:	CIRCULAR			
	PC	1+55.39	300102.6364	1565205.6243
	PI	2+14.58	300129.7060	1565152.9933
	CC		300009.4979	1565157.7205
	PT	2+63.13	300098.5869	1565102.6506
	RADIUS:	104.74		
	DELTA:	58°56'24.38" LEFT		
	DEGREE OF CURVATURE (ARC):	54°42'18.58"		
	LENGTH:	107.74		
	TANGENT:	59.18		
	CHORD:	103.05		
	MIDDLE ORDINATE:	13.55		
	EXTERNAL:	15.57		
ELEMENT:	LINEAR			
	PT	2+63.13	300098.5869	1565102.6506
	POE	2+75.00	300092.3471	1565092.5561
	TANGENT DIRECTION:	S 58°16'40.53" W		
	TANGENT LENGTH:	11.87		

DRIVEWAY 10+00 - 11+75

HORIZONTAL ALIGNMENT NAME: SIDEDRIVE

		STATION	NORTHING	EASTING
ELEMENT:	LINEAR			
	POB	10+00.00	300101.5426	1565207.7510
	PC	10+14.81	300088.3541	1565201.0190
	TANGENT DIRECTION:	S 27°02'30.13" W		
	TANGENT LENGTH:	14.81		
ELEMENT:	CIRCULAR			
	PC	10+14.81	300088.3541	1565201.0190
	PI	10+16.70	300086.6726	1565200.1607
	PT	10+18.58	300084.9312	1565199.4316
	RADIUS:	50.00		
	DELTA:	4°19'28.87" LEFT		
	DEGREE OF CURVATURE (ARC):	114°35'29.61"		
	LENGTH:	3.77		
	TANGENT:	1.89		
	CHORD:	3.77		
	MIDDLE ORDINATE:	0.04		
	EXTERNAL:	0.04		
ELEMENT:	LINEAR			
	PT	10+18.58	300084.9312	1565199.4316
	PC	10+55.19	300051.1627	1565185.2942
	TANGENT DIRECTION:	S 22°43'01.26" W		
	TANGENT LENGTH:	36.61		
ELEMENT:	CIRCULAR			
	PC	10+55.19	300051.1627	1565185.2942
	PI	10+59.52	300047.1665	1565183.6211
	PT	10+63.83	300043.5176	1565181.2856
	RADIUS:	50.00		
	DELTA:	9°54'15.22" RIGHT		
	DEGREE OF CURVATURE (ARC):	114°35'29.61"		
	LENGTH:	8.64		
	TANGENT:	4.33		
	CHORD:	8.63		
	MIDDLE ORDINATE:	0.19		
	EXTERNAL:	0.19		
ELEMENT:	LINEAR			
	PT	10+63.83	300043.5176	1565181.2856
	PC	11+45.26	299974.9328	1565137.3880
	TANGENT DIRECTION:	S 32°37'16.48" W		
	TANGENT LENGTH:	81.43		
ELEMENT:	CIRCULAR			
	PC	11+45.26	299974.9328	1565137.3880
	PI	11+55.46	299966.3402	1565131.8883
	PT	11+63.18	299968.2977	1565121.8761
	RADIUS:	15.00		
	DELTA:	68°26'27.76" RIGHT		
	DEGREE OF CURVATURE (ARC):	381°58'18.71"		
	LENGTH:	17.92		
	TANGENT:	10.20		
	CHORD:	16.87		
	MIDDLE ORDINATE:	2.60		
	EXTERNAL:	3.14		
ELEMENT:	LINEAR			
	PT	11+63.18	299968.2977	1565121.8761
	POE	11+75.00	299970.5655	1565110.2764
	TANGENT DIRECTION:	N 78°56'15.76" W		
	TANGENT LENGTH:	11.82		

NOTE: SEE PREVIOUS SHEET FOR ADDITIONAL ALIGNMENT INFORMATION.

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83(2011)
ADJUSTMENT	COMPASS

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)

FILE NAME: z13b076alIgn.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
ROADWAY ALIGNMENT LAYOUT SHEET (2 OF 2)	SHEET 15 OF 68

VHB 57673

BRIDGE RAILING, GALVANIZED
3 RAIL BOX BEAM
STA. 287+95 - 288+62, LT
STA. 288+08 - 288+75, RT

BOX BEAM GUARDRAIL
STA. 287+06 - 287+63, LT
STA. 50+42, 14.2' LT - 50+81, LT
STA. 288+94 - 289+51, LT
STA. 289+07 - 289+64, RT

MANUFACTURED TERMINAL SECTION, TANGENT
STA. 286+92 - 287+06, LT
STA. 50+81 - 50+95, RT
STA. 289+51 - 289+65, LT
STA. 289+64 - 289+78, RT

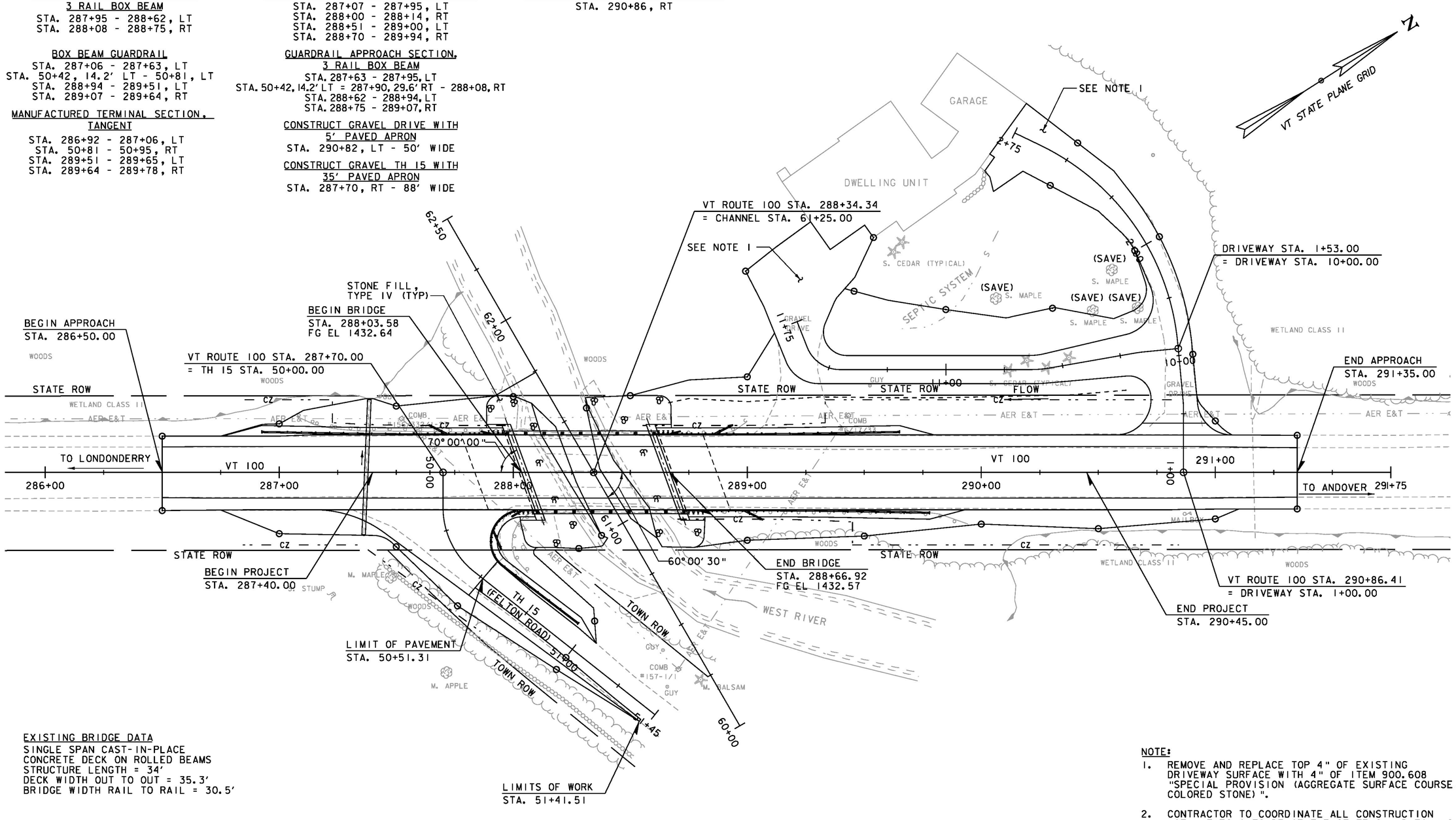
REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 287+07 - 287+95, LT
STA. 288+00 - 288+14, RT
STA. 288+51 - 289+00, LT
STA. 288+70 - 289+94, RT

GUARDRAIL APPROACH SECTION, 3 RAIL BOX BEAM
STA. 287+63 - 287+95, LT
STA. 50+42, 14.2' LT = 287+90, 29.6' RT - 288+08, RT
STA. 288+62 - 288+94, LT
STA. 288+75 - 289+07, RT

CONSTRUCT GRAVEL DRIVE WITH 5' PAVED APRON
STA. 290+82, LT - 50' WIDE

CONSTRUCT GRAVEL TH 15 WITH 35' PAVED APRON
STA. 287+70, RT - 88' WIDE

RELOCATE MAILBOX SINGLE SUPPORT
STA. 290+86, RT



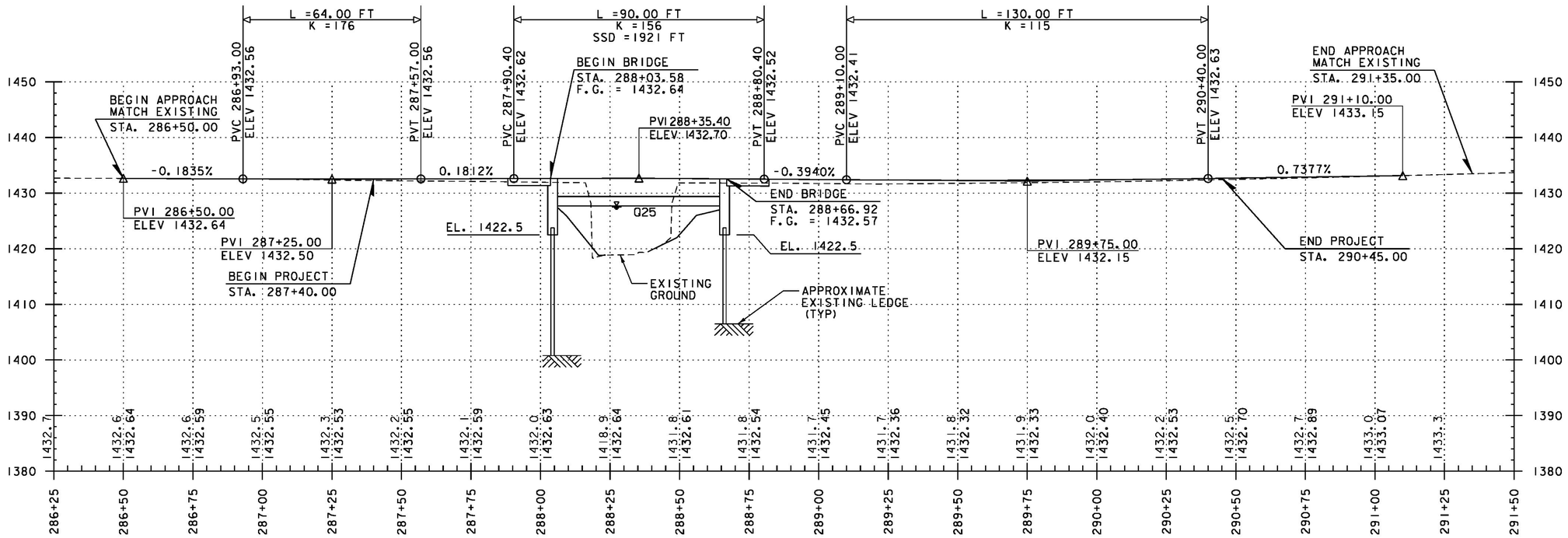
EXISTING BRIDGE DATA
SINGLE SPAN CAST-IN-PLACE
CONCRETE DECK ON ROLLED BEAMS
STRUCTURE LENGTH = 34'
DECK WIDTH OUT TO OUT = 35.3'
BRIDGE WIDTH RAIL TO RAIL = 30.5'

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

NOTE:
1. REMOVE AND REPLACE TOP 4" OF EXISTING DRIVEWAY SURFACE WITH 4" OF ITEM 900.608 "SPECIAL PROVISION (AGGREGATE SURFACE COURSE, COLORED STONE)".
2. CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITIES OUTSIDE OF THE STATE'S AND TOWN'S RIGHT-OF-WAY WITH THE PROPERTY OWNER. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076bdr_nul.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
LAYOUT SHEET	SHEET 16 OF 68

VHB 57673



VT 100 PROFILE

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

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

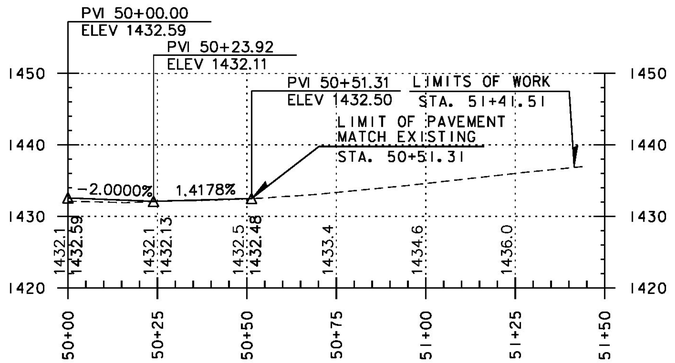
vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076pro.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
ROADWAY PROFILE

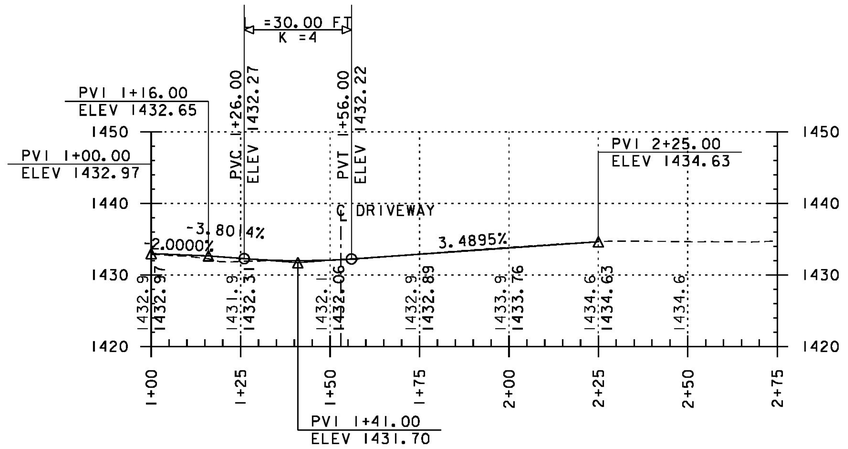
PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 17 OF 68

VHB 57673



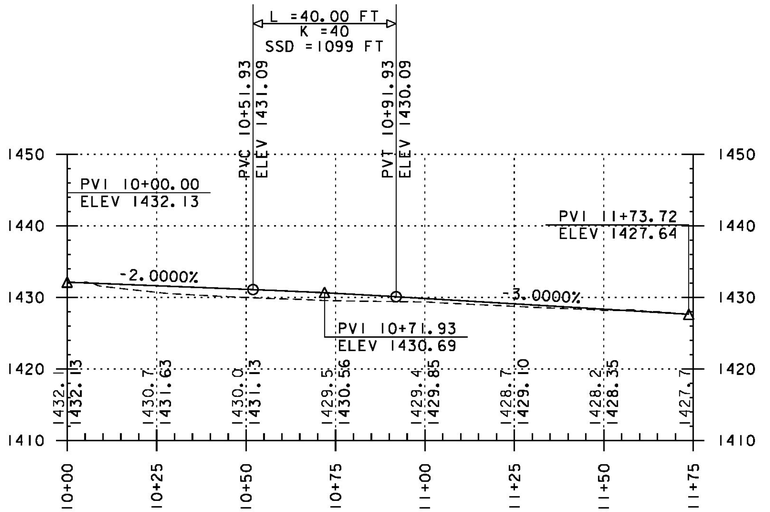
TH 15 (FELTON ROAD) STA. 50+00 TO 51+45

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



DRIVEWAY STA. 1+00 TO 2+75

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



DRIVEWAY STA. 10+00 TO 11+75

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

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

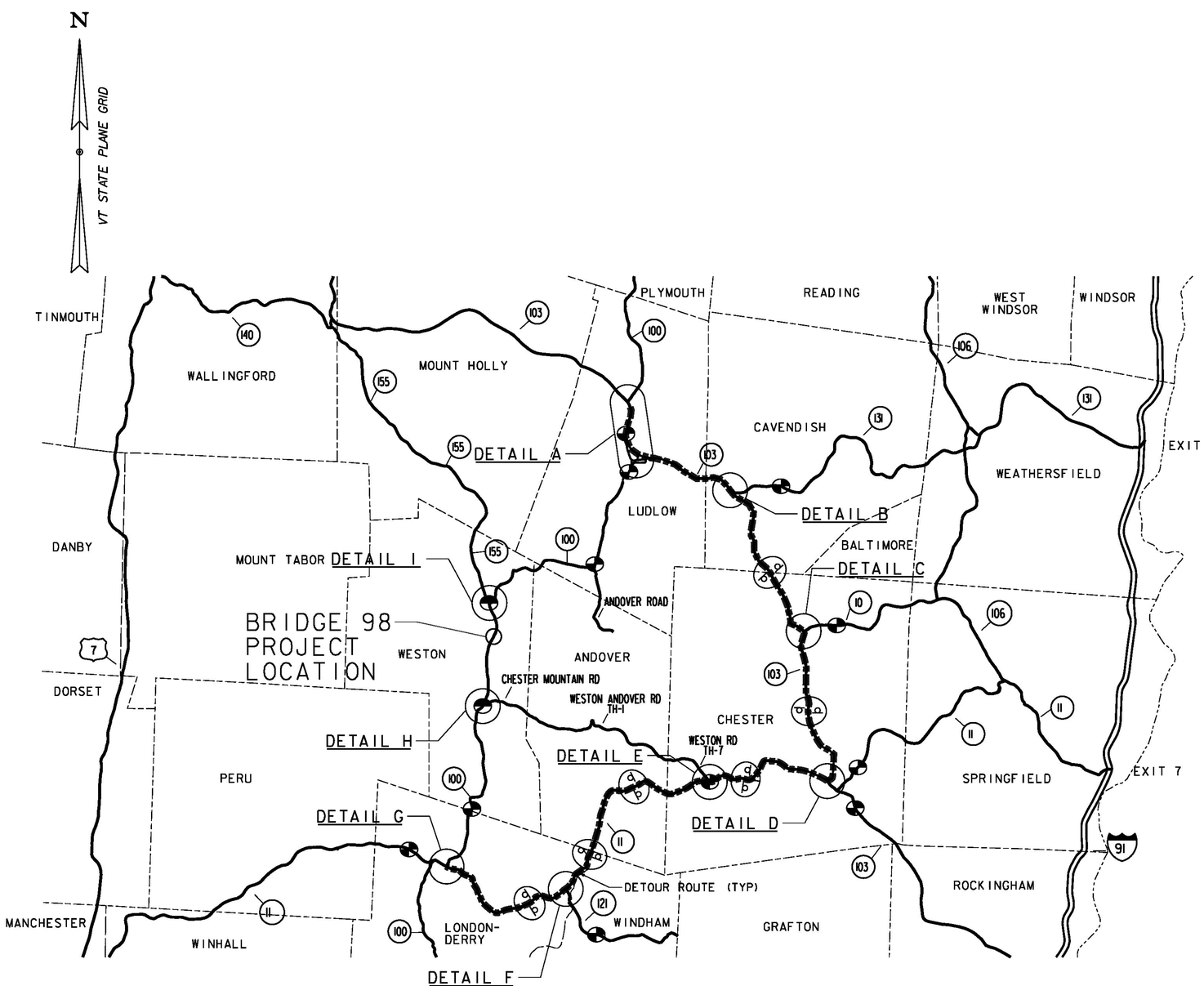
THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: zl3b076pro.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
DRIVEWAY PROFILES

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 18 OF 68



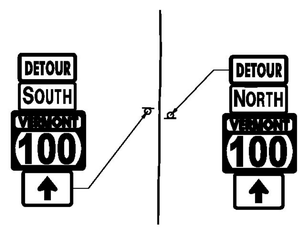
REGIONAL TRAFFIC DETOUR

TRAFFIC CONTROL NOTES:

1. SEE TRAFFIC CONTROL PLAN 2-6 FOR ADDITIONAL NOTES.
2. INSTALL CONFIRMATORY ROUTE MARKERS ALONG THE DETOUR ROUTE AT LOCATIONS AS INDICATED ON THIS PLAN.
3. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES AND THE ROUTE MARKER SHALL BE COVERED IF ASSEMBLY CONFLICTS WITH DETOUR ROUTE MARKER ASSEMBLY.
4. WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
5. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED OFF THE EDGE OF THE ROADWAY, OUTSIDE THE CLEAR ZONE, BUT SHALL BE VISIBLE FROM THE ROADWAY. ANY VEGETATION THAT INTERFERES WITH VISIBILITY OF THE PCMS SHALL BE REMOVED. REMOVAL OF THE VEGETATION SHALL BE INCIDENTAL TO ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN". WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
6. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE MUTCD.
7. SEE TRAFFIC CONTROL PLANS 2-4 FOR A-I DETAILS.

LEGEND

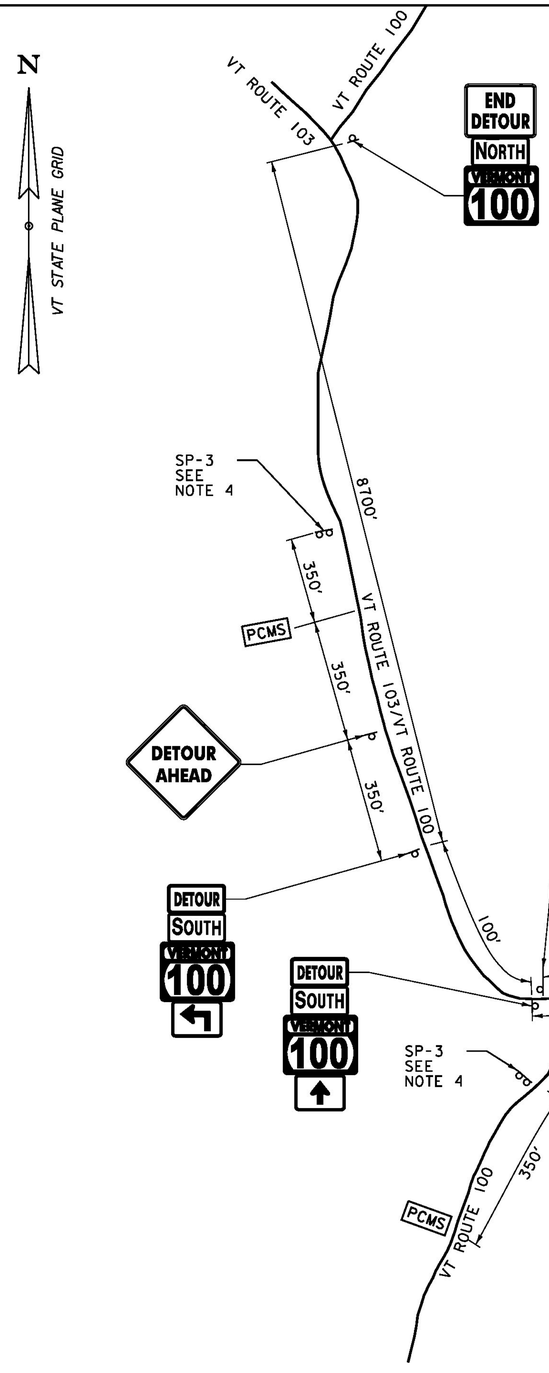
- CONFIRMATORY ROUTE MARKER ASSEMBLY (SEE NOTE 2 AND 3 ABOVE).
- ROAD CLOSED / XX MILES AHEAD/ NO THRU TRAFFIC (SP-1 & SP-2 SIGNS SEE SHEETS 19-24 FOR SIGN DIMENSIONS AND LOCATION).
- CLOSURE STATIC SIGN (SP-3) NOTIFICATION SEE SHEETS 19-24 FOR SIGN DETAIL AND LOCATIONS.



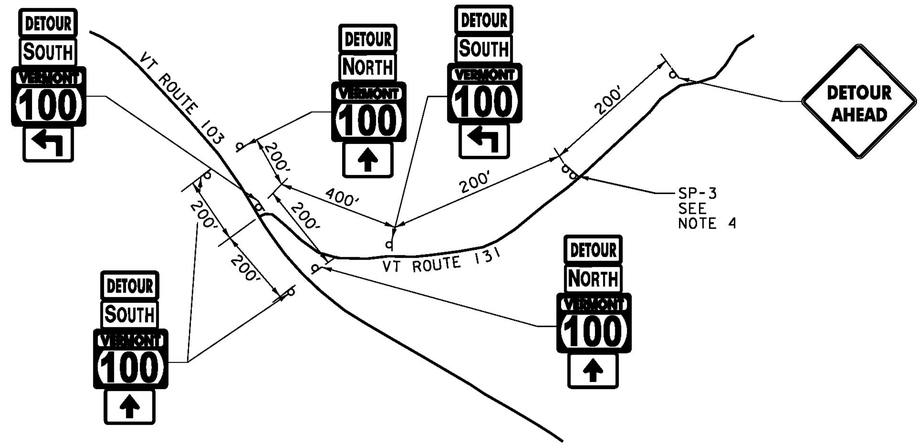
CONFIRMATORY ROUTE MARKER ASSEMBLY
NOT TO SCALE

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076detour.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TRAFFIC CONTROL PLAN (1OF 6)	SHEET 19 OF 68

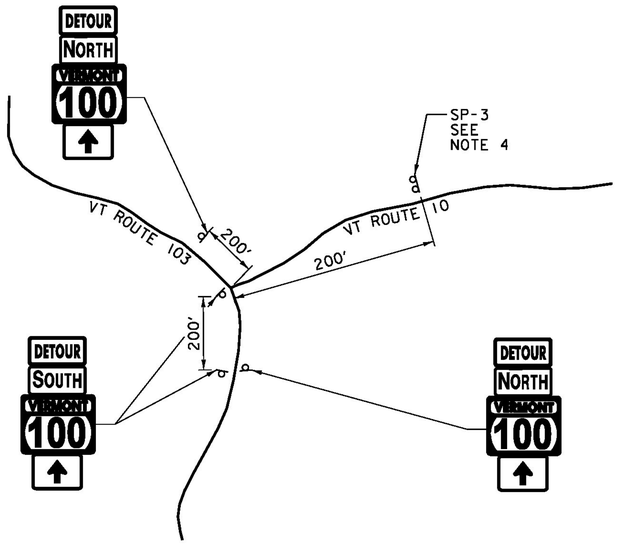
VHB 57673



DETAIL A
NOT TO SCALE



DETAIL B
NOT TO SCALE



DETAIL C
NOT TO SCALE

LEGEND

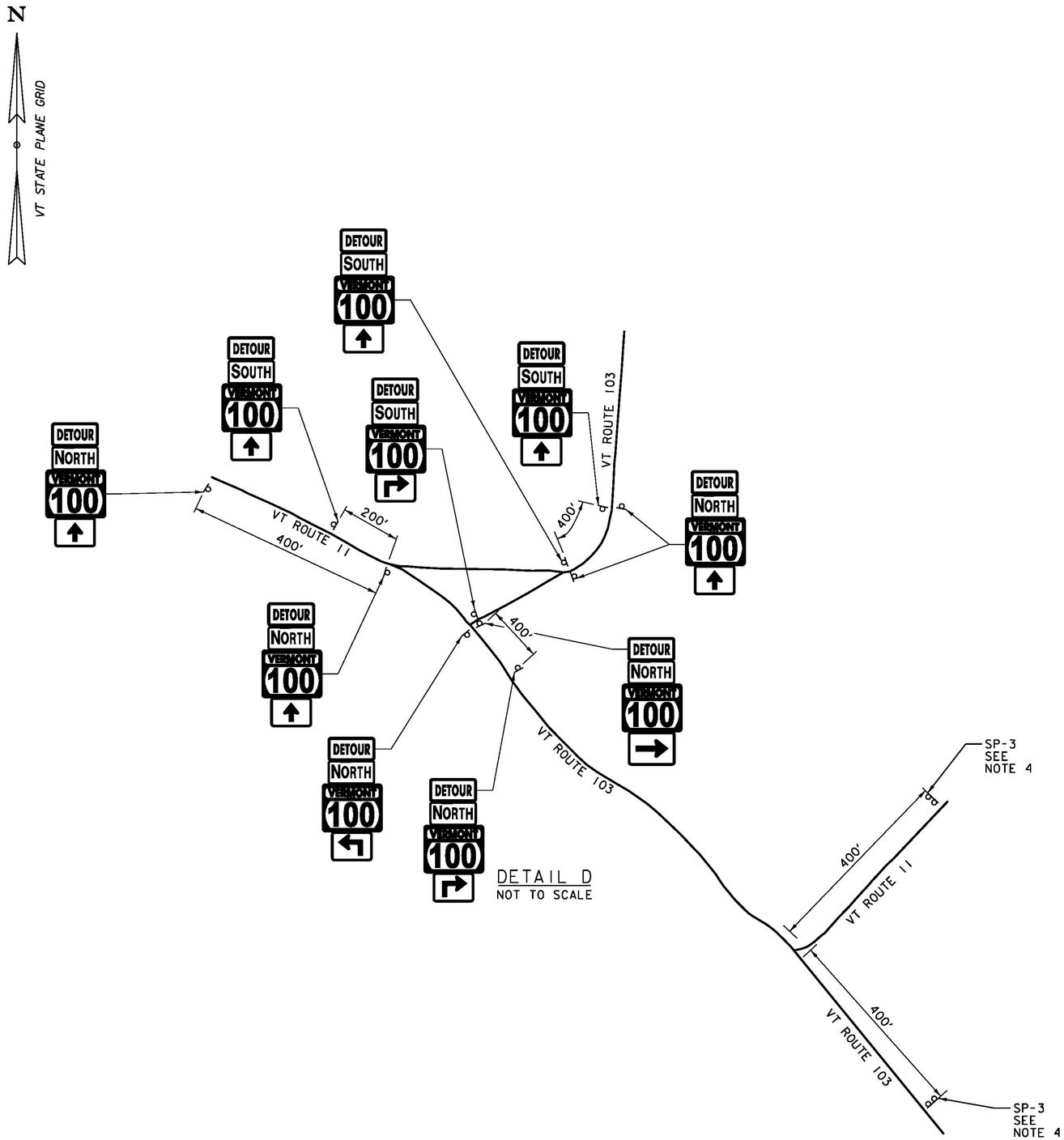
PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTE:

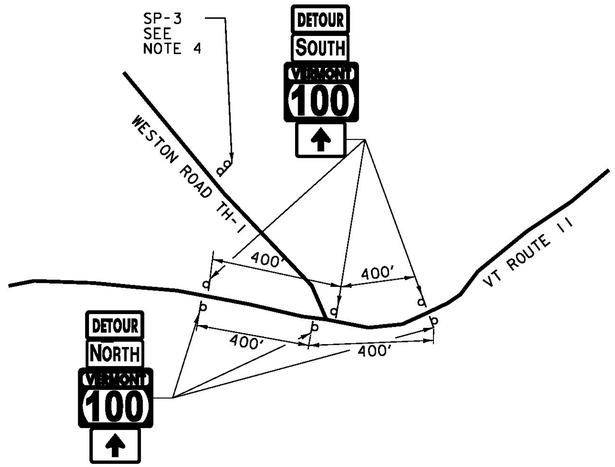
1. SEE TRAFFIC CONTROL PLAN (6 OF 6) FOR PCMS MESSAGES.
2. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES.
3. ALL DISTANCES ARE APPROXIMATE AND MAY VARY IN THE FIELD.
4. CLOSURE STATIC SIGN (SP-3) NOTIFICATION SEE SHEET 24 FOR SIGN DETAIL.

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: zl3b076detour_dts.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TRAFFIC CONTROL PLAN (2 OF 6)	SHEET 20 OF 68

VHB 57673



DETAIL D
NOT TO SCALE



DETAIL E
NOT TO SCALE

LEGEND

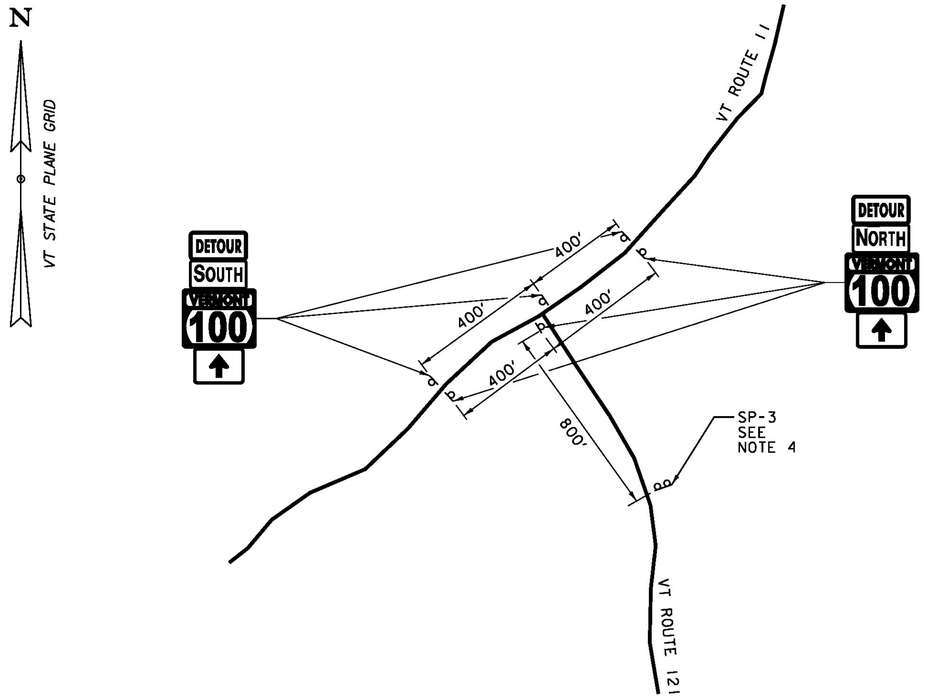
PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTE:

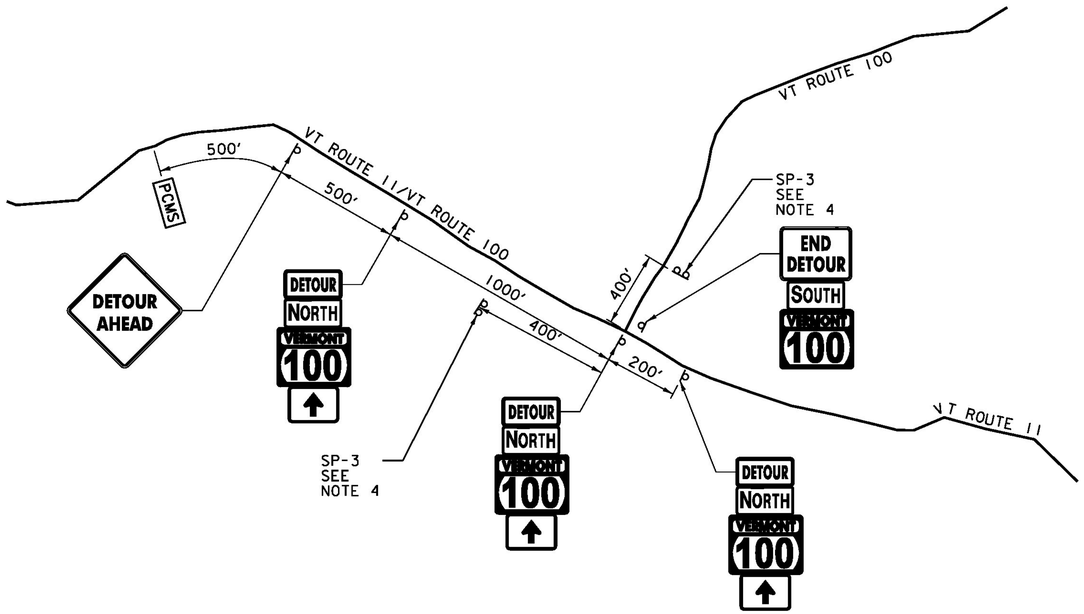
1. SEE TRAFFIC CONTROL PLAN (6 OF 6) FOR PCMS MESSAGES.
2. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES.
3. ALL DISTANCES ARE APPROXIMATE AND MAY VARY IN THE FIELD.
4. CLOSURE STATIC SIGN (SP-3) NOTIFICATION SEE SHEET 24 FOR SIGN DETAIL.

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076detour_dts.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TRAFFIC CONTROL PLAN (3 OF 6)	SHEET 21 OF 68

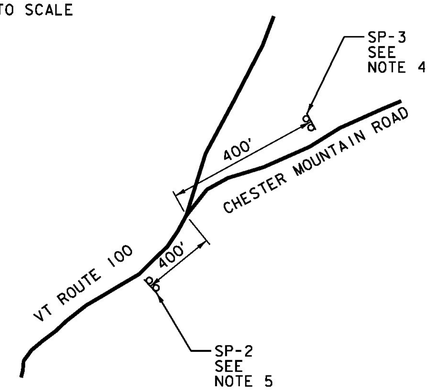
VHB 57673



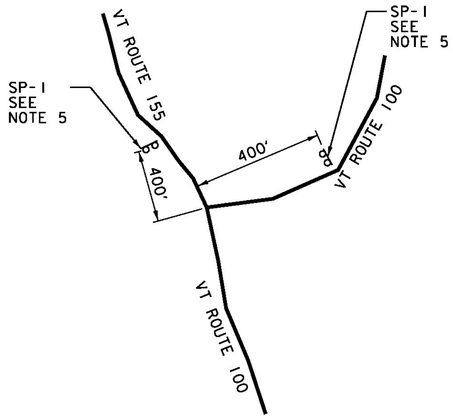
DETAIL G
NOT TO SCALE



DETAIL F
NOT TO SCALE



DETAIL H
NOT TO SCALE



DETAIL I
NOT TO SCALE

LEGEND

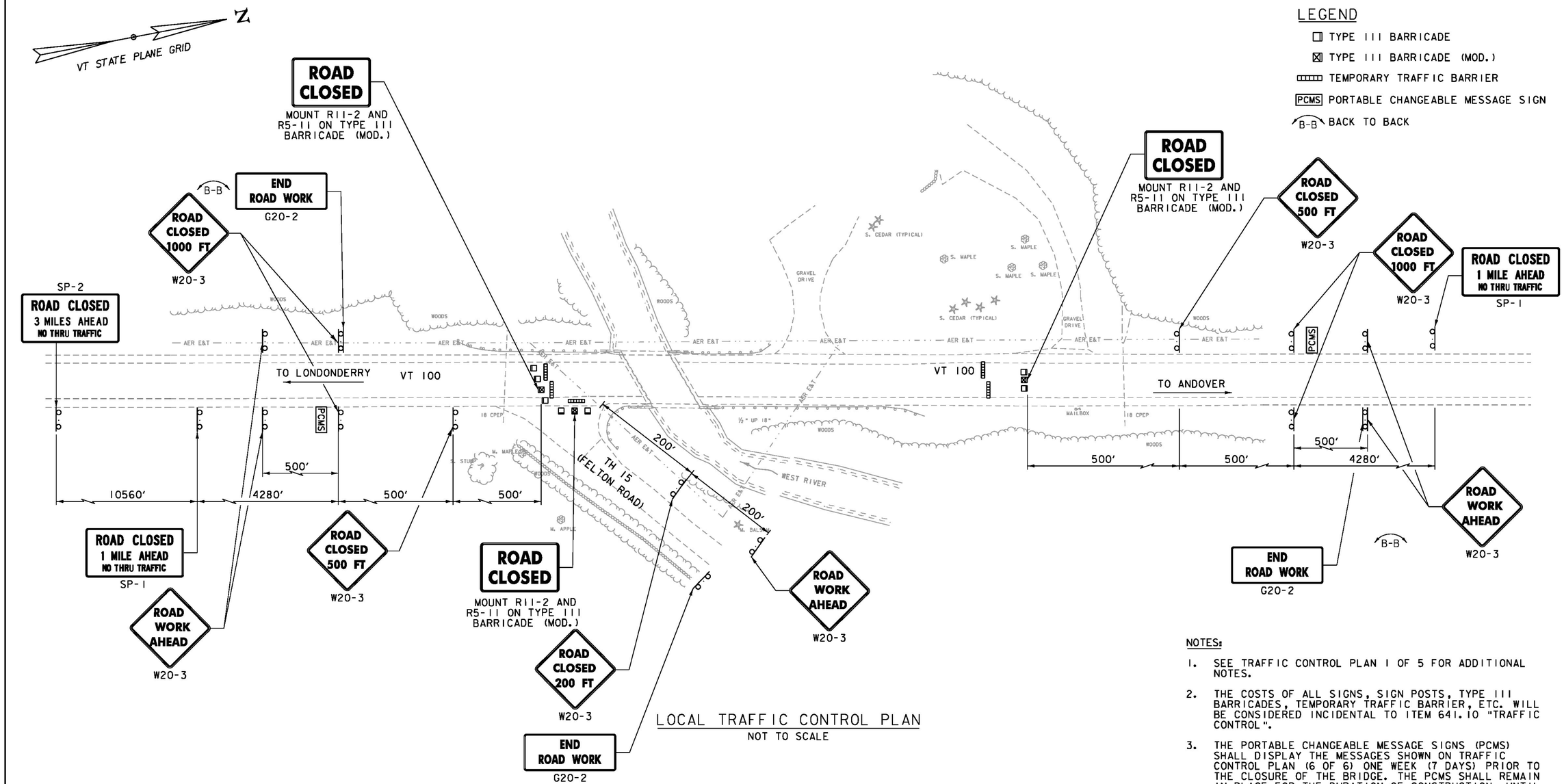
PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTE:

1. SEE TRAFFIC CONTROL PLAN (6 OF 6) FOR PCMS MESSAGES.
2. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES.
3. ALL DISTANCES ARE APPROXIMATE AND MAY VARY IN THE FIELD.
4. CLOSURE STATIC SIGN (SP-3) NOTIFICIATION SEE SHEET 24 FOR SIGN DETAIL.
5. ROAD CLOSED/ XX MILES AHEAD/ NO THRU TRAFFIC (SP-1 & SP-2 SIGNS) SEE SHEETS 19-24 FOR SIGN DIMENSIONS AND LOCATIONS

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076detour_dts.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TRAFFIC CONTROL PLAN (4 OF 6)	SHEET 22 OF 68

VHB 57673



LOCAL TRAFFIC CONTROL PLAN
NOT TO SCALE

NOTES:

1. SEE TRAFFIC CONTROL PLAN 1 OF 5 FOR ADDITIONAL NOTES.
2. THE COSTS OF ALL SIGNS, SIGN POSTS, TYPE III BARRICADES, TEMPORARY TRAFFIC BARRIER, ETC. WILL BE CONSIDERED INCIDENTAL TO ITEM 641.10 "TRAFFIC CONTROL".
3. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL DISPLAY THE MESSAGES SHOWN ON TRAFFIC CONTROL PLAN (6 OF 6) ONE WEEK (7 DAYS) PRIOR TO THE CLOSURE OF THE BRIDGE. THE PCMS SHALL REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION, UNTIL THE ROAD IS OPEN TO TRAFFIC.
4. THE NUMBER OF TYPE III BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL ROADWAY CLOSURE REQUIREMENTS.
5. SEE THE PROJECT SPECIAL PROVISIONS FOR ALLOWABLE BRIDGE CLOSURE PERIOD.

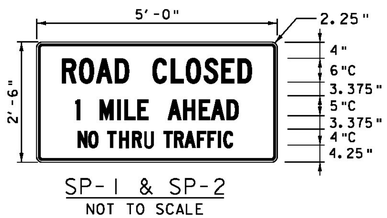
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076tcp.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TRAFFIC CONTROL PLAN (5 OF 6)	SHEET 23 OF 68

vhb

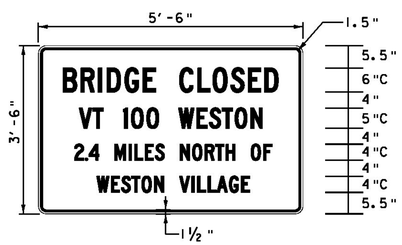
VHB 57673

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH (IN)	SIZE OF SIGN HEIGHT (IN)	TEXT	NUMBER OF SIGNS REQ'D	REMARKS	COLOR
M1-5	30	24	VERMONT 100	43*	SEE NOTE 2	VTRANS STD E-136B
M3-1	24	12	NORTH	23*	SEE NOTE 2	VTRANS STD E-136B
M3-3	24	12	SOUTH	20*	SEE NOTE 2	VTRANS STD E-136B
G20-2	36	18	END ROAD WORK	3	MOUNT ON ONE POST	LEGEND BLACK BACKGROUND ORANGE ••
M4-8	24	12	DETOUR	42*	MOUNT ABOVE THE M3-1 OR M3-3	LEGEND BLACK BACKGROUND ORANGE ••
M4-8A	24	18	END DETOUR	2	MOUNT ON ONE POST	LEGEND BLACK BACKGROUND ORANGE ••
M5-1L	21	15	←	4	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••
M5-1R	21	15	→	2	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••
M5-2R	21	15	↗	0	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••
M6-1L	21	15	←	1	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••
M6-2L	21	15	↖	0	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••
M6-2R	21	15	↗	1	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••
M6-3	21	15	↑	34*	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE•••

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH (IN)	SIZE OF SIGN HEIGHT (IN)	TEXT	NUMBER OF SIGNS REQ'D	REMARKS	COLOR
R11-2	48	30	ROAD CLOSED	3	MOUNT ON TYPE III BARRICADE (MOD.)	LEGEND BLACK BACKGROUND WHITE •••
SP-1	60	30	ROAD CLOSED 1 MILE AHEAD NO THRU TRAFFIC	2	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND WHITE •••
SP-2	60	30	ROAD CLOSED 3 MILES AHEAD NO THRU TRAFFIC	1	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND WHITE •••
W20-2	48	48	DETOUR AHEAD	2	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE ••
W20-3	48	48	ROAD CLOSED 1000FT	4	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE ••
W20-3	48	48	ROAD CLOSED 500 FT	2	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE ••
W20-3	48	48	ROAD WORK AHEAD	5	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE ••
SP-3	42	66	BRIDGE CLOSED VT 100 WESTON 2.4 MILES NORTH OF WESTON VILLAGE	11	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE ••
W20-3	48	48	ROAD CLOSED 200 FT	1	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE ••



SP-1 & SP-2
NOT TO SCALE



SP-3
NOT TO SCALE

NOTES:

1. PAYMENT OF ALL DETOUR SIGNS AND REQUIRED SIGN POSTS WILL BE MADE UNDER ITEM 641.10, "TRAFFIC CONTROL".
2. THE M1-5, M3-1, AND THE M3-3 SIGNS SHALL BECOME PROPERTY OF THE STATE AFTER THEY ARE REMOVED FROM THE DETOUR. THE CONTRACTOR SHALL DELIVER THE SIGNS TO THE STATE GARAGE IN THE TOWN OF LONDONDERRY. ALL COSTS ASSOCIATED WITH PROVIDING SIGNS TO THE STATE WILL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".
3. ONE WEEK PRIOR (7 DAYS) TO CONSTRUCTION ON THE BRIDGE, PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES 1 AND 2 WILL BE DISPLAYED AT THE BRIDGE AND PCMS MESSAGES 3, 4, AND 5 WILL BE DISPLAYED REGIONALLY.
4. DURING THE BRIDGE CLOSURE, PCMS SHALL READ MESSAGES 6 AND 7 REGIONALLY.

MESSAGES FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) - AT BRIDGE

ONE WEEK PRIOR

	MESSAGE 1	MESSAGE 2	
(ROUTE) ***	VT 100	MMMM DD	(DATE) **
	BRIDGE	TO	
	CLOSED	MMMM DD	(DATE) **

MESSAGES FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) - REGIONAL DETOUR

ONE WEEK PRIOR

	MESSAGE 3	MESSAGE 4	MESSAGE 5	
(ROUTE) ***	VT 100	NORTH OF	MMMM DD	(DATE) **
	BRIDGE	WESTON	TO	
	CLOSED	VILLAGE	MMMM DD	(DATE) **

DURING BRIDGE CLOSURE

	MESSAGE 6	MESSAGE 7
(ROUTE) ***	VT 100	NORTH OF
	BRIDGE	WESTON
	CLOSED	VILLAGE

** - MONTH SHALL BE SPELLED OUT - JUNE 10 NOT 06/10

*** - ROUTE VT 100 SHALL SPECIFY N (NORTH) OR S (SOUTH) AS APPROPRIATE FOR THE DETOUR.

* = NUMBER OF SIGNS REQ'D ASSUMING APPROXIMATELY 3 LOCATIONS OF CONFIRMATORY ROUTE MARKER ASSEMBLY DETAIL
** = SIGN BACKGROUND SHALL BE RETROREFLECTIVE FLUORESCENT
*** = SIGN BACKGROUNDS SHALL BE RETOREFLECTIVE

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076detour_dts.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
TRAFFIC CONTROL PLAN (6 OF 6)

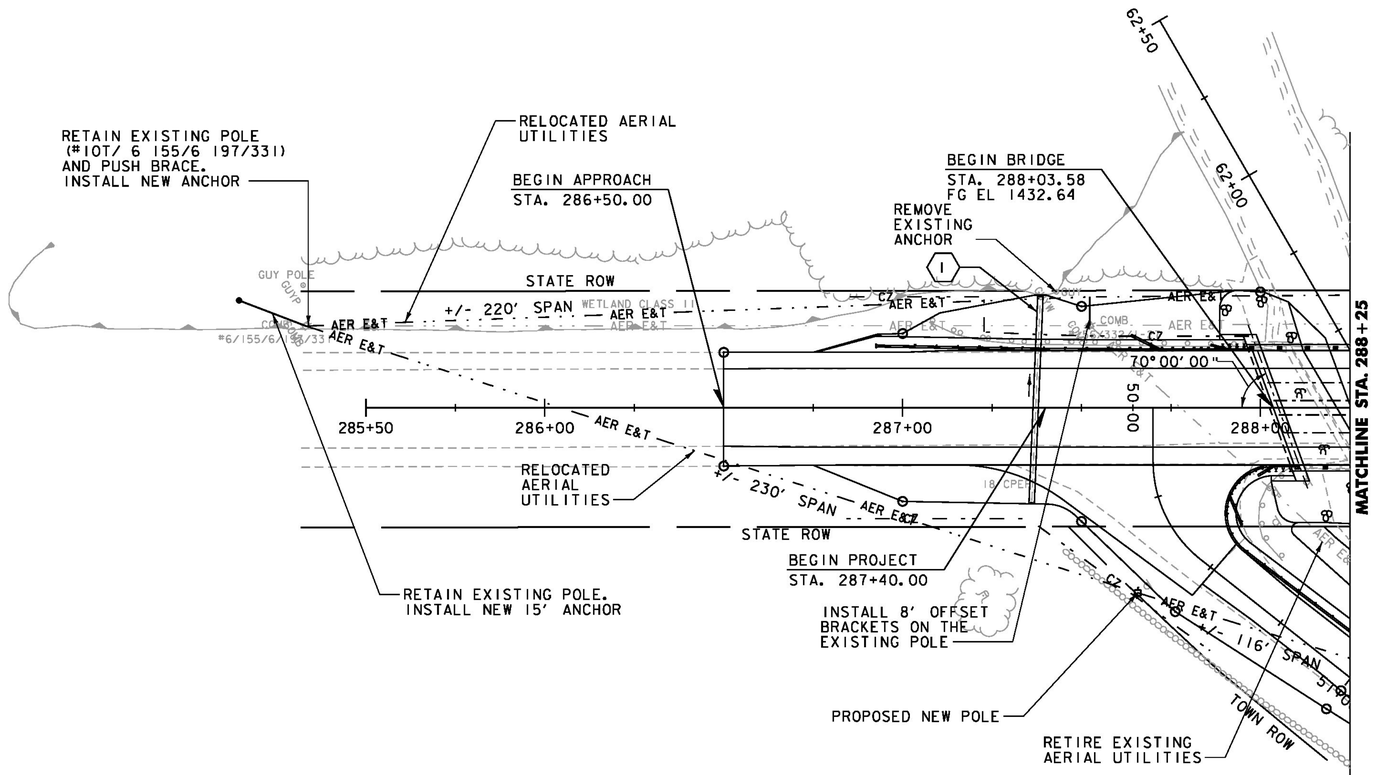
PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 24 OF 68

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N

VT STATE PLANE GRID

NEW 18" PIPE OPTION
STA. 287+36, 27' RT TO STA 287+39, 31' LT (1)



NOTES:

(1) REMOVE EXISTING 18" CPEP
STA. 287+36.06, 26' RT - 287+38.54, 30' LT

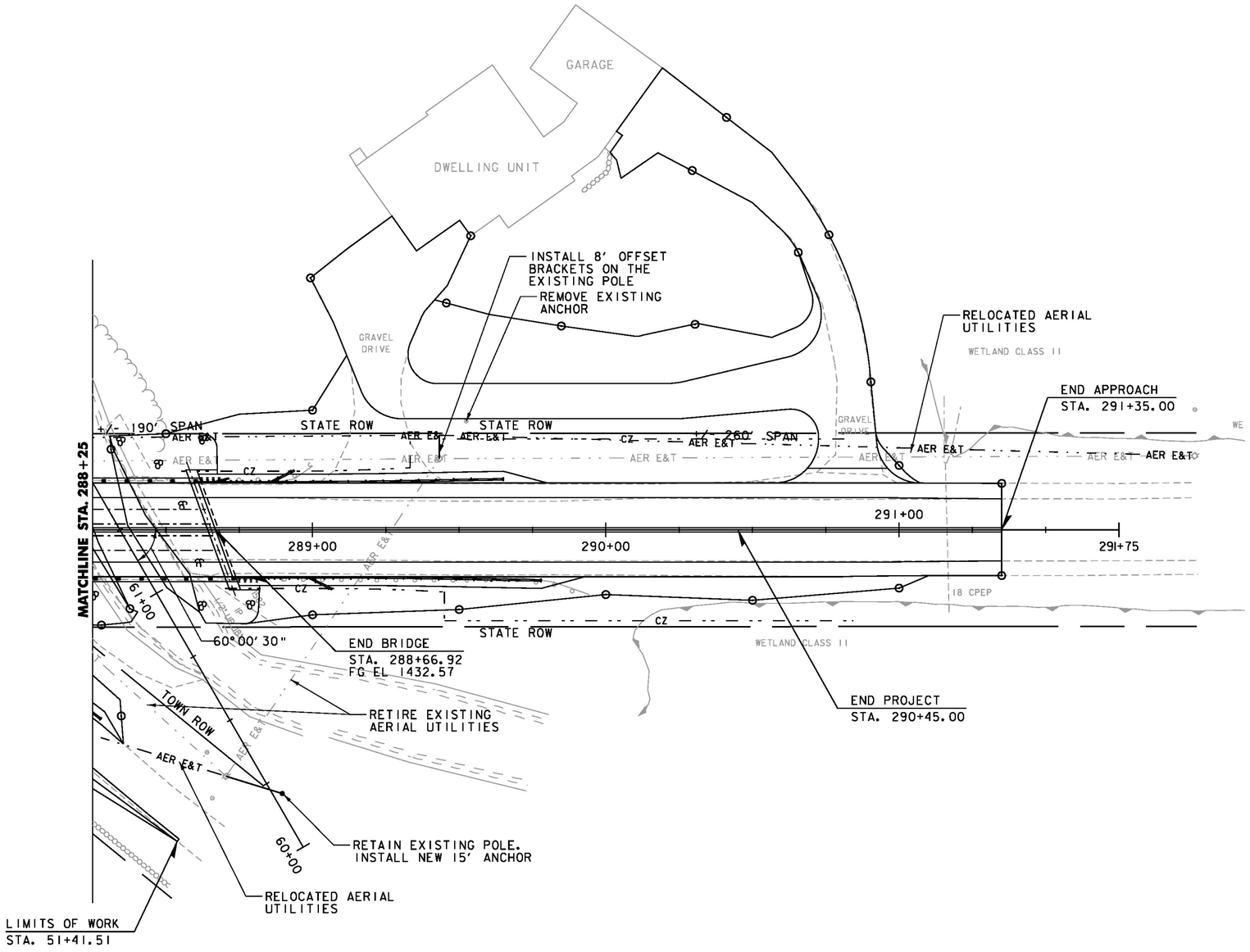
CONST. 58 LF x 18" PIPE OPTION
18" INV. @ INLET (27' RT) = 1428.18
18" INV. @ OUTLET (31' LT) = 1427.39

20 0 20
SCALE IN FEET

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076bdr_utility_reloc.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
DRAINAGE & UTILITY LAYOUT SHEET (1 OF 2)	SHEET 25 OF 68

VHB 57673

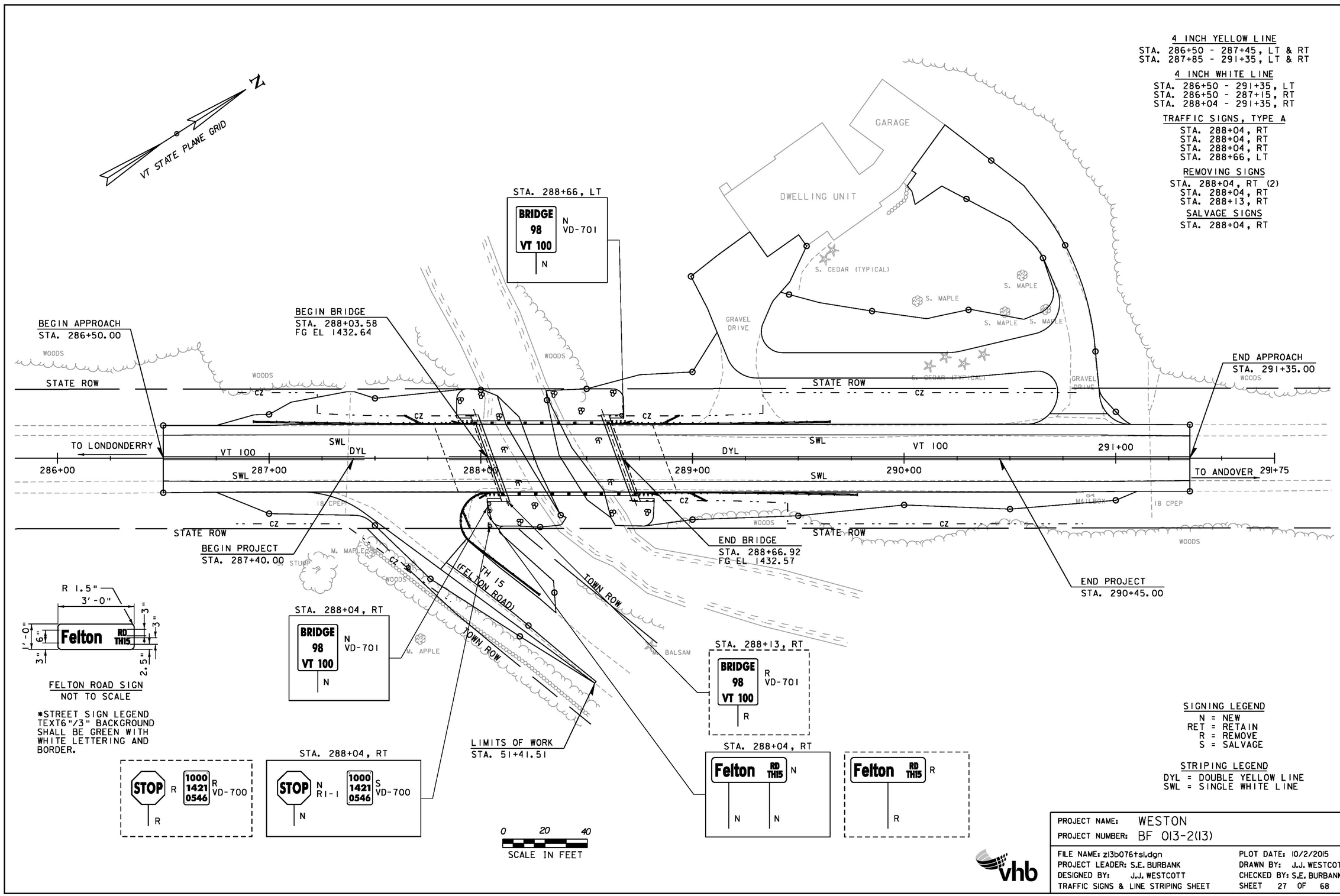


20 0 20

SCALE IN FEET

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076bdr_utility_reloc.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
DRAINAGE & UTILITY LAYOUT SHEET (2 OF 2)	SHEET 26 OF 68

VHB 57673



PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076tsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
TRAFFIC SIGNS & LINE STRIPING SHEET	SHEET 27 OF 68

VHB 57673

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

MILE MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (IN)	HEIGHT (IN)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL LB/FT 1.12	2.0	3.0	SQUARE STEEL (IN) LB/FT 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (IN) LB/FT 3.0 1.3	4.0 1.7	4.0 MOD 1.7	FOUNDATION	TUBULAR STEEL Ø (IN) LB/FT 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	SIGN REFRAMED	REMARKS	SIGN DETAIL DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
											OPTION ITEMS																										
VT 100																																				
288+04, RT	STOP 1000 1421 0546	1	6	10			0.42				1					X		X															VD-700		T-44
		1	30	30	6.25																											RI-1		SHSM
288+04, RT 288+66, LT	BRIDGE 98 VT 100	2	6	8	0.67						2				X			X															VD-701		T-42
288+04, RT	Felton RD THIS	1	36	12	3.00						2					X		X															STREET SIGN SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER	27	
AVERAGE POST LENGTH = 15 FEET FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."											FT	FT	FT	FT 30	FT 45	FT		EA	LB	LB	LB		LB	LB	LB	LB								
	TOTALS			SF 9.92	SF	EA. 1	SF				FT			FT 75					LB			EA.	LB				EA.	EA.	LB						

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076tss.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
TRAFFIC SIGN SUMMARY SHEET

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 28 OF 68

VHB 57673

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
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1⅜" 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 1⅛"
BX	Core Size 1⅝"
NX	Core Size 2 ⅛"
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
Si	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

blk	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		

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 > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#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.

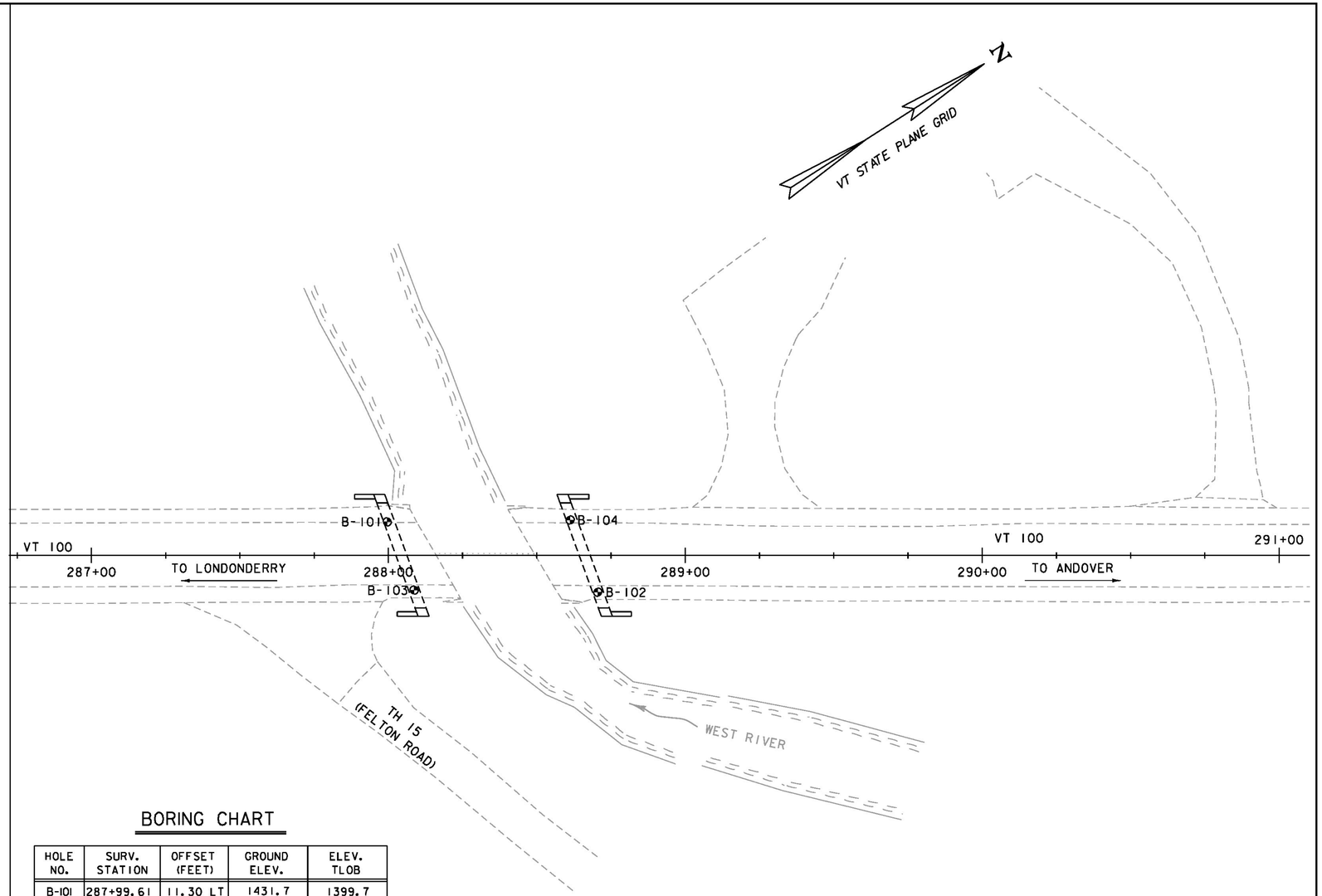
MUCK - Soft organic soil (containing > 10% organic material.

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.



BORING CHART

HOLE NO.	SURV. STATION	OFFSET (FEET)	GROUND ELEV.	ELEV. TLOB
B-101	287+99.61	11.30 LT	1431.7	1399.7
B-102	288+70.53	12.40 RT	1431.6	1412.5
B-103	288+08.67	11.70 RT	1431.8	1406.8
B-104	288+61.25	11.90 LT	1431.7	1406.7

GENERAL NOTES

1. The subsurface explorations shown herein were made in June, 2014 by the Agency.
2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
3. 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.
4. Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency 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.
5. 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.
6. 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.
7. Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076bor.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
BORING INFORMATION SHEET

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 29 OF 68

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

WESTON
BF 013-2(13)
VT-100 BR-98

Boring No.: **B-101**
Page No.: 1 of 1
Pin No.: 13B076
Checked By: BLS

Boring Crew: JUDKINS, HOOK, STRINGER
Date Started: 6/24/14 Date Finished: 6/24/14
VTSPG NAD83: N 299839.78 ft E 1565087.06 ft
Station: 287+99.61 Offset: -11.30
Ground Elevation: 1431.7 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
06/24/14	5.5	While drilling.

BOTTOM OF CAP EL=1422.5

ESTIMATED PILE TIP EL=1396.7

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.62 ft								
		A-1-b, SaGr, Lt/brn, Moist, Rec. = 1.1 ft				25-13-10-10 (23)	4.4	47.8	40.4	11.8
		A-1-a, SaGr, Lt/brn, Moist, Rec. = 0.9 ft, Lab Note: Broken Rock was within sample.				39-28-10-10 (38)	4.3	57.2	31.8	11.0
5		A-1-b, SaGr, brn, MTW, Rec. = 0.5 ft, Lab Note: Broken Rock was within sample.				11-9-4-3 (13)	9.7	51.1	34.5	14.4
		A-1-b, SaGr, brn, Wet, Rec. = 0.4 ft				8-R@1.0" (R)	18.9	45.7	41.6	12.7
		Field Note:, Cleaned out with Roller cone								
10		A-1-b, SaGr, brn, MTW, Rec. = 0.6 ft, Cleaned out with Roller cone. Lab Note: Broken Rock was within sample.				9-4-7-4 (11)	14.9	47.6	36.2	16.2
		A-1-a, SaGr, brn, MTW, Rec. = 0.8 ft, Cleaned out with Roller cone. Lab Note: Broken Rock was within sample.				5-5-15-16 (20)	13.1	61.5	27.0	11.5
		A-1-b, SiSaGr, gry, MTW, Rec. = 1.0 ft, NXDC, Cleaned out casing. Lab Note: Broken Rock was within sample.				25-20-21-19 (41)	12.1	43.6	36.3	20.1
15		A-2-4, SiSa, brn, MTW, Rec. = 1.1 ft				15-9-10-16 (18)	24.1	9.2	64.2	26.6
		A-1-b, SaGr, brn, MTW, Rec. = 1.0 ft, NXDC, Cleaned out casing. Lab Note: Broken Rock was within sample.				11-17-15-12 (32)	14.4	48.0	37.4	14.6
20		A-2-4, Sa, brn, MTW, Rec. = 1.0 ft				14-12-12-13 (24)	19.8	10.8	74.1	15.1
25		A-2-4, SiSa, brn, MTW, Rec. = 1.5 ft				11-13-16-20 (29)	20.2	0.8	77.9	21.3
		Field Note:, NXDC, Cleaned out casing								
30		Geologist's Note:, Boulder								
		32.0 ft - 37.0 ft, Gray, Biotite-quartz-plagioclase Gneiss, Hard, Unweathered, Fair rock, NXMDC, Closely spaced stained jointing. RMR = 44	1 (30)	88 (0)	8 4 4 3 4	Top of Bedrock @ 32.0 ft				
35										
		37.0 ft - 42.0 ft, Gray, Biotite-quartz-plagioclase Gneiss, Hard, Unweathered, Fair rock, NXMDC, Closely spaced stained jointing. Near vertical joint from 40.0 to 42.0 feet. RMR = 44	2 (30)	100 (14)	3 3 3 3 3					
40		Hole stopped @ 42.0 ft								
45		Remarks: Hole collapsed at 6.0 ft.								

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 WESTON BF 013-2(13).GPJ VERMONT AOT.GDT 8/6/14

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

WESTON
BF 013-2(13)
VT-100 BR-98

Boring No.: **B-102**
Page No.: 1 of 1
Pin No.: 13B076
Checked By: BLS

Boring Crew: JUDKINS, HOOK, STRINGER
Date Started: 6/25/14 Date Finished: 6/25/14
VTSPG NAD83: N 299888.48 ft E 1565145.23 ft
Station: 288+70.53 Offset: 12.40
Ground Elevation: 1431.6 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
06/25/14	6.2	While drilling.

BOTTOM OF CAP EL=1422.5

ESTIMATED PILE TIP EL=1409.5

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.58 ft								
		A-1-b, SrSa, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken Rock was within sample.				4-13-12-9 (25)	9.9	26.9	62.8	10.3
		A-1-a, SaGr, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken Rock was within sample.				10-10-15-15 (25)	7.4	55.8	34.1	10.1
5		A-1-a, SaGr, brn, Moist, Rec. = 0.2 ft, NXDC, Cleaned out casing. Lab Note: Broken Rock was within sample.				38-19-11-15 (30)	5.0	62.5	28.8	8.7
		Field Note:, No Recovery, Stone in sampler. NXDC, Cleaned out casing.				10-3-2-2 (5)				
10		A-1-a, SaGr, brn, MTW, Rec. = 0.3 ft, NXDC, Cleaned out casing. Lab Note: Sample was mostly Broken Rock with sand.				3-6-4-5 (10)	9.7	64.5	28.2	7.3
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.4 ft, NXDC, Cleaned out casing. Lab Note: Sample was mostly Broken Rock with silty sand.				13-11-23-26 (34)	10.1	52.3	27.4	20.3
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.1 ft				R@2.5" (R)	9.3	48.0	30.9	21.1
		Field Note:, NXDC, Cleaned out casing.								
15		A-2-4, SiGrSa, brn, Moist, Rec. = 0.3 ft, Lab Note: Broken Rock was within sample.				37-R@5.0" (R)	10.6	34.6	38.1	27.3
		Field Note:, NXDC, Cleaned out casing.								
		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 0.6 ft, Lab Note: Broken Rock was within sample.				49-R@5.0" (R)	11.5	43.2	35.9	20.9
		Field Note:, NXDC, Cleaned out casing.				R@1.0"	7.2			
		Rec. = 0.1 ft								
20		Visual Description:, Broken Rock with sand, brn-gry, Moist	1 (40)	94 (48)	3	Top of Bedrock @ 19.1 ft				
		19.1 ft - 20.3 ft, White, Quartz, vein. Hard, Unweathered, Fair rock 20.3 ft - 24.1 ft, Gray, Biotite-quartz-plagioclase Gneiss, Hard, Unweathered, Fair rock, Closely spaced stained jointing. NXMDC, RMR = 49 for the whole Run.			3 3 2 3					
25		24.1 ft - 29.1 ft, Gray, Biotite-quartz-plagioclase Gneiss, Hard, Unweathered, Fair rock, NXMDC, Moderately close spaced jointing. RMR = 64	2 (40)	94 (72)	2 2 2 2 2					
30		Hole stopped @ 29.1 ft								
		Remarks: Hole collapsed at 10.6 ft.								

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 WESTON BF 013-2(13).GPJ VERMONT AOT.GDT 8/6/14

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

WESTON
BF 013-2(13)
VT-100 BR-98

Boring No.: **B-103**
Page No.: 1 of 1
Pin No.: 13B076
Checked By: BLS

Boring Crew: JUDKINS, HOOK, STRINGER
Date Started: 6/26/14 Date Finished: 6/26/14
VTSPG NAD83: N 299838.57 ft E 1565112.75 ft
Station: 288+08.67 Offset: 11.70
Ground Elevation: 1431.8 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
06/26/14	6.2	While drilling.

BOTTOM OF CAP EL=1422.5

ESTIMATED PILE TIP EL=1403.8

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.78 ft								
		A-1-a, SaGr, brn, Moist, Rec. = 1.1 ft, Lab Note: Broken Rock was within sample.				11-10-9-13 (19)	7.1	57.4	33.1	9.5
		Field Note:, Cleaned out with NXDC								
5		Field Note:, No Recovery. Appears to be Gr Sa				14-6-4-3 (10)				
		Field Note:, Cleaned out with NXDC								
10		A-1-b, GrSa, brn, Moist, Rec. = 1.1 ft, Lab Note: Broken Rock was within sample.				20-16-22-32 (38)	11.0	40.5	41.1	18.4
		Field Note:, Cleaned out with NXDC								
15		A-1-b, GrSa, brn, Moist, Rec. = 0.4 ft				12-7-8-28 (15)	14.2	36.3	50.9	12.8
		Visual Description:, Severely Weathered Rock, brn-gry, Moist, Rec. = 0.2 ft					13.0			
		Field Note:, Cleaned out with NXDC								
20		Visual Description:, Mostly Broken Rock with sand, brn, MTW, Rec. = 0.4 ft				37-R@3.5" (R)	9.4			
		Field Note:, Cleaned out with NXDC				R@0.0"				
25		Field Note:, No Recovery	1 (40)	98 (48)	3	Top of Bedrock @ 25.0 ft				
		25.0 ft - 30.0 ft, Gray and white, Biotite-quartz-plagioclase Gneiss, with quartz rich zones. Hard, Unweathered, Fair rock, NXMDC, Closely spaced stained jointing. RMR = 49			3 3 3 3 3					
30		30.0 ft - 35.0 ft, Gray and white, Biotite-quartz-plagioclase Gneiss, with quartz rich zones. Hard, Unweathered, Fair rock, NXMDC, Closely spaced stained jointing. RMR = 54	2 (40)	100 (72)	2 2 2 2 2					
35		Hole stopped @ 35.0 ft								
		Remarks: Hole collapsed at 8.2 ft.								

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 WESTON BF 013-2(13).GPJ VERMONT AOT.GDT 8/6/14

vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: zl3b076borlogs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: VTRANS
BORING LOGS (1 OF 2)

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 30 OF 68

VHB 57673

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

WESTON
BF 013-2(13)
VT-100 BR-98

Boring No.: **B-104**
Page No.: 1 of 1
Pin No.: 13B076
Checked By: BLS

Boring Crew: JUDKINS, HOOK, STRINGER
Date Started: 6/25/14 Date Finished: 6/26/14
VTSPG NAD83: N 299891.64 ft E 1565121.97 ft
Station: 288+61.25 Offset: -11.90
Ground Elevation: 1431.7 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
06/26/14	9.6	While drilling.

BOTTOM OF CAP EL=1422.5

ESTIMATED PILE TIP EL=1403.7

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.85 ft								
		A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft				13-13-12-22 (25)	7.7	43.5	41.0	15.5
		Field Note:, Cleaned out with Roller cone								
5		Visual Description:, Sample was mostly Wood pieces with silt & sand, brn, MTW, Rec. = 0.2 ft				5-4-4-10 (8)	76.9 30.9	9.6	61.6	28.8
		A-2-4, SiSa, brn, MTW, Rec. = 0.6 ft								
		Field Note:, Cleaned out with NXDC, Appears to be Cobbles, Boulders, and sand.								
10		Field Note:, No Recovery, Possible Boulder.				R@0.0" (R)				
		Field Note:, NXDC Boulders, Cobbles, and sand								
15		Field Note:, No Recovery, Appears to be Cobbles and sand.				49-R@3.5" (R)				
		Field Note:, Cleaned out with NXDC, Appears to be Cobbles and sand.								
20		Visual Description:, Sample was mostly Broken Rock with silty sand, brn-gry, Moist, Rec. = 0.2 ft				36-R@1.0" (R)	7.6			
		Field Note:, Cleaned out with NXDC				R@0.0"				
25		Field Note:, No Recovery	1 (30)	98 (0)	3 3 3 3 3	Top of Bedrock @ 25.0 ft				
		25.0 ft - 30.0 ft, Gray and white, Biotite-quartz-plagioclase Gneiss, with quartz rich zones. Hard, Unweathered, Fair rock, NXMDC, Closely spaced stained jointing. RMR = 44								
30		30.0 ft - 35.0 ft, Gray and white, Biotite-quartz-plagioclase Gneiss, with quartz rich zones. Hard, Unweathered, Fair rock, NXMDC, Closely spaced stained jointing. RMR = 44	2 (30)	100 (14)	2 2 2 2 2					
35		Hole stopped @ 35.0 ft								

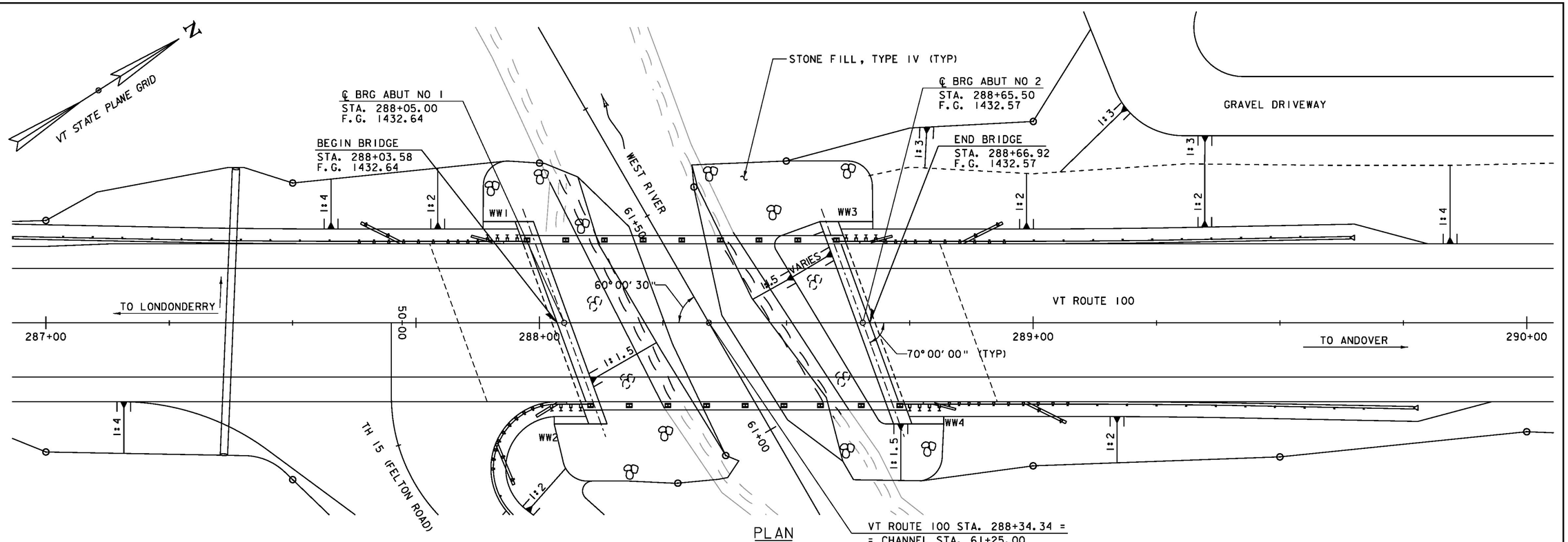
Remarks:
Hole collapsed at 5.0 ft.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

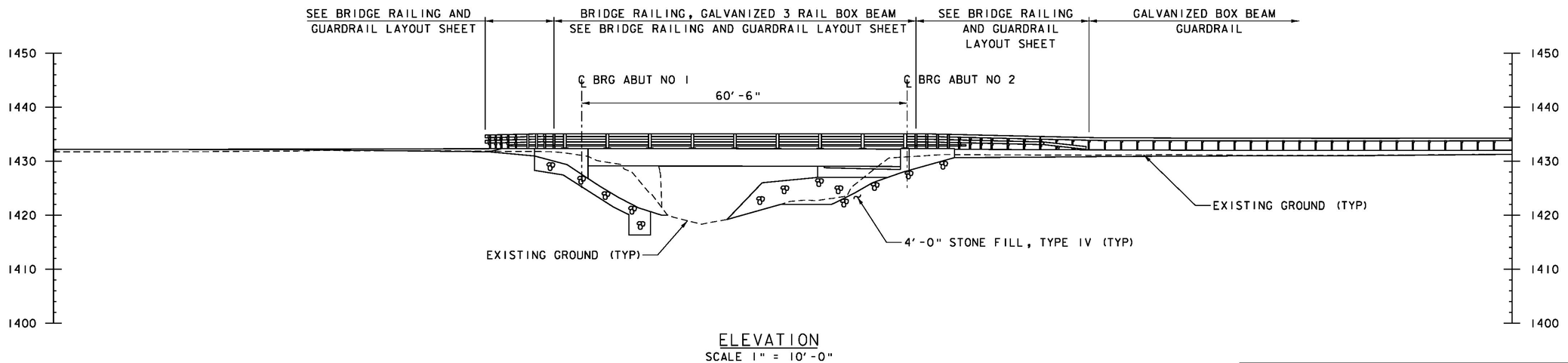
BORING LOG 2 WESTON BF 013-2(13).GPJ VERMONT AOT.GDT 8/6/14

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME:	zl3b076borlogs.dgn
PROJECT LEADER:	S.E. BURBANK
DESIGNED BY:	VTRANS
BORING LOGS	(2 OF 2)
PLOT DATE:	10/2/2015
DRAWN BY:	J.J. WESTCOTT
CHECKED BY:	S.E. BURBANK
SHEET	31 OF 68

VHB 57673



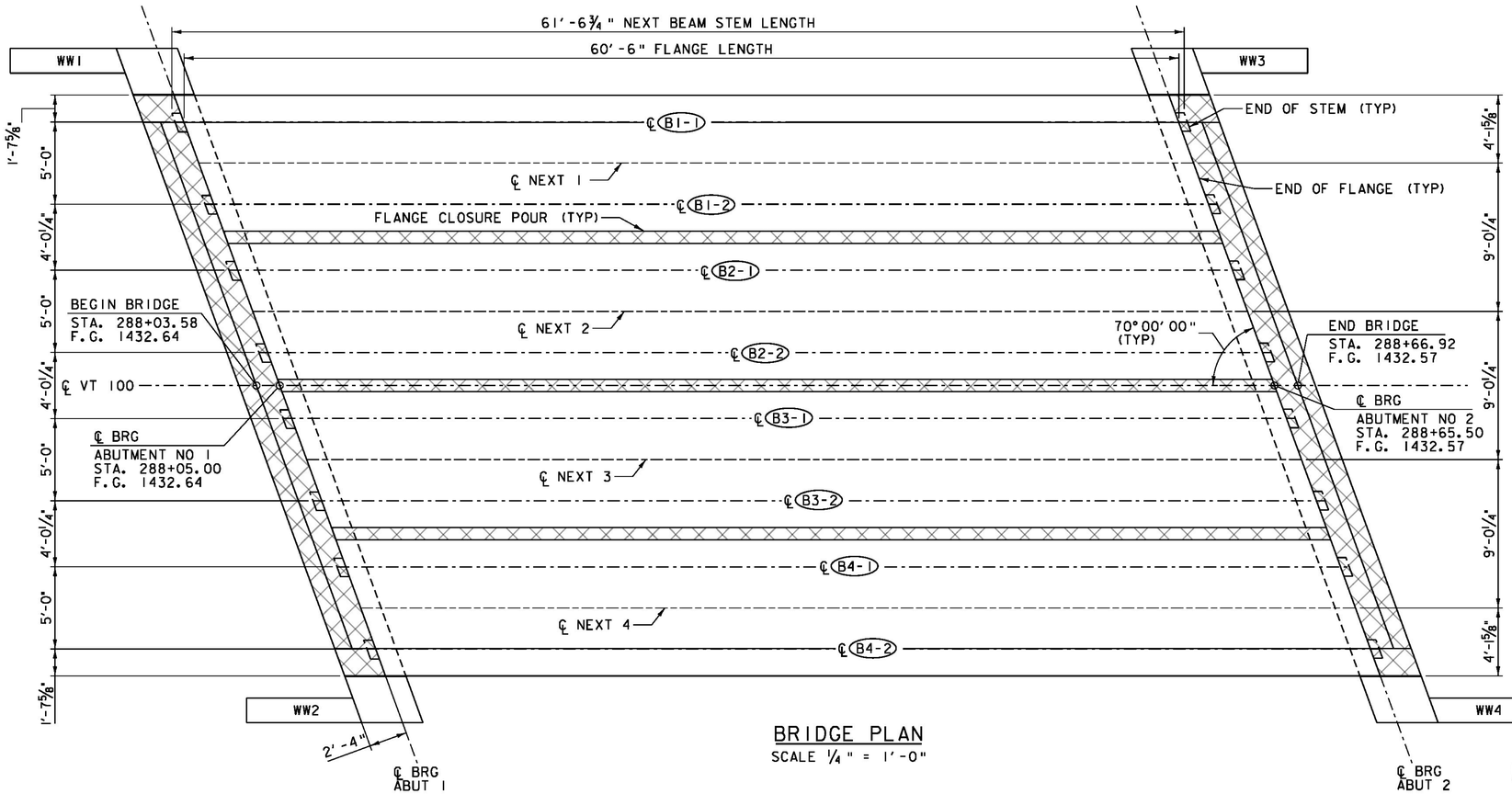
PLAN
SCALE 1" = 10'-0"



ELEVATION
SCALE 1" = 10'-0"

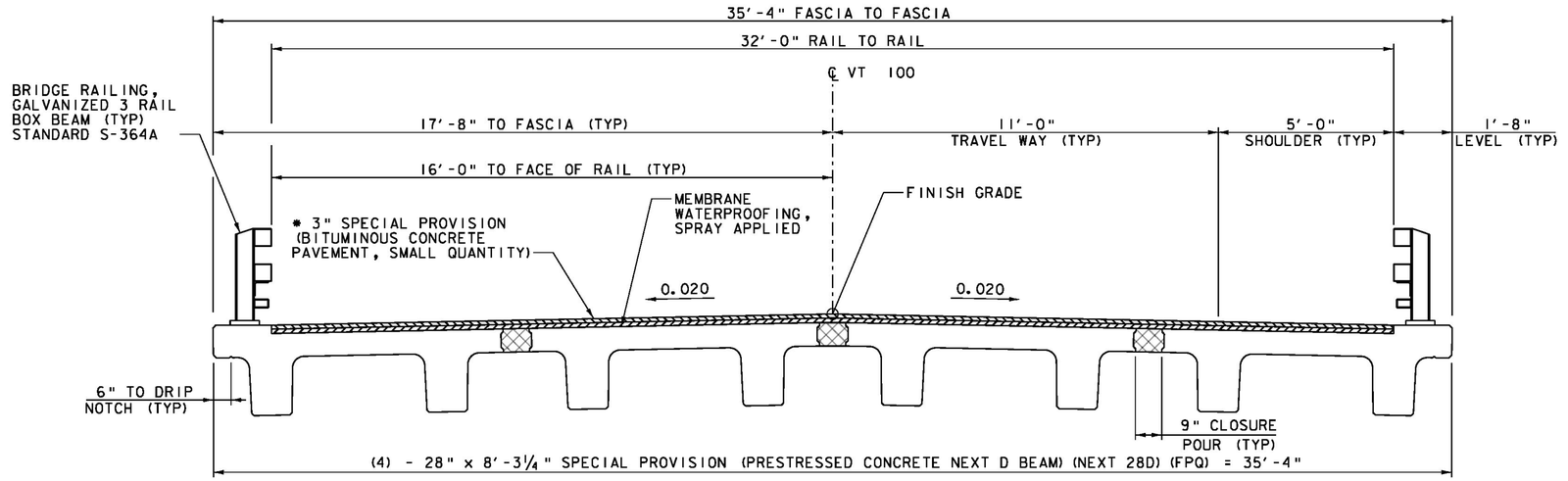
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076pe.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
PLAN AND ELEVATION	SHEET 32 OF 68

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BRIDGE PLAN

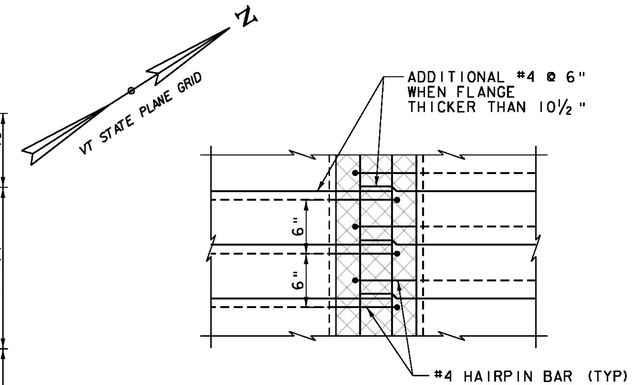
SCALE 1/4" = 1'-0"



* - (2) - 1½" LIFTS OF TYPE IVS

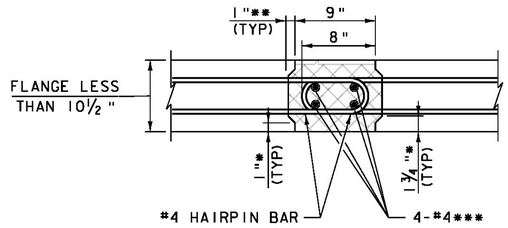
TYPICAL BRIDGE SECTION NEXT BEAM ALTERNATE

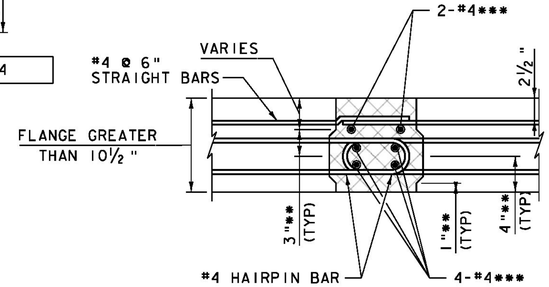
SCALE ½" = 1'-0"



PLAN

(STRAIGHT BARS NOT SHOWN FOR CLARITY)





SECTION

FLANGE CONNECTION DETAILS

SCALE 1½" = 1'-0"

= SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)

** DIMENSIONS ARE TO KEY IN JOINT

*** #4 BARS SHALL BE PLACED AS SHOWN ALONG ENTIRE LENGTH OF JOINT. PAYMENT SHALL BE INCIDENTAL TO "SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS) (NEXT 28D) (FPQ)".

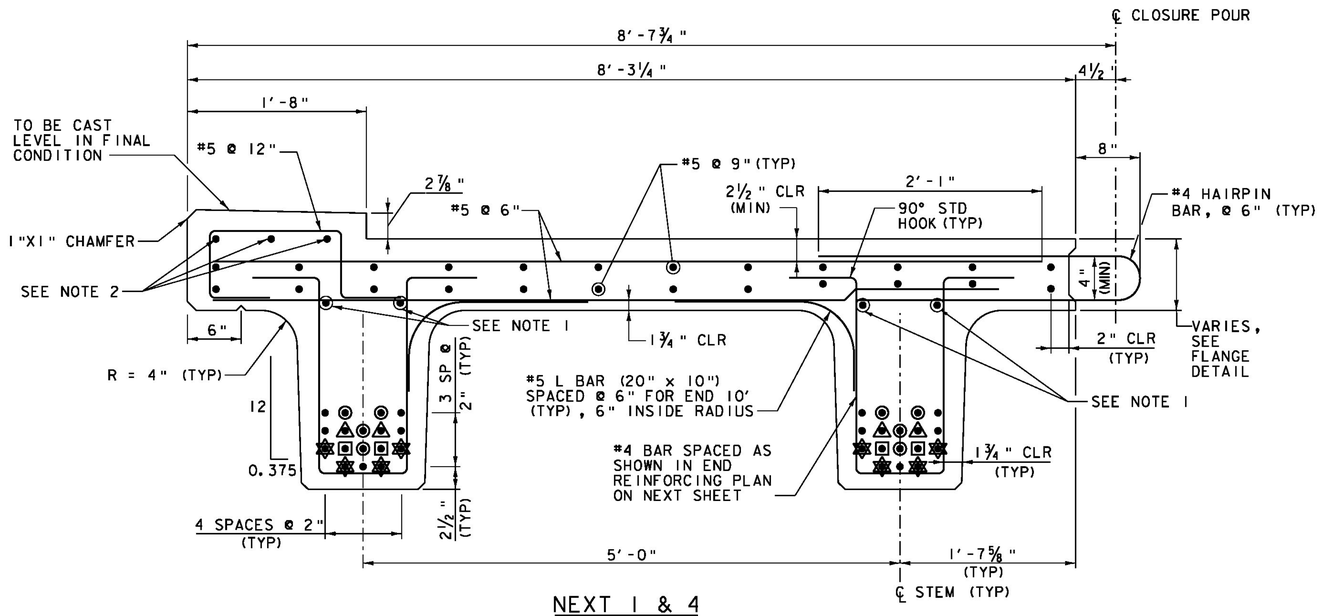
vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076supl.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
NEXT BEAM FRAMING PLAN

PLOT DATE: 10/2/2015
DRAWN BY: K.C. BARRY
CHECKED BY: L.S. CHERVINCKY
SHEET 33 OF 68

VHB 57673



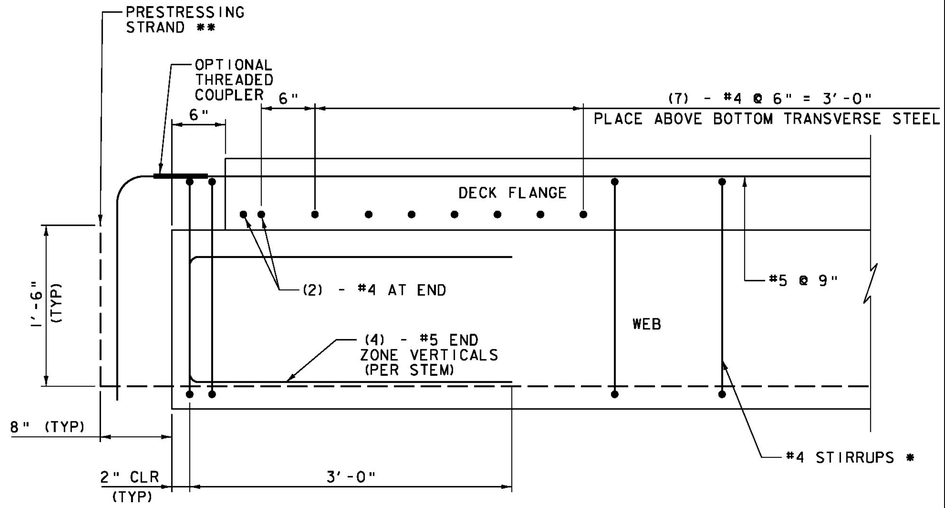
NEXT 1 & 4

(BEAM 1 SHOWN, BEAM 4 HAS LIP OPPOSITE HAND)
SCALE 1½" = 1'-0"

NOTE:

1. WHEN FLANGE IS GREATER THAN 10 #2", ADDITIONAL TRANSVERSE #4 BARS @ 6" SHALL EXTEND THE FULL WIDTH OF THE BEAM AND INTO LONGITUDINAL POUR. SEE FLANGE CONNECTION DETAIL ON PREVIOUS SHEET.
2. (3) #5 EQUALLY PLACED, ONLY AT ENDS OF BEAM AT 5'-0" FROM END OF BEAM AND EXTENDING 2'-0" BEYOND END OF BEAM FLANGE INTO CLOSURE POUR.

▣ - DEBONDED 16' EACH END
▲ - DEBONDED 14' EACH END
◉ - DEBONDED 6" EACH END
✡ - EXTEND 2'-2" OUT OF BEAM (90 DEGREE BEND @ 8" OUT)

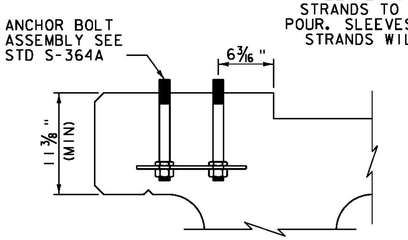


ADDITIONAL END BEAM REINFORCING LONGITUDINAL SECTION

TYPICAL BARS IN DECK FLANGE OMITTED FOR CLARITY

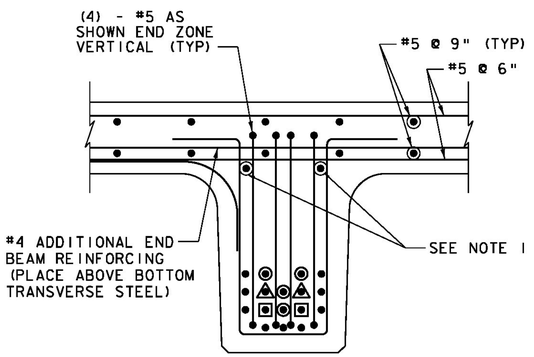
SCALE 1½" = 1'-0"
* SEE END REINFORCING PLAN FOR SPACING

** LEAVE FOUR STRANDS LONG PER STEM AS INDICATED. TIE STRANDS TO HORIZONTAL FF REINFORCING IN DECK CLOSURE POUR. SLEEVES FOR PERMANENT BENDING OF THE PRESTRESSING STRANDS WILL NOT BE ALLOWED INSIDE THE CLOSURE POUR



POST DETAIL

SCALE 1½" = 1'-0"

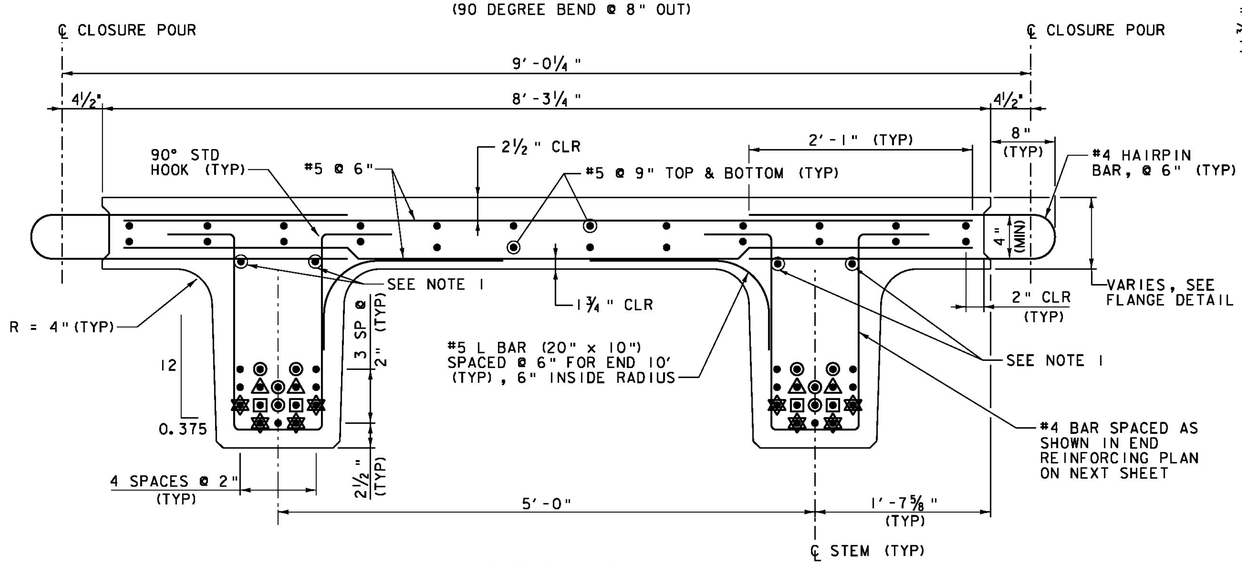


WEB END SECTION

SCALE 1½" = 1'-0"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



NEXT 2 & 3

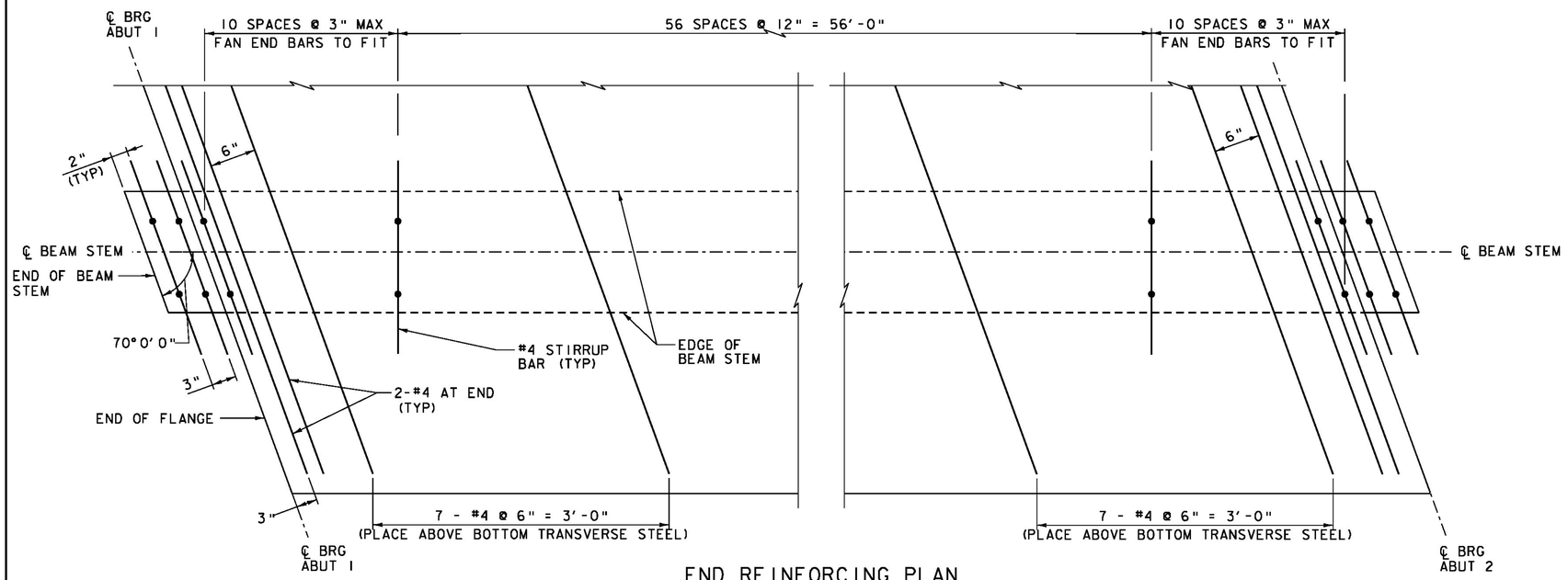
SCALE 1½" = 1'-0"

NOTE:

1. STRANDS NOTED AT THE TOP WILL ONLY BE TENSIONED A NOMINAL AMOUNT TO FACILITATE REINFORCING STEEL PLACEMENT.
2. SEE NEXT SHEET FOR SKEWED END DETAIL.

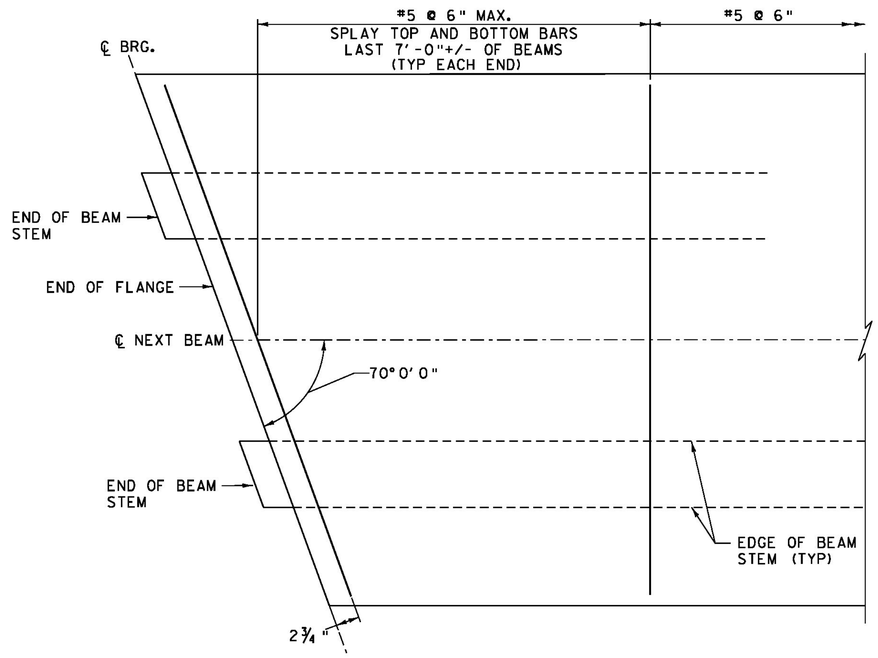
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076supl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM DETAILS (1 OF 2)	SHEET 34 OF 68

VHB 57673



END REINFORCING PLAN

TYPICAL ALL UNITS
TYPICAL DECK STEEL AND END ZONE VERTICALS NOT SHOWN FOR CLARITY
SCALE 1½" = 1'-0"

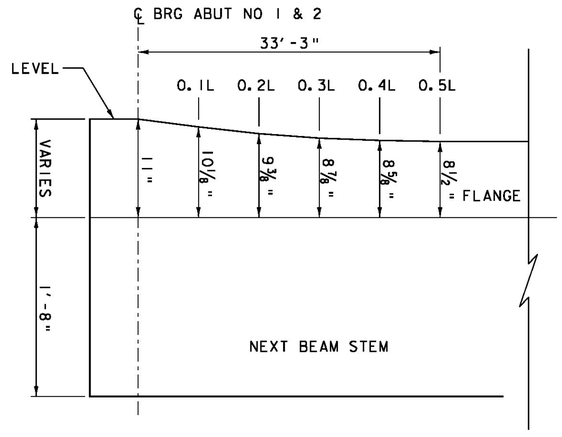


TYPICAL TRANSVERSE FLANGE REINFORCING STEEL DETAIL

TYPICAL ALL UNITS
SCALE ¾" = 1'-0"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



NOTES:

1. THICKENED DECK IS SYMMETRICAL ABOUT ℄ SPAN.
2. REINFORCEMENT IN TOP FLANGE SHALL BE PLACED TO MAINTAIN PROPER COVER TO TOP OF THE FLANGE.

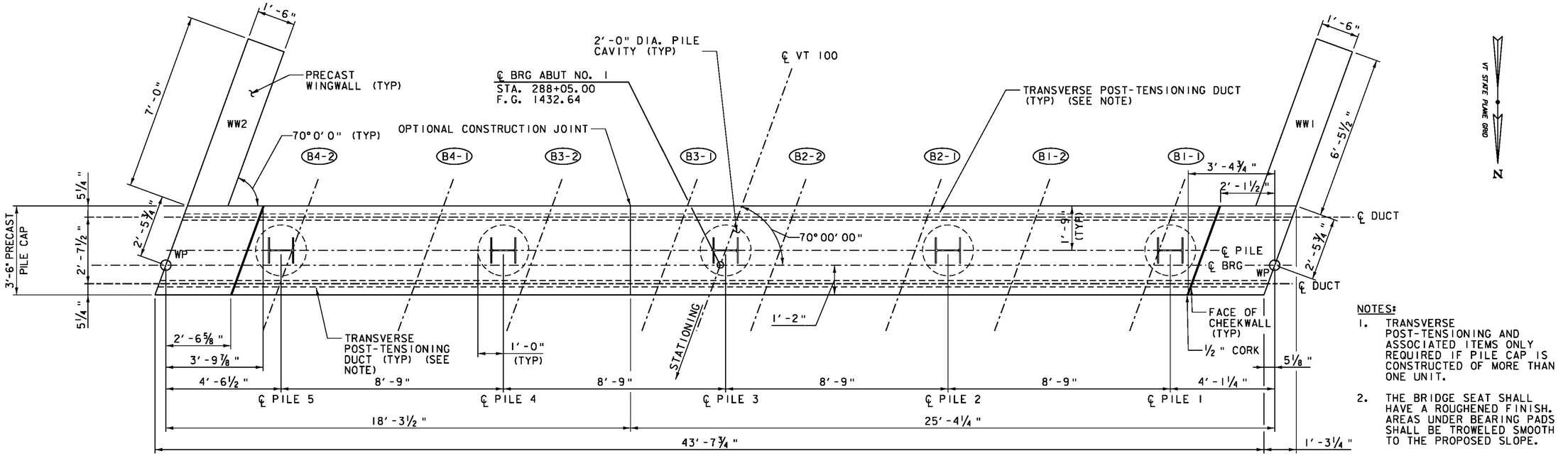
THICKENED FLANGE DETAIL

NOT TO SCALE

vhb

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076supl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM DETAILS (2 OF 2)	SHEET 35 OF 68

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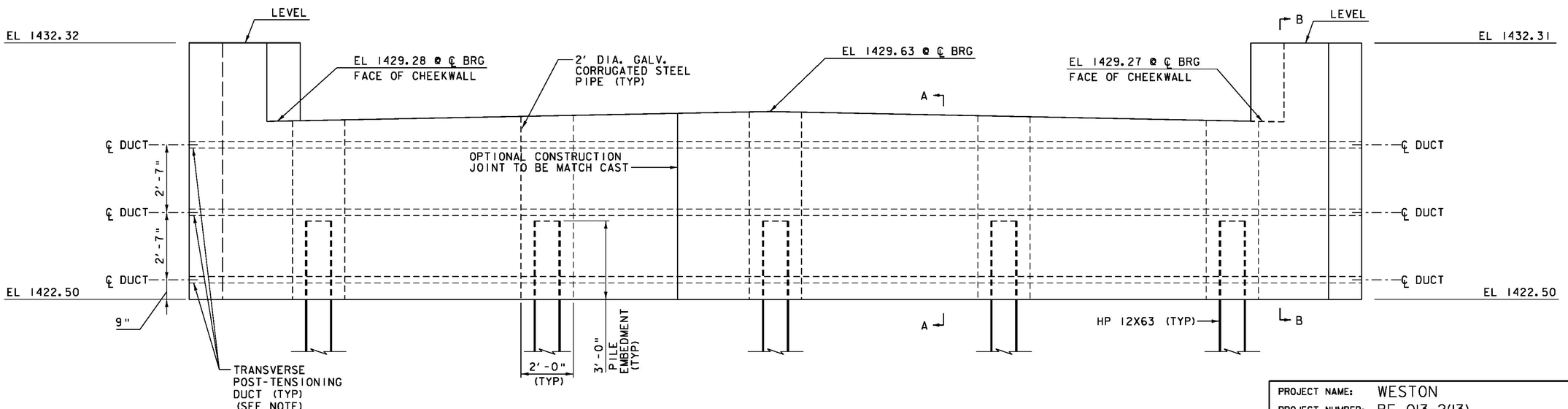


NOTES:

1. TRANSVERSE POST-TENSIONING AND ASSOCIATED ITEMS ONLY REQUIRED IF PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT.
2. THE BRIDGE SEAT SHALL HAVE A ROUGHENED FINISH. AREAS UNDER BEARING PADS SHALL BE TROWELED SMOOTH TO THE PROPOSED SLOPE.

ABUTMENT NO 1 PLAN

SCALE ½"=1'-0"



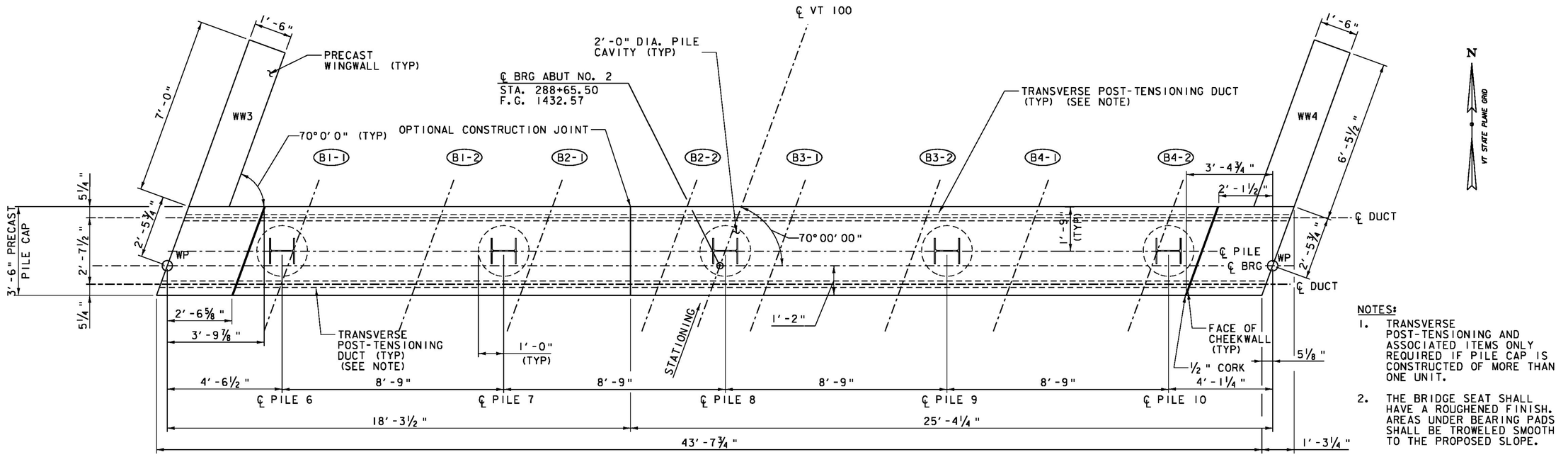
ABUTMENT NO 1 ELEVATION

SCALE ½"=1'-0"

SEE NEXT BEAM ABUTMENT SECTIONS SHEET FOR SECTIONS A-A AND B-B.

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076subl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM ABUT NO 1 PLAN & ELEVATION	SHEET 36 OF 68

VHB 57673

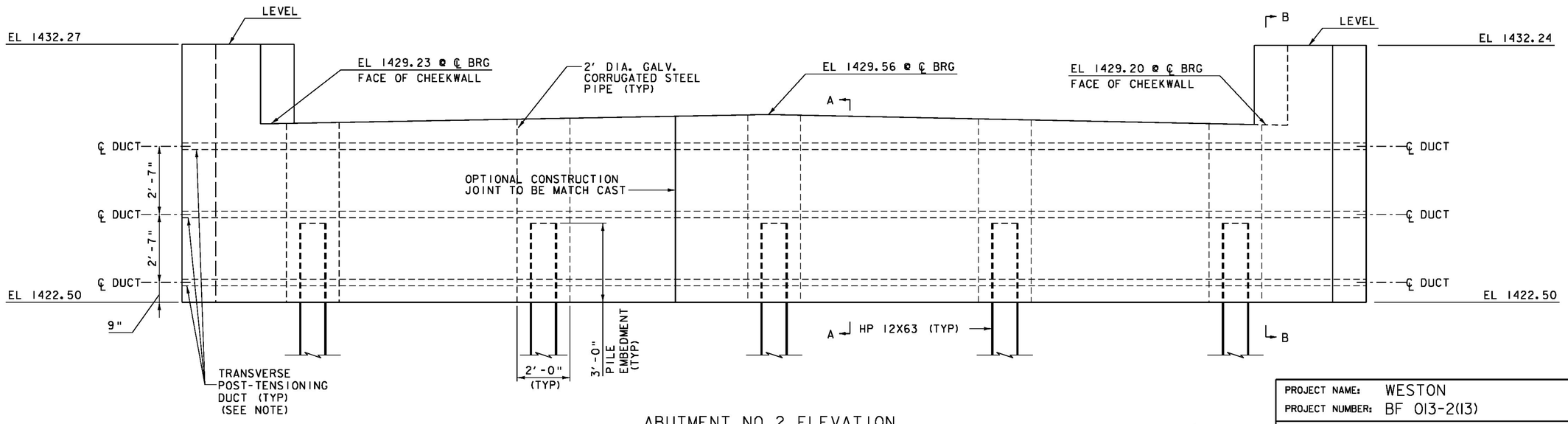


NOTES:

1. TRANSVERSE POST-TENSIONING AND ASSOCIATED ITEMS ONLY REQUIRED IF PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT.
2. THE BRIDGE SEAT SHALL HAVE A ROUGHENED FINISH. AREAS UNDER BEARING PADS SHALL BE TROWELED SMOOTH TO THE PROPOSED SLOPE.

ABUTMENT NO 2 PLAN

SCALE ½"=1'-0"



ABUTMENT NO 2 ELEVATION

SCALE ½"=1'-0"

SEE NEXT BEAM ABUTMENT SECTIONS SHEET FOR SECTIONS A-A AND B-B.

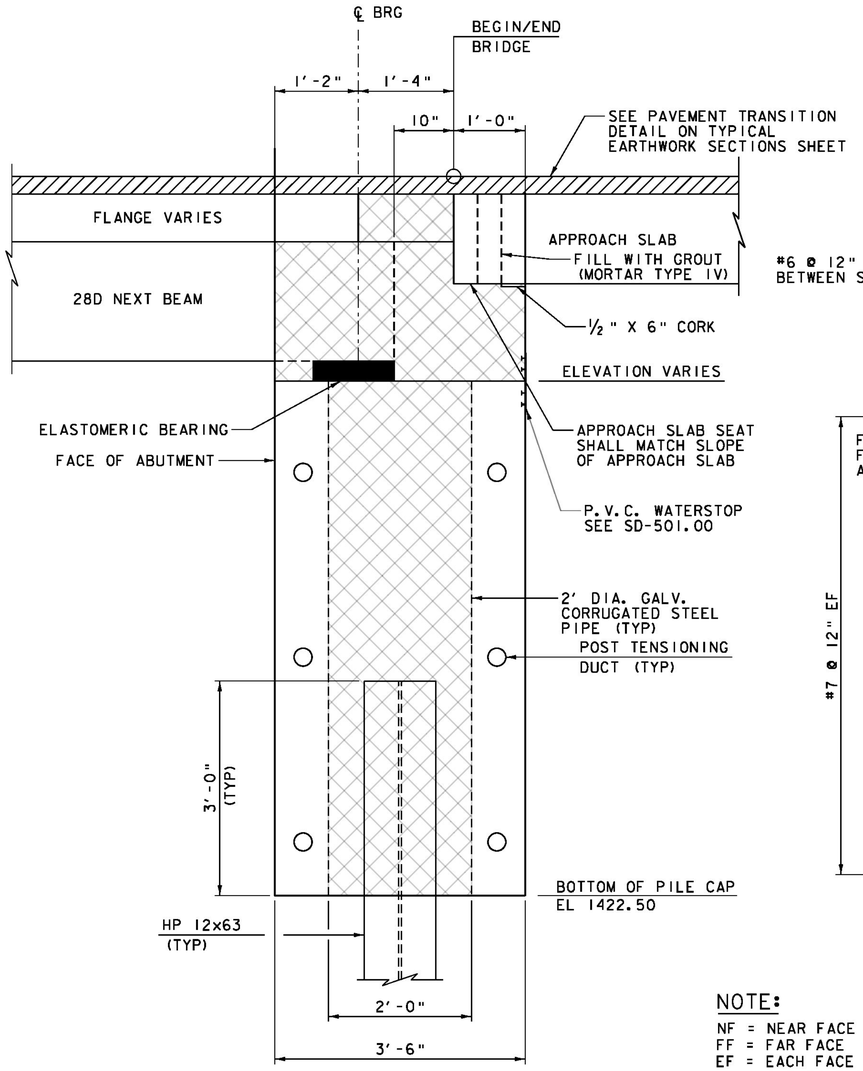
vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076subl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM ABUT NO 2 PLAN & ELEVATION SHEET 37 OF 68	

VHB 57673

NOTES:
1. ABUTMENTS SHALL BE PRECAST CONCRETE ACCORDING TO THE APPROPRIATE PRECAST ITEM.
2. SEE PROJECT NOTES FOR ADDITIONAL FABRICATION, CONSTRUCTION, AND SEQUENCE NOTES.
3. ELEVATIONS SHOWN ARE FOR ABUTMENT NO 1 AND ABUTMENT NO 2.

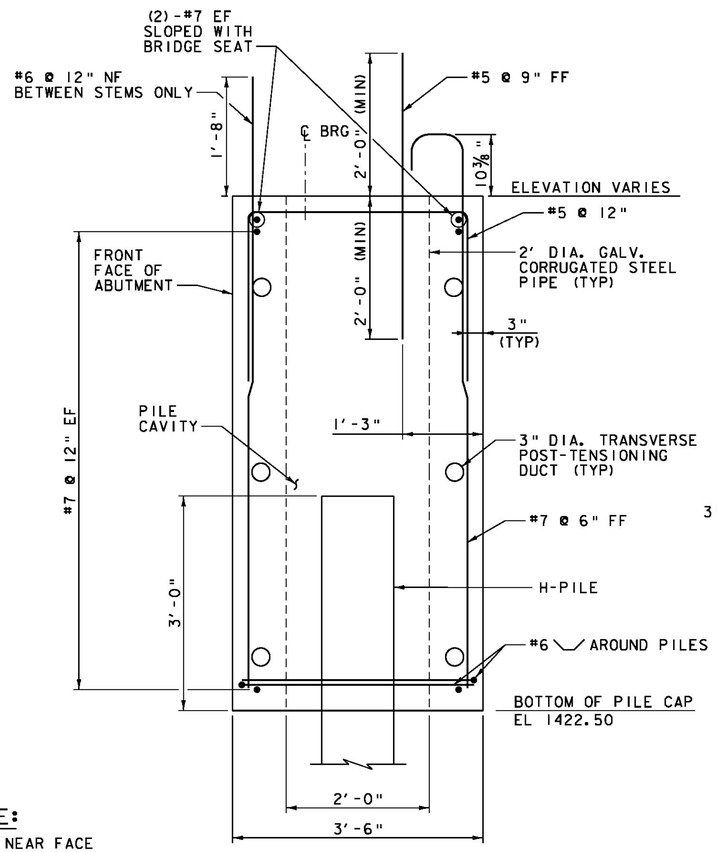
LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ) CLOSURE POUR



BRIDGE END DETAIL

(ABUT NO 1 SHOWN, ABUT NO 2 SIMILAR, OPPOSITE HAND)
(DIMENSIONS ARE NORMAL TO ℄ BRG)

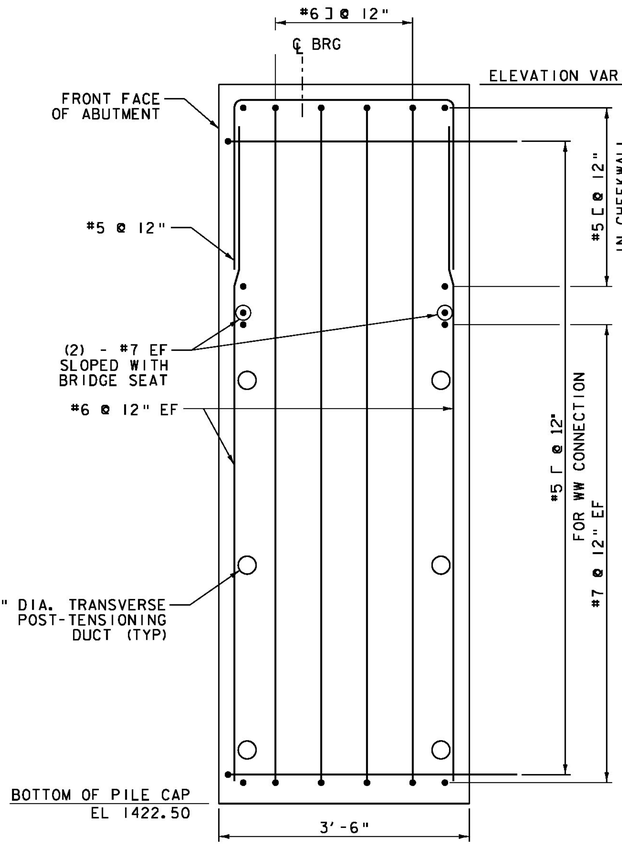
SCALE 1" = 1'-0"



SECTION A-A

SCALE 1" = 1'-0"

NOTE:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

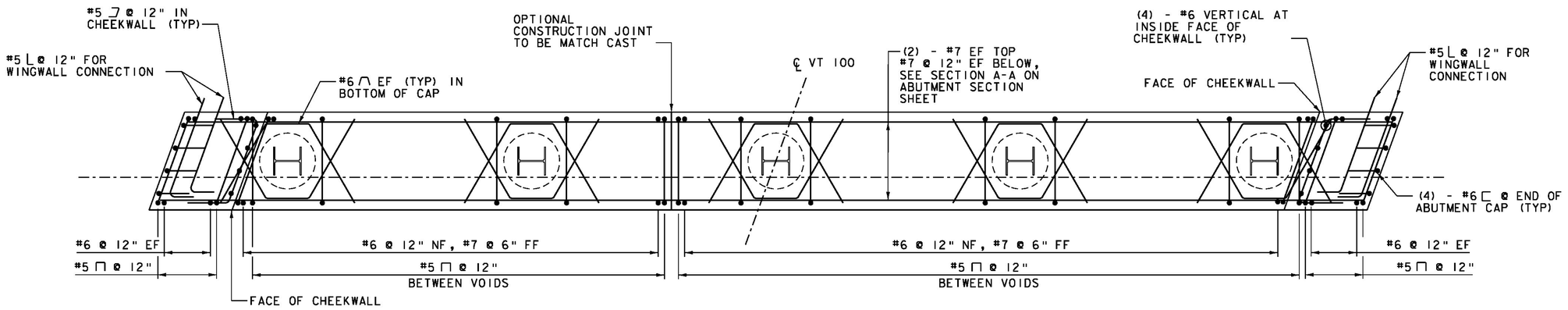


SECTION B-B

SCALE 1" = 1'-0"

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(113)	
FILE NAME: zl3b076subl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM ABUTMENT SECTIONS	SHEET 38 OF 68

VHB 57673

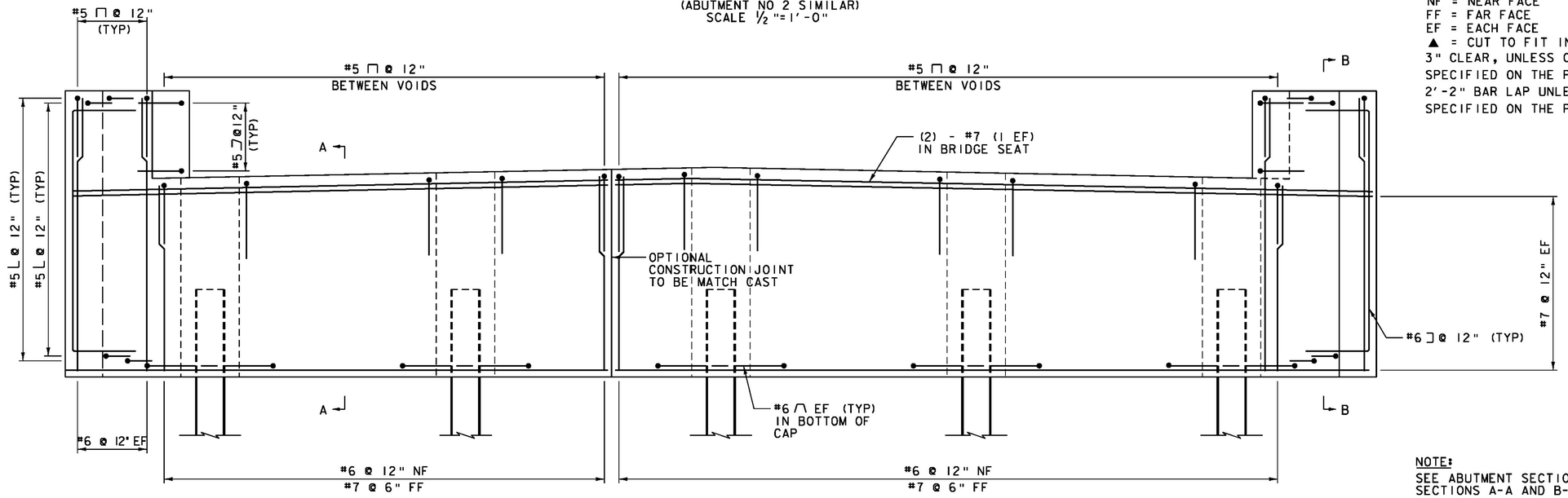


ABUTMENT NO 1 REINFORCING PLAN

(TRANSVERSE POST-TENSIONING DUCTS & GROUT DUCTS NOT SHOWN FOR CLARITY)
(ABUTMENT NO 2 SIMILAR)
SCALE 1/2"=1'-0"

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



ABUTMENT NO 1 REINFORCING ELEVATION

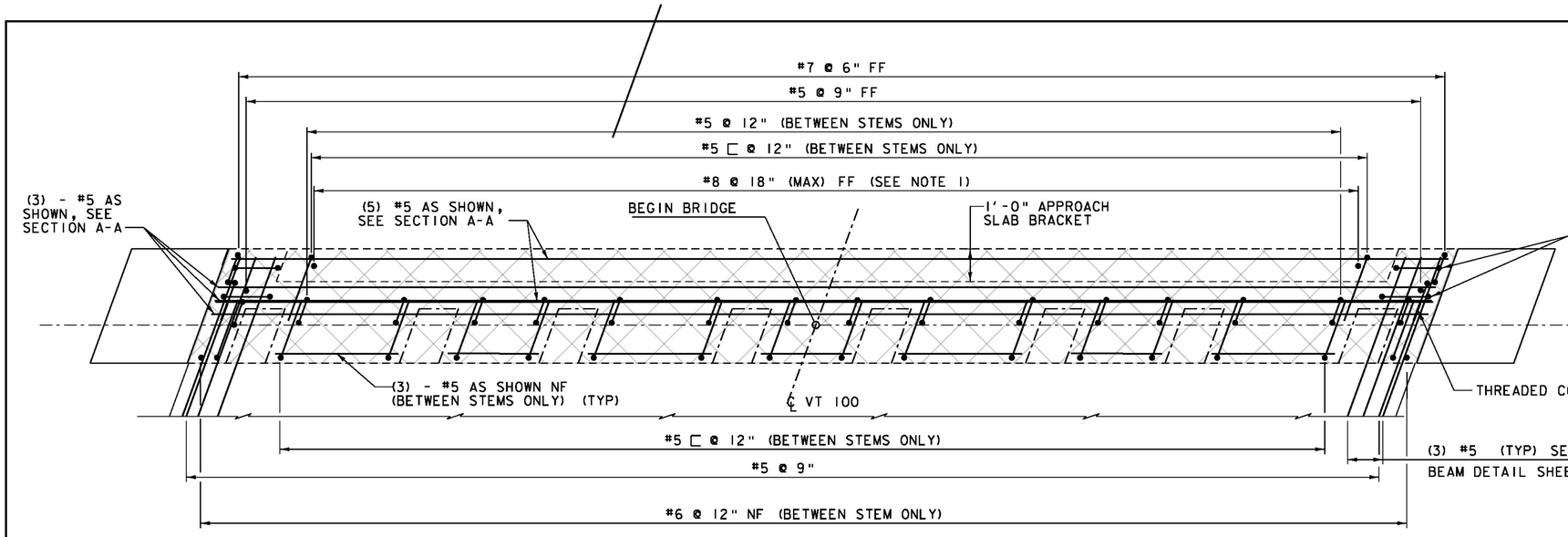
(TRANSVERSE POST-TENSIONING DUCTS & GROUT DUCTS NOT SHOWN FOR CLARITY)
(ABUTMENT NO 2 SIMILAR)
SCALE 1/2"=1'-0"

NOTE:

SEE ABUTMENT SECTIONS SHEET FOR SECTIONS A-A AND B-B.

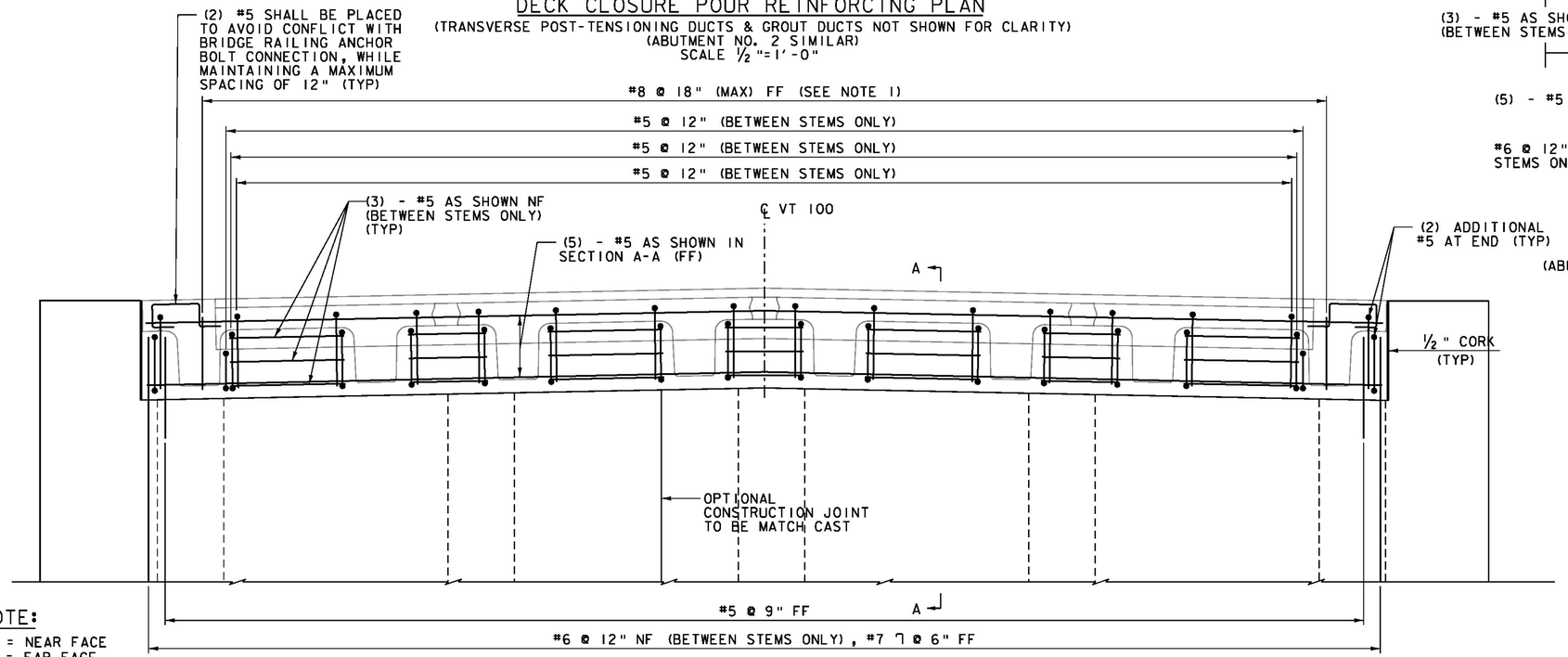
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076subl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM ABUTMENT REINFORCEMENT	SHEET 39 OF 68

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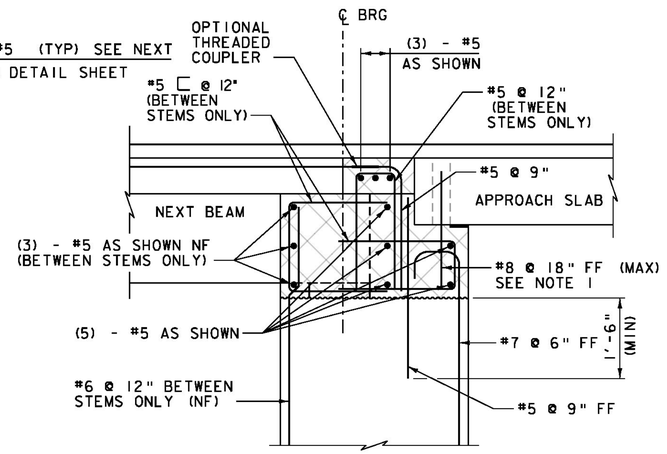
ABUTMENT NO 1
DECK CLOSURE POUR REINFORCING PLAN

(TRANSVERSE POST-TENSIONING DUCTS & GROUT DUCTS NOT SHOWN FOR CLARITY)
(ABUTMENT NO. 2 SIMILAR)
SCALE ½"=1'-0"



ABUTMENT NO 1
DECK CLOSURE POUR REINFORCING ELEVATION

(TRANSVERSE POST-TENSIONING DUCTS NOT SHOWN FOR CLARITY)
(ABUTMENT NO 2 SIMILAR)
SCALE ½"=1'-0"



SECTION A-A

(ABUT NO 1 SHOWN, ABUT NO 2 SIMILAR, OPPOSITE HAND)
(DIMENSIONS ARE NORMAL TO ℄ BRG)
SCALE ¾" = 1'-0"

LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ) CLOSURE POUR

NOTE:

1. SPACED TO MATCH 4" DIAMETER HOLES IN THE PRECAST APPROACH SLAB.
2. ALL REINFORCING WITHIN CLOSURE POUR NEAR THE BRIDGE RAILING ANCHOR ASSEMBLY LOCATIONS SHALL BE PLACED AT THEIR MINIMUM SPACING WHILE AVOIDING THE BRIDGE RAILING ASSEMBLIES.
3. ITEM 524.21, JOINT SEALER, POLYURETHANE, WILL BE APPLIED OVER THE CORK AND ON THE FAR FACE OF THE MATCH CAST VERTICAL CONSTRUCTION JOINT.

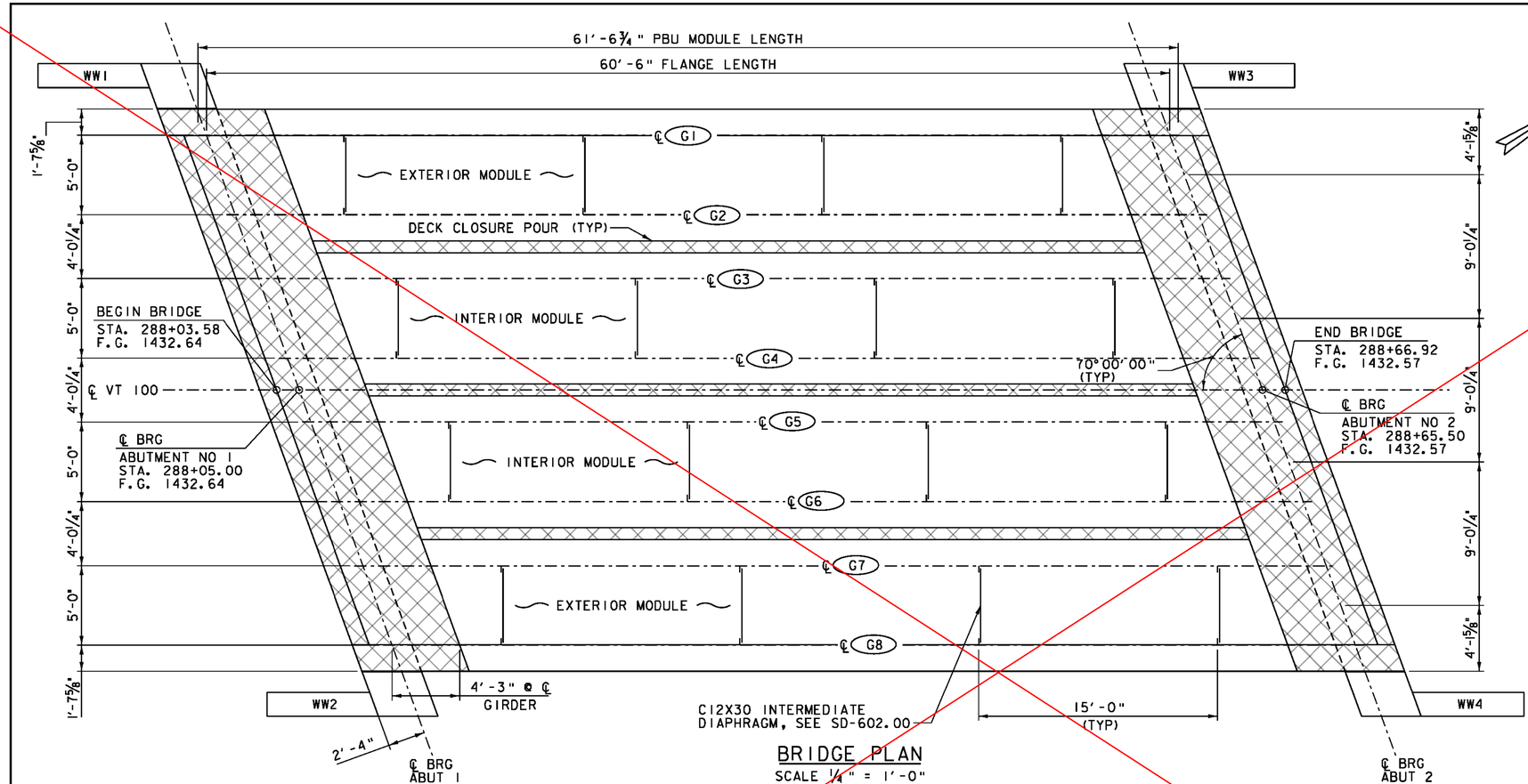
NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

vhb

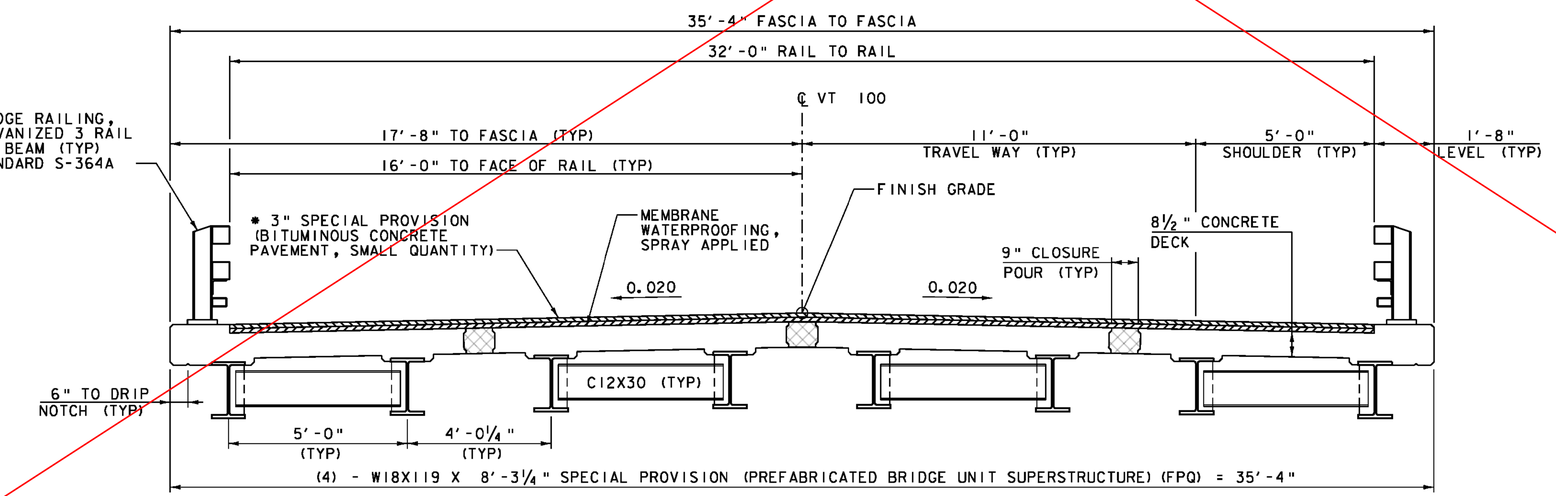
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076subl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
NEXT BEAM DECK CLOSURE POUR	SHEET 40 OF 68

VHB 57673



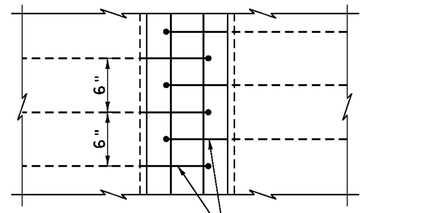
BRIDGE PLAN

SCALE ¼" = 1'-0"

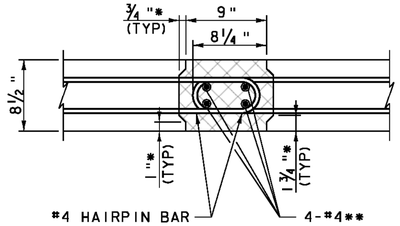


TYPICAL BRIDGE SECTION PBU ALTERNATE

SCALE ½" = 1'-0"



PLAN



SECTION

FLANGE CONNECTION DETAILS

NOT TO SCALE

= SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)

* DIMENSIONS ARE TO KEY IN JOINT

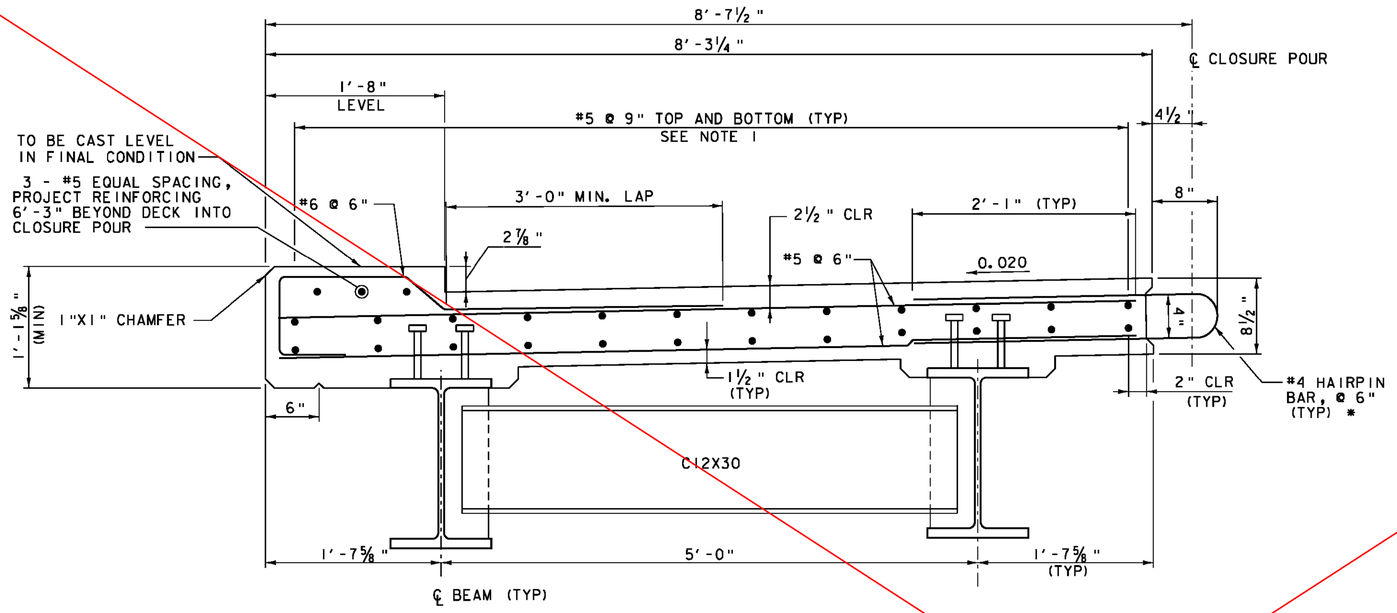
** FOUR #4 BARS SHALL BE PLACED AS SHOWN ALONG ENTIRE LENGTH OF JOINT. PAYMENT SHALL BE INCIDENTAL TO "SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPQ)".

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076sup2.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.D. KEENER
PBU FRAMING PLAN

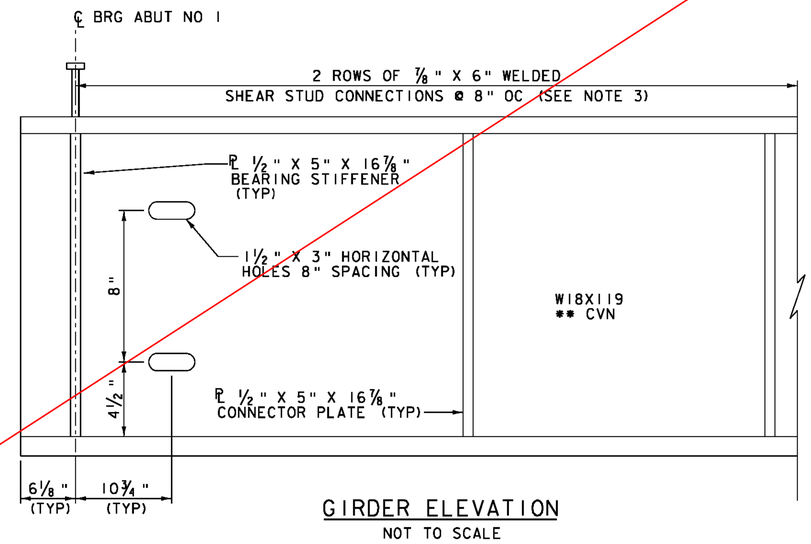
PLOT DATE: 10/2/2015
DRAWN BY: K.C. BARRY
CHECKED BY: M.J. MOZIER
SHEET 41 OF 68

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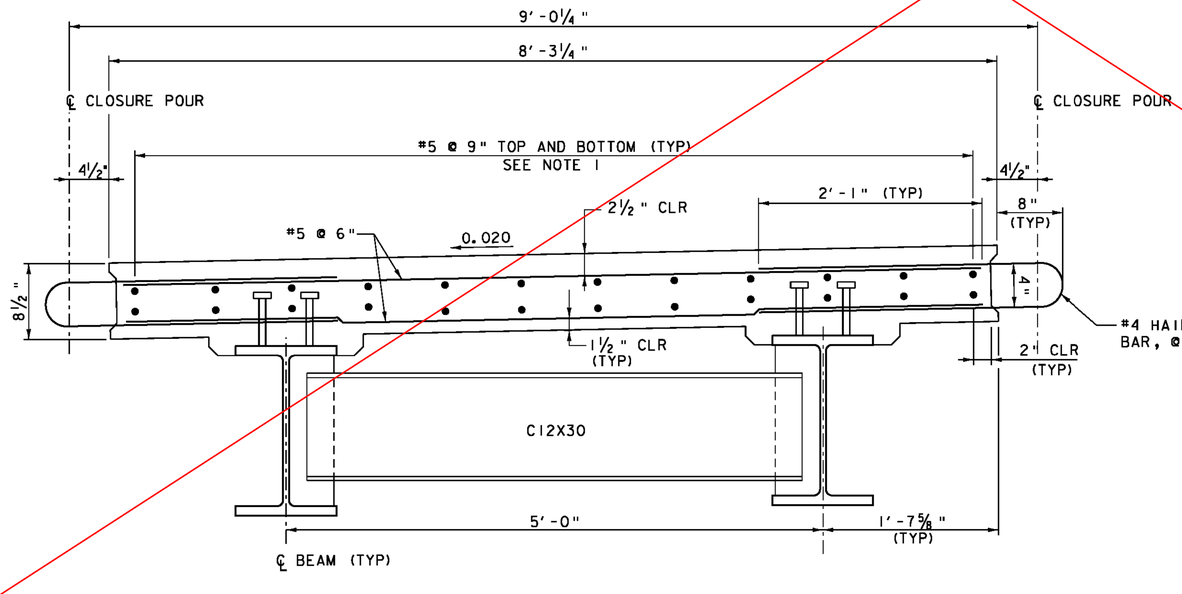
EXTERIOR MODULE DETAIL

(PBU 1 SHOWN, PBU 4 HAS LIP OPPOSITE HAND)
SCALE 1½" = 1'-0"



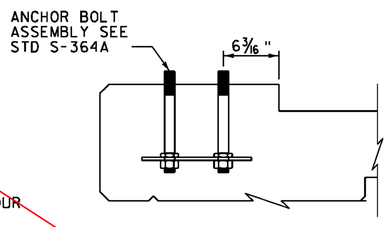
GIRDER ELEVATION

NOT TO SCALE



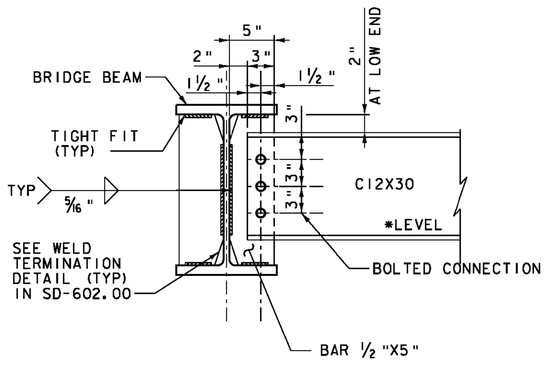
INTERIOR MODULE DETAIL

SCALE 1½" = 1'-0"



POST DETAIL

SCALE 1½" = 1'-0"



INTERMEDIATE DIAPHRAGMS FOR BRIDGE BEAM

SCALE 1½" = 1'-0"

NOTE:

NF = NEAR FACE
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EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.
* TO BE STAGGERED WITH ADJACENT BEAM
** CVN DENOTES THAT CHARPY V-NOTCH TEST IS REQUIRED

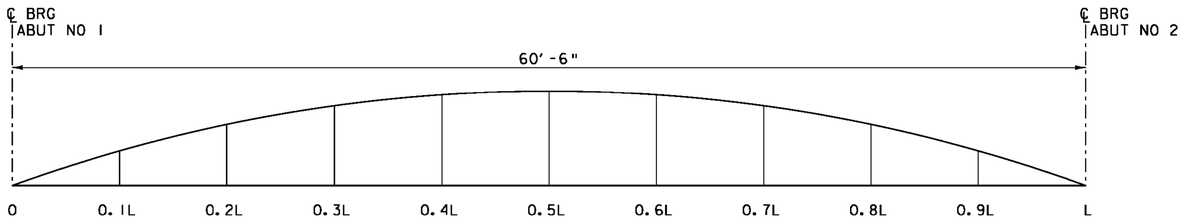
NOTE:

1. MINIMUM LONGITUDINAL LAP SPLICE IS 1'-9".
2. TRANSVERSE REINFORCING ORIENTED WITH CENTERLINE OF BEARING. STAGGER BARS BETWEEN ADJACENT PBU'S.
3. THE COST OF SHEAR CONNECTORS WILL BE CONSIDERED INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (PREFABRICATED BRIDGE UNIT SUPERSTRUCTURE) (FPO) ".

vhb

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076sup2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: K.C. BARRY
DESIGNED BY: J.D. KEENER	CHECKED BY: M.J. MOZIER
PBU DETAILS	SHEET 42 OF 68

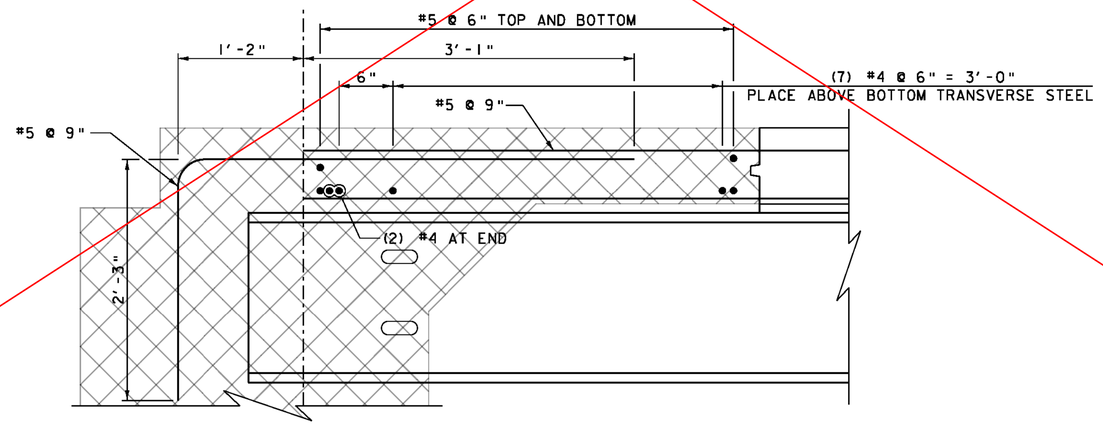
VHB 57673



CAMBER DIAGRAM

NOT TO SCALE

	CAMBER TABLE - GIRDERS 1 - 8 (INCHES)										
	0.00	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
STEEL DEFLECTION	0.00	0.20	0.37	0.51	0.59	0.62	0.59	0.51	0.37	0.20	0.00
SLAB AND SUPER DEFLECTION	0.00	0.76	1.44	1.98	2.31	2.43	2.31	1.98	1.44	0.76	0.00
TOTAL DEFLECTION	0.00	1.09	2.07	2.83	3.31	3.48	3.31	2.83	2.07	1.09	0.00
RESIDUAL CAMBER	0.00	0.44	0.82	1.11	1.29	1.35	1.29	1.11	0.82	0.44	0.00
TOTAL CAMBER	0.00	1.53	2.88	3.93	4.60	4.83	4.60	3.93	2.88	1.53	0.00

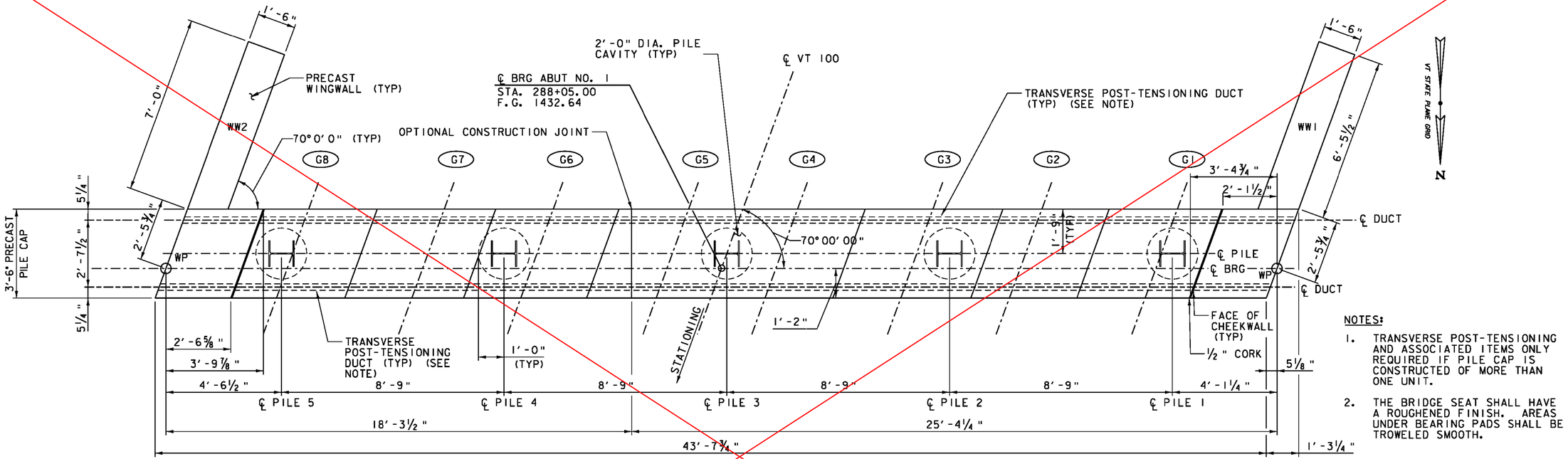


ADDITIONAL END REINFORCING
ELEVATION VIEW

SCALE 1½" = 1′-0"

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076sup2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: K.C. BARRY
DESIGNED BY: J.D. KEENER	CHECKED BY: M.J. MOZIER
PBU CAMBER AND DEFLECTION	SHEET 43 OF 68

VHB 57673

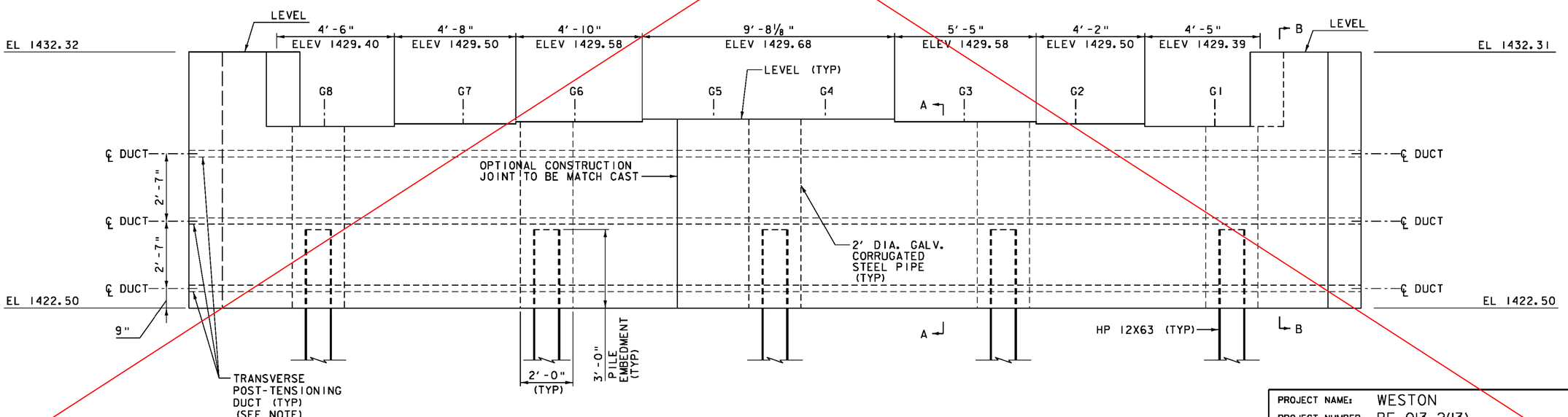


NOTES:

1. TRANSVERSE POST-TENSIONING AND ASSOCIATED ITEMS ONLY REQUIRED IF PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT.
2. THE BRIDGE SEAT SHALL HAVE A ROUGHENED FINISH. AREAS UNDER BEARING PADS SHALL BE TROWELED SMOOTH.

ABUTMENT NO 1 PLAN

SCALE ½"=1'-0"



ABUTMENT NO 1 ELEVATION

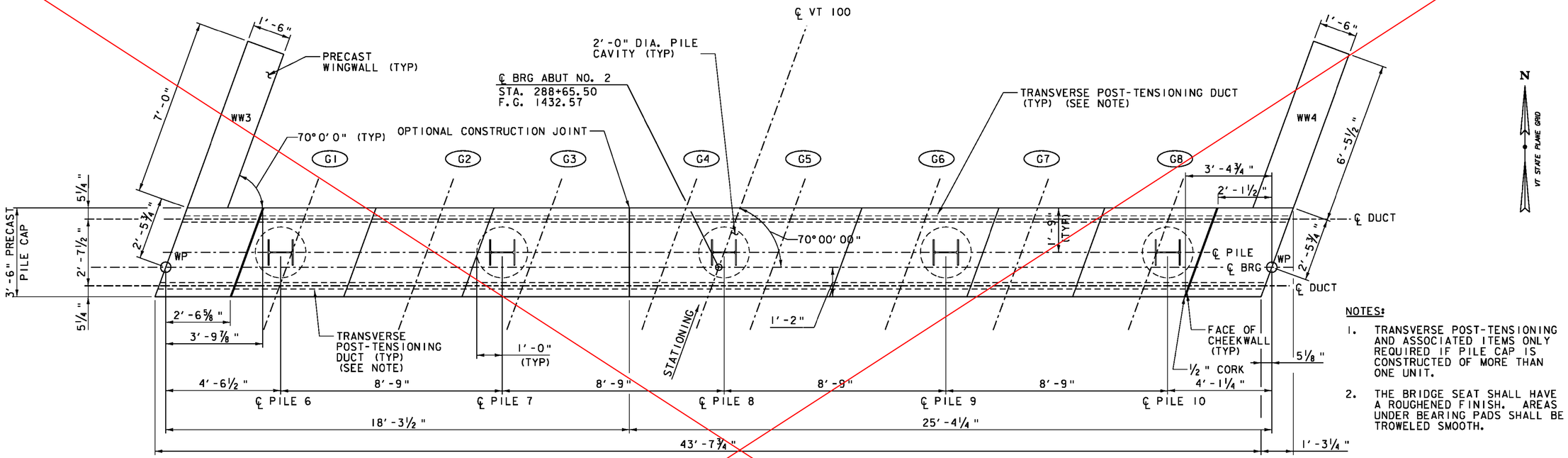
SCALE ½"=1'-0"

SEE PBU ABUTMENT SECTIONS SHEET FOR SECTIONS A-A AND B-B.

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076sub2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
PBU ABUT NO 1 PLAN & ELEVATION	SHEET 44 OF 68

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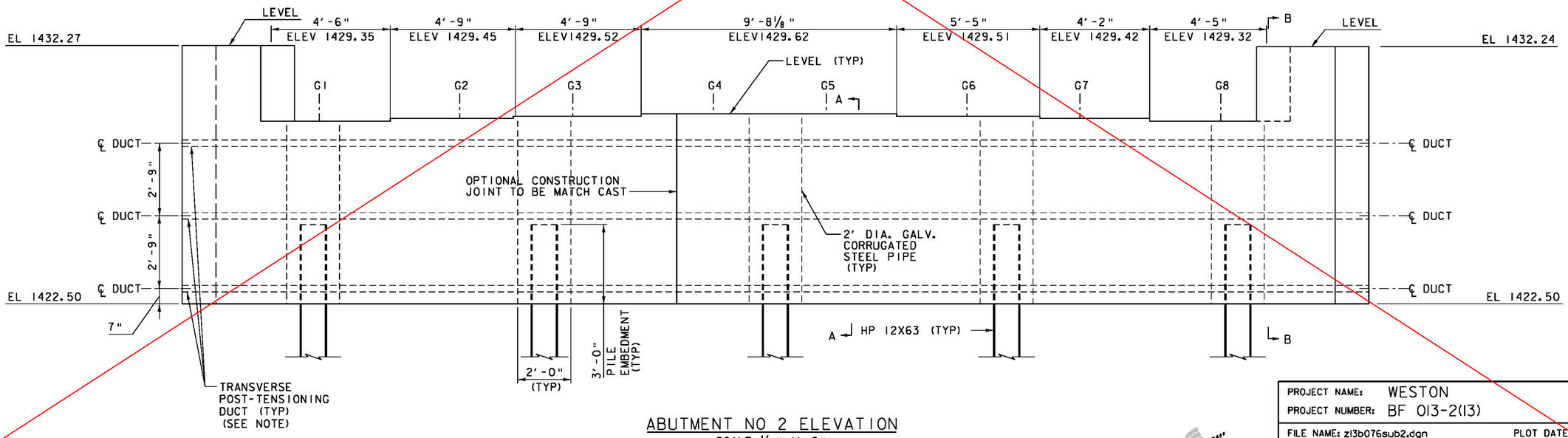


NOTES:

1. TRANSVERSE POST-TENSIONING AND ASSOCIATED ITEMS ONLY REQUIRED IF PILE CAP IS CONSTRUCTED OF MORE THAN ONE UNIT.
2. THE BRIDGE SEAT SHALL HAVE A ROUGHENED FINISH. AREAS UNDER BEARING PADS SHALL BE TROWELED SMOOTH.

ABUTMENT NO 2 PLAN

SCALE ½"=1'-0"



ABUTMENT NO 2 ELEVATION

SCALE ½"=1'-0"

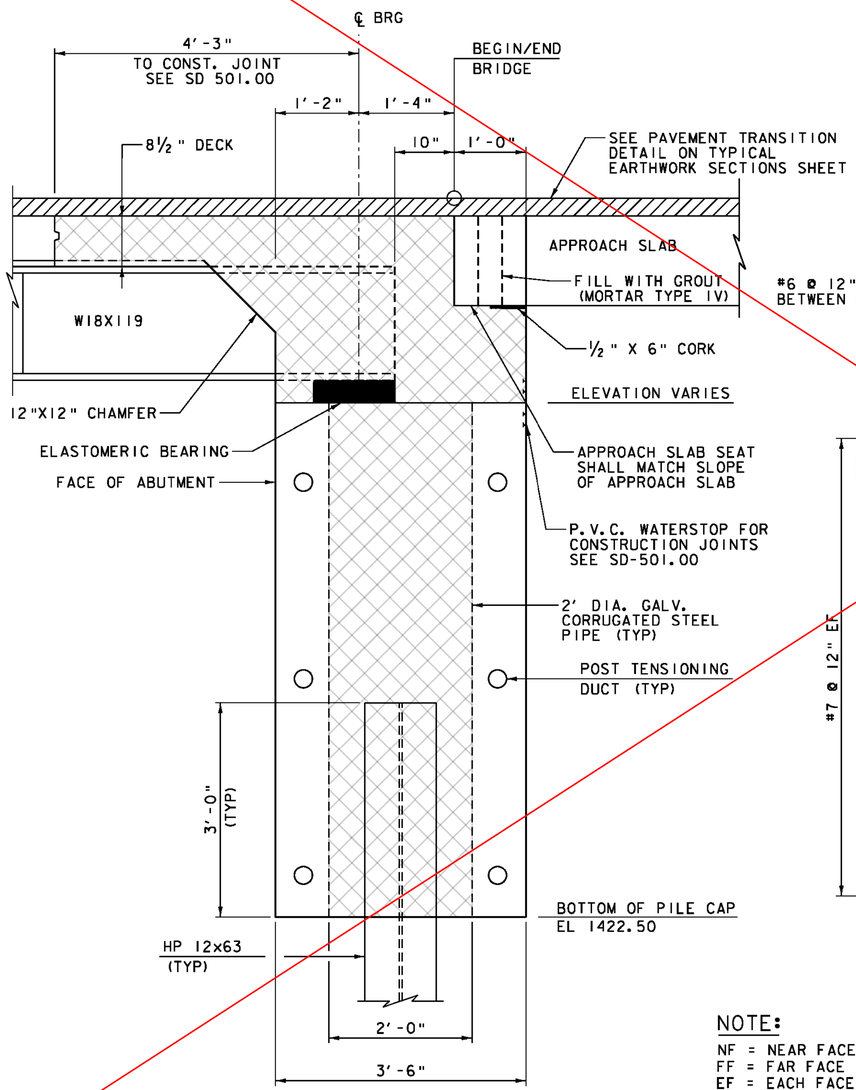
SEE PBU ABUTMENT SECTIONS SHEET FOR SECTIONS A-A AND B-B.

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076sub2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
PBU ABUT NO 2 PLAN & ELEVATION	SHEET 45 OF 68

VHB 57673

NOTES:
1. ABUTMENTS SHALL BE PRECAST CONCRETE ACCORDING TO THE APPROPRIATE PRECAST ITEM.
2. SEE PROJECT NOTES FOR ADDITIONAL FABRICATION, CONSTRUCTION, AND SEQUENCE NOTES.
3. ELEVATIONS SHOWN ARE FOR ABUTMENT NO 1 AND ABUTMENT NO 2.

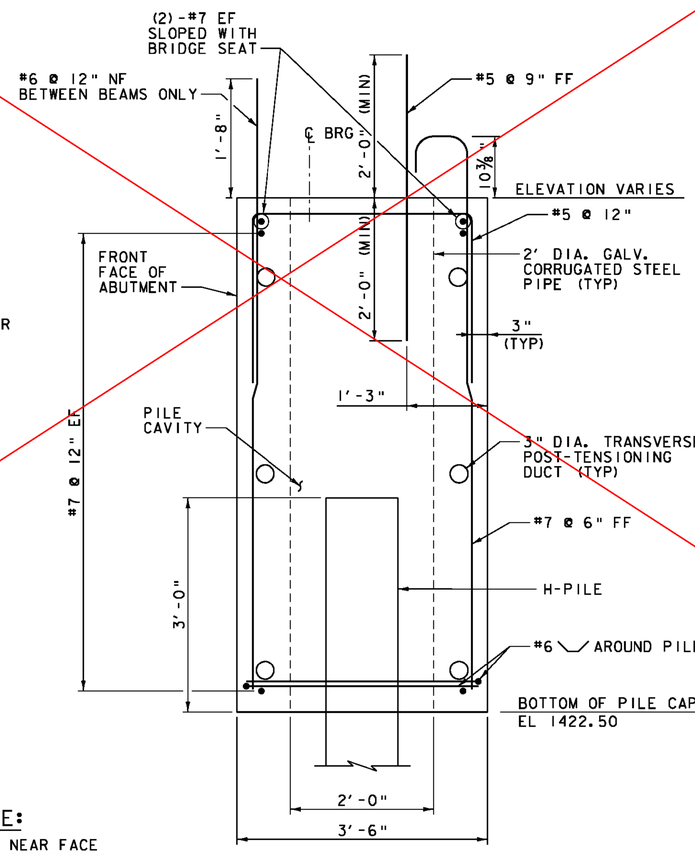
LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ) CLOSURE POUR



BRIDGE END DETAIL

(ABUT NO 1 SHOWN, ABUT NO 2 SIMILAR, OPPOSITE HAND)
(DIMENSIONS ARE NORMAL TO ℄ BRG)

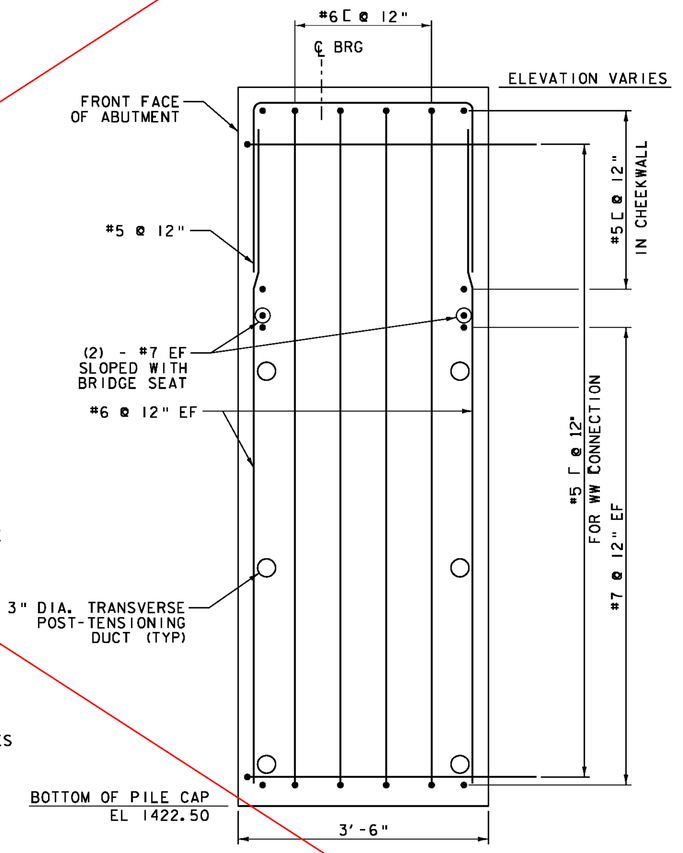
SCALE 1" = 1'-0"



SECTION A-A

SCALE 1" = 1'-0"

NOTE:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

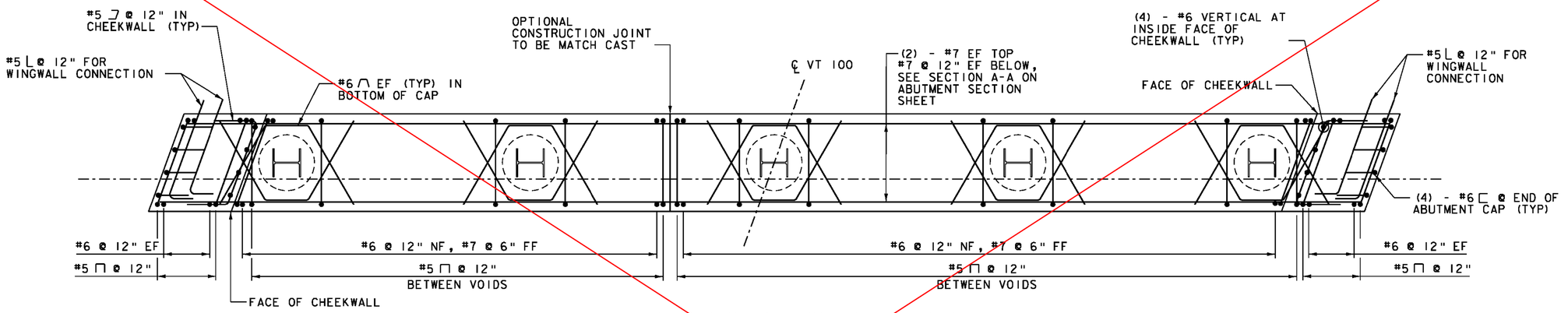


SECTION B-B

SCALE 1" = 1'-0"

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076sub2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
PBU ABUTMENT SECTIONS	SHEET 46 OF 68

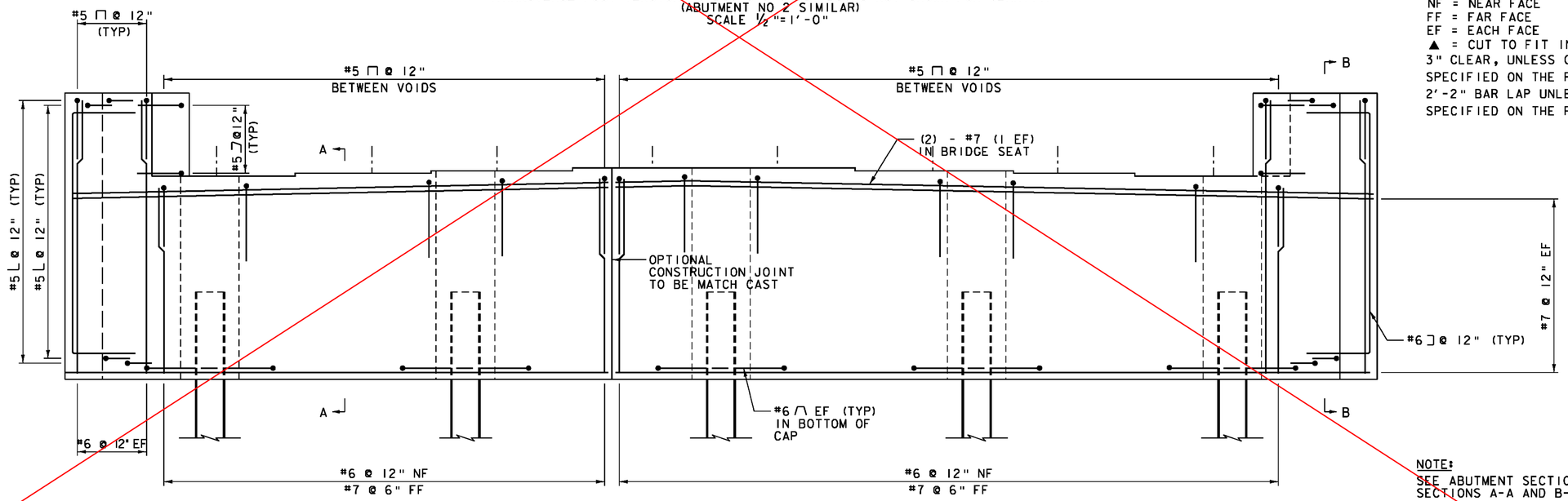
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ABUTMENT NO 1 REINFORCING PLAN

(TRANSVERSE POST-TENSIONING DUCTS & GROUT DUCTS NOT SHOWN FOR CLARITY)
(ABUTMENT NO 2 SIMILAR)
SCALE ½"=1'-0"

VT STATE PLANE GRID
N



ABUTMENT NO 1 REINFORCING ELEVATION

(TRANSVERSE POST-TENSIONING DUCTS & GROUT DUCTS NOT SHOWN FOR CLARITY)
(ABUTMENT NO 2 SIMILAR)
SCALE ½"=1'-0"

NOTE:

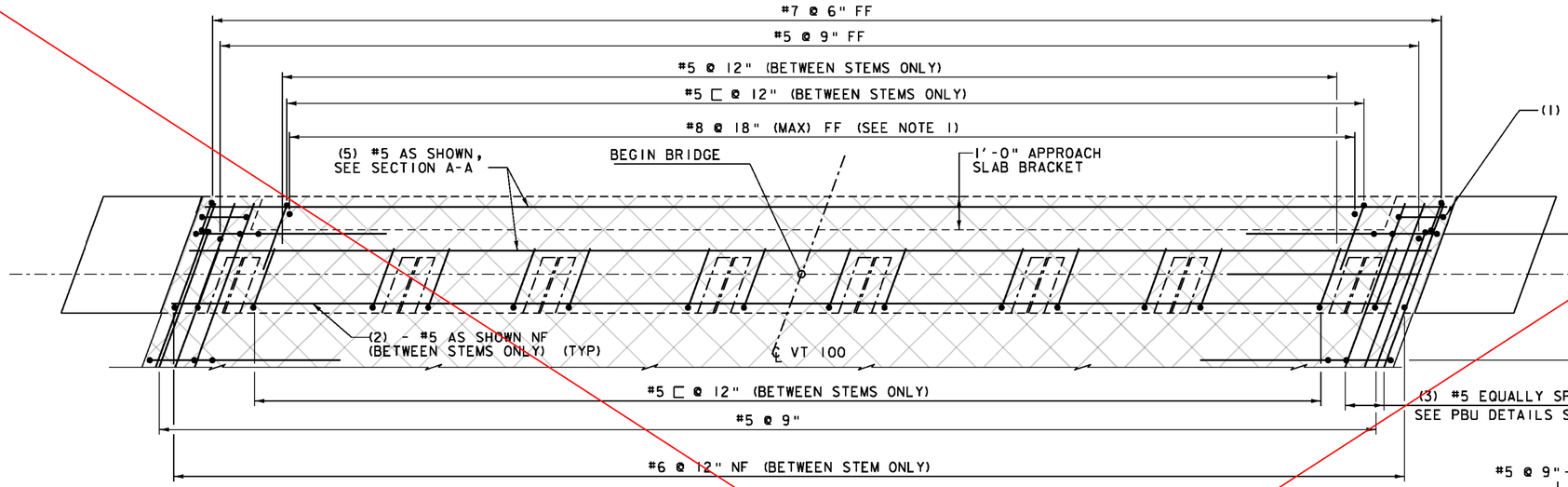
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

NOTE:

SEE ABUTMENT SECTIONS SHEET FOR SECTIONS A-A AND B-B.

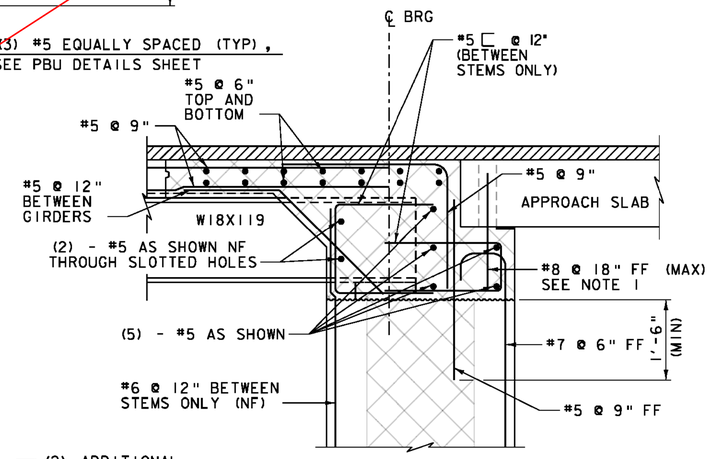
vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076sub2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
PBU ABUTMENT REINFORCEMENT	SHEET 47 OF 68



ABUTMENT NO 1
DECK CLOSURE POUR REINFORCING PLAN

(TRANSVERSE POST-TENSIONING DUCTS & GROUT DUCTS NOT SHOWN FOR CLARIFY)
(ABUTMENT NO. 2 SIMILAR)
SCALE ½"=1'-0"



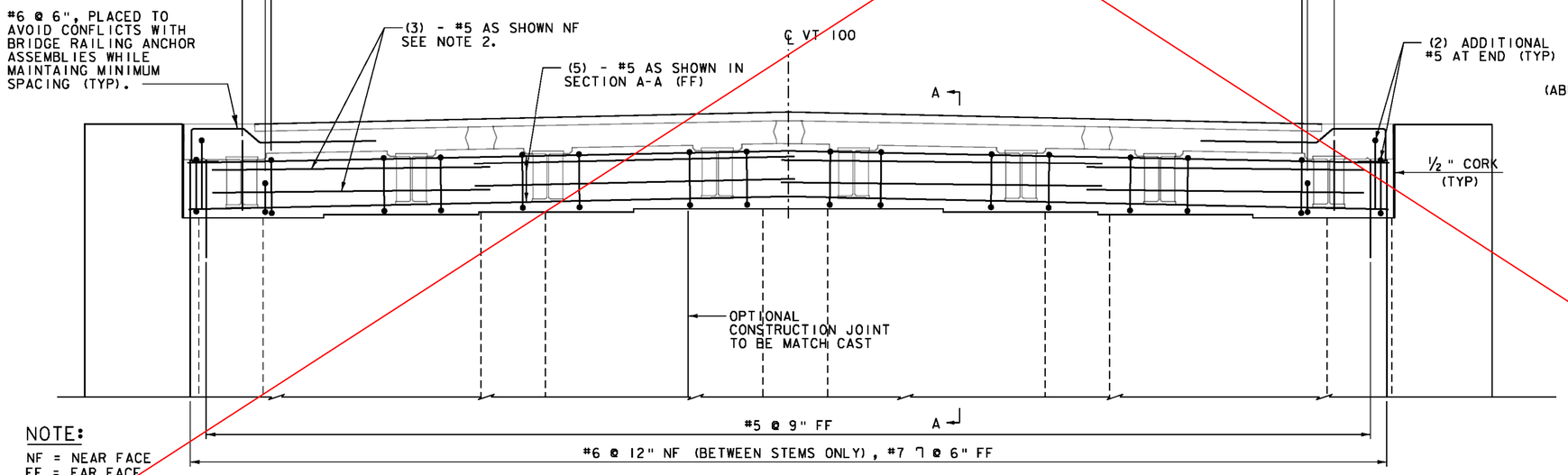
SECTION A-A

(ABUT NO 1 SHOWN, ABUT NO 2 SIMILAR, OPPOSITE HAND)
(DIMENSIONS ARE NORMAL TO ℄ BRG)
SCALE ¾" = 1'-0"

LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ) CLOSURE POUR

NOTE:

1. SPACED TO MATCH 4" DIAMETER HOLES IN THE PRECAST APPROACH SLAB.
2. THE TWO #5 BARS MUST BE PLACED IN THE SLOTTED HOLES BEFORE SETTING BEAMS ON BRIDGE SEAT.
3. ITEM 524.21, JOINT SEALER, POLYURETHANE, WILL BE APPLIED OVER THE CORK AND ON THE FAR FACE OF THE MATCH CAST VERTICAL CONSTRUCTION JOINT.



ABUTMENT NO 1
DECK CLOSURE POUR REINFORCING ELEVATION

(TRANSVERSE POST-TENSIONING DUCTS NOT SHOWN FOR CLARIFY)
(ABUTMENT NO 2 SIMILAR)
SCALE ½"=1'-0"

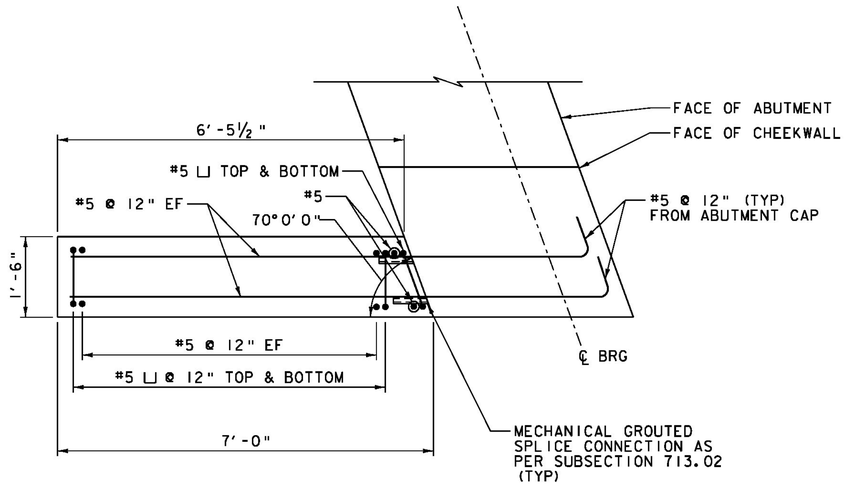
NOTE:

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FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076sub2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
PBU DECK CLOSURE POUR	SHEET 48 OF 68

VHB 57673

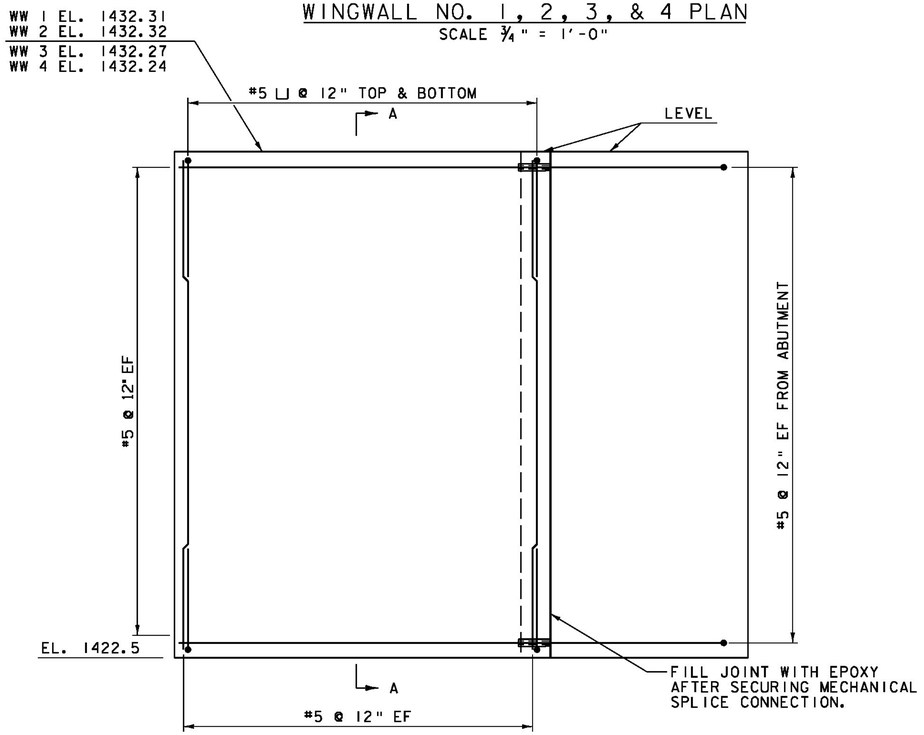


WINGWALL NO. 1, 2, 3, & 4 PLAN

SCALE ¾" = 1'-0"

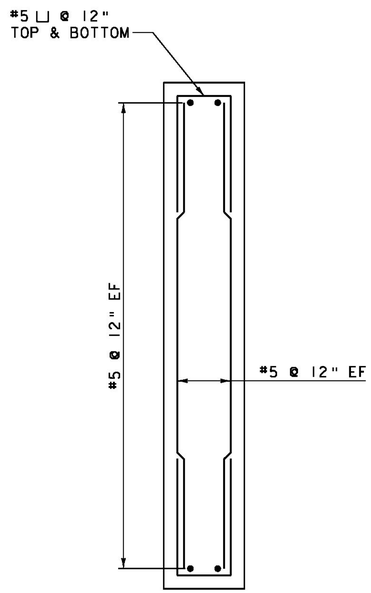
NOTE:

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FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



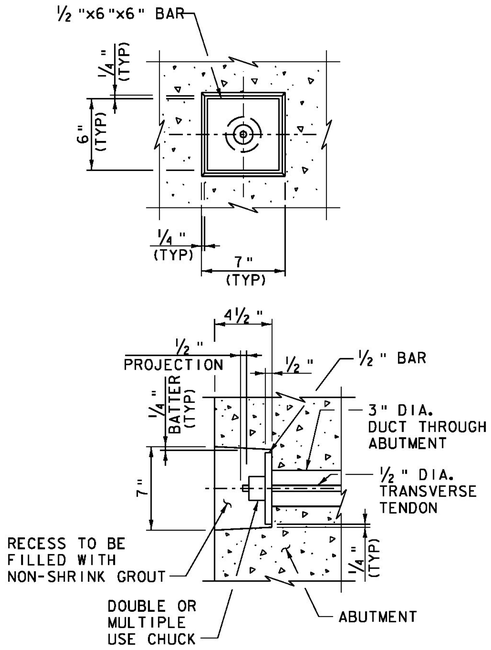
WINGWALL NO 2 ELEVATION

WINGWALL 1, 3, AND 4 SIMILAR
SCALE ¾"=1'-0"



SECTION A-A

SCALE ¾" = 1'-0"



TRANSVERSE TENDON DETAIL

NOT TO SCALE

TRANSVERSE TENDON NOTES:

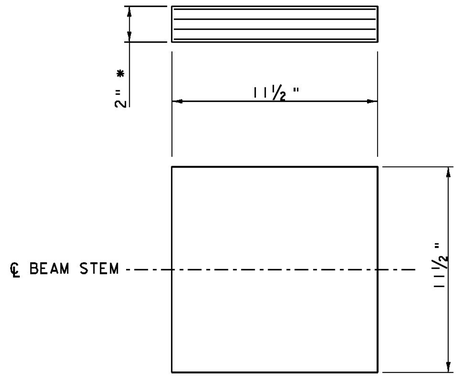
1. MORTAR FOR EXTERIOR POCKETS SHALL BE THE SAME COLOR AND TEXTURE AS THE ABUTMENT CONCRETE.
2. OTHER ANCHORAGE SYSTEMS MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. ALTERNATE ANCHORAGE SYSTEMS SHALL BE WATER TIGHT AND CORROSION PROOF.
3. TRANSVERSE TENDONS SHALL BE COVERED BY A SEAMLESS POLYPROPYLENE SHEATH (WITH CORRSION INHIBITING GREASE BETWEEN THE STRAND/ANCHOR AND THE SHEATH) FOR THE FULL LENGTH OF THE TENDON/ANCHOR, EXCEPT AT THE ANCHORAGE LOCATION.

NOTES:

1. PAYMENT FOR ALL REINFORCING STEEL AND MECHANICAL CONNECTORS WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST CONTRACT ITEM. THE CONTRACTOR SHALL PROVIDE THREE (3) MECHANICAL CONNECTORS ASSEMBLED PER SPLICE SIZE FOR TESTING. THE ASSEMBLY SHALL BE WITNESSED BY THE ENGINEER.
2. ALL REINFORCING STEEL IN WINGWALLS SHALL MEET REQUIREMENTS OF SECTION 507 FOR LEVEL II REINFORCING. ALL MECHANICAL CONNECTORS IN WINGWALLS SHALL MEET THE REQUIREMENTS OF SECTION 507 FOR LEVEL I (EPOXY COATED) REINFORCING.
3. THE BRIDGE PLAQUE FURNISHED BY THE AGENCY SHALL BE CAST INTO WINGWALL 2. ALL WORK TO INSTALL THE PLAQUE SHALL BE INCIDENTAL TO THE APPROPRIATE PRECAST CONCTRACT ITEM. SEE SD-502.00 FOR FURTHER DETAILS.
4. PAYMENT FOR EPOXY GROUT WILL BE CONSIDERED INCIDENTAL TO APPROPRIATE PRECAST PAY ITEM.

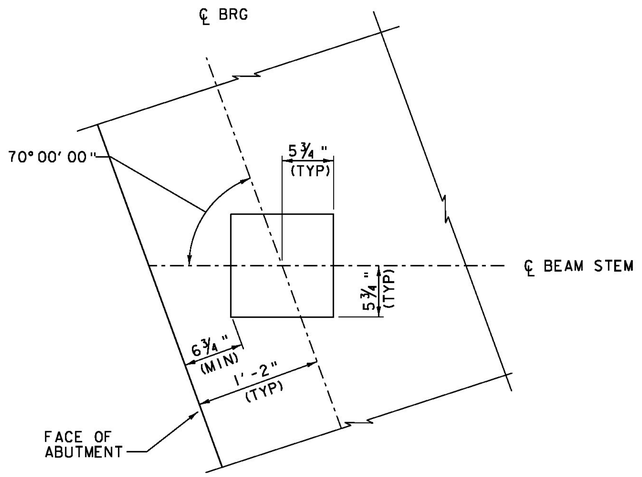
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076sub2.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: L.S. CHERVINCKY
WINGWALL DETAILS	SHEET 49 OF 68

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* 2 - ⅛" EXTERIOR LAYERS OF ELASTOMER
3 - ½" INTERIOR LAYERS OF ELASTOMER
4 - 1/16" STEEL REINFORCING PLATES

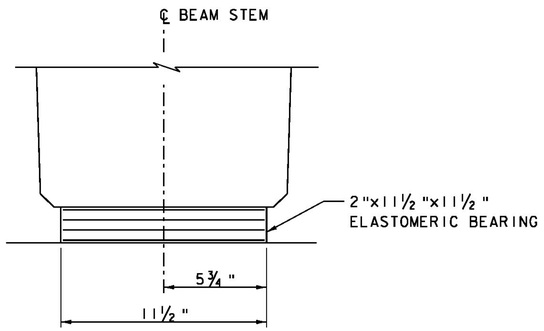
ELASTOMERIC BEARING DETAIL
SCALE 3" = 1'-0"



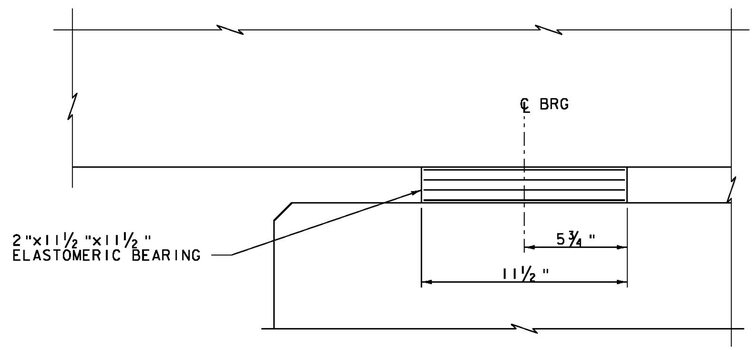
PLAN
SCALE 1½" = 1'-0"

BEARING NOTES

1. BEARINGS SHALL CONFORM TO THE APPLICABLE SUBSECTIONS OF 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 COATINGS, RUST, AND MILL SCALE. THE PLATES SHALL BE FREE OF SHARP EDGES AND BURRS.
3. STEEL REINFORCED ELASTOMERIC BEARINGS SHALL HAVE A MINIMUM ⅛" EDGE SEAL OF ELASTOMER INTEGRAL WITH BEARING OVER ALL INTERNAL PLATES.
4. THE ELASTOMER WAS DESIGNED WITH A SHEAR MODULUS OF 165 PSI +/-15%
5. THE CONCRETE UNDER THE BEARING DEVICE SHALL BE LEVEL.
6. THE CONTRACTOR IS ADVISED TO HAVE A MINIMUM OF 16 - ¼"x12½"x12½" GALVANIZED STEEL SHIMS AVAILABLE FOR USE FOR ELEVATION ADJUSTMENTS UPON THE SETTING OF THE SUPERSTRUCTURE UNITS. THE SHIMS SHALL BE FABRICATED ACCORDING TO SECTION 531 AND PAYMENT WILL BE INCLUDED UNDER ITEM 531.17, "BEARING DEVICE ASSEMBLY, STEEL REINFORCED ELASTOMERIC PAD".



FRONT ELEVATION

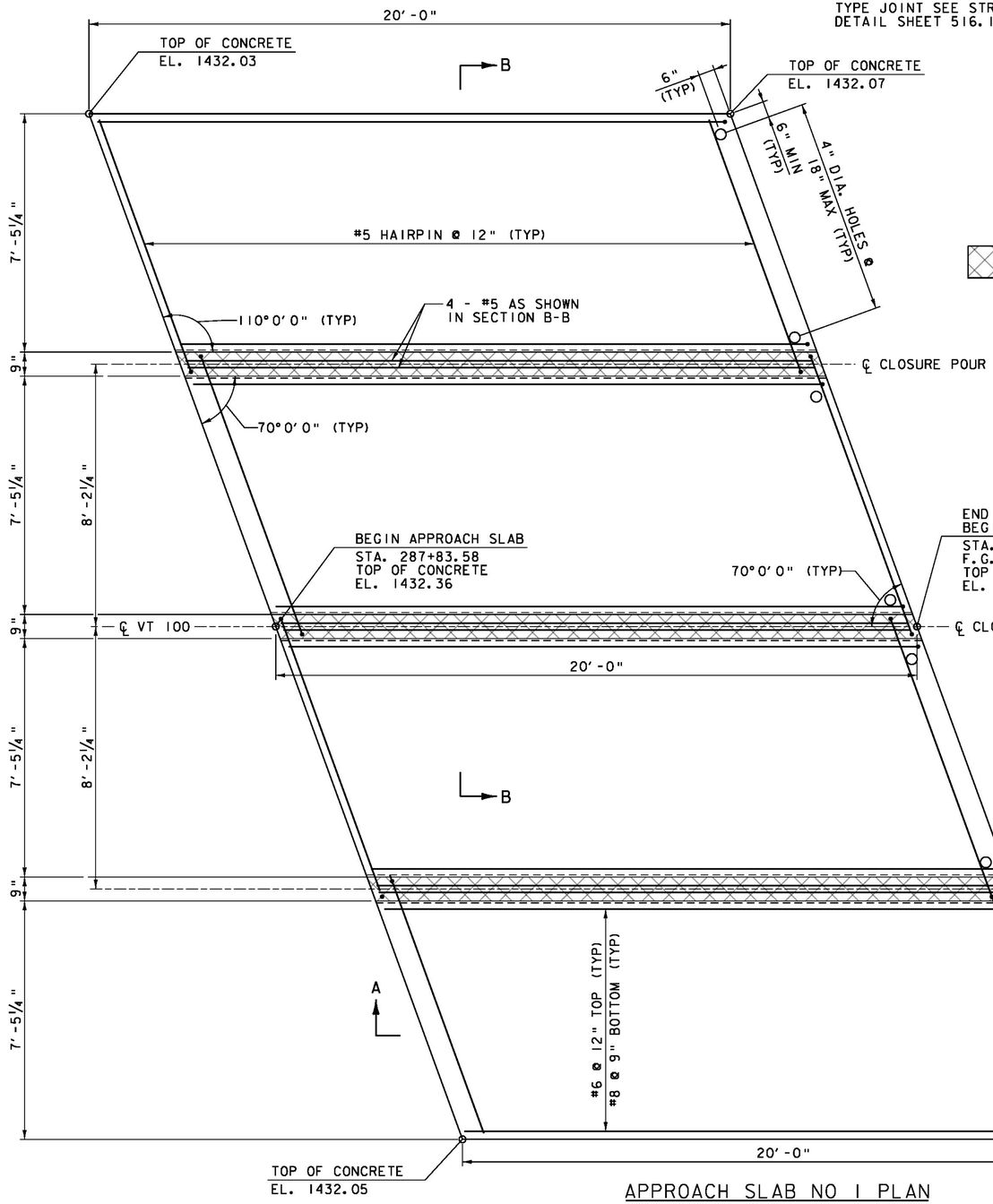


SIDE ELEVATION

ELASTOMERIC BEARING DETAILS
SCALE 3" = 1'-0"

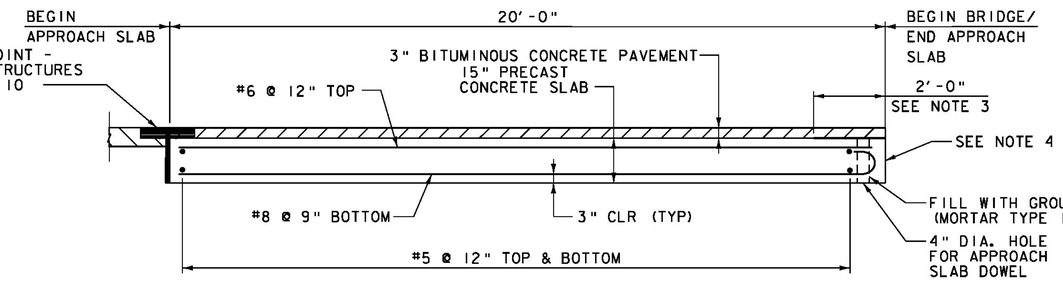
PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: zl3b076brg.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
BEARING DETAILS	SHEET 50 OF 68

VHB 57673



APPROACH SLAB NO 1 PLAN

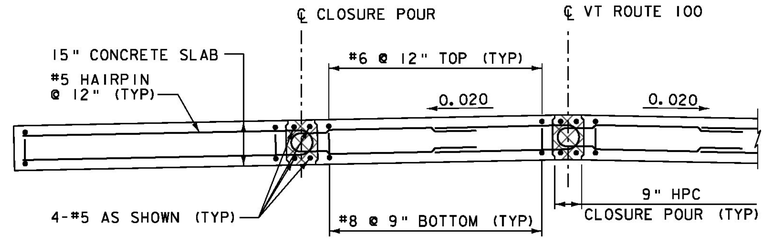
SCALE ½" = 1'-0"



SECTION A-A

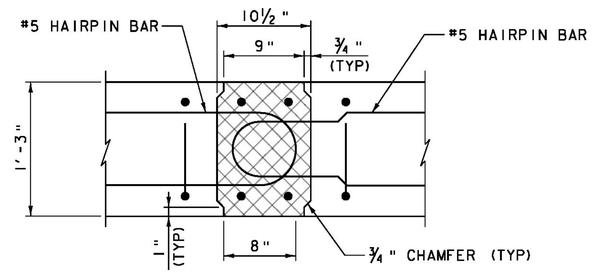
SCALE ½" = 1'-0"

LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ) CLOSURE POUR



SECTION B-B

SCALE ½" = 1'-0"



JOINT DETAIL

SCALE 1½"=1'-0"

NOTE:

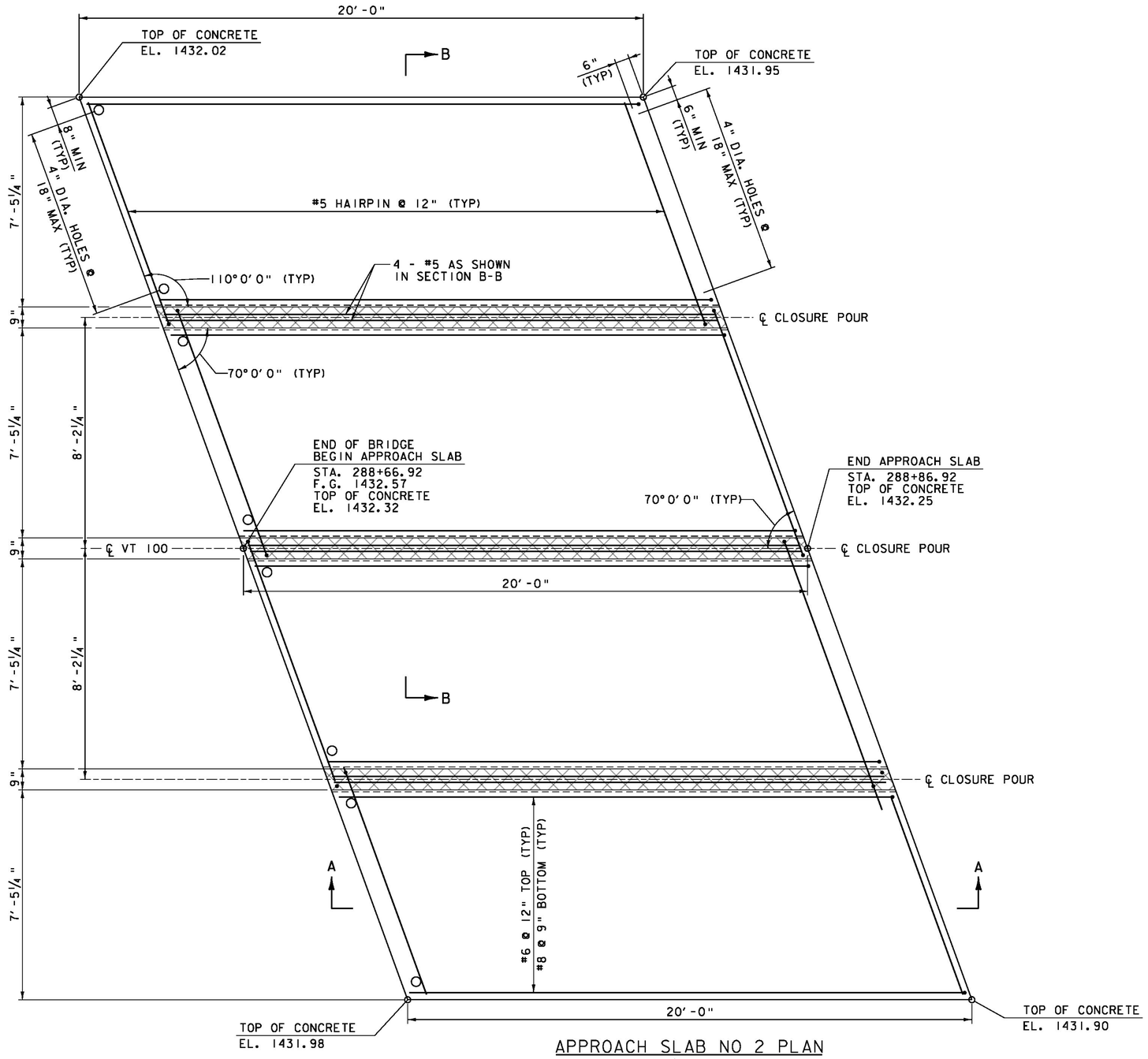
NF = NEAR FACE
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EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

NOTES:

1. LIFTING POINTS IN APPROACH SLABS TO BE DESIGNED BY PRECASTER AND SUBMITTED WITH CALCULATIONS.
2. CONTRACTOR SHALL INCLUDE IN THE FABRICATION DRAWINGS THE METHOD AND DETAILS FOR ESTABLISHING CONTINUOUS CONTACT WITH SUBGRADE AND SUPPORT FOR PRECAST APPROACH SLABS.
3. MEMBRANE WATERPROOFING, SPRAY APPLIED SHALL BE APPLIED 2'-0" ONTO APPROACH SLAB FROM BEGIN/END BRIDGE.
4. FRONT FACE OF APPROACH SLAB SHALL BE VERTICAL WHEN PLACED ON APPROACH SLAB SEAT.

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076slab.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
PRECAST APPROACH SLABS (1 OF 2)	SHEET 51 OF 68

VHB 57673



APPROACH SLAB NO 2 PLAN

SCALE ½" = 1'-0"

LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ) CLOSURE POUR

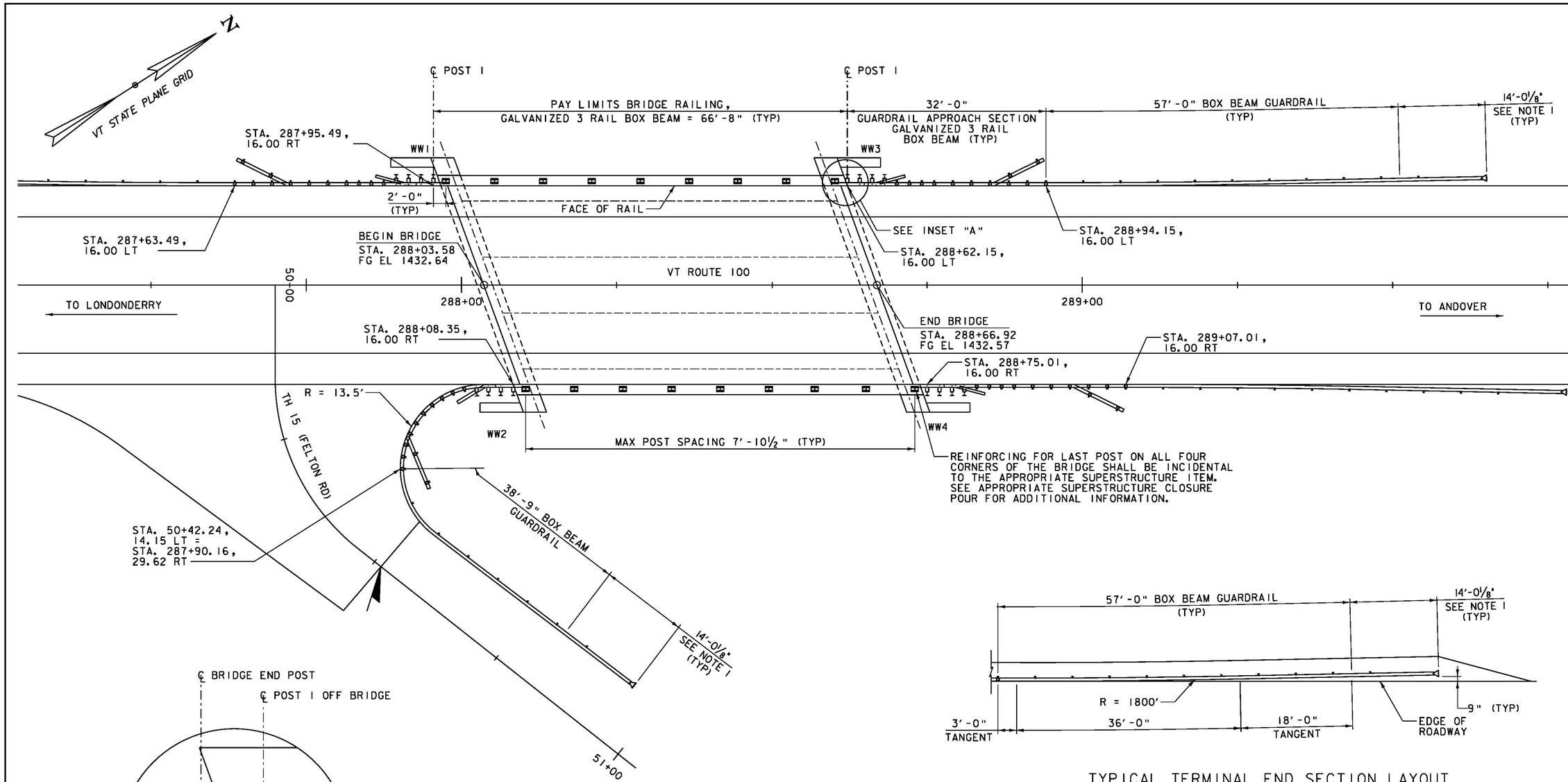
NOTE:

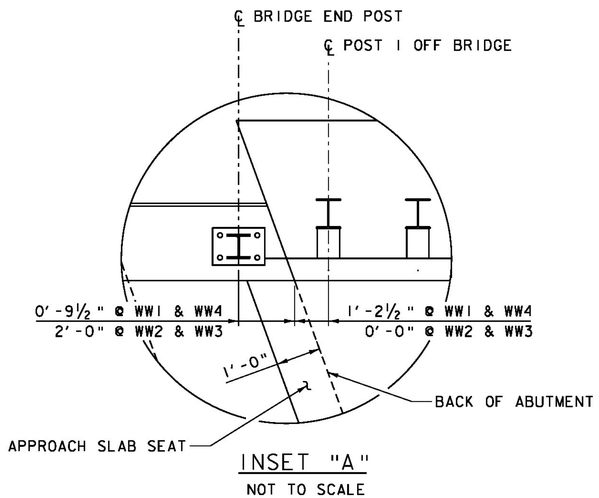
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3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

NOTES:

1. SEE SHEET "PRECAST APPROACH SLABS (1 OF 2)" FOR NOTES AND SECTIONS A-A AND B-B.

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076slab.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
PRECAST APPROACH SLABS (2 OF 2)	SHEET 52 OF 68





INSET "A"
NOT TO SCALE

BRIDGE RAIL LAYOUT
SCALE 1/8" = 1'-0"

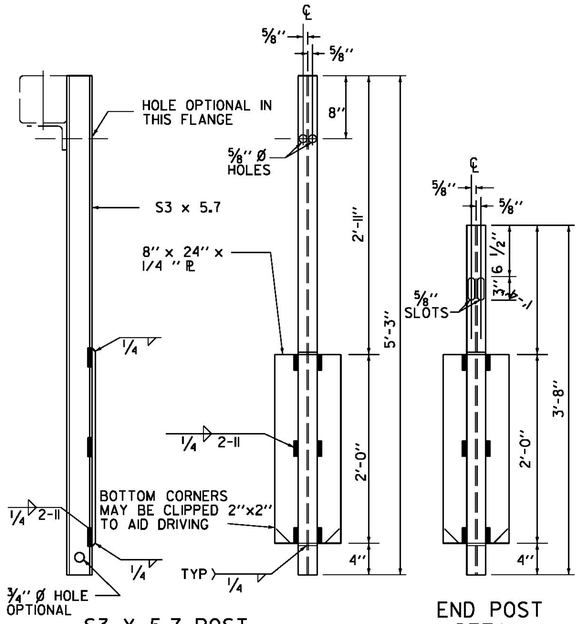
TYPICAL TERMINAL END SECTION LAYOUT
SCALE 1/8" = 1'-0"

NOTE:

1. 14'-0 1/8" MANUFACTURED TERMINAL SECTION, TANGENT.
2. SEE STANDARDS S-364A, S-364B, S-364C AND S-364D FOR FURTHER DETAILS.
3. SEE BOX BEAM GUARD RAIL DETAILS SHEET FOR FURTHER DETAILS.

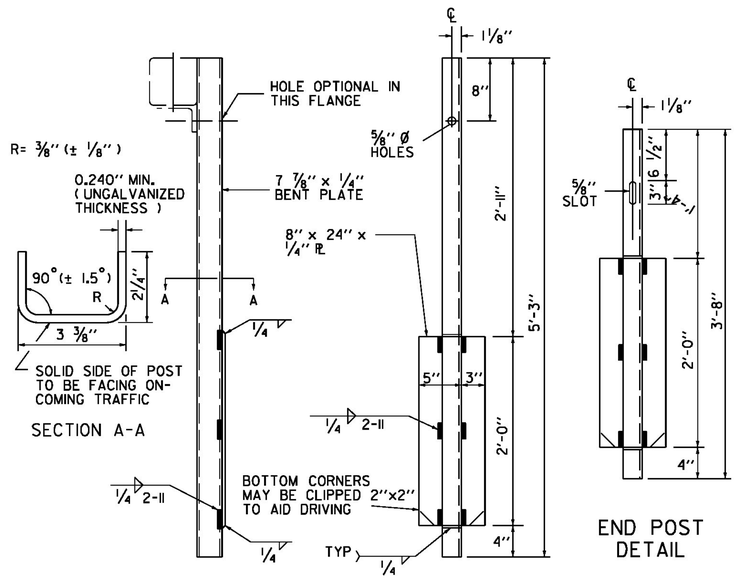
PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076brail.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
BRIDGE RAILING AND GUARDRAIL LAYOUT	SHEET 53 OF 68

VHB 57673



S3 X 5.7 POST
(STD. HM-TF-13 P-4-76)

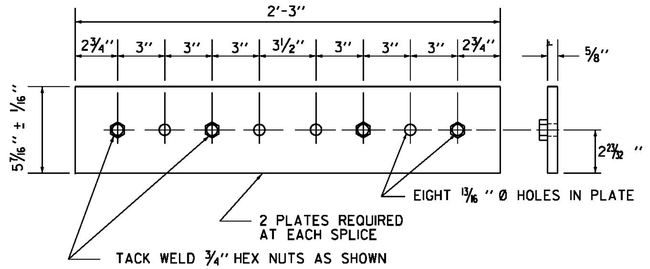
END POST DETAIL



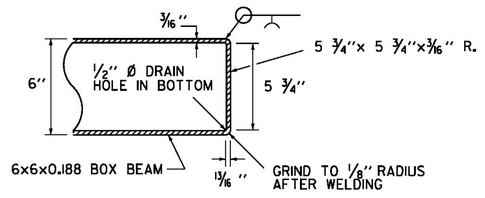
SECTION A-A

ALTERNATE POST (BENT PLATE)
(STD. HM-TF-13 P-49-76)

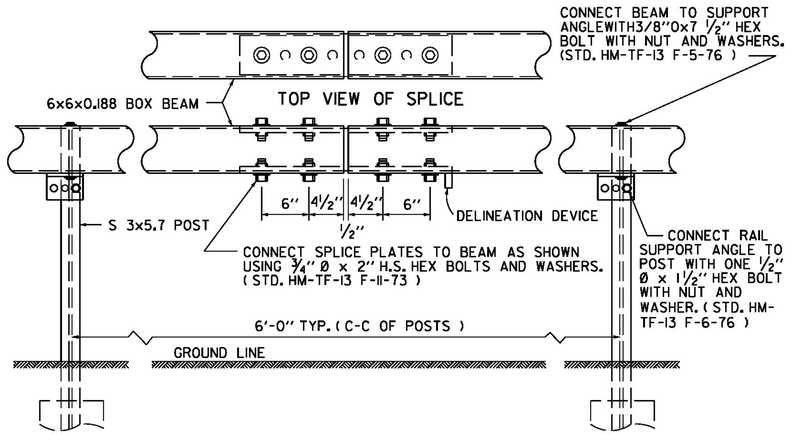
END POST DETAIL



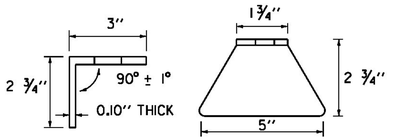
SPLICE PLATE DETAIL
(STD. HM-TF-13 RE-11-73)

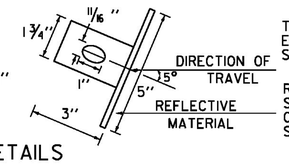


END COVER PLATE DETAIL



TYPICAL INSTALLATION SHOWING SPLICE DETAIL

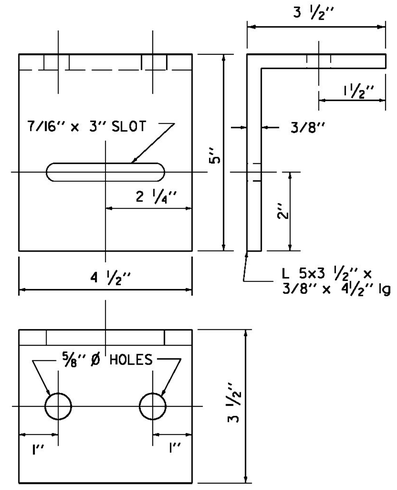




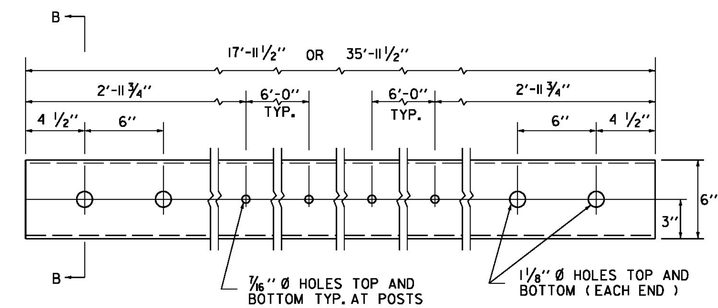
DELINEATION DEVICE DETAILS

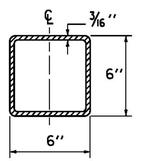
THIS REFLECTORIZED ALUMINUM DELINEATION DEVICE IS TO BE ERECTED EVERY 36 FEET, AT SPLICES. DELINEATOR SHALL MEET SPECIFICAITON REQUIRMENTS FOR ASTM B209 ALLOY 5052-H32.

REFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.09 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER. AMBER IS TO BE INSTALLED ON THE LEFT OR MEDIAN SIDE OF INTERSTATE ROADWAYS OR RAMPS.



RAIL SUPPORT ANGLE
(STD. HM-TF-13 P-5-76)





SECTION B-B

NOTES:

1. RAIL SECTIONS FOR TANGENT RUNS WILL BE EITHER 17'-11 1/2" OR 35'-11 1/2" IN LENGTH.
2. ON CURVES, CHORD LENGTHS WILL BE NO LESS THAN 12 FEET.
3. FOR CURVES GREATER THAN 8°, RAIL SECTIONS SHALL BE SHOPFORMED TO THE REQUIRED CURVATURE. PAYMENT OF SUCH SHOP WORK WILL BE CONSIDERED TO BE SUBSIDIARY TO BOX BEAM GUARD RAIL.
4. WELD OR GALVANIZING PROTRUSIONS WILL NOT BE PERMITTED ON TOP OR BOTTOM INSIDE WALLS IN SPLICE AREA.

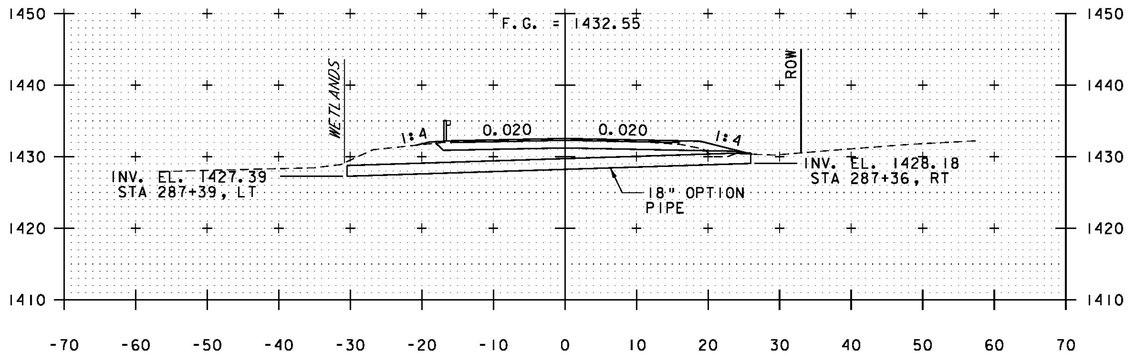
6x6x0.188 BOX BEAM RAIL ELEMENT
(STD. HM-TF-13 RE-10-76)

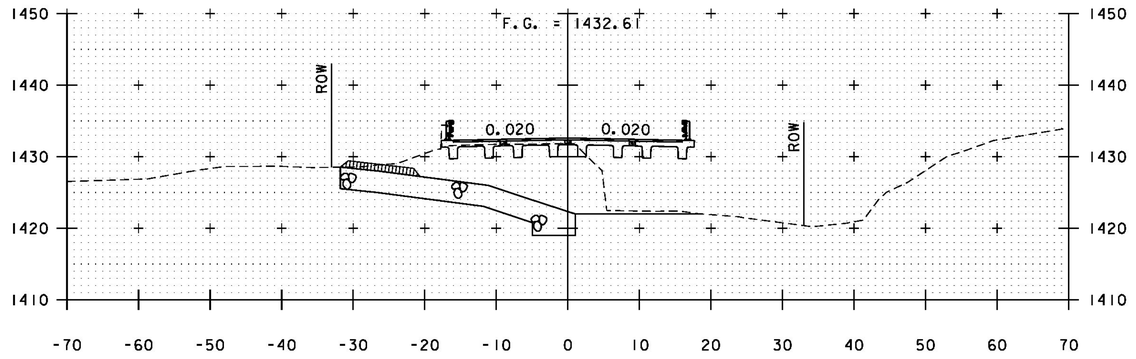
BOX BEAM GUARD RAIL DETAILS
NOT TO SCALE

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076bra11.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: K.C. BARRY
DESIGNED BY: K.C. BARRY	CHECKED BY: S.E. BURBANK
BOX BEAM GUARD RAIL DETAILS	SHEET 54 OF 68

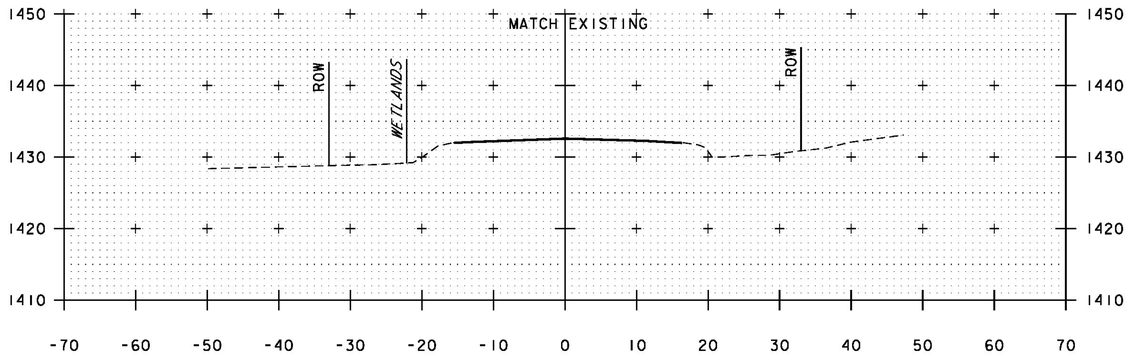
VHB 57673.00

NEXT BEAM ALTERNATE SHOWN. PBU ALTERNATE SIMILAR.



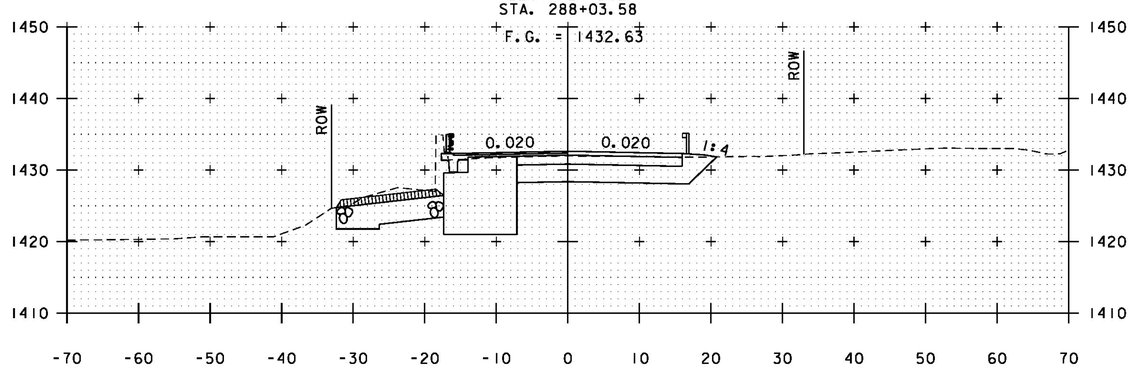


287+00



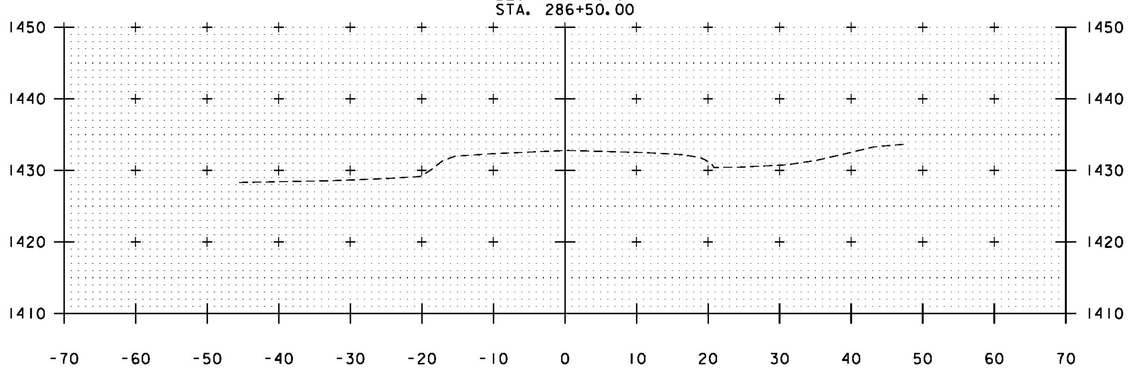
288+50

BEGIN BRIDGE
STA. 288+03.58



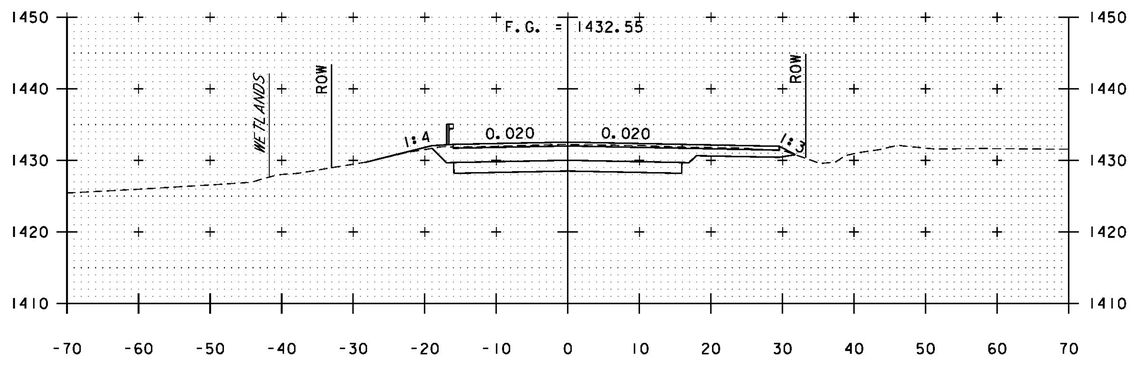
286+50

BEGIN APPROACH
STA. 286+50.00



286+00

288+00



287+50

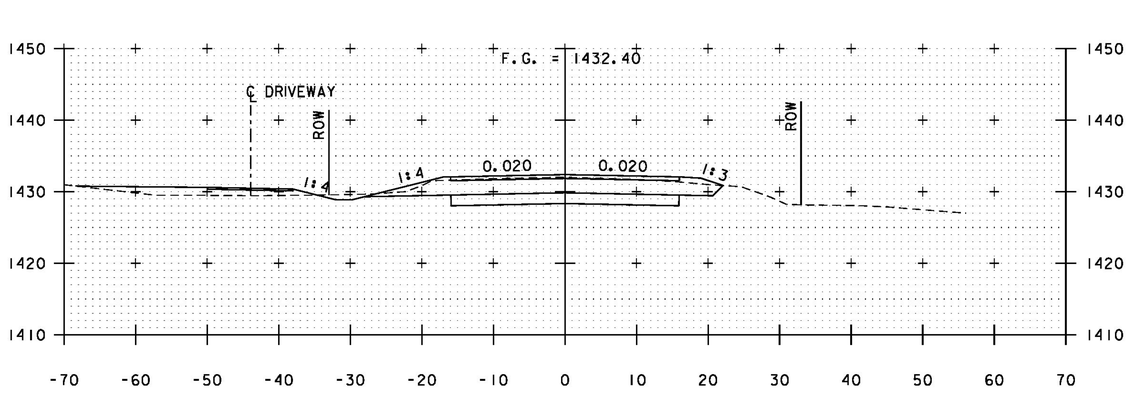
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STA. 287+40.00

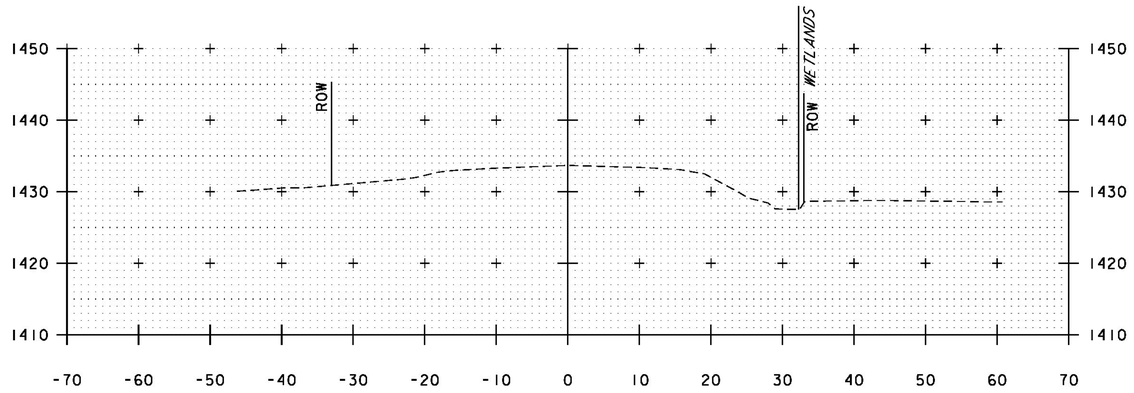
ROADWAY CROSS SECTIONS

STA. 286+00 - 288+50

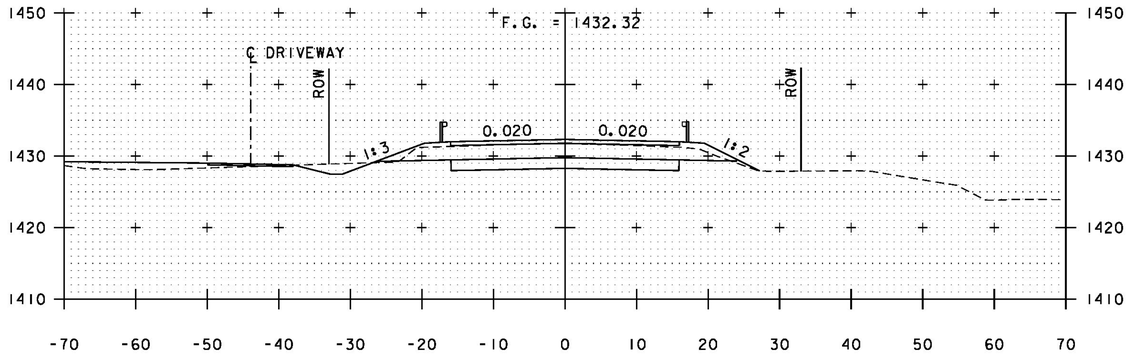
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
ROADWAY CROSS SECTIONS (1 OF 2)	SHEET 55 OF 68

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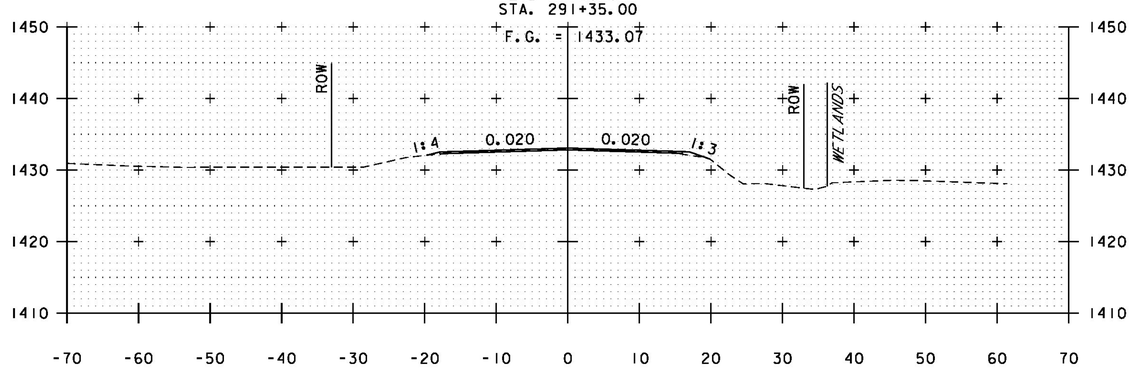




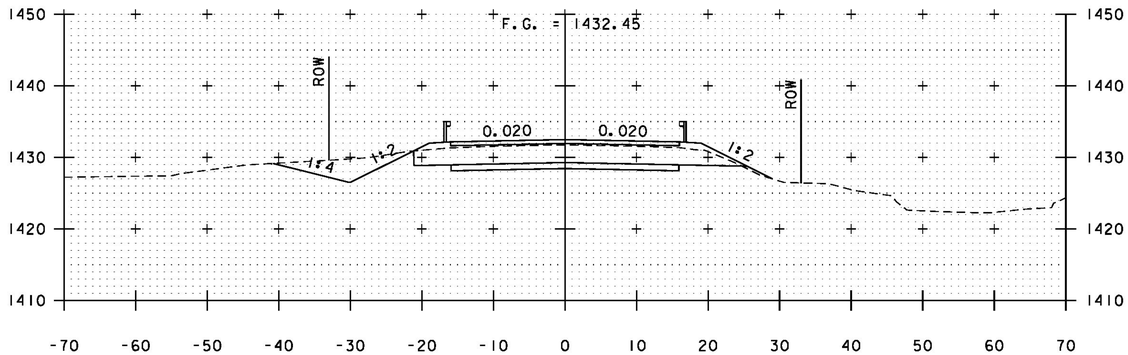
290+00



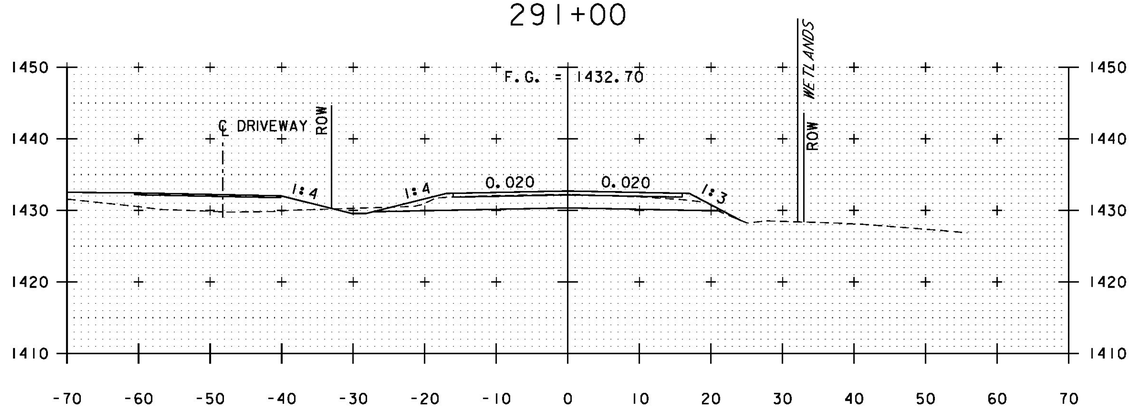
291+50
END APPROACH
STA. 291+35.00



289+50



291+00

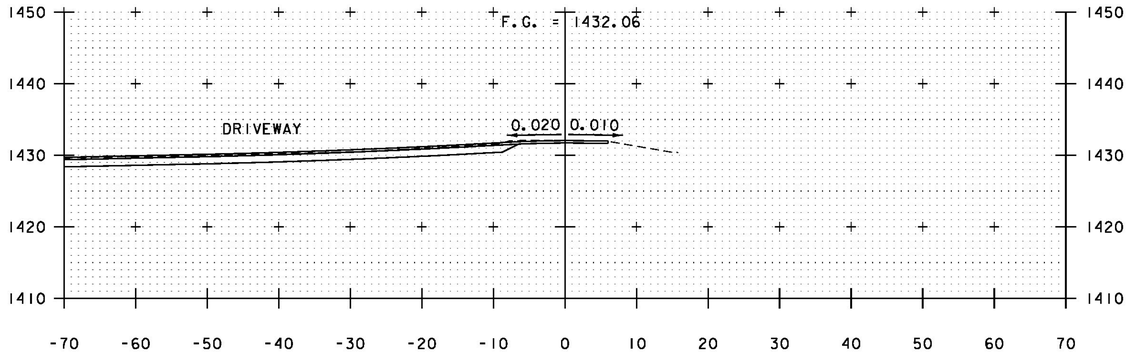


289+00
END BRIDGE
STA. 288+66.92

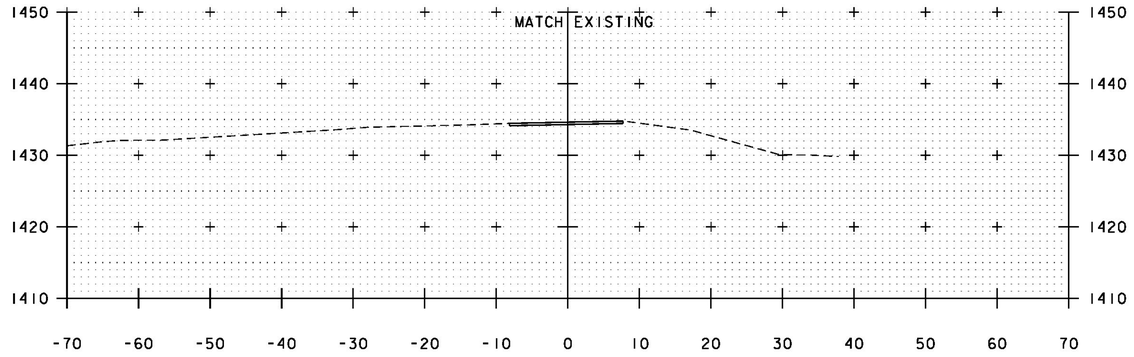
290+50
END PROJECT
STA. 290+45.00

ROADWAY CROSS SECTIONS
STA. 289+00 - 291+50

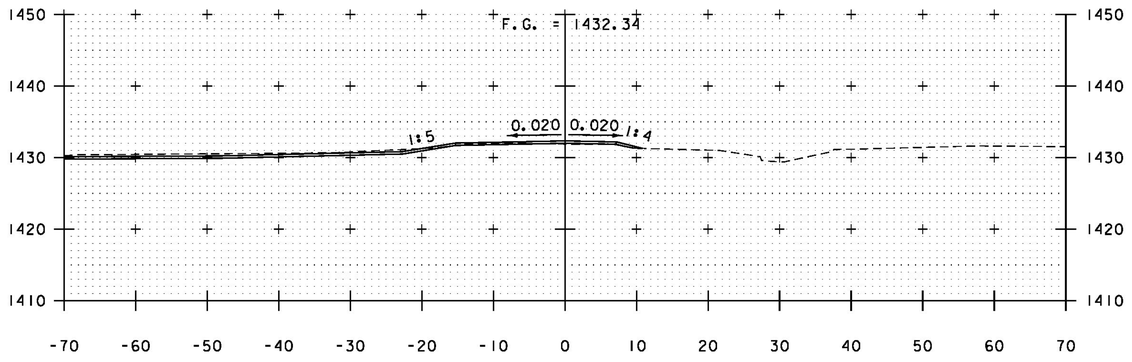
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
ROADWAY CROSS SECTIONS (2 OF 2)	SHEET 56 OF 68



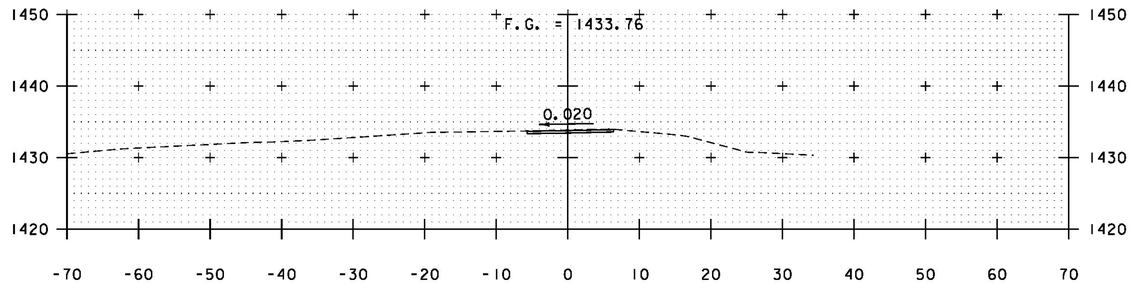
1+50



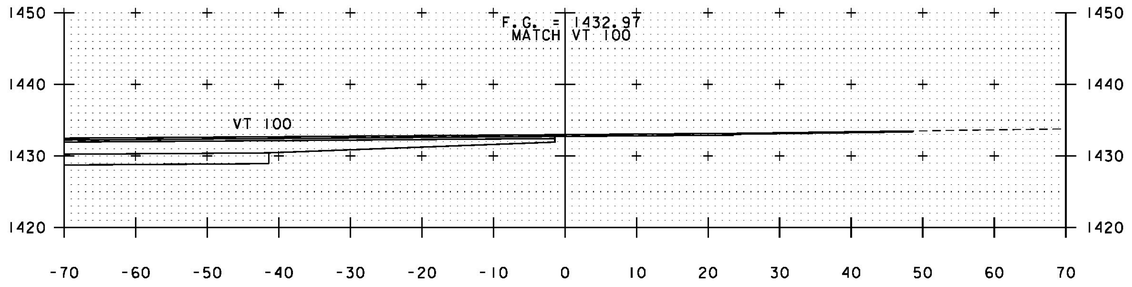
2+25



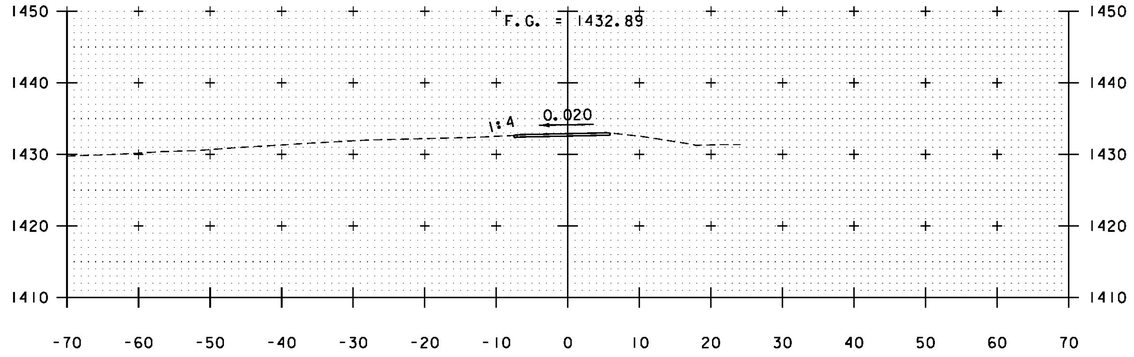
1+25



2+00



1+00



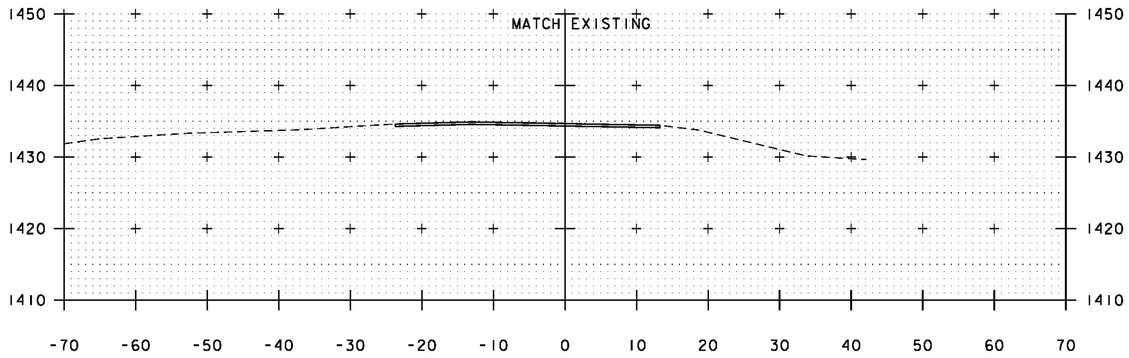
1+75

DRIVEWAY CROSS SECTIONS

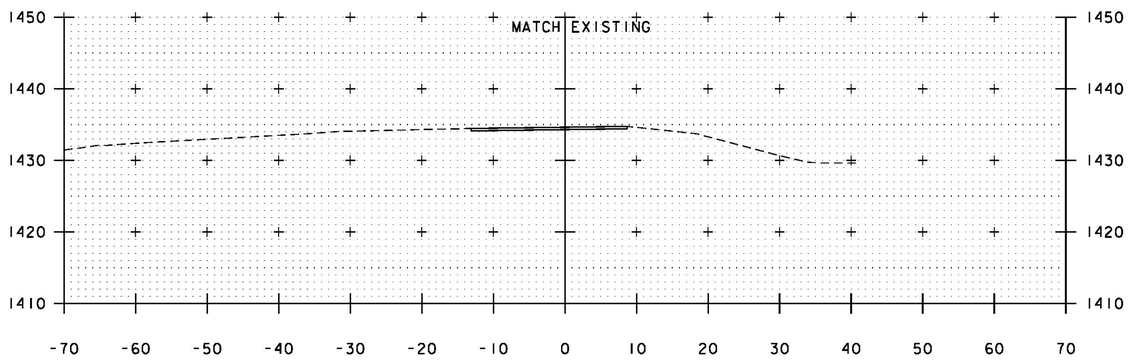
STA. 1+00 TO 2+25

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: S.E. BURBANK
DRIVEWAY CROSS SECTIONS (1 OF 4)	SHEET 57 OF 68



2+75



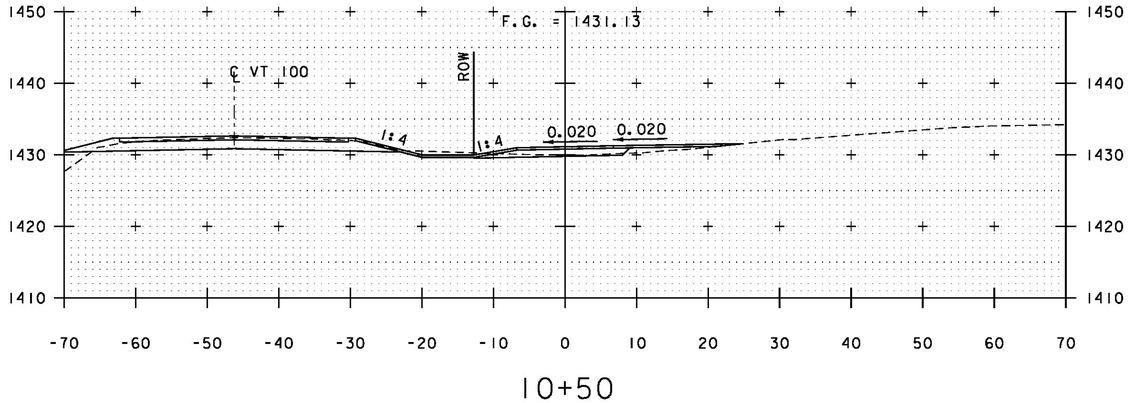
2+50

DRIVEWAY CROSS SECTIONS

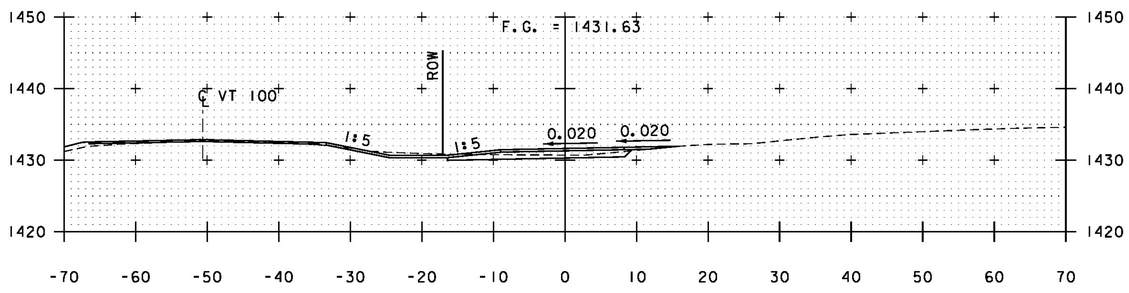
STA. 2+50 TO 2+75

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: S.E. BURBANK
DRIVEWAY CROSS SECTIONS (2 OF 4)	SHEET 58 OF 68

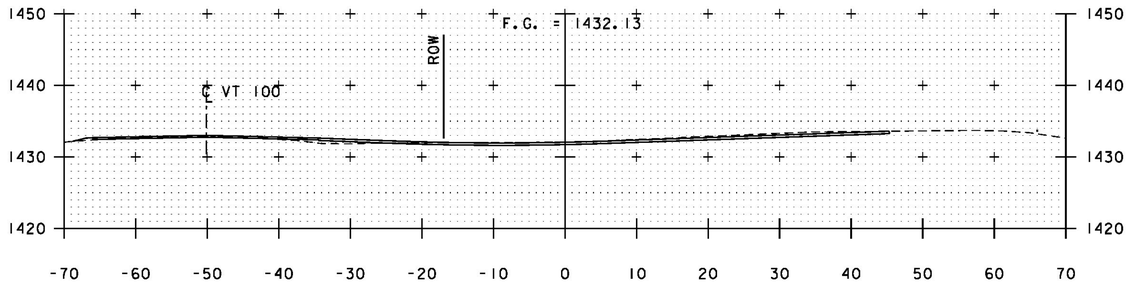
VHB 57673



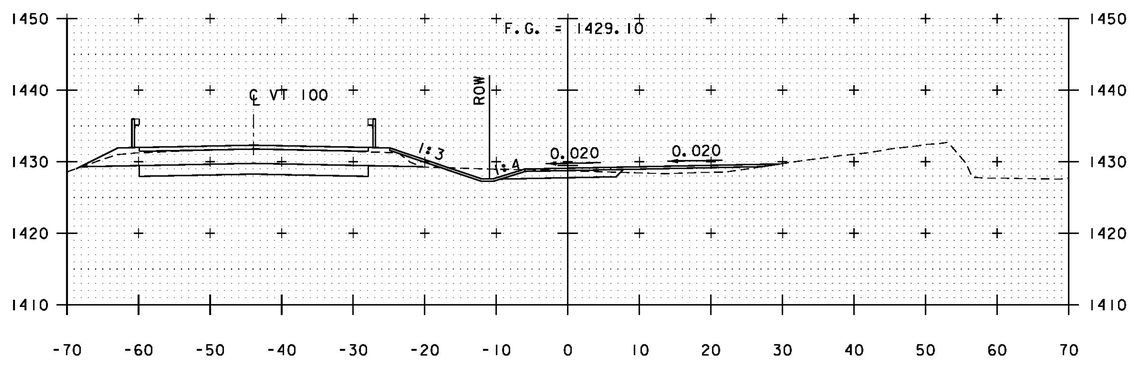
10+50



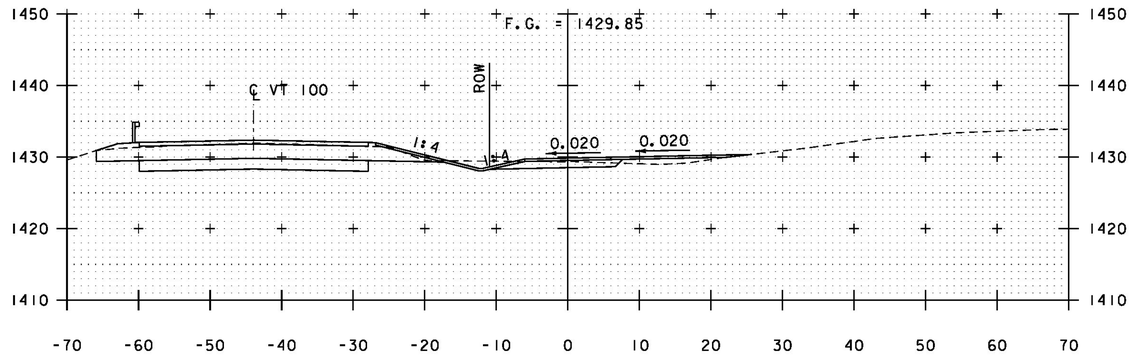
10+25



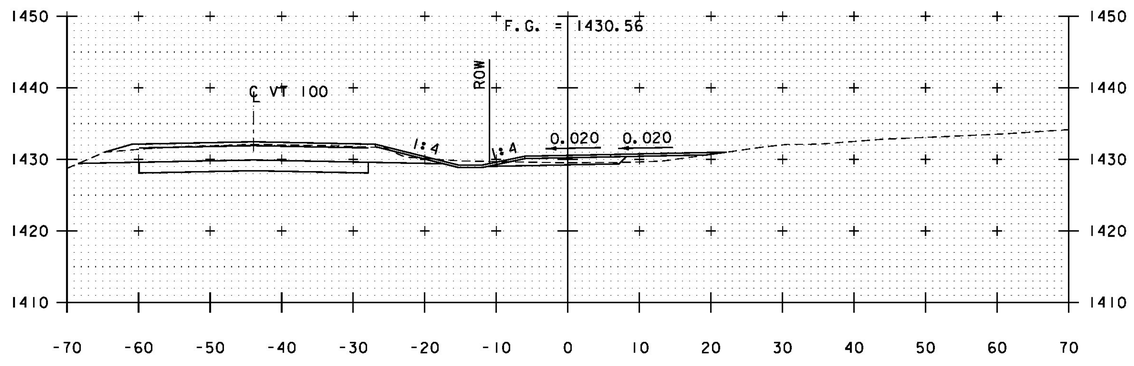
10+00



11+25



11+00



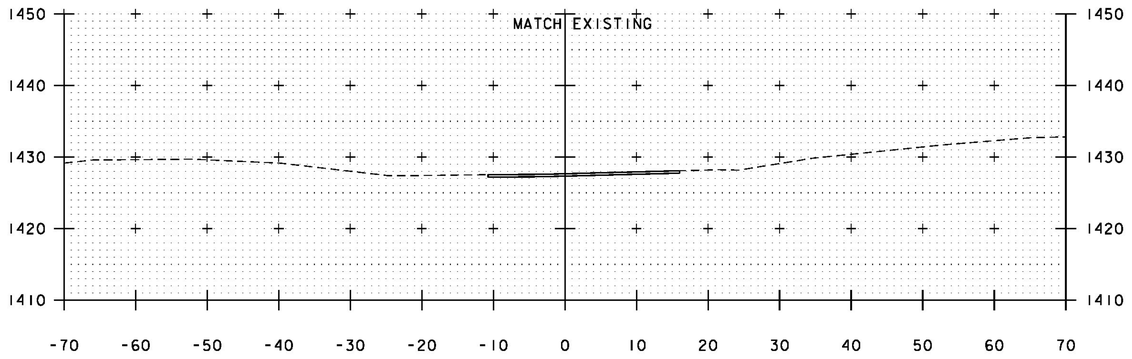
10+75

DRIVEWAY CROSS SECTIONS

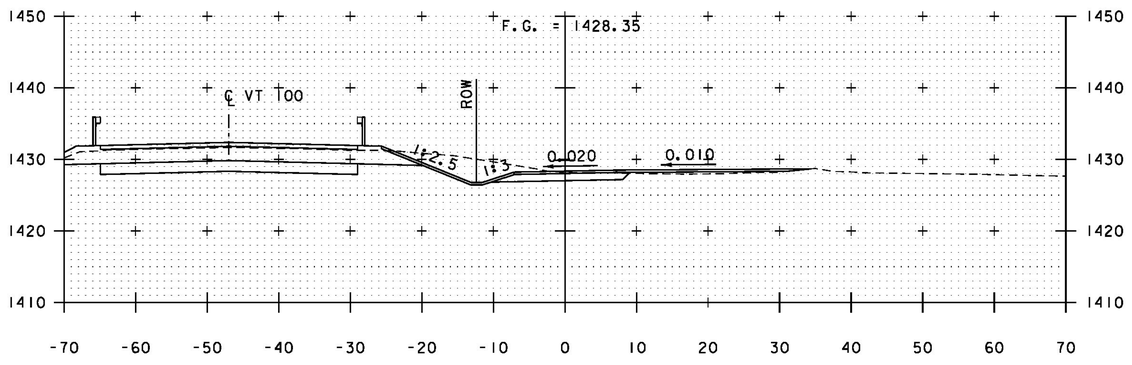
STA. 10+00 TO 11+25

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: S.E. BURBANK
DRIVEWAY CROSS SECTIONS (3 OF 4)	SHEET 59 OF 68

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11+75



11+50

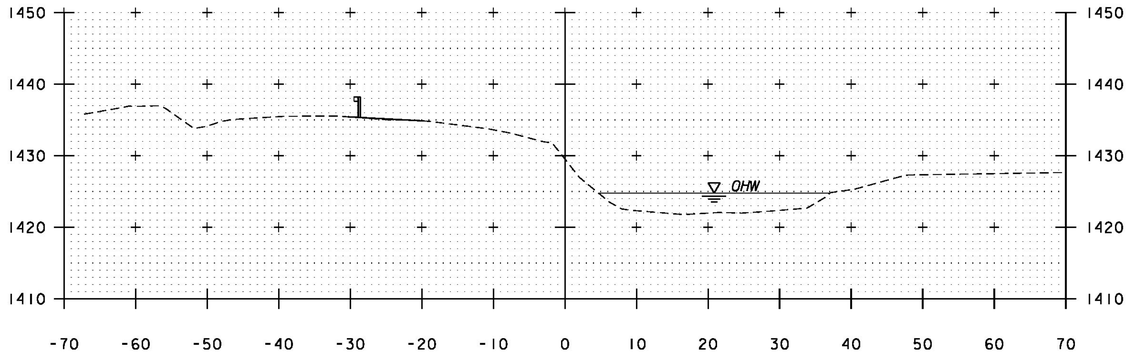
DRIVEWAY CROSS SECTIONS

STA. 11+50 TO 11+75

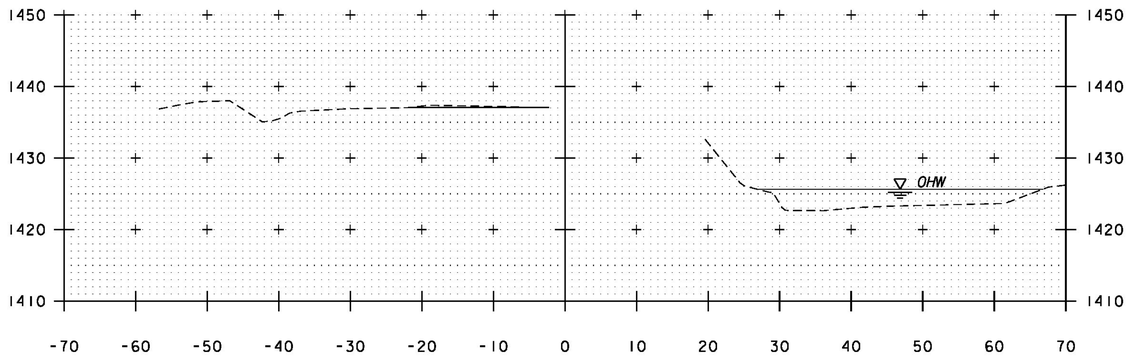
vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: zl3b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: S.E. BURBANK
DRIVEWAY CROSS SECTIONS (4 OF 4)	SHEET 60 OF 68

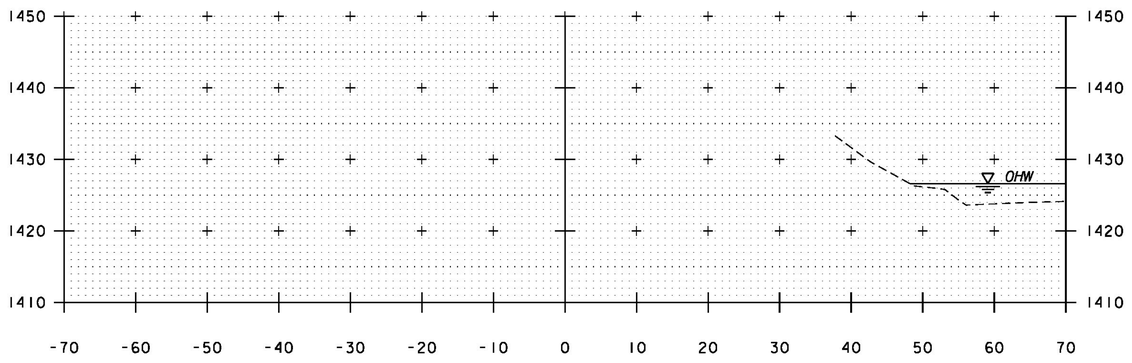
VHB 57673



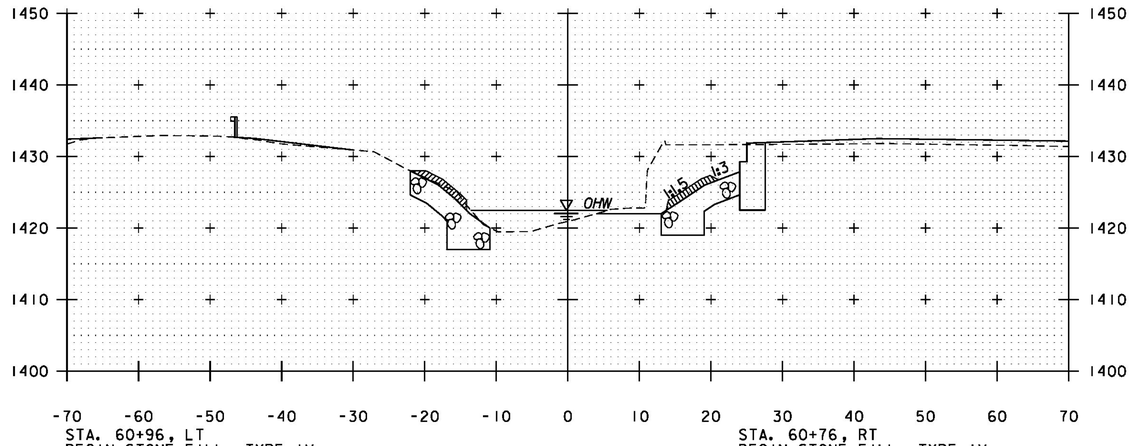
60+50



60+25



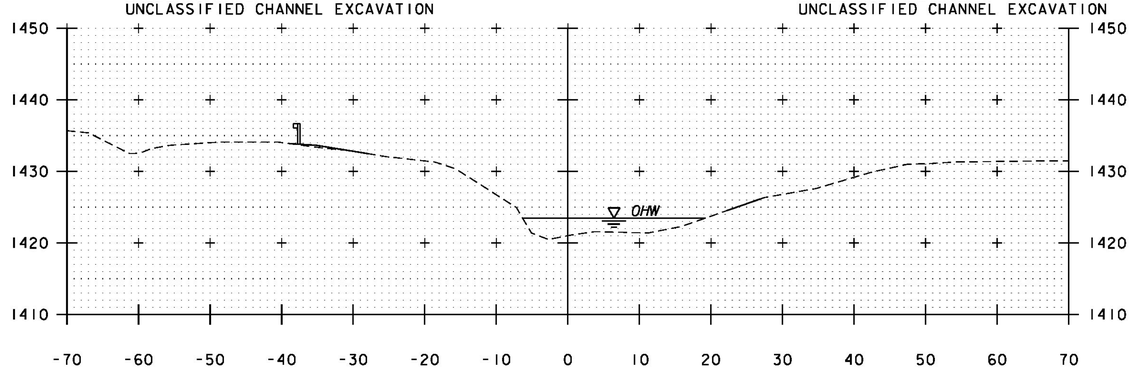
60+00



STA. 60+96, LT
BEGIN STONE FILL, TYPE IV
GEOTEXTILE UNDER STONE FILL
GRUBBING MATERIAL
UNCLASSIFIED CHANNEL EXCAVATION

61+00

STA. 60+76, RT
BEGIN STONE FILL, TYPE IV
GEOTEXTILE UNDER STONE FILL
GRUBBING MATERIAL
UNCLASSIFIED CHANNEL EXCAVATION



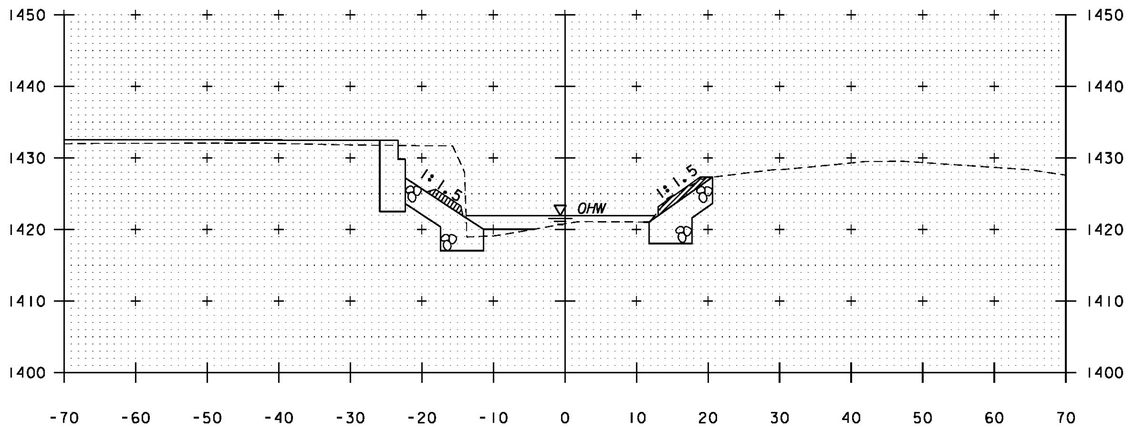
60+75

CHANNEL CROSS SECTIONS

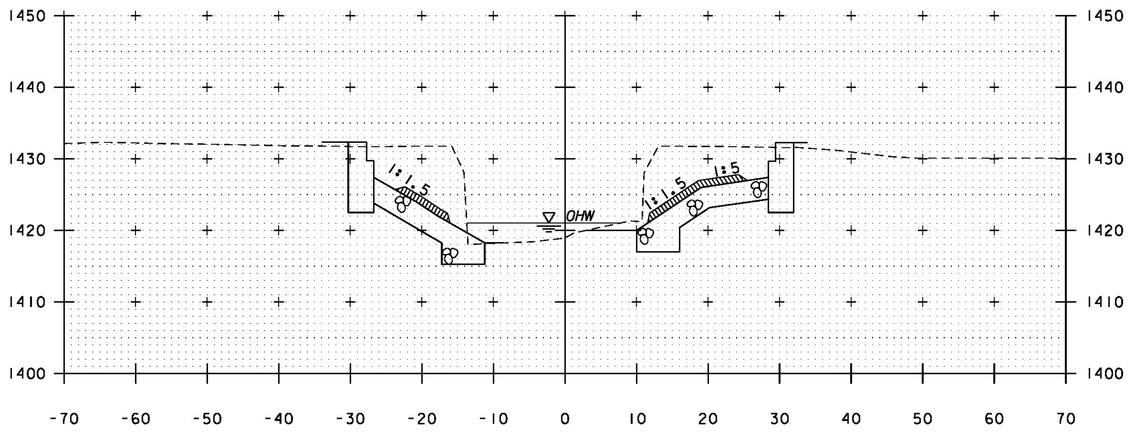
STA. 60+00 - 61+00

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS (1 OF 2)	SHEET 61 OF 68

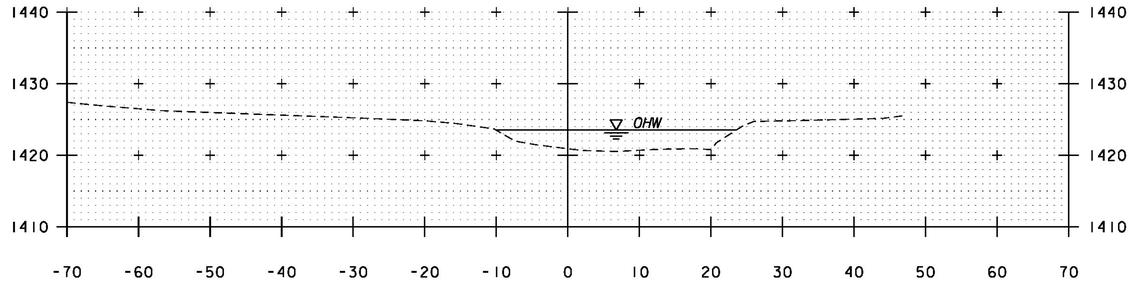
VHB 57673



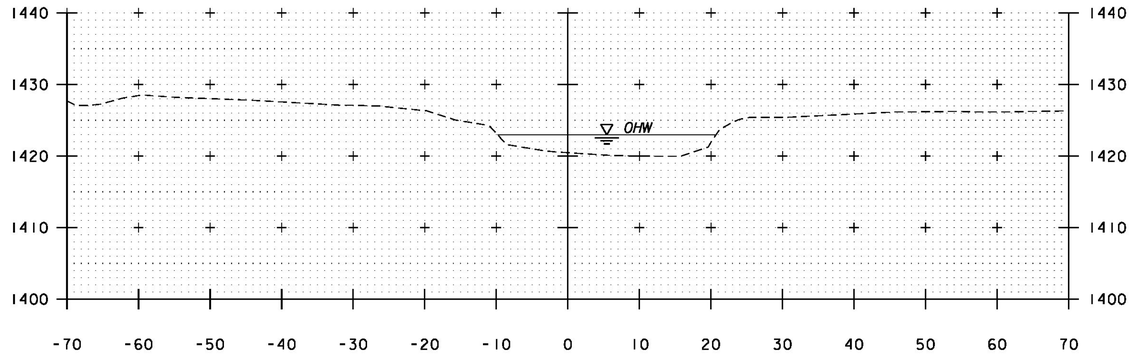
61+50



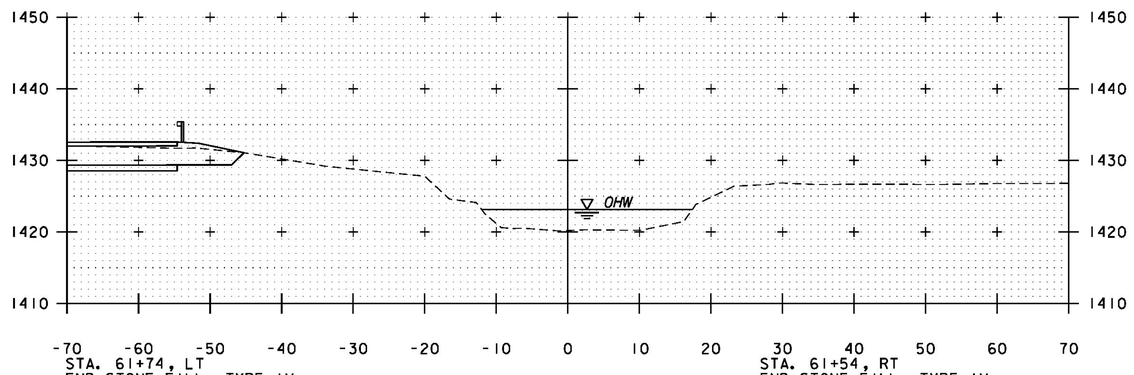
61+25



62+25



62+00



61+75

STA. 61+74, LT
END STONE FILL, TYPE IV
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
GRUBBING MATERIAL

STA. 61+54, RT
END STONE FILL, TYPE IV
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
GRUBBING MATERIAL

CHANNEL CROSS SECTIONS

STA. 61+25 - 62+25

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076xsl.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS (2 OF 2)	SHEET 62 OF 68

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EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF THE EXISTING ROLLED STEEL BEAM SUPERSTRUCTURE AND CONCRETE SUBSTRUCTURE OF BRIDGE NO. 98 WITH RELATED APPROACH AND CHANNEL WORK. DURING CONSTRUCTION, TRAFFIC WILL BE DETOURED ON AN OFF-SITE DETOUR. THIS PROJECT IS LOCATED ON VT 100, A HEAVILY TRAVELED ROAD, WHERE VT 100 CROSSES THE WEST RIVER, IN THE TOWN OF WESTON. THE EXISTING BRIDGE IS APPROXIMATELY 36 FEET LONG AND HAS A 35'-4" WIDE CONCRETE DECK. THE EXISTING SUBSTRUCTURE CONSISTS OF CONCRETE ABUTMENTS AND WINGWALLS.

THE BRIDGE REPLACEMENT INCLUDES THE REMOVAL OF THE EXISTING STRUCTURE IN ITS ENTIRETY AND THE CONSTRUCTION OF A NEW 63 FOOT SINGLE SPAN BRIDGE WITH PRECAST PRESTRESSED CONCRETE NEXT BEAMS OR PBUS TO CREATE A NEW BRIDGE WIDTH OF 35'-4". NEW INTEGRAL CONCRETE ABUTMENTS, EACH ON A SINGLE ROW OF PILES, AND WINGWALLS WILL BE PRECAST. ASSOCIATED ROADWAY APPROACH WORK INCLUDES BRIDGE APPROACH SLABS AND NEW GUARDRAIL. ONCE THE BRIDGE IS COMPLETED, THE DETOUR SIGNS WILL BE REMOVED AND THE AREA WILL BE RESTORED TO THE PREVIOUS CONDITIONS.

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 IS APPROXIMATELY 0.95 ACRES.

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

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY
THE TOPOGRAPHY OF THE AREA IS RELATIVELY FLAT, WITH A STEEP SLOPE DOWN TO THE WEST RIVER. VT ROUTE 100 AND TH 15 ARE WITHIN THE PROJECT SITE.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES
THE WEST RIVER IS THE ONLY STREAM FEATURE ON THE PROJECT SITE. THE RIVER RUNS EAST TO WEST BENEATH VT 100 IN WESTON, VERMONT. THE OHW LEVEL IS APPROXIMATELY 50-FEET WIDE WITH AN AVERAGE DEPTH OF THREE FEET. THE AREAS ON EITHER SIDE OF THE RIVER ARE DEVELOPED. THE STREAM SUBSTRATE GENERALLY CONSISTS OF BOULDERS AND COBBLES. THE WEST RIVER WILL REQUIRE COVERAGE AS A CATEGORY 2 ACTIVITY UNDER THE DEPARTMENT OF THE ARMY VERMONT GENERAL PERMIT. THERE ARE CLASS II WETLANDS WITHIN THE IMMEDIATE AREA OF THE PROJECT. THE WETLANDS ARE ALL SHRUB/FORESTED WETLANDS AND HAVE HIGH FUNCTION VALUES SUCH AS FLOOD STORAGE, WILDLIFE HABITAT AND EROSION CONTROL.

1.2.3 VEGETATION
THE VEGETATION IN THE PROJECT AREA CONSISTS OF TRIMMED GRASS AND A FEW TREES. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY REPLACEMENT OF THE EXISTING BRIDGE. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE IV AS SPECIFIED ON THE PLANS. 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 WINDSOR, VERMONT. SOILS ON THE PROJECT SITE ARE PODUNK FINE SANDY LOAM, 0% TO 3% SLOPES, "K FACTOR" = 0.32, CONSIDERED MODERATELY ERODIBLE; AND COLTON FINE SANDY LOAM, 3% TO 8% SLOPES, "K FACTOR" = 0.17 CONSIDERED 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: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: WEST RIVER
WETLANDS: YES, THERE ARE CLASS II WETLANDS ALONG THE TOE OF SLOPE OF VT 100.

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. BARRIER FENCE SHALL BE USED ALONG MISS PROCTOR'S PROPERTY IN THE VICINITY OF THE SEPTIC SYSTEM.

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 WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

FILTER CURTAIN SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

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

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

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

STONE CHECK DAMS ARE NOT ANTICIPATED FOR THIS PROJECT.

1.4.7 CONSTRUCT PERMANENT CONTROLS
PERMANENT EROSION CONTROL STRUCTURES ARE NOT ANTICIPATED FOR 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. TEMPORARY EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

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

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

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

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

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

TREATMENT OF DEWATERING COFFERDAM IS NOT ANTICIPATED.

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

1.5 SEQUENCE AND STAGING

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

1.5.1 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.

vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076ero_Narrative.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
EPSC NARRATIVE	SHEET 63 OF 68

N

VT STATE PLANE GRID

SOIL CLASSIFICATION
PODUNK FINE SANDY LOAM,
OCCASIONALLY FLOODED
0%-3% SLOPES
MODERATE EROSION POTENTIAL
K = 0.32

YUENGLING, ROBERT F. & CHRISTINE M.

BENCHMARK
RAILROAD SPIKE IN POLE
ELEV = 1431.77

BEGIN APPROACH
STA. 286+50.00

BEGIN BRIDGE
STA. 288+03.58
FG EL 1432.64

CLASS II WETLAND BUFFER

RIPARIAN BUFFER

PROCTOR, BEVERLEY J.

DWELLING UNIT

GARAGE

SEPTIC SYSTEM

GRAVEL DRIVE

CLASS II WETLAND BUFFER

END APPROACH
STA. 291+35.00

STATE ROW

WETLAND CLASS II

CLASS II WETLAND BUFFER

TO LONDONDERRY

VT 100

286+00 287+00 288+00 289+00 290+00 291+00

TO ANDOVER

STATE ROW
BEGIN PROJECT
STA. 287+40.00

LIMIT OF PAVEMENT
STA. 50+51.31

TH 15 (FELTON ROAD)

TOWN ROW

END BRIDGE
STA. 288+66.92
FG EL 1432.57

STATE ROW
CLASS II WETLAND BUFFER

BENSON, JAMES M.

END PROJECT
STA. 290+45.00

WEST RIVER

HART, DONALD W. & MARIE W.

SOIL CLASSIFICATION
COLTON FINE SANDY LOAM
3%-8% SLOPES
LOW EROSION POTENTIAL
K = 0.17

PROBST JR., FREDERICK J & PROBST, JENNIFER L.

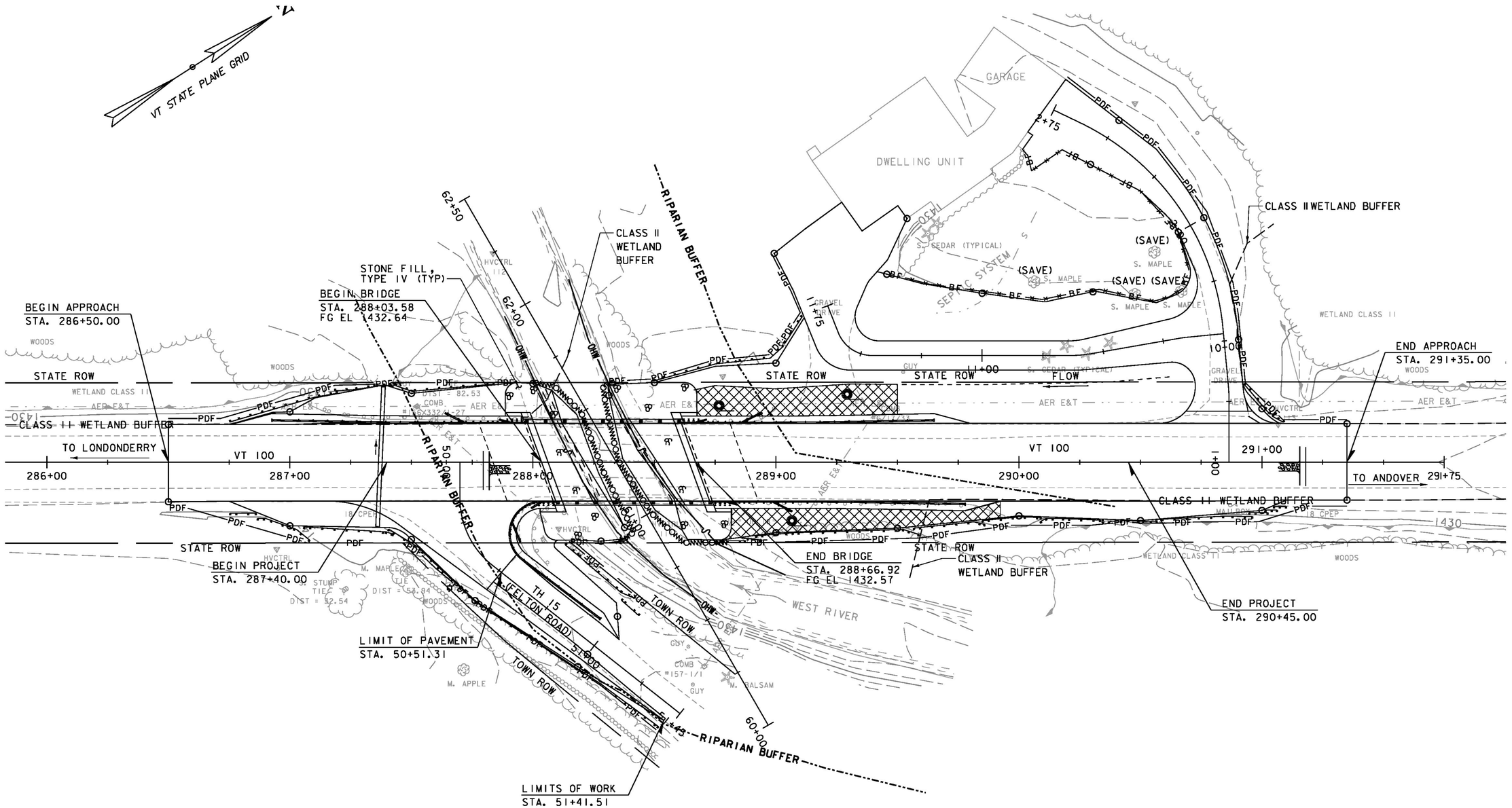
LIMITS OF WORK
STA. 51+41.51

RIPARIAN BUFFER

0 20 40
SCALE IN FEET

SEE SHEET 12 FOR CONVENTIONAL SYMBOLOGY LEGEND.

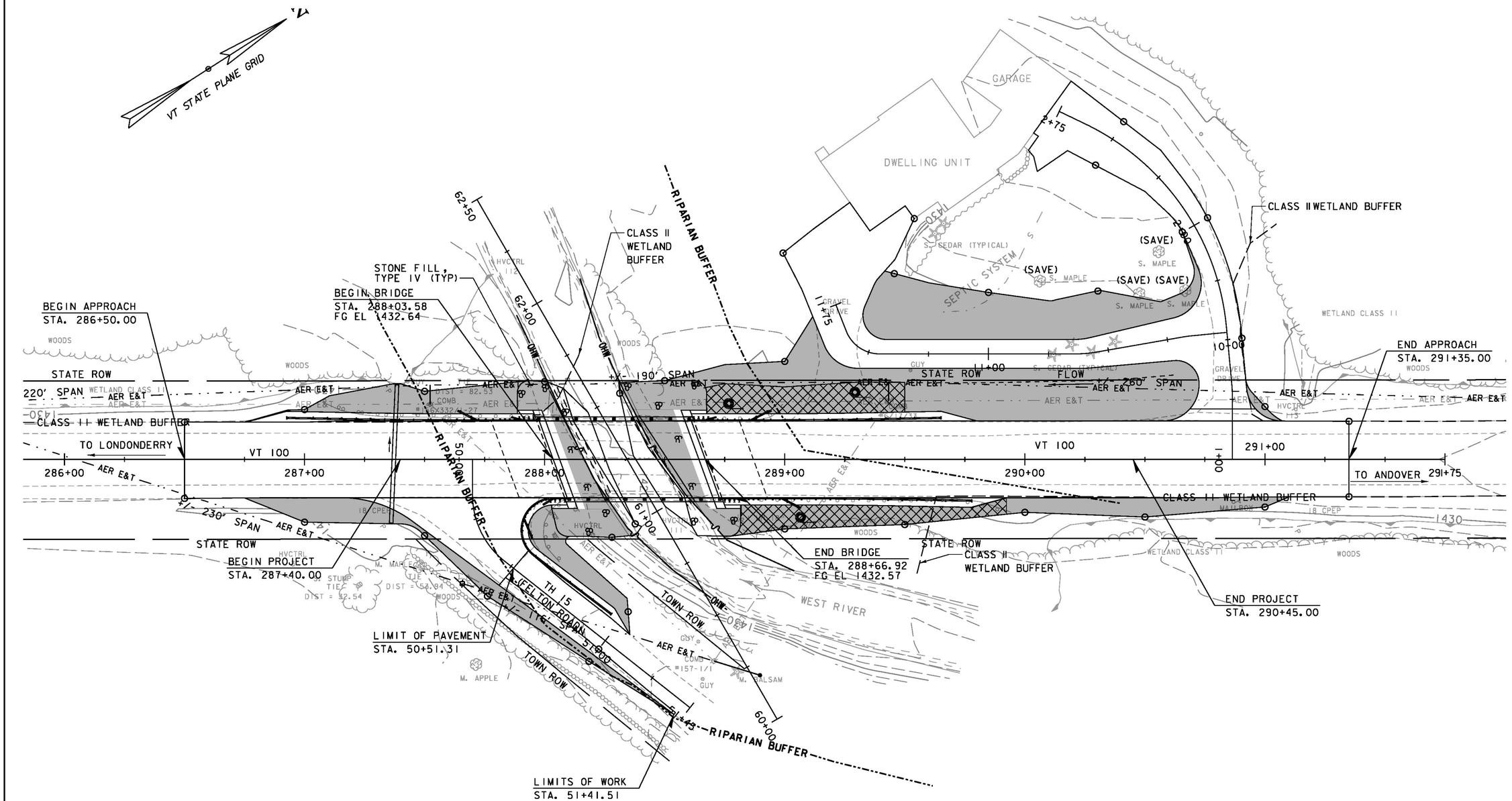
PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076bdr_ero.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
EPSC EXISTING CONDITIONS SHEET	SHEET 64 OF 68



SEE SHEET 12 FOR CONVENTIONAL SYMBOLOGY LEGEND.

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076bdr_ero.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
EPSC CONSTRUCTION CONDITIONS SHEET	SHEET 65 OF 68

VHB 57673

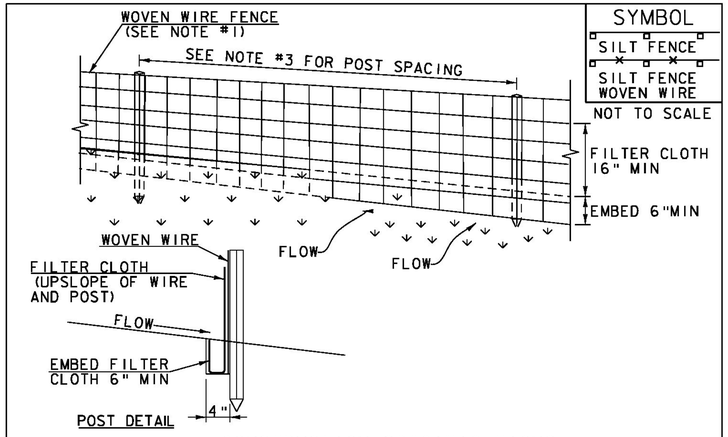


SEE SHEET 12 FOR CONVENTIONAL SYMBOLOGY LEGEND.

0 20 40
SCALE IN FEET

PROJECT NAME: WESTON	
PROJECT NUMBER: BF 013-2(13)	
FILE NAME: z13b076bdr_ero.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
EPSC FINAL CONDITIONS SHEET	SHEET 66 OF 68

VHB 57673



SYMBOL

SILT FENCE

SILT FENCE WOVEN WIRE

NOT TO SCALE

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, MIRAFI100X, 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.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) ~~OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).~~

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

VAOT LOW GROW/FINE FESCUE MIX

LBS/AC						
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
38%	57	95	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX

LBS/AC						
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
37.5%	22.5	45	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

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

CONSTRUCTION GUIDANCE

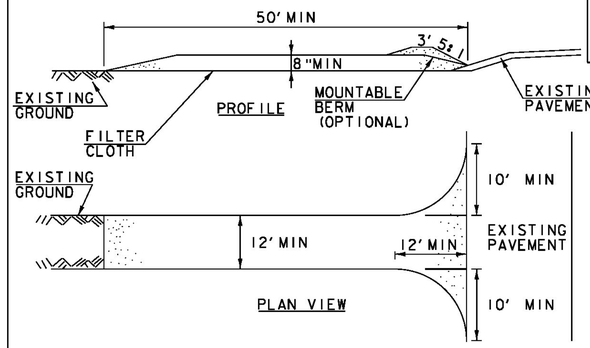
1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT 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. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.
7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF



SYMBOL

NOT TO SCALE

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.

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

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

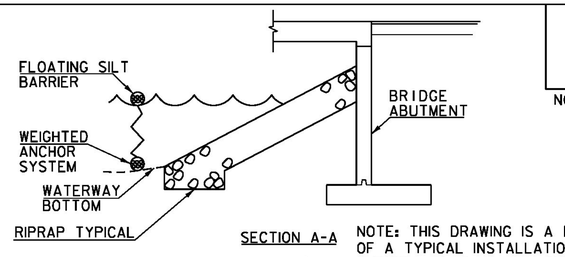
vhb

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)

FILE NAME: z13b076details ero.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.J. WESTCOTT
EROSION CONTROL DETAILS (1 OF 2)

PLOT DATE: 10/2/2015
DRAWN BY: J.J. WESTCOTT
CHECKED BY: S.E. BURBANK
SHEET 67 OF 68

VHB 57673

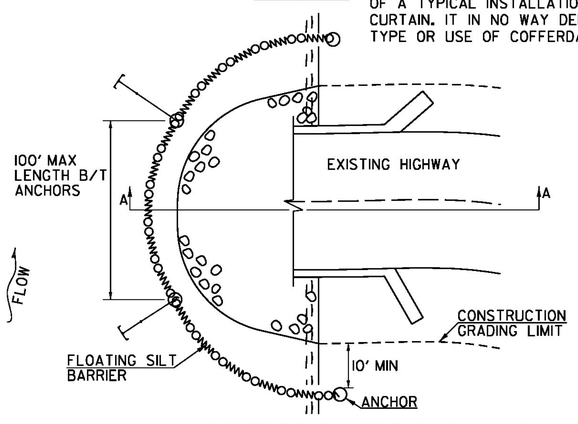


SYMBOL

NOT TO SCALE

SECTION A-A

NOTE: THIS DRAWING IS A DEPICTION OF A TYPICAL INSTALLATION OF FILTER CURTAIN. IT IN NO WAY DEFINES THE TYPE OR USE OF COFFERDAM IF USED.



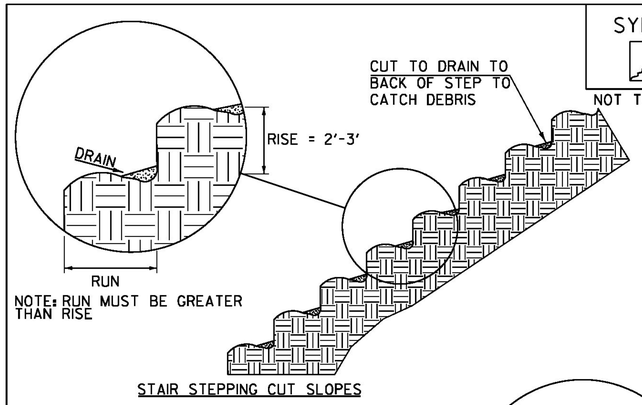
CONSTRUCTION SPECIFICATIONS

1. FILTER CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 1.5 FEET/SECOND.
2. MAXIMUM 100' LENGTH BETWEEN ANCHORS.
3. LAST SECTION SHALL TERMINATE A MINIMUM OF 10' BEYOND LIMIT OF DISTURBANCE.
4. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE WHICH ALLOWS THE CURTAIN TO CONFORM TO THE BOTTOM OF THE WATERWAY.
5. THE CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE MINIMIZING THE ESCAPE OF SEDIMENTS INTO WATERWAY.

FILTER CURTAIN

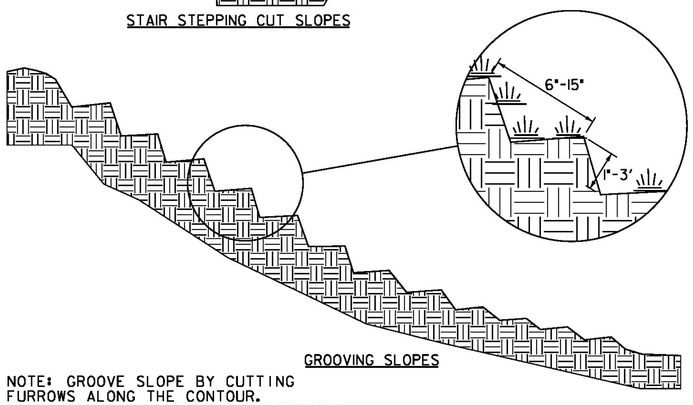
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 FOR GEOTEXTILE FOR FILTER CURTAIN (PAY ITEM 649.61).

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF
SEPTEMBER 4, 2009	WHF



NOTE: RUN MUST BE GREATER THAN RISE

STAIR STEPPING CUT SLOPES



GROOVING SLOPES

NOTE: GROOVE SLOPE BY CUTTING FURROWS ALONG THE CONTOUR. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND RETAIN LIME, FERTILIZER AND SEED.

SYMBOL

NOT TO SCALE

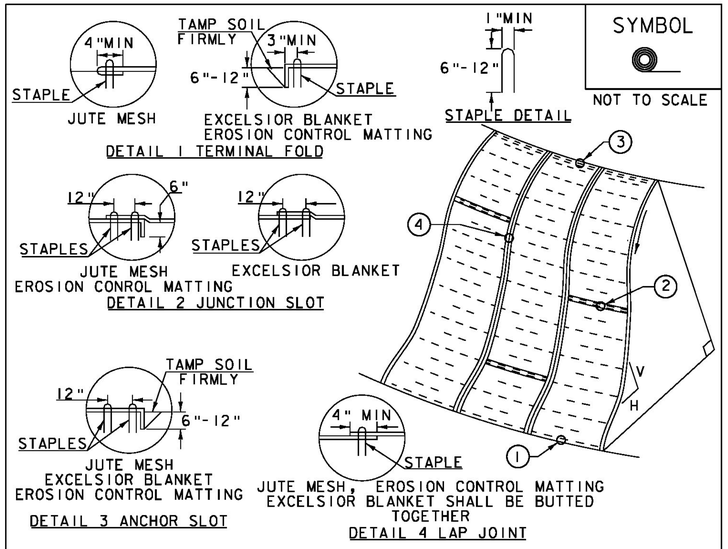
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SURFACE ROUGHENING

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 WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

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

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

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

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

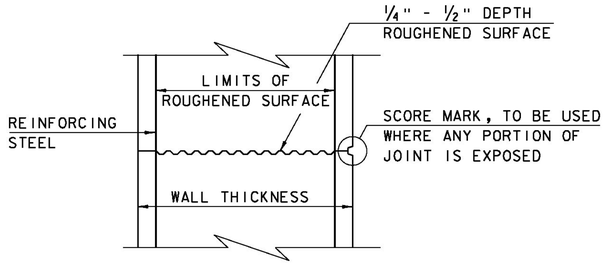
vhb

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
FILE NAME: z13b076details ero.dgn	PLOT DATE: 10/2/2015
PROJECT LEADER: S.E. BURBANK	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
EROSION CONTROL DETAILS (2 OF 2)	SHEET 68 OF 68

VHB 57673

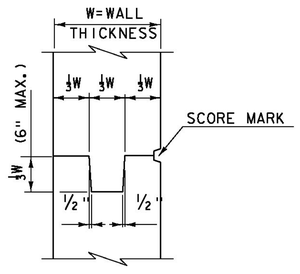
CONCRETE GENERAL NOTES

1. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" x 1"
2. REINFORCING STEEL SIZE AND SPACING SHOWN IN THE PLANS IS BASED ON 60 KSI STEEL, UNLESS NOTED OTHERWISE. WITH THE ENGINEER'S PERMISSION, BAR SIZE AND SPACING MAY BE MODIFIED ACCORDING TO THE LATEST AASHTO LRFD BRIDGE DESIGN SPECIFICATION AND STRUCTURES DESIGN MANUAL WHEN USING HIGHER STRENGTH STEEL.

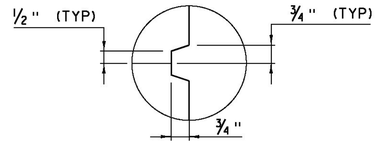


TYPICAL HORIZONTAL CONSTRUCTION JOINT
(NOT TO SCALE)

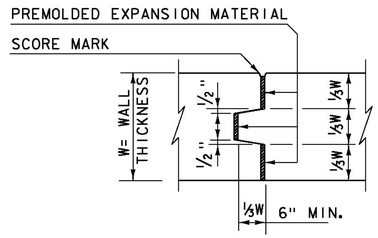
1. THE SURFACE OF THE CONCRETE CONSTRUCTION JOINTS SHALL BE CLEANED AND FREE OF LAITANCE.
2. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER REMOVED.



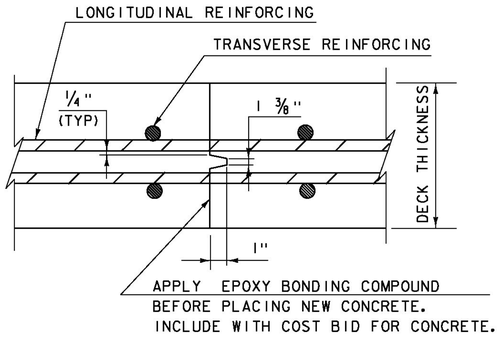
TYPICAL CONCRETE CONSTRUCTION JOINT
(NOT TO SCALE)



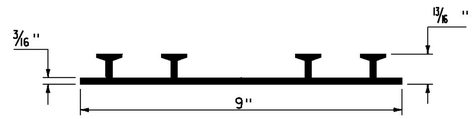
SCORE MARK DETAIL
(NOT TO SCALE)



TYPICAL CONCRETE EXPANSION JOINT
(NOT TO SCALE)



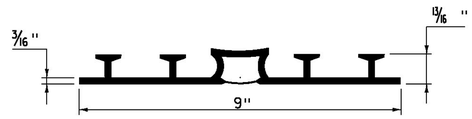
TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS
(NOT TO SCALE)



P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS
(NOT TO SCALE)

PAYMENT FOR THE P.V.C. WATERSTOP SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR THE ADJACENT CONCRETE.

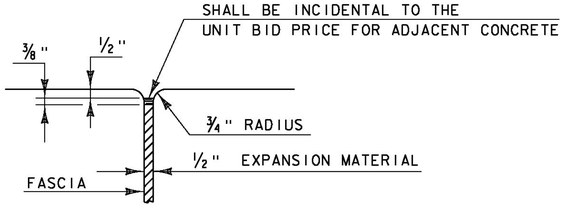
OTHER CONFIGURATIONS OF WATERSTOP MAY BE USED UPON APPROVAL OF THE ENGINEER.



P.V.C. WATERSTOP FOR EXPANSION JOINTS
(NOT TO SCALE)

PAYMENT FOR THE P.V.C. WATERSTOP SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR THE ADJACENT CONCRETE.

OTHER CONFIGURATIONS OF WATERSTOP MAY BE USED UPON APPROVAL OF THE ENGINEER.



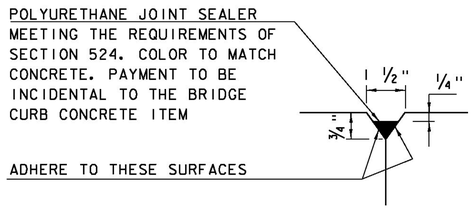
JOINT BETWEEN FASCIA AND WINGWALL
(NOT TO SCALE)

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
FEBRUARY 9, 2012	REBAR SUBSTITUTION ALLOWANCE ADDED TO CONCRETE GENERAL NOTES.

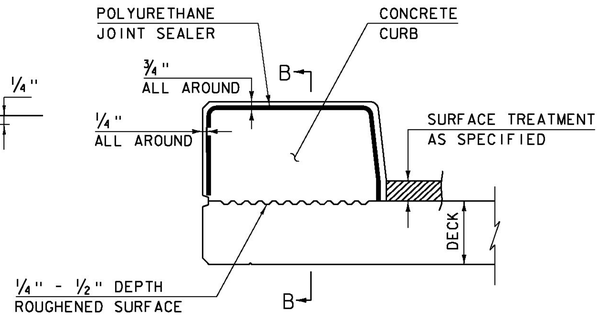
CONCRETE DETAILS AND NOTES

VERMONT AGENCY OF TRANSPORTATION
STRUCTURES SECTION

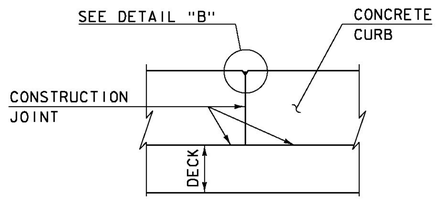
STRUCTURES DETAIL
SD-501.00



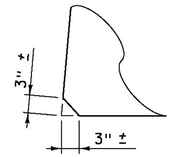
DETAIL "B"
(NOT TO SCALE)



CONCRETE CURB JOINT SECTION
(NOT TO SCALE)



SECTION B - B
(NOT TO SCALE)



ACUTE ANGLE CLIP DETAIL
(NOT TO SCALE)

1. SEE TYPICAL HORIZONTAL CONSTRUCTION JOINT DETAIL FOR ADDITIONAL INFORMATION

CONCRETE CURB JOINT NOTES

1. CONCRETE CURBS MAY BE PLACED IN ONE CONTINUOUS OPERATION IF AN APPROVED SHRINKAGE REDUCING ADMIXTURE LISTED IN THE SPECIAL PROVISIONS IS USED WITH THE CONCRETE MIX DESIGN. PAYMENT FOR THE SHRINKAGE REDUCING ADMIXTURE WILL BE INCIDENTAL TO THE BRIDGE CURB CONCRETE ITEM.

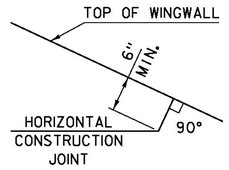
2. IF THE CONTRACTOR CHOOSES NOT TO USE AN APPROVED SHRINKAGE REDUCING ADMIXTURE, THE CURBS SHALL BE CONSTRUCTED WITH CONSTRUCTION JOINTS SPACED AT A MAXIMUM OF 15'-0" CENTER TO CENTER AND 2'-0" MINIMUM FROM THE CENTER OF NEAREST BRIDGE RAILING POST.

3. ON MULTI-SPAN CONTINUOUS SUPERSTRUCTURES, REGARDLESS OF WHETHER APPROVED SHRINKAGE REDUCING ADMIXTURE IS USED, CURB JOINTS SHALL BE LOCATED OVER THE CENTERLINE OF PIERS AND 7'-0" EACH SIDE OF THE CENTERLINE OF EACH PIER.

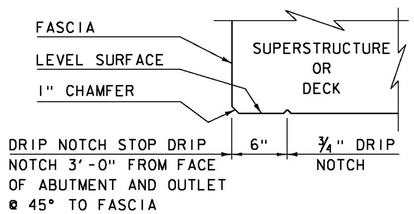
4. WHEN CURB JOINTS ARE USED THE CURBS SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOUR DELAY BETWEEN ADJACENT PLACEMENTS.

5. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THROUGH CURB CONSTRUCTION JOINTS. CURB STIRRUP BARS SHALL BE TURNED AS NECESSARY TO MAINTAIN COVER IN THE FLARED CURB ENDS.

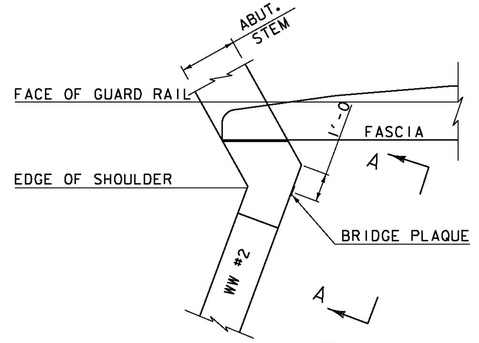
6. THE JOINT SPACING AND DETAILS SHOWN SHALL APPLY TO SIDEWALKS WHEN SHOWN IN THE PLANS.



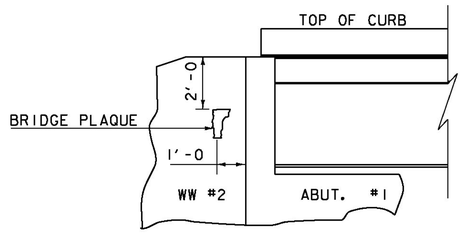
HORIZONTAL WINGWALL CONSTRUCTION JOINT
(NOT TO SCALE)



DRIP NOTCH DETAIL
(NOT TO SCALE)



PLAN



VIEW "A - A"

BRIDGE PLAQUE
(NOT TO SCALE)

THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.

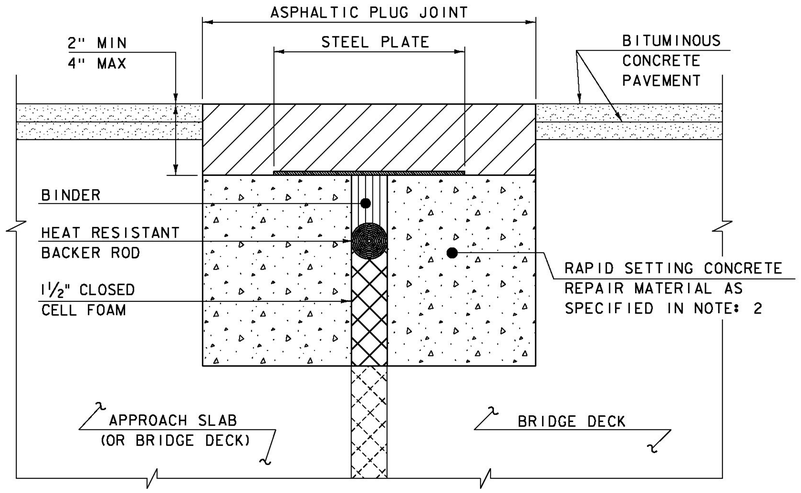
PAYMENT FOR INSTALLATION OF THE BRIDGE PLAQUE SHALL BE INCIDENTAL TO THE ADJACENT CONCRETE.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
JUNE 4, 2010	MODIFIED AND ADDED TWO DETAILS
OCTOBER 10, 2012	MODIFIED HORZ. JOINT WINGWALL ADD 6" MIN. DIMENSION

CONCRETE DETAILS AND NOTES

VERMONT AGENCY OF TRANSPORTATION · STRUCTURES · SECTION

STRUCTURES DETAIL
SD-502.00



ASPHALTIC PLUG JOINT DETAIL - REHAB

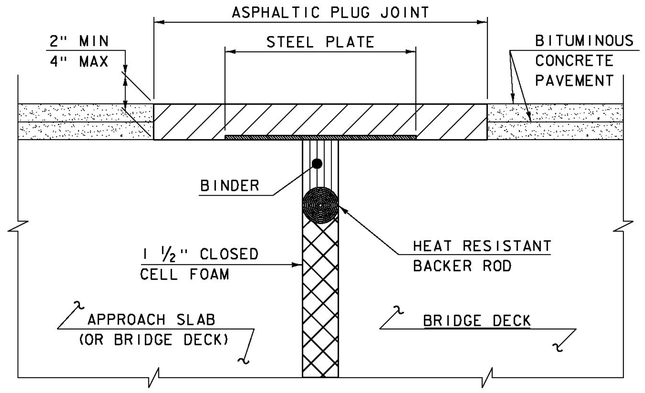
NOTES:

1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL BE INCLUDED IN THE BID PRICE OF ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.

2. THE CONTRACTOR SHALL REPLACE REMOVED MATERIAL THAT IS LESS THAN 4" FROM FINISHED GRADE WITH ASPHALTIC PLUG JOINT MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 707.15. ALL REMOVED MATERIAL THAT IS GREATER THAN 4 INCHES FROM FINISHED GRADE SHALL BE REPLACED WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.

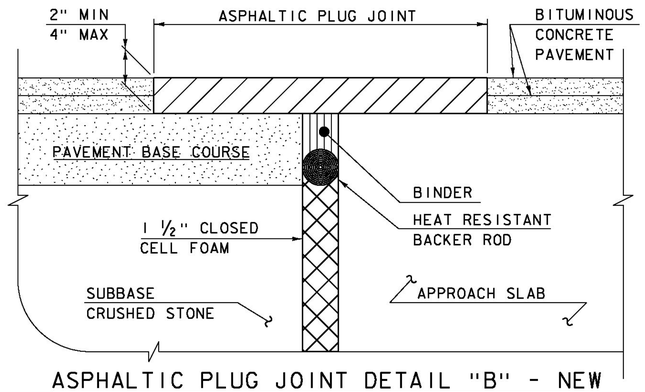
3. REINFORCING STEEL NOT SHOWN FOR CLARITY.

4. PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRE-STAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER. THE STEEL PLATES MAY BE OMITTED WHERE THE ENGINEER DETERMINES THAT THE APPROACH SLAB OR BRIDGE DECK WILL PROVIDE INADEQUATE SUPPORT AND WHERE VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.



ASPHALTIC PLUG JOINT DETAIL "A" - NEW

NOTE:
PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRE-STAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER.



ASPHALTIC PLUG JOINT DETAIL "B" - NEW

ASPHALTIC PLUG JOINT NOTES

INSTALLATION:

1. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT, MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNEUMATIC HAMMER AND CHISEL MAY BE USED ADJACENT TO THE CURB ONLY WHEN SAW CUTTING IS NOT POSSIBLE.
3. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
5. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
6. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.

WEATHER LIMITATIONS

APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

1. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
2. THE ROAD SURFACE IS DRY.
3. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.

DETAILS ON THIS SHEET ARE NOT TO SCALE.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
AUGUST 29, 2011	ADD DETAIL "B" AND REV. NOTES

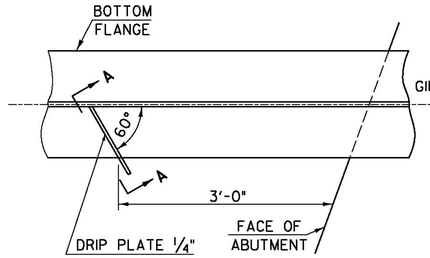
BRIDGE JOINT
ASPHALTIC PLUG

VERMONT AGENCY OF TRANSPORTATION
STRUCTURES - DIVISION

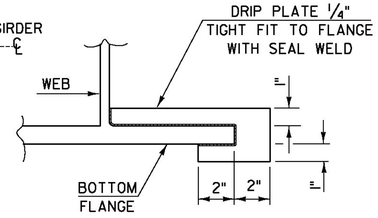
STRUCTURES DETAIL
SD-516.10

STRUCTURAL STEEL GENERAL NOTES:

1. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH-STRENGTH BOLTS IN 15/16" DIAMETER HOLES, PER SUBSECTION 506.19, UNLESS OTHERWISE SPECIFIED.
2. ALL HOLES IN THE WEBS OF THE FASCIA GIRDERS THAT ARE NOT OTHERWISE FILLED, SHALL BE FILLED WITH EITHER BUTTON HEAD OR HEX HEAD BOLTS. THESE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.
3. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10.
4. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
5. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.
6. ENDS OF GIRDERS ARE TO BE VERTICAL IN THEIR FINAL POSITION.
7. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE RESIDENT ENGINEER FOR USE IN DETERMINING FINISHED GRADES.

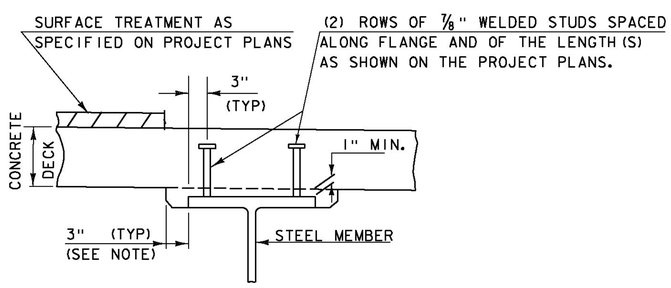


PLAN DRIP PLATE



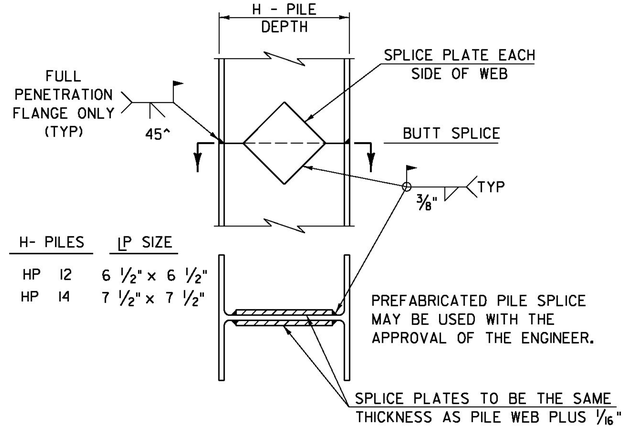
SECTION A - A

NOTE: DRIP PLATES SHALL BE PLACED ON OUTSIDE EDGE OF FASCIA GIRDERS ON THE HIGH SIDE OF ALL PIERS AND ABUTMENTS OR AS INDICATED ON PROJECT PLANS.



NOTE:
THE 3" HORIZONTAL SECTION MAY BE ELIMINATED FOR FORMING SYSTEMS DESIGNED FOR THE CONSTRUCTION OF VERTICAL HAUNCHES. ANY VOIDS RESULTING FROM FORMING SYSTEM ELEMENTS SHALL BE FILLED WITH JOINT SEALER, POLYURETHANE MEETING THE REQUIREMENTS OF SECTION 524. THE COST OF THE JOINT SEALER, POLYURETHANE SHALL BE INCIDENTAL TO THE ADJACENT CONCRETE.

HAUNCH AND SHEAR CONNECTOR DETAIL



H- PILES	LP SIZE
HP 12	6 1/2" x 6 1/2"
HP 14	7 1/2" x 7 1/2"

DETAIL OF PILE SPLICE

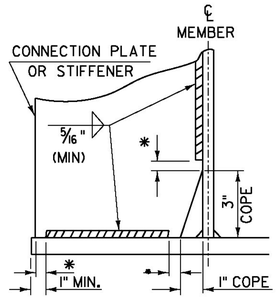
DETAILS ON THIS SHEET ARE "NOT TO SCALE" UNLESS NOTED OTHERWISE.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
JUNE 4, 2010	MODIFIED NOTES

STRUCTURAL STEEL DETAILS & NOTES

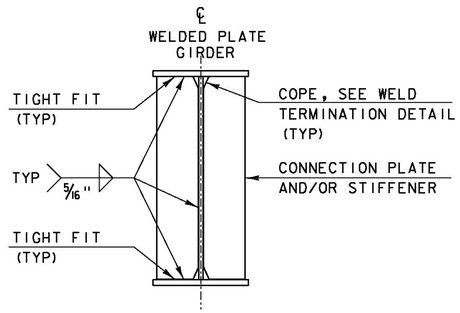
VERMONT AGENCY OF TRANSPORTATION
STRUCTURES - SECTION

STRUCTURES DETAIL
SD-601.00



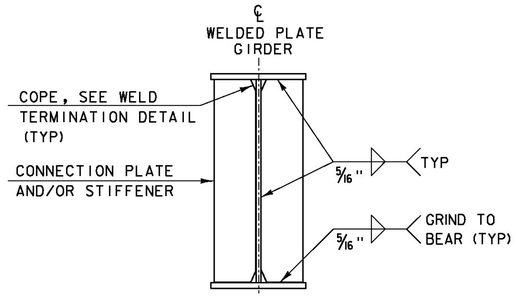
WELD TERMINATION AND COPING DETAILS FOR STEEL MEMBERS

*NO WELD FOR 3/8" MIN. 7/8" MAX. (EXCEPT MUST MAINTAIN 1" MINIMUM FROM EDGE OF FLANGE)

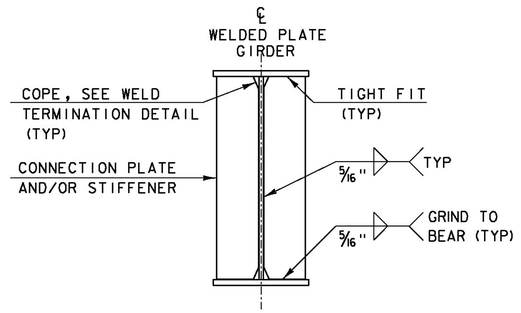


INTERMEDIATE CONNECTION PLATES AND/OR STIFFENERS FOR WELDED PLATE GIRDERS

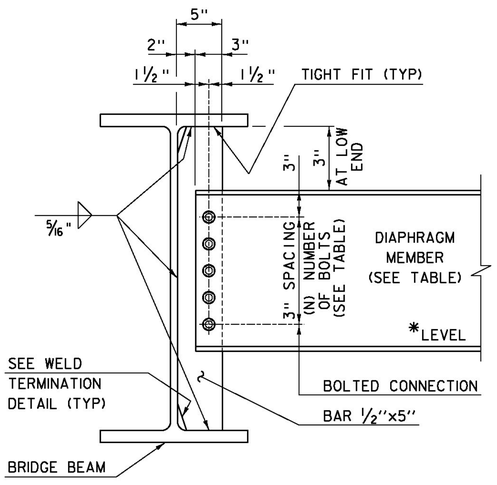
INTERMEDIATE DETAIL IS ONLY USED WHEN PLATE DOES NOT OCCUR AT AN ABUTMENT OR PIER.



ABUTMENT BEARING STIFFENERS AND/OR CONNECTION PLATES FOR WELDED PLATE GIRDERS



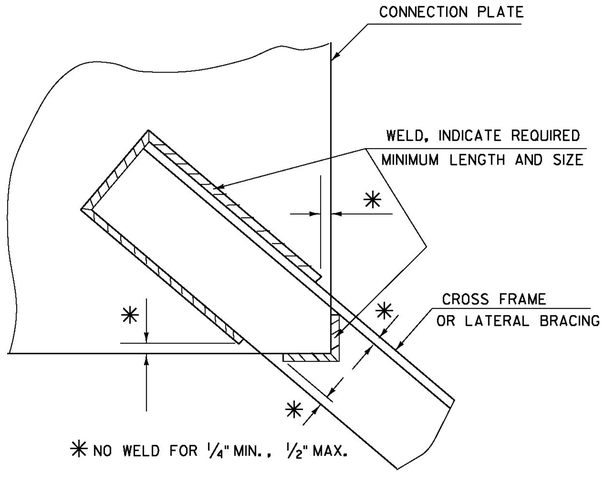
PIER BEARING STIFFENERS AND/OR CONNECTION PLATES FOR WELDED PLATE GIRDERS



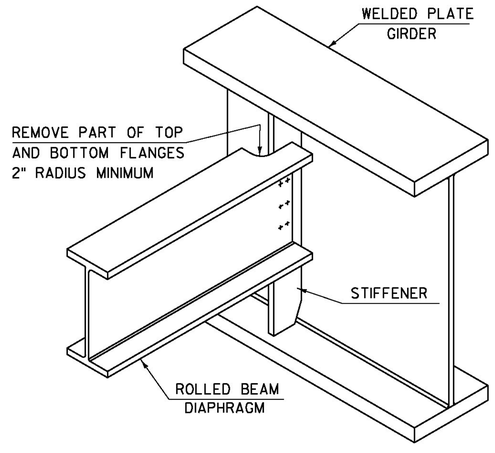
DEPTH		DIAPHRAGM MEMBER	(N) BOLTS
ROLLED BEAM	24" 30"	C15x33.9	4
	31" 36"	MC18x42.7	5
	37" 42"	W21x44	6
PLATE GIRDER WEB	31" 36"	W27x84	7
	37" 42"	W33x118	9
	43" 48"	W36x135	10

INTERMEDIATE DIAPHRAGMS FOR 24" TO 48" BRIDGE BEAMS

*IF CLEARANCE CANNOT BE MET, DIAPHRAGM MAY BE SLOPED.



WELD LOCATION DETAIL AT CROSS FRAMES AND LATERAL BRACING



SEE CONTRACT DRAWINGS FOR SIZES OF MEMBERS AND CONNECTION DETAILS

ROLLED BEAM USED AS DIAPHRAGM

DETAILS ON THIS SHEET ARE "NOT TO SCALE" UNLESS NOTED OTHERWISE.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
MAY 2, 2011	ADD INTERMEDIATE DIAPHRAGMS DETAIL & ADD NOT TO SCALE NOTE

STRUCTURAL STEEL PLATE GIRDER DETAILS AND NOTES

VERMONT AGENCY OF TRANSPORTATION
STRUCTURES - SECTION

STRUCTURES DETAIL
SD-602.00

APPROVED
By Jim Wild at 8:41 am, Jun 02, 2016

J.P. CARRARA & SONS INC.

Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753
Phone:(802)388-6361
Fax:(802)388-9010

Double-Tees | Hollow-Core Plank | Flat Panels
NEBT Girders | Box Girders | NEXT Girders
ABC Components | Stadium Components | Total Precast Components

Non-Conformance Report - 4

Date Submitted:	Tuesday, May 10, 2016
Job Name/No.:	Weston / #23477
Piece Mark #'s:	W-AS4 (1)
Production Date:	5/9/2016
QA Inspector, Co.:	Anna Anderson, Pennoni

➡ Post-pour inspection of the unit identified that the sleeves were cast 2-1/4" closer to the obtuse corner of the slab than indicated on the fabrication drawings - see attached as-built detail.

- ▶ Production personnel and the subsequent QC/QA checks incorrectly used the parallel distance off of the side wall to locate the sleeves rather than the end of the unit. The offset of the side wall from the end wall is 2-1/4" at the 6" location of the sleeves - see dimensioning in RED on the attached as-built detail.
- ▶ The as-built locations of the AS4(1) sleeves shall be coordinated with the CIP anchor dowels. Unit AS4(2) will have the correct sleeve locations. The installer shall be made aware that units AS4(1) and AS4(2) will no longer be interchangeable and must be located per the attached framing plan.

Date: 5/10/16

Prepared By:
Benjamin L. Cota, Production Engineer

enc. As-built AS4(1) sleeve locations
Location details x (2)
CIP projecting bar coordination

Kenneth Bourgie
5/11/16

The Belden Company Inc

23477

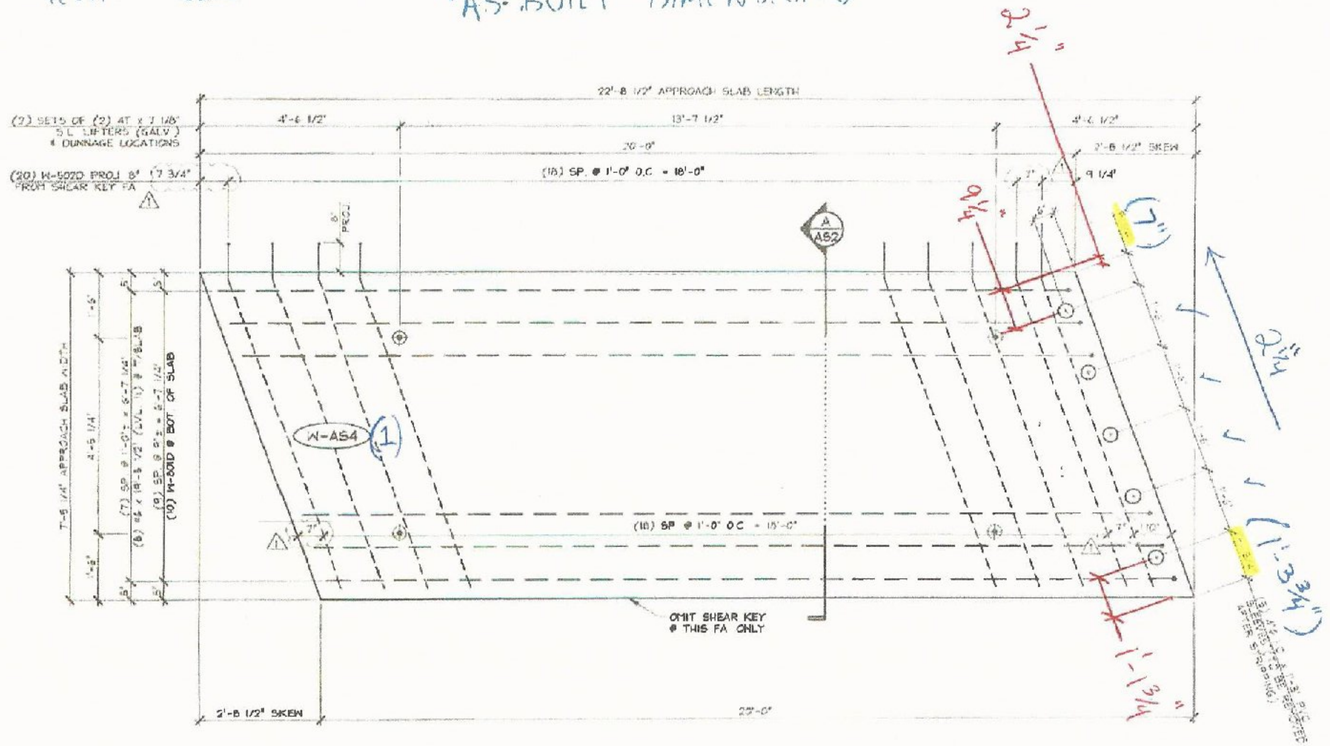
CK'D DATE: 5/9/16

12 CH: SWR

WESTON

APPROACH SLAB W-AS4(1) - -

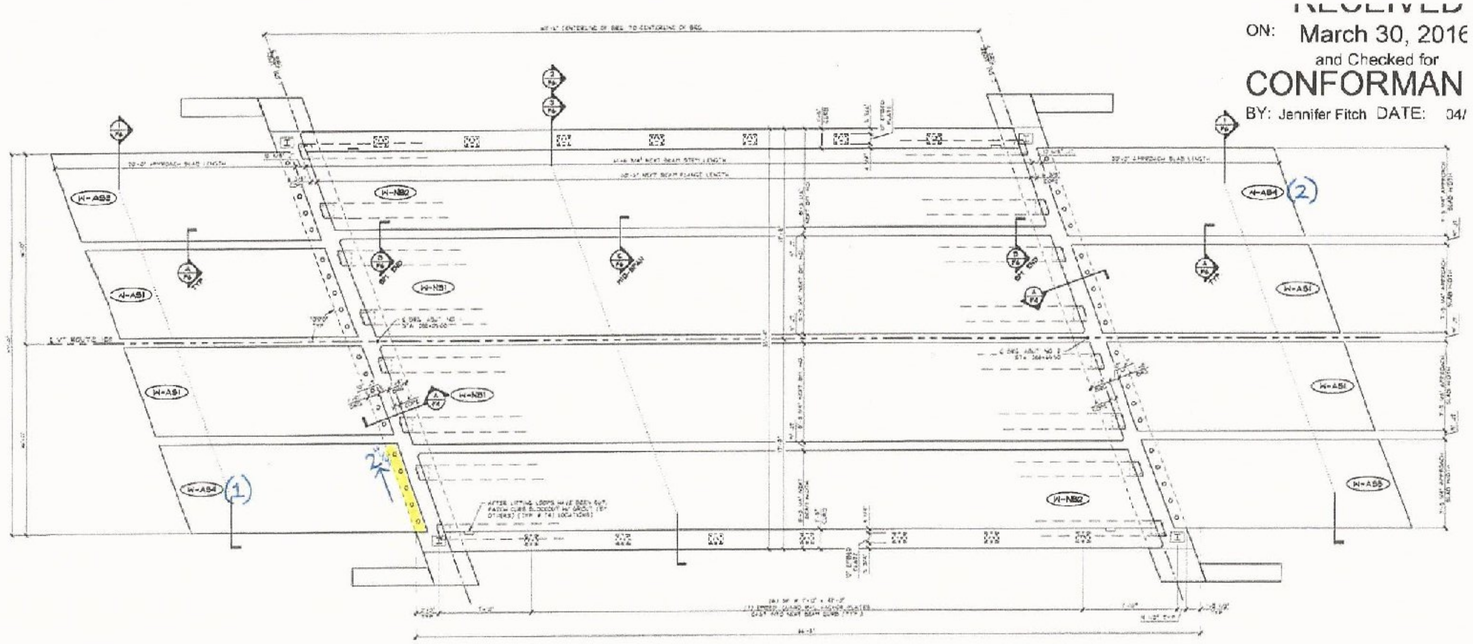
"AS-BUILT" DIMENSIONS



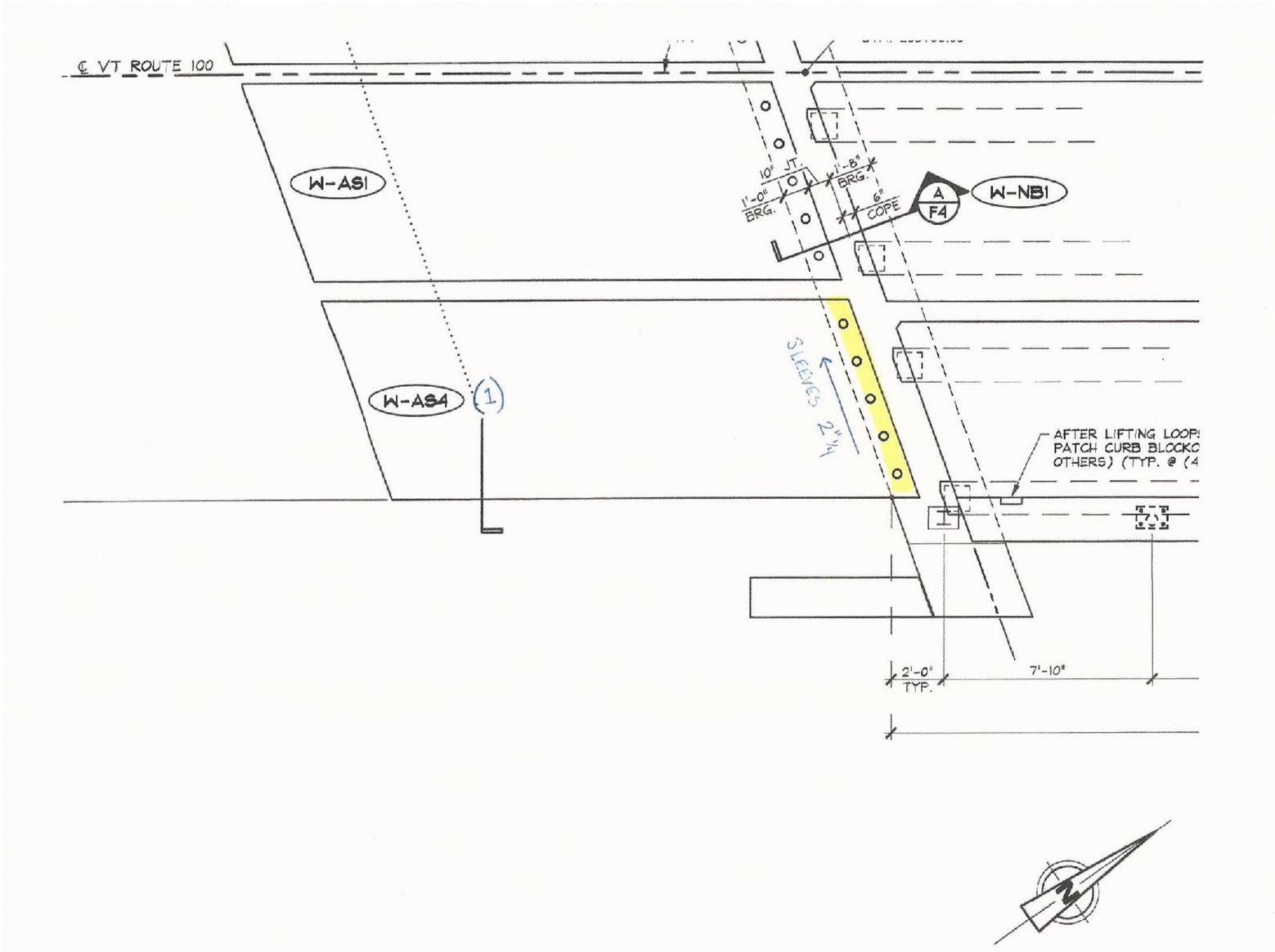
3 AS2 DIMENSIONAL PLAN VIEW IN FORM - "W-AS4"

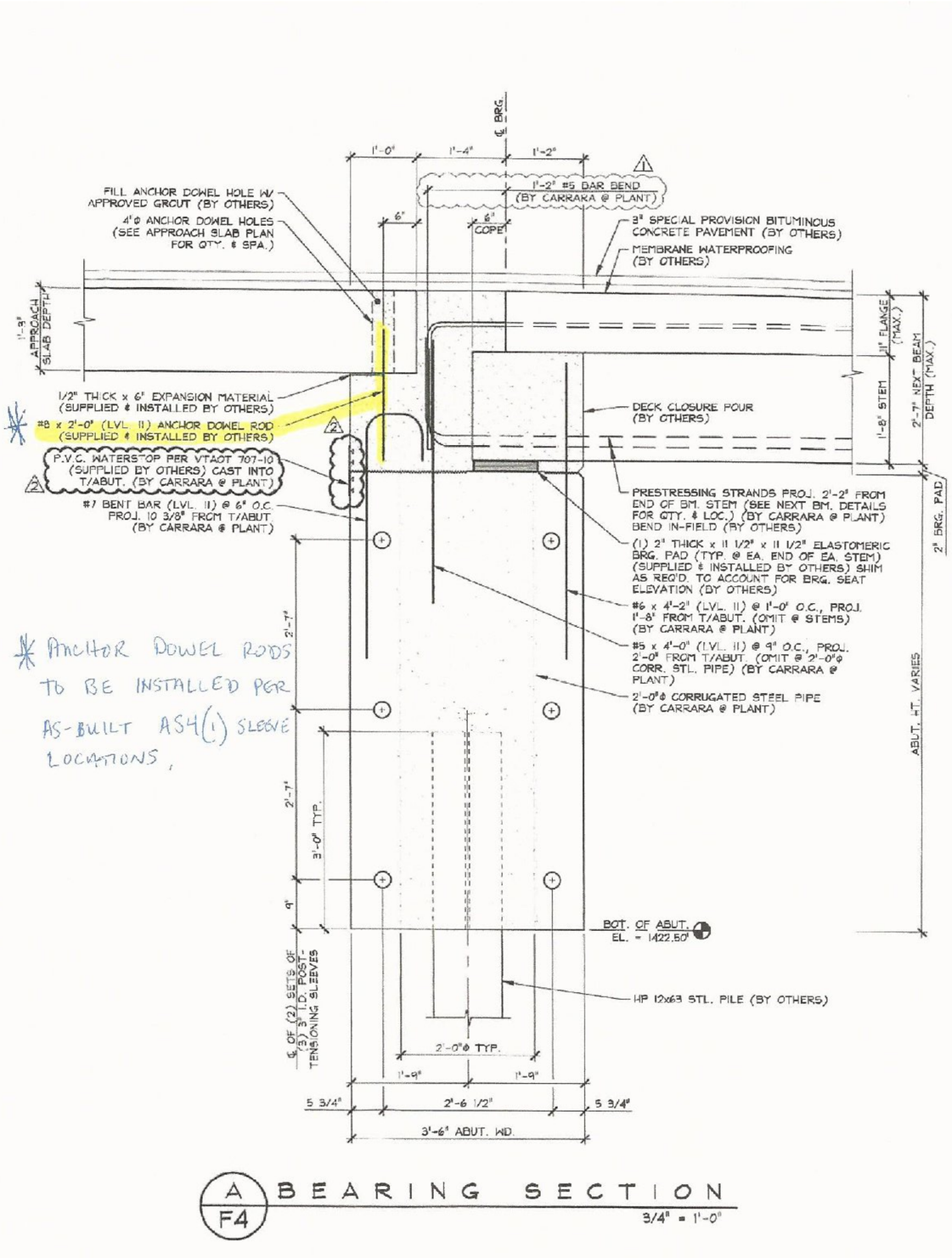
1/2" = 1'-0"

RECEIVED
ON: March 30, 2016
and Checked for
CONFORMAN
BY: Jennifer Fitch DATE: 04/



1 / F5 PRESTRESSED NEXT BEAM LAYOUT & PRECAST APPROACH SLAB LAYOUT


℄ VT ROUTE 100
W-AS1
W-AS4
(1)
10" JT.
1'-8" BRG.
1'-0" BRG.
6" COPE
A
F4
W-NB1
SLEEVES 2"ϕ
AFTER LIFTING LOOP
PATCH CURB BLOCKO
OTHERS) (TYP. @ (4
2'-0" TYP.
7'-10"



* ANCHOR DOWEL RODS TO BE INSTALLED PER AS-BUILT AS4(1) SLEEVE LOCATIONS.

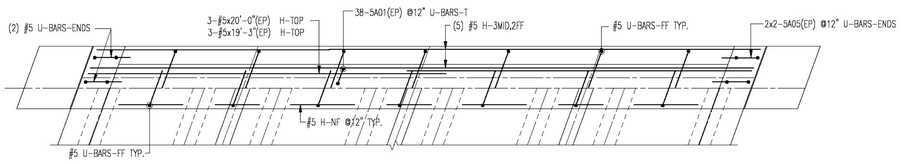
A / F4 BEARING SECTION

3/4" = 1'-0"

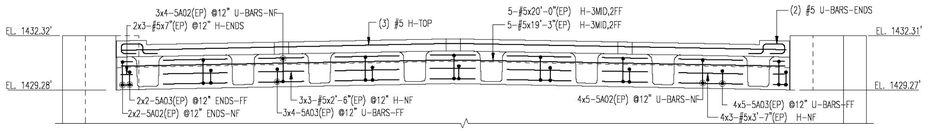
1/F5 PRESTRESSED NEXT BEAM LAYOUT & PRECAST APPROACH SLAB LAYOUT

RECEIVED
ON: March 30, 2016
and Checked for
CONFORMAN
BY: Jennifer Fitch DATE: 04/

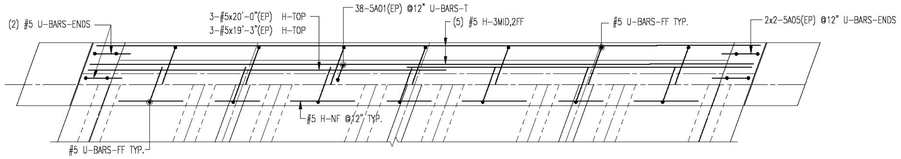
APPROVED
By Jim Wild at 8:42 am, Jun 02, 2016



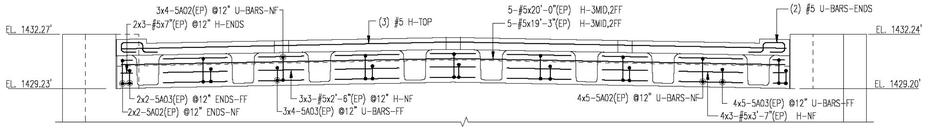
ABUTMENT 1 CLOSURE POUR TOP VIEW



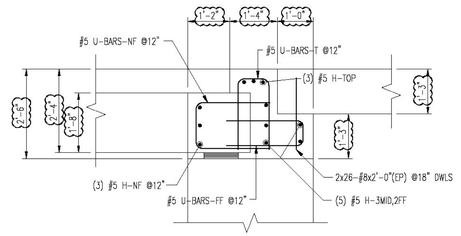
ABUTMENT 1 CLOSURE POUR ELEVATION



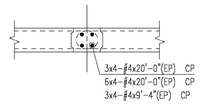
ABUTMENT 2 CLOSURE POUR TOP VIEW



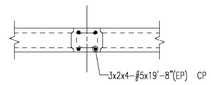
ABUTMENT 2 CLOSURE POUR ELEVATION



ABUTMENT CLOSURE POUR SECTION

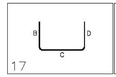


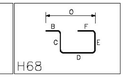
DECK CLOSURE POUR REINF.



APPROACH SLAB CLOSURE POUR

Drawing Sheet : R01					BAR LIST											
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'X'
5A01	76	#5	4'-11"	17		2'-0"	11"	2'-0"								
5A02	72	#5	5'-4"	17		2'-1"	1'-4"	2'-1"								
5A03	72	#5	5'-1"	17		2'-2"	9"	2'-2"								
5A05	8	#5	4'-1"	H68		10"	7"	1'-3"	7"	10"					2'-4"	





ALL MATERIAL ON THIS DRAWING NOTED AS "EP" SHAL BE ASTM A1055 GR60 "DUAL COATED"

PLACING DRAWING APPROVAL AUTHORITY: VERIFICATION OF DIMENSIONS, DETAILS, ETC ARE REQUESTED WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN.

ENG. AND ARCH. PLEASE VERIFY ALL CLOUDED AREAS

LAP CHART-U.N.O.		
#11		
#10		
#9		
#8		
#7		
#6		
#5	26"	26"
#4		
#3		
SIZE	TOP BARS ★	OTHER BARS

★ -Top bars are horz. bars with more than 12" of concrete cast below the bars.

No.	Description	Date	By
0	APPROVAL PRINT	01/11/16	CPS

Revisions and Issue Record

The full intent and purpose of this drawing is the placing of reinforcing steel bars ONLY. It is NOT to be used as a means of communication between the Architect, Engineer, Contractor or any other Sub-trades.

THIS DRAWING IS NOT TO BE SCALED.

HarrisRebar Barker Steel
National Strength. Local Service.

DETAILED AT:
CANAAN
NEW HAMPSHIRE

Project: WESTON BF 013-2(13)
WESTON VT 05161

Drawing: CLOSURE POURS
REINFORCEMENT

Customer: THE BELDON CO.

Engineer: VHB

Refer to Release:

Date	Drawn	Chkd.	JOB No.	Dwg. No.
01/10/16	CPS		33505888	R01

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