Record Plans
Contractor: PIKE INDUSTRIES, INC.
Resident Engineer: THOMAS A. CHASE
Construction Began: 07/12/2018
Construction Complete: 07/24/2019
Record Plans By: THOMAS A. CHASE

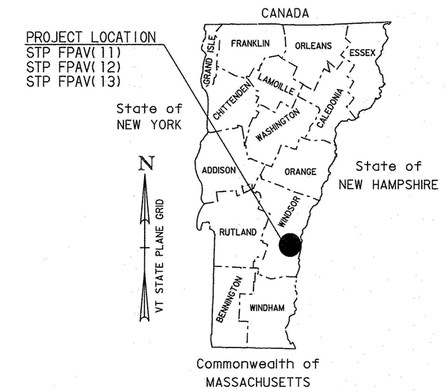
I hereby certify that all construction required by this set of drawings has been accomplished as indicated herein.

BY: E-SIGNED by Thomas Chase on 2020-01-13 16:25:10 GMT Resident Engineer

Date: January 13, 2020

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.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



COMPOSITE
PROPOSED IMPROVEMENT
TOWNS OF CAVENDISH, READING, WEATHERSFIELD, WEST WINDSOR AND WINDSOR
COUNTY OF WINDSOR
VERMONT ROUTE 44, 44A & 106 (MAJOR COLLECTORS)

READING-WINDSOR
STP FPAV(11)
VT ROUTE 44
SHEET #9

BEGINNING AT THE VT. ROUTE 106/VT. ROUTE 44 INTERSECTION (MM 0.000) IN THE TOWN OF READING AND EXTENDING APPROXIMATELY 6.853 MILES EASTERLY ALONG VT. ROUTE 44 TO MM 1.607 IN THE TOWN OF WINDSOR.

LENGTH OF ROADWAY = 6.853 MILES (36,183.84 FEET)
LENGTH OF PROJECT = 6.853 MILES (36,183.84 FEET)

WEATHERSFIELD-READING
STP FPAV(12)
VT ROUTE 106
SHEET #26

BEGINNING ON VT. ROUTE 106 IN WEATHERSFIELD AT MM 4.290 AND EXTENDING NORTHERLY ALONG VT. ROUTE 106 A DISTANCE OF 10.624 MILES (56,189.76 FT) TO MM 7.277 IN THE TOWN OF READING.

LENGTH OF ROADWAY = 10.624 MILES (56,189.76 FT)
LENGTH OF PROJECT = 10.624 MILES (56,189.76 FT)

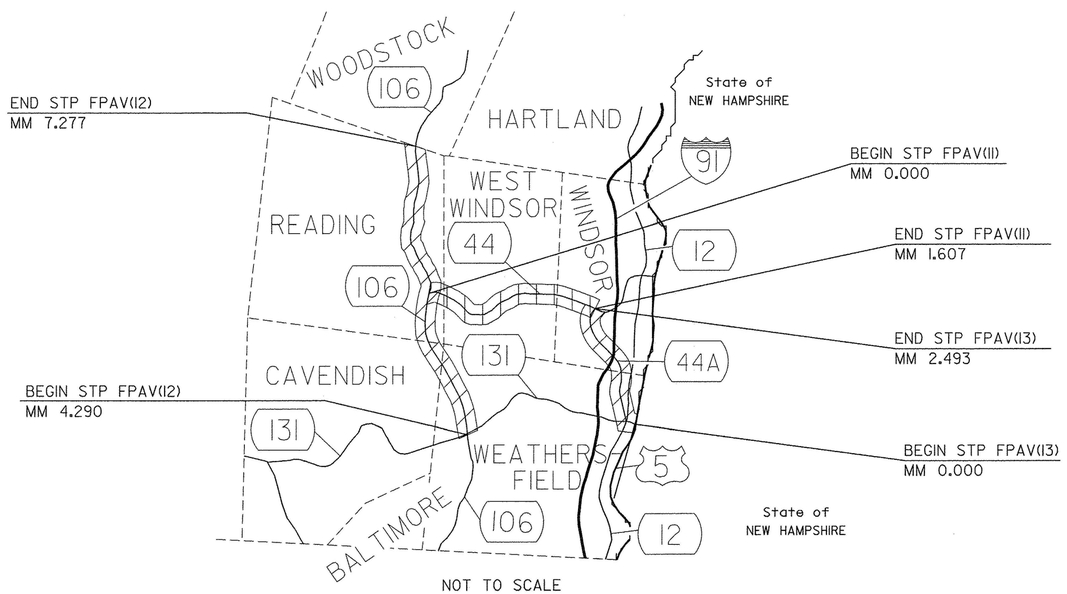
WEATHERSFIELD-WINDSOR
STP FPAV(13)
VT ROUTE 44A
SHEET #37

BEGINNING AT THE U.S. ROUTE 5 AND VT. ROUTE 44A INTERSECTION (MM 0.000) IN THE TOWN OF WEATHERSFIELD AND EXTENDING NORTHERLY APPROXIMATELY 2.994 MILES ALONG VT. ROUTE 44A TO MM 2.493 AT THE INTERSECTION OF VT. ROUTE 44A AND VT. ROUTE 44 IN THE TOWN OF WINDSOR.

LENGTH OF ROADWAY = 2.994 MILES (15,808.32 FEET)
LENGTH OF PROJECT = 2.994 MILES (15,808.32 FEET)

TOTAL LENGTH OF PROJECTS = 20.471 MILES (108,086.880 FEET)

WORK TO BE PERFORMED UNDER THESE PROJECTS INCLUDES PAVING THE EXISTING HIGHWAY, GUARDRAIL, PAVEMENT MARKINGS AND OTHER HIGHWAY RELATED ITEMS.



NOT TO SCALE

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 3
SURVEYED BY : N/A SURVEYED DATE : N/A
DATUM VERTICAL: N/A HORIZONTAL: N/A

DIRECTOR OF PROJECT DELIVERY
APPROVED _____ DATE 3/29/2018

PROJECT MANAGER : BRANDON W. KIPP, P.E.

PROJECT NAME : READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR

PROJECT NUMBER : STP FPAV(11), STP FPAV(12) & STP FPAV(13)

SHEET 1 OF 53 SHEETS

COMPOSITE SHEETS

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4	COMPOSITE PROJECT NOTES SHEET
5	COMPOSITE HANDWORK DETAIL SHEET
6-7	COMPOSITE GUARDRAIL DETAIL SHEETS
8	COMPOSITE EROSION CONTROL DETAIL SHEET

STP FPAV(11) SHEETS

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10	PROJECT INFORMATION SHEET
11-13	TYPICAL AND DETAIL SHEETS
14-16	QUANTITY SHEETS
17-18	ITEM DETAIL SHEETS
19-25	PLAN SHEETS
26	BRIDGE DETAIL SHEET
27	PAVEMENT MARKING DETAIL SHEET
28	CONSTRUCTION APPROACH SIGNING SHEET

STP FPAV(12)

29	TITLE SHEET
30	PROJECT INFORMATION SHEET
31-33	TYPICAL AND DETAIL SHEETS
34-36	QUANTITY SHEETS
37	ITEM DETAIL SHEETS
38-40	PLAN SHEETS
41	BRIDGE DETAIL SHEET
42	CONSTRUCTION APPROACH SIGNING SHEET

STP FPAV(13)

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44	PROJECT INFORMATION SHEET
45	TYPICAL AND DETAIL SHEETS
46-47	QUANTITY SHEETS
48	ITEM DETAIL SHEETS
49-51	PLAN SHEETS
52	BRIDGE DETAIL SHEET
53	CONSTRUCTION APPROACH SIGNING SHEET

HIGHWAY SAFETY & DESIGN DETAILS

HSD-400.01 SAFETY EDGE DETAILS	01-05-18
HSD-621.01 POST AND BLOCKOUT DETAILS FOR STEEL BEAM GUARDRAIL, GALVANIZED	06-09-15
HSD- 621.06 GUARDRAIL TERMINAL LABEL DETAIL	02-27-17

STRUCTURES DETAIL SHEET

STRUCTURAL DETAIL SD-516.10	08-29-11

VTRANS STANDARDS

B-71	07/08/05
E-191	02/01/99
E-193	08/18/95
G-1	03/10/17
G-1D	03/10/17
G-16	06/01/94
S-366	02/10/14
T-1	04/25/16
T-10	08/06/12
T-17	08/06/12
T-24	08/06/12
T-28	08/06/12
T-29	08/06/12
T-30	08/06/12
T-31	08/06/12
T-35	08/06/12
T-36	08/06/12
T-40	01/02/13
T-45	01/02/13
T-56	10/26/15

PROJECT NAME: READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR

PROJECT NUMBER: STP FPAV(11), STP FPAV(12) & STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn | PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP | DRAWN BY: N. PAPPAS
DESIGNED BY: L. BULLOCK/N. PAPPAS | CHECKED BY: B. KIPP
COMPOSITE INDEX OF SHEETS | SHEET 2 OF 53

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
	HWY	HIGHWAY EASEMENT
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⧈	BNDNS	BOUND TO BE SET
●	IPNS	IRON PIN SET
◎	IPNS	IRON PIN TO BE SET
⊠	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[LENGTH]		LENGTH 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

- CZ — CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH ℄
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PDF — PROJECT DEMARCATION FENCE
- BF — BARRIER FENCE
- 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 — 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

NOT TO SCALE

PROJECT NAME:	READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(11), STP FPAV(12) & STP FPAV(13)

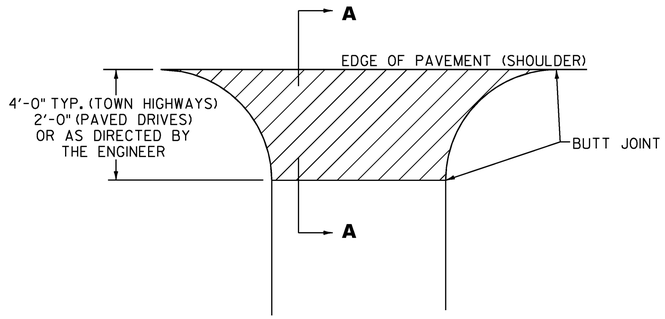
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: L. BULLOCK/N. PAPPAS CHECKED BY: B. KIPP
CONVENTIONAL SYMBOLOGY-LEGEND SHEET 3 OF 53

PROJECT NOTES

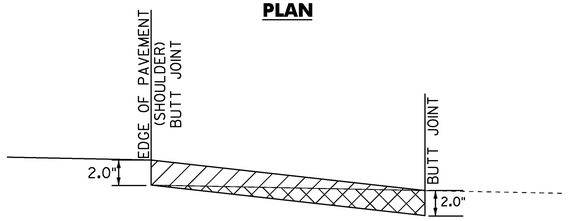
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. ALL PROPOSED WORK TO BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY.
3. EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED TO A DEPTH OF THREE INCHES OR AS DIRECTED BY THE ENGINEER. EXCAVATION SHALL BE PAID UNDER ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I AND ITEM 608.37 TRUCK RENTAL. MATERIAL REMOVED SHALL BE REPLACED WITH ITEM 301.28 SUBBASE OF CRUSHED GRAVEL FINE GRADED AS DIRECTED BY THE ENGINEER. EXCAVATED MATERIAL SHALL BE SPREAD ON THE ADJACENT SLOPES, OR REMOVED FROM THE PROJECT AS DIRECTED BY THE ENGINEER.
4. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR AND RAVELING REPAIRS SHALL BE PERFORMED FOLLOWING COLD PLANING AND PRIOR TO PAVING. THE PATCHING OF ALL CRACKS GREATER THAN ONE INCH AND POT HOLE REPAIR SHALL BE COMPLETED WITH ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I). AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED.
5. THE CONTRACTOR SHALL USE CAUTION WHEN COLD PLANING AND PAVING OPERATIONS OCCUR ON BRIDGE DECKS. SHOULD ANY DAMAGE OCCUR TO THE DECK OR MEMBRANE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, THE ENGINEER SHALL CONTACT THE VAOT CONSTRUCTION STRUCTURES ENGINEER TO PROVIDE AN ASSESSMENT OF THE DAMAGE AND RECOMMEND ANY NECESSARY REPAIRS. THE CONSTRUCTION STRUCTURES ENGINEER WILL ALSO DETERMINE IF THE DAMAGE WAS AVOIDABLE. IF THE CONTRACTOR IS DETERMINED BY THE ENGINEER TO BE AT FAULT FOR THE DAMAGE, THE RECOMMENDED REPAIRS SHALL BE COMPLETED BY THE CONTRACTOR AT NO COST TO THE STATE.
6. PAVEMENT WILL BE AN ALTERNATE AND PAID UNDER ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER) OR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER).
7. ALL BITUMINOUS CONCRETE PAVEMENT TOLERANCE = 1/4" +/- (TOTAL THICKNESS EXCLUDING LEVELING COURSE).
8. EMULSIFIED ASPHALT SHALL BE APPLIED AS A TACK COAT ON ALL EXISTING OR COLD PLANED PAVEMENT SURFACES AT THE RATE OF 0.080 GAL/SY AND BETWEEN ALL COURSES OF BITUMINOUS CONCRETE AT THE RATE OF 0.025 TO 0.040 GAL/SY. EMULSIFIED ASPHALT WILL BE PAID UNDER ITEM 404.65 EMULSIFIED ASPHALT OR ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H)
9. IF ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER) ALTERNATE IS SELECTED, THE WEARING COURSE AND LEVELING COURSE SHALL BE TYPE IV MEDIUM DUTY BITUMIONOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER). ALL PG GRADED ASPHALT CEMENT USED IN THE MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT SHALL BE AS SPECIFIED IN THE PLANS AND IN SUBSECTION 406.03(b). IF ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER) IS SELECTED, THE WEARING COURSE AND LEVELING COURSE SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER). ALL PG GRADED ASPHALT CEMENT USED IN THE SUPERPAVE BITUMINOUS CONCRETE PAVEMENT SHALL BE AS SPECIFIED IN SUBSECTION 490.03(b) OR NOTED IN THE PLANS.
10. ITEM 406.28 AIR VOIDS PAY ADJUSTMENT (N.A.B.I.) PAY ITEM WILL BE REQUIRED FOR ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER) OR ITEM 490.31 AIR VOIDS PAY ADJUSTMENT (N.A.B.I.) WILL BE REQUIRED FOR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER).
11. EDGES OF PAVEMENT SHALL INCLUDE A SAFETY EDGE. SEE SAFETY EDGE DETAILS (HIGHWAY SAFETY & DESIGN DETAIL HSD-400.01).
12. ALL SIDE ROADS ARE TO BE PAVED FOUR FEET FROM THE EDGE OF MAINLINE SHOULDER UNLESS OTHERWISE SPECIFIED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
13. ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDER MATERIALS AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID UNDER ITEM 900.680 SPECIAL PROVISION (AGGREGATE SHOULDERS, RAP WITH RAS).
14. ALL PAVED AND GRAVEL RESIDENTIAL, COMMERCIAL, FIELD AND WOOD DRIVES SHALL RECEIVE A TWO FOOT PAVED APRON UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL REQUIRED EXCAVATION AND ASSOCIATED DRIVE GRADING IN DRIVE AREAS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE NEW BITUMINOUS SURFACE SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER AND WILL BE PAID FOR UNDER ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES). BITUMINOUS CONCRETE MATERIAL PLACED BY MECHANICAL METHODS AT THESE LOCATIONS IS EXCLUDED. ALL OTHER BITUMINOUS MATERIALS PLACED WITHIN THE PROJECT LIMITS, WHETHER BY HAND OR MECHANICAL METHODS, WILL BE PAID UNDER ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER) OR ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28) (SBS POLYMER) AS APPLICABLE.
15. ESTIMATED QUANTITES OF ITEM 608.25 ALL PURPOSE EXCAVATOR RENTAL, TYPE I, ITEM 608.37 TRUCK RENTAL AND ITEM 608.40 LOADER RENTAL HAVE BEEN INCLUDED FOR REMOVING BUILT UP SAND, SOD, ETC. ADJACENT TO THE SHOULDER, IN NON-GUARDRAIL AREAS, TO ALLOW FREE DRAINAGE OFF THE SHOULDER AS DIRECTED BY THE ENGINEER.
16. AN ESTIMATED QUANTITY OF ITEM 203.40 SHOULDER BERM REMOVAL HAS BEEN INCLUDED FOR THE REMOVAL OF BUILT UP SAND, SOD, ETC. ADJACENT TO THE SHOULDER, IN RETAINED GUARDRAIL AREAS TO ALLOW FREE DRAINAGE OFF THE SHOULDERS.
17. 3'-7" OF BACKING IS REQUIRED BEHIND THE FACE OF GUARDRAIL WITH SIX FOOT POSTS. PAYMENT WILL BE MADE UNDER ITEM 621.20 STEEL BEAM GUARDRAIL, GALVANIZED.
18. AN ESTIMATED QUANTITY OF ITEM 203.30 EARTH BORROW HAS BEEN INCLUDED FOR USE WITH THE GUARDRAIL END TERMINAL AREAS AND 25 CY OF ITEM 203.30 EARTH BORROW HAS BEEN ESTIMATED FOR EACH NEW END TERMINAL AREA. GUARDRAIL END TERMINAL AREAS SHALL BE CAPPED WITH AN ESTIMATED THREE INCH DEPTH OF ITEM 651.35 TOPSOIL UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE QUANTITIES INCLUDED REFLECT FIVE CY OF ITEM 651.35 TOPSOIL FOR EACH NEW GUARDRAIL END TERMINAL AREA. ITEM 653.20 TEMPORARY EROSION MATTING SHALL BE PLACED ON SLOPES GREATER THAN 1:6 CREATED BY THE GUARDRAIL END TERMINAL AREA. PRIOR TO THE PLACEMENT OF TEMPORARY EROSION MATTING, THE AREA SHALL BE TOPSOILED AND SEEDED USING ITEM 651.35 TOPSOIL AND ITEM 651.15 SEED.
19. ANY DI'S, CROSS CULVERTS OR OTHER DRAINAGE FEATURES DAMAGED BY CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE. IF COLD PLANING AROUND EXISTING DROP INLETS, CATCH BASINS, AND MANHOLES CAN'T BE ACHIEVED TO MAINTAIN DRAINAGE, AN ESTIMATE USING ITEM 604.412 REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I HAS BEEN INCLUDED.
20. WHEN AN EXTENSIVE PORTION OF THE GUARDRAIL HEIGHT IS ABOVE 29 INCHES OR BELOW 26.5 INCHES IT SHALL BE ADJUSTED TO CONFORM TO THE CURRENT HEIGHT REQUIREMENTS FOR GUARDRAIL. PAYMENT WILL BE MADE UNDER ITEM 621.79 ADJUST HEIGHT OF GUARDRAIL. 3'-7" OF BACKING IS REQUIRED BEHIND THE FACE OF GUARDRAIL WITH SIX FOOT POSTS. PAYMENT WILL BE MADE UNDER ITEM 621.20 STEEL BEAM GUARDRAIL, GALVANIZED..
21. AN ESTIMATED QUANTITY OF STONE FILL, TYPE I HAS BEEN INCLUDED IN THE READING-WINDSOR STP FPAV(11) AND WEATHERSFIELD-WINDSOR STP FPAV(13) PROJECTS TO FILL IN AREAS OF WASHOUT ALONG GUARDRAIL.
22. ALL EXISTING PAVED PULL-OFFS SHALL BE PAVED WITH THE APPROPRIATE LEVELING COURSE AND OVERLAY OR AS DIRECTED BY THE ENGINEER.

PROJECT NAME:	READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(11), STP FPAV(12) & STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: L. BULLOCK/N. PAPPAS	CHECKED BY: B. KIPP
COMPOSITE PROJECT NOTES SHEET	SHEET 4 OF 53

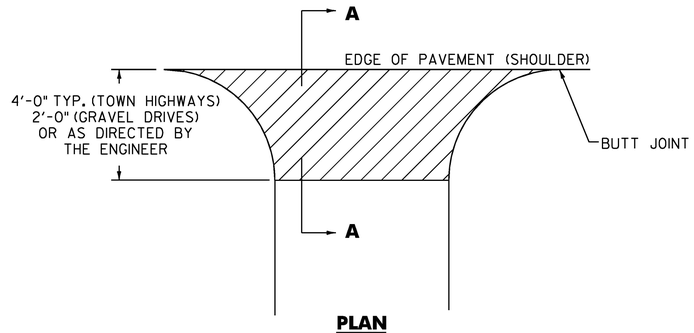


PLAN



SECTION A – A

HANDWORK DETAILS FOR PAVED TOWN HIGHWAYS AND DRIVES



PLAN



IF ADDITIONAL MATERIAL IS REQUIRED, THE CONTRACTOR SHALL USE AGGREGATE SHOULDERS, RAP WITH RAS. (PAYMENT WILL BE INCIDENTAL TO ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES))

SECTION A – A

HANDWORK DETAILS FOR GRAVEL TOWN HIGHWAYS AND DRIVES

NOTES

1. PAVING LIFT NOT TO EXCEED 2.0 INCHES.

2. THE COST OF PLACING SUBBASE MATERIAL, CLEANING EXISTING PAVED SURFACES, INCLUDING POWER EQUIPMENT, AND FOR FILLING JOINTS, CRACKS AND HOLES AT LEAST 24 HOURS BEFORE PAVING, WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675, SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).

3. EXCAVATION NEEDED TO ACHIEVE PROPER DRIVE AND PULLOFF SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675, SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).

4. COLD PLANING FOR DRIVES WILL MEET THE REQUIREMENTS OF SECTION 210 AS APPLICABLE. PAYMENT FOR COLD PLANED AREAS REQUIRED FOR DRIVES WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675 SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES).

LEGEND

ITEM 900.675 - SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)

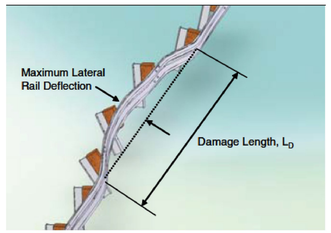
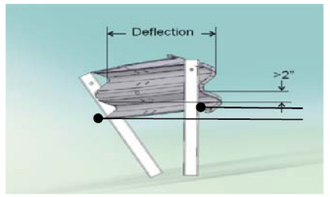
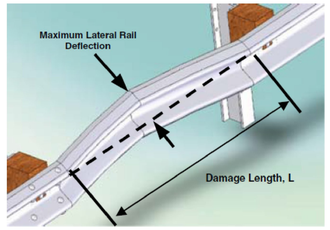
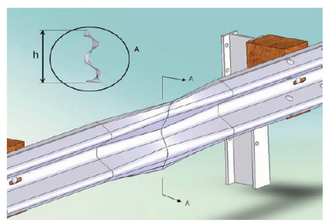
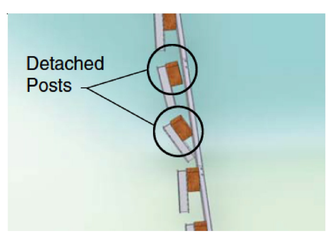
COLD PLANE AREA

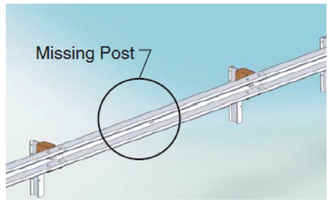
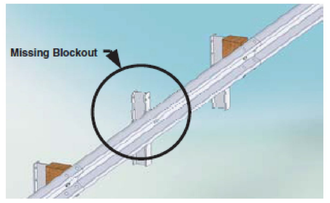
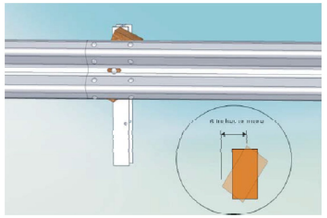
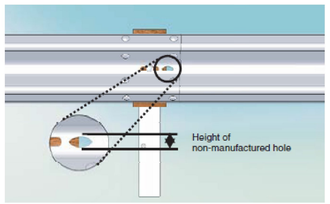
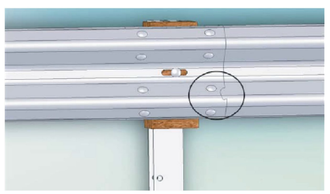
NOT TO SCALE

PROJECT NAME:	READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(11), STP FPAV(12) & STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: L. BULLOCK/N. PAPPAS	CHECKED BY: B. KIPP
COMPOSITE HANDWORK DETAIL SHEET	SHEET 5 OF 53

GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
POST AND RAIL DEFLECTION	ONE OR MORE OF THE FOLLOWING THRESHOLDS: • MORE THAN 9 IN. LATERAL DEFLECTION ANYWHERE OVER A 25 FT LENGTH OF RAILTOP OF RAIL • HEIGHT 2 OR MORE INCHES LOWER THAN ORIGINAL TOP OF RAIL HEIGHT	HIGH	
	6-9 IN. LATERAL DEFLECTION ANYWHERE OVER A 25-FT LENGTH OF RAIL	MEDIUM	
	LESS THAN 6 IN. OF LATERAL DEFLECTION OVER A 25-FT LENGTH OF RAIL	LOW	(WEAK POST W-BEAM SHOWN ONLY FOR CLARITY. EACH MEASUREMENT TAKE AT THE RAIL'S MIDDLE FOLD)
RAIL DEFLECTION ONLY	6-9 IN. OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS. NOTE: FOR DEFLECTION OVER 9 IN., USE POST/RAIL DEFLECTION GUIDELINES	MEDIUM	
	LESS THAN 6 IN. OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS	LOW	
RAIL FLATTENING	ONE OR MORE OF THE FOLLOWING THRESHOLDS: • RAIL CROSS SECTION HEIGHT MORE THAN 17 IN. (SUCH AS MAY OCCUR IF RAIL IS FLATTENED) • RAIL CROSS SECTION HEIGHT LESS THAN 9 IN. (SUCH AS A DENT TO TOP EDGE)	MEDIUM	
	RAIL CROSS SECTION HEIGHT BETWEEN 9 AND 17 IN.	LOW	
POSTS SEPARATED FROM RAIL	• 2 OR MORE POSTS WITH BLOCKOUT ATTACHED WITH POST/RAIL SEPARATION LESS THAN 3 IN. • 1 OR MORE POSTS WITH POST/RAIL SEPARATION WICH EXCEEDS 3 IN.	MEDIUM	
	• 1 POST, WITH BLOCKOUT ATTACHED, WIT POST/RAIL SEPARATION LESS THAN 3 IN.	LOW	NOTE: 1. IF THE BLOCKOUT IS NOT FIRMLY ATTACHED TO THE POST. USE THE MISSING BLOCKOUT GUIDELINES. 2. DAMAGE SHOULD ALSO BE EVALUATED AGAINST POST/RAIL DEFLECTION GUIDELINES.

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
POST AND RAIL DEFLECTION	ONE OR MORE POSTS • MISSING • CRACKED ACROSS THE GRAIN • BROKEN • ROTTED • WITH METAL TEARS	HIGH	
MISSING BLOCKOUT	ANY BLOCKOUTS • MISSING • CRACKED ACROSS THE GRAIN • CRACKED FROM TOP OR BOTTOM OF BLOCK OUT • ROTTED	MEDIUM	
TWISTED BLOCKOUTS	ANY MISALIGNED BLOCKOUTS, TOP EDGE OF BLOCK 6 IN. OR MORE FROM BOTTOM EDGE NOTE: REPAIRS OF TWISTED BLOCKOUT ARE RELATIVELY QUICK AND INEXPENSIVE	LOW	
DAMAGE AT A RAIL SPLICE	MORE THAN 1 SPLICE BOLT: • MISSING • DAMAGED • VISIBLY MISSING ANY UNDERLYING RAIL • TORN THROUGH RAIL	HIGH	
	1 SPLICE BOLT: • MISSING • DAMAGED • VISIBLY MISSING ANY UNDERLYING RAIL • TORN THROUGH RAIL	MEDIUM	
	• MORE THAN 2 HOLES LESS THAN 1 IN. HEIGHT IN A 12.5-FT LENGTH OF RAIL • ANY HOLES GREATER THAN 1 IN. IN HEIGHT • ANY HOLE WHICH INTERSECTS EITHER THE TOP OR BOTTOM EDGE OF THE RAIL.	HIGH	
	1-2 HOLES LESS TH AN 1 IN. IN HEIGHT IN A 12.5-FT LENGTH OF RAIL	MEDIUM	

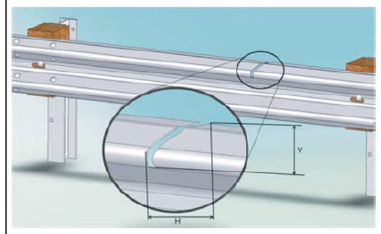
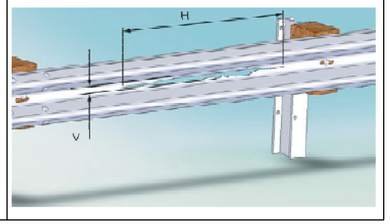
NOTES:

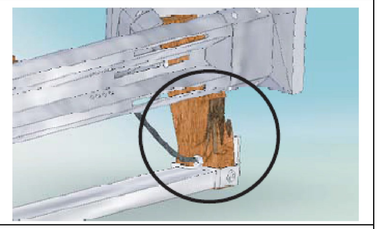
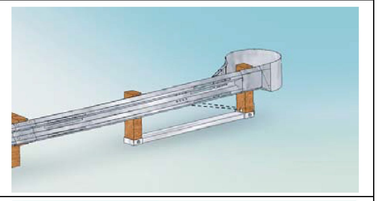
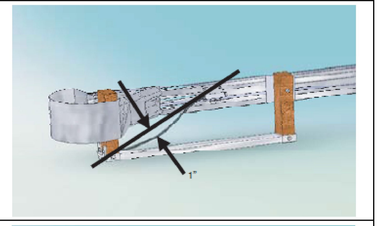
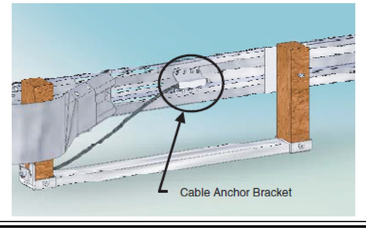
1. THESE ARE GUIDELINES FOR THE EVALUATION OF EXISTING GUARDRAIL. THESE ARE GUIDELINES ONLY AND THE CONTRACTOR SHALL REPLACE GUARDAIL AS DIRECTED BY THE ENGINEER.
2. GUIDELINES ARE FROM THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 656, "CRITERIA FOR RESTORATION OF LONGITUDINAL BARRIERS", COPYRIGHT 2010.

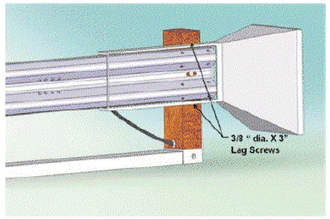
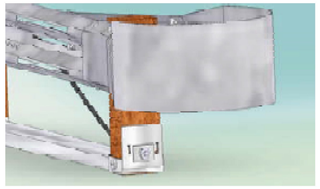
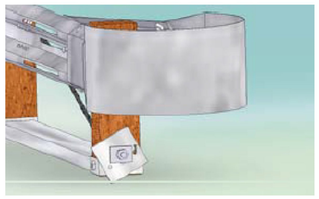
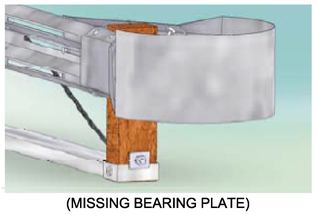
PROJECT NAME:	READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(11), STP FPAV(12) & STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: L. BULLOCK/N. PAPPAS CHECKED BY: B. KIPP
COMPOSITE GUARDRAIL DETAIL SHEET 1 SHEET 6 OF 53

GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
VERTICAL TEAR	ANY LENGTH VERTICAL (TRANSVERSE) TEAR	HIGH	
HORIZONTAL TEAR	HORIZONTAL (LONGITUDINAL) GREATER THAN 12 IN. LONG AND GREATER THAN 0.5 IN. WIDE NOTE: FOR HORIZONTAL TEARS LESS THAN 12 IN. IN LENGTH OR LESS THAN 0.5 IN. IN HEIGHT, USE THE NON-MANUFACTURED HOLES GUIDELINES	MEDIUM	

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
DAMAGED END POST	NOT FUNCTIONAL (SHEARED, ROTTED CRACKED ACROSS THE GRAIN)	HIGH	
ANCHOR CABLE	MISSING	HIGH	
ANCHOR CABLE	LOOSE - MORE THAN 1 IN. OF MOVEMENT WHEN PUSHED DOWN BY HAND	MEDIUM	
CABLE ANCHOR BRACKET	LOOSE OR NOT FIRMLY SEATED IN RAIL	MEDIUM	

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
STUB HEIGHT	HEIGHT WHICH EXCEEDS 4 IN.	MEDIUM	
LAG SCREWS (ENERGY ABSORBING TERMINALS ONLY)	HEIGHT WHICH EXCEEDS 4 IN.	MEDIUM	
BEARING PLATE	LOOSE OR MISALIGNED	MEDIUM	 (CORRECT BEARING PLATE)  (MISALIGNED BEARING PLATE)
	MISSING BEARING PLATE	HIGH	 (MISSING BEARING PLATE)

NOTES:

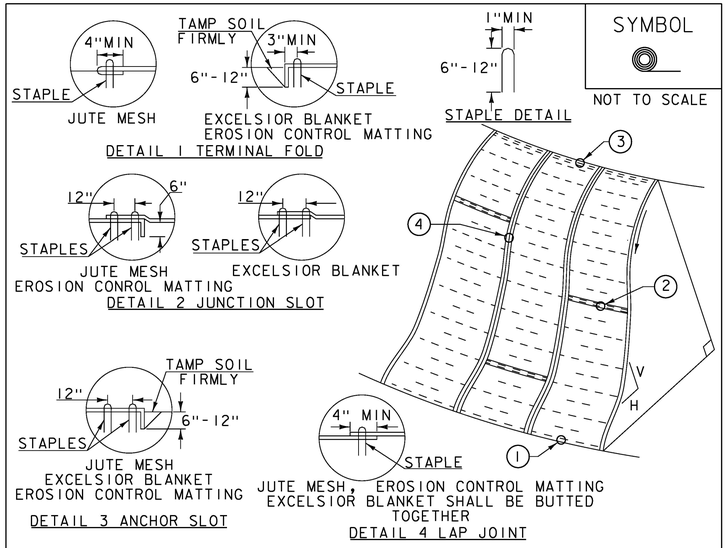
1. THESE ARE GUIDELINES FOR THE EVALUATION OF EXISTING GUARDRAIL. THESE ARE GUIDELINES ONLY AND THE CONTRACTOR SHALL REPLACE GUARDAIL AS DIRECTED BY THE ENGINEER.
2. GUIDELINES ARE FROM THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 656, "CRITERIA FOR RESTORATION OF LONGITUDINAL BARRIERS", COPYRIGHT 2010.

PROJECT NAME: READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR

PROJECT NUMBER: STP FPAV(11), STP FPAV(12) & STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER: B. KIPP
DESIGNED BY: L. BULLOCK/N. PAPPAS
COMPOSITE GUARDRAIL DETAIL SHEET 2

PLOT DATE: 04-APR-2018
DRAWN BY: N. PAPPAS
CHECKED BY: B. KIPP
SHEET 7 OF 53



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

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

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

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) ~~OR PERMANENT EROSION MATTING (PAY ITEM 653.21).~~

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

VAOT 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

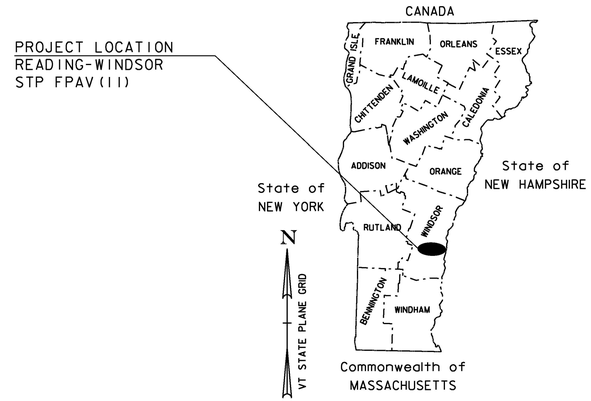
NOT TO SCALE

PROJECT NAME: READING-WINDSOR, WEATHERSFIELD-READING & WEATHERSFIELD-WINDSOR

PROJECT NUMBER: STP FPAV(11), STP FPAV(12) & STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: L. BULLOCK/N. PAPPAS CHECKED BY: B. KIPP
COMPOSITE EROSION CONTROL DETAIL SHEET SHEET 8 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

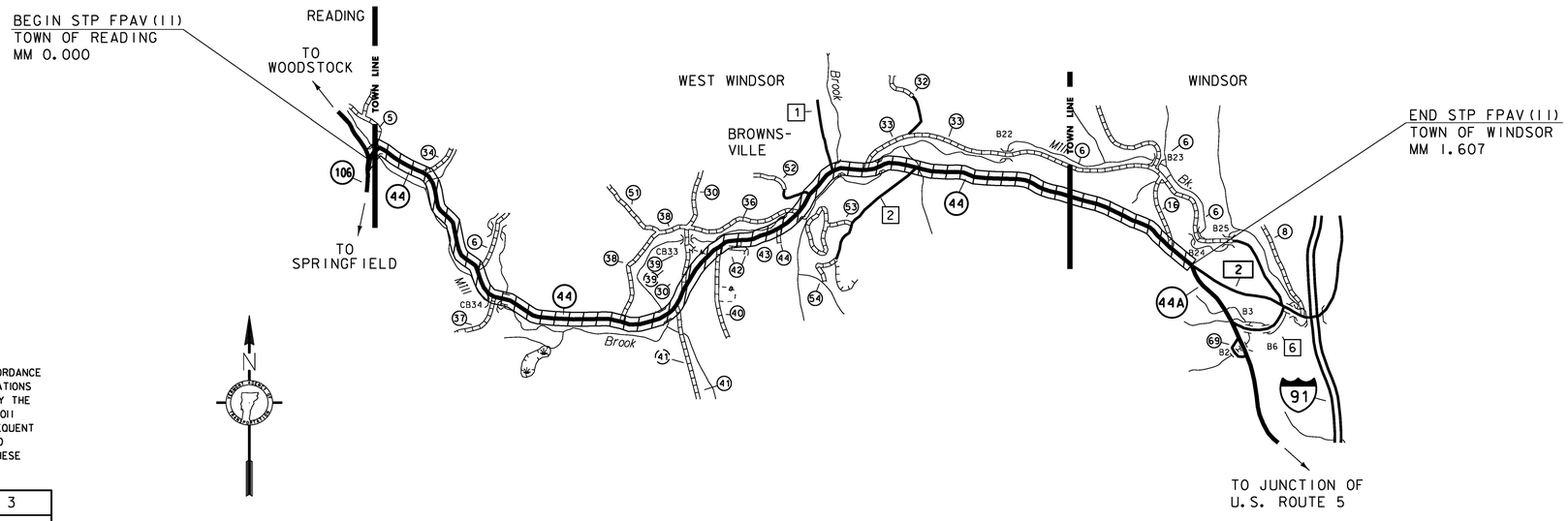


PROPOSED IMPROVEMENT
TOWNS OF READING, WEST WINDSOR, AND WINDSOR
COUNTY OF WINDSOR
VT. ROUTE 44 (MAJOR COLLECTOR)

BEGINNING AT THE VT. ROUTE 106/VT. ROUTE 44 INTERSECTION (MM 0.000) IN THE TOWN OF READING AND EXTENDING APPROXIMATELY 6.853 MILES EASTERLY ALONG VT. ROUTE 44 TO MM 1.607 IN THE TOWN OF WINDSOR.

PROJECT DATA	LENGTH	
READING MM 0.000 - MM 0.202	0.202 MILES	(1,066.56 FEET)
WEST WINDSOR MM 0.000 - MM 5.044	5.044 MILES	(26,632.32 FEET)
WINDSOR MM 0.000 - MM 1.607	1.607 MILES	(8,484.96 FEET)
LENGTH OF ROADWAY =	6.853 MILES	(36,183.84 FEET)
LENGTH OF PROJECT =	6.853 MILES	(36,183.84 FEET)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES PAVING THE EXISTING HIGHWAY, GUARDRAIL, PAVEMENT MARKINGS AND OTHER HIGHWAY RELATED ITEMS.



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 3	
SURVEYED BY :	N/A
SURVEYED DATE :	N/A
DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

NOT TO SCALE

PROJECT MANAGER : BRANDON W. KIPP, P.E.	
PROJECT NAME :	READING-WINDSOR
PROJECT NUMBER :	STP FPAV(11)
SHEET 9 OF 53 SHEETS	

TRAFFIC DATA

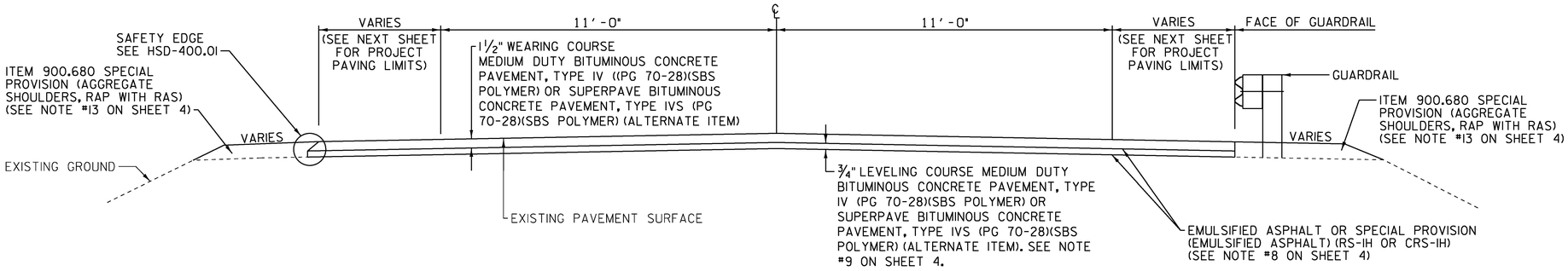
VT ROUTE 44	AADT		DHV		ESAL'S	ESAL'S
	2018	2028	2018	2028	2018-2028	2018-2038
BEGIN PROJECT TO RUSH MEADOW RD. (MM 0.000 - MM 1.068)	860	890	120	200	126,000	284,000
RUSH MEADOW RD. TO BROWNSVILLE-HARTLAND RD. (MM 1.068 - MM 4.082)	1700	1800	200	210	252,000	576,000
BROWNSVILLE-HARTLAND RD. TO END PROJECT (MM 4.082 - MM 1.607)	1,900	2,000	220	230	199,000	445,000

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	311,040
DESIGN NUMBER OF GYRATIONS	50
PERFORMANCE GRADE ASPHALT BINDER	70-28

PROJECT NAME: READING-WINDSOR
PROJECT NUMBER: STP FPAV(11)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
PROJECT INFORMATION SHEET SHEET 10 OF 53

ALTERNATES ZA1 & ZA2

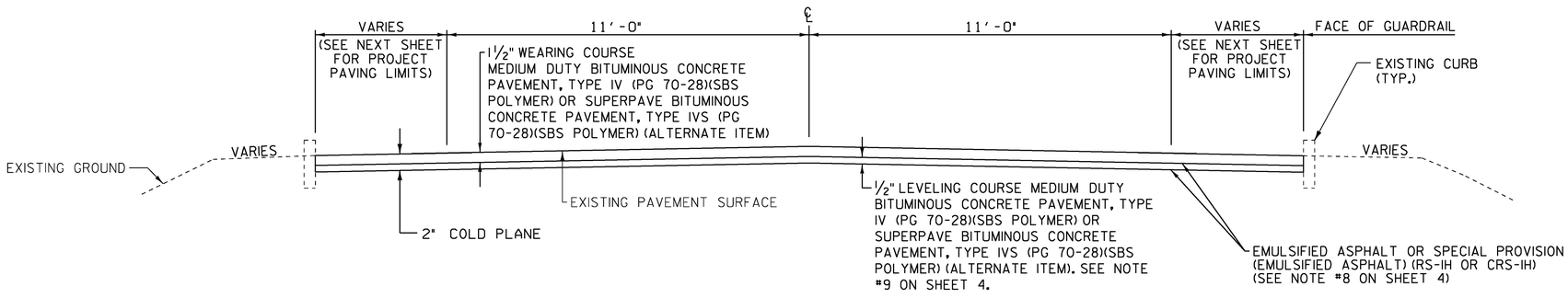


LEVEL AND OVERLAY TYPICAL SECTION

READING:
MM 0.000 - MM 0.202

WEST WINDSOR:
MM 0.000 - MM 3.980
MM 4.430 - MM 5.044

WINDSOR:
MM 0.000 - MM 1.607



COLD PLANE 2" AND OVERLAY TYPICAL SECTION

WEST WINDSOR:
MM 3.980 - MM 4.430

NOT TO SCALE

PROJECT NAME:	READING-WINDSOR
PROJECT NUMBER:	STP FPAV(11)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET 1	SHEET 11 OF 53

PROJECT PAVING LIMITS

TOWN AND ROUTE	BEGIN STATION	END STATION	LANE TYPICAL	WEARING DEPTH	LEVELING DEPTH	NOTES
VT. RTE. 44						
READING						
	0.000	0.162	6'-11'-11'-6'	1½"	¾"	LEVEL AND OVERLAY
	0.162	0.202	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
WEST WINDSOR						
	WW 0.000	WW 1.100	1.5'-11'-11'-1.5'	1½"	¾"	LEVEL AND OVERLAY
	WW 1.100	WW 1.200	VARIES'-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 1.200	WW 2.381	2'-11'-11'-2'	1½"	¾"	LEVEL AND OVERLAY
	WW 2.381	WW 2.482	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 2.482	WW 2.944	1.5'-11'-11'-1.5'	1½"	¾"	LEVEL AND OVERLAY
	WW 2.944	WW 3.044	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 3.044	WW 3.502	2.5'-11'-11'-2.5'	1½"	¾"	LEVEL AND OVERLAY
	WW 3.502	WW 3.536	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 3.536	WW 3.707	3'-11'-11'-3'	1½"	¾"	LEVEL AND OVERLAY
	WW 3.707	WW 3.986	4'-11'-11'-3'	1½"	¾"	LEVEL AND OVERLAY
	WW 3.986	WW 3.980	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 3.980	WW 4.099	8'-11'-11'-8'	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.099	WW 4.113	VARIES-11'-11'-VARIES	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.113	WW 4.138	4'-11'-11'-4'	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.138	WW 4.157	VARIES-11'-11'-VARIES	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.157	WW 4.352	7'-11'-11'-7'	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.352	WW 4.367	VARIES-11'-11'-VARIES	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.367	WW 4.430	1.5'-11'-11'-1.5'	1½"	½"	COLD PLANE 2"; LEVEL AND OVERLAY
	WW 4.430	WW 4.616	1.5'-11'-11'-1.5'	1½"	¾"	LEVEL AND OVERLAY
	WW 4.616	WW 4.636	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 4.636	WW 4.656	3'-11'-11'-10'-3'	1½"	¾"	LEVEL AND OVERLAY
	WW 4.656	WW 4.735	VARIES-11'-11'-VARIES	1½"	¾"	LEVEL AND OVERLAY
	WW 4.735	WW 5.044	1.5'-11'-11'-1.5'	1½"	¾"	LEVEL AND OVERLAY
WINDSOR						
	WI 0.000	WI 1.607	1.5'-11'-11'-1.5'	1½"	¾"	LEVEL AND OVERLAY

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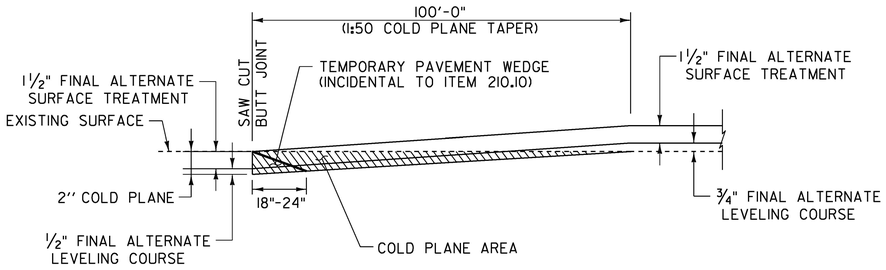
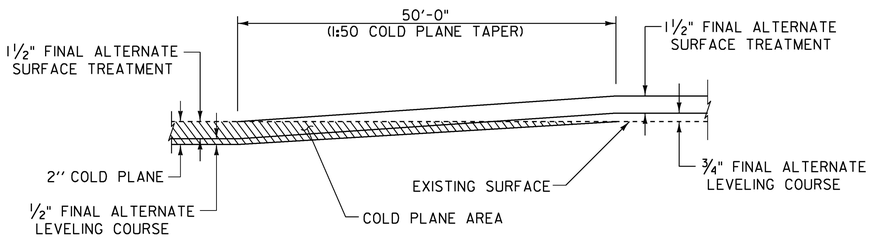
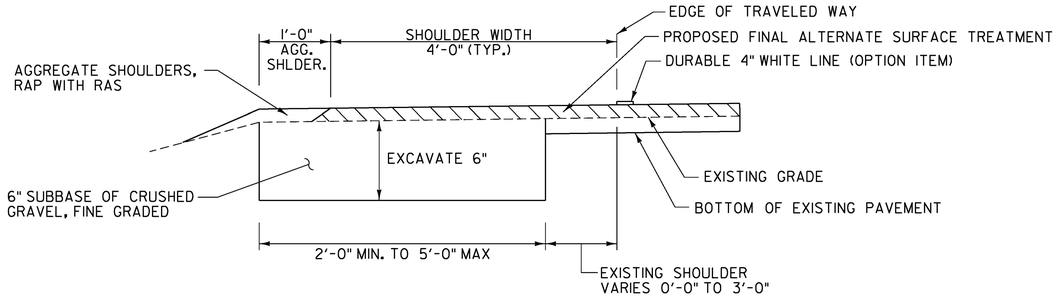
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET 2 SHEET 12 OF 53



COLD PLANE DETAIL AT BEGIN/END PROJECT



COLD PLANE DETAIL AT LEVEL OVERLAY/COLD PLANE TRANSITION



SHOULDER RECONSTRUCTION DETAIL

WEST WINDSOR: APPROXIMATE MM 3.707 LT. TO MM 4.0 LT.

NOTES:

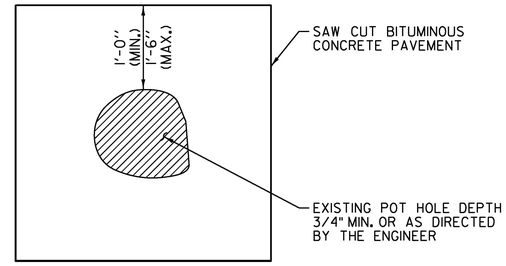
1. SHOULDER RECONSTRUCTION AREAS TO BE FIELD VERIFIED BY THE ENGINEER PRIOR TO PAVING. ANY EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED TO A DEPTH OF SIX INCHES. THE TOWN OF WEST WINDSOR AND THE DISTRICT HAD PREVIOUSLY WIDENED THIS AREA WITH GRAVEL. CONTACT WEST WINDSOR TOWN ROAD FOREMAN MIKE SPACKMAN AT 484-5044 FOR EXACT LOCATION.

2. PAYMENT FOR WORK ASSOCIATED WITH SHOULDER RECONSTRUCTION WILL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS. THE METHOD OF REMOVAL AND THE USE OF RENTAL ITEMS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK BEING DONE.

3 SHOULDER RECONSTRUCTION WILL BE PERFORMED AFTER COLD PLANING AND PRIOR TO THE TWO INCH TYPE 111S OVERLAY.

4. EXCAVATED MATERIAL SHALL BE SPREAD ON THE ADJACENT SLOPES OR REMOVED FROM THE PROJECT AS DIRECTED BY THE ENGINEER. MATERIAL REMOVED SHALL BE REPLACED WITH ITEM 301.28 SUBBASE OF CRUSHED GRAVEL, FINE GRADED.

5. ANY SOIL SPREAD ON SIDE SHALL HAVE TURF ESTABLISHMENT AS DIRECTED BY THE ENGINEER. THE FOLLOWING ITEMS WERE ESTIMATED FOR TURF ESTABLISHMENT: 651.15 SEED, 651.18 FERTILIZER, 651.20 AGRICULTURAL LIMESTONE AND 651.25, HAY MULCH.



TYPICAL POT HOLE REPAIR

TYPICAL POT HOLE REPAIR NOTES

1. ITEM 404.65 EMULSIFIED ASPHALT OR ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H) OPTION ITEM SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 - 0.50 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).

2. ALL WORK ASSOCIATED WITH POT HOLE REPAIR WILL BE PAID UNDER ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).

NOT TO SCALE

PROJECT NAME: READING-WINDSOR
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FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET 3 SHEET 13 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	ROADWAY (NO FEDERAL/STA	BRIDGE	FULL C&E	ROADWAY	ROADWAY
580					
8750					
1					
12320					
690					
1170					
1170					
1					
		240			
		100			
2					
	2				
110					
50					
100					
220					
40					
10					
1150					
4400					
225					
21					
47					
3					
625					
5700					
700					
2800					
			0.33		
			0.3		
			0.3		
			1000		
0.4					
1					
4					

TOTALS

GRAND TOTAL	FINAL
580	
8750	
1	
12320	
690	
1170	
1170	
1	
240	
100	
2	
2	
110	
50	
100	
220	
40	
10	
1150	
4400	
225	
21	
47	
3	
625	
5700	
700	
2800	
0.33	
0.3	
0.3	
1000	
0.4	
1	
4	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
CY	EARTH BORROW	203.30	EST.
LF	SHOULDER BERM REMOVAL	203.40	38
CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-
SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	107
TON	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.28	EST
	BEGIN OPTION AA		
CWT	EMULSIFIED ASPHALT	404.65	9
CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT)(RS-1H OR CRS-1H)	900.683	9
	END OPTION AA		
LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	7
CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST.
EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-
EACH	CHANGING ELEVATION OF SEWER MANHOLES	604.42	-
HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.
HR	POWER BROOM RENTAL, TYPE I	608.30	EST.
HR	POWER BROOM RENTAL, TYPE II	608.31	EST.
HR	TRUCK RENTAL	608.37	EST.
HR	LOADER RENTAL, TYPE I	608.40	EST.
CY	STONE FILL, TYPE I	613.10	EST.
LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	11
LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	-
LF	HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS	621.217	-
EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	-
EACH	REPLACE GUARDRAIL BEAM UNIT	621.77	-
LF	ADJUST HEIGHT OF GUARDRAIL	621.79	12.5
LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	50
HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.
HR	FLAGGERS	630.15	EST.
LS	FIELD OFFICE, ENGINEERS	631.10	-
LS	TESTING EQUIPMENT, CONCRETE	631.16	-
LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-
DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-
LS	MOBILIZATION/DEMOBILIZATION	635.11	-
LS	TRAFFIC CONTROL (STP FPAV(11))	641.10	-
EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COLD PLANING, BITUMINOUS PAVEMENT
9051	SY	MAINLINE
328	SY	APPROACHES
546	SY	TOWN HIGHWAYS
2267	SY	BRIDGES
128	SY	RND.
12,320	SY	TOTAL

PROJECT NAME: READING-WINDSOR
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PROJECT LEADER: B. KIPP
DESIGNED BY: N. PAPPAS
QUANTITY SHEET 1

PLOT DATE: 04-APR-2018
DRAWN BY: N. PAPPAS
CHECKED BY: B. KIPP
SHEET 14 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	ROADWAY (NO FEDERAL/STA	BRIDGE	FULL C&E	ROADWAY	ROADWAY
72200					
72200					
72200					
71100					
71100					
71100					
25					
25					
25					
13					
13					
13					
77000					
75880					
25					
13					
14620					
25					
80					
1					
1					
105					
575					
40					
40					
200					
1					
1150					
1100					
50					
14030					

TOTALS

GRAND TOTAL	FINAL
72200	
72200	
72200	
71100	
71100	
71100	
25	
25	
25	
13	
13	
13	
77000	
75880	
25	
13	
14620	
25	
80	
1	
1	
105	
575	
40	
40	
200	
1	
1150	
1100	
50	
14030	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
	BEGIN OPTION BB		
LF	DURABLE 4 INCH WHITE LINE, THERMOPLASTIC	646.402	232
LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	232
LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	232
	END OPTION BB		
	BEGIN OPTION CC		
LF	DURABLE 4 INCH YELLOW LINE, THERMOPLASTIC	646.412	252
LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	252
LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	252
	END OPTION CC		
	BEGIN OPTION DD		
LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	3
LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	3
LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	3
	END OPTION DD		
	BEGIN OPTION EE		
EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-
EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	-
EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-
	END OPTION EE		
LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	232
LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	252
LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	3
EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	-
EACH	LINE STRIPING TARGETS	646.76	146
LB	SEED	651.15	EST.
LB	FERTILIZER	651.18	EST.
TON	AGRICULTURAL LIMESTONE	651.20	EST.
TON	HAY MULCH	651.25	EST.
CY	TOPSOIL	651.35	EST.
SY	TEMPORARY EROSION MATTING	653.20	EST.
EACH	DELINEATOR WITH STEEL POST	676.10	2
EACH	REMOVAL OF EXISTING DELINEATOR	676.12	2
EACH	REMOVE AND REPLACE REFLECTOR UNIT	676.15	EST.
LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-
SY	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	900.675	17
TON	SPECIAL PROVISION (AGGREGATE SHOULDERS, RAP WITH RAS)	900.680	6
TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)	900.680	EST.
TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)	900.680	136

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT OR
		SUPREPAVE BITUMINOUS CONCRETE PAVEMENT
12842	TON	MAINLINE (2 1/4" TYPE IVS)
1052	TON	MAINLINE (2" TYPE IVS)
136	TON	RND.
14030	TON	TOTAL

THIS ITEM WAS MODIFIED BY CHANGE ORDER #1: The contractor requested the use of PG 58-28 asphalt in the Hand-Placed Bituminous mix used for hand paving aprons at a reduced cost instead of the PG 70-28 asphalt, per contract. The PG 70-28 asphalt is only made with a polymer which results in a workability that does not leave a desirable looking mat when not placed by a paver screed.

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PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS CHECKED BY: B. KIPP
QUANTITY SHEET 2 SHEET 15 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
				ROADWAY	ROADWAY (NO FEDERAL/STA	BRIDGE	FULL C&E	ROADWAY	ROADWAY	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
													BEGIN ALTERNATE ZA1					
								14030		14030		TON	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28)(SBS POLYMER)	406.27	136			
								1		1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	406.28	-			
													END ALTERNATE ZA1					
													BEGIN ALTERNATE ZA2					
									14030	14030		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28)(SBS POLYMER)	490.30	136			
									1	1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-			
													END ALTERNATE ZA2					

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PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
QUANTITY SHEET 2	SHEET 16 OF 53

STATE OF VERMONT

ITEM DETAIL SHEET 1

BEGIN STATION	END STATION	POS.	203.30 EARTH BORROW	613.10 STONE FILL, TYPE I	621.20 STEEL BEAM G.R. GALV.	621.205 STEEL BEAM G.R., GALV. W/ 8 FT. POSTS	621.217 HD STEEL BEAM G.R., GALV./ NESTED W/ 8 FT. POSTS	621.60 ANCHOR FOR S.B. G.R.	621.76 REPLACE GUARDRAIL POST ASSEMBLY	621.77 REPLACE G.R. BEAM UNIT	621.79 ADJUST HEIGHT OF G.R.	621.80 REMOVAL & DISP. OF G.R.	651.35 TOPSOIL	653.20 TEMP. EROSION MATTING	676.10 DELINE. WITH STEEL POSTS	676.12 REMOVAL OF EXIST. DELINE.	676.15 REMOVE & REPLACE REFLECTOR UNIT	REMARKS
			CY	CY	LF	LF	LF	EA	EA	EA	LF	LF	CY	SY	EA	EA	EA	
READING																	200	
0.035	0.162	RT							7	1					2	2		RETAIN EXISTING GUARDRAIL
0.075	0.122	LT													2	2		RETAIN EXISTING GUARDRAIL
WEST WINDSOR																		
0.438	0.612	RT	50			937.5′		2				937.5′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
0.657	0.866	RT	50			1125′		2				1125′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
0.891	0.995	RT	50			550′		2				550′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
1.005	1.100	RT	50			525′		2				525′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
1.348	1.373	LT	50			37.5	100′	2				137.5′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
1.363	1.378	RT	50				100′	2				75′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
2.482	2.522	LT									137.5′				2	2		RETAIN EXISTING BOX BEAM RAIL; ADJUST HEIGHT
2.483	2.522	RT									112.5′				2	2		RETAIN EXISTING BOX BEAM RAIL; ADJUST HEIGHT
3.044	3.203	LT	50		850′			2				850′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV.
3.278	3.502	LT	50			1200′		2				1200′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL GALV. W/ 8 FOOT POSTS
3.656	3.701	LT	50		137.5′			2	19			137.5′	10	50	2	2		REPLACE GUARDRAIL BOTH SIDES OF BRIDGE; REPLACE POSTS ON BRIDGE
3.666	3.706	RT	50		112.5′			2	19			112.5′	10	50	2	2		REPLACE GUARDRAIL BOTH SIDES OF BRIDGE; REPLACE POSTS ON BRIDGE
4.109	4.113	LT																RETAIN EXISTING GUARDRAIL
4.113	4.118	RT																RETAIN EXISTING GUARDRAIL
4.118	4.124	LT																RETAIN EXISTING GUARDRAIL
4.124	4.126	RT																RETAIN EXISTING GUARDRAIL
4.367	4.422	LT	25		39′			1					5	25	2	2		REPLACE EXISTING END TERMINAL WITH GI-D
4.372	4.427	RT													2	2		RETAIN EXISTING GUARDRAIL
4.939	4.984	LT									237.5′				2	2		ADJUST HEIGHT OF EXISTING GUARDRAIL
SUBTOTAL			525		1139′	4375′	200′	21	45	1	487.5′	5650′	105	525	34	34	200	
ROUNDING																		
TOTAL																		

PROJECT NAME: READING-WINDSOR
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PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
ITEM DETAIL SHEET 1 SHEET 17 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET 2

BEGIN STATION	END STATION	POS.	203.30 EARTH BORROW	613.10 STONE FILL, TYPE I	621.20 STEEL BEAM G.R. GALV.	621.205 STEEL BEAM G.R., GALV. W/ 8 FT. POSTS	621.217 HD STEEL BEAM G.R., GALV./ NESTED W/ 8 FT. POSTS	621.60 ANCHOR FOR S.B. G.R.	621.76 REPLACE GUARDRAIL POST ASSEMBLY	621.77 REPLACE G.R. BEAM UNIT	621.79 ADJUST HEIGHT OF G.R.	621.80 REMOVAL & DISP. OF G.R.	651.35 TOPSOIL	653.20 TEMP. EROSION MATTING	676.10 DELINE. WITH STEEL POSTS	676.12 REMOVAL OF EXIST. DELINE.	676.15 REMOVE & REPLACE REFLECTOR UNIT	REMARKS
			CY	CY	LF	LF	LF	EA	EA	EA	LF	LF	CY	SY	EA	EA	EA	
WINDSOR																		
0.129	0.204	LT	25	1						1	50		5	25	2	2		REPLACE EXISTING END TERMINAL W/ NEW GI-D & REPLACE 1 GUARDRAIL PANEL; ADJUST HT.;
																		STONE FILL, TYPE I FOR WASHOUT ALONG GUARDRAIL
0.144	0.204	RT	25							1	75		5	25	2	2		REPLACE EXISTING END TERMINAL W/ NEW GI-D & REPLACE 1 GUARDRAIL PANEL; ADJUST HT.
SUBTOTAL THIS SHEET			50	1						2	125'		10	50	4	4		
SUBTOTAL SHEET 1			525		1139'	4375'	200'	21	45	1	487.5'	5650'	105	525	34	34	200	
ROUNDING			5		11	25	25	-	2		12.5	50	-	-	2	2	EST.	
TOTAL			580	1	1150'	4400'	225'	21	47	3	625'	5700'	115	575	40	40	200	

PROJECT NAME: READING-WINDSOR
PROJECT NUMBER: STP FPAV(11)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
ITEM DETAIL SHEET 2 SHEET 18 OF 53

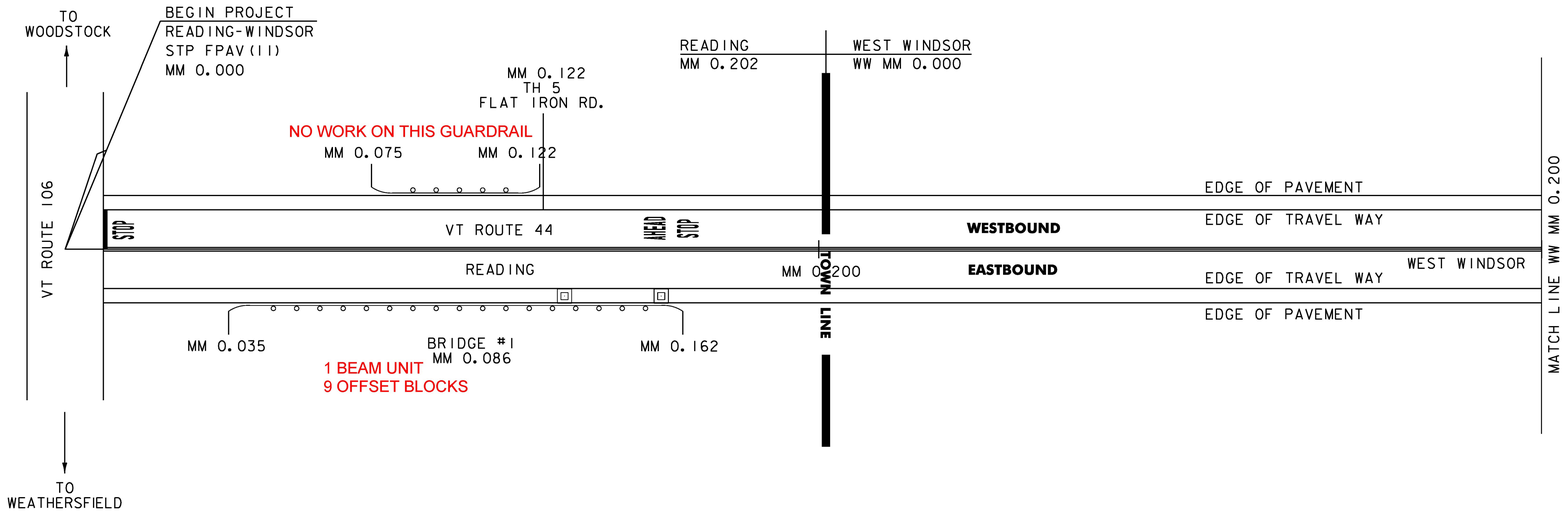
TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND RADIUS FOR TOWN HIGHWAYS)
READING:
MM 0.003 - MM 0.202 SOLID LT & RT
WEST WINDSOR:
WW MM 0.000 - WW MM 0.800 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR TOWN HIGHWAYS)
READING:
MM 0.003 - MM 0.202 SOLID LT & RT
WEST WINDSOR:
WW MM 0.000 - WW MM 0.800 SOLID LT & RT

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL (OPTION BID ITEM)
READING:
MM 0.003 LT - "STOP"
MM 0.135 LT - "AHEAD"
MM 0.149 LT - "STOP"

TEMPORARY 24 INCH STOP BAR, PAINT
DURABLE 24 INCH STOP BAR (OPTION BID ITEM)
READING:
MM 0.003 LT

CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES
READING:
MM 0.129 RT
MM 0.156 RT

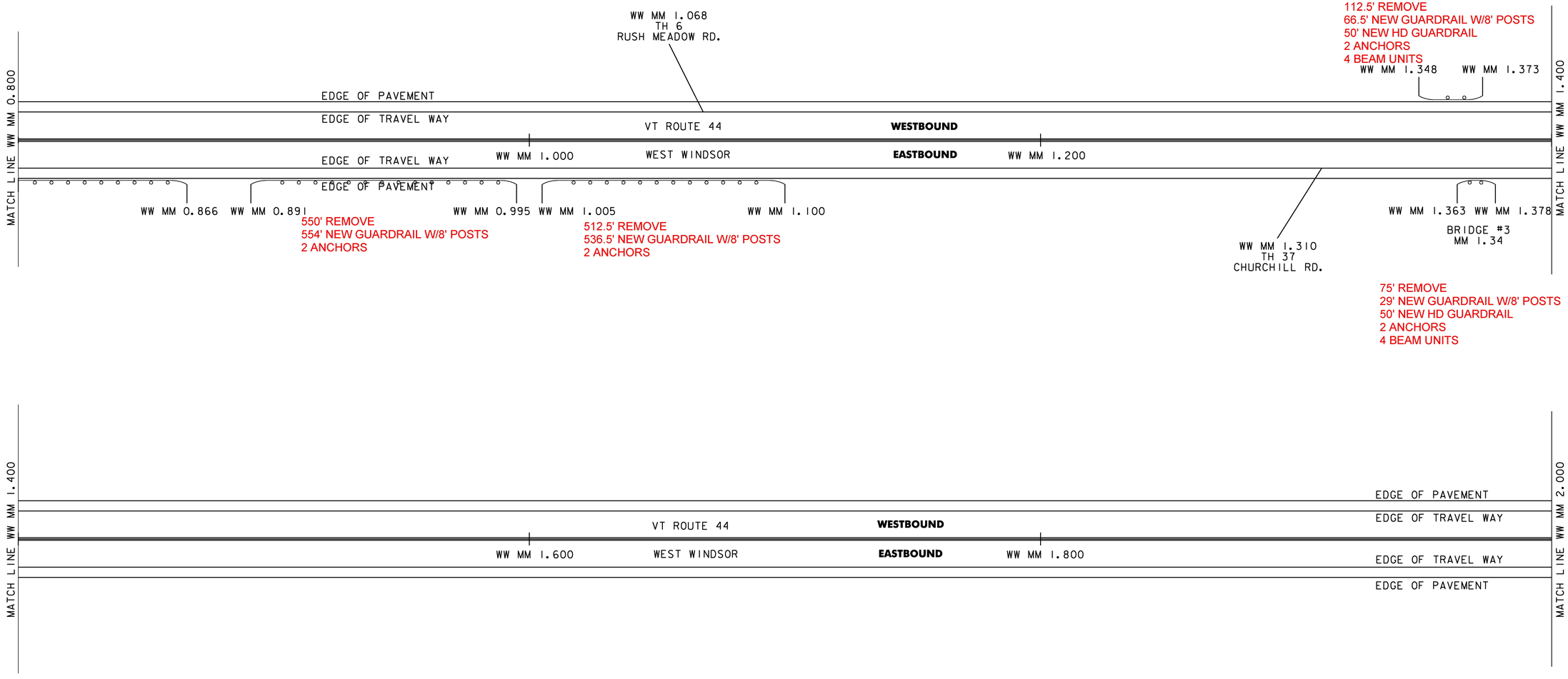


NOT TO SCALE

PROJECT NAME:	READING-WINDSOR
PROJECT NUMBER:	STP FPAV(11)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 1	SHEET 19 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 0.800 - WW MM 2.000 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 0.800 - WW MM 2.000 SOLID LT & RT



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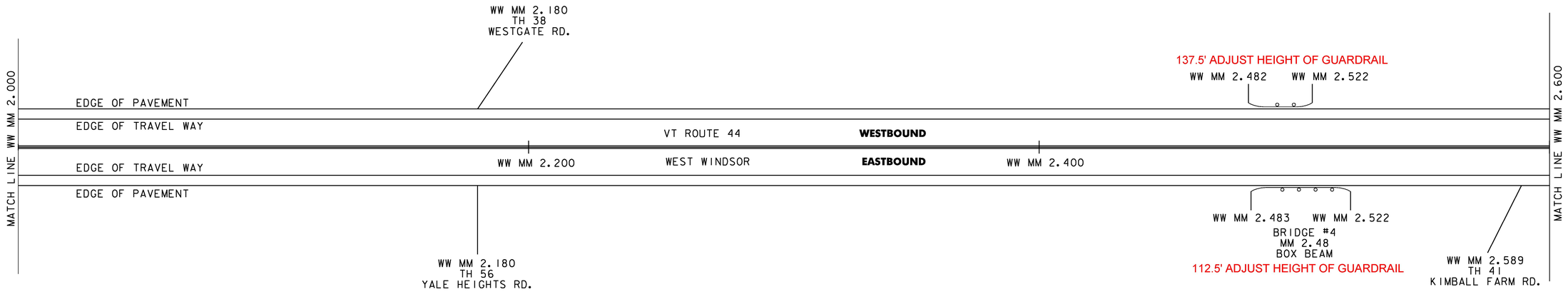
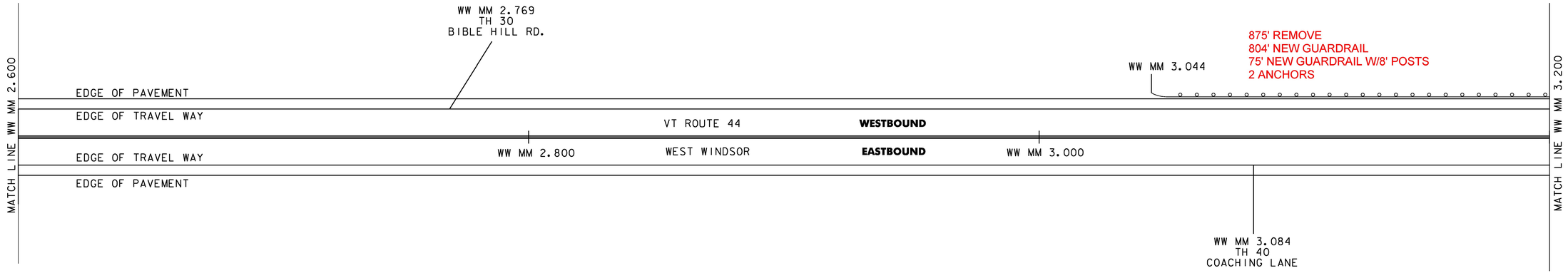
PROJECT NAME:	READING-WINDSOR
PROJECT NUMBER:	STP FPAV(11)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 2	SHEET 20 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 2.000 - WW MM 3.200 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WW MM 2.000 - WW MM 3.200 SOLID LT & RT





NOT TO SCALE

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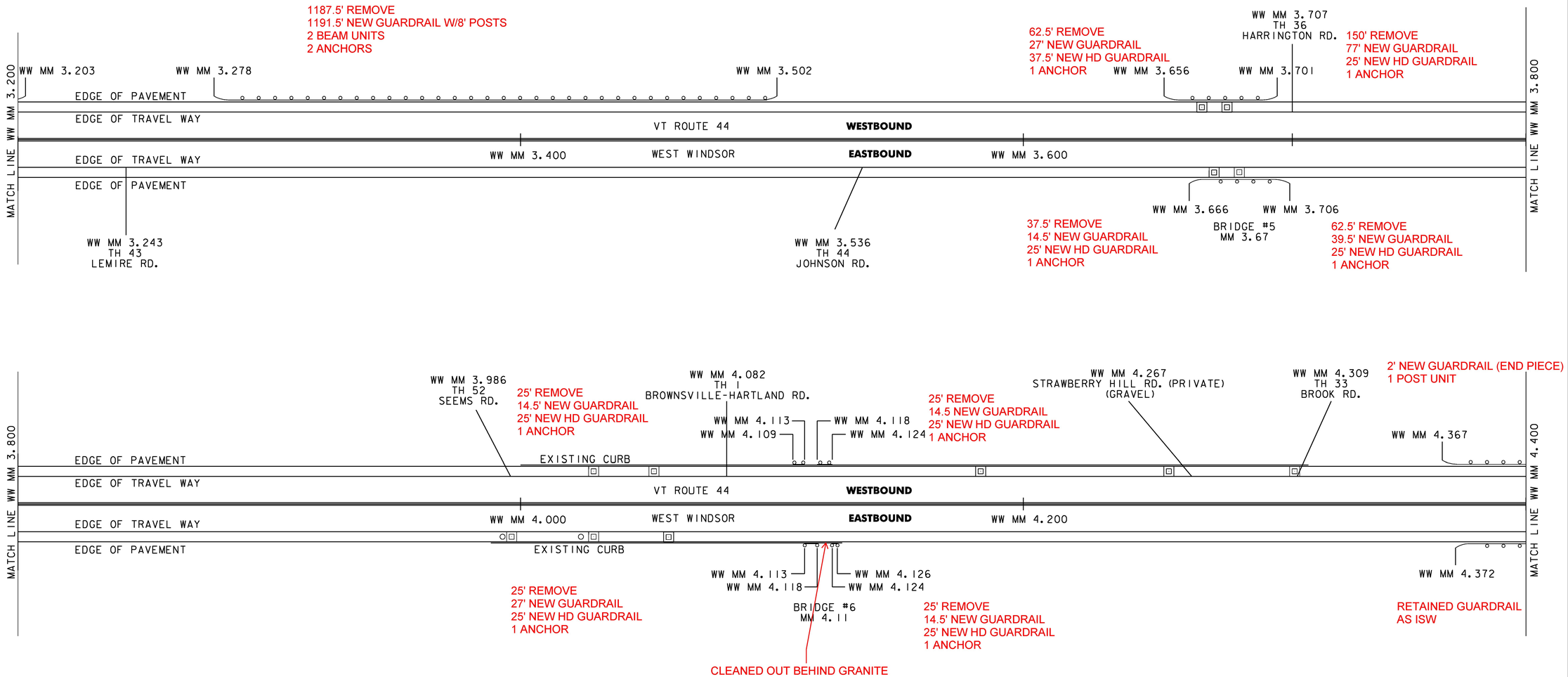
PROJECT NUMBER:	STP FPAV(11)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 3	SHEET 21 OF 53

CHANGING ELEVATION OF SEWER MANHOLES
(NON FED./STATE PARTICIPATING)
WEST WINDSOR:
WW MM 3.993 RT.
WW MM 4.024 RT.

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 3.200 - WW MM 4.400 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 3.200 - WW MM 4.400 SOLID LT & RT



NOT TO SCALE

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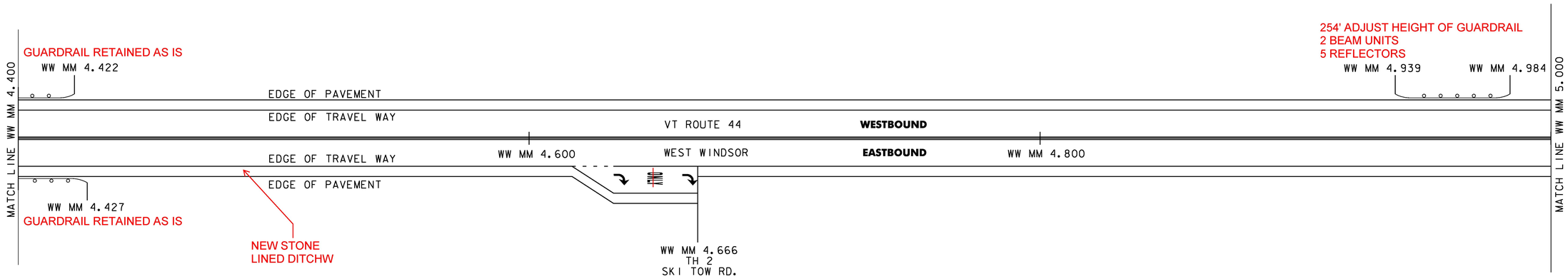
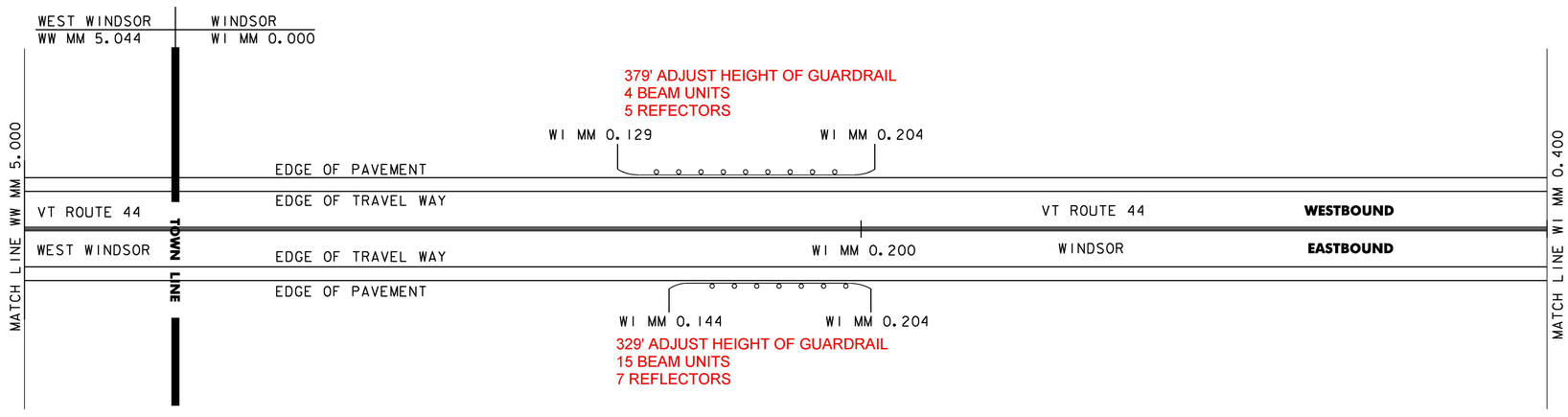
PROJECT NUMBER:	STP FPAV(11)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 4	SHEET 22 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 4.400 - WW MM 5.044 SOLID LT
WW MM 4.400 - WW MM 4.616 SOLID RT
WW MM 4.616 - WW MM 4.633 DOTTED RT
WW MM 4.633 - WW MM 5.044 SOLID RT
WW MM 4.616 - WW MM 4.661 SOLID RT
WINDSOR:
WI MM 0.000 - WI MM 0.400 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WEST WINDSOR:
WW MM 4.400 - WW MM 5.044 SOLID LT & RT
WINDSOR:
WI MM 0.000 - WI MM 0.400 SOLID LT & RT

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL (OPTION BID ITEM)
WINDSOR:
MM 4.634 RT - "↱"
MM 4.648 LT - "ONLY"
MM 4.661 LT - "↱"





NOT TO SCALE

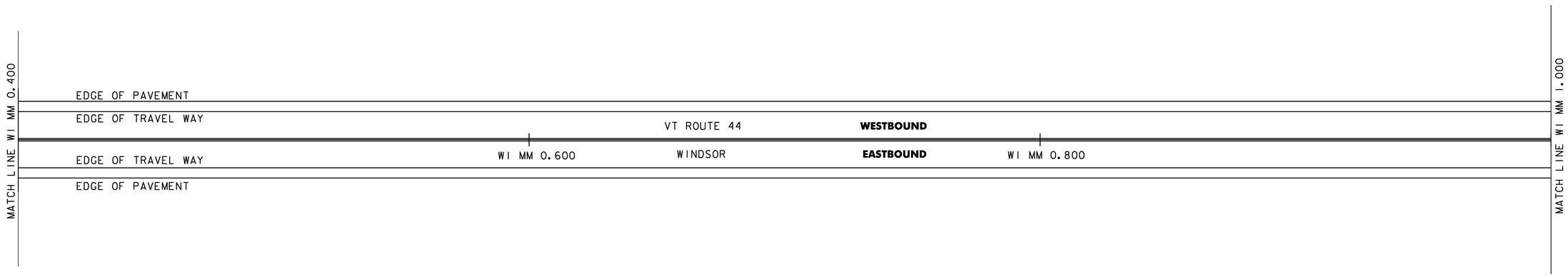
PROJECT NAME: READING-WINDSOR
PROJECT NUMBER: STP FPAV(11)

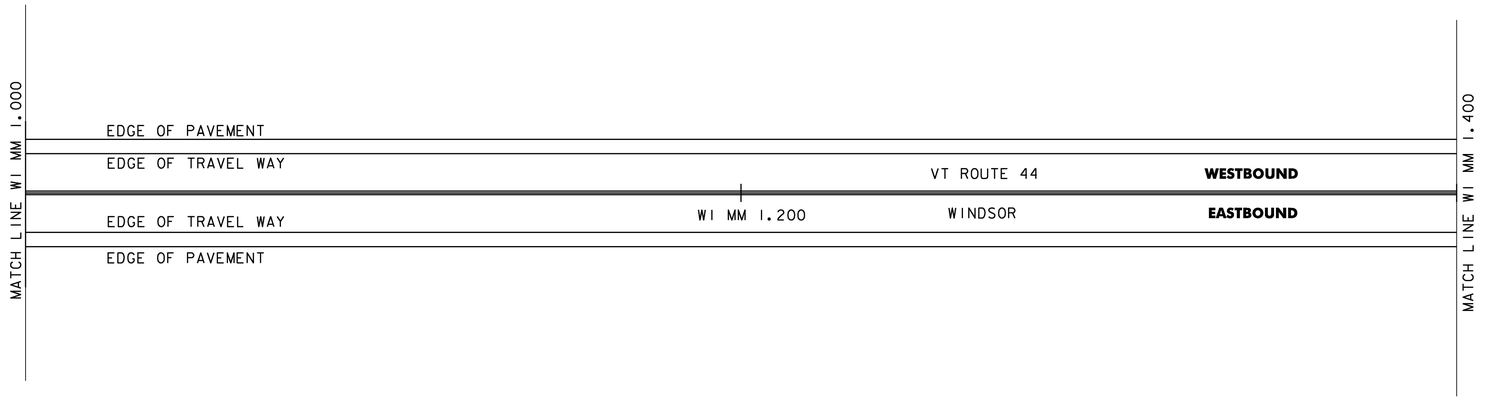
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER: B. KIPP
DESIGNED BY: L. BULLOCK
PLAN SHEET 5

PLOT DATE: 04-APR-2018
DRAWN BY: L. BULLOCK
CHECKED BY: B. KIPP
SHEET 23 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WINDSOR:
WIMM 0.400 - WIMM 1.400 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WINDSOR:
WIMM 0.400 - WIMM 1.400 SOLID LT & RT





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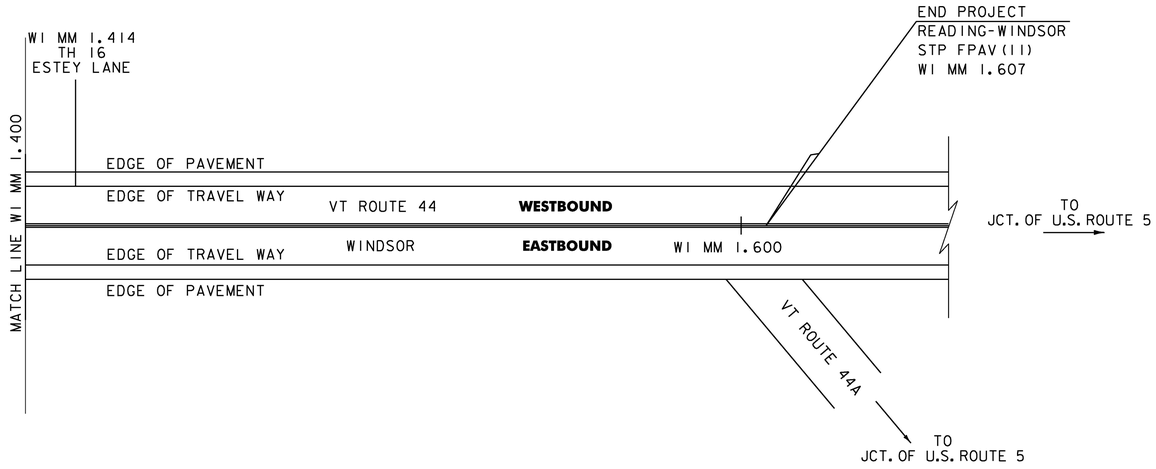
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 6	SHEET 24 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WINDSOR:
WIMM 1.400 - WIMM 1.607 SOLID LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WINDSOR:
WIMM 1.400 - WIMM 1.607 SOLID LT & RT



NOT TO SCALE

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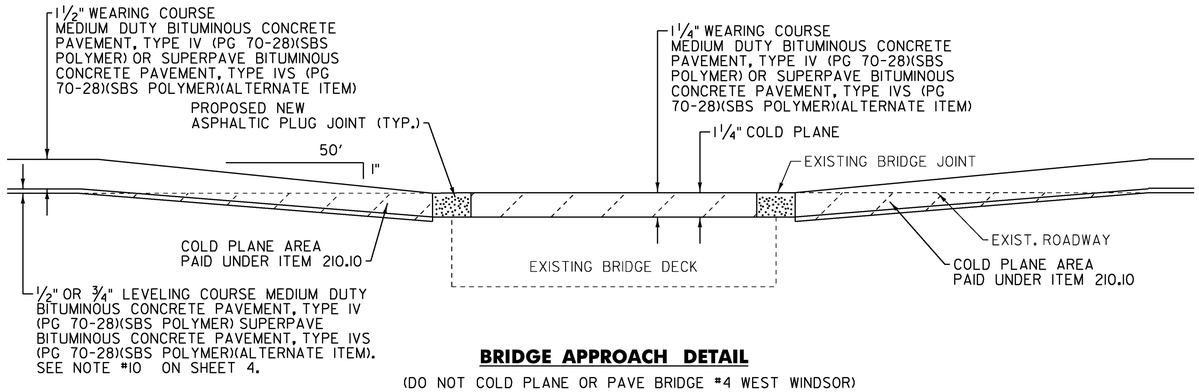
PROJECT NUMBER:	STP FPAV(11)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 7	SHEET 25 OF 53

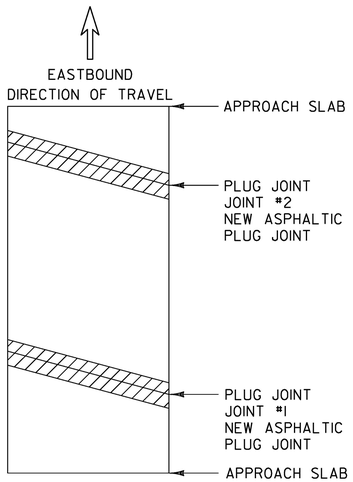
NOTES

1. ALL NEW JOINTS TO BE INSTALLED PER SD-516.10 AND PAID FOR UNDER ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG.
2. AN ESTIMATED QUANTITY OF ITEM 580.20 CONCRETE REPAIR MATERIAL IS TO BE USED AS NECESSARY THROUGHOUT THE PROJECT LIMITS AT THE DISCRETION OF THE ENGINEER.
3. BRIDGES TO BE PAVED FULL WIDTH.
4. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE SOLE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A DAILY BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE



BRIDGE APPROACH DETAIL

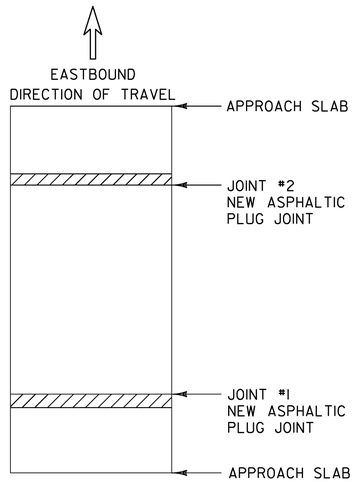
(DO NOT COLD PLANE OR PAVE BRIDGE #4 WEST WINDSOR)



BRIDGE #1

MM 0.086 READING

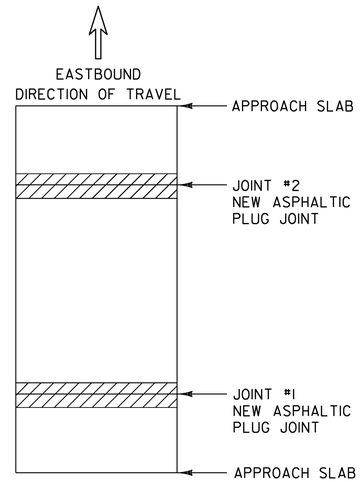
LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 37'
JOINT #2 - 33'
TOTAL = 70'



BRIDGE #4

MM 2.478 WEST WINDSOR

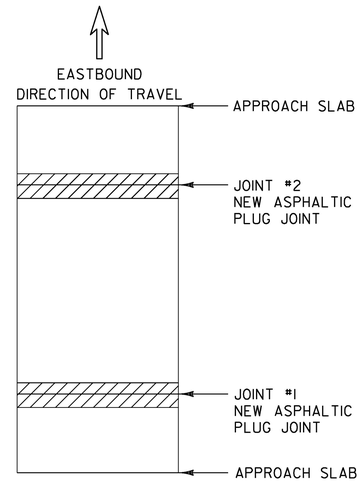
"DO NOT COLD PLANE OR PAVE BRIDGE"
LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 25.5'
JOINT #2 - 25.5'
TOTAL = 51'



BRIDGE #6

MM 4.111 WEST WINDSOR

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 30'
JOINT #2 - 30'
TOTAL = 60'



BRIDGE #7

MM 4.378 WEST WINDSOR

JOINT #1 - 26'
JOINT #2 - 26'
TOTAL = 52'

BRIDGE #5
MM 3.67 WEST WINDSOR
2 JOINTS AT 44' EACH

LEGEND

EXISTING BRIDGE JOINTS TO BE REPAIRED WITH ASPHALTIC PLUG JOINT.

NOT TO SCALE

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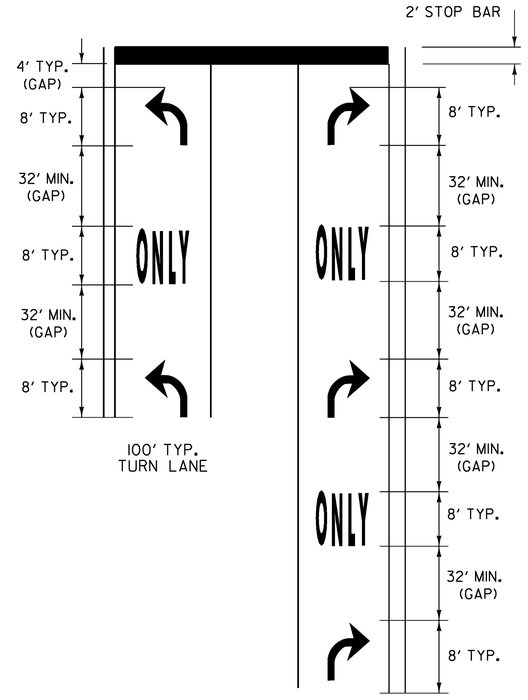
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
BRIDGE DETAIL SHEET	SHEET 26 OF 53



TURN ARROWS SHALL BE PLACED AT THE BEGIN AND END OF THE LEFT OR RIGHT TURN LANE.

IF LANE LENGTH IS LESS THAN 100', TURN ARROWS SHOULD BE PLACED AT THE BEGINNING AND END OF THE LEFT OR RIGHT TURN LANE.

THE "ONLY" WORD MARKINGS SHALL BE USED TO SUPPLEMENT LANE-USE ARROW MARKINGS FOR TURN LANES 100' OR LONGER.

MORE ARROWS AND ONLYS ARE OPTIONAL WHEN SPACE PERMITS. ARROW MARKINGS START AT THE BEGINNING OF THE SOLID LANE LINE.

STOP BARS ARE INSTALLED ONLY WHERE A STOP SIGN OR TRAFFIC SIGNAL IS LOCATED. STOP LETTERS ARE OPTIONAL AT STOP SIGN CONTROLLED APPROACHES. IF INSTALLED THEY SHALL BE FOUR FEET FROM THE STOP BAR. STOP LETTERS SHALL NOT BE USED AT SIGNALIZED APPROACHES.

THE LONGITUDINAL SPACE BETWEEN WORD OR SYMBOL MESSAGE MARKINGS, SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTERS FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTERS UNDER ANY CONDITIONS.

EXCLUSIVE TURN LANES (LEFT OR RIGHT) LANE LINES SHALL BE SOLID AND EXTEND BACK FROM THE STOP LINE TO THE POINT OF FULL LANE WIDTH OF THE TURN LANE. THREE FOOT DOTS WITH A NINE FOOT SPACE SHOULD BE EXTENDED THE FULL LENGTH OF THE LANE TAPER.

TYPICAL MARKINGS FOR TURN LANES

NOT TO SCALE

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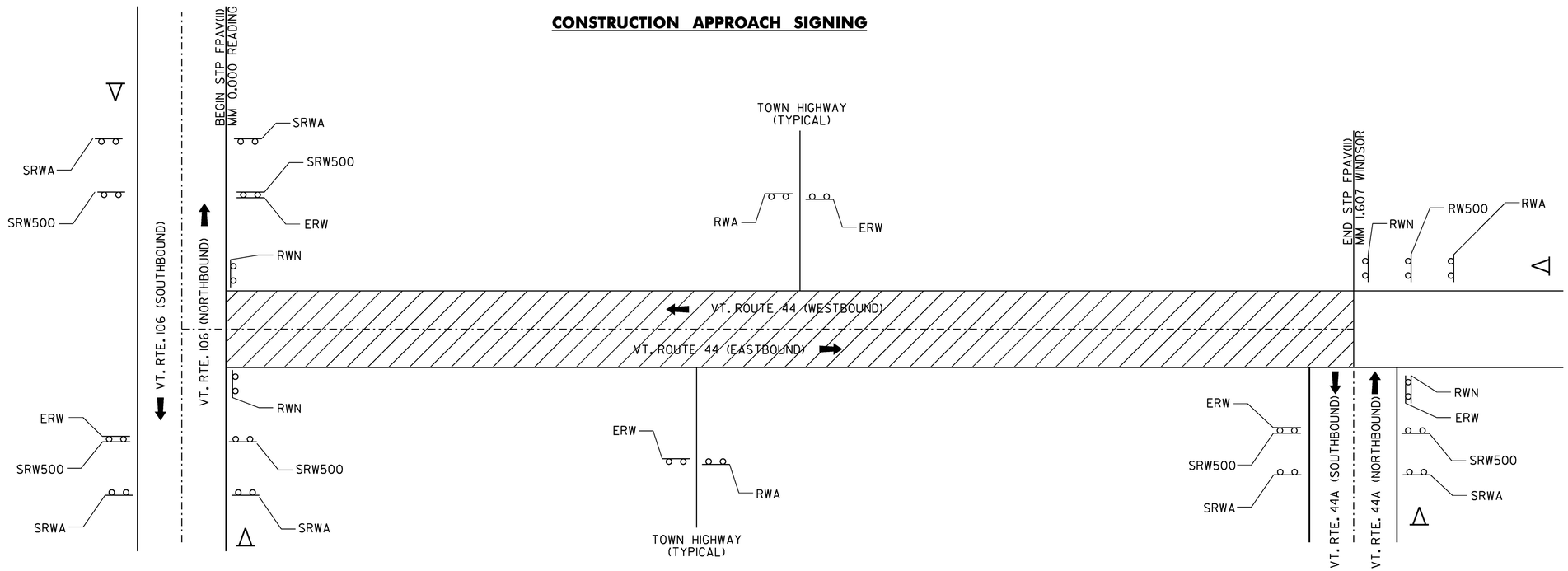
FILE NAME:	COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER:	B. KIPP
DESIGNED BY:	L. BULLOCK
PAVEMENT MARKING DETAIL SHEET	
PLOT DATE:	04-APR-2018
DRAWN BY:	L. BULLOCK
CHECKED BY:	B. KIPP
SHEET	27 OF 53

CONSTRUCTION APPROACH SIGNING



NOTES:

1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.

2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.

3. THE BID PRICE FOR TRAFFIC CONTROL, ITEM 641.10, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY: 630.10 - UNIFORMED TRAFFIC OFFICERS, AND 630.15 - FLAGGERS, 646.602 - TEMPORARY 4 INCH WHITE LINE, PAINT, 646.612 - TEMPORARY 4 INCH YELLOW LINE, PAINT, 646.682 - TEMPORARY 24 INCH STOP BAR, PAINT, 646.692 - TEMPORARY LETTER OR SYMBOL, PAINT, AND 646.76 - LINE STRIPING TARGETS.

4. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.

   FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL POSITION A PCMS PRIOR TO THE BEGIN AND END PROJECT LIMITS WARNING MOTORISTS OF EXPECTED ROADWAY CONDITIONS AND REDUCED ROADWAY WIDTHS.

   PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

   THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

   THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.

5. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.

6. REFER TO VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN COLORS.

7. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED. KEEP RECORDS WHEN POSTING THE WORK ZONE SPEED LIMIT FOR LEGAL PURPOSES; DOCUMENTING DATES, TIMES, AND LOCATIONS OF SIGNS. WHEN WORK ZONE SPEED LIMIT IS NOT IN USE ALL ASSOCIATED SIGNS SHALL BE COVERED, TURNED AND/OR LAID FLAT SO AS THE MOTORING PUBLIC CANNOT READ THESE SIGNS.

8. PORTABLE OR STATIONARY WORK ZONE SPEED LIMIT SIGNS SHOULD BE SPACED EVERY 1.5 TO TWO MILES WHERE APPLICABLE AND AFTER INTERSECTIONS AS A REMINDER TO THE MOTORIST TRAVELING THROUGH THE WORK ZONE WHAT SPEED THEY SHOULD BE TRAVELING.

9. WHEN REDUCED REGULATORY SPEED LIMIT SIGNS ARE USED, THE RESUMPTION OF THE USUAL SPEED LIMIT SHALL BE INDICATED BY AN APPROPRIATE SPEED LIMIT SIGN AT THE END OF THE WORK ZONE.

10. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MUTCD, PART 6.

11. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.

12. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF FOUR FEET. IF THE TPAR IS LESS THAN FIVE FEET IN WIDTH, A FIVE FOOT BY FIVE FOOT PASSING SPACE SHOULD BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICT WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.

13. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.

14. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.

15. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.

16. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. PAYMENT FOR DEVELOPING, IMPLEMENTING, AND MAINTAINING THE TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.

17. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES ALWAYS OR COORDINATE EMERGENCY ROUTES.

18. ACCOMMODATIONS SHOULD BE TAKEN TO ENSURE THAT OBSTACLES, EQUIPMENT, CONSTRUCTION MATERIALS, TRAFFIC CONTROL DEVICES, ETC. DO NOT ENCROACH IN THE BICYCLE PATH OF TRAVEL. IT IS IMPORTANT THAT CYCLIST'S ROUTES ARE FREE OF RUTS, SAND AND MUD TO PREVENT CYCLIST'S CRASHES.

19. WITH THE NARROWING OF LANES TO 10 FEET, IT IS RECOMMENDED THAT FLAGGER PERSONNEL HOLD RIDERS TO THE END OF THE QUEUE SO THEY ARE NOT COMPETING FOR LANE SPACE TO ENSURE THEIR SAFETY.

20. DMV WILL REQUIRE NOTIFICATION FOR WIDTH RESTRICTION TO REROUTE SUPER LOAD PERMITS. IT SHOULD BE NOTED THAT ONCE A PERMIT IS ISSUED THE APPLICANT/HAULER HAS 10 DAYS TO MOVE THEIR LOAD. THIS REQUIRES ADDITIONAL NOTICE TIME TO CAPTURE THAT 10 DAY WINDOW.

LEGEND

RWA = ROAD WORK AHEAD
RW500 = ROAD WORK 500 FEET
SRW500 = SIDE ROAD WORK 500 FEET
SRWA = SIDE ROAD WORK AHEAD
RWN = ROAD WORK NEXT (XX MILES)
ERW = END ROAD WORK

△ = PORTABLE CHANGEABLE MESSAGE SIGN

▨ = WORK AREA

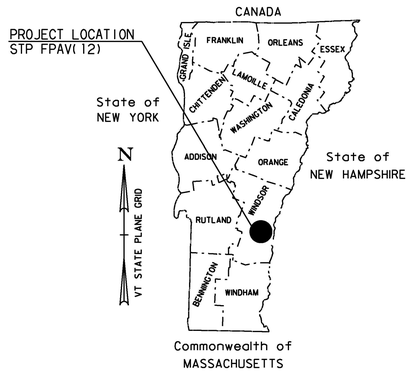
⬅ = DIRECTION OF TRAFFIC FLOW

NOT TO SCALE

PROJECT NAME: READING-WINDSOR
PROJECT NUMBER: STP FPAV(11)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
CONSTRUCTION APPROACH SIGNING SHEET SHEET 28 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

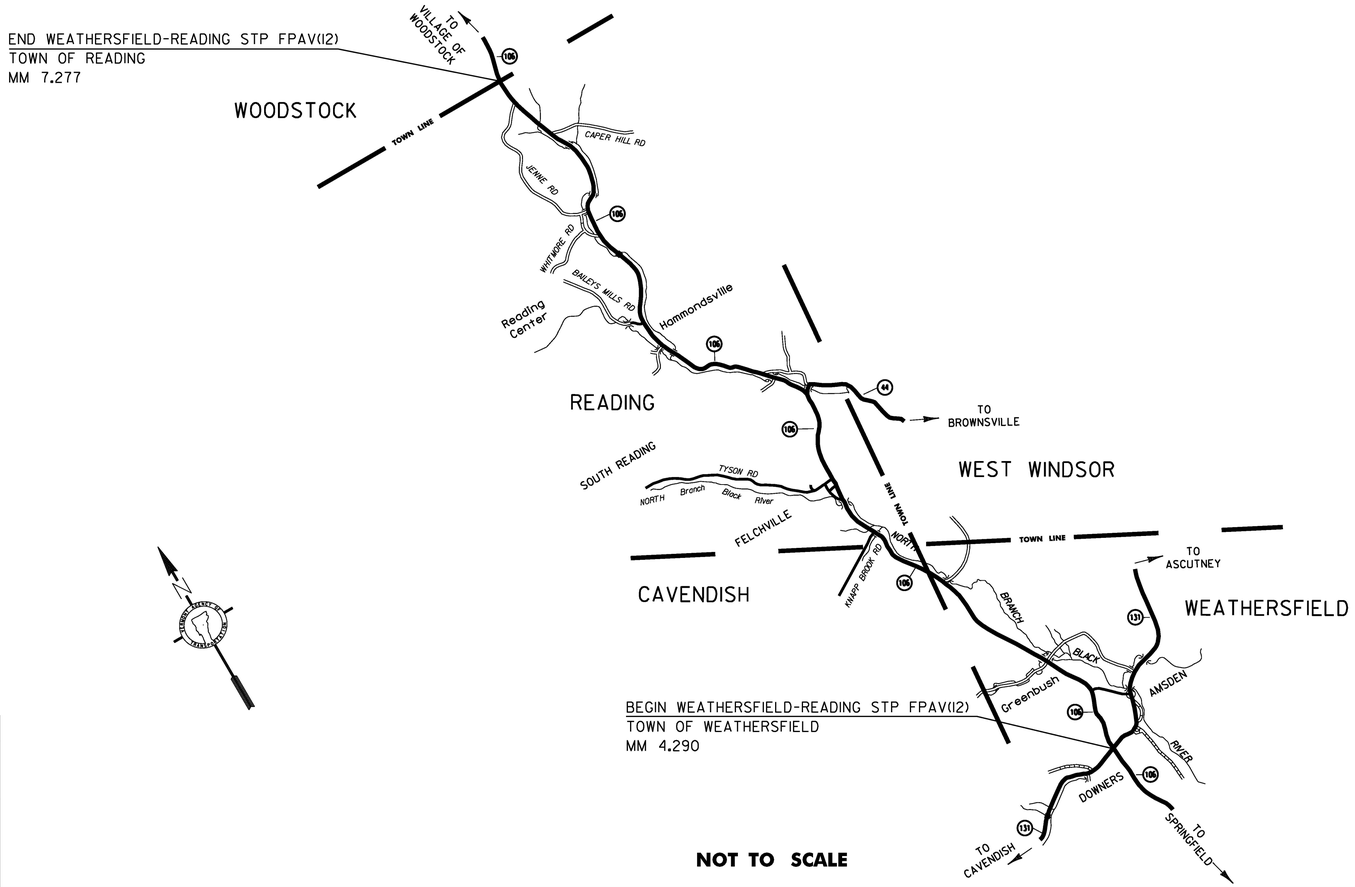


PROPOSED IMPROVEMENT
TOWNS OF WEATHERSFIELD, CAVENDISH AND READING
COUNTY OF WINDSOR
VERMONT ROUTE 106 (MAJOR COLLECTOR)

BEGINNING ON VT. ROUTE 106 IN WEATHERSFIELD AT MM 4.290 AND EXTENDING NORTHERLY ALONG VT. ROUTE 106 A DISTANCE OF 10.624 MILES (56,189.76 FT) TO MM 7.277 IN THE TOWN OF READING.

LENGTH OF ROADWAY	=	10.624 MILES	(56,189.76 FT)
LENGTH OF PROJECT	=	10.624 MILES	(56,189.76 FT)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES PAVING THE EXISTING HIGHWAY, GUARDRAIL, PAVEMENT MARKINGS AND OTHER HIGHWAY RELATED ITEMS.



NOT TO SCALE

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 3	
SURVEYED BY :	N/A
SURVEYED DATE :	N/A
DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

PROJECT MANAGER :	BRANDON W. KIPP, P.E.
PROJECT NAME :	WEATHERSFIELD-READING
PROJECT NUMBER :	STP FPAV(12)
SHEET 29 OF 53 SHEETS	

TRAFFIC DATA

VT ROUTE 44	AADT		DHV		ESAL'S	ESAL'S
	2018	2028	2018	2028	2018-2028	2018-2038
BEGIN PROJECT TO KNAPP BROOK ROAD (MM 4.290 - MM 0.150)	1,600	1,700	190	200	204,000	463,000
KNAPP BROOK ROAD TO VT ROUTE 44 (MM 0.150 - MM 1.812)	1,500	1,600	200	210	287,000	631,000
VT ROUTE 44 TO END OF PROJECT (MM 1.812 - MM 7.277)	1,100	1,200	160	170	160,000	371,000

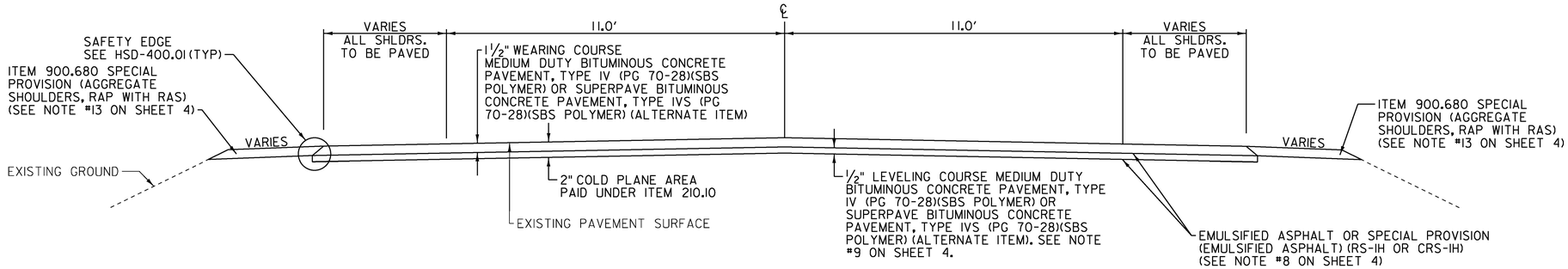
SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	321,810
DESIGN NUMBER OF GYRATIONS	50
PERFORMANCE GRADE ASPHALT BINDER	70-28

PROJECT NAME: WEATHERSFIELD-READING
PROJECT NUMBER: STP FPAV(12)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER: B. KIPP
DESIGNED BY: N. PAPPAS
PROJECT INFORMATION SHEET

PLOT DATE: 04-APR-2018
DRAWN BY: N. PAPPAS
CHECKED BY: B. KIPP
SHEET 30 OF 53

ALTERNATES ZA1 & ZA2

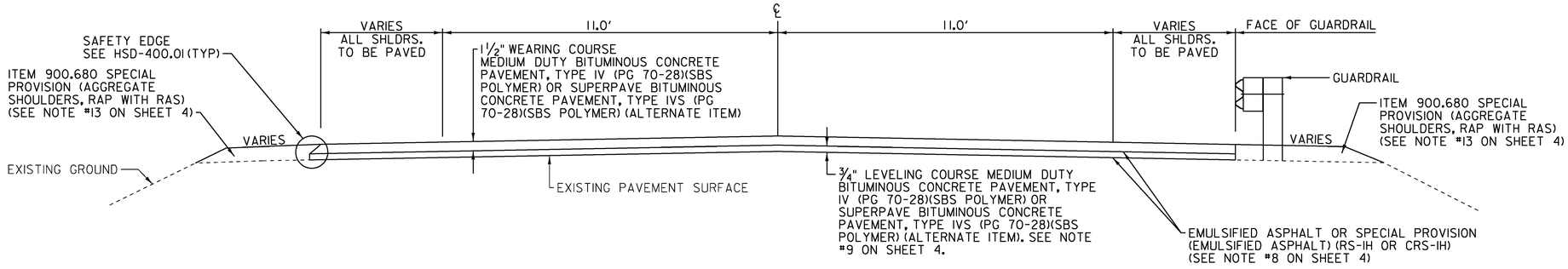


VT 106 TYPICAL SECTION

WEATHERSFIELD
MM 4.290 TO MM 4.376 COLD PLANE 2", LEVEL 1/2", AND OVERLAY 1½"

READING
MM 0.590 TO MM 1.160 COLD PLANE 2", LEVEL 1/2", AND OVERLAY 1½"

ALTERNATES ZA1 & ZA2



VT 106 TYPICAL SECTION

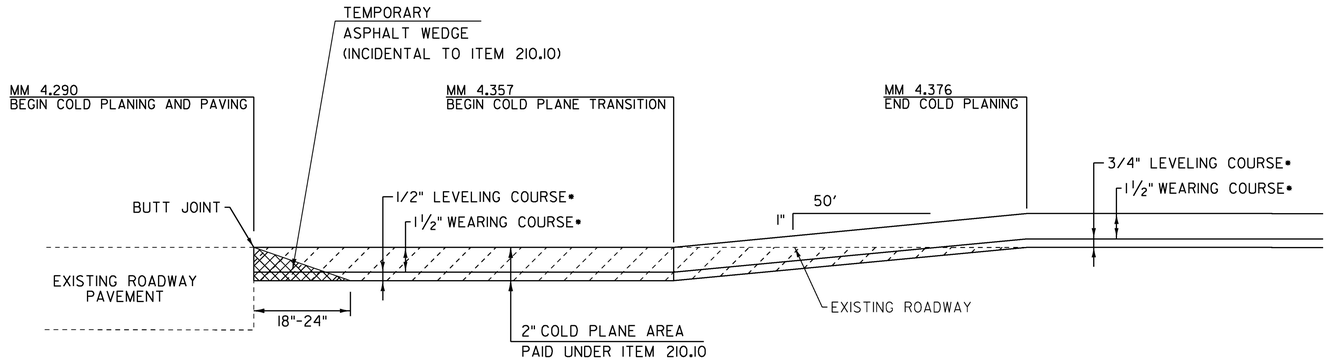
WEATHERSFIELD
MM 4.376 TO MM 7.226 LEVEL 3/4" AND OVERLAY 1½"

CAVENDISH
MM 0.000 TO MM 0.431 LEVEL 3/4" AND OVERLAY 1½"

READING
MM 0.000 TO MM 0.590 LEVEL 3/4" AND OVERLAY 1½"
MM 1.160 TO MM 7.277 LEVEL 3/4" AND OVERLAY 1½"

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET 1	SHEET 31 OF 53

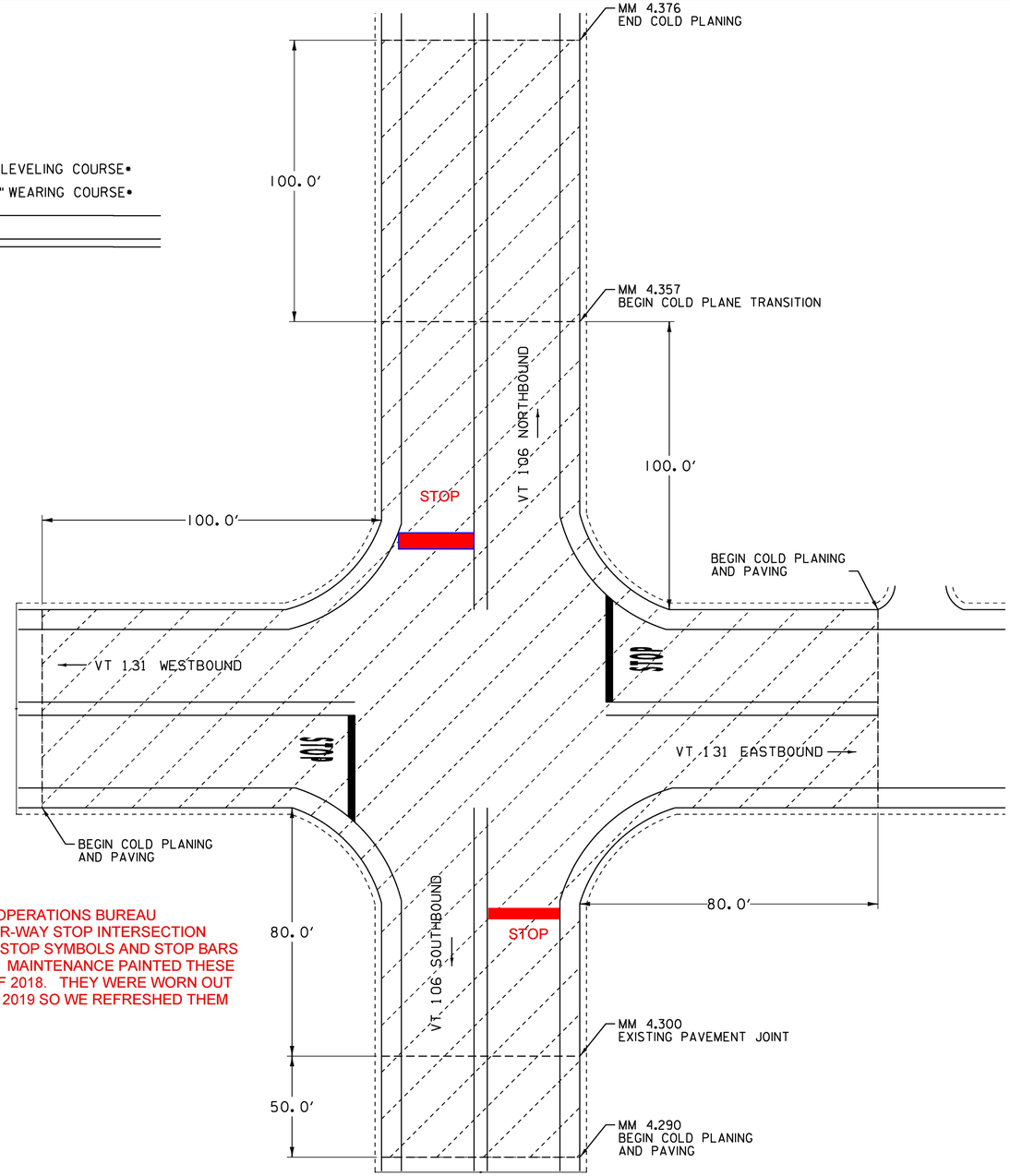


MAINLINE BEGIN APPROACH AND TRANSITION DETAIL

NOTE: BEGIN COLD PLANING AND PAVING WITH BUTT JOINT AND WEDGE AS SHOWN IN THIS DETAIL FOR VT 131 WESTBOUND AND EASTBOUND APPROACH.
•SEE VT 106 TYPICAL'S.

PROJECT TYPICAL WIDTHS

MM	MM	FT	FT	FT	FT
WEATHERSFIELD		LT SH	LT LANE	RT LANE	RT SH
4.290	4.338	4	11	11	4
4.338	4.376	1.5	11	11	1.5
4.376	7.190	1.5	11	11	1.5
7.190	7.223	4	11	11	4
CAVENDISH					
0.000	0.120	4	11	11	4
0.120	0.323	6	11	11	7
0.323	0.429	1.5	11	11	1.5
READING					
0.000	0.509	1.5	11	11	1.5
0.509	0.770	1.5	11	11	1.5
0.770	0.840	10	11	11	5
0.840	1.160	10	11	11	5
1.160	1.217	1.5	11	11	1.5
1.217	1.380	5	11	11	5
1.380	1.750	5.5	11	11	8
1.750	1.795	6	11	11	11.5
1.795	2.080	6.5	11	11	6.5
2.080	2.210	6	11	11	6
2.210	2.218	6	11	11	5
2.218	2.258	4	11	11	4
2.258	3.290	1.5	11	11	1.5
3.290	3.296	2	11	11	3
3.296	3.681	1.5	11	11	1.5
3.681	3.942	2	11	11	2
3.942	4.128	1	11	11	3
4.128	4.138	1.5	11	11	1.5
4.138	4.207	1	11	11	3
4.207	4.300	1.25	11	11	1.25
4.300	4.447	1	11	11	3
4.447	4.569	3	11	11	3
4.569	5.164	3	11	11	1
5.164	5.373	3	11	11	4
5.373	5.778	2.5	11	11	3
5.778	5.950	2.5	11	11	2.5
5.950	6.011	6	11	11	4
6.011	6.206	3.5	11	11	3.5
6.206	6.644	2.5	11	11	3.5
6.644	6.749	5	11	11	2
6.749	7.019	3	11	11	3
7.019	7.277	2.5	11	11	2.5



THE MAINTENANCE AND OPERATIONS BUREAU CHANGED THIS TO A FOUR-WAY STOP INTERSECTION DURING THIS PROJECT. STOP SYMBOLS AND STOP BARS WERE ADDED TO VT 106. MAINTENANCE PAINTED THESE SYMBOLS IN OCTOBER OF 2018. THEY WERE WORN OUT COMPLETELY BY SPRING 2019 SO WE REFRESHED THEM WITH EPOXY.

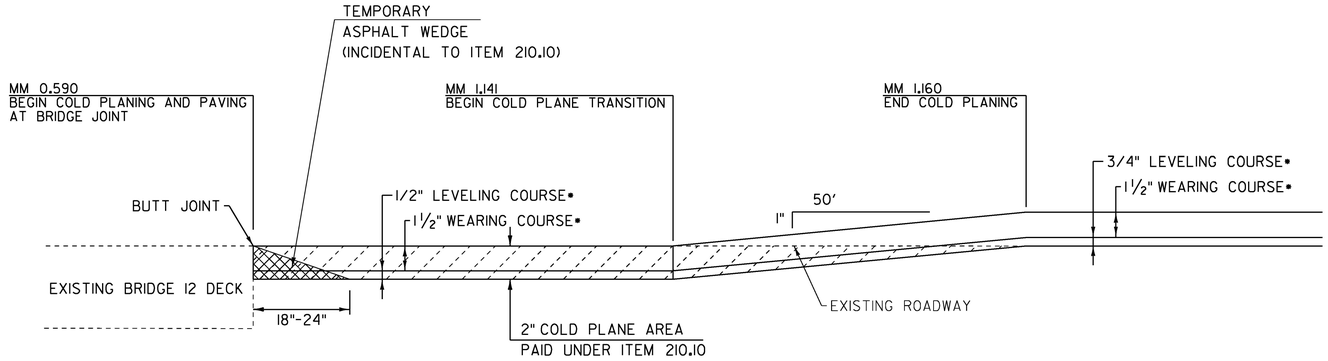
BEGIN APPROACH COLD PLANE DETAIL

WEATHERSFIELD VT ROUTE 106 & VT ROUTE 131 EAST/WEST APPROACH

NOT TO SCALE

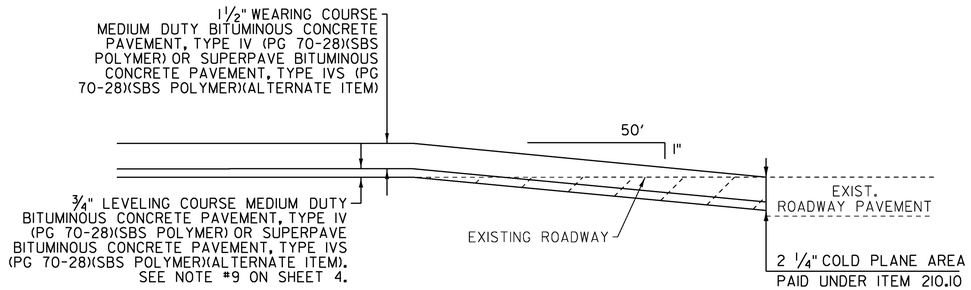
PROJECT NAME: WEATHERSFIELD-READING
PROJECT NUMBER: STP FPAV(12)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET 2 SHEET 32 OF 53

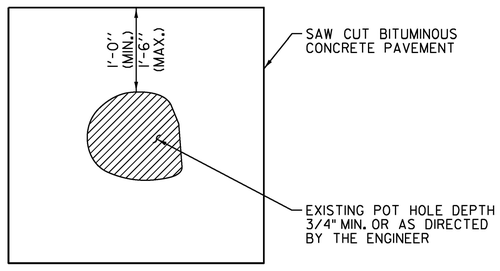


COLD PLANE DETAIL READING MM 0.590 TO MM 1.160

NOTE: •SEE VT 106 TYPICAL'S.



MAINLINE END APPROACH DETAIL



TYPICAL POT HOLE REPAIR

TYPICAL POT HOLE REPAIR NOTES

1. ITEM 404.65 EMULSIFIED ASPHALT OR ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H) OPTION ITEM SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 - 0.50 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).
2. ALL WORK ASSOCIATED WITH POT HOLE REPAIR WILL BE PAID UNDER ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET 3	SHEET 33 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	BRIDGE	FULL C.E.	ROADWAY (ALTERNATE ZA1)	ROADWAY (ALTERNATE ZA2)
725				
26900				
1				
18100				
1750				
1750				
1				
	340			
	100			
6				
160				
75				
140				
320				
50				
2100				
2000				
200				
51				
28				
28				
11537				
4225				
1075				
4275				
		0.34		
		0.4		
		0.4		
		1000		
0.5				
1				
5				
112900				
112900				
112900				

TOTALS

GRAND TOTAL	FINAL
725	
26900	
1	
18100	
1750	
1750	
1	
340	
100	
6	
160	
75	
140	
320	
50	
2100	
2000	
200	
51	
28	
28	
11537	
4225	
1075	
4275	
0.34	
0.4	
0.4	
1000	
0.5	
1	
5	
112900	
112900	
112900	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
CY	EARTH BORROW	203.30	EST
LF	SHOULDER BERM REMOVAL	203.40	289
CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	EST
SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	275
	BEGIN OPTION AA		
CWT	EMULSIFIED ASPHALT	404.65	25
CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT)(RS-1H OR CRS-1H)	900.683	25
	END OPTION AA		
LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	2
CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST
EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	EST
HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST
HR	POWER BROOM RENTAL, TYPE I	608.30	EST
HR	POWER BROOM RENTAL, TYPE II	608.31	EST
HR	TRUCK RENTAL	608.37	EST
HR	LOADER RENTAL, TYPE I	608.40	EST
LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	-
LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	-
LF	HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/ 8 FEET POSTS	621.217	-
EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
EACH	REPLACE GUARDRAIL POST ASSEMBLY	621.76	EST
EACH	REPLACE GUARDRAIL BEAM UNIT	621.77	EST
LF	ADJUST HEIGHT OF GUARDRAIL	621.79	EST
LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	EST
HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST
HR	FLAGGERS	630.15	EST
LS	FIELD OFFICE, ENGINEERS	631.10	-
LS	TESTING EQUIPMENT, CONCRETE	631.16	-
LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-
DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-
LS	MOBILIZATION/DEMOBILIZATION	635.11	-
LS	TRAFFIC CONTROL (STP FPAV(12))	641.10	-
EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
	BEGIN OPTION BB		
LF	DURABLE 4 INCH WHITE LINE, THERMOPLASTIC	646.402	351
LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	351
LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	351
	END OPTION BB		

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COLD PLANING BITUMINOUS PAVEMENT
1,267	SY	BEGIN PROJECT APPROACH
600	SY	VT 131 APPROACHES
156	SY	VT 44 APPROACH
12,372	SY	READING MM 0.590 TO MM 1.160
479	SY	TOWN HIGHWAYS AND PULLOFF AT MM 1.327 LT
453	SY	BRIDGE 9
440	SY	BRIDGE 10
476	SY	BRIDGE 12
802	SY	BRIDGE 13
480	SY	BRIDGE 14
300	SY	END PROJECT APPROACH
17,825	SY	SUBTOTAL
275	SY	ROUNDING
18,100	SY	TOTAL

PROJECT NAME: WEATHERSFIELD-READING
PROJECT NUMBER: STP FPAV(12)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER: B. KIPP
DESIGNED BY: N. PAPPAS
QUANTITY SHEET 1

PLOT DATE: 04-APR-2018
DRAWN BY: N. PAPPAS
CHECKED BY: B. KIPP
SHEET 34 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES							TOTALS					
ROADWAY	BRIDGE	FULL C.E.	ROADWAY (ALTERNATE ZA1)	ROADWAY (ALTERNATE ZA2)			GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
										BEGIN OPTION CC		
112900							112900		LF	DURABLE 4 INCH YELLOW LINE, THERMOPLASTIC	646.412	351
112900							112900		LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	351
112900							112900		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	351
										END OPTION CC		
										BEGIN OPTION DD		
80							80		LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	-
80							80		LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	-
80							80		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	-
										END OPTION DD		
										BEGIN OPTION EE		
8							8		EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-
8							8		EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	-
8							8		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-
										END OPTION EE		
123470							123470		LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	351
123470							123470		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	351
160							160		LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	-
8							8		EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	-
22900							22900		EACH	LINE STRIPING TARGETS	646.76	449
40							40		LB	SEED	651.15	EST
100							100		LB	FERTILIZER	651.18	EST
1							1		TON	AGRICULTURAL LIMESTONE	651.20	EST
1							1		TON	HAY MULCH	651.25	EST
145							145		CY	TOPSOIL	651.35	EST
710							710		SY	TEMPORARY EROSION MATTING	653.20	EST
86							86		EACH	DELINEATOR WITH STEEL POST	676.10	EST
86							86		EACH	REMOVAL OF EXISTING DELINEATOR	676.12	EST
525							525		EACH	REMOVE AND REPLACE REFLECTOR UNIT	676.15	EST
1							1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-
1650							1650		SY	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	900.675	EST
1950							1950		TON	SPECIAL PROVISION (AGGREGATE SHOULDERS, RAP WITH RAS)	900.680	EST
100							100		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)	900.680	EST
22600							22600		TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)	900.680	269
										BEGIN ALTERNATE ZA1		
			22600				22600		TON	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28)(SBS POLYMER)	406.27	269
			1				1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	406.28	-
										END ALTERNATE ZA1		

DETAILED SUMMARY OF QUANTITIES		
QUANTITIES	UNIT	ITEMS
		ALTERNATE ZA1
15,027	TON	TYPE IV, WEARING COURSE
7,304	TON	TYPE IV, LEVELING COURSE
22,331	TON	SUBTOTAL
269	TON	ROUNDING
22,600	TON	TOTAL
		ALTERNATE ZA2
15,027	TON	TYPE IV, WEARING COURSE
7,304	TON	TYPE IV, LEVELING COURSE
22,331	TON	SUBTOTAL
269	TON	ROUNDING
22,600	TON	TOTAL

THIS ITEM WAS MODIFIED BY CHANGE ORDER #1: The contractor requested the use of PG 58-28 asphalt in the Hand-Placed Bituminous mix used for hand paving aprons at a reduced cost instead of the PG 70-28 asphalt, per contract. The PG 70-28 asphalt is only made with a polymer which results in a workability that does not leave a desirable looking mat when not placed by a paver screed.

PROJECT NAME: WEATHERSFIELD-READING
PROJECT NUMBER: STP FPAV(12)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER: B. KIPP
DESIGNED BY: N. PAPPAS
QUANTITY SHEET 2

PLOT DATE: 04-APR-2018
DRAWN BY: N. PAPPAS
CHECKED BY: B. KIPP
SHEET 35 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

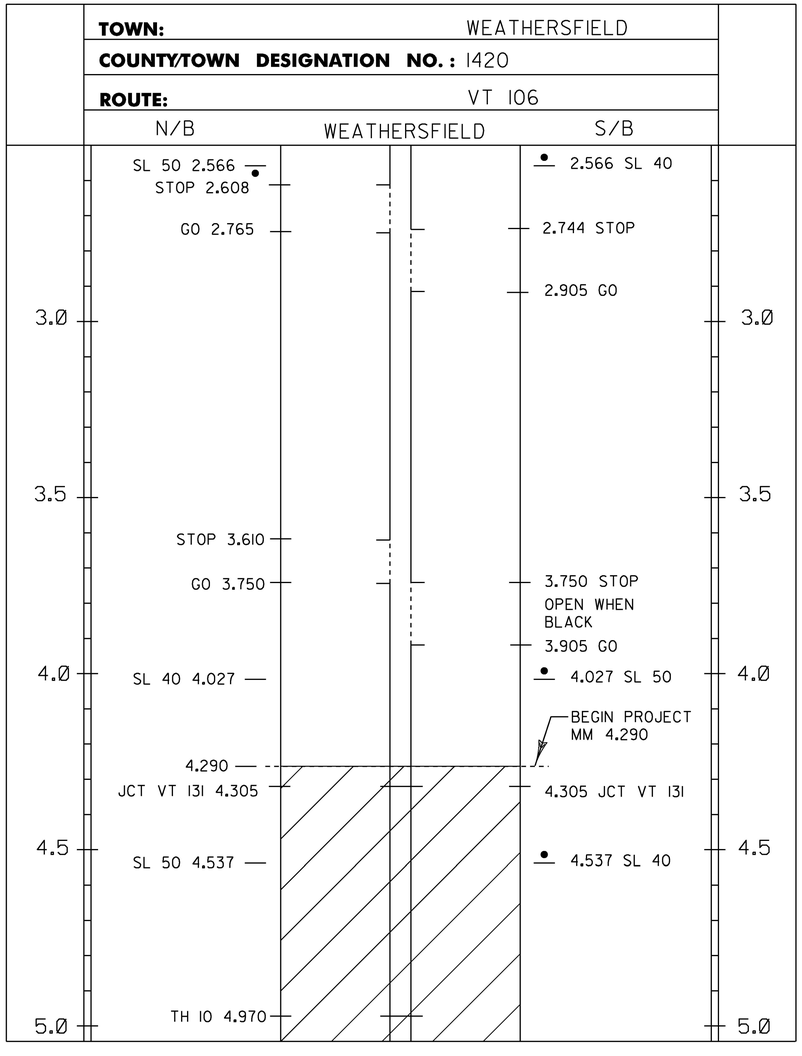
| SUMMARY OF ESTIMATED QUANTITIES | | |

ITEM DETAIL SHEET 1

LOCATION			203.30	621.20	621.205	621.617	621.60	621.76	621.77	621.79	621.80	651.35	653.20	676.10	676.12	676.15								REMARKS
MM	MM	POS	EARTH BORROW	STEEL BEAM GUARDRAIL GALV.	STEEL BEAM GUARDRAIL GALV. W/8 FEET POSTS	HD STEEL BEAM GUARDRAIL, GALVANIZED/ NESTED W/8 FEET POSTS	ANCHOR FOR STEEL BEAM RAIL	REPLACE GUARDRAIL POST ASSEMBLY	REPLACE GUARDRAIL BEAM ASSEMBLY	ADJUST HEIGHT OF GUARDRAIL	REMOVAL AND DISPOSAL OF GUARDRAIL	TOPSOIL	TEMP. EROSION MATTING	DELIN. W/STEEL POST	REMOVAL OF EXIST. DELIN.	REMOVE AND REPLACE REFLECTOR UNIT								
			CY	LF	LF	LF	EACH	EACH	EACH	LF	LF	CY	SY	EACH	EACH	EACH								
																525								ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER
	WEATHERSFIELD																							
5.593	5.608	LT		39.00			2				37.50			2	2									REMOVE MELT, SEE STANDARD G-1D
5.593	5.623	RT		78.00			2				75.00			2	2									REMOVE MELT, SEE STANDARD G-1D
6.877	6.952	RT		78.00			2				75.00			2	2									REMOVE MELT, SEE STANDARD G-1D
	CAVENDISH																							
0.020	0.267	RT		39.00			1	3	1	1299.00	37.50			2	2									REMOVE MELT, SEE STANDARD G-1D
0.340	0.367	RT								150.00				2	2									
	READING																							
0.112	0.117	LT	25.00	78.00			2				31.25	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
0.112	0.132	RT		100.00			2				75.00			2	2									REMOVE MELT, SEE STANDARD G-1D
0.561	0.580	RT	25.00	39.00			1				37.50	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
0.580	0.581	LT												2	2									
0.589	0.590	RT												2	2									
0.590	0.591	LT												2	2									
1.372	1.441	RT						1						2	2									
1.865	2.044	RT	50.00	78.00			2			950.00	75.00	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
2.208	2.233	RT	50.00	78.00			2				62.50	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
2.213	2.233	LT	25.00	39.00			1				25.00	5.00	10.00	2	2									REMOVE MELT, SEE STANDARD G-1D
2.851	2.896	LT						1		237.50				2	2									
2.950	3.005	LT	50.00	78.00			2				75.00	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
3.234	3.279	RT	25.00	115.50		100.00	2				212.50	5.00	25.00	2	2									REMOVE MELT'S, SEE STANDARD G-1D & S-366
3.249	3.324	LT	25.00	315.50		100.00	2	2			412.50	5.00	25.00	2	2									REMOVE MELT'S, SEE STANDARD G-1D & S-366
3.657	3.752	RT	50.00	78.00			2		2	506.25	75.00	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
3.937	4.121	RT	50.00	78.00			2			975.00	75.00	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
4.200	4.290	RT	50.00	78.00			2			475.00	75.00	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
4.464	4.569	RT	50.00	78.00			2			556.25	75.00	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
4.524	4.763	LT	25.00	39.00			1		5		37.50	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
4.773	4.883	LT	25.00	39.00			1			581.25	37.50	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
4.886	5.037	LT							3	800.00				2	2									
5.042	5.251	LT	50.00		1106.25		2				1106.25	10.00	50.00	2	2									REMOVE MELT, SEE STANDARD G-1D
5.186	5.371	RT	50.00		887.50		2			100.00	987.50	10.00	50.00	2	2									RETAIN 100 FEET, REMOVE MELT'S, SEE STANDARD G-1D
5.410	5.545	RT		78.00			2		2		75.00			2	2									REMOVE MELT, SEE STANDARD G-1D
5.570	5.654	RT	25.00	78.00			2				75.00	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
5.699	5.814	RT	25.00	39.00			1			618.75	37.50	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
5.809	6.023	LT	25.00	78.00			2			1131.25	75.00	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
6.087	6.098	LT						1	1	75.00				2	2									
6.087	6.103	RT						3	2	87.50				2	2									
6.108	6.181	RT						2	1					2	2									
6.172	6.192	LT	25.00	39.00			1	1		106.25	37.50	5.00	25.00	2	2									REMOVE MELT, SEE STANDARD G-1D
6.182	6.277	RT												2	2									
6.198	6.237	LT		39.00			1			206.25	37.50			2	2									REMOVE MELT, SEE STANDARD G-1D
6.262	6.282	LT		39.00			1			106.25	37.50			2	2									REMOVE MELT, SEE STANDARD G-1D
6.282	6.560	RT						8	4	1468.75				2	2									
6.566	6.690	RT		39.00			1	6	5	656.25	37.50			2	2									REMOVE MELT, SEE STANDARD G-1D
6.904	6.989	RT		78.00			2		1	450.00	75.00			2	2									REMOVE MELT, SEE STANDARD G-1D
6.905	7.138	LT		39.00			1		1		37.50			2	2									REMOVE MELT, SEE STANDARD G-1D
	SUBTOTAL		725.00	2091.00	1993.75	200.00	51	28	28	11536.50	4225.00	145.00	710.00	86	86	525								
	TOTAL ROUNDING		EST	EST	EST	-	EST	EST	EST	EST	EST	EST	EST	-	-	EST								
	PROJECT TOTAL		725.00	2091.00	1993.75	200.00	51	28	28	11536.50	4225.00	145.00	710.00	86	86	525								

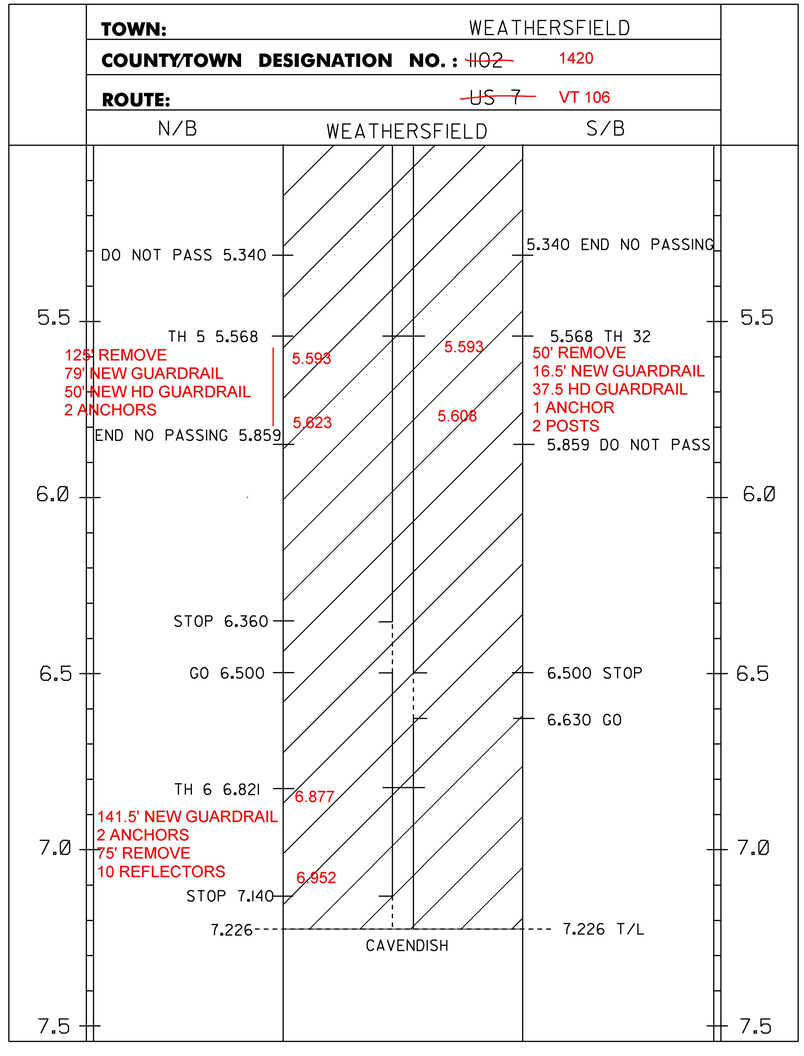
PROJECT NAME: WEATHERSFIELD-READING
PROJECT NUMBER: STP FPAV(12)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS CHECKED BY: B. KIPP
ITEM DETAIL SHEET SHEET 37 OF 53



TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND RADIUS FOR TOWN HIGHWAYS)
MM 4.290 - MM 7.226 LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR TOWN HIGHWAYS)
MM 4.290 - MM 6.360 SOLID LT & RT
MM 6.360 - MM 6.500 SOLID LT & DASHED RT
MM 6.500 - MM 6.630 DASHED LT & SOLID RT
MM 6.630 - MM 7.140 SOLID LT & RT
MM 7.140 - MM 7.226 SOLID LT & DASHED RT



PROJECT AREA

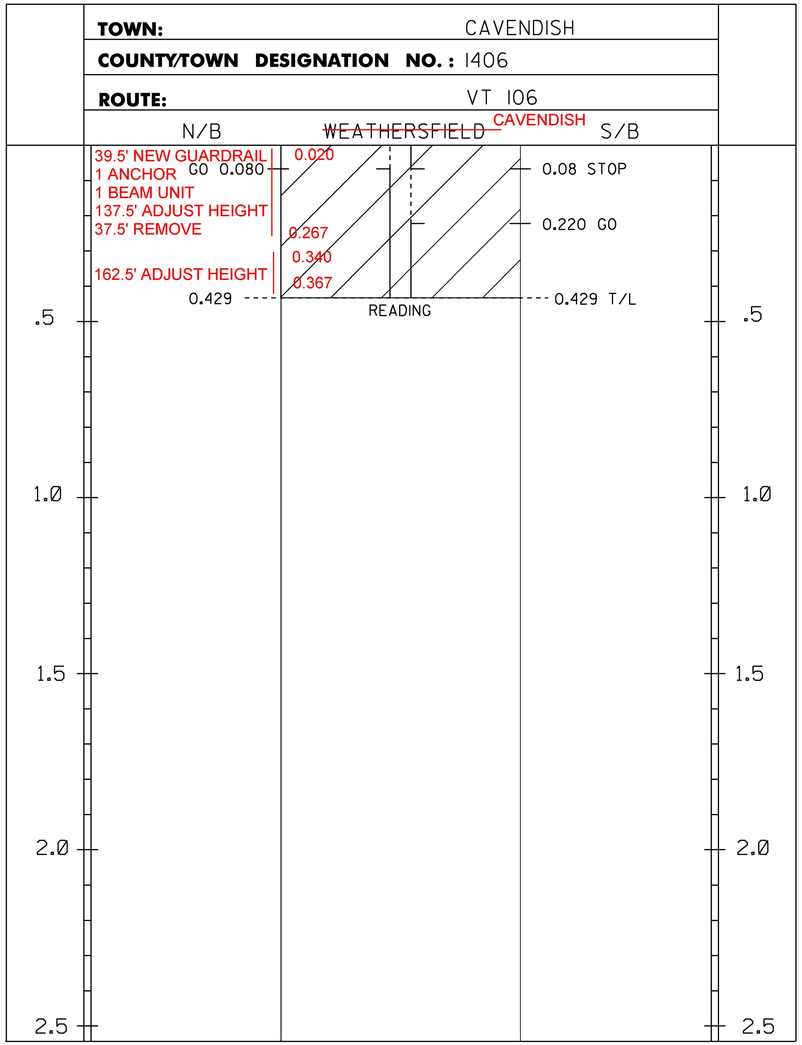
LEGEND
TWBH-THROUGHWAY BEGINS HERE
TWEH-THROUGHWAY ENDS HERE
SHB-STATE HIGHWAY BEGINS
SHE-STATE HIGHWAY ENDS
SL-SPEED LIMIT
SM-SPECIAL MARKINGS
T/L-TOWN LINE

NOTES:
THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS.
THE ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.

NOT TO SCALE

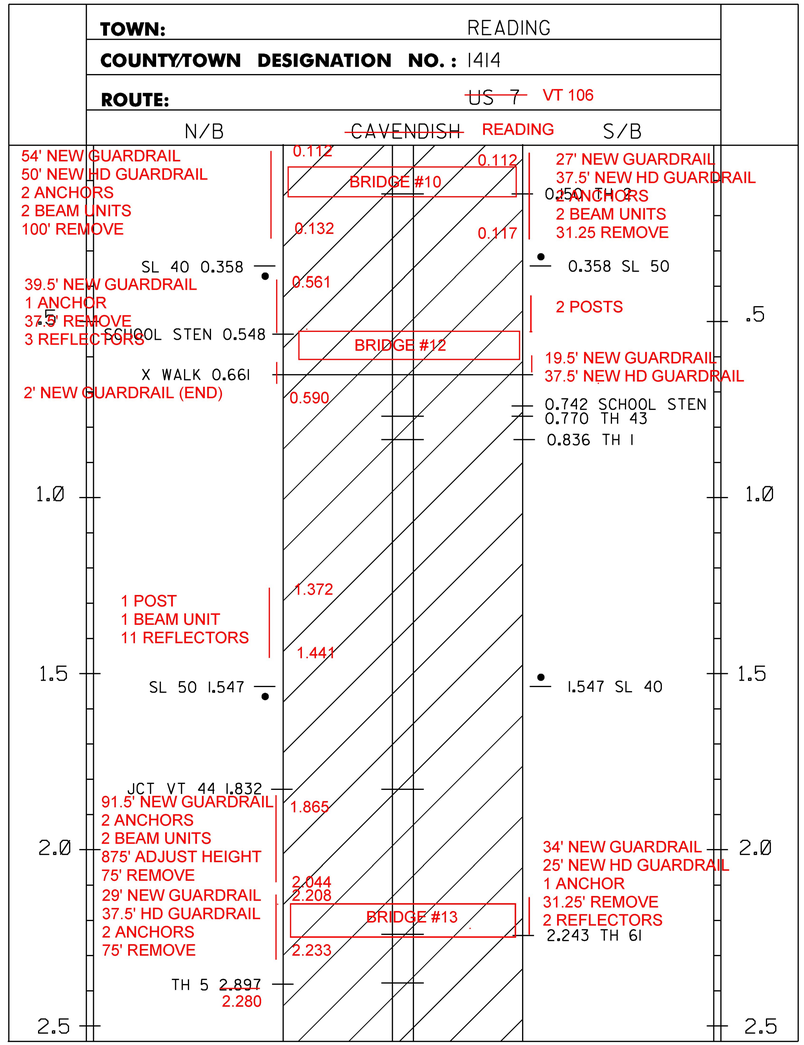
PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
PLAN SHEET 1	SHEET 38 OF 53



TEMPORARY 4 INCH WHITE LINE, PAINT & DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND RADIUS FOR TOWN HIGHWAYS)
MM 0.000 - MM 0.429 LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT & DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR TOWN HIGHWAYS)
MM 0.000 - MM 0.080 SOLID LT & DASHED RT
MM 0.080 - MM 0.220 MM DASHED LT & SOLID RT
MM 0.220 - MM 0.429 SOLID LT & RT
MM 0.000 - MM 2.500 SOLID LT & RT



PROJECT AREA

LEGEND
TWBH-THROUGHWAY BEGINS HERE
TWEH-THROUGHWAY ENDS HERE
SHB-STATE HIGHWAY BEGINS
SHE-STATE HIGHWAY ENDS
SL-SPEED LIMIT
SM-SPECIAL MARKINGS
T/L-TOWN LINE

NOTES:
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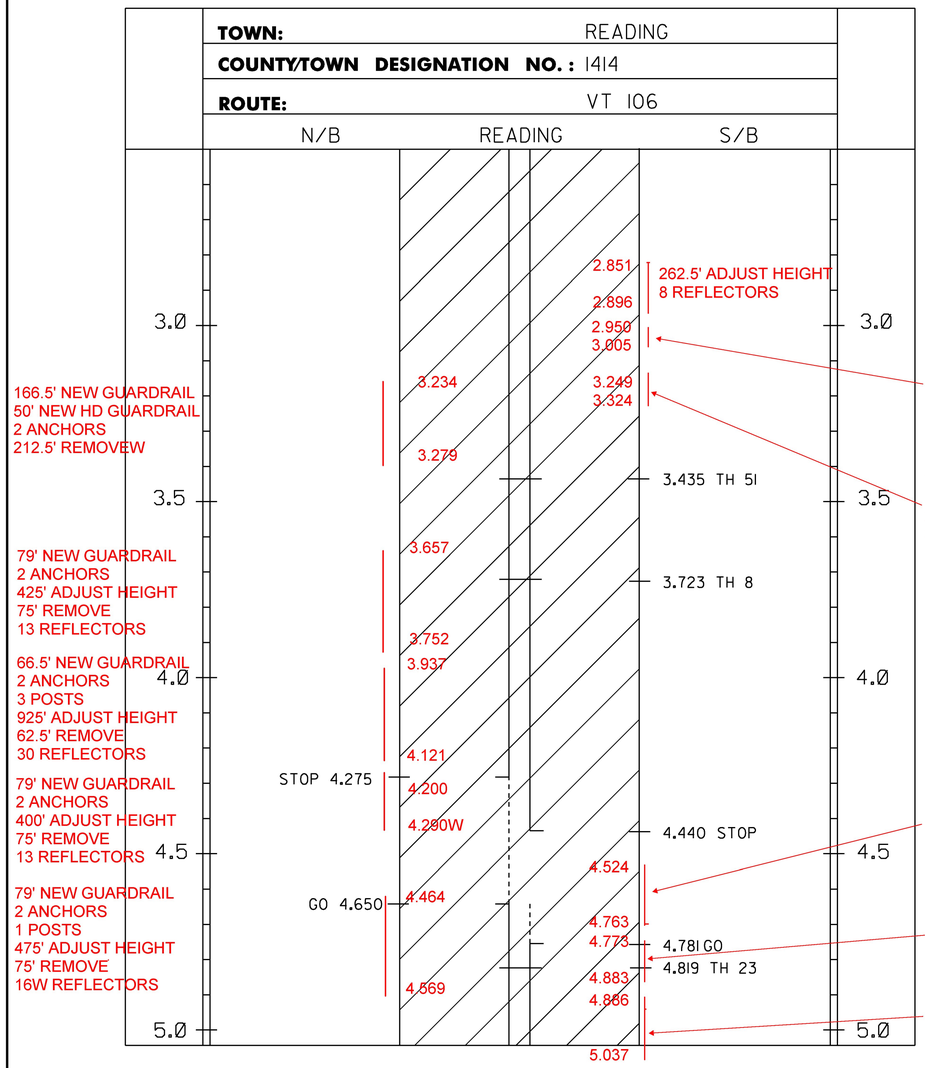
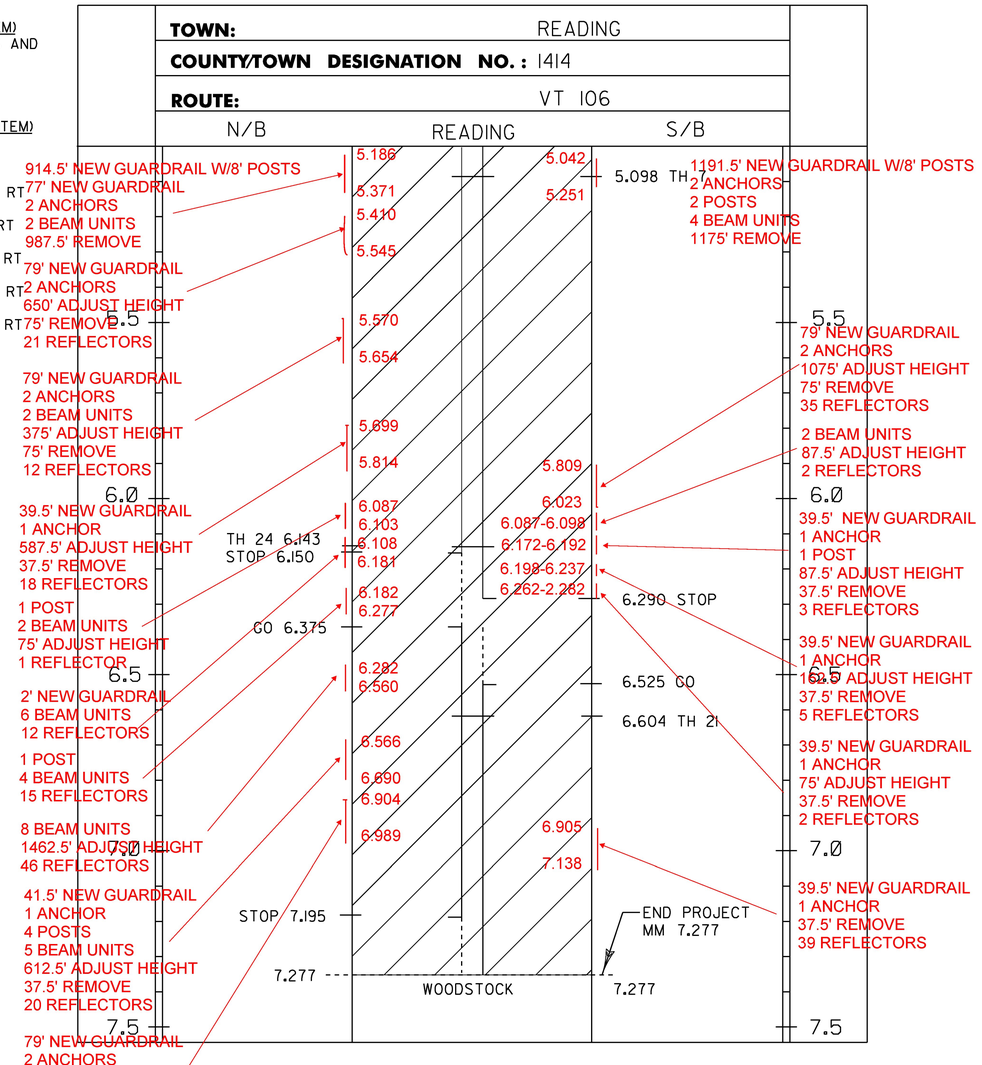
NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
PLAN SHEET 2	SHEET 39 OF 53



TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND RADIUS FOR TOWN HIGHWAYS)
MM 2.500 - MM 7.277 LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR TOWN HIGHWAYS)
MM 2.500 - MM 4.275 SOLID LT & RT
MM 4.275 - MM 4.440 SOLID LT & DASHED RT
MM 4.440 - MM 4.650 DASHED RT
MM 4.650 - MM 4.781 DASHED LT & SOLID RT
MM 4.781 - MM 6.150 SOLID LT & RT
MM 6.150 - MM 6.290 SOLID LT & DASHED RT
MM 6.290 - MM 6.375 DASHED RT
MM 6.375 - MM 6.525 DASHED LT & SOLID RT
MM 6.525 - MM 7.195 SOLID LT & RT
MM 7.195 - MM 7.277 SOLID LT & DASHED RT



LEGEND
TWBH-THROUGHWAY BEGINS HERE
TWEH-THROUGHWAY ENDS HERE
SHB-STATE HIGHWAY BEGINS
SHE-STATE HIGHWAY ENDS
SL-SPEED LIMIT
SM-SPECIAL MARKINGS
T/L-TOWN LINE

PROJECT AREA

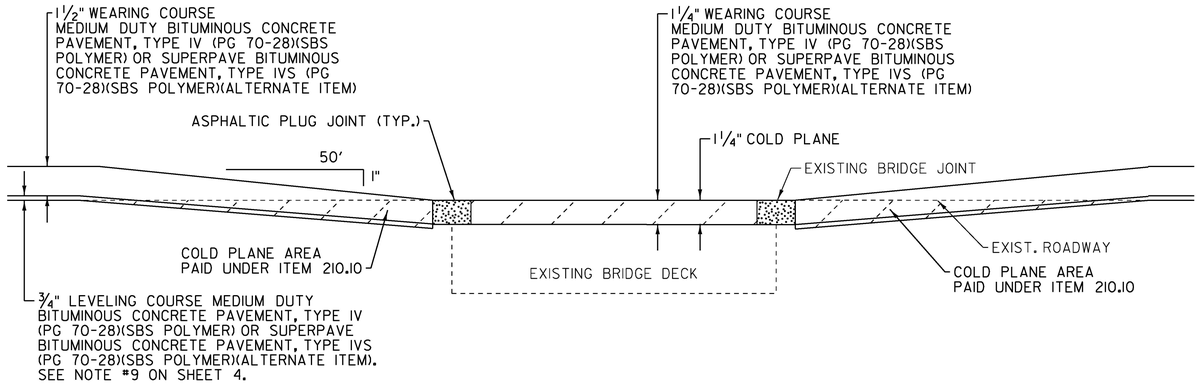
NOTES:
THIS SHEET TO BE USED FOR THE LAYOUT OF ALL CENTERLINE PAVEMENT MARKINGS.
THE ENGINEER MAY CONTACT KEITH SWEET, PAVEMENT MARKING SUPERVISOR AT (802) 828-5573 FOR ASSISTANCE LAYING OUT THE CENTERLINE DURING CONSTRUCTION.

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
PLAN SHEET 3	SHEET 40 OF 53

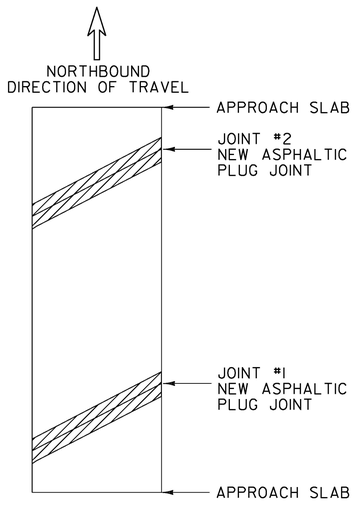
NOTES

1. ALL NEW JOINTS TO BE INSTALLED PER SD-516.10 AND PAID FOR UNDER ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG.
2. AN ESTIMATED QUANTITY OF ITEM 580.20 CONCRETE REPAIR MATERIAL IS TO BE USED AS NECESSARY THROUGHOUT THE PROJECT LIMITS AT THE DISCRETION OF THE ENGINEER.
3. BRIDGES TO BE PAVED FULL WIDTH.
4. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE SOLE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A DAILY BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.
6. IF BRIDGE 14 GUARDRAIL BEAM BOLTS HAMPER INSTALLATION, THE BOLTS SHALL BE CUT FLUSH OR REMOVED AS DIRECTED BY THE ENGINEER WITHOUT DAMAGING THE CONCRETE BRIDGE POSTS. PAYMENT WILL BE INCIDENTAL TO 621.217 HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS.



BRIDGE APPROACH DETAIL

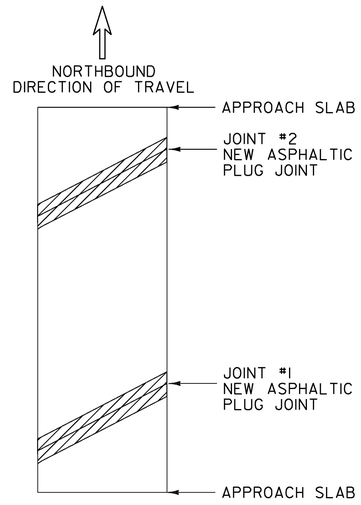
NOTE: BEGIN COLD PLANING AND PAVING WITH BUTT JOINT AND WEDGE AS SHOWN ON TYPICAL AND DETAIL SHEET 2 FOR BRIDGE 12.



BRIDGE #9

MM 5.594 WEATHERSFIELD

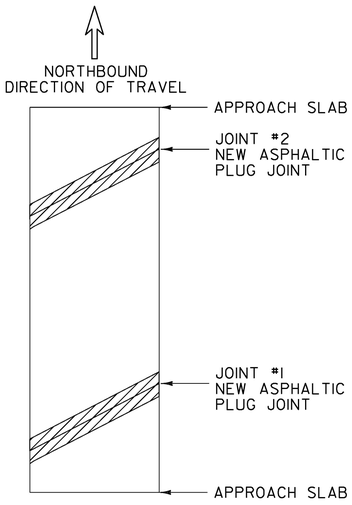
LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 34'
JOINT #2 - 34'
TOTAL = 68'



BRIDGE #10

MM 0.113 READING

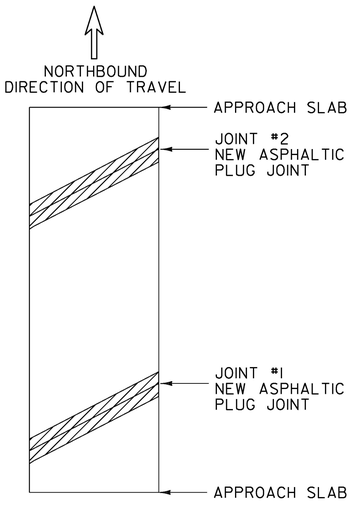
LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 33'
JOINT #2 - 33'
TOTAL = 66'



BRIDGE 12 READING

MM 0.581

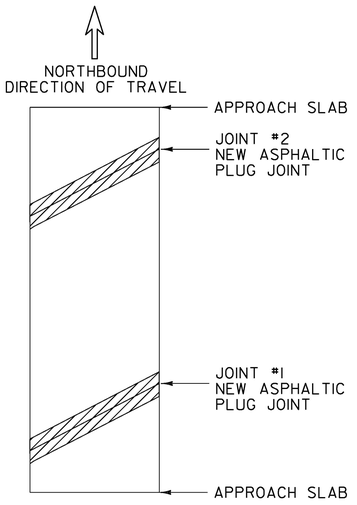
LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 28'
JOINT #2 - 28'
TOTAL = 56'



BRIDGE 13 READING

MM 2.209

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 38'
JOINT #2 - 38'
TOTAL = 76'



BRIDGE 14 READING

MM 3.235

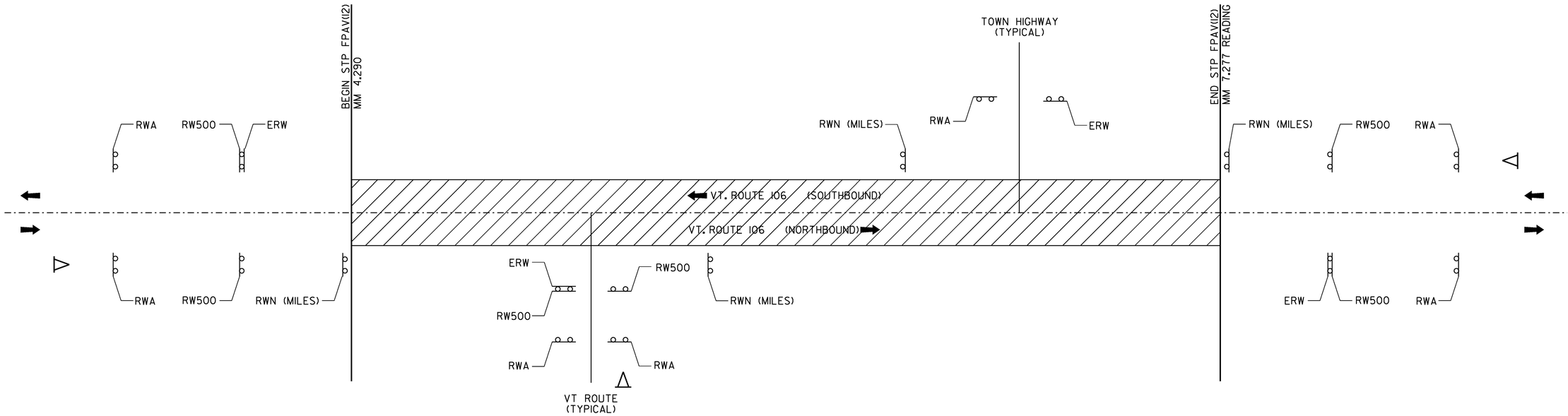
LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 36'
JOINT #2 - 36'
TOTAL = 72'

LEGEND

EXISTING BRIDGE JOINTS TO BE REPAIRED WITH ASPHALTIC PLUG JOINT.

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
BRIDGE DETAIL SHEET	SHEET 41 OF 53



TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.

2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.

3. THE BID PRICE FOR TRAFFIC CONTROL, ITEM 641.10, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY: 630.10 - UNIFORMED TRAFFIC OFFICERS, AND 630.15 - FLAGGERS, 646.602 - TEMPORARY 4 INCH WHITE LINE, PAINT, 646.612 - TEMPORARY 4 INCH YELLOW LINE, PAINT, 646.682 - TEMPORARY 24 INCH STOP BAR, PAINT, 646.692 - TEMPORARY LETTER OR SYMBOL, PAINT, AND 646.76 - LINE STRIPING TARGETS.

4. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.

   FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL POSITION A PCMS PRIOR TO THE BEGIN AND END PROJECT LIMITS WARNING MOTORISTS OF EXPECTED ROADWAY CONDITIONS AND REDUCED ROADWAY WIDTHS.

   PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

   THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

   THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.

5. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.

6. REFER TO VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN COLORS.

7. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED. KEEP RECORDS WHEN POSTING THE WORK ZONE SPEED LIMIT FOR LEGAL PURPOSES; DOCUMENTING DATES, TIMES, AND LOCATIONS OF SIGNS. WHEN WORK ZONE SPEED LIMIT IS NOT IN USE ALL ASSOCIATED SIGNS SHALL BE COVERED, TURNED AND/OR LAID FLAT SO AS THE MOTORING PUBLIC CANNOT READ THESE SIGNS.

8. PORTABLE OR STATIONARY WORK ZONE SPEED LIMIT SIGNS SHOULD BE SPACED EVERY 1.5 TO TWO MILES WHERE APPLICABLE AND AFTER INTERSECTIONS AS A REMINDER TO THE MOTORIST TRAVELING THROUGH THE WORK ZONE WHAT SPEED THEY SHOULD BE TRAVELING.

9. WHEN REDUCED REGULATORY SPEED LIMIT SIGNS ARE USED, THE RESUMPTION OF THE USUAL SPEED LIMIT SHALL BE INDICATED BY AN APPROPRIATE SPEED LIMIT SIGN AT THE END OF THE WORK ZONE.

10. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MUTCD, PART 6.

11. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.

12. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF FOUR FEET. IF THE TPAR IS LESS THAN FIVE FEET IN WIDTH, A FIVE FOOT BY FIVE FOOT PASSING SPACE SHOULD BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICT WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.

13. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.

14. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.

15. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.

16. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. PAYMENT FOR DEVELOPING, IMPLEMENTING, AND MAINTAINING THE TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.

17. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES ALWAYS OR COORDINATE EMERGENCY ROUTES.

18. ACCOMMODATIONS SHOULD BE TAKEN TO ENSURE THAT OBSTACLES, EQUIPMENT, CONSTRUCTION MATERIALS, TRAFFIC CONTROL DEVICES, ETC. DO NOT ENCROACH IN THE BICYCLE PATH OF TRAVEL. IT IS IMPORTANT THAT CYCLIST'S ROUTES ARE FREE OF RUTS, SAND AND MUD TO PREVENT CYCLIST'S CRASHES.

19. WITH THE NARROWING OF LANES TO 10 FEET, IT IS RECOMMENDED THAT FLAGGER PERSONNEL HOLD RIDERS TO THE END OF THE QUEUE SO THEY ARE NOT COMPETING FOR LANE SPACE TO ENSURE THEIR SAFETY.

20. DMV WILL REQUIRE NOTIFICATION FOR WIDTH RESTRICTION TO REROUTE SUPER LOAD PERMITS. IT SHOULD BE NOTED THAT ONCE A PERMIT IS ISSUED THE APPLICANT/HAULER HAS 10 DAYS TO MOVE THEIR LOAD. THIS REQUIRES ADDITIONAL NOTICE TIME TO CAPTURE THAT 10 DAY WINDOW.

LEGEND

RWA = ROAD WORK AHEAD
RW500 = ROAD WORK IN 500 FEET
SRWA = SIDE ROAD WORK AHEAD
SRW500 = SIDE ROAD WORK IN 500 FEET
RWN = ROAD WORK NEXT (XX MILES)
ERW = END ROAD WORK

△ = PORTABLE CHANGEABLE MESSAGE SIGN

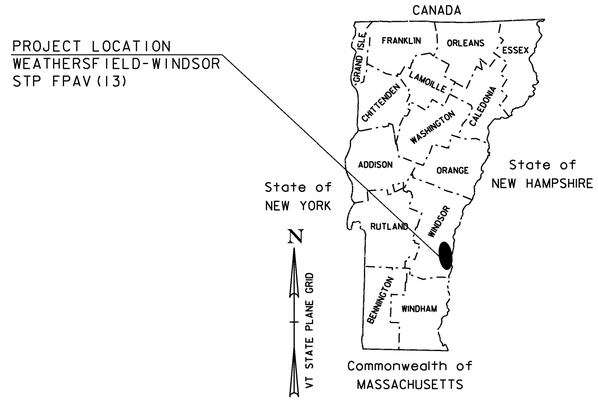
▨ = WORK AREA

⬅ = DIRECTION OF TRAFFIC FLOW

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-READING
PROJECT NUMBER:	STP FPAV(12)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS	CHECKED BY: B. KIPP
CONSTRUCTION APPROACH SIGNING SHEET	SHEET 42 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION



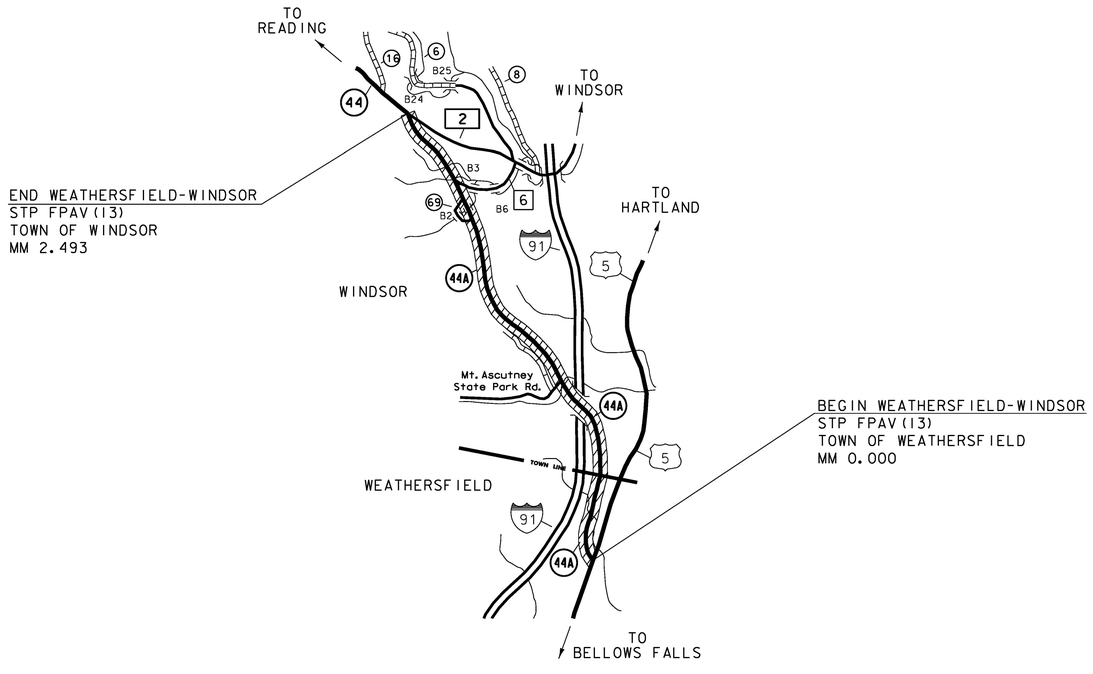
PROJECT LOCATION
WEATHERSFIELD-WINDSOR
STP FPAV(13)

PROPOSED IMPROVEMENT
TOWNS OF WEATHERSFIELD AND WINDSOR
COUNTY OF WINDSOR
VT. ROUTE 44A - MAJOR COLLECTOR

BEGINNING AT THE U.S. ROUTE 5 AND VT. ROUTE 44A INTERSECTION (MM 0.000) IN THE TOWN OF WEATHERSFIELD AND EXTENDING NORTHERLY APPROXIMATELY 2.994 MILES ALONG VT. ROUTE 44A TO MM 2.493 AT THE INTERSECTION OF VT. ROUTE 44A AND VT. ROUTE 44 IN THE TOWN OF WINDSOR.

PROJECT DATA	LENGTH	
WEATHERSFIELD MM 0.000 - MM 0.501	0.501 MILES	
WINDSOR MM 0.000 - MM 2.493	2.493 MILES	
LENGTH OF ROADWAY =	2.994 MILES	(15,808.32 FEET)
LENGTH OF PROJECT =	2.994 MILES	(15,808.32 FEET)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES PAVING THE EXISTING HIGHWAY, GUARDRAIL, PAVEMENT MARKINGS AND OTHER HIGHWAY RELATED ITEMS.



NOT TO SCALE

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 3	
SURVEYED BY :	N/A
SURVEYED DATE :	N/A
DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

PROJECT MANAGER : BRANDON W. KIPP, P.E.	
PROJECT NAME :	WEATHERSFIELD-WINDSOR
PROJECT NUMBER :	STP FPAV(13)
SHEET 43 OF 53 SHEETS	

TRAFFIC DATA

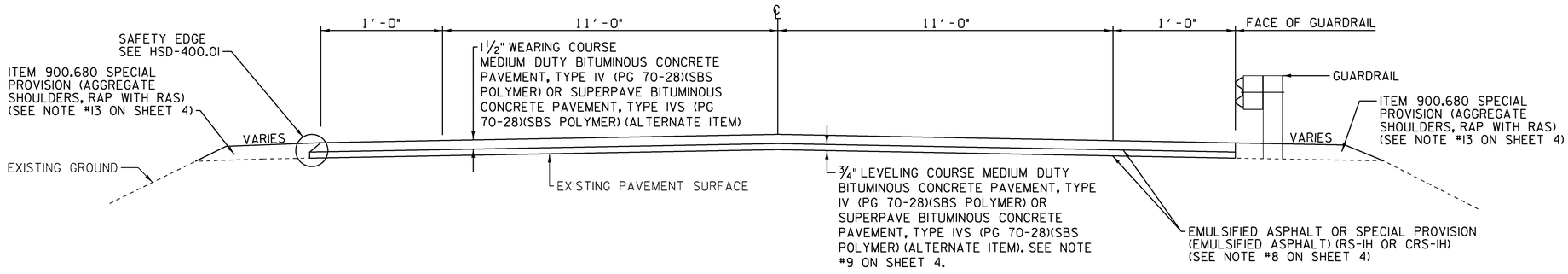
VT ROUTE 44A	AADT		DHV		ESAL'S	ESAL'S
	2018	2028	2018	2028	2018-2028	2018-2038
BEGIN PROJECT TO COLE HILL ROAD (MM 0.000 - MM 1.897)	1,100	1,100	150	150	134,000	296,000
COLE HILL ROAD TO END PROJECT (MM 1.897 - MM 2.493)	790	820	120	120	84,000	208,000

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	177,600
DESIGN NUMBER OF GYRATIONS	50
PERFORMANCE GRADE ASPHALT BINDER	70-28

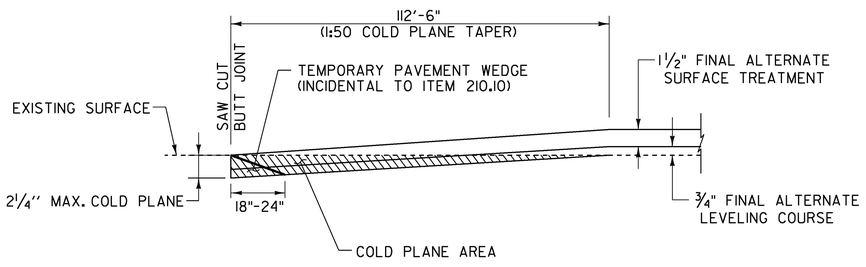
PROJECT NAME: WEATHERSFIELD-WINDSOR
PROJECT NUMBER: STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
PROJECT INFORMATION SHEET SHEET 44 OF 53

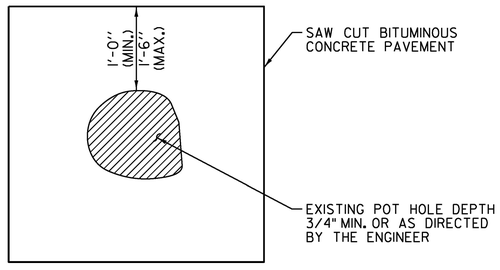
ALTERNATES ZA1 & ZA2



LEVEL AND OVERLAY TYPICAL SECTION



COLD PLANE DETAIL AT BEGIN/END PROJECT



TYPICAL POT HOLE REPAIR

TYPICAL POT HOLE REPAIR NOTES

1. ITEM 404.65 EMULSIFIED ASPHALT OR ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H) OPTION ITEM SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 - 0.50 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).

2. ALL WORK ASSOCIATED WITH POT HOLE REPAIR WILL BE PAID UNDER ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I).

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(13)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
TYPICAL AND DETAIL SHEET	SHEET 45 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	BRIDGE	FULL C&E	ROADWAY	ROADWAY	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
150					150		CY	EARTH BORROW	203.30	EST			
450					450		LF	SHOULDER BERM REMOVAL	203.40	25			COLD PLANING, BITUMINOUS PAVEMENT
1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-	778	SY	APPROACHES
											85	SY	TOWN HIGHWAYS
2480					2480		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	29	1590	SY	BRIDGES
											27	SY	RND.
								BEGIN OPTION AA					
											2480	SY	TOTAL
445					445		CWT	EMULSIFIED ASPHALT	404.65	5			
445					445		CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT)(RS-1H OR CRS-1H)	900.683	5			
								END OPTION AA					
1					1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-			
	170				170		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	6			
	100				100		CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST.			
2					2		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-			
50					50		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.			
30					30		HR	POWER BROOM RENTAL, TYPE I	608.30	EST.			
50					50		HR	POWER BROOM RENTAL, TYPE II	608.31	EST.			
100					100		HR	TRUCK RENTAL	608.37	EST.			
20					20		HR	LOADER RENTAL, TYPE I	608.40	EST.			
10					10		CY	STONE FILL, TYPE I	613.10	EST.			
1325					1325		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	25			
6					6		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-			
450					450		LF	ADJUST HEIGHT OF GUARDRAIL	621.79	25			
1275					1275		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	25			
300					300		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			
1200					1200		HR	FLAGGERS	630.15	EST.			
		0.33			0.33		LS	FIELD OFFICE, ENGINEERS	631.10	-			
		0.3			0.3		LS	TESTING EQUIPMENT, CONCRETE	631.16	-			
		0.3			0.3		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-			
		1000			1000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-			
0.1					0.1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
1					1		LS	TRAFFIC CONTROL (STP FPAV(13))	641.10	-			
4					4		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
								BEGIN OPTION BB					
31670					31670		LF	DURABLE 4 INCH WHITE LINE, THERMOPLASTIC	646.402	237			
31670					31670		LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403	237			
31670					31670		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	237			
								END OPTION BB					
								BEGIN OPTION CC					
31700					31700		LF	DURABLE 4 INCH YELLOW LINE, THERMOPLASTIC	646.412	343			
31700					31700		LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413	343			
31700					31700		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	343			

PROJECT NAME: WEATHERSFIELD-WINDSOR
PROJECT NUMBER: STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn
PROJECT LEADER: B. KIPP
DESIGNED BY: N. PAPPAS
QUANTITY SHEET 1

PLOT DATE: 04-APR-2018
DRAWN BY: N. PAPPAS
CHECKED BY: B. KIPP
SHEET 46 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
					ROADWAY	BRIDGE	FULL C&E	ROADWAY	ROADWAY	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
													END OPTION CC					
													BEGIN OPTION DD					
					45					45		LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	1			
					45					45		LF	DURABLE 24 INCH STOP BAR, EPOXY PAINT	646.483	1			MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT OR
																		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
					45					45		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	1	5533	TON	MAINLINE
													END OPTION DD			8	TON	TOWN HIGHWAYS
													BEGIN OPTION EE			39	TON	RND.
																5580	TON	TOTAL
					26					26		EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-			
					26					26		EACH	DURABLE LETTER OR SYMBOL, EPOXY PAINT	646.493	-			
					26					26		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-			
													END OPTION EE					
					31670					31670		LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	237			
					31700					31700		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	243			
					45					45		LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	1			
					26					26		EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	-			
					6400					6400		EACH	LINE STRIPING TARGETS	646.76	77			
					15					15		LB	SEED	651.15	EST.			
					40					40		LB	FERTILIZER	651.18	EST.			
					1					1		TON	AGRICULTURAL LIMESTONE	651.20	EST.			
					1					1		TON	HAY MULCH	651.25	EST.			
					30					30		CY	TOPSOIL	651.35	EST.			
					150					150		SY	TEMPORARY EROSION MATTING	653.20	EST.			
					8					8		EACH	DELINEATOR WITH STEEL POST	676.10	-			
					8					8		EACH	REMOVAL OF EXISTING DELINEATOR	676.12	-			
					34					34		EACH	REMOVE AND REPLACE REFLECTOR UNIT	676.15	EST			
					1					1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-			
					450					450		SY	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	900.675	13			
					500					500		TON	SPECIAL PROVISION (AGGREGATE SHOULDERS, RAP WITH RAS)	900.680	3			
					50					50		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)	900.680	EST.			
					5580					5580		TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)	900.680	39			
													BEGIN ALTERNATE ZA1					
								5580		5580		TON	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 70-28)(SBS POLYMER)	406.27	39			
								1		1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	406.28	-			
													END ALTERNATE ZA1					
													BEGIN ALTERNATE ZA2					
									5580	5580		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 70-28)(SBS POLYMER)	490.30	39			
									1	1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-			
													END ALTERNATE ZA2					

THIS ITEM WAS MODIFIED BY CHANGE ORDER #1: The contractor requested the use of PG 58-28 asphalt in the Hand-Placed Bituminous mix used for hand paving aprons at a reduced cost instead of the PG 70-28 asphalt, per contract. The PG 70-28 asphalt is only made with a polymer which results in a workability that does not leave a desirable looking mat when not placed by a paver screed.

PROJECT NAME: WEATHERSFIELD-WINDSOR
PROJECT NUMBER: STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: N. PAPPAS
DESIGNED BY: N. PAPPAS CHECKED BY: B. KIPP
QUANTITY SHEET 2 SHEET 47 OF 53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET

BEGIN STATION	END STATION	POS.	203.30 EARTH BORROW	613.10 STONE FILL, TYPE I	621.20 STEEL BEAM G.R. GALV.	621.205 STEEL BEAM G.R., GALV. W/ 8 FT. POSTS	621.217 HD STEEL BEAM G.R., GALV./ NESTED W/ 8 FT. POSTS	621.60 ANCHOR FOR S.B. G.R.	621.76 REPLACE GUARDRAIL POST ASSEMBLY	621.77 REPLACE G.R. BEAM UNIT	621.79 ADJUST HEIGHT OF G.R.	621.80 REMOVAL & DISP. OF G.R.	651.35 TOPSOIL	653.20 TEMP. EROSION MATTING	676.10 DELINE. WITH STEEL POSTS	676.12 REMOVAL OF EXIST. DELINE.	676.15 REMOVE & REPLACE REFLECTOR UNIT	REMARKS
			CY	CY	LF	LF	LF	EA	EA	EA	LF	LF	CY	SY	EA	EA	EA	
WEATHERSFIELD																	34	
0.083	0.103	RT	50		112.5′			2				62.5′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL W/ GI-D′s
WINDSOR																		
0.257	0.438	RT	50		550′			2				550′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL W/ GI-D′s
0.272	0.438	LT	50		637.5′			2				637.5′	10	50	2	2		REMOVE EXISTING GUARDRAIL; NEW STEEL BEAM GUARDRAIL W/ GI-D′s
0.480	0.560	RT		2							425′				2	2		ADJUST HEIGHT OF EXISTING GUARDRAIL
SUBTOTAL			150	2	1300			6			425′	1250′	30′	150′	8	8	34	
ROUNDING			-	-	25			-			25′	25′	-	-	-	-	-	
TOTAL			150	2	1325			6			450′	1275′	30′	150′	8	8	34	

PROJECT NAME: WEATHERSFIELD-WINDSOR
PROJECT NUMBER: STP FPAV(13)

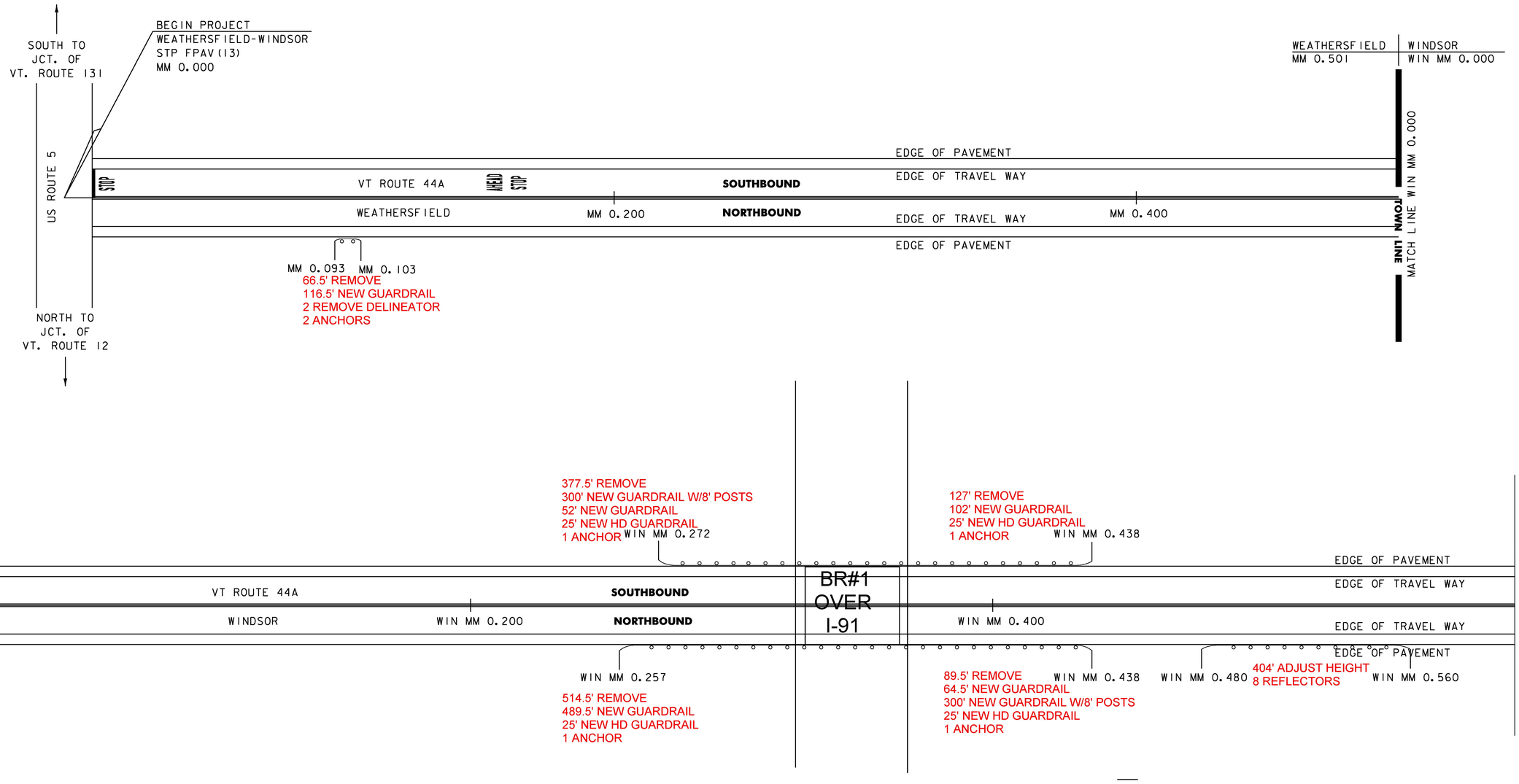
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
ITEM DETAIL SHEET SHEET 48 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND RADIUS FOR TOWN HIGHWAYS)
WEATHERSFIELD:
MM 0.003 - MM 0.501LT & RT
WINDSOR:
WIN MM 0.000 - WIN MM 0.600 LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR TOWN HIGHWAYS)
WEATHERSFIELD:
MM 0.003 - MM 0.501LT & RT
WINDSOR:
WIN MM 0.000 - WIN MM 0.600 LT & RT

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL (OPTION BID ITEM)
WEATHERSFIELD:
MM 0.003 LT - "STOP"
MM 0.154 LT - "AHEAD"
MM 0.163 LT - "STOP"

TEMPORARY 24 INCH STOP BAR, PAINT
DURABLE 24 INCH STOP BAR (OPTION BID ITEM)
WEATHERSFIELD:
MM 0.003 LT



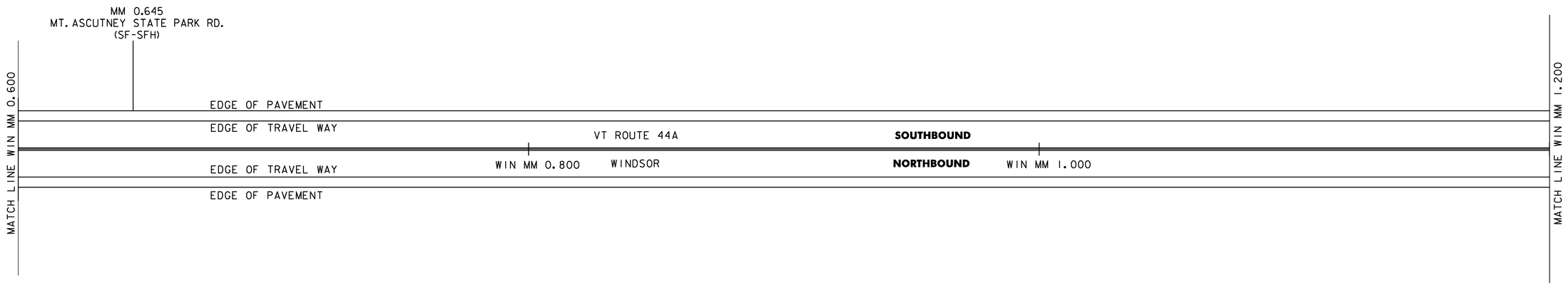
NOT TO SCALE

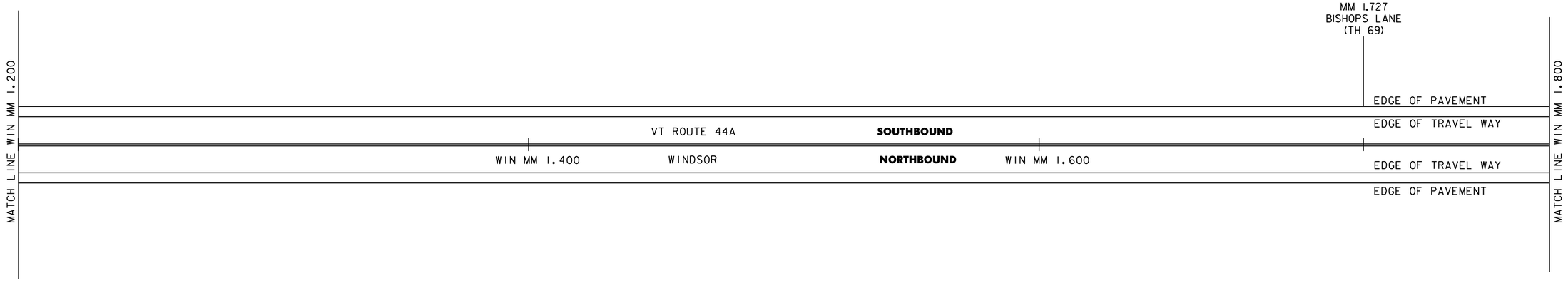
PROJECT NAME:	WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(13)

FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn		PLOT DATE:	04-APR-2018
PROJECT LEADER:	B. KIPP	DRAWN BY:	L. BULLOCK
DESIGNED BY:	L. BULLOCK	CHECKED BY:	B. KIPP
PLAN SHEET 1		SHEET	49 OF 53

TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND
RADIUS FOR TOWN HIGHWAYS)
WINDSOR:
WIN MM 0.600 - WIN MM 1.800 LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR
TOWN HIGHWAYS)
WINDSOR:
WIN MM 0.600 - WIN MM 1.800 LT & RT





NOT TO SCALE

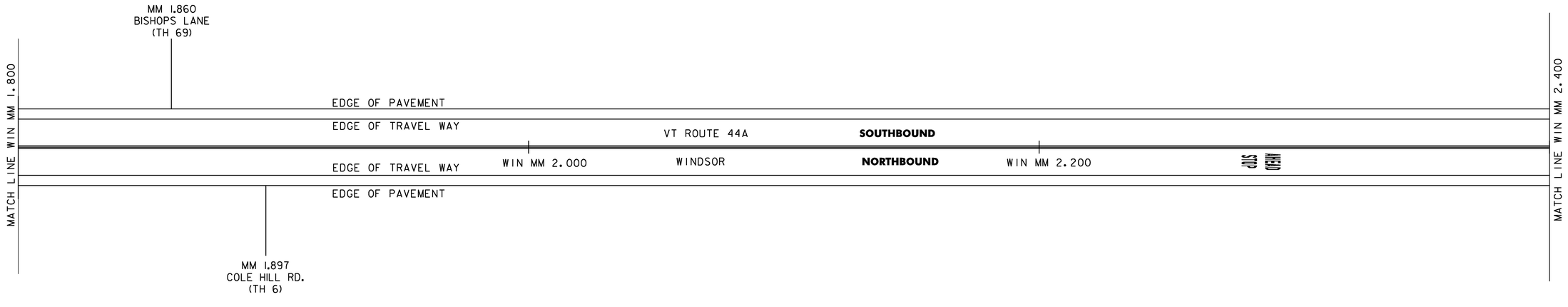
PROJECT NAME:	WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(13)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 2	SHEET 50 OF 53

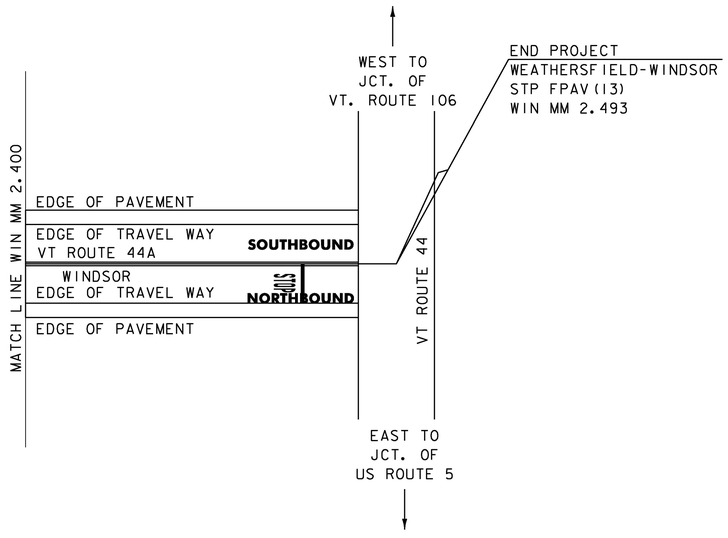
TEMPORARY 4 INCH WHITE LINE, PAINT &
DURABLE 4 INCH WHITE LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE EDGE LINE BREAKS AND RADIUS FOR TOWN HIGHWAYS)
WINDSOR:
WIN MM 1.800 - WIN MM 2.493 LT & RT

TEMPORARY 4 INCH YELLOW LINE, PAINT &
DURABLE 4 INCH YELLOW LINE (OPTION BID ITEM)
(ALL LINES WILL INCLUDE C/L BREAKS FOR TOWN HIGHWAYS)
WINDSOR:
WIN MM 1.800 - WIN MM 2.493 LT & RT

TEMPORARY LETTER OR SYMBOL, PAINT
DURABLE LETTER OR SYMBOL (OPTION BID ITEM)
WINDSOR:
MM 2.282 RT - "STOP"
MM 2.291 RT - "AHEAD"
MM 2.478 RT - "STOP"

TEMPORARY 24 INCH STOP BAR, PAINT
DURABLE 24 INCH STOP BAR (OPTION BID ITEM)
WINDSOR:
MM 2.478 RT



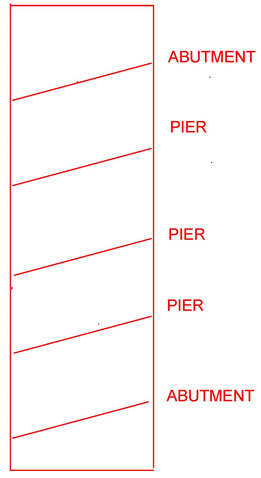


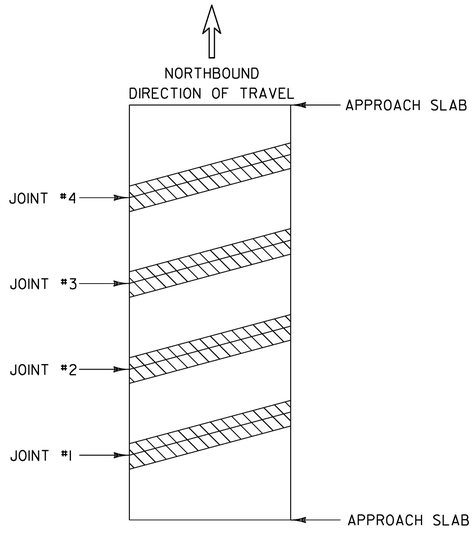
NOT TO SCALE

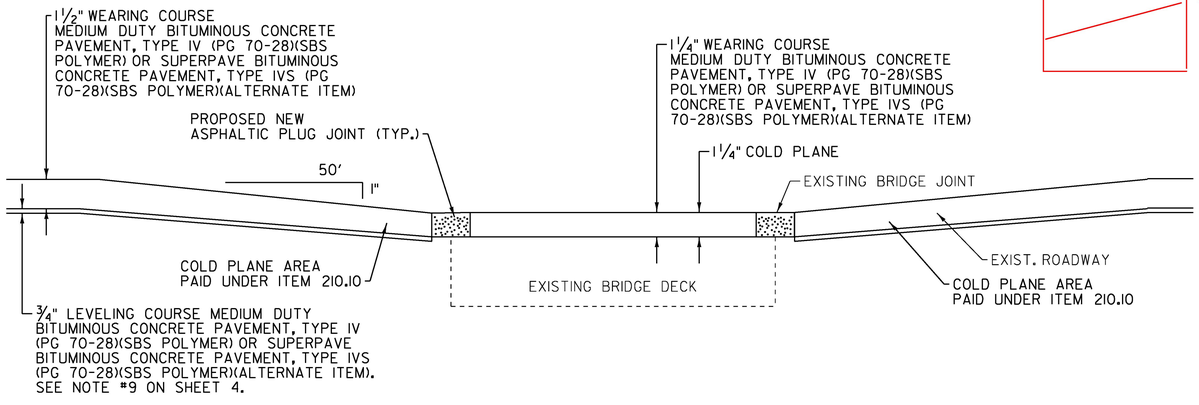
PROJECT NAME:	WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(13)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
PLAN SHEET 3	SHEET 51 OF 53

NOTES

1. ALL NEW JOINTS TO BE INSTALLED PER SD-516.10 AND PAID FOR UNDER ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG AT THE DISCRETION OF THE ENGINEER.
2. AN ESTIMATED QUANTITY OF ITEM 580.20 CONCRETE REPAIR MATERIAL IS TO BE USED AS NECESSARY THROUGHOUT THE PROJECT LIMITS.
3. BRIDGES TO BE PAVED FULL WIDTH.
4. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE SOLE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A DAILY BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.







BRIDGE #1

MM 0.378 WINDSOR

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 41'
JOINT #2 - 41'
JOINT #3 - 41'
JOINT #4 - 41'
TOTAL = 164'

THERE ARE 5 JOINTS

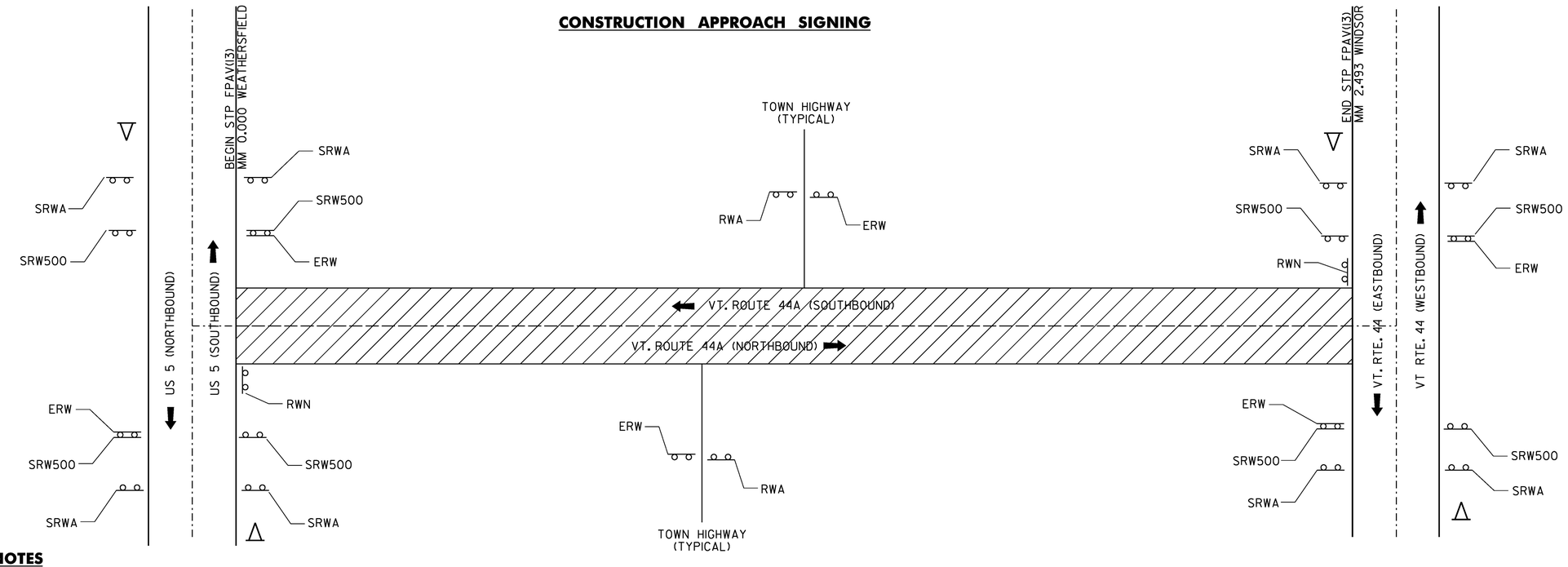
THESE WERE STEEL JOINTS. WE PLACED A 10" WIDE PLUG JOINT ON EITHER SIDE OF THE STEEL JOINT.

NORMALLY A PLUG JOINT IS 20" WIDE.

NOT TO SCALE

PROJECT NAME:	WEATHERSFIELD-WINDSOR
PROJECT NUMBER:	STP FPAV(13)
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn	PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP	DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK	CHECKED BY: B. KIPP
BRIDGE DETAIL SHEET	SHEET 52 OF 53

CONSTRUCTION APPROACH SIGNING



TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.

2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.

3. THE BID PRICE FOR TRAFFIC CONTROL, ITEM 641.10, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY: 630.10 - UNIFORMED TRAFFIC OFFICERS, AND 630.15 - FLAGGERS, 646.602 - TEMPORARY 4 INCH WHITE LINE, PAINT, 646.612 - TEMPORARY 4 INCH YELLOW LINE, PAINT, 646.682 - TEMPORARY 24 INCH STOP BAR, PAINT, 646.692 - TEMPORARY LETTER OR SYMBOL, PAINT, AND 646.76 - LINE STRIPING TARGETS.

4. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.

   FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL POSITION A PCMS PRIOR TO THE BEGIN AND END PROJECT LIMITS WARNING MOTORISTS OF EXPECTED ROADWAY CONDITIONS AND REDUCED ROADWAY WIDTHS.

   PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

   THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

   THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.

5. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.

6. REFER TO VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN COLORS.

7. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED. KEEP RECORDS WHEN POSTING THE WORK ZONE SPEED LIMIT FOR LEGAL PURPOSES; DOCUMENTING DATES, TIMES, AND LOCATIONS OF SIGNS. WHEN WORK ZONE SPEED LIMIT IS NOT IN USE ALL ASSOCIATED SIGNS SHALL BE COVERED, TURNED AND/OR LAID FLAT SO AS THE MOTORING PUBLIC CANNOT READ THESE SIGNS.

8. PORTABLE OR STATIONARY WORK ZONE SPEED LIMIT SIGNS SHOULD BE SPACED EVERY 1.5 TO TWO MILES WHERE APPLICABLE AND AFTER INTERSECTIONS AS A REMINDER TO THE MOTORIST TRAVELING THROUGH THE WORK ZONE WHAT SPEED THEY SHOULD BE TRAVELING.

9. WHEN REDUCED REGULATORY SPEED LIMIT SIGNS ARE USED, THE RESUMPTION OF THE USUAL SPEED LIMIT SHALL BE INDICATED BY AN APPROPRIATE SPEED LIMIT SIGN AT THE END OF THE WORK ZONE.

10. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MUTCD, PART 6.

11. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES AND COMMERCIAL PROPERTIES AT ALL TIMES. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.

12. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF FOUR FEET. IF THE TPAR IS LESS THAN FIVE FEET IN WIDTH, A FIVE FOOT BY FIVE FOOT PASSING SPACE SHOULD BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE SMOOTH AND CONTINUOUS FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICT WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.

13. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASH WORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.

14. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.

15. THE CONTRACTOR'S OPERATIONS SHALL NOT OCCUPY SIDEWALKS EXCEPT WHERE PROPER PROTECTION AND A TPAR HAVE BEEN PROVIDED.

16. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN FOR REVIEW AND WRITTEN APPROVAL A MINIMUM OF THREE WEEKS BEFORE SUCH PLAN IS IMPLEMENTED. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC. PAYMENT FOR DEVELOPING, IMPLEMENTING, AND MAINTAINING THE TEMPORARY PEDESTRIAN TRAFFIC CONTROL PLAN WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.

17. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES ALWAYS OR COORDINATE EMERGENCY ROUTES.

18. ACCOMMODATIONS SHOULD BE TAKEN TO ENSURE THAT OBSTACLES, EQUIPMENT, CONSTRUCTION MATERIALS, TRAFFIC CONTROL DEVICES, ETC. DO NOT ENCROACH IN THE BICYCLE PATH OF TRAVEL. IT IS IMPORTANT THAT CYCLIST'S ROUTES ARE FREE OF RUTS, SAND AND MUD TO PREVENT CYCLIST'S CRASHES.

19. WITH THE NARROWING OF LANES TO 10 FEET, IT IS RECOMMENDED THAT FLAGGER PERSONNEL HOLD RIDERS TO THE END OF THE QUEUE SO THEY ARE NOT COMPETING FOR LANE SPACE TO ENSURE THEIR SAFETY.

20. DMV WILL REQUIRE NOTIFICATION FOR WIDTH RESTRICTION TO REROUTE SUPER LOAD PERMITS. IT SHOULD BE NOTED THAT ONCE A PERMIT IS ISSUED THE APPLICANT/HAULER HAS 10 DAYS TO MOVE THEIR LOAD. THIS REQUIRES ADDITIONAL NOTICE TIME TO CAPTURE THAT 10 DAY WINDOW.

LEGEND

RWA = ROAD WORK AHEAD
RW500 = ROAD WORK 500 FEET
SRW500 = SIDE ROAD WORK 500 FEET
SRWA = SIDE ROAD WORK AHEAD
RWN = ROAD WORK NEXT (XX MILES)
ERW = END ROAD WORK

△ = PORTABLE CHANGEABLE MESSAGE SIGN

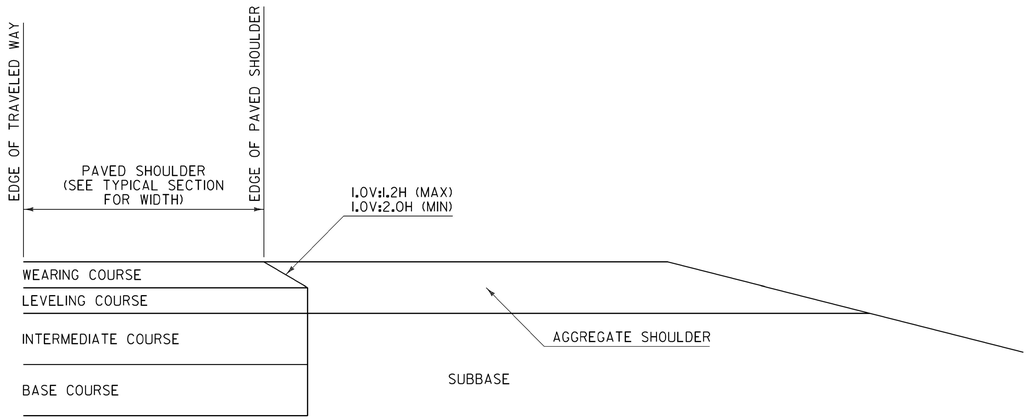
▨ = WORK AREA

⬅ = DIRECTION OF TRAFFIC FLOW

NOT TO SCALE

PROJECT NAME: WEATHERSFIELD-WINDSOR
PROJECT NUMBER: STP FPAV(13)

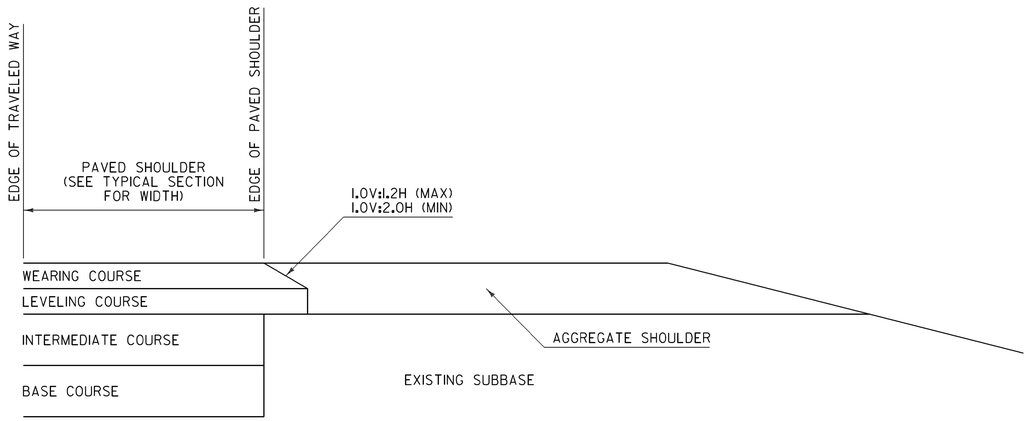
FILE NAME: COMP. STP FPAV(11),(12) & (13).dgn PLOT DATE: 04-APR-2018
PROJECT LEADER: B. KIPP DRAWN BY: L. BULLOCK
DESIGNED BY: L. BULLOCK CHECKED BY: B. KIPP
CONSTRUCTION APPROACH SIGNING SHEET SHEET 53 OF 53



SAFETY EDGE DETAIL
FOR PAVING BELOW WEARING COURSE

NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN PAVING EXTENDS BELOW THE WEARING COURSE.
2. PRIOR TO PLACEMENT OF THE LEVELING AND/OR WEARING COURSE, THE SUBBASE LOCATED BENEATH THE AGGREGATE SHOULDER SHALL BE PREPARED FLUSH WITH THE BOTTOM OF THE LEVELING COURSE.
3. BASE COURSE LIMITS MAY VARY, SEE TYPICAL SECTIONS FOR WIDTH.



SAFETY EDGE DETAIL
FOR PAVING WEARING COURSE ONLY

NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN ONLY THE LEVELING AND/OR WEARING COURSE IS TO BE PLACED.
2. PAVEMENT COURSES MAY VARY, SEE TYPICAL SECTIONS FOR ACTUAL PAVEMENT COURSES REQUIRED.

SAFETY EDGE WIDTH BASED ON WEARING COURSE THICKNESS AND A IV:1.6H SLOPE	
WEARING COURSE THICKNESS (INCHES)	NOMINAL SAFETY EDGE WIDTH (INCHES)
1.25	2.000
1.50	2.375
1.75	2.750
2.00	3.125
2.25	3.500
2.50	4.000

GENERAL NOTES:

1. PLACEMENT OF THE WEARING COURSE SHALL INCLUDE THE SAFETY EDGE, UNLESS THE FOLLOWING APPLIES:
   - A. THE ADJACENT SLOPE IS STEEPER THAN THE SAFETY EDGE.
   - B. THE EDGE OF PAVEMENT BEING PLACED ABUTS BOUND MATERIAL.
   - C. VEHICLES ARE RESTRICTED FROM LEAVING THE PAVED SURFACE (EXAMPLE: GUARDRAIL).
2. THE SAFETY EDGE SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE SLOPE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE SAFETY EDGE SHALL NOT BE CONSIDERED PART OF THE PAVED SHOULDER.
4. THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE BITUMINOUS CONCRETE PAVEMENT ITEM.

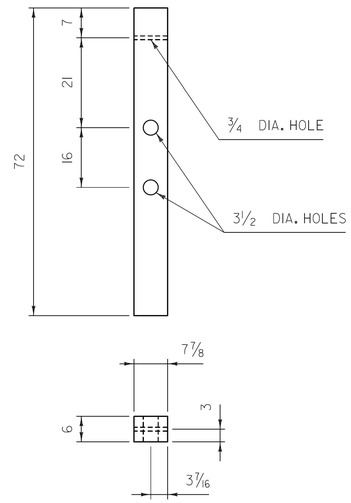
REV.	DATE	DESCRIPTION
0	MAR. 29, 2016	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

SAFETY EDGE DETAILS

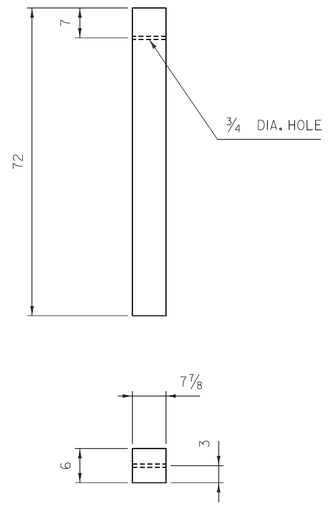
VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

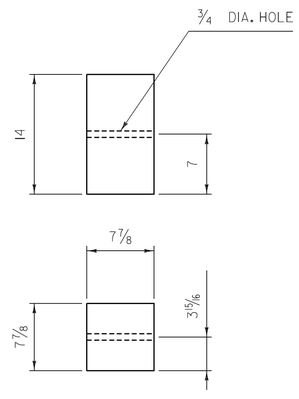
HSD-400.01



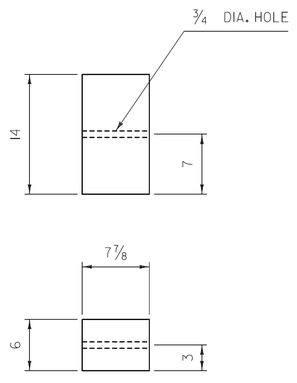
CONTROLLED RELEASING TERMINAL (CRT) TIMBER POST (PDE09)



TIMBER GUARDRAIL POST (PDE07)



TRANSITION SPACER BLOCKOUTS (PDB07)



W-BEAM TIMBER BLOCKOUT (PDB01)

GENERAL NOTES:

1. ALL MATERIAL DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGC) AND THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION (ARTBA).
2. CRT TIMBER POSTS SHALL BE INSTALLED SO THAT THE CENTER OF THE TOP 3 1/2 INCH HOLE IS AT GROUND LEVEL.
3. ALL TIMBER SHALL RECEIVE A PRESERVATION TREATMENT IN ACCORDANCE WITH AASHTO M133 AFTER ALL HOLES ARE DRILLED AND END CUTS ARE MADE.
4. ALL DIMENSIONS IN INCHES.

REV.	DATE	DESCRIPTION
0	JUN. 9, 2015	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

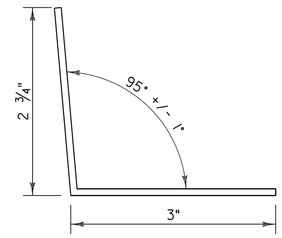
POST AND BLOCKOUT DETAILS FOR STEEL BEAM GUARDRAIL, GALVANIZED

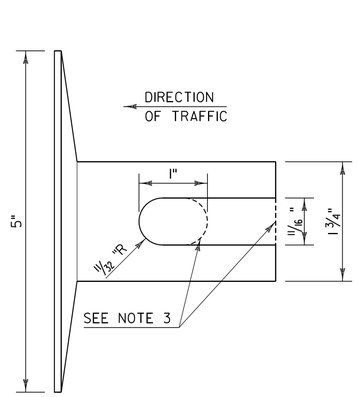
VTrans Working to Get You There VERMONT AGENCY OF TRANSPORTATION

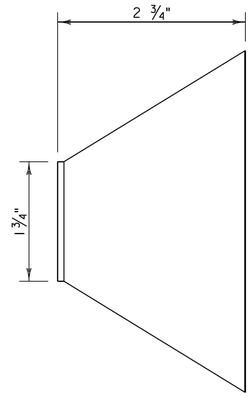
HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.01

GUARDRAIL DELINEATOR DETAIL







NOTES:

1. GUARDRAIL DELINEATOR BASE MATERIAL SHALL BE 0.10 INCH THICK ALUMINUM IN ACCORDANCE WITH SUBSECTION 728.04 DELINEATION DEVICES.
2. GUARDRAIL DELINEATORS SHALL HAVE WHITE RETROREFLECTIVE SHEETING, EQUAL TO OR EXCEEDING TYPE III IN ACCORDANCE WITH SUBSECTION 750.08(B)(3) ON THE RIGHT SIDE OF THE TRAVELED WAY AND YELLOW RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING TYPE VIII IN ACCORDANCE WITH SUBSECTION 750.08(B)(7) ON THE LEFT SIDE OF THE TRAVELED WAY IN RESPECT TO APPROACHING TRAFFIC. ON ONE DIRECTIONAL ROADWAYS RETROREFLECTIVE SHEETING MAY BE OMITTED ON FACES WHERE THERE WILL BE NO APPROACHING TRAFFIC.
3. HOLE MAY BE USED IN PLACE OF SLOT.

GUARDRAIL TERMINAL LABEL DETAIL



NOTES:

1. LINE ONE SHALL INDICATE THE INSTALLATION YEAR (YYYY).
2. LINE TWO SHALL INDICATE THE MODEL AS IDENTIFIED ON THE APPROVED PRODUCTS LIST. FOR GENERIC INSTALLATIONS THE STANDARD DRAWING DESIGNATION OR NAME AS IDENTIFIED IN THE FHWA ELIGIBILITY LETTER SHALL BE USED.
3. LINE THREE SHALL SHALL INDICATE ADDITIONAL MODEL INFORMATION IF NECESSARY.
4. LINE FOUR SHALL INDICATE FLARED (FLRD) OR TANGENT (TANG).
5. LEGEND SHALL BE SIZE ¾ INCH ARIEL FONT.
6. LEGEND SHALL BE BLACK ON A WHITE BACKGROUND, LEGEND AND BACKGROUND SHALL NOT BE REFLECTIVE.
7. SUITABLE MATERIAL SHALL BE USED SO AS TO NOT DETERIORATE DURING EXPOSURE TO WEATHER.
8. LABELS SHALL BE APPLIED IN SUCH A WAY THAT THEY REMAIN INTACT DURING THE LIFE OF THE TERMINAL.
9. FOR W-BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE TOP OF POST ONE FACING AWAY FROM TRAFFIC.
10. FOR BOX BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE BOX BEAM ADJACENT TO POST ONE FACING AWAY FROM TRAFFIC.
11. PAYMENT SHALL BE INCIDENTAL TO OTHER TRAFFIC BARRIER ITEMS.

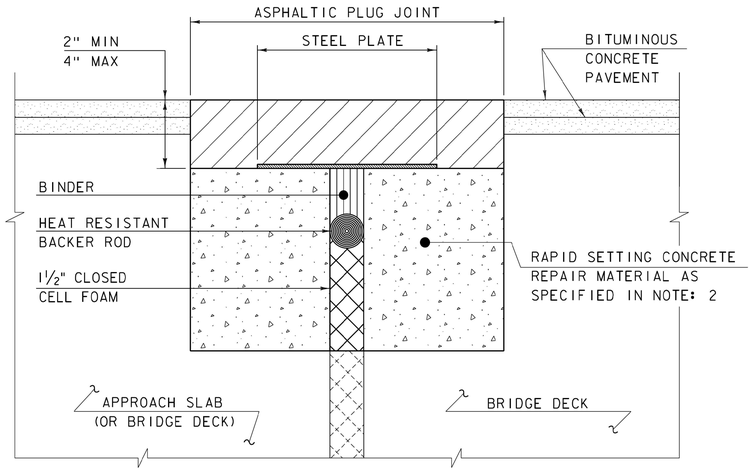
REV.	DATE	DESCRIPTION
0	NOV. 3, 2015	ORIGINAL APPROVAL
1	FEB. 27, 2017	UPDATED NAME, MINOR CORRECTIONS AND ADDED GUARDRAIL DELINEATOR DETAIL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

MISCELLANEOUS GUARDRAIL DETAILS

VTrans Working to Get You There VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.06



ASPHALTIC PLUG JOINT DETAIL - REHAB

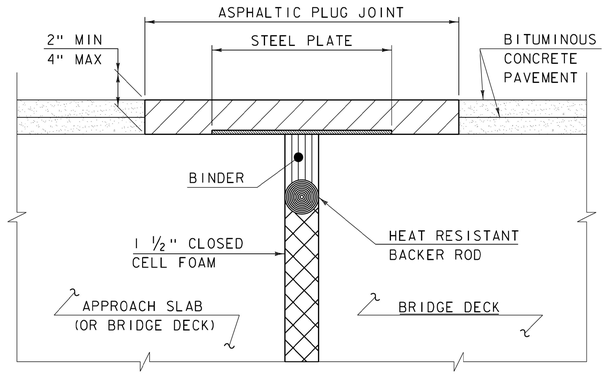
NOTES:

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.

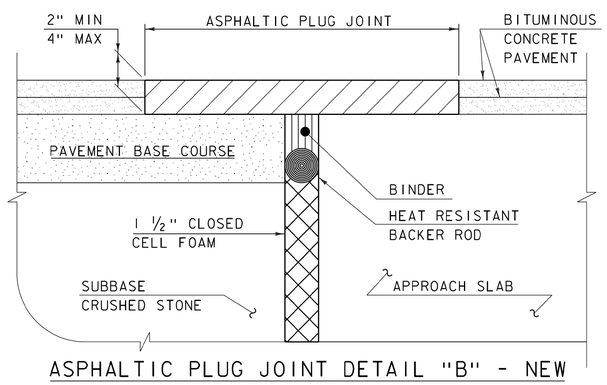
3. REINFORCING STEEL NOT SHOWN FOR CLARITY.

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