



TYPICAL SECTION - CONCRETE GRADE CROSSING
LOOKING DOWN STATION

AARDOT 851-294L GRADE CROSSING QUANTITIES			
ITEM NO.	RAILROAD BID ITEMS	UNIT	QTY
203.17	UNCLASSIFIED EXCAVATION	CY	150
204.20	TRENCH EXCAVATION OF EARTH	CY	40
490.30	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	TON	425
514.10	WATER REPELLENT, SILANE	GAL	5
605.11	8 INCH UNDERDRAIN PIPE	LF	250
605.21	8 INCH UNDERDRAIN CARRIER PIPE	LF	50
649.21	GEOTEXTILE UNDER RAILROAD BALLAST	SY	325
900.620	SPECIAL PROVISION (BONDED INSULATED JOINTS)	EA	12
900.620	SPECIAL PROVISION (COMPROMISE JOINTS)	EA	8
900.620	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) (8'-6" TIES)	EA	450
900.620	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) (9'-0" TIES)	EA	40
900.620	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) (10'-0" TIES)	EA	120
900.620	SPECIAL PROVISION (THERMITE WELDING)	EA	38
900.640	SPECIAL PROVISION (CONTINUOUS WELDED RAIL)	LF	700
900.640	SPECIAL PROVISION (REMOVAL OF EXISTING RAILROAD TRACKS)	LF	700
900.640	SPECIAL PROVISION (REMOVE AND RESET RAILROAD TRACKS)	LF	700
900.640	SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS)	LF	600
900.645	SPECIAL PROVISION (PRECAST CONCRETE PANEL GRADE CROSSING SURFACE) (AARDOT 851-294L)	LS	1
900.645	SPECIAL PROVISION (RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM) (AARDOT 851-294L)	LS	1
900.645	SPECIAL PROVISION (TRAFFIC CONTROL, RAIL-HIGHWAY CROSSING) (WEST STREET-AARDOT 851-294L)	LS	1
900.650	SPECIAL PROVISION (MAINTENANCE OF RAILROAD TRAFFIC) (N.A.B.I.)	LU	1
900.680	SPECIAL PROVISION (RAILROAD BALLAST, BASE COURSE)	TON	100
900.680	SPECIAL PROVISION (RAILROAD BALLAST, SURFACE COURSE)	TON	175

- THE CONTRACTOR SHALL PAVE/GRADE THE ASPHALT SURFACE TO MATCH INTO THE EXISTING U.S. BUSINESS ROUTE 4 EDGE OF SHOULDER AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL INSTALL UNDERDRAIN AS SHOWN IN THE PLANS PER SECTION 605 AND GRADE TO DRAIN INTO THE EXISTING DITCHES LOCATED ALONG THE RAILROAD ROW AS DIRECTED BY THE ENGINEER TO BE PAID FOR UNDER ITEM 605.11 8 INCH UNDERDRAIN PIPE AND ITEM 605.21 8 INCH CARRIER PIPE.
- CONDUIT SHALL BE FOUR INCH DIAMETER RIGID GALVANIZED STEEL AND SHALL EXTEND A MINIMUM OF 20 FEET BEYOND EDGE OF CROSSING. CONDUIT ENDS SHALL BE SEALED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AREMA SIGNAL MANUAL AND TO BE PAID FOR UNDER ITEM 900.645 SPECIAL PROVISION (RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM) (AARDOT 851-294L). SEE GRADE CROSSING SIGNAL PLAN ON SHEET 133 FOR CONDUIT LOCATIONS OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE AWARE THAT AN UNDERGROUND FIBER OPTIC CABLE EXISTS AT THE WEST STREET GRADE CROSSING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT THIS CABLE THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL BE AWARE THAT THREE UNDERGROUND PIPES EXIST AT THE WEST STREET GRADE CROSSING. ACCORDING TO THE INFORMATION PROVIDED BY RUTLAND CITY, TWO 15 INCH SANITARY SEWER LINES AND AN 8 INCH C.I. WATER PIPE ARE LOCATED BELOW THE EXISTING SURFACE AT AN UNKNOWN DEPTH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT THESE PIPES THROUGHOUT CONSTRUCTION.

NOT TO SCALE

AARDOT 851-294L TYPICAL SECTION SHEET	PROJECT NAME: RUTLAND CITY - PROCTOR
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DESIGNED BY: M.J.M.	CHECKED BY: D.W.E.
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GENERAL NOTES:

- SEE SHEET 138 FOR PRECAST CONCRETE GRADE PANEL CROSSING DETAILS. TYPE AND DESIGN OF PRECAST CONCRETE CROSSING PANELS SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL FROM VTRANS AND VERMONT RAILWAY. MANUFACTURER'S SPECIFICATIONS SHALL BE FOLLOWED FOR THE INSTALLATION OF CONCRETE CROSSING PANELS. THE CONTRACTOR SHALL APPLY A PROTECTIVE SEALER TO ALL EXPOSED CONCRETE SURFACES AFTER THE PRECAST CONCRETE GRADE CROSSING HAS BEEN INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER ITEM 514.10 WATER REPELLENT, SILANE.
- THE TYPE AND DESIGN OF COMMERCIAL FLANGEWAY MATERIALS SHALL RECEIVE APPROVAL FROM THE ENGINEER. MANUFACTURER'S SPECIFICATIONS SHALL BE FOLLOWED FOR THE INSTALLATION OF COMMERCIAL FLANGEWAY MATERIALS. THE CONTRACTOR SHALL INSTALL THE ELASTOMERIC INTERFACE RAIL SEAL CONNECTED BY AN INTERCLAMP DEVICE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THESE DETAILS DO NOT ILLUSTRATE THE INTERCLAMP DEVICES. ANY DAMAGE TO THE NEW ELASTOMERIC INTERFACE RESULTING FROM THE CONTRACTOR'S INSTALLATION METHODS SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE AS DIRECTED BY THE ENGINEER. THE COST OF FURNISHING AND INSTALLING THE ELASTOMERIC INTERFACE AND ATTACHMENT HARDWARE SHALL BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (PRECAST CONCRETE PANEL GRADE CROSSING SURFACE) (AARDOT - 851-294L).
- THE COST OF PAVING THE TWO LIFTS OF TYPE IIS BASE COURSE AS WELL AS THE WEARING AND LEVELING COURSES BETWEEN THE MAINLINE AND SIDING AND THE WEARING AND LEVELING COURSES AT THE RAIL APPROACHES SHALL BE PAID FOR UNDER ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. SEE SHEET 32 FOR ASPHALT QUANTITY BREAKDOWN.
- THE COST FOR PROVIDING VEHICULAR TRAFFIC CONTROL DURING CONSTRUCTION OF THIS PAVED RAIL HIGHWAY CROSSING SHALL BE PAID FOR UNDER ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, RAIL-HIGHWAY CROSSING) (WEST STREET - AARDOT 851-294L).
- 15 DAYS PRIOR TO BEGINNING WORK ON THIS RAIL CROSSING, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH VERMONT RAILWAY. THE CONTRACTOR IS RESPONSIBLE TO HAVE THE TRACK BACK IN SERVICE AT THE END OF EACH WORK PERIOD. THE COST FOR COORDINATION WITH VERMONT RAILWAY SHALL BE INCIDENTAL TO ITEM 900.650 SPECIAL PROVISION (MAINTENANCE OF RAILROAD TRAFFIC) (N.A.B.I.).

THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE OF WORK ACTIVITIES TO THE ENGINEER AND VERMONT RAILWAY FOR REVIEW AND APPROVAL. IT IS ANTICIPATED THAT DISRUPTIONS TO RAIL TRAFFIC SHALL BE MINIMIZED AND THAT THE WORK ASSOCIATED WITH THE RECONSTRUCTION OF THE GRADE CROSSING WILL BE COMPLETED WITHIN FIVE CONSECUTIVE WORKDAY PERIODS.
- TIE PLATES SHALL BE MINIMUM 14" L x 7 3/4" W NEW OR FIT DOUBLE SHOULDERED TO FIT THE BASE OF THE RAIL ON WHICH THEY WILL BE USED. EACH TIE PLATE SHALL HAVE AT LEAST 6 HOLES PUNCHED FOR THE USE OF 5/8" TRACK SPIKES. FOUR OF THE HOLES SHALL BE SUCH THAT THEY ALLOW TWO RAIL HOLDING SPIKES ON EACH SIDE OF THE RAIL AND THERE SHALL ALSO BE AT LEAST TWO HOLES FOR PLATE HOLDING SPIKES. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NEW TIE PLATES, SPIKES AND RAIL ANCHORS UNDER THE APPROPRIATE CROSS TIE ITEM 900.620 SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES).

- THE CONTRACTOR SHALL PROVIDE NEW 136RE CWR ON THE MAINLINE TRACK AS SPECIFIED IN THE PLANS TO BE PAID UNDER ITEM 900.640 SPECIAL PROVISION (CONTINUOUS WELDED RAIL). RAIL WEIGHTS SHALL BE VERIFIED BY VERMONT RAILWAY AND APPROVED BY THE ENGINEER. EXISTING I15RE MAINLINE RAIL SHALL BE REMOVED AND RELOCATED ON THE SIDING TRACK TO BE PAID UNDER ITEM 900.640 SPECIAL PROVISION (REMOVE AND RESET RAILROAD TRACKS) AS DIRECTED BY THE ENGINEER. THE EXISTING SIDING RAIL SHALL BE REMOVED AS DIRECTED BY THE ENGINEER TO BE PAID UNDER ITEM 900.640 SPECIAL PROVISION (REMOVAL OF EXISTING RAILROAD TRACKS).
- THE EXISTING I15RE CWR RAIL REMOVED FROM THE MAINLINE SHALL BE CROPPED AND FIELD WELDED PRIOR TO THE CONTRACTOR RESETTING THE RAIL ON THE EXISTING SIDING TRACK. THE I15RE CWR SHALL BE CUT, DRILLED AND INSTALLED TO MATCH THE NEW 90/I15 COMPROMISE JOINTS AS SHOWN ON SHEET 134 CROSSING SCHEMATIC PLAN SHEET OR AS DIRECTED BY THE ENGINEER. ALL FIELD WELDS SHALL BE PAID FOR UNDER ITEM 900.620 SPECIAL PROVISION (THERMITE WELDING).
- THE CONTRACTOR SHALL FIELD WELD ALL FACTORY BONDED INSULATED JOINTS AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER ITEM 900.620 SPECIAL PROVISION (THERMITE WELDING). ALL FACTORY BONDED INSULATED JOINTS SHALL BE PAID FOR UNDER ITEM 900.620 SPECIAL PROVISION (BONDED INSULATED JOINTS).
- EXCAVATION SHALL CONSIST OF THE EXCAVATION AND DISPOSAL FROM THE WORK SITE ALL MATERIALS OF ANY DESCRIPTION ENCOUNTERED IN THE COURSE OF CONSTRUCTION AND SHALL BE PAID FOR UNDER ITEM 203.17 UNCLASSIFIED EXCAVATION.
- THE CONTRACTOR SHALL INSTALL GEOTEXTILE UNDER THE RAILROAD BALLAST WITHIN THE RECONSTRUCTION LIMITS OF THE CROSSING PER SECTION 649 OR AS DIRECTED BY THE ENGINEER AND SHALL PAID FOR UNDER ITEM 649.21 GEOTEXTILE UNDER RAILROAD BALLAST.
- THE CONTRACTOR SHALL RAISE THE ELEVATION OF THE PROPOSED GRADE CROSSING A MINIMUM OF 3 INCHES OR AS DIRECTED BY THE ENGINEER TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE GRADE CROSSING.
- THE CONTRACTOR SHALL RAISE, ALIGN & SURFACE THE TRACK WITHIN THE APPROACH AREA TO MEET THE ELEVATION CHANGES WITHIN THE PROPOSED CROSSING WORK PER ITEM 900.640 SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS). SURFACING IS TO FINAL GRADE. MULTIPLE PASSES SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.640 SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS).
- TRACK SURFACING AND BALLAST REGULATING IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE COORDINATED WITH VERMONT RAILWAY PRIOR TO COMMENCING WORK AND SHALL BE PAID FOR UNDER ITEM 900.640 SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS).
- BALLAST MATERIAL SUPPLIED MUST BE APPROVED BY THE ENGINEER AND VERMONT RAILWAY PRIOR TO ITS ACCEPTANCE. BALLAST SURFACING AND BALLAST BASE COURSE TO BE PAID FOR UNDER ITEM 900.680 SPECIAL PROVISION (RAILROAD BALLAST, SURFACE COURSE) AND ITEM 900.680 SPECIAL PROVISION (RAILROAD BALLAST, BASE COURSE). THE ENGINEER AND VERMONT RAILWAY RESERVE THE RIGHT TO SAMPLE AND TEST THE STONE BALLAST UP TO AND INCLUDING THE POINT OF USE.

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