



TYPICAL SECTION - CONCRETE GRADE CROSSING

AARDOT 85I-286U GRADE CROSSING QUANTITIES			
ITEM NO.	RAILROAD BID ITEMS	UNIT	QTY
203.17	UNCLASSIFIED EXCAVATION	600	CY
204.20	TRENCH EXCAVATION OF EARTH	85	CY
210.10	COLD PLANING, BITUMINOUS PAVEMENT	2750	SY
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	30	CY
490.30	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	800	TON
514.10	WATER REPELLENT, SILANE	5	GAL
605.11	8 INCH UNDERDRAIN PIPE	400	LF
605.21	8 INCH UNDERDRAIN CARRIER PIPE	220	LF
616.40	REMOVING AND RESETTING CURB	250	LF
649.21	GEOTEXTILE UNDER RAILROAD BALLAST	1000	SY
678.21	ELECTRICAL CONDUIT (4") (PCGSRM)	400	LF
900.620	SPECIAL PROVISION (BONDED INSULATED JOINTS)	2	EA
900.620	SPECIAL PROVISION (COMPROMISE JOINTS)	4	EA
900.620	SPECIAL PROVISION (INSULATED JOINTS)	4	EA
900.620	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) (8'-6" TIES)	650	EA
900.620	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) (9'-0" TIES)	16	EA
900.620	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) (10'-0" TIES)	134	EA
900.620	SPECIAL PROVISION (RAILROAD SIGNAL CABINET)	1	EA
900.620	SPECIAL PROVISION (SURFACE AND ALIGN TURNOUT) (NO. 10 TURNOUT)	2	EA
900.620	SPECIAL PROVISION (THERMITE WELDING)	4	EA
900.640	SPECIAL PROVISION (CONTINUOUS WELDED RAIL)	1050	LF
900.640	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF SWITCH TIMBERS)	1750	LF
900.640	SPECIAL PROVISION (REMOVE AND RESET RAILROAD TRACKS)	66	LF
900.640	SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS)	1300	LF
900.645	SPECIAL PROVISION (PRECAST CONCRETE PANEL GRADE CROSSING SURFACE)(AARDOT 85I-286U)	1	LS
900.645	SPECIAL PROVISION (TRAFFIC CONTROL, RAIL-HIGHWAY CROSSING)(U.S. ROUTE 7-AARDOT 85I-286U)	1	LS
900.650	SPECIAL PROVISION (MAINTENANCE OF RAILROAD TRAFFIC) (N.A.B.I.)	1	LU
900.680	SPECIAL PROVISION (RAILROAD BALLAST, BASE COURSE)	1750	TON
900.680	SPECIAL PROVISION (RAILROAD BALLAST, SURFACE COURSE)	1000	TON
900.683	SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-IH OR CRS-IH)	55	CWT

GENERAL NOTES:

- SEE SHEET 256 FOR PRECAST CONCRETE GRADE PANEL CROSSING DETAIL. 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 FLANGWAY MATERIALS SHALL RECEIVE APPROVAL FROM THE ENGINEER. MANUFACTURER'S SPECIFICATIONS SHALL BE FOLLOWED FOR THE INSTALLATION OF COMMERCIAL FLANGWAY 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 85I-286U).
- THE COST OF PAVING THE TWO LIFTS OF TYPE IIS BASE COURSE AT THE RAIL APPROACHES SHALL BE PAID FOR UNDER ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT. SEE SHEET 148 FOR ASPHALT QUANTITY BREAKDOWN.
- 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 HAVE AT LEAST 6 HOLES PUNCHED FOR THE USE OF 3/8" 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 TIE PLATE HOLDING SPIKES. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NEW TIE PLATES, SPIKES AND RAIL ANCHORS UNDER APPROPRIATE CROSS TIE ITEM 900.620 SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES).
- THE CONTRACTOR SHALL PROVIDE NEW I36RE AND I15RE CWR AS SPECIFIED IN THE PLANS. RAIL WEIGHTS SHALL BE VERIFIED BY THE VERMONT RAILWAY AND APPROVED BY THE ENGINEER.
- 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).
- ALL WELDED JOINTS SHALL BE CROPPED AND WELDED IN ACCORDANCE WITH THE LATEST REVISION OF A.R.E.M.A. SPECIFICATIONS AT AN OFF-SITE ELECTRIC WELDING PLANT. WELDING CAN BE DONE IN FIELD UTILIZING THERMITE WELDING WITH ADVANCE APPROVAL FROM VTRANS AND VERMONT RAILWAY. WELDED JOINTS SHALL BE GROUND TO CONFORM TO THE SHAPE OF THE RAIL ON GAUGE AND FIELD SIDES.
- 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 LIMITS OF THE PRECAST CONCRETE GRADE PANEL CROSSING PER SECTION 649 OR AS DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 649.21 GEOTEXTILE UNDER RAILROAD BALLAST.
- THE CONTRACTOR SHALL RAISE, ALIGN AND SURFACE THE TRACK PER ITEM 900.640 SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS) AND THE EXISTING NO. 10 TURNOUTS PER ITEM 900.620 SPECIAL PROVISION (SURFACE AND ALIGN TURNOUT) (NO. 10 TURNOUT). SURFACING IS TO FINAL GRADE. MULTIPLE PASSES SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.640 SPECIAL PROVISION (SURFACE AND ALIGN RAILROAD TRACKS) AND ITEM 900.620 SPECIAL PROVISION (SURFACE AND ALIGN TURNOUT) (NO. 10 TURNOUT).
- 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 VERMONT RAILWAY AND THE ENGINEER 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). VERMONT RAILWAY AND THE ENGINEER RESERVE THE RIGHT TO SAMPLE AND TEST THE STONE BALLAST UP TO AND INCLUDING THE POINT OF USE.
- THE CONTRACTOR SHALL INSTALL UNDERDRAIN AS SHOWN IN THE PLANS PER SECTION 605 AND GRADE TO DRAIN INTO THE EXISTING DITCHES LOCATED ALONG THE VERMONT RAILWAY ROW AS DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 605.11 8 INCH UNDERDRAIN PIPE AND ITEM 605.21 8 INCH UNDERDRAIN CARRIER PIPE.
- SIGNAL 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 A.R.E.M.A. SIGNAL MANUAL AND SHALL BE PAID FOR UNDER ITEM 678.21 ELECTRICAL CONDUIT (4") (PCGSRM).
- THE CONTRACTOR SHALL GRADE THE ASPHALT SURFACE TO MATCH INTO THE EXISTING U.S. ROUTE 7 ROADWAY AS SHOWN ON SHEET 253 PROPOSED GRADING PLAN OR AS DIRECTED BY THE ENGINEER.
- THE COST FOR PROVIDING VEHICULAR TRAFFIC CONTROL DURING CONSTRUCTION OF THIS PAVED RAIL HIGHWAY CROSSING WILL BE PAID UNDER ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, RAIL-HIGHWAY CROSSING) (U.S. ROUTE 7 - (AARDOT 85I-286U)).
- THE CONTRACTOR SHALL BE AWARE THAT UNDERGROUND PIPES EXIST AT THE U.S. ROUTE 7 GRADE CROSSING. ACCORDING TO THE INFORMATION PROVIDED BY RUTLAND CITY, AN 8 INCH C.I. WATER PIPE IS LOCATED 5'-6" BELOW THE EXISTING SURFACE AND A 30 INCH STEEL PIPE THAT IS CONCRETE ENCASED TELEPHONE LINE LOCATED 4'-6" BELOW THE EXISTING SURFACE UNDER THE SIDEWALK ON THE EASTERN SIDE OF U.S. ROUTE 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT THESE FEATURES THROUGHOUT CONSTRUCTION. SEE SHEETS 250 & 251 FOR THE APPROXIMATE LOCATION OF THESE PIPES.
- THE CONTRACTOR SHALL BE AWARE THAT AN UNDERGROUND FIBER OPTIC CABLE EXISTS PARALLEL TO THE RAIL AT THE U.S. ROUTE 7 GRADE CROSSING AT A DEPTH OF 14'-0" FROM THE EXISTING SURFACE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT THIS CABLE THROUGHOUT CONSTRUCTION.

NOT TO SCALE

CONCRETE GRADE CROSSING TYPICAL SECTION	PROJECT NAME: RUTLAND CITY
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	FILE NAME: p07d188.dgn
	PLOT DATE: 02-AUG-2013
PROJECT LEADER: D.E.G.	DRAWN BY: W.G.P.
DESIGNED BY: M.J.M.	CHECKED BY: D.E.G.
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