

NEWBURY STATE HIGHWAY/WASHINGTON COUNTY RAILROAD  
CONNECTICUT RIVER DIVISION  
BRADFORD SUBDIVISION  
RR MP 6.56  
RR SPEED PASSENGER 30 MPH VRS TIMETABLE V  
RR SPEED FREIGHT 25 MPH VRS TIMETABLE  
ROADWAY SPEED 40 MPH

**GRADE CROSSING NOTES**

AADT		DHV		ESALS	
2015	2025	2015	2025	2015-2025	2015-2035
1900	2000	230	240	677,000	1,462,000

1. ALL NEW WELDED RAIL JOINTS WITHIN THE CROSSING AREA AND BETWEEN THE INSULATED JOINTS WILL 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 THE AGENCY. WELDED JOINTS SHALL BE GROUND TO CONFORM TO THE SHAPE OF THE RAIL ON GAUGE AND FIELD SIDES. ALL FIELD WELDS SHALL BE ULTRASONICALLY TESTED AND A COPY OF THE RESULTS GIVEN TO THE ENGINEER AND RAILROAD. FIELD WELDS WILL NOT BE CONSIDERED ACCEPTED UNTIL SUCH TIME THAT THE ULTRASONIC TEST RESULTS ARE APPROVED BY THE RAILROAD. WELDING, GRINDING, AND ULTRASONIC TESTING OF RAIL JOINTS WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
2. TIE SPACING UNDER THE WELDED RAIL AREA SHALL BE 18 INCHES ON CENTER (AS REQUIRED BY PRECAST CONCRETE PANELS MANUFACTURER).
3. NEW 7"x9"x10'-0" AND 7"x9"x8'-6" TIES WILL BE USED IN THE LIMITS OF THE FULL DEPTH CONSTRUCTION OF THE CROSSING AREA, AS SHOWN. PAYMENT FOR TIES WITHIN THE LIMITS OF THE FULL DEPTH CONSTRUCTION OF THE CROSSING AREA WILL BE MADE UNDER ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A). TIES IN APPROACH AREAS WILL BE REPLACED AS RECOMMENDED BY THE RAILROAD AND APPROVED BY THE ENGINEER. PAYMENT FOR REPLACEMENT OF TIES IN THE APPROACH AREA WILL BE MADE UNDER ITEM 900.620 SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES).
4. TIE PLATES SHALL BE NEW 14 INCH PLATES, MANUFACTURED FOR THE RAIL SIZE USED. PLATES SHALL BE INSPECTED AND APPROVED BY THE RAILROAD AND THE ENGINEER. RAIL FASTENERS SHALL BE CUT TRACK SPIKES. PAYMENT FOR NEW TIE PLATES WITHIN THE LIMITS OF FULL DEPTH RAILROAD CONSTRUCTION WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A). PAYMENT FOR NEW TIE PLATES REQUIRED IN THE CROSSING APPROACHES WILL BE CONSIDERED INCIDENTAL TO ITEM 900.620 SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES).
5. BALLAST SHALL EXTEND 12 INCHES BEYOND END OF TIES AND SLOPE 1:2 TO THE ROADBED. (SEE GRADE CROSSING DETAILS)
6. TYPE AND DESIGN OF PRECAST CONCRETE PANELS SHALL RECEIVE APPROVAL FROM THE ENGINEER.
7. INSTALLATION OF INSULATED JOINTS: THE MAXIMUM STAGGER BETWEEN INSULATED RAIL JOINTS SHALL BE 4'-6", MINIMUM SHALL BE 3'-6".
8. BITUMINOUS CONCRETE PAVEMENT SHALL FOLLOW LATEST EDITION OF THE AGENCY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SHALL BE PLACED PARALLEL TO CROSSING TO MINIMIZE APPROACH SETTLEMENT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
9. CONTRACTOR SHALL LINE, TAMP, AND SURFACE TRACK WITHIN LIMITS OF FULL DEPTH CONSTRUCTION TO THE NEW TRACK ALIGNMENT AND PROFILE TO THE SATISFACTION OF THE ENGINEER AND RAILROAD. THE WORK OF LINE, TAMP, AND SURFACE TRACK WITHIN THE LIMITS OF FULL DEPTH CONSTRUCTION WILL BE INCLUDED IN ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
10. THE CONTRACTOR SHALL INSTALL THE PRECAST CONCRETE PANELS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DAMAGE TO THE PRECAST CONCRETE PANELS RESULTING FROM THE CONTRACTOR'S INSTALLATION METHODS SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE AS DIRECTED BY THE ENGINEER. PAYMENT FOR FURNISHING AND INSTALLING THE PRECAST CONCRETE PANELS AND ATTACHMENT HARDWARE WILL BE INCLUDED UNDER PAY ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
11. THE COST OF PAVING TWO LIFTS, OF THREE INCHES EACH TYPE IIS BASE COURSE, WITHIN THE RAIL-HIGHWAY CROSSING LIMITS, SHALL NOT BE PAID SEPARATELY, BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A). THE COST OF PAVING THE TYPE IVS WEARING COURSE, WITHIN THE RAIL-HIGHWAY CROSSING LIMITS, WILL BE PAID UNDER ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.
12. THE CONTRACTOR SHALL TAPER THE NEWBURY CROSSING ROAD PAVEMENT AT A RATE OF ONE INCH IN 50 FEET MINIMUM TO THE HEIGHT OF THE EXISTING RAIL HIGHWAY CROSSING OR AS DIRECTED BY THE ENGINEER.
13. FOUR INCH GALVANIZED STEEL SIGNAL CONDUITS (HEAVY WALL) ARE TO BE INSTALLED WITH SECURED END CAPS IN LOCATIONS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS ITEM TO BE INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
14. THE CONTRACTOR SHALL PROVIDE, LOCATE AND MAINTAIN TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AT LOCATIONS, AS DIRECTED BY THE ENGINEER. THE MESSAGE BOARDS SHALL ADVISE THE TRAVELING PUBLIC "RAILROAD CROSSING CONSTRUCTION ON NEWBURY CROSSING ROAD WITH 48 HOUR ROAD CLOSURE ON SATURDAY (DATE) AND SUNDAY (DATE), SEEK ALTERNATIVE ROUTES." THE PAYMENT FOR THE TWO PCMS WILL BE INCLUDED IN ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
15. THE PAYMENT FOR PROVIDING TRAFFIC CONTROL, DURING THE CONSTRUCTION OF THIS PAVED RAIL-HIGHWAY GRADE CROSSING WILL BE MADE UNDER ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
16. THE CONTRACTOR SHALL PROVIDE SURVEY AND SURVEY LAYOUT NECESSARY TO CONSTRUCT THE TRACK ALIGNMENT AND PROFILE AS SHOWN ON THE PLANS. THE COST OF SURVEY WILL BE INCLUDED IN THE ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A). SEE TIE SHEETS FOR PROJECT SURVEY CONTROL.
17. IN THE RAIL-HIGHWAY CROSSING LIMITS THE CONTRACTOR SHALL REMOVE THE TRACK; RAIL, TIES, OTHER TRACK MATERIAL (OTM) NECESSARY TO EXCAVATE AND CONSTRUCT THE TRANSITION TO EXISTING BALLAST DEPTH, AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL PREPARE THE SUBGRADE, INSTALL THE GEOTEXTILE FABRIC, FURNISH, DELIVER, DISTRIBUTE AND COMPACT THE BALLAST, RECONSTRUCT THE TRACK THAT WAS REMOVED, AND LINE, TAMP, AND SURFACE THE TRACK IN THE RAIL-HIGHWAY CROSSING LIMITS TO OBTAIN A SMOOTH ALIGNMENT AND SURFACE IN ACCORDANCE WITH THE PLANS. THE WORK OF TRACK REMOVAL, TRACK RECONSTRUCTION, LINE, TAMP AND SURFACE TRACK IN THE RAIL-HIGHWAY CROSSING LIMITS WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A). PAYMENT FOR EXCAVATION IN THE RAIL-HIGHWAY CROSSING LIMITS WILL BE MADE UNDER ITEM 203.15 COMMON EXCAVATION. PAYMENT FOR FURNISHING, TRANSPORTING, HANDLING, TESTING, DELIVERING AND DISTRIBUTING THE BALLAST IN THE RAIL-HIGHWAY CROSSING LIMITS WILL BE MADE UNDER ITEM 900.680 SPECIAL PROVISION (RAILROAD BALLAST).
18. THE EXISTING JOINTED TRACK IN THE NORTH AND SOUTH APPROACHES TO THE RAIL-HIGHWAY CROSSING IS TO BE SURFACED AND ALIGNED IN ACCORDANCE WITH THE PLANS. TIES IN THE APPROACHES IDENTIFIED IN DEFECTIVE CONDITION BY THE RAILROAD AND ENGINEER ARE TO BE REMOVED AND REPLACED. ANY EXISTING RAIL BONDS DAMAGED AS THE RESULT OF CONTRACTOR'S OPERATION ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE, AND THEIR REPLACEMENT WILL BE CONSIDERED INCIDENTAL TO THE ITEM OF WORK UNDER WHICH THEY WERE DAMAGED. PAYMENT FOR THE REMOVAL AND REPLACEMENT OF CROSS TIES WILL BE MADE UNDER ITEM 900.620 SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES). BALLAST REQUIRED FOR REMOVAL AND REPLACEMENT OF CROSS TIES WILL BE PAID FOR UNDER ITEM 900.680 SPECIAL PROVISION (RAILROAD BALLAST). NEW JOINTED RAIL IN THE APPROACHES WILL BE PAID UNDER ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A). SURFACING AND ALIGNING OF THE TRACK APPROACHES WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
19. TEMPORARY PAVEMENT FILLETS SHALL BE USED TO PROVIDE FOR DIFFERENCES IN VERTICAL HEIGHT AT SAW CUTS AND AT THE EDGE OF PRECAST CONCRETE PANELS BETWEEN PLACEMENT OF THE BASE COURSE AND THE FINAL WEARING COURSE. INSTALLATION AND REMOVAL OF TEMPORARY PAVEMENT FILLETS WILL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).
20. THE CONTRACTOR SHALL INSTALL NEW SIGNAL MAST FOUNDATIONS AND RELOCATE THE EXISTING SIGNAL MASTS AS SHOWN ON THE PLANS. THE COST OF THIS WORK WILL BE INCLUDED IN ITEM 900.645 SPECIAL PROVISION (RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM) (AARDOT 053-598A).
21. THE CONTRACTOR SHALL DESIGN AND RECONSTRUCT THE EXISTING "STYLE C" RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM TO PROVIDE THE SAME WARNING TIME AS THE CURRENT ACTIVE WARNING SYSTEM. THE RECONSTRUCTED RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM WILL USE THE EXISTING NORTH AND SOUTH TRACK APPROACH CIRCUITS FROM THE APPROACH INSULATED JOINTS TO THE NEW ISLAND INSULATED JOINTS, TO INCLUDE EXISTING APPROACH JOINT BOND WIRES AND FOUR NEW DOUBLE BOND WIRES ON FOUR NEW TRACK JOINTS; THE EXISTING SOUTHWEST SIGNAL MAST, NEW ROUNDLES AND FLASHERS; THE EXISTING NORTHEAST SIGNAL MAST, NEW ROUNDLES AND FLASHERS; NEW SIGNAL MAST FOUNDATIONS; NEW ISLAND INSULATED JOINTS; AND THE EXISTING UNDERGROUND ELECTRIC SERVICE AND METER. THE RECONSTRUCTED RAIL-HIGHWAY ACTIVE WARNING SYSTEM WILL RETAIN THE EXISTING SIGNAL CASE WITH NEW BATTERIES; NEW BATTERY CHARGER; NEW AC/DC TRACK DRIVER; A NEW SIGNAL MAINTAINER'S TEST SWITCH; NEW TRACK WIRES TO THE APPROACH AND ISLAND CIRCUITS; NEW WIRING OF THE EXISTING SIGNAL MASTS, FLASHERS AND NEW BELL. THE RECONSTRUCTED ACTIVE WARNING SYSTEM WILL BE PAID UNDER ITEM 900.645 SPECIAL PROVISION (RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM) (AARDOT 053-598A). PAYMENT FOR THE REMOVAL AND INSTALLATION OF THE NEW ISLAND INSULATED JOINTS WILL BE MADE UNDER ITEM 900.645 (RECONSTRUCT RAIL-HIGHWAY CROSSING) (AARDOT 053-598A).

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DESIGNED BY:	L. BROCKMAN
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DRAWN BY:	L. BROCKMAN
CHECKED BY:	J. READ
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