

**CONCRETE - BRIDGE 38**

23. THE CONCRETE IN THE DECK FOR BRIDGE 38 SHALL BE SPECIFIED BY THE HALF-FILLED GRID DECK MANUFACTURER AND MEET THE REQUIREMENTS OF HIGH PERFORMANCE LIGHTWEIGHT CONCRETE OF SECTION 900. THE COST FOR THIS CONCRETE SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.670 SPECIAL PROVISION (HALF-FILLED GRID DECK).
24. THE CONCRETE FOR THE CURBS AND SIDEWALK ON THE BRIDGE SHALL MEET THE REQUIREMENTS OF HIGH PERFORMANCE LIGHTWEIGHT CONCRETE OF SECTION 900 BUT HAVE A DRY UNIT WEIGHT NO GREATER THAN 110 PCF.
25. UNLESS OTHERWISE NOTED, ALL OTHER CONCRETE ON BRIDGE 38 SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B.
26. THE DECK FOR BRIDGE 38 IS TO BE POURED IN ONE CONTINUOUS POUR WITH A MAXIMUM DURATION OF EIGHT (8) HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A TRANSVERSE CONSTRUCTION JOINT SHALL BE USED BETWEEN ADJACENT POURS. A MINIMUM 96 HOUR DELAY BETWEEN ADJACENT POURS SHALL BE OBSERVED.
27. THE DECK PANELS ON BRIDGE 38 SHALL BE FABRICATED AND INSTALLED TO ACCOMMODATE THE FINISH GRADE ELEVATIONS DUE TO THE VERTICAL CURVE AND CROSS SLOPE WITHOUT EXCEEDING THE WEIGHT CRITERIA LISTED IN NOTE 29 AND WITHOUT VIOLATING THE MANUFACTURER'S APPROVED INSTALLATION PROCEDURES.
28. SHEAR CONNECTORS SHALL BE PROVIDED ON ALL FLOORBEAMS ON BRIDGE 38. THE HALF-FILLED GRID DECK MANUFACTURER SHALL BE RESPONSIBLE FOR DETERMINING THE TYPE, SIZE AND SPACING. THE COST FOR THE SHEAR CONNECTORS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.670 SPECIAL PROVISION (HALF-FILLED GRID DECK).
29. THE STRUCTURAL GRID AND CONCRETE SYSTEM, EXCLUDING THE HAUNCHES AND INTEGRAL WEARING SURFACE, SHALL NOT WEIGH MORE THAN 60 LB/SQ. FT AND SHALL NOT BE DEEPER THAN 9 INCHES.
30. ANY FALSEWORK REQUIRED TO CONSTRUCT THE DECK SECTIONS ON BRIDGE 38 SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DESIGN AND WORKING DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 105.
31. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTHED WITH A MAGNESIUM FLOAT.
32. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE SUPERSTRUCTURE BETWEEN THE DRIP BEADS.
- STRUCTURAL STEEL - BRIDGE 38**
33. THE DIMENSIONS OF EXISTING MATERIALS GIVEN IN THE PLANS HAVE BEEN ASSUMED. THE ACTUAL DIMENSIONS OF EXISTING MATERIALS MAY DIFFER FROM THOSE GIVEN IN THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING DIMENSIONS.
34. THE TRUSS SHALL BE MOVED AND REHABILITATED IN A DIFFERENT LOCATION AND REINSTALLED IN ITS FINAL LOCATION AND PAID FOR UNDER ITEM 900.645 SPECIAL PROVISION (HANDLING, TRANSPORT AND RE-ERECTION OF TRUSS BRIDGE SUPERSTRUCTURE) AND ITEM 900.645 SPECIAL PROVISION (REHABILITATING TRUSS BRIDGE SUPERSTRUCTURE).
35. BEFORE THE TRUSS IS REMOVED, THE OVERALL DIMENSIONS OF THE TRUSS ELEMENTS AND CORRESPONDING TEMPERATURE READINGS SHALL BE RECORDED AND GIVEN TO THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 SPECIAL PROVISION (REHABILITATING TRUSS BRIDGE SUPERSTRUCTURE).
36. CERTAIN TRUSS COMPONENTS AND PARTS, INCLUDING THE DECORATIVE BRIDGE RAIL, HAVE BEEN DESIGNATED IN THE PLANS FOR STRAIGHTENING AND REPLACEMENT. ADDITIONAL MEMBERS MAY REQUIRE STRAIGHTENING AND REPLACEMENT ONCE THE TRUSSES HAVE BEEN CLEANED AND DISASSEMBLED. AN ADDITIONAL 25% HAS BEEN ADDED TO ITEM 506.60 STRUCTURAL STEEL QUANTITY TO COVER THESE POSSIBLE REPLACEMENTS. NO CHANGE IN SCOPE CLAIMS WILL BE ENTERTAINED BECAUSE MORE OR LESS STRUCTURAL STEEL NEEDS TO BE STRAIGHTENED OR REPLACED THAN THAT WHICH IS SHOWN IN THE PLANS.
37. PAYMENT FOR STRAIGHTENING THE TRUSS MEMBERS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.645 SPECIAL PROVISION (REHABILITATING TRUSS BRIDGE SUPERSTRUCTURE). ALL REPLACED STRUCTURAL STEEL SHALL BE PAID FOR UNDER ITEM 506.60 STRUCTURAL STEEL.
38. THE CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT THE TRUSS IN ITS FINAL CONDITION IS NOT RACKED OR OUT OF PLUMB BEYOND THE TOLERANCES SPECIFIED BY AISC AND AASHTO. NO METHODS WHICH WILL OVER-STRESS THE STRUCTURAL COMPONENTS SHALL BE PERMITTED TO GET THE FINAL STRUCTURE IN ITS TRUE LOCATION. THE WORK FOR ENSURING THIS PROVISION SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

**PROTECTIVE**

39. UNLESS OTHERWISE NOTED, ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270M/M270 GRADE 50.
40. ONE OF THE EXISTING TRUSS COMPONENTS THAT IS TO BE REPLACED SHALL BE UTILIZED TO ATTAIN A COUPON FOR TESTING THE MECHANICAL PROPERTIES OF THE EXISTING WROUGHT IRON. AT A MINIMUM, YIELD AND TENSILE STRENGTHS SHALL BE DETERMINED FROM THESE TESTS. THE RESULTS OF THESE TESTS SHALL BE PROVIDED TO THE ENGINEER TO VERIFY THE DESIGN AND DETERMINE IF ADDITIONAL MATERIAL NEEDS TO BE REPLACED. THE COSTS ASSOCIATED WITH ATTAINING THE COUPON AND TESTING THE MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.645 SPECIAL PROVISION (REHABILITATING TRUSS BRIDGE SUPERSTRUCTURE).
41. IF A STRUCTURAL STEEL MEMBER DESIGNATED AS "FCW" (FRACTURE CRITICAL MEMBER) IN THE PLANS IS REPLACED, THE REPLACEMENT MEMBER SHALL MEET THE FOLLOWING CONSTRUCTION AND TESTING REQUIREMENTS:
- A. ALL FRACTURE CRITICAL MEMBERS SHALL BE FABRICATED ACCORDING TO SECTION 12 OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE.
  - B. ALL FRACTURE CRITICAL MEMBERS SHALL BE FABRICATED IN A PLANT HAVING AISC FRACTURE CRITICAL ENDORSEMENT OR THE FABRICATOR SHALL PROVIDE TO THE ENGINEER AN ACCEPTABLE FRACTURE CONTROL PLAN MEETING THE REQUIREMENTS OF AASHTO/AWS D1.5, PRIOR TO FABRICATION.
  - C. ALL FRACTURE CRITICAL MEMBERS SHALL BE IMPACT TESTED TO THE FRACTURE CRITICAL REQUIREMENTS SPECIFIED IN AASHTO M270M/M270.
42. IF A STRUCTURAL STEEL MEMBER DESIGNATED AS "CVN" IN THE PLANS IS REPLACED, THE REPLACEMENT MEMBER SHALL BE CHIPPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01.
43. ALL BOLT OR RIVET HOLES IN THE STRUCTURAL STEEL THAT ARE NOT OTHERWISE FILLED, SHALL BE FILLED WITH BUTTON HEAD BOLTS. THESE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.
44. UNLESS OTHERWISE NOTED, ALL SHOP AND FIELD CONNECTIONS FOR BRIDGE 38 SHALL BE MADE WITH HIGH-STRENGTH TYPE 1 GALVANIZED BOLTS PER SECTION 506. UNLESS OTHERWISE NOTED, THESE BOLTS SHALL BE 5/8" DIAMETER PLACED IN 1 1/16" HOLES.
45. WHEN CONNECTIONS ARE TO BE MADE WITH EXISTING MATERIAL, THE DIMENSION AND SPACING OF HOLES SHALL BE VERIFIED BEFORE FABRICATING AND CONNECTING NEW MEMBERS. ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE PLANS SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE MATERIAL IS FABRICATED AND CONNECTIONS ARE MADE.
46. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
47. ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10.
48. NEW PINS SHALL BE PROVIDED AT ALL TRUSS PIN CONNECTIONS. THE PINS AND RECESSED NUTS SHALL BE ASTM A572 GRADE 50. PINS SHALL BE SOLID. STANDARD SIZES AND THREADS ARE PREFERRED. THE TOLERANCES AND SURFACE FINISH REQUIREMENTS FOR THE PINS SHALL MEET THE CONDITIONS SPECIFIED IN THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS. ALL NEW PINS AND RECESSED NUTS SHALL BE PAID FOR UNDER ITEM 506.60 STRUCTURAL STEEL.
49. PIPE SPACERS SHALL BE ASTM A36 SCHEDULE 40 PIPE OF THE CORRECT LENGTH AND SMALLEST DIAMETER ABLE TO LOOSELY FIT OVER THE PIN. THE SPACERS SHALL BE PAID FOR UNDER ITEM 506.60 STRUCTURAL STEEL.
50. SEE STRUCTURAL DETAIL SHEETS FOR ADDITIONAL NOTES.

51. THE EXISTING SAFELY REMOVED PROVISION (CONNECTIONS)
52. ALL OF THE EXISTING TO A "100% BARS AND PAINTING
53. THE FINAL COLOR AND ANGLES; SPECIFICATION.
54. THE FINAL COLOR PER SUBSECTION
55. ALL NEW STRUCTURAL
56. THE AREA OF CONNECTIONS PREPARED TO A CLEANED PRIOR TO DETERMINE THE RESEARCH
57. WHEN A CONNECTION BOLTING THE CLEANED PRIOR TO DETERMINE THE RESEARCH
58. ANY DAMAGE TO OPERATIONS, SPECIAL PROVISIONS
59. ALL CONTRACT SHALL POSSESS CERTIFICATION
60. ALL MATERIAL OTHERWISE AP