

# SUMMARY OF QUANTITIES

80% FED  
20% STATE

**CONSTRUCTION TYPE CODE**  
IL RTE 43 OVER  
BELVIDERE RD  
SN 049-0111

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY		CONSTRUCTION TYPE CODE
					<b>0047</b>
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2		2
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1627		1627
78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	940		940
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	57		57
78003100	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4"	FOOT	510		510
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	574		574
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	72		72
78100300	REPLACEMENT REFLECTOR	EACH	20		20
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	75		75
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	20		20
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1551		1551
* X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	143		143
* X2700004	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7"	FOOT	143		143
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		1
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	4135		4135
* X8040150	REMOVAL ELECTRICAL CONNECTION TO SIGN STRUCTURE	EACH	2		2
X2600027	REMOVE, STORE AND RE-ERECT OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	EACH	2		2
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	21		21
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	2123		2123
Z0006016	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 3/4 INCHES	SQ YD	2123		2123
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	2123		2123
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	1196		1196
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	79		79
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	51		51
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	68		68
** Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	10		10
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	202		202
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	4		4
Z0041895	POLYMER CONCRETE	CU FT	9		9
Z0043900	PREFORMED JOINT FILLER	FOOT	90		90
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	3		3



\* NON-PARTICIPATING

\* SPECIALTY ITEM

FILE NAME : P:\1111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order #1 - SN 049-0111 IL43\Civil Sheets\04-D160R68-sht-500.dgn  
 USER : JESSE  
 USER NAME : JESSE

**HBM**  
 ENGINEERING GROUP, LLC  
 4415 WEST HARRISON ST.  
 SUITE 231  
 HILLSIDE, IL 60162  
 PHONE: (708) 236-0900  
 FAX: (708) 236-0901

DESIGNED - KJD	REVISED -
DRAWN - KJD	REVISED -
CHECKED - RTB	REVISED -
DATE - 12/07/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)  
OVER BELVIDERE RD (SN 049-0111)**

**SUMMARY OF QUANTITIES**

F.A.U. RTE. 2706	SECTION 12R-1HB-1-BR	COUNTY LAKE	TOTAL SHEETS 45	SHEET NO. 4
CONTRACT NO. 60R68				

SCALE: NTS SHEET NO. 2 OF 3 SHEETS STA. TO STA.

FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT

**GUARDRAIL NOTE:**

THE TRAF BAR TERM T6 SHALL BE CONNECTED TO EXISTING GUARDRAIL. THE COST TO CONNECT THE TRAF BAR TERM T6 TO THE EXISTING GUARDRAIL SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE OF TRAF BAR TERM T6.

SEEDING, CLASS 2A HEAVY-DUTY EROSION CONTROL BLANKET

GUARDRAIL REMOVE (37.5 FT) TRAF BAR TERM T6 (1 EA) SEE GUARDRAIL NOTE

THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED ON ALL HMA SURFACES

GUARDRAIL REMOVE (37.5 FT) TRAF BAR TERM T6 (1 EA) SEE GUARDRAIL NOTE

CONTRAST PREFORMED PLASTIC SHALL BE USED ON BRIDGE DECK FOR LANE LINES.

MODIFIED URETHANE PAVEMENT MARKINGS SHALL BE USED ON BRIDGE DECK OTHER THAN LANE LINES

- NOTES**
1. ALL DRAINAGE STRUCTURES WITHIN PROJECT LIMITS SHALL BE CLEANED.
  2. THERMOPLASTIC PAVEMENT MARKINGS ARE FOR HMA PAVEMENT.
  3. THE CONTRACTOR SHALL PLACE PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH DISTRICT 1 TYPICAL PAVEMENT MARKINGS DETAIL (TC-13).
  4. THE CONTRACTOR SHALL PLACE PROPOSED RAISED REFLECTIVE PAVEMENT MARKERS ON HMA SURFACES ONLY IN ACCORDANCE WITH DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11).

RAISED REFLECTIVE PAVEMENT MARKINGS SHALL NOT BE PLACED ON BRIDGE DECK.

- PAVEMENT MARKING LEGEND (SEE NOTE 2)**
- ① 4" WHITE LANE LINE (30' SKIP 10' DASH)
  - ② 4" WHITE SOLID LINE
  - ③ 8" WHITE LANE LINE (9' SKIP 3' DASH)
  - ④ 8" WHITE LINE
  - ⑤ 12" WHITE SOLID LINE
  - ⑥ RAISED REFLECTIVE PAVEMENT MARKER (SEE NOTE 4) REPLACEMENT REFLECTOR

FILE NAME = P:\2011\ME11007\_Ver\Ver-Plan\CADD\W001\_IL43.ctb; IL120\SHS\05-D160R68-shr-PMK.dgn  
 USER = JAC  
 PLOT DATE = 02/04/2019 10:00:00  
 PLOT SCALE = 1"=50'  
 PLOT DEVICE = Millennium Professional Services



2600 Warrenville Rd, Suite 203, Downers Grove, IL 60515  
 630.705.0110 voice, 630.839.2566 fax  
 www.mps-il.com

**MILLENNIA PROFESSIONAL SERVICES**

DESIGNED - JP	REVISED - 1 02/04/2019
DRAWN - JP	REVISED -
CHECKED - TVN	REVISED -
DATE - 2/4/2019	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)  
OVER BELVIDERE RD (SN 049-0111)**

**ROADWAY PLAN  
AND PAVEMENT MARKING PLAN**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	5
CONTRACT NO. 60R68				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

**GENERAL NOTES**

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars noted thus, 3 x 2-#5 indicates 3 lines of bars with 2 lengths of bars per line.
4. All structural steel shall conform to AASHTO Classification M-270 Gr 36, unless otherwise noted.
5. All exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise.
6. If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.
7. The contractor shall take all necessary precautions for the protection of passing vehicles from falling objects and/or materials until completion of the work.
8. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by method that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
10. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contract Surface Areas of Existing Steel Structures".
11. All new structural steel and bearing assembly shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing For Structural Steel".
12. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
13. The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.
14. Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.
15. Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50 °F.
16. The Contractor shall salvage and return the existing bridge railing to:

District Bridge Office  
1101 Biesterfield Rd.  
Elk Grove Village, IL 60007

Contact Jacek Ejmont or Vito Mazzara at (847) 956-1444. This work shall include removing, transporting and unloading the existing bridge railing to the above yard which cost is included in the cost of "Bridge Rail Removal".

**INDEX OF SHEETS**

- S01. General Plan and Elevation
- S02. General Notes, Index of Sheets & Total Bill of Material
- S03. Stage I Construction
- S04. Stage II Construction
- S05. Temporary Concrete Barrier
- S06. Bridge Deck Repair Plan
- S07. Bridge Deck Final Cross Sections
- S08. Parapet Structural Concrete Repairs
- S09. South Abutment Joint Removal and Replacement
- S10. South Abutment Joint Details
- S11. North Abutment Joint Removal and Replacement
- S12. North Abutment Joint Details
- S13. Preformed Joint Strip Seal
- S14. Long. Joint Removal and Deck Reconst. Plans
- S15. Long. Joint Removal and Deck Reconst. Sections and Details
- S16. East Parapet Retrofit
- S17. West Parapet Retrofit
- S18. Framing Plan
- S19. South Abutment, Type I Elastomeric Bearings Details
- S20. North Abutment, Type I Elastomeric Bearings Details
- S21. South Abutment Repairs
- S22. South Abutment Curtain Wall Ventilation and Grading
- S23. North Abutment Repairs
- S24. Pier Repairs
- S25. Bar Splicer Assembly Details

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.	-	128	128
Concrete Removal	Cu. Yd.	56.1	-	56.1
Bridge Rail Removal	Foot	608	-	608
Protective Shield	Sq. Yd.	1,731	-	1,731
Concrete Superstructure	Cu. Yd.	72.9	-	72.9
Bridge Deck Grooving	Sq. Yd.	2,050	-	2,050
Protective Coat	Sq. Yd.	856	-	856
Furnishing and Erecting Structural Steel	Pound	5,230	-	5,230
Reinforcement Bars, Epoxy Coated	Pound	23,170	-	23,170
Bar Splicers	Each	68	-	68
Preformed Joint Strip Seal	Foot	177	-	177
Elastomeric Bearing Assembly, Type I	Each	-	24	24
Anchor Bolts, 1"	Each	-	96	96
Remove, Store and Re-Erect Overhead Sign Structure - Bridge Mounted	Each	2	-	2
Jack and Remove Existing Bearings	Each	-	21	21
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	2,123	-	2,123
Bridge Deck Latex Concrete Overlay, 2-3/4 Inches	Sq. Yd.	2,123	-	2,123
Bridge Deck Scarification, 3/4"	Sq. Yd.	2,123	-	2,123
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	-	1,196	1,196
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	79	-	79
* Deck Slab Repair (Partial)	Sq. Yd.	68	-	68
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	51	-	51
Polymer Concrete	Cu. Ft.	9	-	9
Preformed Joint Filler	Foot	-	90	90
Temporary Shoring and Cribbing	Each	-	3	3

\* Median only

**HBM**  
ENGINEERING GROUP, LLC  
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RESEARCH & TESTING

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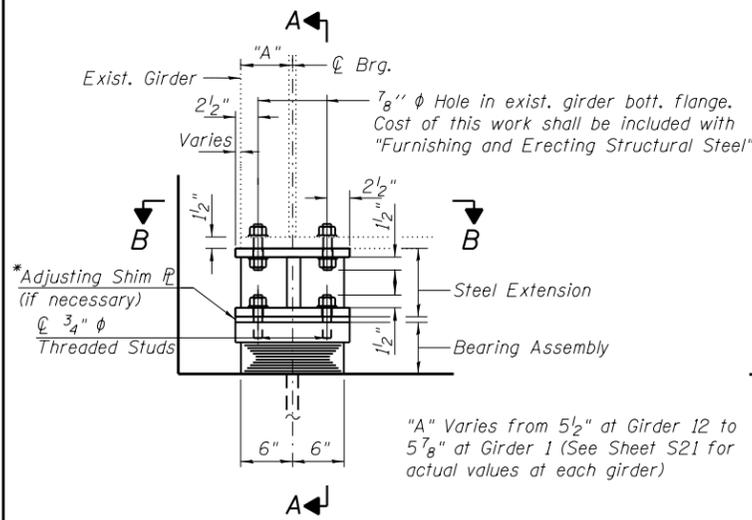
DESIGNED - JJS, LAB	REVISED - 02/04/2019
CHECKED - MI	REVISED -
DRAWN - JJS, LAB	REVISED -
DATE - 12/07/2018	CHECKED - MAI, MI
	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL  
IL ROUTE 43 OVER IL ROUTE 120 – STRUCTURE NO. 049-0111

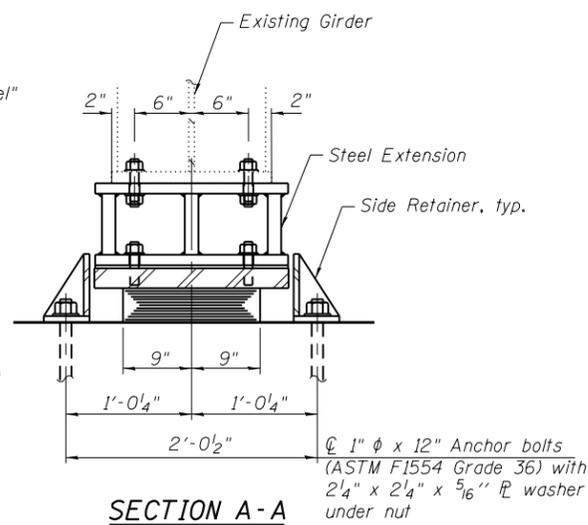
SHEET NO. S02 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	13
CONTRACT NO. 60R68				
ILLINOIS FED. AID PROJECT				

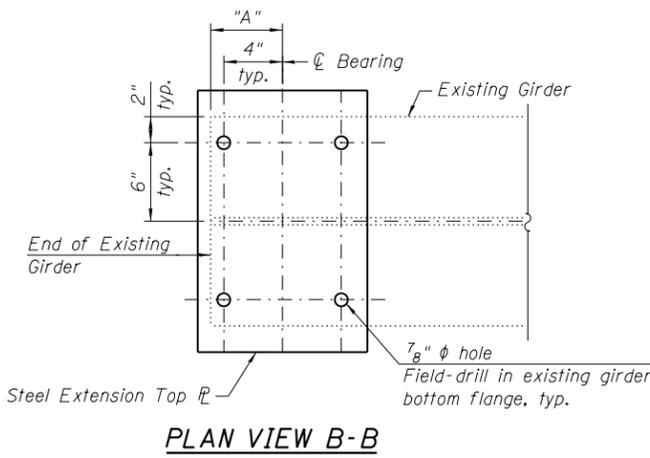


**ELEVATION AT S. ABUT.**

\* $\frac{1}{8}$ " Shim  $\bar{P}$  required at Girder 8

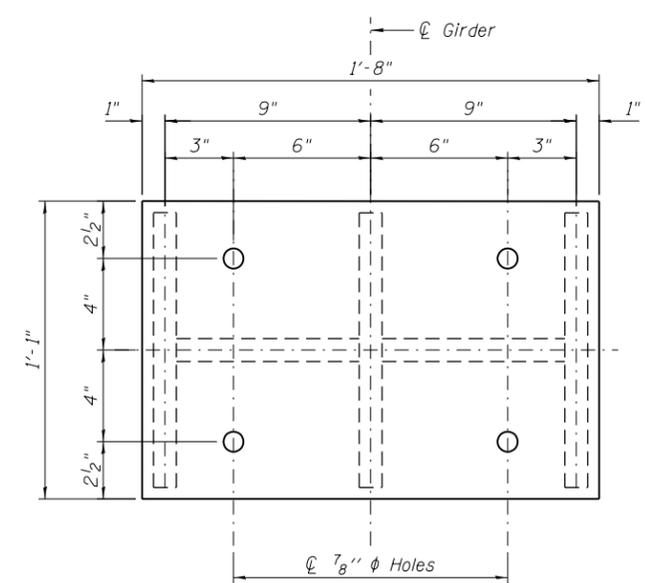


**SECTION A-A**



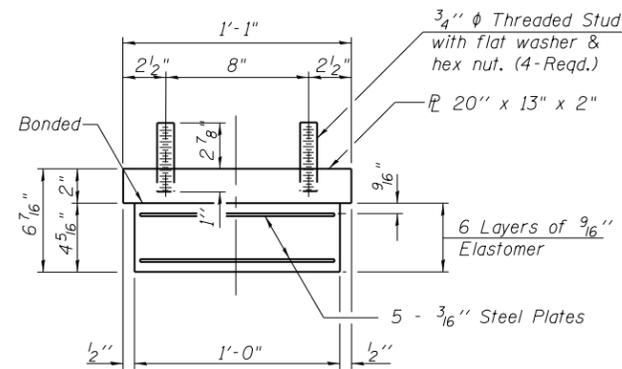
**PLAN VIEW B-B**

"A" Varies from  $5\frac{1}{2}$ " at Girder 12 to  $5\frac{7}{8}$ " at Girder 1 (See Sheet S21 for actual values at each girder)



**PLAN STEEL EXTENSION**

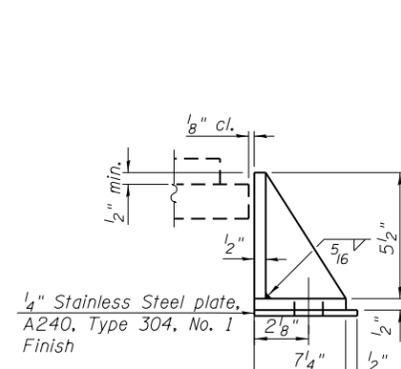
**TYPE I ELASTOMERIC EXP. BRG. AT SOUTH ABUTMENT**



**BEARING ASSEMBLY AT SOUTH ABUTMENT**

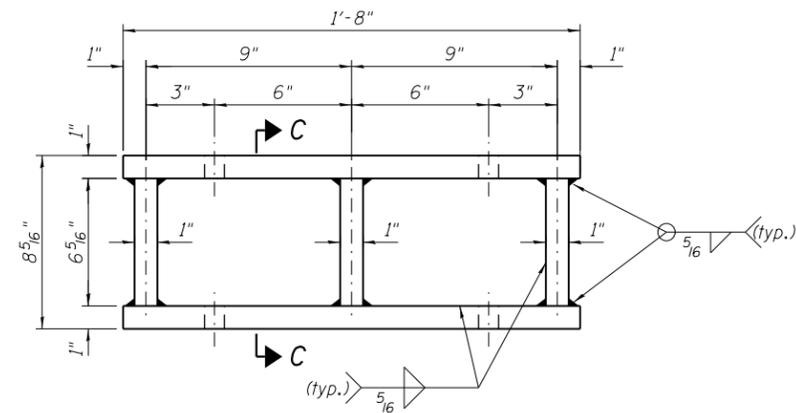
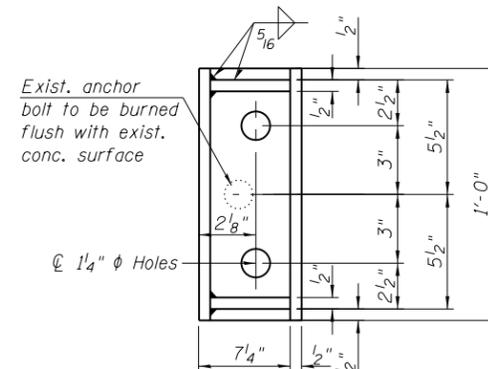
**NOTE**

Shim plates shall not be placed under Bearing Assembly.

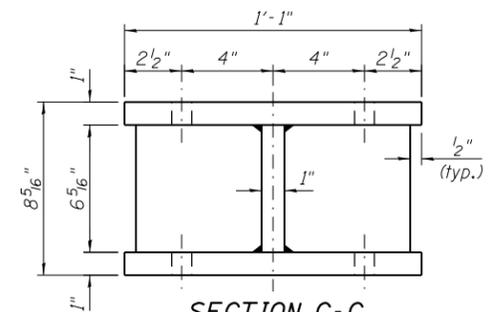


**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**ELEVATION STEEL EXTENSION**



**SECTION C-C STEEL EXTENSION**

**REACTION TABLE**

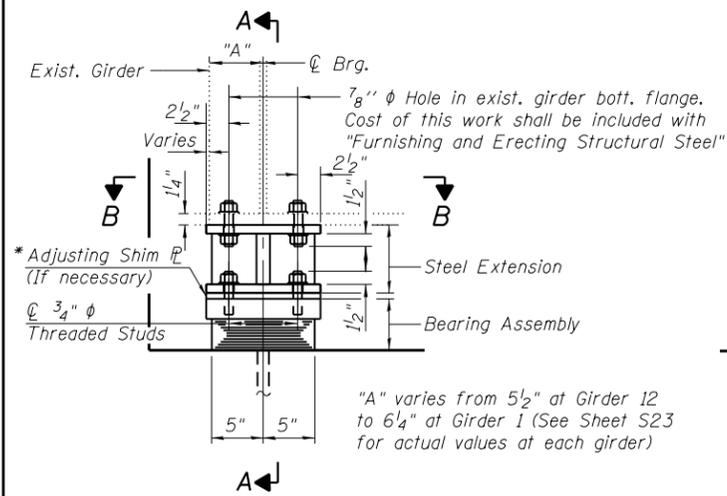
DL (kip)	87.6
LL (kip)	52.8
IMP (kip)	9.9
TOTAL (kip)	150.3

**NOTES:**

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- 
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Two  $\frac{1}{8}$  in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- See Special Provisions for Jacking and Removing procedures for existing bearings.
- Steel extension, shim plates and connection bolts shall be paid for as "Furnishing and Erecting Structural Steel."
- Minimum Jack Capacity = 90 Tons

**BILL OF MATERIAL**

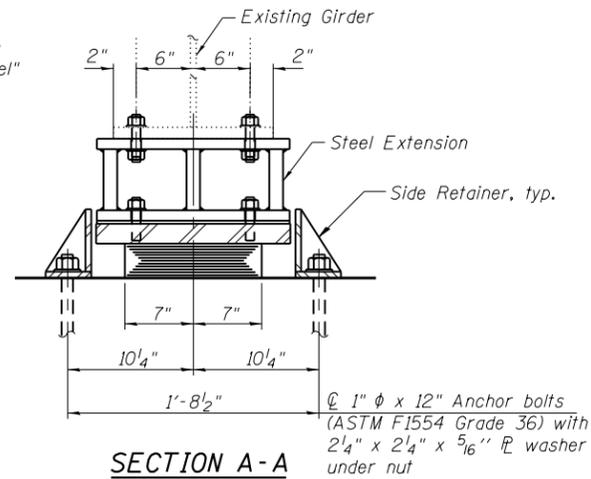
Item	Unit	Total
Furnishing and Erecting Structural Steel	Pounds	2,890
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 1"	Each	48



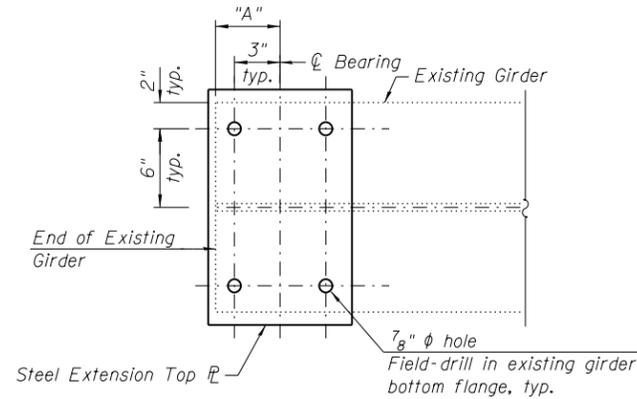
**ELEVATION AT N. ABUT.**

\*5/8" Shim required at Girder 5

**TYPE I ELASTOMERIC EXP. BRG.  
 AT NORTH ABUTMENT**

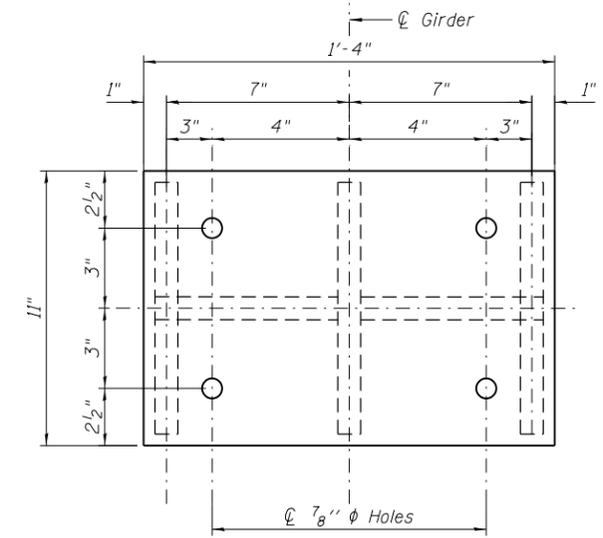


**SECTION A-A**



**PLAN VIEW B-B**

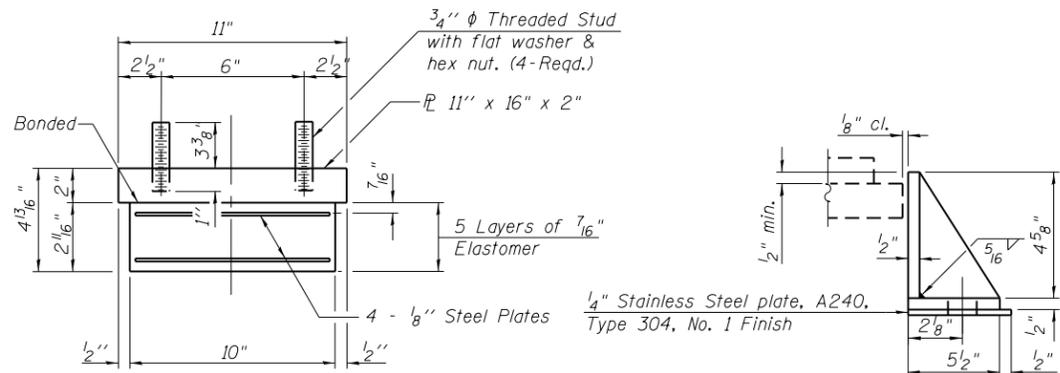
"A" varies from 5 1/2" at Girder 12 to 6 1/4" at Girder 1  
 (See Sheet S23 for actual values at each girder)



**PLAN STEEL EXTENSION**

**REACTION TABLE**

DL (kip)	52.3
LL (kip)	51.3
IMP (kip)	10.9
TOTAL (kip)	114.5



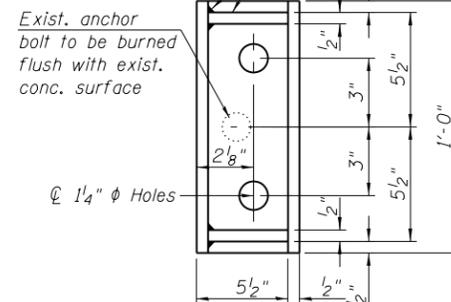
**BEARING ASSEMBLY  
 AT NORTH ABUTMENT**

**NOTE**

Shim plates shall not be placed under Bearing Assembly.

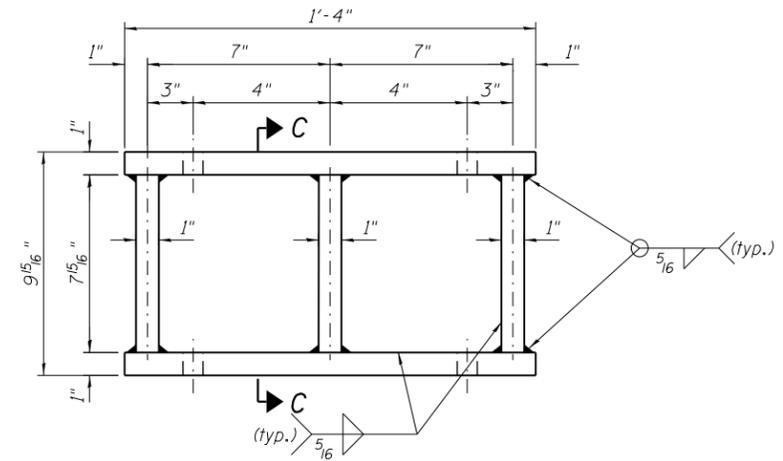
**NOTES:**

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

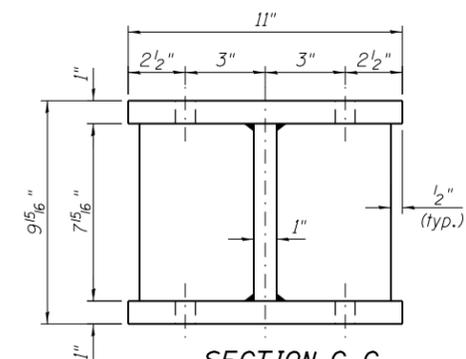


**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**ELEVATION STEEL EXTENSION**



**SECTION C-C  
 STEEL EXTENSION**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pounds	2,340
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 1"	Each	48