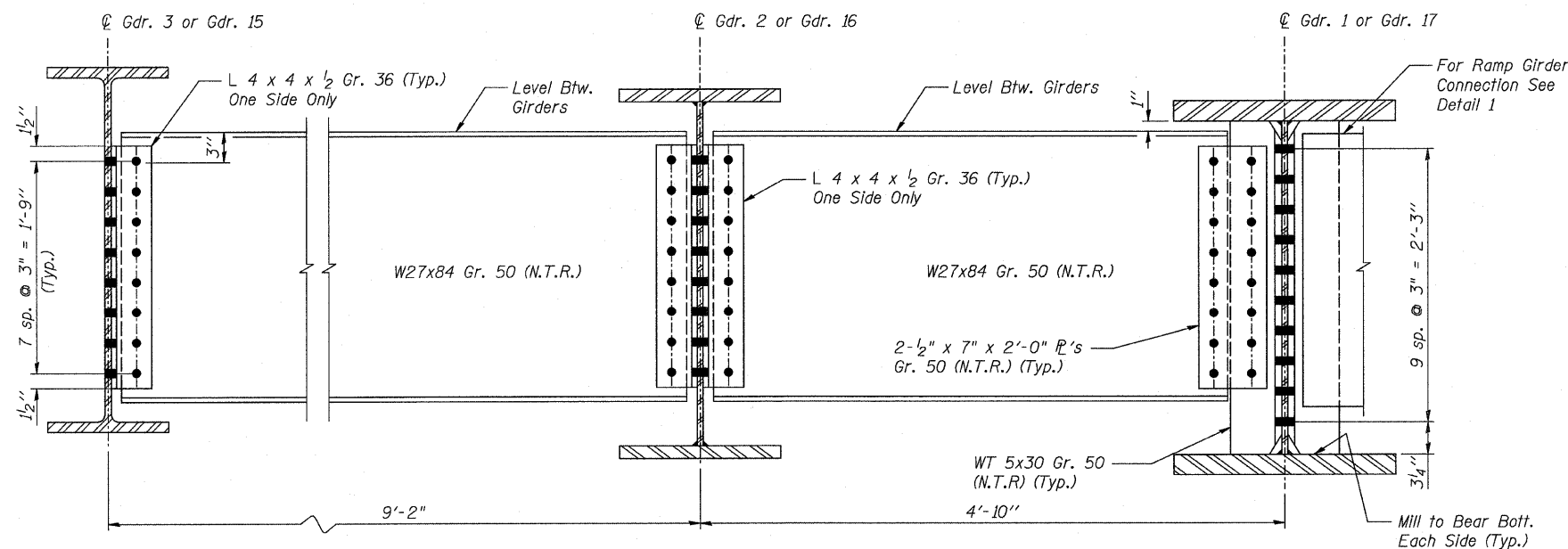


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	267
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



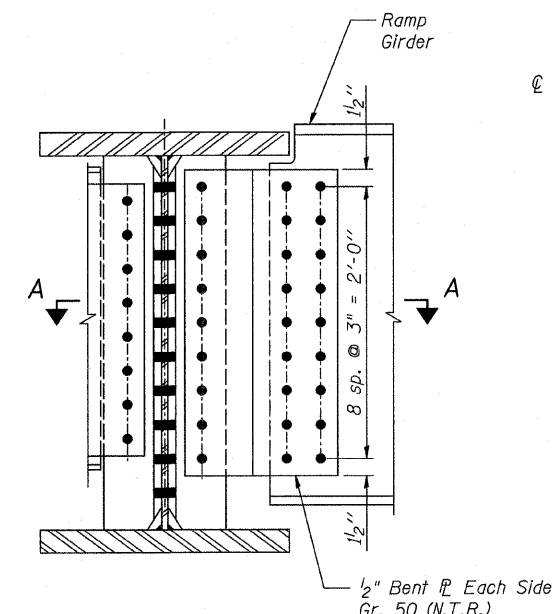
**DIAPHRAGM D5**

(22-Required)

**DIAPHRAGM D4**

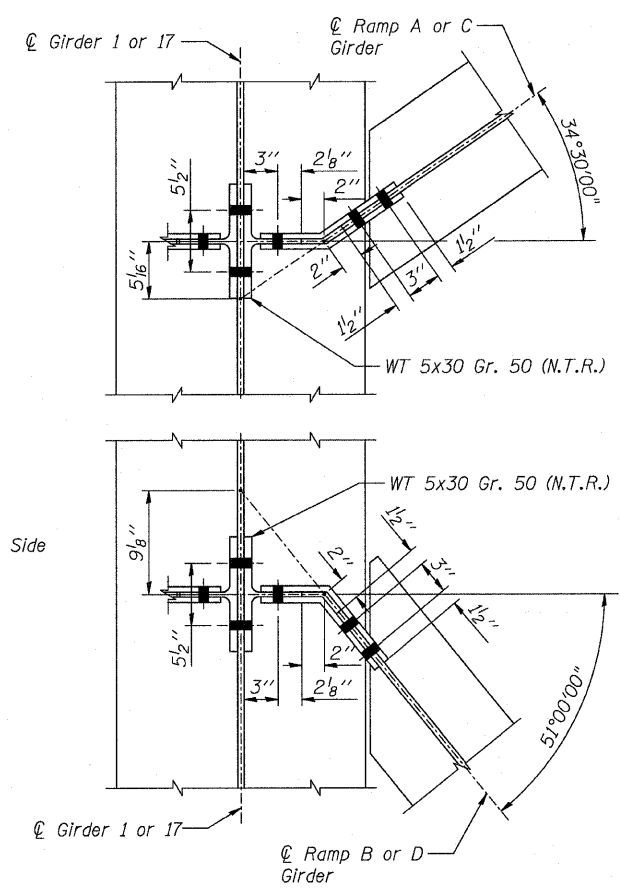
(22-Required)

7/8"  $\phi$  H.S. Bolts with 1/16"  $\phi$  holes unless noted otherwise



**DETAIL 1**

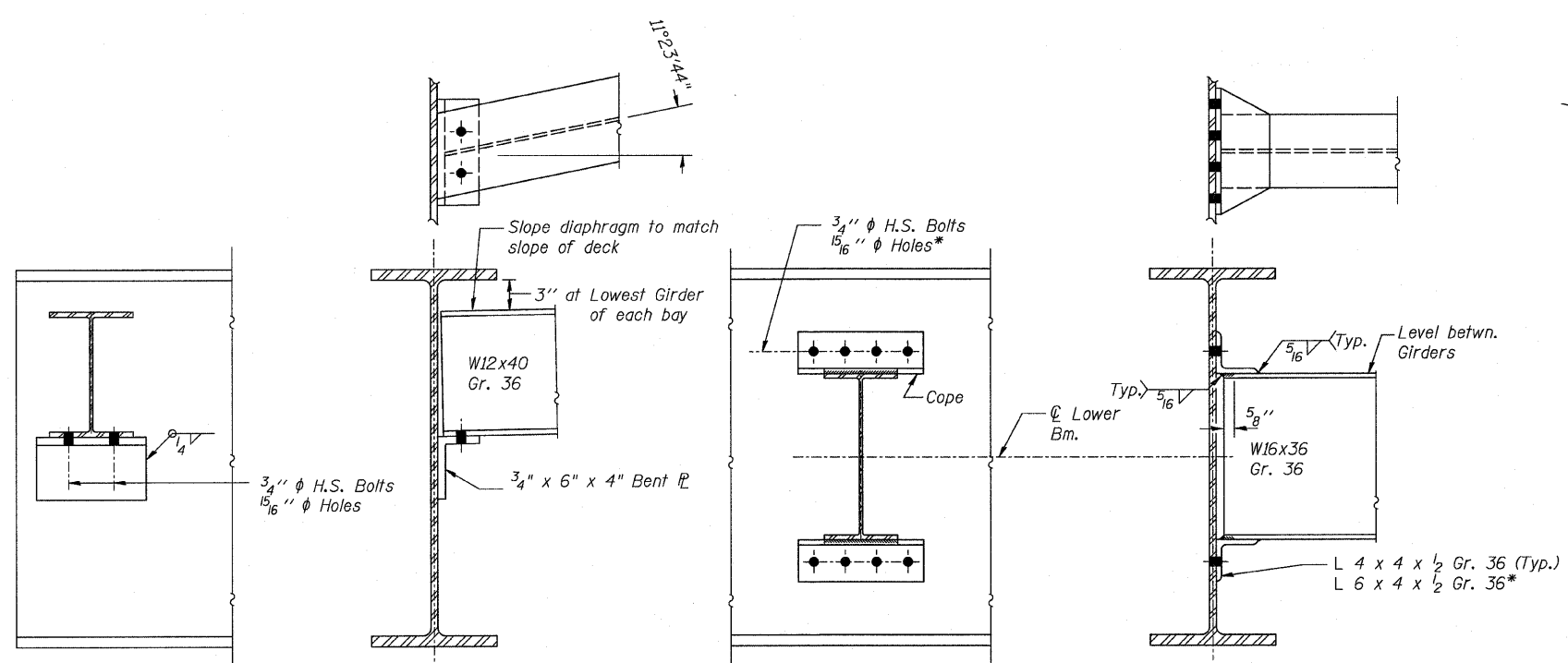
For location of Detail 1, see Sht. S-44.



**SECTION A-A**

7/8"  $\phi$  H.S. Bolts with 1/16"  $\phi$  holes unless noted otherwise

- Notes:
- Two hardened washers shall be required over all oversize holes for diaphragms. Position slots so bolts start at one end with no concrete load and finish near the opposite end of the slots under deck load.
  - All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



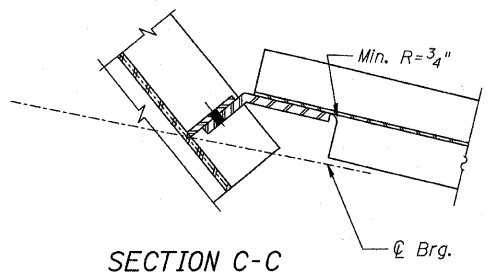
**END DIAPHRAGM D3**

D3 (24-Required)

**DIAPHRAGM D6, D7, D10, D13, D16**

D6 (81-Required)  
D7 (4-Required)  
D10 (7-Required)  
D13 (12-Required)  
D16 (12-Required)

\* Provide 1 5/16" x 2" vertical slotted holes in 6 x 4 x 1/2 (LLV) angles for diaphragms D10 in stage construction bay, Stage II side. 5/16" structural plate washers shall be placed over slotted holes. Slotted hole bolts shall be finger-tightened prior to the deck pour and fully-tightened after completion of the deck pour.



**SECTION C-C**

**END DIAPHRAGM D12, D15**

D12 (10-Required)  
D15 (8-Required)

SHT. S-49 OF S-68

**STV Incorporated**  
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312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 162 OVER I-55/70 IN TROY  
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB  
MADISON COUNTY STATION 499+48.35  
STRUCTURE NO. 060-0338

STEEL DETAILS  
DIAPHRAGMS & RAMP CONNECTIONS

DESIGNED: JAN  
CHECKED: BTO

DRAWN: BTO  
CHECKED: JAN

DATE: 03/06