

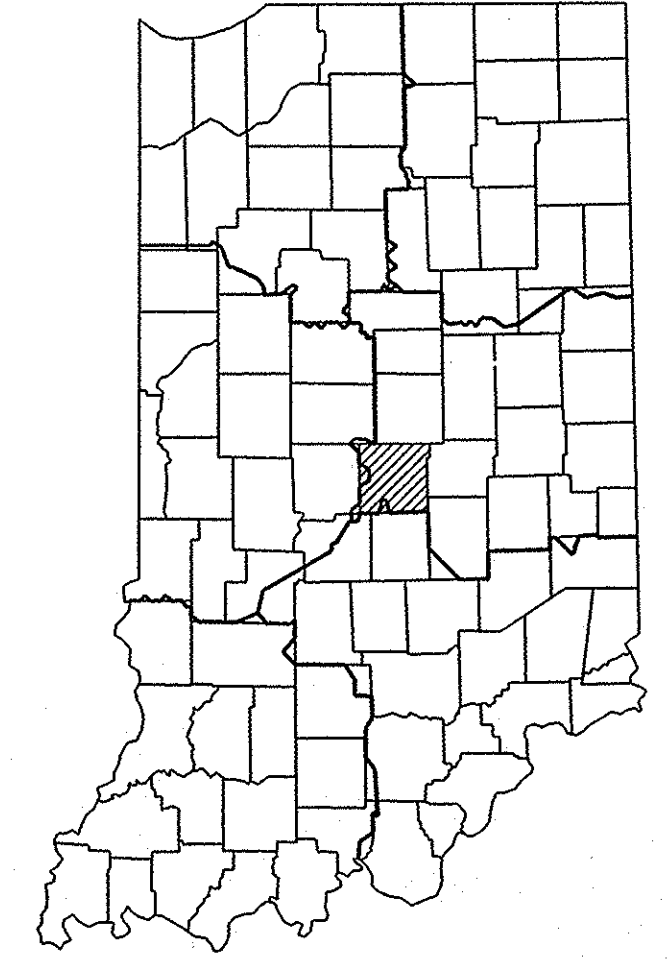
PROJECT	DESIGNATION
ST-465-4(0KG)	0501005
CONTRACT	BRIDGE FILE
B-28516	I465-129-5277D

**INDIANA  
DEPARTMENT OF  
TRANSPORTATION**

**BRIDGE PLANS  
FOR SPANS OVER 20 FEET**

ROUTE: I-465      AT: RP 32+042

**PROJECT NO.    ST-465-4(0KG)    CONST.**



PROJECT LOCATION WITHIN STATE SHOWN BY

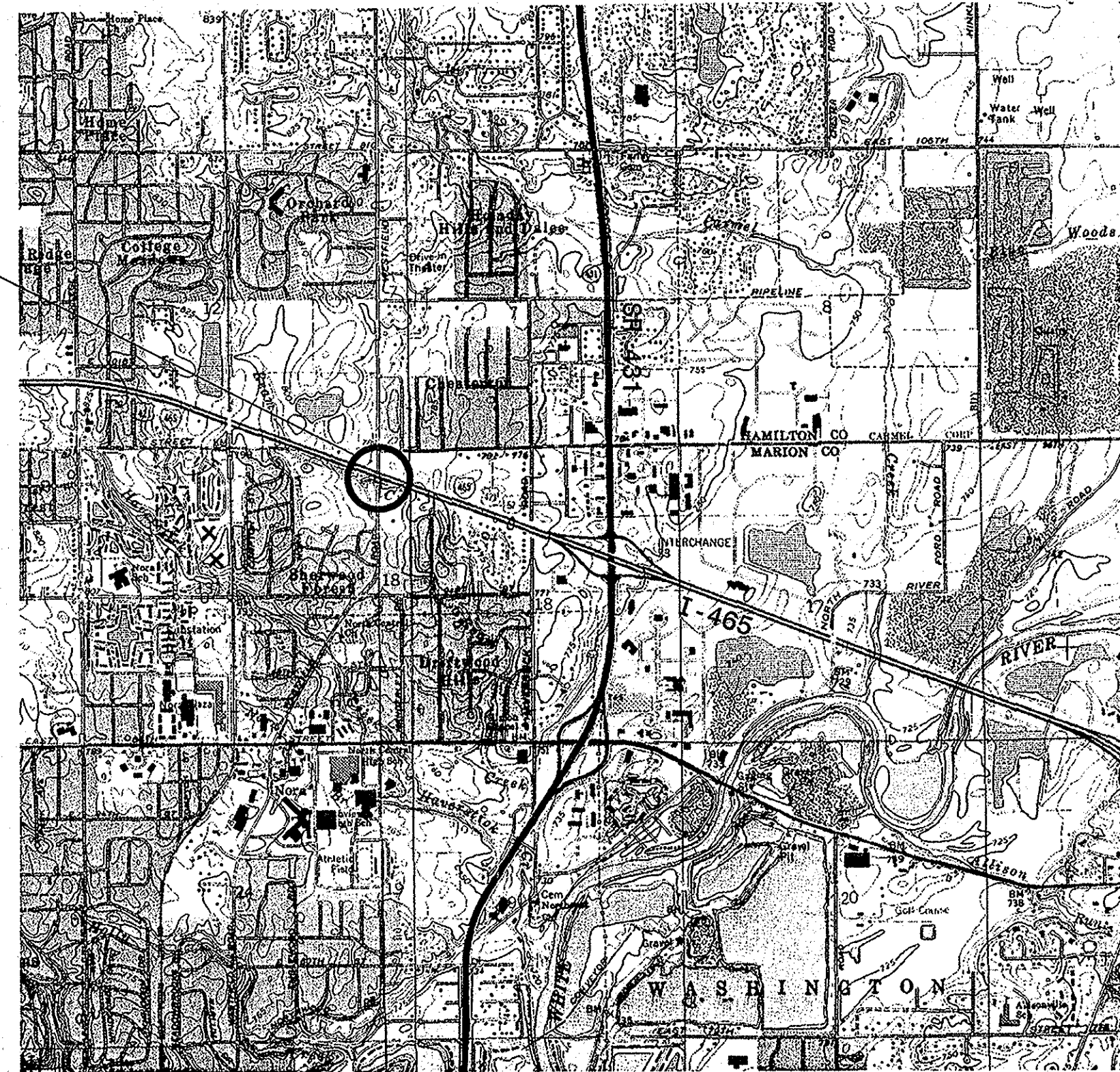
LATITUDE: 39°55'30"      LONGITUDE: 86°07'36"

INDEX				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
I465-129-5277D	Composite Continuous Steel Beam	32'-0", 69'-6", 69'-6", 32'-0" 20°24'40" Right	Westfield Boulevard over I-465	50 + 00 Line S-SR-431A

SHEET NO.	SUBJECT
1	Index and Title Sheet
2	Framing Plan and Details
3	Details and Bridge Summary
4	Details and Notes
2-1	Framing Plan

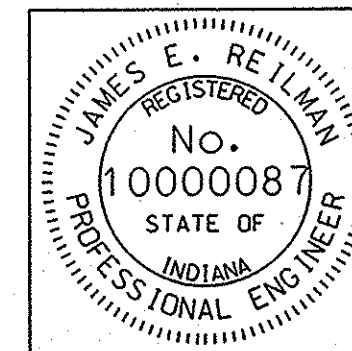
BEAM REPAIR AND HEAT STRAIGHTENING ON WESTFIELD BOULEVARD OVERPASS OVER I-465. LOCATED 0.83 MILES WEST OF SR 431 IN SECTION 18, T-17-N, R-3-E, WASHINGTON TOWNSHIP, MARION COUNTY

I-465-129-5277C  
0501005



INDIANA DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS DATED 2006  
TO BE USED WITH THESE PLANS

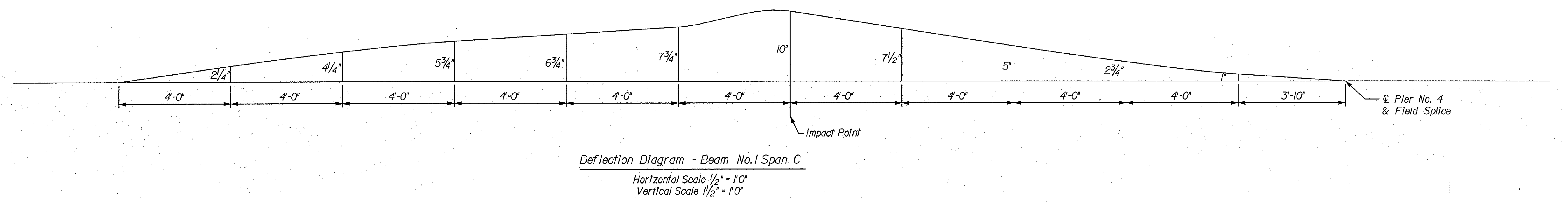
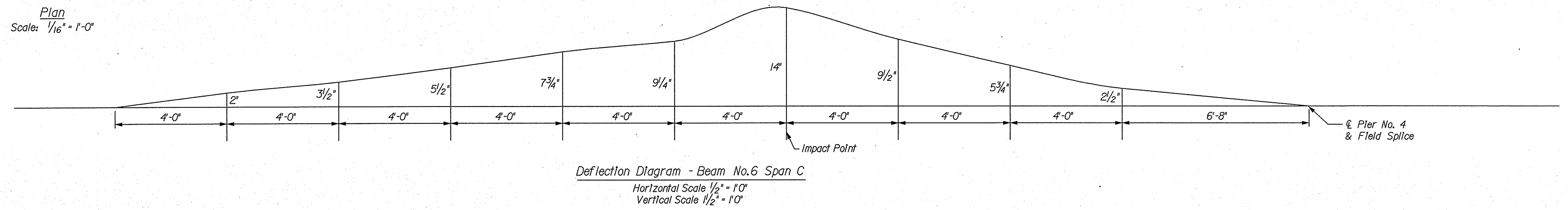
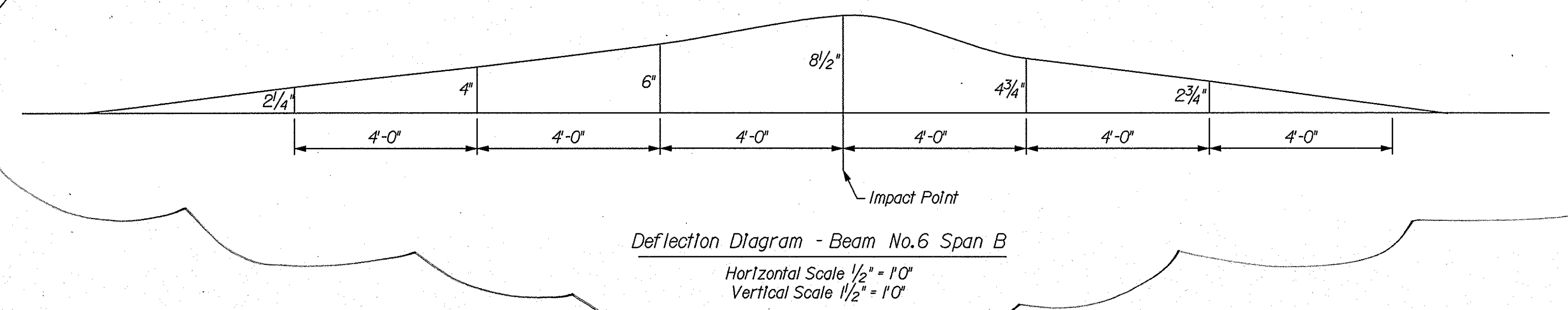
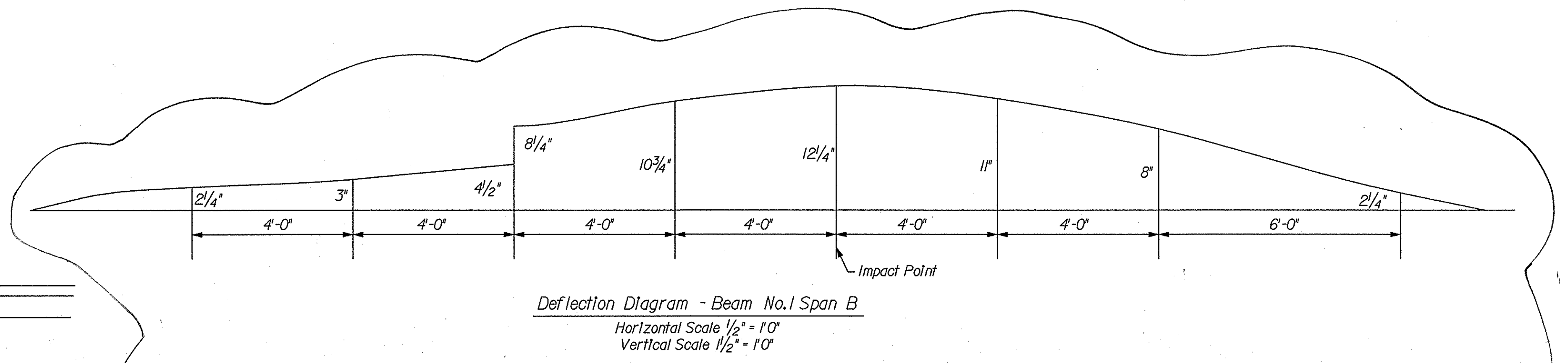
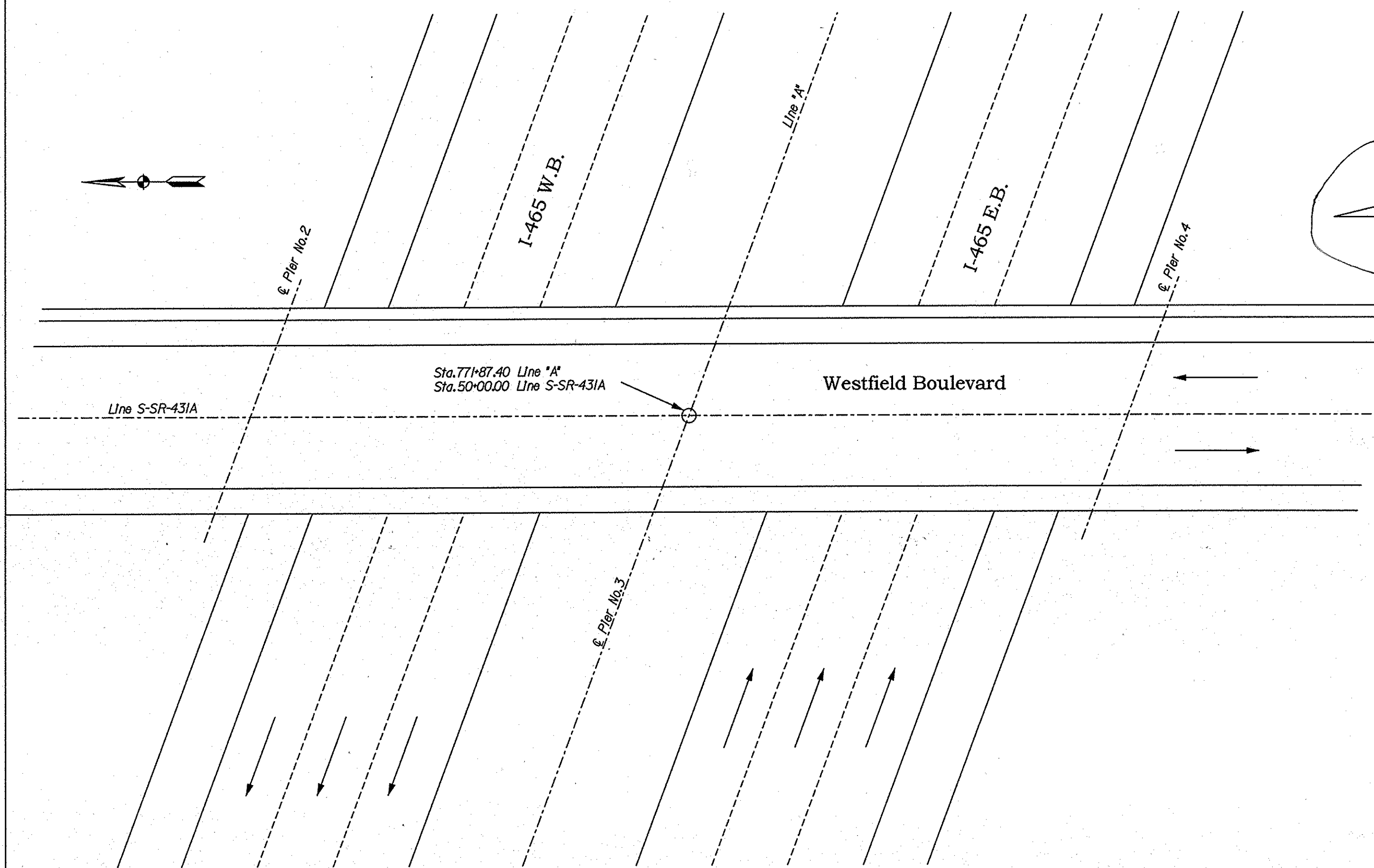
1-11-06: Revised Sheets 1, 2, 3 & 4; Added Sheet 2-1



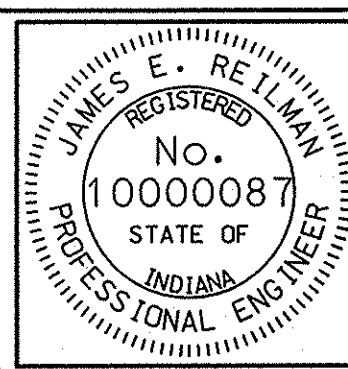
PLANS PREPARED BY: Stephanie Wagner (317) 233-2095  
PHONE NUMBER  
CERTIFIED BY: *James E. Reilly* 11/9/05 DATE  
APPROVED FOR LETTING: *James E. Reilly* 11/22/05 DATE  
CHIEF, DIVISION OF DESIGN

BRIDGE FILE	
I465-129-5277D	
DESIGNATION	
0501005	
SURVEY BOOK	SHEET
None	1 of 4
CONTRACT	PROJECT
B-28516	ST-465-4(0KG)

**B 28516**



DATE	REVISION
1/11/06	Move framing plan to sheet 2-1, add deflection diagrams for span B



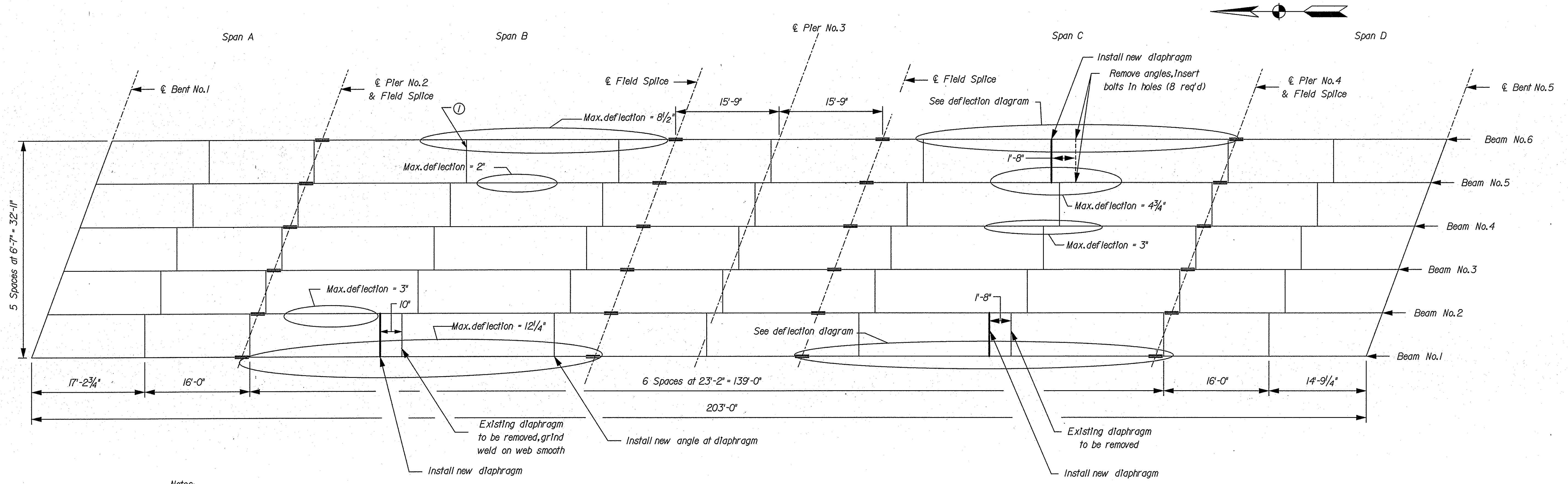
RECOMMENDED FOR APPROVAL	<i>James E. Reilman</i>	DATE	1/11/06
DESIGNED:	Wagner 10/05	DRAWN:	Wagner 10/05
CHECKED:	Reilman 10/05	CHECKED:	Reilman 10/05

INDIANA  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & DETAILS

SCALE	As Noted	BRIDGE FILE	I465-129-5277D
		DESIGNATION	0501005
SURVEY BOOK	None	SHEET	2 of 4
CONTRACT	B-28516	PROJECT	ST-465-4(0KG)





Notes:  
Existing Diaphragms are I6 B 26

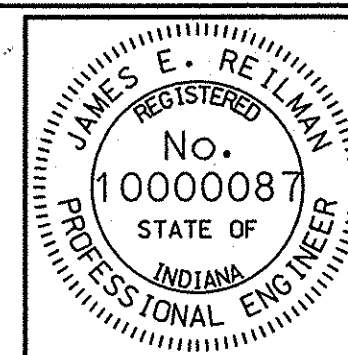
Maximum deflections shown are either outward, upward, or both

Framing Plan  
Scale: 1/8" = 1'-0"

Approximate areas to be straightened

① Reset existing diaphragm on to existing angles. See detail for field drilled holes, sheet 3

DATE	REVISION
1/11/06	Increased deflections in span B, diaphragm angle to be replaced on beam 1
1/11/06	Add reset diaphragm between beams 5 and 6 span B



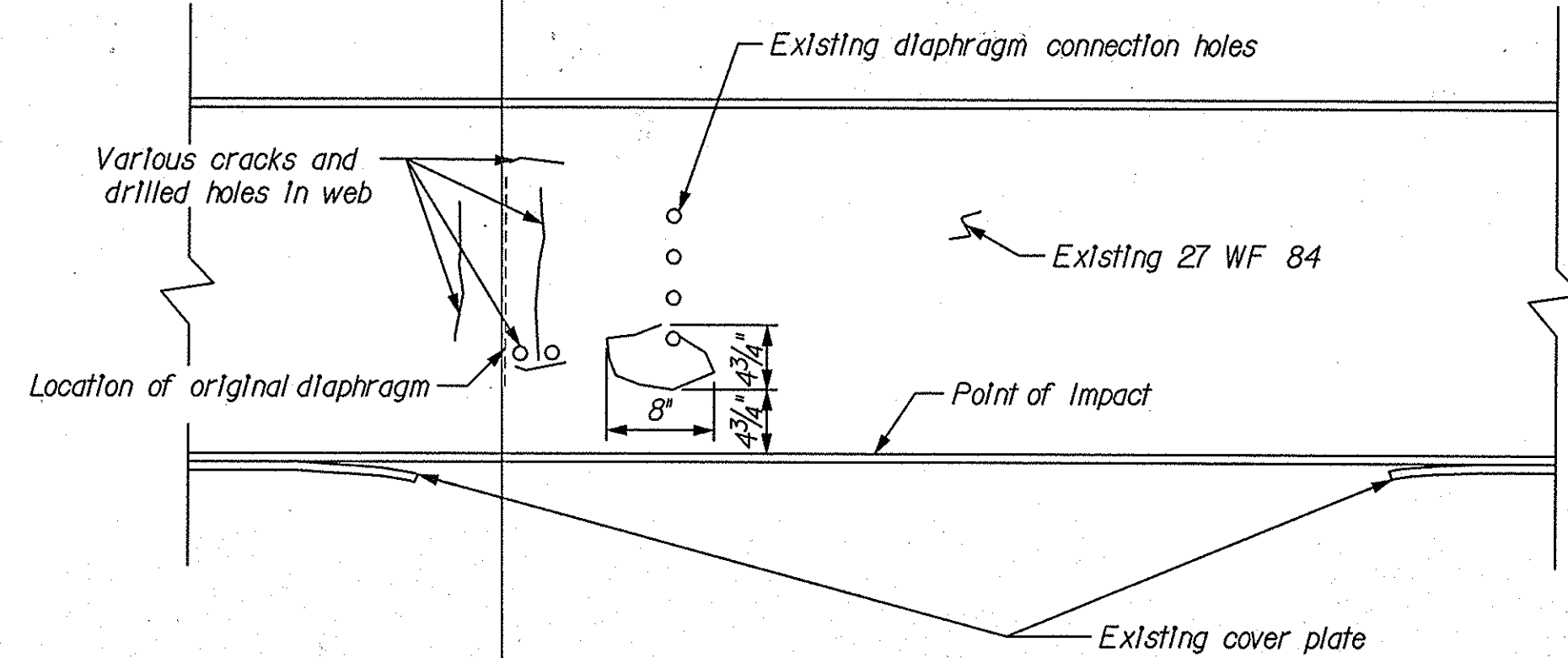
RECOMMENDED FOR APPROVAL *James E. Reilman* 1/11/06  
DESIGN ENGINEER DATE

DESIGNED: Wagner 10/05 DRAWN: Wagner 10/05  
CHECKED: Reilman 10/05 CHECKED: Reilman 10/05

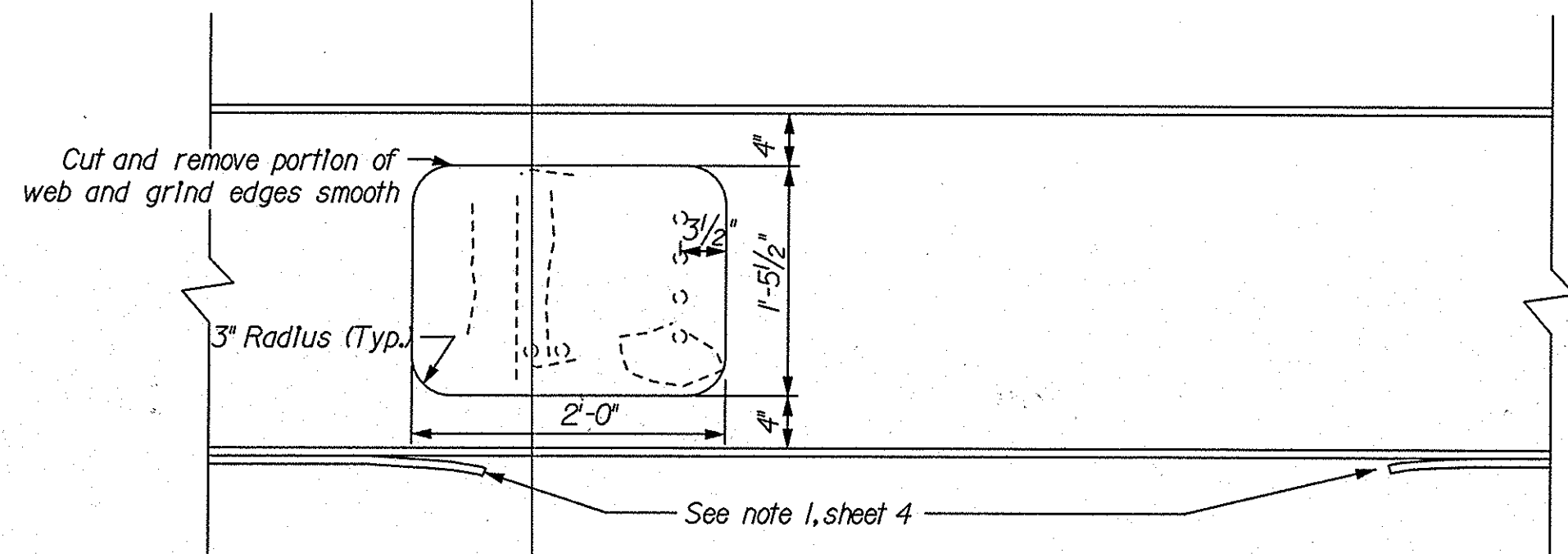
INDIANA  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN

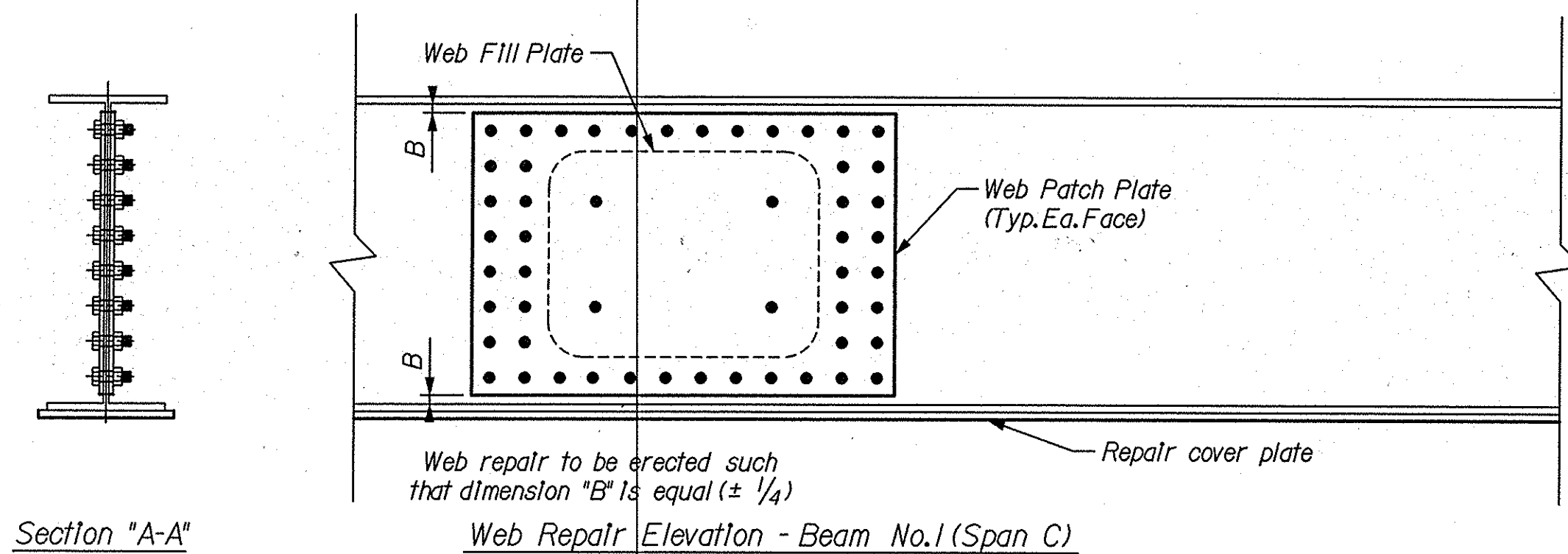
SCALE As Noted	BRIDGE FILE I465-129-5277D
	DESIGNATION 0501005
SURVEY BOOK None	SHEET 2-1 of 4
CONTRACT B-28516	PROJECT ST-465-4(OKG)



Existing Web Elevation - Beam No.1 (Span C)

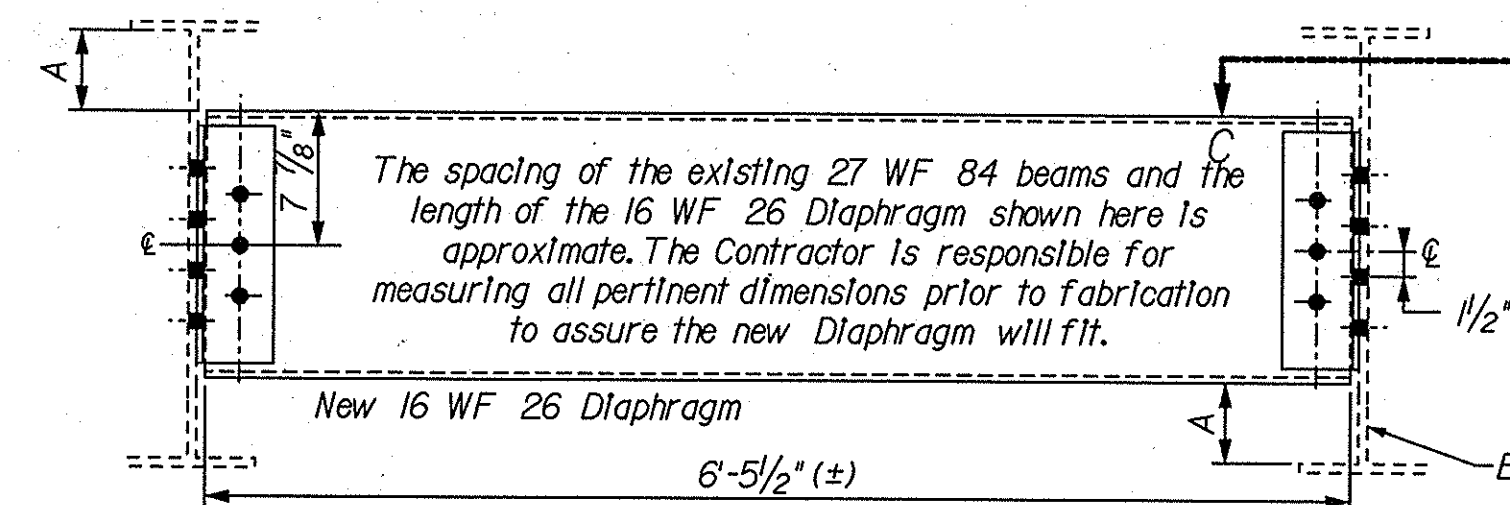


Web Removal Elevation - Beam No.1 (Span C)



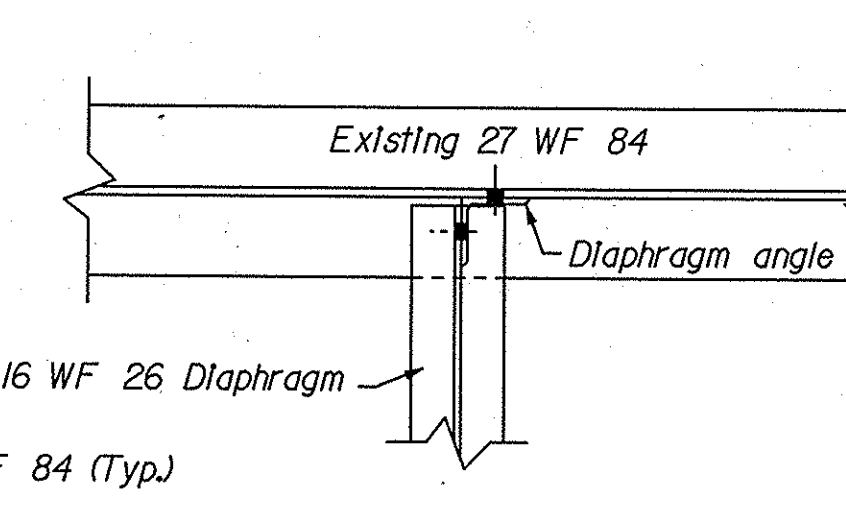
Section "A-A"

Web Repair Elevation - Beam No.1 (Span C)

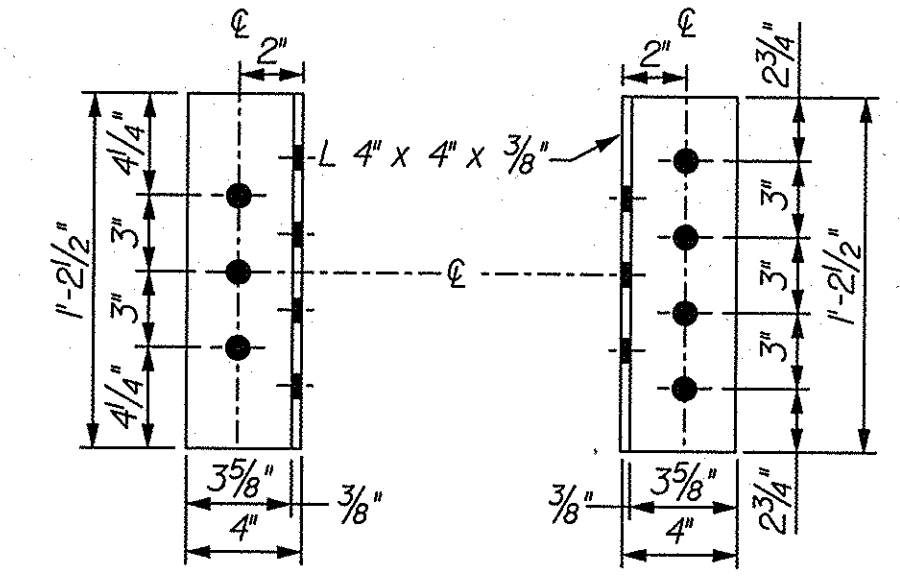


Diaphragm Replacement Details (3 Required)

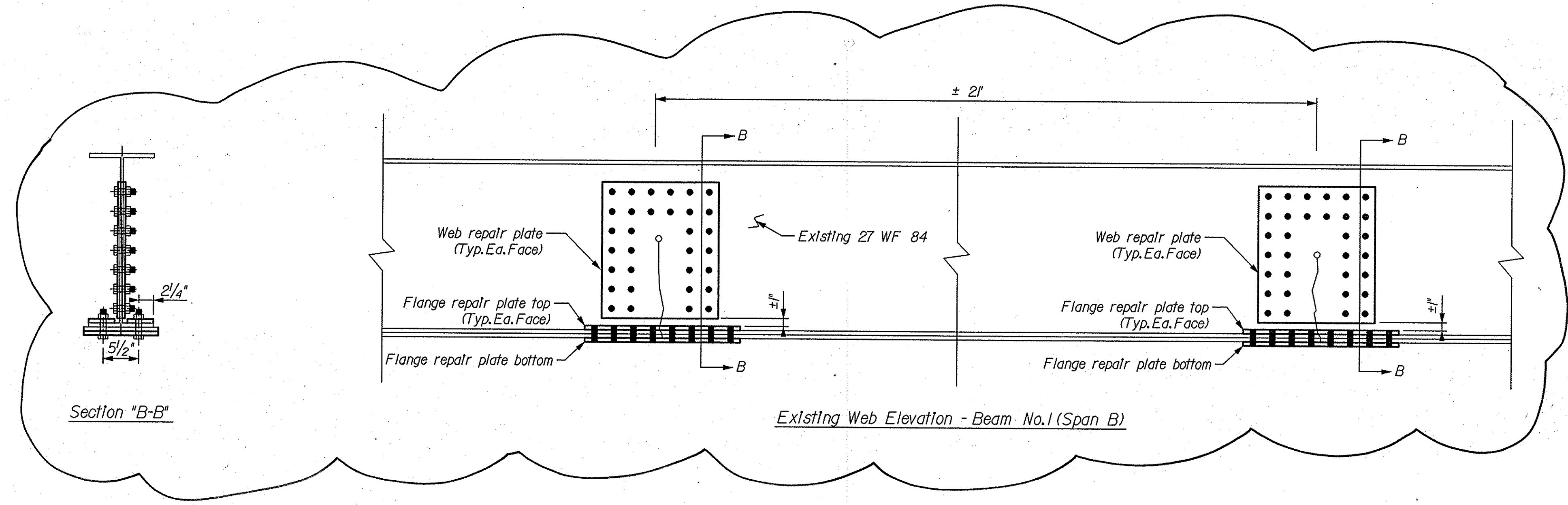
Diaphragms to be erected such that dimension "A" is equal ( $\pm 1'$ )



Section C-C



Diaphragm Angle Details (6 Required)



Section "B-B"

Existing Web Elevation - Beam No.1 (Span B)

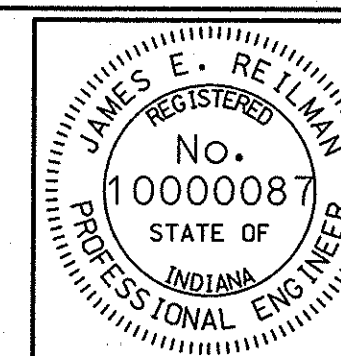
SUMMARY OF QUANTITIES

Field Drilled Holes	218 Each
Construction Sign, Type A	9 Each
Worksite Speed Limit Assembly	4 Each
Flashing Arrow Board	1 Each

BILL OF MATERIALS

No.	Shape	Length	Wt. per unit	Total Weight
2	Web Patch Plate: 2'-0" x 3/4"	3'-0"	30.6 lb/ft	183.8 lbs
1	Web Fill Plate: 1'-5 1/2" x 1/4"	1'-11 1/2"	26.4 lb/ft	52.3 lbs
4	Web Repair Plate: 1'-9" x 3/4"	1'-6"	26.3 lb/ft	114.6 lbs
2	Flange Bottom Plate: 11 1/2" x 3/4"	2'-1"	24.5 lb/ft	102.0 lbs
4	Flange Top Plate: 4" x 3/4"	2'-1"	10.2 lb/ft	85.0 lbs
1	Repair Cover Plate	48'-7 1/2"	24.5 lb/ft	1189.2 lbs
3	Diaphragm: 16 WF 26	6'-5 1/2"	26 lb/ft	503.8 lbs
7	Diaphragm Angle: 4" x 4" x 3/8"	1'-2 1/2"	9.72 lb/ft	82.2 lbs
Total Structural Steel				2313 lbs

DATE	REVISION
1/11/06	Increase size of web repair plate and flange top plate
1/11/06	Add repair section to beam 1, update bill of materials



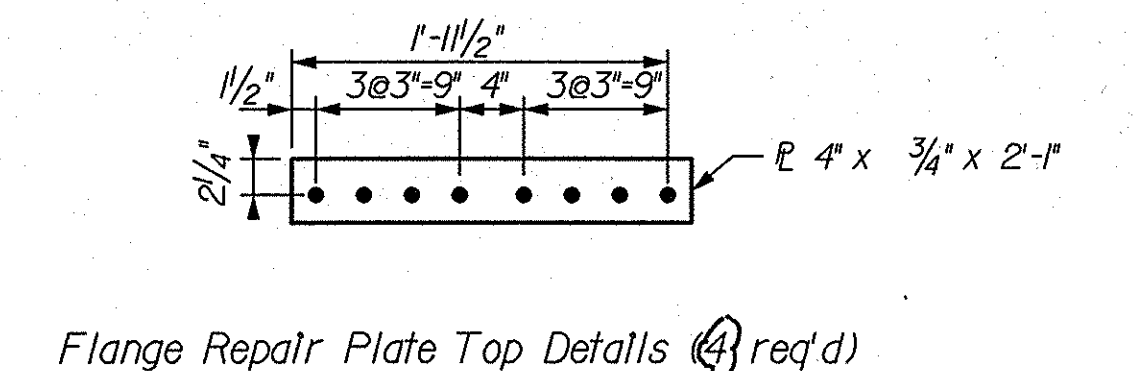
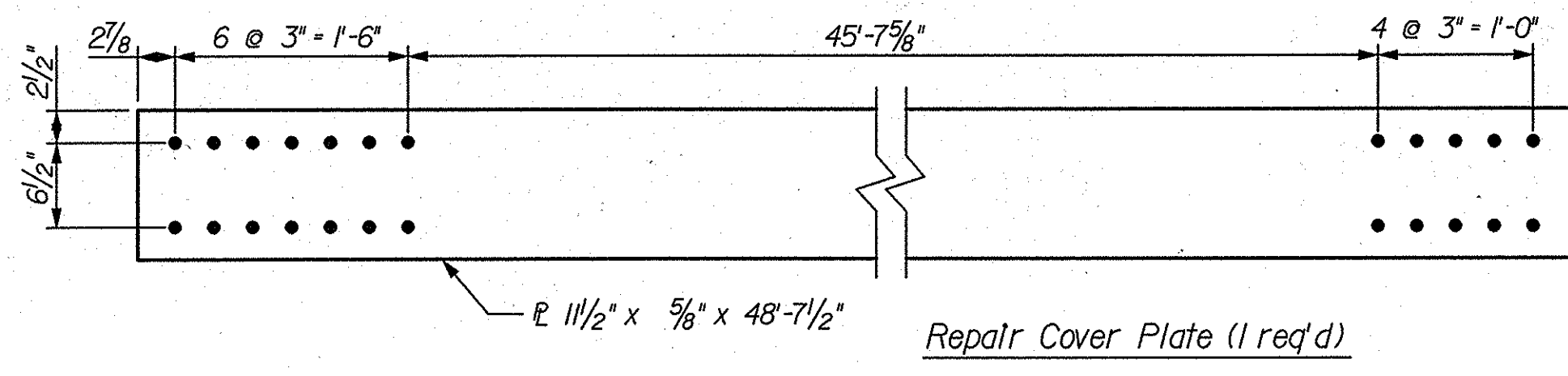
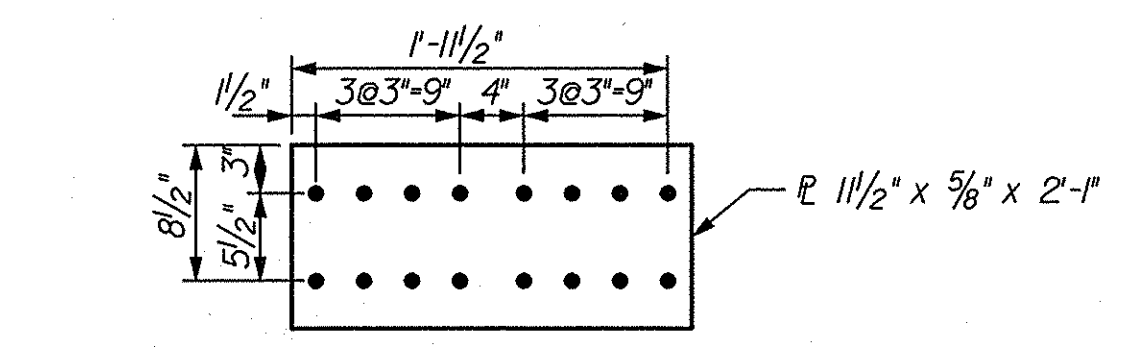
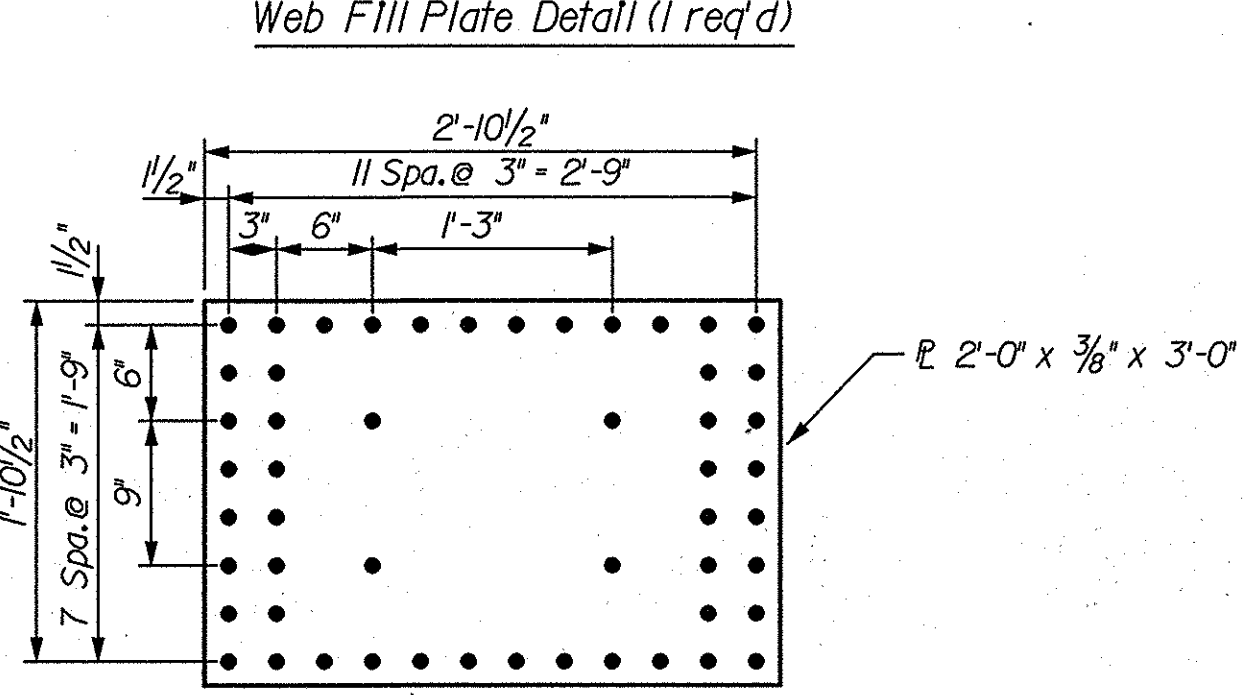
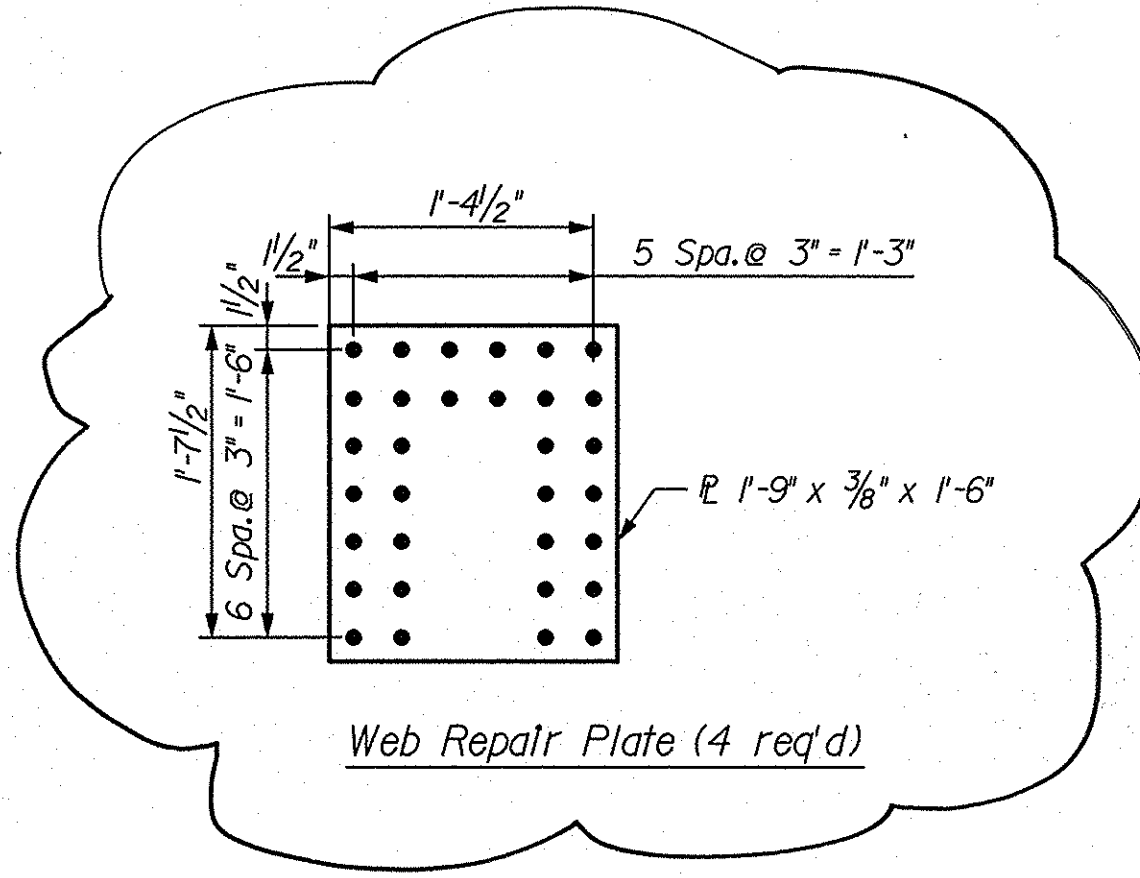
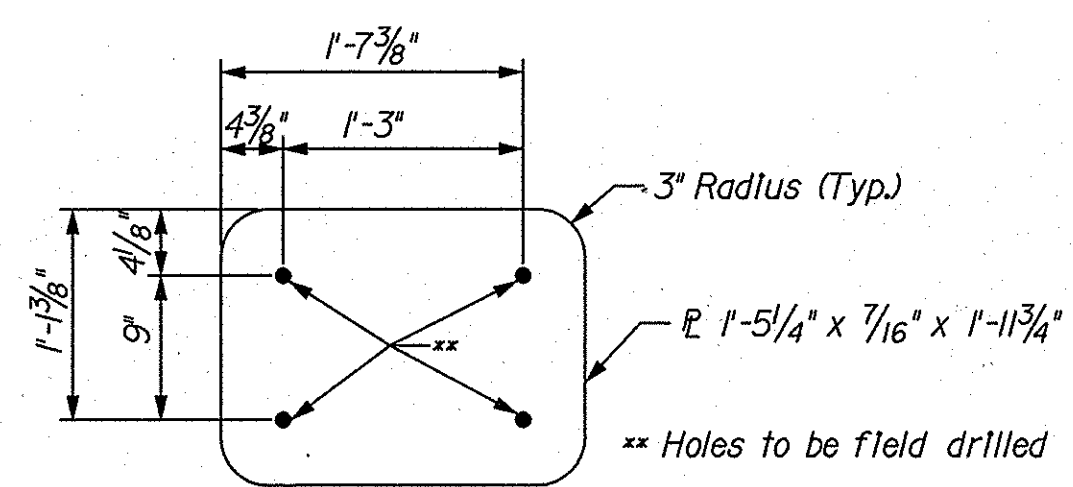
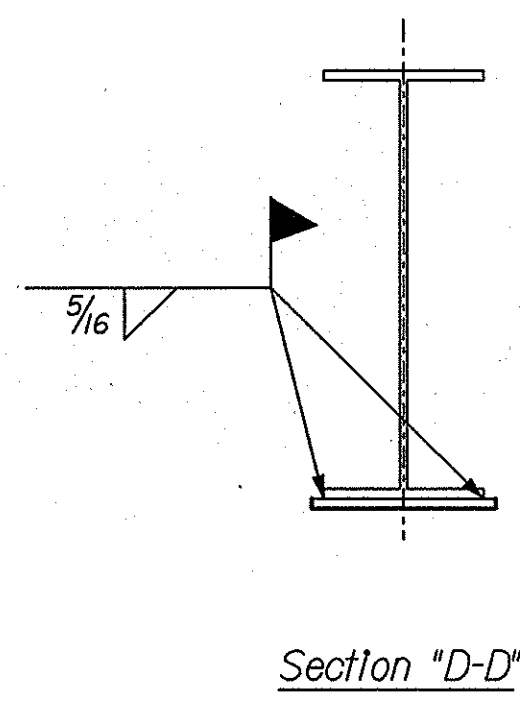
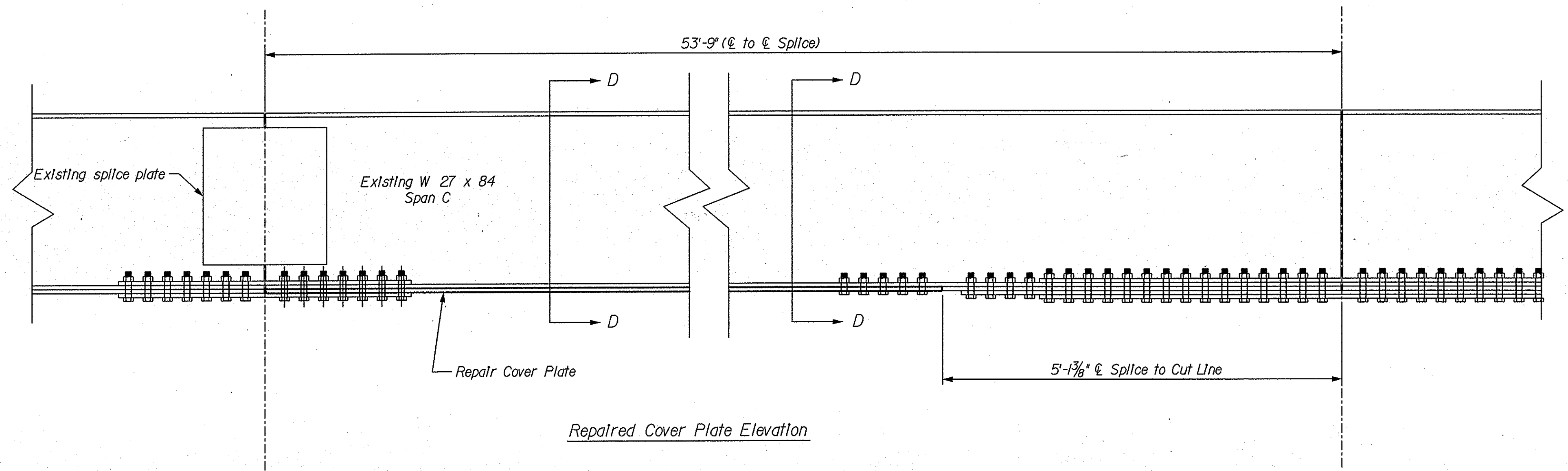
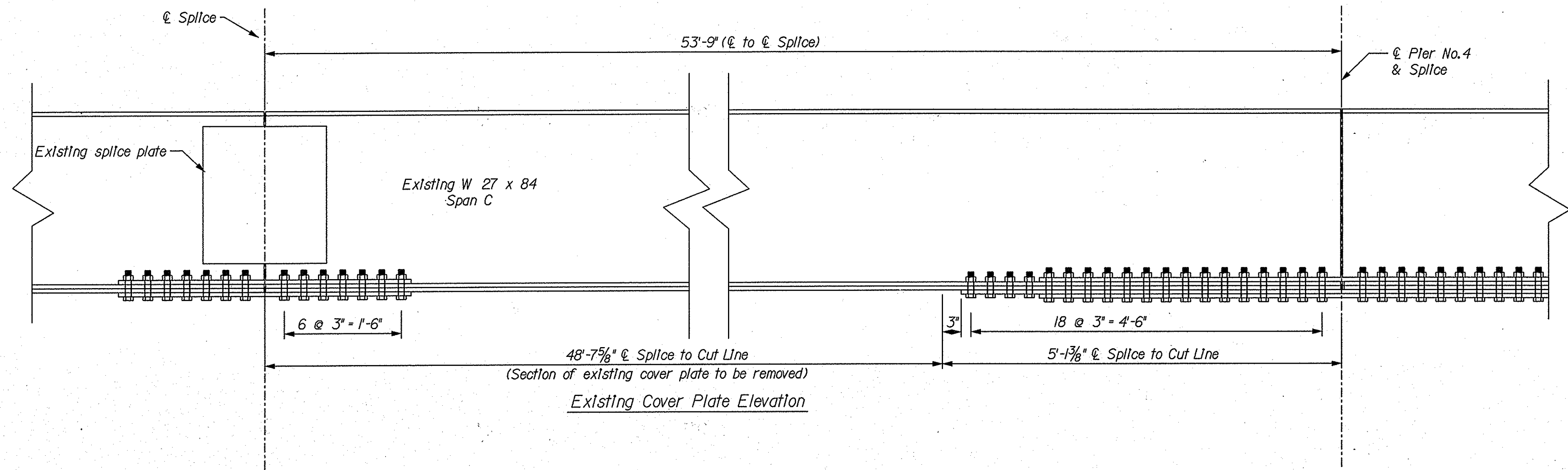
RECOMMENDED FOR APPROVAL *James E. Reilman* 1/11/06  
 DESIGN ENGINEER DATE

DESIGNED: Wagner 10/05 DRAWN: Wagner 10/05  
 CHECKED: Reilman 10/05 CHECKED: Reilman 10/05

INDIANA  
 DEPARTMENT OF TRANSPORTATION

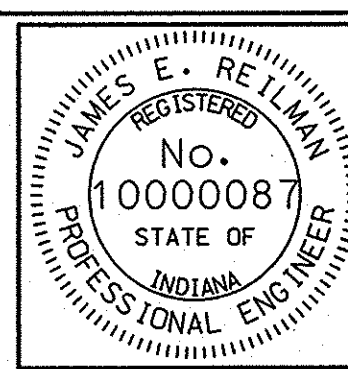
DETAILS

SCALE 1" = 1'-0"	BRIDGE FILE 1465-129-5277/D
	DESIGNATION 0501005
SURVEY BOOK None	SHEET 3 of 4
CONTRACT B-28516	PROJECT ST-465-4(OKG)



- Notes:
1. Bolt removal, removal of existing cover plate, removal of damaged web cut-out, and disassembly/reassembly of the splice shall be included in the cost of Present Structure Remove Portions.
  2. The Charpy-V test requirements are waived for this contract.
  3. See heat straightening special provision regarding areas to be painted.
  4. All travel lanes above and below the structure are to be completely open and free of debris at the conclusion of work each day.
  5. All Structural Steel to be ASTM A36 steel.
  6. Open holes shall be 15/16"  $\phi$ . All fasteners (bolts, nuts, etc...) shall be ASTM A325 high strength and 7/8" diameter. Rivets shall NOT be used. The cost of all miscellaneous hardware (bolts, nuts, etc...) to be included in the cost of Structural Steel.
  7. Field verify all dimensions prior to ordering Structural Steel.
  8. Traffic to be maintained according to the standard drawings.
  9. The estimated weight of structural steel is 2143 lbs.
  10. Construction zone design speed is 45 mph.
  11. Paint color shall be Federal Standard 595, color number 24466 (light green).
  12. Interstate closures limited to 20 min. duration. See special provision.

DATE	REVISION
1/11/06	Increase size of web repair plate and thickness of flange repair top
1/11/06	Update quantity required for web and flange repair plates



RECOMMENDED FOR APPROVAL	<i>James E. Reilman</i>	1/11/06
DESIGNED:	Wagner 10/05	DATE
CHECKED:	Reilman 10/05	DESIGN ENGINEER
DRAWN:	Wagner 10/05	
CHECKED:	Reilman 10/05	

INDIANA  
DEPARTMENT OF TRANSPORTATION

DETAILS

SCALE	BRIDGE FILE
1" = 1'-0"	I465-129-5277D
SURVEY BOOK	DESIGNATION
None	0501005
CONTRACT	SHEET
B-28516	4 of 4
	PROJECT
	ST-465-4(OKG)