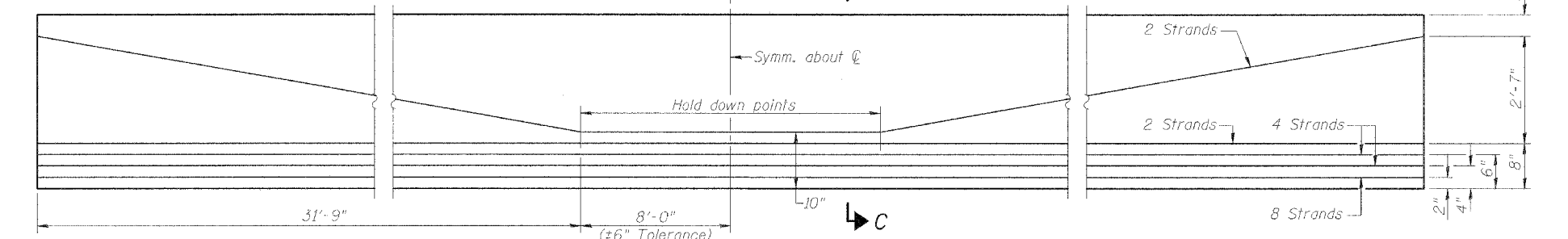
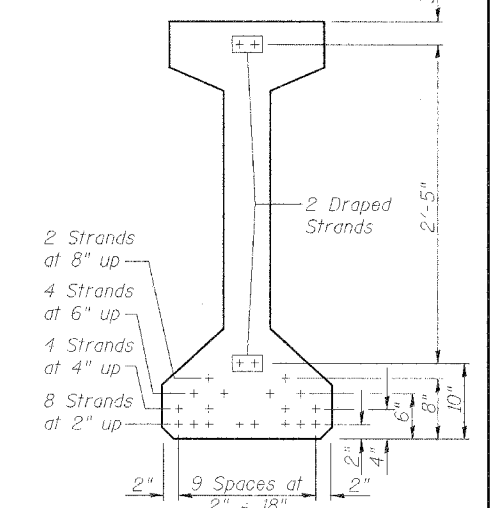
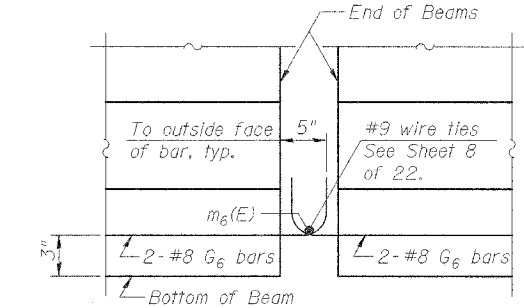
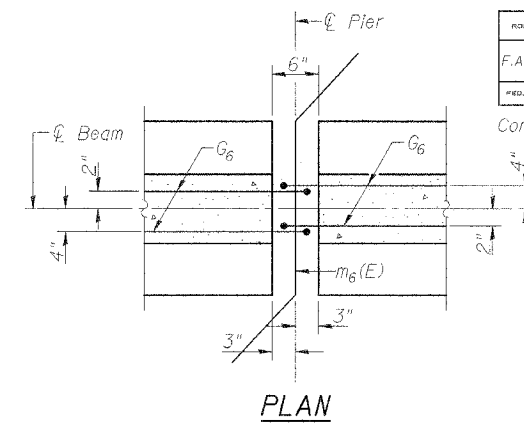
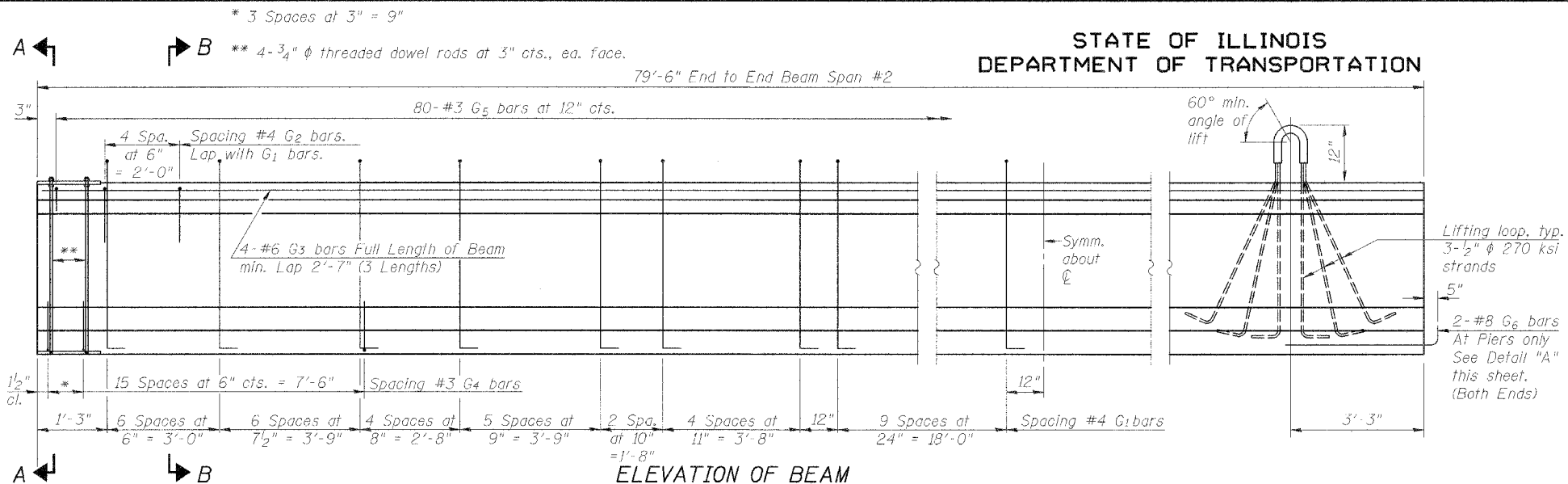


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 11 22 SHEETS
F.A.P. 315	55-2	MCDONOUGH	1025	489	
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT			

Contract No. 68205



INTERIOR BEAM MOMENT TABLE

	0.4 Sp. #1 0.6 Sp. #3	Pier #1 Pier #2	0.5 Sp. #2
I (in ⁴)	90,956		90,956
I' (in ⁴)	270,416		270,416
S _b (in ³)	5,153		5,153
S _b ' (in ³)	8,654		8,654
S _t (in ³)	3,736		3,736
S _t ' (in ³)	25,145		25,145
Q (k/')	1,096		1,096
M Q (k)	354		844
s Q (k/')	0.424	0.424	0.424
M s Q (k)	59	200	139
M L (k)	309	312	398
M (IMP) (k)	87	82	97

BILL OF MATERIAL - SPAN #2
Two Bridges

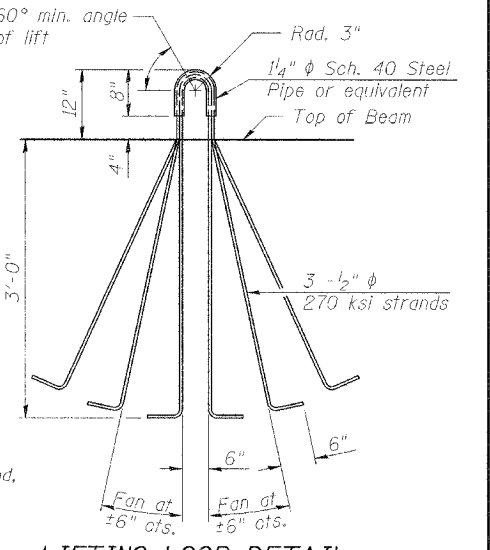
Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	1,113

BAR LIST, ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G ₁	76	#4	8'-5"	nl
G ₂	10	#4	4'-4"	n
G ₃	12	#6	28'-2"	—
G ₄	38	#3	4'-11"	S
G ₅	80	#3	2'-6"	S
G ₆	4	#8	3'-9"	J

P.P.C. I-BEAM NOTES (ALL SPANS)

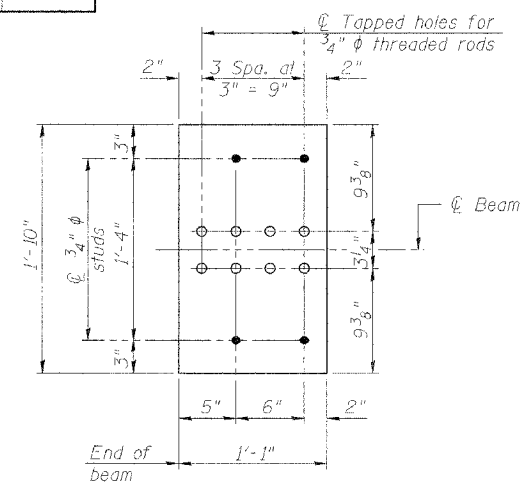
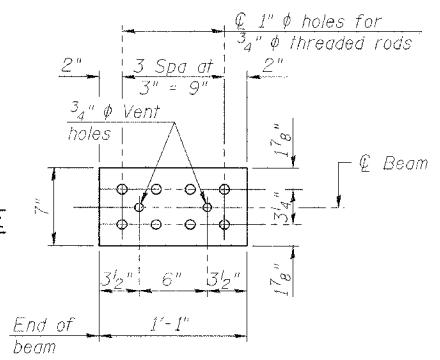
- 1.) Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.
- 2.) Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- 3.) The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- 4.) Non-prestressing steel shall conform to AASHTO designation M-31 or M-322, Grade 60.
- 5.) A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling.
- 6.) Cut G₆ bars when necessary to maintain 1/2" clearance.
- 7.) The bottom plates and studs shall be galvanized according to AASHTO Mill and ASTM A385.
- 8.) Threaded rods shall be ASTM F 1554 Grade 55.
- 9.) The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 42 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
- 10.) Reinforcement bars designated (E) shall be epoxy coated.



INTERIOR BEAM REACTION TABLE

	Spans #1 and #3		Span #2
	Abut.	Pier	Pier
R Q (k)	27.8	27.8	43.0
Rs Q (k)	7.1	15.9	15.9
R L (k)	32.6	22.0	22.0
Imp. (k)	9.2	5.8	5.8
R (Total) (k)	76.7	71.5	86.7

DESIGNED	PJL
CHECKED	LLV
DRAWN	MGM
CHECKED	PJL



CROSS REFERENCE NOTES

- 1.) See Sht. 10 of 22 for: Framing Plan, Bar Bends, Section A-A, and Section B-B.

**SPAN #2 GIRDER DETAILS
 IL. ROUTE 336 OVER
 TRIBUTARY TO
 KILLJORDAN CREEK
 F.A.P. ROUTE 315 SECT. 55-2
 MCDONOUGH COUNTY
 STATION 494+75.00
 STRUCTURE NO. 055-0060 (EB)
 STRUCTURE NO. 055-0061 (WB)**

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