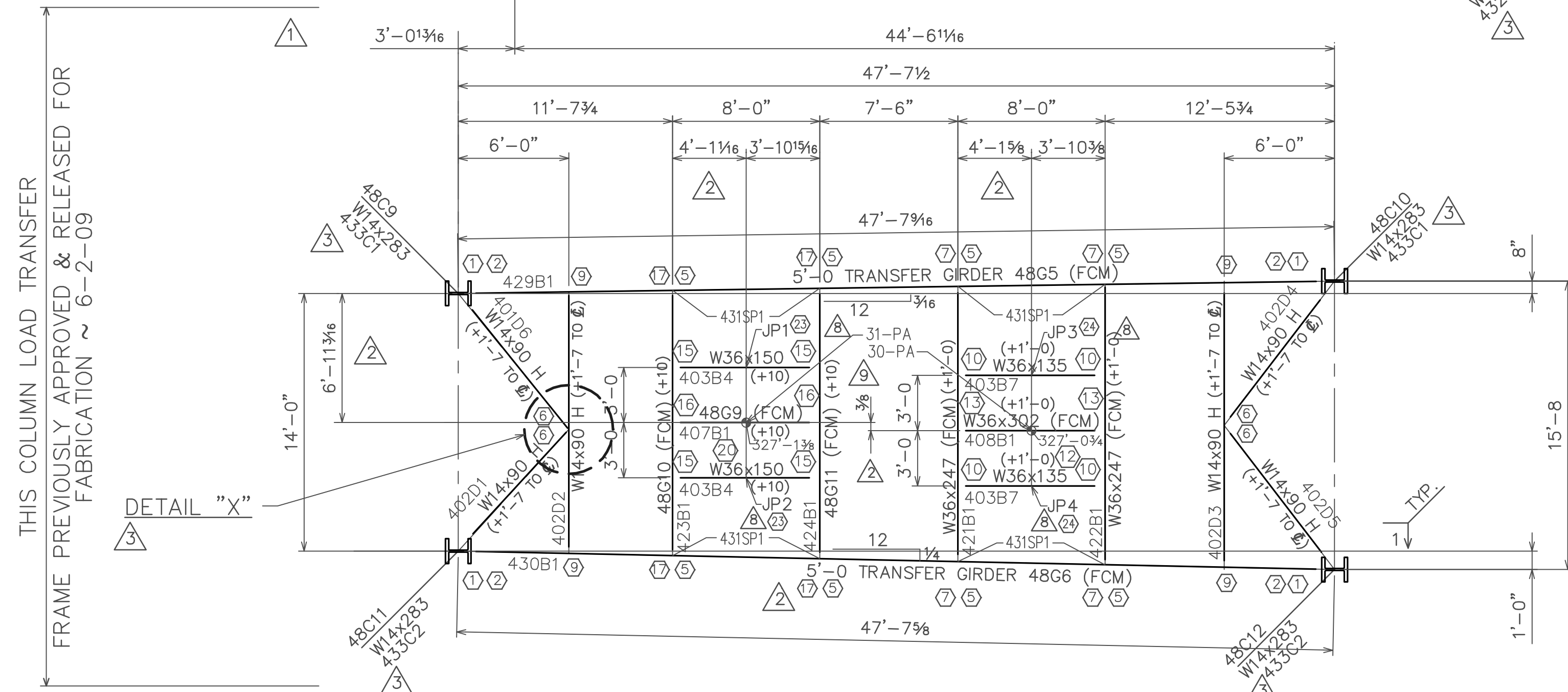
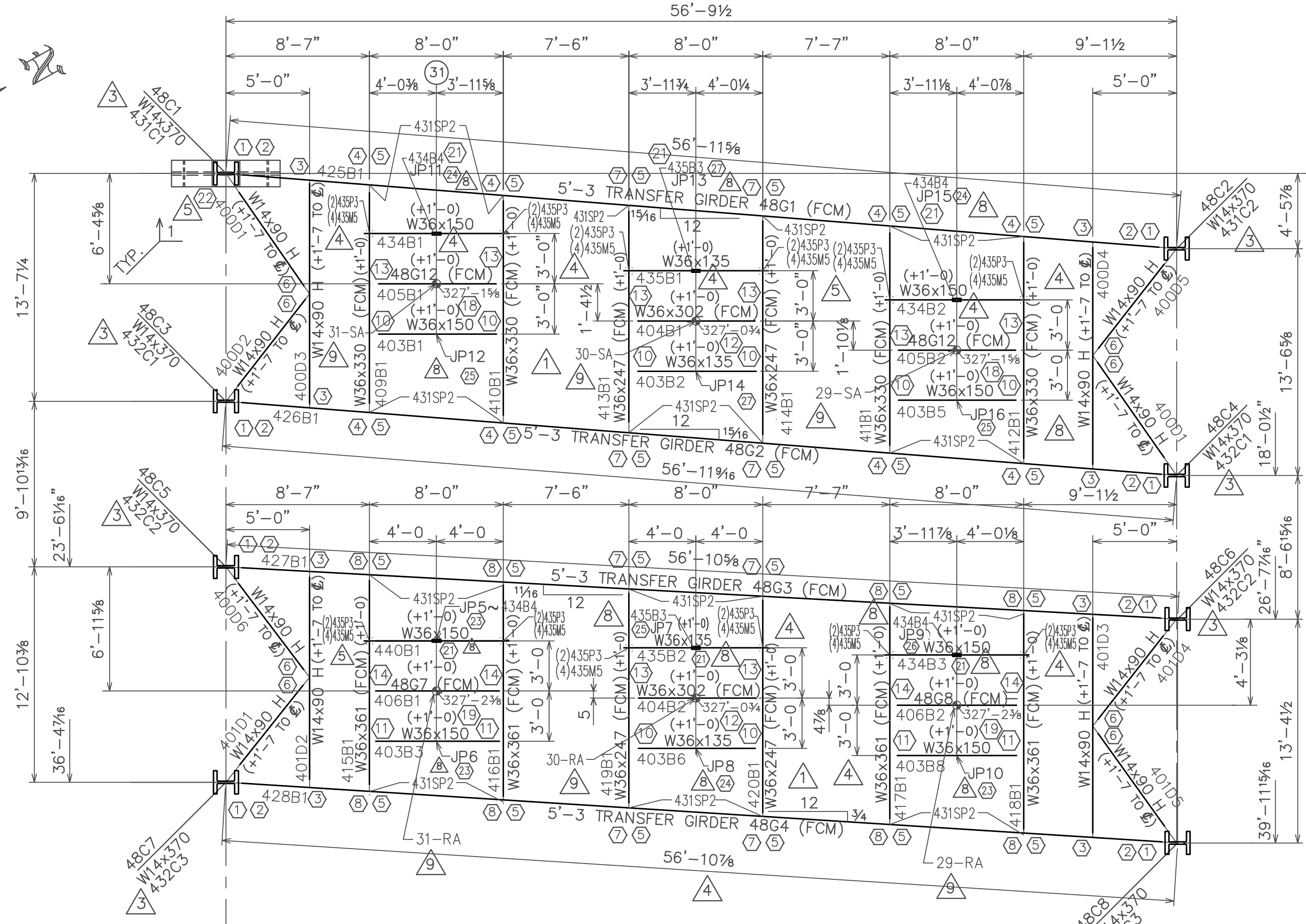
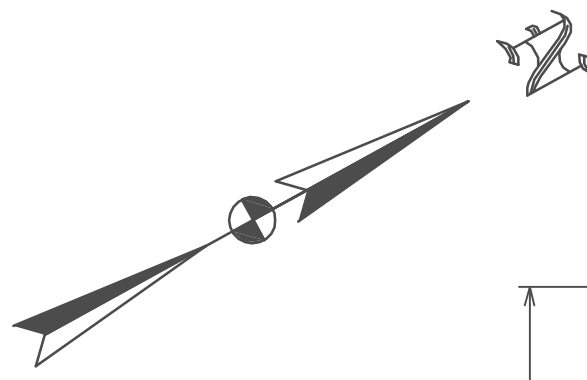




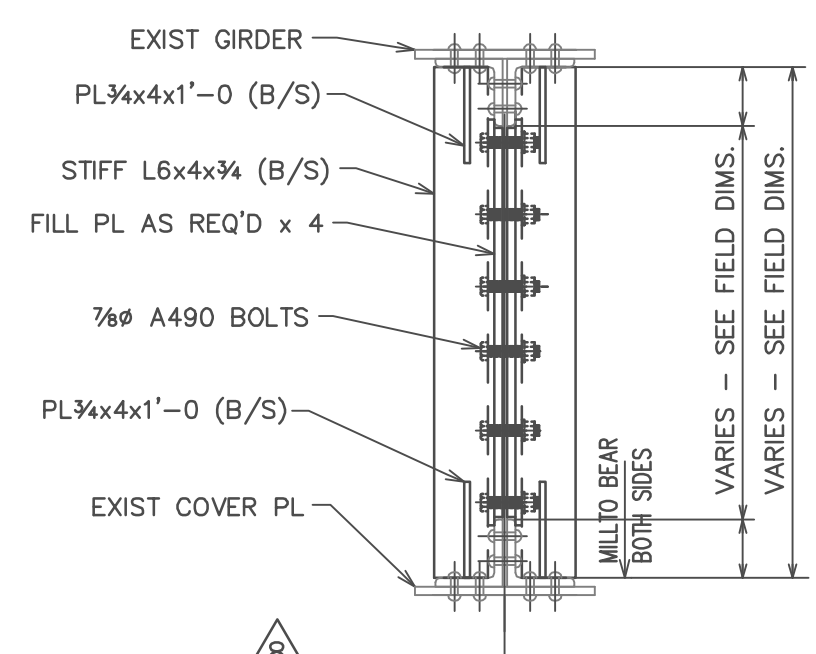
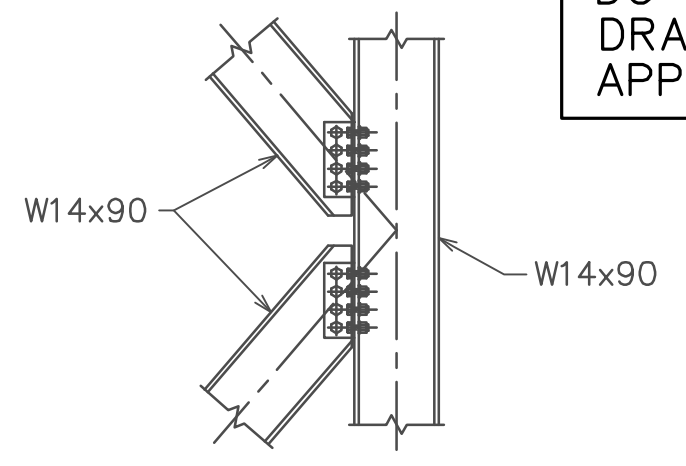
COLUMN LOAD TRANSFER FRAMES 48G1 THRU 48G4
INCLUDED FOR THIS SUBMITTAL.
RAC, HSSI, 6-8-09

LIST OF FIELD CONNECTIONS									
LOCATION	NUMBER PER CONN.	Ø/GR	LENGTH	HEAVY HEX NUT	SELF LOCK NUT	NUMBER OF WASHERS	DESCRIPTION		TOTAL BOLTS
①	4	1¼ A490	7½	1	—	2	TRANS GIRD TO COL. CAP		48
②	8	1 A490	3	1	—	1	W14 BRACE TO GIRDER		96
③	8	1 A490	4	1	—	1	W14 BM TO GIRDER		64
④ TOP	4	1 A490	5½	—	1	2 + 431M3	W36 BM TO GIRDER		32
⑤ BOT	2	1¼ A490	7	—	1	2 + 431M4	W36 BM TO GIRDER		64
⑥	8	1 A490	2¾	1	—	1	W14 BRACE TO W14 BM		96
⑦ TOP	4	1 A490	5	—	1	1 + 431M3	W36 BM TO GIRDER		48
⑧ TOP	4	1 A490	5½	—	1	2 + 431M3	W36 BM TO GIRDER		32
⑨	8	1 A490	3¾	1	—	1	W14 BM TO GIRDER		32
⑩	16	1¼ A490	3½	1	—	1	W36 BM TO W36 BM		192
⑪	16	1¼ A490	3¾	1	—	1	W36 BM TO W36 BM		64
⑫	6	1¼ A490	6	1	—	1	BRG. PLATE TO SUPP'T BM.		18
⑬	8	7/8 A490	3	1	—	1	SIDE PLATES TO EXIST'G COL		48
	32	1¼ A490	4	1	—	1	GIRDER TO W36		320
⑭	16	1¼ A490	6	1	—	1	CLIPS TO GIRDER		160
	32	1¼ A490	4¼	1	—	1	GIRDER TO W36		128
⑮	16	1¼ A490	6	1	—	1	CLIPS TO GIRDER		64
	42	1¾ A490	5	1	—	1	W36 BM TO GIRDER		64
⑯	21	1¾ A490	6½	1	—	1	GIRDER TO GIRDER		84
	21	1¾ A490	6½	1	—	1	CLIPS TO GIRDER		42
⑰ TOP	4	1 A490	7	—	1	1 + 431M3	GIRDER TO GIRDER		16
⑱	6	1¼ A490	7	1	—	2	BRG. PLATE TO SUPP'T. BM.		12
	8	7/8 A490	3	1	—	1	SIDE PLATES TO EXIST'G COL		32
⑳	6	1¼ A490	7½	1	—	2	BRG. PLATE TO SUPP'T. BM.		12
	8	7/8 A490	3¼	1	—	1	SIDE PLATES TO EXIST'G COL		32
㉑	6	1¼ A490	8	1	—	2	BRG. PLATE TO SUPP'T. BM.		6
	8	7/8 A490	3¼	1	—	1	SIDE PLATES TO EXIST'G COL		16
㉒	6	1¼ A325	5½	1	—	2	BOLSTER TO UNDER-SLUNG BM.		36
㉓	4	¾ A325	6	1	—	2	COL. BASE TO GRADE BEAM		4
㉔	11	7/8 A490	5½	1	—	1	JACKING POINT STIFFENERS		55
㉕	11	7/8 A490	4½	1	—	1	JACKING POINT STIFFENERS		55
㉖	12	7/8 A490	4½	1	—	1	JACKING POINT STIFFENERS		36
㉗	12	7/8 A325	5½	1	—	1	JACKING POINT STIFFENERS		12
㉘	12	7/8 A490	4¼	1	—	1	JACKING POINT STIFFENERS		24

COLUMN REFRAMING PLAN (48TH)
BOTT. OF STEEL EL. 322'-11 3/8" U/N (±) FROM EL 322'-11 3/8"
FOR SECTIONS AND DETAILS NOT SHOWN SEE E7 & E8
H INDICATES WEB IS HORIZ.

① 327'-1 1/8" INDICATES APPROX. TOP OF SUPPORT BEAM
⑧ JP1 INDICATES JACKING POINT ~ SEE SECT. "A" FOR INSTALLATION OF WEB STIFFENERS
SEE DWG. E11 FOR TYPICAL UNDER-SLUNG JACKING BEAM DETAILS
⑨ 31-SA INDICATES EXIST'G. COL. ~ SEE DWG. E13 FOR BEARING PLATE CONNECTION

DO NOT SCALE THIS
DRAWING. DIMENSIONS
APPLY



Metropolitan Transportation Authority
Capital Construction

Long Island Rail Road
East Side Access

DRAGADOS

JUDLAU
CONTRACTING, INC.
A JOINT VENTURE

HIGH STEEL STRUCTURES
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NATIONAL STEEL BRIDGE ALLIANCE

AISC

8-24-09	REVISED BOLT LENGTHS FOR SHIM PACKS (RFI-079)	10
8-19-09	PER CM019-ST-3713 ~ NEW CONN. TYPES 4D & 4F	9
8-12-09	PER CHECKING OF JACKING POINT STIFFENERS	8
7-31-09	REVISED PIECE MARK 43484 TO 43583	7
7-21-09	REVISED LIST OF FIELD CONNECTIONS # 21	6
7-6-09	PER APPROVAL	5
5-28-09	PER CM019-ST-3710	4
5-1-09	PER CHECKING	3
4-6-09	PER N-E CO-ORDS. @ EXIST'G. COLS.	2
4-2-09	PER APPROVAL & ADD TOP OF SUPPORT ELEV.	1
DATE	REVISIONS	No.

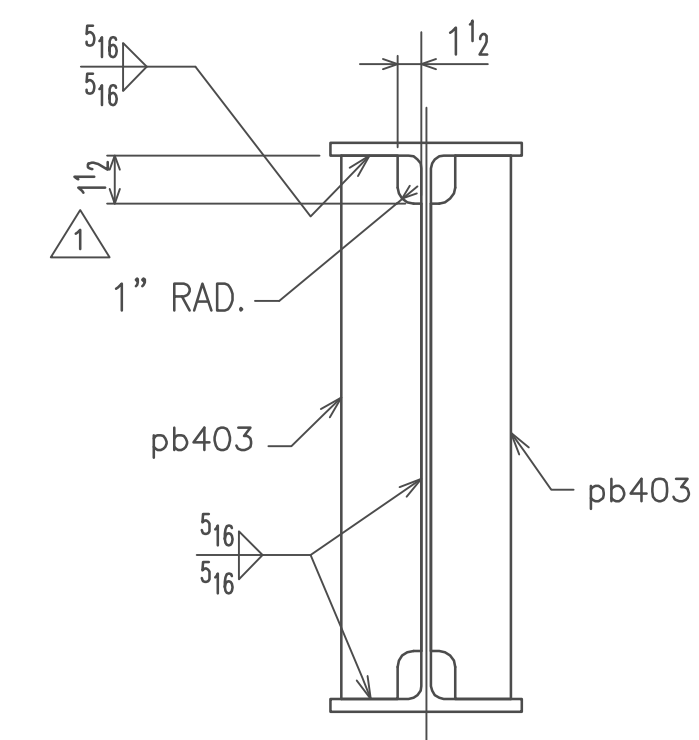
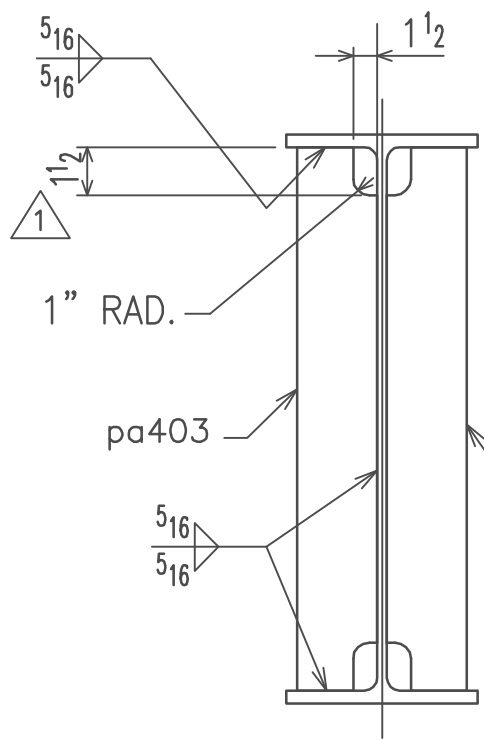
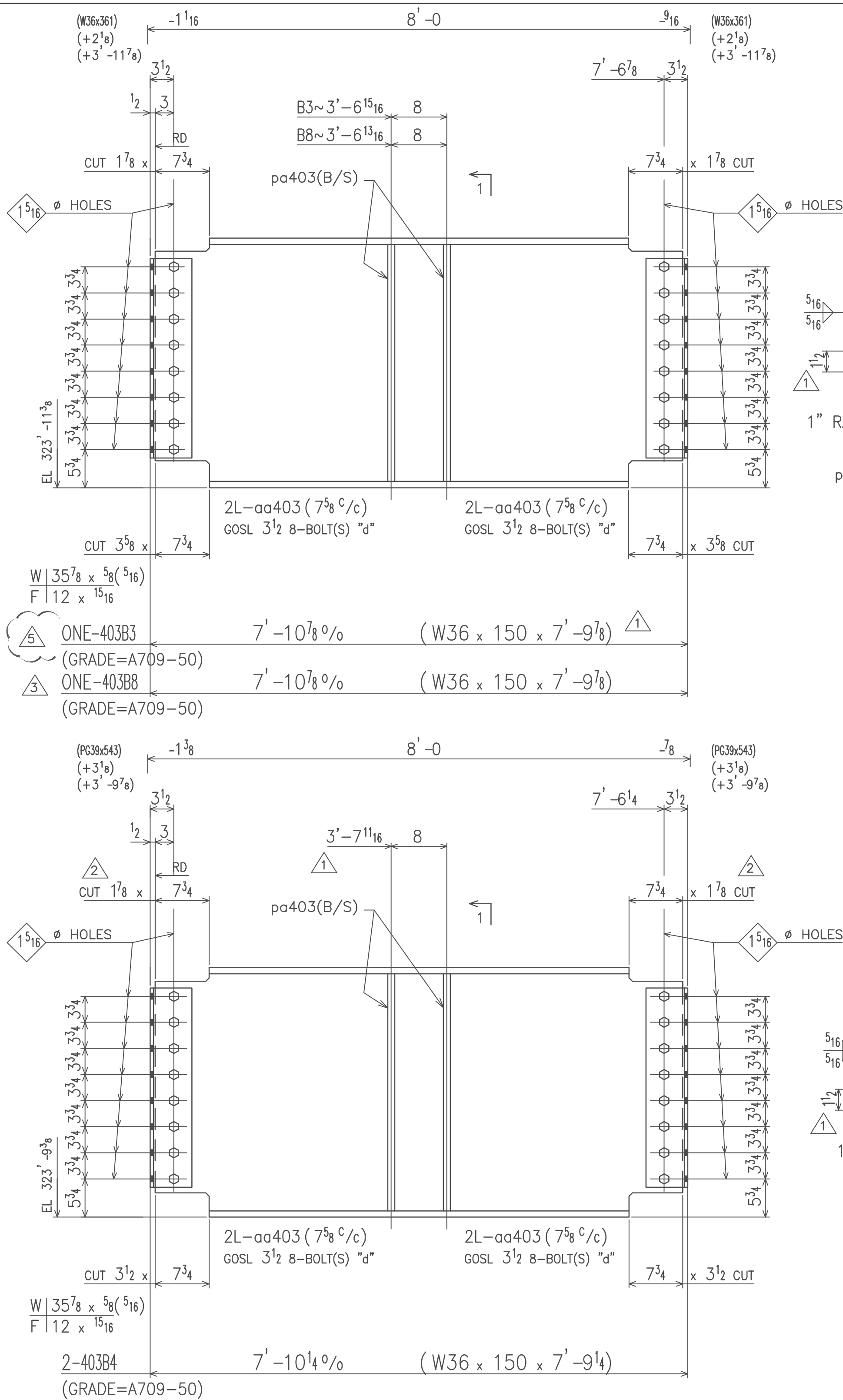
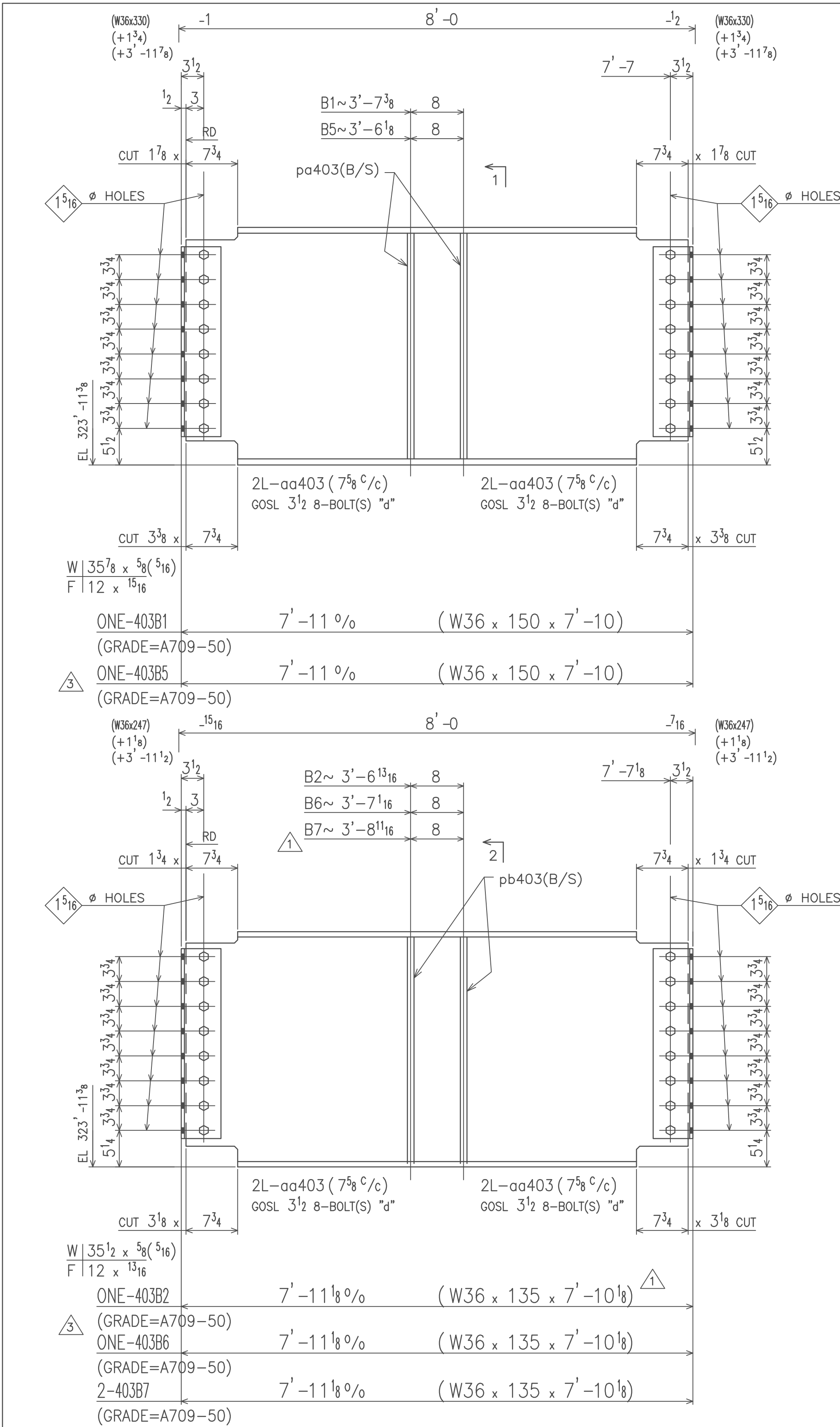
DESIGNED BY:
DRAWN BY:
COORDINATED BY:
CHECKED BY:
APPROVED BY:

DRAGADOS/JUDLAU A JOINT VENTURE
SUBMITTAL REVIEW
SUBMITTAL NO.: **1C-**
CONTRACT NO.: **CM009** DATE:
ITEM LIST:
SPEC/PAR/PAGE:
DRAWING NO.: **REV NO.:**
QUALITY MANAGER REVIEW:

MANHATTAN TUNNELS EXCAVATION
CONTRACT NUMBER CM019
COLUMN REFRAMING - 48TH STREET
FRAMING PLAN
HSSI JOB NO. NY-S-1080862D-4

SCALE:
AS NOTED
DRAWING No.
E1
DATE:
10-24-08
REV No. **9**

CONTRACT No.
CM019
ISSUE
SHEET No.
OF



BILL OF MATERIAL											
QTY	MARK	COMM.	DESCRIPTION	LENGTH	SPEC	GRADE	TEST	REMARKS	ITEM	WEIGHT EA (LBS)	
ONE	403B1	W	36x150	7	10	A709	50		3	851	
ONE	403B5	W	36x150	7	10	A709	50		3	851	
16	aa403	L	6x6x 3/4	2	6 1/4	A709	50				
64	"d"		1 1/4" Ø BOLT	0	4	A490					
16	pa403	PL	1x5	2	10	A709	50				
ONE	403B2	W	36x135	7	10 1/8	A709	50		3	792	
ONE	403B6	W	36x135	7	10 1/8	A709	50		3	792	
2	403B7	W	36x135	7	10 1/8	A709	50			1584	
24	aa403	L									
96	"d"										
24	pb403	PL	1x5	2	9 7/8	A709	50				
ONE	403B3	W	36x150	7	9 7/8	A709	50		3	851	
ONE	403B8	W	36x150	7	9 7/8	A709	50		3	851	
8	aa403										
32	"d"										
8	pa403										
2	403B4	W	36x150	7	9 1/4	A709	50		2	1693	
8	aa403										
32	"d"										
8	pa403										
FIELD BOLTS											

NOTE:
FOR TYP. NOTES & WELDS SEE DWG. E5 & GN1

**Metropolitan Transportation Authority**
Capital Construction

**Long Island Rail Road**
East Side Access

**DRAGADOS**

**JUDLAU**
CONTRACTING, INC.
A JOINT VENTURE

**HIGH STEEL STRUCTURES**
An Affiliate of High Industries Inc.



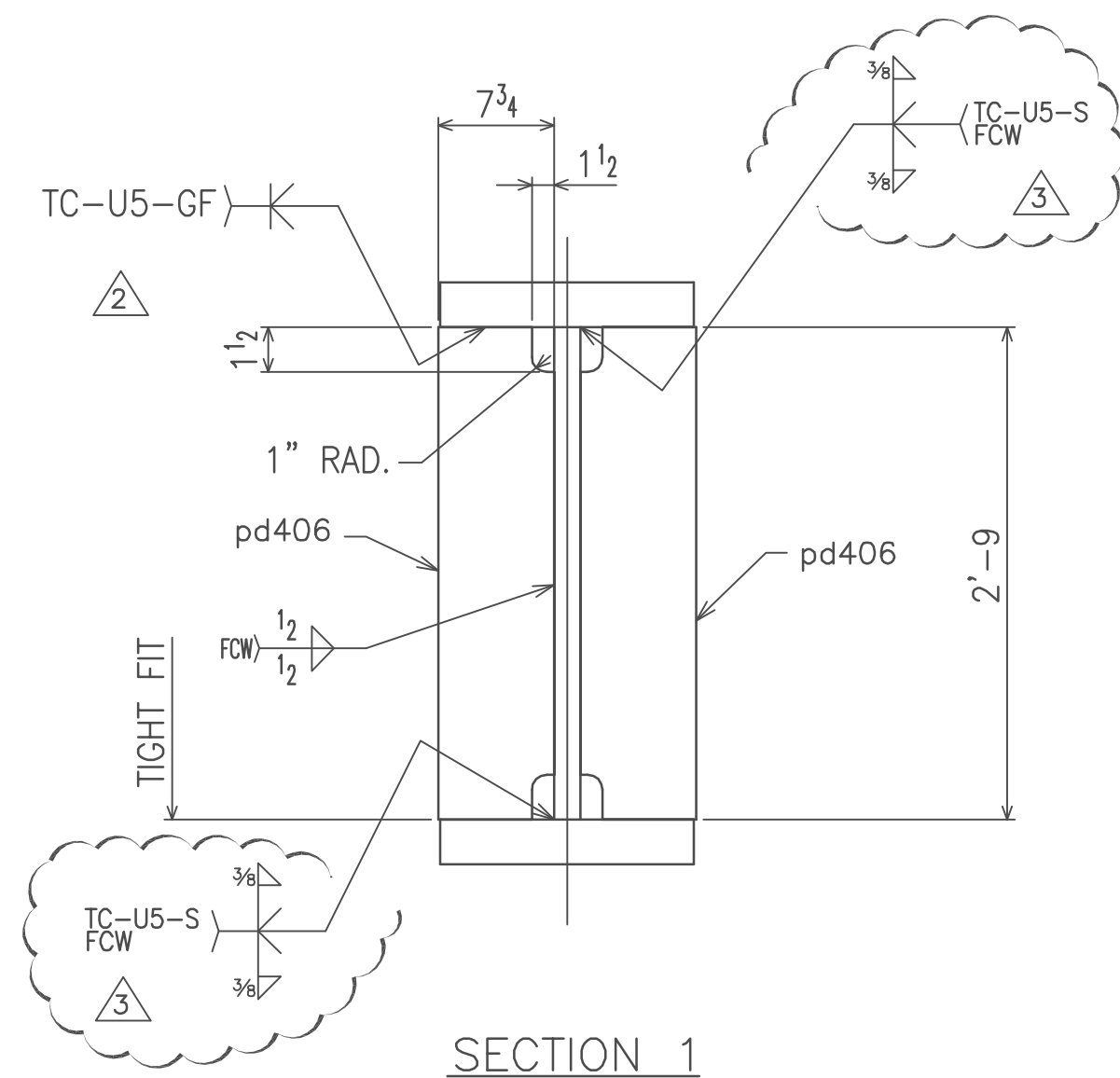
7-7-09	PER APPROVAL	6
6-9-09	RELEASE BALANCE OF SHEET FOR FABRICATION	4
5-15-09	PER CM019-ST-3710	3
5-1-09	PER CHECKING	2
4-6-09	PER PRELIM. APPROVAL & EXIST'G. COL. N-E CO-ORDS.	1
DATE	REVISIONS	No.

DESIGNED BY:	6
DRAWN BY:	4
COORDINATED BY:	3
CHECKED BY:	2
APPROVED BY:	1

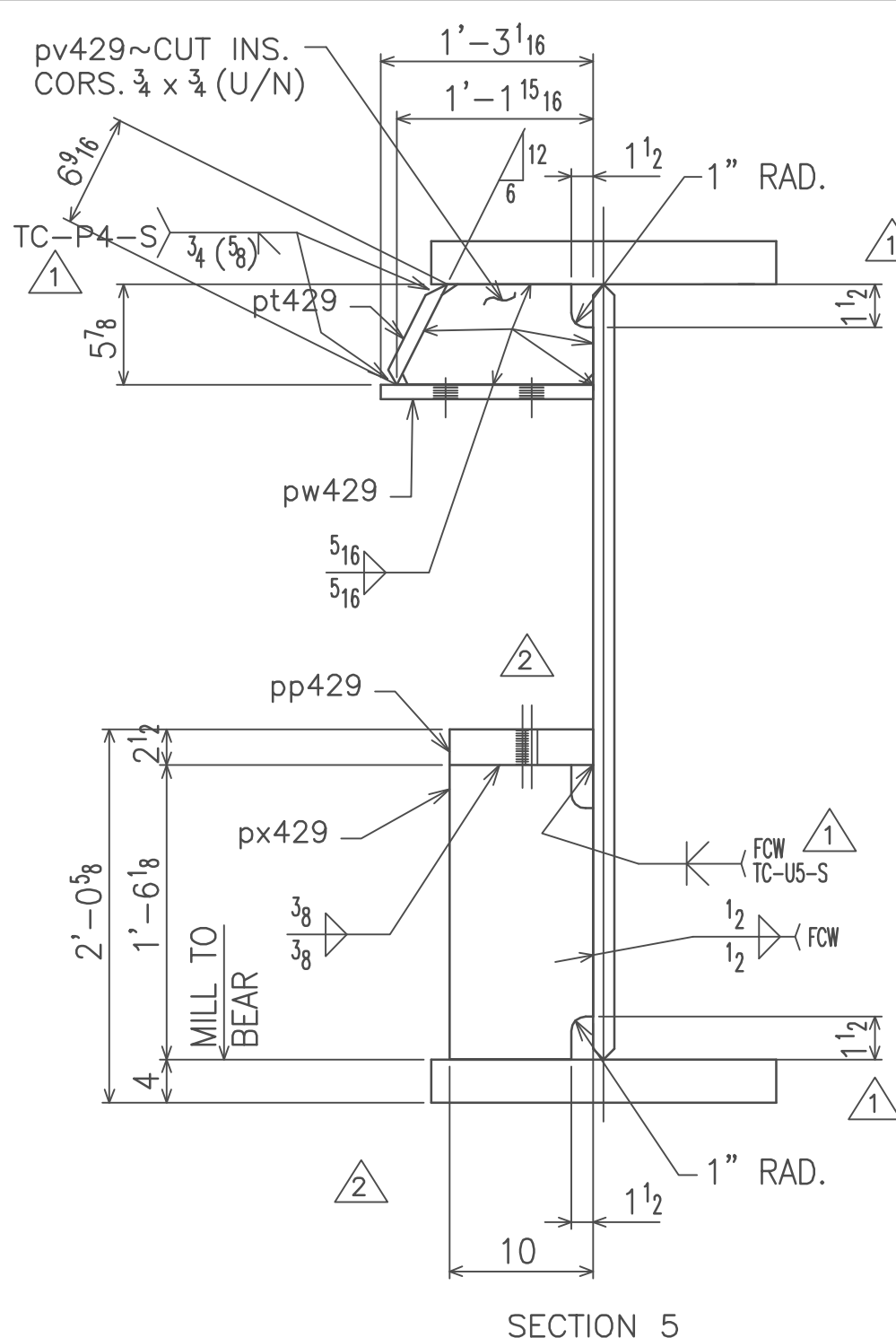
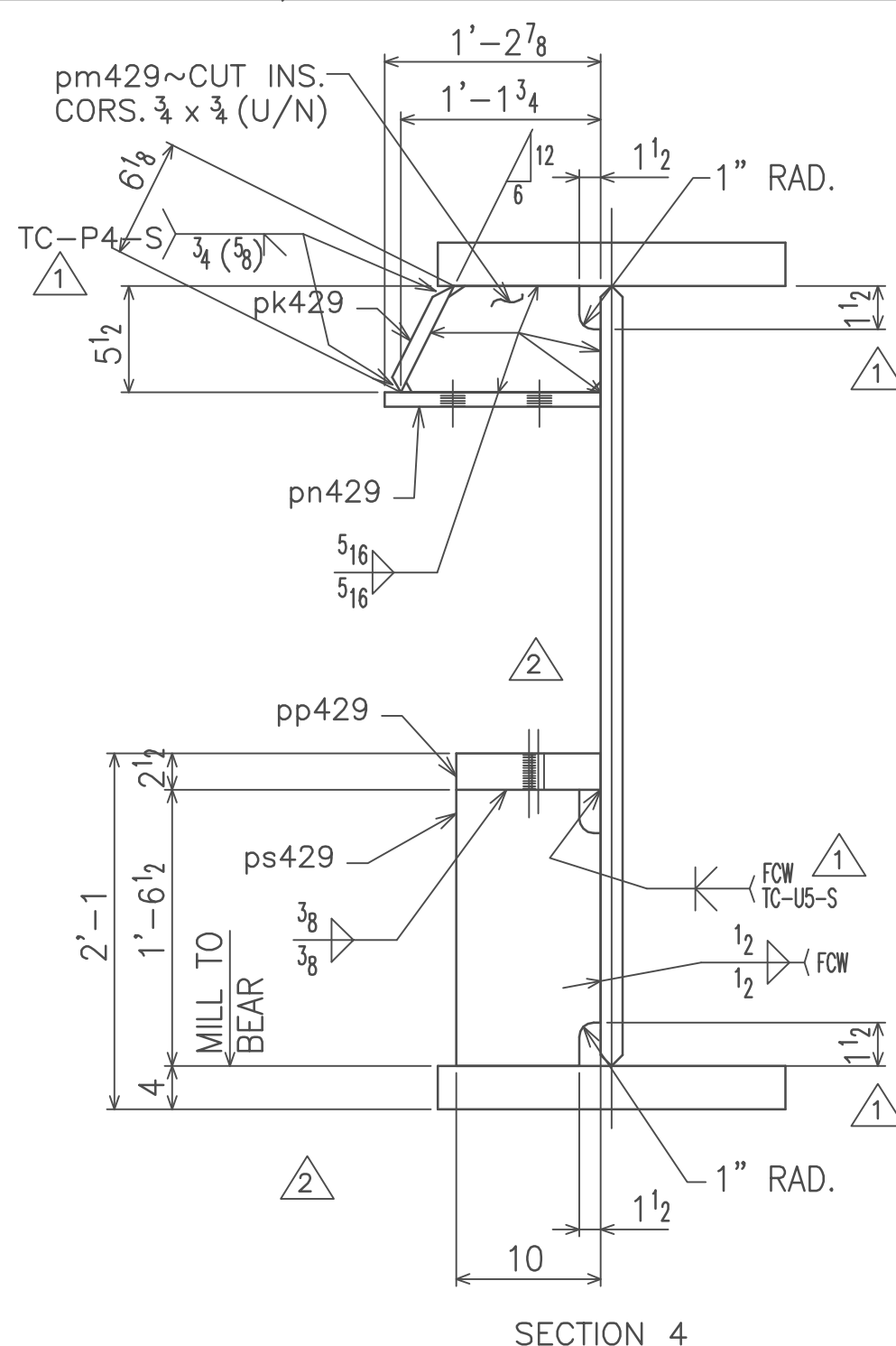
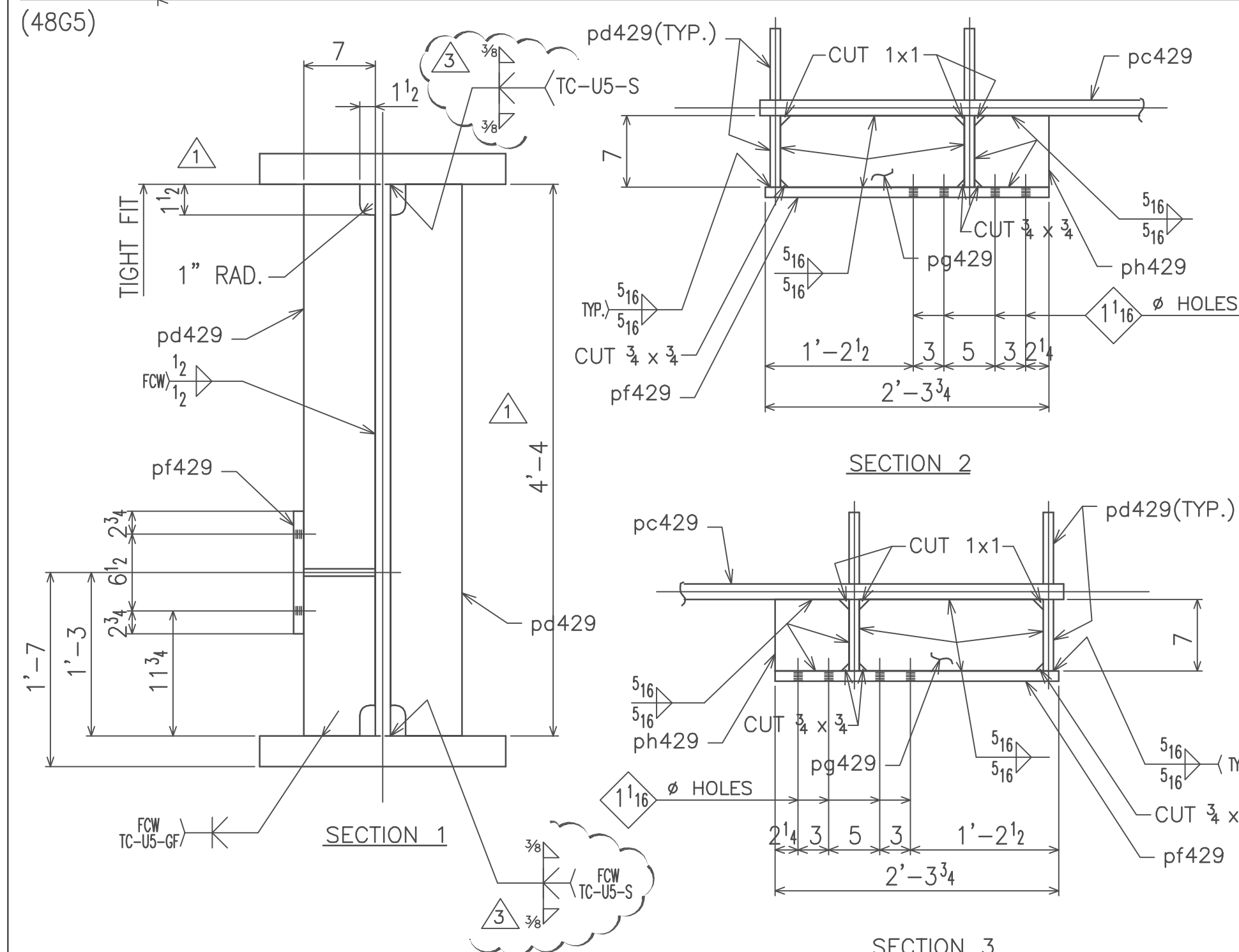
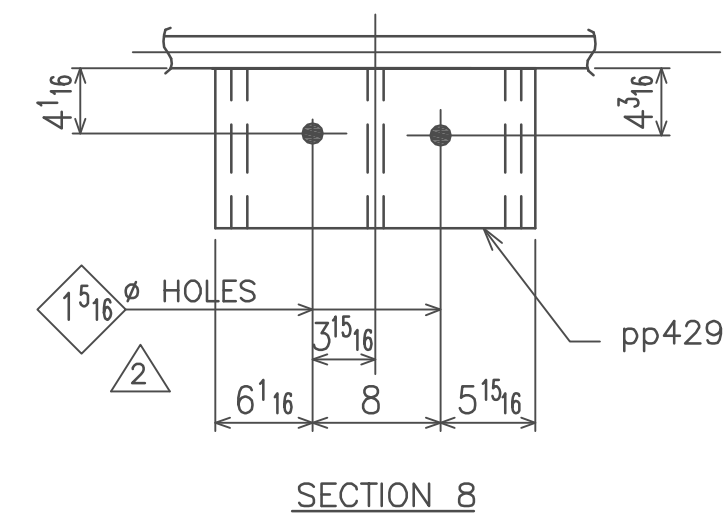
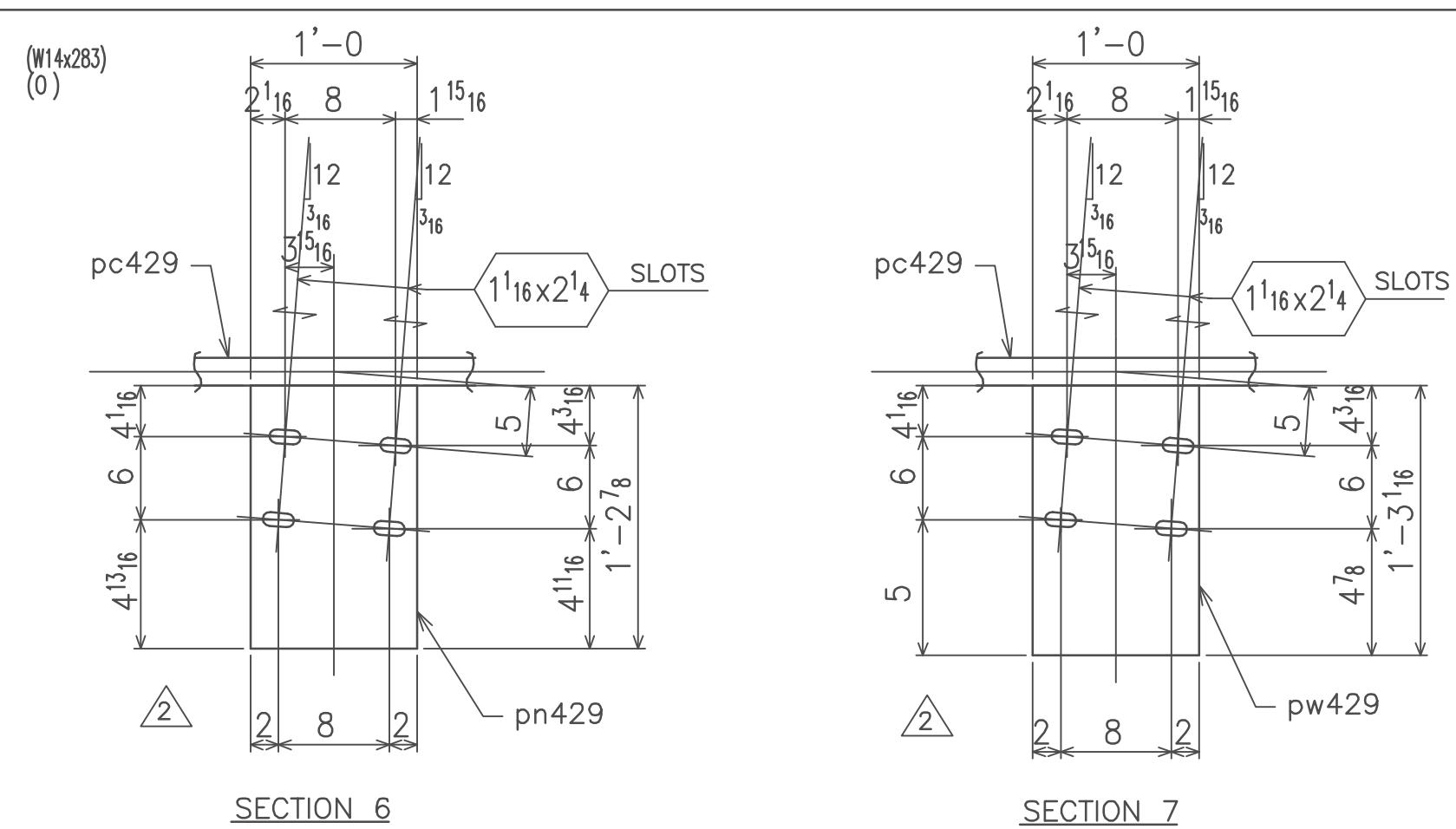
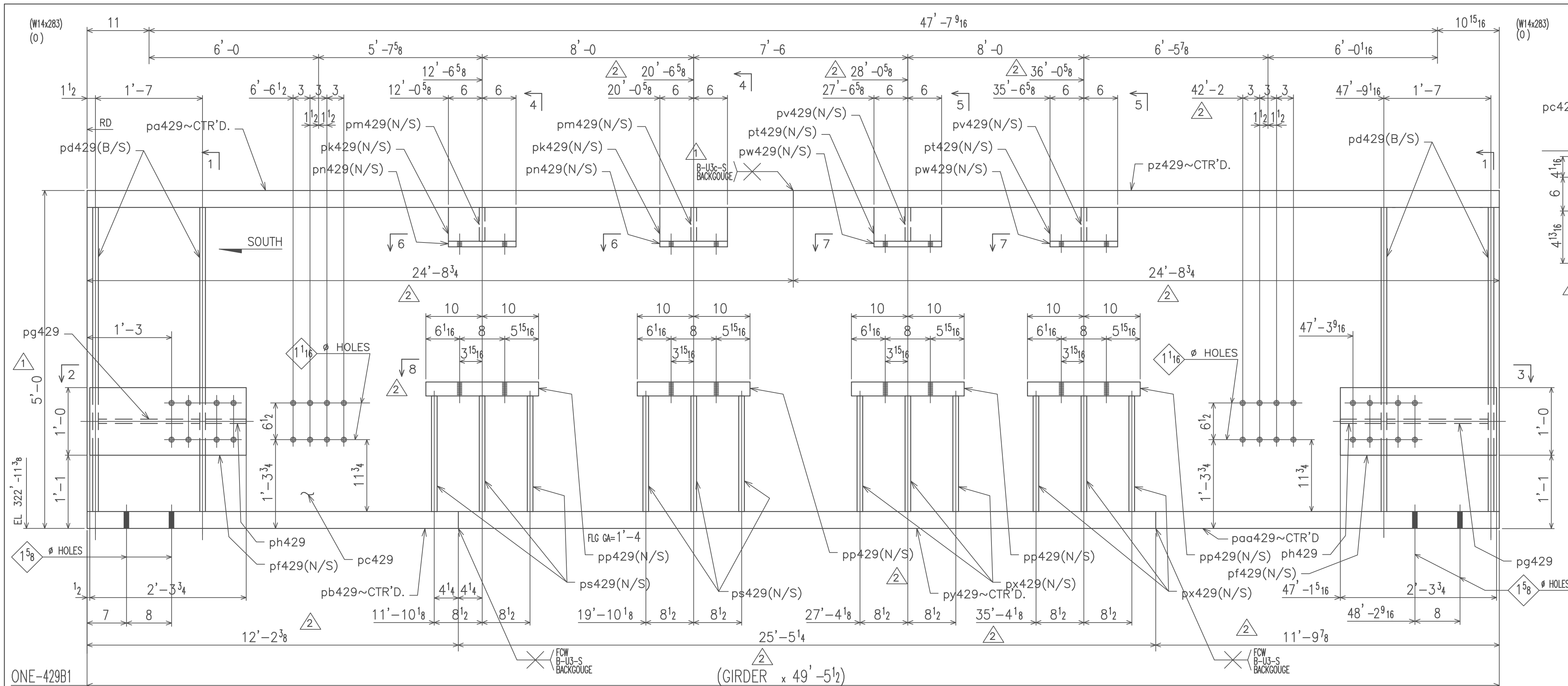
DRAGADOS/JUDLAU A JOINT VENTURE
SUBMITTAL REVIEW
SUBMITTAL NO: _____
CONTRACT NO: **CM019** DATE: _____
LOCATION: _____
ITEM LIST: _____
SPEC/PAR/PAGE: _____
DRAWING NO: _____ REV NO: _____
QUALITY MANAGER REVIEW: _____

MANHATTAN TUNNELS EXCAVATION
CONTRACT NUMBER CM019
COLUMN REFRAMING – 48TH STREET
STEEL DETAILS
HSSI JOB NO. NY-S-1080862D-4

SCALE: AS NOTED	CONTRACT No. CM019
DRAWING No. 403	ISSUE
DATE: 12-10-08	SHEET No.
REV No. 5	____ OF ____



NOTE:
FOR TYP. NOTES & WELDS SEE DWG. E5 & GN1
"X" INDICATES CLASS B FAYING SURFACE-BLAST CLEAN



BILL OF MATERIAL											
QTY	MARK	COMM.	DESCRIPTION	LENGTH	SPEC	GRADE	TEST	REMARKS	ITEM	WEIGHT EA (LBS)	
ONE	429B1		GIRDER (48G5)						2	53226	
1	pa429	PL	4x26	24	8 ³ / ₄	A709	50				
1	pb429	PL	4x26	12	2 ³ / ₈	A709	50	FCM			
1	pc429	PL	1 ³ / ₄ x52	49	5 ¹ / ₂	A709	50	FCM			
8	pd429	PL	1x7	4	4	A709	50				
2	pe429	PL	1x12	2	3 ³ / ₄	A709	50				
2	pf429	PL	3 ⁴ / ₄ x7	1	6	A709	50				
2	ph429	PL	3 ⁴ / ₄ x7	0	7 ¹ / ₄	A709	50				
2	pi429	PL	1x6 ¹ / ₈	1	0	A709	50				
2	pm429	PL	1x5 ¹ / ₂	1	1 ³ / ₄	A709	50				
2	pn429	PL	1x12	1	2 ⁷ / ₈	A709	50				
4	po429	PL	2 ¹ / ₂ x10	1	8	A709	50				
6	ps429	PL	1x10	1	6 ¹ / ₂	A709	50	MILL 1E.	1		
2	pt429	PL	1x6 ⁹ / ₁₆	1	0	A709	50				
2	pu429	PL	1x5 ⁷ / ₈	1	1 ¹⁵ / ₁₆	A709	50				
2	pv429	PL	1x12	1	3 ¹ / ₈	A709	50				
6	px429	PL	1x10	1	6 ¹ / ₈	A709	50	MILL 1E.	1		
1	py429	PL	4x26	25	5 ¹ / ₄	A709	50	FCM			
1	pz429	PL	4x26	24	8 ³ / ₄	A709	50				
1	paa429	PL	4x26	11	9 ⁷ / ₈	A709	50	FCM			
FIELD BOLTS			16-1" A490 x 3	16-1" A490 x 3 ³ / ₄	8-1" A490 x 5	(W/ LOCKNUT & WASH.)					
8-1 ¹ / ₄ A490 x 7			(W/ LOCKNUT & WASH.)		8-1" A490 x 7 ¹ / ₂	(W/ LOCKNUT & WASH.)					

NOTE:
FOR TYP. NOTES & WELDS SEE DWG. E5 & GN1

Metropolitan Transportation Authority
Capital Construction

Long Island Rail Road
East Side Access

DRAGADOS

JUDLAU
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AISC

6-2-09	REINFORCING WELD SIZE	3
5-1-09	PER CHECKING	2
4-6-09	PER PRELIM. APPROVAL	1
DATE	REVISIONS	No.

DESIGNED BY:	DRAGADOS/JUDLAU A JOINT VENTURE
DRAWN BY:	TLN
COORDINATED BY:	
CHECKED BY:	ALY
APPROVED BY:	

SUBMITTAL NO:	1C
CONTRACT NO:	CM019
DATE:	
ITEM LIST:	
SPEC/PAR/PAGE:	
DRAWING NO:	REV NO:
QUALITY MANAGER REVIEW:	

MANHATTAN TUNNELS EXCAVATION
CONTRACT NUMBER CM019
COLUMN REFRAMING - 48TH STREET
STEEL DETAILS
HSSI JOB NO. NY-S-1080862D-4

SCALE:	AS NOTED
DRAWING No.	429
DATE:	12-18-08
REV No.	3

CONTRACT No.	CM019
ISSUE	
SHEET No.	
OF	