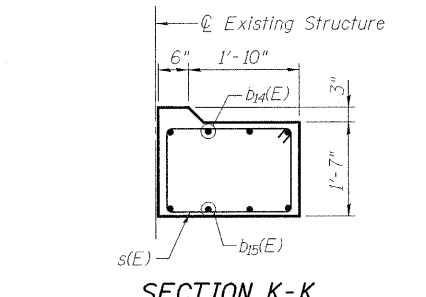
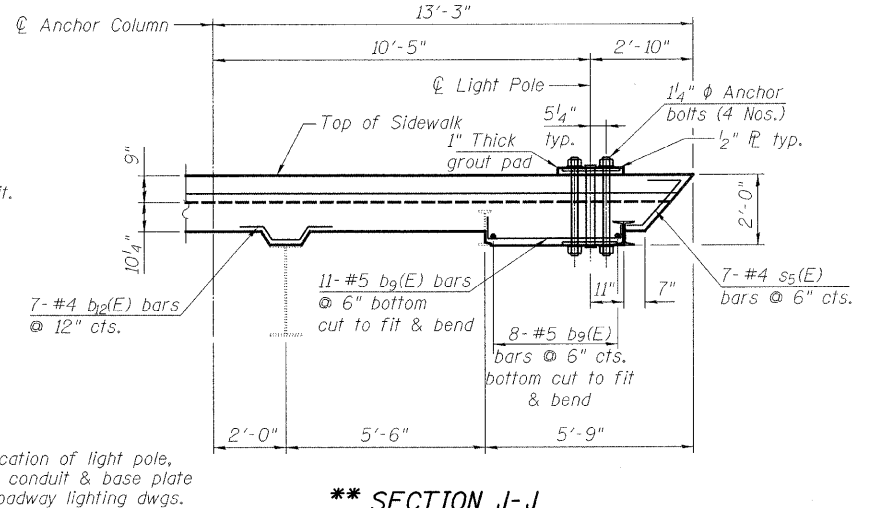
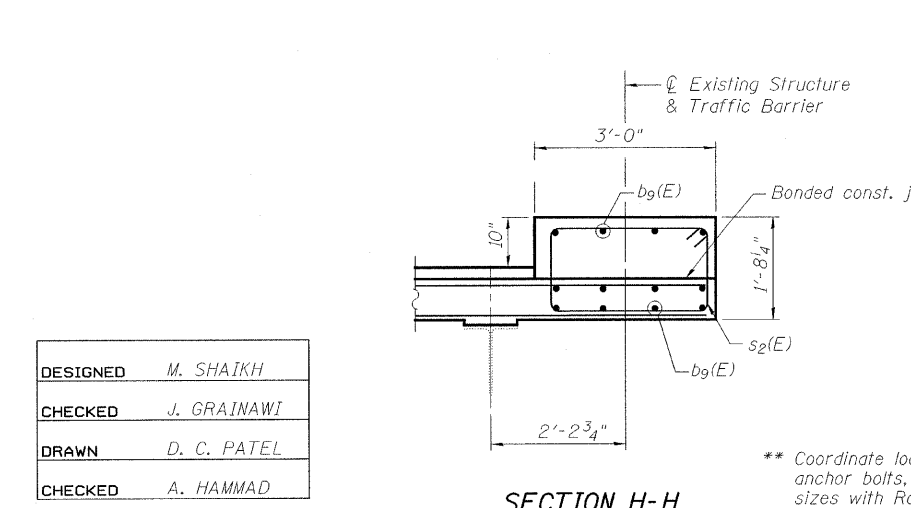
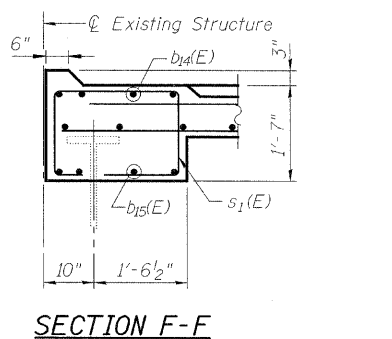
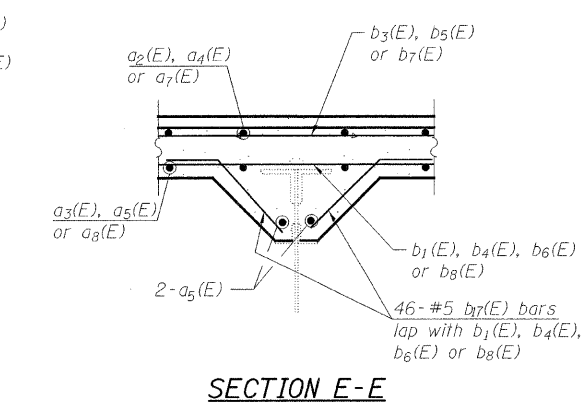
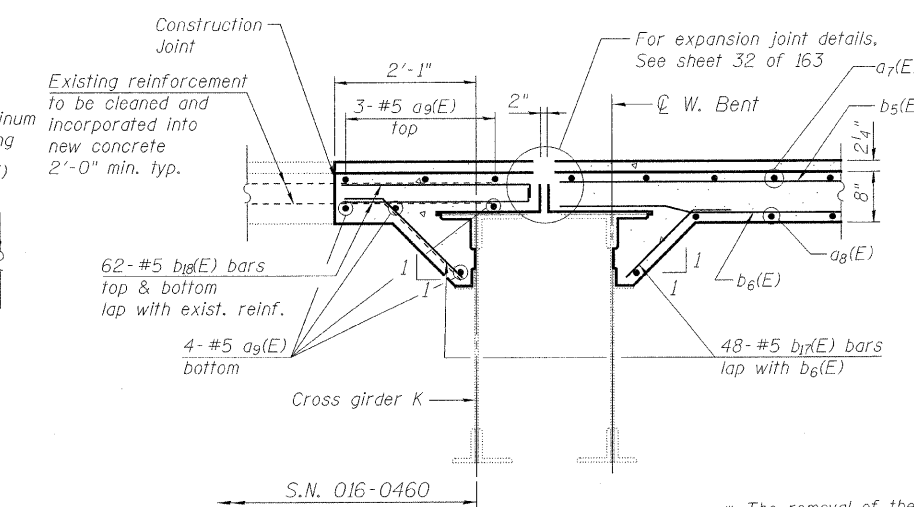
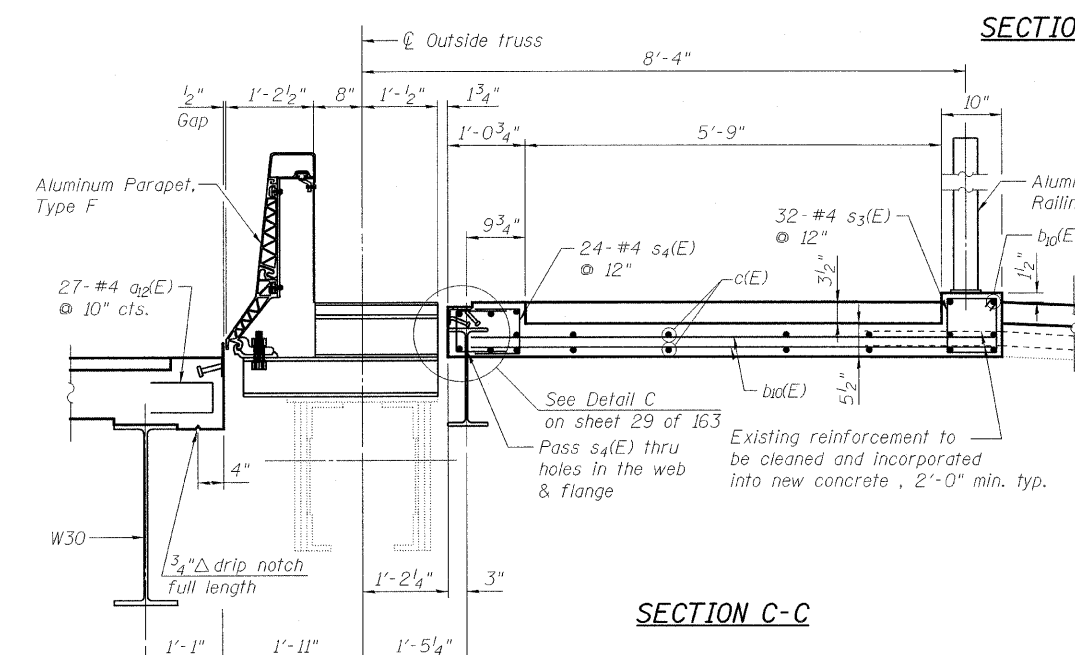
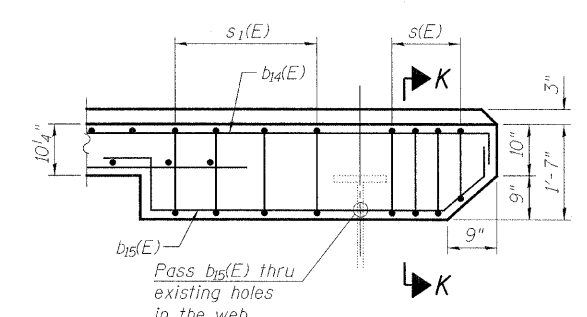
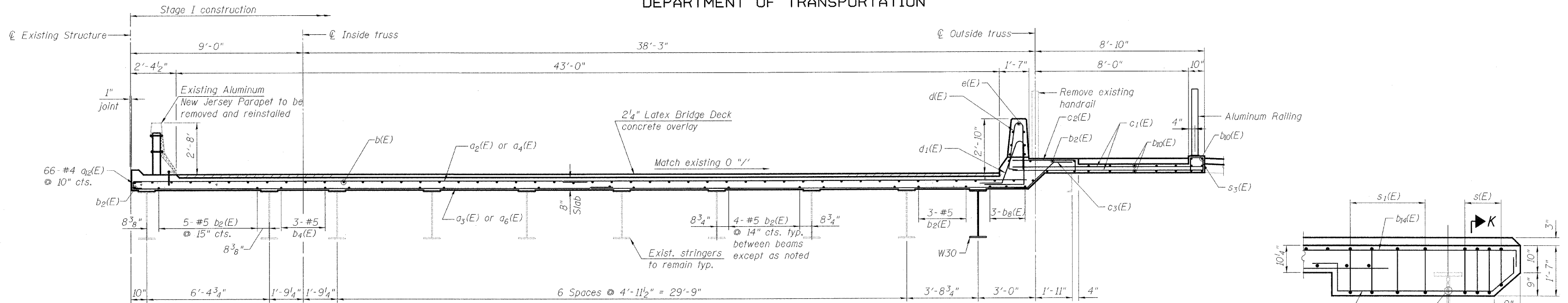


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND

Existing Member to Remain

New Member

Notes:
See Sheets 132 & 133 of 163 for Aluminum Parapet, Type F.
See Sheets 135 & 136 of 163 for Aluminum Railing.

SUPERSTRUCTURE
SOUTHWEST FIXED SPANS
STRUCTURE NO. 016-2445

DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

** Coordinate location of light pole, anchor bolts, conduit & base plate sizes with Roadway lighting dwgs.

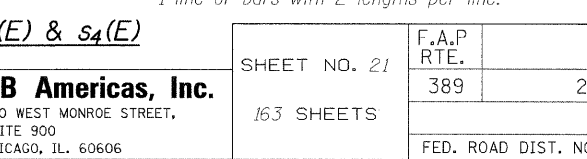
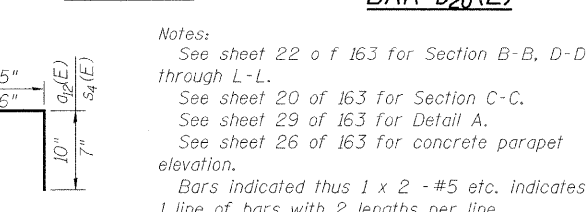
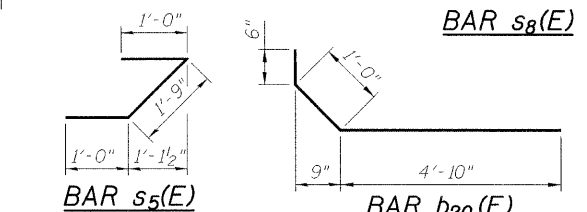
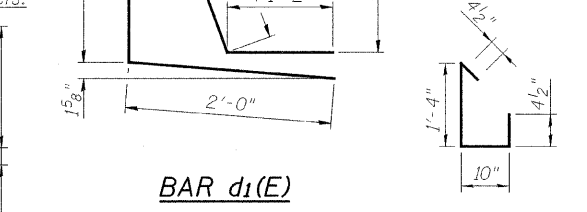
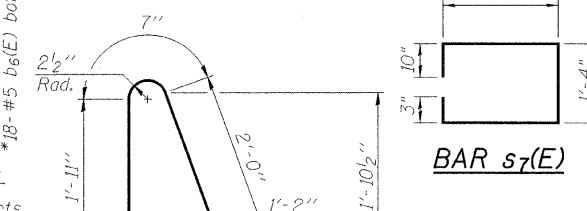
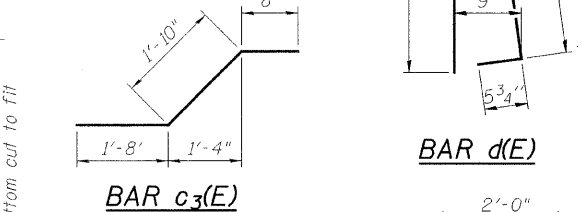
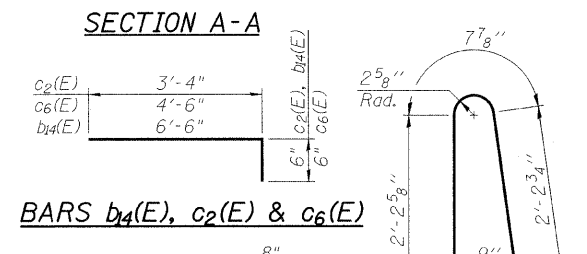
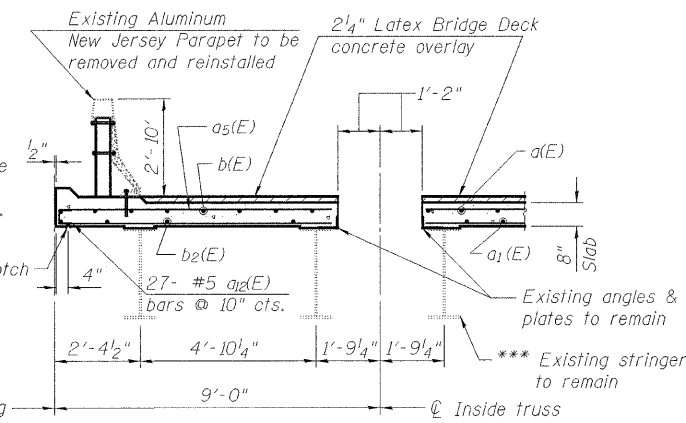
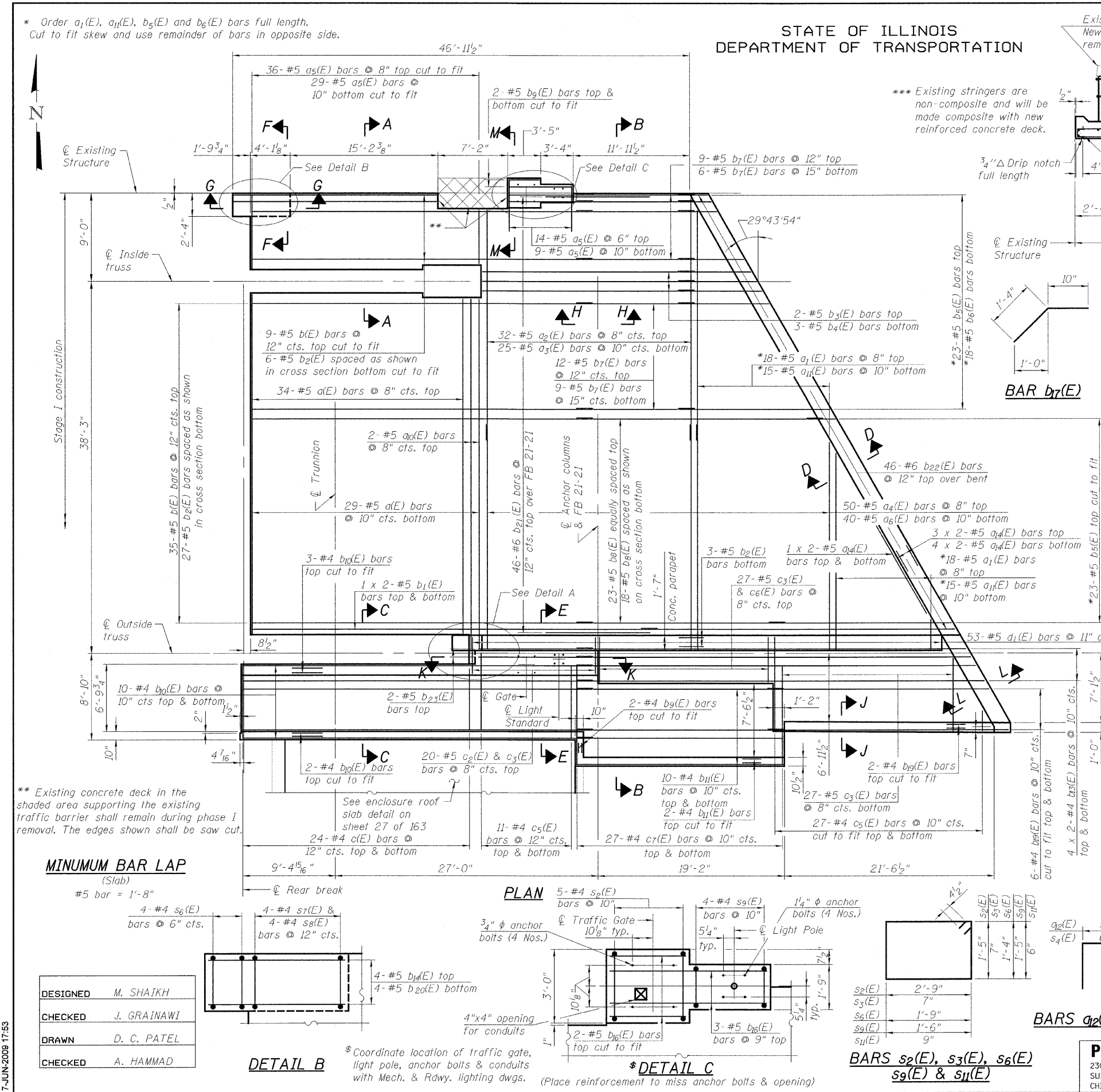
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 20	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	101
163 SHEETS	CONTRACT NO. 60D61			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

T:\16843A\Structural\Cadd\Pre-Final\EB_Plans\0162445-60D61-SUP-019.dgn
07-MAY-2009

* Order a₁(E), a₁₁(E), b₅(E) and b₆(E) bars full length.
Cut to fit skew and use remainder of bars in opposite side.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOUTHEAST APPROACH SLAB
BILL OF MATERIAL

Bar No.	Size	Length	Shape
a ₁ (E)	63	#5	34'-10"
a ₂ (E)	29	#5	26'-6"
a ₃ (E)	35	#5	24'-6"
a ₄ (E)	25	#5	26'-5"
a ₅ (E)	50	#5	23'-10"
a ₆ (E)	89	#5	7'-6"
a ₇ (E)	40	#5	22'-10"
a ₈ (E)	18	#5	26'-6"
a ₉ (E)	2	#5	36'-5"
a ₁₀ (E)	15	#5	28'-2"
a ₁₁ (E)	72	#5	2'-1"
a ₁₂ (E)	18	#5	27'-0"
b ₁ (E)	44	#5	30'-0"
b ₂ (E)	4	#5	35'-11"
b ₃ (E)	33	#5	35'-0"
b ₄ (E)	2	#5	19'-3"
b ₅ (E)	3	#5	23'-8"
b ₆ (E)	23	#5	28'-8"
b ₇ (E)	18	#5	18'-3"
b ₈ (E)	36	#5	14'-7"
b ₉ (E)	47	#5	14'-0"
b ₁₀ (E)	25	#4	34'-11"
b ₁₁ (E)	22	#4	30'-7"
b ₁₂ (E)	8	#4	10'-9"
b ₁₃ (E)	4	#5	7'-0"
b ₁₄ (E)	51	#5	6'-6"
b ₁₅ (E)	184	#5	2'-2"
b ₁₆ (E)	14	#4	24'-3"
b ₁₇ (E)	4	#5	6'-4"
b ₁₈ (E)	46	#6	10'-9"
b ₁₉ (E)	46	#6	7'-6"
b ₂₀ (E)	2	#5	15'-0"
c ₁ (E)	48	#4	7'-1"
c ₂ (E)	20	#5	3'-10"
c ₃ (E)	74	#5	4'-2"
c ₄ (E)	76	#4	9'-6"
c ₅ (E)	27	#5	5'-0"
c ₆ (E)	54	#4	12'-6"
d ₁ (E)	57	#5	5'-7"
d ₂ (E)	53	#5	7'-8"
d ₃ (E)	8	#5	3'-4"
e ₁ (E)	8	#5	6'-0"
e ₂ (E)	14	#4	17'-5"
e ₃ (E)	7	#4	14'-7"
e ₄ (E)	1	#8	35'-0"
e ₅ (E)	1	#8	12'-9"
s ₁ (E)	5	#4	9'-1"
s ₂ (E)	63	#4	3'-1"
s ₃ (E)	48	#4	1'-8"
s ₄ (E)	7	#4	3'-9"
s ₅ (E)	4	#4	6'-11"
s ₆ (E)	4	#4	6'-5"
s ₇ (E)	4	#4	2'-11"
s ₈ (E)	4	#4	6'-7"
s ₉ (E)	24	#4	3'-3"
Reinforcement Bars, Epoxy Coated Concrete Superstructure	Pound	20630	
Latex Bridge Deck Concrete Overlay, 2 1/4"	Sq. Yd.	103	
Bridge Deck Grooving	Sq. Yd.	283.7	
Protective Coat	Sq. Yd.	270.2	
		420	

SUPERSTRUCTURE
SOUTHEAST FIXED SPANS
STRUCTURE NO. 016-2445

Notes:
See sheet 22 of 163 for Section B-B, D-D through L-L.
See sheet 20 of 163 for Section C-C.
See sheet 29 of 163 for Detail A.
See sheet 26 of 163 for concrete parapet elevation.
Bars indicated thus 1 x 2 - #5 etc. indicates 1 line of bars with 2 lengths per line.

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 21	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 102
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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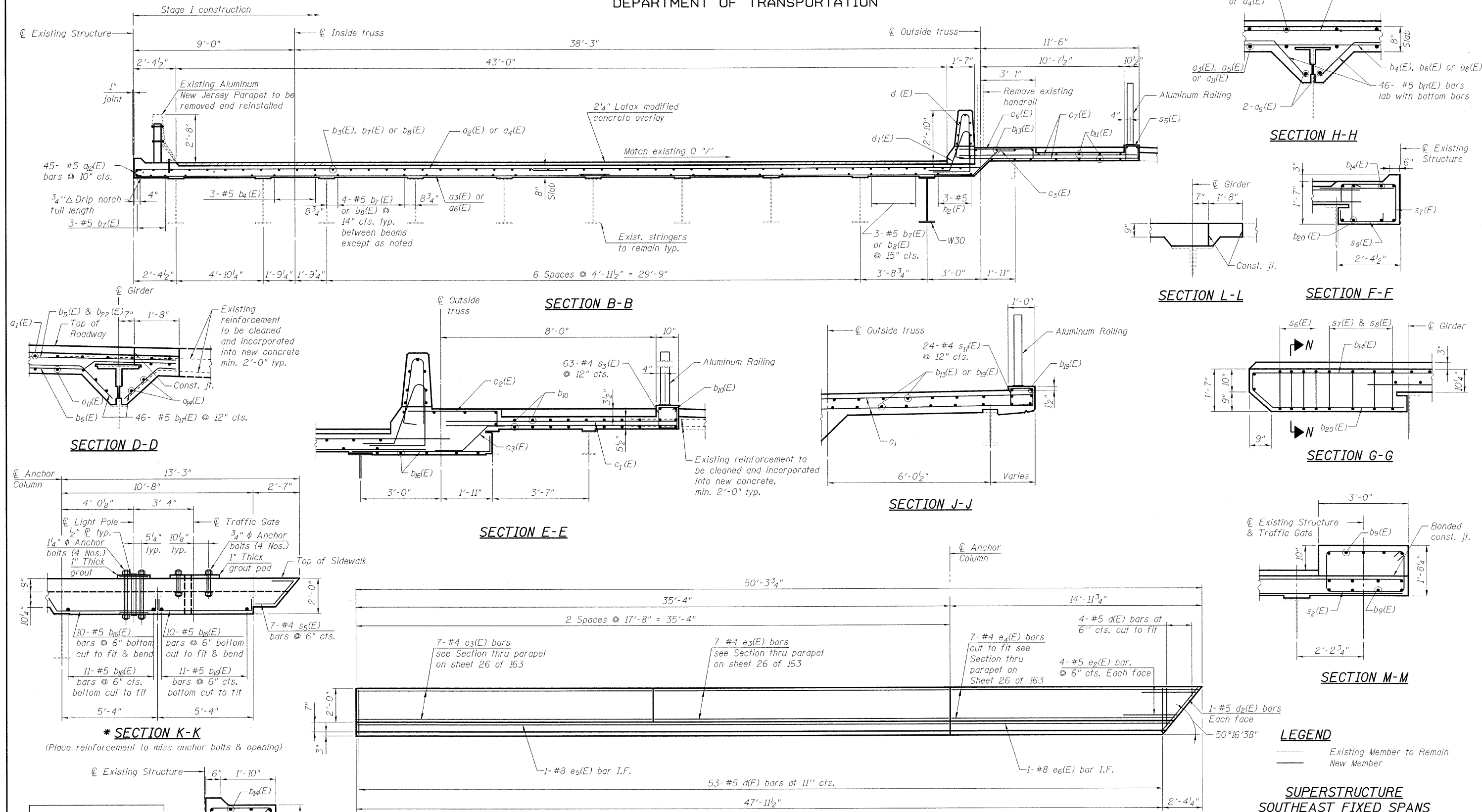
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

DETAIL B

DETAIL C

* Coordinate location of traffic gate, light pole, anchor bolts & conduits with Mech. & Rdwy. lighting dwgs.
(Place reinforcement to miss anchor bolts & opening)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND
 --- Existing Member to Remain
 — New Member

**SUPERSTRUCTURE
SOUTHEAST FIXED SPANS
STRUCTURE NO. 016-2445**

INSIDE ELEVATION OF PARAPET
(Looking South at Southeast parapet)

Notes:
 See sheet 24 of 163 for parapet joint details.
 See Sheets 135 & 136 of 163 for Aluminum Railing.

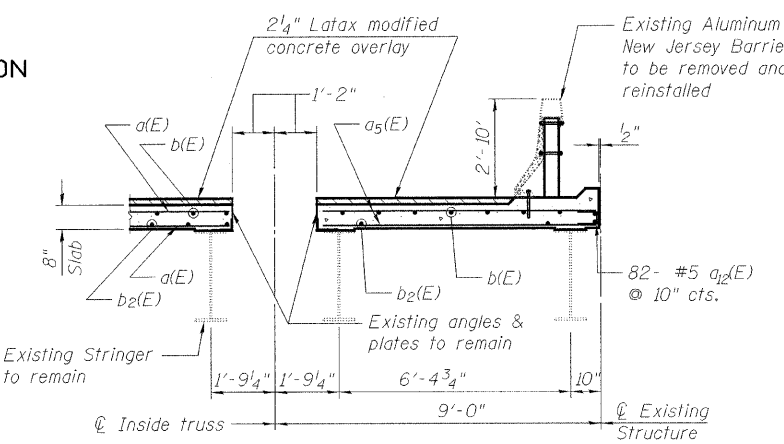
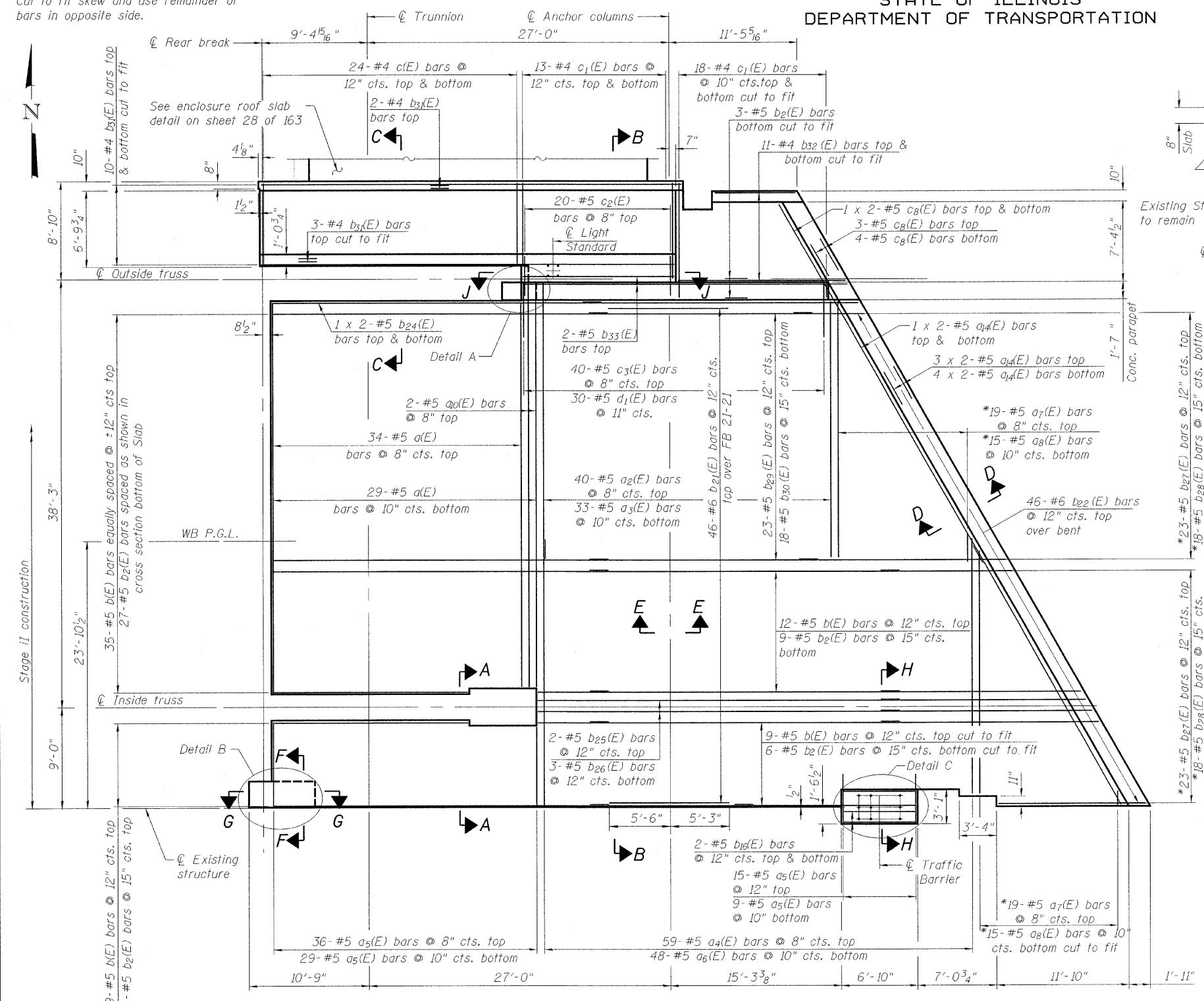
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 22	F.A.P R.T.E. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 103
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

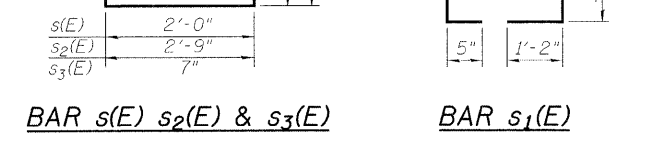
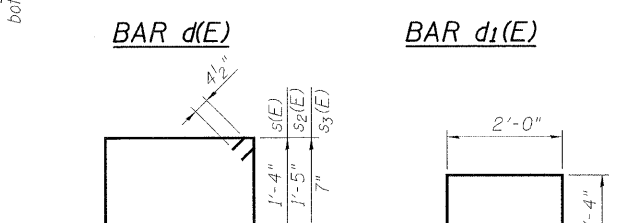
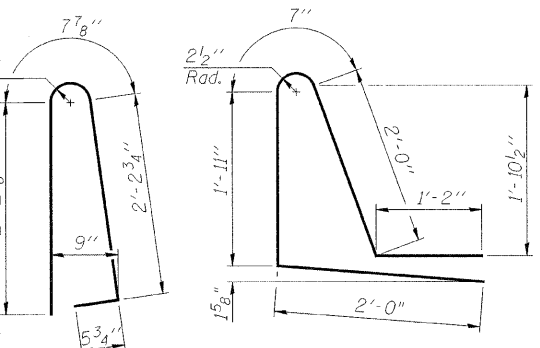
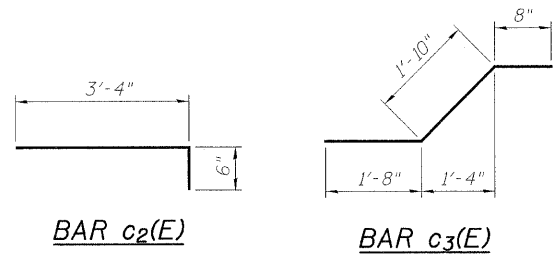
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Order a7(E), a8(E), b27(E) & b28(E) bars full length.
Cut to fit skew and use remainder of
bars in opposite side.



SECTION A-A



NORTHEAST APPROACH SLAB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	63	#5	34'-10"	—
a2(E)	40	#5	24'-6"	—
a3(E)	33	#5	26'-5"	—
a4(E)	59	#5	23'-10"	—
a5(E)	89	#5	7'-6"	—
a6(E)	48	#5	22'-10"	—
a7(E)	19	#5	25'-9"	—
a8(E)	15	#5	27'-5"	—
a9(E)	2	#5	36'-5"	—
a10(E)	109	#5	2'-1"	—
a11(E)	18	#5	27'-0"	—
b1(E)	65	#5	30'-0"	—
b2(E)	51	#5	35'-0"	—
b3(E)	4	#5	7'-0"	—
b4(E)	4	#5	8'-6"	—
b5(E)	29	#5	6'-6"	—
b6(E)	184	#5	2'-2"	—
b7(E)	46	#6	10'-9"	—
b8(E)	46	#6	7'-6"	—
b9(E)	4	#5	26'-2"	—
b10(E)	2	#5	30'-9"	—
b11(E)	3	#5	34'-9"	—
b12(E)	23	#5	36'-2"	—
b13(E)	18	#5	27'-0"	—
b14(E)	23	#5	12'-8"	—
b15(E)	18	#5	8'-5"	—
b16(E)	25	#4	37'-7"	—
b17(E)	22	#4	13'-6"	—
b18(E)	2	#5	13'-0"	—
c1(E)	48	#4	7'-1"	—
c2(E)	62	#4	10'-2"	—
c3(E)	20	#5	3'-10"	—
c4(E)	40	#5	4'-2"	—
c5(E)	15	#5	7'-6"	—
c6(E)	9	#5	10'-10"	—
d1(E)	34	#5	5'-7"	—
d2(E)	30	#5	7'-8"	—
d3(E)	2	#5	3'-4"	—
e1(E)	7	#4	14'-8"	—
e2(E)	1	#8	13'-0"	—
e3(E)	8	#5	6'-0"	—
e4(E)	7	#4	13'-11"	—
e5(E)	1	#8	13'-11"	—
s1(E)	9	#4	7'-5"	□
s2(E)	4	#4	6'-3"	□
s3(E)	4	#4	9'-1"	□
s4(E)	39	#4	3'-1"	□
s5(E)	48	#4	1'-8"	□
s6(E)	7	#4	3'-9"	□
s7(E)	7	#4	3'-0"	□
Reinforcement Bars, Epoxy Coated	Pound		20170	
Concrete Superstructure	Cu. Yd.		101.2	
Latax Bridge Deck Concrete Overlay, 2 1/4"	Sq. Yd.		305	
Bridge Deck Grooving	Sq. Yd.		290.1	
Protective Coat	Sq. Yd.		445	

MINIMUM BAR LAP

(Slab)
#5 bar = 1'-8"

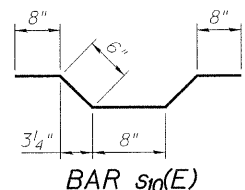
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

Existing Member to Remain
New Member

PLAN

Notes:
See sheet 20 of 163 for Section C-C,
F-F & G-G.
See sheet 29 of 163 for Detail A.
See sheet 26 of 163 for concrete parapet
elevation.
See sheet 19 of 163 for Detail B & C
opposite hand.
Bars indicated thus 1 x 2 - #5 etc. indicates
1 line of bars with 2 lengths per line.



BARS a12(E) & s4(E)

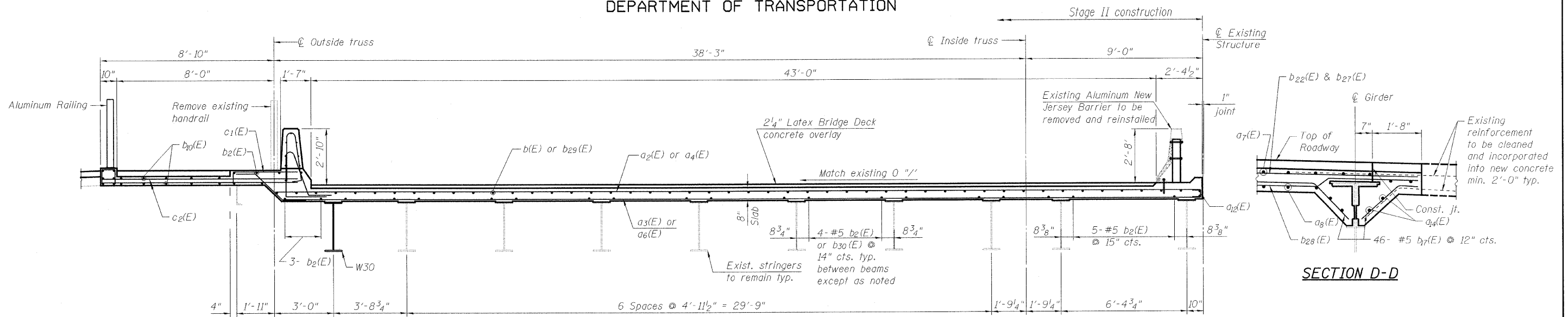
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 23	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 104
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

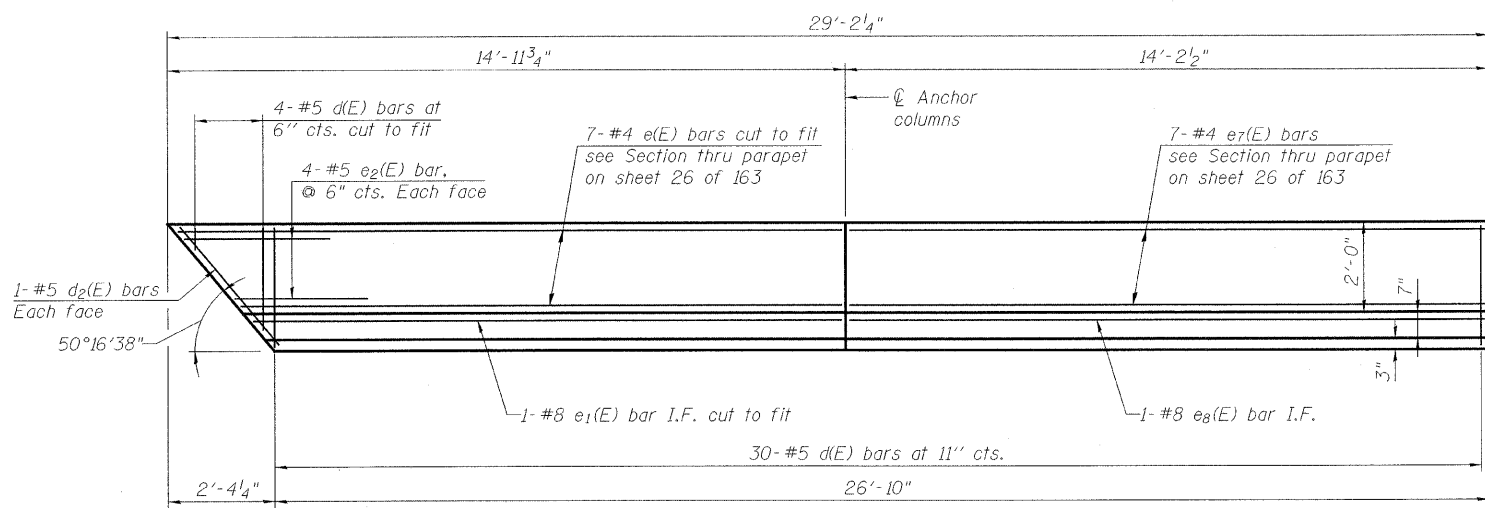
SUPERSTRUCTURE
NORTHEAST FIXED SPANS
STRUCTURE NO. 016-2445

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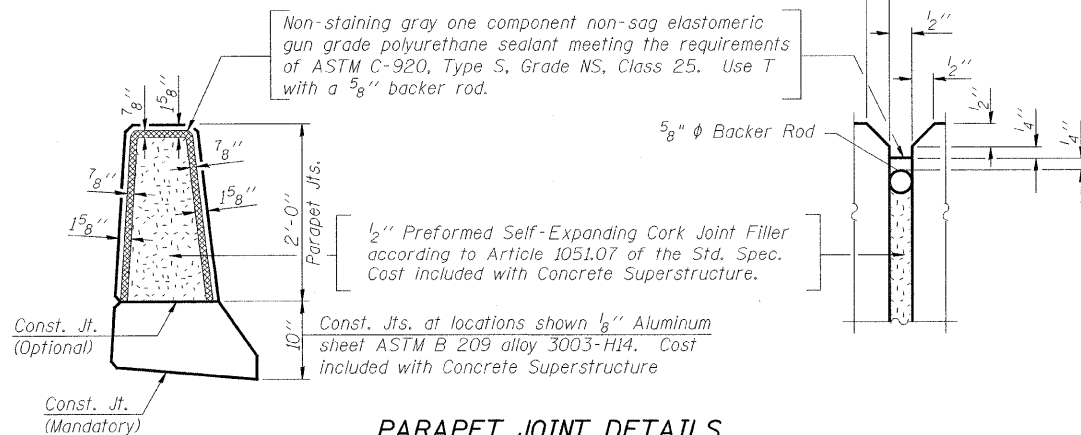
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION B-B

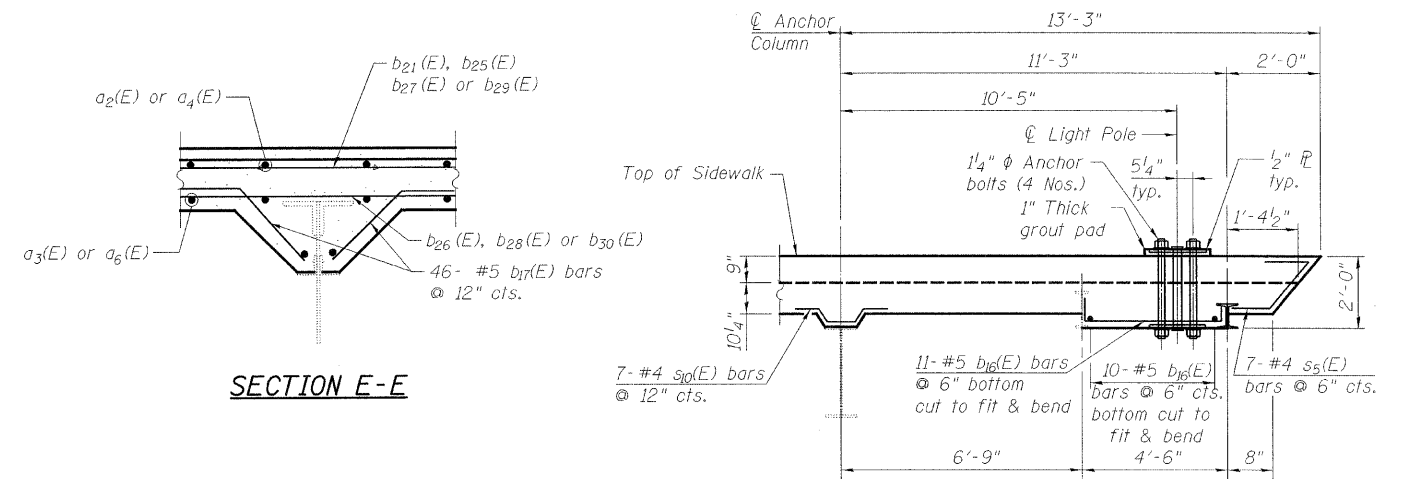


INSIDE ELEVATION OF PARAPET
(Looking North at Northeast parapet)



PARAPET JOINT DETAILS

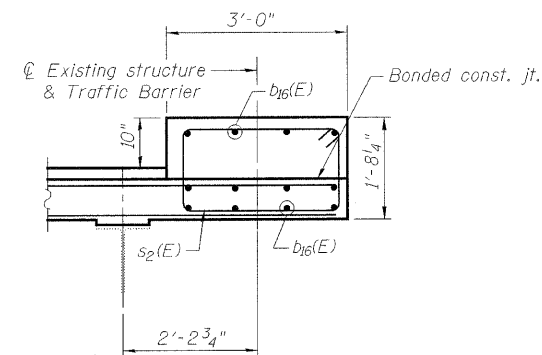
Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



SECTION E-E

* SECTION J-J

(Place reinforcement to miss anchor bolts)



SECTION H-H

* Coordinate location of light pole, anchor bolts, conduit & base plate sizes with Rdwy. lighting dwgs.

Note:
See Sheets 135 & 136 of 163 for Aluminum Railing.

LEGEND

--- Existing Member to Remain
— New Member

SUPERSTRUCTURE
NORTHEAST FIXED SPANS
STRUCTURE NO. 016-2445

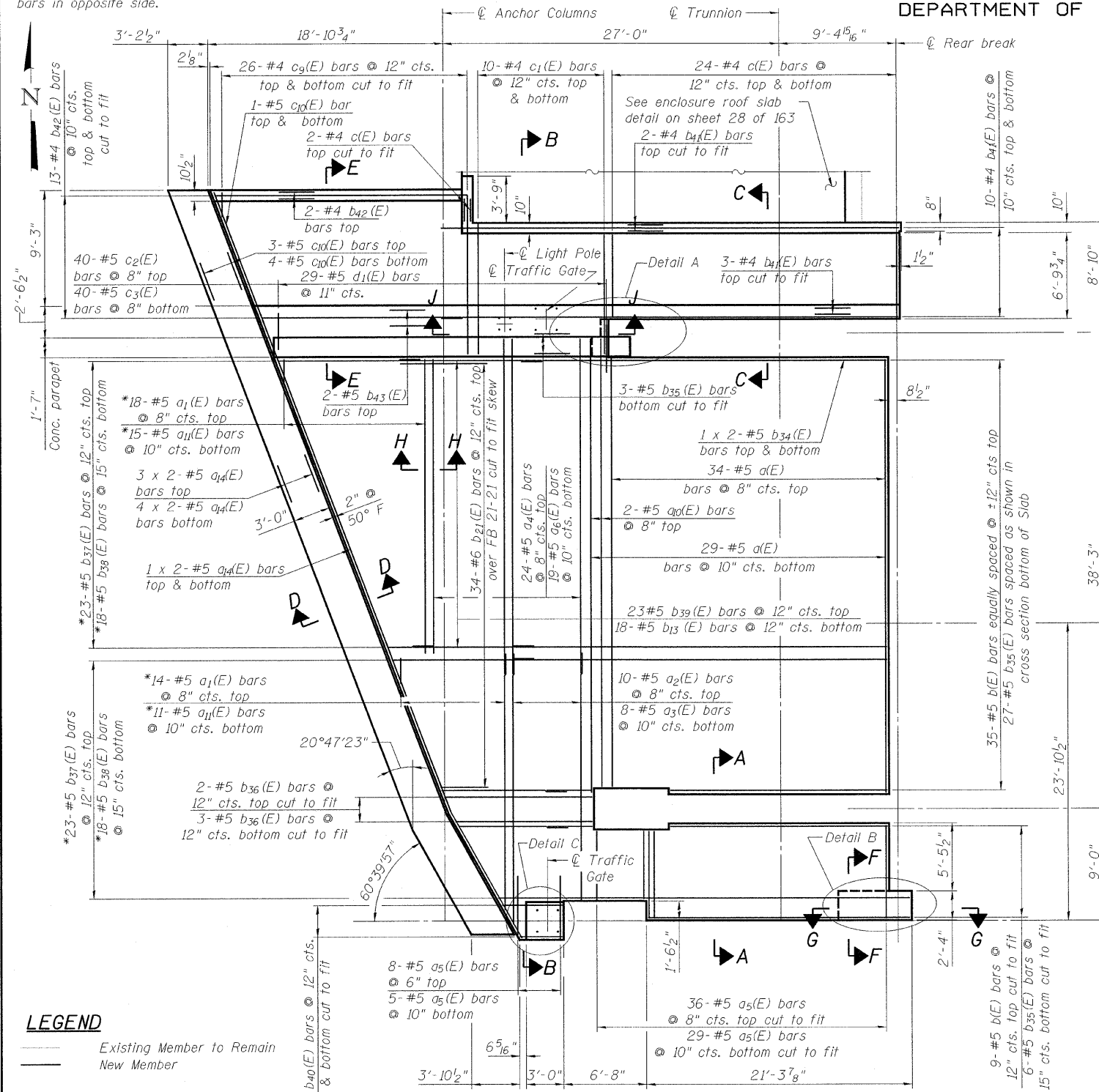
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 24 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	105
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				60D61	

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Order a₁(E), a₁₁(E), b₃₇(E), b₃₉(E) bars full length.
Cut to fit skew and use remainder of
bars in opposite side.



LEGEND

Existing Member to Remain
New Member

MINIMUM BAR LAP
(Slab)
#5 bar = 1'-8"

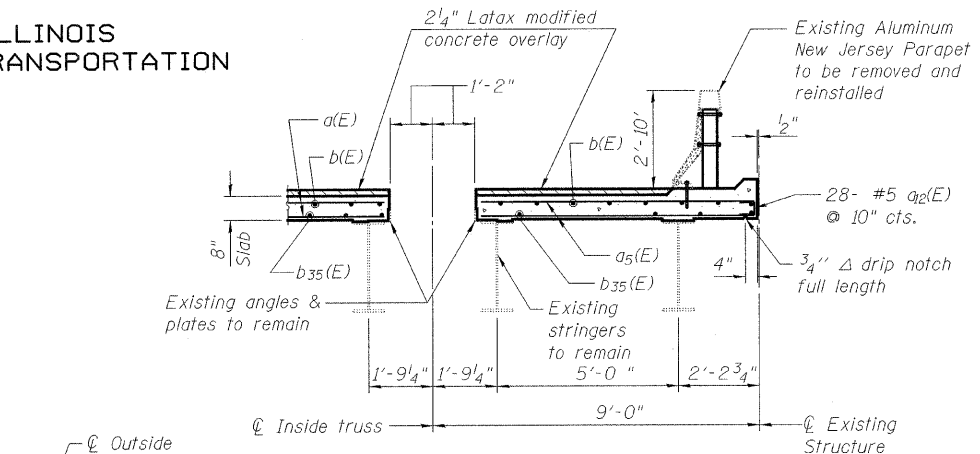
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

Notes:
See sheet 20 of 163 for Section C-C.
See sheet 29 of 163 for Detail A.
See sheet 26 of 163 for concrete parapet.
See sheet 22 of 163 for Section F-F, G-G & H-H.
Bars indicated thus 1 x 3 - #5 etc. indicates
1 line of bars with 3 lengths per line.
Dimensions are based on a Rolled Rail Strip Seal Joint.
If the Contractor elects to use the Welded Rail Strip Seal
Joint, deck dimensions may require adjustments to satisfy
the details on Sheet 32 of 163.

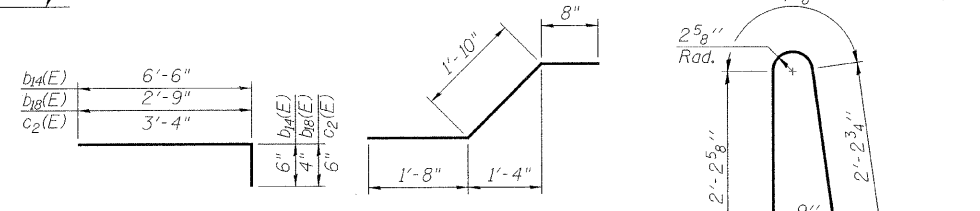
PLAN



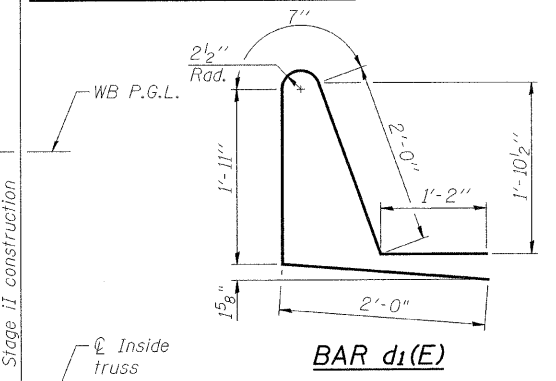
DETAIL B



SECTION A-A



BAR b₁₄(E), b₁₈(E) & c₂(E) BAR c₃(E)



BAR d₁(E)

BAR s₂(E), s₃(E) & s₆(E)



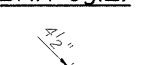
BAR s₇(E)



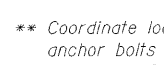
BARS a₂(E) & s₄(E)



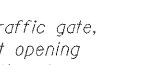
BAR s₅(E)



BAR b₁₇(E)



BAR b₂₀(E)



BAR s₈(E)



DETAIL C

(Place reinforcement to miss anchor bolts & opening)

**NORTHWEST APPROACH SLAB
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	63	#5	34'-10"	
a ₁ (E)	14	#5	26'-6"	
a ₂ (E)	10	#5	24'-6"	
a ₃ (E)	8	#5	26'-5"	
a ₄ (E)	24	#5	23'-10"	
a ₅ (E)	78	#5	7'-6"	
a ₆ (E)	19	#5	22'-10"	
a ₉ (E)	2	#5	36'-5"	
a ₁₁ (E)	11	#5	28'-2"	
a ₁₂ (E)	55	#5	2'-1"	
a ₁₄ (E)	18	#5	27'-0"	
b(E)	44	#5	30'-0"	
b ₃ (E)	18	#5	10'-9"	
b ₄ (E)	4	#5	7'-0"	
b ₁₇ (E)	188	#5	2'-2"	
b ₁₈ (E)	124	#5	3'-1"	
b ₂₀ (E)	4	#5	6'-4"	
b ₂₁ (E)	34	#6	10'-9"	
b ₃₄ (E)	2	#5	25'-5"	
b ₃₅ (E)	36	#5	29'-0"	
b ₃₆ (E)	5	#5	11'-11"	
b ₃₇ (E)	23	#5	13'-0"	
b ₃₈ (E)	18	#5	17'-0"	
b ₃₉ (E)	23	#5	10'-6"	
b ₄₀ (E)	8	#5	4'-3"	
b ₄₁ (E)	25	#4	36'-8"	
b ₄₂ (E)	28	#4	20'-6"	
b ₄₃ (E)	2	#5	27'-3"	
b ₄₄ (E)	4	#5	2'-9"	
c(E)	50	#4	7'-1"	
c ₁ (E)	20	#4	10'-2"	
c ₂ (E)	40	#5	3'-10"	
c ₃ (E)	40	#5	4'-2"	
c ₉ (E)	52	#4	12'-9"	
c ₁₀ (E)	9	#5	14'-0"	
d(E)	33	#5	5'-7"	
d ₁ (E)	29	#5	7'-8"	
d ₂ (E)	2	#5	3'-4"	
e(E)	7	#4	14'-8"	
e ₁ (E)	1	#8	13'-0"	
e ₂ (E)	8	#5	6'-0"	
e ₉ (E)	7	#4	13'-5"	
e ₁₀ (E)	1	#8	13'-5"	
s ₂ (E)	4	#4	9'-1"	
s ₃ (E)	62	#4	3'-1"	
s ₄ (E)	48	#4	1'-8"	
s ₅ (E)	7	#4	3'-9"	
s ₆ (E)	4	#4	6'-11"	
s ₇ (E)	4	#4	6'-5"	
s ₈ (E)	4	#4	2'-11"	
Reinforcement Bars, Epoxy Coated	Pound		14210	
Concrete Superstructure	Cu. Yd.		75	
Latex Bridge Deck Concrete Overlay, 2 1/4"	Sq. Yd.		204.6	
Bridge Deck Grooving	Sq. Yd.		195	
Protective Coat	Sq. Yd.		339	

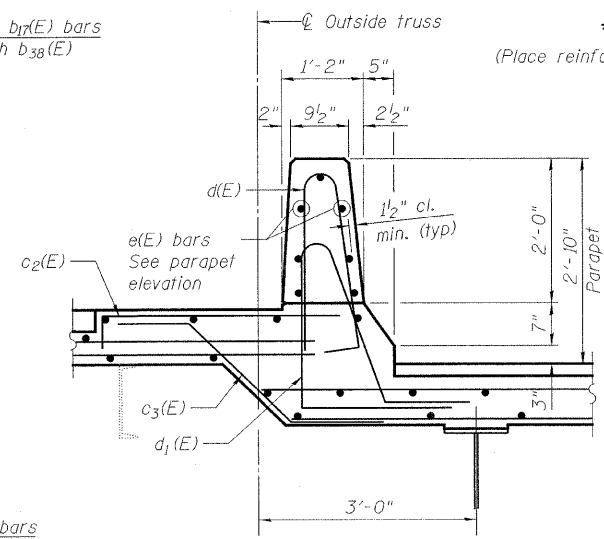
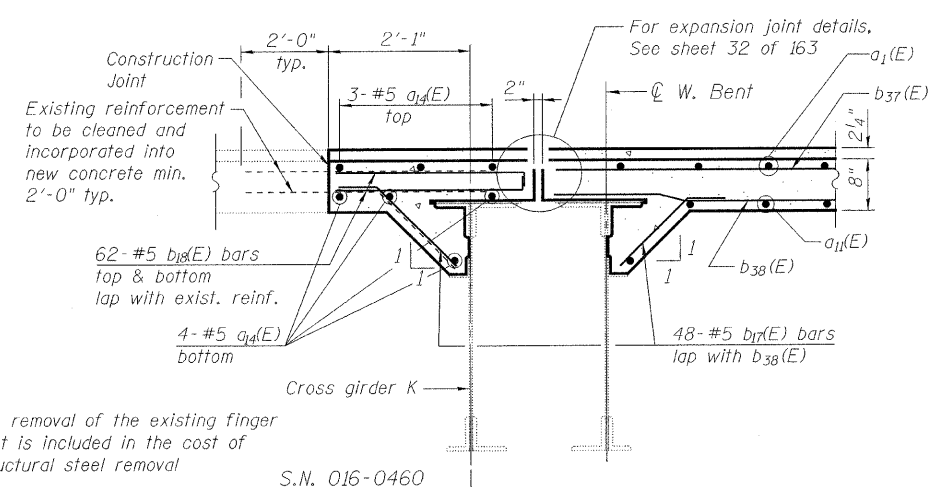
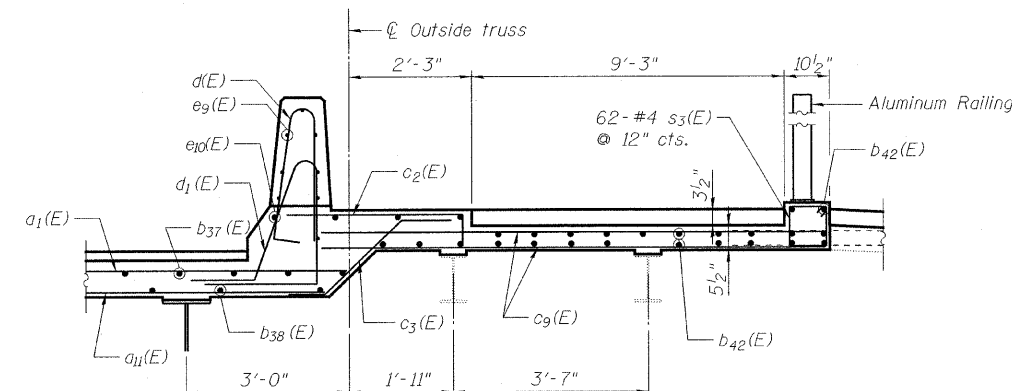
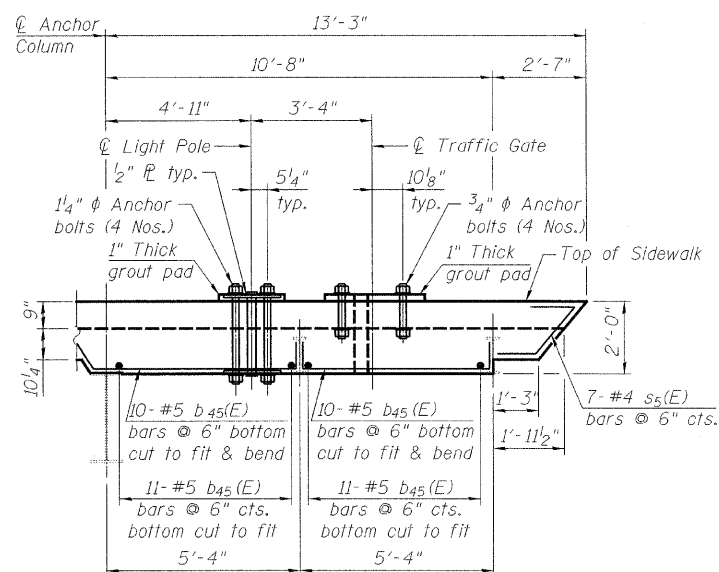
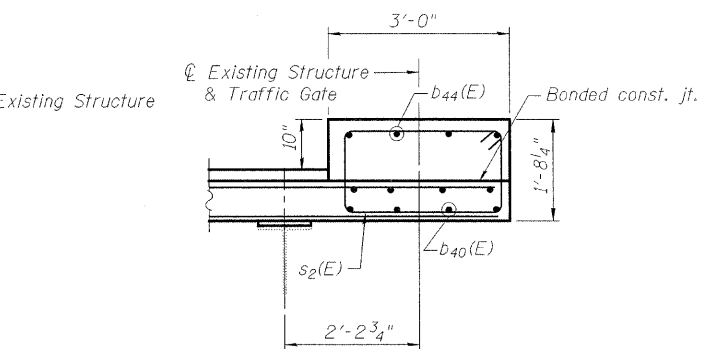
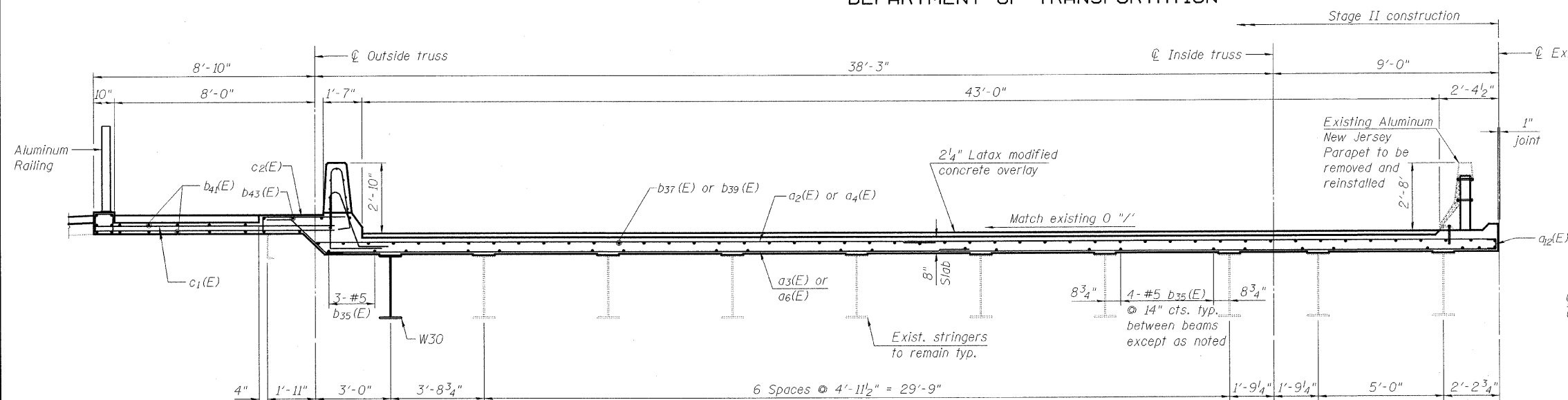
**SUPERSTRUCTURE
NORTHWEST FIXED SPANS
STRUCTURE NO. 016-2445**

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 25	F.A.P RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 106
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

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05-JUN-2008 10:01

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION E-E

SECTION B-B

SECTION D-D

SECTION J-J

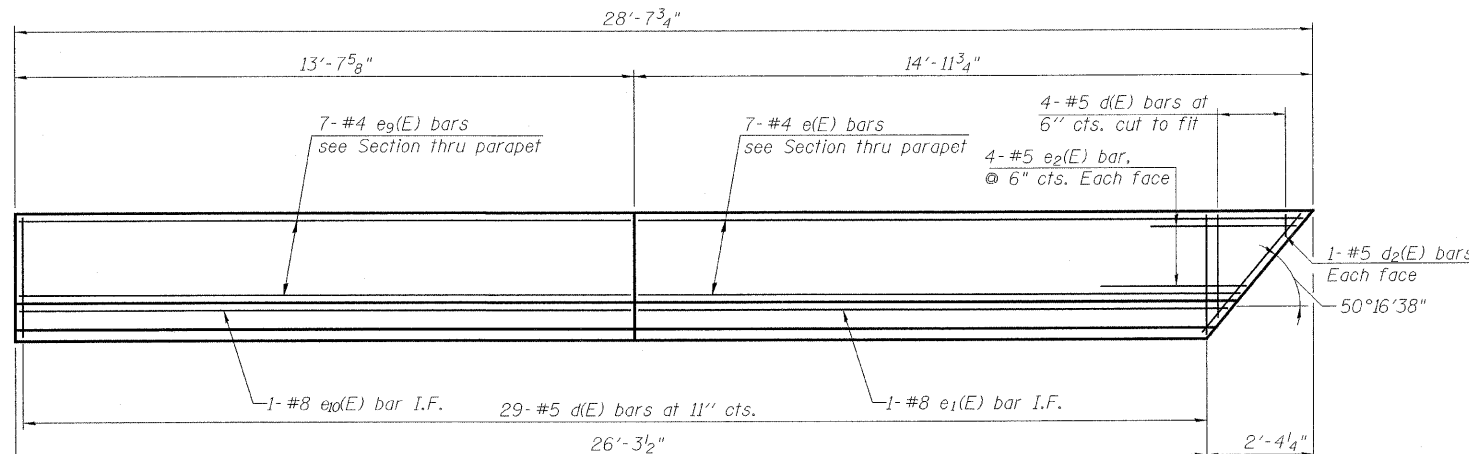
(Place reinforcement to miss anchor bolts & opening)

** Coordinate location of traffic gate, light pole, anchor bolts, conduit & base plate sizes with Mech. & Rdwy. lighting dwgs. Cost of anchor bolts and base plates is included in the cost of traffic gate and light pole.

LEGEND

Existing Member to Remain
New Member

Note:
See sheet 24 of 163 for parapet joint details.



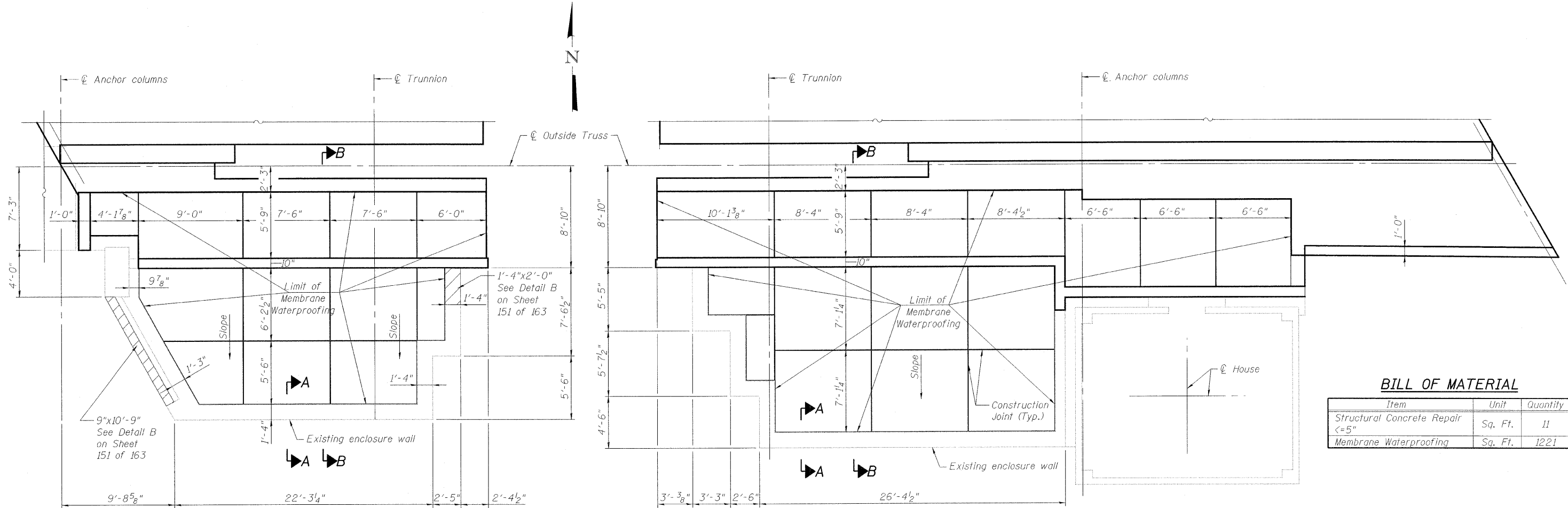
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 26 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	107
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D61		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIAL

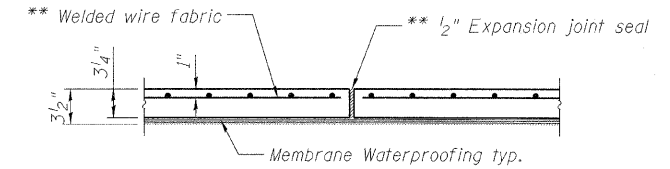
Item	Unit	Quantity
Structural Concrete Repair <=5"	Sq. Ft.	11
Membrane Waterproofing	Sq. Ft.	1221

LEGEND

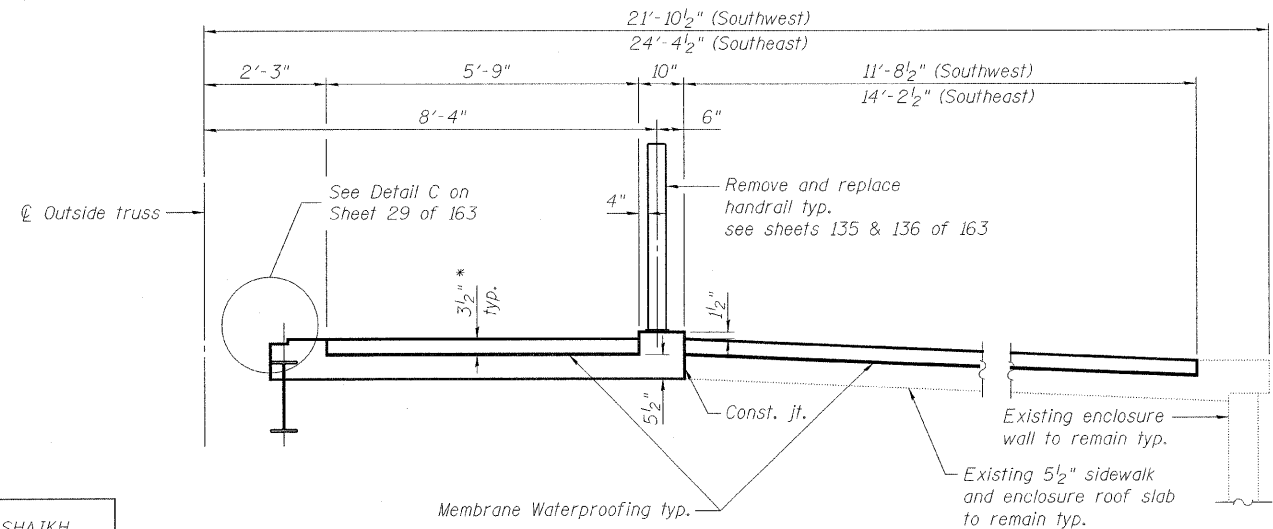


SOUTHWEST PLAN

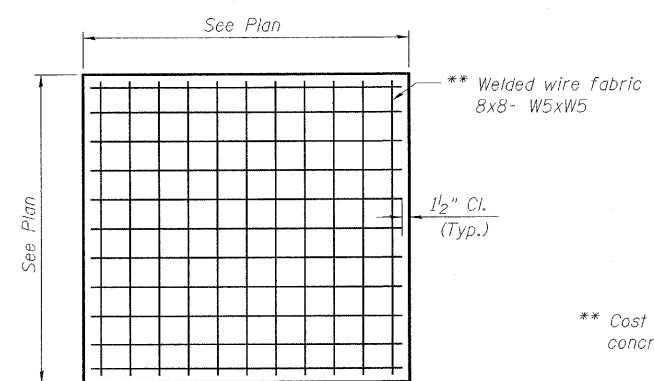
SOUTHEAST PLAN



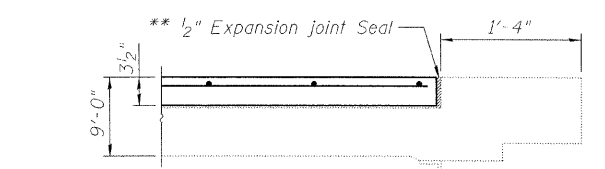
TYPICAL SECTION THRU CONSTRUCTION JOINT



SECTION B-B



TYPICAL REINFORCING DETAIL



SECTION A-A

** Cost included in the cost of concrete superstructure

**SIDEWALK PLAN
FIXED SPANS (EB)
STRUCTURE NO. 016-2445**

DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

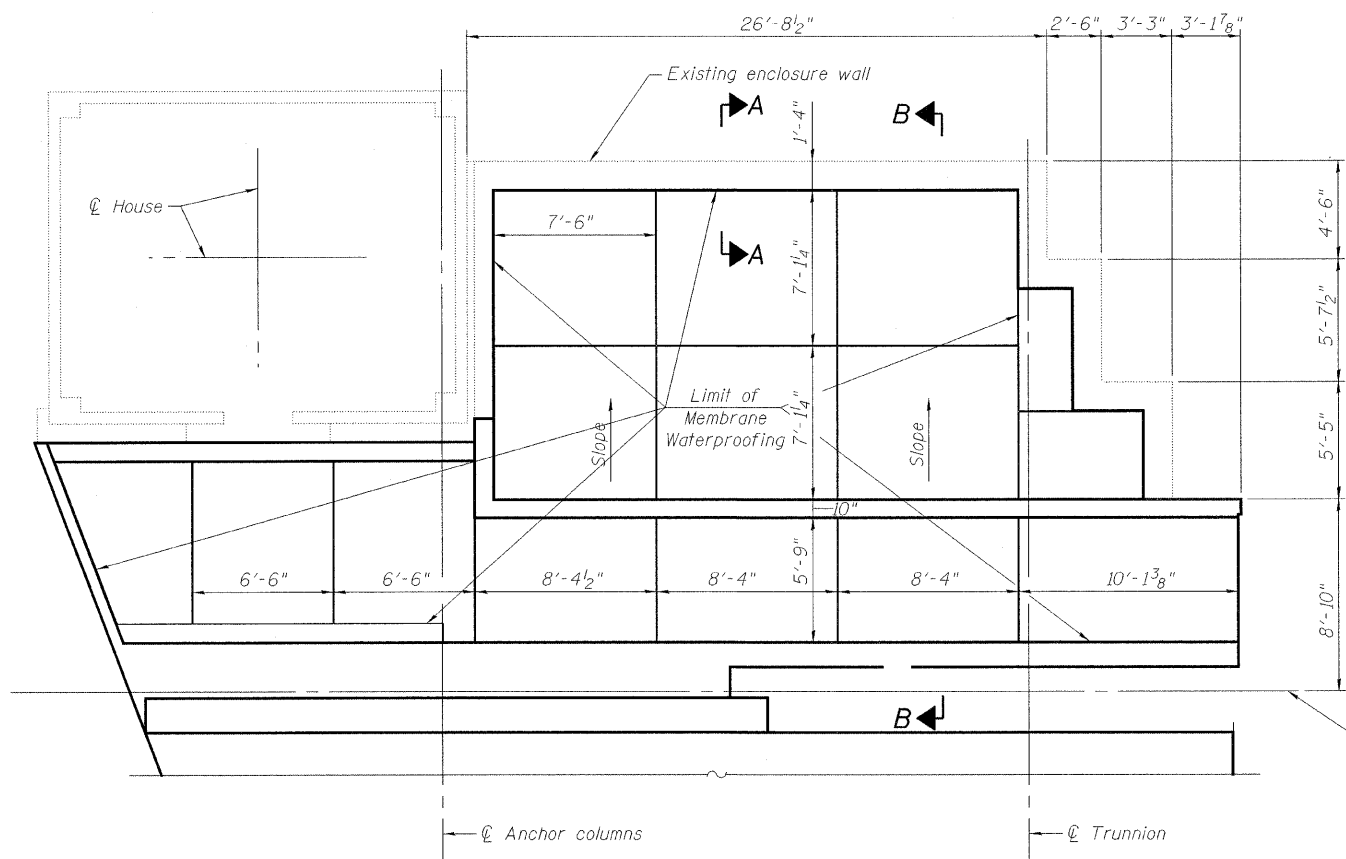
* Concrete quantity is included in the concrete superstructure

PB Americas, Inc.
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SUITE 900
CHICAGO, IL. 60606

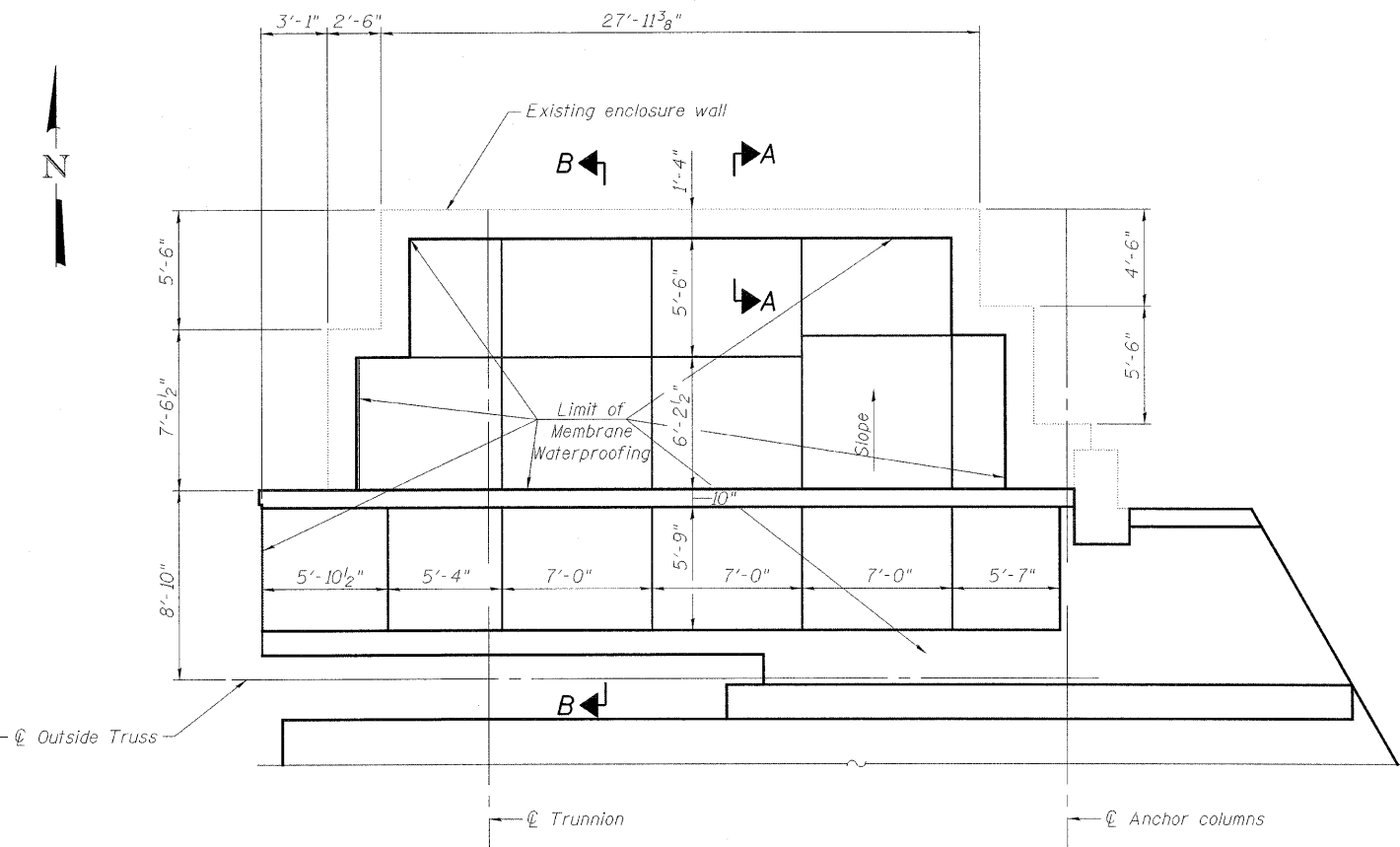
SHEET NO. 27 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	108
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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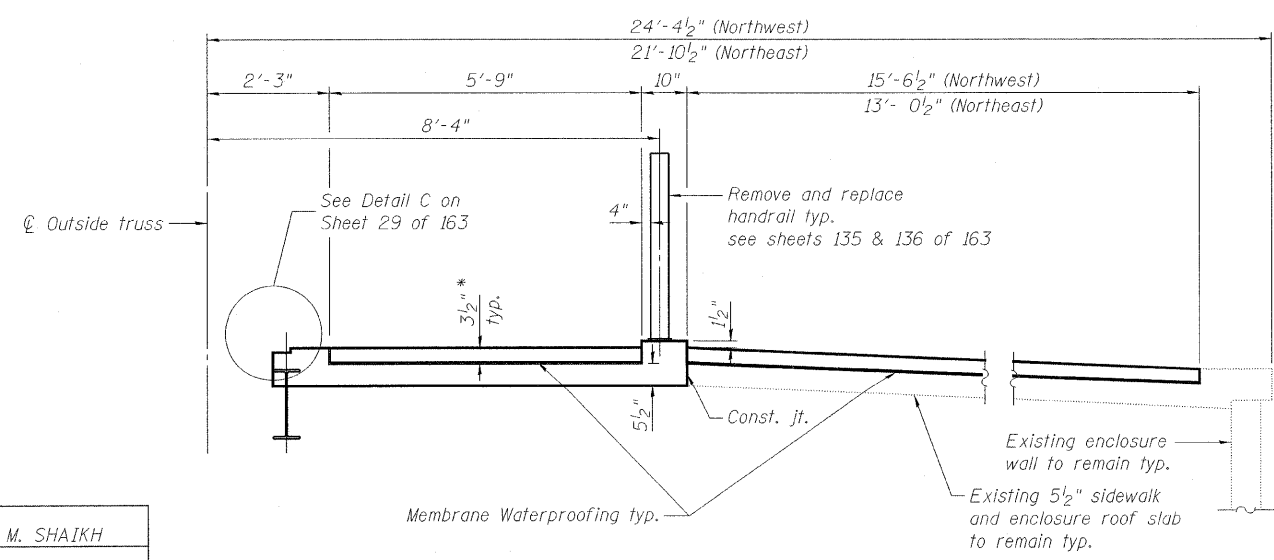
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NORTHWEST PLAN



NORTHEAST PLAN



SECTION B-B

* Concrete quantity is included in the concrete superstructure

BILL OF MATERIAL

Item	Unit	Quantity
Membrane Waterproofing	Sq. Ft.	725

Note:
See sheet 27 of 163 for section A-A, typical section and reinforcement details.

**SIDEWALK PLAN
FIXED SPANS (WB)
STRUCTURE NO. 016-2445**

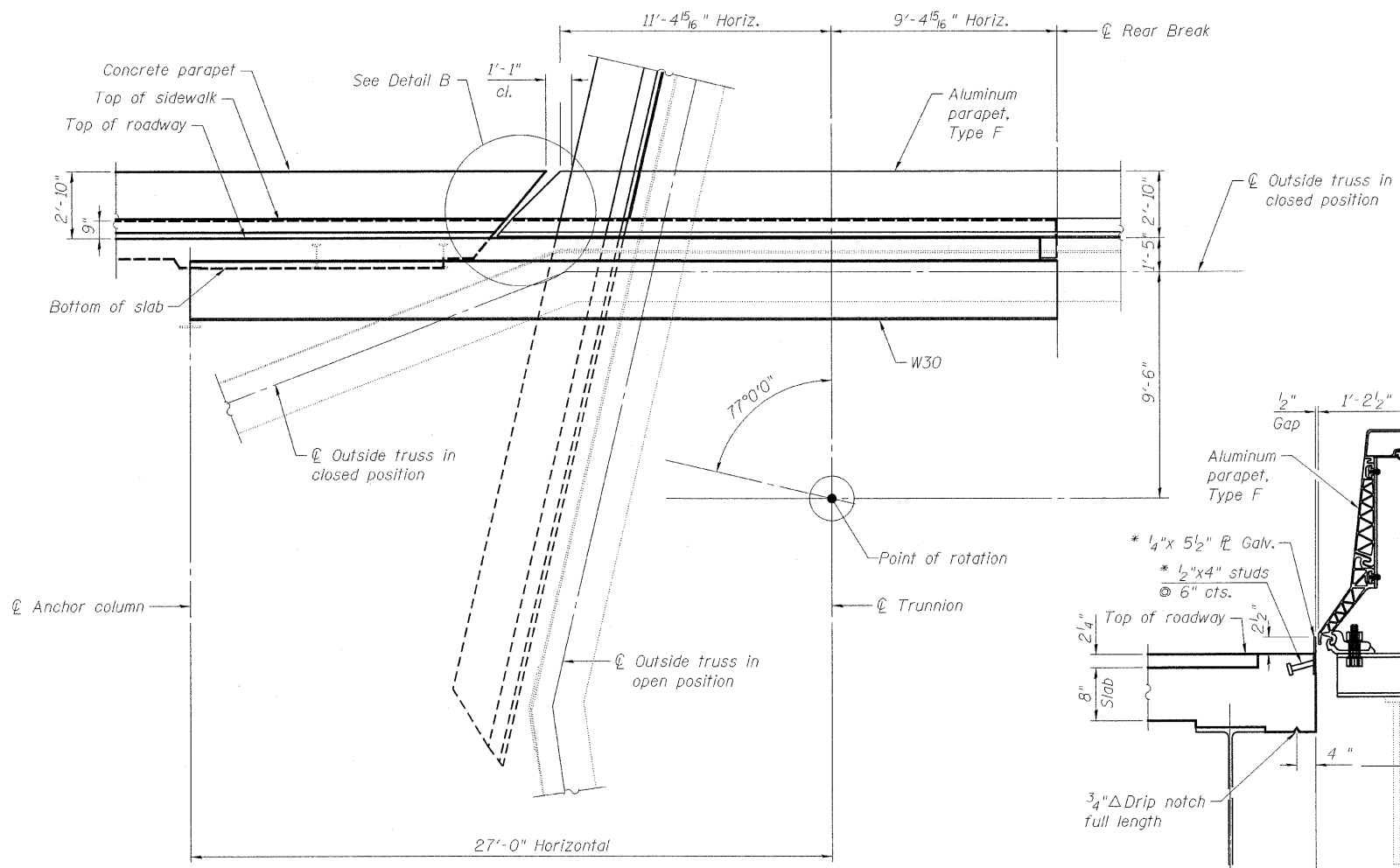
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

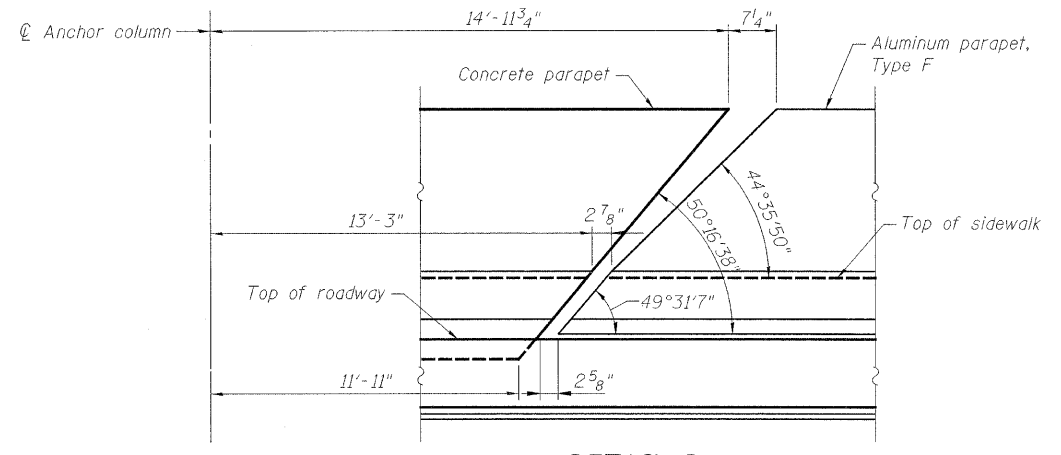
SHEET NO. 28 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	109
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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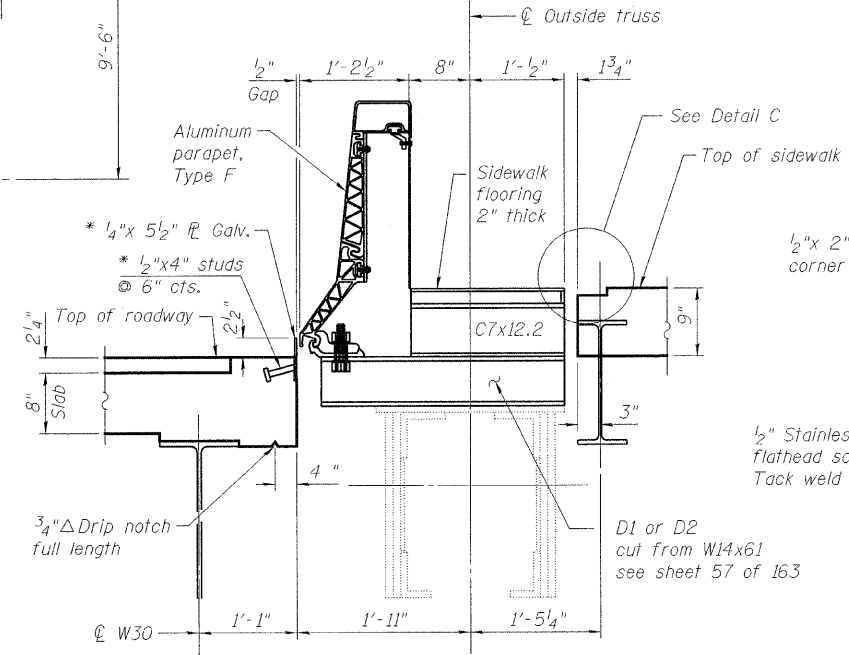
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION

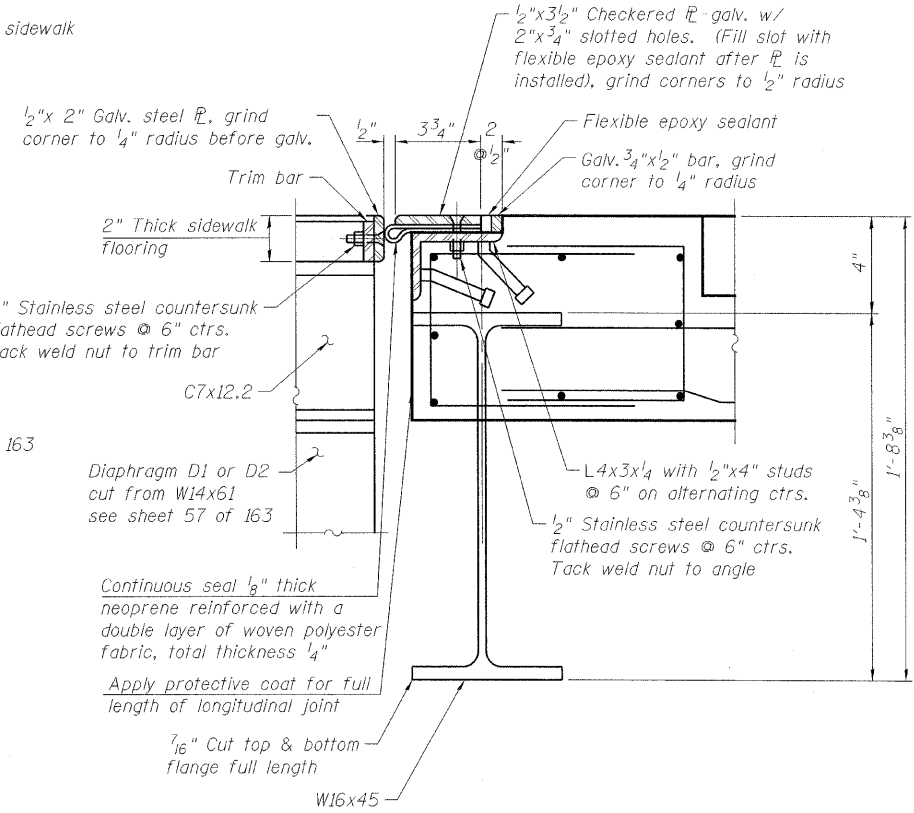


DETAIL B



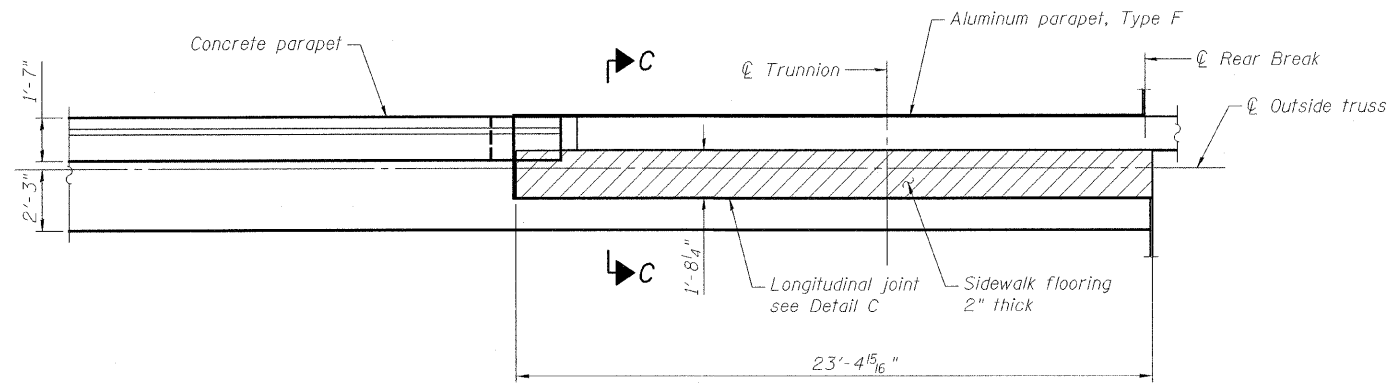
SECTION C-C

* Cost included with
Furnishing and Erecting
Structural Steel



** DETAIL C

** All components necessary for the longitudinal joint shall be paid for under the item:
"Furnishing and Erecting Structural Steel."
All material is to be galvanized.



DETAIL A

BILL OF MATERIAL

Item	Unit	Quantity
Sidewalk flooring over Rear Arm, 2"	Sq. Ft.	160

Notes:
For additional details see sheet 57 of 163.
For location of details on this sheet see sheets 19 through 25 of 163.

DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-2445

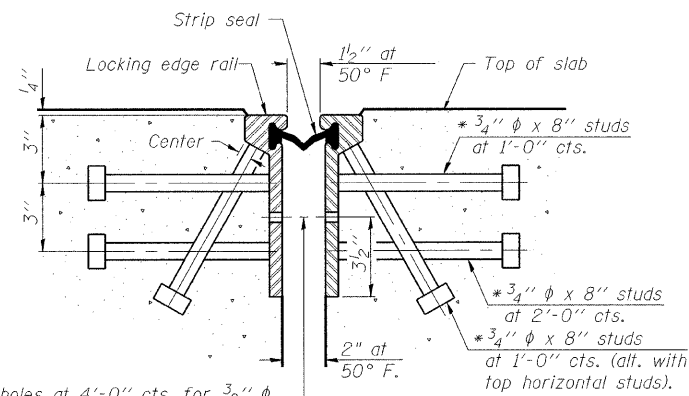
SHEET NO. 29 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	110
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 60D61					

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

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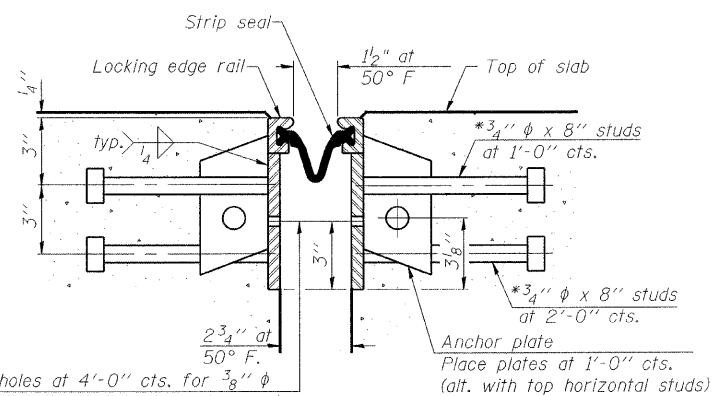
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
ROLLED RAIL JOINT

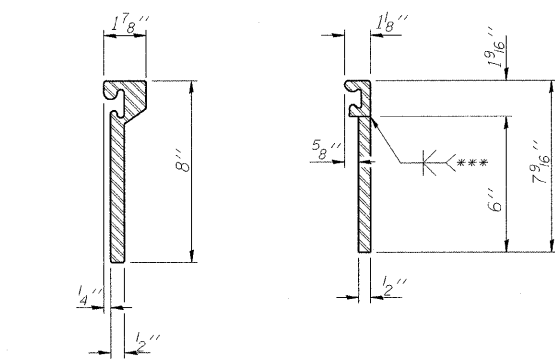


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

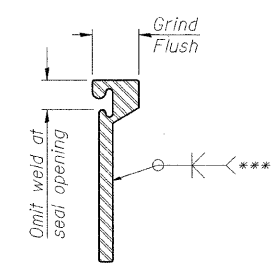
SECTION THRU
WELDED RAIL JOINT

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches. The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints. The manufacturer's recommended installation methods shall be followed. The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State. All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



ROLLED
EXTRUDED RAIL WELDED RAIL

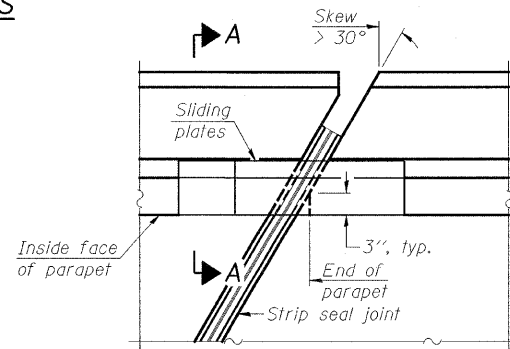


***Back gouge not required if complete joint penetration is verified by mock-up.

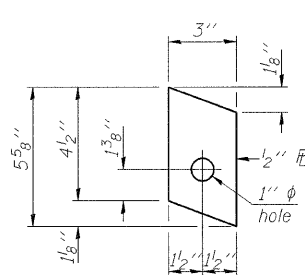
LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

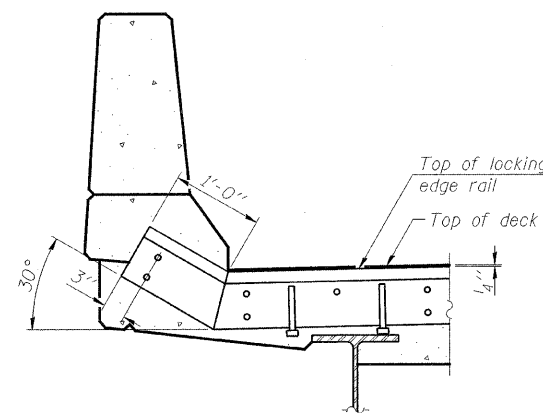
LOCKING EDGE RAILS



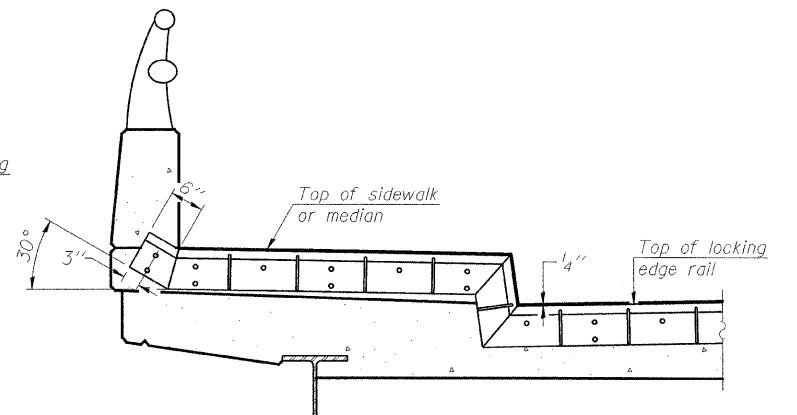
PLAN



ANCHOR PLATE
(for welded rail)



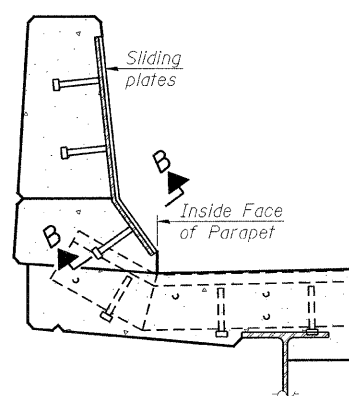
AT PARAPET



AT SIDEWALK OR MEDIAN

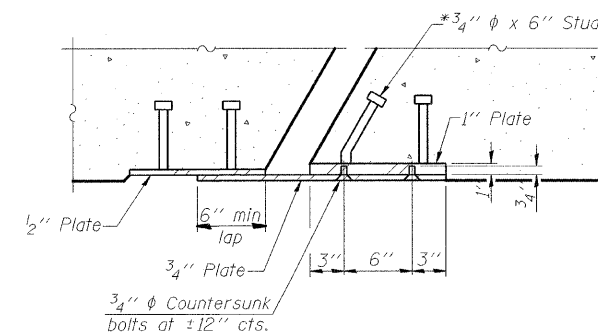
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

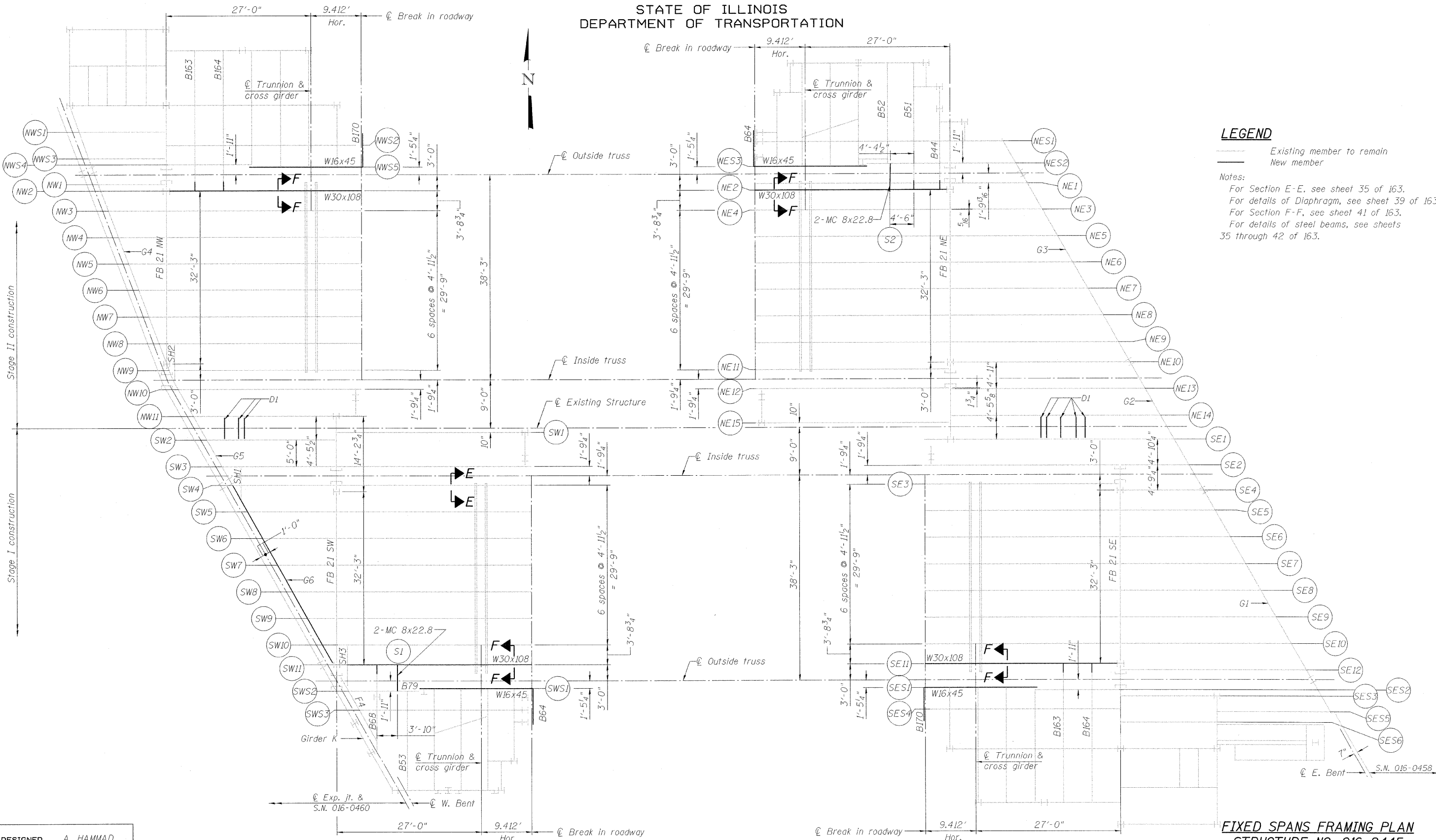
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	129

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-2445

SHEET NO. 32 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	113
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND
 — Existing member to remain
 — New member

Notes:
 For Section E-E, see sheet 35 of 163.
 For details of Diaphragm, see sheet 39 of 163.
 For Section F-F, see sheet 41 of 163.
 For details of steel beams, see sheets 35 through 42 of 163.

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

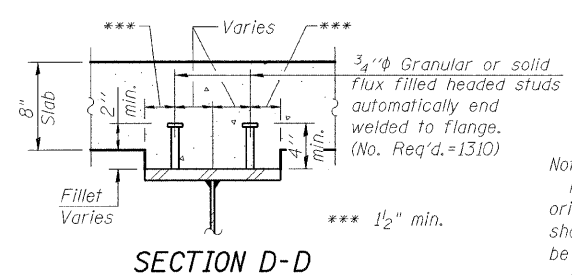
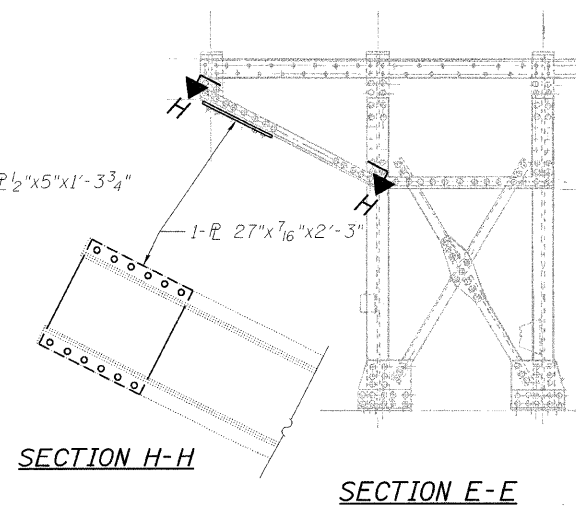
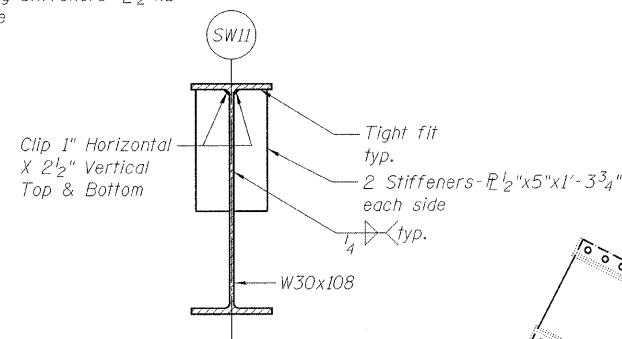
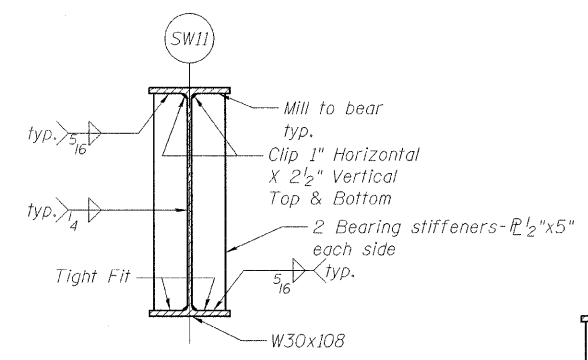
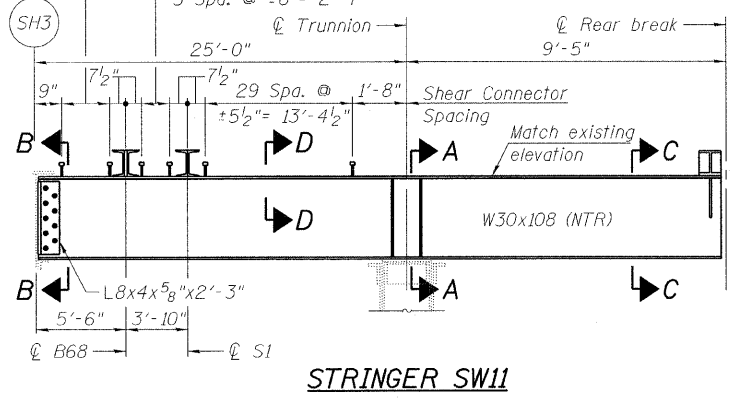
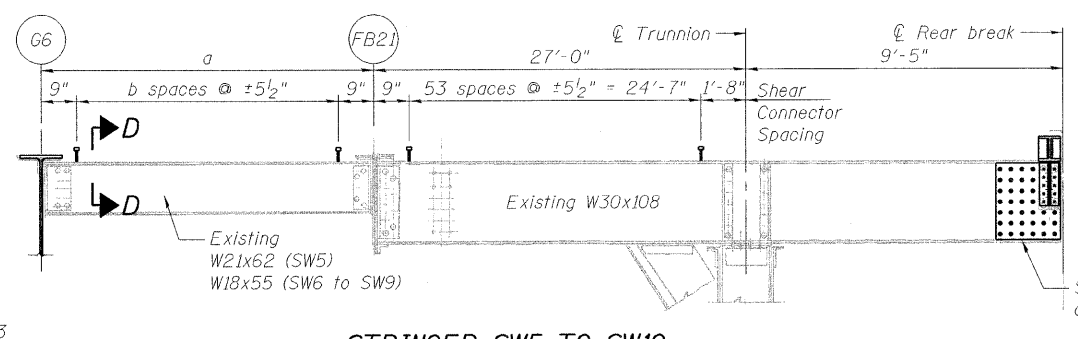
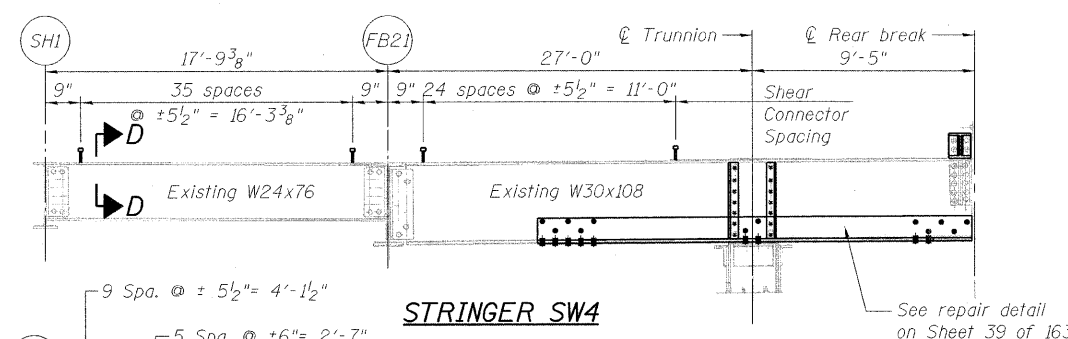
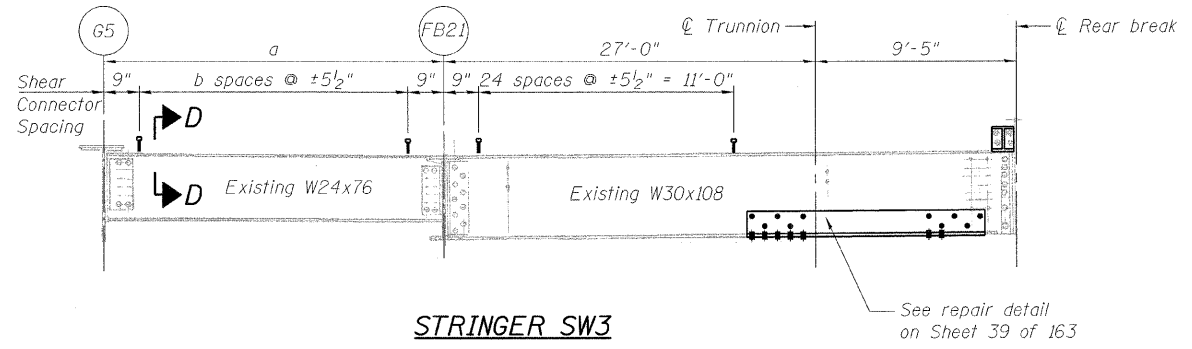
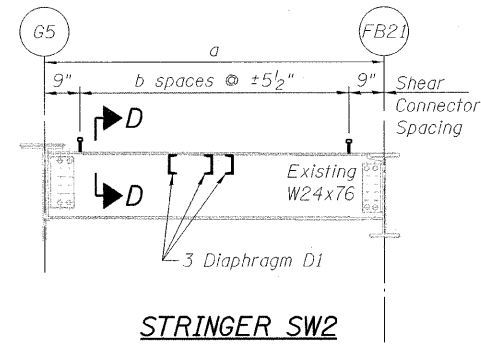
FIXED SPANS PLAN

**FIXED SPANS FRAMING PLAN
STRUCTURE NO. 016-2445**

SHEET NO. 34 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	115
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Beam Length and Shear Connector Spacing

Stringer	a	b
SW2	24'-1 1/8"	49
SW3	21'-4 1/8"	43
SW5	16'-6 13/16"	32
SW6	13'-9 3/8"	26
SW7	10'-11 5/16"	20
SW8	8'-2 1/2"	14
SW9	5'-5 1/16"	8
SW10	0	0

I_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.³).

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : Un-factored moment due to non-composite dead load (kip-ft.).

s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_{sQ} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_a : Factored design moment (kip-ft.).

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi). $M_Q + M_{sQ} + \frac{5}{3}(M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi). $1.3 [M_Q + M_{sQ} + \frac{5}{3}(M_L + M_I)]$

VR: Maximum \pm impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE

	0.4 Span 1	Cross Girder
I_s	(in ⁴) 4470	4470
$I_c(n)$	(in ⁴) 11275	--
$I_c(3n)$	(in ⁴) 8293	--
S_s	(in ³) 300	300
$S_c(n)$	(in ³) 430	--
$S_c(3n)$	(in ³) 388	--
Z	(in ³) --	--
Q	(k/ft.) 0.6	0.74
M_Q	(k) 40	39
s_Q	(k/ft.) 0.14	--
M_{sQ}	(k) 10	--
M_L	(k) 101	144
M_I	(k) 30	43
$M_a [M_L + I]$	(k) 220	311
M_u	(k) 350	455
M_u	(k) 1490	--
f_s non-comp	(ksi) 1.6	1.5
f_s (comp)	(ksi) 0.3	--
$f_s [M_L + M_I]$	(ksi) 8.8	12.5
f_s (Overload)	(ksi) 10.7	14.0
f_s (Total)	(ksi) --	18.2
VR	(k) 33.0	--

INTERIOR GIRDER REACTION TABLE

	Floorbeam 21-21	Cross Girder
R_Q	(k) 9.3	19.2
R_L	(k) 20.1	31.8
R_I	(k) 6.0	9.6
R_{Total}	(k) 35.4	60.6

* Compact section
** Braced non-compact and partially braced section

FRAMING DETAILS
SOUTHWEST FIXED SPANS
STRUCTURE NO. 016-2445

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

Notes:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.
For Section B-B see Sheet No. 42 of 163.

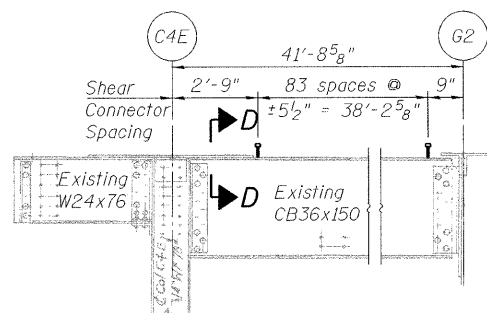
LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

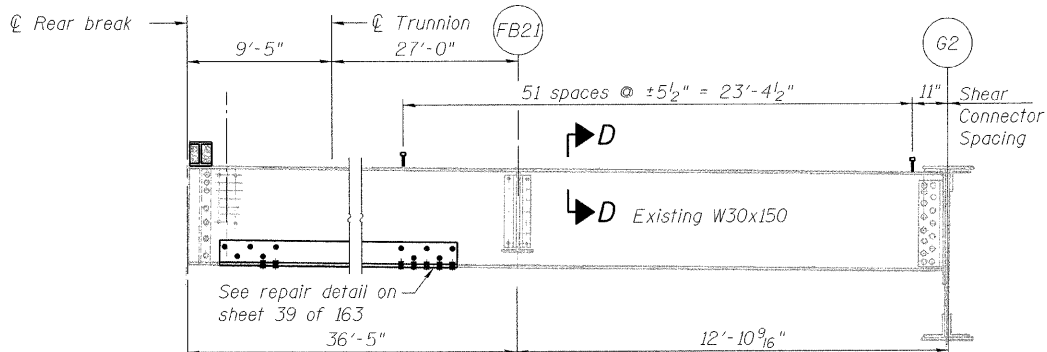
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 35	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
163 SHEETS	389	2424.2B-R	COOK	398	116
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

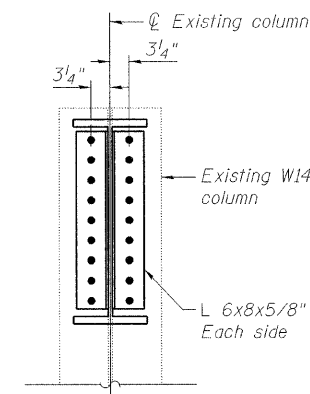
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



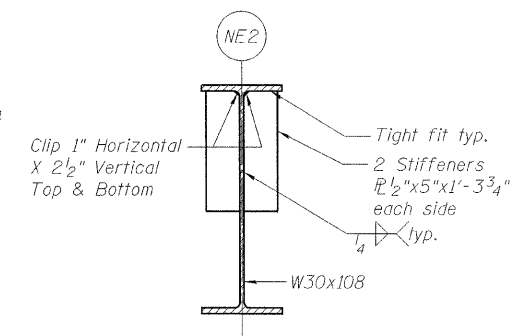
STRINGER SE1



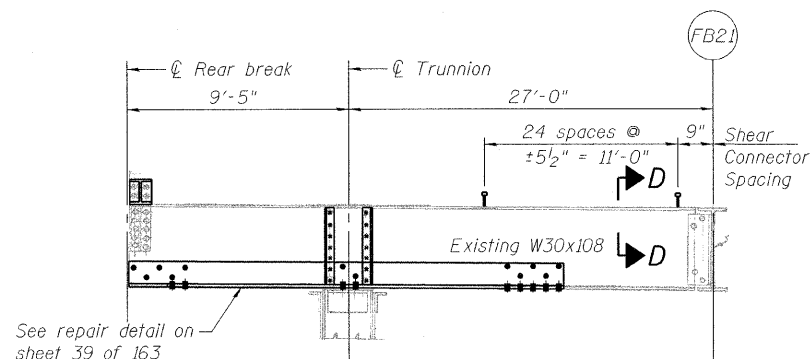
STRINGER SE2



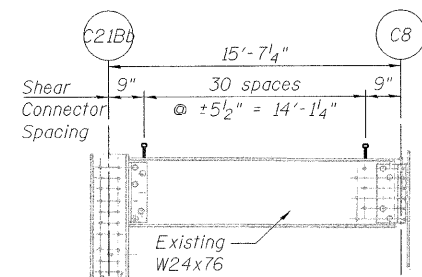
SECTION B-B



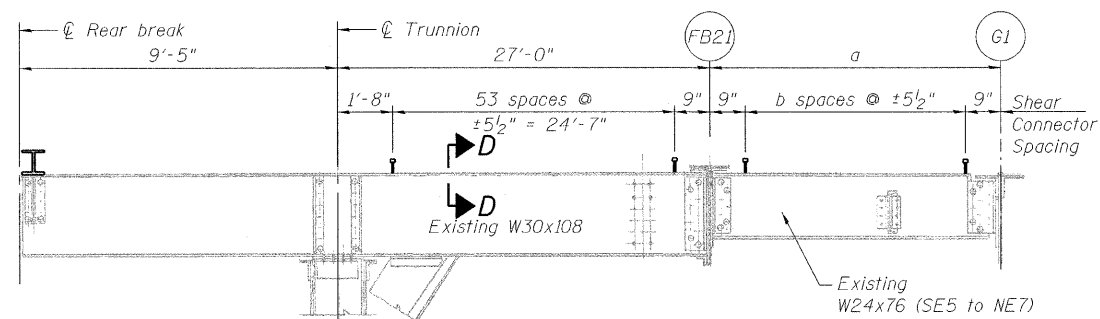
SECTION C-C



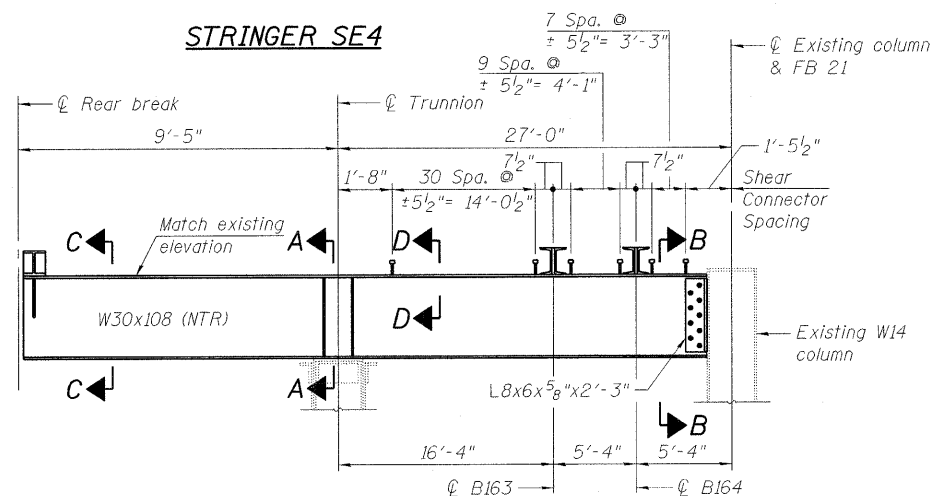
STRINGER SE3



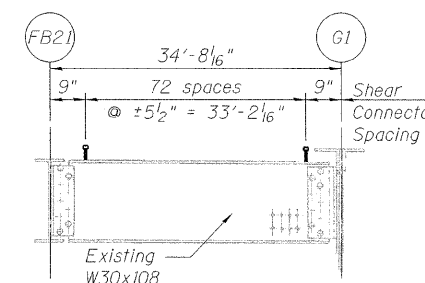
STRINGER SE4



STRINGER SE5 TO SE10



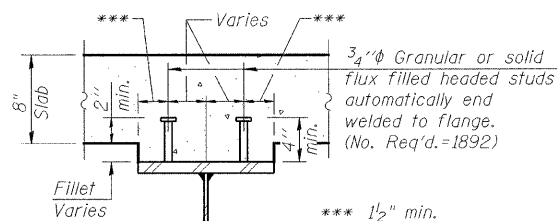
STRINGER SE11



STRINGER SE12

Beam Length and
Shear Connector Spacing

Stringer	a	b
SE5	17'-8 1/16"	35
SE6	20'-6 1/16"	41
SE7	23'-4 3/4"	47
SE8	26'-2 3/4"	53
SE9	29'-0 3/4"	60
SE10	31'-10 3/4"	66



SECTION D-D

Notes:

Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
For Section A-A, see sheet 35 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

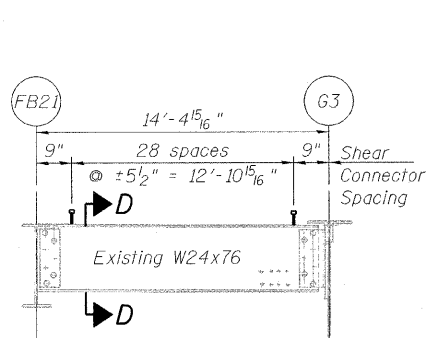
FRAMING DETAILS
SOUTHEAST FIXED SPANS
STRUCTURE NO. 016-2445

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

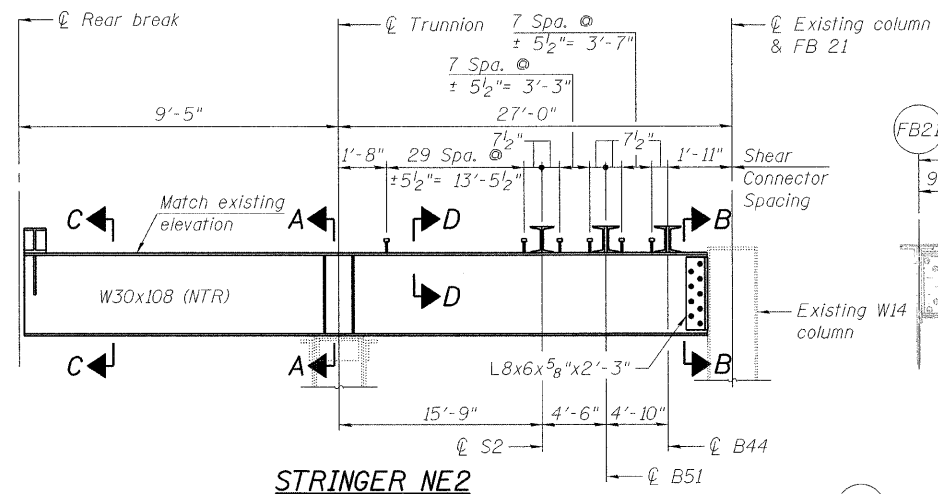
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 36	F.A.P RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 117
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

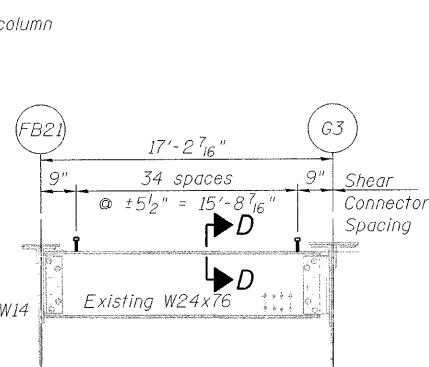
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



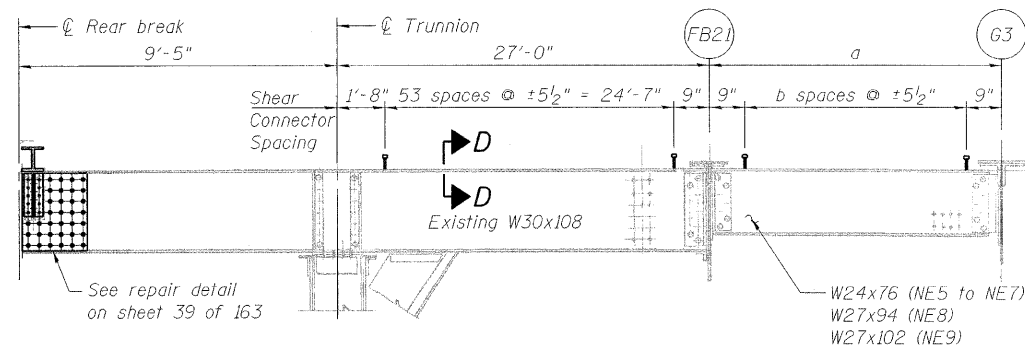
STRINGER NE1



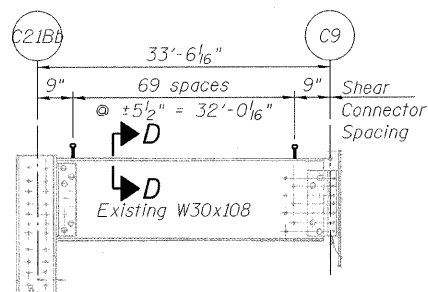
STRINGER NE2



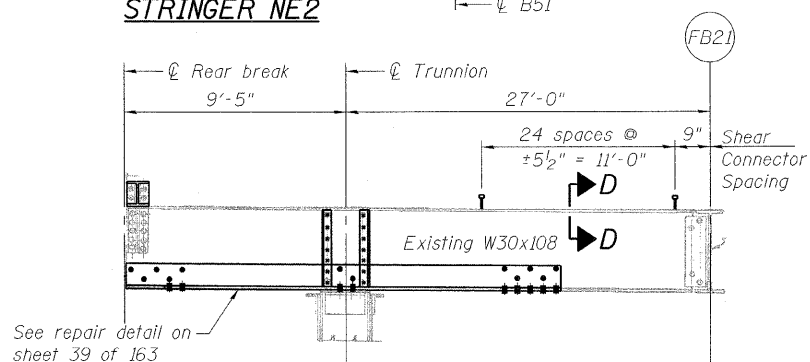
STRINGER NE3



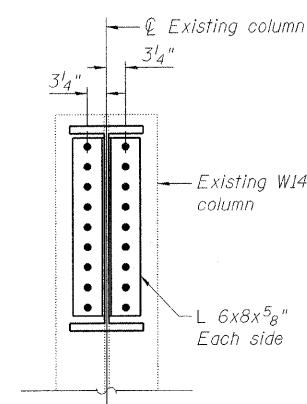
STRINGER NE4 TO NE9



STRINGER NE10



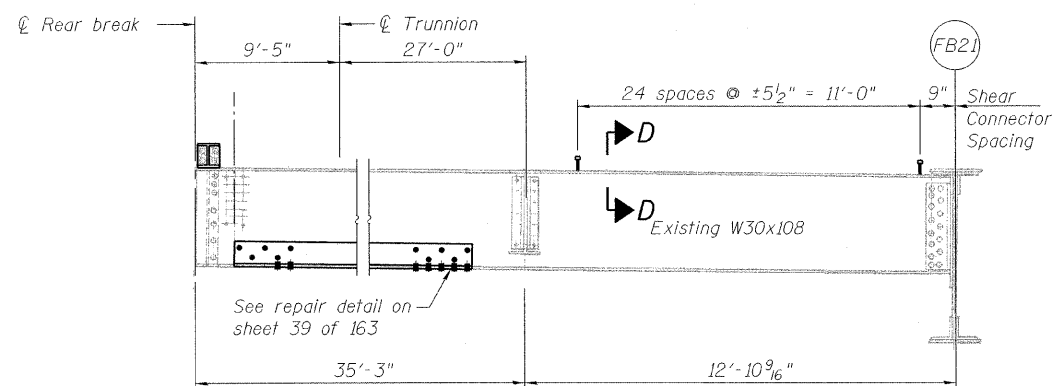
STRINGER NE11



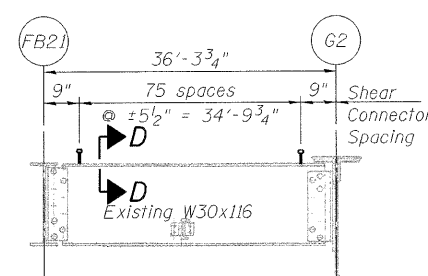
SECTION B-B

Beam Length and
Shear Connector Spacing

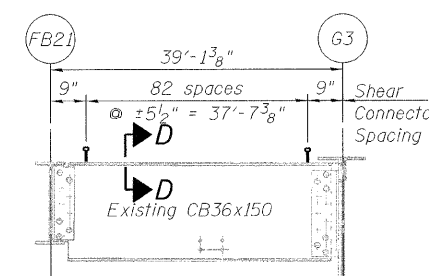
Stringer	a	b
NE4	0	0
NE5	20'-0 5/8"	40
NE6	22'-10 1/2"	46
NE7	25'-8 9/16"	52
NE8	28'-6 9/16"	58
NE9	31'-4 1/2"	65



STRINGER NE12



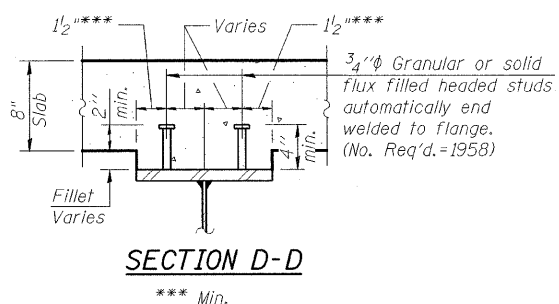
STRINGER NE13



STRINGER NE14

LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member



SECTION D-D

Notes:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.
For Section A-A, see sheet 39 of 163.

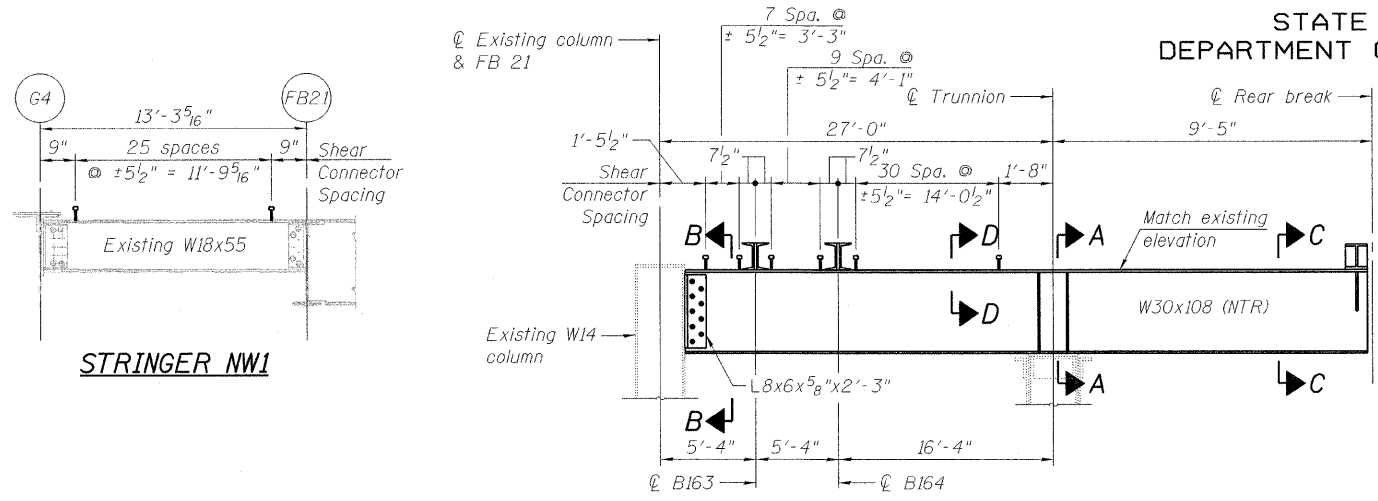
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

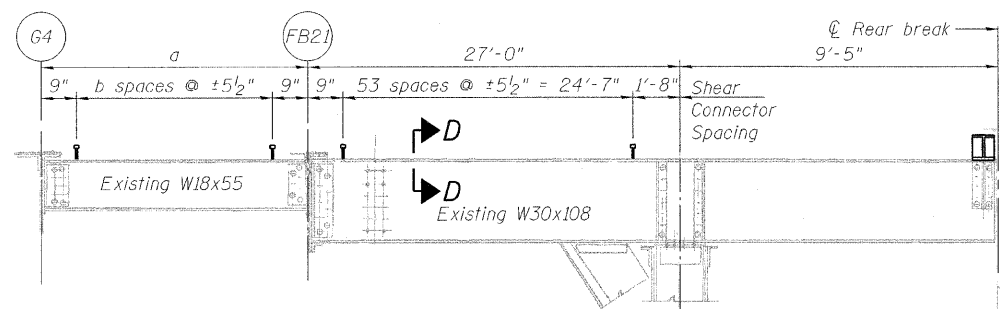
SHEET NO. 37	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 118
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

FRAMING DETAILS
NORTHEAST FIXED SPANS
STRUCTURE NO. 016-2445

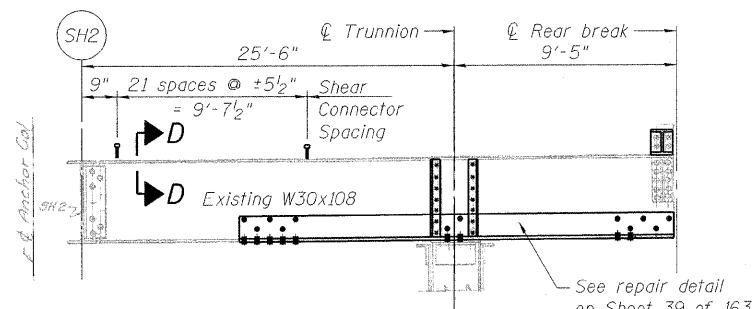
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



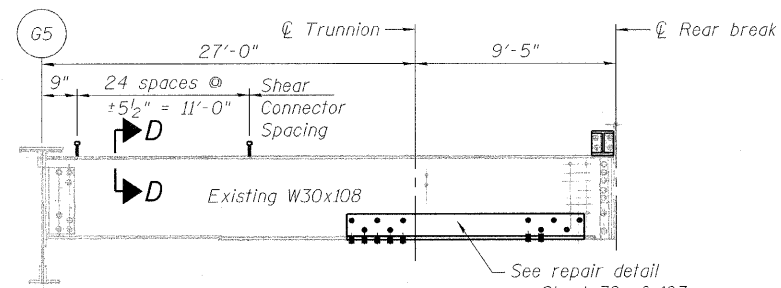
STRINGER NW2



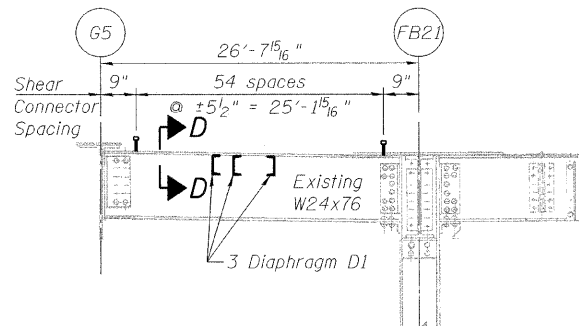
STRINGER NW3 TO NW8



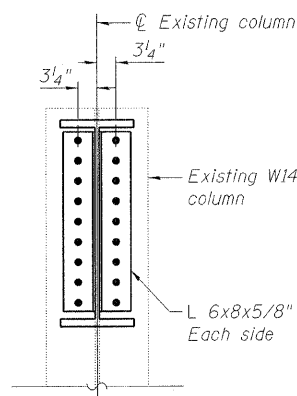
STRINGER NW9



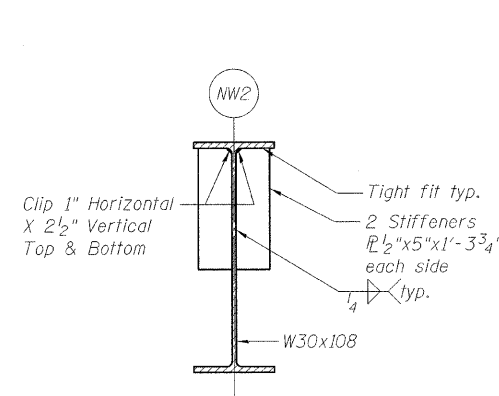
STRINGER NW10



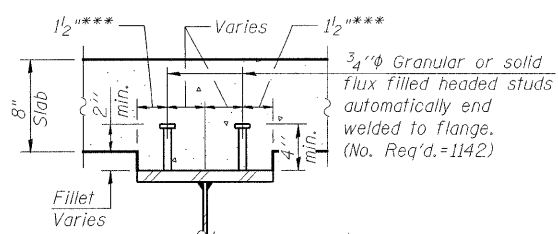
STRINGER NW11



SECTION B-B



SECTION C-C



SECTION D-D

LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Notes:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.
For Section A-A, see sheet 35 of 163.

I_s , S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).
 $I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).
 $I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
 Z : Plastic Section Modulus of the steel section in non-composite areas (in.³).
 Q : Un-factored non-composite dead load (kips/ft.).
 M_Q : Un-factored moment due to non-composite dead load (kip-ft.).
 s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).
 $M_s Q$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
 M_L : Un-factored live load moment (kip-ft.).
 M_I : Un-factored moment due to impact (kip-ft.).
 M_o : Factored design moment (kip-ft.).
 $1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$
 M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1i or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
 f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_Q + M_s Q + \frac{5}{3} (M_L + M_I)$
 f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M_Q + M_s Q + \frac{5}{3} (M_L + M_I)]$
VR: Maximum \pm impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE			
		0.4 Span 1	Cross Girder
I_s	(in ⁴)	4470	4470
$I_c(n)$	(in ⁴)	11275	--
$I_c(3n)$	(in ⁴)	8293	--
S_s	(in ³)	300	300
$S_c(n)$	(in ³)	430	--
$S_c(3n)$	(in ³)	388	--
Z	(in ³)	--	--
Q	(k/ft)	0.6	0.74
M_Q	(k)	40	39
s_Q	(k/ft)	0.14	--
$M_s Q$	(k)	10	--
M_L	(k)	101	144
M_I	(k)	30	43
$\frac{5}{3} [M_L + M_I]$	(k)	220	311
M_o	(k)	350	455
M_u	(k)	1490	--
f_s non-comp	(ksi)	1.6	1.5
f_s comp	(ksi)	0.3	--
$f_s \frac{5}{3} [M_L + M_I]$	(ksi)	8.8	12.5
f_s (Overload)	(ksi)	10.7	14.0
f_s (Total)	(ksi)	--	18.2
VR	(k)	33.0	--

INTERIOR GIRDER REACTION TABLE			
		Floorbeam 21-21	Cross Girder
R_Q	(k)	9.3	19.2
R_L	(k)	20.1	31.8
R_I	(k)	6.0	9.6
R_{Total}	(k)	35.4	60.6

* Compact section
** Braced non-compact and partially braced section

Beam Length and Shear Connector Spacing

Stringer	a	b
NW3	11'-4 1/16"	21
NW4	9'-6 9/16"	17
NW5	7'-7 1/2"	13
NW6	5'-8 5/16"	9
NW7	3'-10 5/16"	5
NW8	0	0

FRAMING DETAILS
NORTHWEST FIXED SPANS
STRUCTURE NO. 016-2445

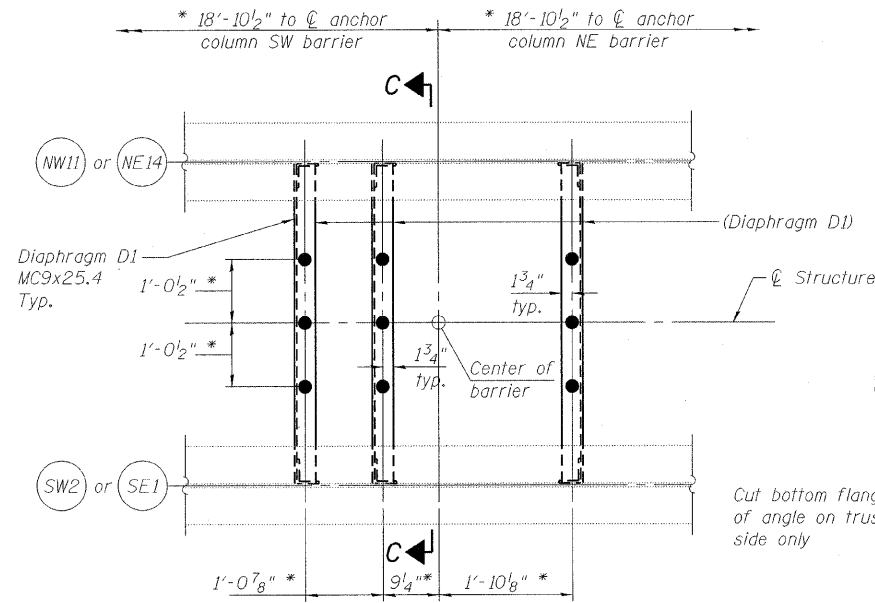
SHEET NO. 38	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
163 SHEETS	389	2424.2B-R	COOK	398	119
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

PB Americas, Inc.
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SUITE 900
CHICAGO, IL. 60606

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07-MAY-2009

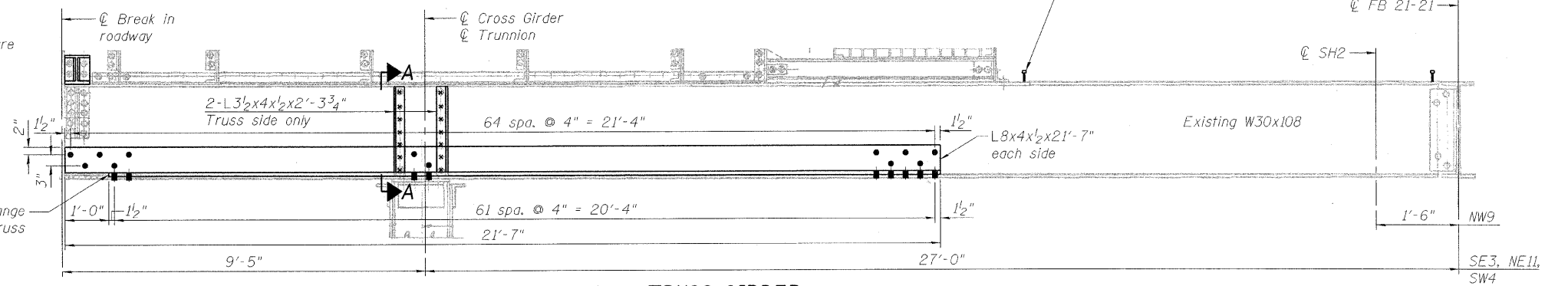
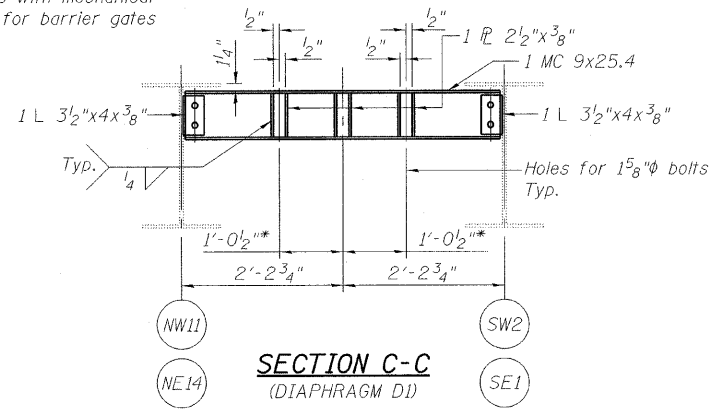
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



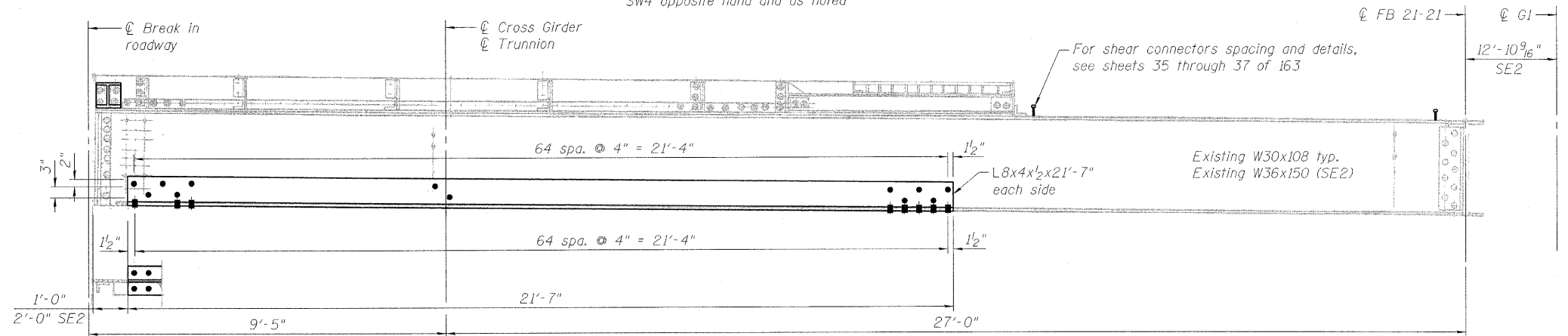
TRAFFIC BARRIER ANCHORAGE PLAN

* Coordinate with mechanical drawings for barrier gates



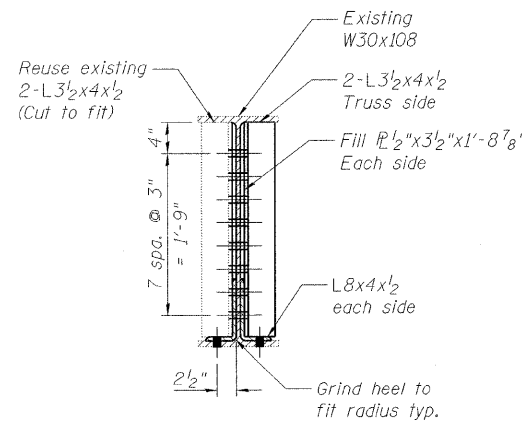
TRUSS GIRDER

SE3, NE11 as shown and
NW9 opposite hand and as noted
SW4 opposite hand and as noted

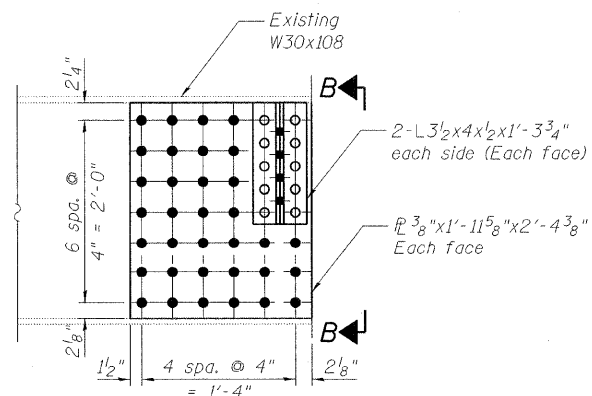


TRUSS GIRDER

NE12 as shown and
SE2 as shown and noted
SW3 & NW10 opposite hand and as noted

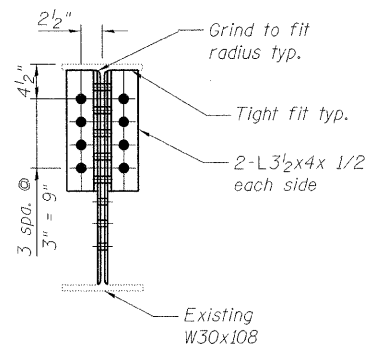


SECTION A-A

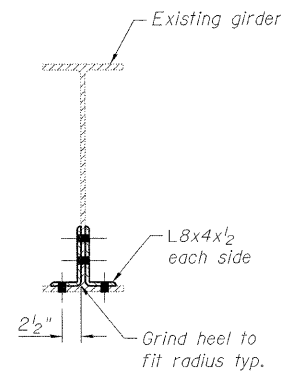


DETAIL E

(Stringers SW5 through SW10 & NE4 through NE9)



SECTION B-B



SECTION D-D

LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

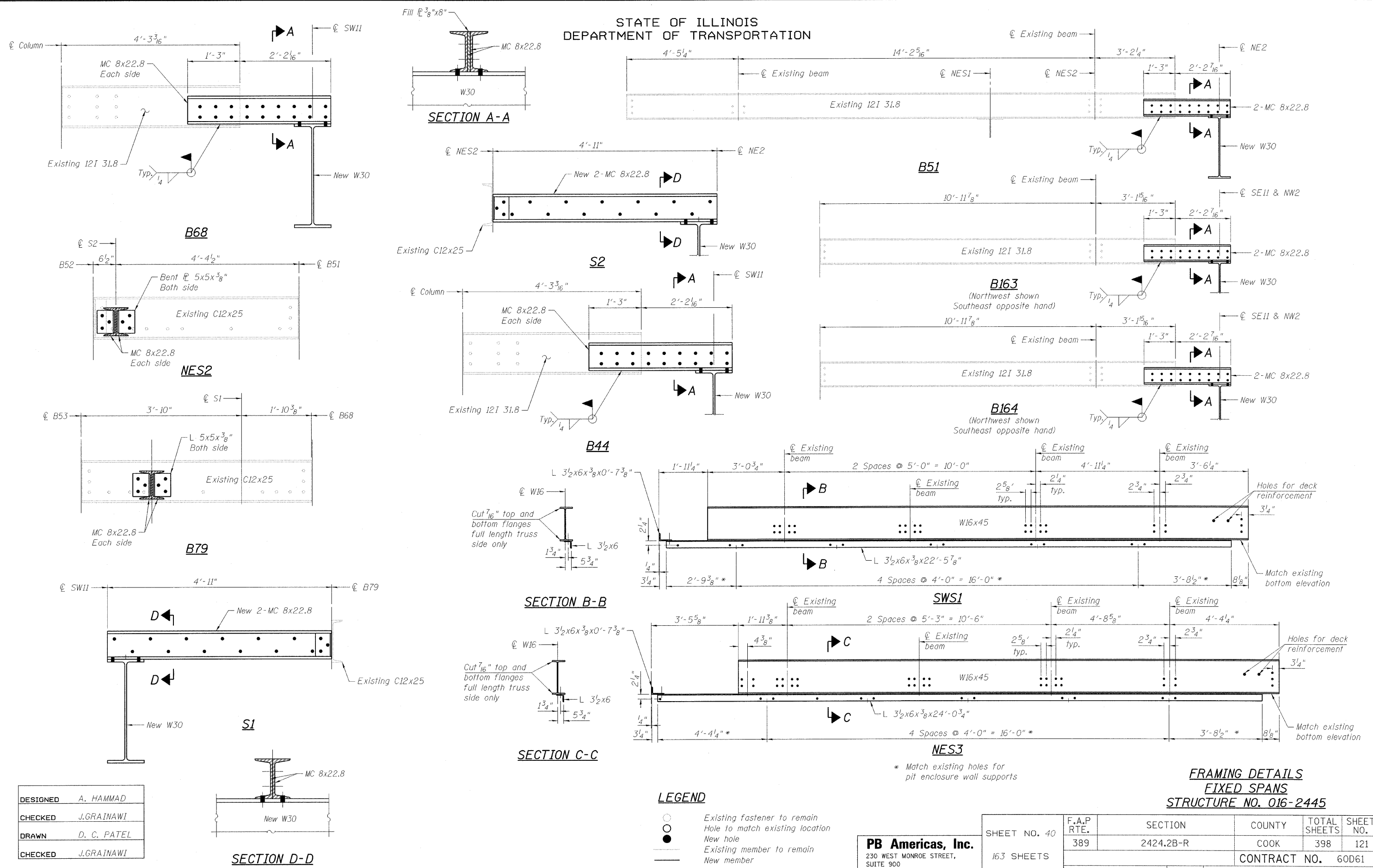
FRAMING DETAILS
FIXED SPANS
STRUCTURE NO. 016-2445

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 39	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	120
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED	A. HAMMAD
CHECKED	J.GRAINAWI
DRAWN	D. C. PATEL
CHECKED	J.GRAINAWI

LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

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SUITE 900
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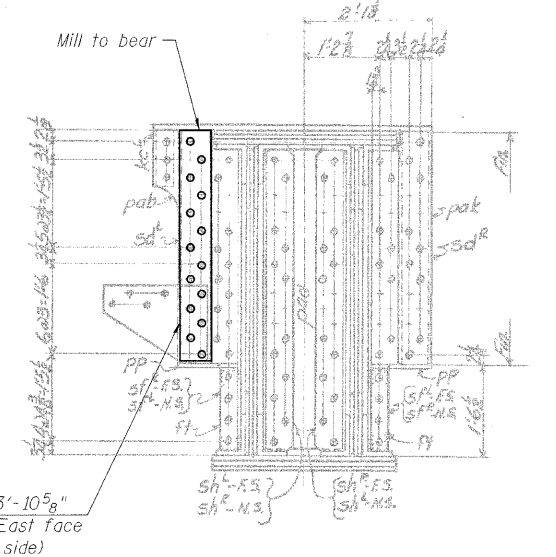
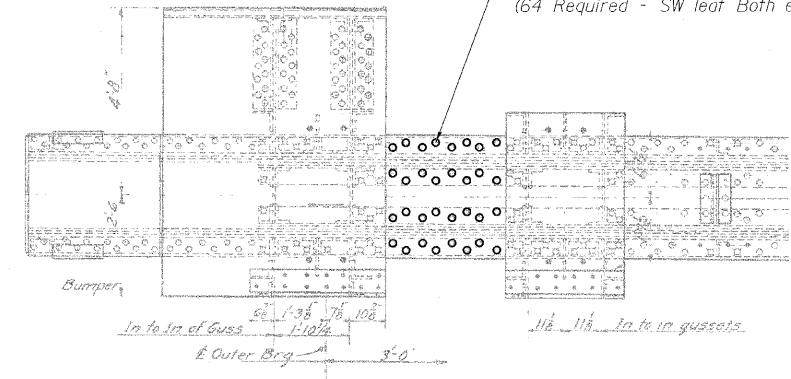
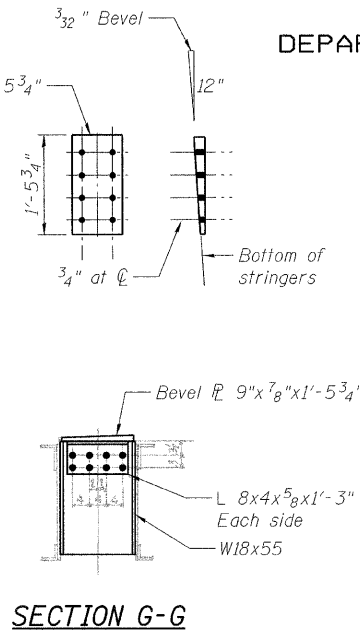
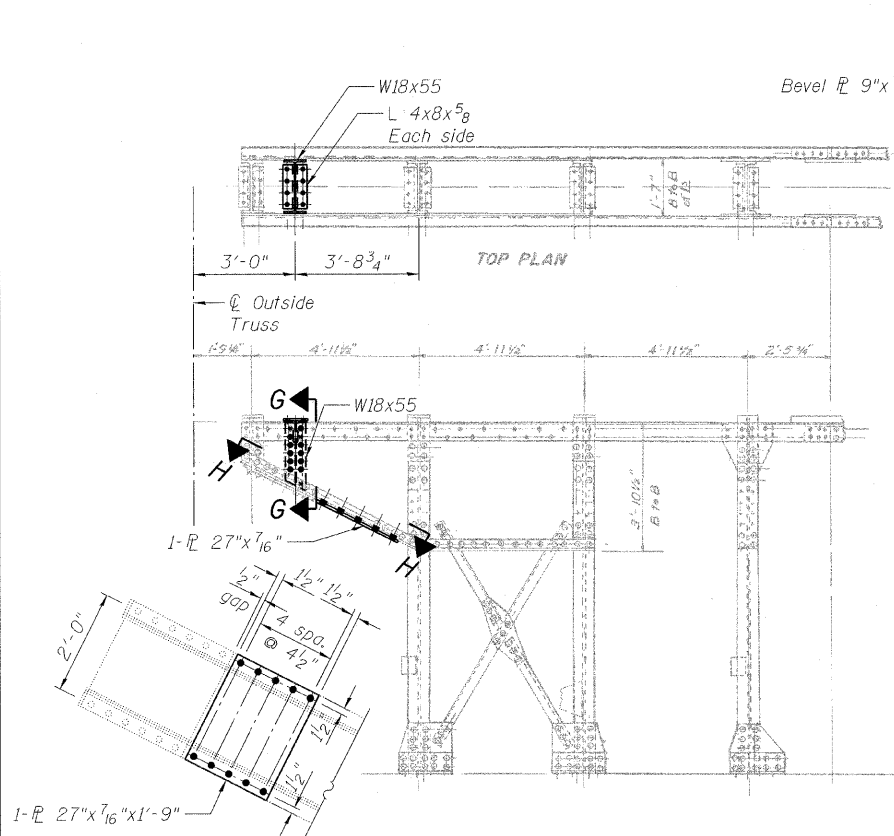
SHEET NO. 40 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	121
CONTRACT NO. 60D61					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

**FRAMING DETAILS
FIXED SPANS
STRUCTURE NO. 016-2445**

T:\16849A\Structural\Cadd\Pre-final\EB_Plans\0162445-60D61-FRM-038.dgn
07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

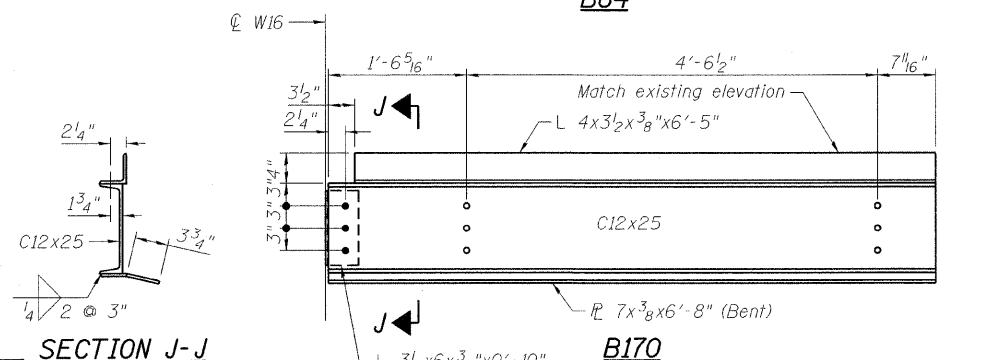
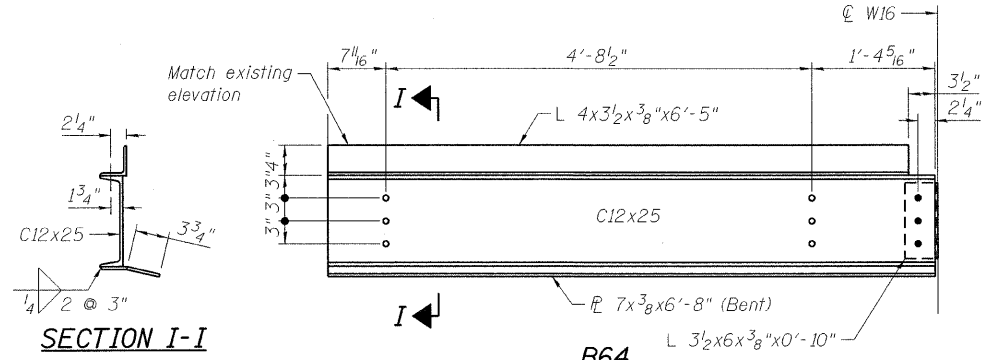
Remove rivet and replace with H.S. Bolts
(32 Required - SE leaf North end)
(32 Required - NW leaf South end)
(64 Required - SW leaf Both ends)



SECTION H-H

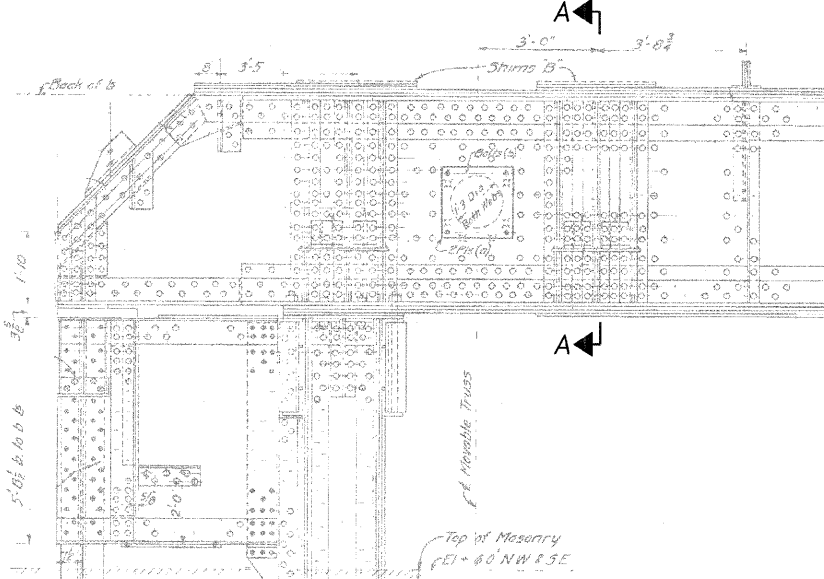
SECTION F-F

Note:
Beveled plates not shown on plan.

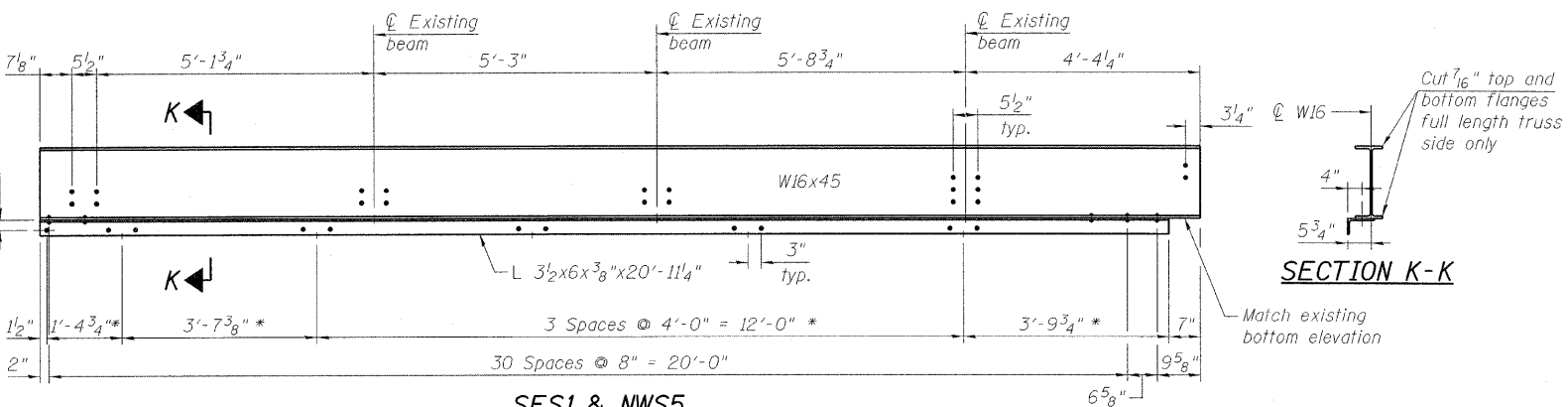


SECTION I-I

SECTION J-J



TRUNNION GIRDER



SES1 & NWS5

* Match existing holes for pit enclosure wall supports

FRAMING DETAILS
FIXED SPANS
STRUCTURE NO. 016-2445

LEGEND

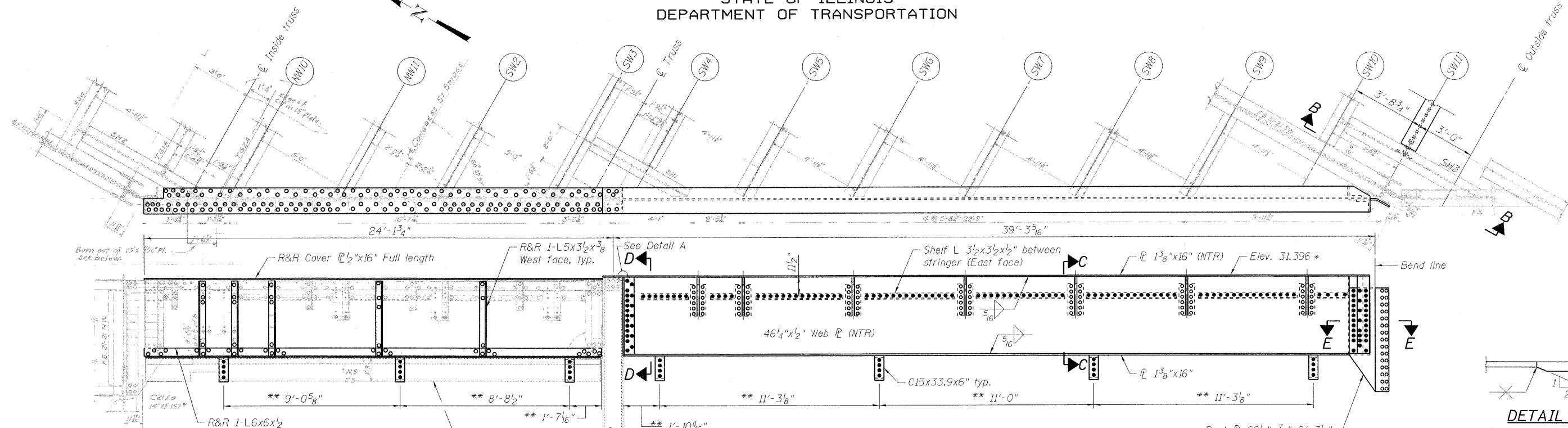
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

DESIGNED	A. HAMMAD
CHECKED	J.GRAINAWI
DRAWN	D. C. PATEL
CHECKED	J.GRAINAWI

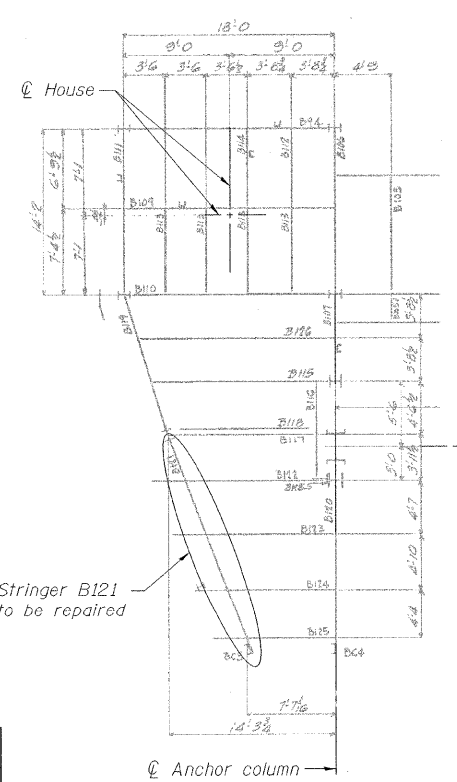
SHEET NO. 41 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	122
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

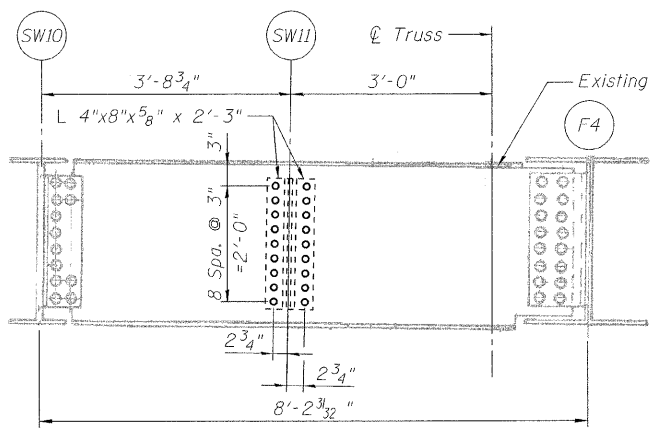


GIRDERS G5
(Looking East)

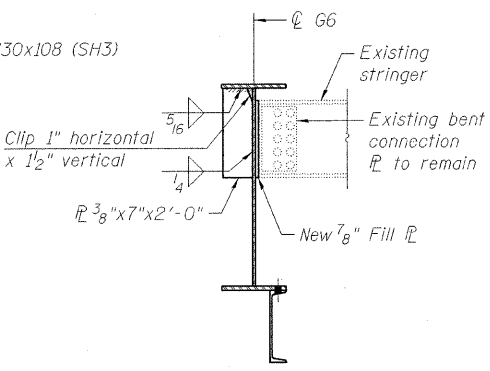
GIRDERS G6
(Looking East)



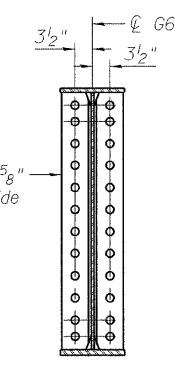
**PARTIAL MEZZANINE FLOOR PLAN
NORTHWEST**



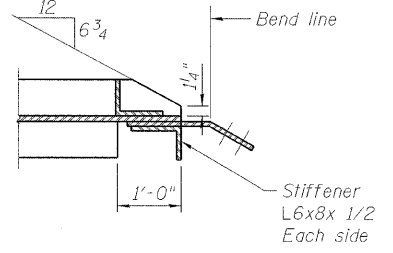
SECTION B-B



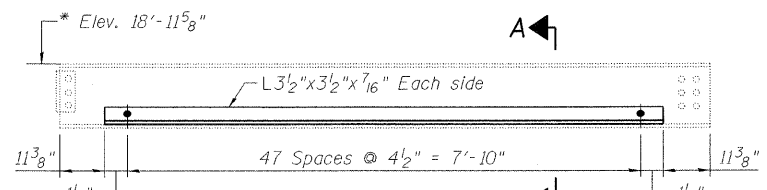
SECTION C-C



SECTION D-D

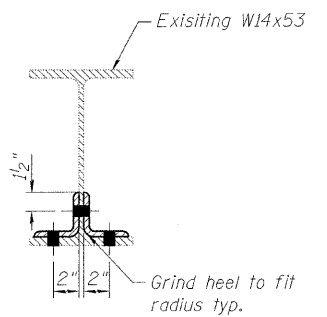


SECTION E-E



STRINGER B121

Note:
Drill 13/16" φ holes in angles. Field drill 13/16" φ holes in the web and bottom flange using holes in the angles as templates. Use 3/4" φ H.S. bolts. Cost included with Structural Steel Repair.



SECTION A-A

* Based on existing drawings

LEGEND

R&R Remove and Replace
○ Existing fastener to remain
○ Hole to match existing location
● New hole
— Existing member to remain
— New member

Notes:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.
Girder/stringers shall be temporarily supported during the repair/replacement of girders G5 and G6. Cost included in the cost Structural Steel Repair and Furnishing & Erecting Structural Steel.
Repair of stringer B121 and G5 is included in the pay item Structural Steel Repair.
Girder G6 is included in the pay item of Furnishing & Erecting Structural Steel.

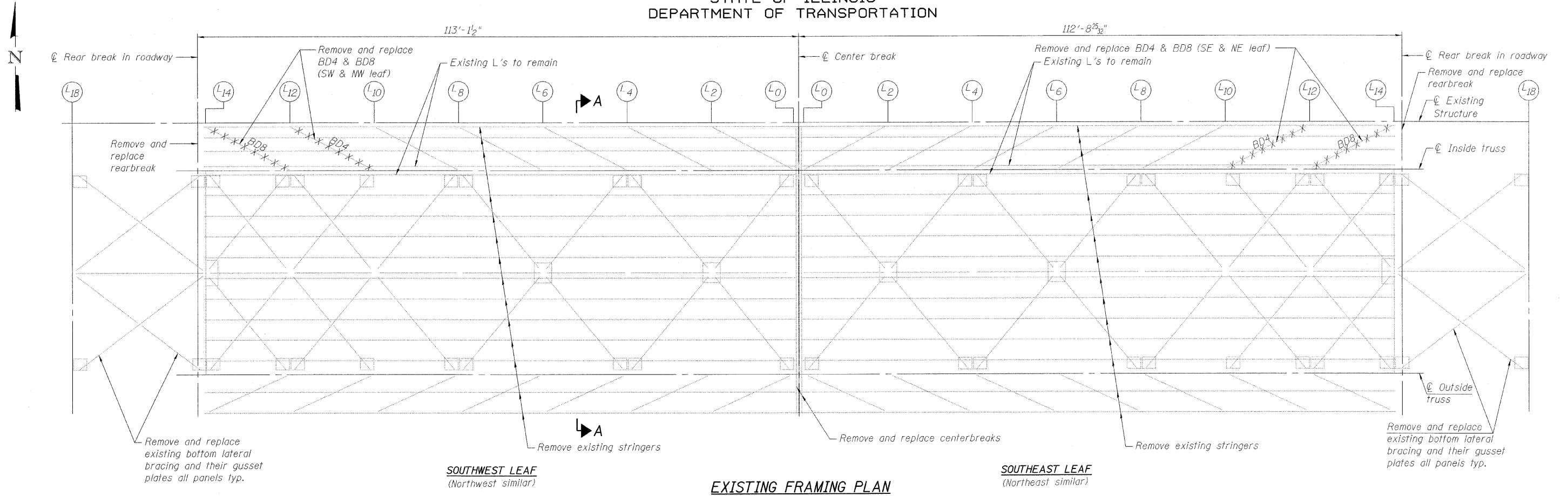
**FRAMING DETAILS
FIXED SPANS
STRUCTURE NO. 016-2445**

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

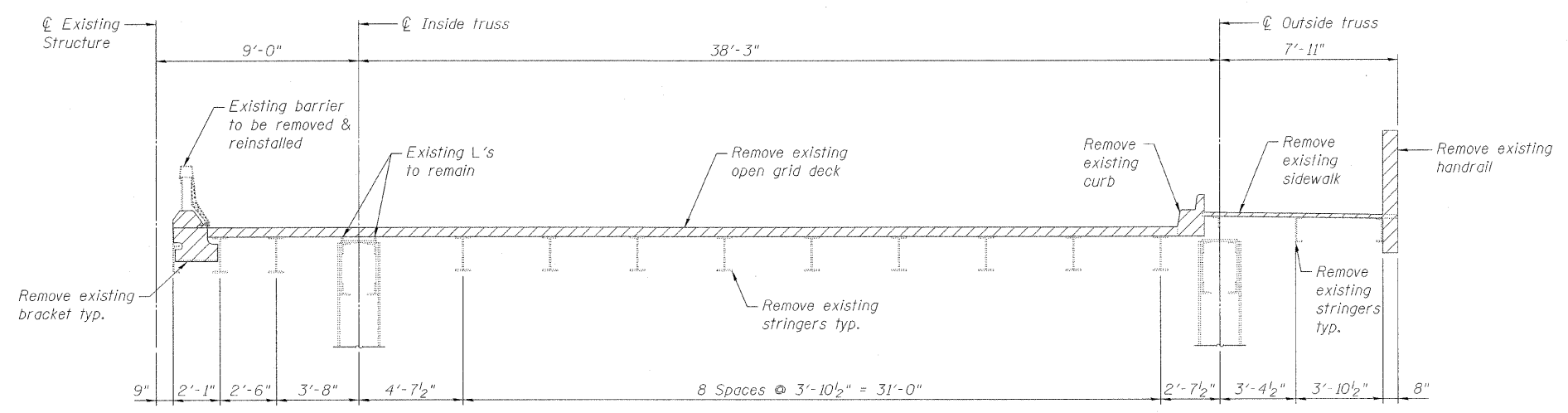
SHEET NO. 42	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	123
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



EXISTING FRAMING PLAN



SECTION A-A

LEGEND

- X-X-X- Member to be Removal
- [Hatched Box] Indicates Removal

Notes:
Removal of structural steel as shown on the plans shall be paid for under item "Structural Steel Removal", unless specified otherwise.
Where new members replace existing members, existing holes shall be used as a template to field drill holes in new material.
All existing holes to remain shall be filled with a new H.S. bolt same size as existing rivet. Cost included in the cost of "Furnishing & Erecting Structural Steel".

REMOVAL PLAN
MOVABLE SPANS
STRUCTURE NO. 016-2445

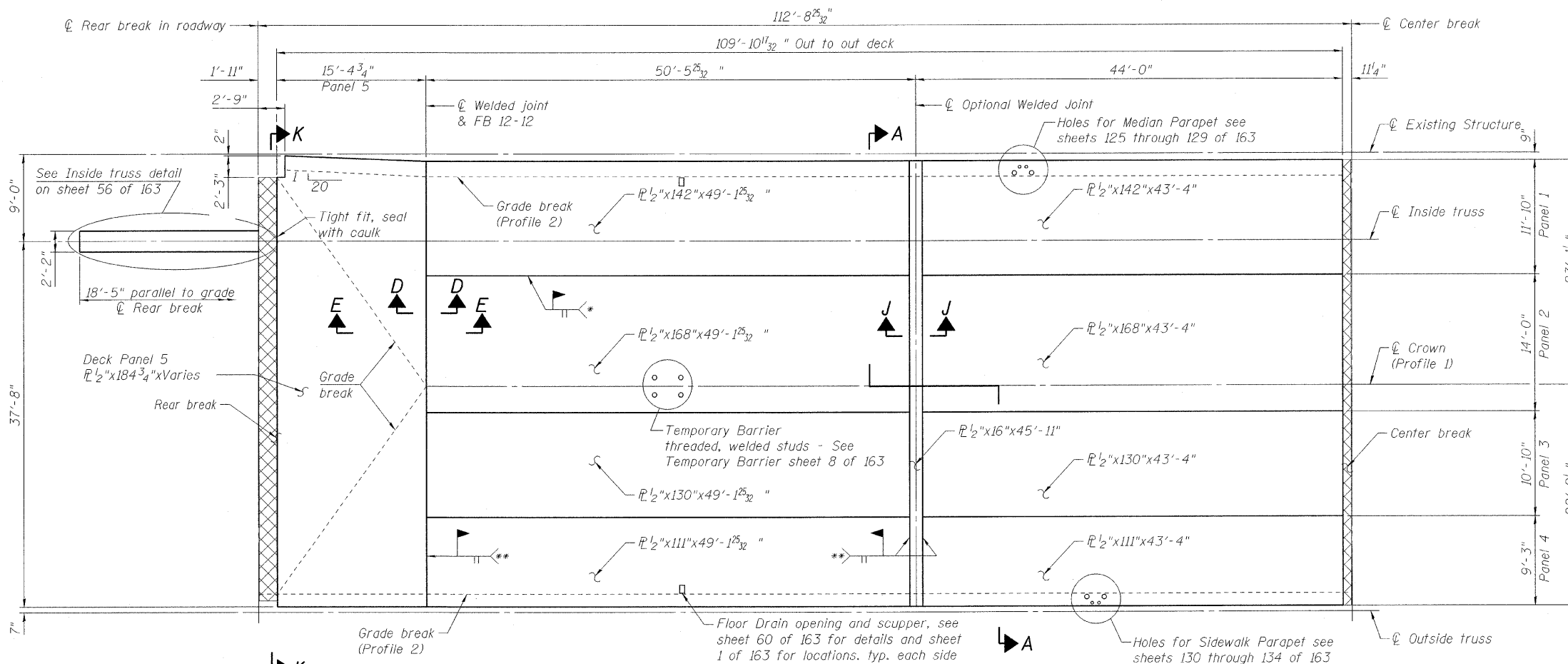
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

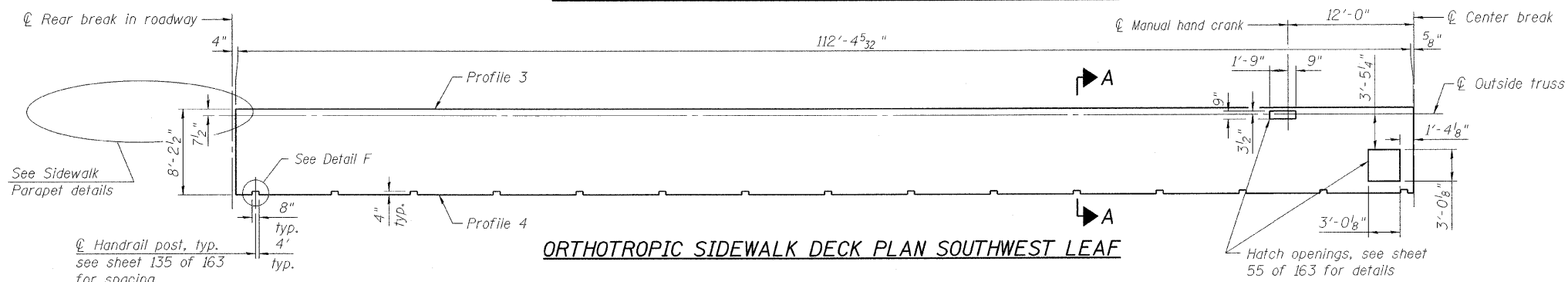
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	389	2424.2B-R	COOK	398	124
163 SHEETS	CONTRACT NO. 60D61				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

T:\16843A\Structural\Cadd\Pre-Final\IEE_Plans\0162445-60D61-REM-042.dgn
07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ORTHOTROPIC ROADWAY DECK PLAN SOUTHWEST LEAF



ORTHOTROPIC SIDEWALK DECK PLAN SOUTHWEST LEAF

- * CJP, Use ceramic backing bar. Remove after welding, grind top side smooth in transverse direction typ. between panels 1-4.
- ** CJP, Use ceramic backing bar. Remove after welding, grind top side smooth in longitudinal direction.

Notes:
All dimensions are horizontal.
Plate dimensions given should be corrected for slope, grade breaks, and anticipated weld clearance and shrinkage requirements.
For Section A-A see sheet 48 of 163.
For Section K-K see sheet 59 of 163.
For Detail F see sheet 54 of 163.
For all other sections see sheet 53 of 163.
For center break details see sheet 58 of 163.
Bridge Wearing Surface applies on top surface of Deck PL 1/2\"/>

	⊖ Rear Break	FB 14A	FB 12	FB 10	FB 8	PVC STA	FB 6	FB 4	FB 2	PVI STA	FB 0	⊖ Center Break								
Distance from ⊖ Rear break	0"	2'-7 1/4"	5'-9"	11'-6 3/8"	17'-3 3/4"	25'-2 5/8"	33'-1 1/2"	41'-0 3/8"	48'-11 1/4"	56'-10 1/8"	61'-11 7/8"	64'-9"	72'-7 7/8"	80'-6 3/4"	88'-5 5/8"	96'-4 1/2"	96'-11 1/8"	104'-1 1/32"	111'-9 11/32"	112'-7 29/32"
Profile 1	0"	1/4"	1"	2 3/8"	3 5/8"	4 3/8"	5 1/8"	6"	6 3/4"	7 1/2"	8"	8 1/4"	8 7/8"	9 1/4"	9 1/2"	9 5/8"	9 5/8"	9 5/8"	9 3/8"	9 1/4"
Profile 2	0"	1/4"	1/2"	1 1/8"	1 5/8"	2 3/8"	3 1/8"	3 3/8"	4 3/4"	5 1/2"	6"	6 1/4"	6 7/8"	7 1/4"	7 5/8"	7 5/8"	7 1/2"	7 1/2"	7 3/8"	7 1/4"
Profile 3	9"	9 1/4"	9 1/2"	10 1/8"	10 5/8"	11 3/8"	1'-0 1/8"	1'-0 7/8"	1'-1 3/4"	1'-2 1/2"	1'-3"	1'-3 1/4"	1'-4 7/8"	1'-4 1/4"	1'-4 1/2"	1'-4 5/8"	1'-4 5/8"	1'-4 1/2"	1'-4 3/8"	1'-4 1/4"
Profile 4	9"	9"	9"	9 1/8"	9 1/8"	9 7/8"	10 5/8"	11 3/8"	1'-0 1/4"	1'-1"	1'-1 1/2"	1'-1 3/4"	1'-3 3/8"	1'-2 3/4"	1'-3"	1'-3 1/8"	1'-3 1/8"	1'-3"	1'-2 7/8"	1'-2 3/4"

Note: Rear break is level and horizontal. Profiles are given from horizontal at ⊖ Rear break. Profiles are at top of wearing surface. 1/4\"/>

PROFILE AT TOP OF WEARING SURFACE

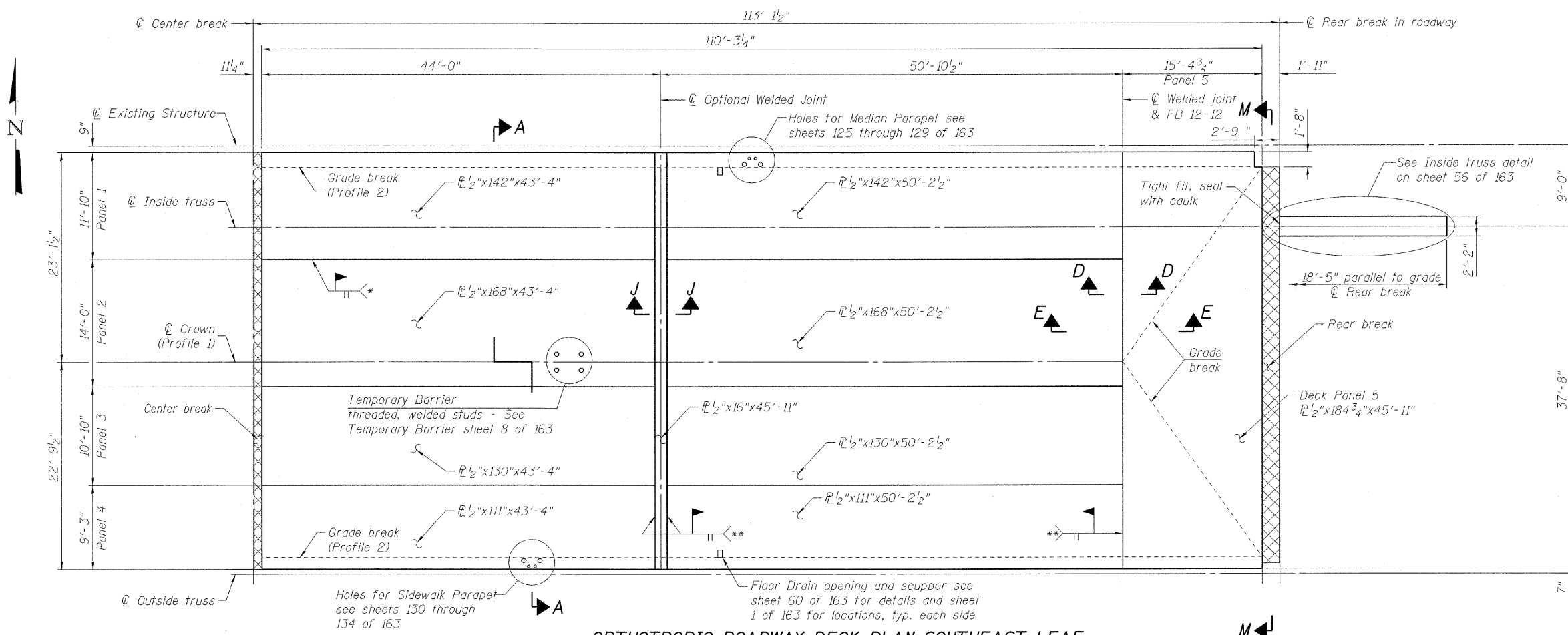
DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

**SUPERSTRUCTURE
SOUTHWEST MOVABLE
STRUCTURE NO. 016-2445**

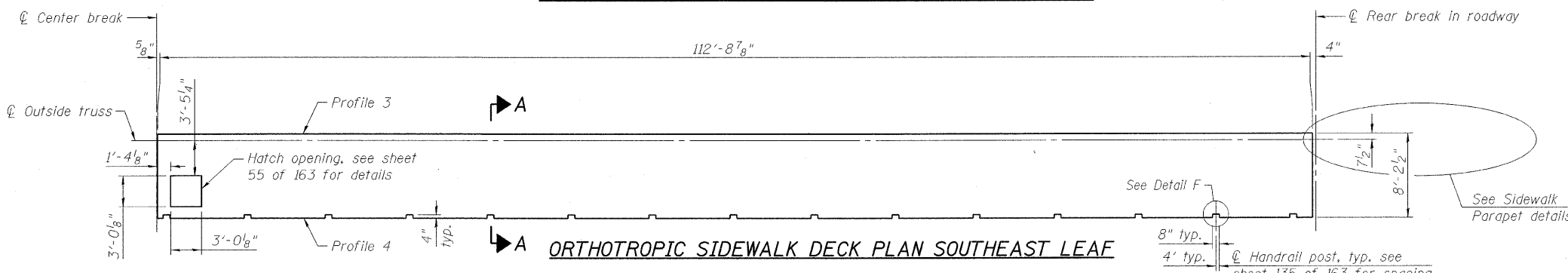
SHEET NO. 44 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	125
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.			60D61		

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ORTHOTROPIC ROADWAY DECK PLAN SOUTHEAST LEAF



ORTHOTROPIC SIDEWALK DECK PLAN SOUTHEAST LEAF

- * CJP, Use ceramic backing bar. Remove after welding, grind top side smooth in transverse direction typ. between panels 1-4.
- ** CJP, Use ceramic backing bar. Remove after welding, grind top side smooth in longitudinal direction.

Notes:
All dimensions are horizontal.
Plate dimensions given should be corrected for slope, grade breaks, and anticipated weld clearance and shrinkage requirements.
For Section A-A see sheet 48 of 163.
For Section K-K see sheet 59 of 163.
For Detail F see sheet 54 of 163.
For all other sections see sheet 53 of 163.
For center break details see sheet 58 of 163.
Bridge Wearing Surface applies on top surface of Deck $\frac{1}{2}$ " including inside vertical face of edge plates.
Sidewalk Wearing Surface applied to entire Sidewalk Deck $\frac{5}{16}$ ".
Deck $\frac{1}{2}$ " shall conform to the supplemental requirements for Notch Toughness, Zone 2.

Center Break	FB 0	FB 2	PVT STA	FB 4	FB 6	FB 8	FB 10	PVI STA	FB 12	FB 14A	Rear Break	Distance from Center Break								
113'-1 1/2"	112'-2 1/4"	104'-3 3/8"	96'-4 1/2"	93'-8 1/32"	88'-5 5/8"	80'-6 3/4"	72'-7 7/8"	64'-9"	56'-10 1/8"	48'-11 1/4"	41'-0 3/8"	33'-1 1/2"	25'-2 5/8"	17'-3 21/32"	17'-3 3/4"	11'-6 3/8"	5'-9"	2'-10 1/2"	0"	
1'-0 5/32"	1'-0 5/16"	11 7/8"	11 1/4"	11"	10 1/2"	9 3/4"	9"	8 1/4"	7 1/2"	6 3/4"	6"	5 1/8"	4 3/8"	3 5/8"	3 5/8"	2 3/8"	1"	3/8"	0"	Profile 1
10 1/32"	10 5/16"	9 7/8"	9 3/8"	9"	8 1/2"	7 3/4"	7"	6 1/4"	5 1/2"	4 3/4"	4"	3 1/8"	2 3/8"	1 5/8"	1 5/8"	1 1/8"	1/2"	1/4"	0"	Profile 2
1'-7 3/8"	1'-7 1/4"	1'-6 7/8"	1'-6 3/8"	1'-6"	1'-5 1/2"	1'-4 3/4"	1'-4"	1'-3 1/4"	1'-2 1/2"	1'-1 3/4"	1'-1"	1'-0 1/8"	11 3/8"	10 5/8"	10 5/8"	10 1/8"	9 1/2"	9 1/4"	9"	Profile 3
1'-5 7/8"	1'-5 3/4"	1'-5 3/8"	1'-4 7/8"	1'-4 1/2"	1'-4"	1'-3 1/4"	1'-2 1/2"	1'-1 3/4"	1'-1"	1'-0 1/4"	11 1/2"	10 5/8"	9 7/8"	9 1/8"	9 1/8"	9 1/8"	9"	9"	9"	Profile 4

Note: Rear break is level and horizontal. Profiles are given from horizontal at Center Break. Profiles are at top of wearing surface. 1/4" wearing surface applied on Roadway Deck and 1/8" wearing surface on Sidewalk Deck.

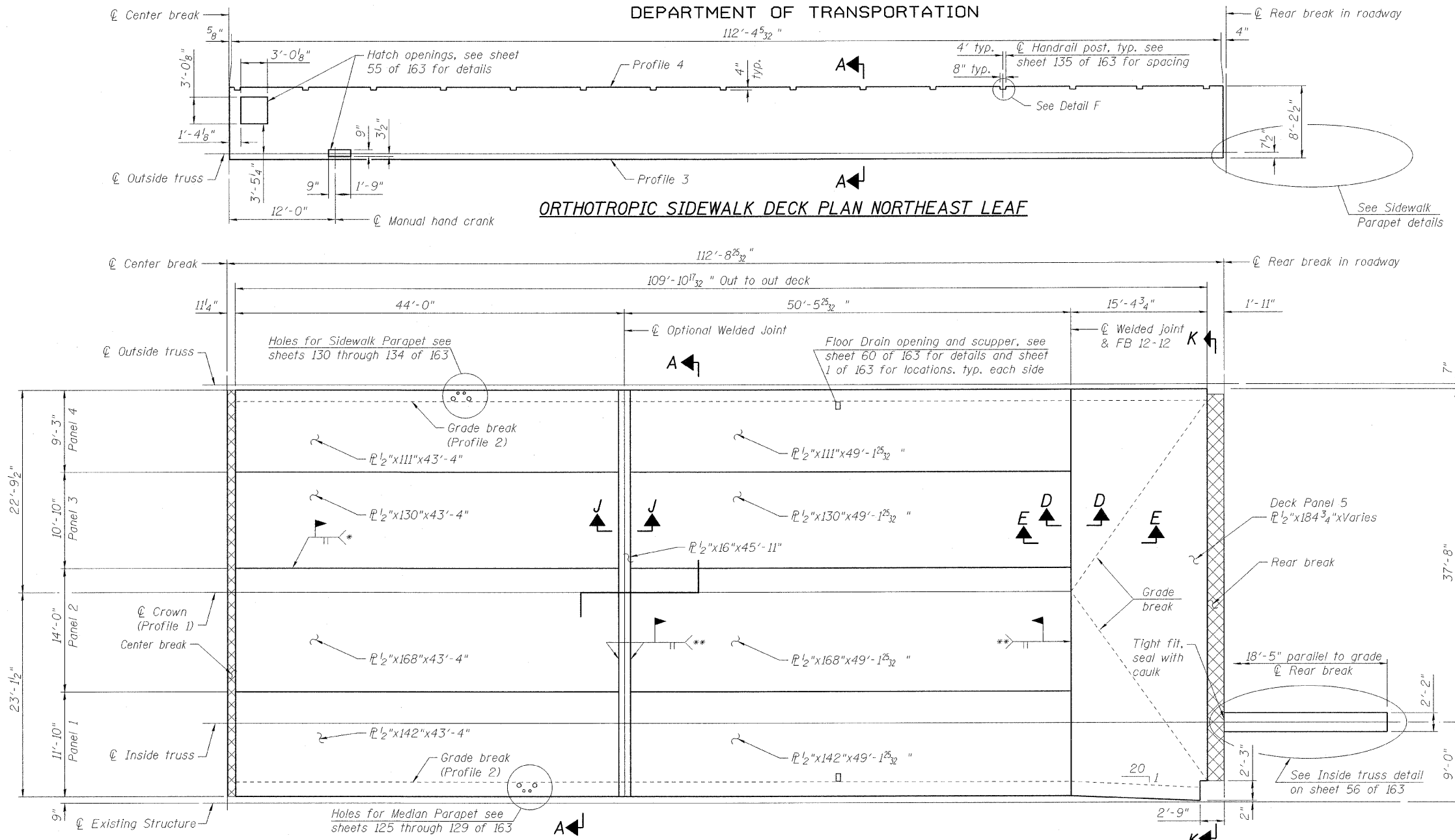
DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PROFILE AT TOP OF WEARING SURFACE

SUPERSTRUCTURE
SOUTHEAST MOVABLE
STRUCTURE NO. 016-2445

SHEET NO. 45 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	126
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



- * CJP, Use ceramic backing bar. Remove after welding, grind top side smooth in transverse direction typ. between panels 1-4.
- ** CJP, Use ceramic backing bar. Remove after welding, grind top side smooth in longitudinal direction.

Notes:
All dimensions are horizontal.
Plate dimensions given should be corrected for slope, grade breaks, and anticipated weld clearance and shrinkage requirements.
For Section A-A see sheet 48 of 163.
For Section K-K see sheet 59 of 163.
For Detail F see sheet 54 of 163.
For all other sections see sheet 53 of 163.
For center break details see sheet 58 of 163.
Bridge Wearing Surface applies on top surface of Deck $R_{1/2}$ " including inside vertical face of edge plates.
Sidewalk Wearing Surface applied to entire Sidewalk Deck $R_{5/16}$ "
Deck $R_{1/2}$ " shall conform to the supplemental requirements for Notch Toughness, Zone 2.

ORTHOTROPIC ROADWAY DECK PLAN NORTHEAST LEAF

Center Break	FB 0	PVT STA	FB 2	FB 4	FB 6	PVI STA	FB 8	FB 10	FB 12	FB 14A	Rear Break	Distance from Rear break									
113'-1 1/2"	112'-2 1/4"	104'-3 3/8"	97'-1 1/32"	96'-4 1/2"	88'-5 5/8"	80'-6 3/4"	72'-7 7/8"	64'-9"	62'-1 1/32"	56'-10 1/8"	48'-11 1/4"	41'-0 3/8"	33'-1 1/2"	25'-2 5/8"	17'-3 3/4"	11'-6 3/8"	5'-9"	2'-10 1/2"	0"	Distance from Rear break	
1'-0 1/32"	7 1/4"	7 1/2"	7 5/8"	7 5/8"	7 1/2"	7 1/4"	6 7/8"	6 1/4"	6"	5 1/2"	4 3/4"	4"	3 1/8"	2 3/8"	1 5/8"	1 1/8"	1/2"	1/4"	0"	Profile 1	
10 3/8"	7 1/4"	7 1/2"	7 5/8"	7 5/8"	7 1/2"	7 1/4"	6 7/8"	6 1/4"	6"	5 1/2"	4 3/4"	4"	3 1/8"	2 3/8"	1 5/8"	1 1/8"	1/2"	1/4"	0"	Profile 2	
1'-7 3/8"	1'-4 1/4"	1'-4 1/2"	1'-4 5/8"	1'-4 5/8"	1'-4 1/2"	1'-4 1/4"	1'-3 7/8"	1'-3 1/4"	1'-3"	1'-2 1/2"	1'-1 3/4"	1'-1"	1'-0 1/8"	11 3/8"	10 5/8"	10 1/8"	9 1/2"	9 1/4"	9"	Profile 3	
1'-2 7/8"	1'-2 3/4"	1'-3"	1'-3 1/8"	1'-2 7/8"	1'-3"	1'-2 3/4"	1'-2 3/8"	1'-1 3/4"	1'-1 1/2"	1'-1"	1'-0 1/4"	11 1/2"	10 5/8"	9 7/8"	9 1/8"	9 1/8"	9"	9"	9"	9"	Profile 4

Note: Rear break is level and horizontal. Profiles are given from horizontal at Rear break. Profiles are at top of wearing surface. 1/4" wearing surface applied on Roadway Deck and 1/8" wearing surface on Sidewalk Deck.

PROFILE AT TOP OF WEARING SURFACE

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

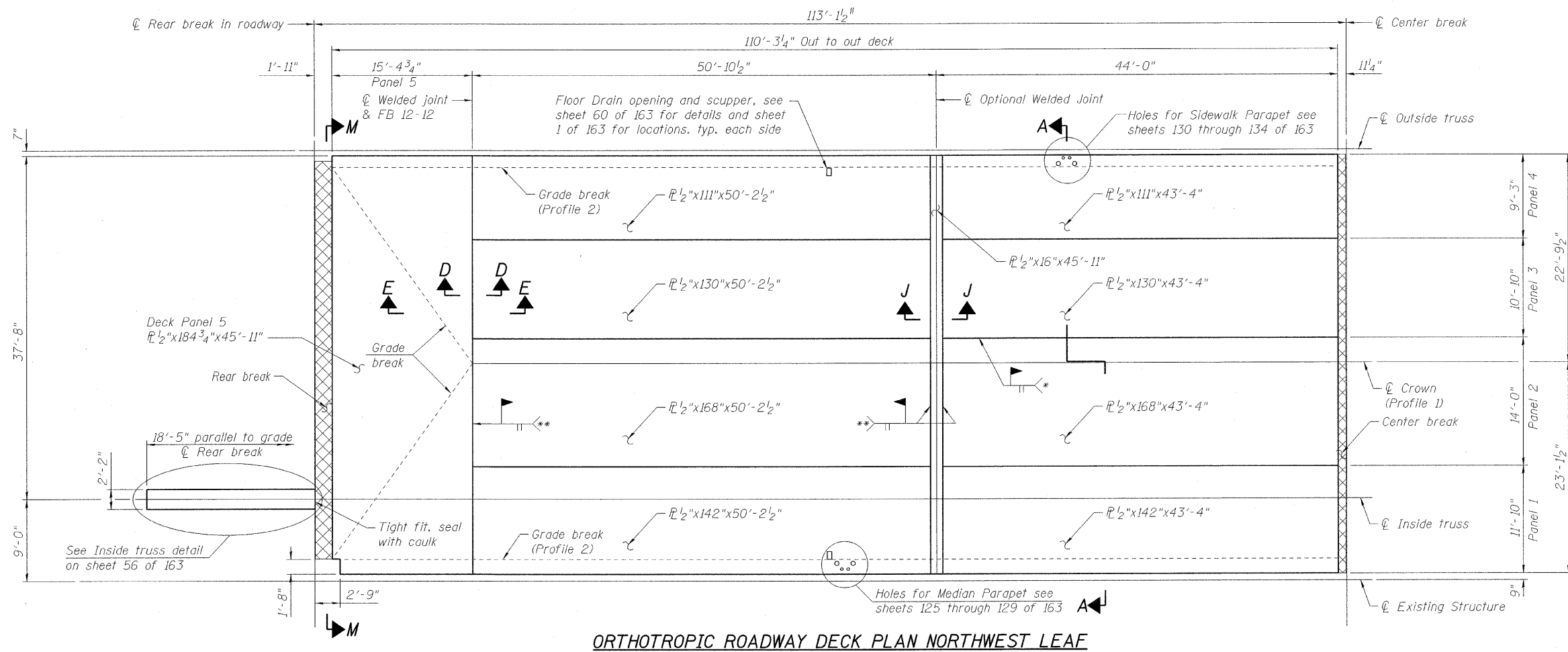
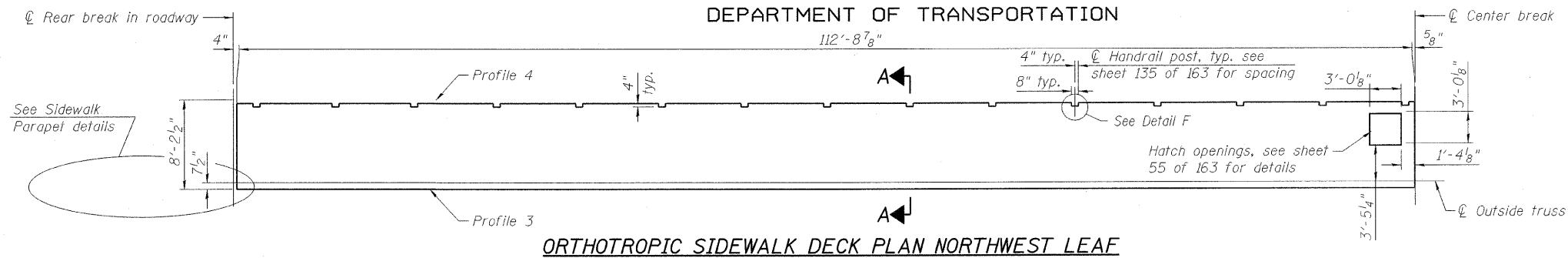
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 46	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	127
163 SHEETS		CONTRACT NO. 60D61			
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

**SUPERSTRUCTURE
NORTHEAST MOVABLE
STRUCTURE NO. 016-2445**

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



- * CJP. Use ceramic backing bar. Remove after welding, grind top side smooth in transverse direction typ. between panels 1-4.
- ** CJP. Use ceramic backing bar. Remove after welding, grind top side smooth in longitudinal direction.

Notes:
All dimensions are horizontal.
Plate dimensions given should be corrected for slope, grade breaks, and anticipated weld clearance and shrinkage requirements.
For Section A-A see sheet 48 of 163.
For Section K-K see sheet 59 of 163.
For Detail F see sheet 54 of 163.
For all other sections see sheet 53 of 163.
For center break details see sheet 58 of 163.
Bridge Wearing Surface applies on top surface of Deck R 1/2" including inside vertical face of edge plates.
Sidewalk Wearing Surface applied to entire Sidewalk Deck R 1/2"
Deck R 1/2" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

	℄ Rear Break		FB 14A	FB 12		PVI STA	FB 10		FB 8		FB 6		FB 4		PVC STA	FB 2		FB 0	℄ Center Break	
Distance from ℄ Rear break	0"	2'-10 1/2"	5'-9"	11'-6 3/8"	17'-3 3/4"	25'-2 5/8"	31'-7 5/16"	33'-1 1/2"	41'-0 3/8"	48'-11 1/4"	56'-10 1/8"	64'-9"	72'-7 7/8"	80'-6 3/4"	88'-5 5/8"	93'-7 3/16"	96'-4 1/2"	104'-3 3/8"	111'-9 9/16"	113'-1 1/2"
Profile 1	0"	1/4"	1/2"	1 1/8"	1 5/8"	2 3/8"	3"	3 3/8"	4 7/8"	6 3/4"	7 1/2"	8 1/4"	9"	9 3/4"	10 1/2"	11"	11 1/4"	11 7/8"	1'-0 9/32"	1'-0 5/16"
Profile 2	0"	1/4"	1/2"	1 1/8"	1 5/8"	2 3/8"	3"	3 3/8"	3 7/8"	4 3/4"	5 1/2"	6 1/4"	7"	7 3/4"	8 1/2"	9"	9 1/4"	9 7/8"	10 1/4"	10 3/8"
Profile 3	9"	9 1/4"	9 1/2"	10 1/8"	10 5/8"	11 3/8"	1'-0"	1'-0 1/8"	1'-0 1/8"	1'-1 3/4"	1'-2 1/2"	1'-3 1/4"	1'-4"	1'-4 3/4"	1'-5 1/2"	1'-6"	1'-6 1/4"	1'-6 7/8"	1'-7 1/4"	1'-7 3/8"
Profile 4	9"	9"	9"	9 5/8"	9 5/8"	9 7/8"	10 1/2"	10 5/8"	11 3/8"	1'-0 1/4"	1'-1"	1'-1 3/4"	1'-2 1/2"	1'-3 1/4"	1'-4"	1'-4 1/2"	1'-4 3/4"	1'-5 3/8"	1'-5 3/4"	1'-5 7/8"

Notes: Rear break is level and horizontal. Profiles are given from horizontal at ℄ Rear break. Profiles are at top of wearing surface. 1/4" wearing surface applied on Roadway Deck and 1/8" wearing surface on Sidewalk Deck.

PROFILE AT TOP OF WEARING SURFACE

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

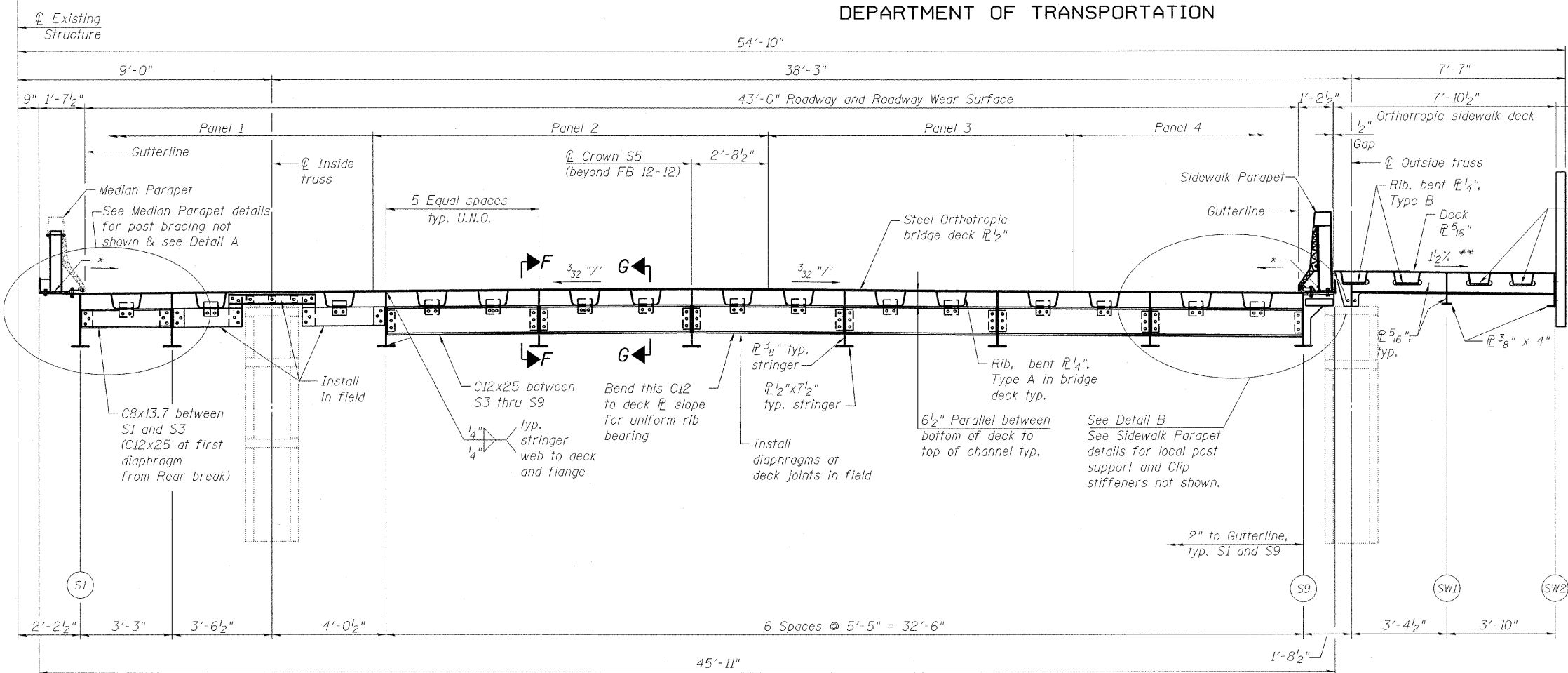
SUPERSTRUCTURE
NORTHWEST MOVABLE
STRUCTURE NO. 016-2445

SHEET NO. 47	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	128
163 SHEETS		CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

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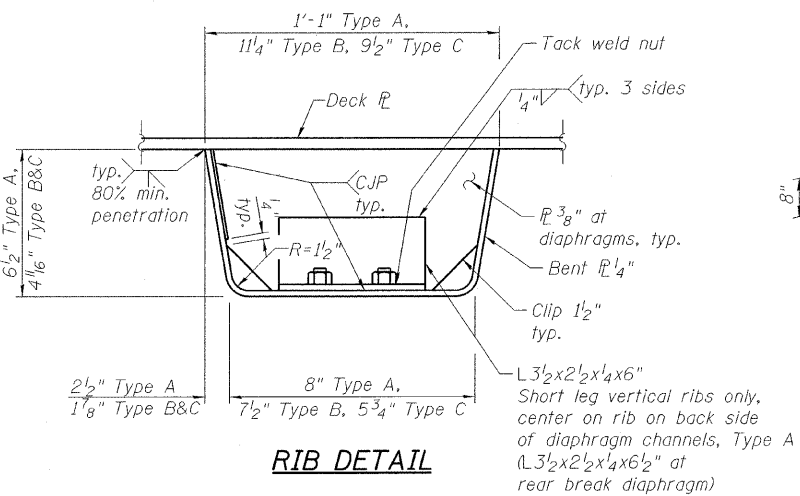
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



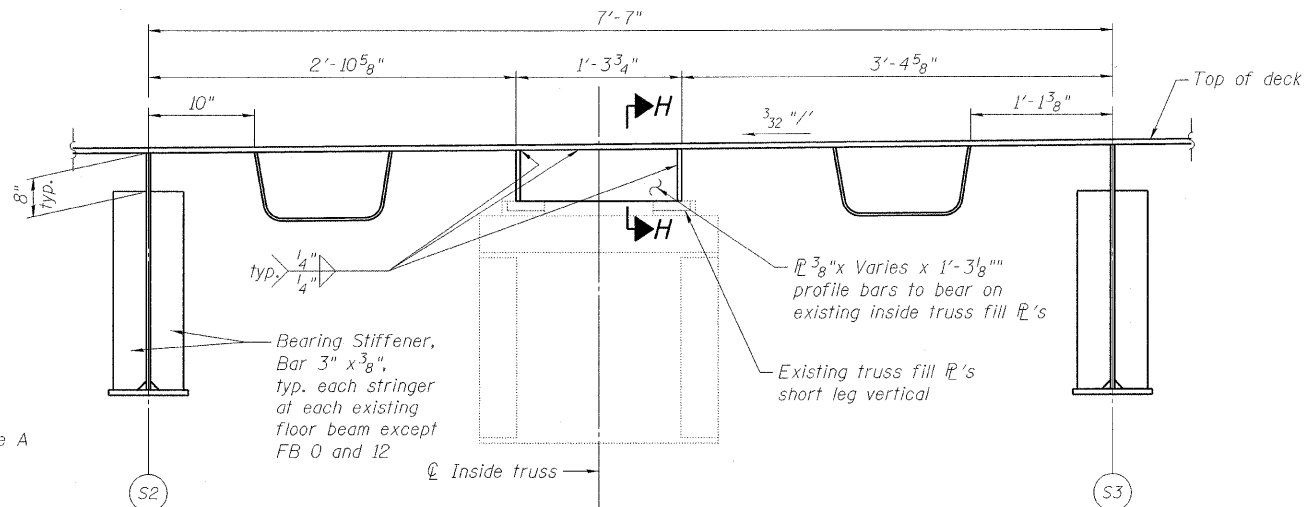
SECTION A-A

* 1/4" slope between edge of deck to face of barrier

** Varies between Rear break and FB 12-12



RIB DETAIL



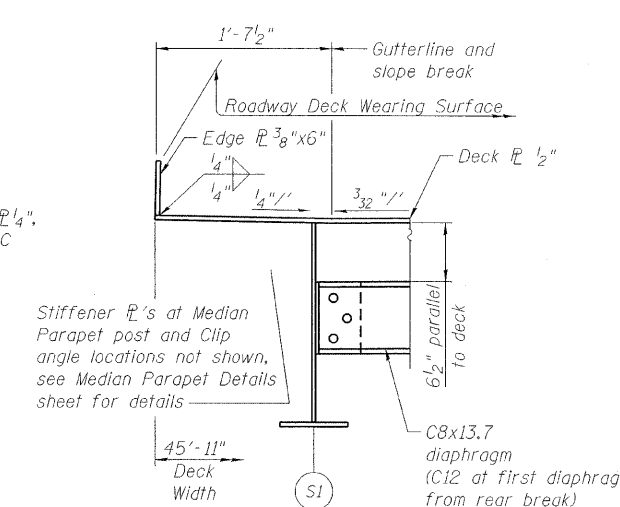
SECTION B-B

(See Deck Framing Plan for location)

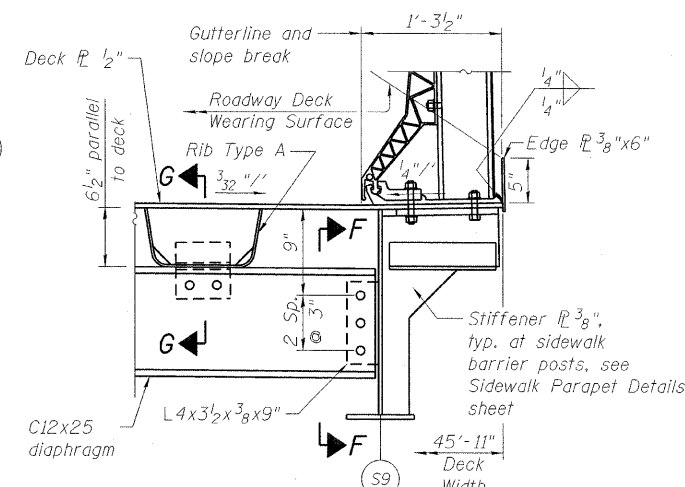
DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

- Field Construction Sequence (Variations as approved by Engineer):
1. Erect adjacent deck panels and bolt snug-tight per Detail D on Sheet 53 of 163.
 2. Make deck weld.
 3. Repeat steps 1 and 2 for all panels in order of Deck Panel number.
 4. Tighten bolts to floor beams to obtain slip critical connection.
 5. Install Rear and Center breaks - See corresponding sheets.

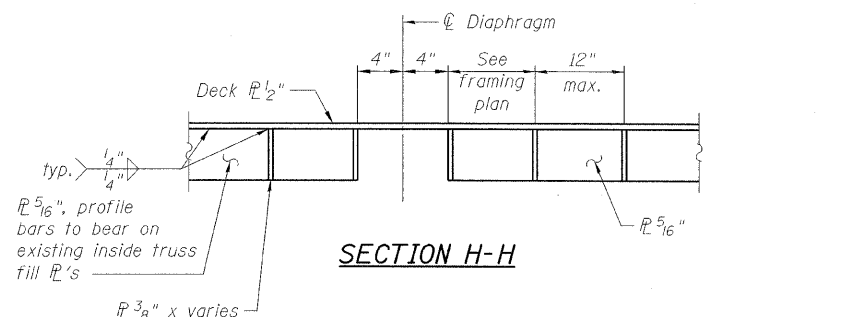
Notes:
See Detail D on sheet 53 of 163 for stringer S1 thru S9 connection of existing Floor Beams
See sheet 53 of 163 for Sections F-F and G-G
Roadway Deck Ribs, Roadway Stringer webs and flanges shall conform to the supplemental requirements for Notch Toughness, Zone 2.



DETAIL A



DETAIL B



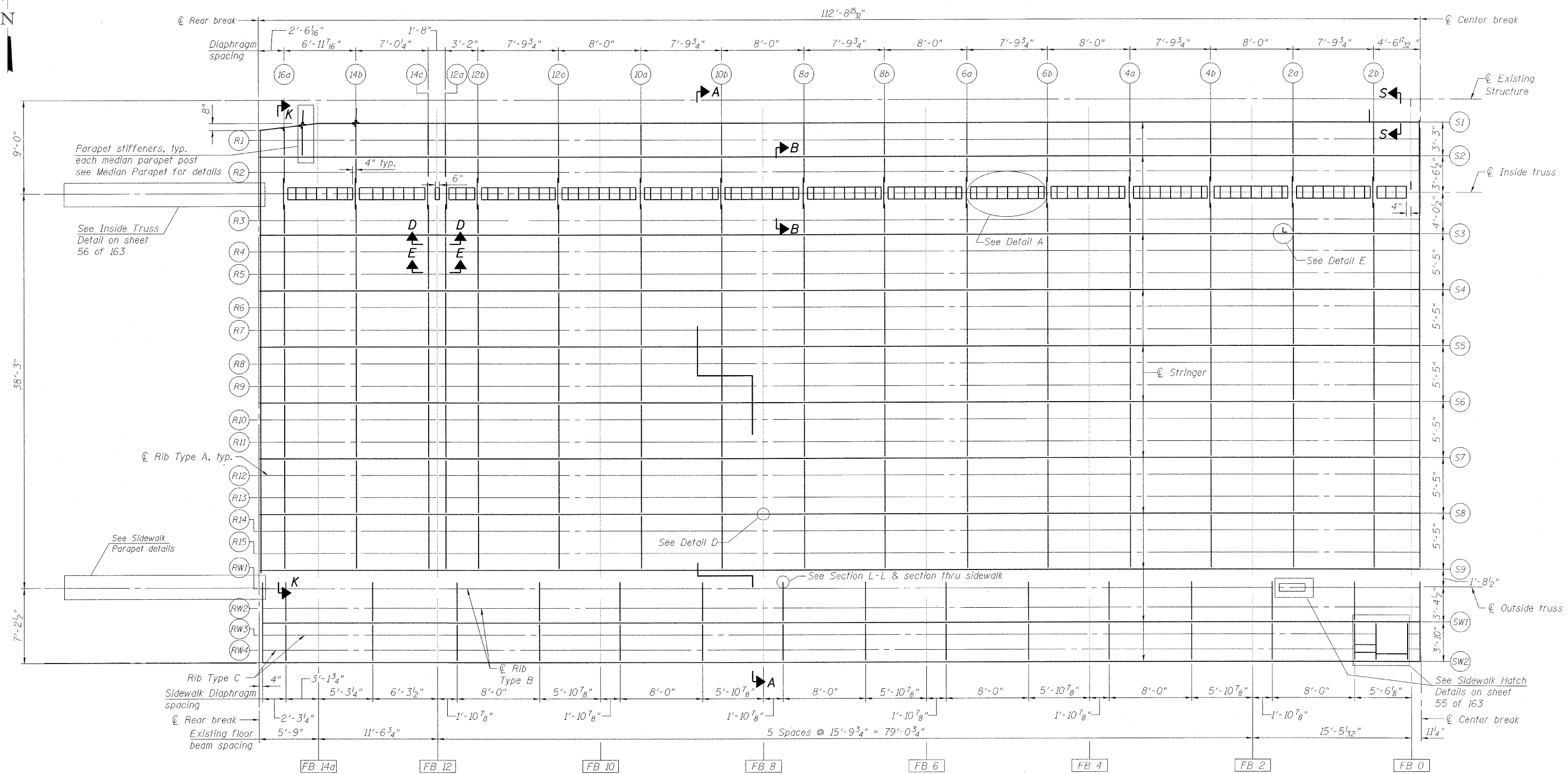
SECTION H-H

SUPERSTRUCTURE
MOVABLE SPAN (EB)
STRUCTURE NO. 016-2445

SHEET NO. 48	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	129
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

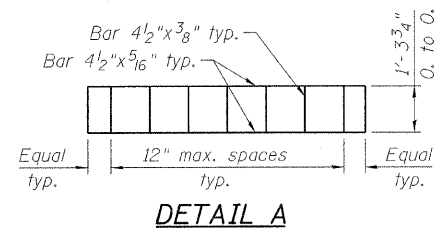


ORTHOTROPIC FRAMING PLAN SOUTHWEST LEAF
(Stiffeners and Parapet bracing not shown for clarity)

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND
 - - - Existing member
 — New member

Notes:
 Dimension to diaphragms are to back of channel or back face of plate diaphragm.
 For Sections A-A & B-B see sheet 48 of 163.
 For Sections D-D & E-E and Detail D see sheet 53 of 163.
 For Detail E and Section S-S see sheet 54 of 163.
 For Section K-K see sheet 59 of 163.



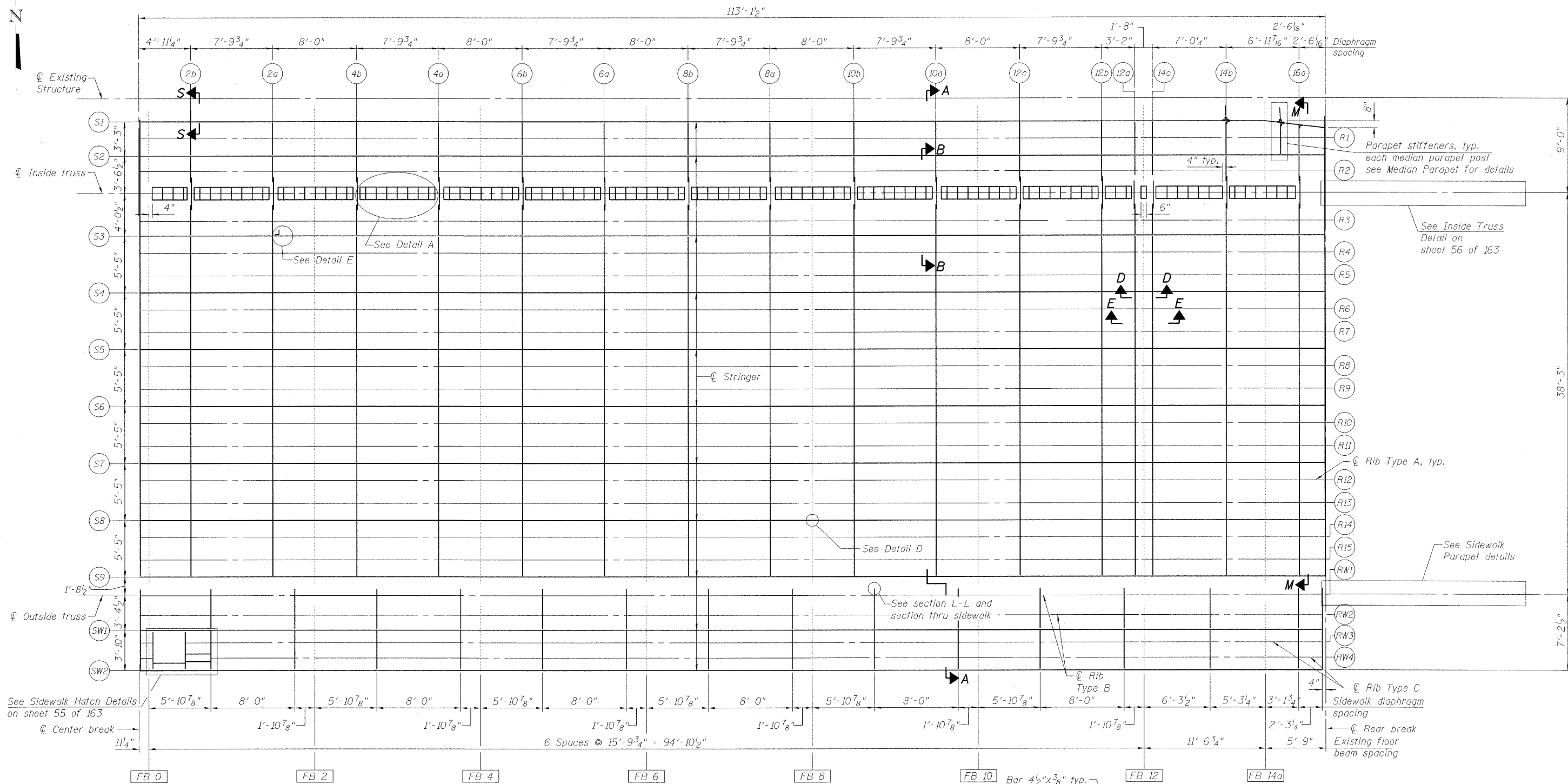
**DECK FRAMING PLAN
SOUTHWEST MOVABLE SPAN
STRUCTURE NO. 016-2445**

SHEET NO. 49 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	130
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 60D61					

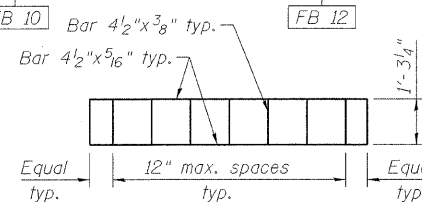
PB Americas, Inc.
 230 WEST MONROE STREET,
 SUITE 900
 CHICAGO, IL. 60606

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ORTHOTROPIC FRAMING PLAN SOUTHEAST LEAF
(Stiffeners and Parapet bracing not shown for clarity)



DETAIL A

**DECK FRAMING PLAN
SOUTHEAST MOVABLE SPAN
STRUCTURE NO. 016-2445**

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

- Existing member
- New member

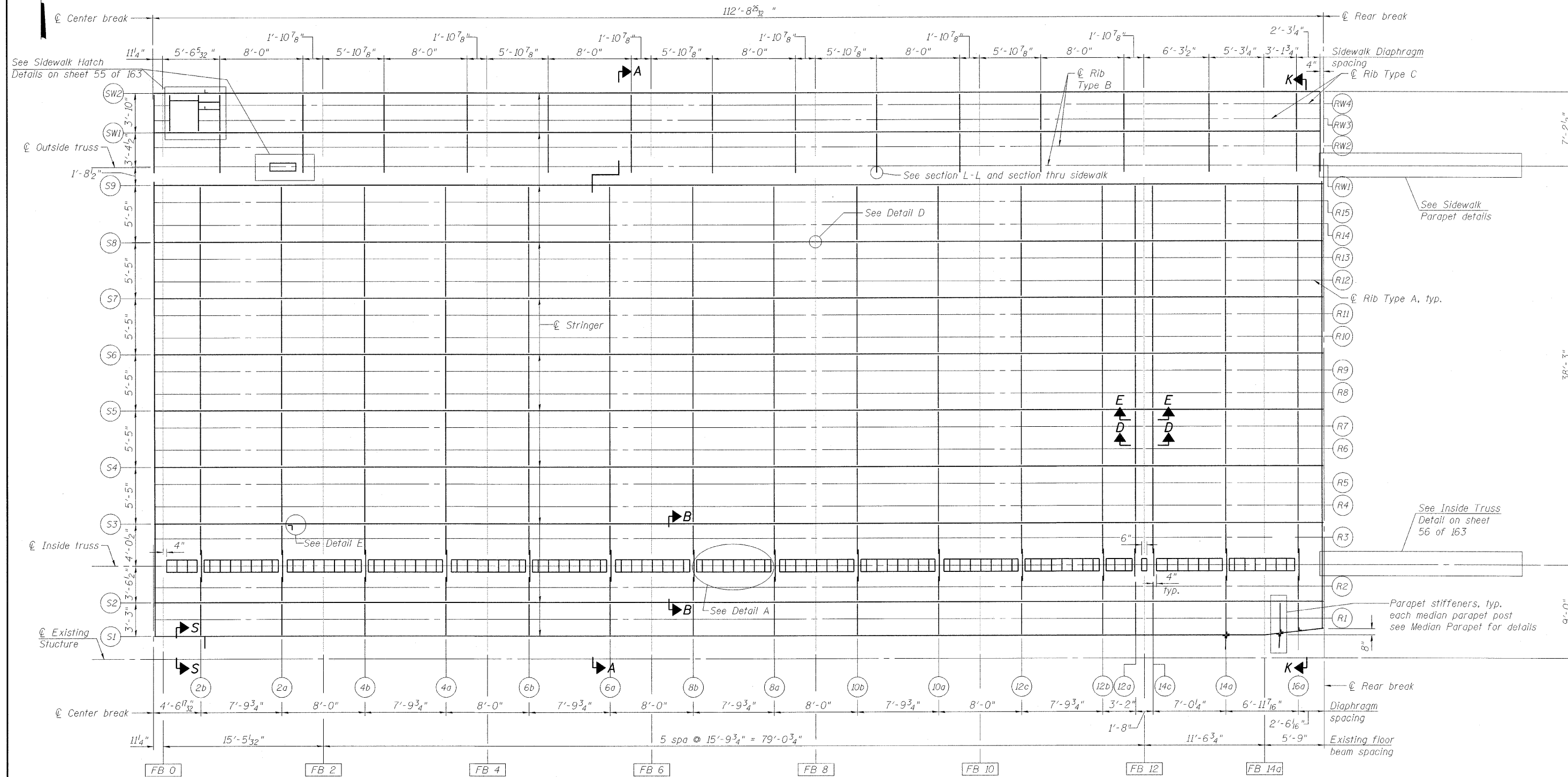
Notes:
Dimension to diaphragms are to back of channel or back face of plate diaphragm.
For Section A-A & B-B see sheet 48 of 163.
For Sections D-D & E-E and Detail D see sheet 53 of 163.
For detail E and Section S-S see sheet 54 of 163.
For Section M-M see sheet 59 of 163.

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SHEET NO. 50 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	131
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 60D61		
FED. AID PROJECT					

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STATE OF ILLINOIS
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ORTHOTROPIC FRAMING PLAN NORTHEAST LEAF
(Stiffeners and Parapet bracing not shown for clarity)

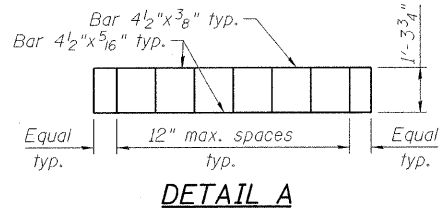
**DECK FRAMING PLAN
NORTHEAST MOVABLE SPAN
STRUCTURE NO. 016-2445**

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

— Existing member
— New member

Notes:
Dimension to diaphragms are to back of channel or back face of plate diaphragm.
For Section A-A & B-B see sheet 48 of 163.
For Sections D-D & E-E and Detail D see sheet 53 of 163.
For Detail E and Section S-S see sheet 54 of 163.
For Section K-K see sheet 59 of 163.



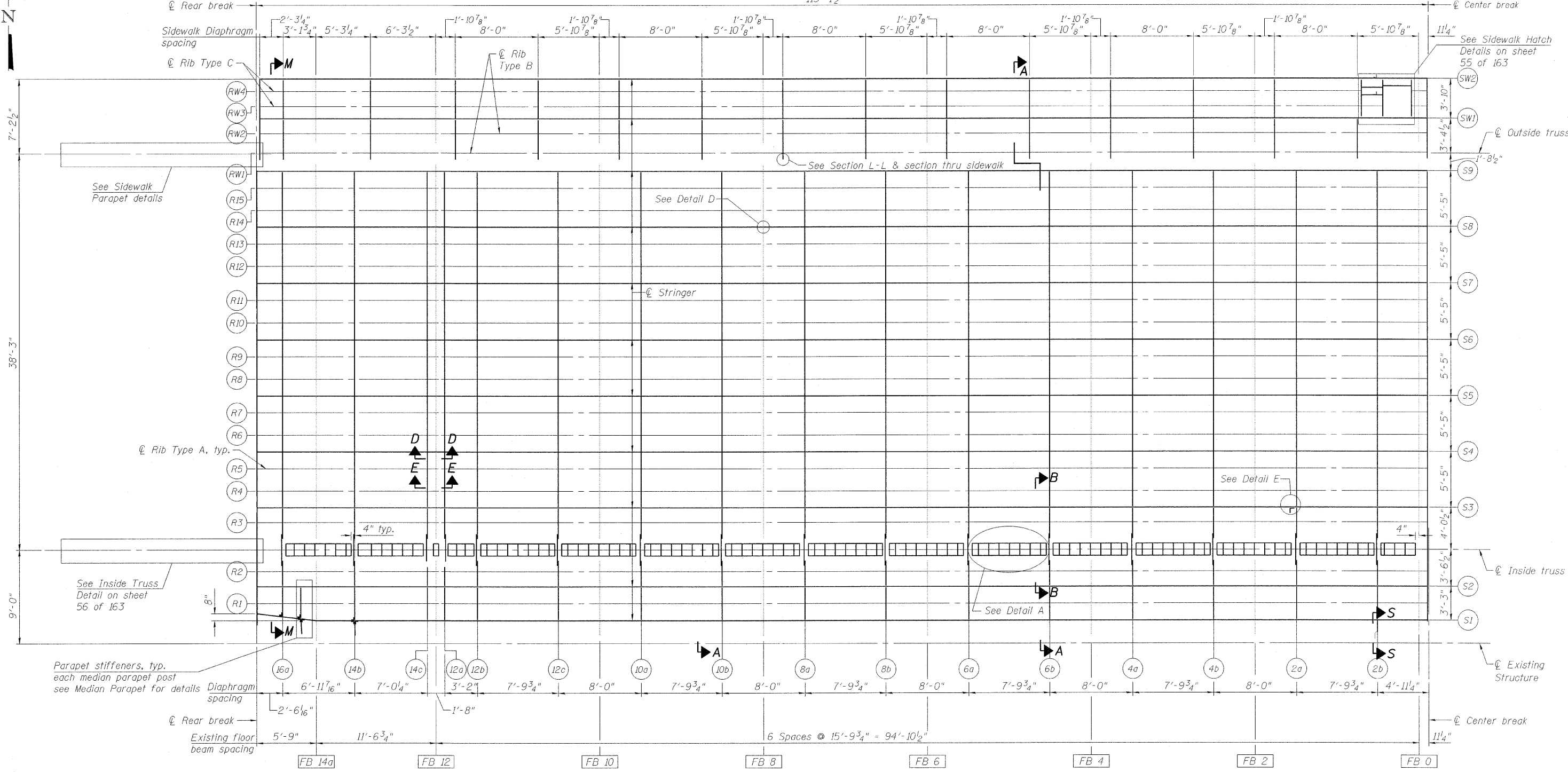
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 51 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	132
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D61		

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07-MAY-2009

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113'-1 1/2"



ORTHOTROPIC FRAMING PLAN NORTHWEST LEAF
(Stiffeners and Parapet bracing not shown for clarity)

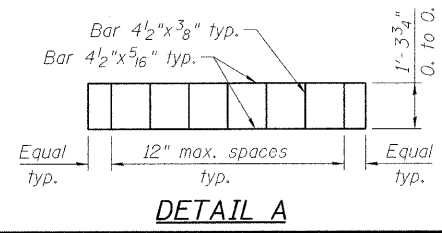
**DECK FRAMING PLAN
NORTHWEST MOVABLE SPAN
STRUCTURE NO. 016-2445**

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

Existing member
New member

Notes:
Dimension to diaphragms are to back of channel or back face of plate diaphragm.
For Section A-A & B-B see sheet 48 of 163.
For Sections D-D & E-E and Detail D see sheet 53 of 163.
For Detail E and Section S-S see sheet 54 of 163.
For Section M-M see sheet 59 of 163.

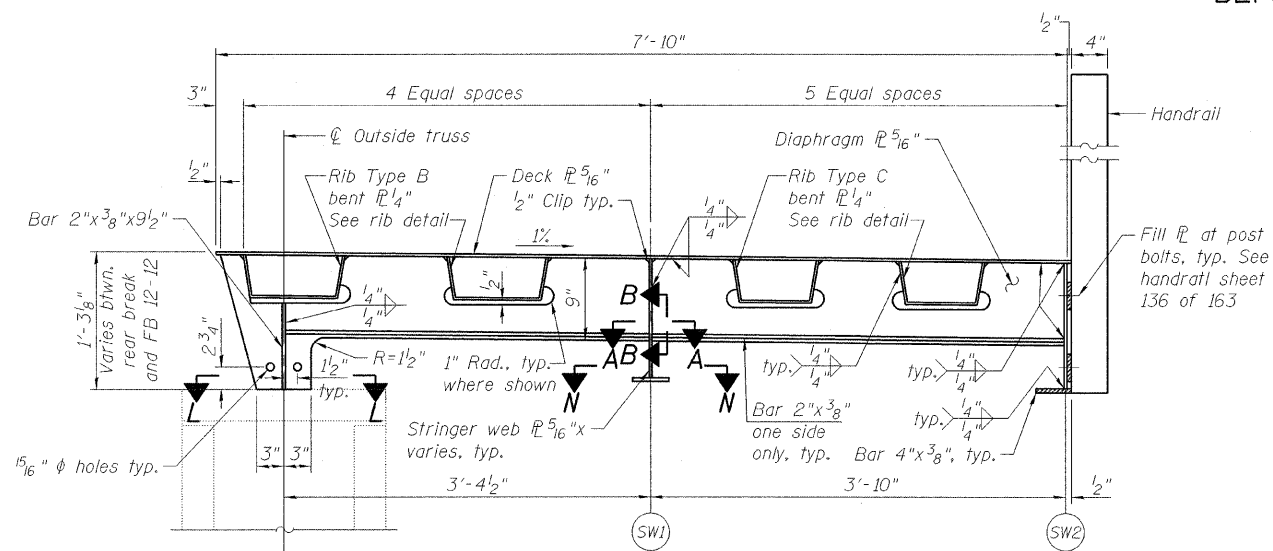


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SUITE 900
CHICAGO, IL. 60606

SHEET NO. 52 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	133
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D61		

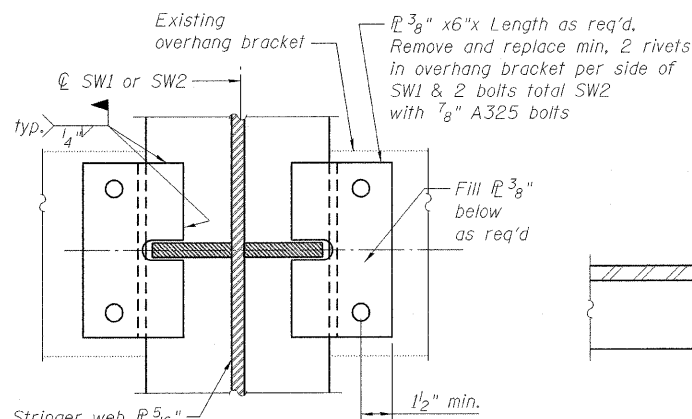
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DEPARTMENT OF TRANSPORTATION

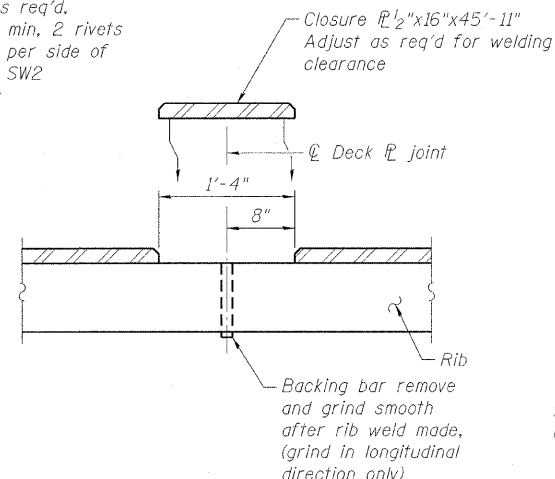


SECTION THRU SIDEWALK

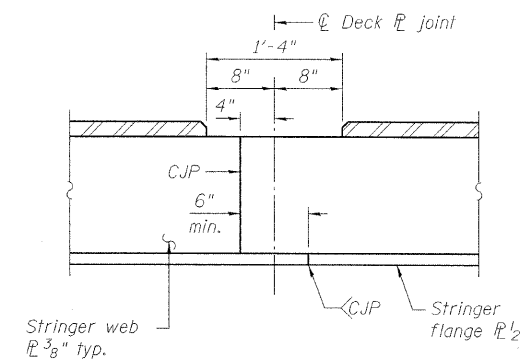
Note:
Bars 2"x3/8" shown this side for clarity. Locate opposite connection angle as shown in Section L-L.



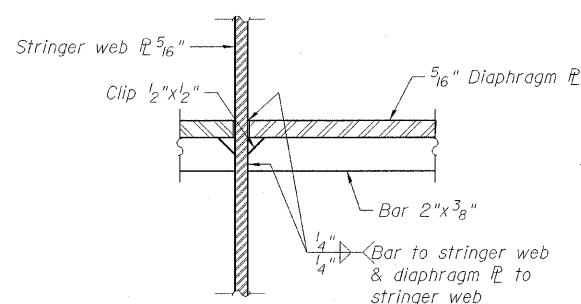
SECTION N-N
(Shown at existing bracket)



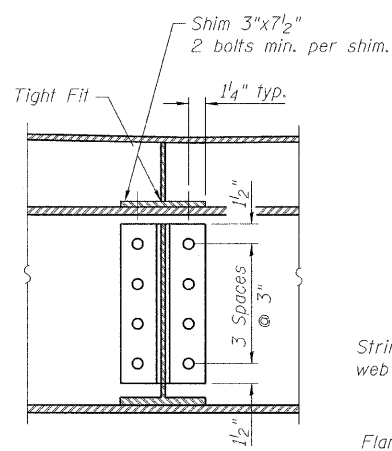
SECTION J-J (OPTIONAL)
(Shown at rib splice)



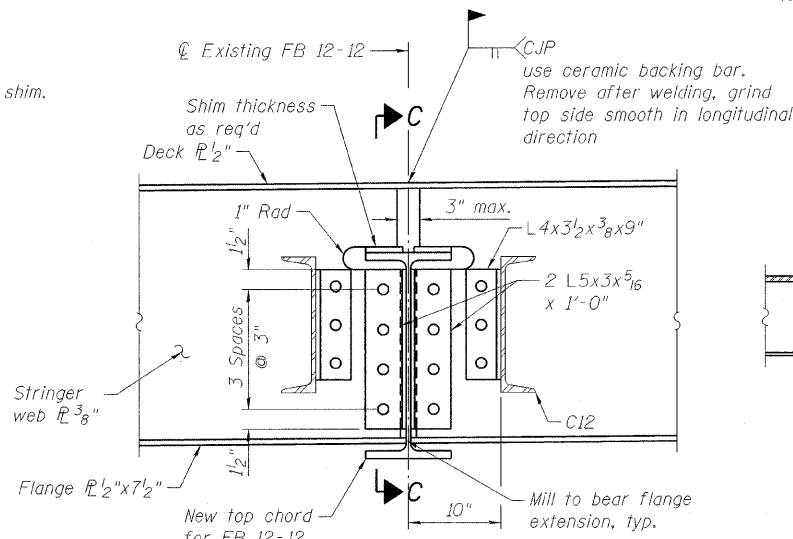
SECTION J-J (OPTIONAL)
(Shown at stringer splice)



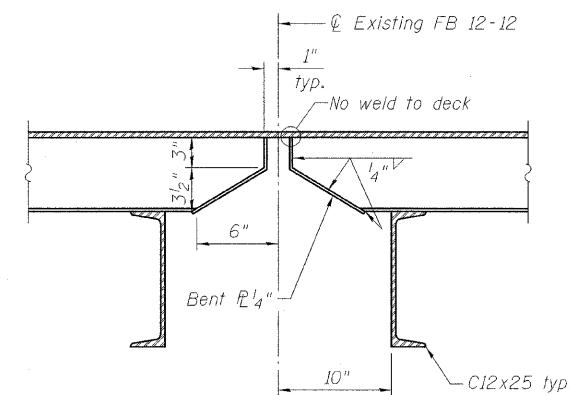
SECTION A-A



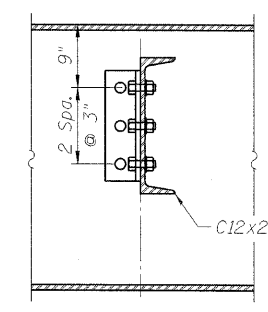
SECTION B-B



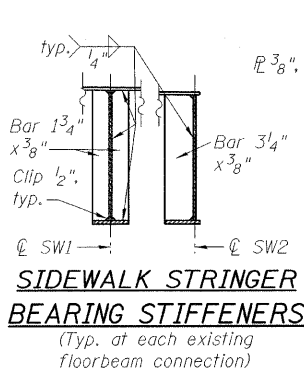
SECTION C-C



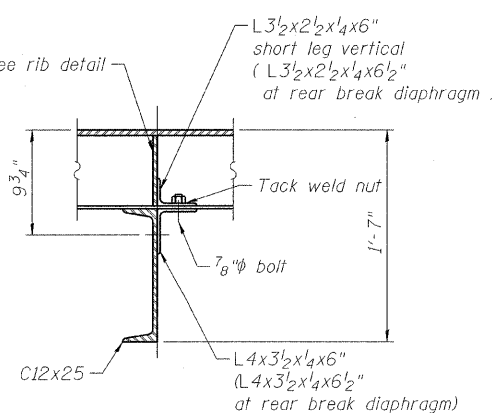
SECTION D-D



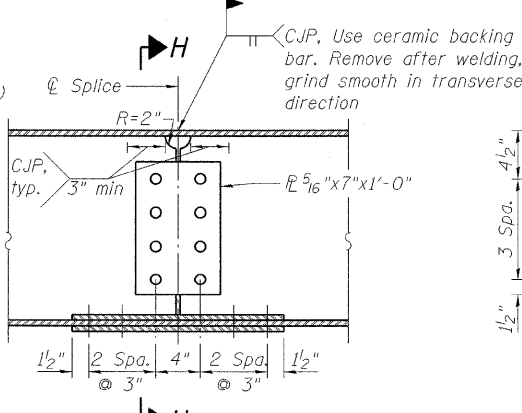
SECTION E-E



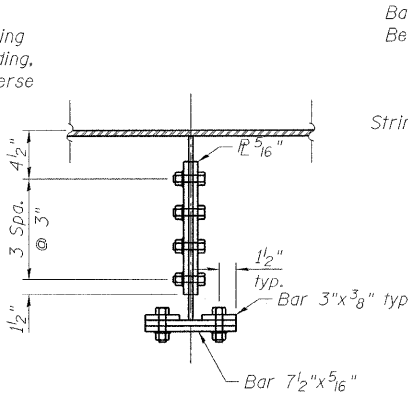
SIDEWALK STRINGER BEARING STIFFENERS
(Typ. at each existing floorbeam connection)



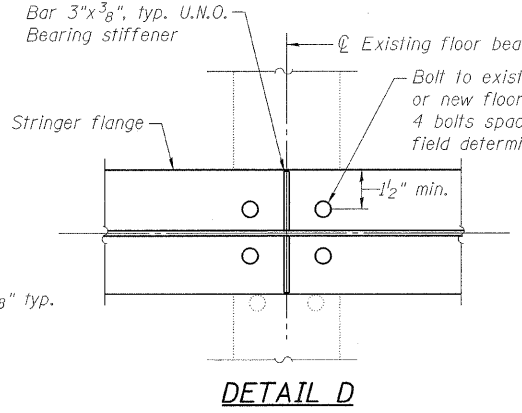
SECTION G-G



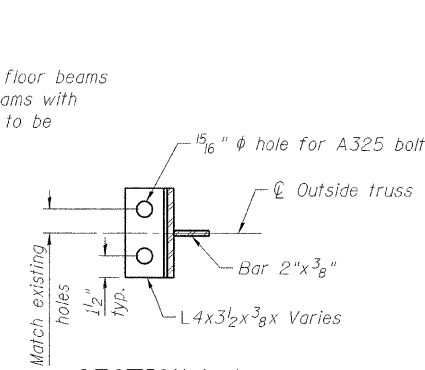
OPTIONAL BOLTED STRINGER SPLICE



SECTION H-H



DETAIL D
Typical at all floorbeams except FB 0-0



SECTION L-L

SUPERSTRUCTURE MOVABLE SPANS STRUCTURE NO. 016-2445

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

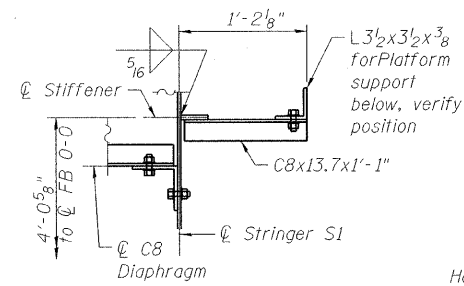
Notes:
See Framing Plan for location of Section D-D & E-E.
See Deck Plan for location of Section J-J.
See sheet 48 of 163 for location of Section G-G & F-F and Rib Detail.

PB Americas, Inc.
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SUITE 900
CHICAGO, IL. 60606

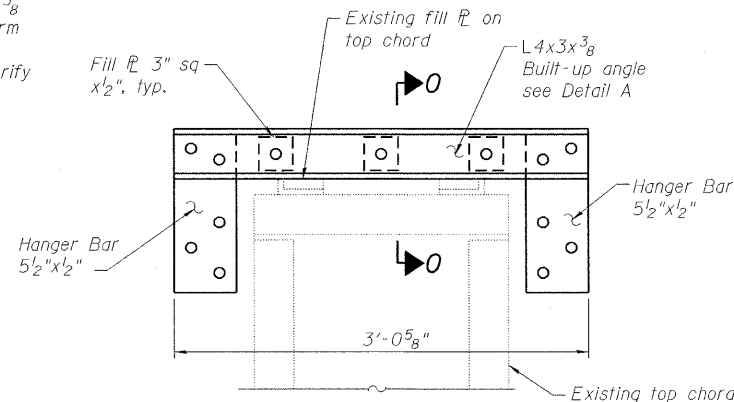
SHEET NO. 53	F.A.P RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 134
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

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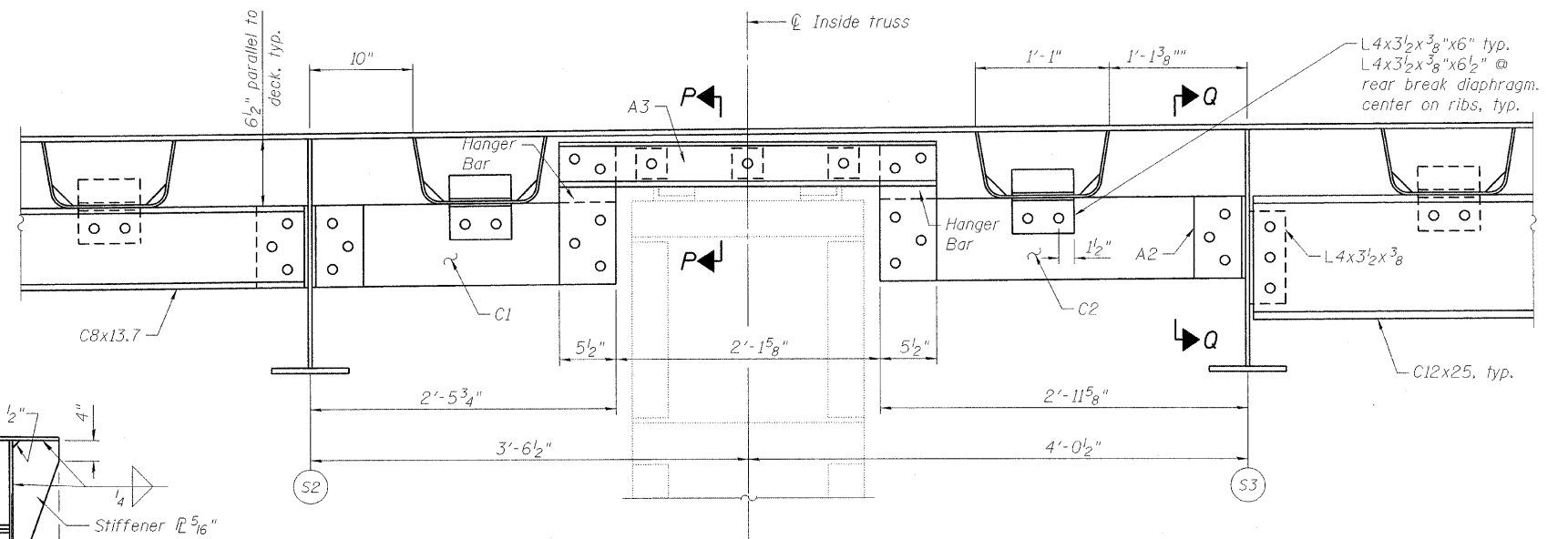
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



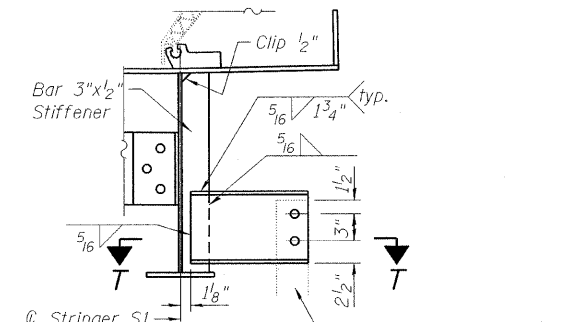
SECTION T-T



CHANNEL HANGER DETAIL AT INSIDE TRUSS

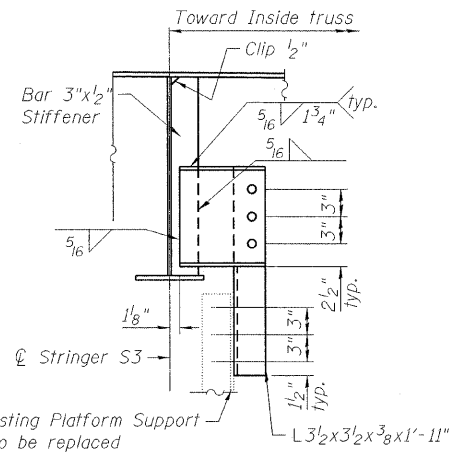


ASSEMBLED VIEW AT INSIDE TRUSS



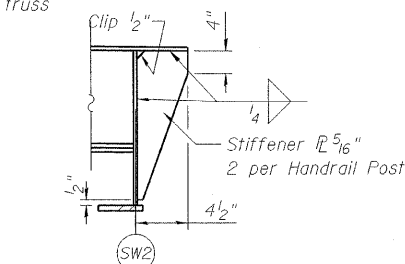
SECTION S-S

(Looking toward Rear break
SW and NE Leaf shown - others similar)

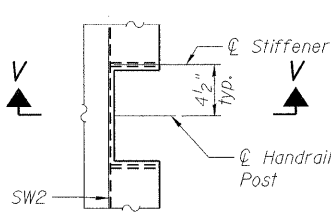


SECTION U-U

(Looking toward Rear break
SW and NE Leaf shown - others similar)

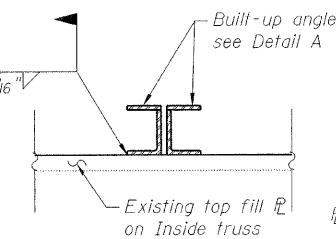


SECTION V-V

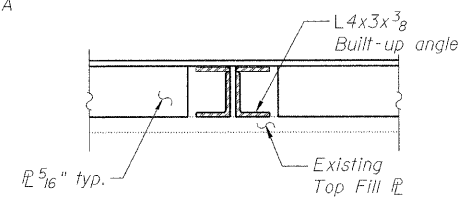


DETAIL F

Typ. Each Handrail Post

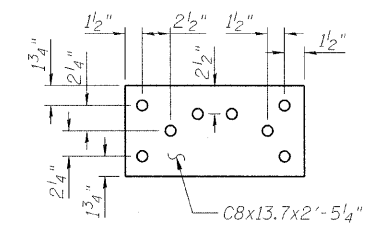


SECTION O-O

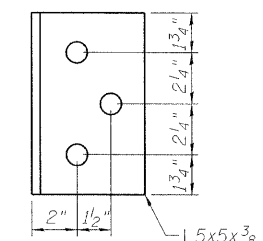


SECTION P-P

For disassembled views
see Channel Hanger Detail
and Section O-O

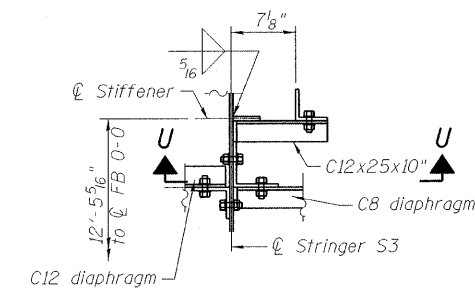


CHANNEL C2

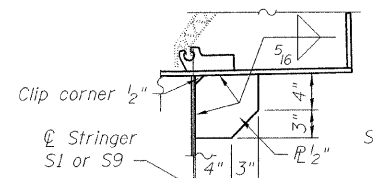


ANGLE A2

(Holes typ. each leg.)

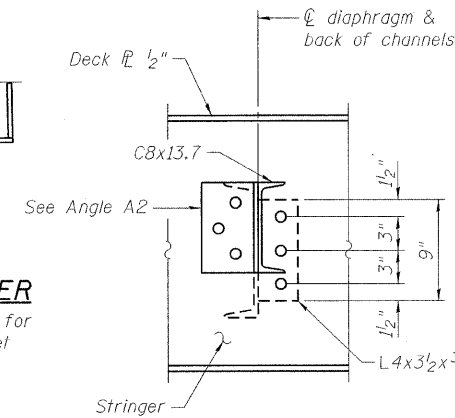


DETAIL E

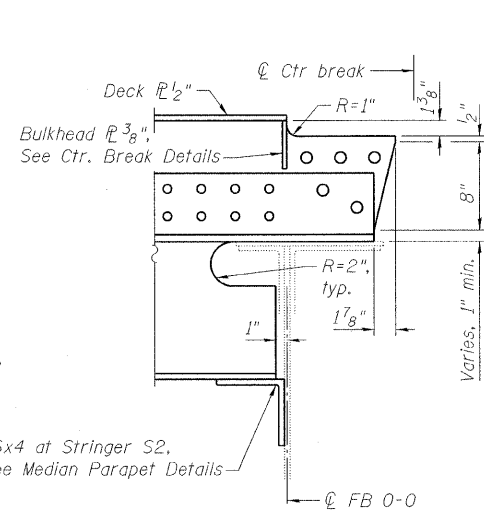


TOE CLIP STIFFENER

Typ. at each toe clip location for
Median and Sidewalk Parapet

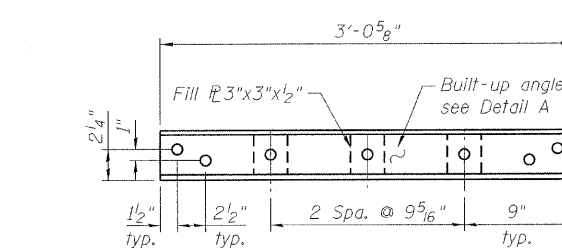


SECTION Q-Q

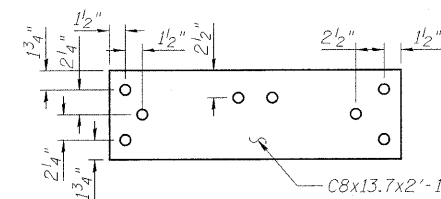


STRINGER END DETAIL

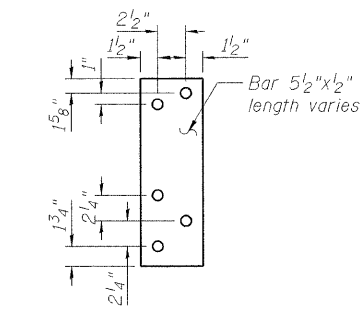
(Typ. at FB 0-0, see Ctr. Break Details for details and callouts not shown)



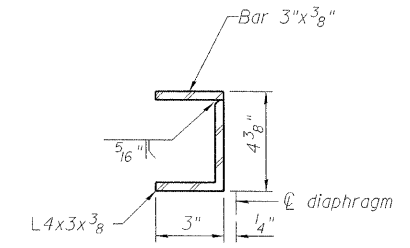
ANGLE A3



CHANNEL C1



HANGER BAR DETAIL



DETAIL A

Notes:
See sheets 49-52 of 163 for location of
Detail E and Section S-S.
See Deck Plans for location of Detail F.

**SUPERSTRUCTURE
MOVABLE SPAN
STRUCTURE NO. 016-2445**

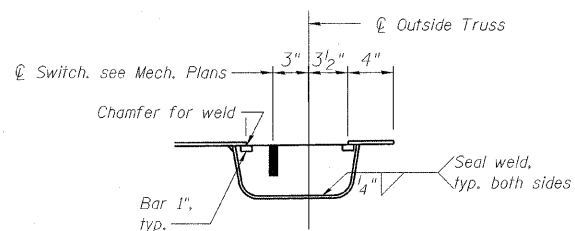
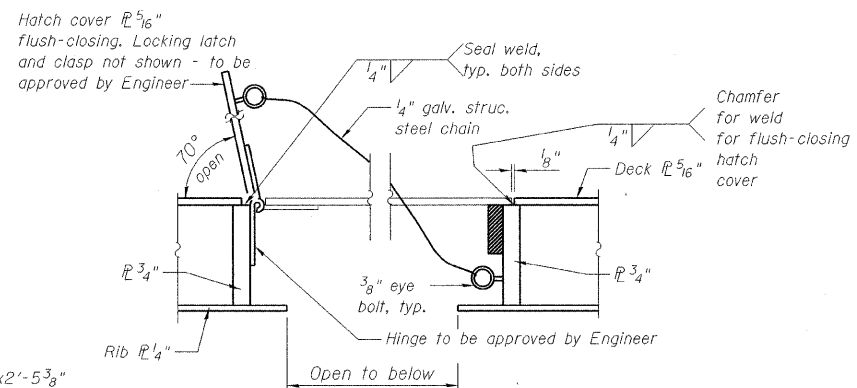
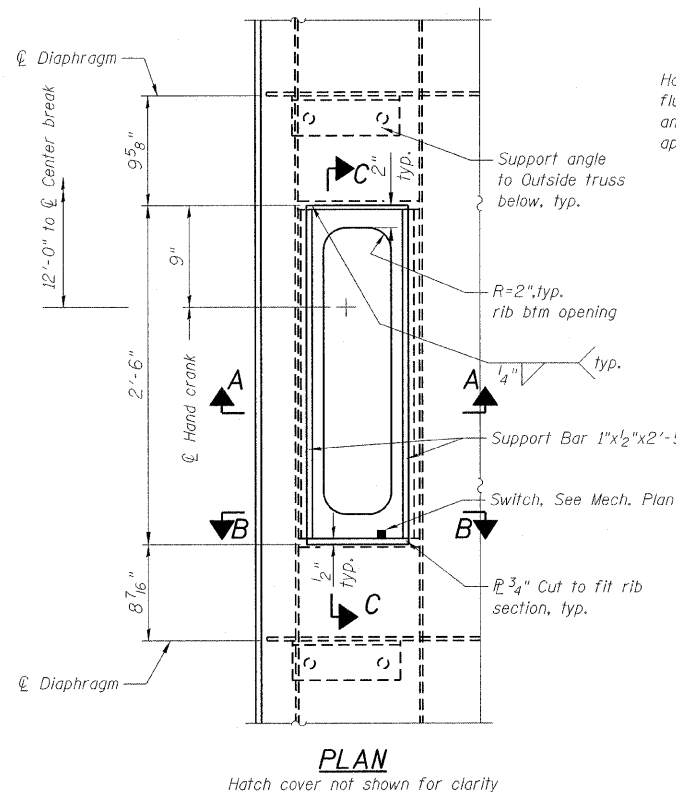
DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 54	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	163 SHEETS	389	2424.2B-R	COOK	398 135
			CONTRACT NO.		60D61
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

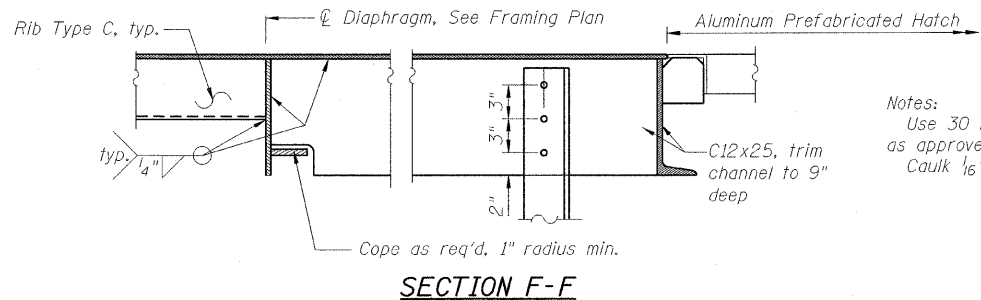
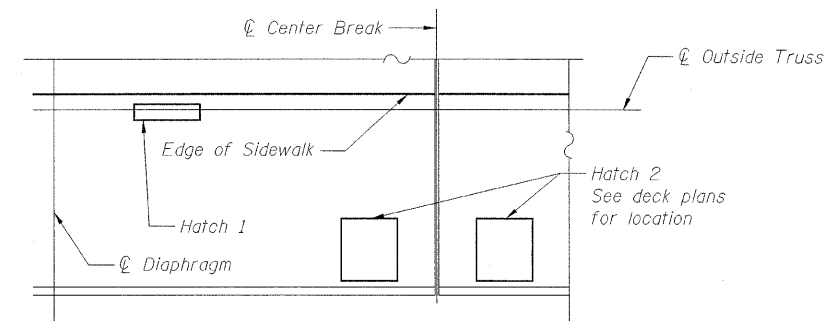
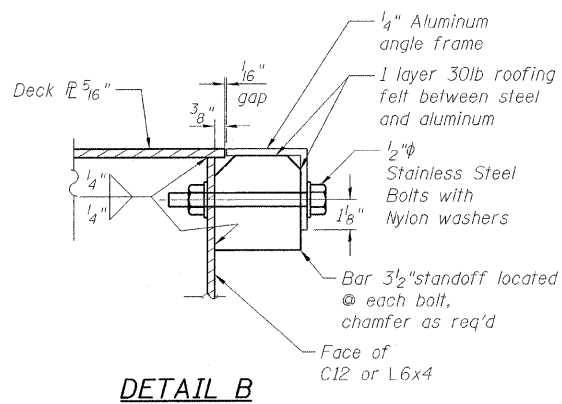
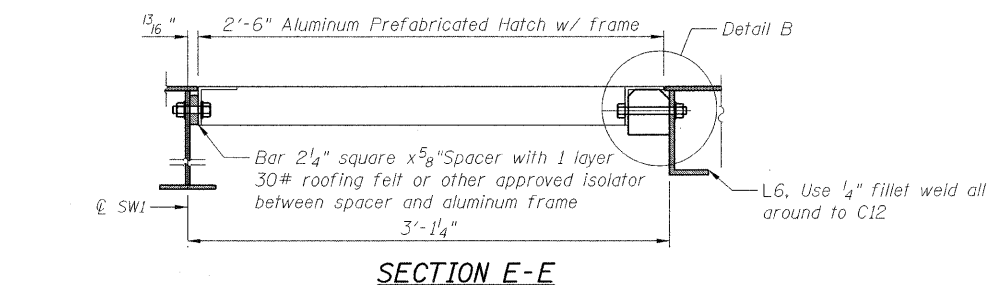
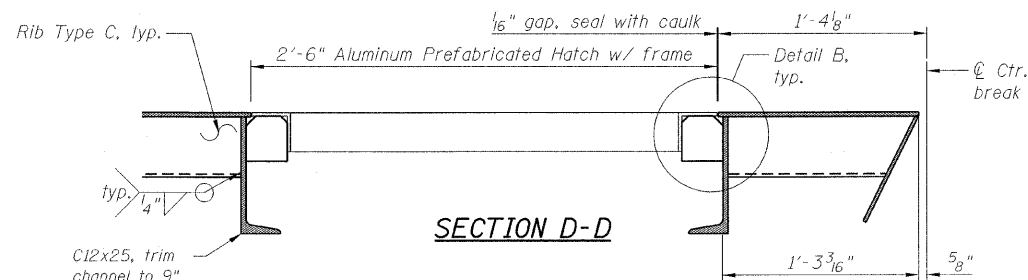
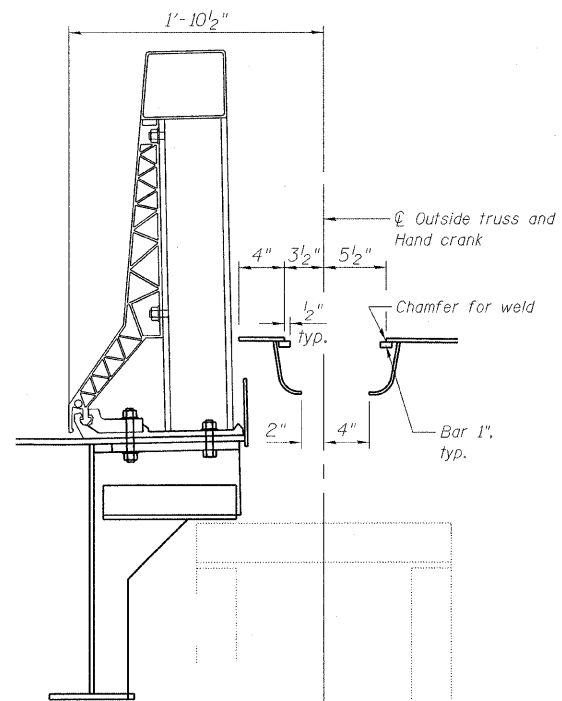
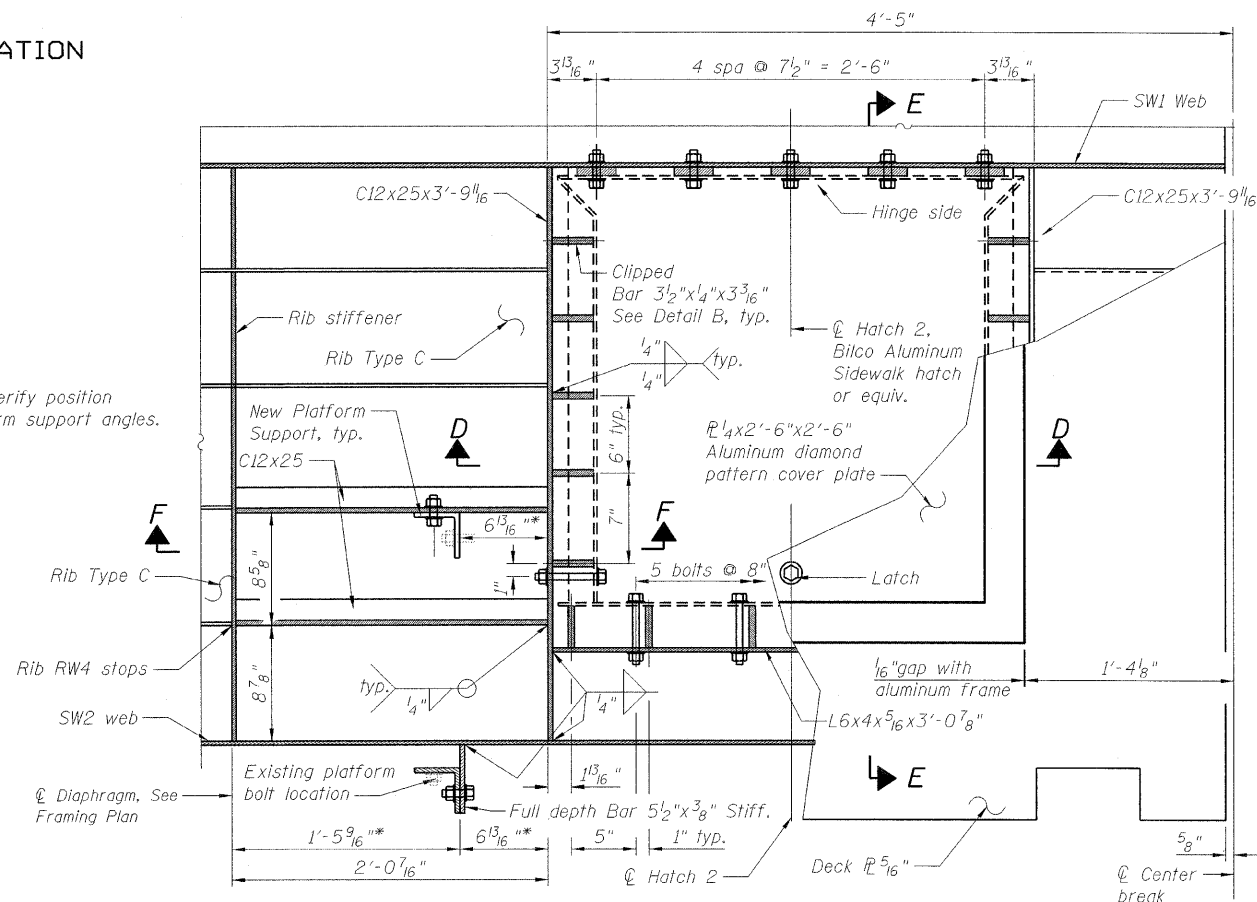
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

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17-JUN-2009 17:53

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



* Field verify position of platform support angles.



Notes:
Use 30 lbs. roofing felt or other material isolator as approved between all steel and aluminum.
Caulk 1/16" gaps with sealant.

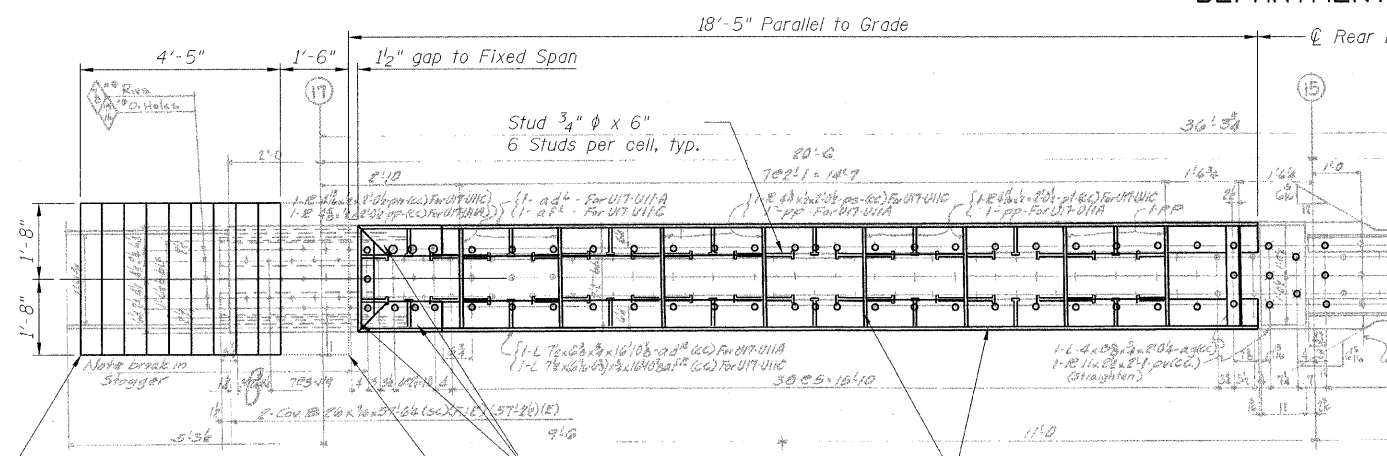
SHEET NO. 55		SECTION		COUNTY		TOTAL SHEETS		SHEET NO.	
163 SHEETS		2424.2B-R		COOK		398		136	
F.A.P. RTE. 389		CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

**SUPERSTRUCTURE
MOVABLE SPAN
STRUCTURE NO. 016-2445**

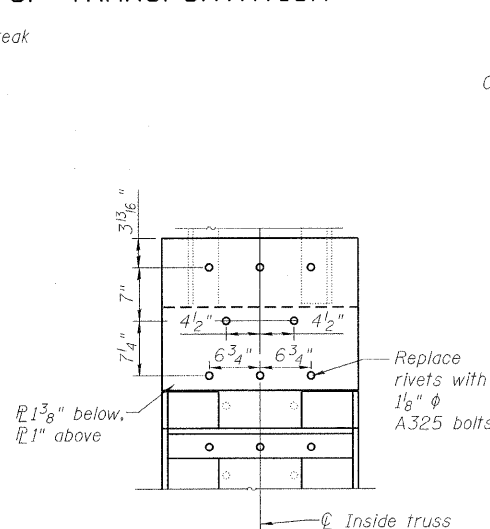
DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

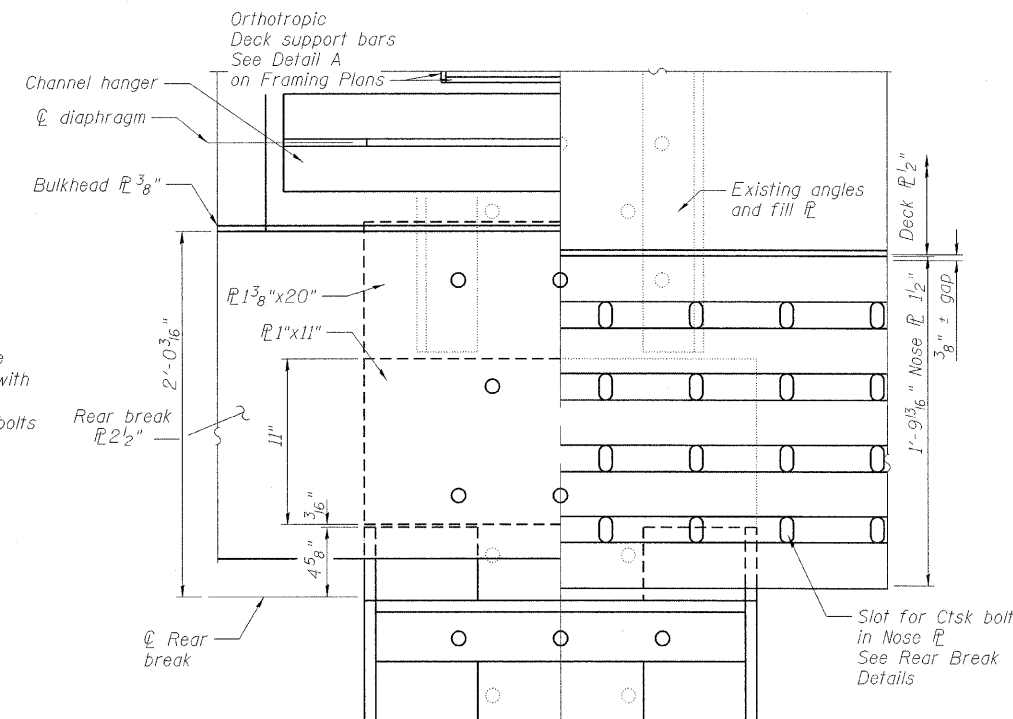


PLAN

Southwest Inside Truss Shown,
Others Similar

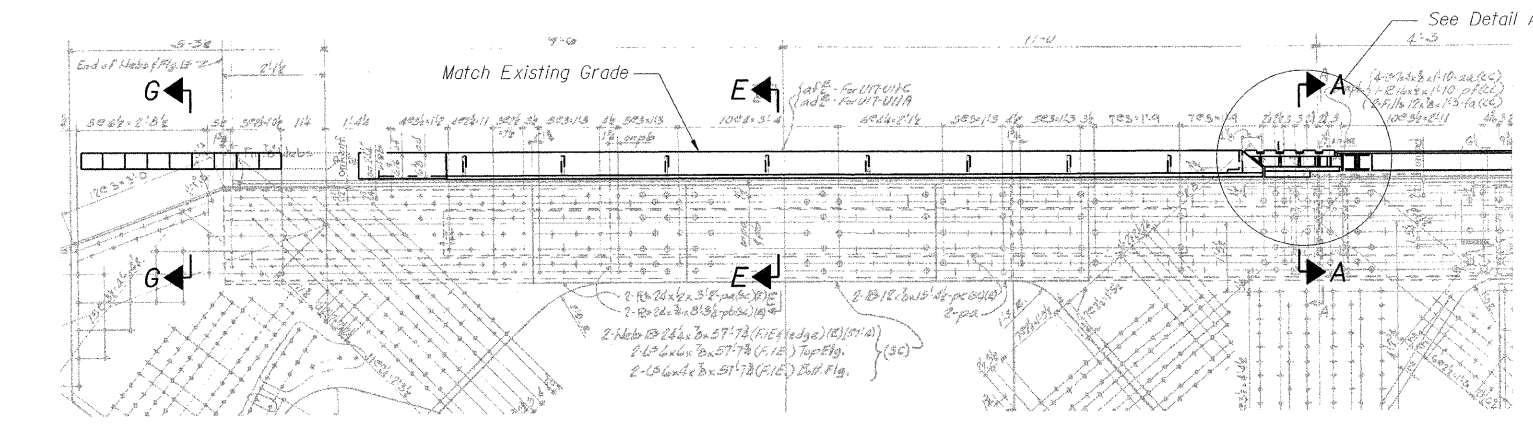


SECTION F-F



SECTION C-C

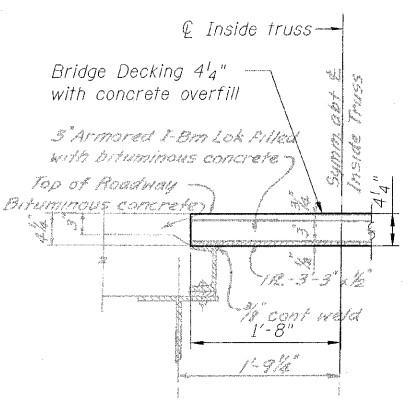
VIEW B-B



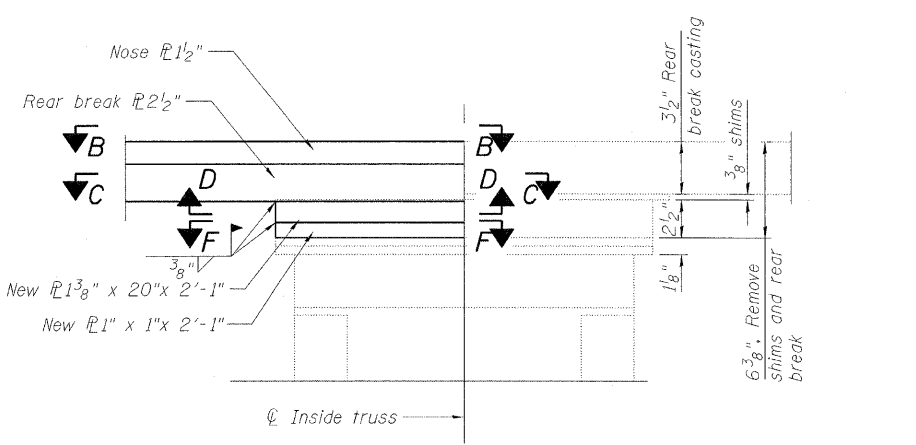
ELEVATION

INSIDE TRUSS DETAIL SOUTHWEST LEAF

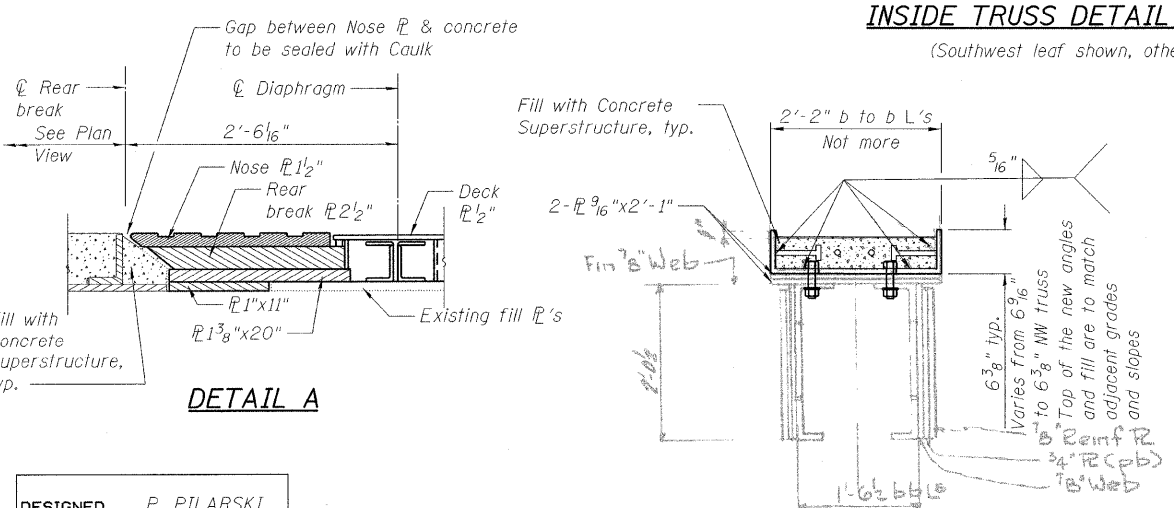
(Southwest leaf shown, other leaves similar)



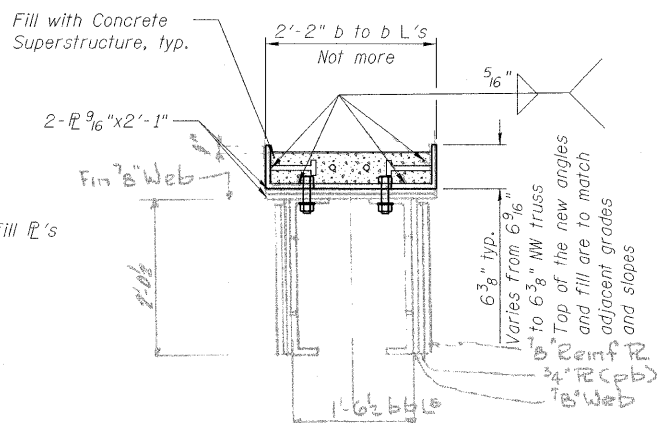
SECTION G-G



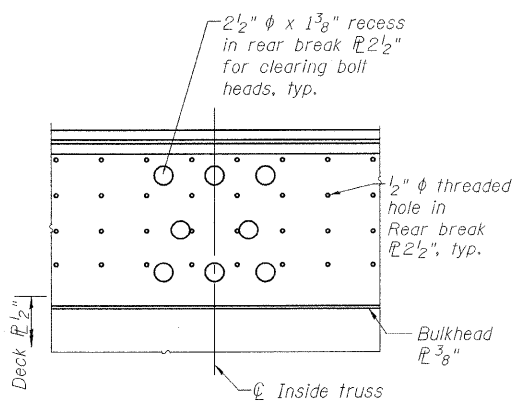
SECTION A-A



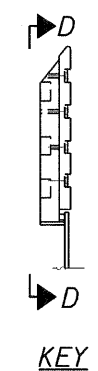
DETAIL A



SECTION E-E



SECTION D-D



KEY

LEGEND

- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Decking over Rear Arm, 4 1/4"	Sq. Ft.	60

SUPERSTRUCTURE
MOVABLE SPAN
STRUCTURE NO. 016-2445

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

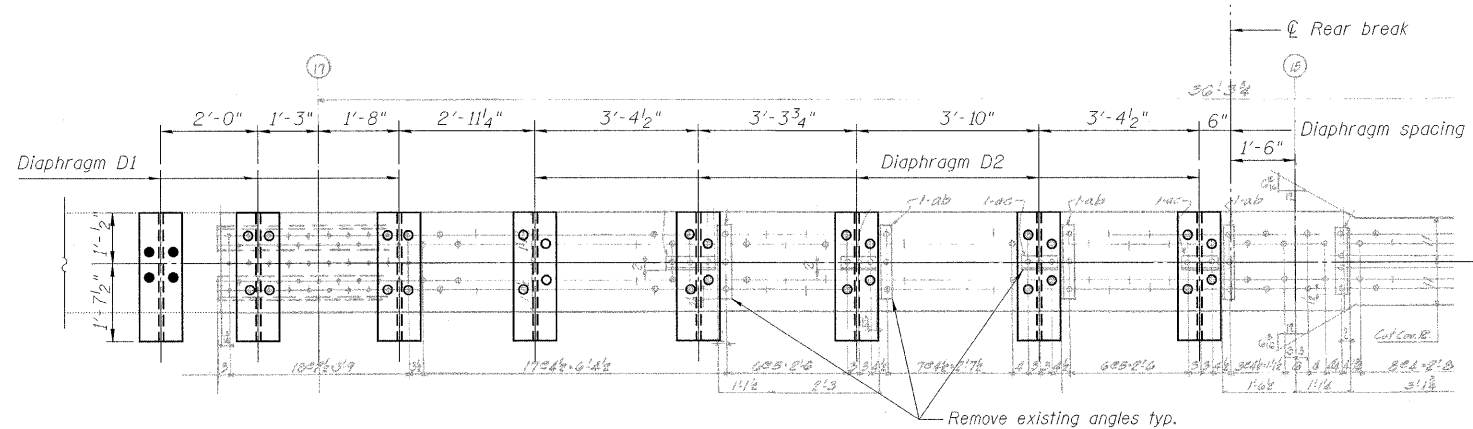
Note:
Payment for work items shown in Plan, Elevation, and Section E-E included as part of Item "Structural Steel Repair".

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

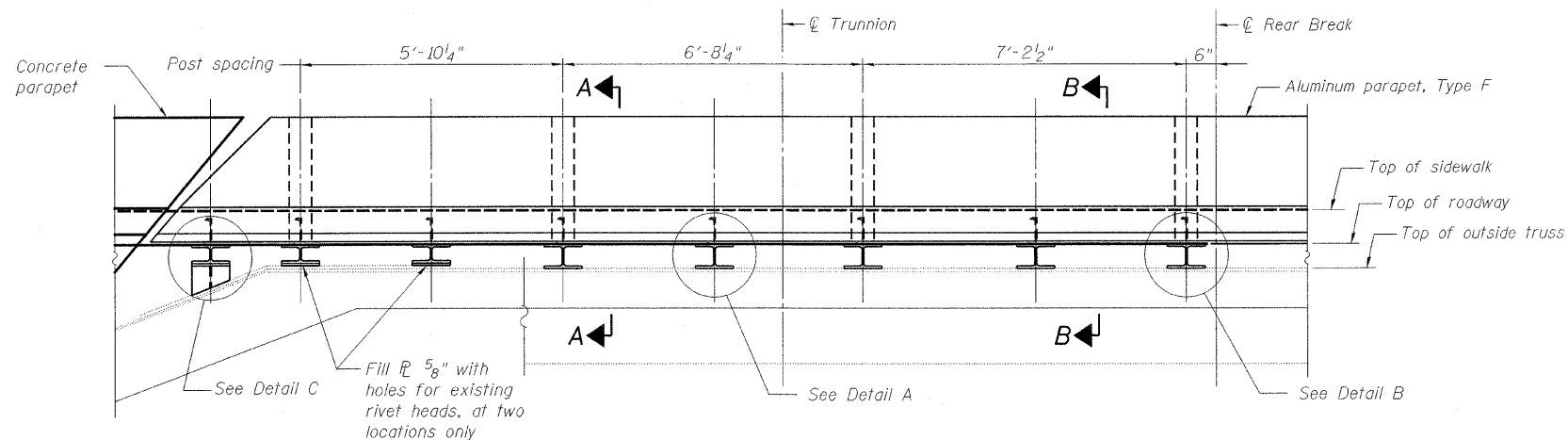
SHEET NO. 56	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	137
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

T:\16843A\Structural\Cadd\Pre-final\EB_Plans\0162445-60D61-SUP-057.dgn 07-MAY-2009

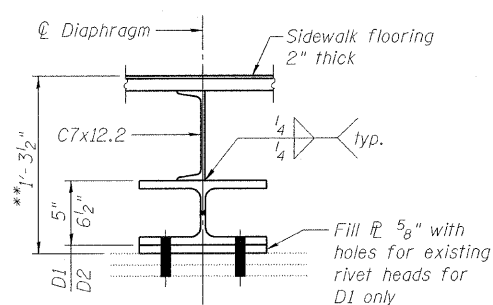
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



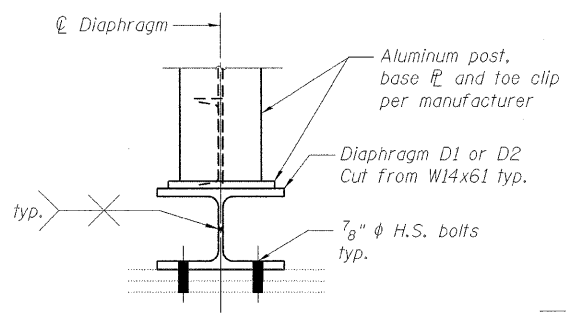
PLAN
(Outside Truss Rear Arm)



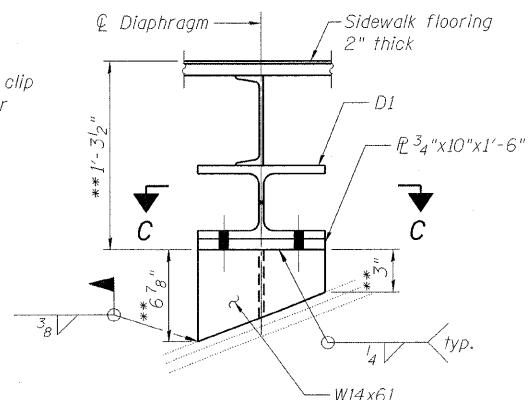
ELEVATION



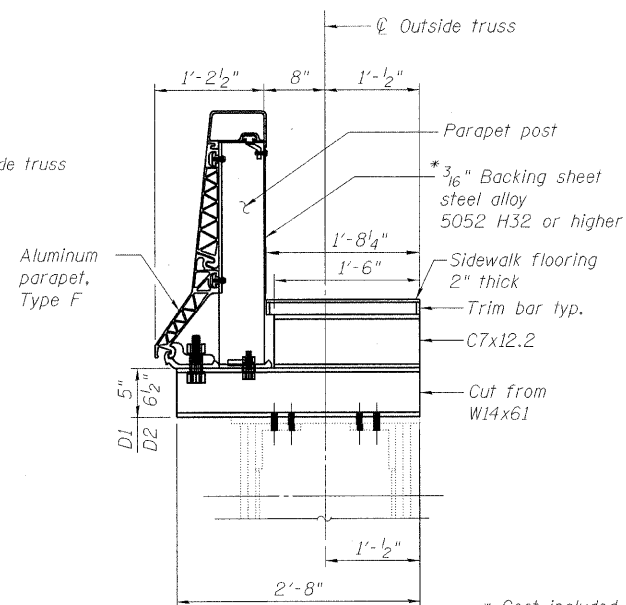
DETAIL A



DETAIL B

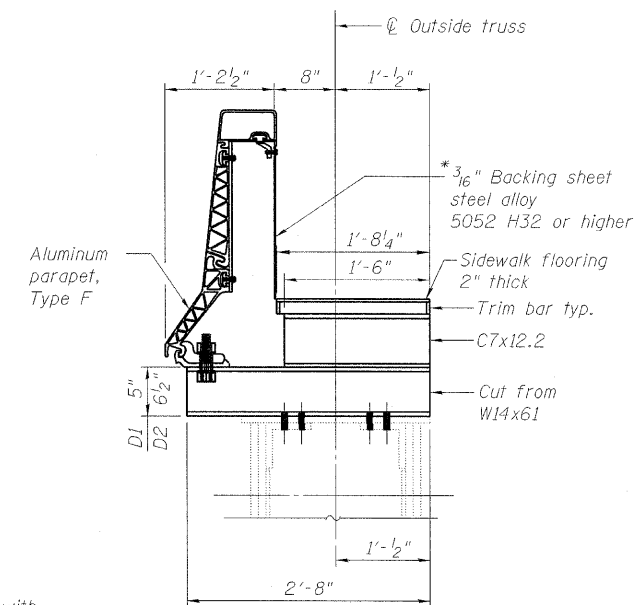


DETAIL C

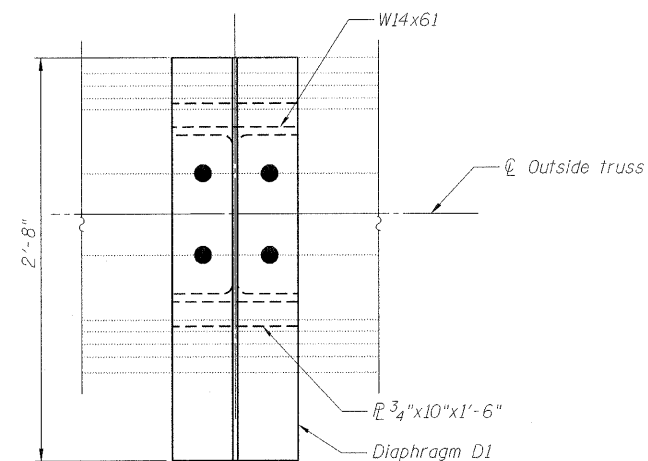


SECTION A-A

* Cost included with Aluminum Parapet, Type F



SECTION B-B



SECTION C-C

LEGEND

- Existing fastener to remain
- ◻ Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portion of this drawing is extracted from original drawing for this bridge.
See sheets 132 and 133 for Aluminum Parapet, Type F.

**SUPERSTRUCTURE
MOVABLE SPAN
STRUCTURE NO. 016-2445**

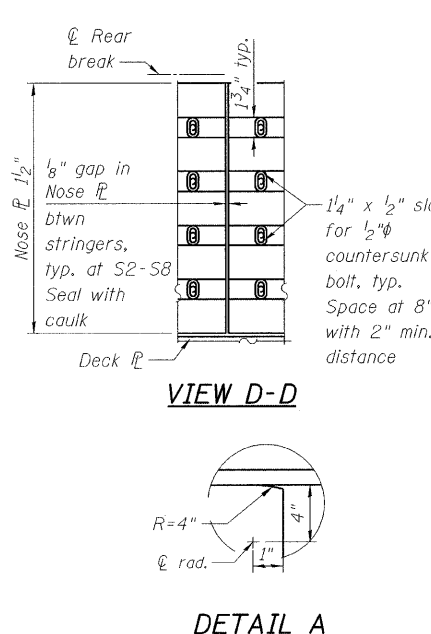
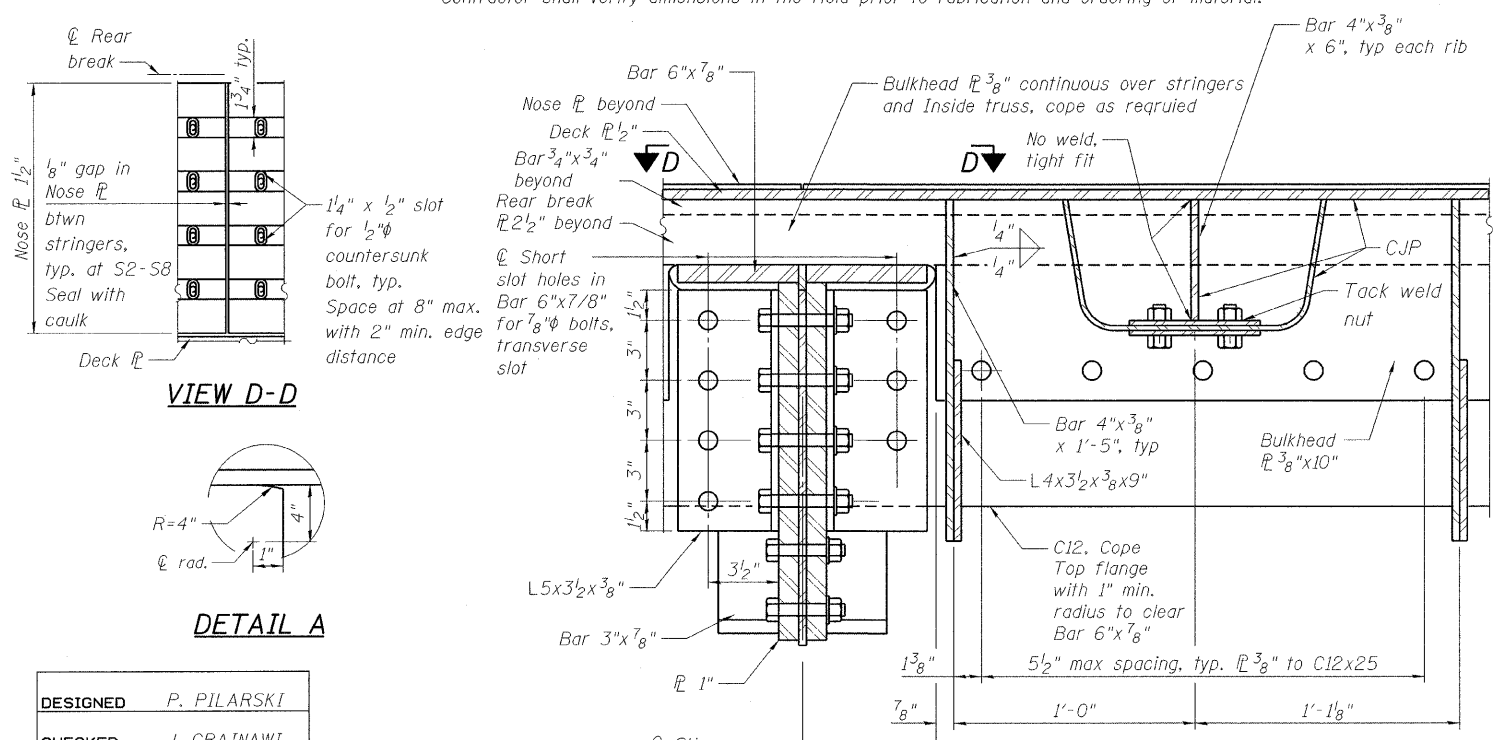
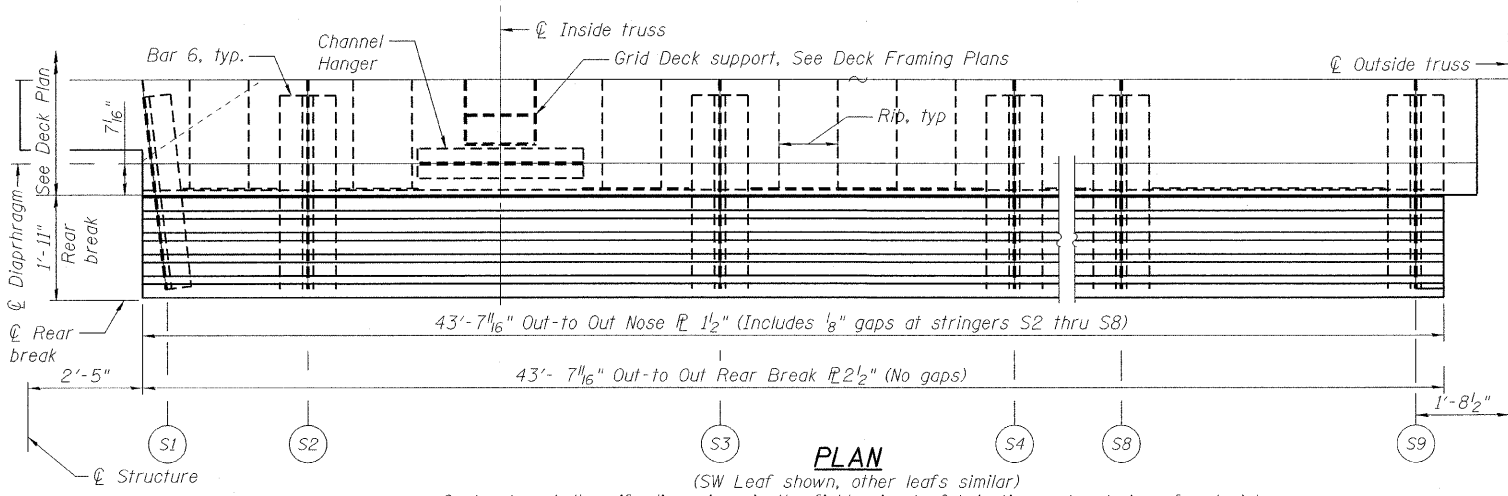
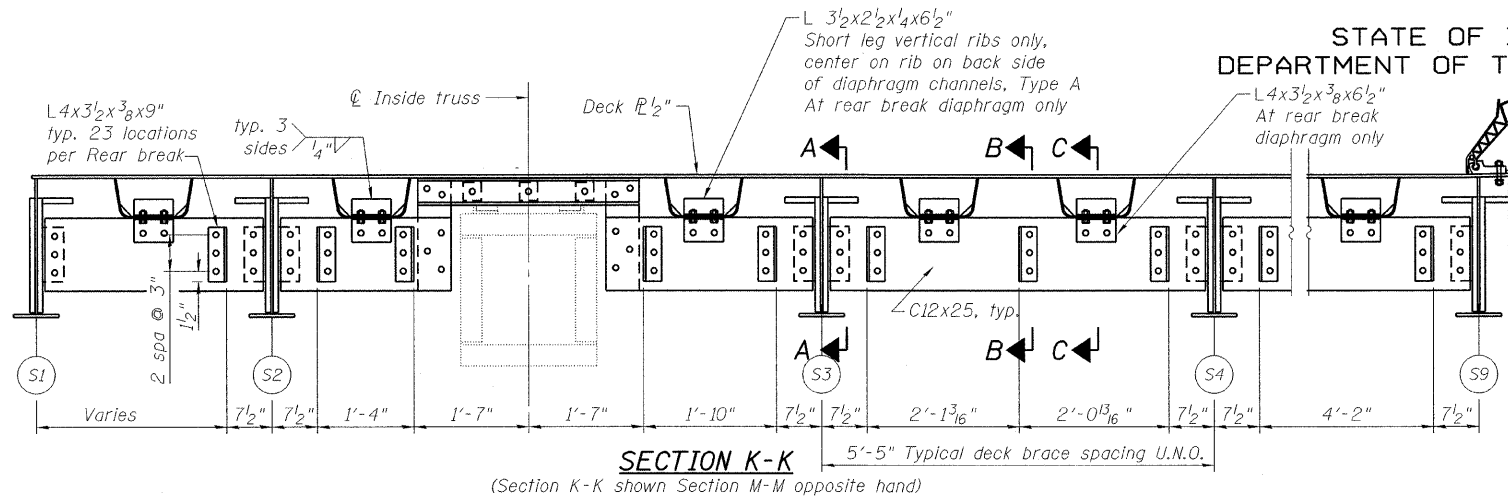
DESIGNED	M. SHAIKH
CHECKED	J. GRAINAWI
DRAWN	M. SHAIKH
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

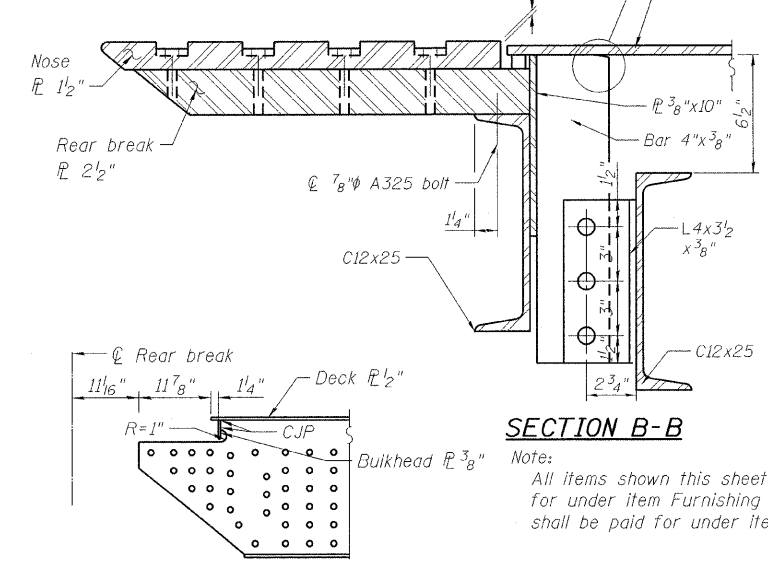
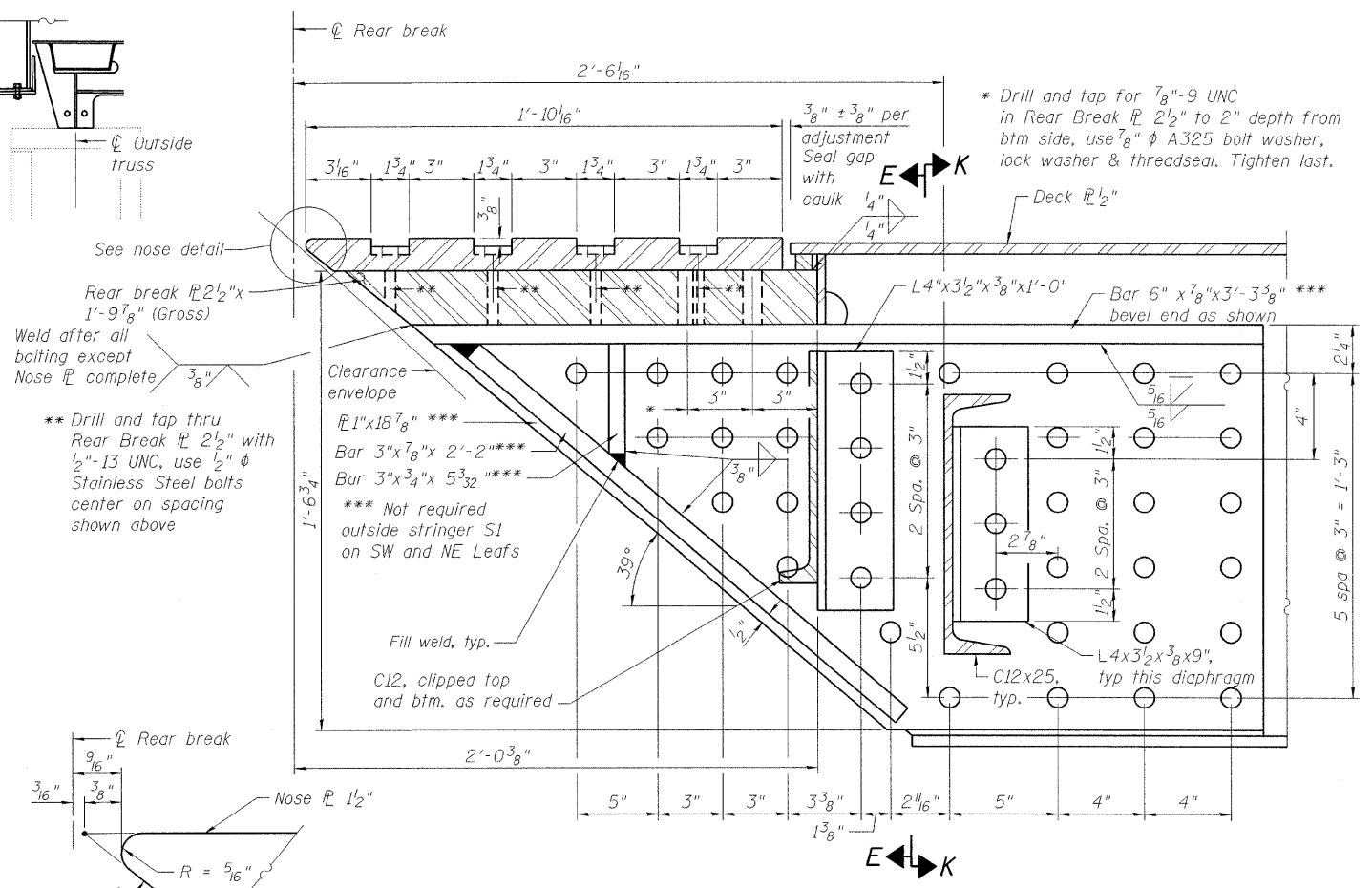
SHEET NO. 57 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	138
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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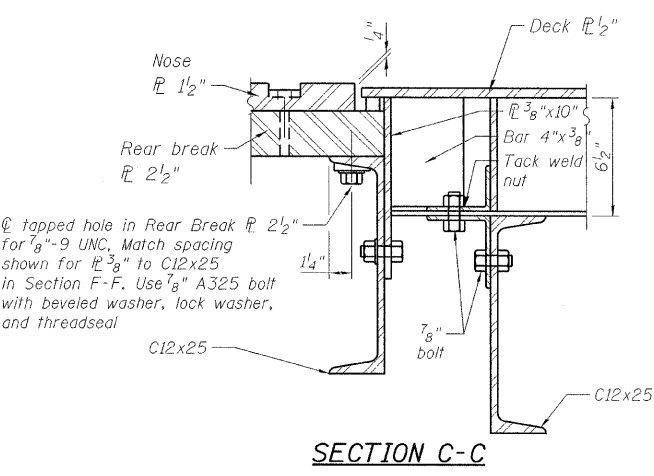
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	P. PILARSKI
CHECKED	J. GRAINAWI



STRINGER END DETAIL



Note:
All items shown this sheet that are not directly or indirectly welded to Deck $\frac{1}{2}$ " shall be paid for under item Furnishing and Erecting Structural Steel. All items welded to Deck $\frac{1}{2}$ " shall be paid for under item Furnishing and Erecting Orthotropic Bridge Deck. Shop paint all items.

REAR BREAK DETAILS
STRUCTURE NO. 016-2445

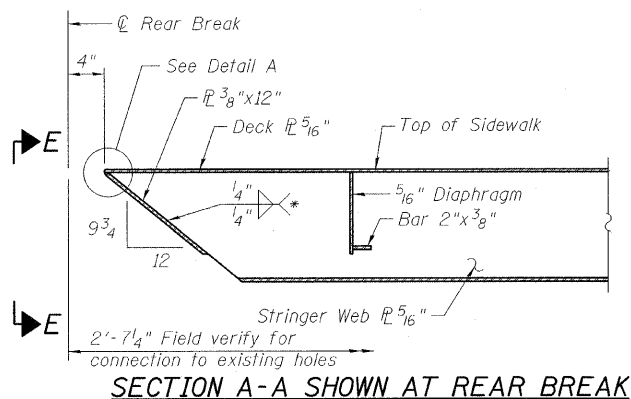
Notes:
Rear break details shown this sheet attached to Deck Panel 5. Assembly of all components shall be performed prior to setting Deck Panel 5 on floor beams except truss hanger connection and Nose $\frac{1}{2}$ " connection.

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SUITE 900
CHICAGO, IL. 60606

SHEET NO. 59	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	140
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

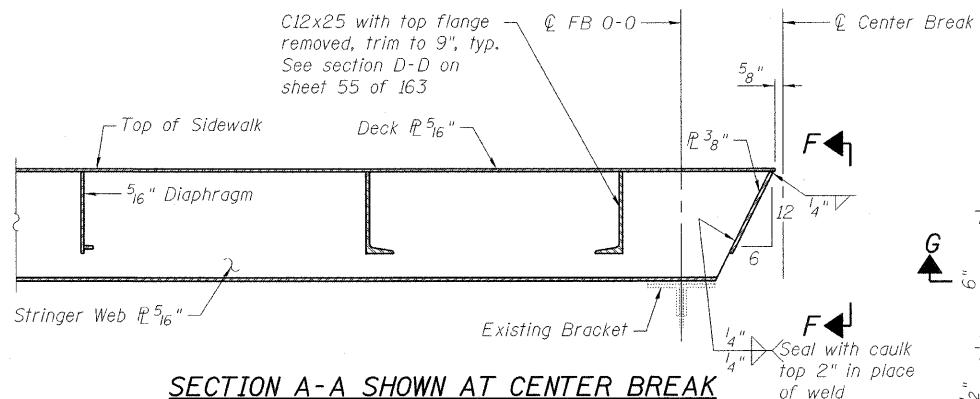
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

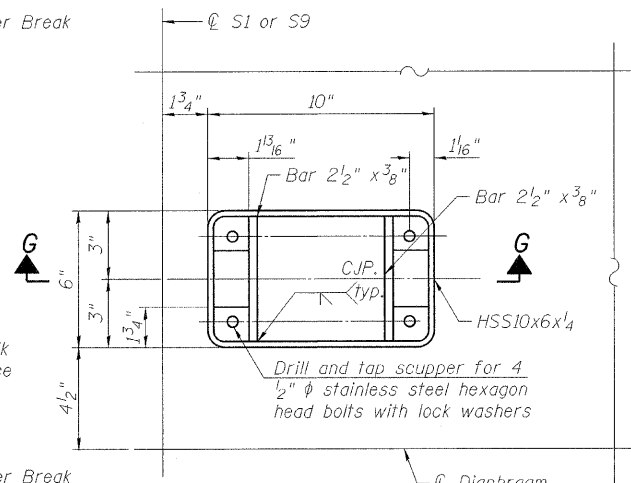


SECTION A-A SHOWN AT REAR BREAK

* See Detail A

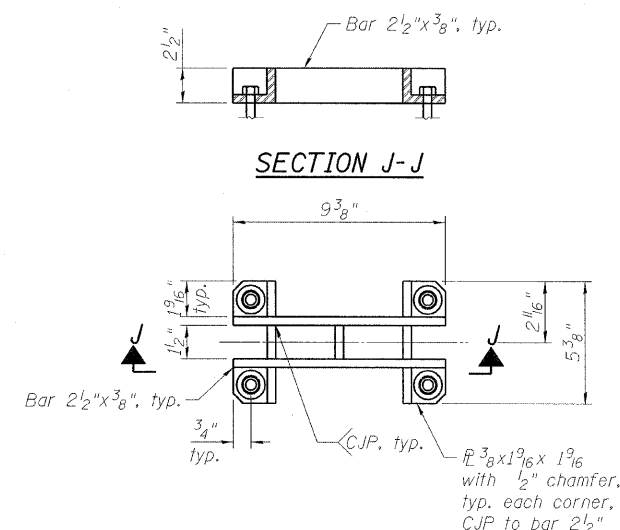


SECTION A-A SHOWN AT CENTER BREAK

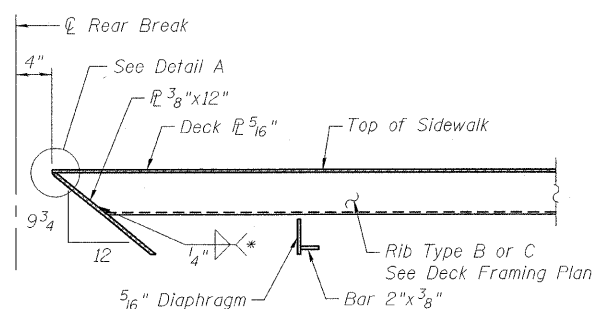


SCUPPER PLAN

Grating not shown - see separate detail.

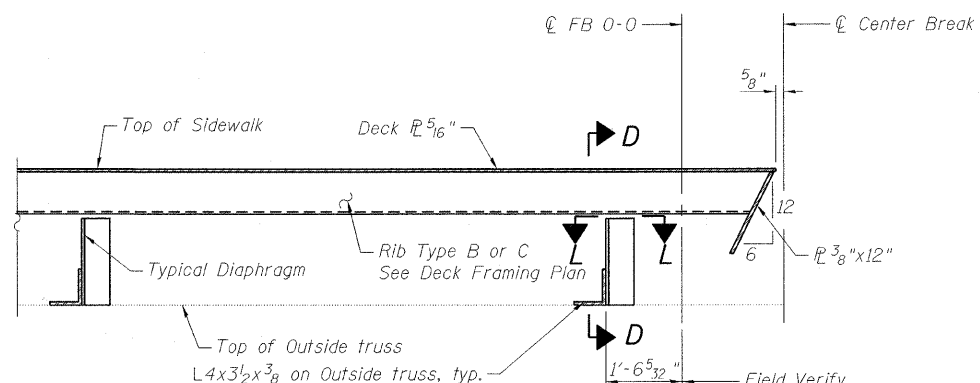


FABRICATED DRAIN GRATE

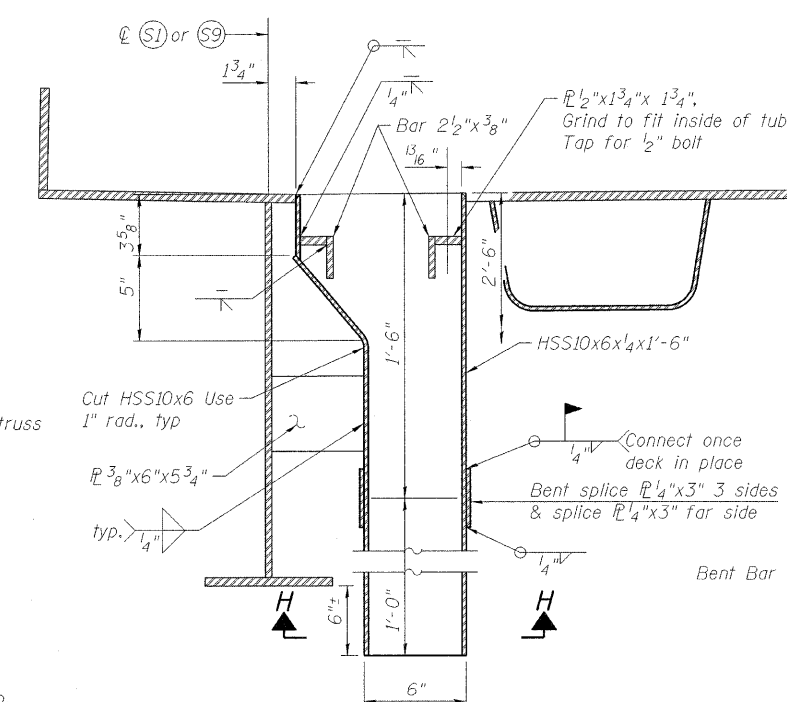


SECTION B-B SHOWN AT REAR BREAK

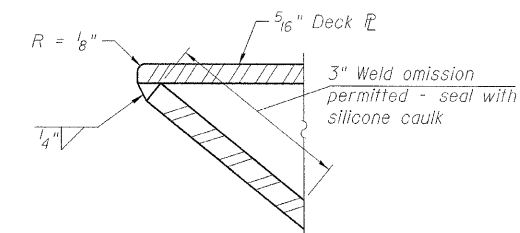
* See Detail A



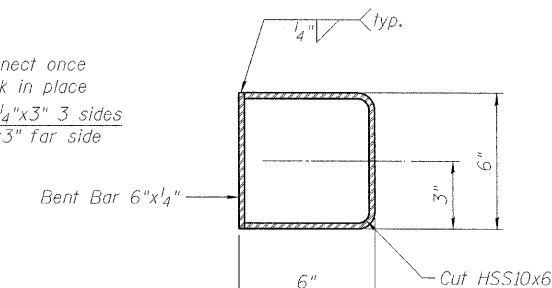
SECTION C-C SHOWN AT CENTER BREAK



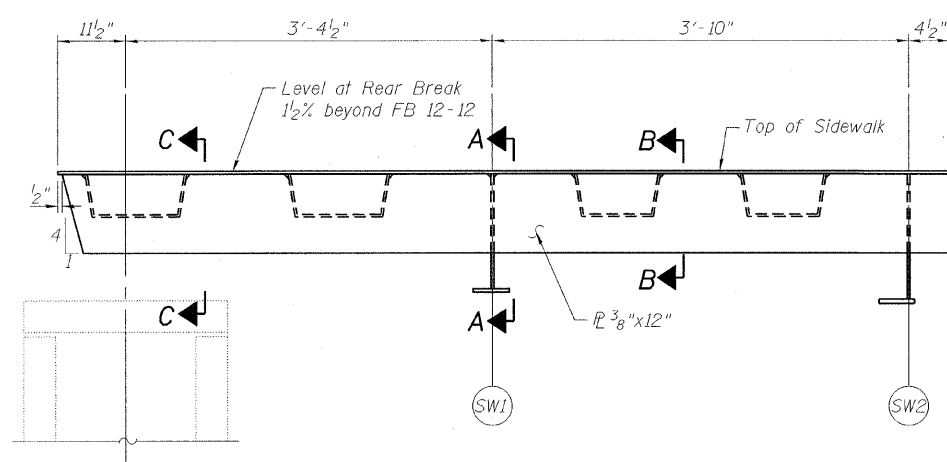
SECTION G-G



DETAIL A

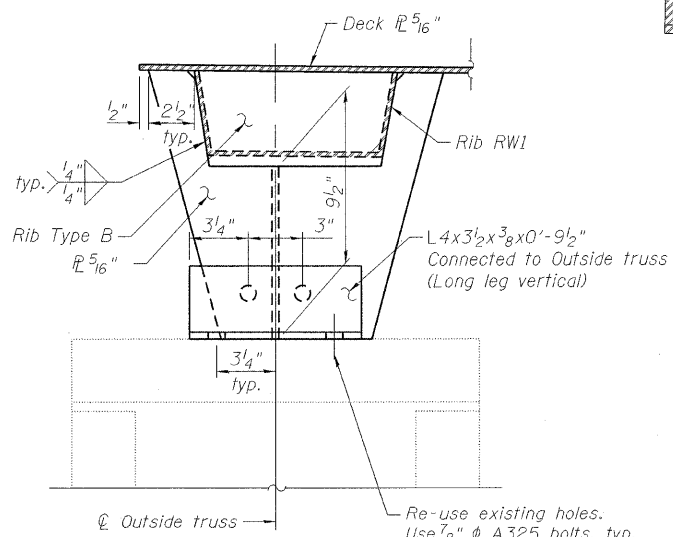


SECTION H-H



VIEW E-E

(View F-F opposite hand)



SECTION D-D

ORTHOTROPIC SIDEWALK STRINGERS

DESIGNED	P. PILARSKI
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

Existing member to remain
New member

Notes:
See Deck Plans and sheet 1 of 163 for scupper locations.
See sheet 53 of 163 for Section L-L.

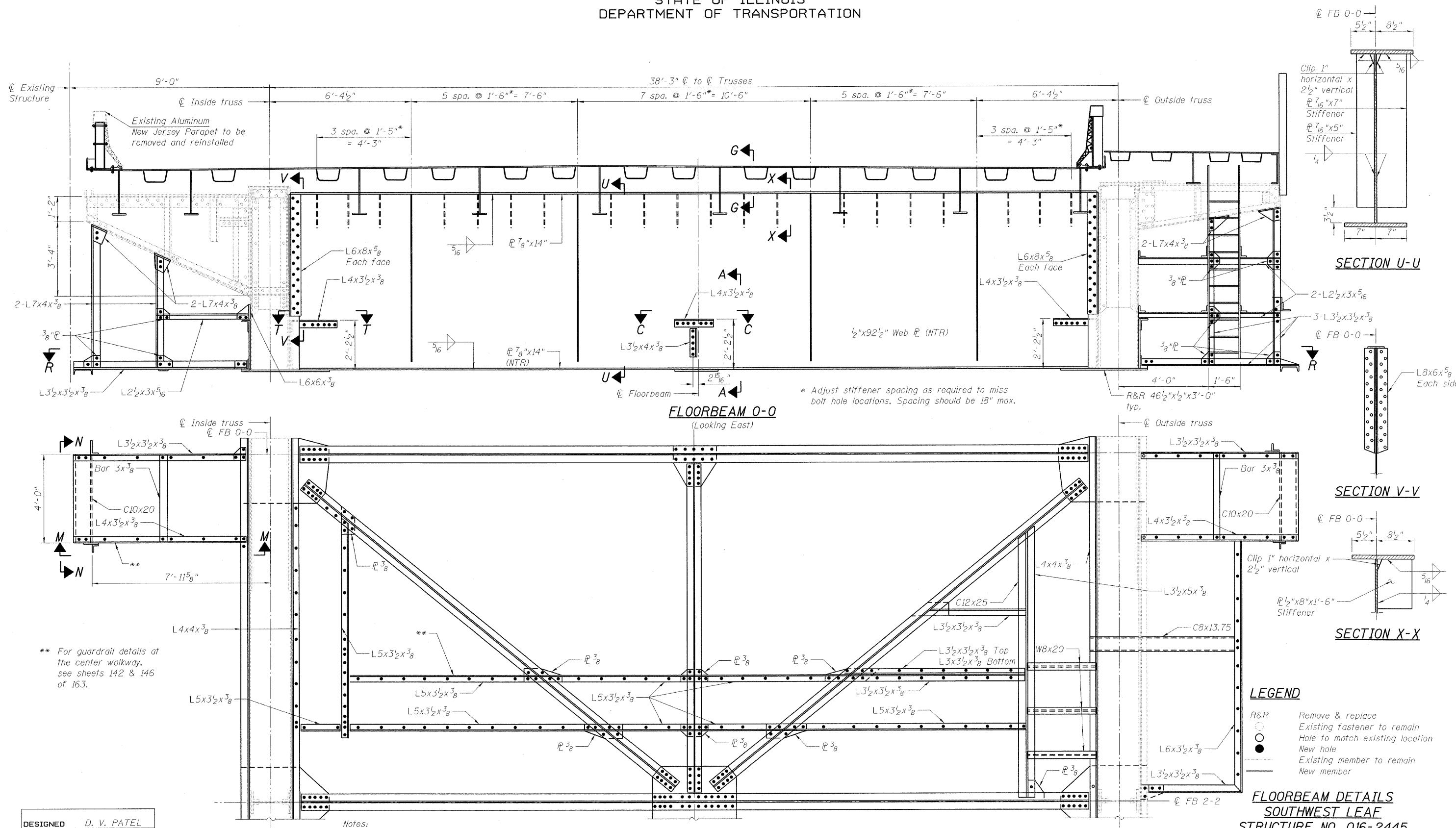
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 60	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 141
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

REAR BREAK DETAILS
STRUCTURE NO. 016-2445

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

Notes:
For Section G-G, see sheet 58 of 163.
For Section A-A, C-C and T-T, see sheet 88 of 163.
For Section M-M and N-N, see sheet 73 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

* Adjust stiffener spacing as required to miss bolt hole locations. Spacing should be 18" max.

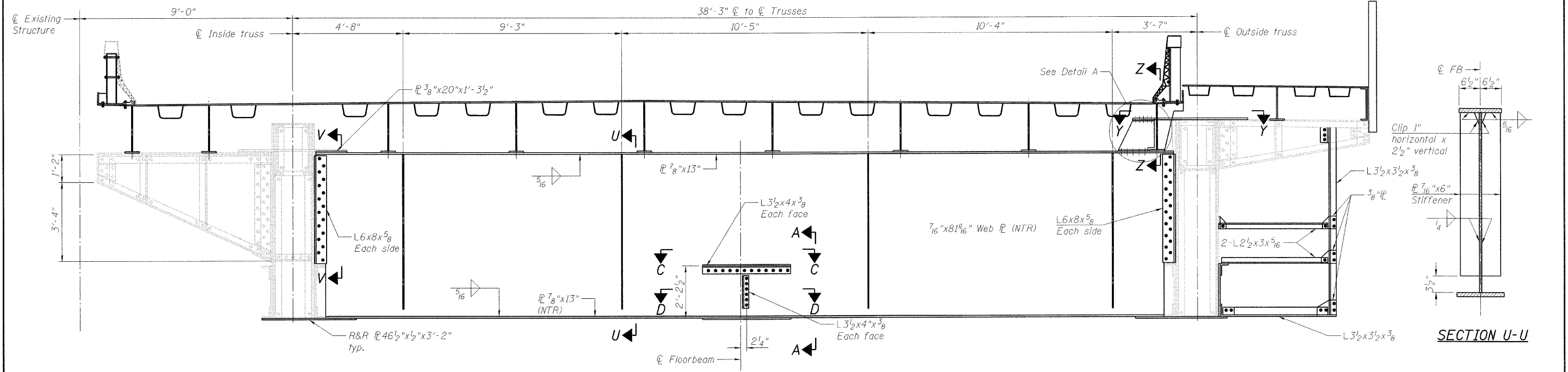
SHEET NO. 61
163 SHEETS

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

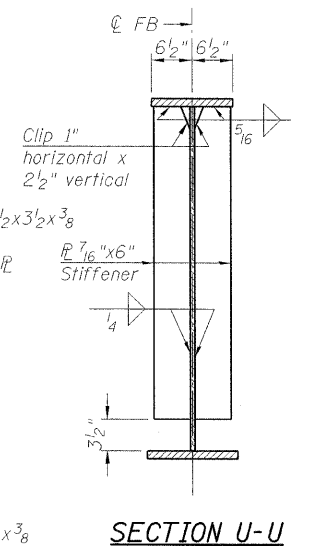
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-R	COOK	398	142
CONTRACT NO.			60D61	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

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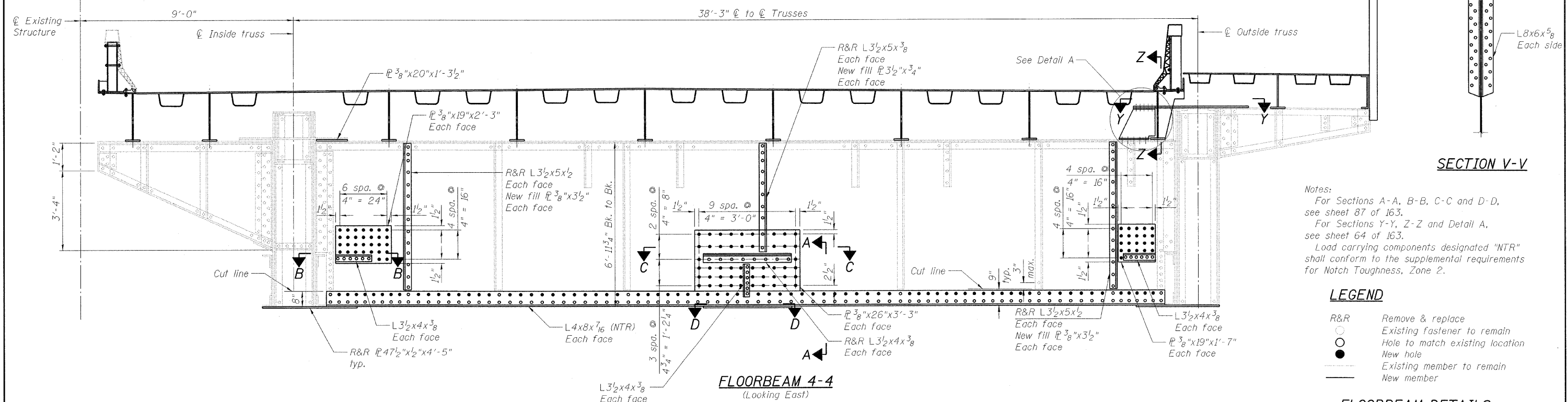
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



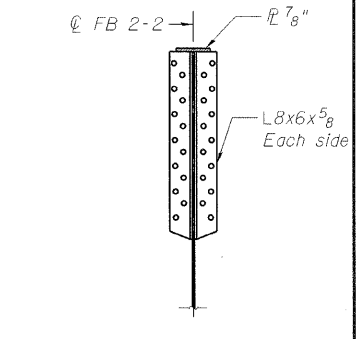
FLOORBEAM 2-2
(Looking East)



SECTION U-U



FLOORBEAM 4-4
(Looking East)



SECTION V-V

Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
---	Existing member to remain
---	New member

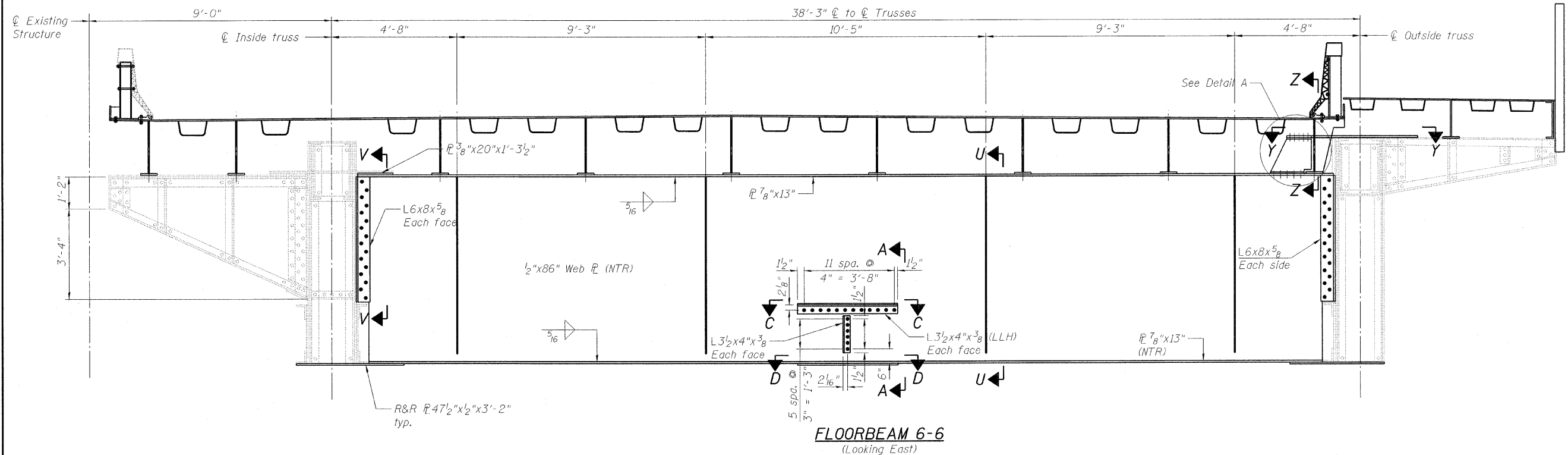
FLOORBEAM DETAILS
SOUTHWEST LEAF
STRUCTURE NO. 016-2445

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

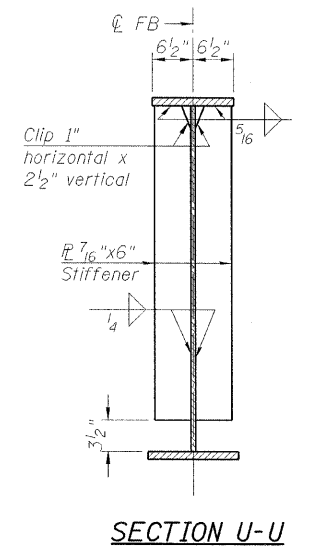
SHEET NO. 62 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	143
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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07-MAY-2009

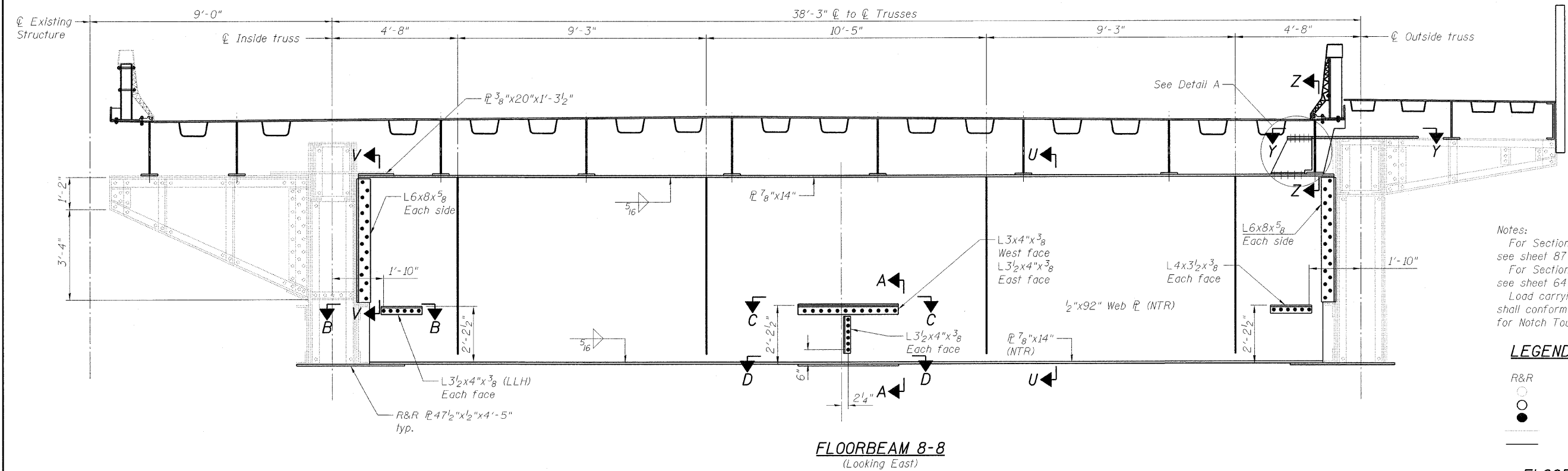
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



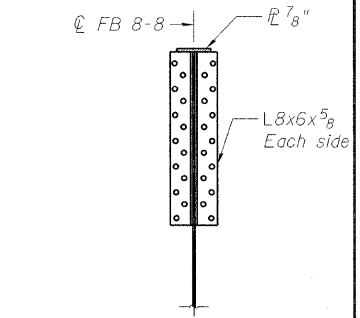
FLOORBEAM 6-6
(Looking East)



SECTION U-U



FLOORBEAM 8-8
(Looking East)



SECTION V-V

Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

**FLOORBEAM DETAILS
SOUTHWEST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

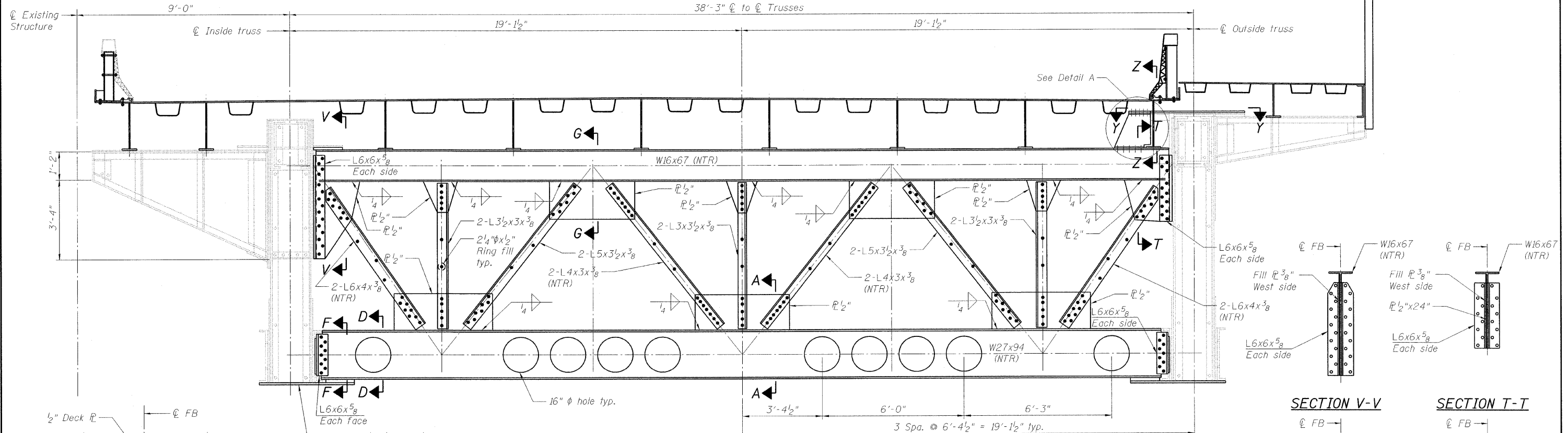
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07-MAY-2009

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

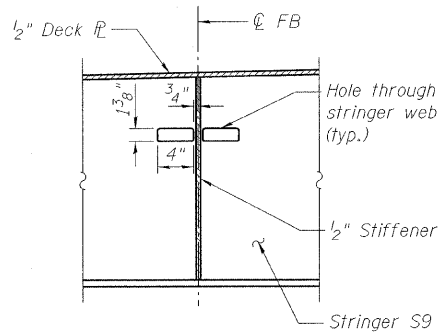
SHEET NO. 63 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	144
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

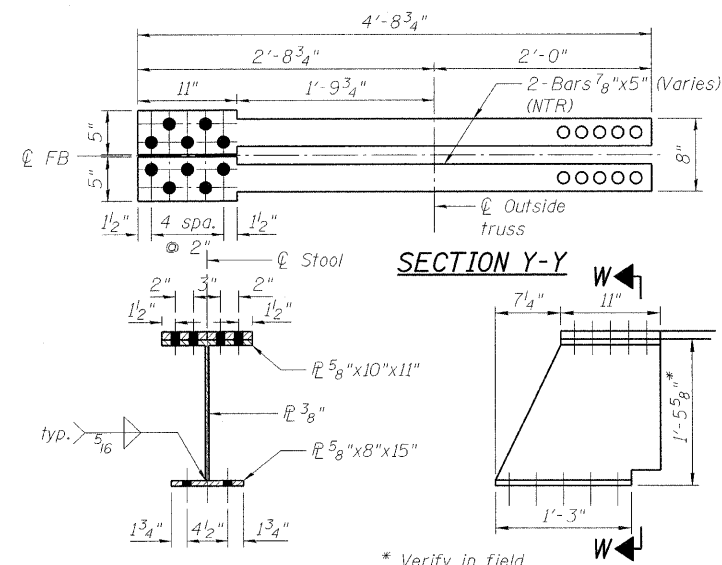
38'-3" ϕ to ϕ Trusses



FLOORBEAM 10-10
(Looking East)



SECTION Z-Z



Notes:
For Sections A-A and D-D, see sheet 87 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
\circ	Existing fastener to remain
\bullet	Hole to match existing location
\circ	New hole
—	Existing member to remain
—	New member

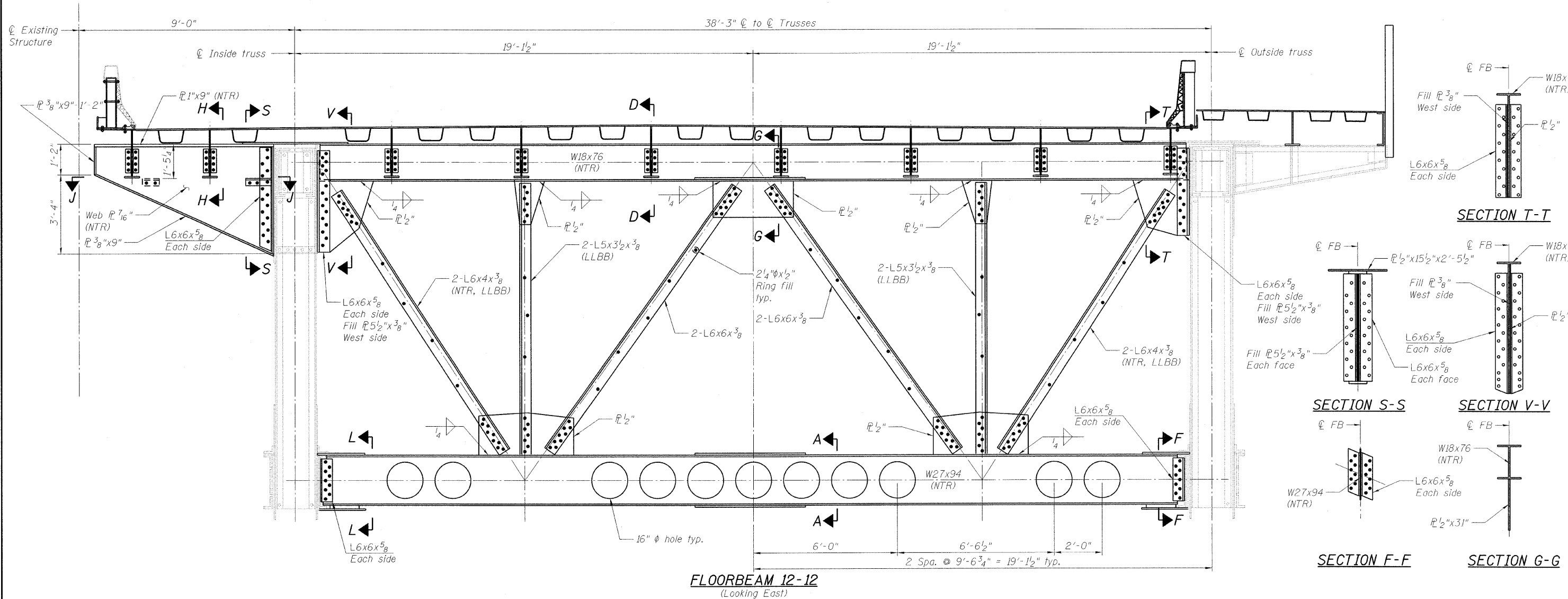
**FLOORBEAM DETAILS
SOUTHWEST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SECTION W-W
(Bottom flange holes shall match existing hole spacing for existing floorbeams)

SHEET NO. 64	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 145
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606		CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



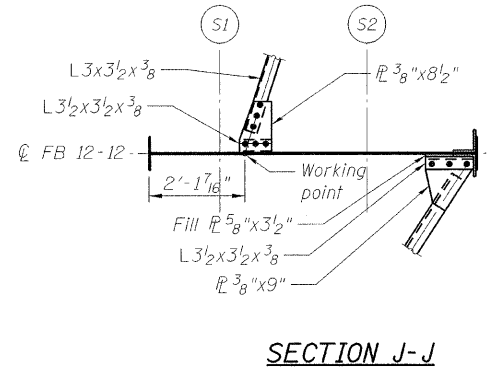
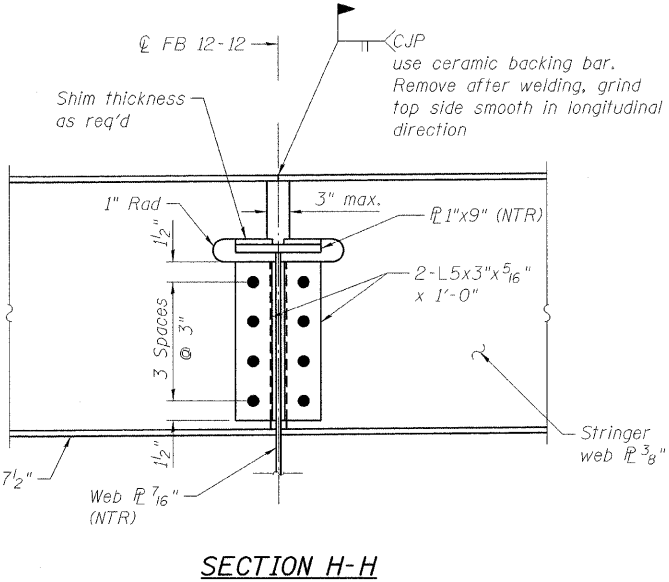
FLOORBEAM 12-12
(Looking East)

Notes:
For Sections A-A and L-L, see sheet 87 of 163.
For Sections D-D, see sheet 53 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

**FLOORBEAM DETAILS
SOUTHWEST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD



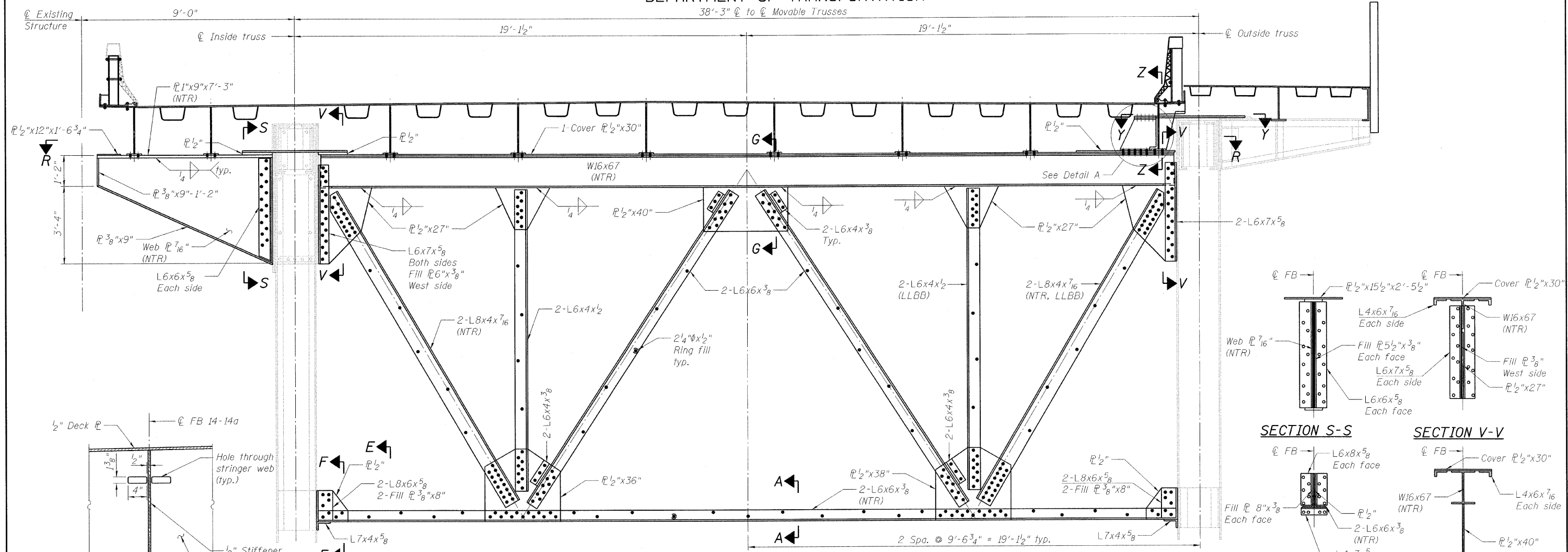
SECTION J-J

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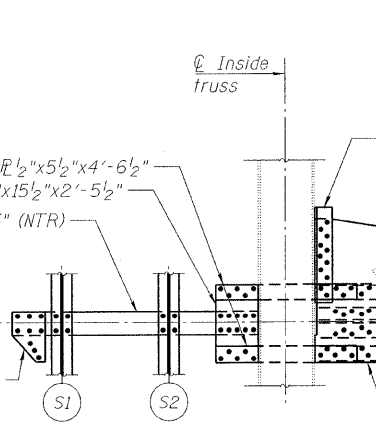
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 65 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	146
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
				CONTRACT NO. 60D61	

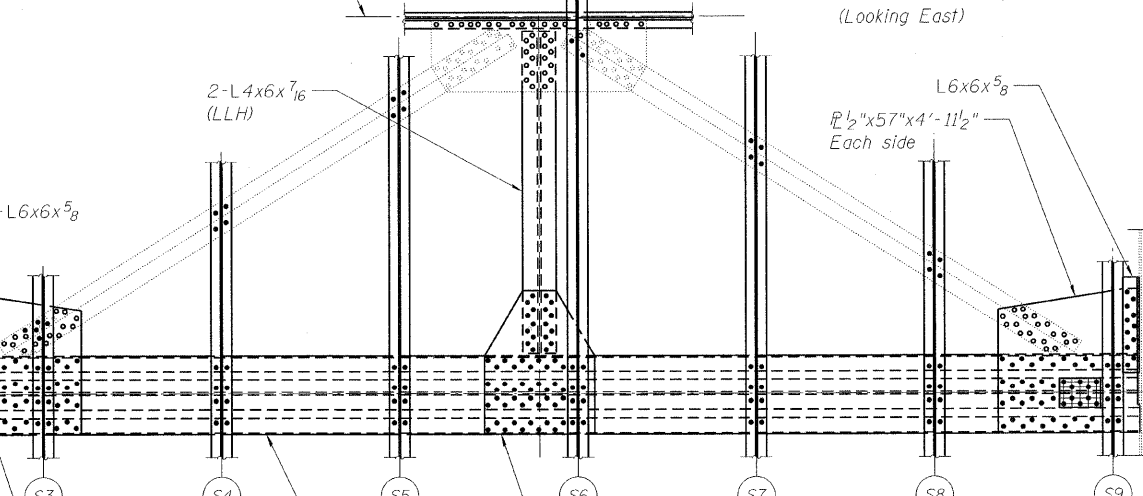
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
38'-3" ϕ to ϕ Movable Trusses



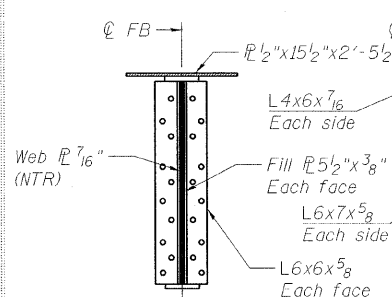
SECTION Z-Z



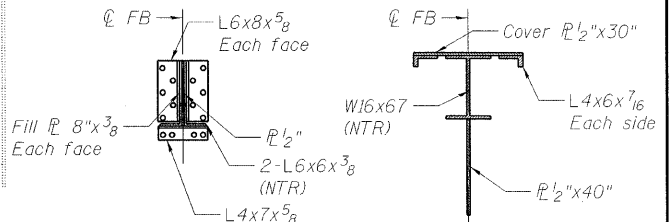
FLOORBEAM 14-14a
(Looking East)



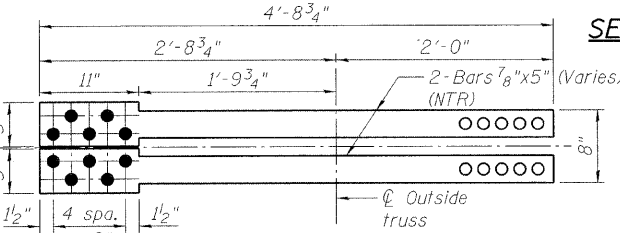
SECTION S-S



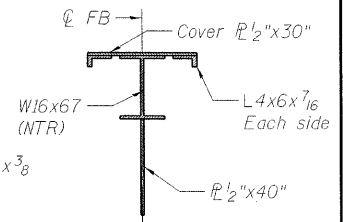
SECTION V-V



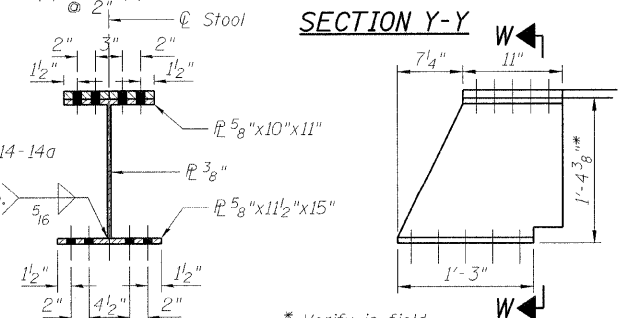
SECTION F-F



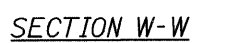
SECTION G-G



SECTION Y-Y



SECTION W-W



DETAIL A



Note:
For Sections A-A and E-E,
see sheet 88 of 163.
Load carrying components designated "NTR"
shall conform to the supplemental requirements
for Notch Toughness, Zone 2.

LEGEND

- R&R Remove & replace
- Existing Fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

**FLOORBEAM DETAILS
SOUTHWEST LEAF
STRUCTURE NO. 016-2445**

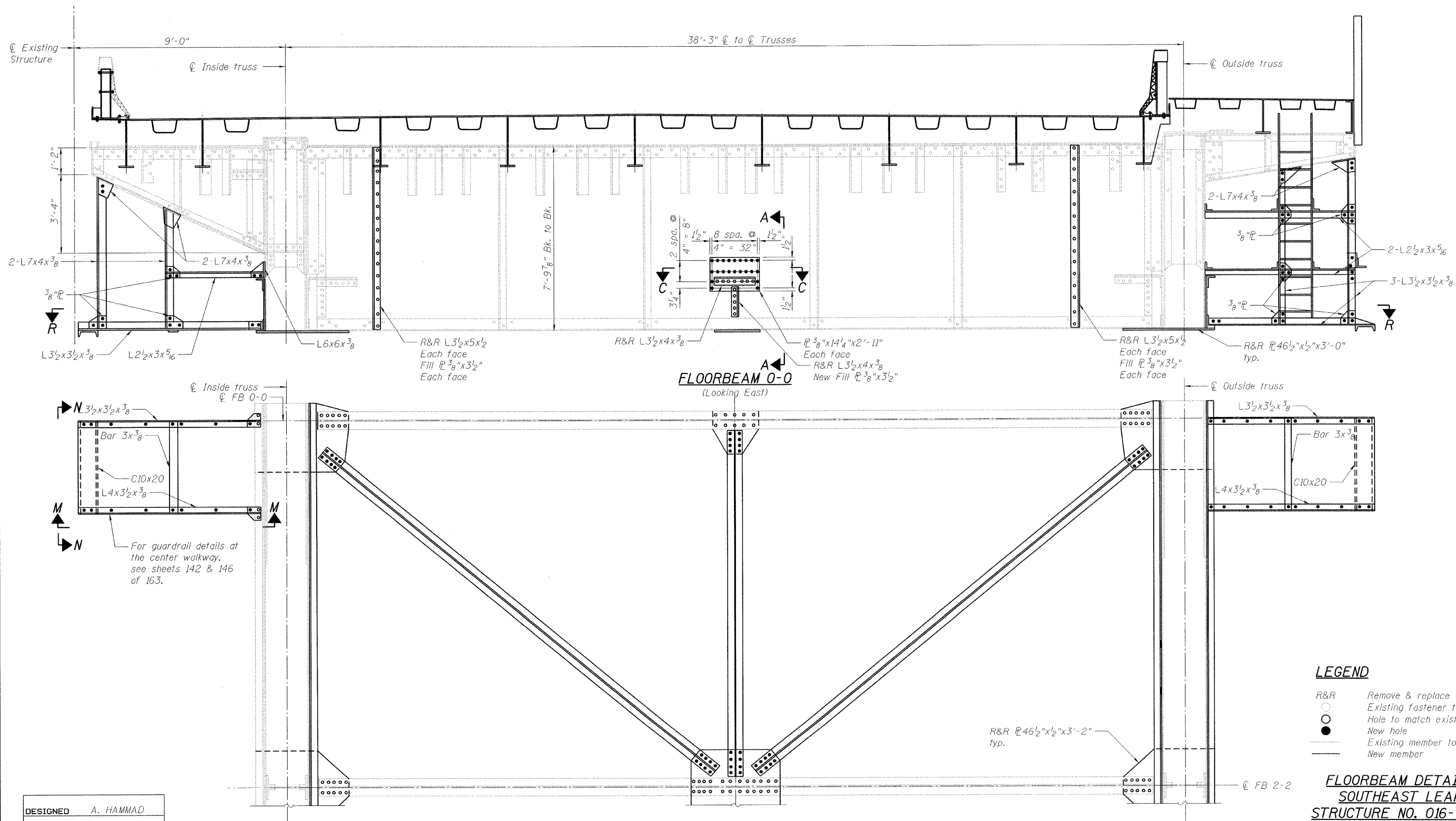
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 66	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 147
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

**FLOORBEAM DETAILS
SOUTHEAST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

Notes:
For Section A-A and C-C, see sheet 88 of 163.
For Section M-M and N-N, see sheet 73 of 163.

SECTIONAL PLAN R-R
(NE Similar - Opposite hand)

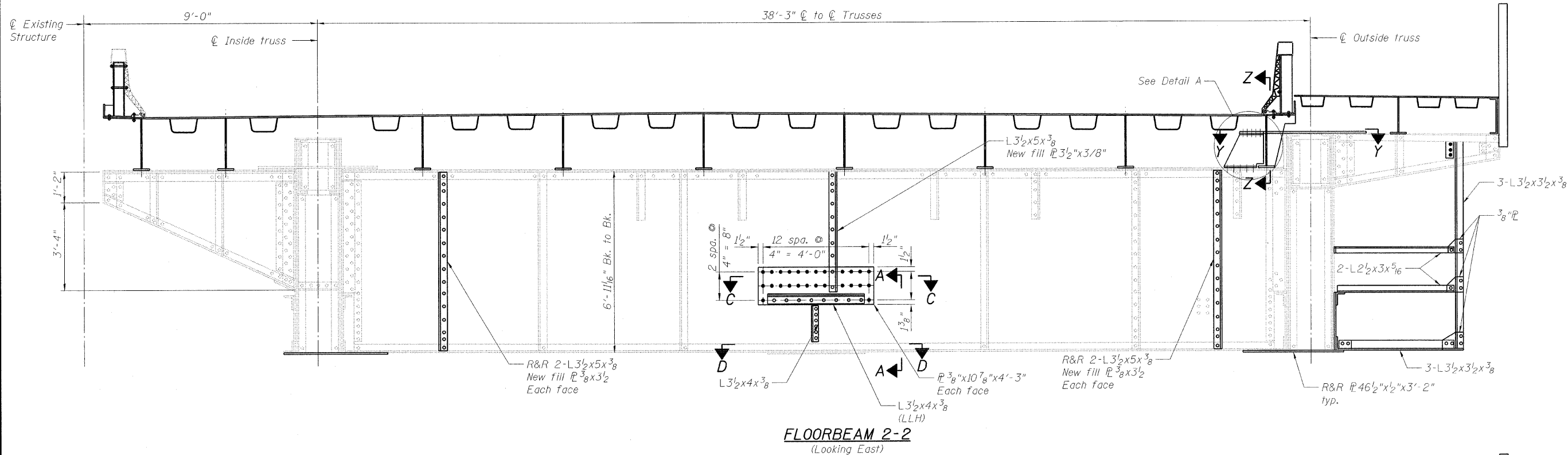
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 67 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	148
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.					60D61

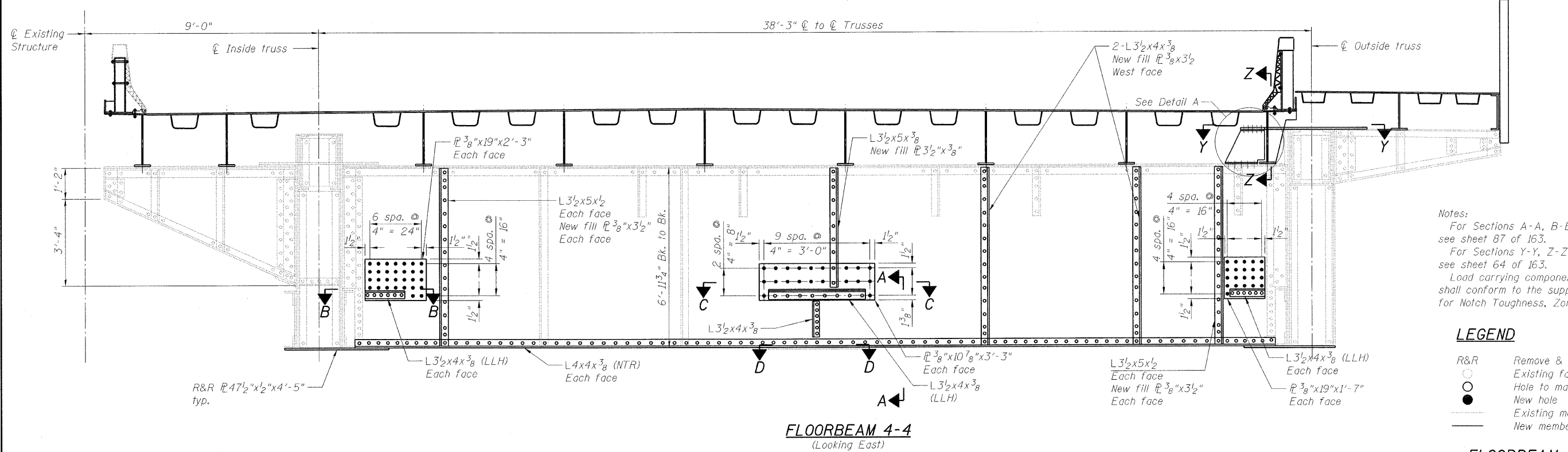
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38'-3" ϕ to ϕ Trusses



FLOORBEAM 2-2
(Looking East)



FLOORBEAM 4-4
(Looking East)

Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
—	Existing member to remain
—	New member

FLOORBEAM DETAILS
SOUTHEAST LEAF
STRUCTURE NO. 016-2445

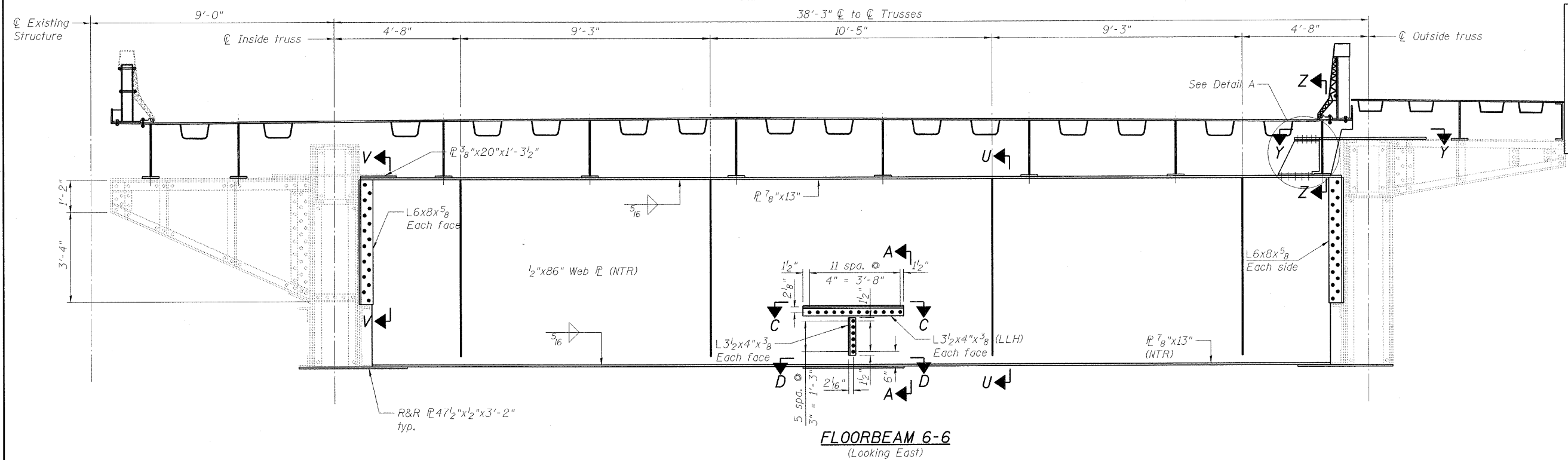
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

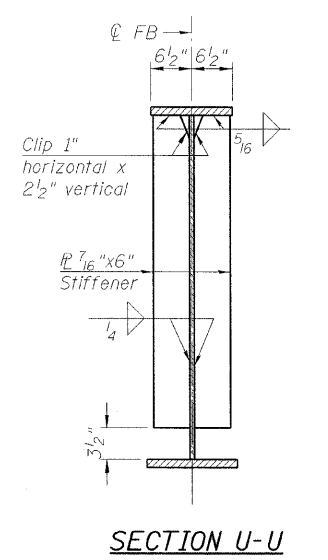
SHEET NO. 68 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 60D61		
FED. AID PROJECT					

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07-MAY-2009

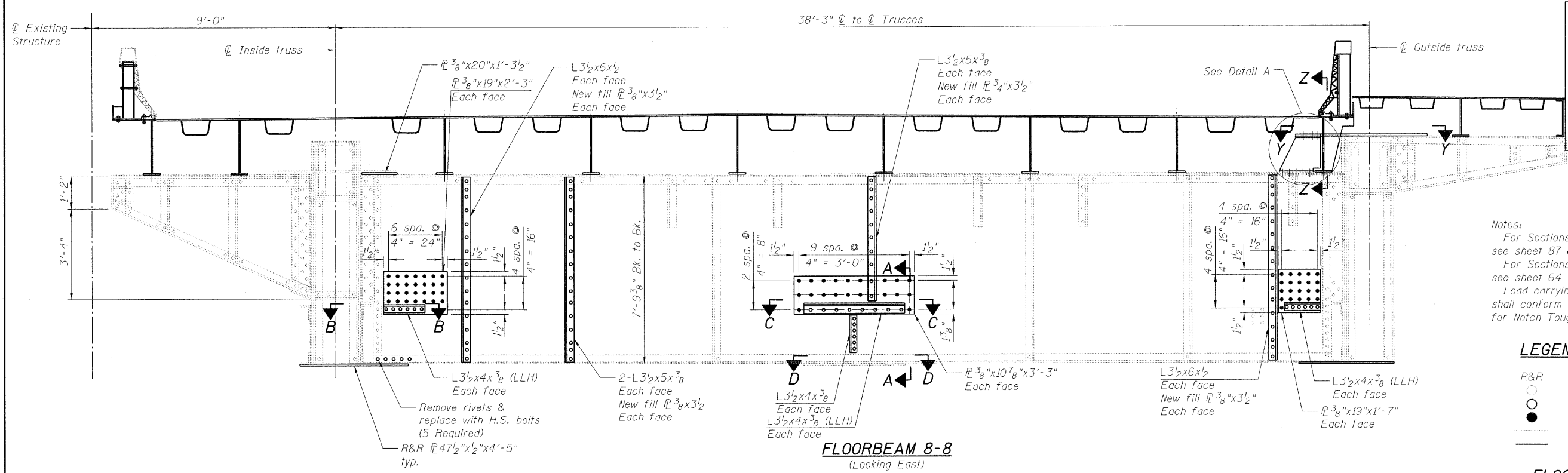
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



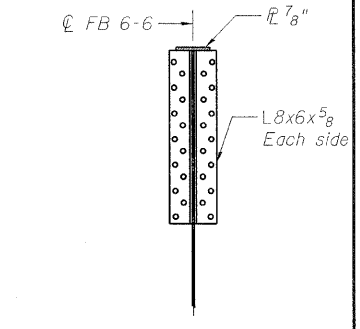
FLOORBEAM 6-6
(Looking East)



SECTION U-U



FLOORBEAM 8-8
(Looking East)



SECTION V-V

Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
—	Existing member to remain
—	New member

FLOORBEAM DETAILS
SOUTHEAST LEAF
STRUCTURE NO. 016-2445

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

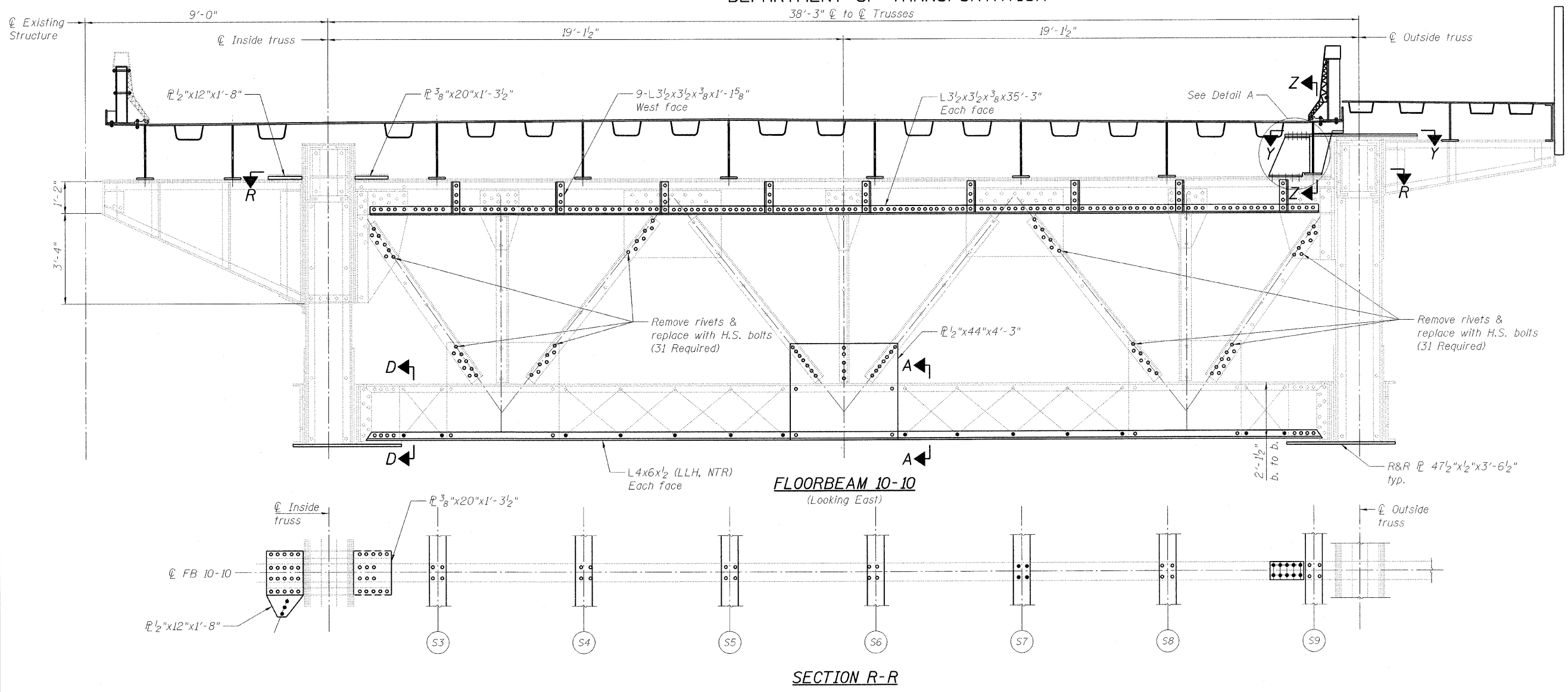
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 69 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	150
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
			CONTRACT NO. 60D61		

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38'-3" ϕ to ϕ Trusses



Notes:
For Sections A-A and D-D, see sheet 87 of 163.
For Sections Y-Y and Z-Z, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

- R&R Remove & replace
- \circ Existing fastener to remain
- \bullet Hole to match existing location
- \bullet New hole
- Existing member to remain
- New member

**FLOORBEAM DETAILS
SOUTHEAST LEAF
STRUCTURE NO. 016-2445**

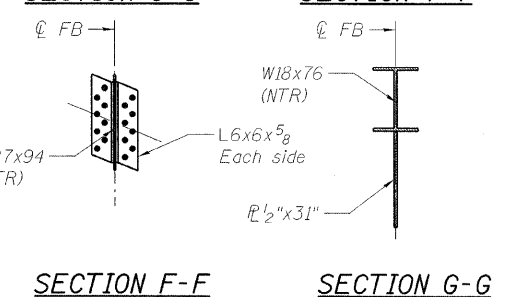
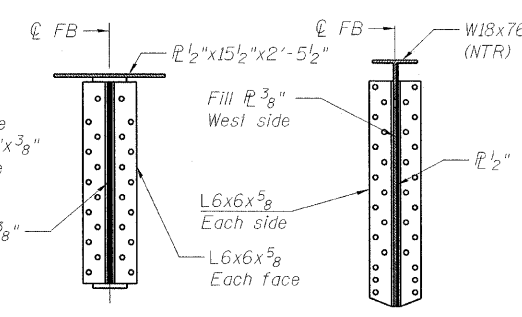
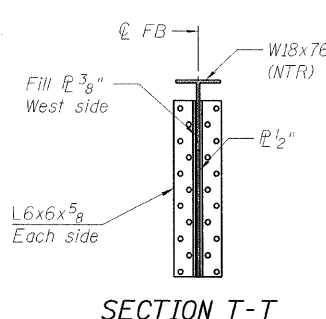
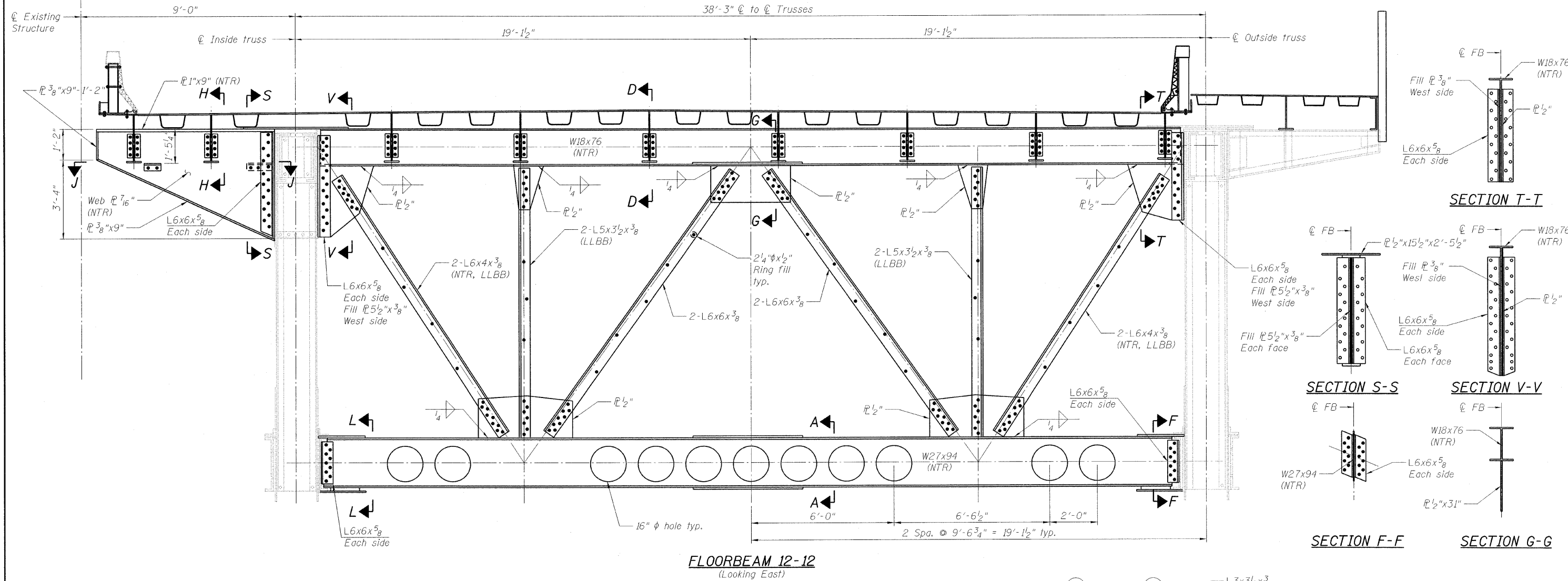
DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

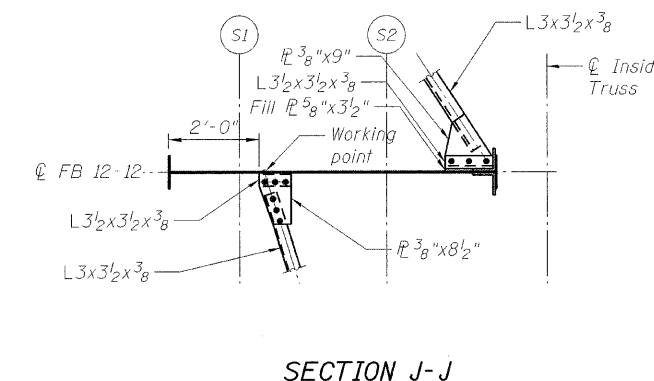
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	389	2424.2B-R	COOK	398	151
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FLOORBEAM 12-12
(Looking East)



SECTION J-J

Notes:
For Sections A-A and L-L, see sheet 87 of 163.
For Sections D-D, see sheet 53 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

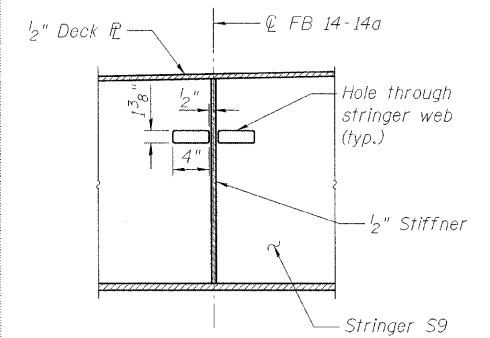
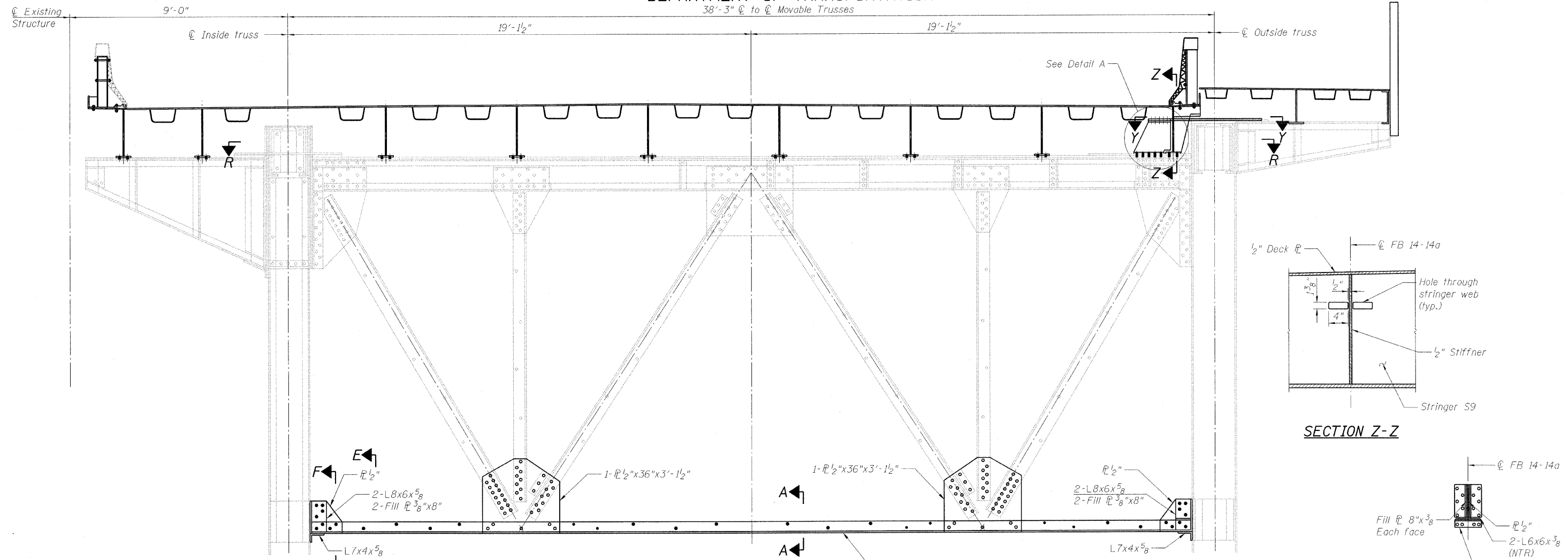
**FLOORBEAM DETAILS
SOUTHEAST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

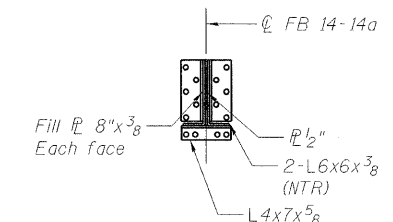
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606	SHEET NO. 71	F.A.P. RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 152
	163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
38'-3" ϕ to ϕ Movable Trusses

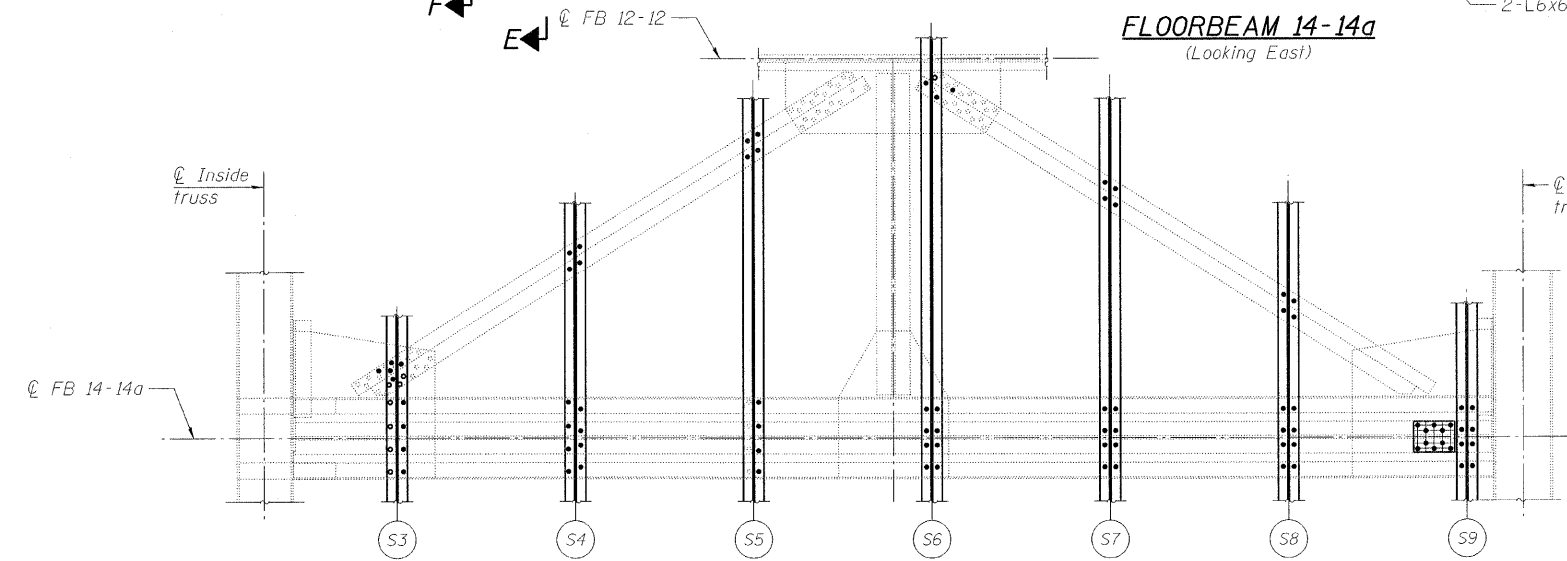


SECTION Z-Z

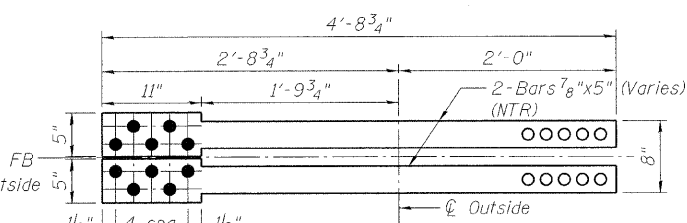


SECTION F-F

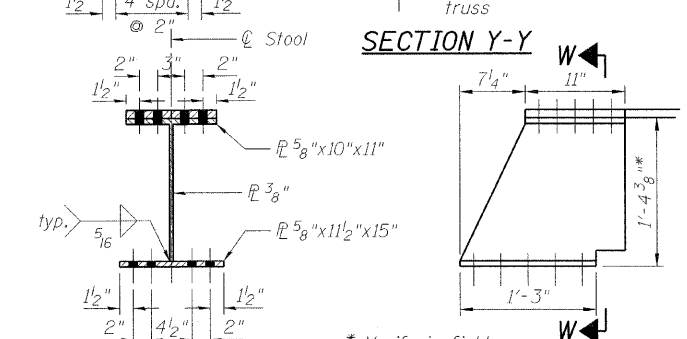
FLOORBEAM 14-14a
(Looking East)



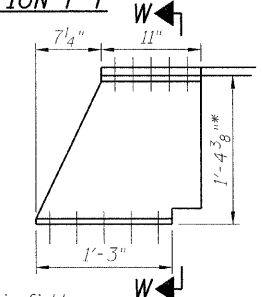
SECTION R-R



SECTION Y-Y



SECTION W-W



DETAIL A

Note:
For Sections A-A and E-E, see sheet 88 of 163

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

**FLOORBEAM DETAILS
SOUTHEAST LEAF
STRUCTURE NO. 016-2445**

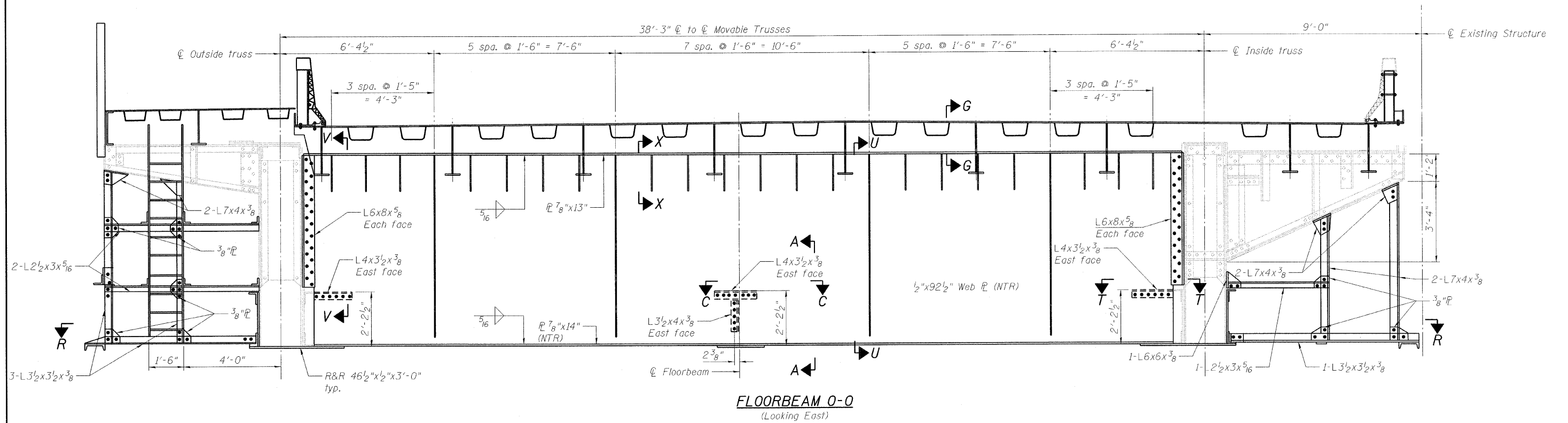
DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

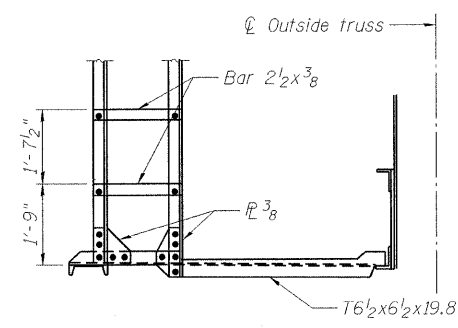
SHEET NO. 72 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	153
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
			CONTRACT NO. 60D61		

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07-MAY-2009

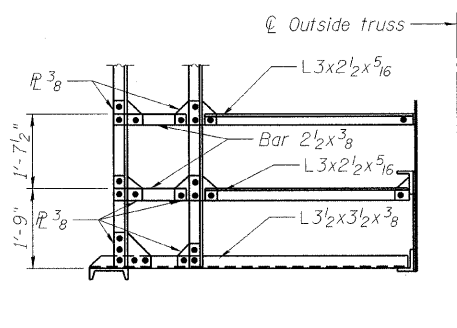
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



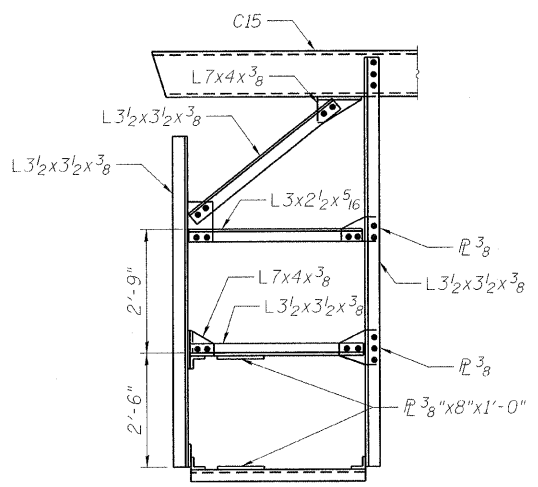
FLOORBEAM 0-0
(Looking East)



SECTION M-M
(NW and SW Leaves)



SECTION M-M
(NE and SE Leaves)



SECTION N-N

Notes:
For Section G-G, see sheet 58 of 163.
For Section U-U, V-V and X-X, see sheet 61 of 163.
For Sections A-A, C-C and T-T, see sheet 88 of 163.
For Section R-R, see sheet 61 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

**FLOORBEAM DETAILS
NORTHEAST LEAF
STRUCTURE NO. 016-2445**

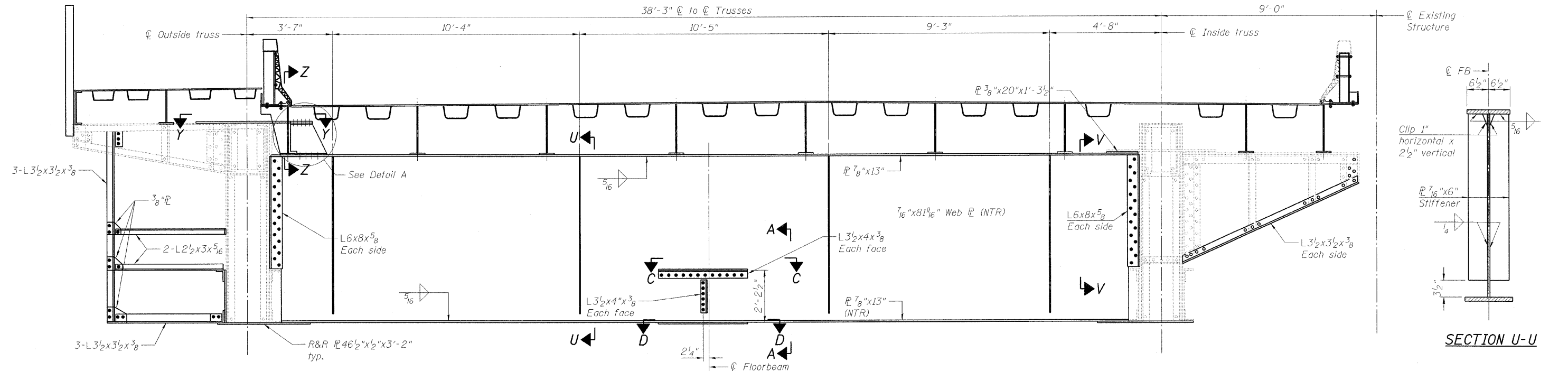
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 73 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	154
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

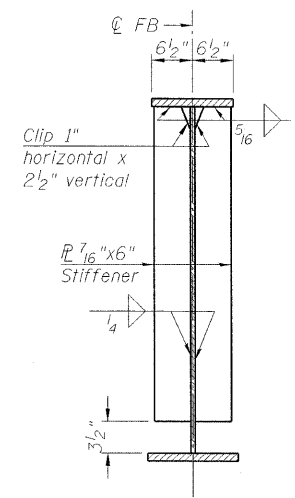
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

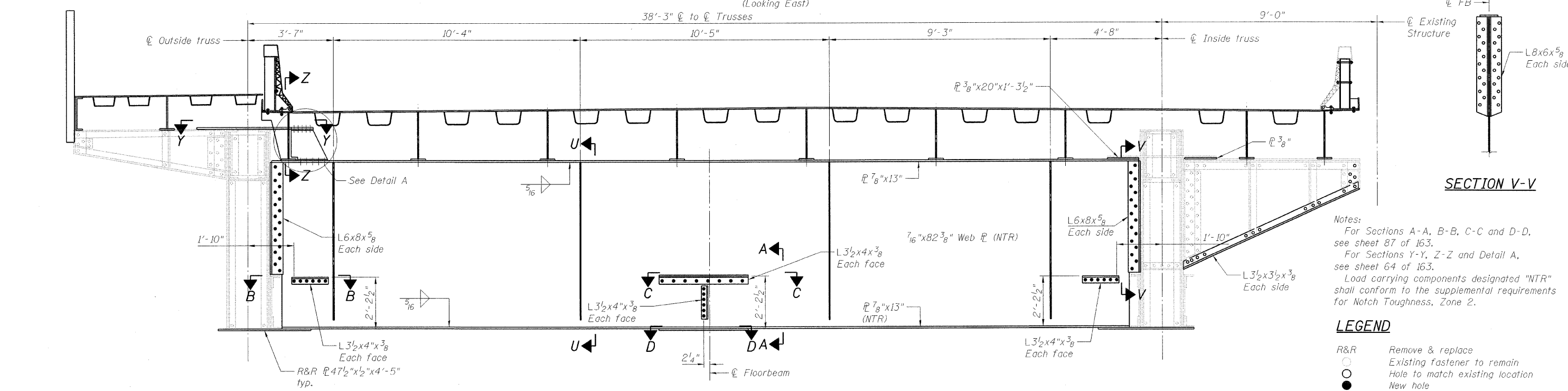
38'-3" @ to @ Trusses



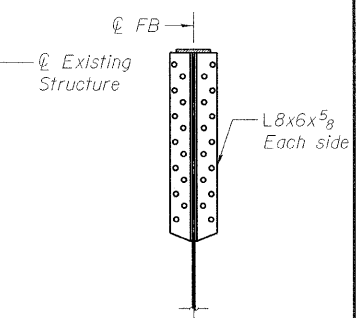
FLOORBEAM 2-2
(Looking East)



SECTION U-U



FLOORBEAM 4-4
(Looking East)



SECTION V-V

Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND
R&R Remove & replace
○ Existing fastener to remain
○ Hole to match existing location
● New hole
— Existing member to remain
— New member

**FLOORBEAM DETAILS
NORTHEAST LEAF
STRUCTURE NO. 016-2445**

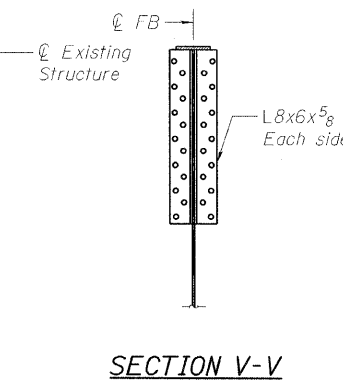
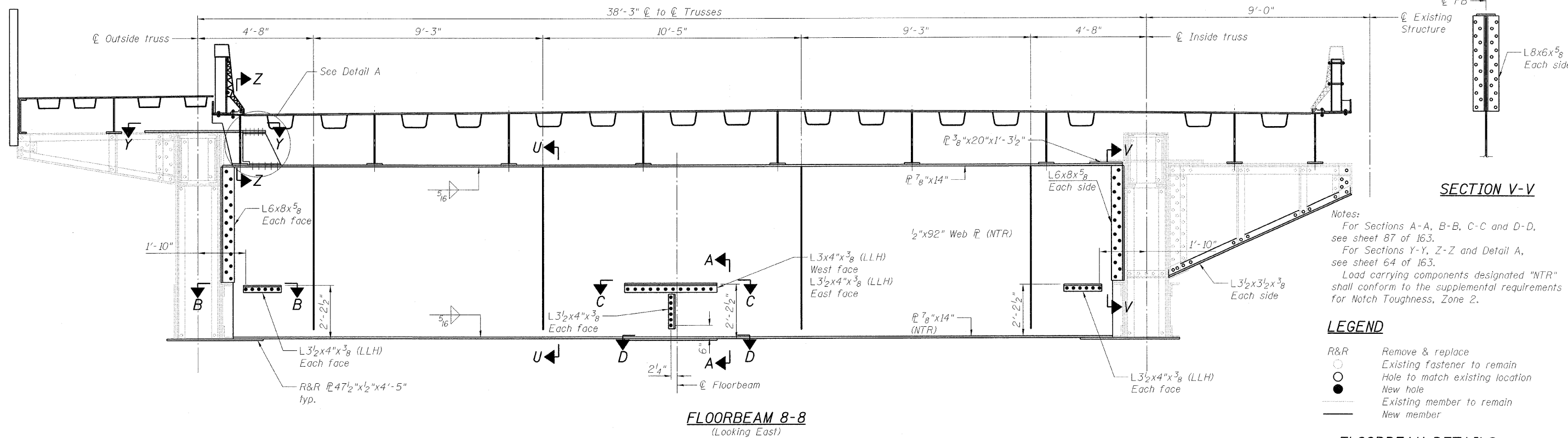
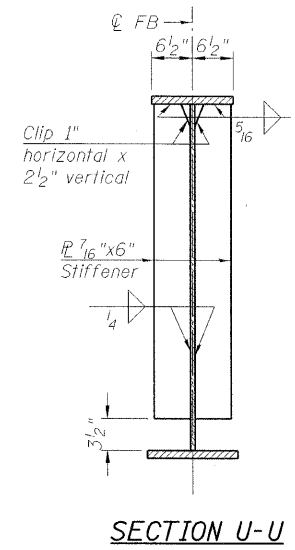
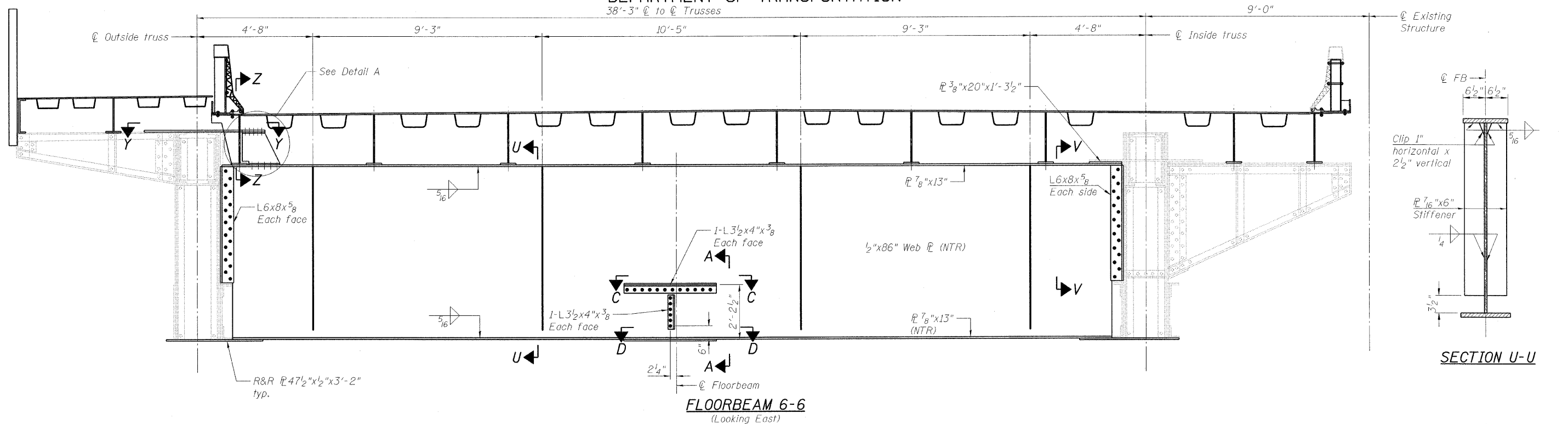
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 74 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	155
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
38'-3" ϕ to ϕ Trusses



Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R Remove & replace
 Existing fastener to remain
 Hole to match existing location
 New hole
 Existing member to remain
 New member

FLOORBEAM DETAILS
NORTHEAST LEAF
STRUCTURE NO. 016-2445

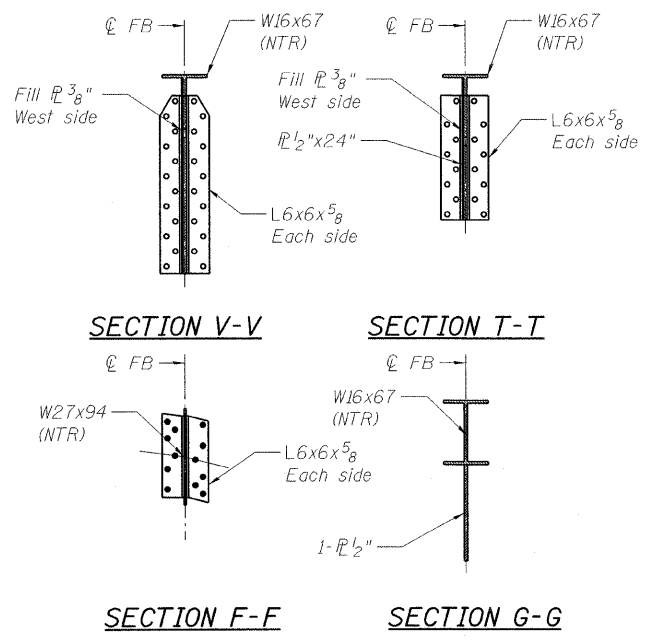
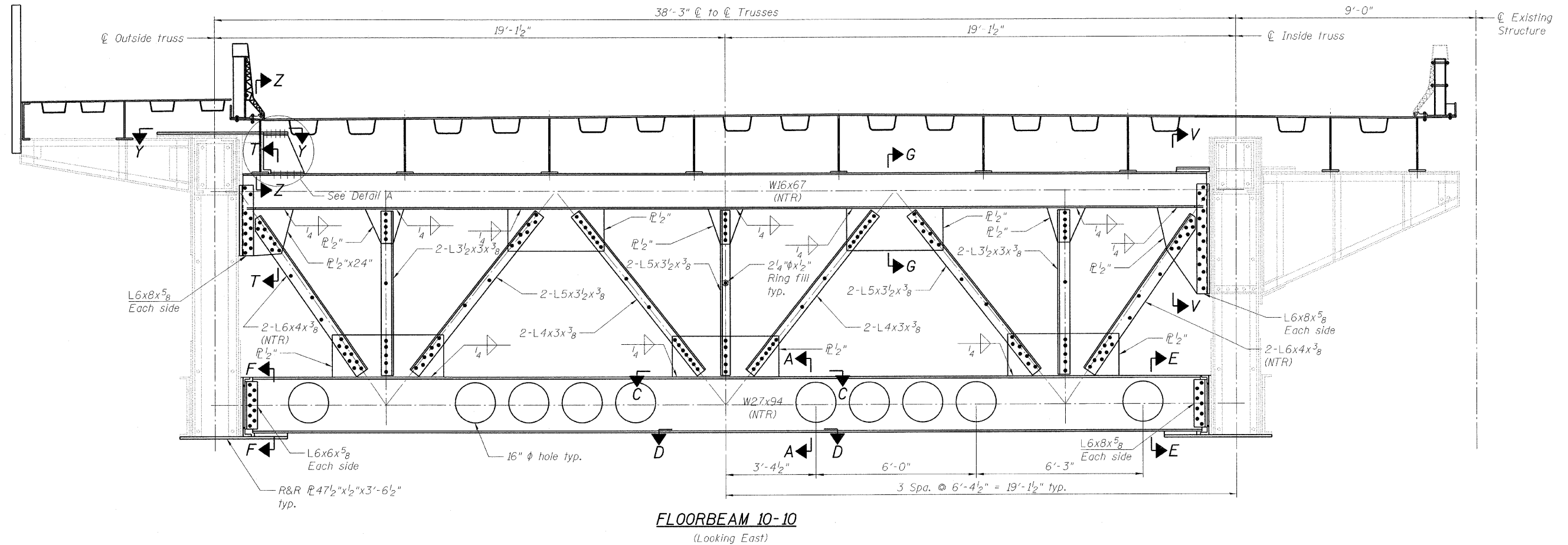
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 75 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	156
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 60D61					

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes:
For Sections A-A, C-C, D-D and E-E, see sheet 87 of 163.
For Section Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
—	Existing member to remain
—	New member

**FLOORBEAM DETAILS
NORTHEAST LEAF
STRUCTURE NO. 016-2445**

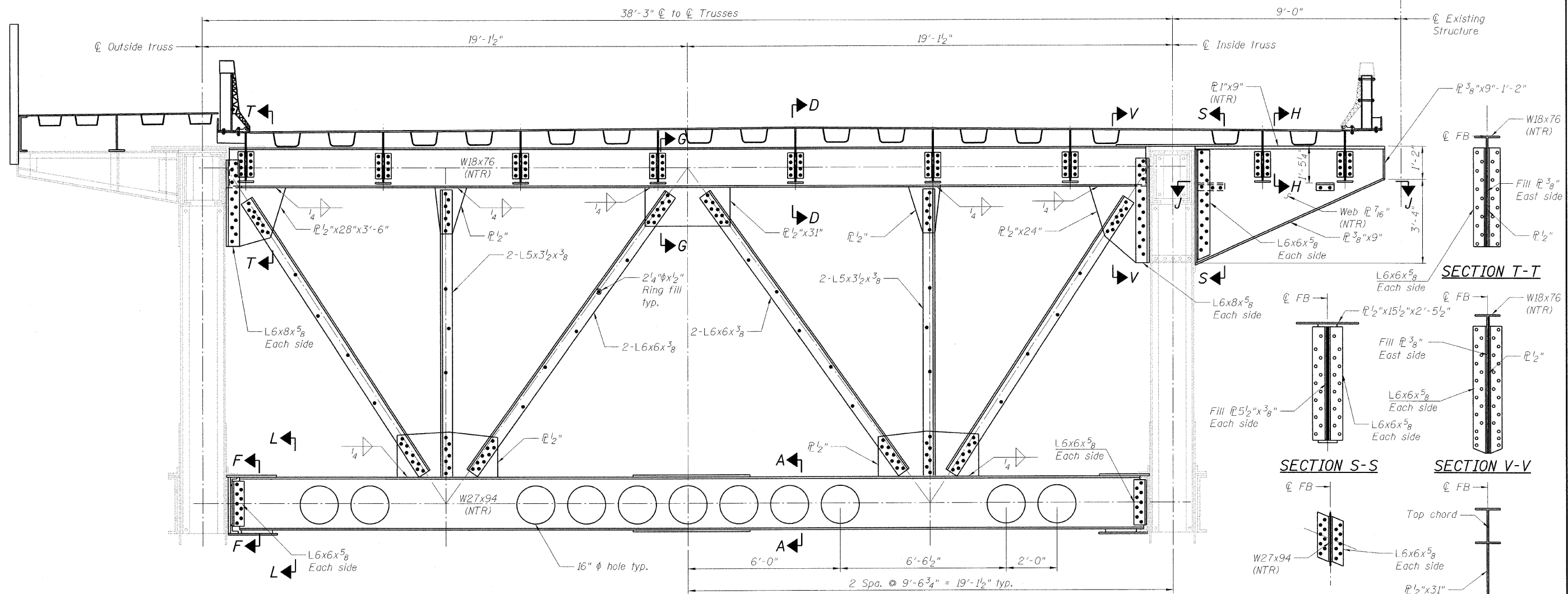
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

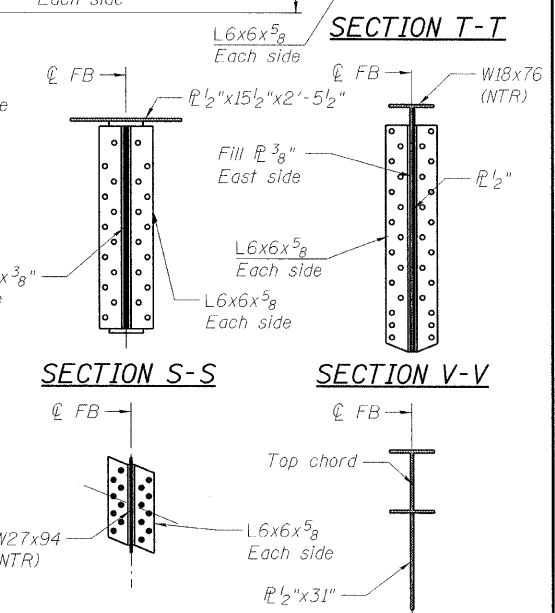
SHEET NO. 76 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
				CONTRACT NO. 60D61	

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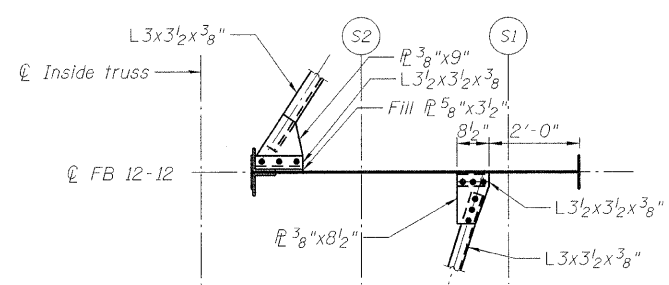
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



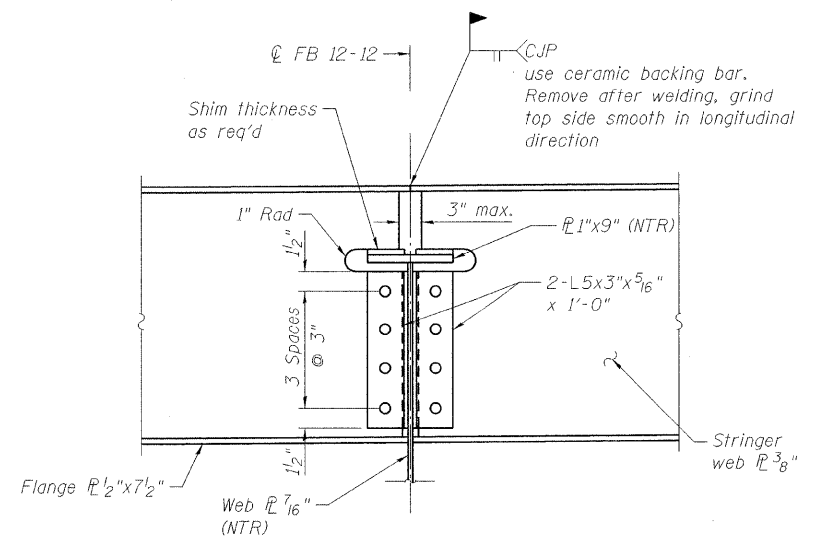
FLOORBEAM 12-12
(Looking West)



SECTION T-T **SECTION S-S** **SECTION V-V**



SECTION J-J



SECTION H-H

Notes:
For Sections A-A and L-L, see sheet 87 of 163.
For Sections D-D, see sheet 53 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND
R&R Remove & replace
○ Existing fastener to remain
○ Hole to match existing location
● New hole
— Existing member to remain
— New member

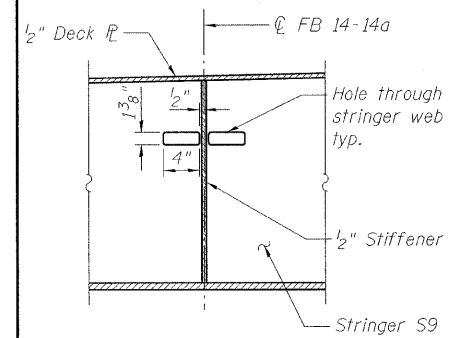
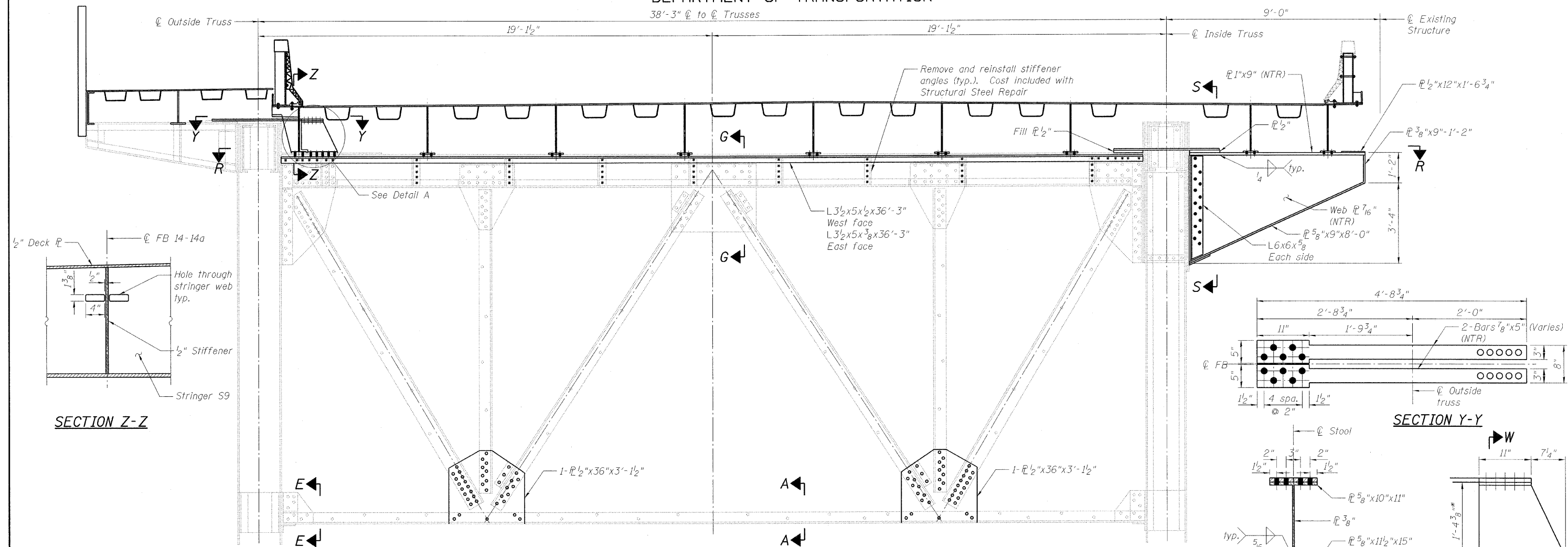
**FLOORBEAM DETAILS
NORTHEAST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

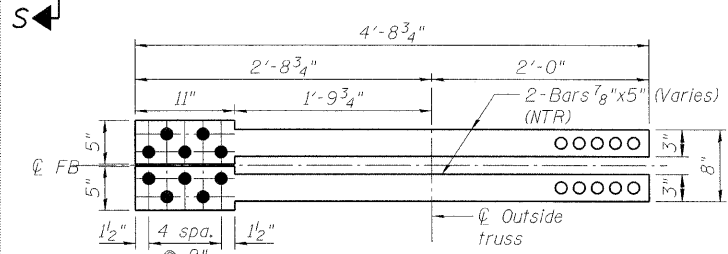
SHEET NO. 77 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	158
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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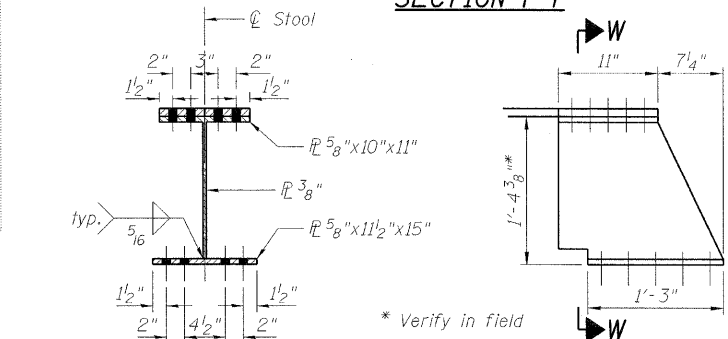
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION Z-Z



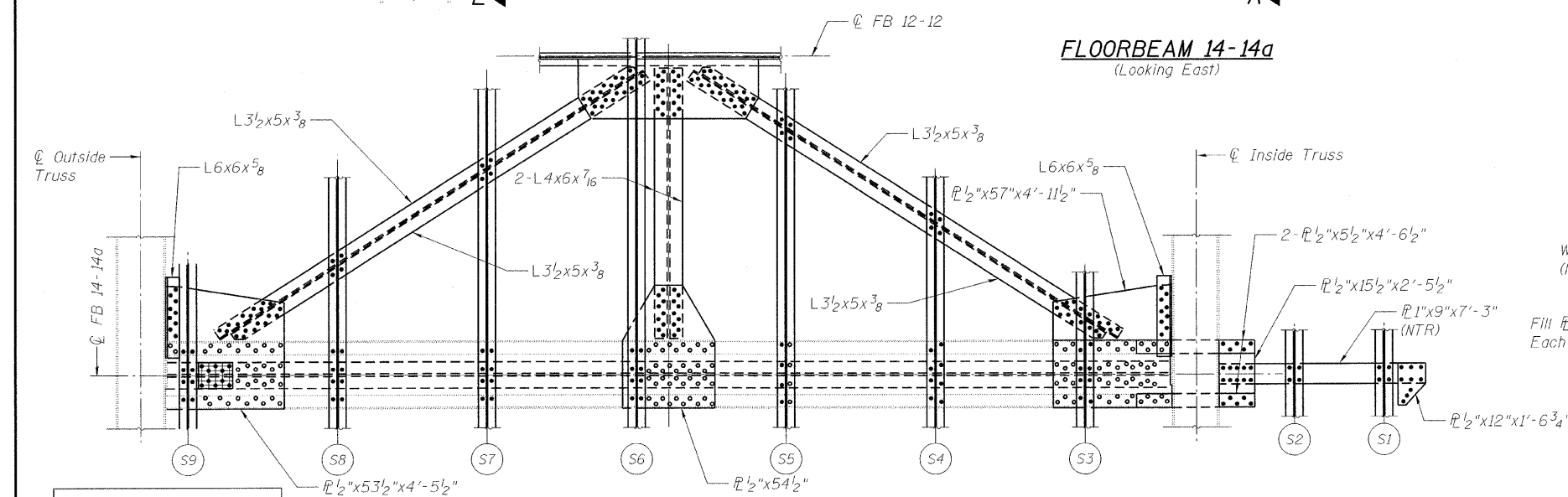
SECTION Y-Y



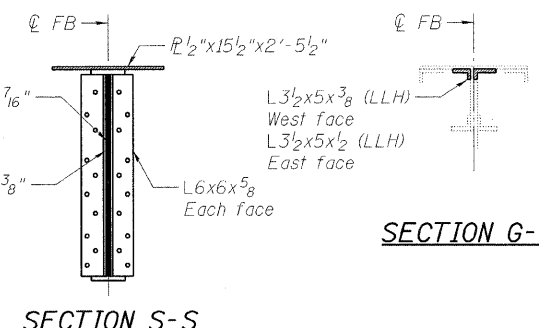
SECTION W-W

DETAIL A

FLOORBEAM 14-14a
(Looking East)



SECTION R-R



SECTION S-S

SECTION G-G

Note:
For Sections A-A and E-E,
see sheet 88 of 163.

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

**FLOORBEAM DETAILS
NORTHEAST LEAF
STRUCTURE NO. 016-2445**

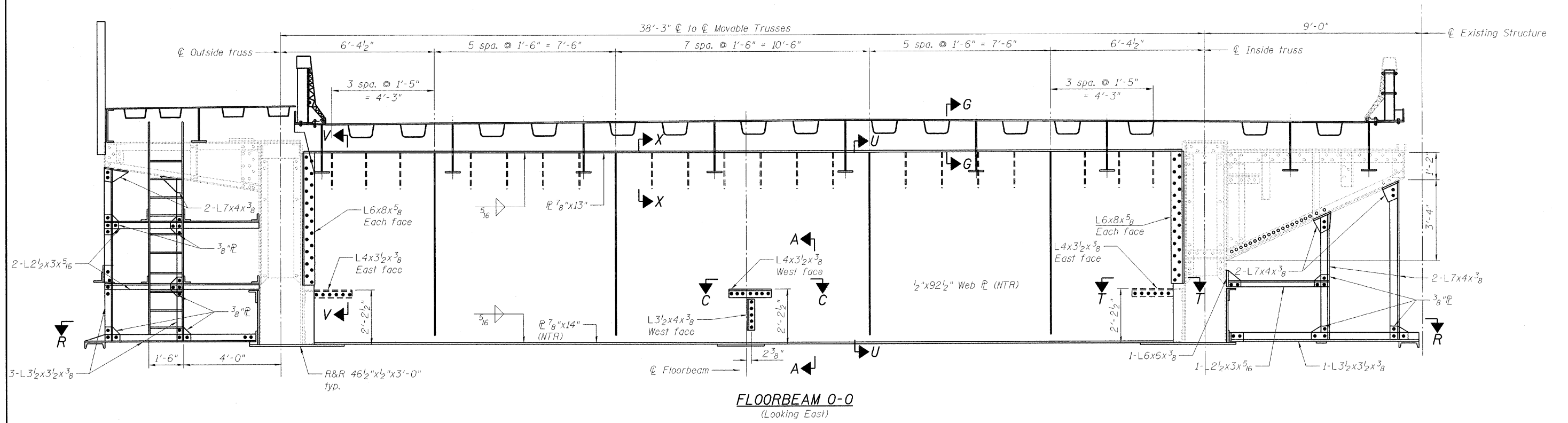
DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 78 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	159
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FLOORBEAM 0-0
(Looking East)

Notes:
 For Section G-G, see sheet 58 of 163.
 For Section U-U, V-V and X-X, see sheet 61 of 163.
 For Sections A-A, C-C and T-T, see sheet 88 of 163.
 For Section R-R, see sheet 61 of 163.
 Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
---	Existing member to remain
—	New member

FLOORBEAM DETAILS
NORTHWEST LEAF
STRUCTURE NO. 016-2445

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

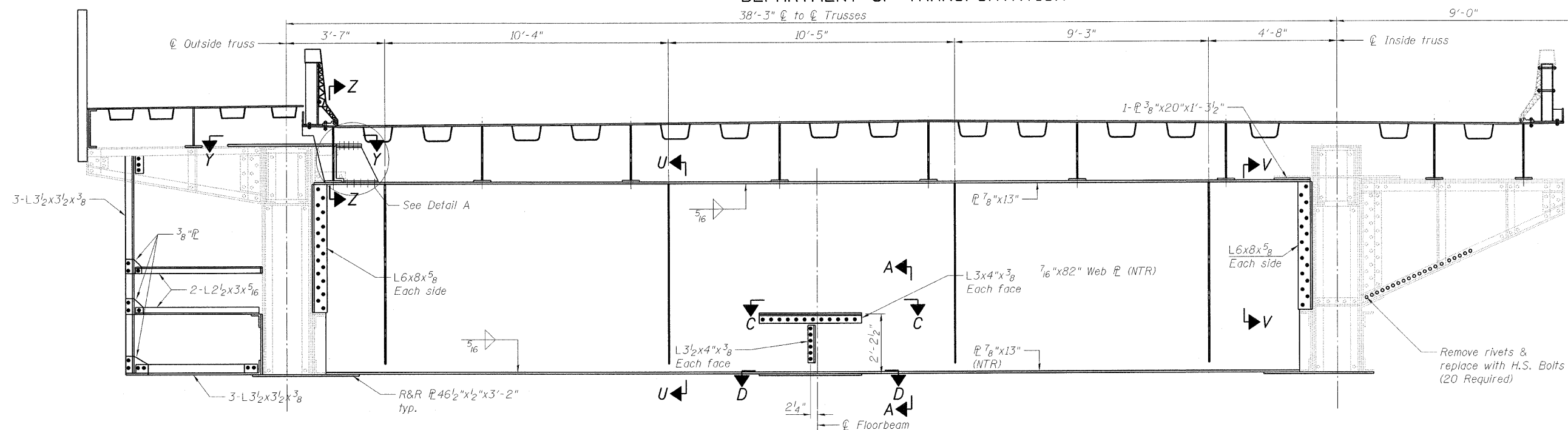
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PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

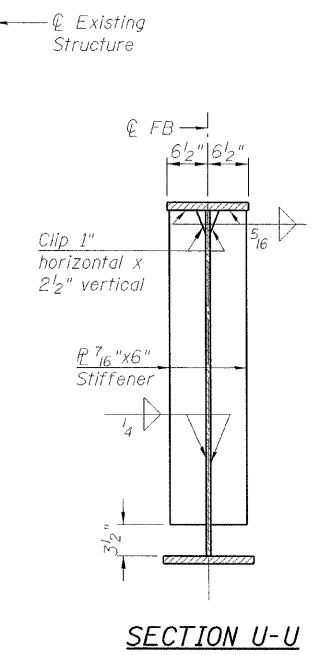
SHEET NO. 79 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	160
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				60D61	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

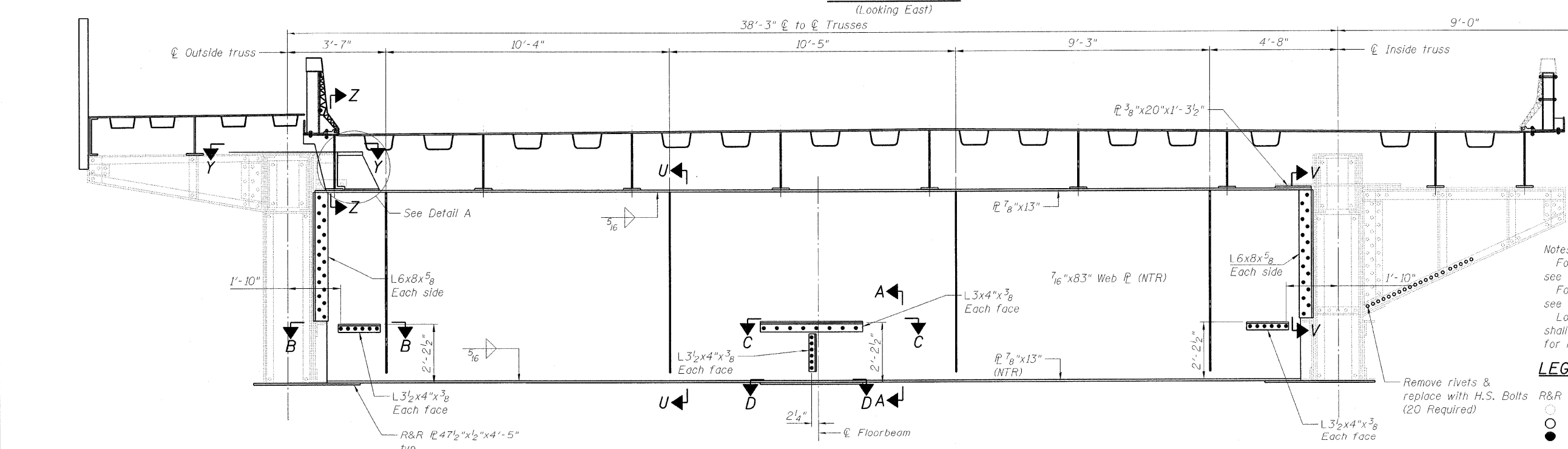
38'-3" ϕ to ϕ Trusses



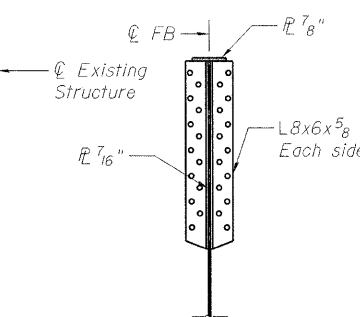
FLOORBEAM 2-2
(Looking East)



SECTION U-U



FLOORBEAM 4-4
(Looking East)



SECTION V-V

Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
---	Existing member to remain
---	New member

**FLOORBEAM DETAILS
NORTHWEST LEAF
STRUCTURE NO. 016-2445**

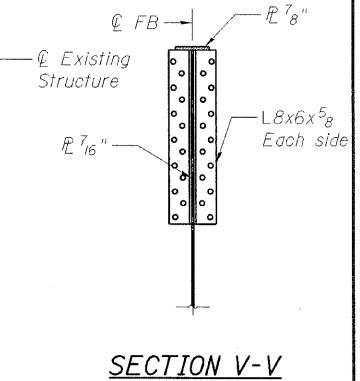
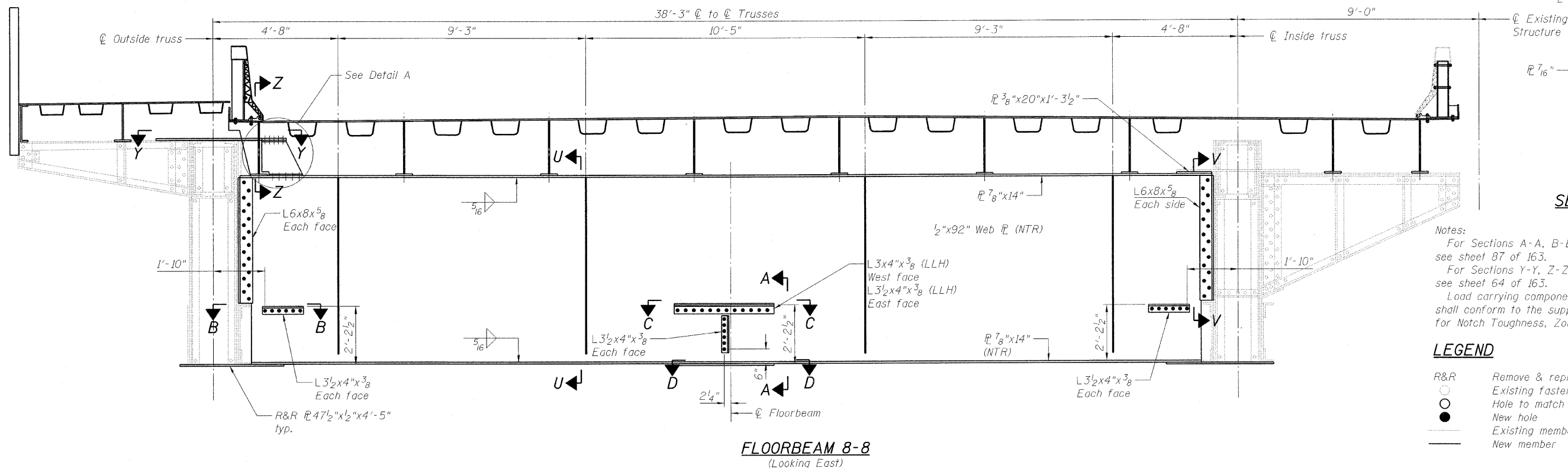
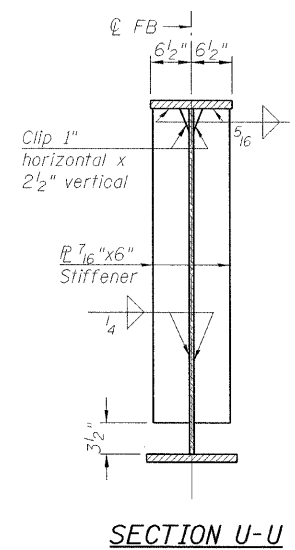
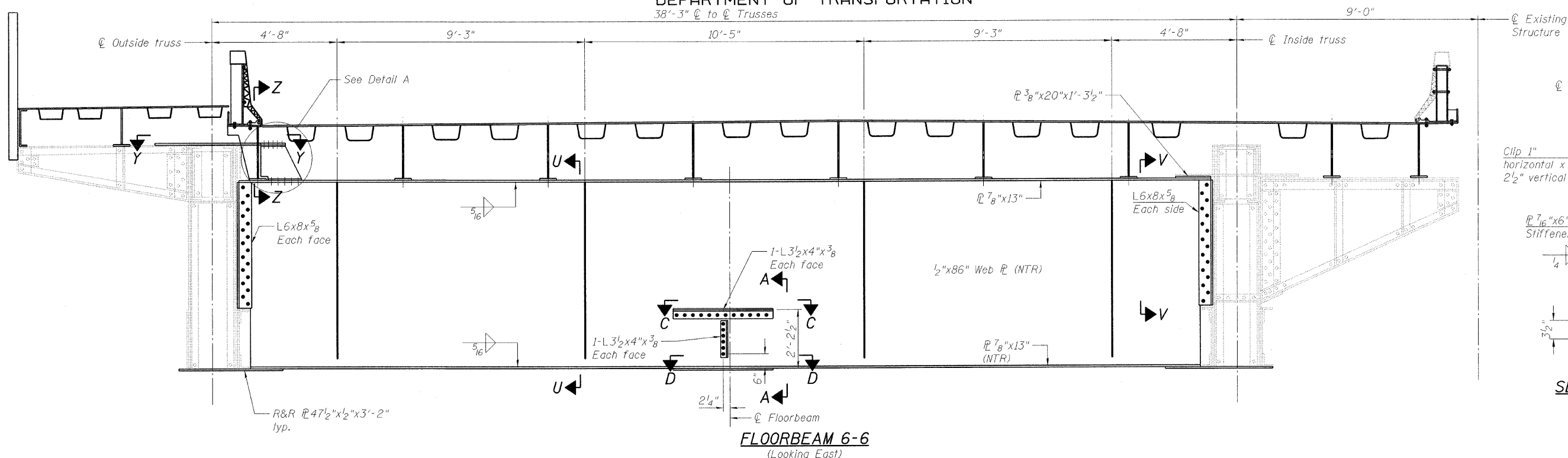
DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 80 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	161
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
38'-3" ϕ to ϕ Trusses



Notes:
For Sections A-A, B-B, C-C and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND
R&R Remove & replace
○ Existing fastener to remain
○ Hole to match existing location
● New hole
— Existing member to remain
— New member

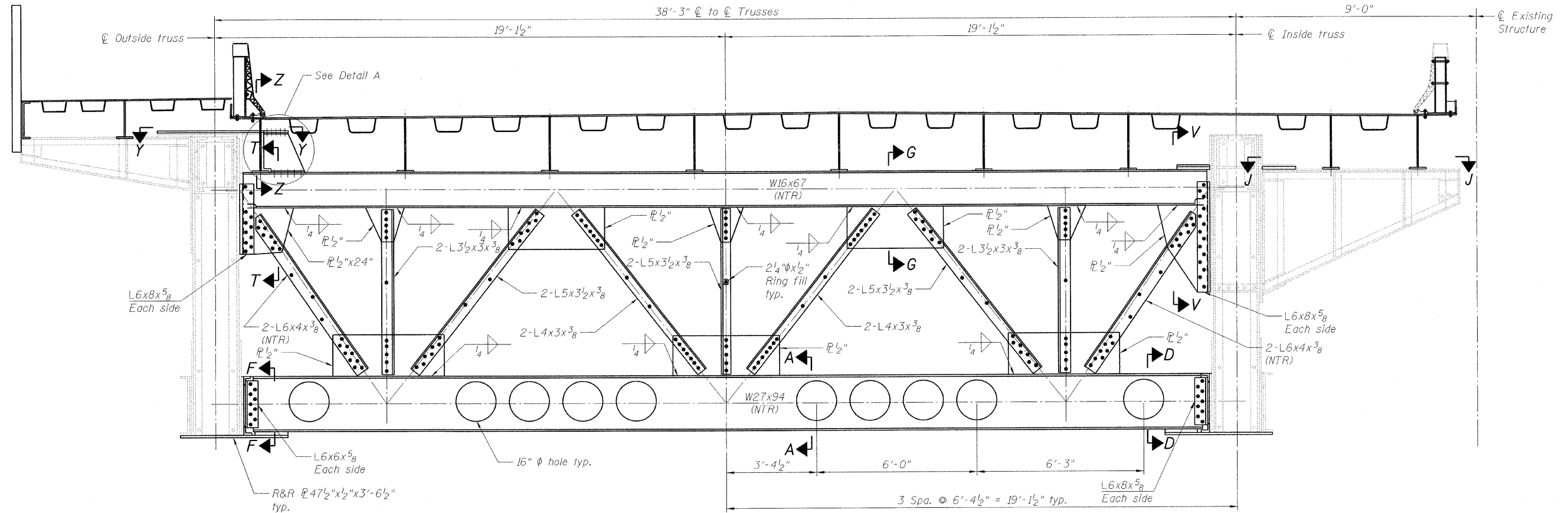
**FLOORBEAM DETAILS
NORTHWEST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

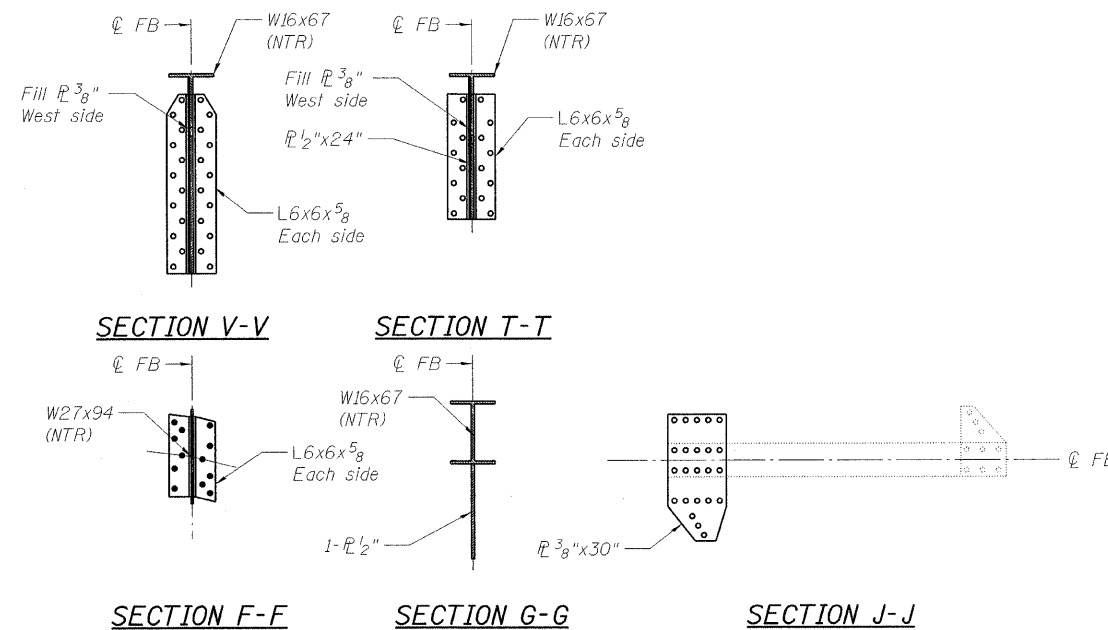
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	389	2424.2B-R	COOK	398	162
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FLOORBEAM 10-10
(Looking East)



Notes:
For Sections A-A and D-D, see sheet 87 of 163.
For Sections Y-Y, Z-Z and Detail A, see sheet 64 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

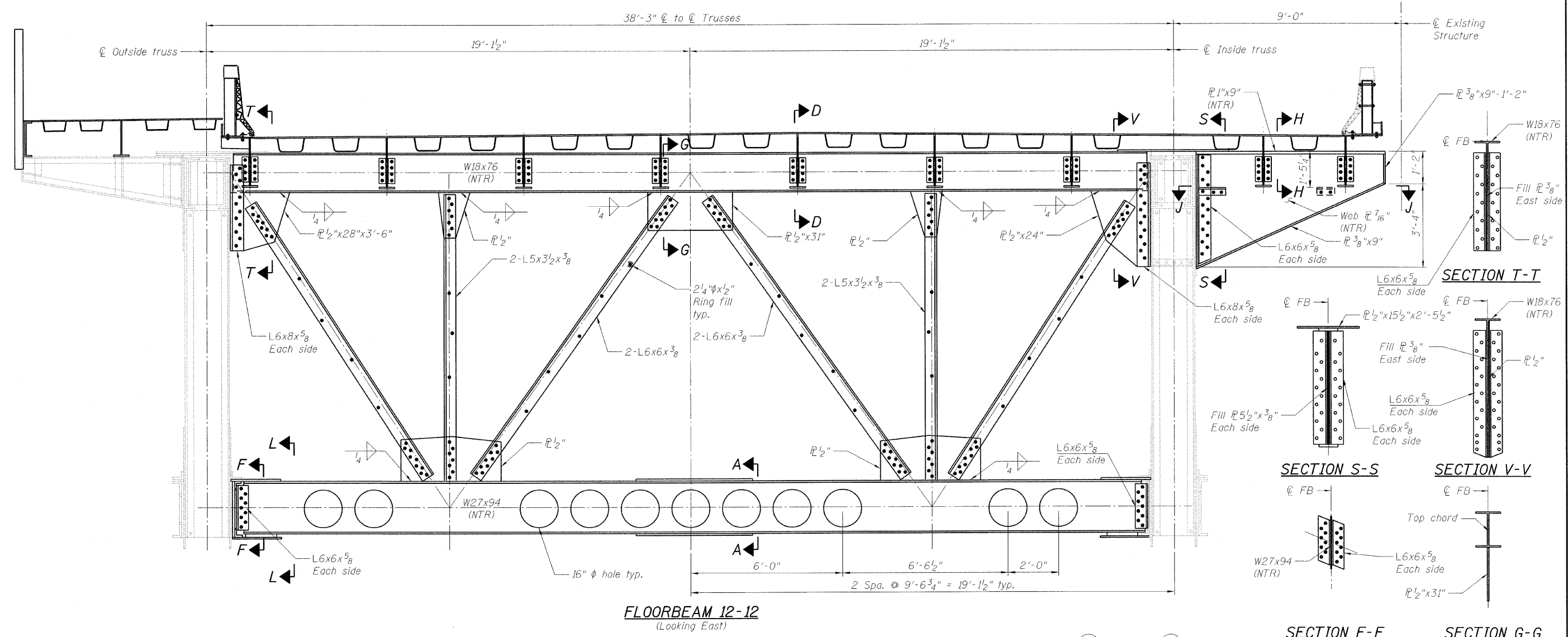
**FLOORBEAM DETAILS
NORTHWEST LEAF
STRUCTURE NO. 016-2445**

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 82 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	163
FED. ROAD DIST. NO. 7			ILLINOIS	FED. AID PROJECT	
CONTRACT NO.				60D61	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



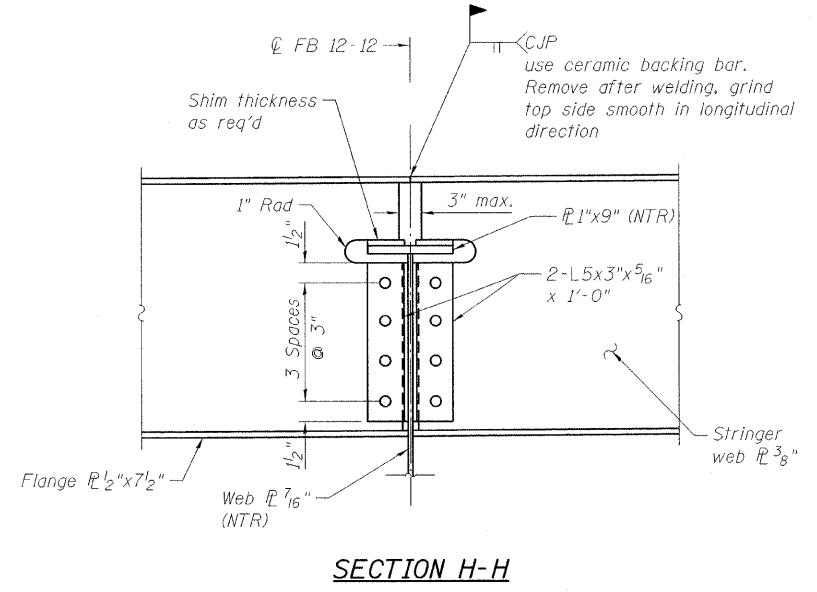
FLOORBEAM 12-12
(Looking East)

SECTION F-F **SECTION G-G**

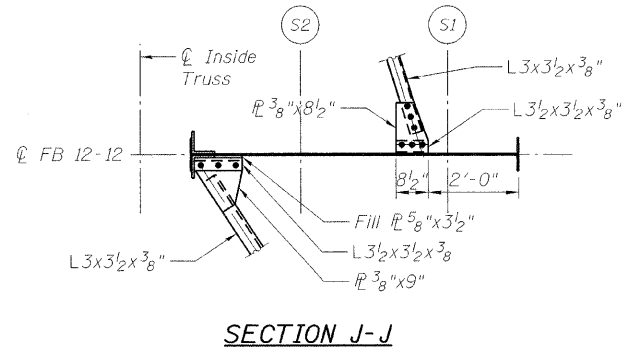
Notes:
For Sections A-A and L-L, see sheet 87 of 163.
For Sections D-D, see sheet 53 of 163.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

LEGEND
R&R Remove & replace
○ Existing fastener to remain
● Hole to match existing location
○ New hole
— Existing member to remain
— New member

**FLOORBEAM DETAILS
NORTHWEST LEAF
STRUCTURE NO. 016-2445**



SECTION H-H



SECTION J-J

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

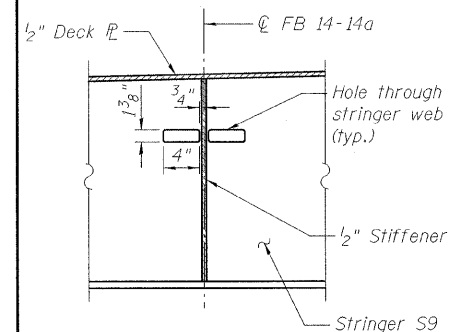
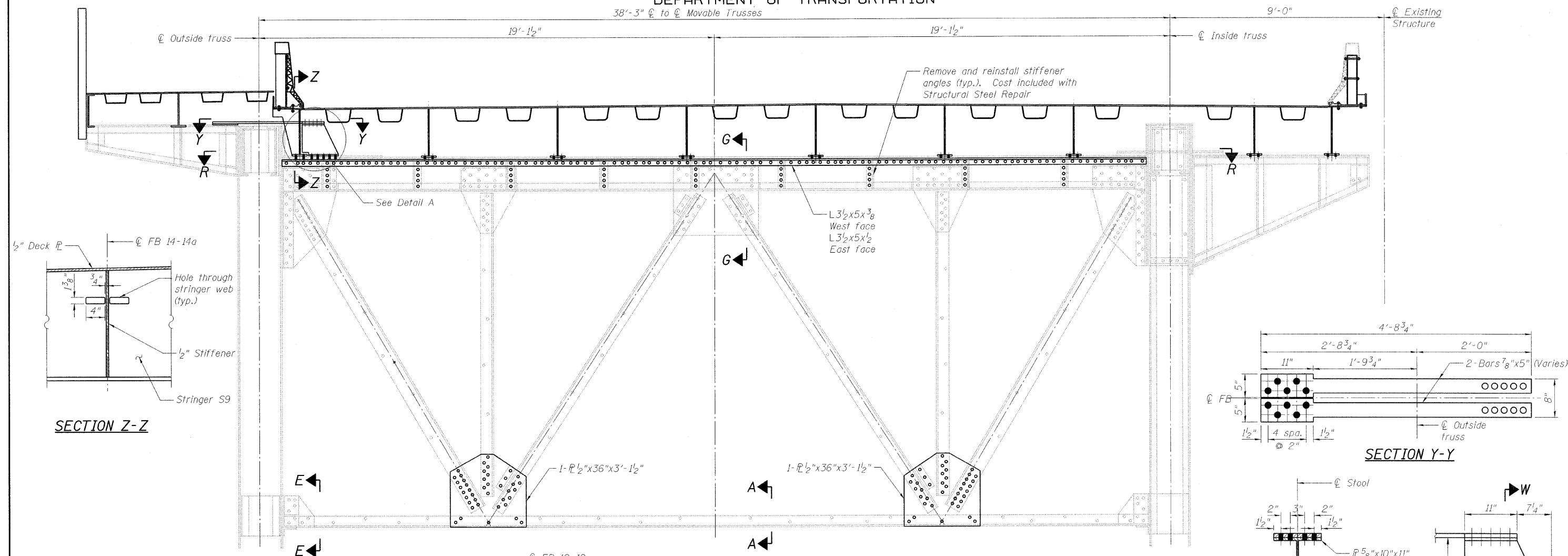
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 83	F.A.P RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 164
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

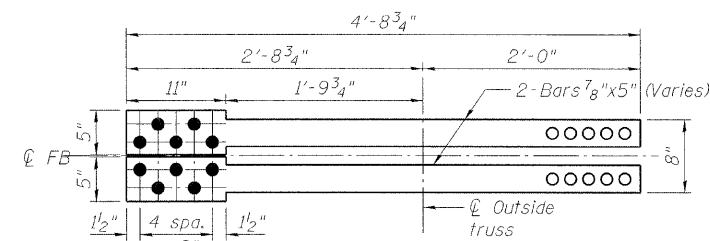
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

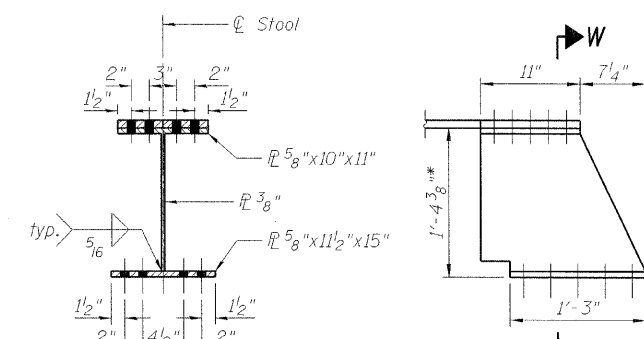
38'-3" ϕ to ϕ Movable Trusses



SECTION Z-Z

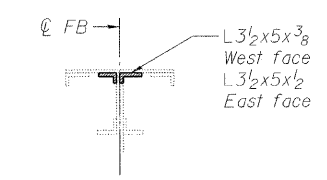


SECTION Y-Y



SECTION W-W

DETAIL A

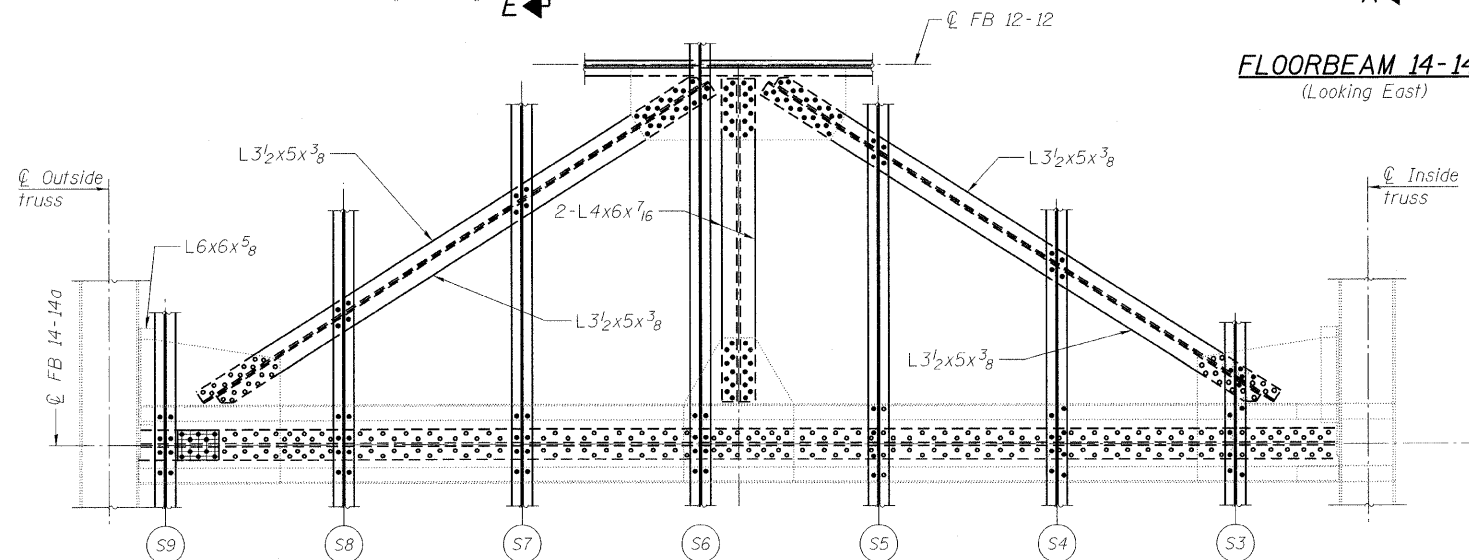


SECTION G-G

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

**FLOORBEAM DETAILS
NORTHWEST LEAF
STRUCTURE NO. 016-2445**

**FLOORBEAM 14-14a
(Looking East)**



SECTION R-R

DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

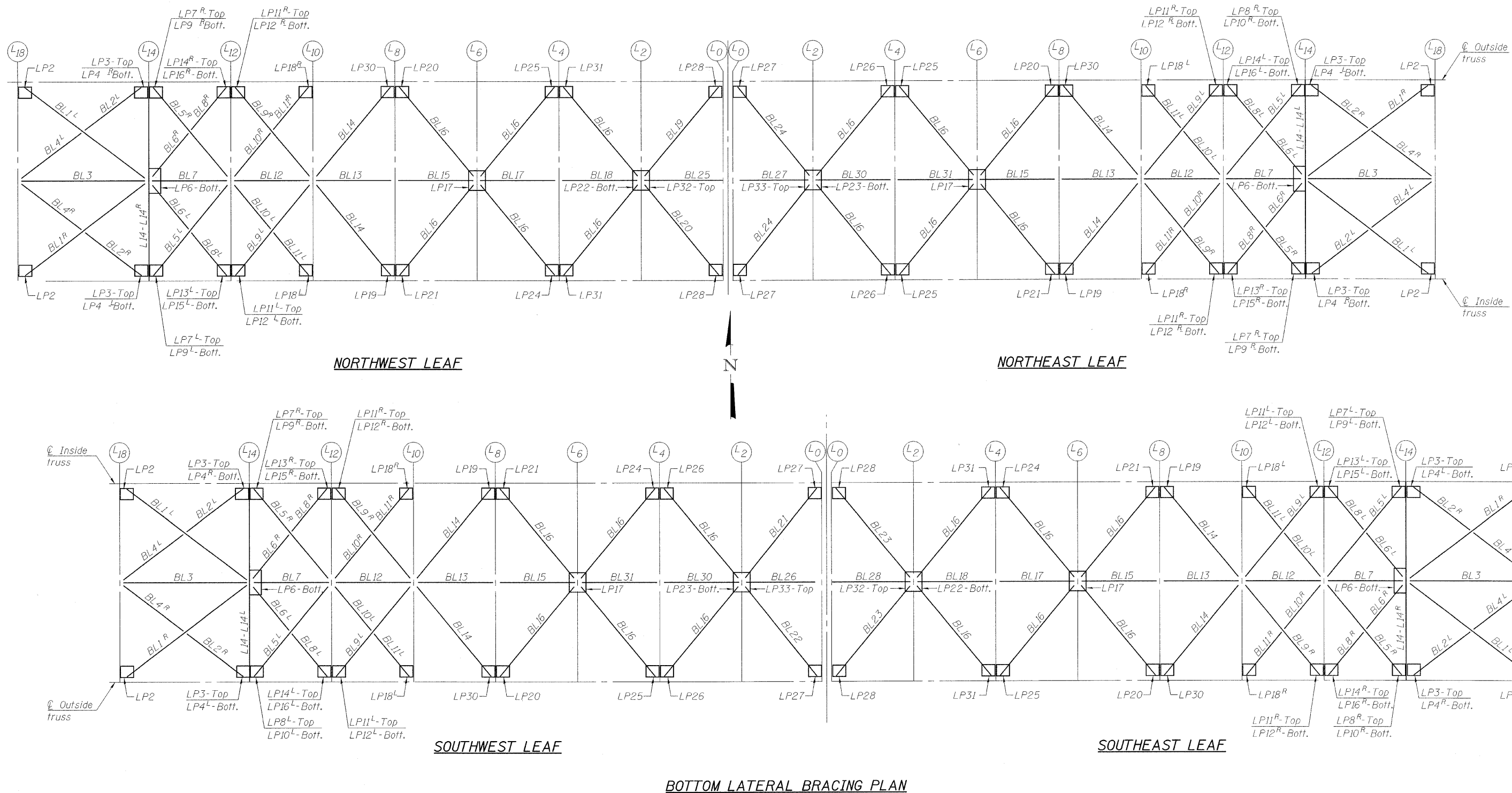
Note:
For Sections A-A and E-E
see sheet 88 of 163.

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 84 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	165
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

T:\16843A\Structural\Cadd\Pre-final\EB_Plans\0162445-80D61-FBE-082.dgn 07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

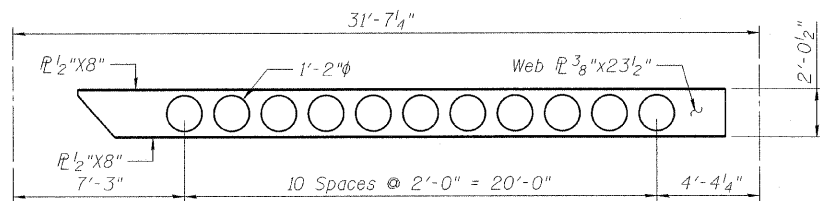
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 85 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60D61					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

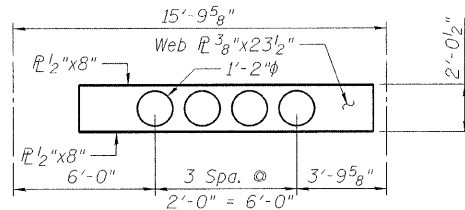
LATERAL BRACING FRAMING PLAN
MOVABLE SPAN
STRUCTURE NO. 016-2445

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07-MAY-2009

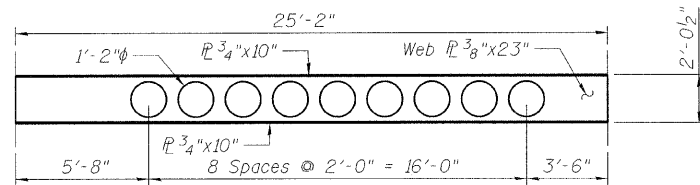
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



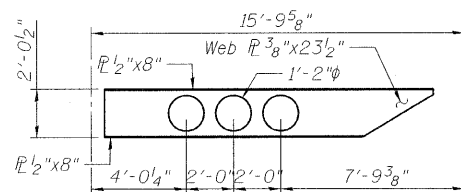
BL1



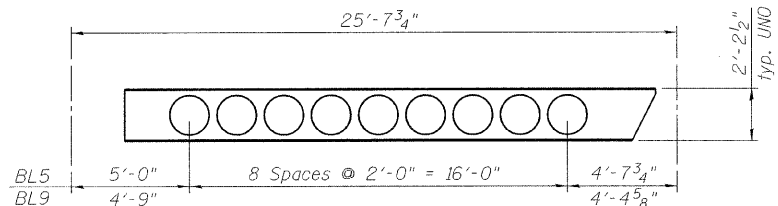
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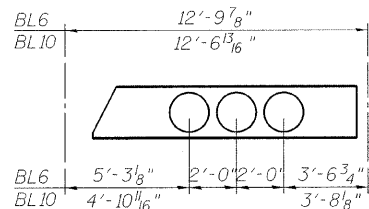
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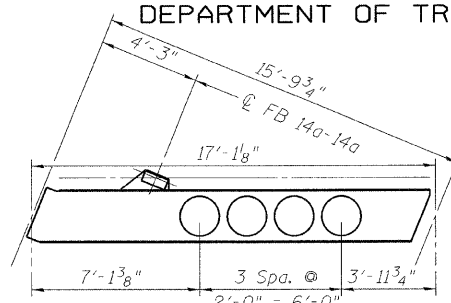
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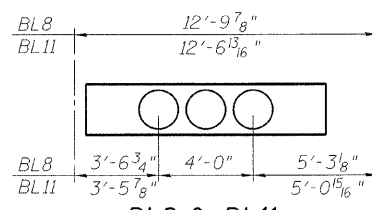
BL5 & BL9



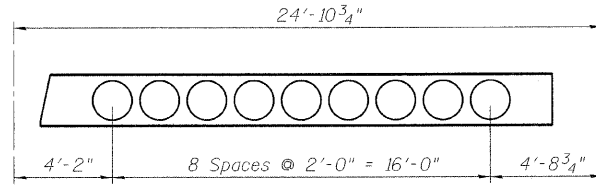
BL6 & BL10



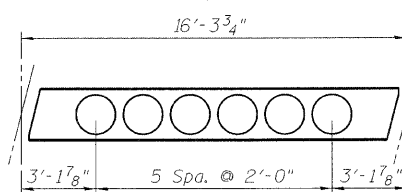
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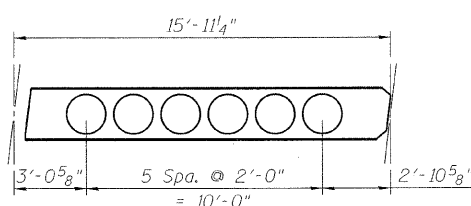
BL8 & BL11



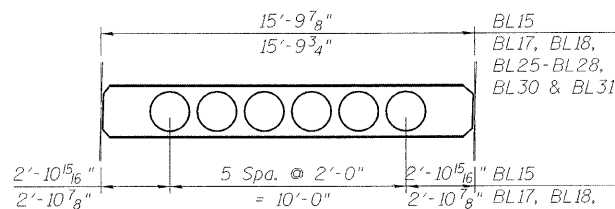
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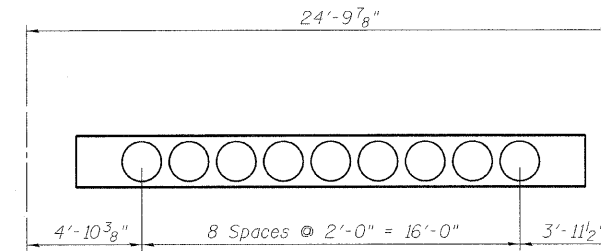
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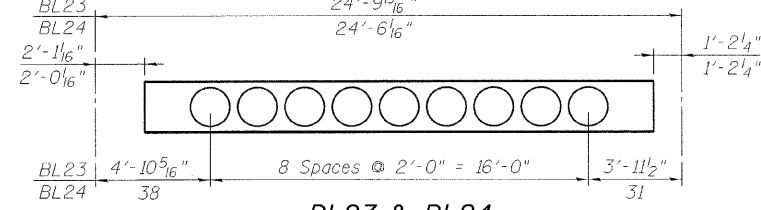
BL13



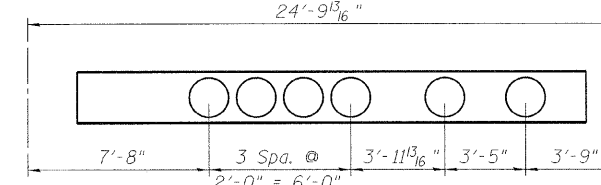
BL15, BL17, BL18, BL25-BL28, BL30 & BL31



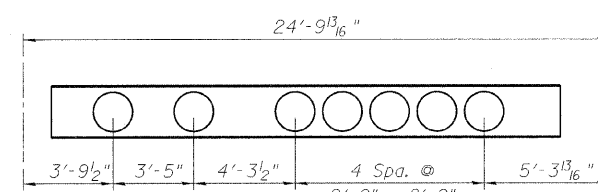
BL16



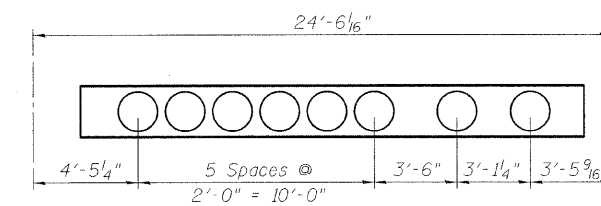
BL23 & BL24



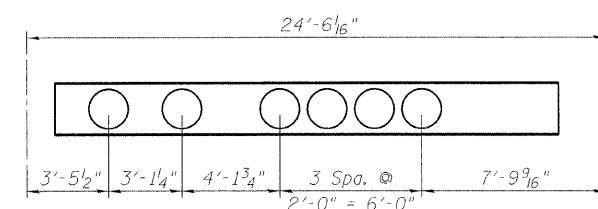
BL19



BL20



BL21



BL22

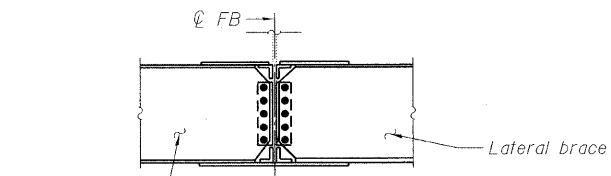
Note:
Use 1/4" weld for flange to web connections typical all bottom lateral.
All panel to panel lengths of lateral bracing shown are based on existing shop drawings. Overall length of lateral bracing shall match existing lateral bracing. Contractor shall verify prior to order of material and fabrication.
All dimensions shall be as follows unless noted otherwise:
Web R 3/8" x 25 1/2"
Top Flange R 1/2" x 8"
Bottom Flange R 1/2" x 8"
Hole diameter: 1'-4"

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

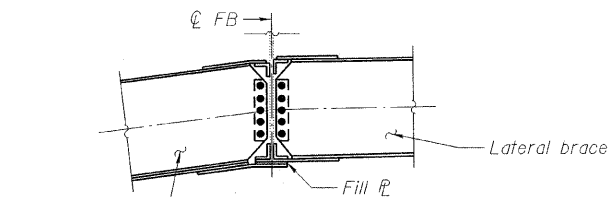
LATERAL BRACING DETAILS
MOVABLE SPAN
STRUCTURE NO. 016-2445

PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606	SHEET NO. 86	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	163 SHEETS	389	2424.2B-R	COOK	398	167
		FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT
				CONTRACT NO.		60D61

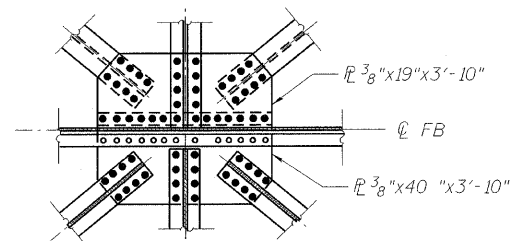
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



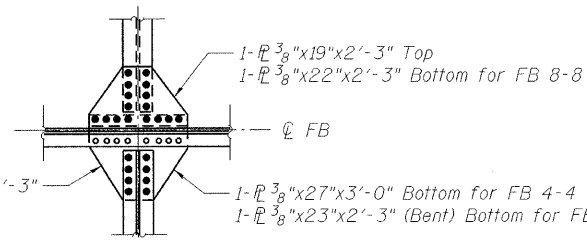
SECTION A-A
For Floorbeams 2-2 to 6-6



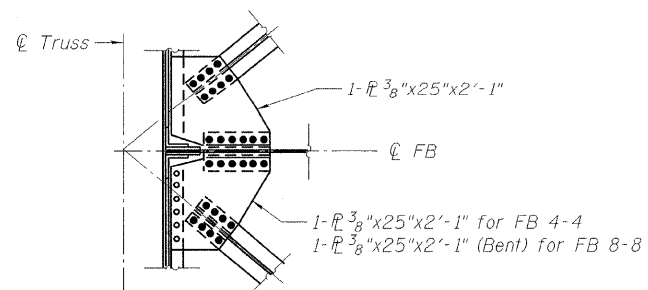
SECTION A-A
For Floorbeam 8-8



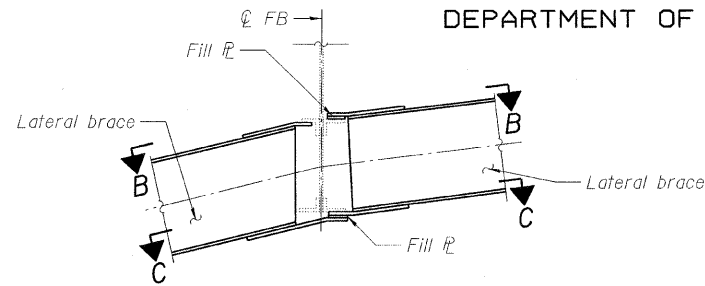
HALF SECTION C-C, HALF SECTION D-D
For Floorbeams 2-2 & 6-6



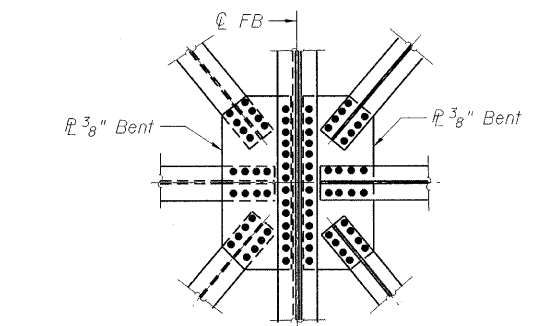
HALF SECTION C-C, HALF SECTION D-D
For Floorbeams 4-4 & 8-8



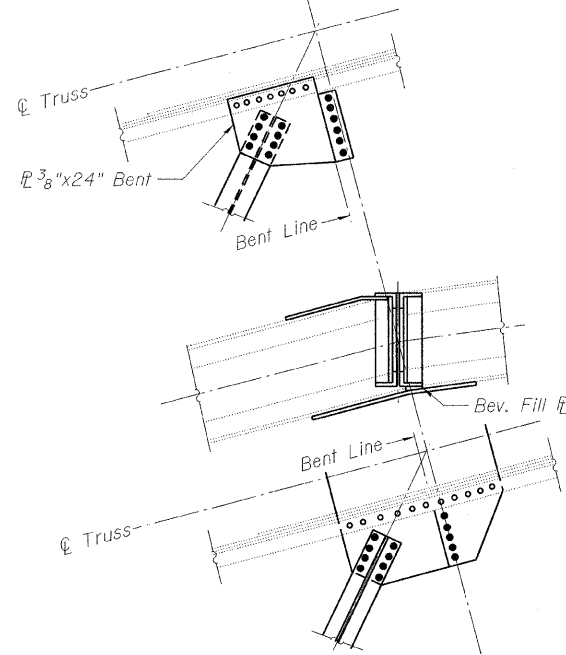
SECTION B-B
For Floorbeams 4-4 & 8-8



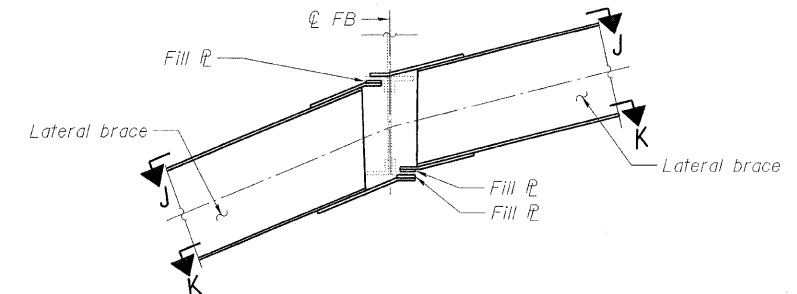
SECTION A-A
For Floorbeam 10-10



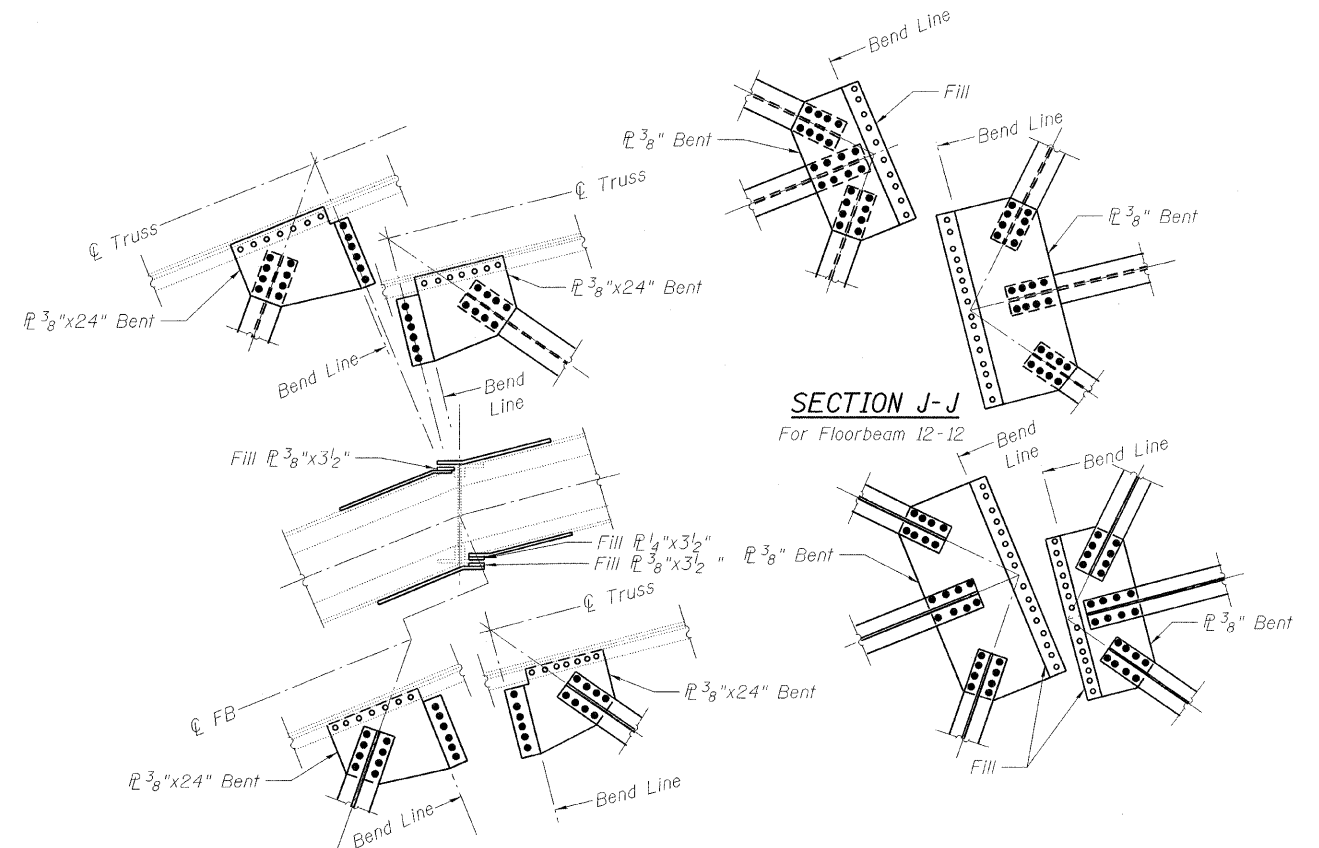
HALF SECTION B-B, HALF SECTION C-C
For Floorbeam 10-10



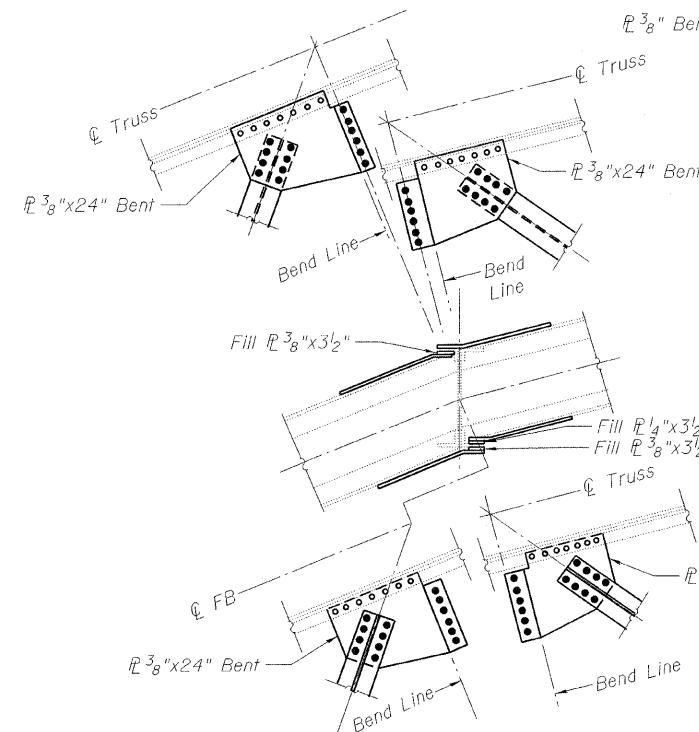
SECTION D-D
For Floorbeam 10-10



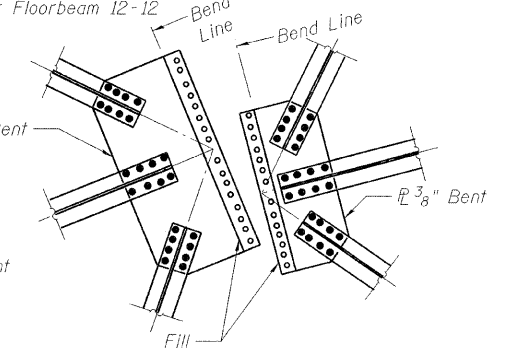
SECTION A-A
For Floorbeam 12-12



SECTION J-J
For Floorbeam 12-12



SECTION L-L
For Floorbeam 12-12



SECTION K-K
For Floorbeam 12-12

LEGEND

- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
For section locations, see sheets 61-84 of 163
All plates for lateral bracing shall be removed and replaced in kind.

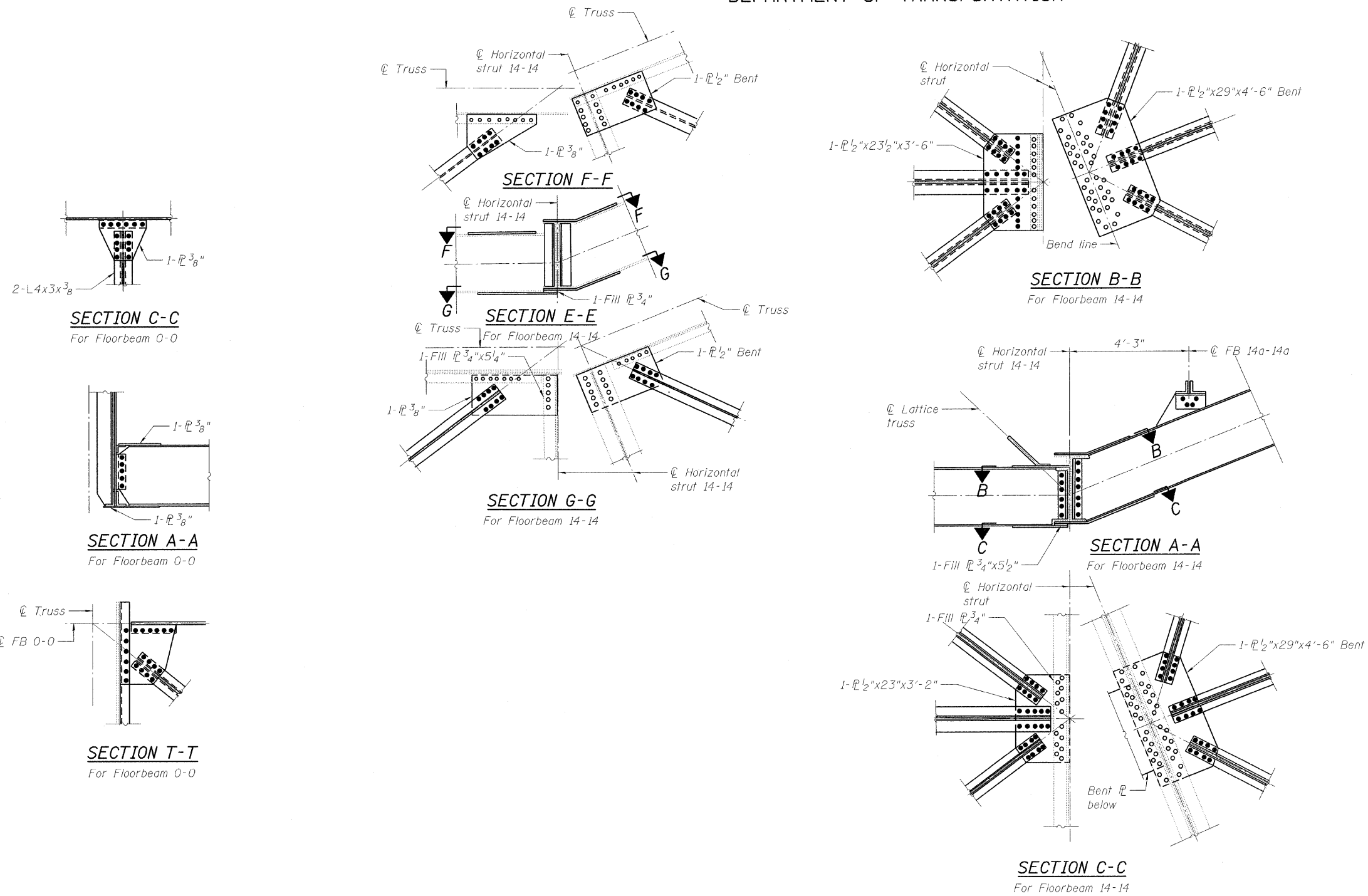
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 87 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	168
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 60D61		
FED. AID PROJECT					

**LATERAL BRACING DETAILS
MOVABLE SPAN
STRUCTURE NO. 016-2445**

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	B. LOFLIN
CHECKED	A. HAMMAD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LEGEND

- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
For section locations, see sheets 61-84 of 163
All plates for lateral bracing shall be removed and replaced in kind.

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

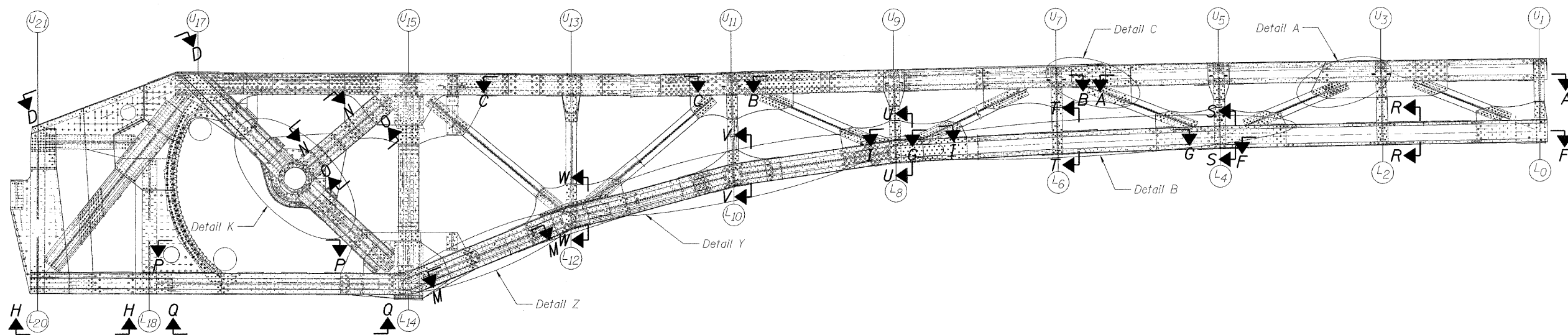
SHEET NO. 88
163 SHEETS

**LATERAL BRACING DETAILS
MOVABLE SPAN
STRUCTURE NO. 016-2445**

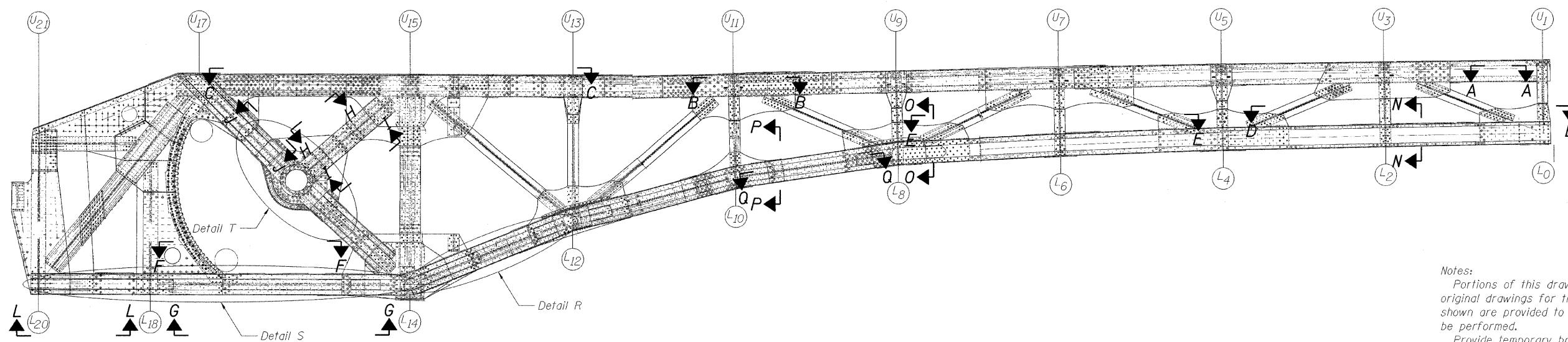
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-R	COOK	398	169
CONTRACT NO. 60D61				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	B. LOFLIN
CHECKED	A. HAMMAD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE TRUSS SOUTHWEST LEAF
Looking North



OUTSIDE TRUSS SOUTHWEST LEAF
Looking North

Notes:
 Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
 Provide temporary bracing and supports to maintain structural integrity during rehabilitation. Cost included in the cost of "Structural Steel Repair".
 For inside truss southwest leaf section and details see sheets 90-94, of 163.
 For outside truss southwest leaf section and details see sheets 95-98, of 163.

TRUSS REPAIRS (SOUTHWEST)
STRUCTURE NO. 016-2445

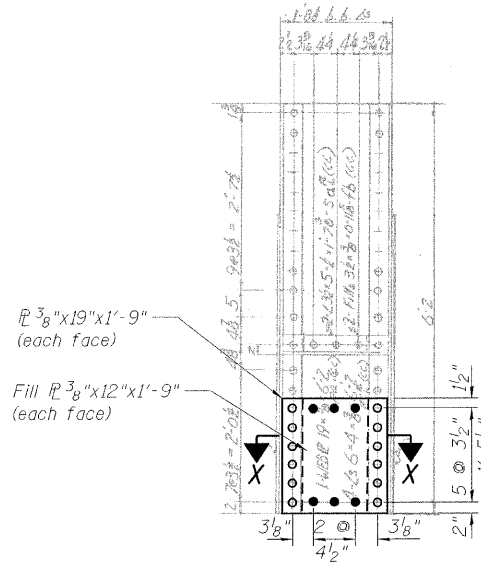
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
 230 WEST MONROE STREET,
 SUITE 900
 CHICAGO, IL. 60606

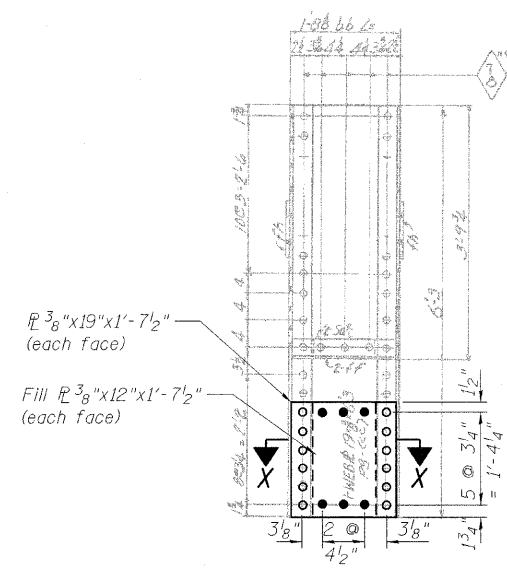
SHEET NO. 89 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	170
CONTRACT NO. 60D61					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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 05-JUN-2009 10:02

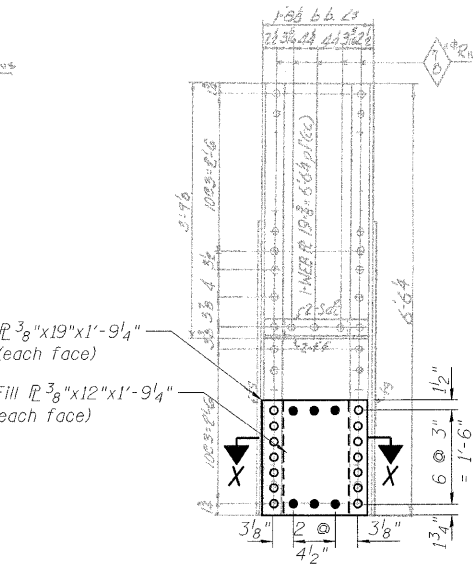
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



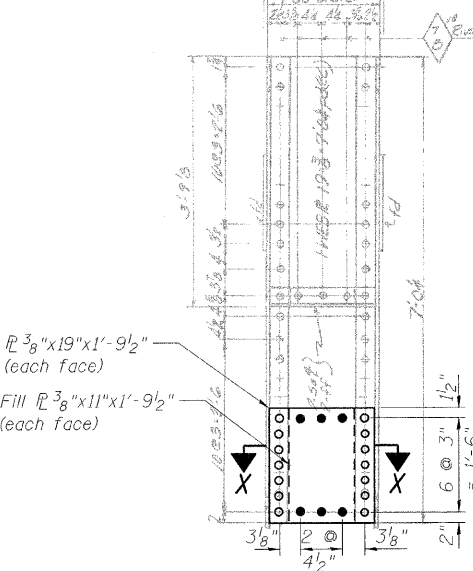
SECTION R-R
POST L2-U3



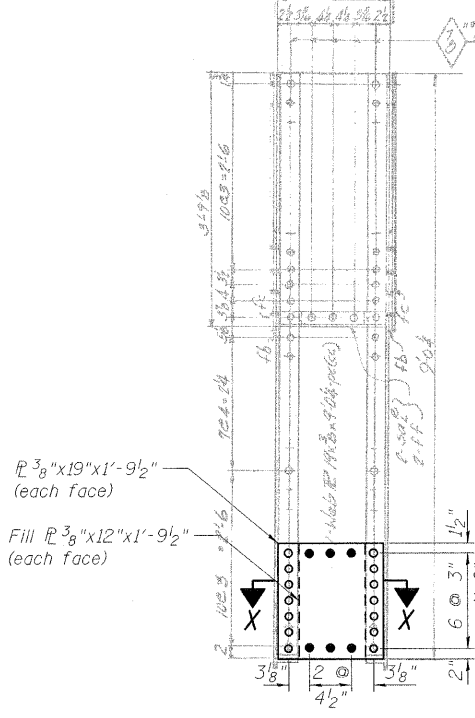
SECTION S-S
POST L4-U5



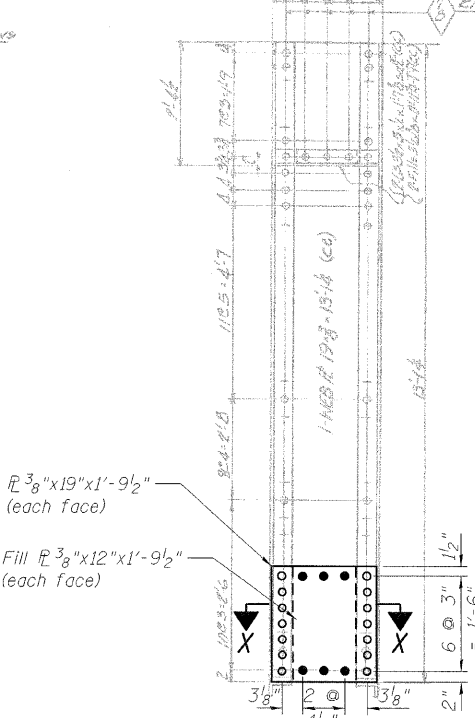
SECTION T-T
POST L6-U7



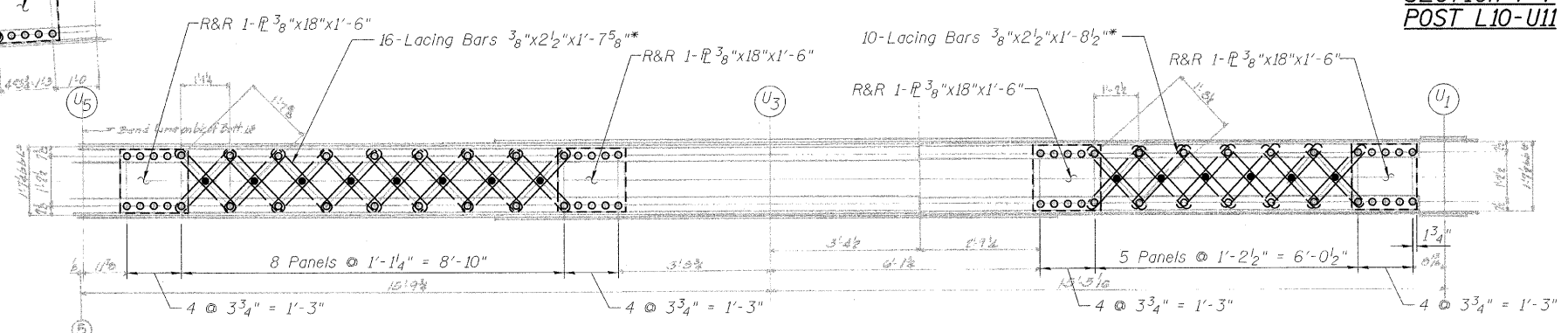
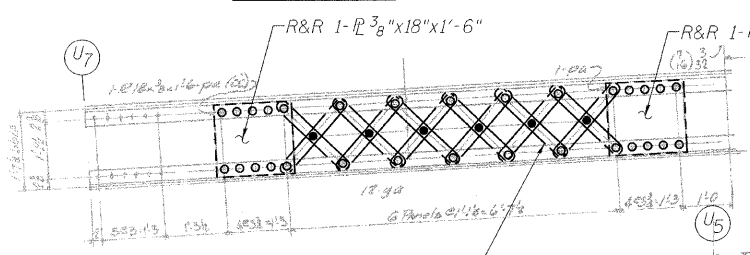
SECTION U-U
POST L8-U9



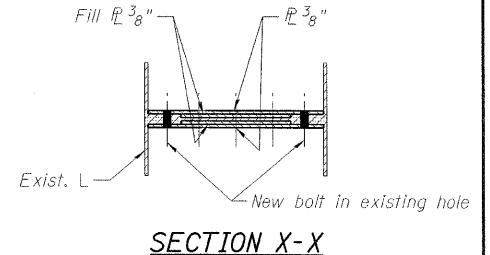
SECTION V-V
POST L10-U11



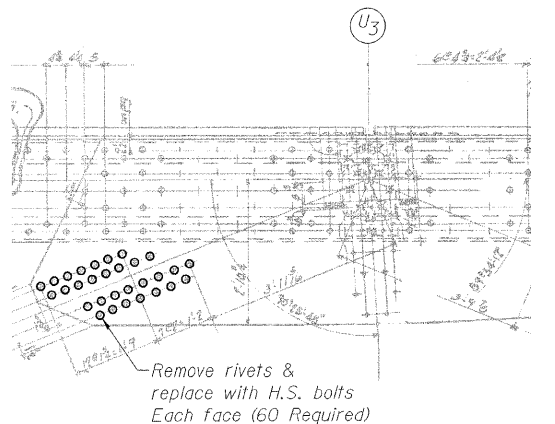
SECTION W-W
POST L12-U13



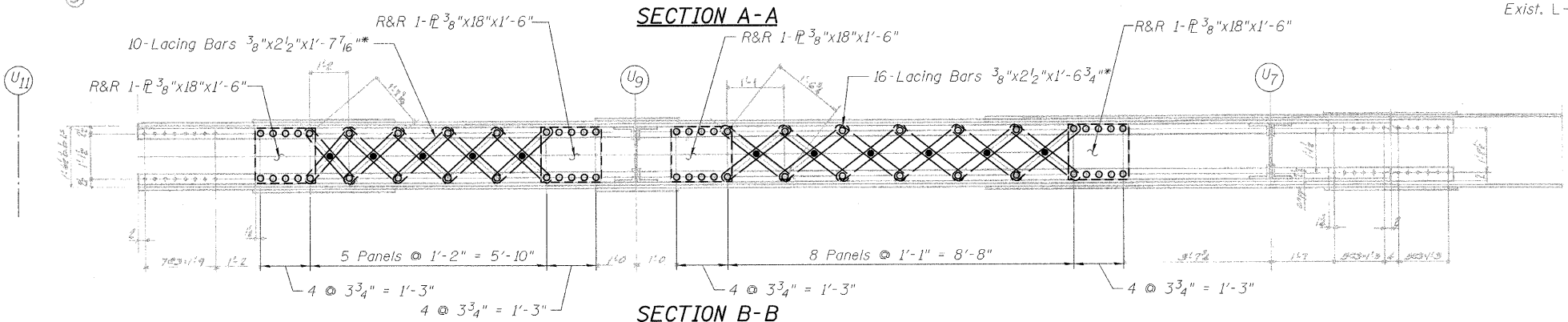
SECTION A-A



SECTION X-X



DETAIL A



SECTION B-B

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

PB Americas, Inc.
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SUITE 900
CHICAGO, IL. 60606

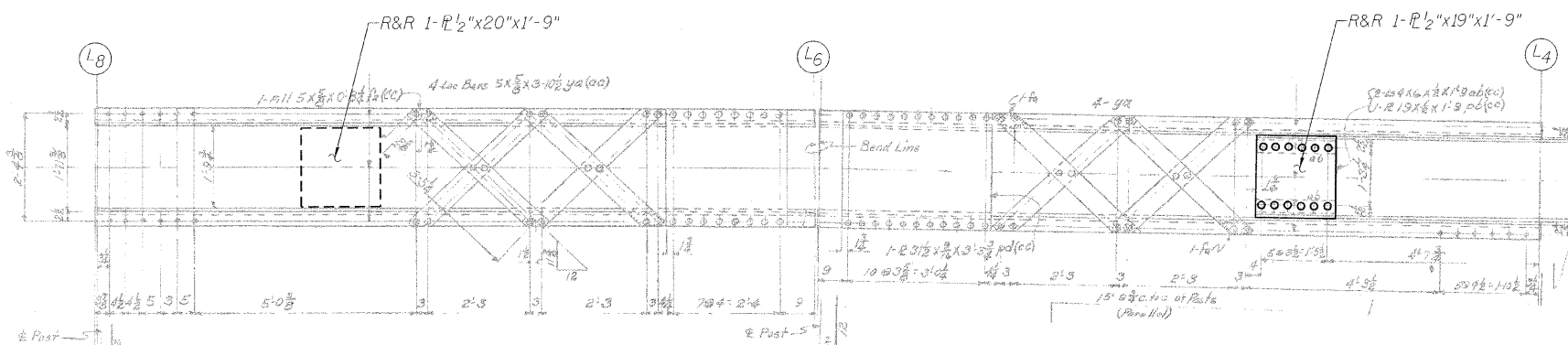
SHEET NO. 90	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	171
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

TRUSS REPAIRS
INSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445

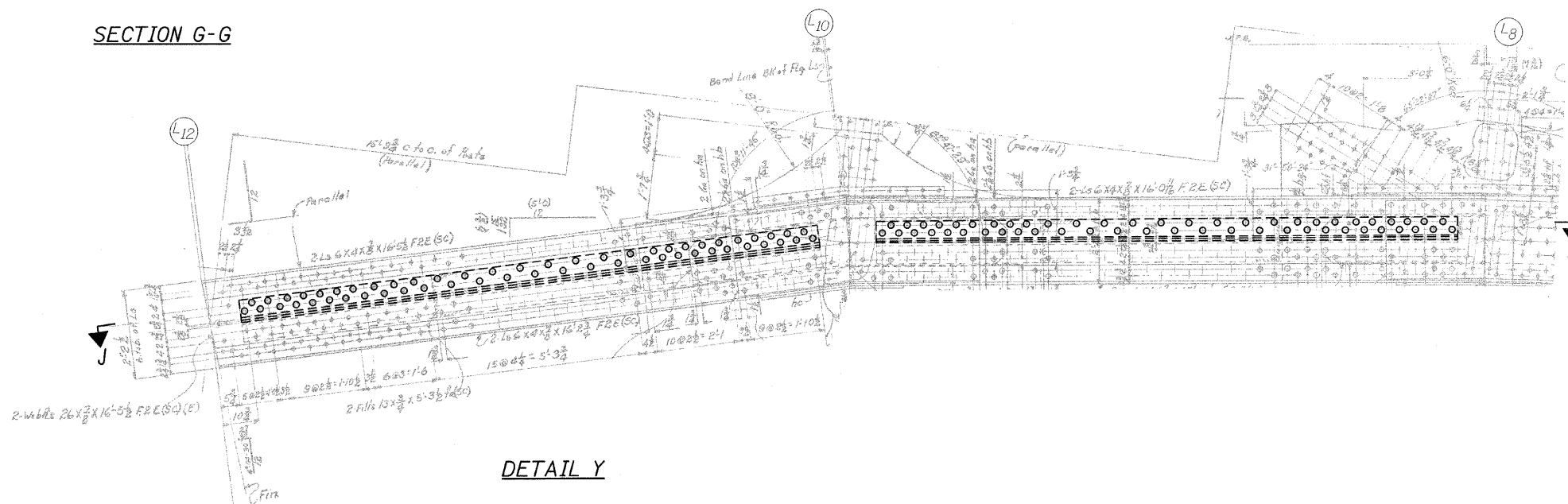
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07-MAY-2009

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

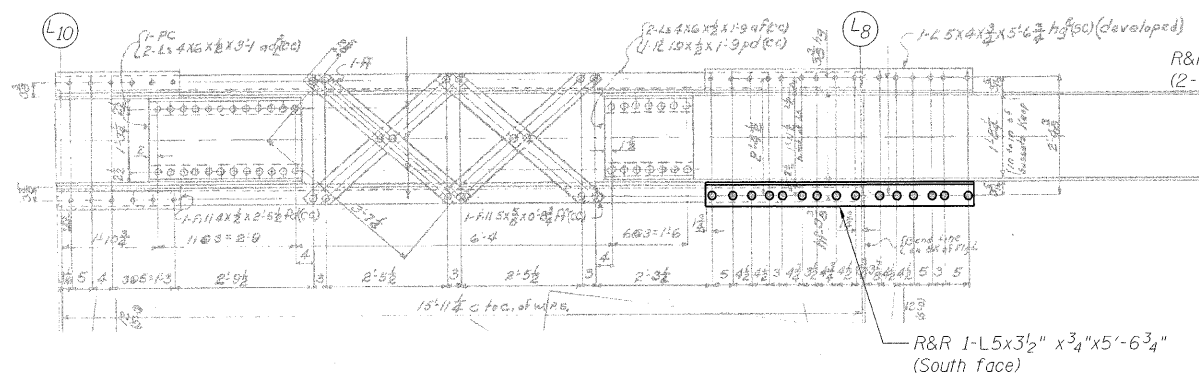
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



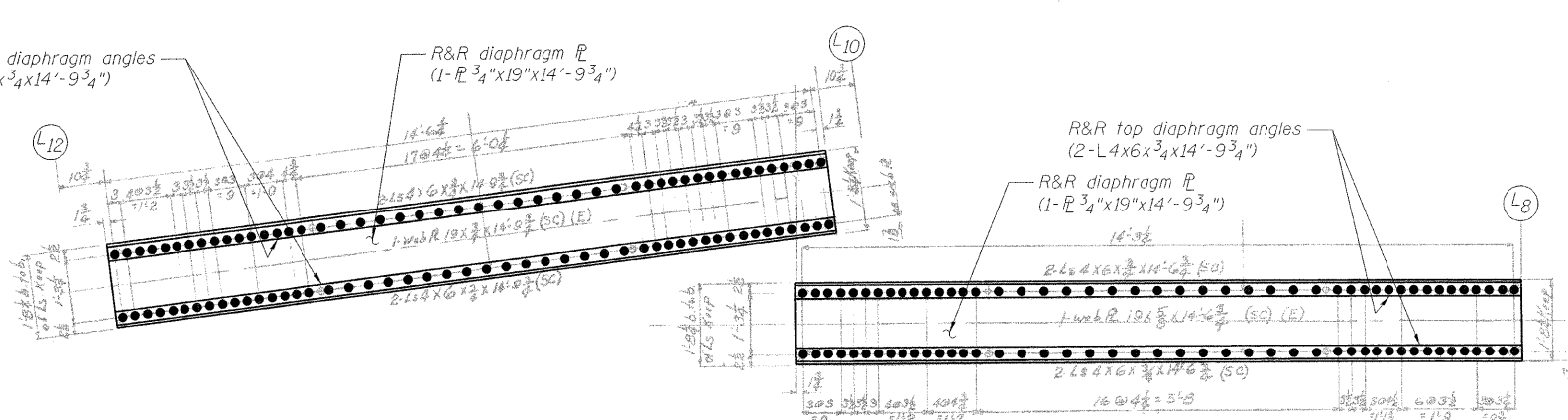
SECTION G-G



DETAIL Y



SECTION I-I



SECTION J-J

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

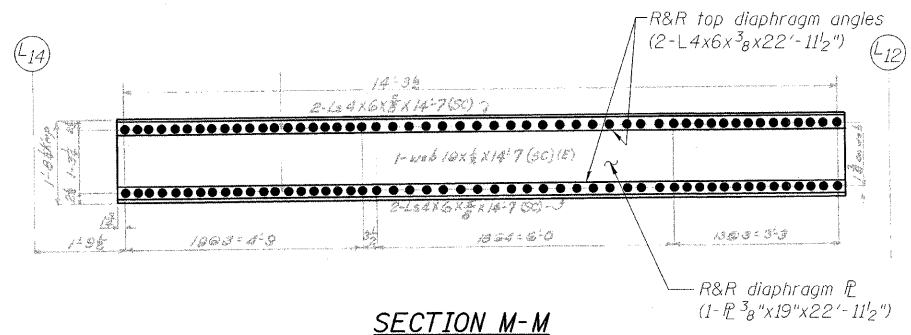
Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

TRUSS REPAIRS
INSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445

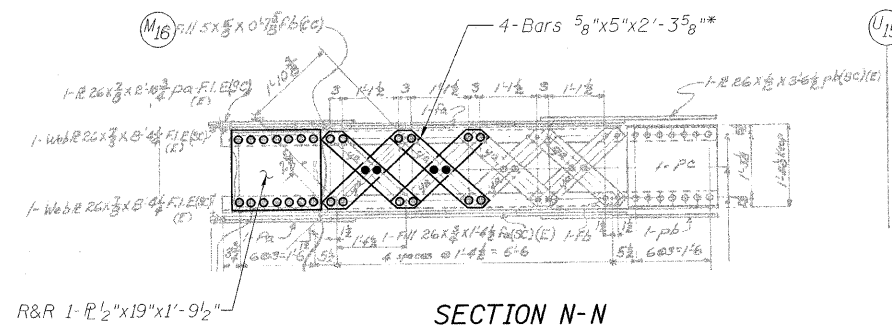
SHEET NO. 92 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	173
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 60D61					

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

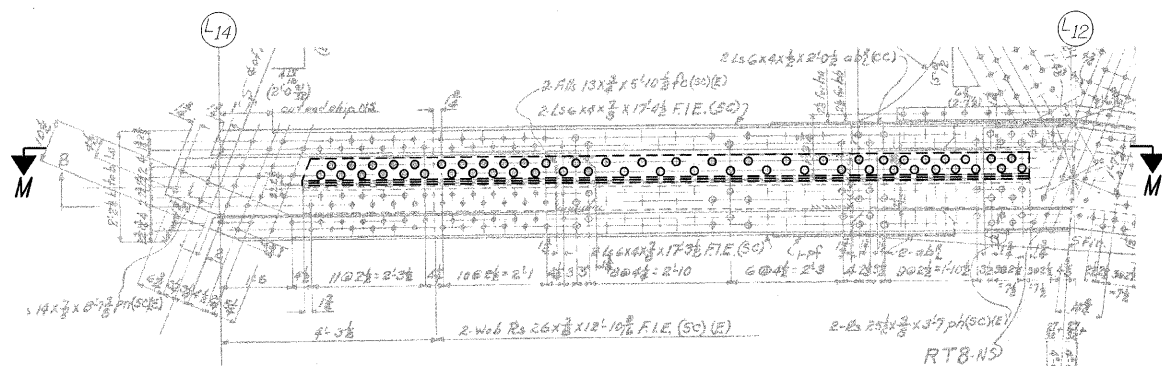


SECTION M-M

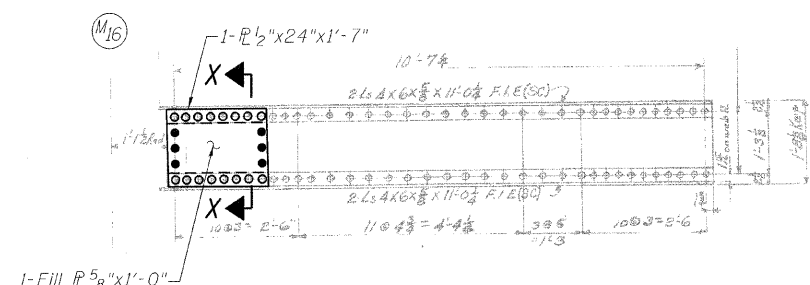


SECTION N-N

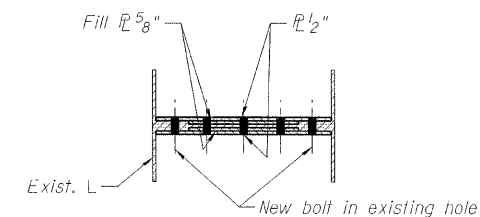
* Measured Center-Center of holes.
Proposed bar length and shape
to match existing bars.



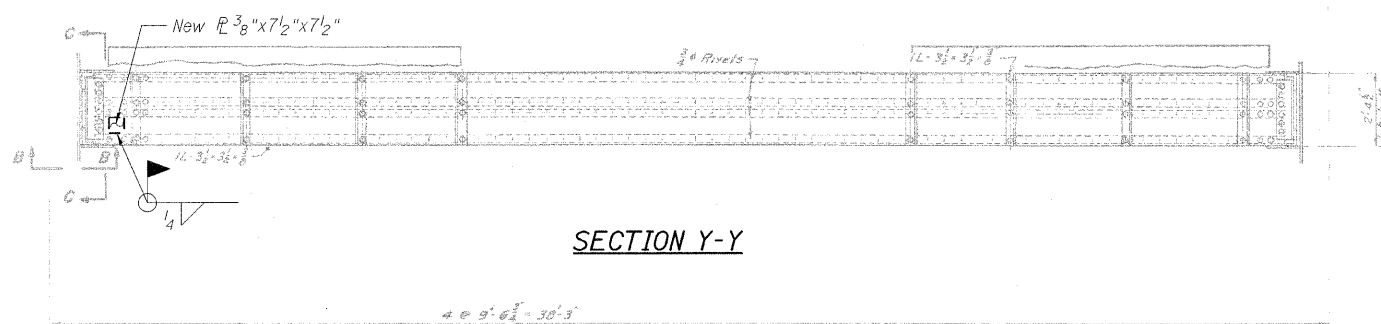
DETAIL Z



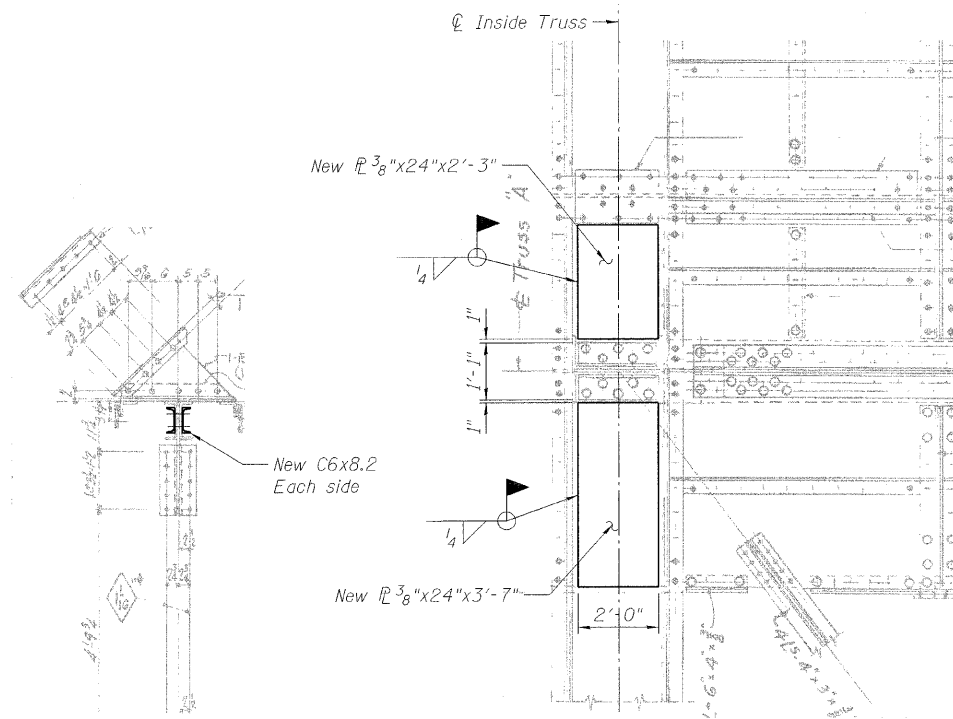
SECTION O-O



SECTION X-X



SECTION Y-Y



SECTION Z-Z

SECTION H-H

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

* Measured Center-Center of holes.
Proposed bar length and shape
to match existing bars.

TRUSS REPAIRS
INSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445

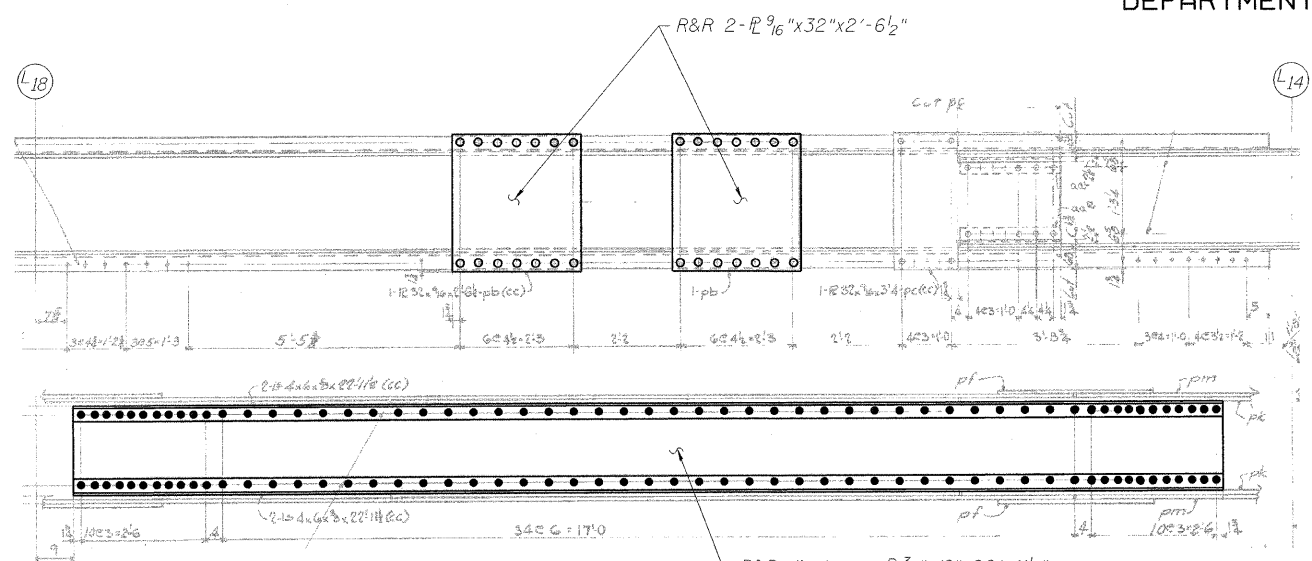
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LATTICE TRUSS ELEVATION

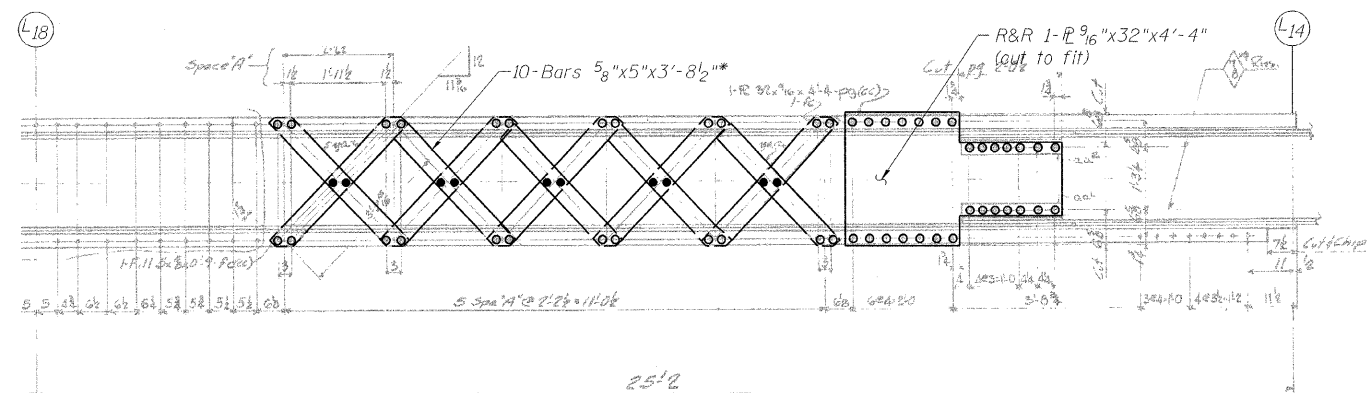
SHEET NO. 93	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	174
163 SHEETS	CONTRACT NO.		60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

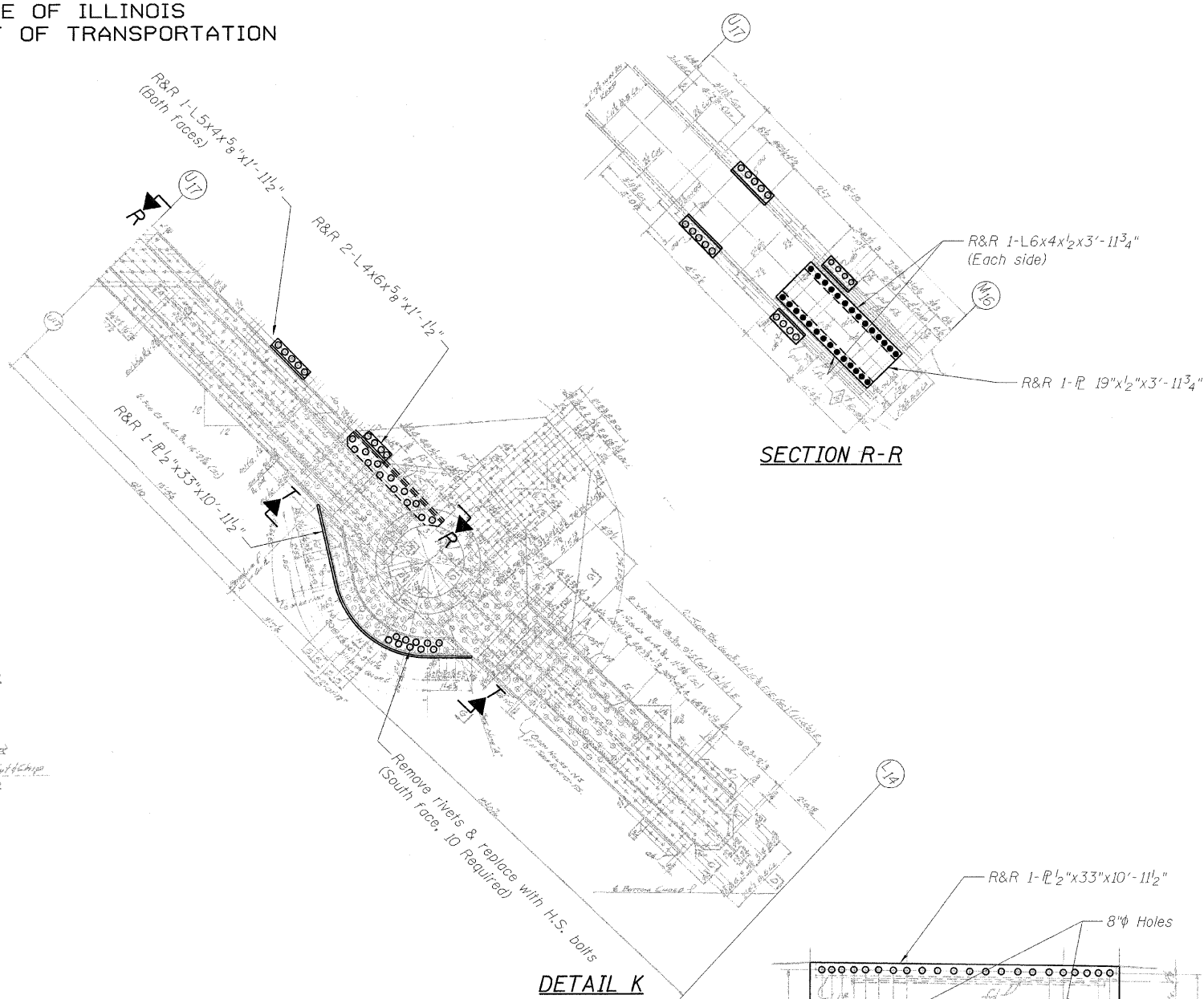
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



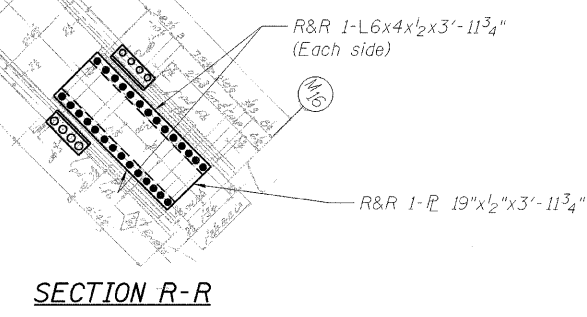
SECTION P-P



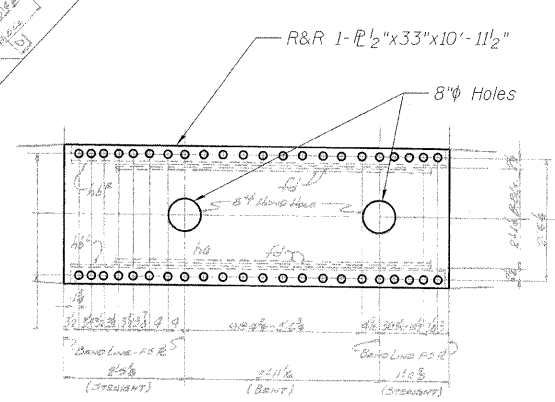
SECTION Q-Q



DETAIL K



SECTION R-R



SECTION T-T

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

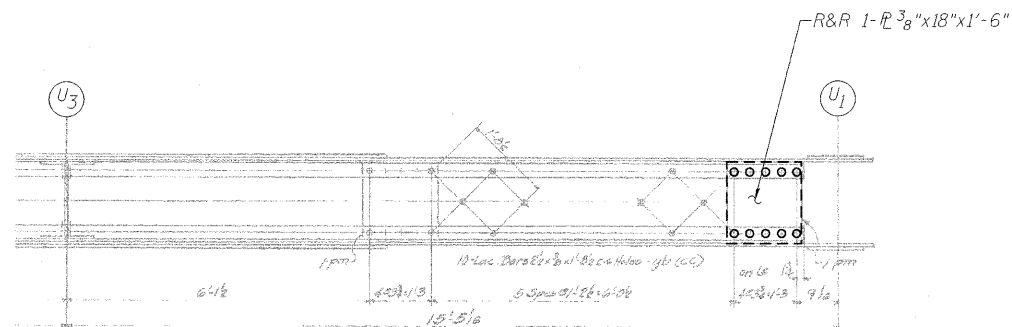
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 94 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO.	60D61	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

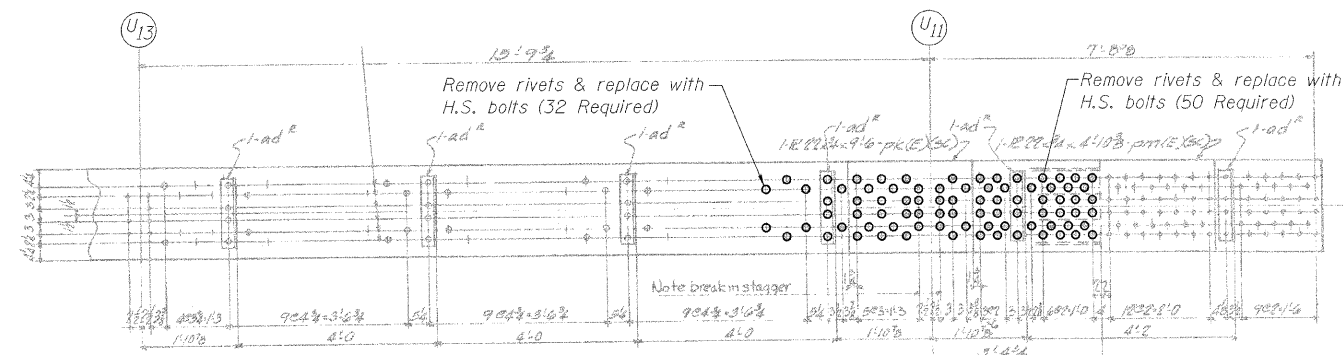
**TRUSS REPAIRS
INSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445**

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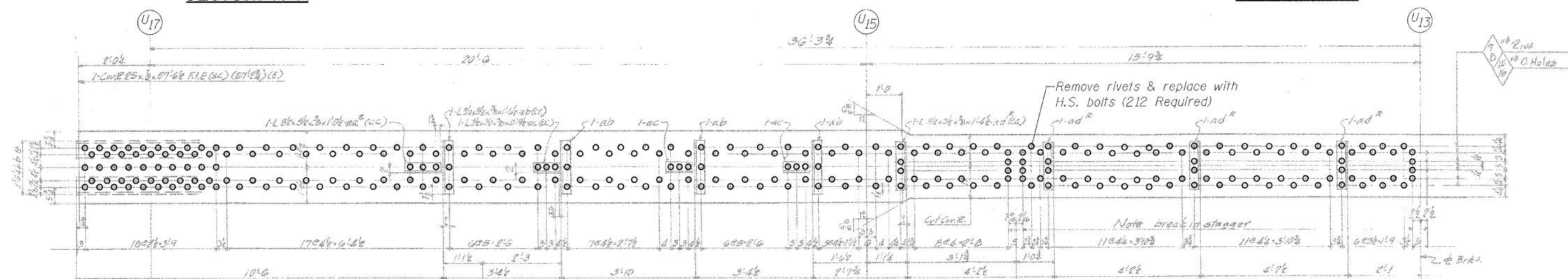
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



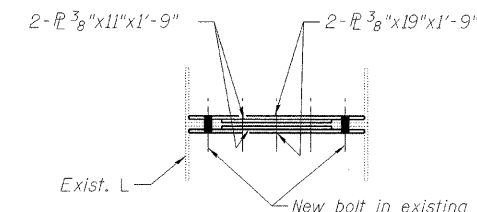
SECTION A-A



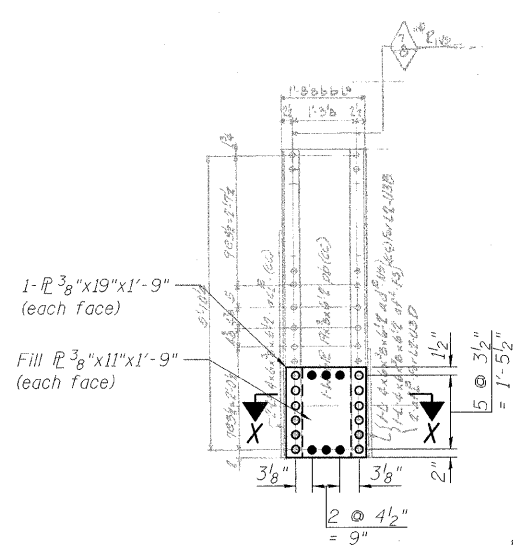
SECTION B-B



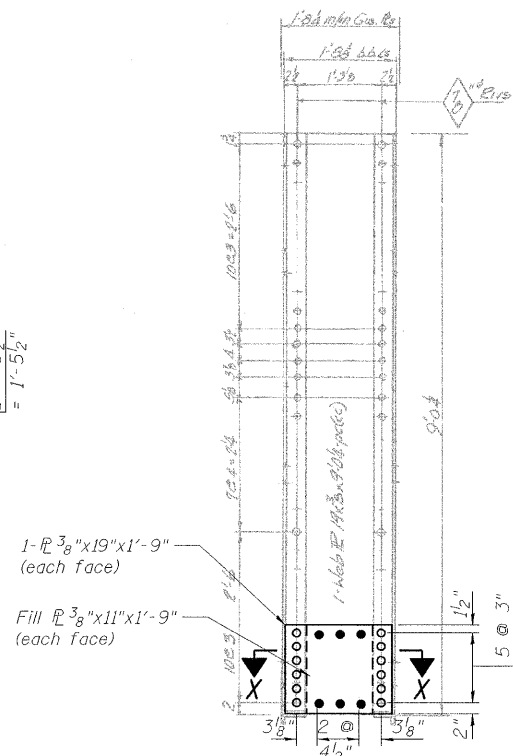
SECTION C-C



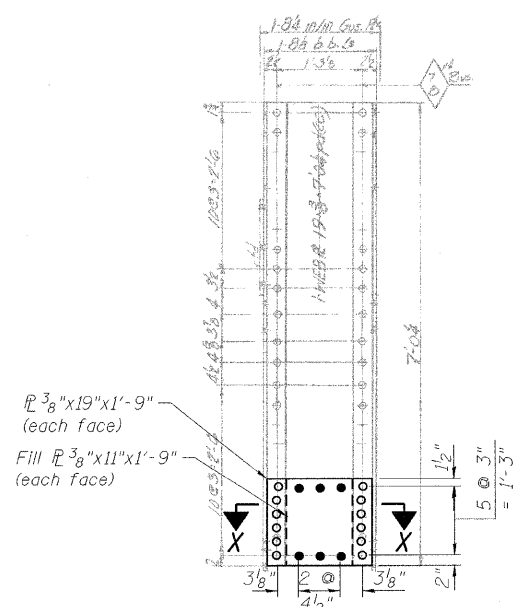
SECTION X-X



SECTION N-N
POST L2-U3



SECTION P-P
POST L10-U11



SECTION O-O
POST L8-U9

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

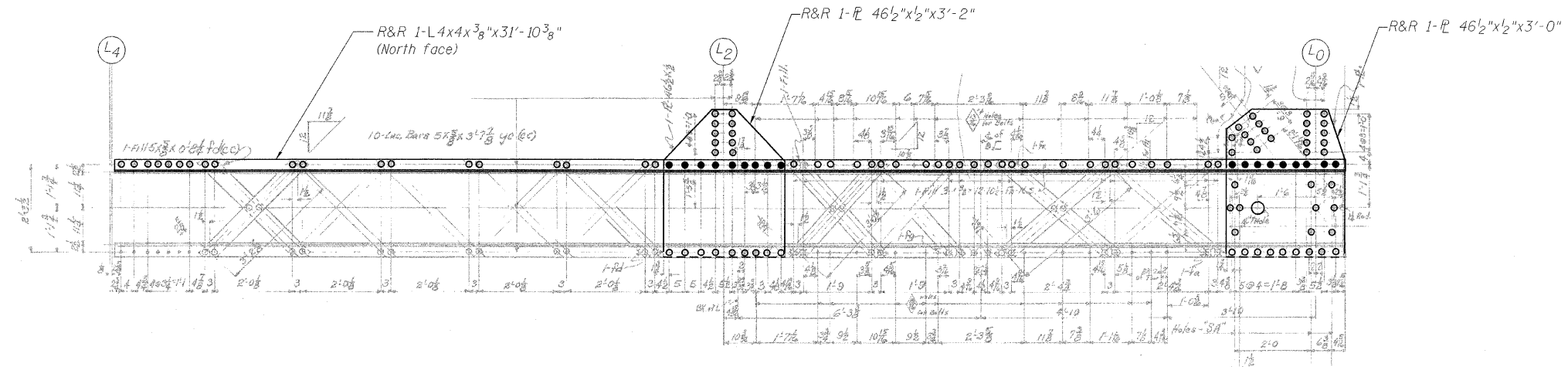
TRUSS REPAIRS
OUTSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

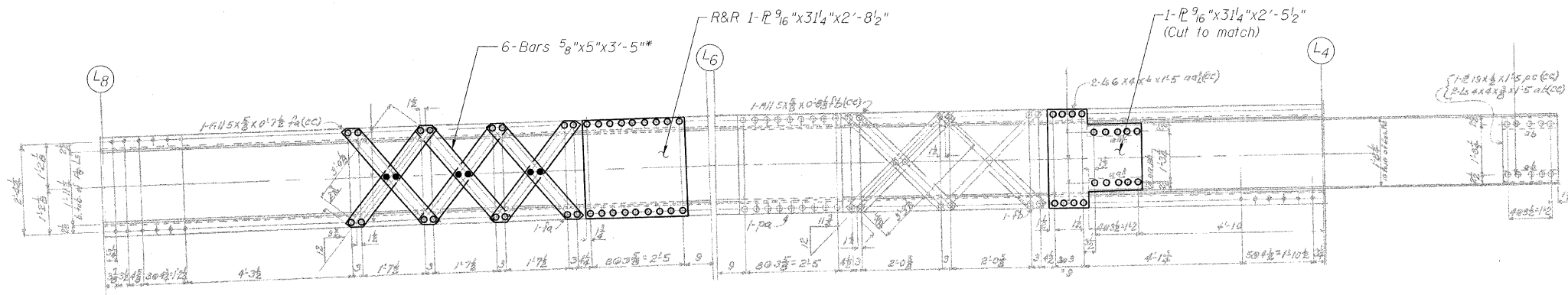
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 95 163 SHEETS	F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	176
			CONTRACT NO.	60D61	
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

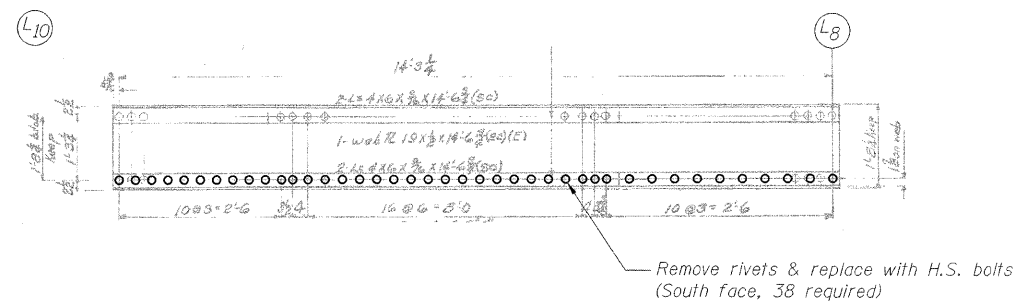


SECTION D-D



SECTION E-E

* Measured Center-Center of holes.
Proposed bar length and shape
to match existing bars.



SECTION Q-Q

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

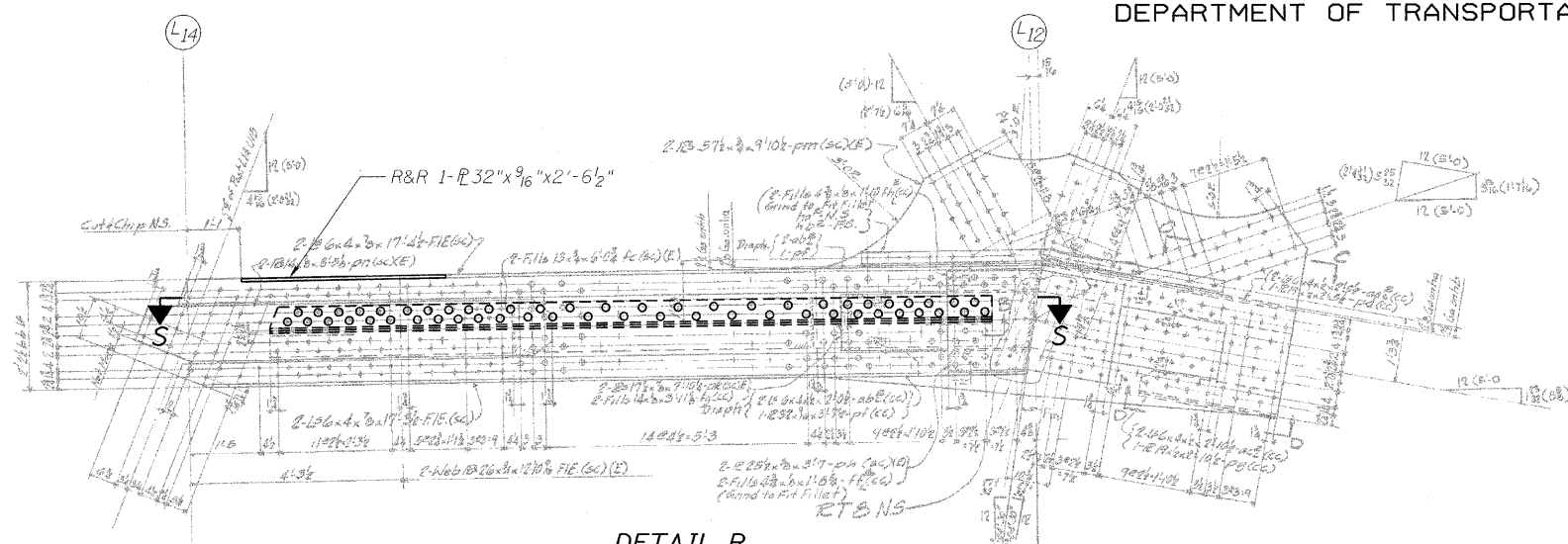
**TRUSS REPAIRS
OUTSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445**

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

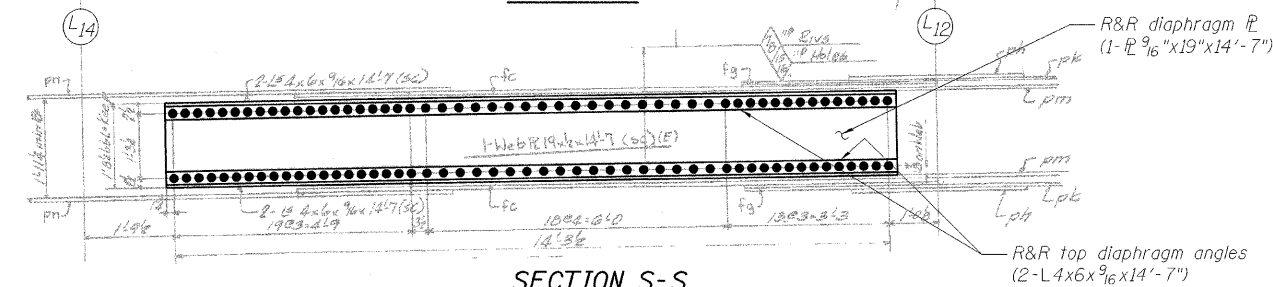
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 96 163 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	177
FED. ROAD DIST. NO. 7 ILLINOIS				CONTRACT NO. 60D61	
FED. AID PROJECT					

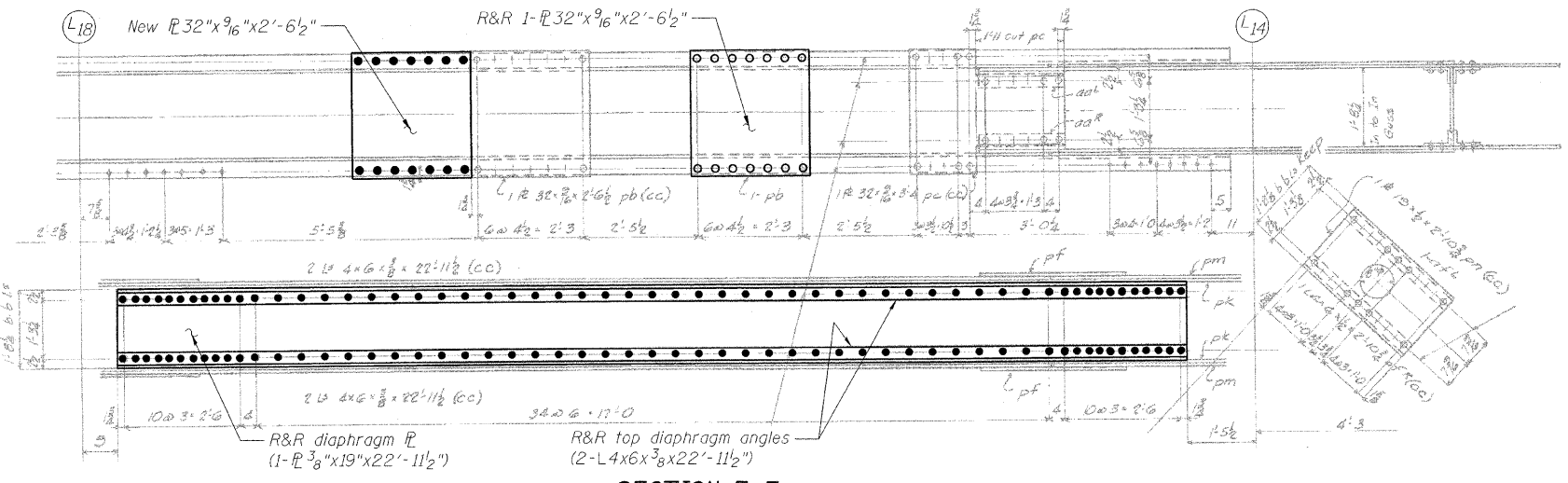
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



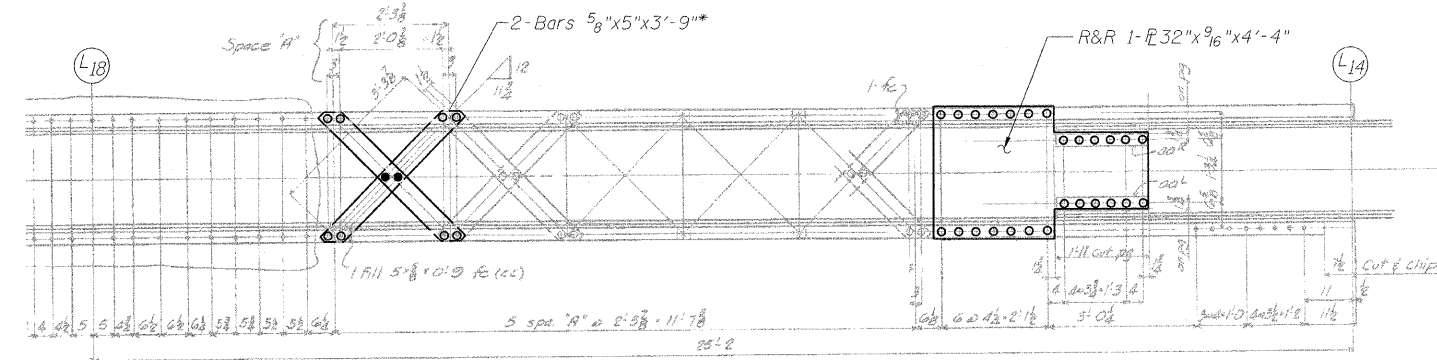
DETAIL R



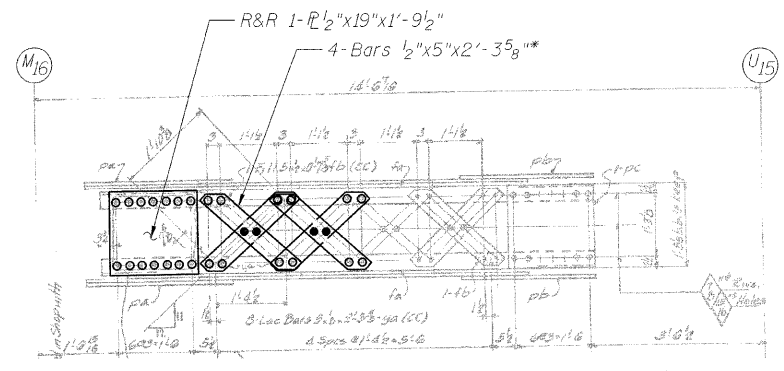
SECTION S-S



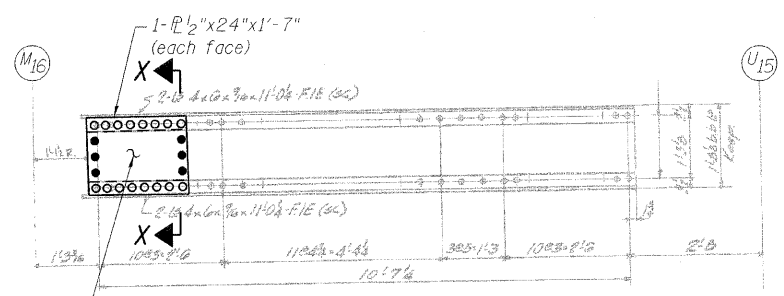
SECTION F-F



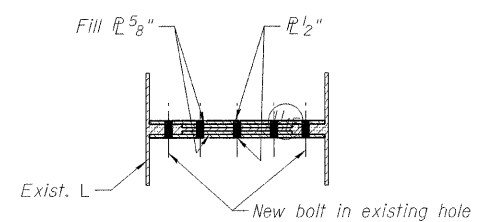
SECTION G-G



SECTION H-H



SECTION I-I



SECTION X-X

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

TRUSS REPAIRS
OUTSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

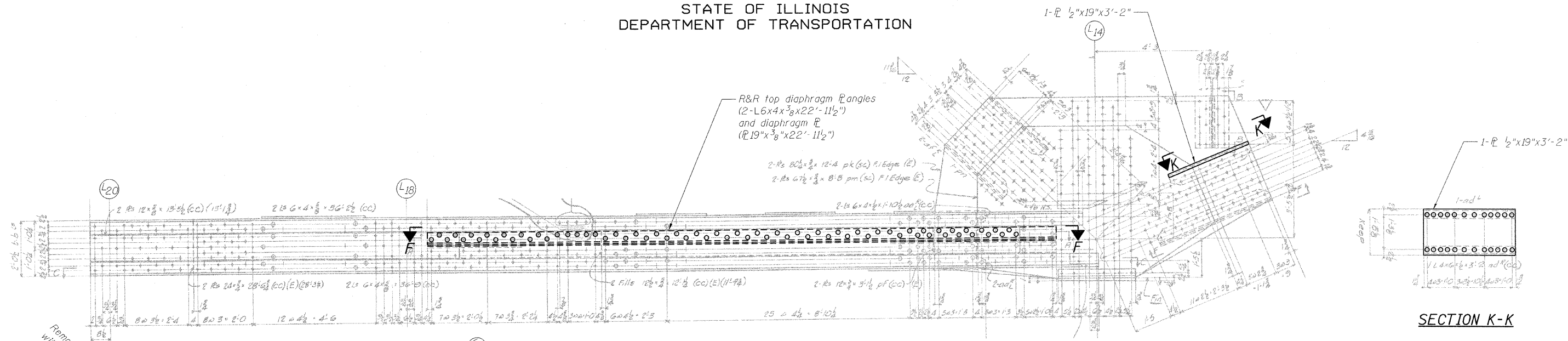
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 97	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	178
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

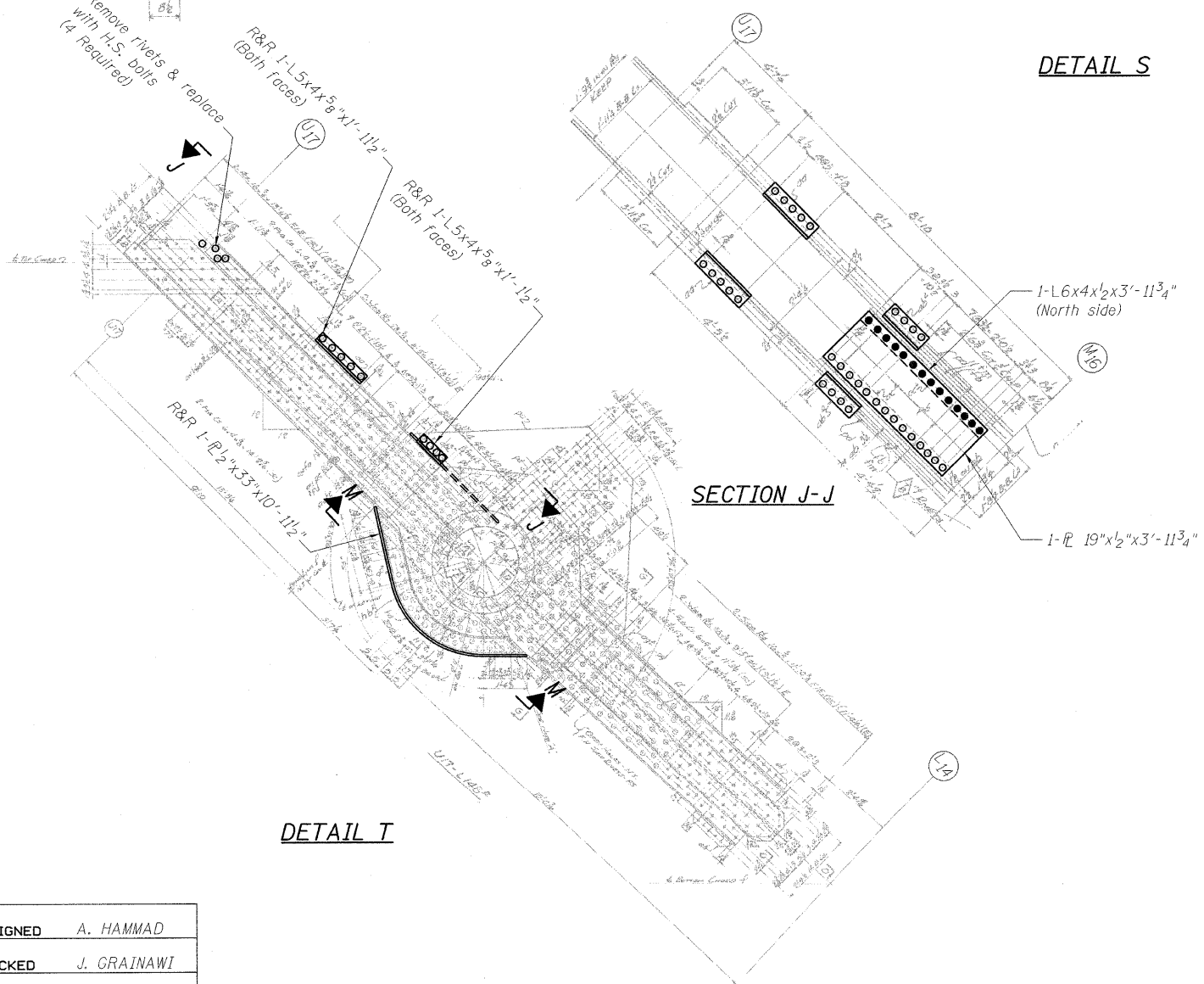
T:\16643A\Structural\Cadd\Pre-final\EB_Plans\0162445-60D61-TRR-085.dgn
07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



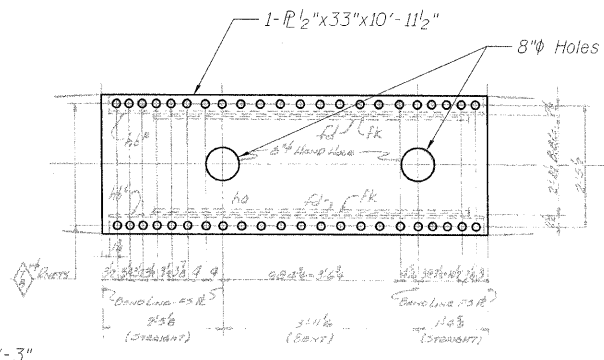
SECTION K-K

DETAIL S

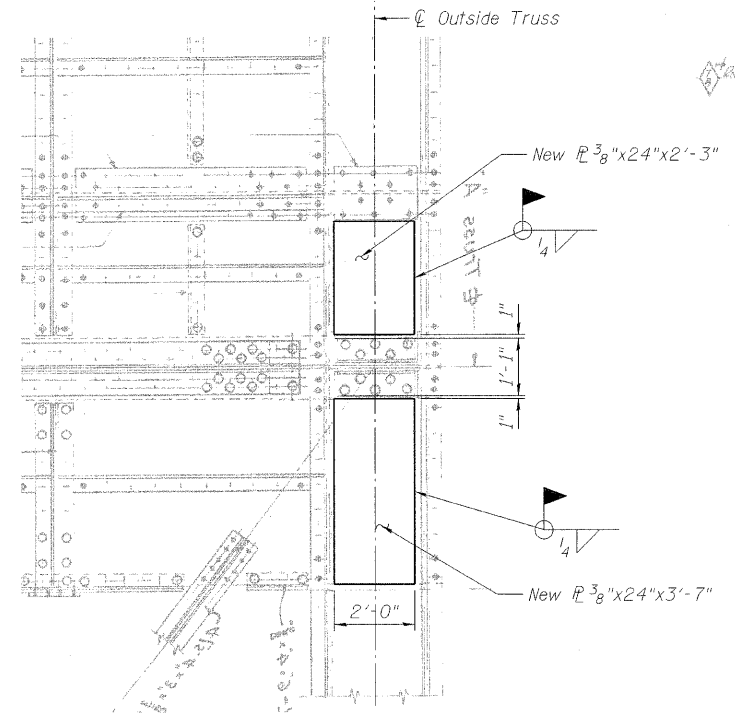


SECTION J-J

DETAIL T



SECTION M-M



SECTION L-L

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Notes:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
Provide temporary bracing and supports to maintain structural integrity during replacements.
For Section F-F, see sheet 97 of 163.

TRUSS REPAIRS
OUTSIDE TRUSS (SOUTHWEST)
STRUCTURE NO. 016-2445

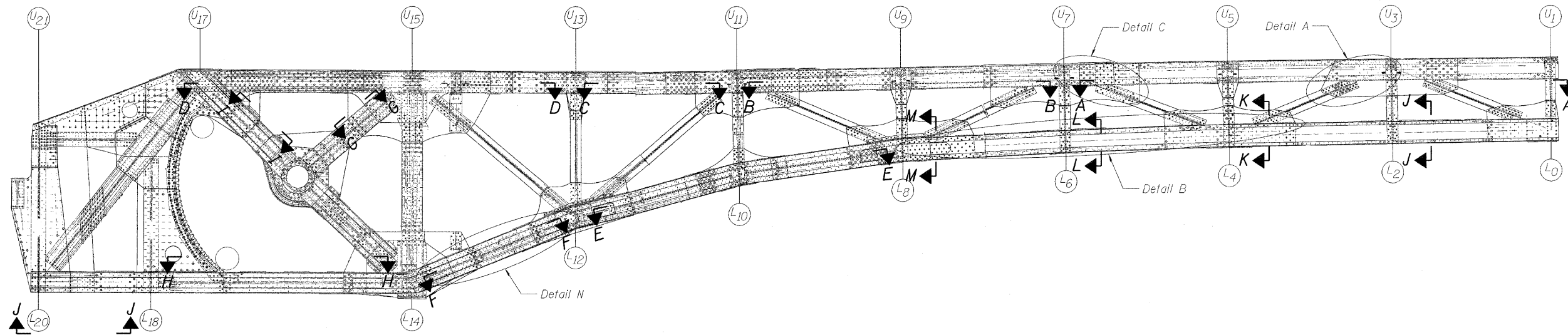
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

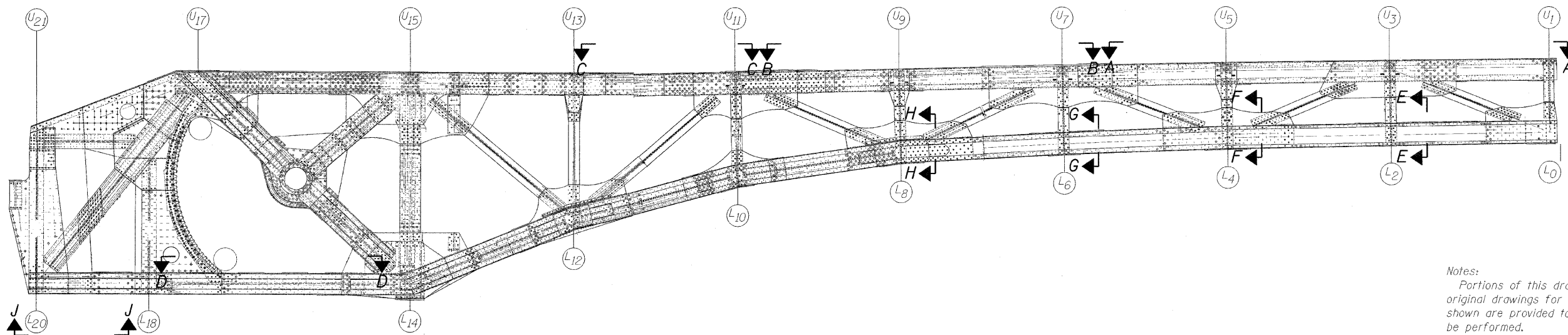
SHEET NO. 98	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	179
163 SHEETS	FED. ROAD DIST. NO. 7 ILLINOIS		CONTRACT NO. 60D61		
FED. AID PROJECT					

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE TRUSS SOUTHEAST LEAF
Looking South



OUTSIDE TRUSS SOUTHEAST LEAF
Looking South

Notes:
 Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
 Provide temporary bracing and supports to maintain structural integrity during rehabilitation. Cost included in the cost of "Structural Steel Repair".
 For inside truss southwest leaf section and details see sheets 100-103, of 163.
 For outside truss southwest leaf section and details see sheets 104-105, of 163.

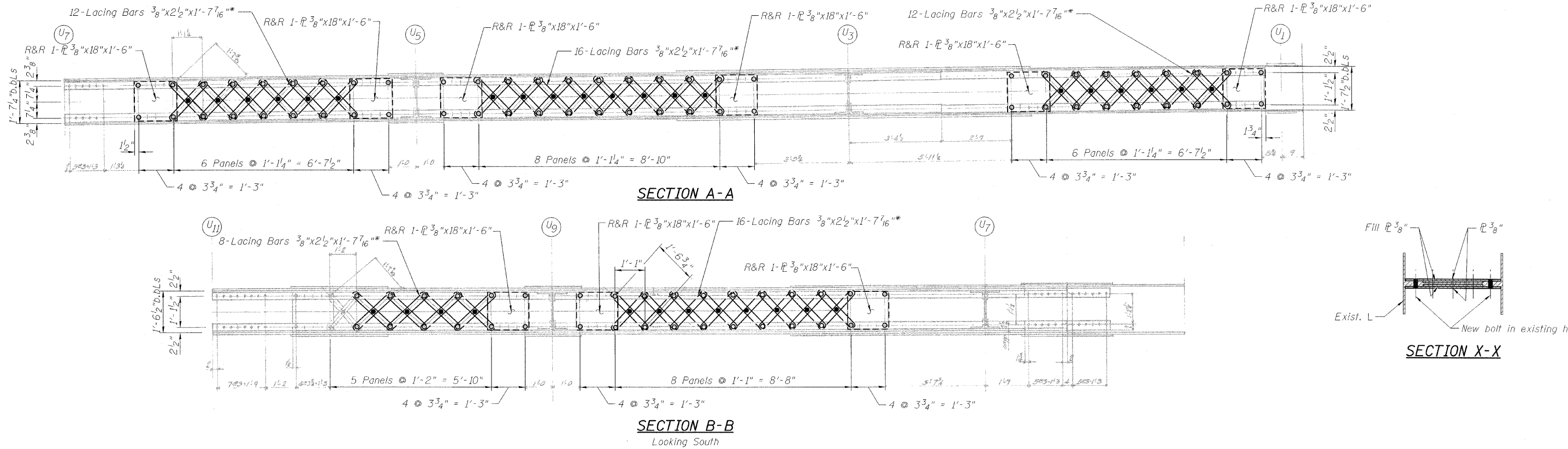
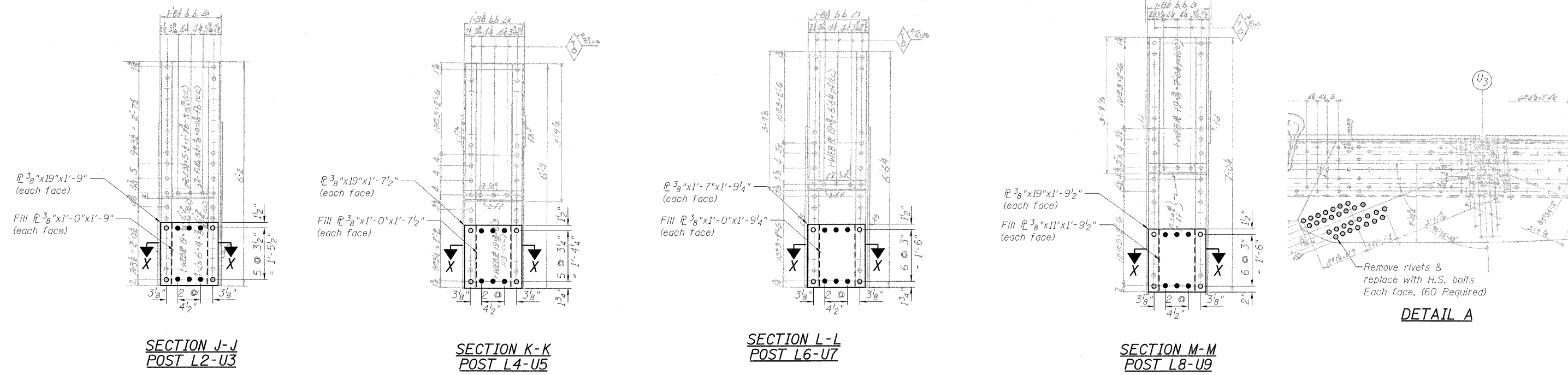
TRUSS REPAIRS (SOUTHEAST)
STRUCTURE NO. 016-2445

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
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 SUITE 900
 CHICAGO, IL. 60606

SHEET NO. 99 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	180
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 60D61		
FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



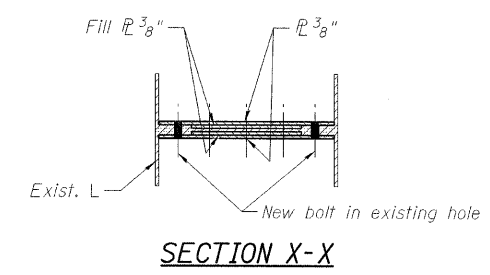
DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

* Measured Center-Center of holes.
Proposed bar length and shape
to match existing bars.

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from
original drawings for this bridge. Details
shown are provided to illustrate the work
to be performed.



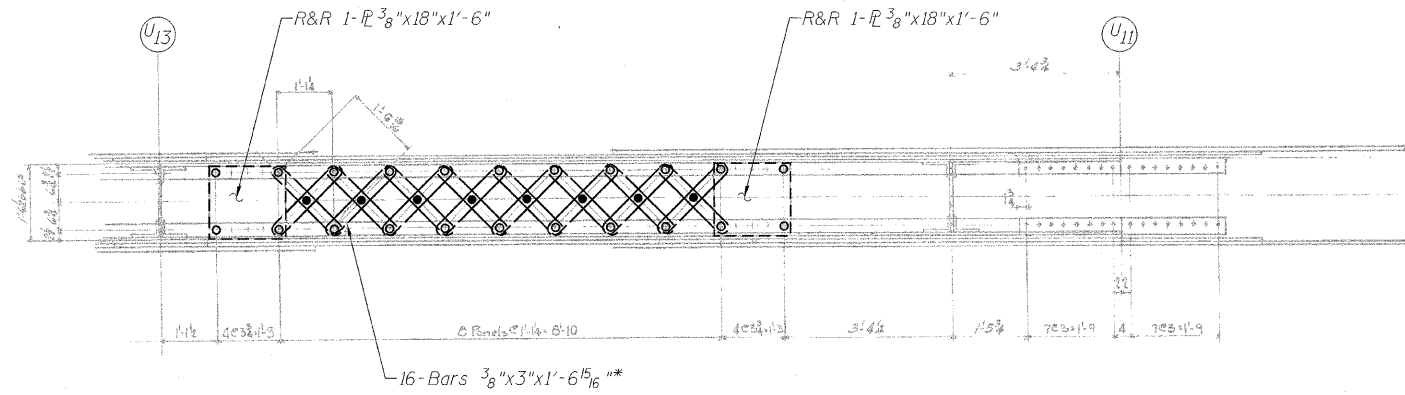
**TRUSS REPAIRS
INSIDE TRUSS (SOUTHEAST)
STRUCTURE NO. 016-2445**

SHEET NO. 100 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	181
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 60D61		
FED. AID PROJECT					

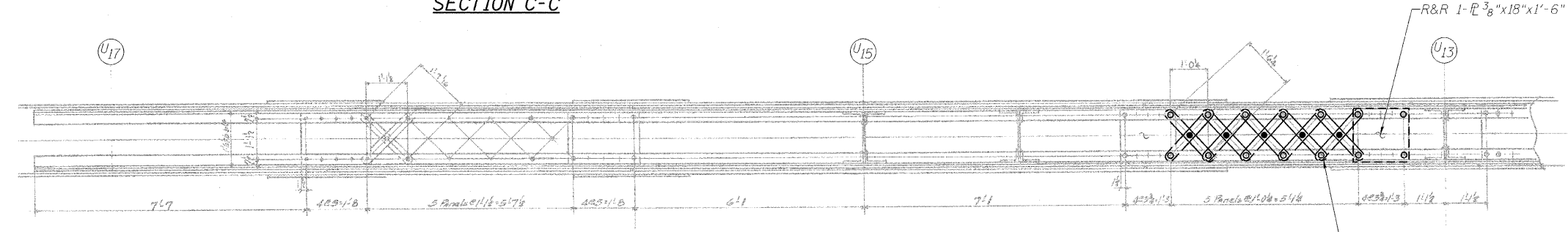
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

T:\6849AS\Structural\Cadd\Pre-final\EB_Plans\0162445-60D61-TRR-098.dgn
07-MAY-2009

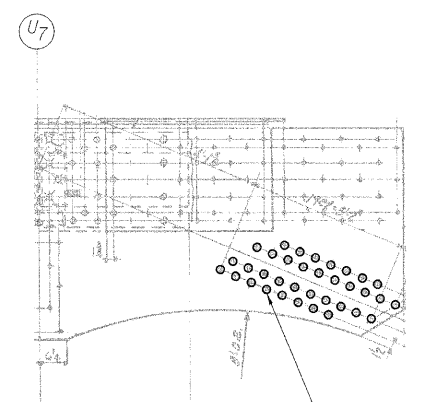
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



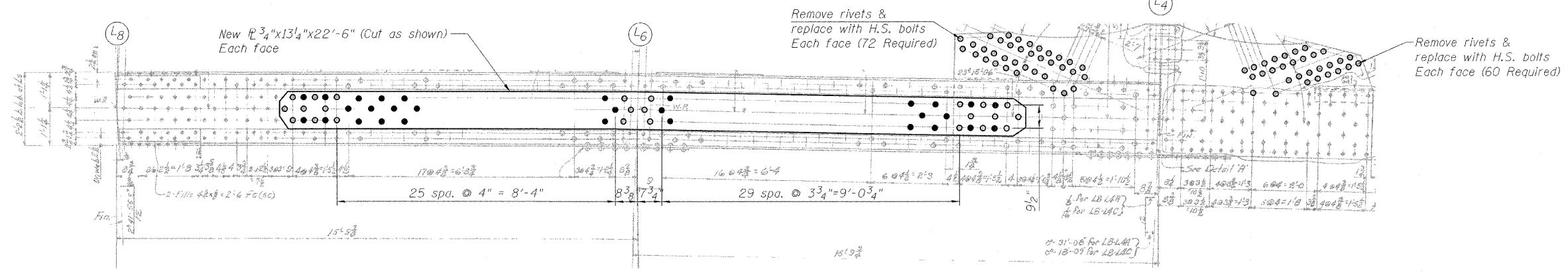
SECTION C-C



SECTION D-D



DETAIL C

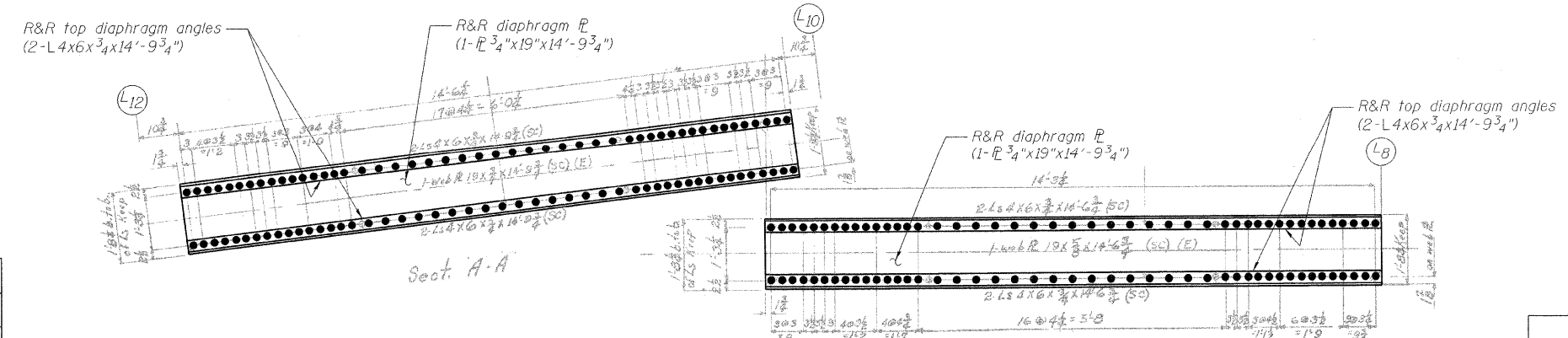


DETAIL B

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.



SECTION E-E

* Measured Center-Center of holes. Proposed bar length and shape to match existing bars.

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SUITE 900
CHICAGO, IL. 60606

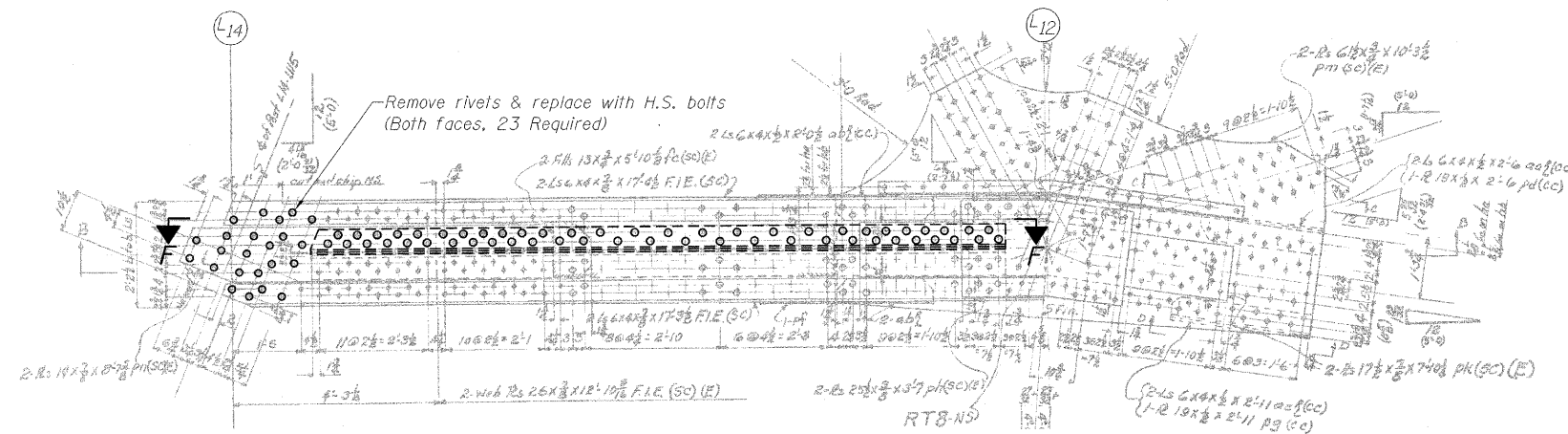
DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

TRUSS REPAIRS
INSIDE TRUSS (SOUTHEAST)
STRUCTURE NO. 016-2445

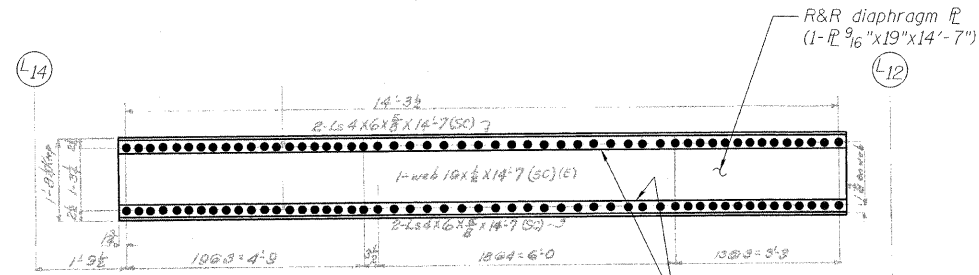
SHEET NO. 101	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	182
163 SHEETS	FED. ROAD DIST. NO. 7 ILLINOIS		CONTRACT NO. 60D61		
FED. AID PROJECT					

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07-MAY-2009

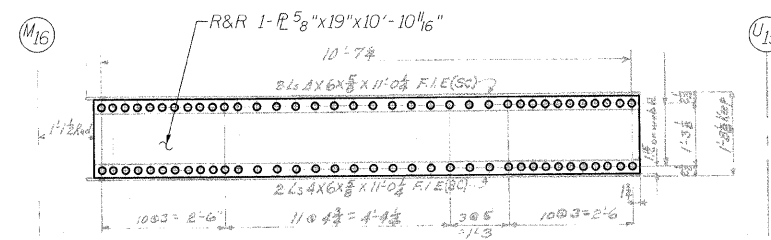
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



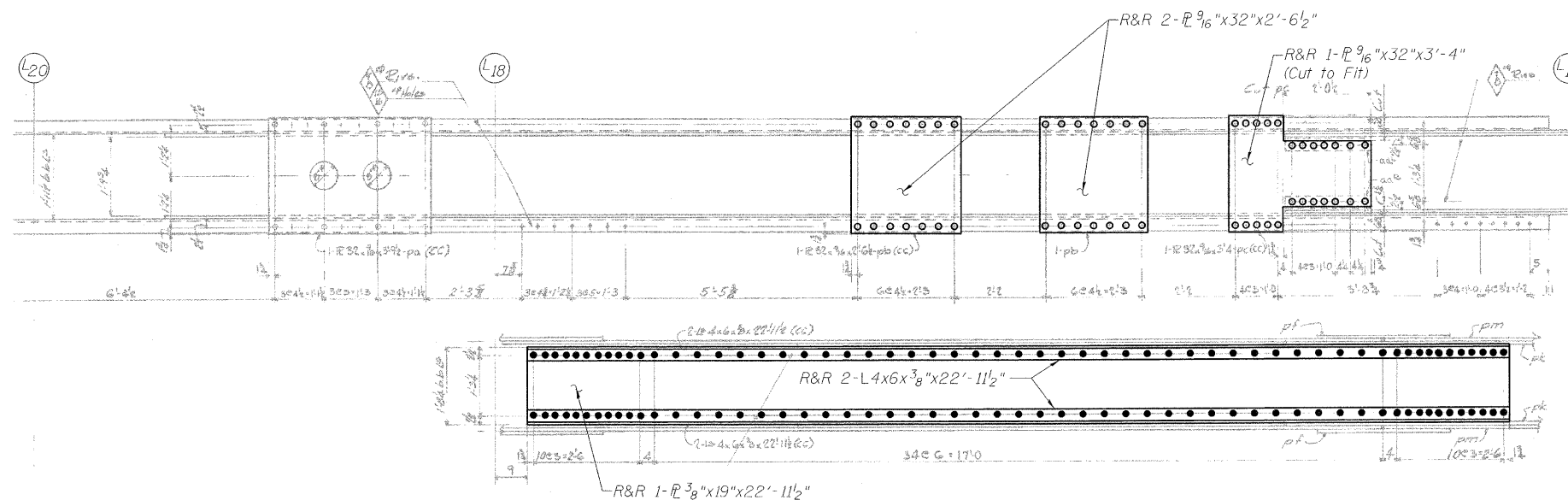
DETAIL N



SECTION F-F



SECTION G-G



SECTION H-H

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

DESIGNED	A. HAMMAD
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

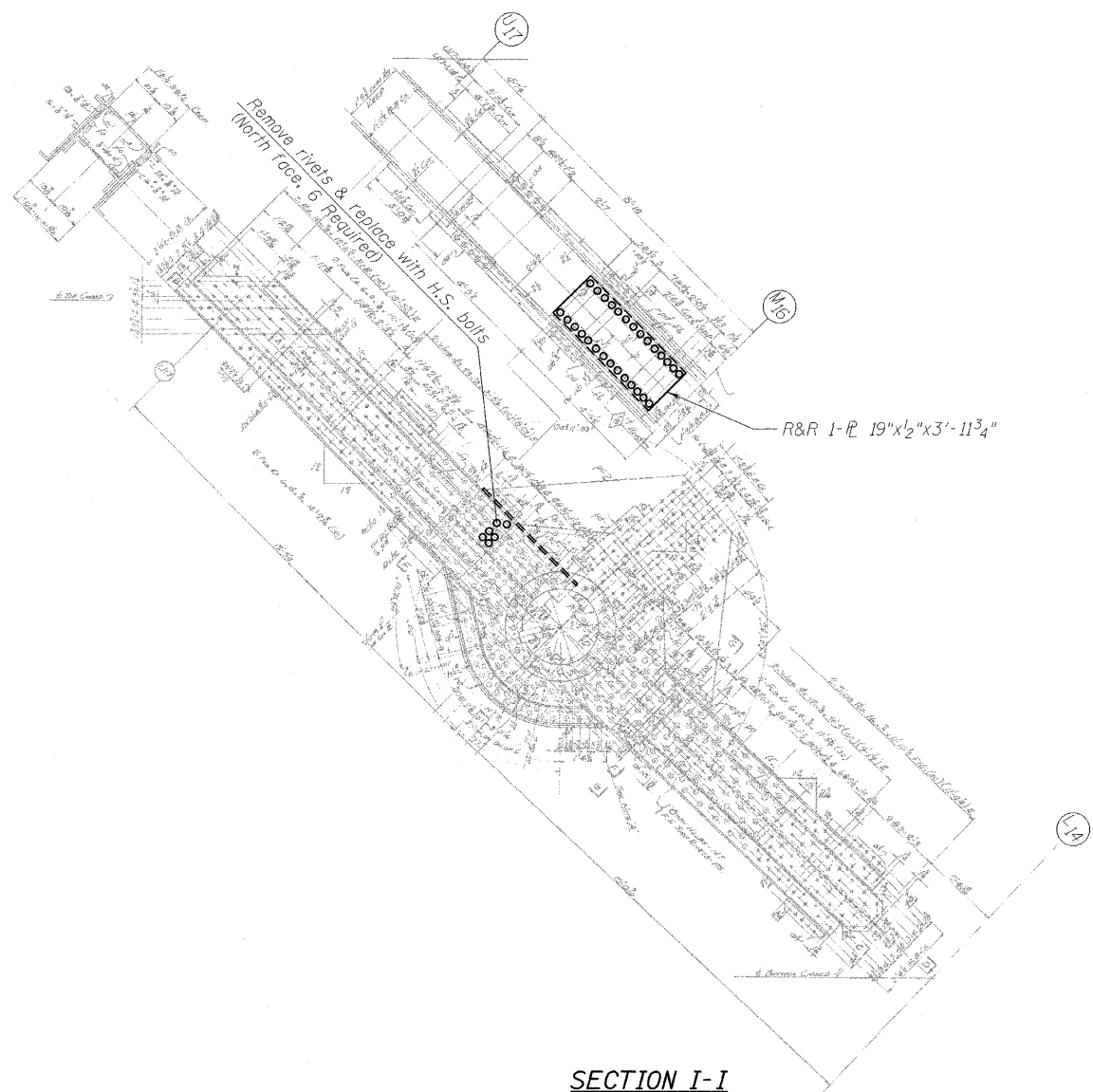
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 102
163 SHEETS

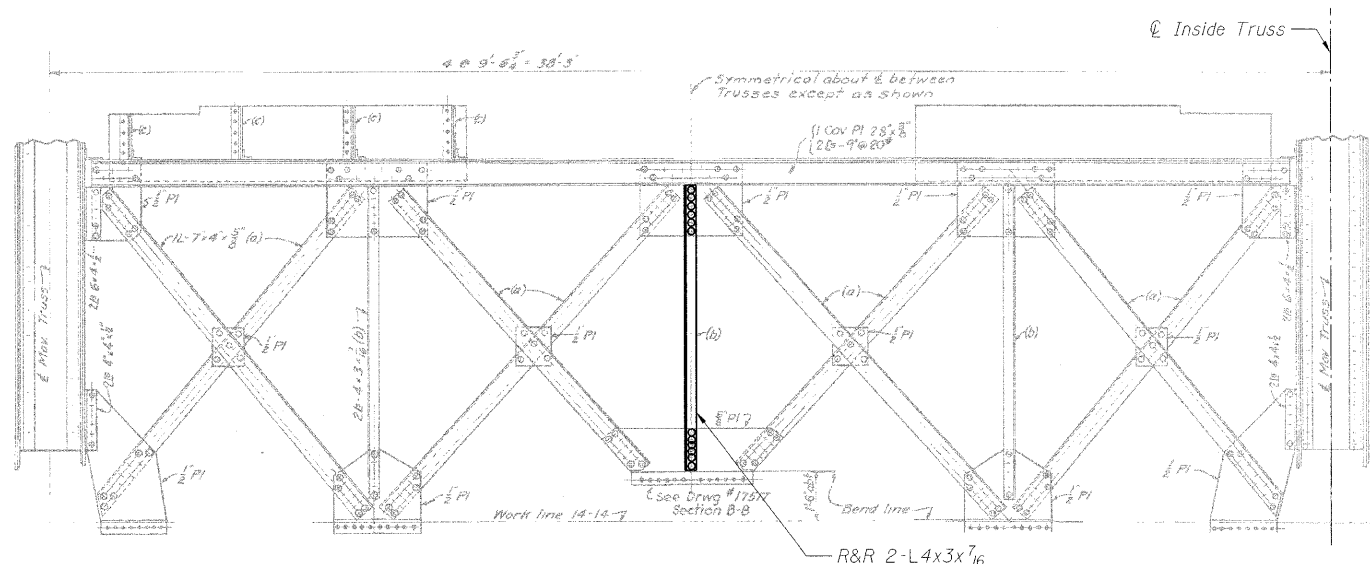
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2B-R	COOK	398	183
CONTRACT NO.				60D61
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

**TRUSS REPAIRS
INSIDE TRUSS (SOUTHEAST)
STRUCTURE NO. 016-2445**

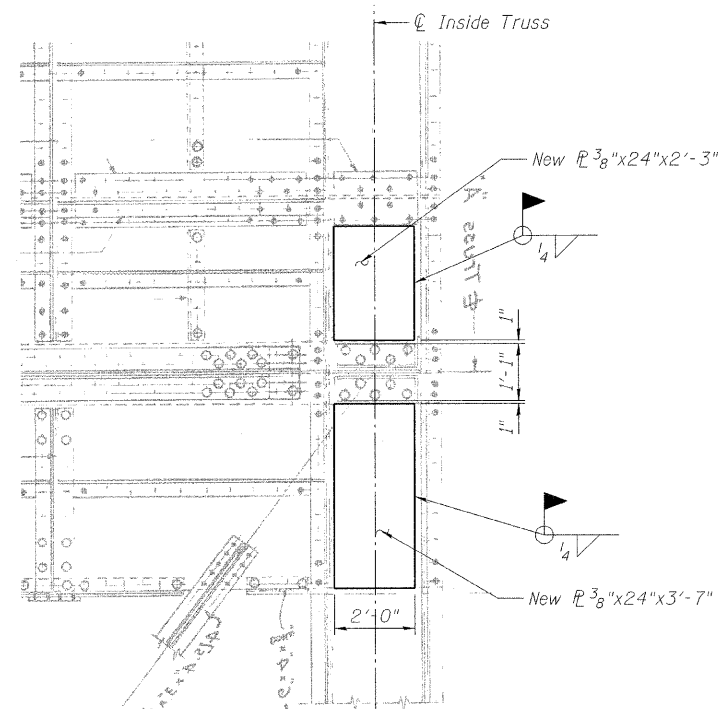
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION I-I



LATTICE TRUSS ELEVATION



SECTION J-J

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

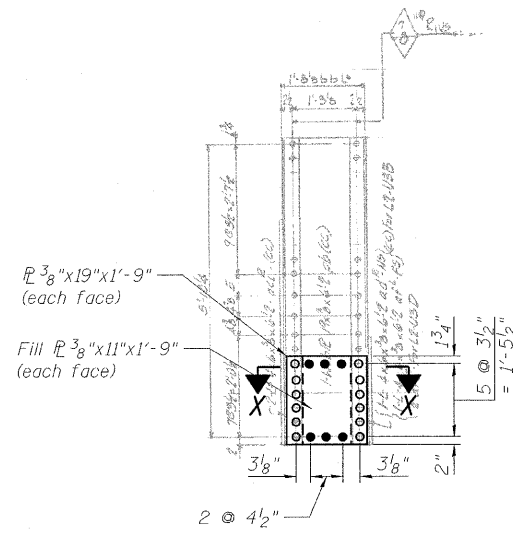
**TRUSS REPAIRS
INSIDE TRUSS (SOUTHEAST)
STRUCTURE NO. 016-2445**

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

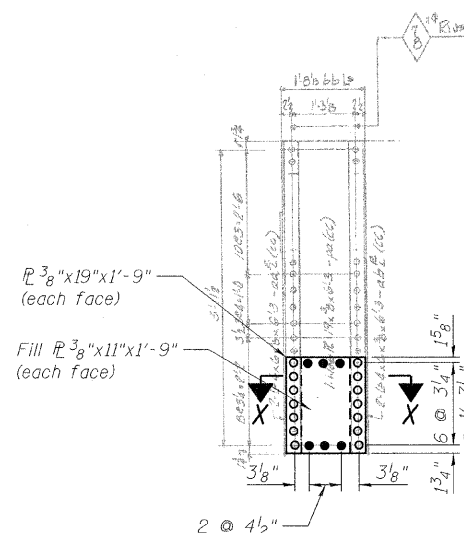
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 103	F.A.P RTE. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 184
163 SHEETS	CONTRACT NO. 60D61		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

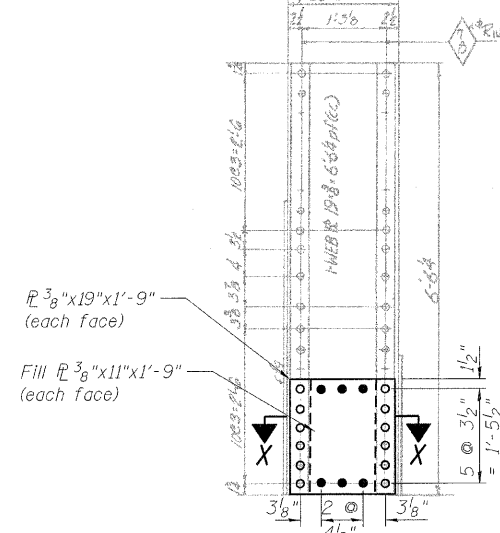
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



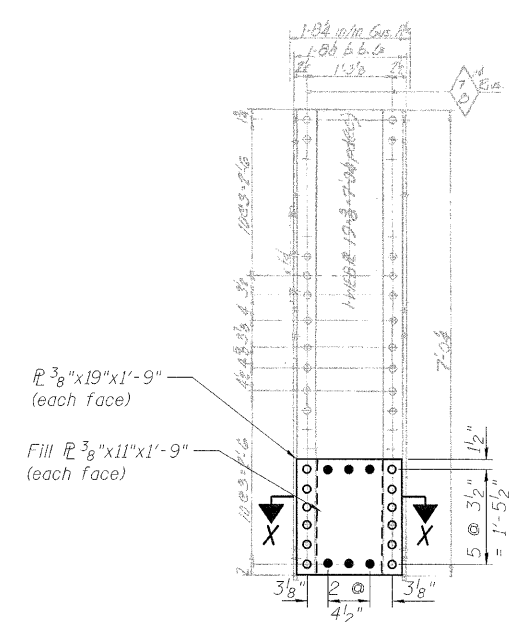
SECTION E-E
POST L2-U3



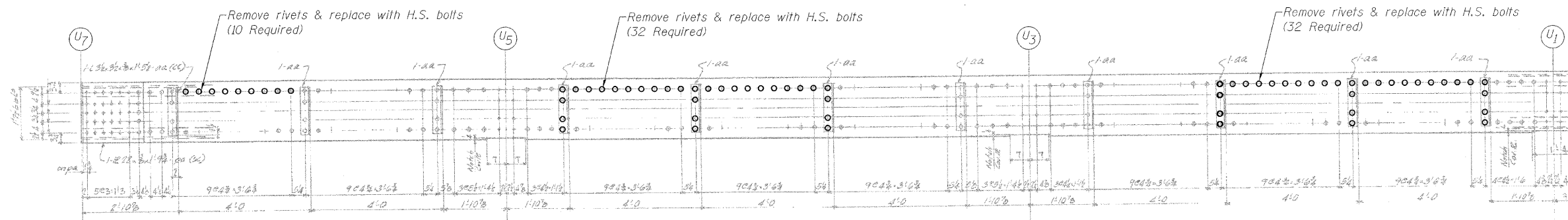
SECTION F-F
POST L4-U5



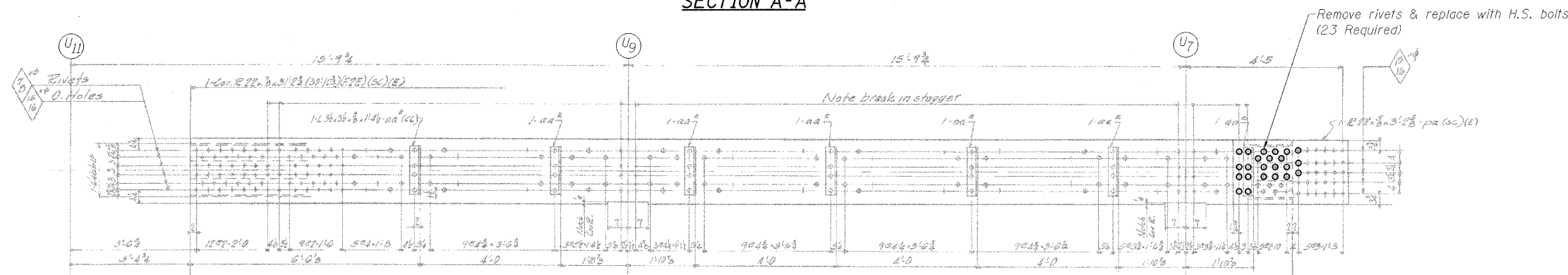
SECTION G-G
POST L6-U7



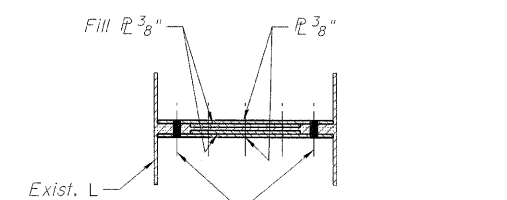
SECTION H-H
POST L8-U9



SECTION A-A



SECTION B-B



SECTION X-X

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

LEGEND

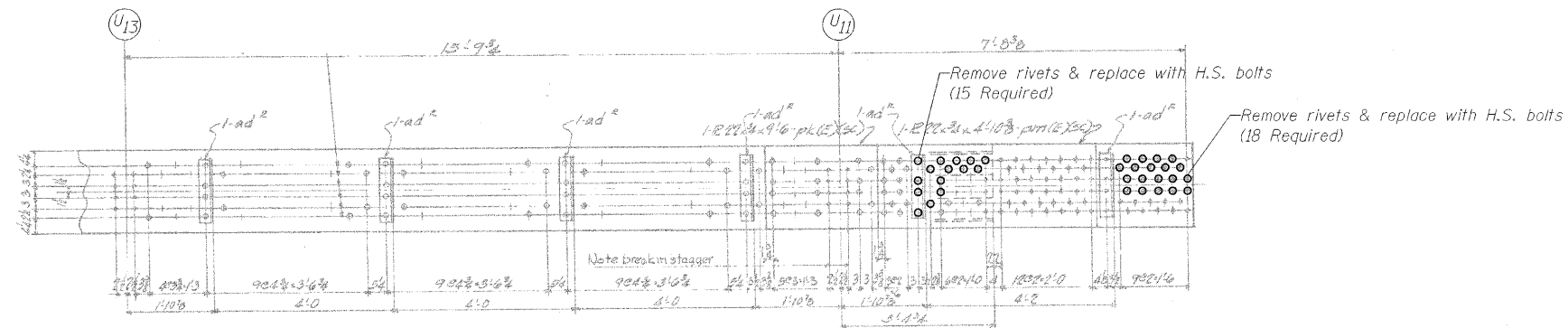
- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

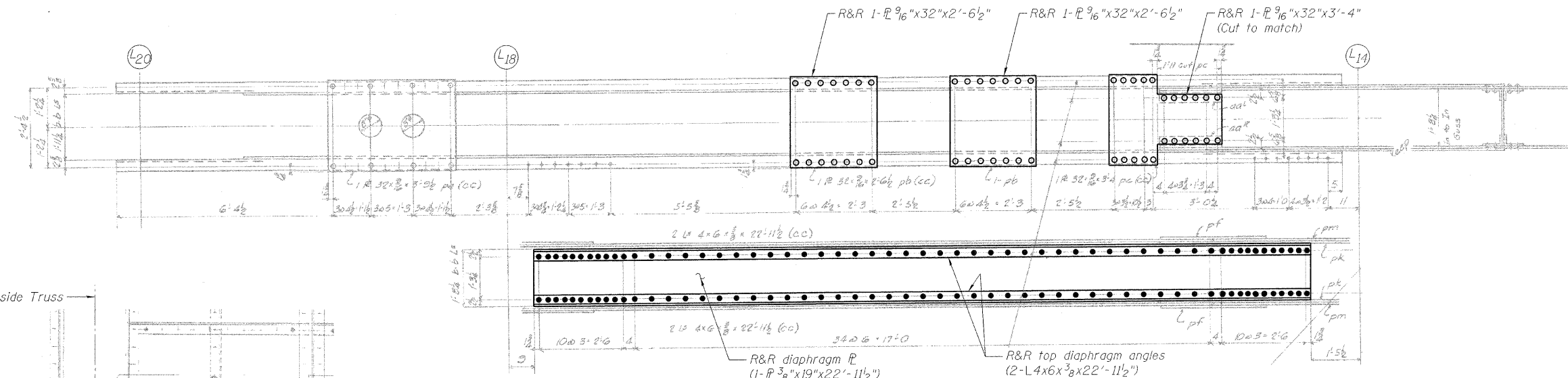
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 104 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	185
FED. ROAD DIST. NO. 7 ILLINOIS			CONTRACT NO. 60D61		
FED. AID PROJECT					

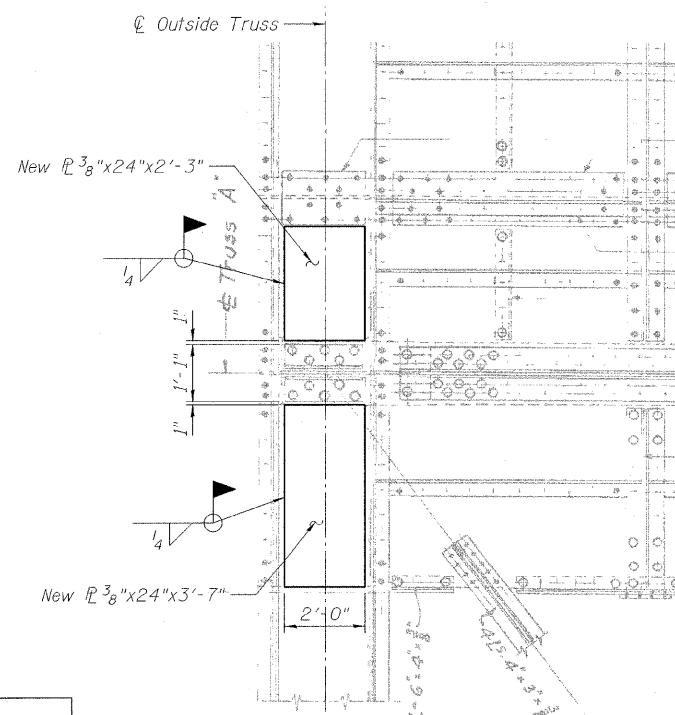
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION C-C



SECTION D-D



SECTION J-J

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

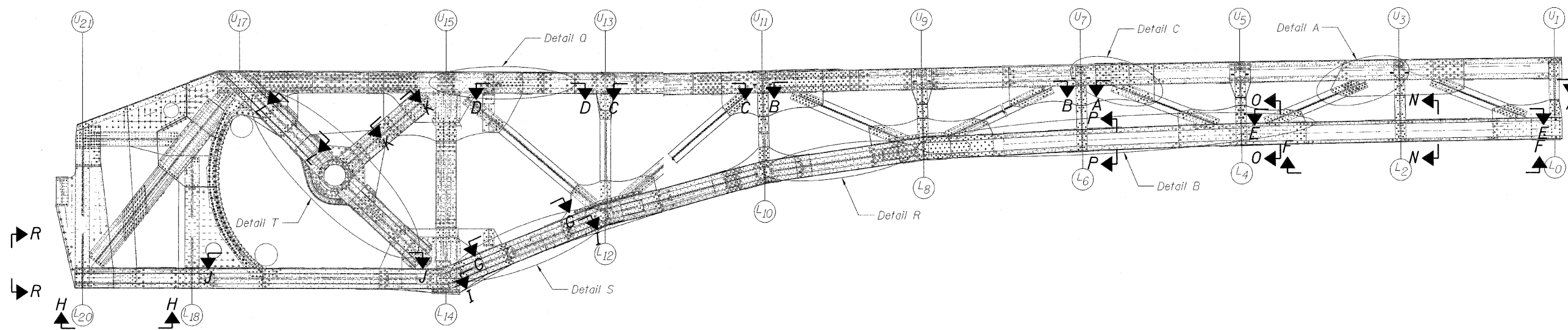
TRUSS REPAIRS
OUTSIDE TRUSS (SOUTHEAST)
STRUCTURE NO. 016-2445

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 105	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	186
163 SHEETS	CONTRACT NO. 60D61				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

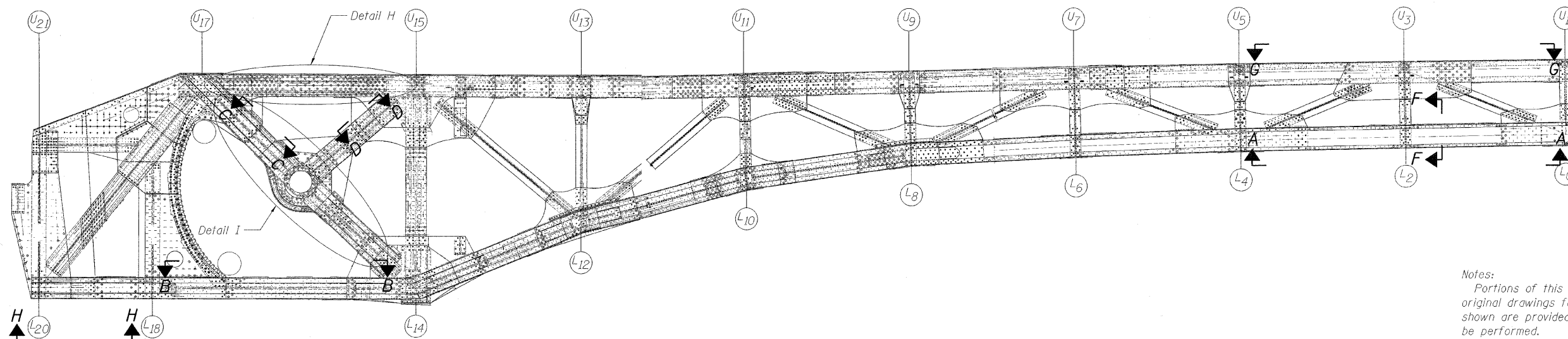
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE TRUSS NORTHEAST LEAF

Looking South



OUTSIDE TRUSS NORTHEAST LEAF

Looking South

Notes:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
Provide temporary bracing and supports to maintain structural integrity during rehabilitation. Cost included in the cost of "Structural Steel Repair".
For inside truss southwest leaf section and details see sheets 107-110, of 163.
For outside truss southwest leaf section and details see sheets 111-112, of 163.

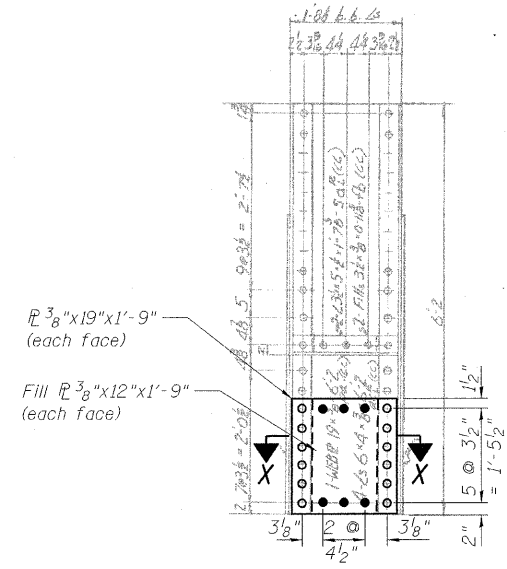
TRUSS REPAIRS (NORTHEAST)
STRUCTURE NO. 016-2445

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

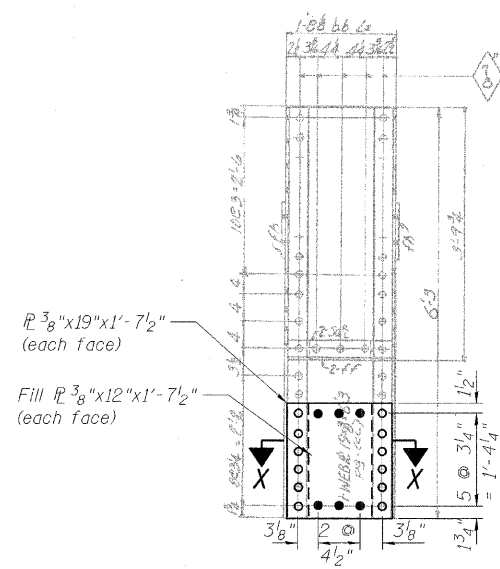
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 106 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	187
CONTRACT NO. 60D61					
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

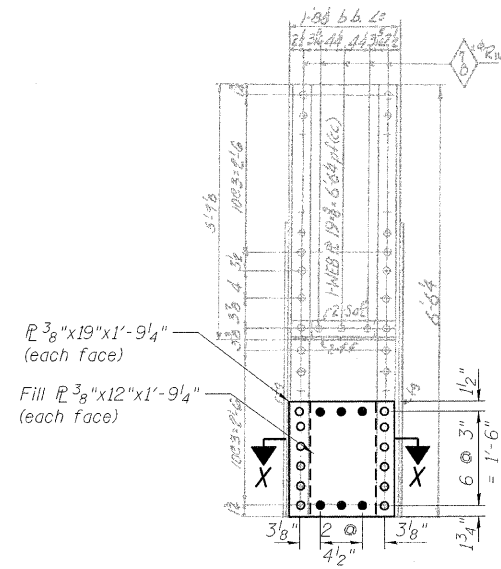
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



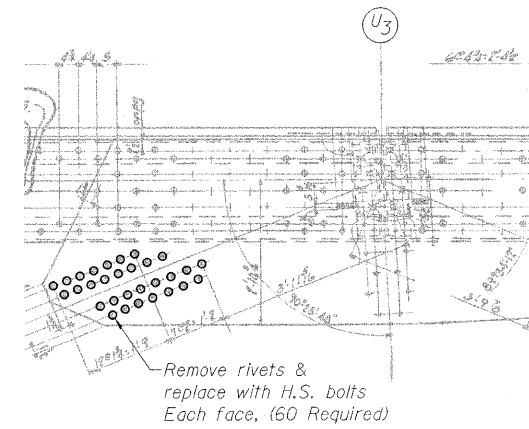
SECTION N-N
POST L2-U3A



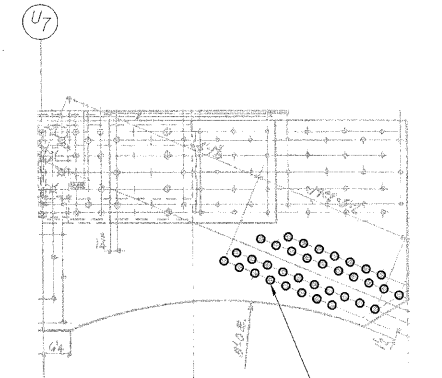
SECTION O-O
POST L4-U5A



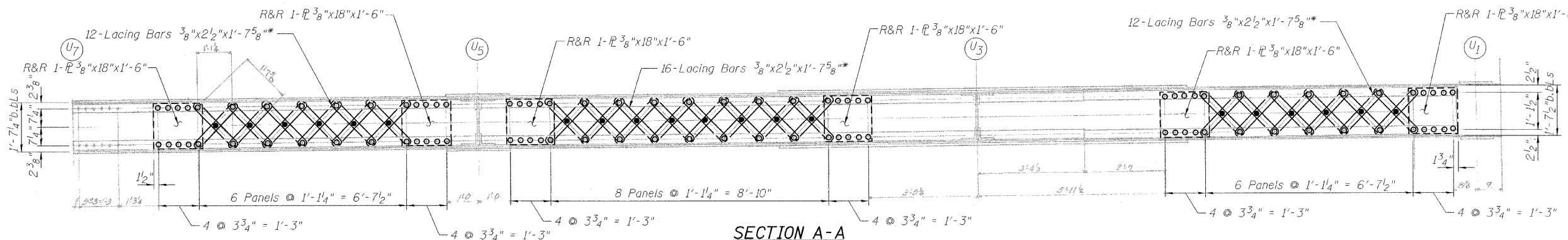
SECTION P-P
POST L6-U7A



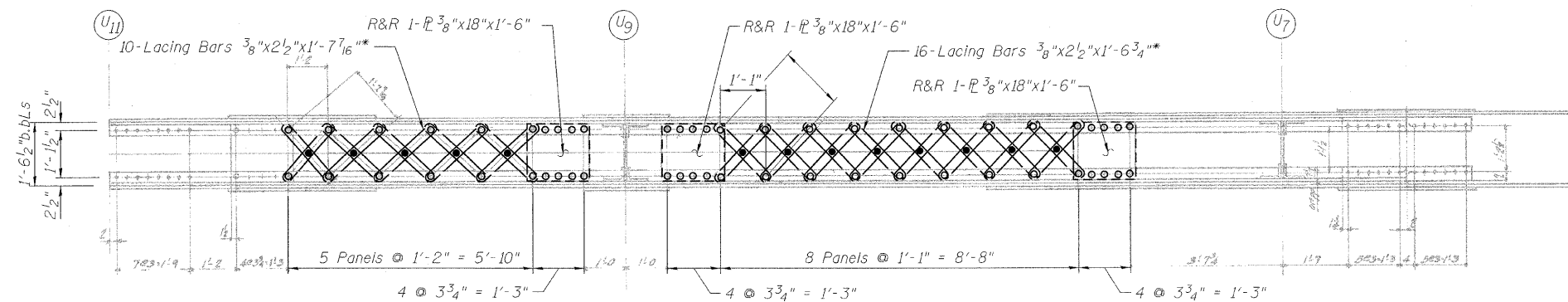
DETAIL A



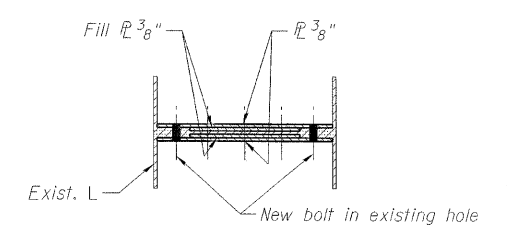
DETAIL C



SECTION A-A



SECTION B-B
Looking South



SECTION X-X

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

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SUITE 900
CHICAGO, IL. 60606

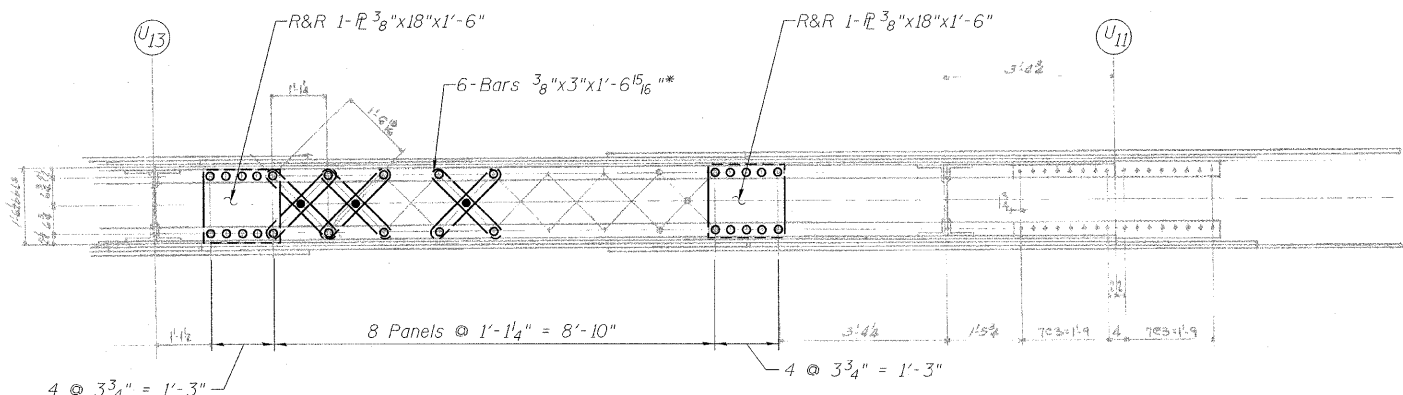
SHEET NO. 107	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	188
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

TRUSS REPAIRS
INSIDE TRUSS (NORTHEAST)
STRUCTURE NO. 016-2445

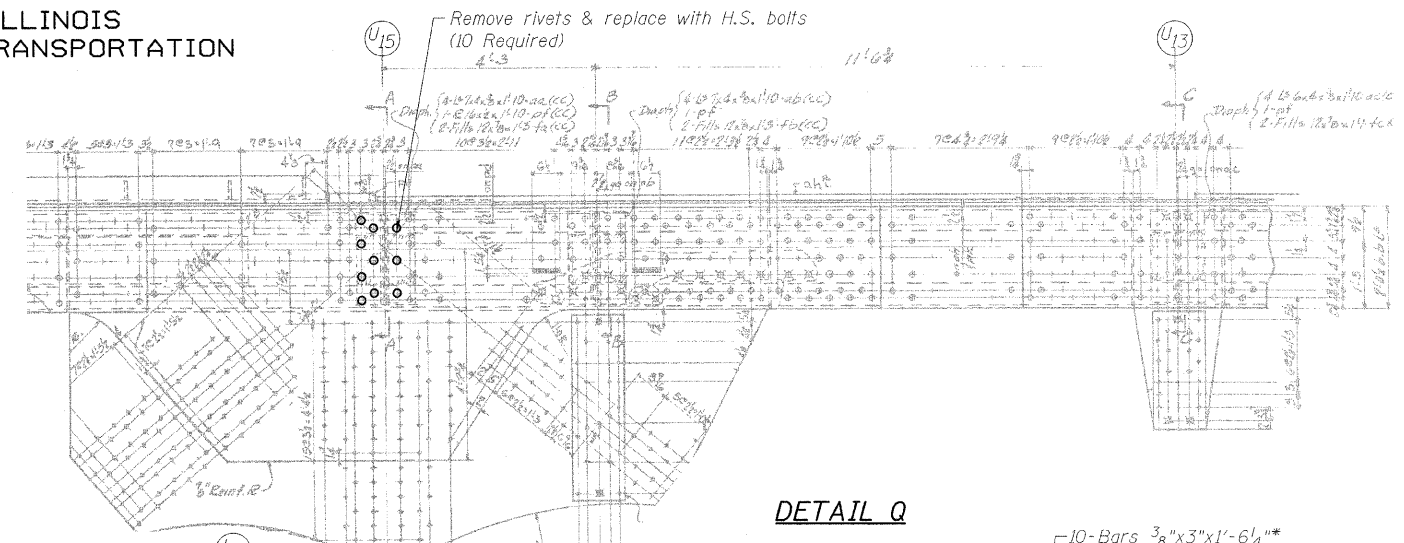
T:\16843A\Structural\Cadd\Pre-final\EB_Plans\0162445-60D61-TRR-105.dgn
07-MAY-2009

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

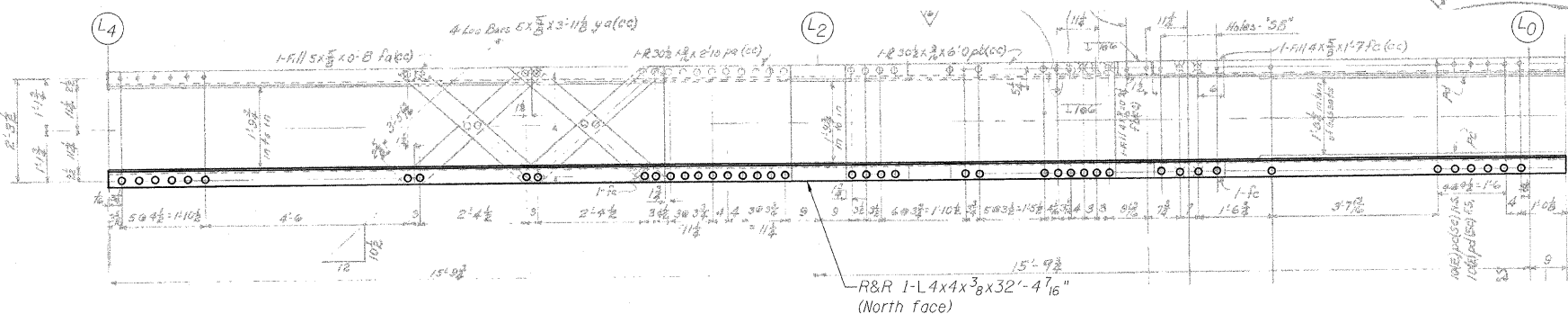
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



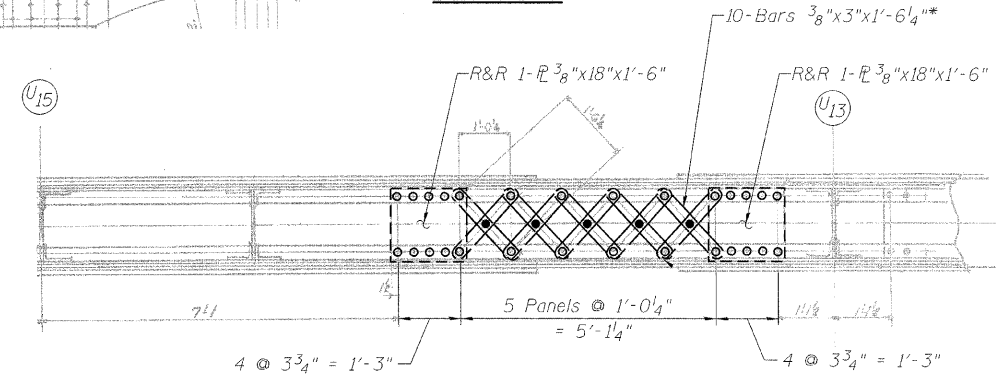
SECTION C-C



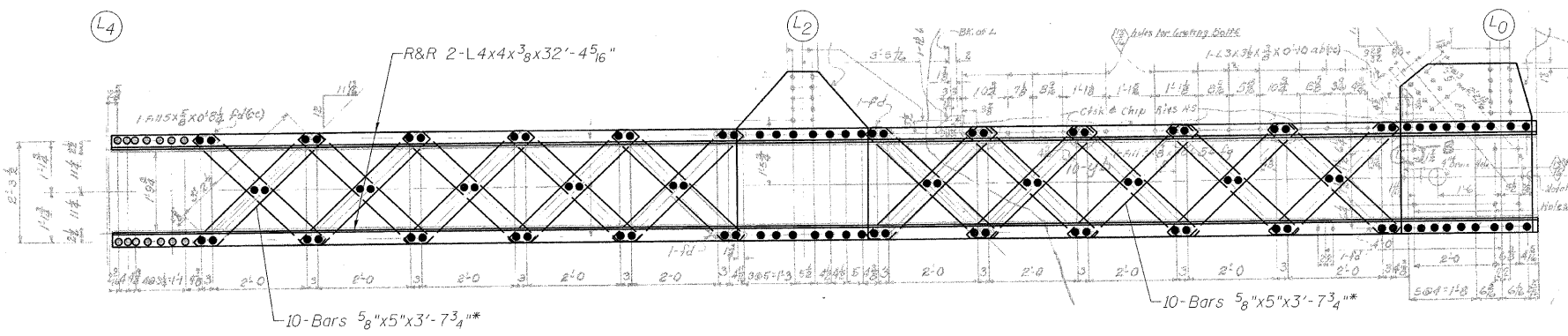
DETAIL Q



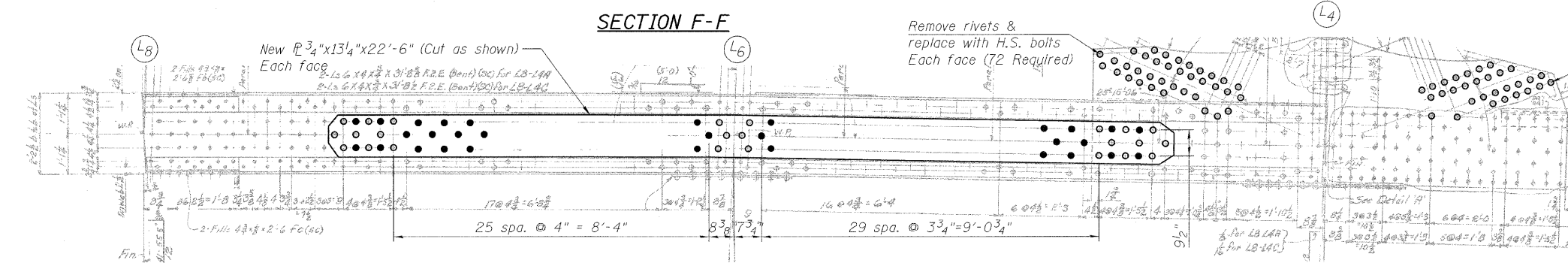
SECTION E-E



SECTION D-D



SECTION F-F



DETAIL B

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

**TRUSS REPAIRS
INSIDE TRUSS (NORTHEAST)
STRUCTURE NO. 016-2445**

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

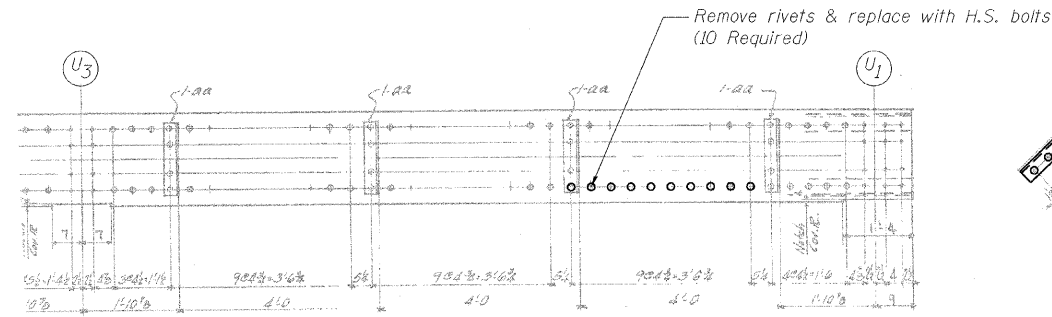
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

SHEET NO. 108	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	189
163 SHEETS	CONTRACT NO. 60D61			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

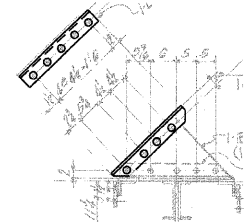
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

T:\1684\A\Structural\Cadd\Pre-final\EB_Plans\0162445-80D61-TRR-106.dgn
07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



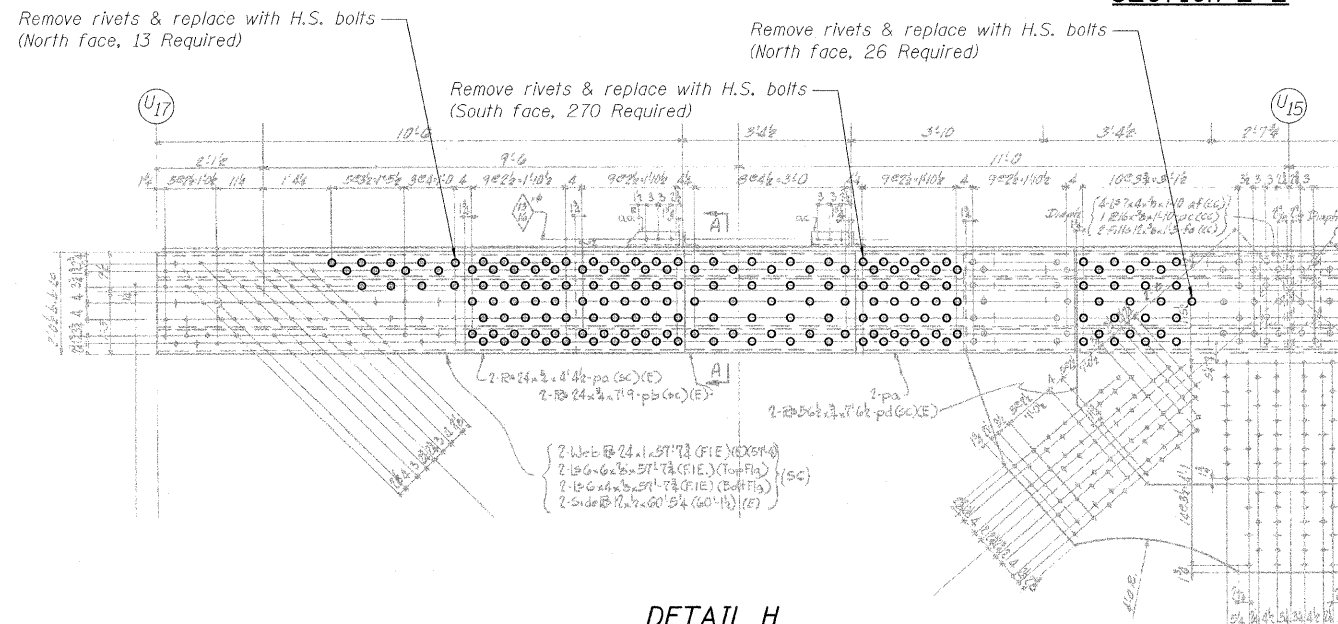
SECTION G-G



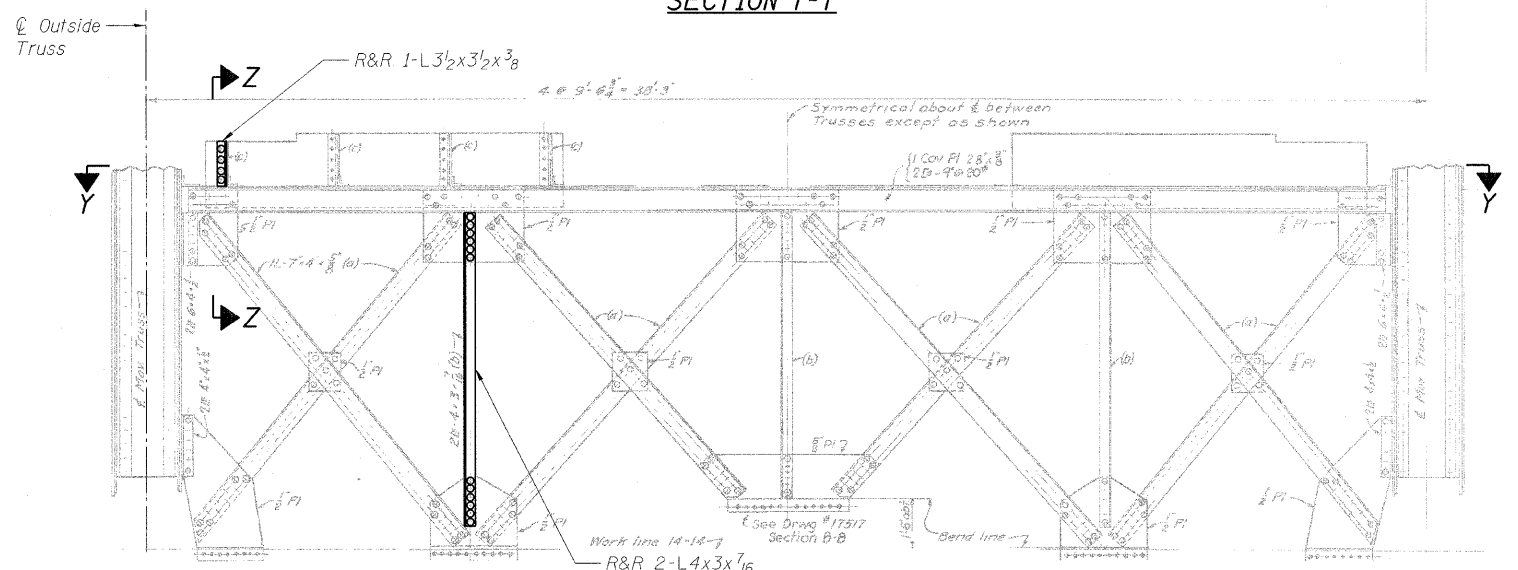
SECTION Z-Z



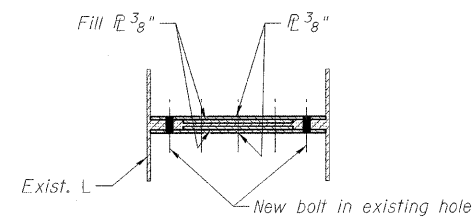
SECTION Y-Y



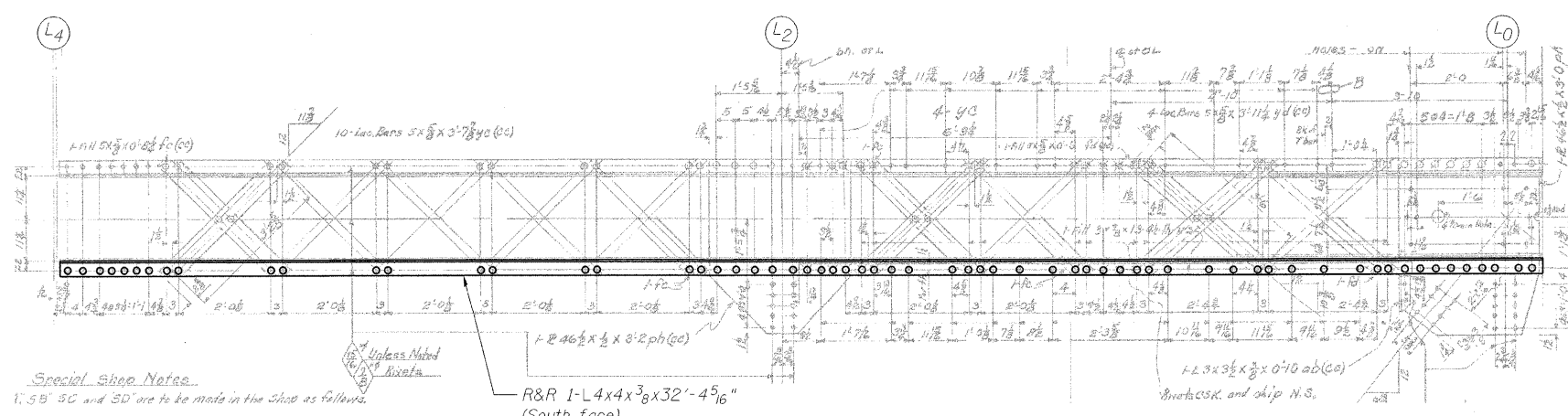
DETAIL H



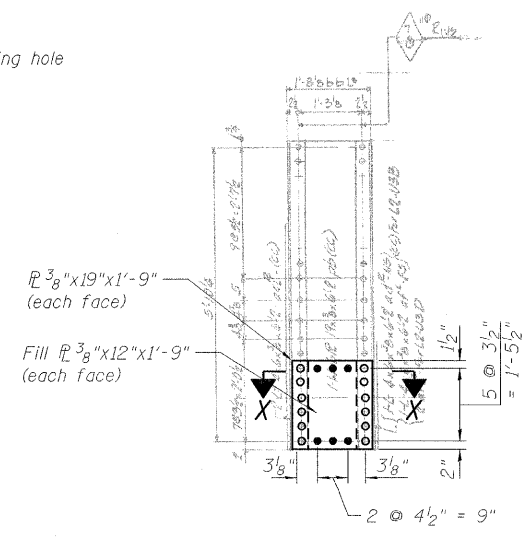
LATTICE TRUSS ELEVATION



SECTION X-X



SECTION A-A



SECTION F-F
POST L2-U3

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

TRUSS REPAIRS
OUTSIDE TRUSS (NORTHEAST)
STRUCTURE NO. 016-2445

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

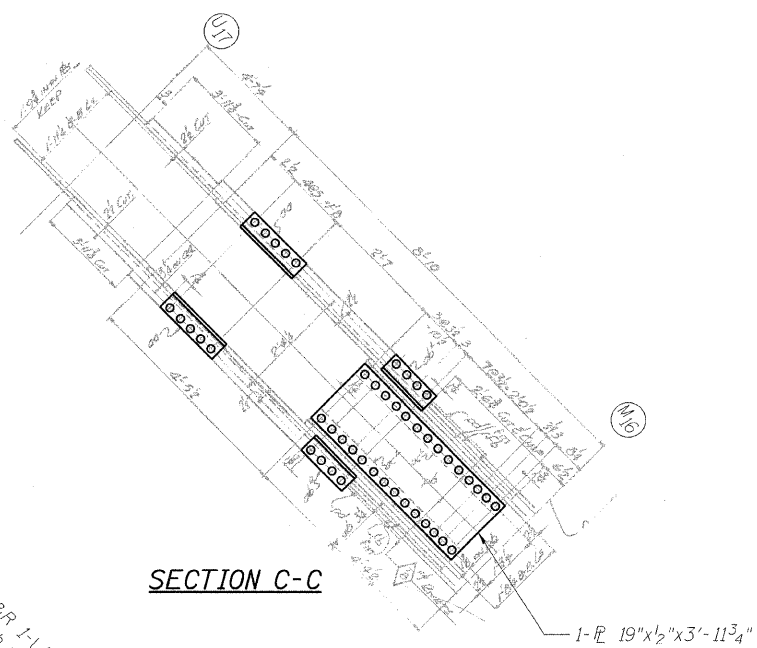
Special Shop Notes
1, 5B, 3C and 3D are to be made in the Shop as follows.

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

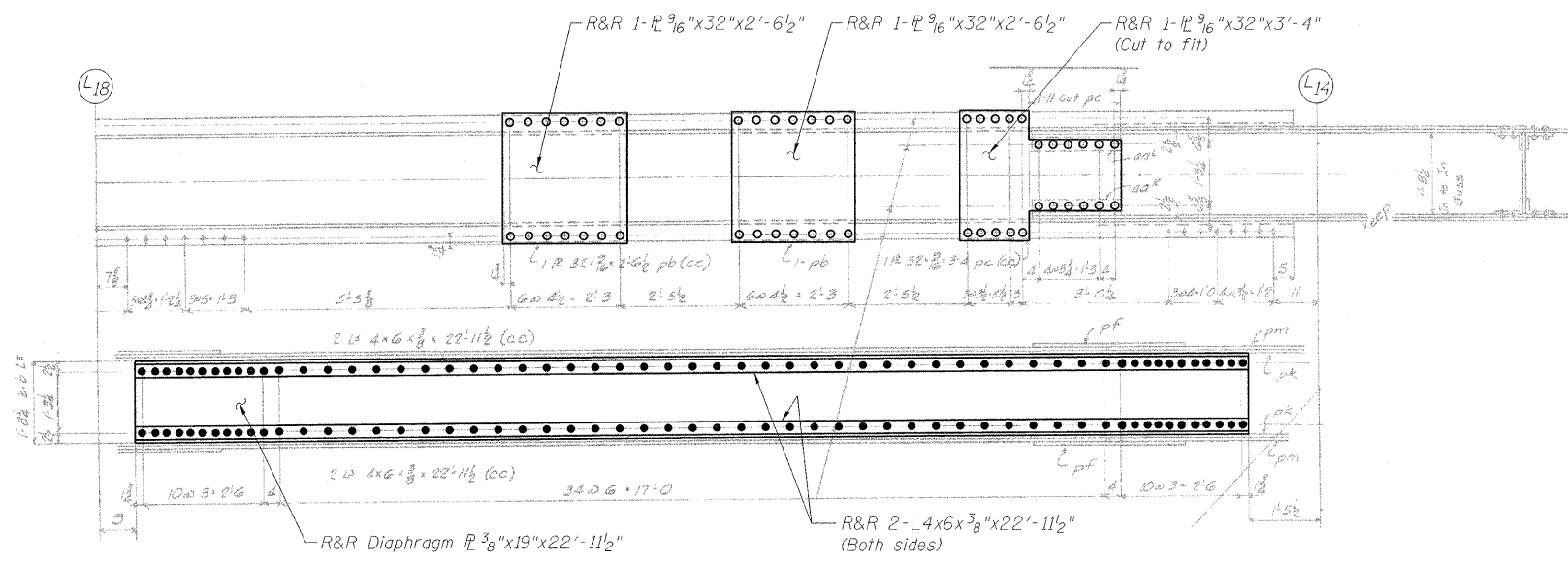
SHEET NO. 111 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	192
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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07-MAY-2008

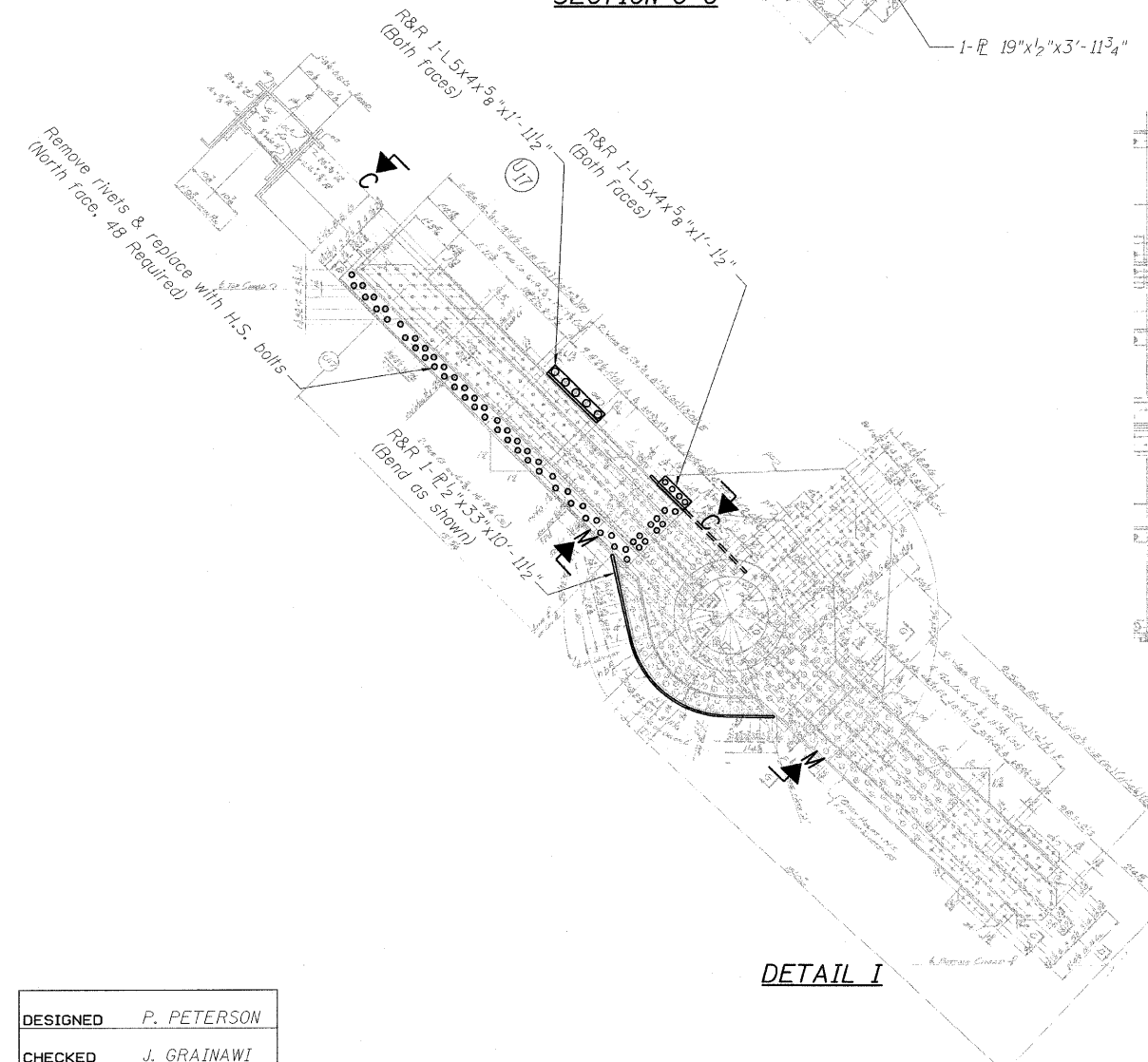
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



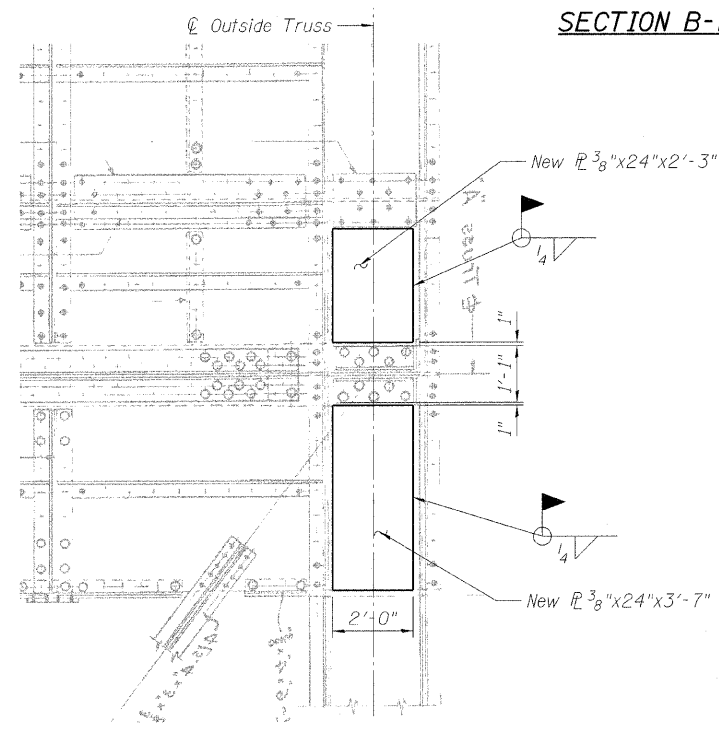
SECTION C-C



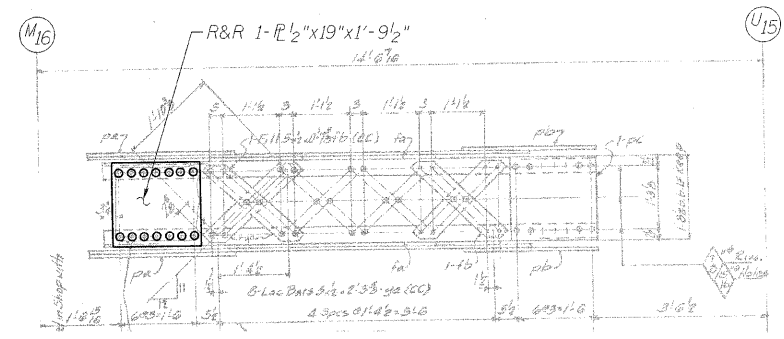
SECTION B-B



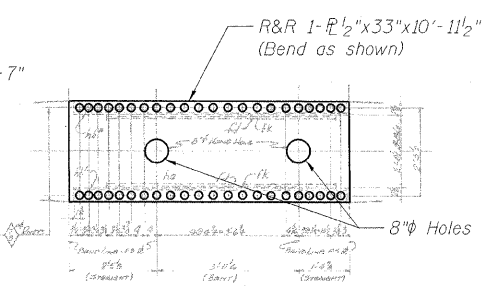
DETAIL I



SECTION H-H



SECTION D-D



SECTION M-M

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

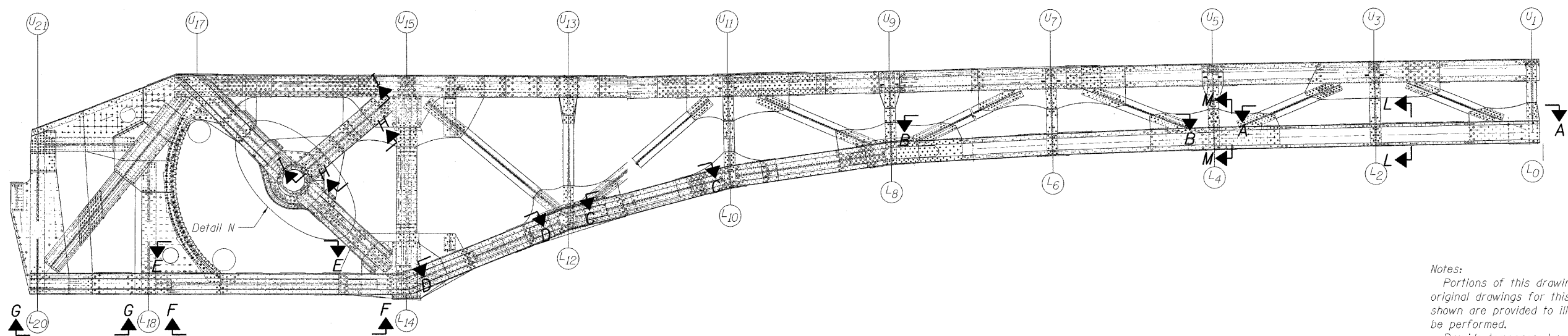
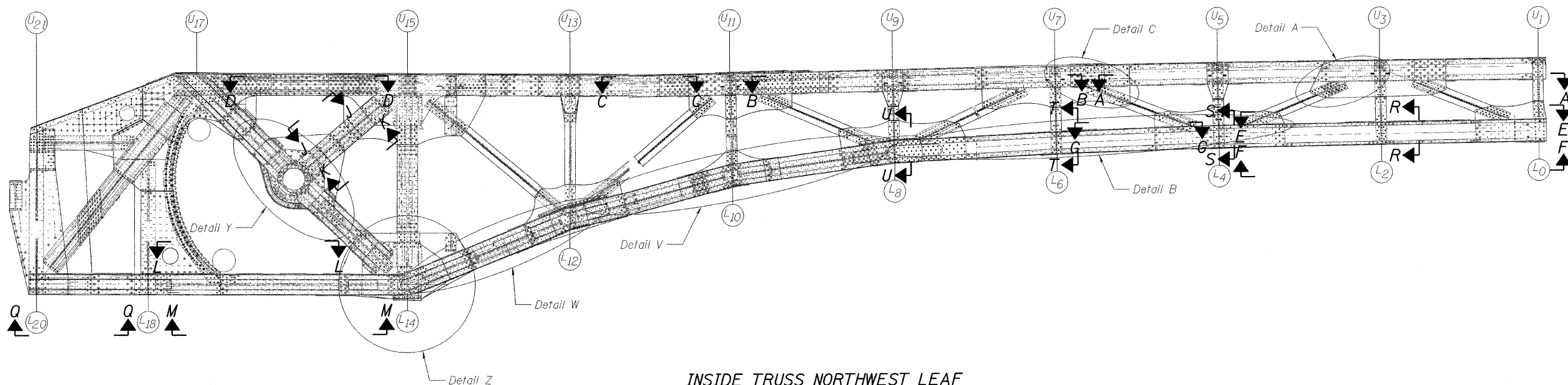
DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

**TRUSS REPAIRS
OUTSIDE TRUSS (NORTHEAST)
STRUCTURE NO. 016-2445**

SHEET NO. 112 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	193
PB Americas, Inc. 230 WEST MONROE STREET, SUITE 900 CHICAGO, IL. 60606			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

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07-MAY-2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes:
 Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.
 Provide temporary bracing and supports to maintain structural integrity during rehabilitation. Cost included in the cost of "Structural Steel Repair".
 For inside truss southwest leaf section and details see sheets 114-118, of 163.
 For outside truss southwest leaf section and details see sheets 119-120, of 163.

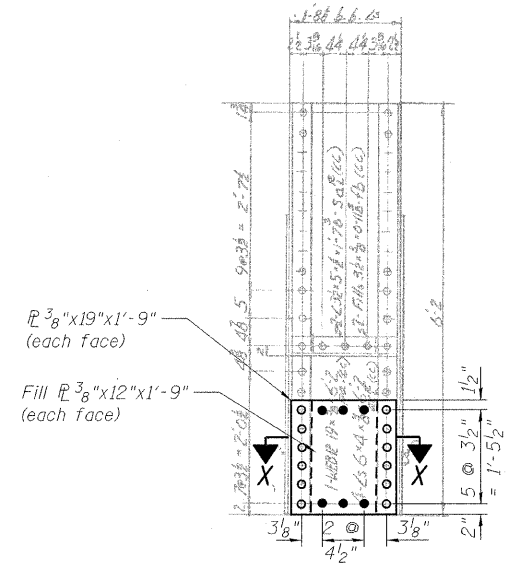
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

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 SUITE 900
 CHICAGO, IL. 60606

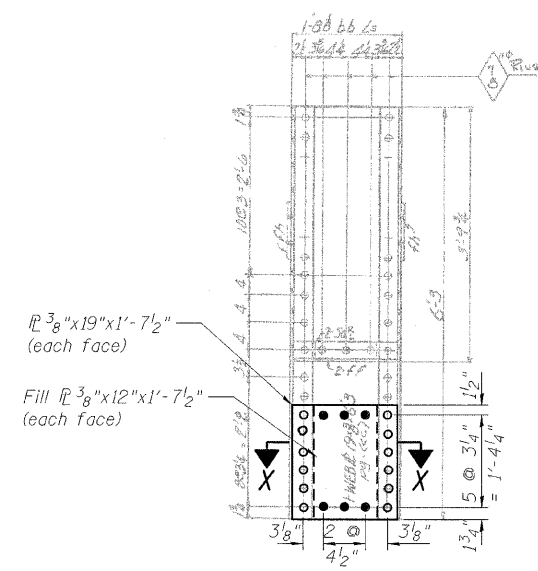
SHEET NO. 113 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	194
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT		
					CONTRACT NO. 60D61

TRUSS REPAIRS (NORTHWEST)
STRUCTURE NO. 016-2445

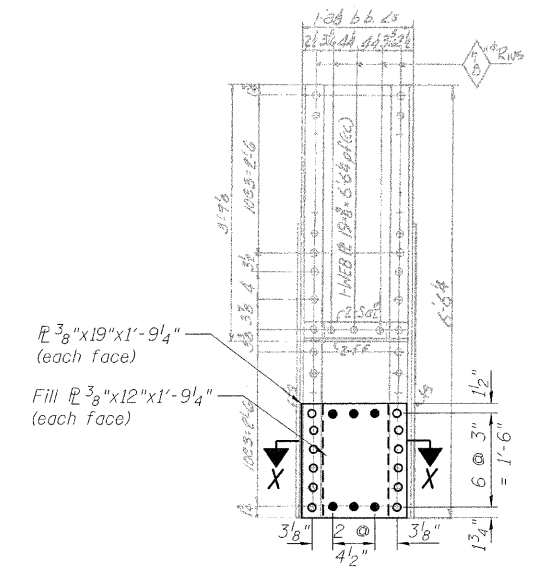
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



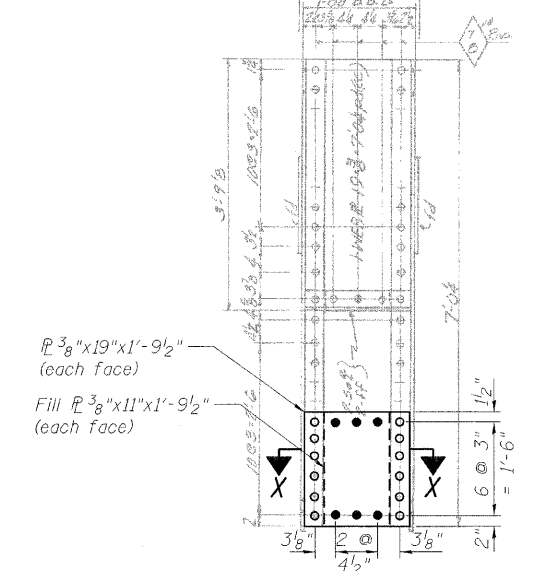
SECTION R-R
POST L2-U3



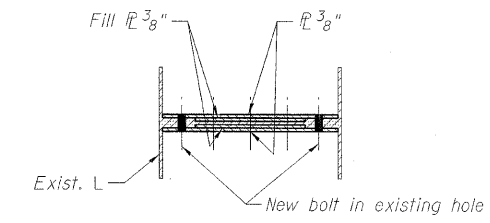
SECTION S-S
POST L4-U5



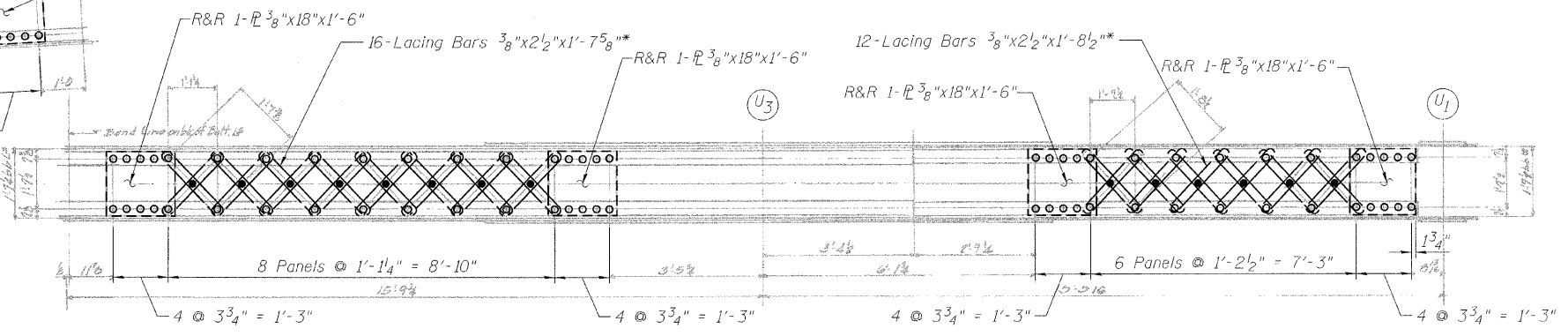
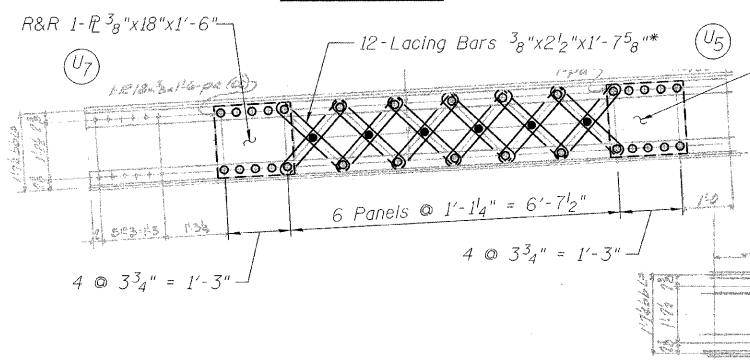
SECTION T-T
POST L6-U7



SECTION U-U
POST L8-U9

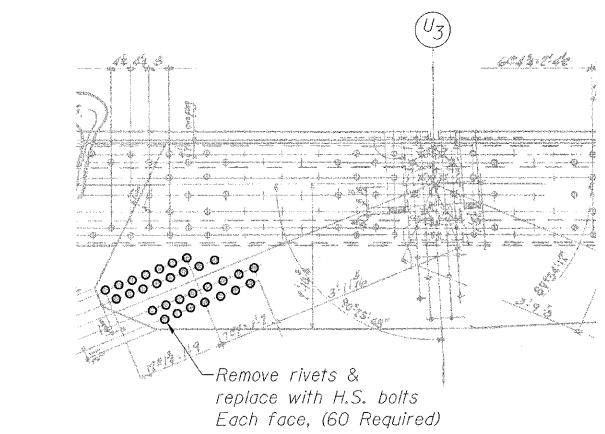


SECTION X-X



SECTION A-A

SECTION B-B



DETAIL A

LEGEND

R&R	Remove & replace
○	Existing fastener to remain
○	Hole to match existing location
●	New hole
—	Existing member to remain
—	New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

TRUSS REPAIRS
INSIDE TRUSS (NORTHWEST)
STRUCTURE NO. 016-2445

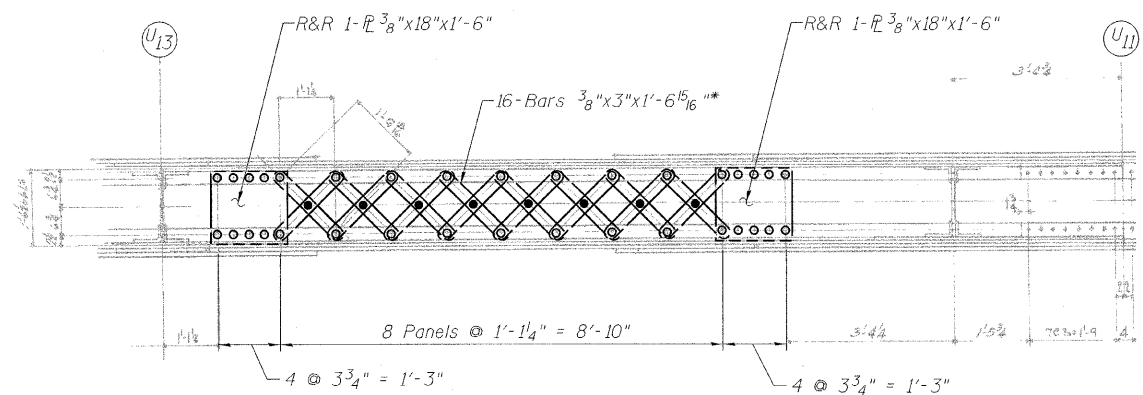
DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

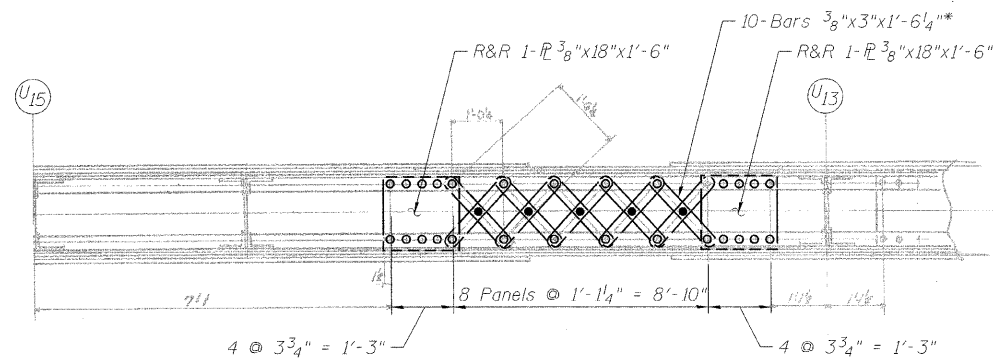
SHEET NO. 114	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	195
163 SHEETS	CONTRACT NO. 60D61			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

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07-MAY-2009

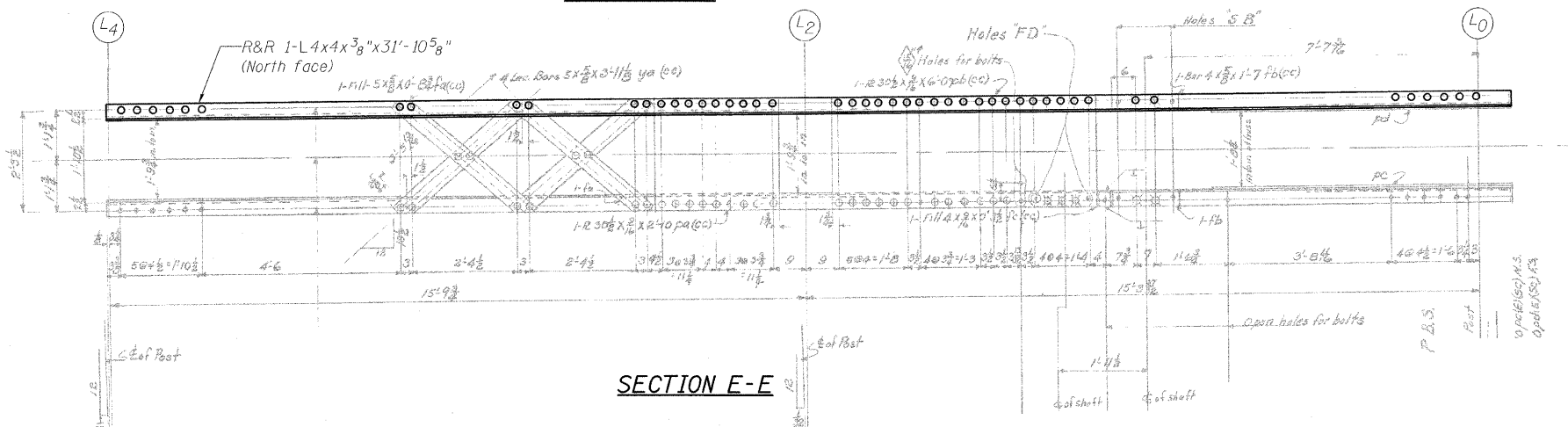
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



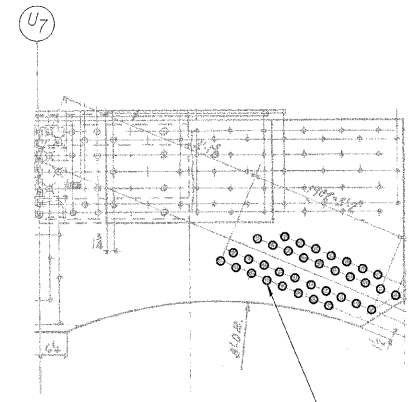
SECTION C-C



SECTION D-D



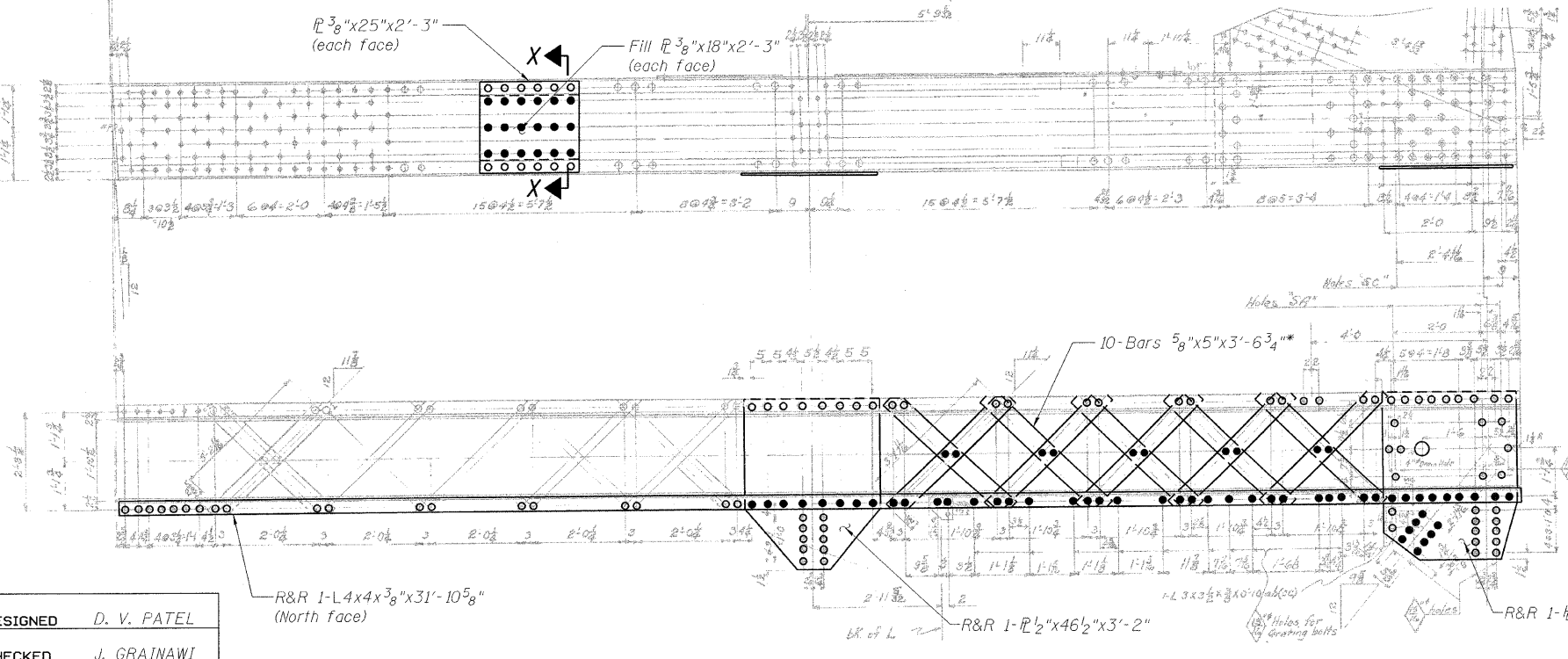
SECTION E-E



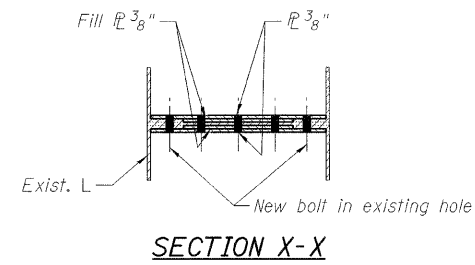
DETAIL C

- LEGEND**
- R&R Remove & replace
 - Existing fastener to remain
 - Hole to match existing location
 - New hole
 - Existing member to remain
 - New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.



SECTION F-F



SECTION X-X

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

DESIGNED	D. V. PATEL
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

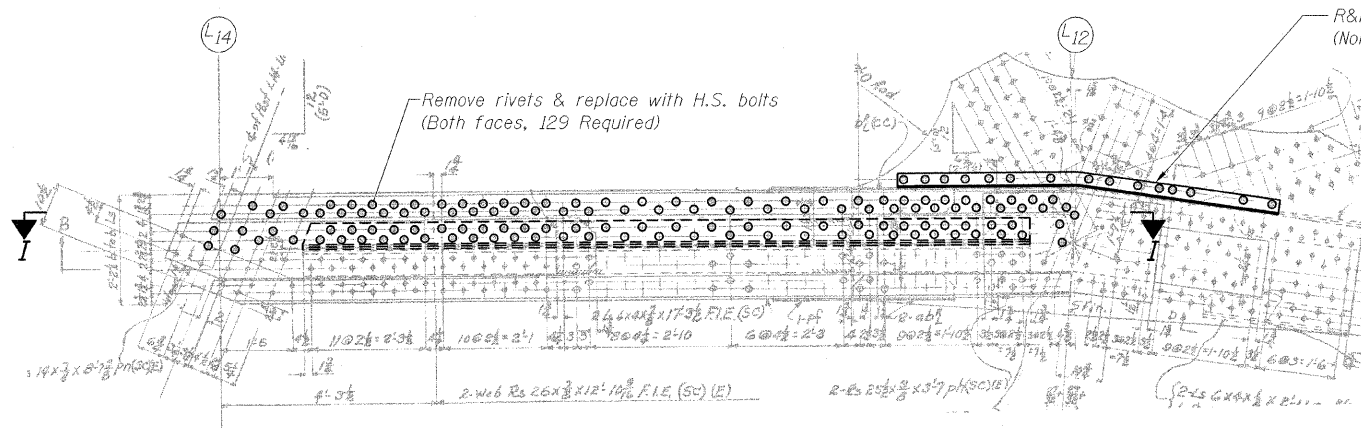
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 115 163 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	196
			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					

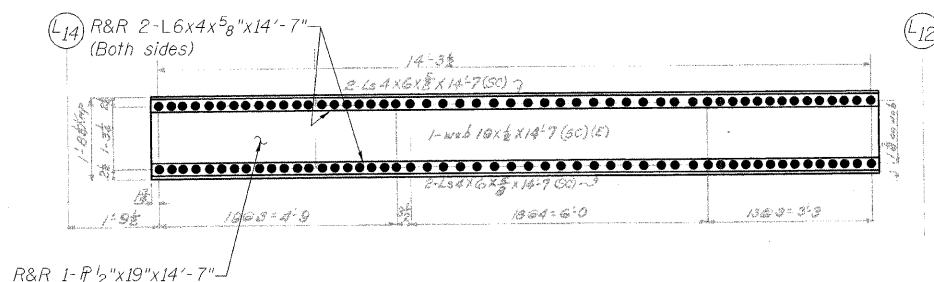
**TRUSS REPAIRS
INSIDE TRUSS (NORTHWEST)
STRUCTURE NO. 016-2445**

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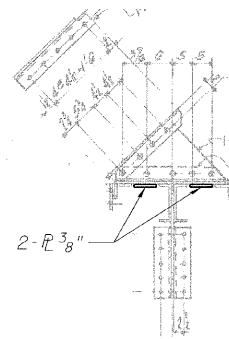
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



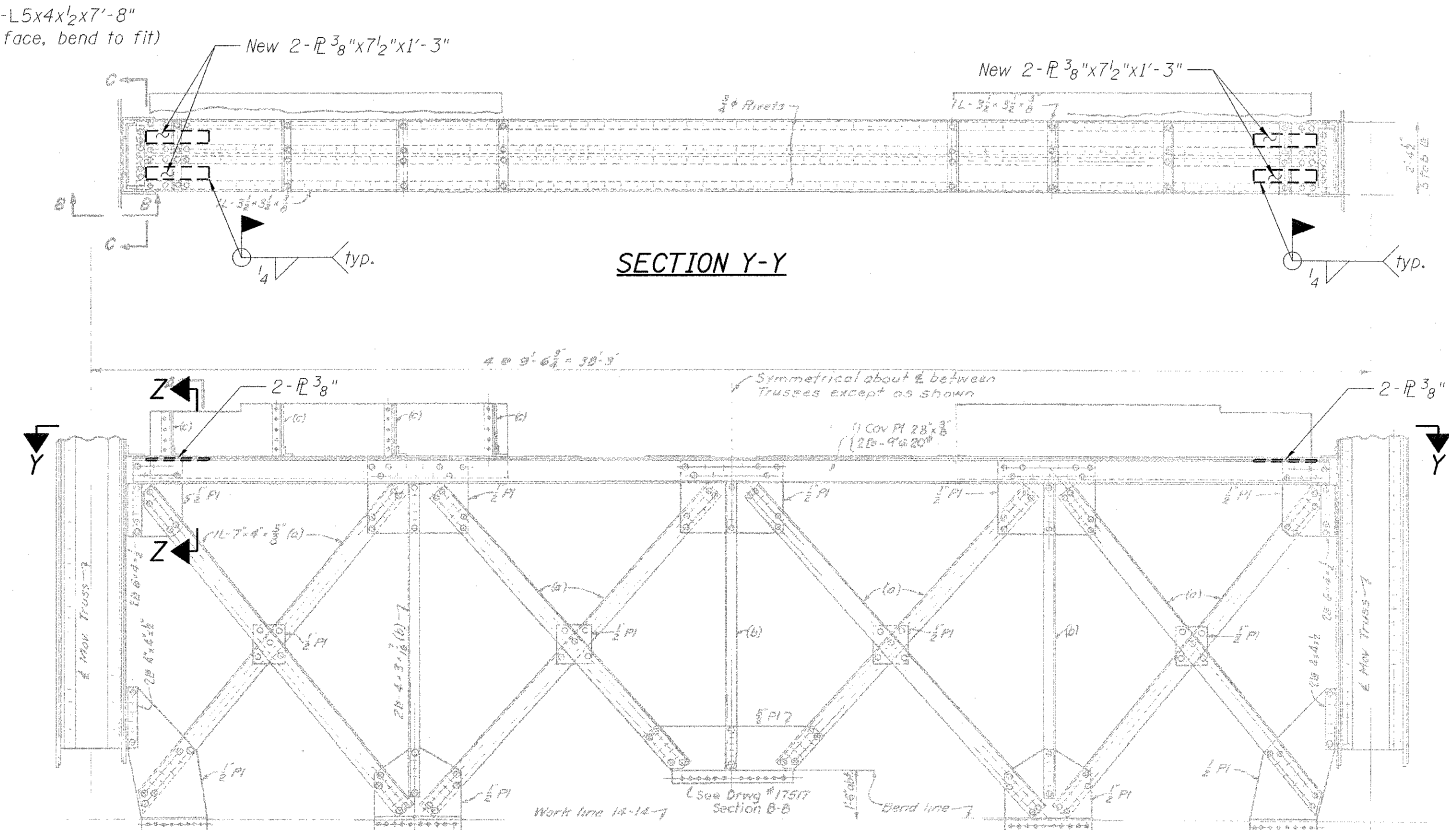
DETAIL W



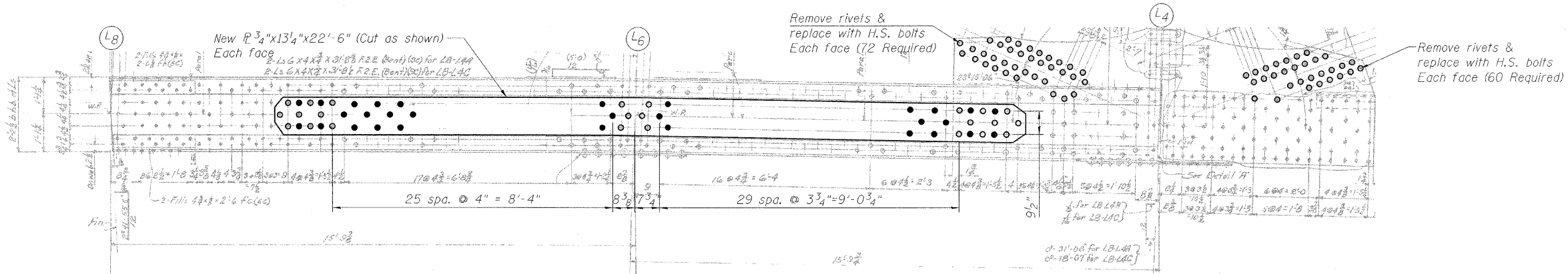
SECTION I-I



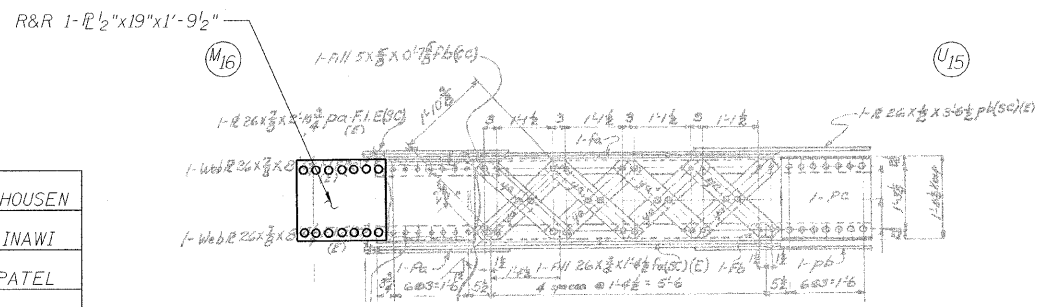
SECTION Z-Z



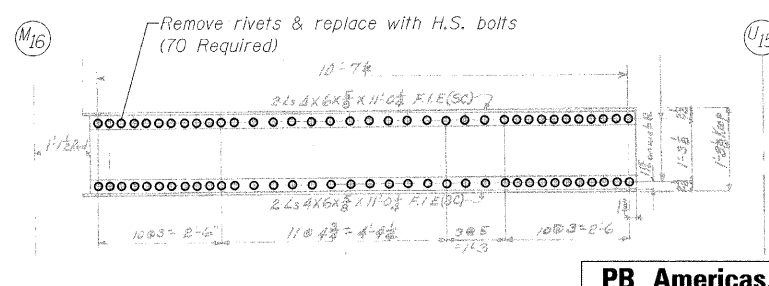
LATTICE TRUSS ELEVATION



DETAIL B



SECTION J-J



SECTION K-K

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

TRUSS REPAIRS
INSIDE TRUSS (NORTHWEST)
STRUCTURE NO. 016-2445

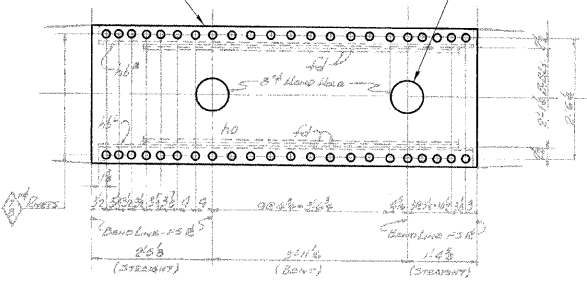
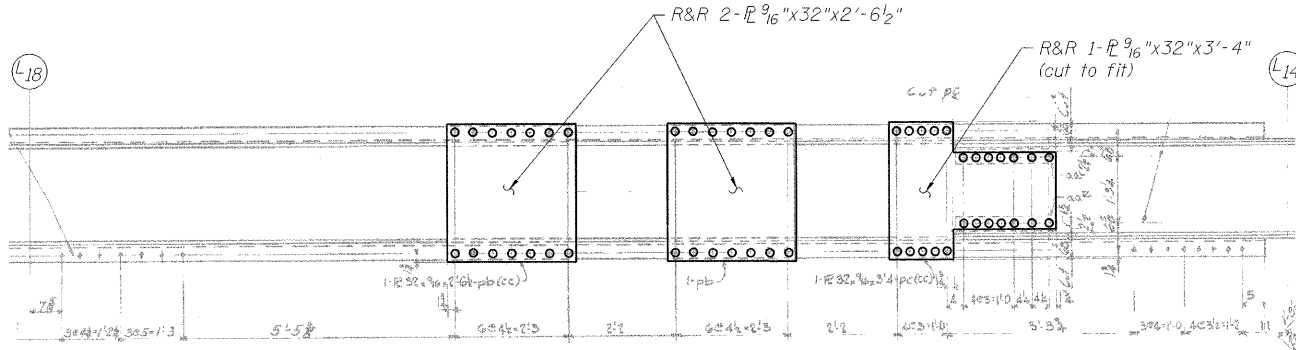
DESIGNED	B. GILHOUSEN
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

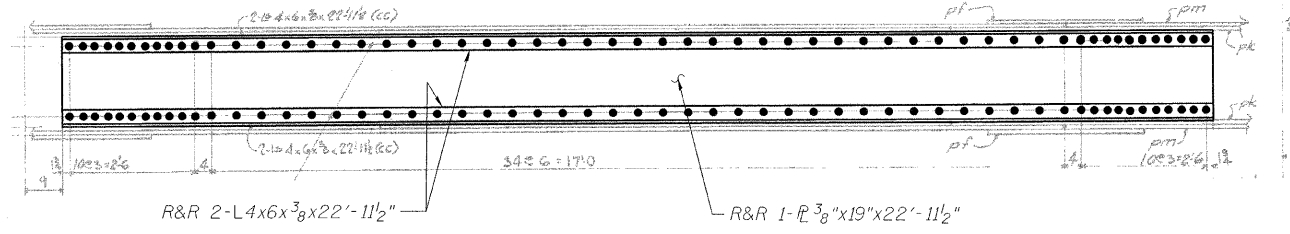
SHEET NO. 117	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	198
163 SHEETS	CONTRACT NO. 60D61			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

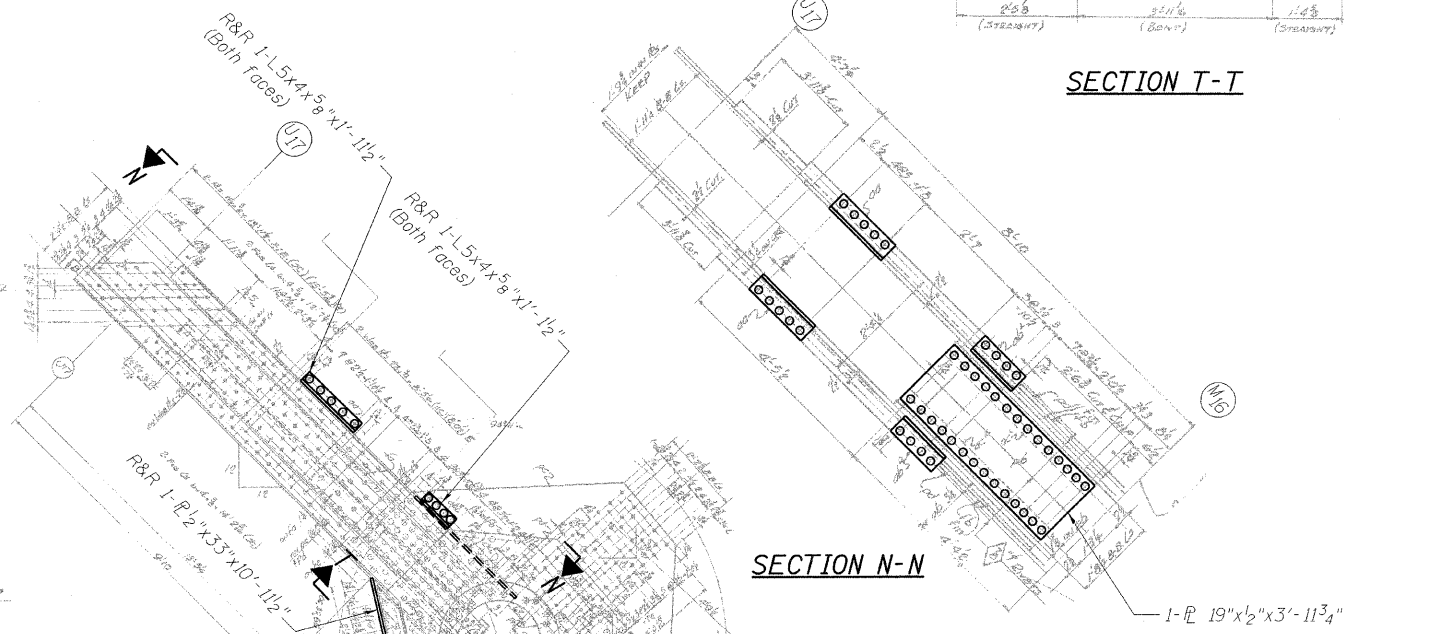
R&R 1- \bar{L} $\frac{1}{2}$ "x33"x10'-11 $\frac{1}{2}$ "
(Bend as shown)



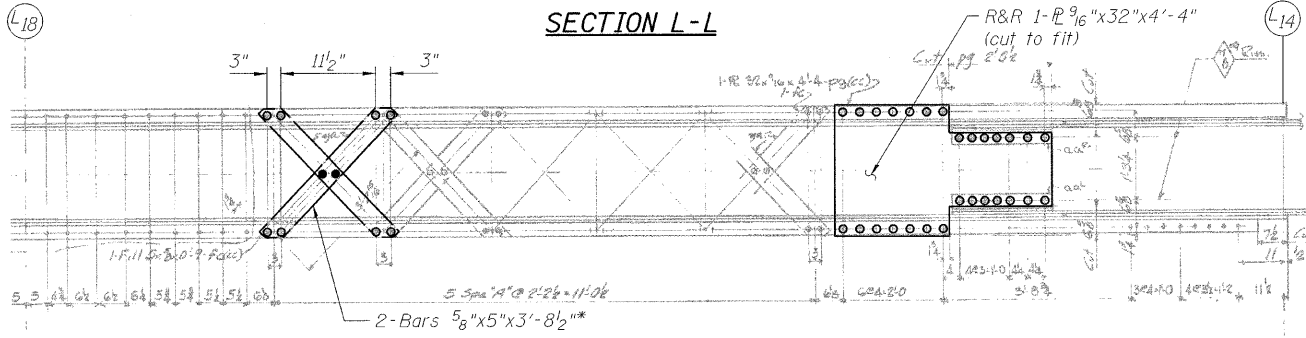
SECTION T-T



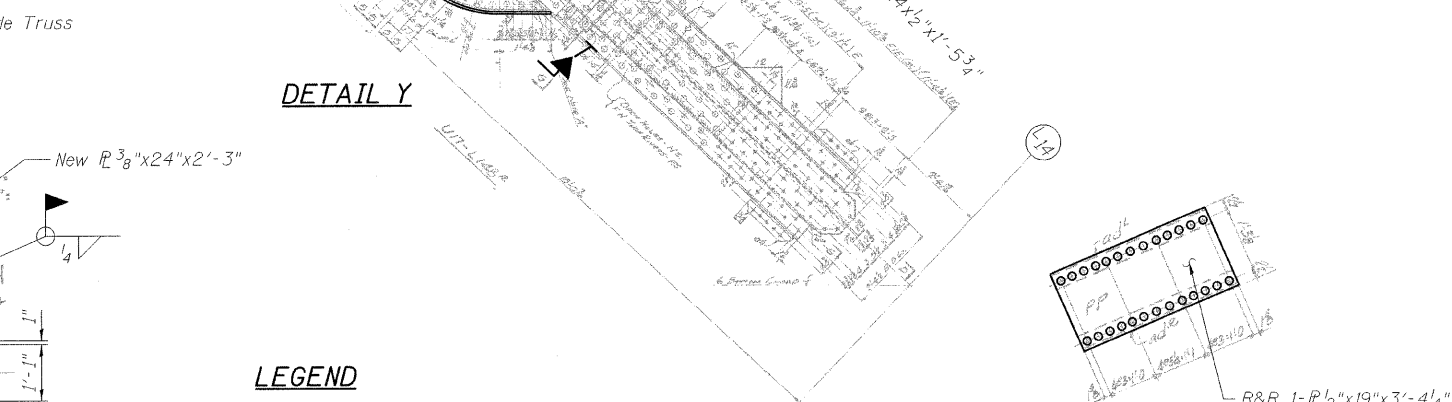
SECTION L-L



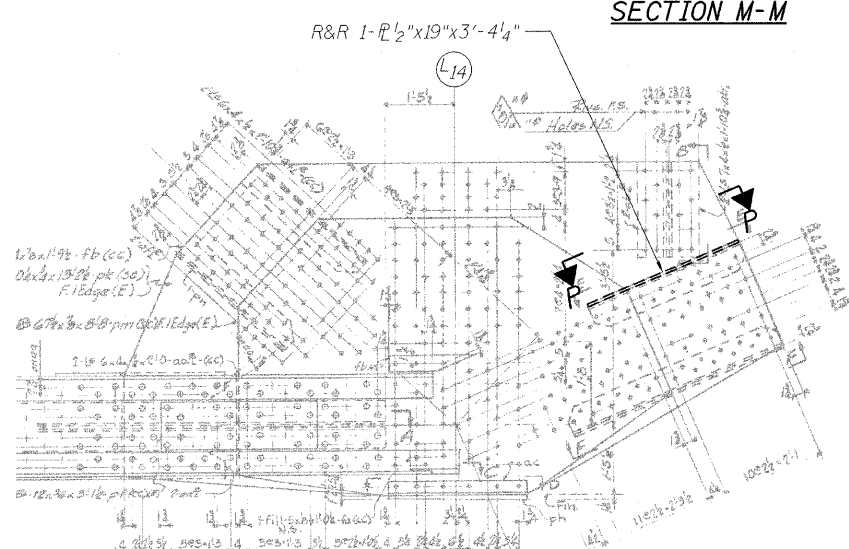
SECTION N-N



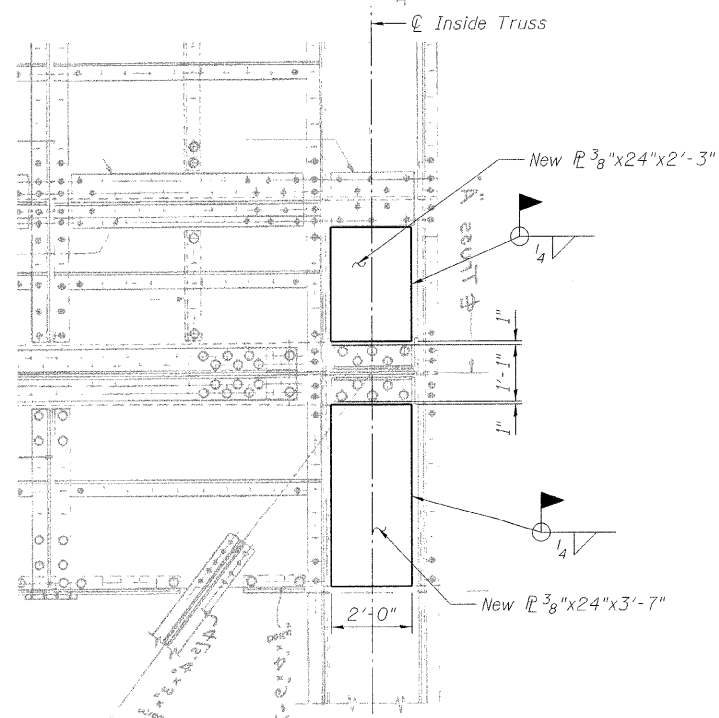
SECTION M-M



SECTION P-P



DETAIL Z



SECTION Q-Q

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

* Measured Center-Center of holes.
Proposed bar length and shape to match existing bars.

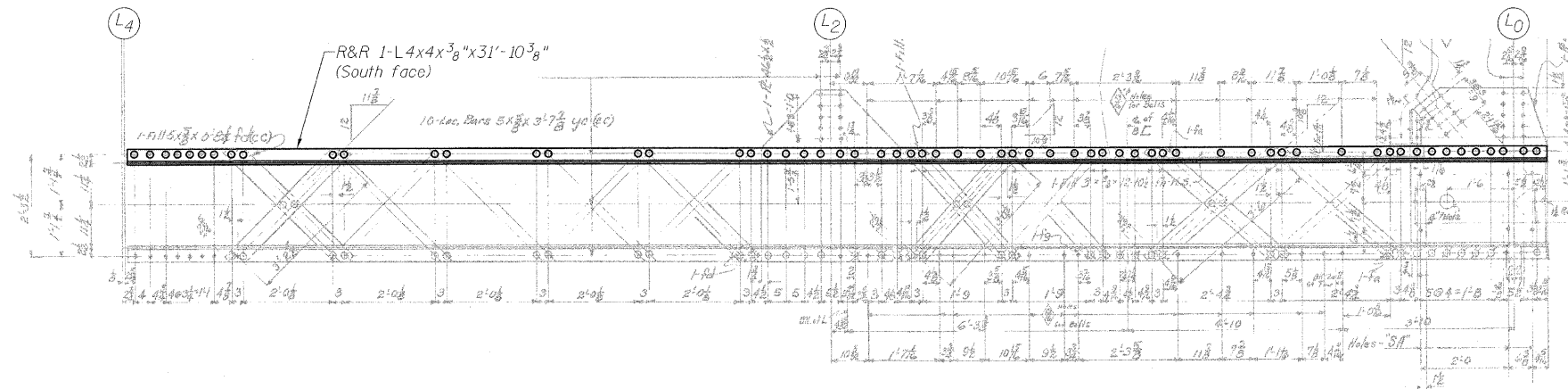
PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL. 60606

SHEET NO. 118	F.A.P R.T.E. 389	SECTION 2424.2B-R	COUNTY COOK	TOTAL SHEETS 398	SHEET NO. 199
163 SHEETS	CONTRACT NO. 60D61		ILLINOIS FED. AID PROJECT		

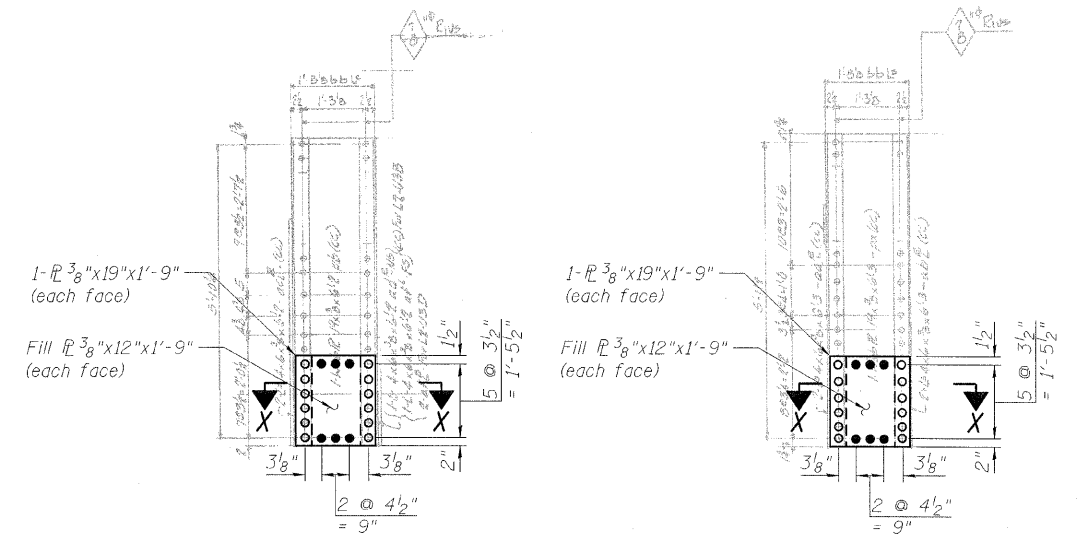
TRUSS REPAIRS
INSIDE TRUSS (NORTHWEST)
STRUCTURE NO. 016-2445

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

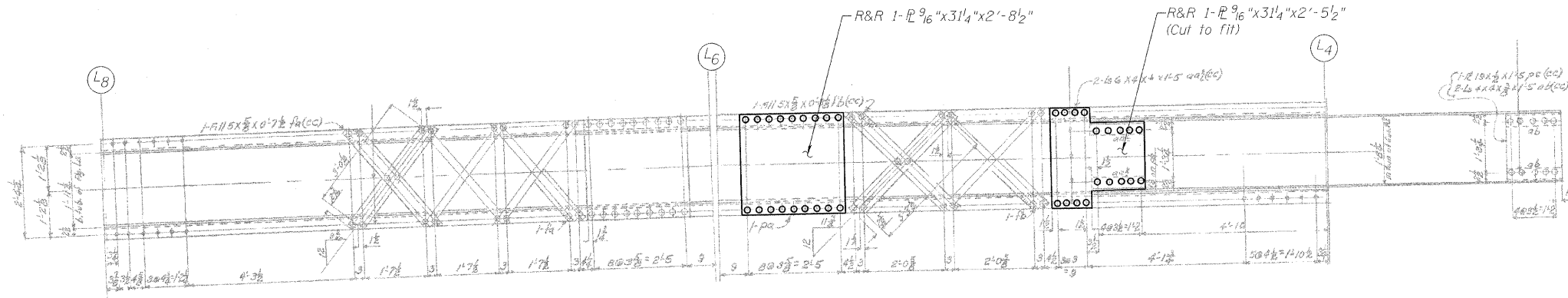


SECTION A-A

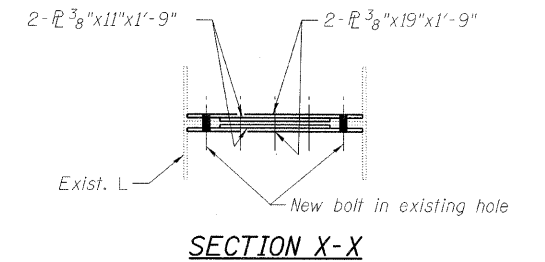


SECTION L-L
POST L2-U3

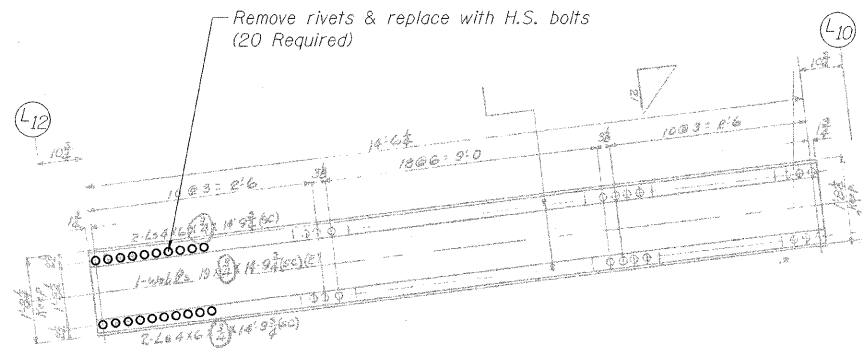
SECTION M-M
POST L4-U5



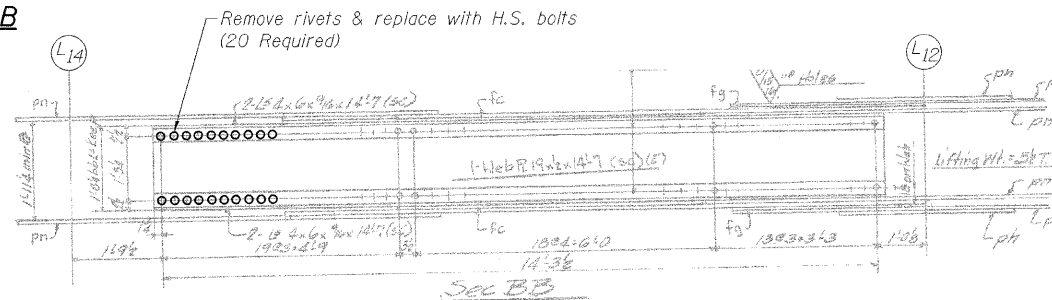
SECTION B-B



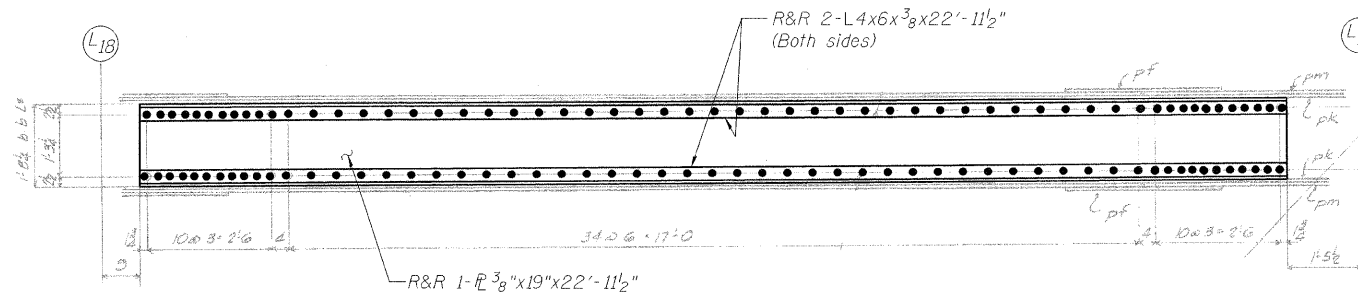
SECTION X-X



SECTION C-C



SECTION D-D



SECTION E-E

LEGEND

- R&R Remove & replace
- Existing fastener to remain
- Hole to match existing location
- New hole
- Existing member to remain
- New member

Note:
Portions of this drawing are extracted from original drawings for this bridge. Details shown are provided to illustrate the work to be performed.

TRUSS REPAIRS
OUTSIDE TRUSS (NORTHWEST)
STRUCTURE NO. 016-2445

DESIGNED	P. PETERSON
CHECKED	J. GRAINAWI
DRAWN	D. C. PATEL
CHECKED	A. HAMMAD

PB Americas, Inc.
230 WEST MONROE STREET,
SUITE 900
CHICAGO, IL 60606

SHEET NO. 119	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389	2424.2B-R	COOK	398	200
163 SHEETS			CONTRACT NO. 60D61		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					