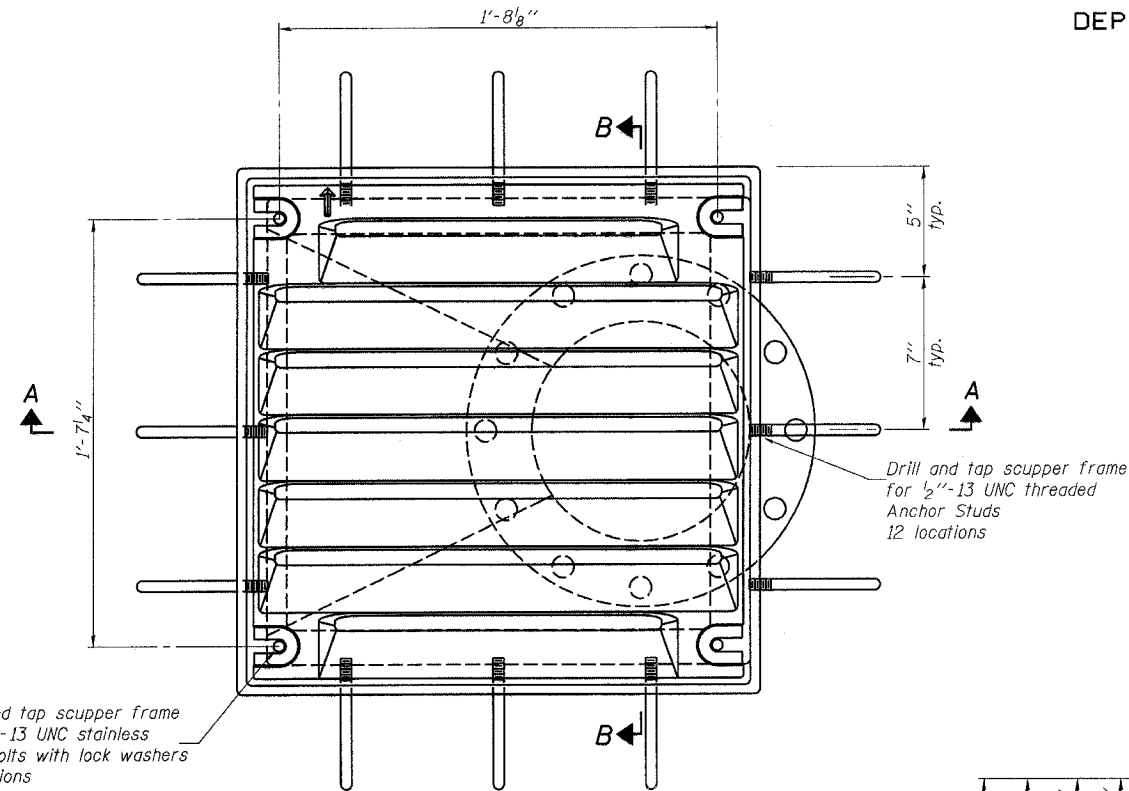


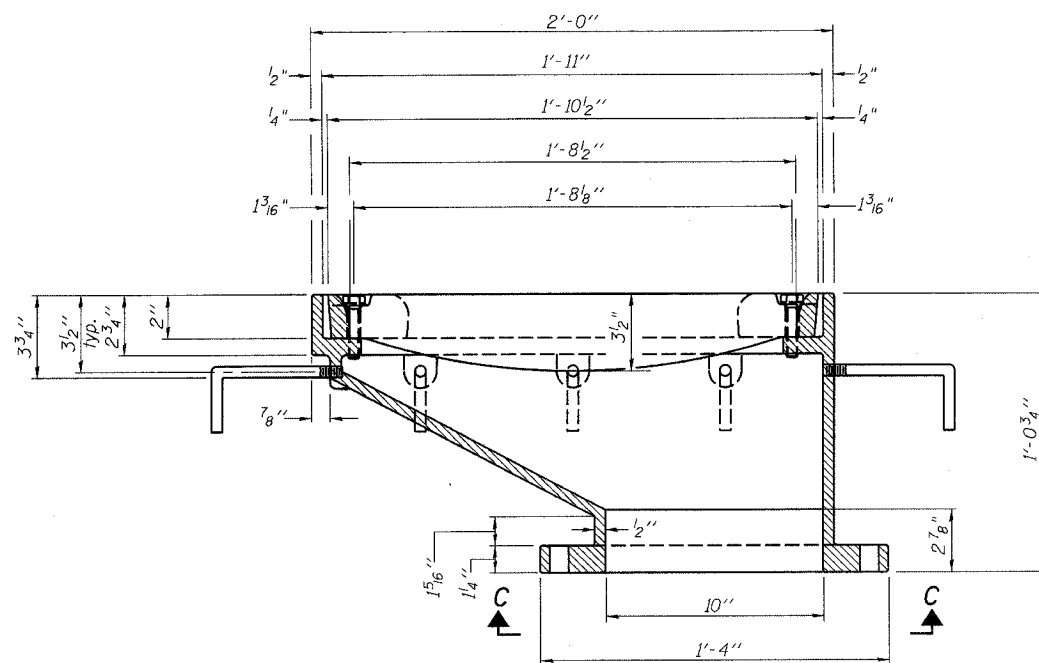
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET NO. 201	SHEET NO. 178 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract # 66586



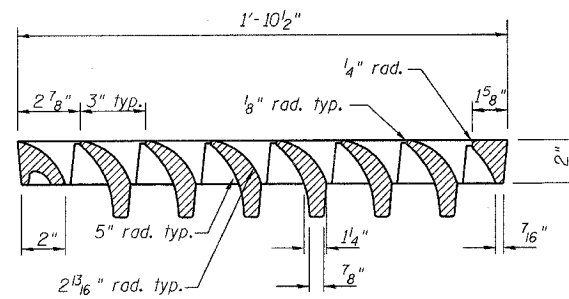
PLAN



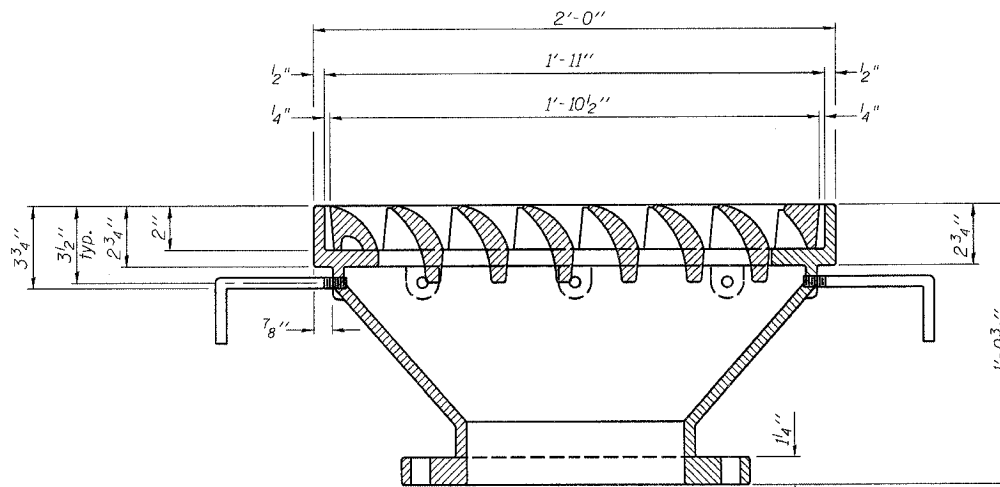
SECTION A-A

For scupper location relative to parapet see sheets 166 and 166a.

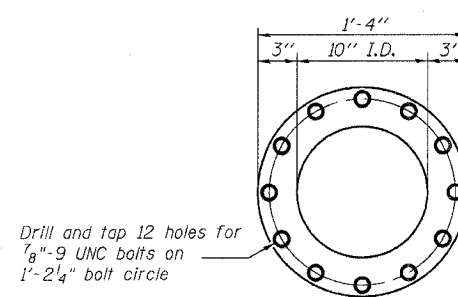
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CHECKED -	HMA
DRAWN -	VH
CHECKED -	MRB



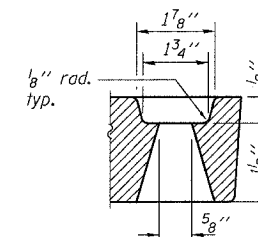
VANE GRATE DETAIL



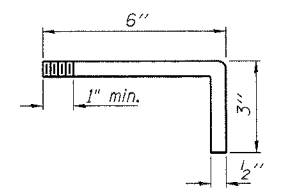
SECTION B-B



VIEW C-C



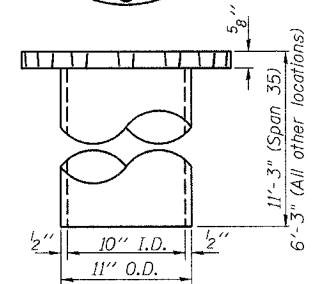
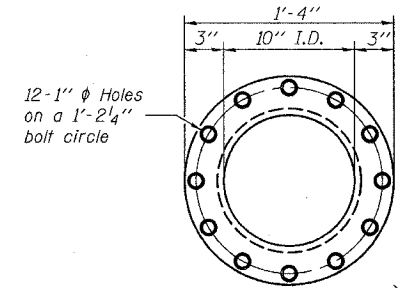
GRATE BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scupper, DS-12M10	Each	36



DOWNSPOUT

Notes:

- All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
- Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
- All castings shall conform to the requirements of AASHTO M 306.
- Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
- As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
- Structural steel weldments of equal section and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
- Structural steel weldments shall not be substituted for the cast iron scupper grate. If this option is chosen, the grate, frame and downspout shall be galvanized according to AASHTO M111.
- The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
- Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12M10.
- Alternate fiberglass downspout may be used in lieu of cast iron equivalent.

DRAINAGE SCUPPER DETAILS, DS-12M10
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

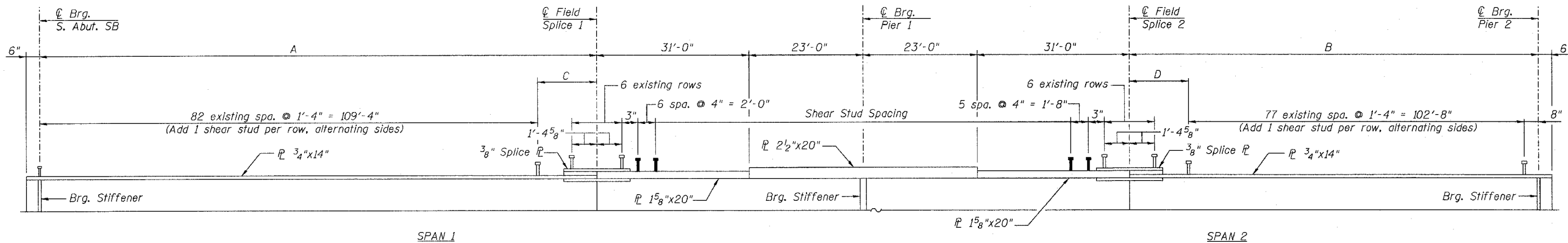
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3856

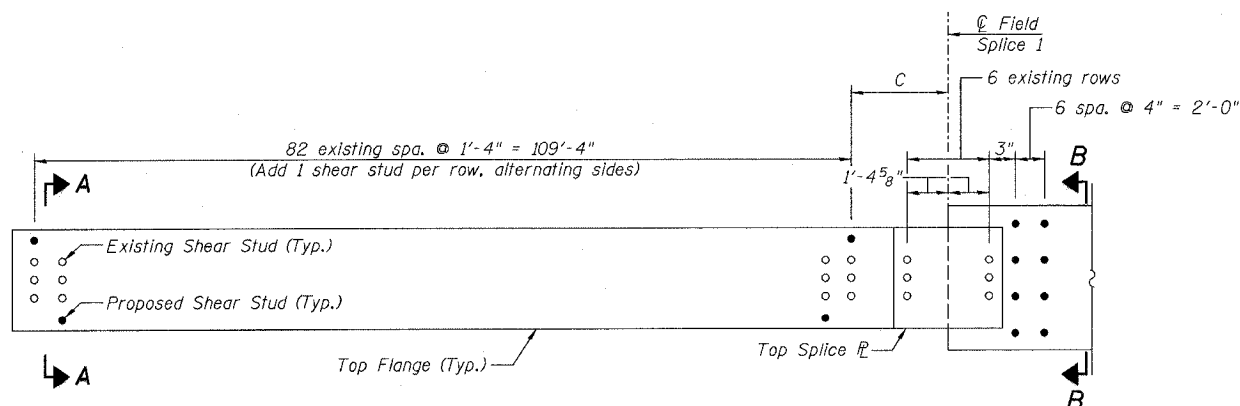
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	202	179
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		313 SHEETS

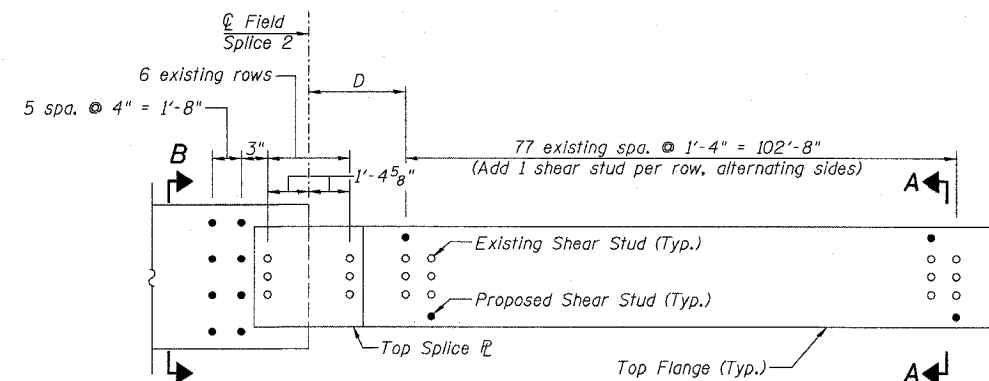
Contract # 66586



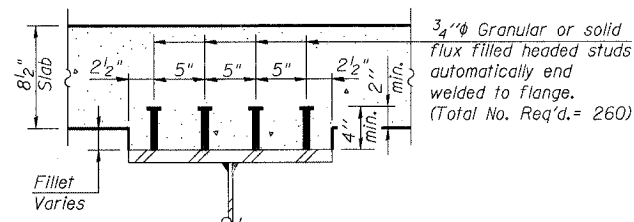
GIRDER ELEVATION
(Dimensions along \bar{C} Girder)



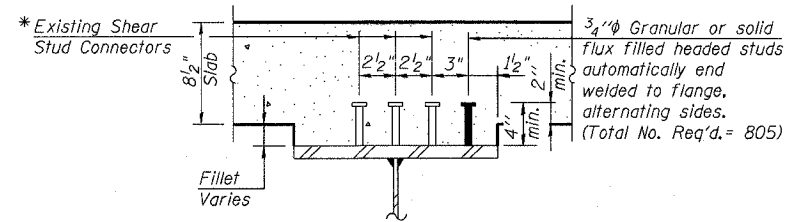
PARTIAL PLAN
(Span 1)



PARTIAL PLAN
(Span 2)



SECTION B-B



SECTION A-A

GIRDER VARIABLES

Girder	A	B	C	D
G1	112'-1 1/8"	106'-1 5/16"	2'-9 7/8"	2'-9 5/16"
G2	111'-10 1/16"	105'-11"	2'-6 1/16"	2'-7"
G3	111'-8 3/16"	105'-8 1/16"	2'-4 5/16"	2'-4 1/16"
G4	111'-5 7/8"	105'-6 3/8"	2'-1 7/8"	2'-2 3/8"
G5	111'-3 1/2"	105'-4 1/8"	1'-11 1/2"	2'-0 1/16"

*Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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Job # 3858

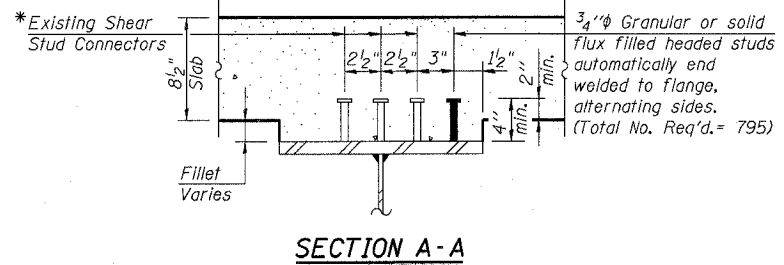
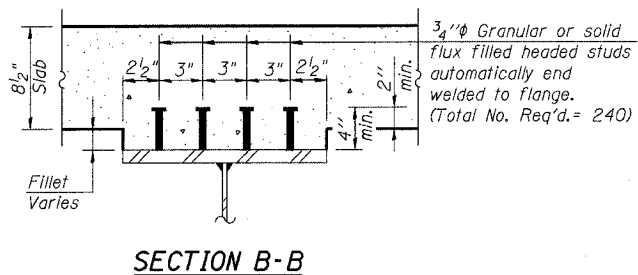
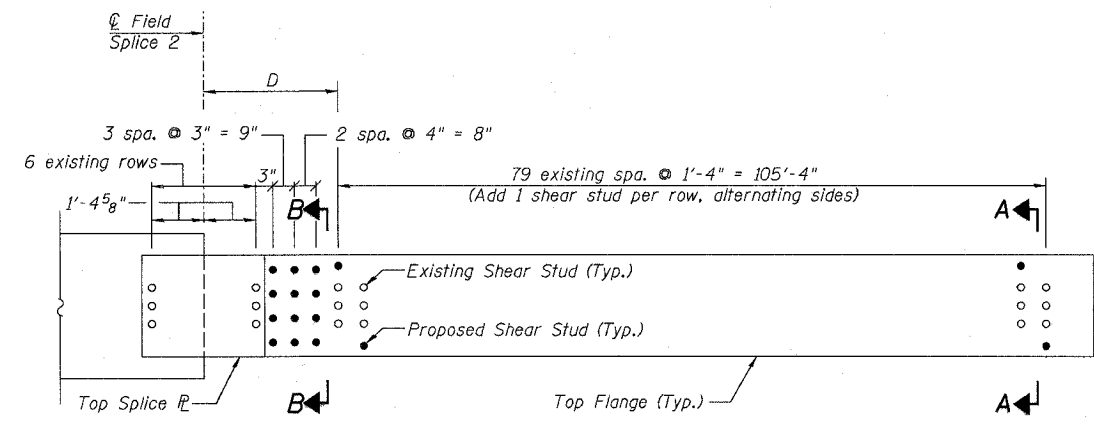
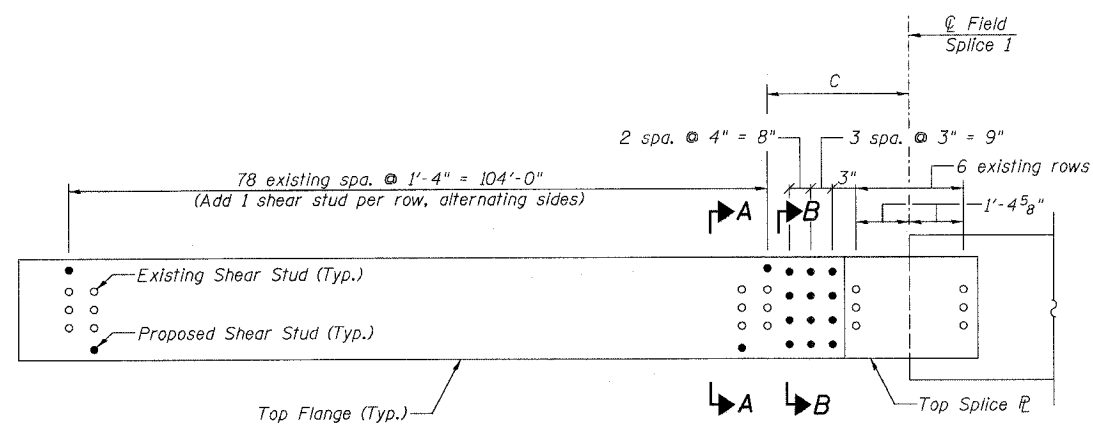
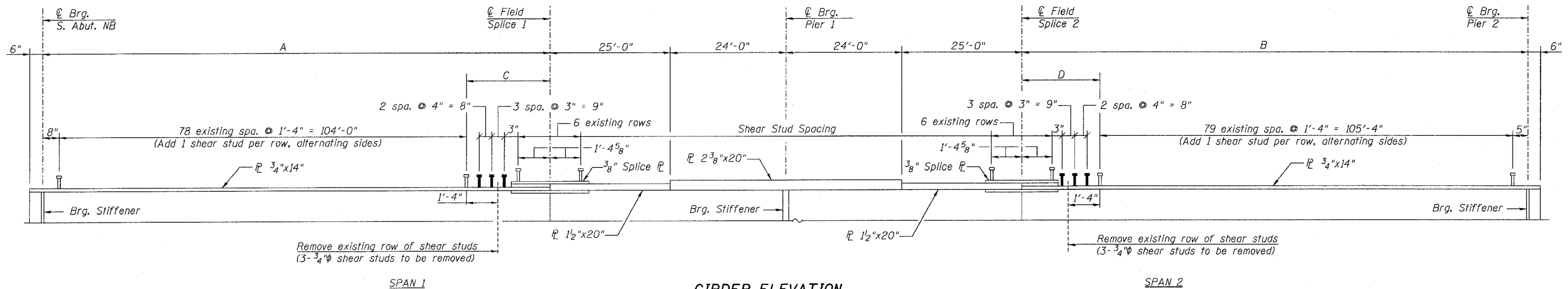
SHEAR STUDS - SPANS 1 & 2 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	203	180
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		313 SHEETS

Contract # 66586



GIRDER VARIABLES

Girder	A	B	C	D
G6	108'-8 ¹ / ₁₆ "	109'-9 ⁵ / ₁₆ "	4'-0 ¹ / ₁₆ "	4'-0 ⁵ / ₁₆ "
G7	108'-6 ³ / ₈ "	109'-7 ⁵ / ₈ "	3'-10 ³ / ₈ "	3'-10 ⁵ / ₈ "
G8	108'-4 ¹ / ₈ "	109'-5 ⁵ / ₁₆ "	3'-8 ¹ / ₈ "	3'-8 ⁵ / ₁₆ "
G9	108'-1 ³ / ₄ "	109'-3"	3'-5 ³ / ₄ "	3'-6"
G10	107'-11 ¹ / ₂ "	109'-0 ¹ / ₁₆ "	3'-3 ¹ / ₂ "	3'-3 ¹ / ₁₆ "

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Job # 3856

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FAX (217) 483-4706

SHEAR STUDS - SPANS 1 & 2 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

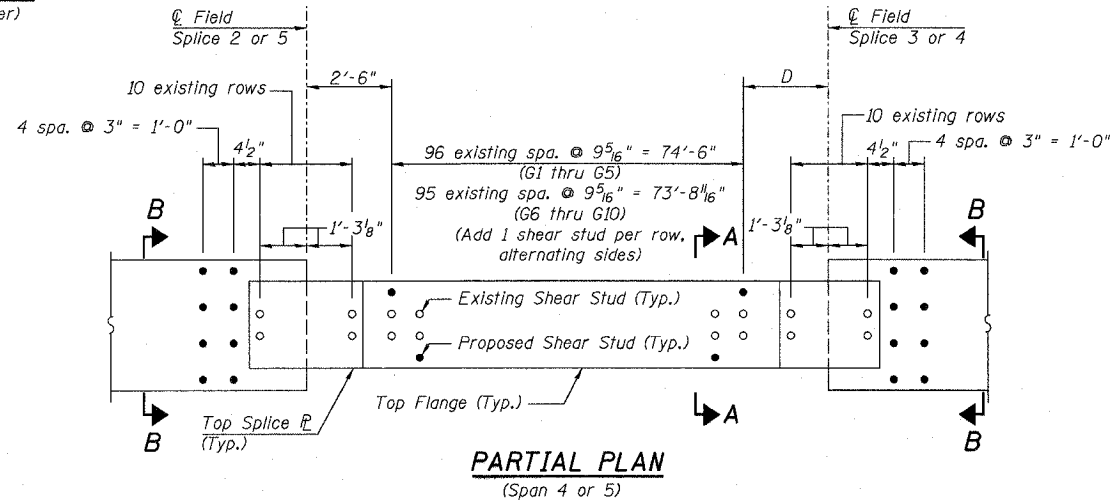
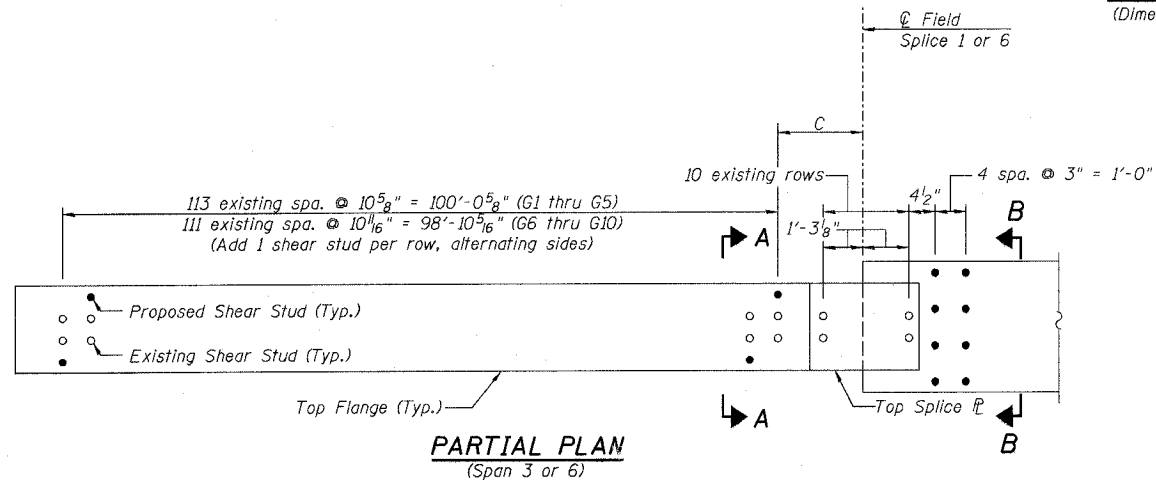
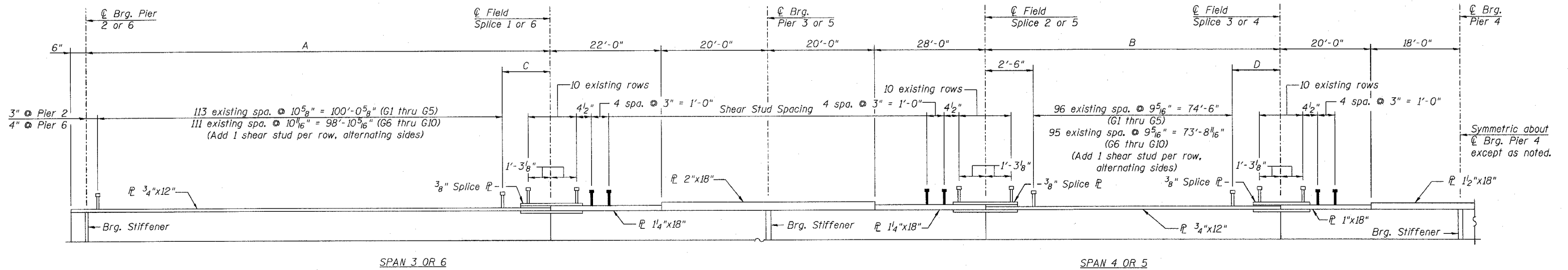
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DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

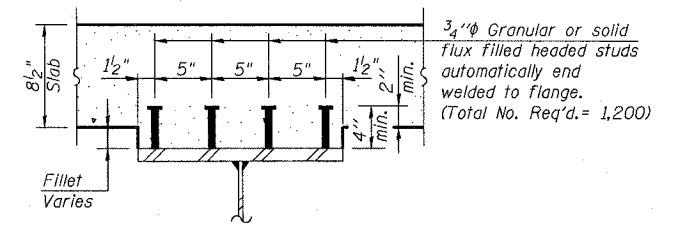
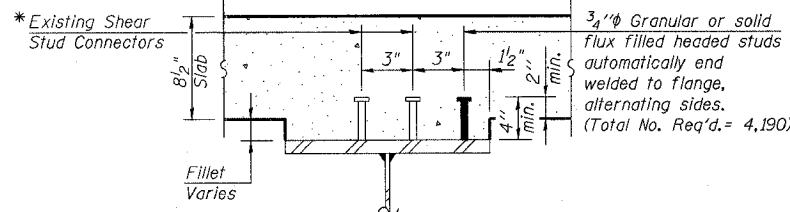
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE	204	181
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	313 SHEETS

Contract # 66586



GIRDER VARIABLES

Girder	Spans 3 & 4				Spans 5 & 6			
	A	B	C	D	A	B	C	D
G1	102'-11 7/8"	80'-0"	2'-8 1/4"	3'-0"	102'-10 7/8"	79'-11 5/8"	2'-6 1/4"	2'-11 5/8"
G2	102'-9 3/4"	79'-9 5/8"	2'-6 1/8"	2'-9 5/8"	102'-8 13/16"	79'-9 1/4"	2'-4 3/16"	2'-9 1/4"
G3	102'-7 5/8"	79'-7 3/16"	2'-4"	2'-7 3/16"	102'-6 1/16"	79'-6 13/16"	2'-2 1/16"	2'-6 13/16"
G4	102'-5 9/16"	79'-4 13/16"	2'-1 5/16"	2'-4 13/16"	102'-4 9/16"	79'-4 7/16"	1'-11 5/16"	2'-4 7/16"
G5	102'-3 7/16"	79'-2 7/16"	1'-11 13/16"	2'-2 7/16"	102'-2 1/2"	79'-2 1/16"	1'-9 7/8"	2'-2 1/16"
G6	101'-10 3/16"	78'-9 9/16"	2'-9 1/4"	2'-6 7/8"	101'-11 1/2"	78'-9 5/16"	2'-9 3/16"	2'-7 1/4"
G7	101'-8 1/16"	78'-7 3/16"	2'-7 1/8"	2'-4 1/2"	101'-9 7/16"	78'-7 9/16"	2'-7 1/8"	2'-4 7/8"
G8	101'-6 3/8"	78'-4 13/16"	2'-5 1/16"	2'-2 1/8"	101'-7 5/16"	78'-5 3/16"	2'-5"	2'-2 1/2"
G9	101'-4 1/4"	78'-2 3/8"	2'-2 5/16"	1'-11 1/16"	101'-5 3/16"	78'-2 3/4"	2'-2 1/8"	2'-0 1/16"
G10	101'-2 1/8"	78'-0"	2'-0 13/16"	1'-9 5/16"	101'-3 1/8"	78'-0 3/8"	2'-0 13/16"	1'-9 1/16"



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPANS 3 THRU 6
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED	KWS
CHECKED	MRB
DRAWN	JGY
CHECKED	MTH

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Chicago, Illinois 60601
312-565-0450
Job # 3856

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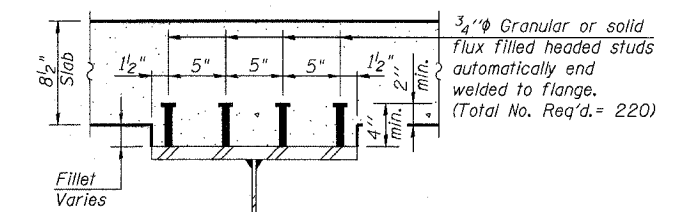
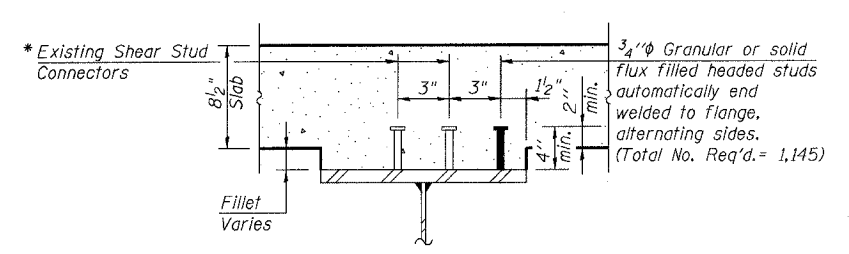
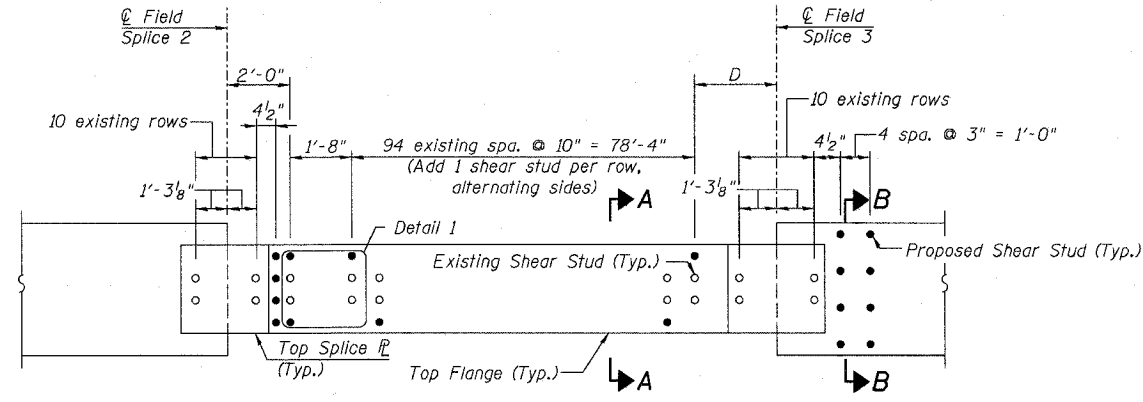
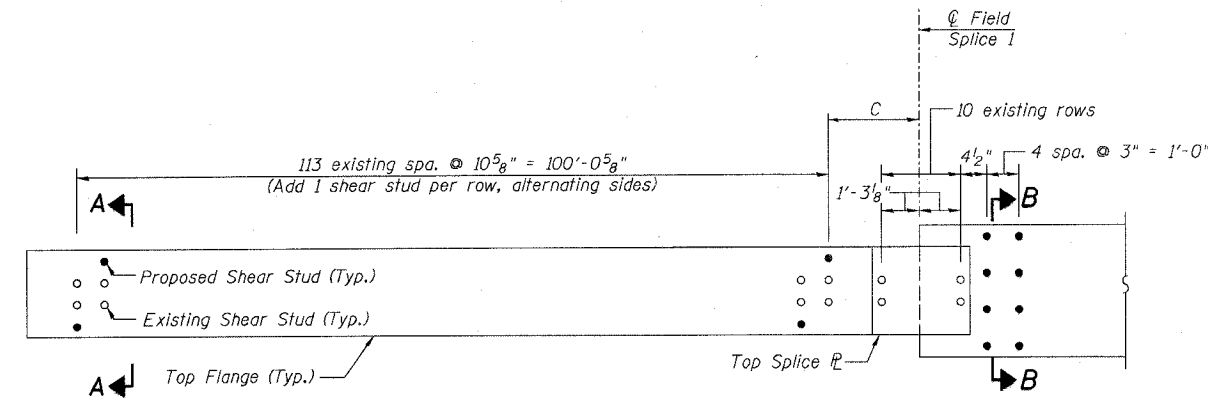
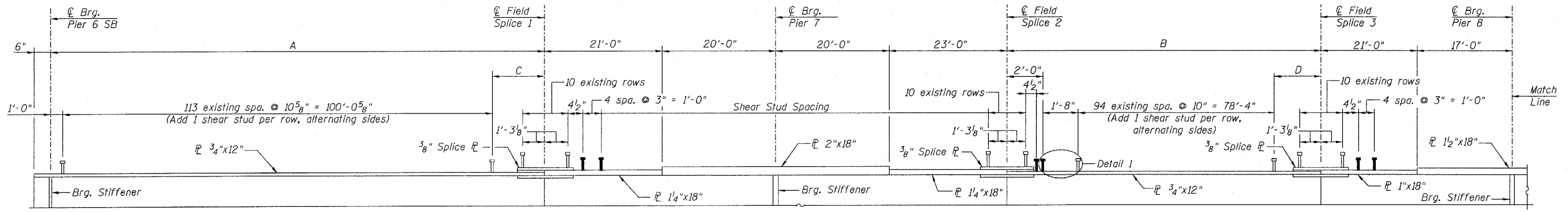
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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE	205	182
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

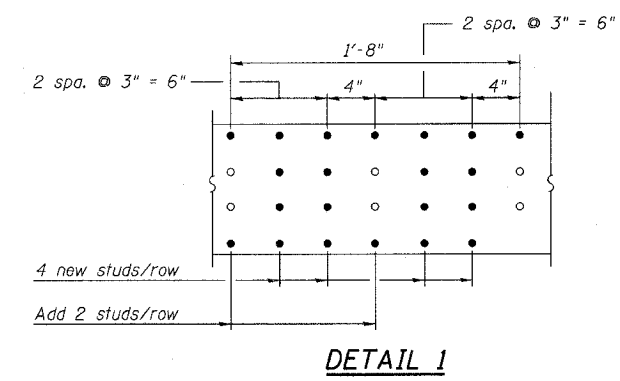
Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

GIRDER VARIABLES

Girder	A	B	C	D
G1	103'-10 ⁵ / ₈ "	84'-9 ¹ / ₄ "	2'-10"	2'-9 ¹ / ₄ "
G2	103'-8 ¹ / ₂ "	84'-7 ³ / ₁₆ "	2'-7 ¹ / ₈ "	2'-7 ³ / ₁₆ "
G3	103'-6 ³ / ₈ "	84'-5 ¹ / ₁₆ "	2'-5 ³ / ₄ "	2'-5 ¹ / ₁₆ "
G4	103'-4 ⁵ / ₁₆ "	84'-2 ¹⁵ / ₁₆ "	2'-3 ¹ / ₁₆ "	2'-2 ¹⁵ / ₁₆ "
G5	103'-2 ³ / ₁₆ "	84'-0 ¹ / ₈ "	2'-1 ⁹ / ₁₆ "	2'-0 ⁷ / ₈ "



DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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Job # 3886

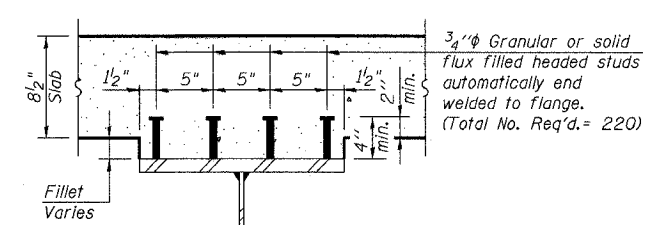
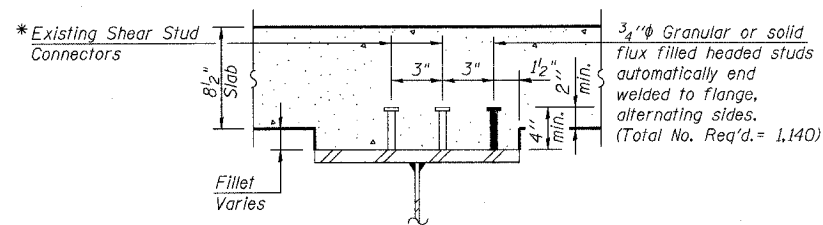
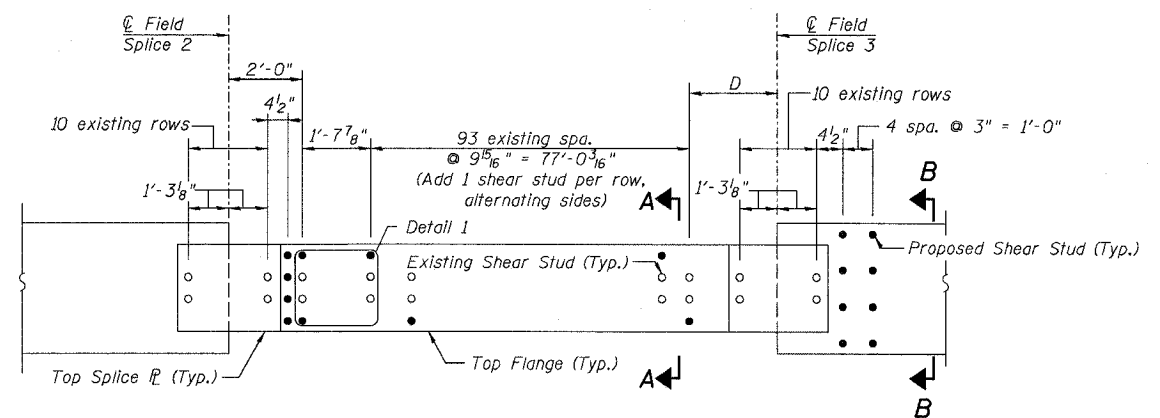
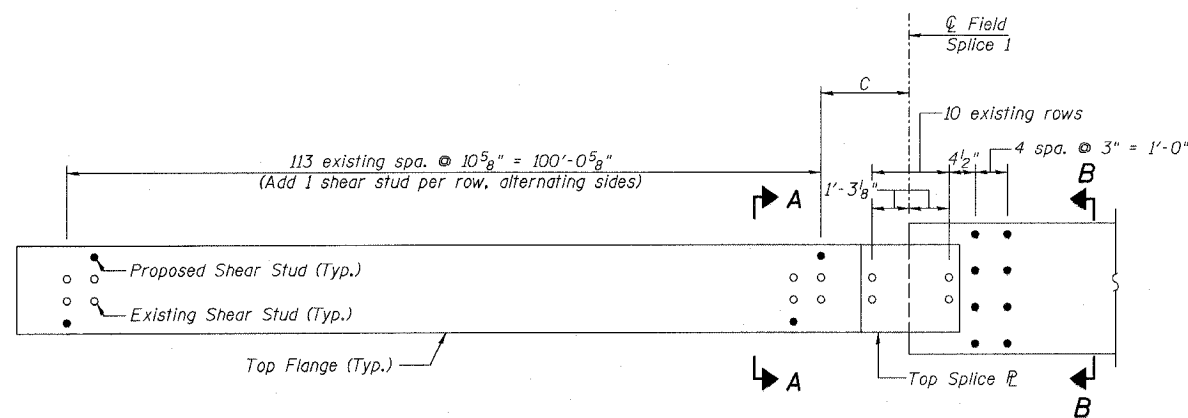
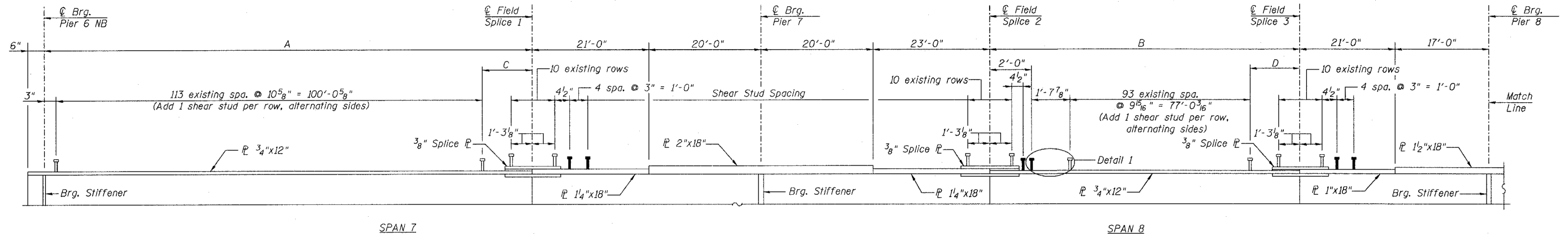
SHEAR STUDS - SPANS 7 & 8 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 183 313 SHEETS
F.A.I. 39	50-4B	LASALLE		206	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

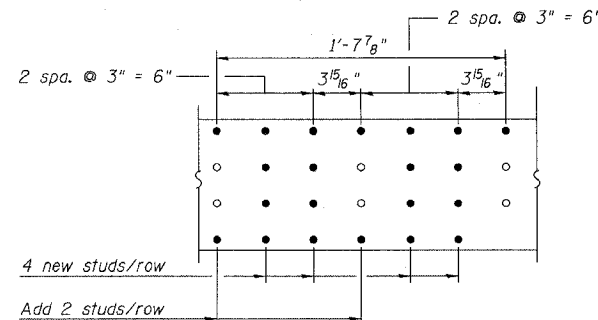
Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

GIRDER VARIABLES

Girder	A	B	C	D
G6	102'-11 13/16"	83'-11 1/8"	2'-8 3/16"	3'-3 1/16"
G7	102'-9 1/16"	83'-9"	2'-6 1/16"	3'-0 15/16"
G8	102'-7 5/8"	83'-6 15/16"	2'-4"	2'-10 7/8"
G9	102'-5 1/2"	83'-4 13/16"	2'-1 7/8"	2'-8 3/4"
G10	102'-3 3/8"	83'-2 3/4"	1'-11 3/4"	2'-6 1/16"



DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

LIN ENGINEERING, LTD.
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Chicago, Illinois 60601
312-665-0450
Job # 3856

SHEAR STUDS - SPANS 7 & 8 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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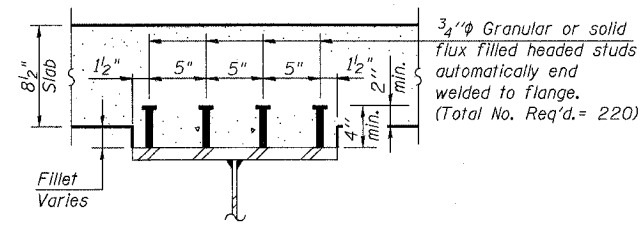
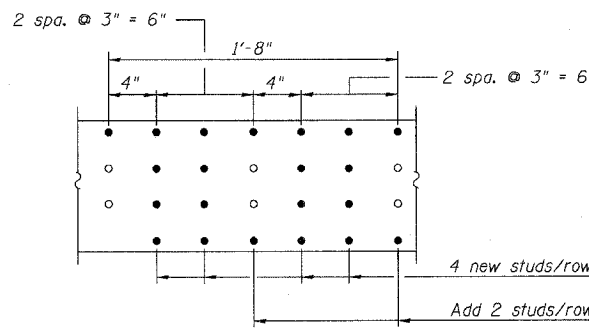
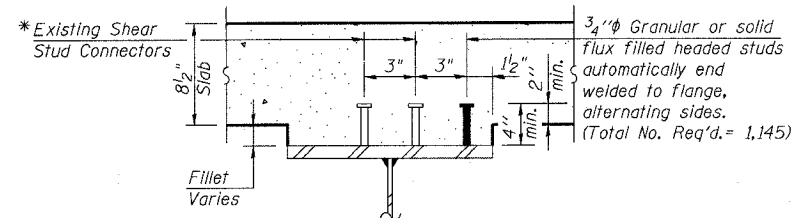
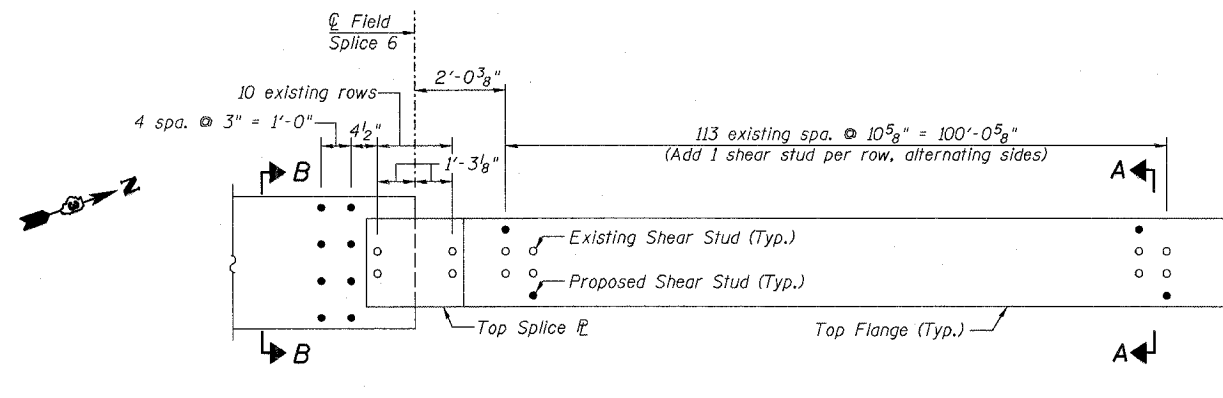
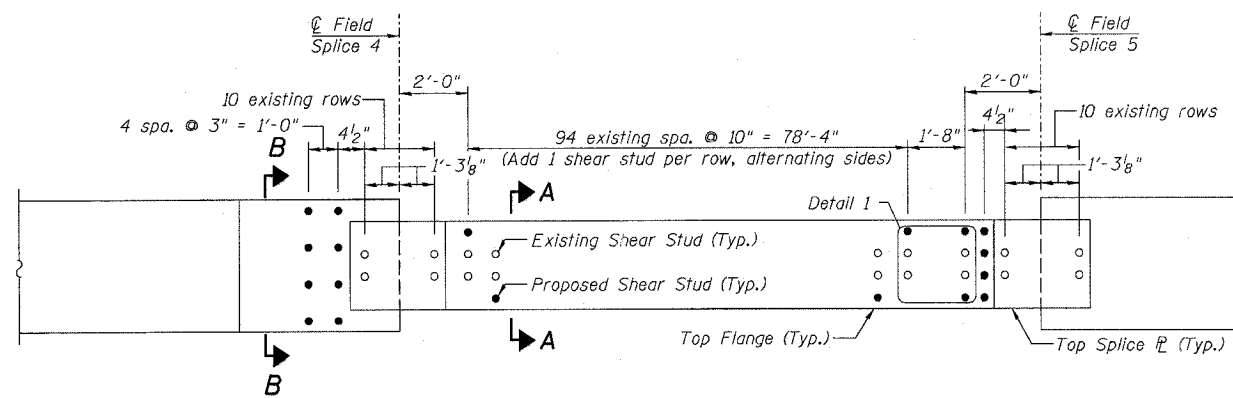
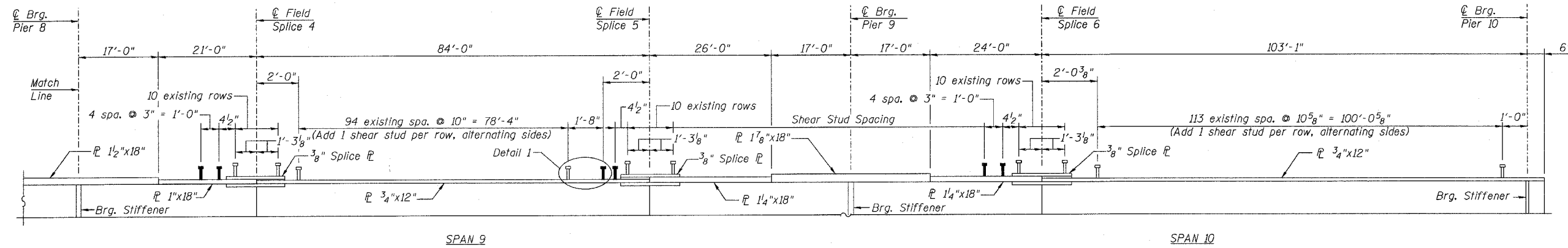
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 207	SHEET NO. 184 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract # 66586



SHEAR STUDS - SPANS 9 & 10 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4668
FAX (217) 483-4106

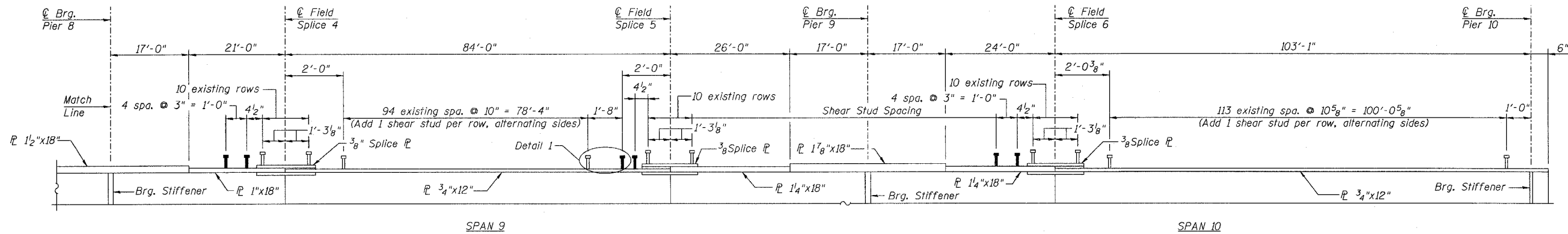
benesch
alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0450
Job # 3856

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

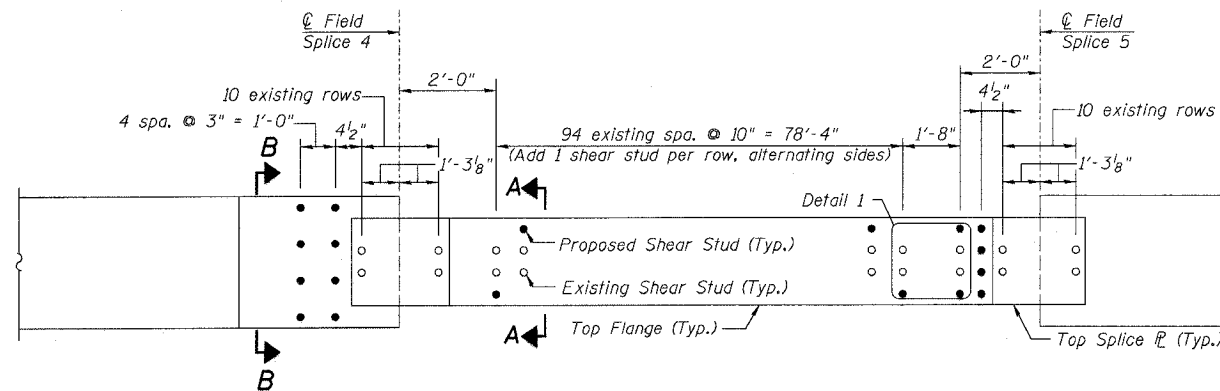
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

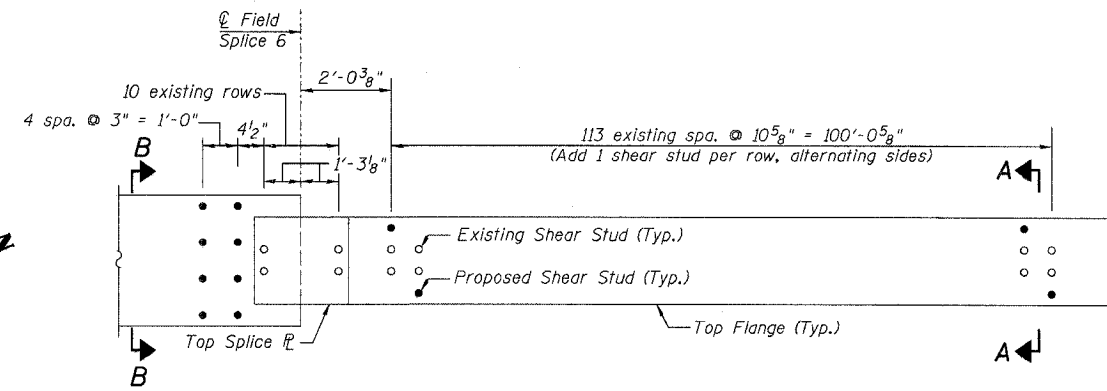
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		208	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract # 66586		



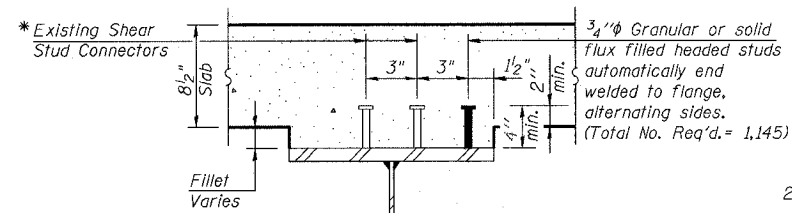
GIRDER ELEVATION
(Dimensions along \bar{C} Girder)



PARTIAL PLAN
(Span 9)

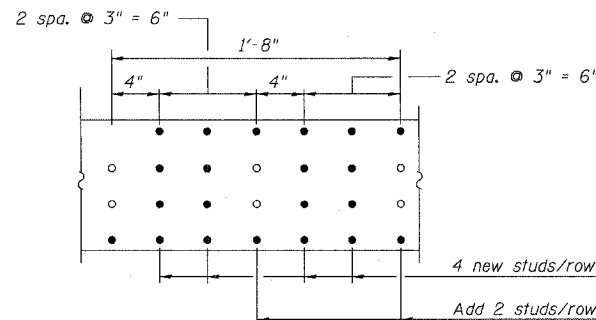


PARTIAL PLAN
(Span 10)

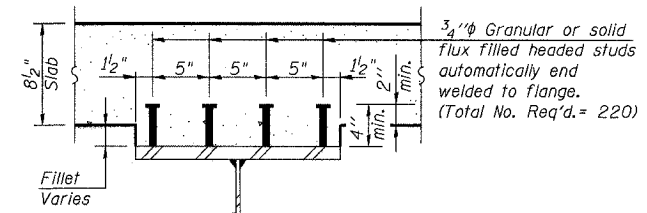


SECTION A-A

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.



DETAIL 1



SECTION B-B

SHEAR STUDS - SPANS 9 & 10 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-585-0450
Job # 3856

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

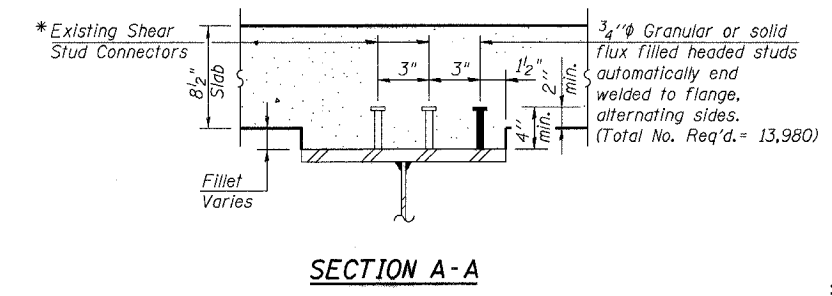
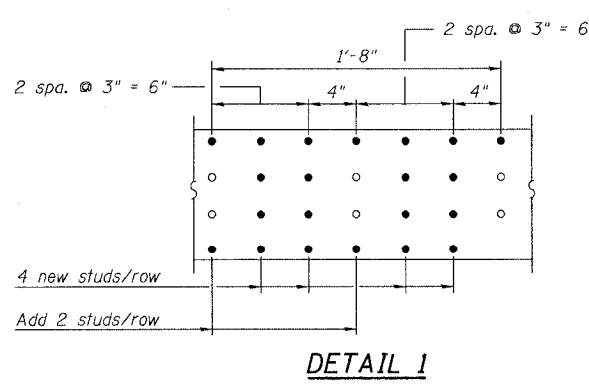
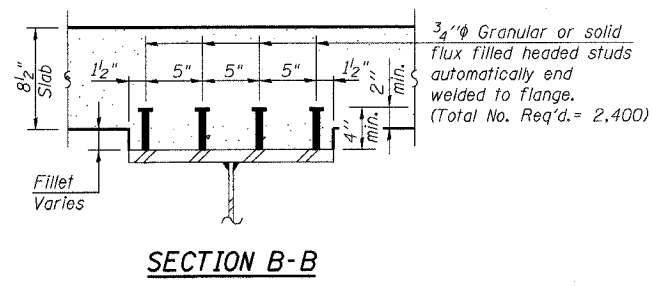
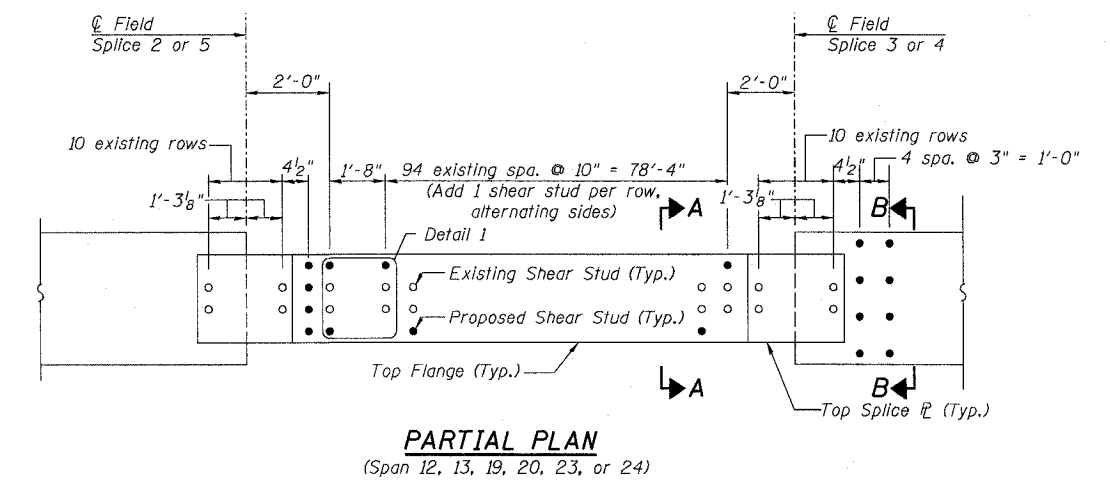
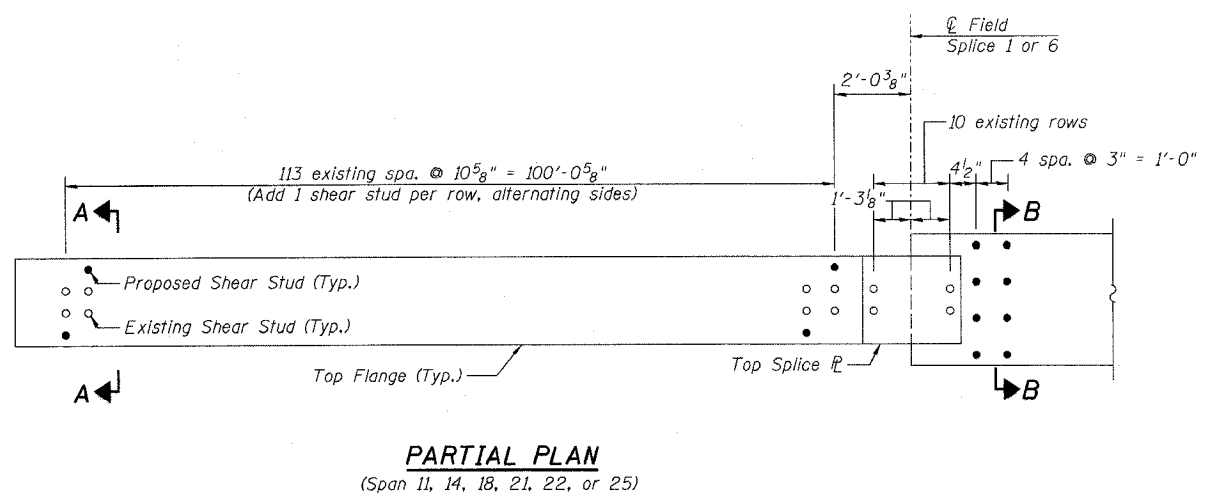
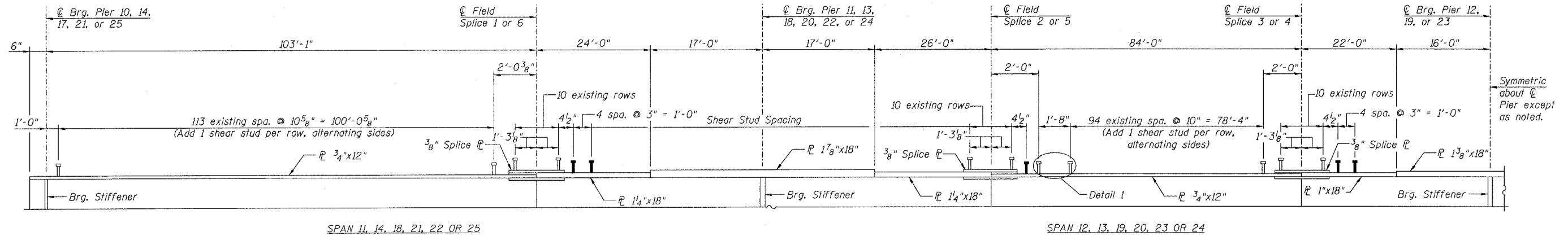
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.I. 39	50-4B	LASALLE	209	313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract # 66586

SHEET NO. 186
313 SHEETS



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPANS 11 THRU 14, 18 THRU 21, AND 22 THRU 25
ABRAHAM LINCOLN BRIDGE OVER THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

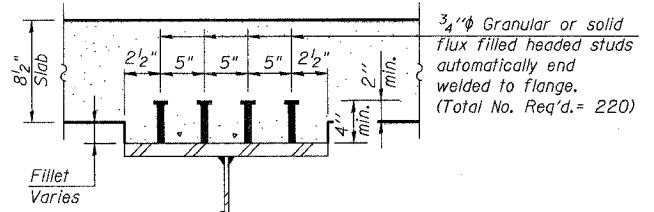
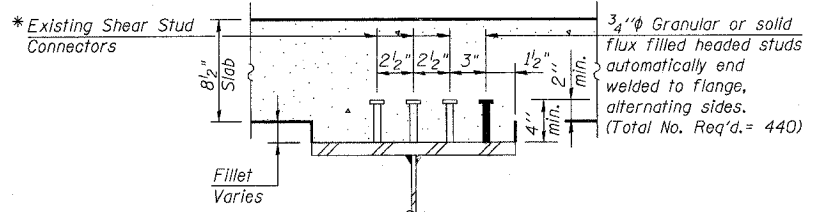
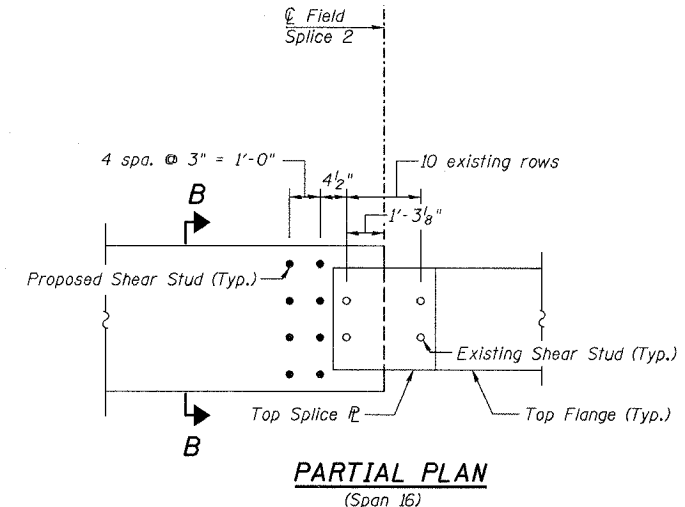
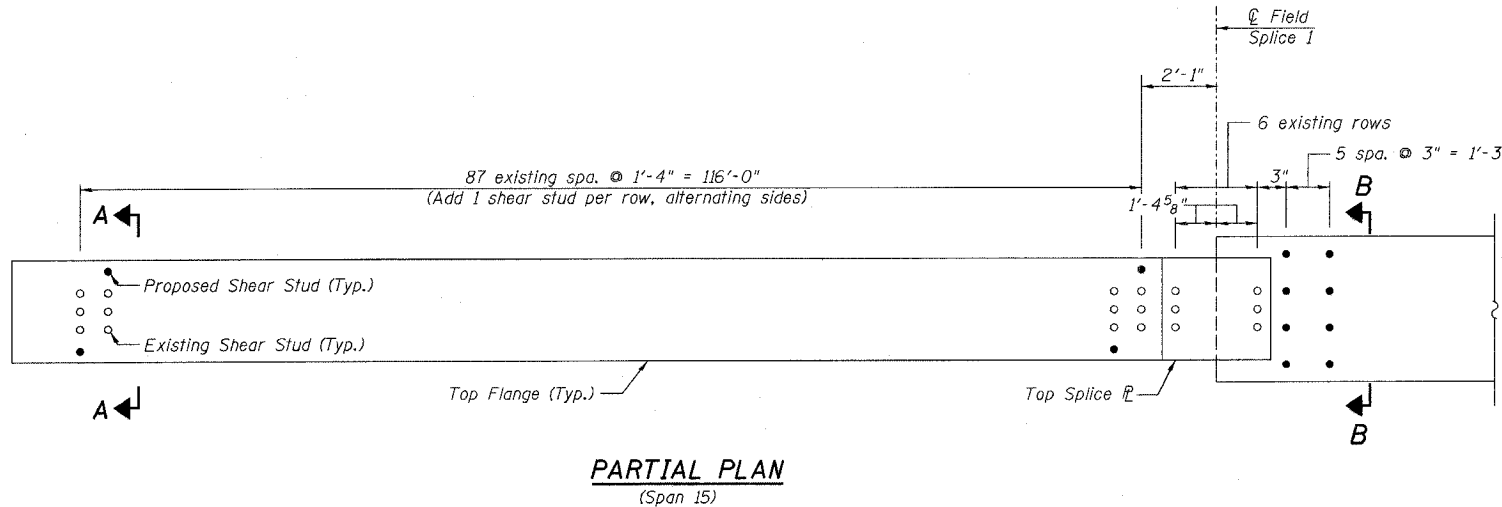
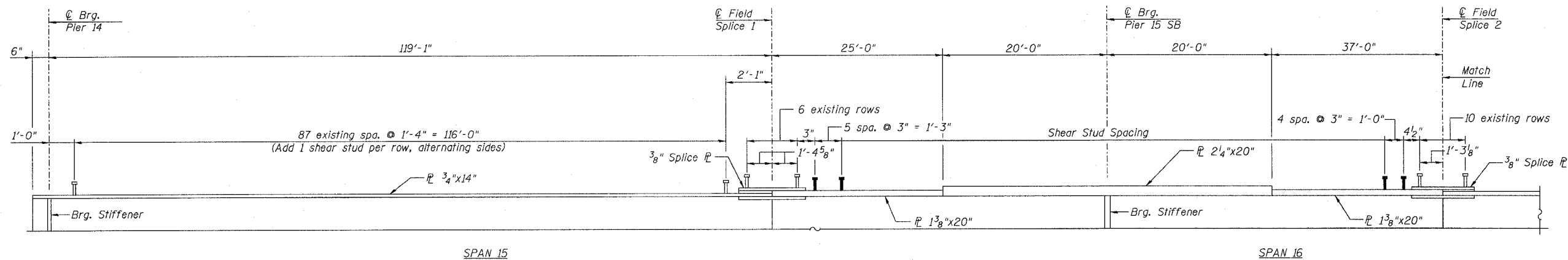
LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4668
FAX (217) 483-4706

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alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3886

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 187 313 SHEETS
F.A.I. 39	50-4B	LASALLE		210	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract # 66586		



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPANS 15 & 16 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED	KWS
CHECKED	MRB
DRAWN	JGY
CHECKED	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

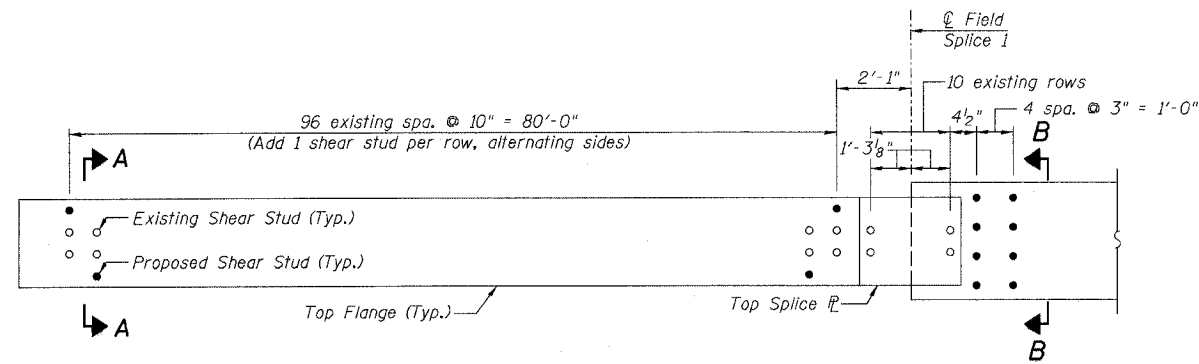
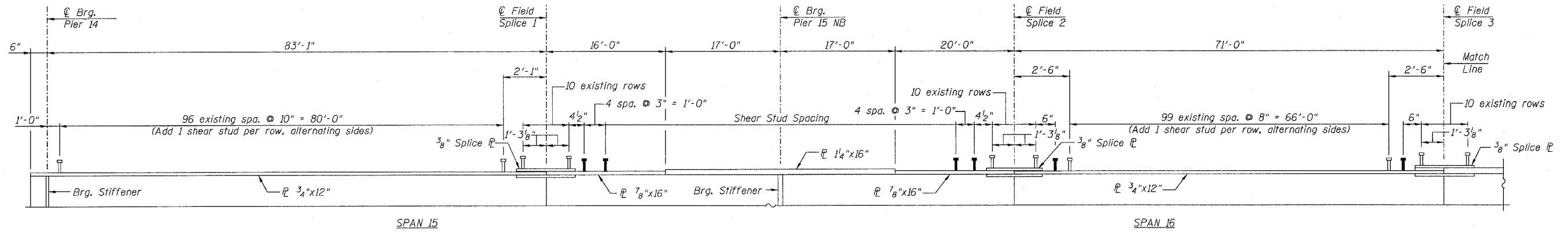
benesch
alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

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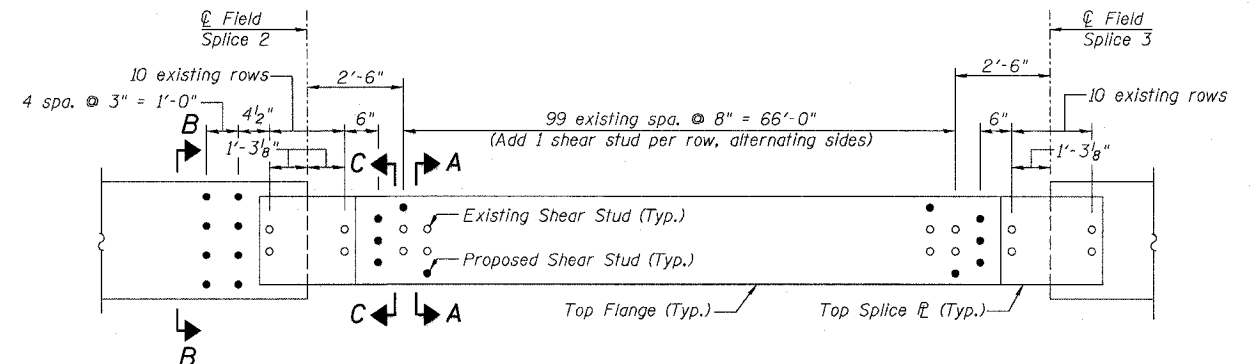
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	DATE 2/1	SHEET 21	SHEET NO. 188
FED. ROAD DIST. NO. 7					ILL. ROAD DIST. NO. 7
FED. AID PROJECT					313 SHEETS

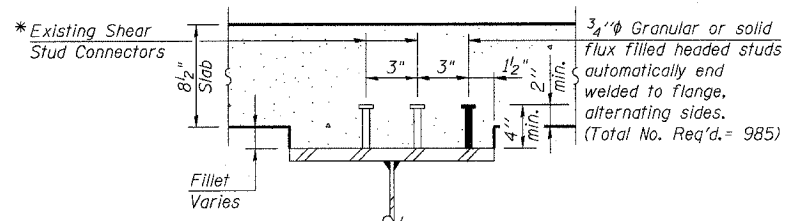
Contract # 66586



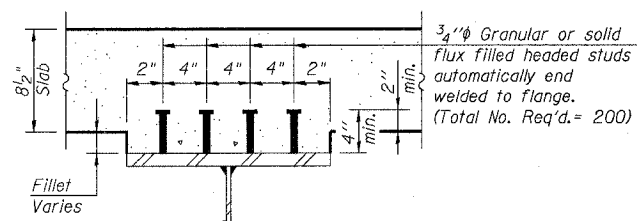
PARTIAL PLAN
(Span 15)



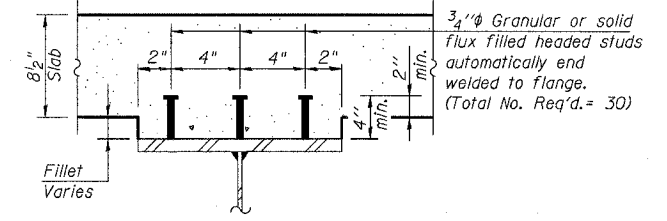
PARTIAL PLAN
(Span 16)



SECTION A-A



SECTION B-B



SECTION C-C

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 16B.

SHEAR STUDS - SPANS 15 & 16 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

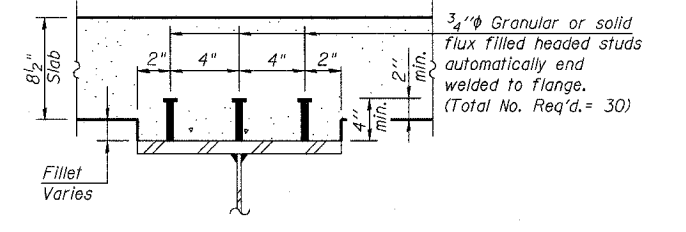
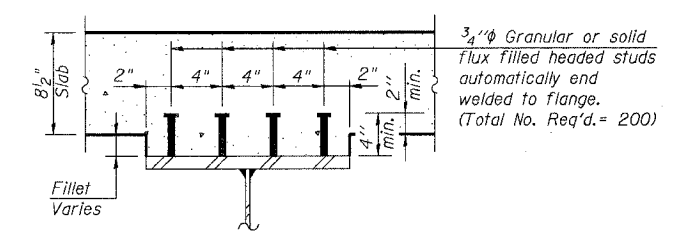
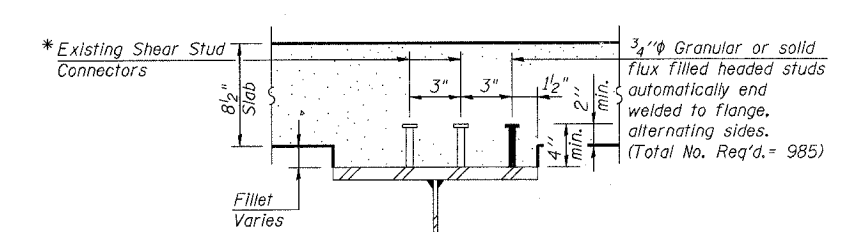
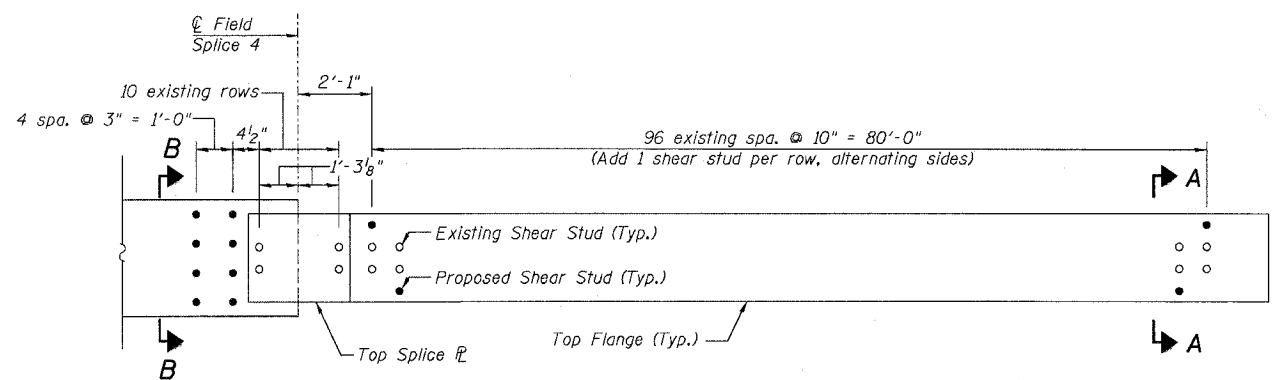
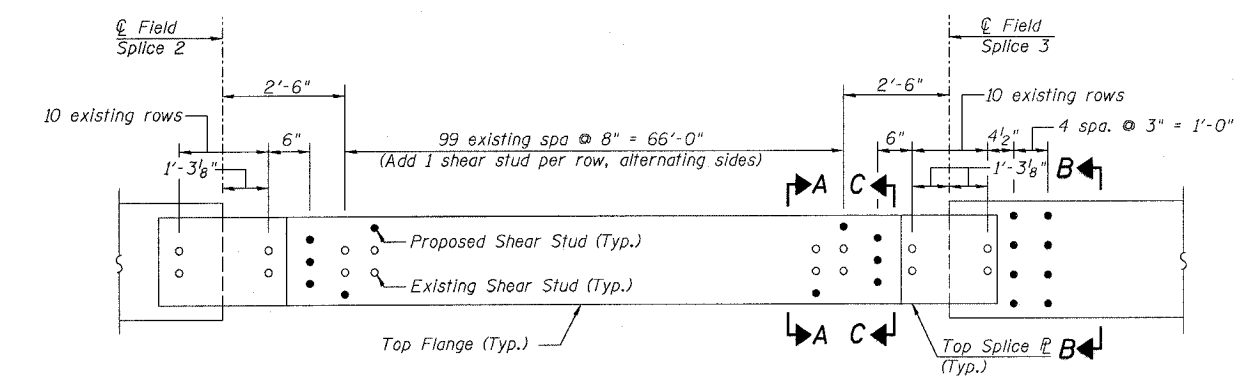
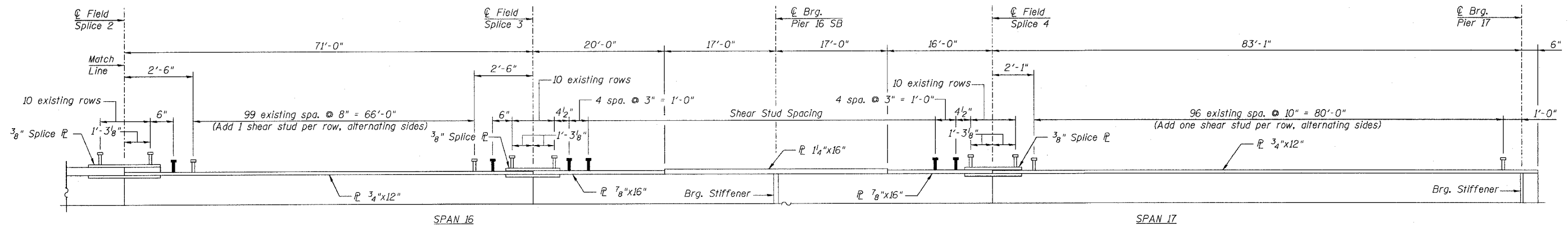
benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-265-0450
Job # 3856

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	ISD SHEETS	SHEET NO.	SHEET NO. 189 313 SHEETS
F.A.I. 39	50-4B	LASALLE		212	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 16B.

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JCY
CHECKED -	MTH

LIN ENGINEERING, LTD.
20 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

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alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0490
Job # 3856

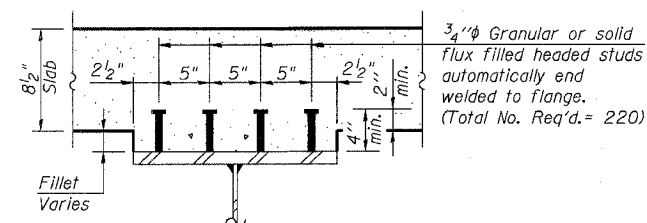
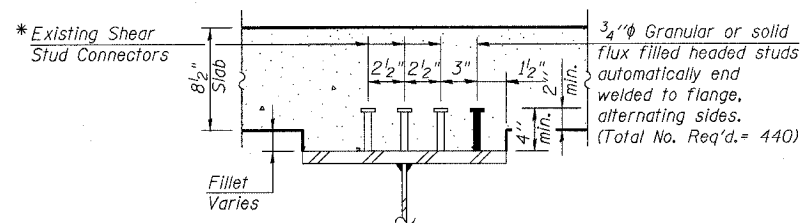
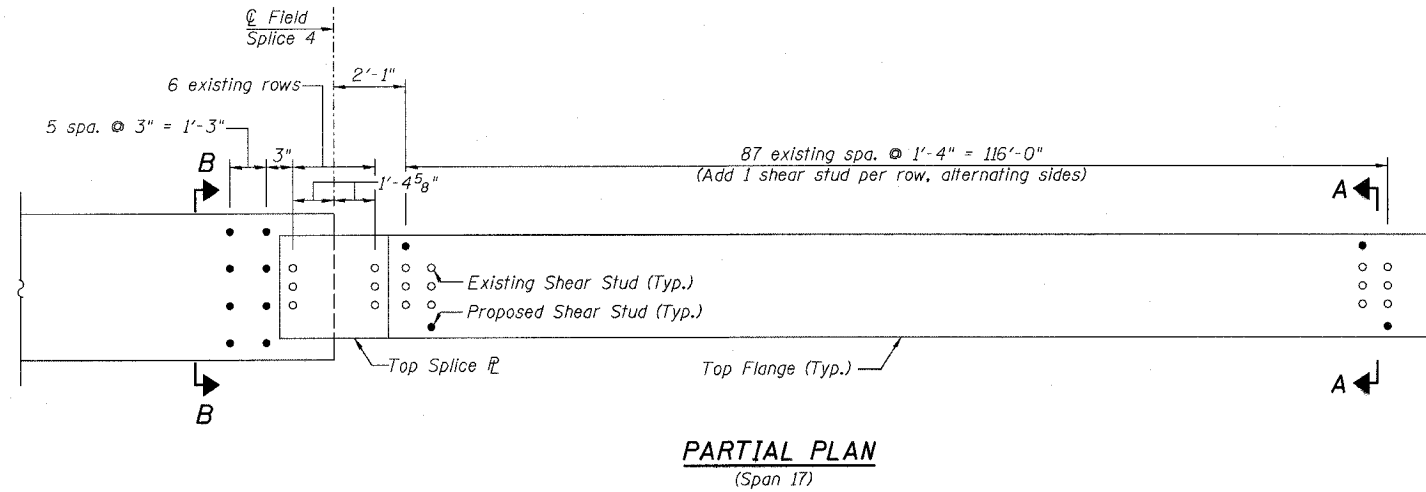
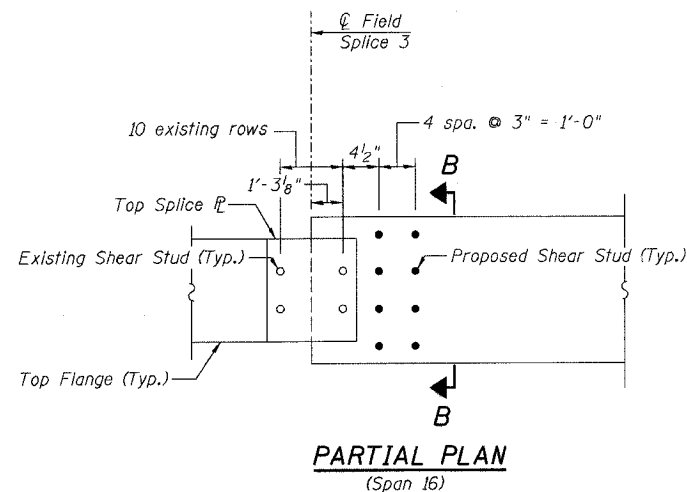
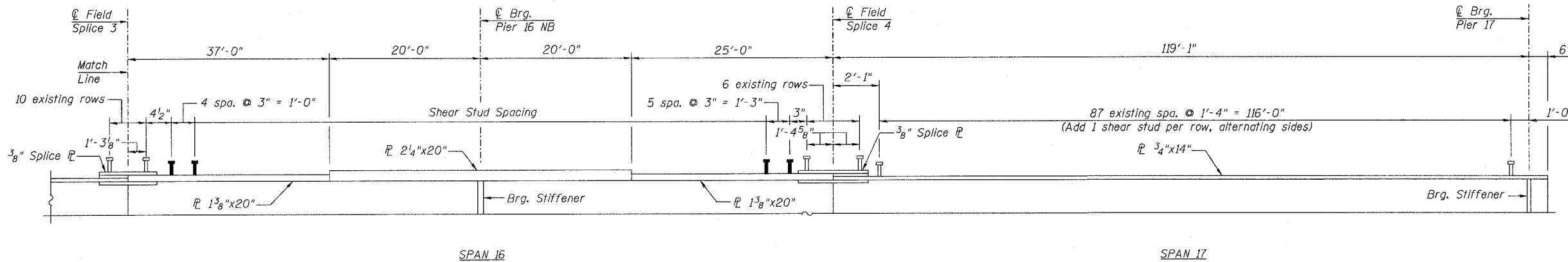
SHEAR STUDS - SPANS 16 & 17 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	23		190
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					313 SHEETS

Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPANS 16 & 17 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chattman, Illinois 62629
(217) 483-4168
FAX (217) 483-4106

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

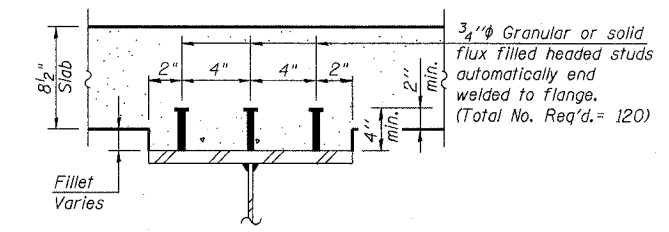
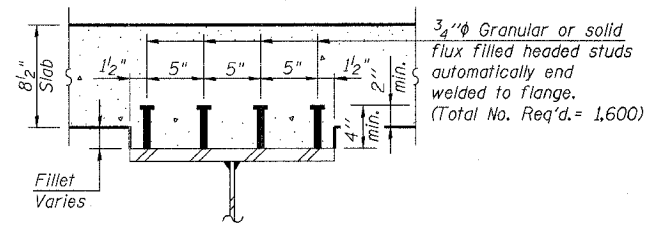
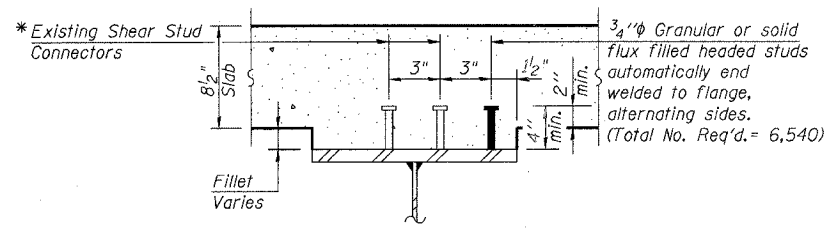
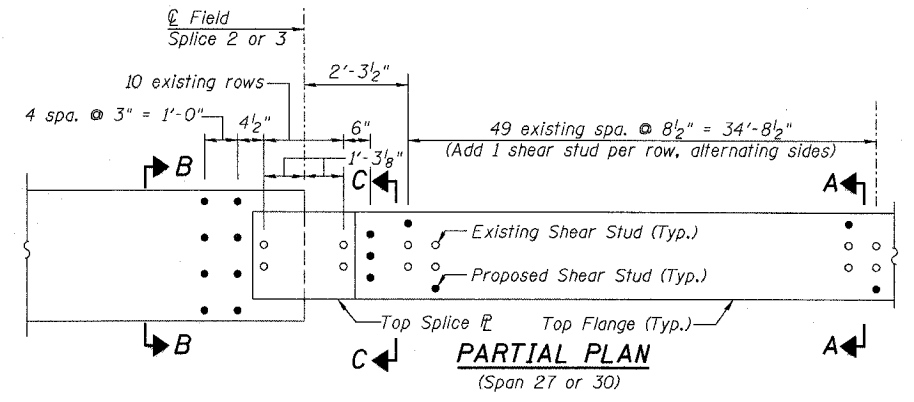
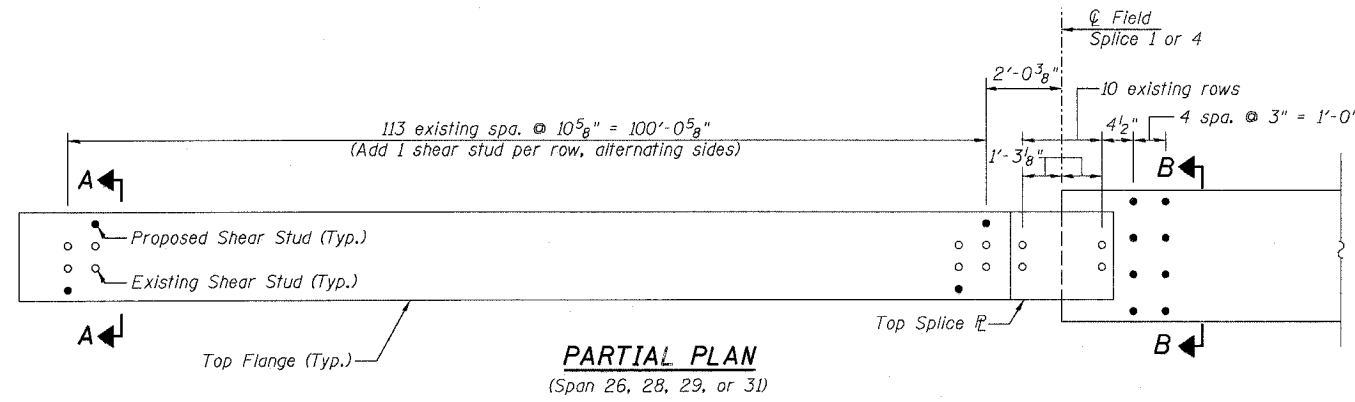
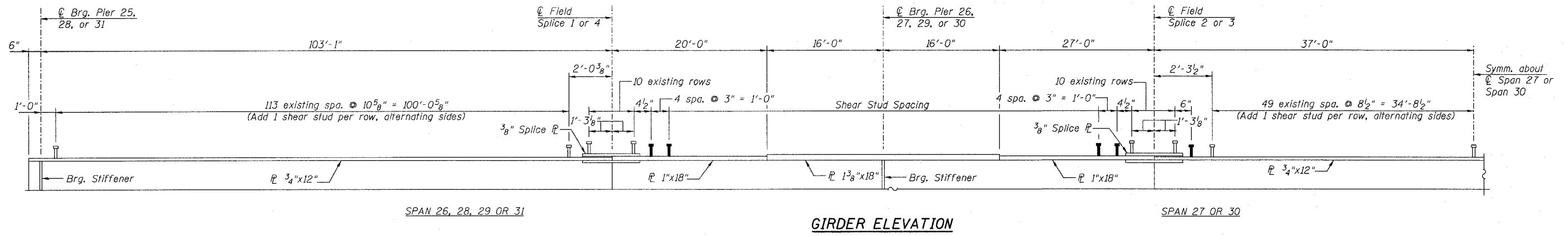
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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 24	SHEET NO. 191 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPANS 26 THRU 28 AND 29 THRU 31
ABRAHAM LINCOLN BRIDGE OVER THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR LASALLE COUNTY STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Creston, Illinois 62629
(217) 483-4858
FAX (217) 483-4706

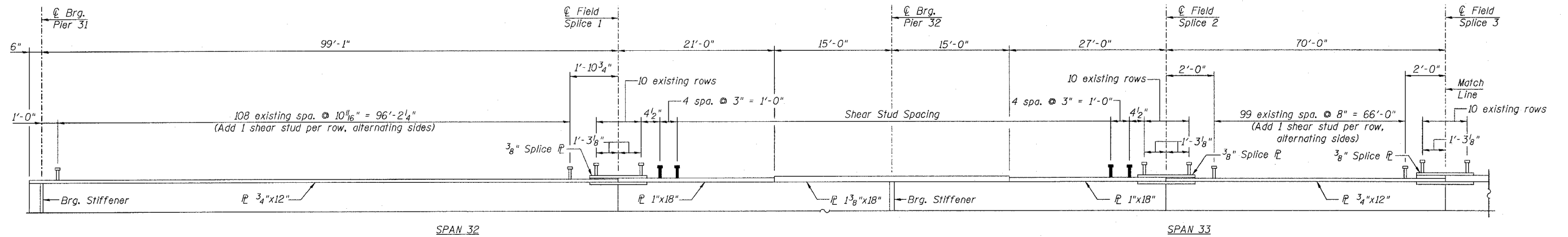
benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3856

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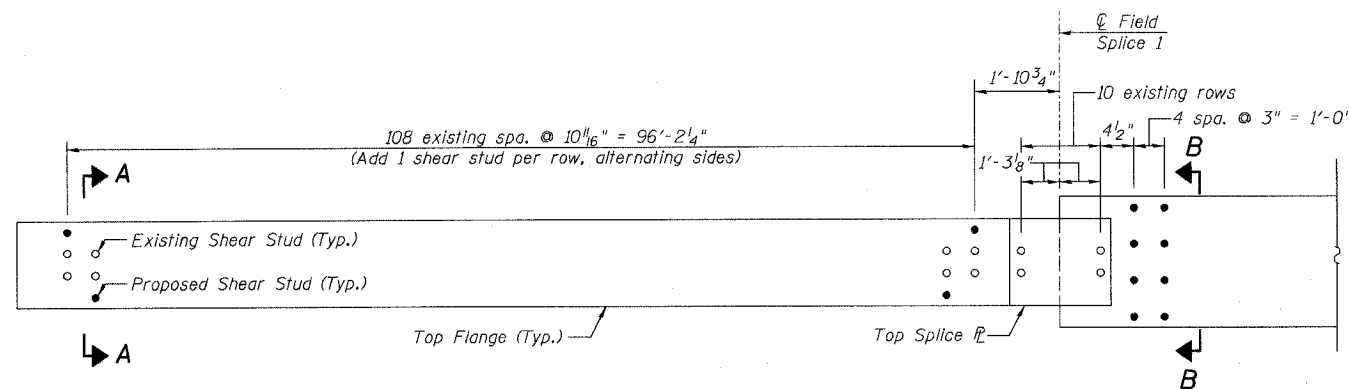
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	215	192
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		313 SHEETS

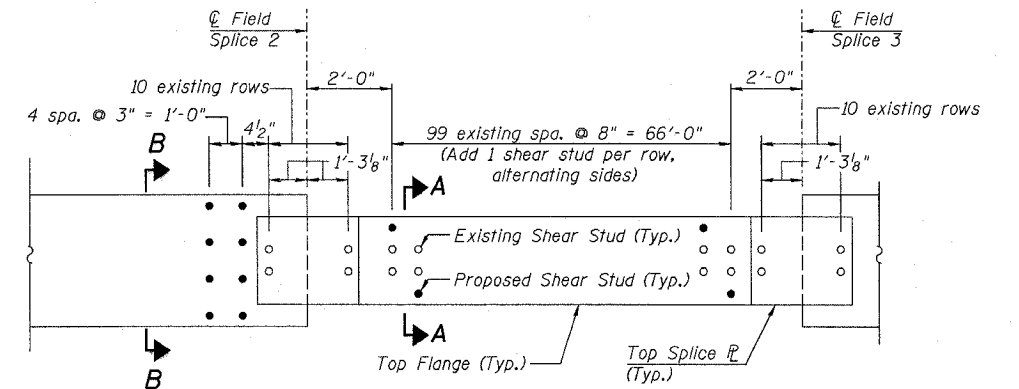
Contract # 66586



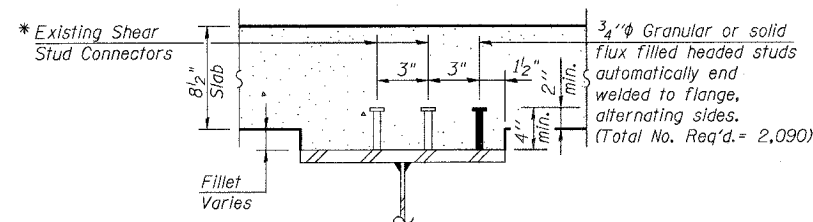
GIRDER ELEVATION



PARTIAL PLAN
(Span 32)

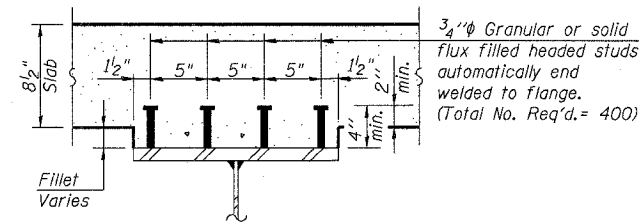


PARTIAL PLAN
(Span 33)



SECTION A-A

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.



SECTION B-B

SHEAR STUDS - SPANS 32 & 33
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

LIN ENGINEERING, LTD.
 210 W. Chestnut
 Chatham, Illinois 62629
 (217) 483-4168
 FAX (217) 483-4106

benesch
 alfred benesch & company
 Engineers • Surveyors • Planners
 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-665-0460
 Job # 3856

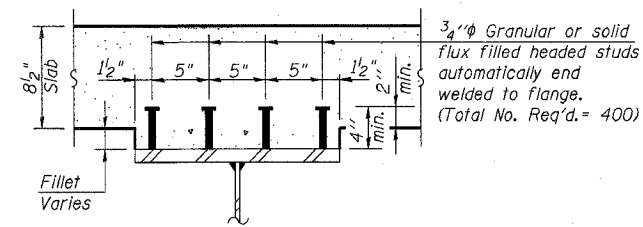
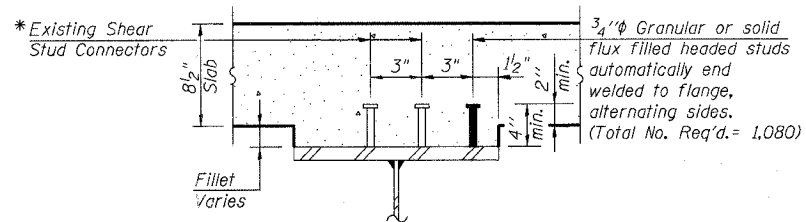
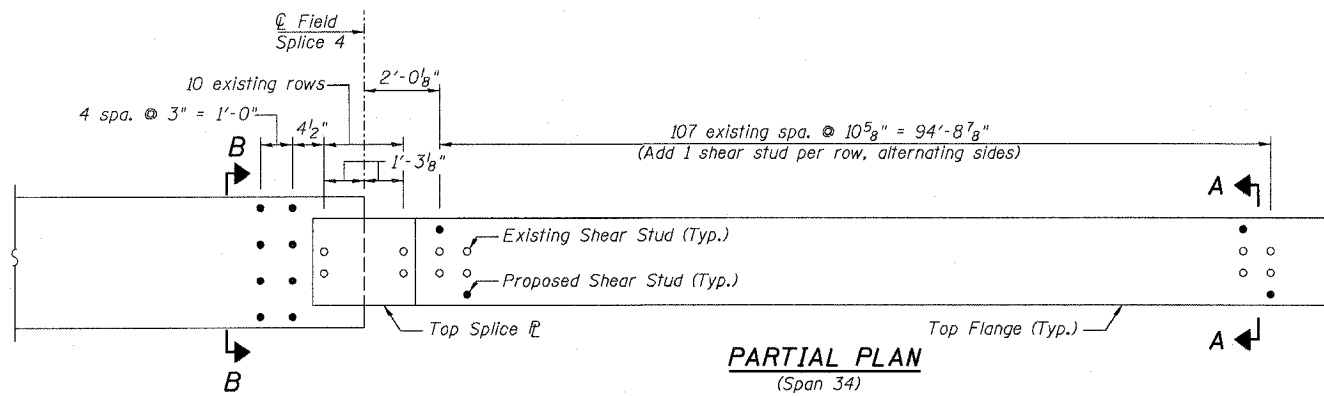
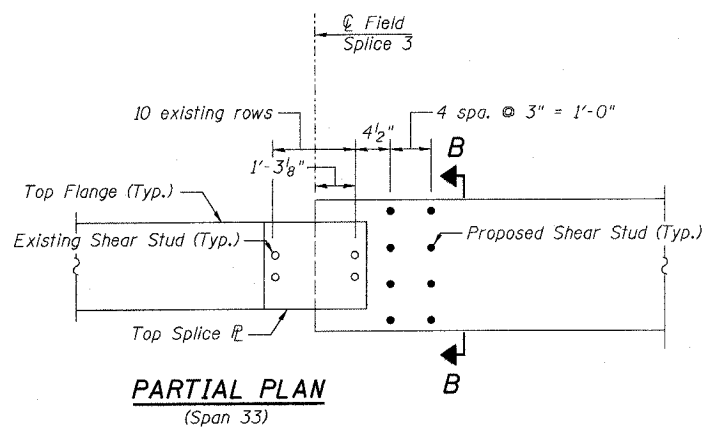
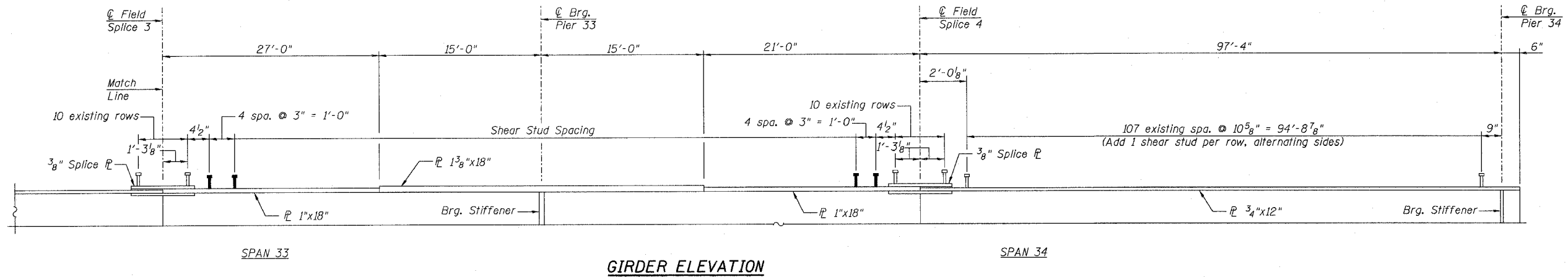
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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 193 313 SHEETS
F.A.I. 39	50-4B	LASALLE		26	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract # 66586		



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPANS 33 & 34
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

LIN ENGINEERING, LTD.
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 Chatham, Illinois 62629
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 FAX (217) 483-4706

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 Chicago, Illinois 60601
 312-585-0450
 Job # 3856

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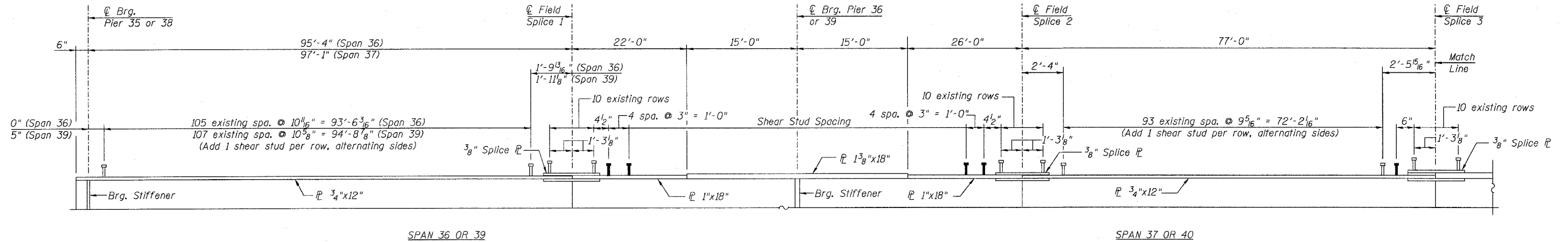
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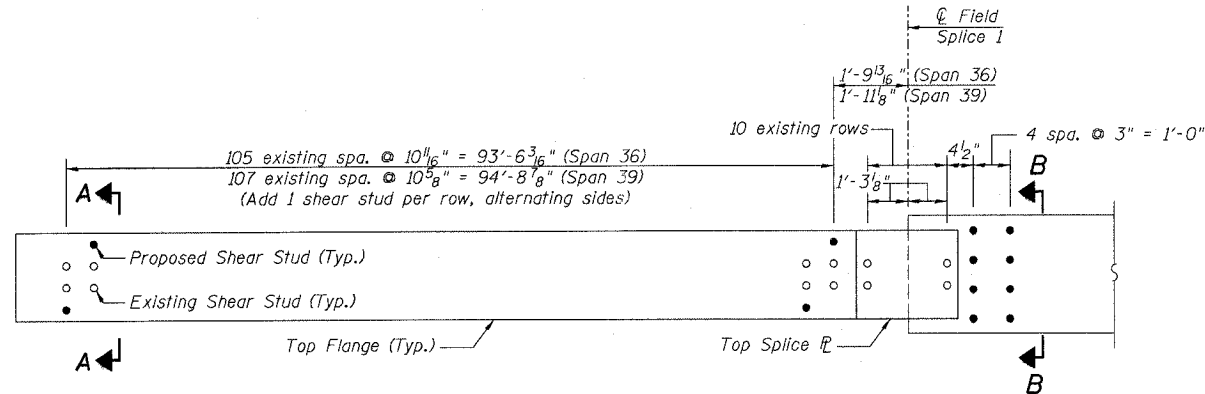
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		21	194
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			313 SHEETS

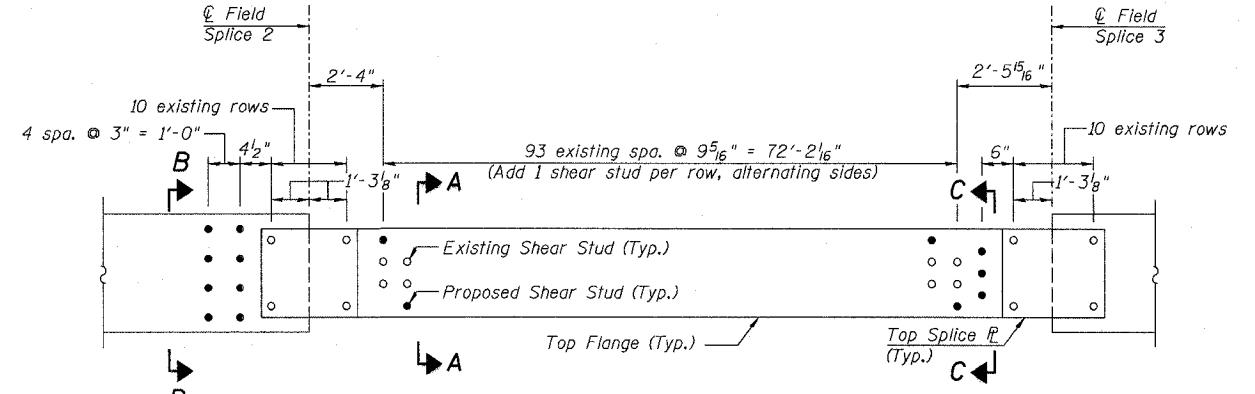
Contract # 66586



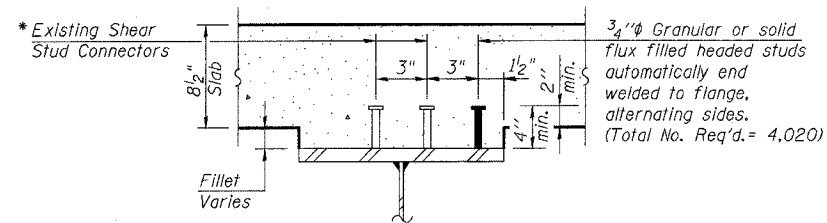
GIRDER ELEVATION



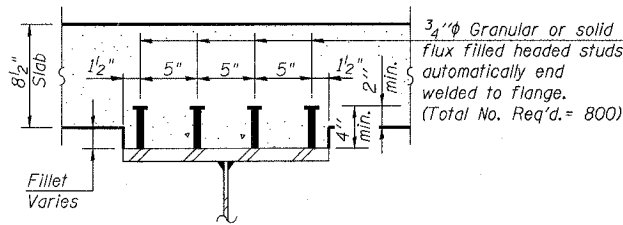
PARTIAL PLAN
(Span 36 or 39)



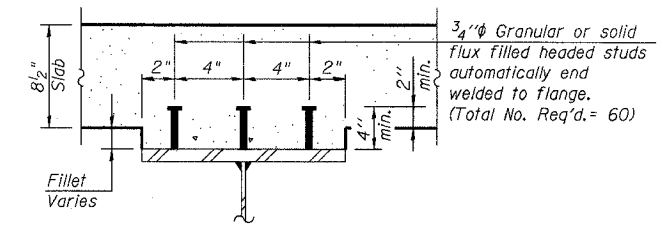
PARTIAL PLAN
(Span 37 or 40)



SECTION A-A



SECTION B-B



SECTION C-C

**SHEAR STUDS - SPANS 36 & 37
AND SPANS 39 & 40**
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

DESIGNED	KWS
CHECKED	MRB
DRAWN	JGY
CHECKED	MTH

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FAX (217) 483-4706

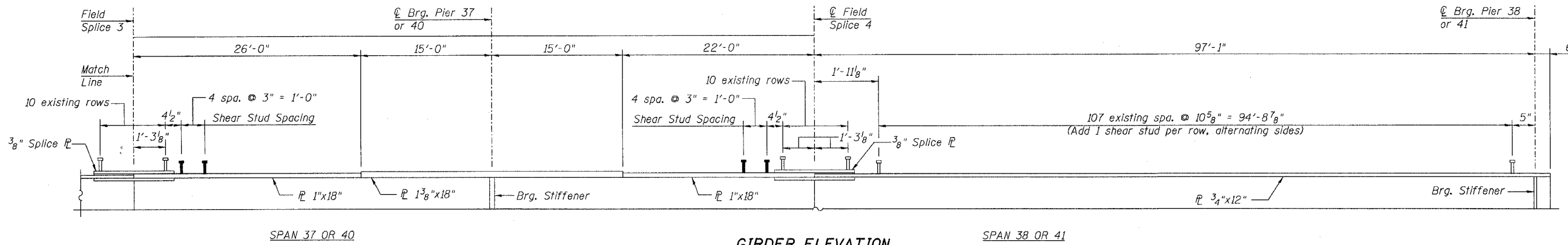
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Chicago, Illinois 60601
312-865-0450
Job # 3856

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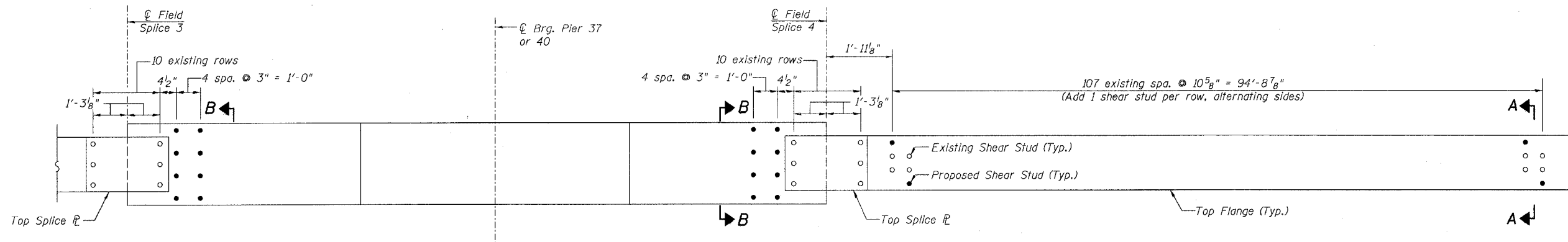
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 28	SHEET NO. 195
FED. ROAD DIST. NO. 7				ILLINOIS
FED. AID PROJECT				313 SHEETS

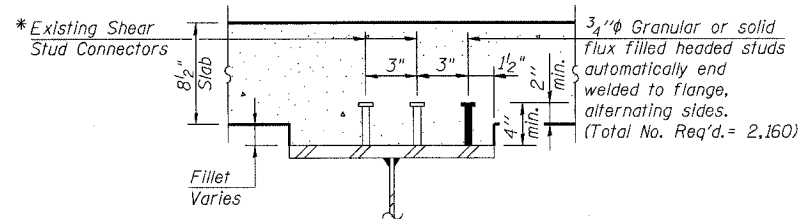
Contract # 66586



GIRDER ELEVATION

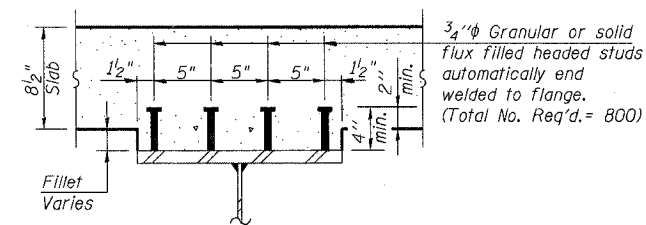


PLAN
(Spans 37 and 38 or 40 and 41)



SECTION A-A

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.



SECTION B-B

**SHEAR STUDS - SPANS 37 & 38
AND SPANS 40 & 41**
**ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)**
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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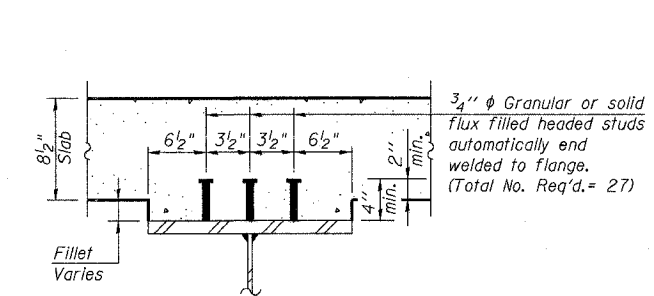
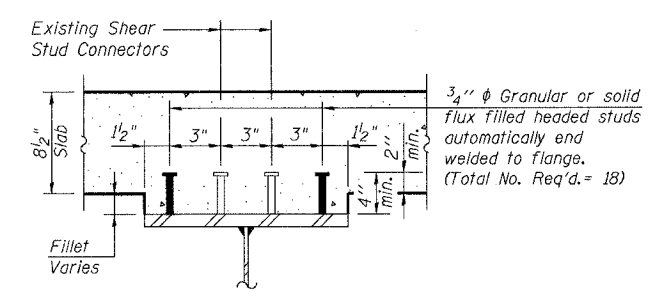
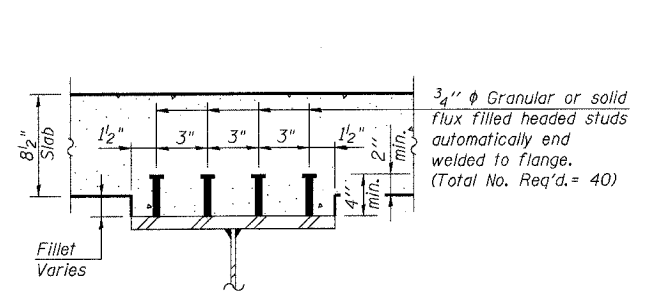
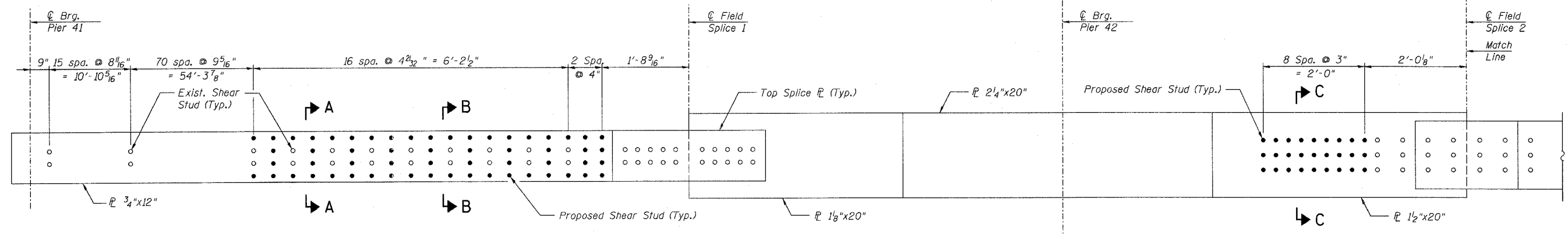
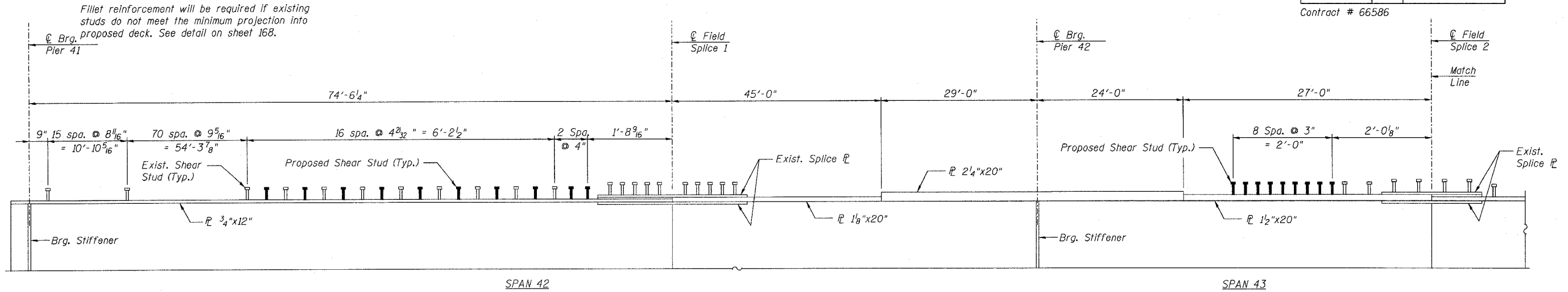
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Chicago, Illinois 60601
312-965-0450
Job # 3856

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	DATE	SHEET NO.
F.A.I. 39	50-4B	LASALLE	29		196
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		313 SHEETS

Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

DESIGNED	KWS
CHECKED	MRB
DRAWN	JGY
CHECKED	MTH

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Job # 3856

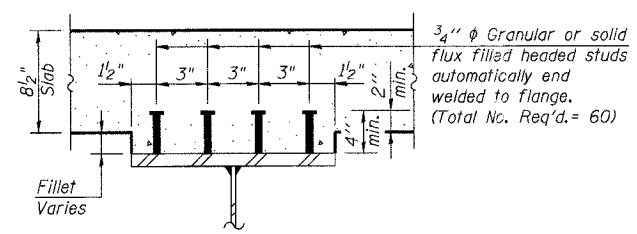
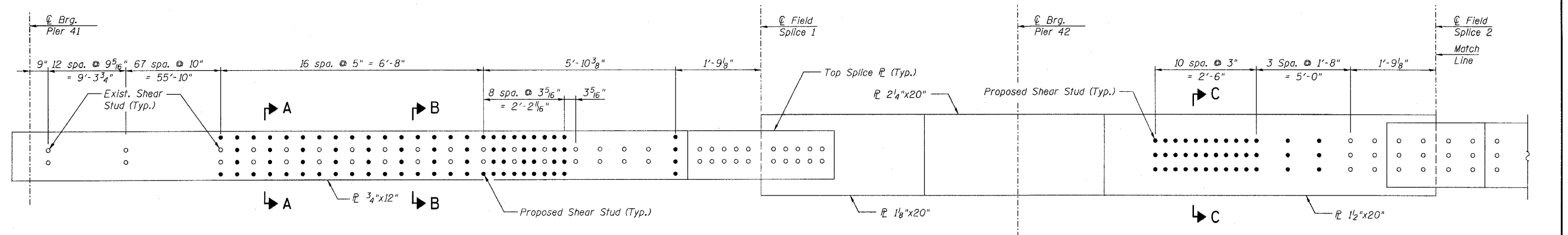
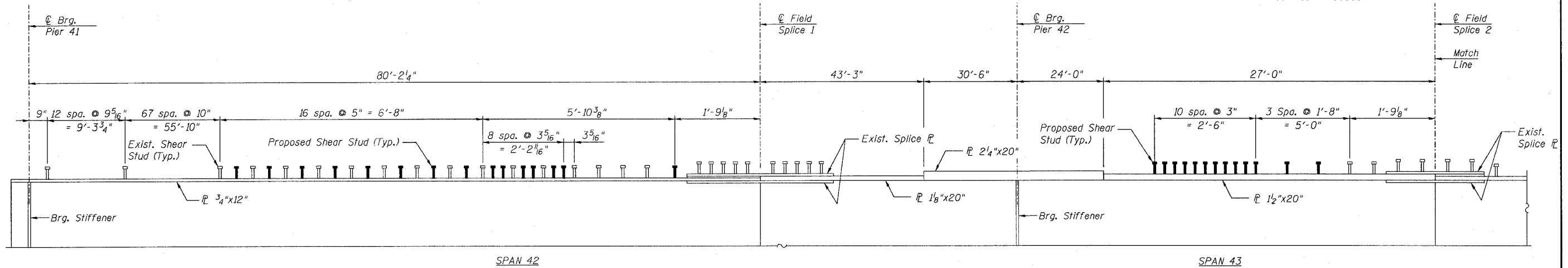
SHEAR STUDS - SPANS 42 & 43 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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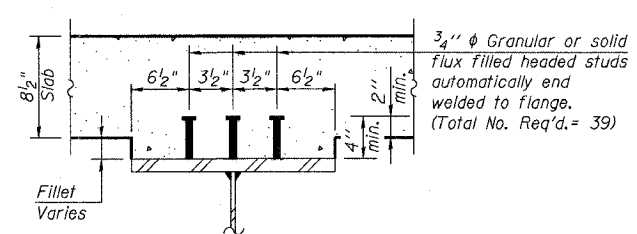
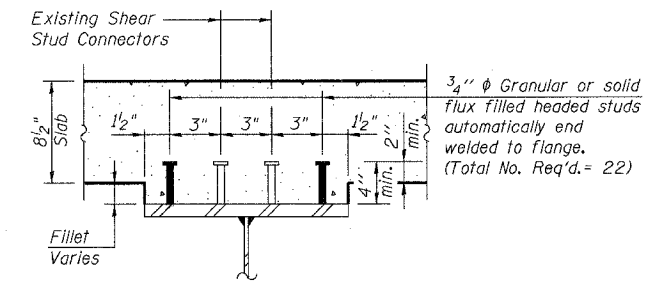
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 200	SHEET NO. 196
FED. ROAD DIST. NO. 7				ILLINOIS FED. AID PROJECT

313 SHEETS
Contract # 66586



*Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.



DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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Job # 3856

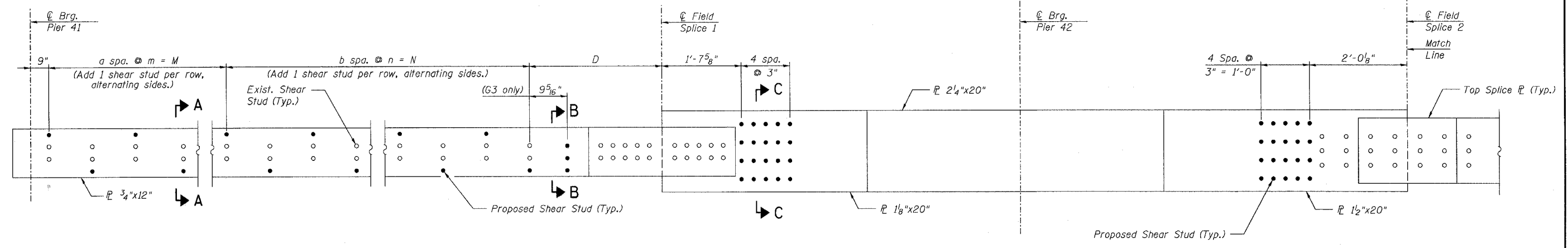
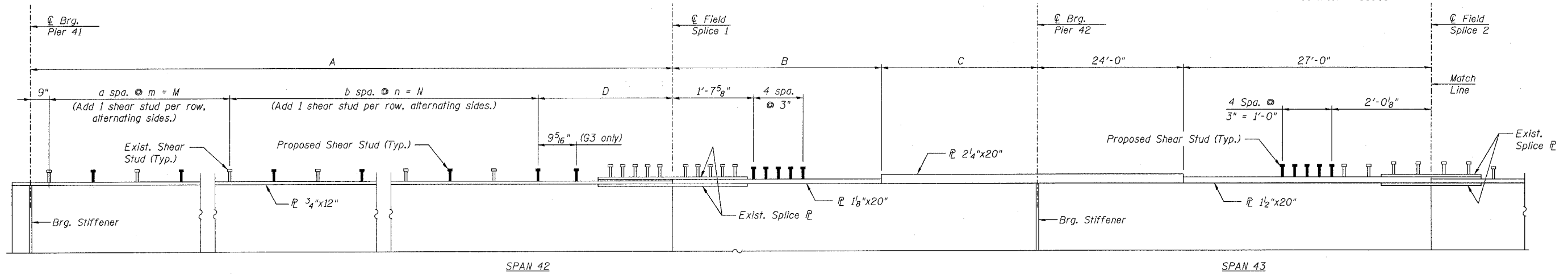
SHEAR STUDS - SPANS 42 & 43 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

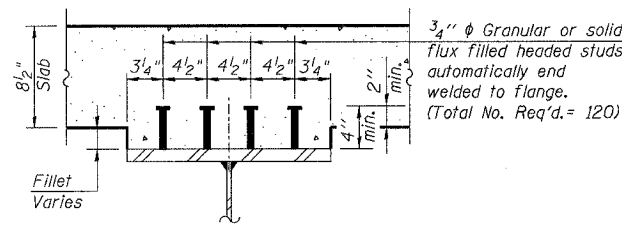
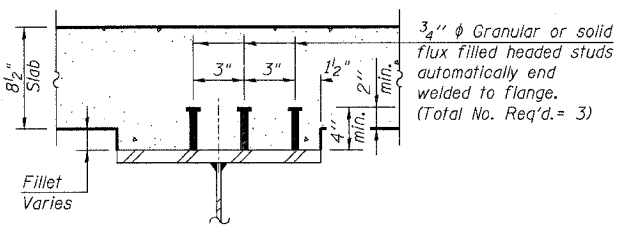
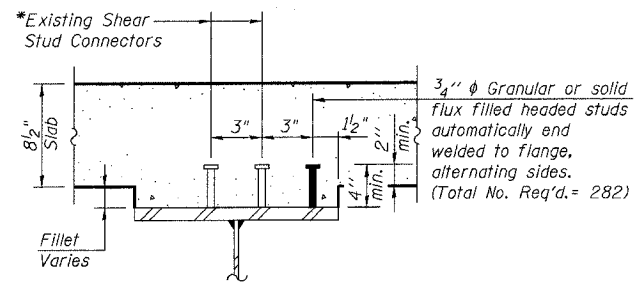
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FED. ROAD DIST. NO. 7		ILL. STATE		FED. AID PROJECT	

Contract # 66586



GIRDER VARIABLES

Girder	A	B	C	D	a	m	M	b	n	N
G3	86'-1 ³ / ₈ "	42'-3"	31'-0"	2'-6 ⁷ / ₁₆ "	93	10 ¹¹ / ₁₆ "	82'-9 ⁵ / ₁₆ "	—	—	—
G4	93'-0 ³ / ₈ "	40'-3"	31'-6"	2'-6 ³ / ₄ "	30	10 ¹¹ / ₁₆ "	26'-8 ⁵ / ₈ "	63	1'-0"	63'-0"
G5	99'-2 ³ / ₈ "	37'-8"	33'-4"	2'-5 ⁵ / ₁₆ "	33	10 ¹¹ / ₁₆ "	29'-4 ¹¹ / ₁₆ "	60	1'-1 ⁵ / ₁₆ "	66'-6 ³ / ₄ "



DESIGNED -	KWS
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DRAWN -	JGY
CHECKED -	MTH

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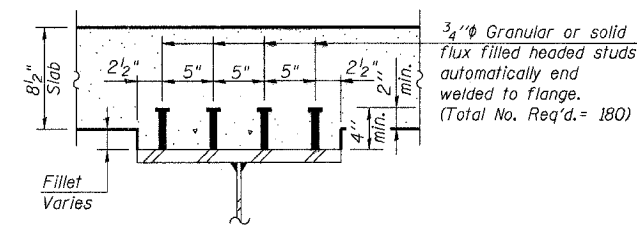
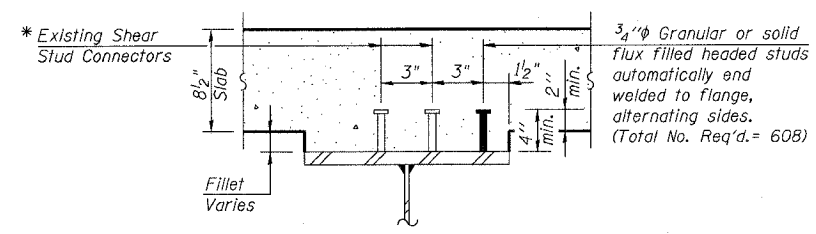
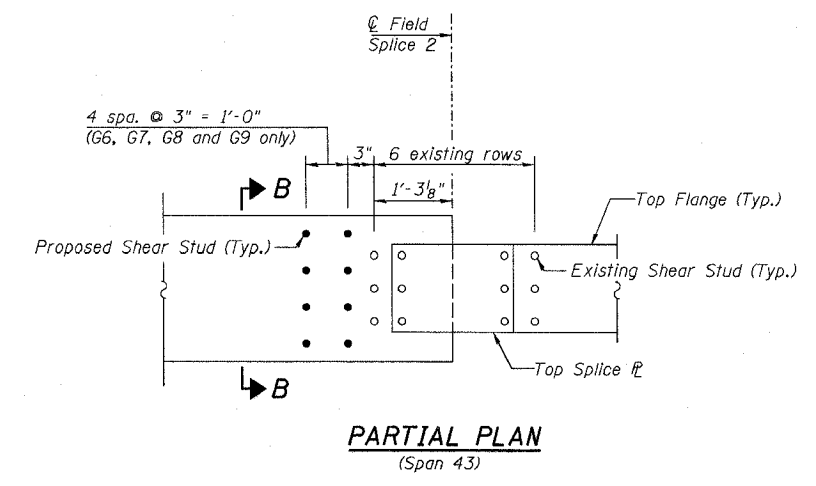
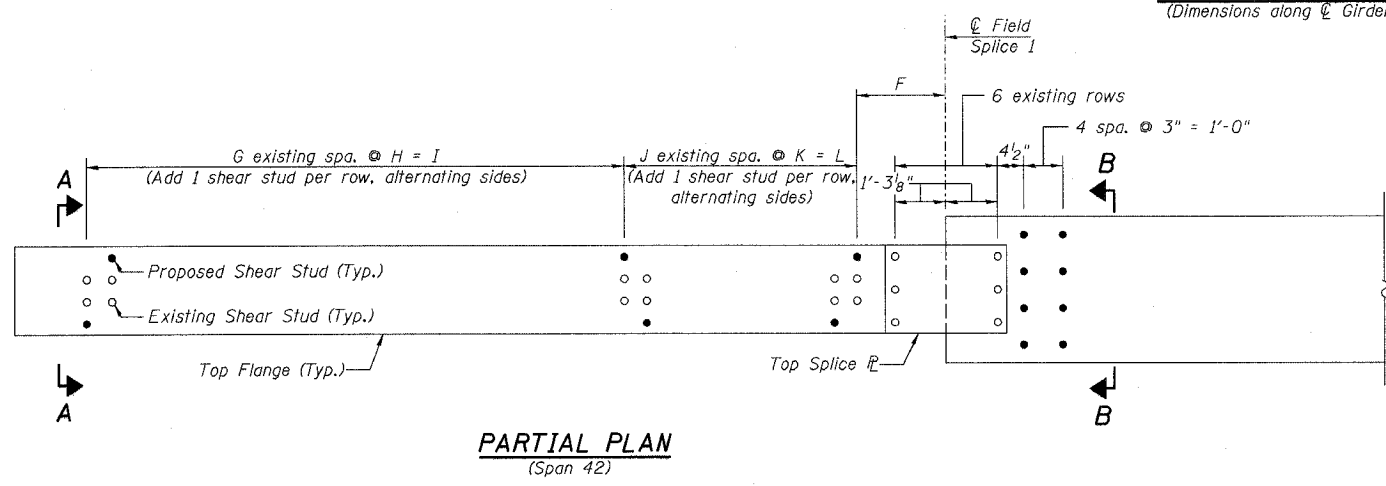
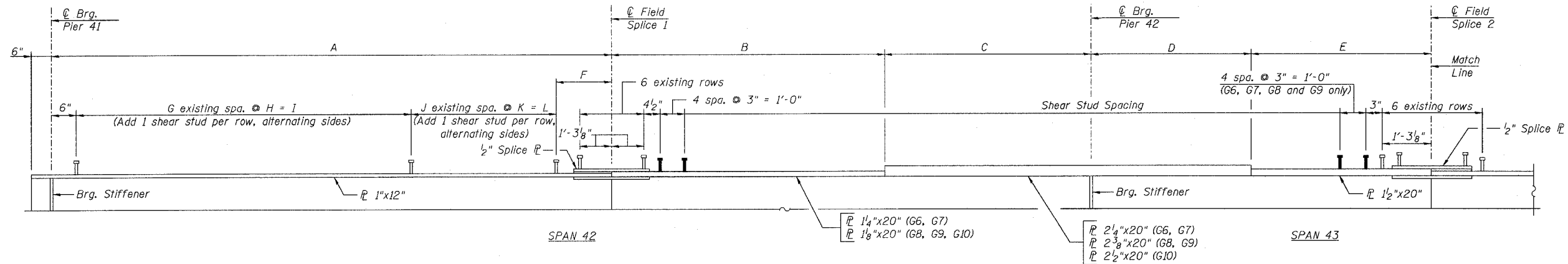
SHEAR STUDS - SPANS 42 & 43 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.I. 39	50-4B	LASALLE	227	197
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		313 SHEETS

Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

GIRDER VARIABLES

Girder	A	B	C	D	E	F	G	H	I	J	K	L
G6	104'-11 5/8"	32'-6"	36'-6"	25'-0"	28'-0"	2'-0 5/16"	95	10 5/8"	84'-1 3/8"	17	1'-0 5/16"	18'-3 5/16"
G7	110'-4 5/8"	32'-6"	36'-6"	25'-0"	29'-0"	1'-9 5/8"	92	10 5/8"	81'-5 1/2"	24	1'-1 5/16"	26'-7 1/2"
G8	115'-9 3/4"	27'-6"	41'-6"	26'-6"	29'-6"	1'-10 1/2"	90	10 1/16"	80'-1 7/8"	30	1'-1 5/16"	33'-3 3/8"
G9	121'-2 3/4"	28'-0"	41'-0"	27'-0"	29'-0"	1'-11 3/8"	96	10 1/16"	85'-6"	30	1'-1 5/16"	33'-3 3/8"
G10	124'-7 3/4"	27'-0"	44'-0"	29'-6"	24'-6"	2'-0 7/16"	96	10 1/16"	85'-6"	33	1'-1 5/16"	36'-7 5/16"

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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Job # 3856

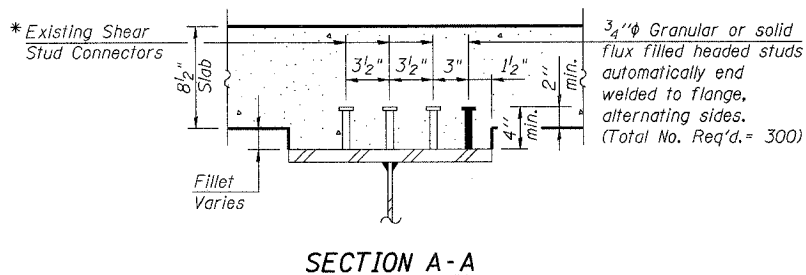
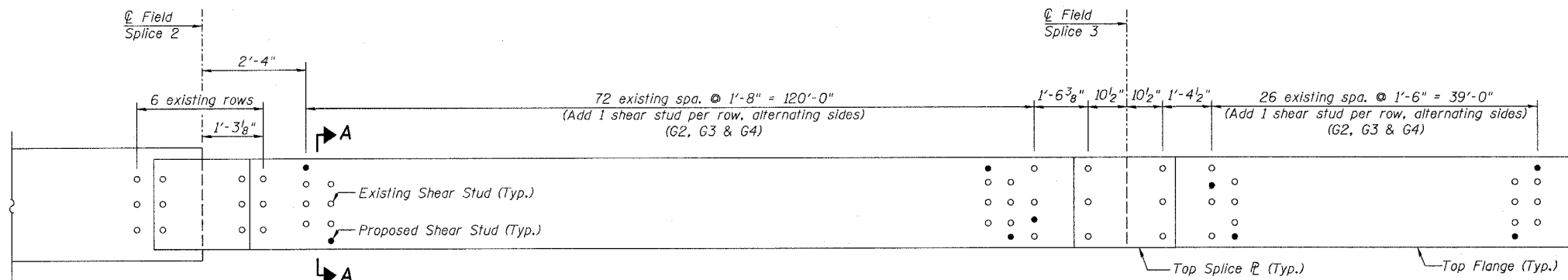
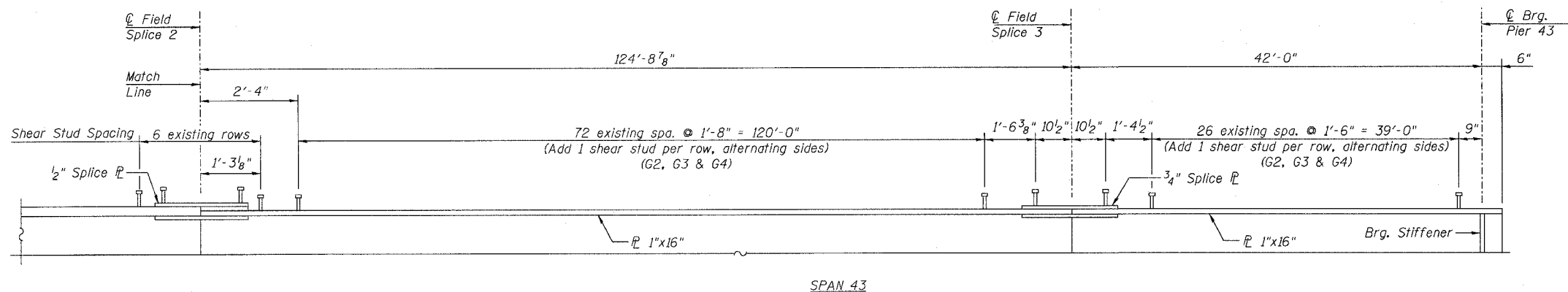
SHEAR STUDS - SPANS 42 & 43 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEETS 223	SHEET NO. 198
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract # 66586



* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

SHEAR STUDS - SPAN 43 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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FAX (217) 483-4706

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Chicago, Illinois 60601
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Job # 3856

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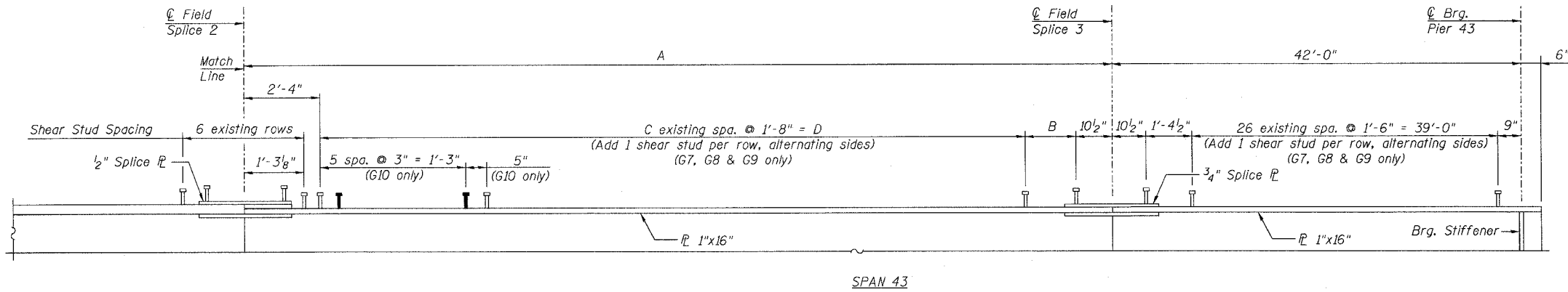
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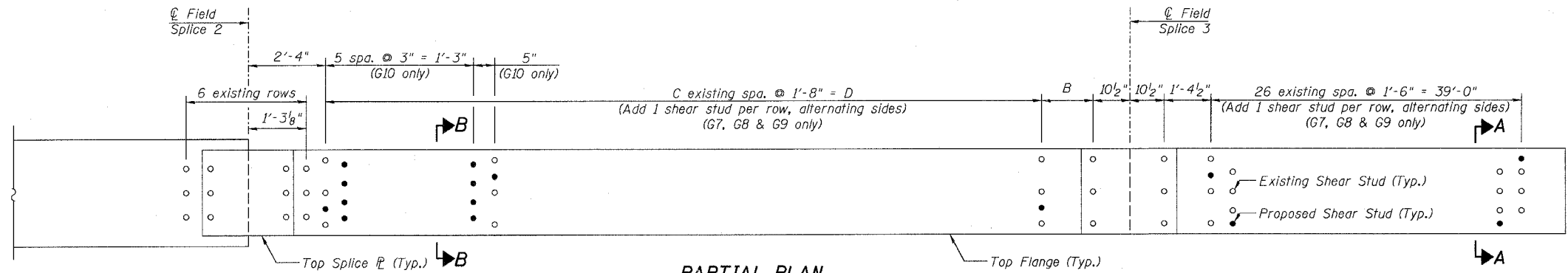
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 24	SHEET NO. 24
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

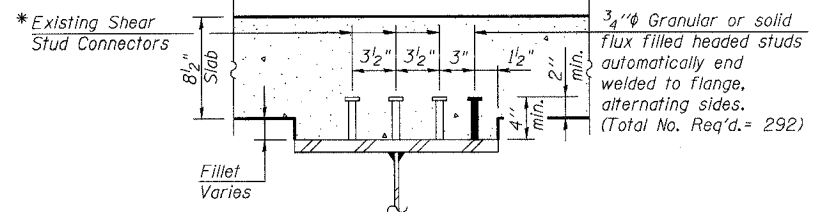
SHEET NO. 199
313 SHEETS
Contract # 66586



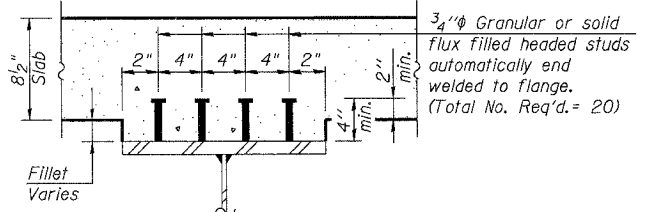
GIRDER ELEVATION
(Dimensions along G Girder)



PARTIAL PLAN
(Span 43)



SECTION A-A



SECTION B-B

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.

GIRDER VARIABLES

Girder	A	B	C	D
G6	122'-8 7/8"	1'-2 3/8"	71	118'-4"
G7	121'-8 7/8"	1'-10 3/8"	70	116'-8"
G8	119'-8 7/8"	1'-6 3/8"	69	115'-0"
G9	119'-8 7/8"	1'-6 3/8"	69	115'-0"
G10	121'-8 7/8"	1'-10 3/8"	69	115'-0"

DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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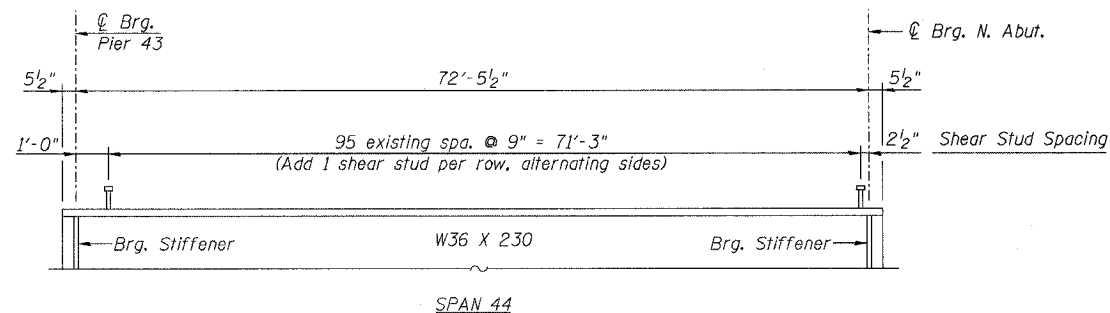
SHEAR STUDS - SPAN 43 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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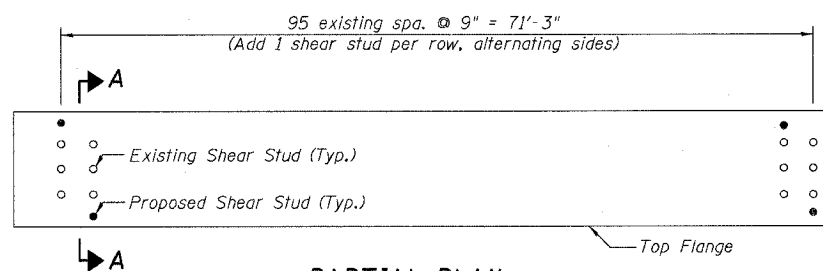
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 200
F.A.I. 39	50-4B	LASALLE		225	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

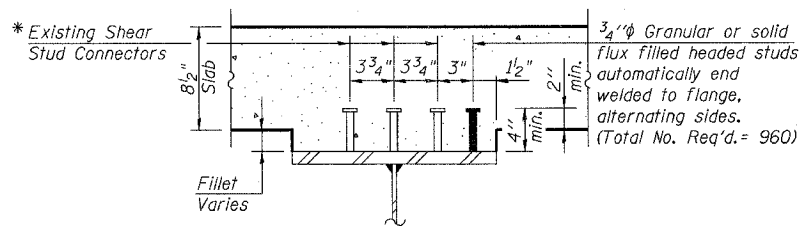
Contract # 66586



BEAM ELEVATION
(Dimensions along ϕ Beam)



PARTIAL PLAN
(Span 44)



SECTION A-A

* Fillet reinforcement will be required if existing studs do not meet the minimum projection into proposed deck. See detail on sheet 168.



DESIGNED -	KWS
CHECKED -	MRB
DRAWN -	JGY
CHECKED -	MTH

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Job # 3856

SHEAR STUDS - SPAN 44
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE	226	201
FED. ROAD DIST. NO. 7	ILL-0108	FED. AID PROJECT-		313 SHEETS

Contract # 66586

Properties		0.4 Span 1	Pier 1	0.6 Span 2
Is	(in4)	56421	154360	54428
Ic(n)	(in4)	153936	-----	146680
Ic(3n)	(in4)	109551	-----	105080
Ss	(in3)	1810	4009	1702
Sc(n)	(in3)	2569	-----	2423
Sc(3n)	(in3)	2337	-----	2203
Q	(k/ft)	1.273	1.895	1.266
M Q	(k-ft)	2084	6932	1764
S Q	(k/ft)	0.380	-----	0.380
Ms Q	(k-ft)	710	-----	621
M L	(k-ft)	1943	2230	1816
M (Imp)	(k-ft)	334	387	319
⁵ / ₃ (M L + M (Imp))	(k-ft)	3802	4369	3565
* Mu	(k-ft)	11498	-----	10496
Ma	(k-ft)	8575	14691	7735
fs Q (non-composite)	(ksi)	13.8	20.7	12.4
fs Q (composite)	(ksi)	3.6	-----	3.4
fs ⁵ / ₃ (M L + M (Imp))	(ksi)	17.8	13.1	17.7
fs (Overload)	(ksi)	35.2	33.8	33.5
** fs (Total)	(ksi)	-----	44.0	-----
VR	(k)	80.1	-----	78.0

Properties		0.4 Span 1	Pier 1	0.6 Span 2
Is	(in4)	54428	146973	54428
Ic(n)	(in4)	146680	-----	146680
Ic(3n)	(in4)	105080	-----	105080
Ss	(in3)	1702	3829	1702
Sc(n)	(in3)	2423	-----	2423
Sc(3n)	(in3)	2203	-----	2203
Q	(k/ft)	1.266	1.878	1.266
M Q	(k-ft)	1795	6437	1849
S Q	(k/ft)	0.380	-----	0.380
Ms Q	(k-ft)	624	-----	639
M L	(k-ft)	1779	2090	1797
M (Imp)	(k-ft)	315	369	317
⁵ / ₃ (M L + M (Imp))	(k-ft)	3496	4106	3530
* Mu	(k-ft)	10465	-----	10976
Ma	(k-ft)	7689	13705	7824
fs Q (non-composite)	(ksi)	12.7	20.2	13.0
fs Q (composite)	(ksi)	3.4	-----	3.5
fs ⁵ / ₃ (M L + M (Imp))	(ksi)	17.3	12.9	17.5
fs (Overload)	(ksi)	33.4	33.0	34.0
** fs (Total)	(ksi)	-----	42.9	-----
VR	(k)	78.0	-----	77.7

Properties		S. Abut.	Pier 1	Pier 2
R Q	(k)	96.4	371.3	89.6
R L	(k)	61.1	131.2	60.0
Imp.	(k)	10.5	14.5	10.5
R (Total)	(k)	168.1	517.1	160.1

Properties		S. Abut.	Pier 1	Pier 2
R Q	(k)	89.9	357.3	91.1
R L	(k)	59.9	127.8	59.9
Imp.	(k)	10.6	14.5	10.6
R (Total)	(k)	160.4	499.6	161.6

Properties		Pier 2	Pier 3	Pier 4	Pier 5	Pier 6
R Q	(k)	84.8	301.9	264.4	301.9	84.8
R L	(k)	59.6	122.0	120.5	122.0	59.6
Imp.	(k)	11.0	14.0	13.2	14.0	11.0
R (Total)	(k)	155.4	437.9	398.1	437.9	155.4

Properties		0.4 Span 3	Pier 3	0.5 Span 4	Pier 4	0.5 Span 5	Pier 5	0.6 Span 6
Is	(in4)	49364	114144	51766	88492	51766	114144	49364
Ic(n)	(in4)	137343	-----	146421	-----	146421	-----	137343
Ic(3n)	(in4)	98466	-----	104056	-----	104056	-----	98466
Ss	(in3)	1532	3004	1669	2360	1669	3004	1532
Sc(n)	(in3)	2238	-----	2424	-----	2424	-----	2238
Sc(3n)	(in3)	2029	-----	2200	-----	2200	-----	2029
Q	(k/ft)	1.245	1.793	1.254	1.732	1.254	1.793	1.245
M Q	(k-ft)	1652	4751	1076	3641	1076	4751	1652
S Q	(k/ft)	0.380	-----	0.380	-----	0.380	-----	0.380
Ms Q	(k-ft)	568	-----	426	-----	426	-----	568
M L	(k-ft)	1626	1849	1653	1716	1653	1849	1626
M (Imp)	(k-ft)	301	330	284	295	284	330	301
⁵ / ₃ (M L + M (Imp))	(k-ft)	3218	3638	3235	3358	3235	3638	3218
* Mu	(k-ft)	9834	-----	9677	-----	9677	-----	9834
Ma	(k-ft)	7070	10906	6158	9099	6158	10906	7070
fs Q (non-composite)	(ksi)	12.9	19.0	7.7	18.5	7.7	19.0	12.9
fs Q (composite)	(ksi)	3.4	-----	2.3	-----	2.3	-----	3.4
fs ⁵ / ₃ (M L + M (Imp))	(ksi)	17.3	14.5	16.0	17.1	16.0	14.5	17.3
fs (Overload)	(ksi)	33.6	33.5	26.1	35.6	26.1	33.5	33.6
** fs (Total)	(ksi)	-----	43.6	-----	46.3	-----	43.6	-----
VR	(k)	77.9	-----	70.2	-----	70.2	-----	77.9

NOTES:

- Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
- Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.
- Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.
- VR is the maximum live load + impact shear range within the composite portion of the span.
- Ma (Applied Moment) = 1.3EM Q + Ms Q + ⁵/₃(M L + M (Imp)).
- The plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
- fs (Overload) is the sum of the stresses due to M Q + Ms Q + ⁵/₃(M L + M (Imp)).
- fs (Total) is the sum of the stresses due to 1.3EM Q + Ms Q + ⁵/₃(M L + M (Imp)).
- M Q - Moment due to dead loads on non-composite section.
- Ms Q - Moment due to dead loads on composite section.
- M L - Moment due to live load on non-composite or composite section.
- M (Imp) - Moment due to live load impact on non-composite or composite section.

- * Compact, Braced section.
- ** Non-Compact section.

STEEL PLATE GIRDER TABLES - 1 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

benesch

alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
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312-665-0450
Job # 3856

DESIGNED -	AJK
CHECKED -	KWS
DRAWN -	VH
CHECKED -	MRB

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE		221
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 202
313 SHEETS

Contract # 66586

SPANS 7-10 - INTERIOR GIRDER MOMENT TABLE

Properties	0.4 Span 7	Pier 7	0.5 Span 8	Pier 8	0.5 Span 9	Pier 9	0.6 Span 10
I_s	(in ⁴) 49364	114144	51766	88492	49789	107667	49364
$I_c(n)$	(in ⁴) 137343	-----	146421	-----	139045	-----	137343
$I_c(3n)$	(in ⁴) 98466	-----	104056	-----	99500	-----	98466
S_s	(in ³) 1532	3004	1669	2360	1562	2842	1532
$S_c(n)$	(in ³) 2238	-----	2424	-----	2278	-----	2238
$S_c(3n)$	(in ³) 2029	-----	2200	-----	2066	-----	2029
D	(k/ft) 1.245	1.793	1.254	1.732	1.247	1.778	1.245
$M D$	(k-ft) 1650	4740	1072	3632	1053	4638	1650
$S D$	(k-ft) 0.380	-----	0.380	-----	0.380	-----	0.380
$M_s D$	(k-ft) 568	-----	424	-----	421	-----	565
$M L$	(k-ft) 1626	1841	1645	1718	1620	1811	1624
$M (Imp)$	(k-ft) 301	328	283	296	279	324	302
$^5_3(M L + M (Imp))$	(k-ft) 3218	3622	3220	3363	3173	3565	3215
M_u	(k-ft) 9850	-----	9677	-----	9216	-----	9659
M_a	(k-ft) 7066	10872	6131	9094	6041	10664	7058
$f_s D$ (non-composite)	(ksi) 12.9	18.9	7.7	18.5	8.1	19.6	12.9
$f_s D$ (composite)	(ksi) 3.4	-----	2.3	-----	2.4	-----	3.3
$f_s ^5_3(M L + M (Imp))$	(ksi) 17.3	14.5	15.9	17.1	16.7	15.1	17.2
f_s (Overload)	(ksi) 33.5	33.4	26.0	35.6	27.3	34.6	33.5
f_s (Total)	(ksi) -----	43.4	-----	46.2	-----	45.0	-----
VR	(k) 78.0	-----	71.0	-----	70.7	-----	77.9

SPANS 7-10 - INTERIOR GIRDER REACTION TABLE

Properties	Pier 6	Pier 7	Pier 8	Pier 9	Pier 10
$R D$	(k) 84.8	301.6	263.6	298.2	84.8
$R L$	(k) 59.6	121.8	120.2	121.2	59.6
Imp.	(k) 11.0	14.0	13.2	14.0	11.1
R (Total)	(k) 155.4	437.4	397.1	433.3	155.5

NOTES:

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).

$I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

$I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.

M_a (Applied Moment) = $1.3[M D + M_s D + ^5_3(M L + M (Imp))]$.

The plastic moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.

f_s (Overload) is the sum of the stresses due to $M D + M_s D + ^5_3(M L + M (Imp))$.

f_s (Total) is the sum of the stresses due to $1.3[M D + M_s D + ^5_3(M L + M (Imp))]$.

$M D$ - Moment due to dead loads on non-composite section.

$M_s D$ - Moment due to dead loads on composite section.

$M L$ - Moment due to live load on non-composite or composite section.

$M (Imp)$ - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.

** Non-Compact section.

SPANS 11-14, 18-21 & 22-25 - INTERIOR GIRDER MOMENT TABLE

Properties	0.4 Span 11 0.4 Span 18 0.4 Span 22	Pier 11 Pier 18 Pier 22	0.5 Span 12 0.5 Span 19 0.5 Span 23	Pier 12 Pier 19 Pier 23	0.5 Span 13 0.5 Span 20 0.5 Span 24	Pier 13 Pier 20 Pier 24	0.6 Span 14 0.6 Span 21 0.6 Span 25
I_s	(in ⁴) 49364	107667	49789	82185	49789	107667	49364
$I_c(n)$	(in ⁴) 137343	-----	139045	-----	139045	-----	137343
$I_c(3n)$	(in ⁴) 98466	-----	99500	-----	99500	-----	98466
S_s	(in ³) 1532	2842	1562	2199	1562	2842	1532
$S_c(n)$	(in ³) 2238	-----	2278	-----	2278	-----	2238
$S_c(3n)$	(in ³) 2029	-----	2066	-----	2066	-----	2029
D	(k/ft) 1.245	1.778	1.247	1.716	1.247	1.778	1.245
$M D$	(k-ft) 1636	4680	1102	3442	1102	4680	1636
$S D$	(k-ft) 0.380	-----	0.380	-----	0.380	-----	0.380
$M_s D$	(k-ft) 562	-----	439	-----	439	-----	562
$M L$	(k-ft) 1616	1804	1658	1603	1658	1804	1616
$M (Imp)$	(k-ft) 300	323	286	276	286	323	300
$^5_3(M L + M (Imp))$	(k-ft) 3201	3552	3247	3138	3247	3552	3201
M_u	(k-ft) 9619	-----	8977	-----	8977	-----	9619
M_a	(k-ft) 7019	10700	6224	8554	6224	10700	7019
$f_s D$ (non-composite)	(ksi) 12.8	19.8	8.5	18.8	8.5	19.8	12.8
$f_s D$ (composite)	(ksi) 3.3	-----	2.6	-----	2.6	-----	3.3
$f_s ^5_3(M L + M (Imp))$	(ksi) 17.2	15.0	17.1	17.1	17.1	15.0	17.2
f_s (Overload)	(ksi) 33.3	34.8	28.1	35.9	28.1	34.8	33.3
f_s (Total)	(ksi) -----	45.2	-----	46.7	-----	45.2	-----
VR	(k) 77.8	-----	70.2	-----	70.2	-----	77.8

SPANS 11-14, 18-21 & 22-25 - INTERIOR GIRDER REACTION TABLE

Properties	Pier 10 Pier 17 Pier 21	Pier 11 Pier 18 Pier 22	Pier 12 Pier 19 Pier 23	Pier 13 Pier 20 Pier 24	Pier 14 Pier 21 Pier 25
$R D$	(k) 84.6	299.8	258.4	299.8	84.6
$R L$	(k) 59.6	121.2	119.1	121.2	59.6
Imp.	(k) 11.1	14.0	13.1	14.0	11.1
R (Total)	(k) 155.2	435.0	390.6	435.0	155.2

STEEL PLATE GIRDER TABLES - 2 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)

F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00

STRUCTURE NO. 050-0191 (SB & NB)

benesch

alfred benesch & company
Engineers - Surveyors - Planners
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Chicago, Illinois 60601
312-565-0450
Job # 3856

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DESIGNED -	AJK
CHECKED -	KWS
DRAWN -	VH
CHECKED -	MRB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPANS 15-17, SOUTHBOUND - INTERIOR GIRDER MOMENT TABLE

Properties	0.4 Span 15	Pier 15	0.5 Span 16	Pier 16	0.6 Span 17
Is	(in4) 56421	139634	45542	69213	39369
Ic(n)	(in4) 153936	-----	123925	-----	103931
Ic(3n)	(in4) 109551	-----	89950	-----	76796
Ss	(in3) 1810	3651	1344	1858	1071
Sc(n)	(in3) 2569	-----	1983	-----	1616
Sc(3n)	(in3) 2337	-----	1794	-----	1455
Q	(k/ft) 1.270	1.858	1.234	1.680	1.217
M Q	(k-ft) 2269	5878	838	2964	1049
S Q	(k/ft) 0.380	-----	0.380	-----	0.380
Ms Q	(k-ft) 750	-----	374	-----	357
M L	(k-ft) 1955	2119	1530	1373	1289
M (Imp)	(k-ft) 338	366	264	258	267
⁵ / ₃ (M L + M (Imp))	(k-ft) 3830	4149	2995	2724	2600
* Mu	(k-ft) 11428	-----	7291	-----	6855
Ma	(k-ft) 8904	13035	5469	7394	5208
fs Q (non-composite)	(ksi) 15.0	19.3	7.5	19.1	11.8
fs Q (composite)	(ksi) 3.8	-----	2.5	-----	2.9
fs ⁵ / ₃ (M L + M (Imp))	(ksi) 17.9	13.6	18.1	17.6	19.3
fs (Overload)	(ksi) 36.8	33.0	28.1	36.7	34.0
** fs (Total)	(ksi) -----	42.8	-----	47.8	-----
VR	(k) 80.0	-----	69.2	-----	79.0

SPANS 15-17, NORTHBOUND - INTERIOR GIRDER MOMENT TABLE

Properties	0.4 Span 15	Pier 15	0.5 Span 16	Pier 16	0.6 Span 17
Is	(in4) 39369	69213	45542	139634	56421
Ic(n)	(in4) 103931	-----	123925	-----	153936
Ic(3n)	(in4) 76796	-----	89950	-----	109551
Ss	(in3) 1071	1858	1344	3651	1810
Sc(n)	(in3) 1616	-----	1983	-----	2569
Sc(3n)	(in3) 1455	-----	1794	-----	2337
Q	(k/ft) 1.217	1.680	1.234	1.858	1.270
M Q	(k-ft) 1049	2964	838	5878	2269
S Q	(k/ft) 0.380	-----	0.380	-----	0.380
Ms Q	(k-ft) 357	-----	374	-----	750
M L	(k-ft) 1289	1373	1530	2119	1955
M (Imp)	(k-ft) 267	258	264	366	338
⁵ / ₃ (M L + M (Imp))	(k-ft) 2600	2724	2995	4149	3830
* Mu	(k-ft) 6855	-----	7291	-----	11428
Ma	(k-ft) 5208	7394	5469	13035	8904
fs Q (non-composite)	(ksi) 11.8	19.1	7.5	19.3	15.0
fs Q (composite)	(ksi) 2.9	-----	2.5	-----	3.8
fs ⁵ / ₃ (M L + M (Imp))	(ksi) 19.3	17.6	18.1	13.6	17.9
fs (Overload)	(ksi) 34.0	36.7	28.1	33.0	36.8
** fs (Total)	(ksi) -----	47.8	-----	42.8	-----
VR	(k) 79.0	-----	69.2	-----	80.0

SPANS 15-17, SOUTHBOUND - INTERIOR GIRDER REACTION TABLE

Properties	Pier 14	Pier 15	Pier 16	Pier 17
R Q	(k) 99.5	336.7	238.7	67.4
R L	(k) 61.4	127.7	108.8	58.6
Imp.	(k) 10.6	14.1	13.4	12.1
R (Total)	(k) 171.5	478.5	360.9	138.1

SPANS 15-17, NORTHBOUND - INTERIOR GIRDER REACTION TABLE

Properties	Pier 14	Pier 15	Pier 16	Pier 17
R Q	(k) 67.4	238.7	336.7	99.5
R L	(k) 58.6	108.8	127.7	61.4
Imp.	(k) 12.1	13.4	14.1	10.6
R (Total)	(k) 138.1	360.9	478.5	171.5

NOTES:

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.

Ma (Applied Moment) = 1.3[M Q + Ms Q + ⁵/₃(M L + M (Imp))].

The plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M Q + Ms Q + ⁵/₃(M L + M (Imp)).

fs (Total) is the sum of the stresses due to 1.3[M Q + Ms Q + ⁵/₃(M L + M (Imp))].

M Q - Moment due to dead loads on non-composite section.

Ms Q - Moment due to dead loads on composite section.

M L - Moment due to live load on non-composite or composite section.

M (Imp) - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.

** Non-Compact section.

DESIGNED -	AJK
CHECKED -	KWS
DRAWN -	VH
CHECKED -	MRB

STEEL PLATE GIRDER TABLES - 3 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
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312-665-0460
Job # 3856

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPANS 26-28 & 29-31 - INTERIOR GIRDER MOMENT TABLE

Properties	0.4 Span 26 0.4 Span 29	Pier 26 Pier 29	0.5 Span 27 0.5 Span 30	Pier 27 Pier 30	0.6 Span 28 0.6 Span 31
Is	(in4) 47501	82185	47501	82185	47501
Ic(n)	(in4) 130695	-----	130695	-----	130695
Ic(3n)	(in4) 94277	-----	94277	-----	94277
Ss	(in3) 1438	2199	1438	2199	1438
Sc(n)	(in3) 2111	-----	2111	-----	2111
Sc(3n)	(in3) 1912	-----	1912	-----	1912
Q	(k/ft) 1.240	1.716	1.240	1.716	1.240
M Q	(k-ft) 1655	3904	930	3904	1655
S Q	(k/ft) 0.380	-----	0.380	-----	0.380
Ms Q	(k-ft) 556	-----	399	-----	556
M L	(k-ft) 1582	1547	1528	1547	1582
M (Imp)	(k-ft) 300	282	268	282	300
5 ₃ (M L + M (Imp))	(k-ft) 3142	3053	2998	3053	3142
* Mu	(k-ft) 8557	-----	7813	-----	8557
Ma	(k-ft) 6960	9044	5626	9044	6960
fs Q (non-composite)	(ksi) 13.8	21.3	7.8	21.3	13.8
fs Q (composite)	(ksi) 3.5	-----	2.5	-----	3.5
fs 5 ₃ (M L + M (Imp))	(ksi) 17.9	16.7	17.0	16.7	17.9
fs (Overload)	(ksi) 35.2	38.0	27.3	38.0	35.2
** fs (Total)	(ksi) -----	49.4	-----	49.4	-----
VR	(k) 78.1	-----	67.4	-----	78.1

SPANS 32-34 - INTERIOR GIRDER MOMENT TABLE

Properties	0.4 Span 32	Pier 32	0.5 Span 33	Pier 33	0.6 Span 34
Is	(in4) 47501	82185	45542	82185	47501
Ic(n)	(in4) 130695	-----	123925	-----	130695
Ic(3n)	(in4) 94277	-----	89950	-----	94277
Ss	(in3) 1438	2199	1344	2199	1438
Sc(n)	(in3) 2111	-----	1983	-----	2111
Sc(3n)	(in3) 1912	-----	1794	-----	1912
Q	(k/ft) 1.240	1.716	1.234	1.716	1.240
M Q	(k-ft) 1577	3633	859	3560	1530
S Q	(k/ft) 0.380	-----	0.380	-----	0.380
Ms Q	(k-ft) 527	-----	372	-----	512
M L	(k-ft) 1540	1448	1446	1435	1517
M (Imp)	(k-ft) 296	269	259	267	294
5 ₃ (M L + M (Imp))	(k-ft) 3066	2866	2848	2842	3024
* Mu	(k-ft) 8750	-----	7838	-----	8804
Ma	(k-ft) 6722	8449	5303	8323	6586
fs Q (non-composite)	(ksi) 13.2	19.8	7.7	19.4	12.8
fs Q (composite)	(ksi) 3.3	-----	2.5	-----	3.2
fs 5 ₃ (M L + M (Imp))	(ksi) 17.4	15.6	17.2	15.5	17.2
fs (Overload)	(ksi) 33.9	35.5	27.4	34.9	33.2
** fs (Total)	(ksi) -----	46.1	-----	45.4	-----
VR	(k) 78.3	-----	67.4	-----	77.9

SPANS 26-28 & 29-31 - INTERIOR GIRDER REACTION TABLE

Properties	Pier 25 Pier 28	Pier 26 Pier 29	Pier 27 Pier 30	Pier 28 Pier 31
R Q	(k) 84.5	275.4	275.4	84.5
R L	(k) 59.5	115.1	115.1	59.5
Imp.	(k) 11.3	13.6	13.6	11.3
R (Total)	(k) 155.3	404.1	404.1	155.3

SPANS 32-34 - INTERIOR GIRDER REACTION TABLE

Properties	Pier 31	Pier 32	Pier 33	Pier 34
R Q	(k) 82.4	265.8	263.3	81.2
R L	(k) 59.4	111.8	111.3	59.3
Imp.	(k) 11.4	13.5	13.5	11.5
R (Total)	(k) 153.2	391.1	388.0	152.0

NOTES:

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.

Ma (Applied Moment) = 1.3[M Q + Ms Q + 5₃(M L + M (Imp))].

The plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M Q + Ms Q + 5₃(M L + M (Imp)).

fs (Total) is the sum of the stresses due to 1.3[M Q + Ms Q + 5₃(M L + M (Imp))].

M Q - Moment due to dead loads on non-composite section.

Ms Q - Moment due to dead loads on composite section.

M L - Moment due to live load on non-composite or composite section.

M (Imp) - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.

** Non-Compact section.

DESIGNED -	AJK
CHECKED -	KWS
DRAWN -	VH
CHECKED -	MRB

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Job # 3856

STEEL PLATE GIRDER TABLES - 4 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER

THE ILLINOIS RIVER (PUBLIC WATERS)

F.A.I. ROUTE 39 SEC. (50-4B) BR

LASALLE COUNTY

STATION 863+16.00

STRUCTURE NO. 050-0191 (SB & NB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 205
F.A.I. 39	50-4B	LASALLE		23	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66586

Properties	0.4 Span 1	Floorbeam 1
Is	(in4)	5900
Ic(n)	(in4)	-----
Ic(3n)	(in4)	-----
Ss	(in3)	359
Sc(n)	(in3)	-----
Sc(3n)	(in3)	-----
\bar{D}	(k/ft)	1.512
M \bar{D}	(k-ft)	156
S \bar{D}	(k/ft)	-----
Ms \bar{D}	(k-ft)	-----
M \bar{L}	(k-ft)	255
M (Imp)	(k-ft)	76
$\frac{5}{3}(M \bar{L} + M (Imp))$	(k-ft)	553
* Mu	(k-ft)	1245
Ma	(k-ft)	921
fs \bar{D} (non-composite)	(ksi)	5.2
fs \bar{D} (composite)	(ksi)	-----
fs $\frac{5}{3}(M \bar{L} + M (Imp))$	(ksi)	18.5
fs (Overload)	(ksi)	23.7
** fs (Total)	(ksi)	-----
VR	(k)	-----

Properties	0.5 Span	
Is	(in4)	275852
Ic(n)	(in4)	-----
Ic(3n)	(in4)	-----
Ss	(in3)	4926
Sc(n)	(in3)	-----
Sc(3n)	(in3)	-----
\bar{D}	(k/ft)	-----
M \bar{D}	(k-ft)	7742
S \bar{D}	(k/ft)	-----
Ms \bar{D}	(k-ft)	-----
M \bar{L}	(k-ft)	3913
M (Imp)	(k-ft)	900
$\frac{5}{3}(M \bar{L} + M (Imp))$	(k-ft)	8037
* Mu	(k-ft)	20525
Ma	(k-ft)	20513
fs \bar{D} (non-composite)	(ksi)	18.9
fs \bar{D} (composite)	(ksi)	-----
fs $\frac{5}{3}(M \bar{L} + M (Imp))$	(ksi)	19.6
fs (Overload)	(ksi)	38.4
** fs (Total)	(ksi)	-----
VR	(k)	-----

Properties	0.5 Span	
Is	(in4)	228445
Ic(n)	(in4)	-----
Ic(3n)	(in4)	-----
Ss	(in3)	4125
Sc(n)	(in3)	-----
Sc(3n)	(in3)	-----
\bar{D}	(k/ft)	-----
M \bar{D}	(k-ft)	3168
S \bar{D}	(k/ft)	-----
Ms \bar{D}	(k-ft)	-----
M \bar{L}	(k-ft)	3019
M (Imp)	(k-ft)	694
$\frac{5}{3}(M \bar{L} + M (Imp))$	(k-ft)	6201
* Mu	(k-ft)	16717
Ma	(k-ft)	12180
fs \bar{D} (non-composite)	(ksi)	9.2
fs \bar{D} (composite)	(ksi)	-----
fs $\frac{5}{3}(M \bar{L} + M (Imp))$	(ksi)	18.0
fs (Overload)	(ksi)	27.3
** fs (Total)	(ksi)	-----
VR	(k)	-----

Properties	End Floorbeam	Floorbeam 1
R (\bar{D})	(k)	22
R (\bar{L})	(k)	48
Imp.	(k)	14
R (Total)	(k)	84

Properties	Interior Floorbeam	End Floorbeam
R (\bar{D})	(k)	325
R (\bar{L})	(k)	155
Imp.	(k)	36
R (Total)	(k)	516

NOTE:
1. Work this sheet with sheet 206.

NOTES:
Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.
Ma (Applied Moment) = $1.3[M \bar{D} + Ms \bar{D} + \frac{5}{3}(M \bar{L} + M (Imp))]$.
The plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
fs (Overload) is the sum of the stresses due to $M \bar{D} + Ms \bar{D} + \frac{5}{3}(M \bar{L} + M (Imp))$.
fs (Total) is the sum of the stresses due to $1.3[M \bar{D} + Ms \bar{D} + \frac{5}{3}(M \bar{L} + M (Imp))]$.
M \bar{D} - Moment due to dead loads on non-composite section.
Ms \bar{D} - Moment due to dead loads on composite section.
M \bar{L} - Moment due to live load on non-composite or composite section.
M (Imp) - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.
** Non-Compact section.

DESIGNED -	HAA
CHECKED -	HMA
DRAWN -	RMG
CHECKED -	MRB

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Job # 3856

TIED ARCH SPAN TABLES - 5 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 206
F.A.I. 39	50-4B	LASALLE	231	313 SHEETS
FED. ROAD DIST. NO. 7		FED. AID PROJECT		

Contract # 66586

MEMBER FORCES OF ARCH RIB

Joint	Total DL w/o FWS		FWS		Maximum Axial Force						Maximum Moment						Minimum Moment					
	Axial Force	Moment	Axial Force	Moment	Live Load		Impact		Total DL+LL+I		Live Load		Impact		Total DL+LL+I		Live Load		Impact		Total DL+LL+I	
					Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment
T0	-4864	+1152	-475	+385	-866	+714	-67	+55	-6270	+2306	-832	+690	-64	+53	-6234	+2281	+91	-95	+18	-19	-5230	+1423
R1	-4836	+798	-459	+97	-866	-17	-67	-1	-6228	+877	-218	+647	-37	+109	-5550	+1652	-556	-421	-63	-48	-5913	+427
R2	-4615	+951	-459	+96	-820	-91	-62	-7	-5955	+948	-241	+1032	-40	+175	-5355	+2254	-541	-787	-61	-89	-5675	+171
R3	-4426	+1002	-440	+116	-779	-50	-59	-4	-5704	+1063	-253	+1201	-42	+204	-5161	+2523	-471	-928	-53	-105	-5390	+84
R4	-4219	+974	-424	+126	-741	+21	-57	+2	-5440	+1123	-281	+1259	-42	+190	-4965	+2549	-421	-970	-51	-120	-5114	+10
R5	-4126	+969	-410	+133	-708	+93	-54	+7	-5298	+1204	-312	+1186	-47	+179	-4895	+2468	-371	-912	-51	-124	-4958	+67
R6	-4008	+944	-398	+138	-683	+219	-52	+16	-5141	+1317	-359	+1019	-49	+139	-4814	+2240	-324	-757	-44	-103	-4774	+222
R7	-3914	+879	-390	+139	-664	+300	-51	+22	-5019	+1341	-375	+831	-52	+113	-4731	+1962	-283	-559	-42	-85	-4629	+374
R8	-3905	+900	-375	+138	-637	+363	-49	+28	-4966	+1429	-350	+671	-59	+114	-4689	+1823	-293	-398	-33	-46	-4606	+595
R9	-3905	+900	-375	+138	-637	+363	-49	+28	-4966	+1429	-350	+671	-59	+114	-4689	+1823	-293	-398	-33	-46	-4606	+595
R10	-3931	+880	-391	+139	-664	+300	-51	+22	-5037	+1342	-375	+831	-52	+113	-4749	+1963	-283	-559	-42	-85	-4648	+376
R11	-4035	+946	-399	+139	-683	+219	-52	+16	-5169	+1319	-359	+1019	-49	+139	-4842	+2242	-324	-757	-44	-103	-4802	+225
R12	-4146	+971	-411	+134	-708	+93	-54	+7	-5319	+1205	-312	+1186	-47	+179	-4916	+2469	-371	-912	-51	-124	-4978	+68
R13	-4284	+974	-425	+127	-741	+21	-57	+2	-5507	+1124	-281	+1259	-42	+190	-5032	+2550	-421	-970	-51	-120	-5181	+12
R14	-4451	+1000	-442	+116	-779	-50	-59	-4	-5731	+1062	-253	+1201	-42	+204	-5188	+2521	-471	-928	-53	-105	-5417	+83
R15	-4640	+951	-461	+96	-820	-91	-62	-7	-5982	+947	-241	+1032	-40	+175	-5382	+2254	-541	-787	-61	-89	-5702	+170
R16	-4857	+789	-461	+97	-866	-17	-67	-1	-6250	+868	-218	+647	-37	+109	-5572	+1643	-556	-421	-63	-48	-5936	+417
T17	-4885	+1154	-477	+385	-866	+714	-67	+55	-6294	+2307	-832	+690	-64	+53	-6258	+2282	+91	-95	+18	-19	-5253	+1425

Hanger	DL w/o FWS	FWS	Total DL	LL	Impact	Total DL+LL+I
T1-R1	283	28	311	51	4	365
T2-R2	305	36	340	63	4	408
T3-R3	307	36	343	65	5	412
T4-R4	307	36	343	64	5	412
T5-R5	309	36	346	64	5	414
T6-R6	312	36	349	64	5	417
T7-R7	313	36	349	64	4	417
T8-R8	313	36	349	63	4	417
T9-R9	313	36	349	63	4	417
T10-R10	313	36	349	64	4	417
T11-R11	312	36	349	64	5	417
T12-R12	309	36	346	64	5	414
T13-R13	307	36	343	64	5	412
T14-R14	307	36	343	65	5	412
T15-R15	305	36	341	63	4	408
T16-R16	283	28	311	51	4	365

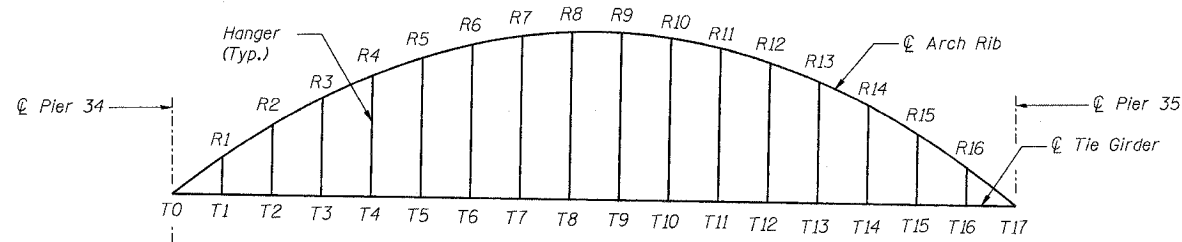
MEMBER FORCES OF TIE GIRDER

Joint	Total DL w/o FWS		FWS		Maximum Axial Force						Maximum Moment						Minimum Moment					
	Axial Force	Moment	Axial Force	Moment	Live Load		Impact		Total DL+LL+I		Live Load		Impact		Total DL+LL+I		Live Load		Impact		Total DL+LL+I	
					Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment	Axial Force	Moment
T0	+3863	-1151	+346	-384	+490	-590	+38	-46	+4736	-2171	+127	+95	+25	+19	+4360	-1421	+394	-690	+30	-53	+4632	-2279
T1	+3863	+414	+318	+115	+490	-58	+37	-4	+4708	+466	+123	+5024	+24	+978	+4328	+6531	+369	-4318	+42	-490	+4592	-4279
T2	+3815	+327	+310	+221	+477	-421	+37	-31	+4640	+95	+135	+8269	+26	+1611	+4287	+10427	+362	-7109	+41	-808	+4528	-7369
T3	+3813	+603	+319	+273	+464	-433	+35	-35	+4631	+407	+150	+10000	+26	+1696	+4308	+12572	+350	-8703	+40	-989	+4522	-8816
T4	+3819	+134	+331	+300	+540	+378	+41	+27	+4731	+840	+170	+10800	+26	+1628	+4346	+12862	+335	-9384	+42	-1159	+4526	-10109
T5	+3844	+343	+320	+370	+532	+406	+41	+31	+4736	+1150	+196	+9734	+29	+1468	+4388	+11915	+314	-8510	+39	-1052	+4517	-8848
T6	+3831	+121	+324	+403	+550	+1131	+42	+87	+4747	+1742	+229	+8280	+32	+1129	+4415	+9934	+283	-7097	+39	-968	+4477	-7540
T7	+3842	-591	+333	+400	+560	+1409	+43	+108	+4778	+1326	+272	+6736	+37	+919	+4484	+7464	+240	-5468	+37	-824	+4452	-6483
T8	+3859	-312	+325	+433	+562	+1268	+43	+97	+4788	+1486	+268	+5204	+46	+883	+4497	+6208	+247	-3892	+28	-442	+4458	-4213
T9	+3866	-314	+325	+433	+562	+1268	+43	+97	+4795	+1485	+268	+5204	+46	+883	+4504	+6206	+247	-3892	+28	-442	+4465	-4215
T10	+3855	-592	+333	+400	+560	+1409	+43	+108	+4791	+1325	+272	+6736	+37	+919	+4497	+7463	+240	-5468	+37	-824	+4465	-6484
T11	+3844	+120	+324	+403	+550	+1131	+42	+87	+4761	+1741	+229	+8280	+32	+1129	+4429	+9932	+283	-7097	+39	-968	+4491	-7541
T12	+3861	+342	+320	+370	+532	+406	+41	+31	+4753	+1149	+196	+9734	+29	+1468	+4406	+11914	+314	-8510	+39	-1052	+4534	-8849
T13	+3825	+136	+331	+300	+540	+378	+41	+27	+4738	+841	+170	+10800	+26	+1628	+4352	+12863	+335	-9384	+42	-1159	+4533	-10108
T14	+3815	+604	+319	+273	+464	-433	+35	-35	+4633	+408	+150	+10000	+26	+1696	+4310	+12573	+350	-8703	+40	-989	+4524	-8815
T15	+3813	+326	+310	+221	+477	-421	+37	-31	+4637	+94	+135	+8269	+26	+1611	+4285	+10427	+362	-7109	+41	-808	+4526	-7370
T16	+3869	+417	+318	+116	+490	-58	+37	-4	+4714	+470	+123	+5024	+24	+978	+4334	+6535	+369	-4318	+42	-490	+4598	-4276
T17	+3869	-1153	+346	-385	+490	-590	+38	-46	+4741	-2174	+127	+95	+25	+19	+4366	-1424	+394	-690	+30	-53	+4638	-2281

Properties	T0 & T17
R @ (K)	3108
R FWS (K)	310
R L (K)	539
Imp. (K)	36
R (Total) (K)	3994

SIGN CONVENTION:
Axial loads in Kips, positive = tension, negative = compression.
Bending moment in ft-Kips, positive = tension in bottom of section,
negative = compression in bottom of section.

- NOTES:**
- DL reactions are due to permanent loads including self-weights, barriers, and FWS.
 - LL reaction is due to AASHTO HS-20 loading.
 - Work this sheet with sheet 205.



ELEVATION OF TIED ARCH

Note: Geometric shape under dead load only.

DESIGNED -	HAA
CHECKED -	HMA
DRAWN -	RMG
CHECKED -	MRB

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Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
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312-565-0450
Job # 3856

TIED ARCH SPAN TABLES - 6 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)

F.A.I. ROUTE 39 SEC. (50-4B) BR

LASALLE COUNTY

STATION 863+16.00

STRUCTURE NO. 050-0191 (SB & NB)

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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 207
F.A.I. 39	50-4B	LASALLE		238	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT-		

Contract # 66586

SPANS 36-38 - INTERIOR GIRDER MOMENT TABLE

Properties		0.4 Span 36	Pier 36	0.5 Span 37	Pier 37	0.6 Span 38
I_s	(in ⁴)	47501	82185	47501	82185	47501
$I_c(n)$	(in ⁴)	130695	-----	130695	-----	130695
$I_c(3n)$	(in ⁴)	94277	-----	94277	-----	94277
S_s	(in ³)	1438	2199	1438	2199	1438
$S_c(n)$	(in ³)	2111	-----	2111	-----	2111
$S_c(3n)$	(in ³)	1912	-----	1912	-----	1912
\bar{Q}	(k/ft)	1.240	1.716	1.240	1.716	1.240
$M \bar{Q}$	(k-ft)	1454	3673	1027	3743	1501
$S \bar{Q}$	(k/ft)	0.380	-----	0.380	-----	0.380
$M_s \bar{Q}$	(k-ft)	491	-----	426	-----	507
$M \bar{L}$	(k-ft)	1503	1454	1522	1472	1524
$M (Imp)$	(k-ft)	292	269	268	271	294
$^5_3(M \bar{L} + M (Imp))$	(k-ft)	2997	2876	2990	2910	3035
* M_u	(k-ft)	8770	-----	8096	-----	8711
M_a	(k-ft)	6425	8514	5775	8649	6557
$f_s \bar{Q}$ (non-composite)	(ksi)	12.1	20.0	8.6	20.4	12.5
$f_s \bar{Q}$ (composite)	(ksi)	3.1	-----	2.7	-----	3.2
$f_s ^5_3(M \bar{L} + M (Imp))$	(ksi)	17.0	15.7	17.0	15.9	17.3
f_s (Overload)	(ksi)	32.3	35.7	28.2	36.3	33.0
** f_s (Total)	(ksi)	-----	46.5	-----	47.2	-----
VR	(k)	78.3	-----	67.4	-----	77.8

SPANS 39-41 - INTERIOR GIRDER MOMENT TABLE

Properties		0.4 Span 39	Pier 39	0.5 Span 40	Pier 40	0.6 Span 41
I_s	(in ⁴)	47501	82185	47501	82185	47501
$I_c(n)$	(in ⁴)	130695	-----	130695	-----	130695
$I_c(3n)$	(in ⁴)	94277	-----	94277	-----	94277
S_s	(in ³)	1438	2199	1438	2199	1438
$S_c(n)$	(in ³)	2111	-----	2111	-----	2111
$S_c(3n)$	(in ³)	1912	-----	1912	-----	1912
\bar{Q}	(k/ft)	1.240	1.716	1.240	1.716	1.240
$M \bar{Q}$	(k-ft)	1507	3728	1012	3728	1507
$S \bar{Q}$	(k/ft)	0.380	-----	0.380	-----	0.380
$M_s \bar{Q}$	(k-ft)	509	-----	421	-----	509
$M \bar{L}$	(k-ft)	1525	1473	1521	1473	1525
$M (Imp)$	(k-ft)	294	271	268	271	294
$^5_3(M \bar{L} + M (Imp))$	(k-ft)	3038	2912	2988	2912	3038
* M_u	(k-ft)	8717	-----	8033	-----	8717
M_a	(k-ft)	6569	8633	5748	8633	6569
$f_s \bar{Q}$ (non-composite)	(ksi)	12.6	20.3	8.4	20.3	12.6
$f_s \bar{Q}$ (composite)	(ksi)	3.2	-----	2.6	-----	3.2
$f_s ^5_3(M \bar{L} + M (Imp))$	(ksi)	17.3	15.9	17.0	15.9	17.3
f_s (Overload)	(ksi)	33.0	36.2	28.1	36.2	33.0
** f_s (Total)	(ksi)	-----	47.1	-----	47.1	-----
VR	(k)	78.2	-----	67.4	-----	78.2

SPANS 36-38 - INTERIOR GIRDER REACTION TABLE

Properties		Pier 35	Pier 36	Pier 37	Pier 38
$R \bar{Q}$	(k)	79.3	267.9	270.4	80.6
$R \bar{L}$	(k)	59.3	112.4	113.0	59.3
Imp.	(k)	11.5	13.5	13.5	11.5
R (Total)	(k)	150.2	393.8	396.8	151.4

SPANS 39-41 - INTERIOR GIRDER REACTION TABLE

Properties		Pier 38	Pier 39	Pier 40	Pier 41
$R \bar{Q}$	(k)	80.7	269.8	269.8	80.7
$R \bar{L}$	(k)	59.4	113.0	113.0	59.4
Imp.	(k)	11.5	13.5	13.5	11.5
R (Total)	(k)	151.5	396.3	396.3	151.5

NOTES:

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).

$I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

$I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.

M_a (Applied Moment) = $1.3[M \bar{Q} + M_s \bar{Q} + ^5_3(M \bar{L} + M (Imp))]$.

The plastic moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.

f_s (Overload) is the sum of the stresses due to $M \bar{Q} + M_s \bar{Q} + ^5_3(M \bar{L} + M (Imp))$.

f_s (Total) is the sum of the stresses due to $1.3[M \bar{Q} + M_s \bar{Q} + ^5_3(M \bar{L} + M (Imp))]$.

$M \bar{Q}$ - Moment due to dead loads on non-composite section.

$M_s \bar{Q}$ - Moment due to dead loads on composite section.

$M \bar{L}$ - Moment due to live load on non-composite or composite section.

$M (Imp)$ - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.

** Non-Compact section.

DESIGNED -	KWS
CHECKED -	AJK
DRAWN -	VH
CHECKED -	MRB

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STEEL PLATE GIRDER TABLES - 7 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	233		208
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract # 66586

313 SHEETS

Properties	0.3 Span 42	Pier 42	0.6 Span 43
Is	(in4) 78987	263312	153548
Ic(n)	(in4) 198046	-----	351654
Ic(3n)	(in4) 144525	-----	249871
Ss	(in3) 1620	5240	3600
Sc(n)	(in3) 2433	-----	4876
Sc(3n)	(in3) 2165	-----	4384
\bar{D}	(k/ft) 1.267	1.950	1.417
M \bar{D}	(k-ft) 1018	9313	5092
S \bar{D}	(k/ft) 0.380	-----	0.380
Ms \bar{D}	(k-ft) 408	-----	1445
M \bar{L}	(k-ft) 1556	2825	3192
M (Imp)	(k-ft) 279	454	466
$^5_3(M \bar{L} + M (Imp))$	(k-ft) 3064	5477	6108
* Mu	(k-ft) 8641	-----	20237
Ma	(k-ft) 5837	19227	16440
fs \bar{D} (non-composite)	(ksi) 7.5	21.3	17.0
fs \bar{D} (composite)	(ksi) 2.3	-----	4.0
fs $^5_3(M \bar{L} + M (Imp))$	(ksi) 15.1	12.5	15.0
fs (Overload)	(ksi) 24.9	33.9	36.0
** fs (Total)	(ksi) -----	44.0	-----
VR	(k) 79.7	-----	91.5

Properties	0.3 Span 42	Pier 42	0.6 Span 43
Is	(in4) 82482	263312	153548
Ic(n)	(in4) 207906	-----	351654
Ic(3n)	(in4) 151120	-----	249871
Ss	(in3) 1726	5240	3600
Sc(n)	(in3) 2574	-----	4876
Sc(3n)	(in3) 2294	-----	4384
\bar{D}	(k/ft) 1.273	1.950	1.417
M \bar{D}	(k-ft) 1223	9473	5040
S \bar{D}	(k/ft) 0.380	-----	0.380
Ms \bar{D}	(k-ft) 467	-----	1434
M \bar{L}	(k-ft) 1623	2866	3197
M (Imp)	(k-ft) 285	457	466
$^5_3(M \bar{L} + M (Imp))$	(k-ft) 3187	5549	6117
* Mu	(k-ft) 8891	-----	20175
Ma	(k-ft) 6340	19528	16368
fs \bar{D} (non-composite)	(ksi) 8.5	21.7	16.8
fs \bar{D} (composite)	(ksi) 2.4	-----	3.9
fs $^5_3(M \bar{L} + M (Imp))$	(ksi) 14.9	12.7	15.1
fs (Overload)	(ksi) 25.8	34.4	35.8
** fs (Total)	(ksi) -----	44.7	-----
VR	(k) 79.2	-----	91.8

Properties	0.4 Span 42	Pier 42	0.6 Span 43
Is	(in4) 85842	263312	153548
Ic(n)	(in4) 217617	-----	351654
Ic(3n)	(in4) 157544	-----	249871
Ss	(in3) 1831	5240	3600
Sc(n)	(in3) 2715	-----	4876
Sc(3n)	(in3) 2423	-----	4384
\bar{D}	(k/ft) 1.278	1.950	1.417
M \bar{D}	(k-ft) 1219	9644	4984
S \bar{D}	(k/ft) 0.380	-----	0.380
Ms \bar{D}	(k-ft) 498	-----	1421
M \bar{L}	(k-ft) 1871	2903	3206
M (Imp)	(k-ft) 323	459	468
$^5_3(M \bar{L} + M (Imp))$	(k-ft) 3664	5615	6136
* Mu	(k-ft) 9161	-----	20116
Ma	(k-ft) 6995	19837	16303
fs \bar{D} (non-composite)	(ksi) 8.0	22.1	16.6
fs \bar{D} (composite)	(ksi) 2.5	-----	3.9
fs $^5_3(M \bar{L} + M (Imp))$	(ksi) 16.2	12.9	15.1
fs (Overload)	(ksi) 26.6	34.9	35.6
** fs (Total)	(ksi) -----	45.4	-----
VR	(k) 78.8	-----	92.3

Properties	Pier 41	Pier 42	Pier 43
R \bar{D}	(k) 68.9	442.4	152.2
R \bar{L}	(k) 59.7	147.3	74.0
Imp.	(k) 10.7	14.8	10.8
R (Total)	(k) 139.3	604.5	237.0

Properties	Pier 41	Pier 42	Pier 43
R \bar{D}	(k) 74.9	447.0	151.5
R \bar{L}	(k) 59.9	148.6	74.0
Imp.	(k) 10.5	14.8	10.8
R (Total)	(k) 145.3	610.5	236.3

Properties	Pier 41	Pier 42	Pier 43
R \bar{D}	(k) 80.7	451.9	150.7
R \bar{L}	(k) 60.3	150.0	74.1
Imp.	(k) 10.4	14.8	10.8
R (Total)	(k) 151.3	616.7	235.6

NOTES:

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.

Ma (Applied Moment) = $1.3[M \bar{D} + Ms \bar{D} + ^5_3(M \bar{L} + M (Imp))]$.

The plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to $M \bar{D} + Ms \bar{D} + ^5_3(M \bar{L} + M (Imp))$.

fs (Total) is the sum of the stresses due to $1.3[M \bar{D} + Ms \bar{D} + ^5_3(M \bar{L} + M (Imp))]$.

M \bar{D} - Moment due to dead loads on non-composite section.

Ms \bar{D} - Moment due to dead loads on composite section.

M \bar{L} - Moment due to live load on non-composite or composite section.

M (Imp) - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.

** Non-Compact section.

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STEEL PLATE GIRDER TABLES - 8 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 209 313 SHEETS
F.A.I. 39	50-4B	LASALLE		234	
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT		

Contract # 66586

Properties	0.4 Span 42	Pier 42	0.6 Span 43
Is	(in4) 109134	263312	153548
Ic(n)	(in4) 264851	-----	351654
Ic(3n)	(in4) 190862	-----	249871
Ss	(in3) 2431	5240	3600
Sc(n)	(in3) 3410	-----	4876
Sc(3n)	(in3) 3072	-----	4384
\bar{D}	(k/ft) 1.312	1.950	1.417
M \bar{D}	(k-ft) 1867	10322	4739
S \bar{D}	(k/ft) 0.380	-----	0.380
Ms \bar{D}	(k-ft) 672	-----	1367
M \bar{L}	(k-ft) 2211	3100	3167
M (Imp)	(k-ft) 363	479	462
$\bar{S}_3(M \bar{L} + M (Imp))$	(k-ft) 4299	5976	6061
* Mu	(k-ft) 10756	-----	19755
Ma	(k-ft) 8890	21187	15817
fs \bar{D} (non-composite)	(ksi) 9.2	23.6	15.8
fs \bar{D} (composite)	(ksi) 2.6	-----	3.7
fs $\bar{S}_3(M \bar{L} + M (Imp))$	(ksi) 15.1	13.7	14.9
fs (Overload)	(ksi) 27.0	37.3	34.5
** fs (Total)	(ksi) -----	48.5	-----
VR	(k) 86.8	-----	92.3

Properties	0.4 Span 42	Pier 42	0.6 Span 43
Is	(in4) 101796	275969	153548
Ic(n)	(in4) 243379	-----	351654
Ic(3n)	(in4) 176975	-----	249871
Ss	(in3) 2179	5478	3600
Sc(n)	(in3) 3081	-----	4876
Sc(3n)	(in3) 2770	-----	4384
\bar{D}	(k/ft) 1.301	1.967	1.417
M \bar{D}	(k-ft) 2289	10972	4564
S \bar{D}	(k/ft) 0.380	-----	0.380
Ms \bar{D}	(k-ft) 802	-----	1314
M \bar{L}	(k-ft) 2412	3302	3184
M (Imp)	(k-ft) 383	502	465
$\bar{S}_3(M \bar{L} + M (Imp))$	(k-ft) 4666	6353	6093
* Mu	(k-ft) 12905	-----	19889
Ma	(k-ft) 10084	22522	15563
fs \bar{D} (non-composite)	(ksi) 12.6	24.0	15.2
fs \bar{D} (composite)	(ksi) 3.5	-----	3.6
fs $\bar{S}_3(M \bar{L} + M (Imp))$	(ksi) 18.2	13.9	15.0
fs (Overload)	(ksi) 34.2	38.0	33.8
** fs (Total)	(ksi) -----	49.3	-----
VR	(k) 87.9	-----	93.8

Properties	0.5 Span 44
Is	(in4) 15000
Ic(n)	(in4) 38844
Ic(3n)	(in4) 27943
Ss	(in3) 836
Sc(n)	(in3) 1207
Sc(3n)	(in3) 1086
\bar{D}	(k/ft) 1.272
M \bar{D}	(k-ft) 833
S \bar{D}	(k/ft) 0.380
Ms \bar{D}	(k-ft) 249
M \bar{L}	(k-ft) 861
M (Imp)	(k-ft) 218
$\bar{S}_3(M \bar{L} + M (Imp))$	(k-ft) 1803
* Mu	(k-ft) 4506
Ma	(k-ft) 3751
fs \bar{D} (non-composite)	(ksi) 12.0
fs \bar{D} (composite)	(ksi) 2.8
fs $\bar{S}_3(M \bar{L} + M (Imp))$	(ksi) 17.9
fs (Overload)	(ksi) 32.6
** fs (Total)	(ksi) -----
VR	(k) 71.7

Properties	Pier 41	Pier 42	Pier 43
R \bar{D}	(k) 95.9	468.4	147.2
R \bar{L}	(k) 64.2	154.6	73.7
Imp.	(k) 10.5	14.8	10.8
R (Total)	(k) 170.6	637.8	231.7

Properties	Pier 41	Pier 42	Pier 43
R \bar{D}	(k) 104.6	482.9	144.7
R \bar{L}	(k) 66.3	158.4	73.9
Imp.	(k) 10.5	14.9	10.8
R (Total)	(k) 181.4	656.2	229.3

Properties	Pier 43	Pier 44
R \bar{D}	(k) 59.8	59.8
R \bar{L}	(k) 56.5	56.5
Imp.	(k) 14.3	14.3
R (Total)	(k) 130.6	130.6

NOTES:

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to live load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. See AASHTO 10.38.

VR is the maximum live load + impact shear range within the composite portion of the span.

Ma (Applied Moment) = $1.3[M \bar{D} + Ms \bar{D} + \bar{S}_3(M \bar{L} + M (Imp))]$.

The plastic moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M \bar{D} + Ms \bar{D} + $\bar{S}_3(M \bar{L} + M (Imp))$.

fs (Total) is the sum of the stresses due to $1.3[M \bar{D} + Ms \bar{D} + \bar{S}_3(M \bar{L} + M (Imp))]$.

M \bar{D} - Moment due to dead loads on non-composite section.

Ms \bar{D} - Moment due to dead loads on composite section.

M \bar{L} - Moment due to live load on non-composite or composite section.

M (Imp) - Moment due to live load impact on non-composite or composite section.

* Compact, Braced section.

** Non-Compact section.

DESIGNED -	KWS
CHECKED -	AJK
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STEEL PLATE GIRDER TABLES - 9 OF 9
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

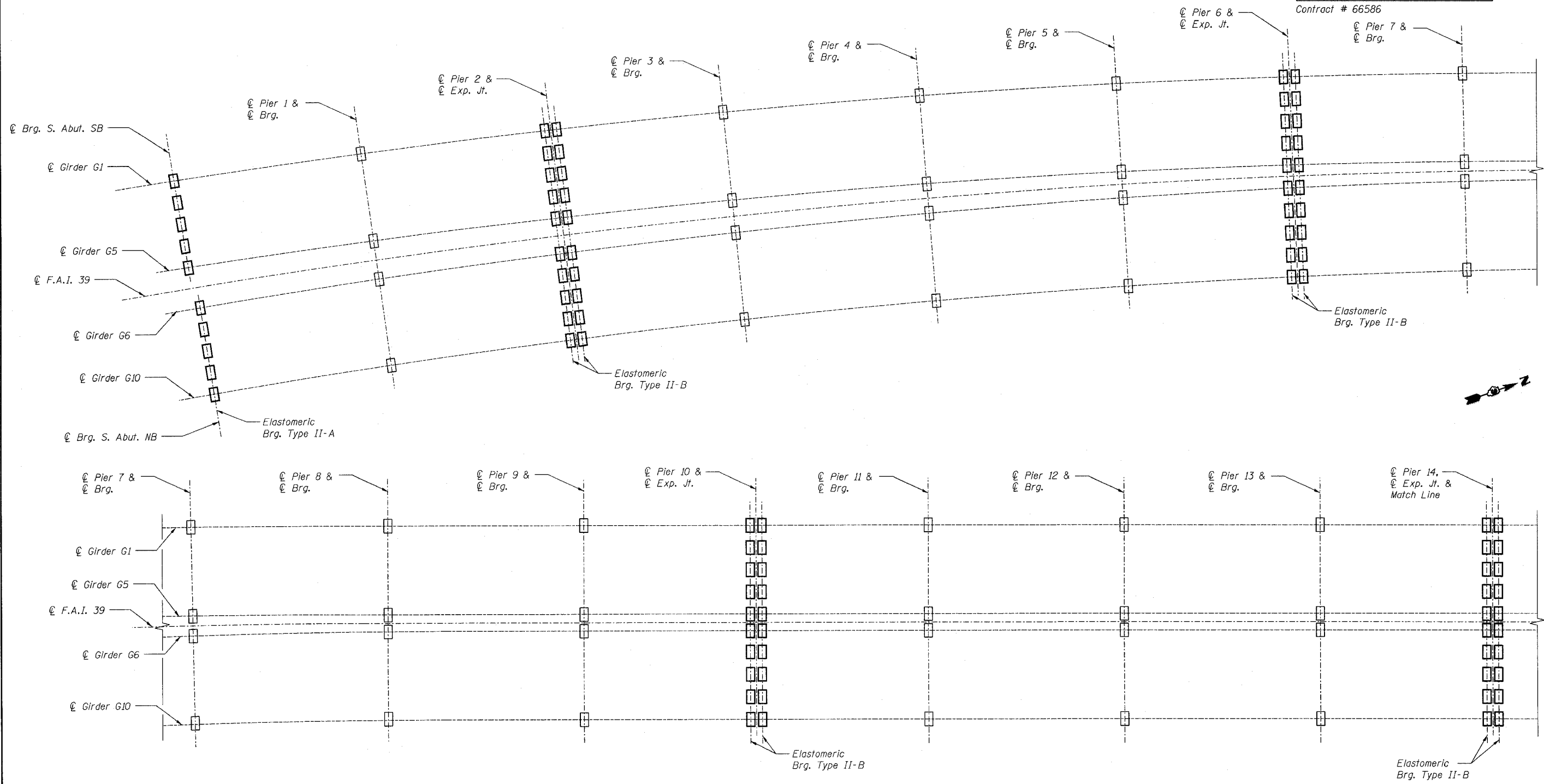
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ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	235	210
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		313 SHEETS



PART PLAN - SPANS 1 THRU 14

- NOTES:**
1. For Bearing Details see sheets 213 thru 215.
 2. Work this sheet with sheets 211 and 212.

DESIGNED -	LRB
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CHECKED -	LRB

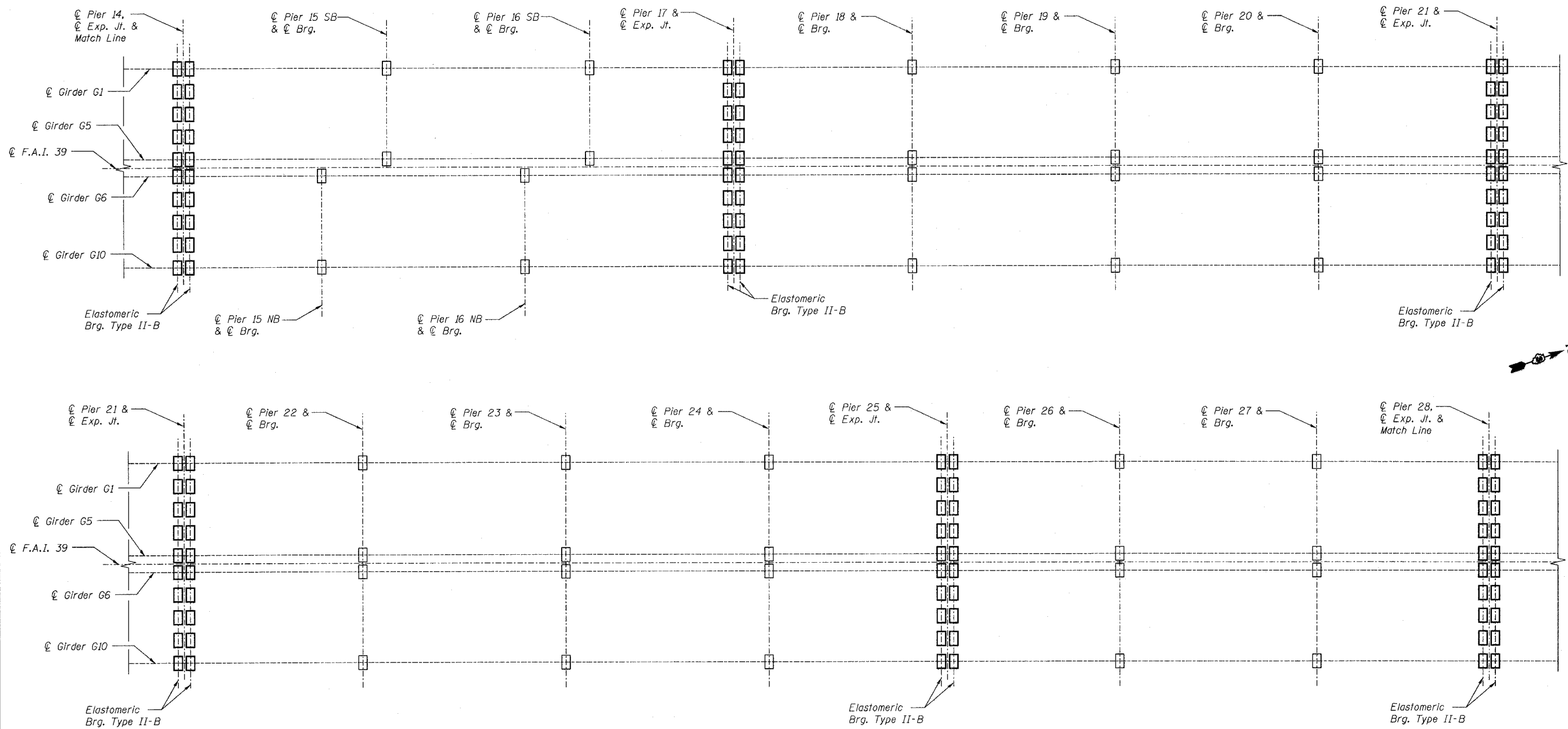
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BEARING LOCATION PLAN - 1 OF 3
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 211
F.A.I. 39	50-4B	LASALLE		236	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract # 66586		



PART PLAN - SPANS 15 THRU 28

NOTES:

1. For Bearing Details see sheets 213 thru 215.
2. Work this sheet with sheets 210 and 212.

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BEARING LOCATION PLAN - 2 OF 3
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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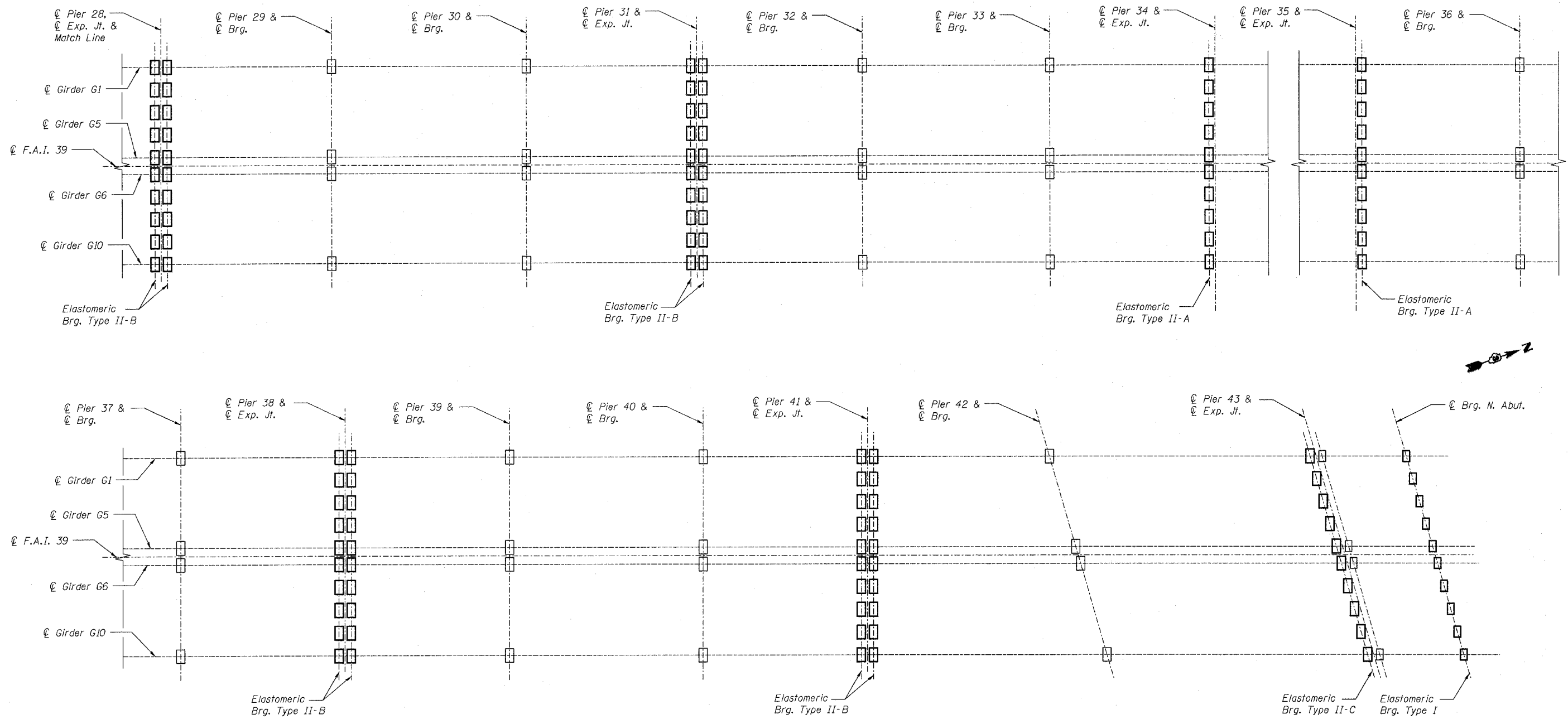
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 212
F.A.I. 39	50-4B	LASALLE		237	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66586



PART PLAN - SPANS 29 THRU 44

NOTES:

1. For Bearing Details see sheets 213 thru 215.
2. Work this sheet with sheets 210 and 211.

DESIGNED -	LRB
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DRAWN -	RMG
CHECKED -	LRB

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BEARING LOCATION PLAN - 3 OF 3
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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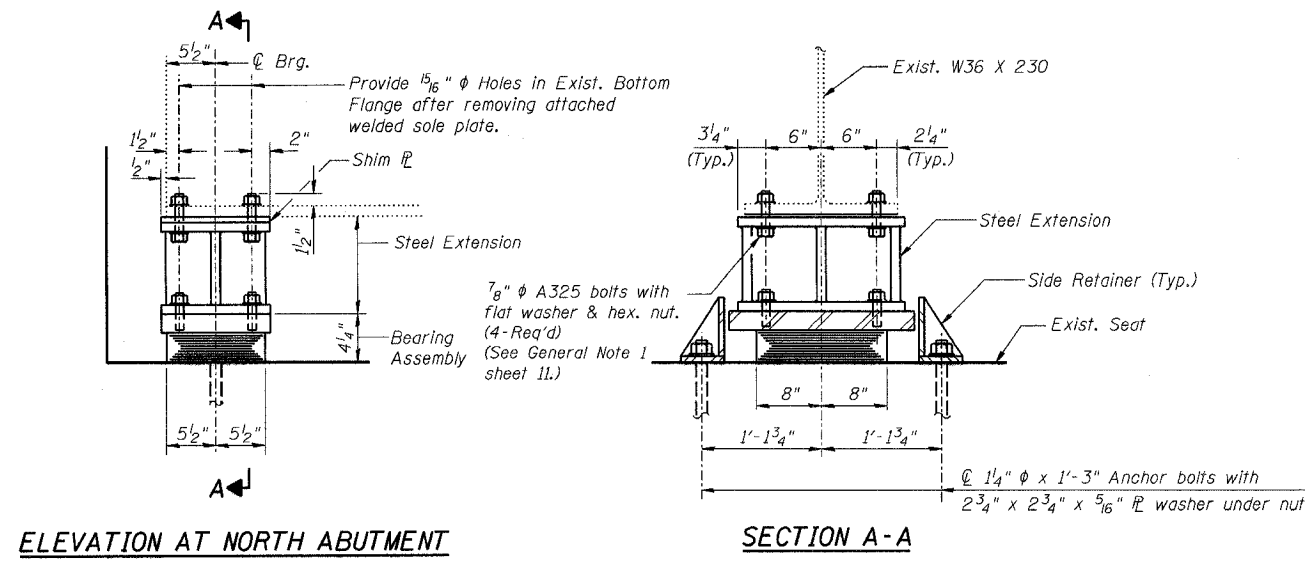
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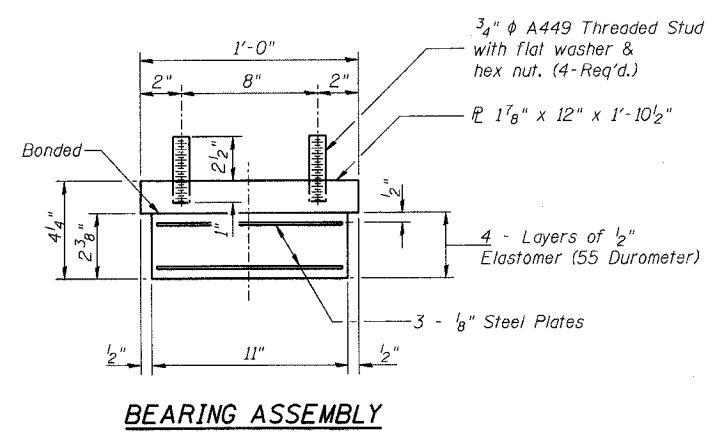
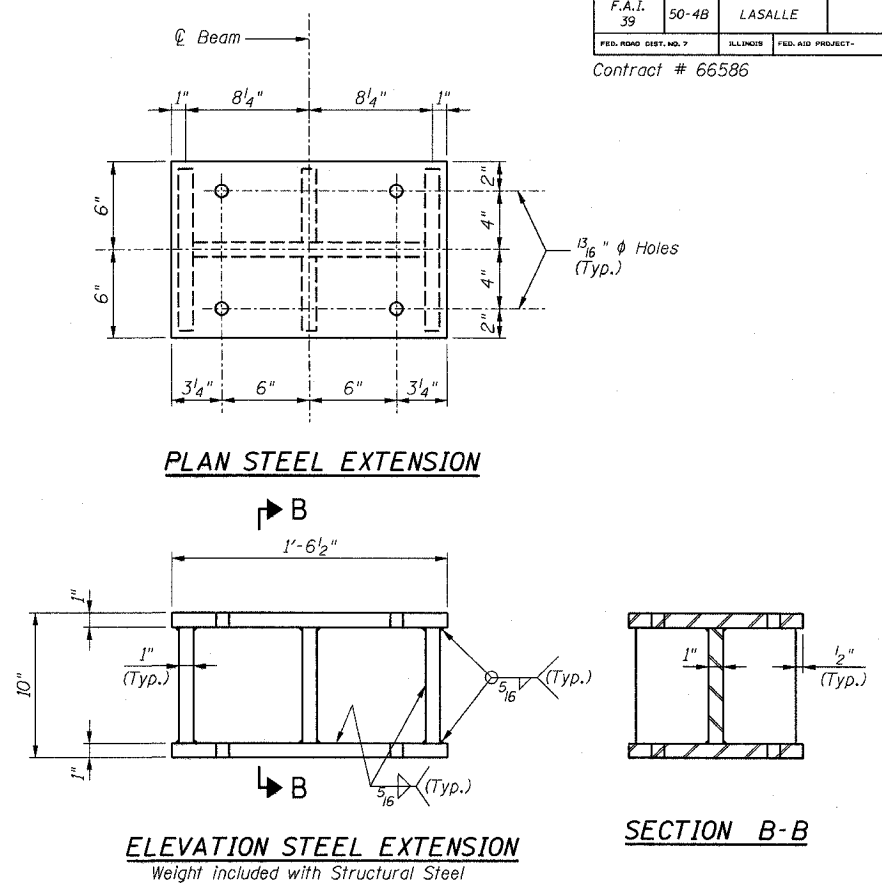
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DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 238	SHEET NO. 213 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

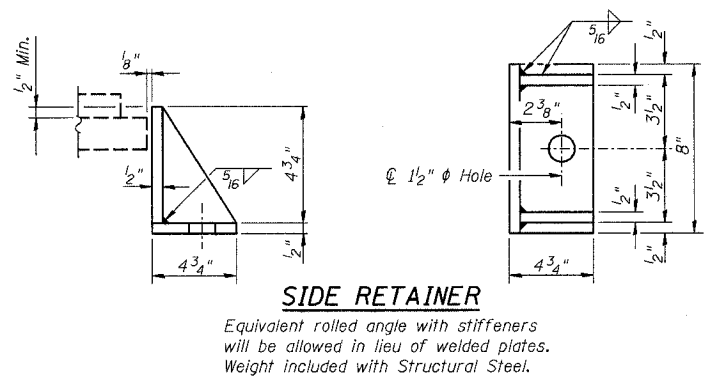
Contract # 66586



TYPE I ELASTOMERIC EXP. BRG.
(At N. Abut.)



Note: Shim plates shall not be placed under Bearing Assembly.



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	10

- NOTES:**
- For Bearing Locations see sheets 210 thru 212.
 - For Anchor Bolt Installation see sheet 216.

ELASTOMERIC BEARING TYPE I DETAILS
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

benesch
alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

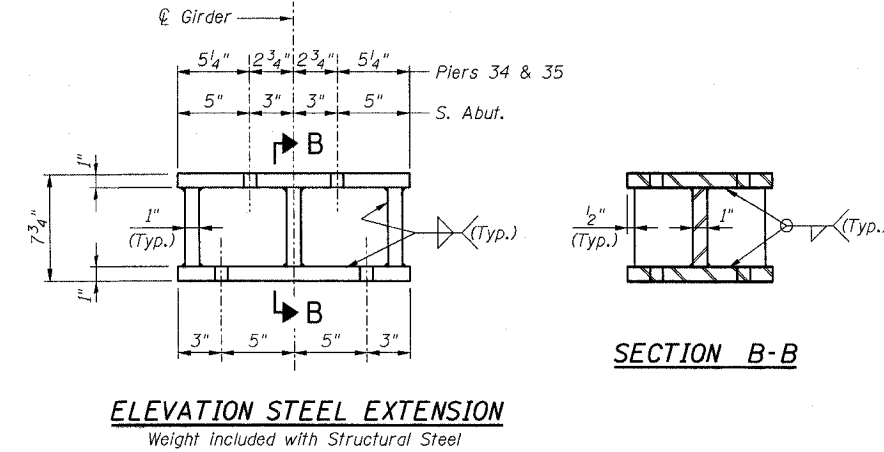
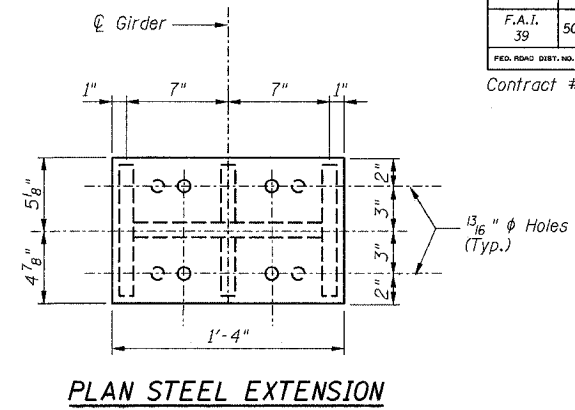
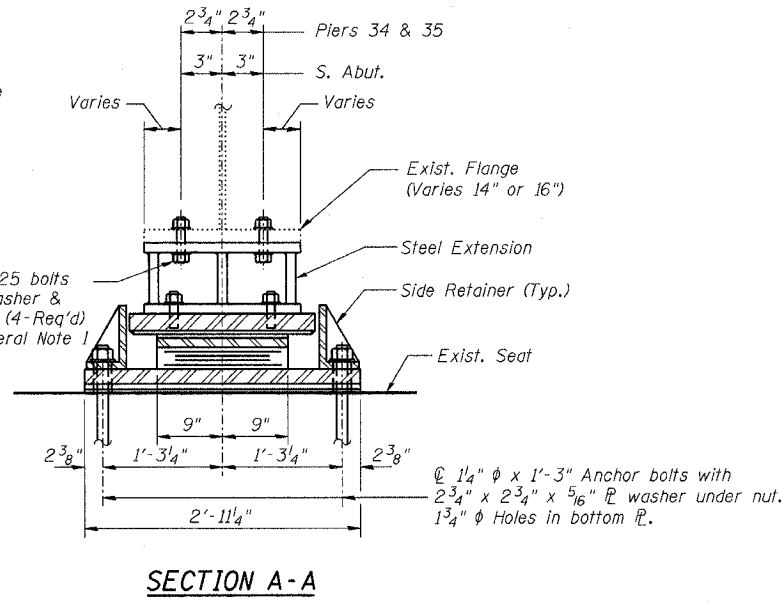
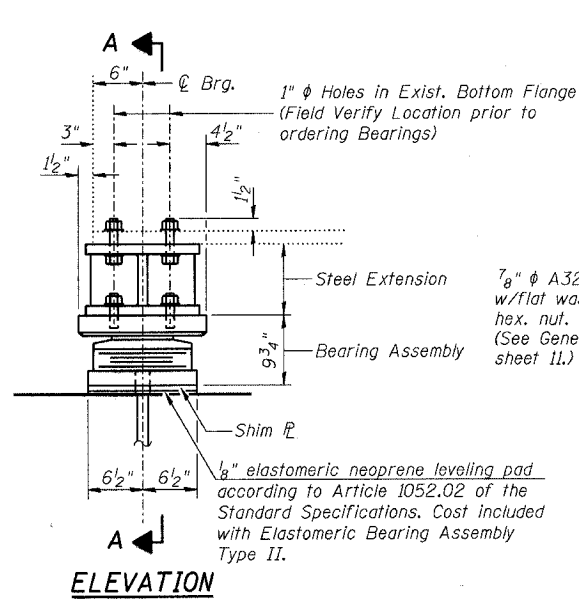
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CHECKED -	AJK
DRAWN -	RMG
CHECKED -	LRB

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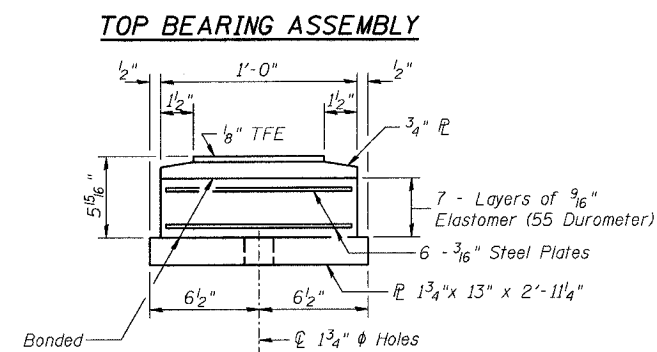
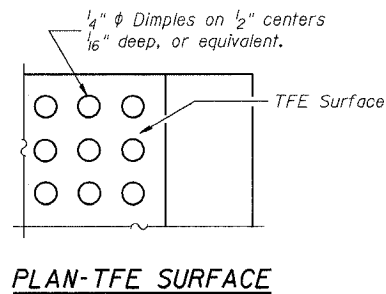
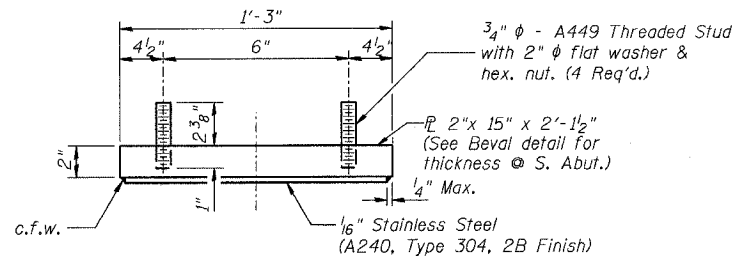
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 239	POST 239
FED. ROAD DIST. NO. 7		ALLIANCE	FED. AID PROJECT-	

SHEET NO. 214
313 SHEETS
Contract # 66586

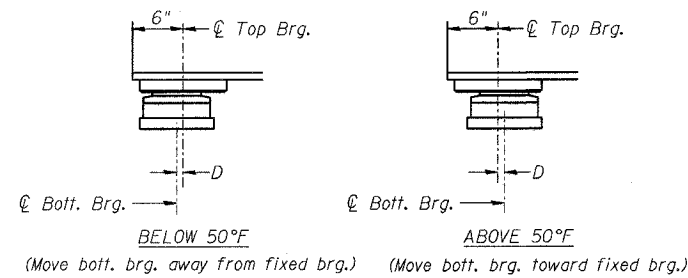
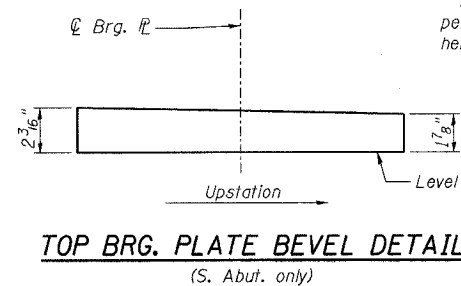


TYPE II-A ELASTOMERIC EXP. BRG.
(Pier 34 - Span 34, Pier 35 - Span 36 & S. Abut.)

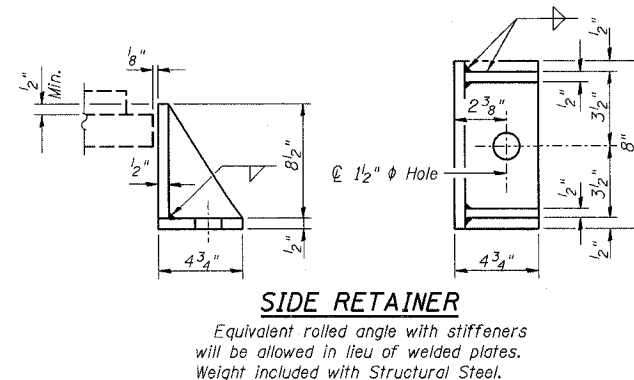


Note: The $\frac{1}{8}$ " TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type 1. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of $\frac{1}{8}$ " TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SETTING ANCHOR BOLTS AT EXP. BRG.
 $D = \frac{1}{8}$ " per each 100' of expansion for every 15°F temp. change from the normal temp. of 50°F.



- NOTES:**
- For Bearing Locations see sheets 210 thru 212.
 - For Anchor Bolt Installation see sheet 216.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	30

ELASTOMERIC BEARING TYPE II DETAILS
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

benesch

alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

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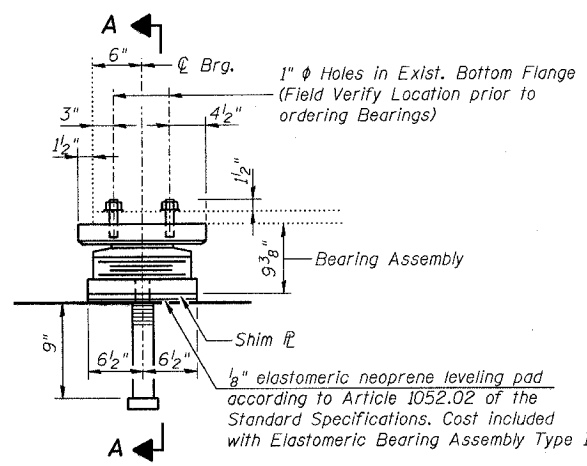
8/30/2006

DESIGNED -	LRB
CHECKED -	AJK
DRAWN -	AR
CHECKED -	LRB

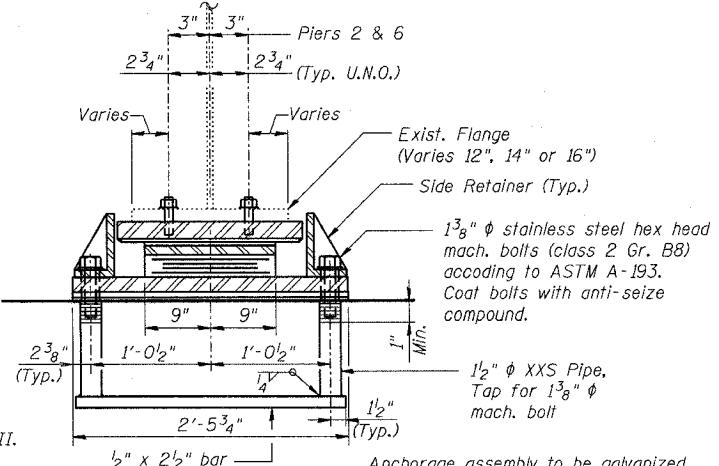
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 240	SHEET NO. 215 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

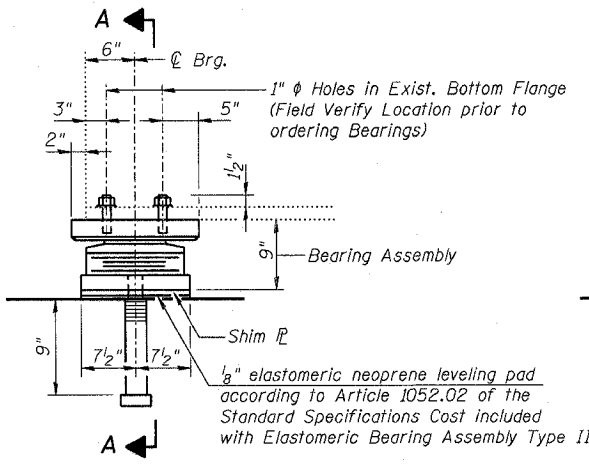
Contract # 66586



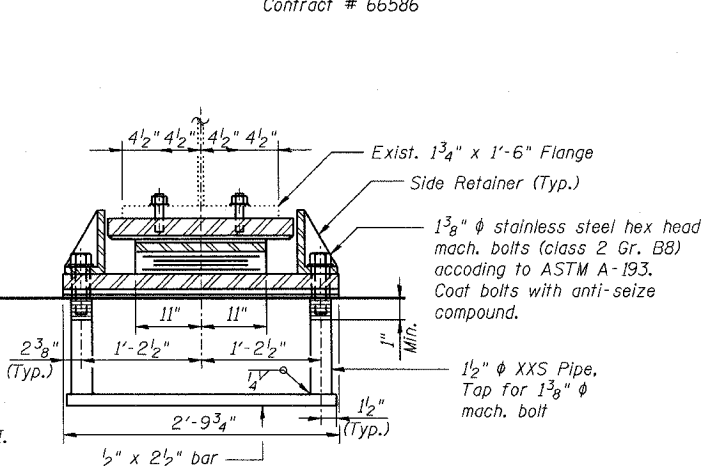
ELEVATION



SECTION A-A



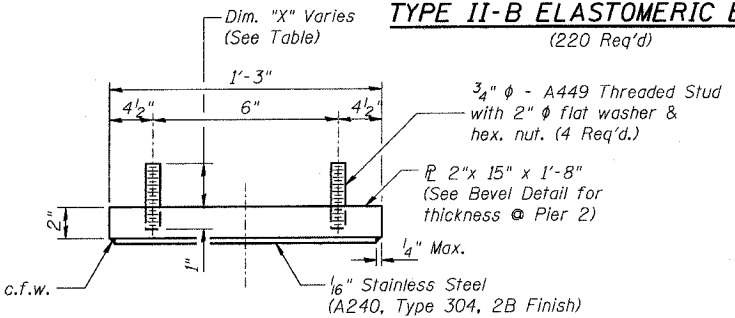
ELEVATION



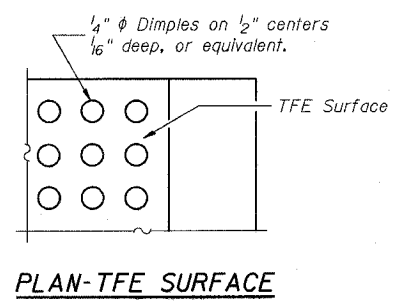
SECTION A-A

TYPE II-B ELASTOMERIC EXP. BRG.
(220 Req'd)

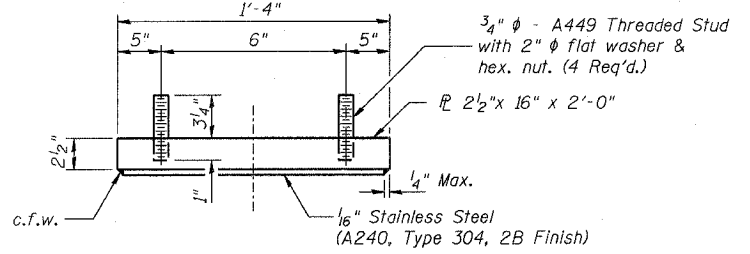
TYPE II-C ELASTOMERIC EXP. BRG.
(Pier 43 - Span 43, 10 Req'd)



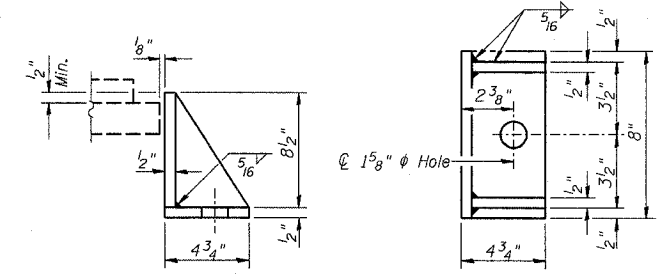
TOP BEARING ASSEMBLY



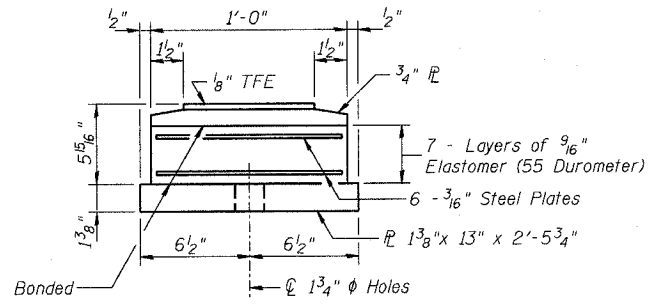
PLAN-TFE SURFACE



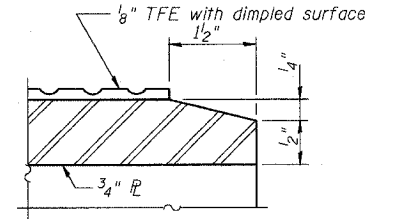
TOP BEARING ASSEMBLY



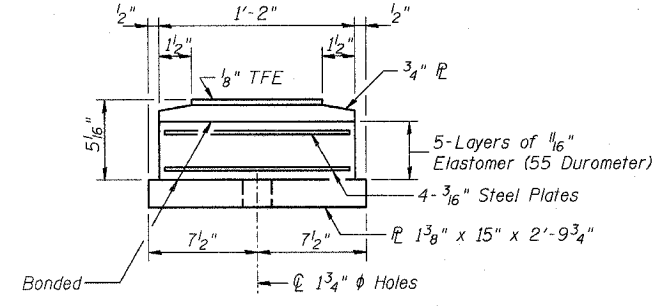
SIDE RETAINER



BOTTOM BEARING ASSEMBLY



SECTION THRU TFE



BOTTOM BEARING ASSEMBLY

- NOTES:**
1. U.N.O. denotes Unless Noted Otherwise.
 2. For Bearing Locations see sheets 210 thru 212.
 3. For Anchor Bolt Installation see sheet 216.

BILL OF MATERIAL

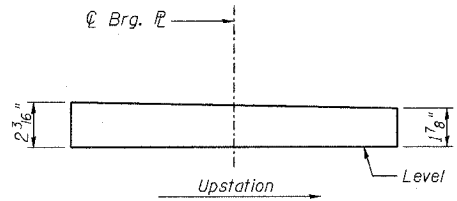
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	230

X	Location of studs
2 3/8"	Typical all bearings (except as noted below)
2 1/2"	Pier 41 (Span 42 - Girder G4)
2 5/8"	Pier 41 (Span 42 - Girders G8, G9 & G10)
2 7/8"	Pier 41 (Span 42 - Girders G5, G6 & G7)

DESIGNED -	LRB
CHECKED -	AJK
DRAWN -	RMG
CHECKED -	LRB

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



TOP BRG. PLATE BEVEL DETAIL
(Pier 2 only)

ELASTOMERIC BEARING TYPE II DETAILS
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)

F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

benesch

alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0450
Job # 3856

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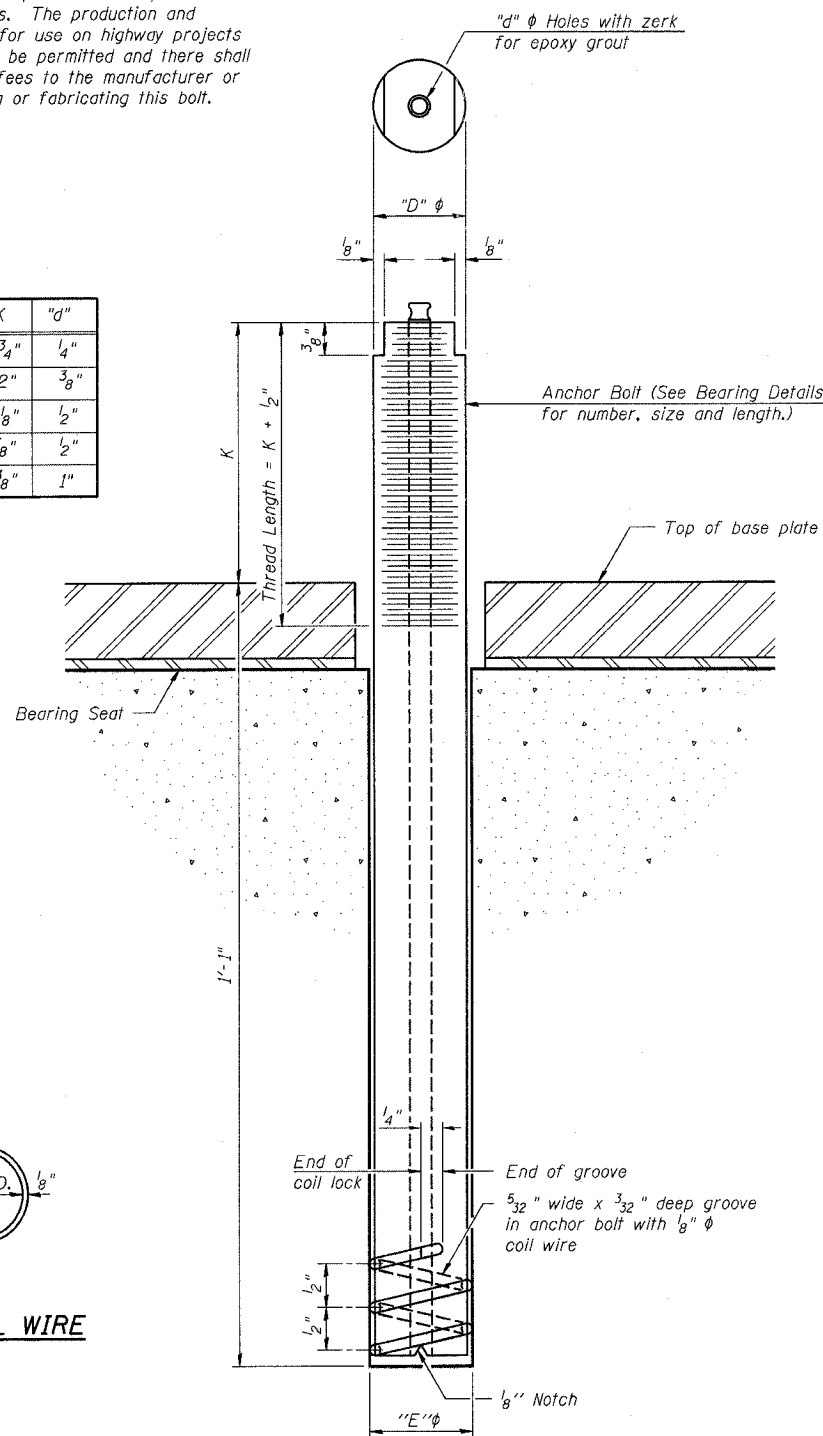
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 216
F.A.I. 39	50-4B	LASALLE	241	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66586

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT

PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE FOR THE ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
N. Abut.	A 307
Piers 34, 35 & S. Abut.	F 1554

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

NOTES:

1. Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
2. Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
3. The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

ANCHOR BOLT DETAILS
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

benesch
 alfred benesch & company
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 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450
 Job # 3856

DESIGNED -	LRB
CHECKED -	AJK
DRAWN -	HMA
CHECKED -	MRB

ABB-1 4-30-99

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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 217 313 SHEETS
F.A.I. 39	50-4B	LASALLE		243	
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT		

Contract # 66586

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times f_{s,allow} \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

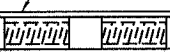
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

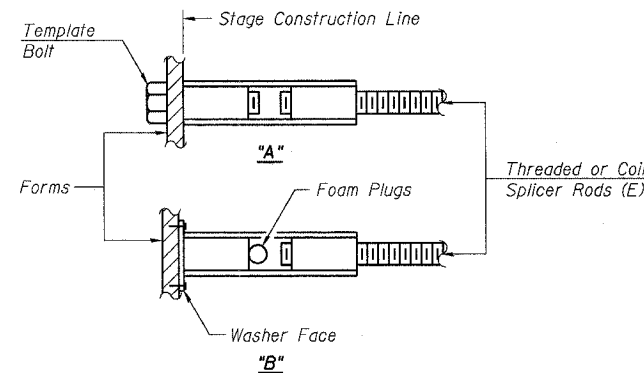
Wire Connector



WELDED SECTIONS

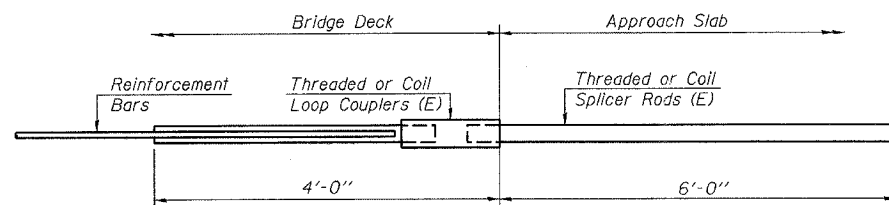
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



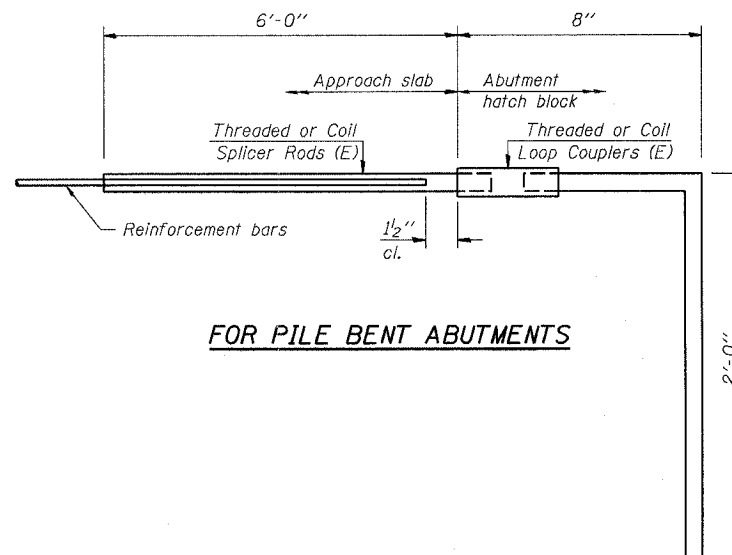
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



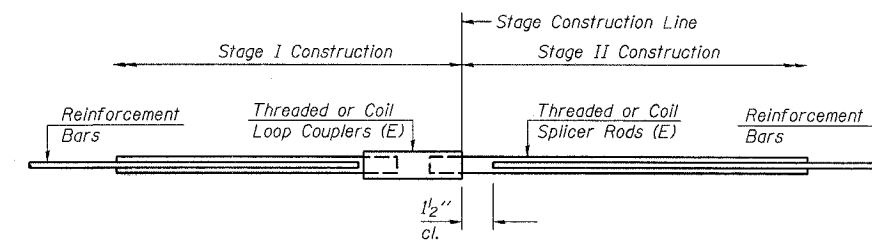
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	9.2 kips - tension
No. Required =	



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	9.2 kips - tension
No. Required =	168



STANDARD

Bar Size	No. Assemblies Required	Location

**BAR SPLICER ASSEMBLY DETAILS
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)**

F.A.I. ROUTE 39 SEC. (50-4B) BR

LASALLE COUNTY

STATION 863+16.00

STRUCTURE NO. 050-0191 (SB & NB)

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Chicago, Illinois 60601
312-685-0450
Job # 3856

DESIGNED -	ADB
CHECKED -	STD
DRAWN -	VH
CHECKED -	MRB

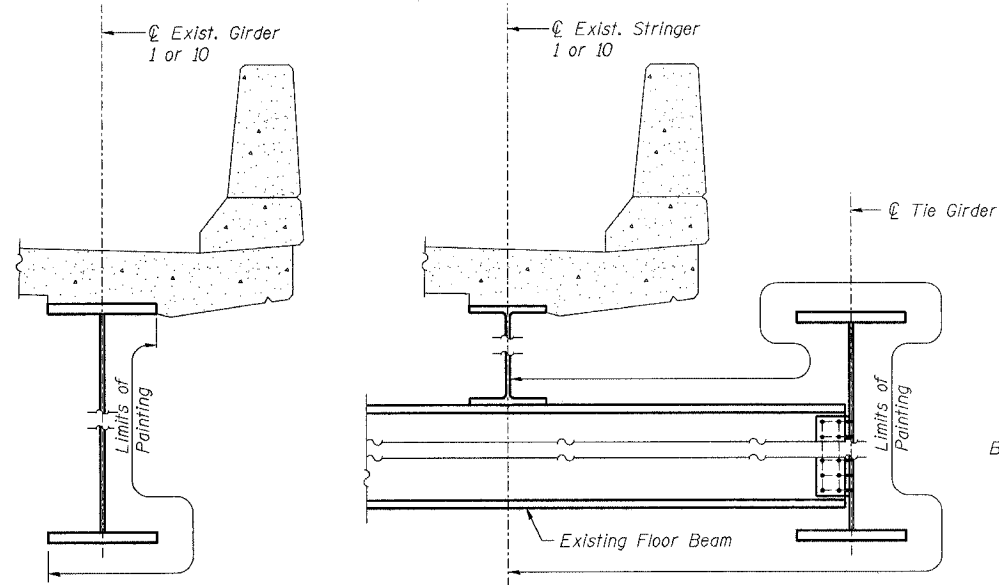
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

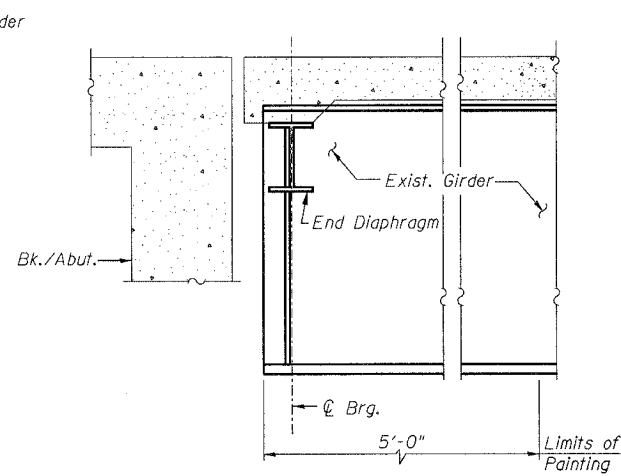
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
F.A.I. 39	50-4B	LASALLE	243	313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

Contract # 66586

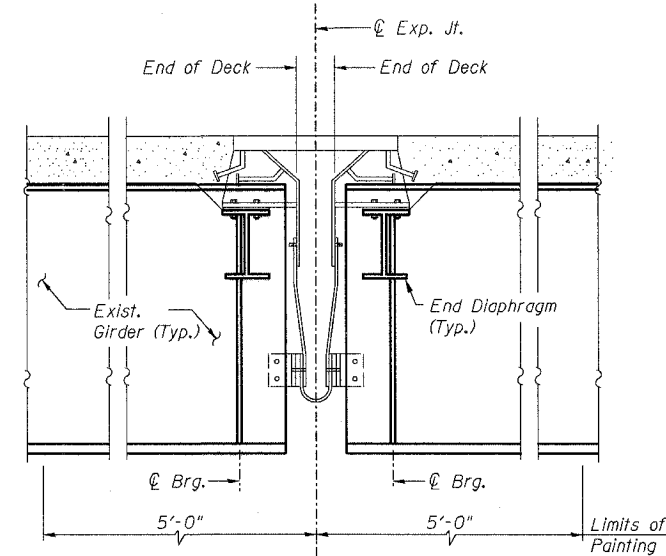


APPROACH FASCIA GIRDER

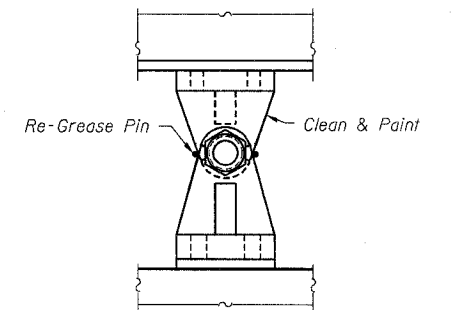
TIE GIRDER AT ARCH SPAN



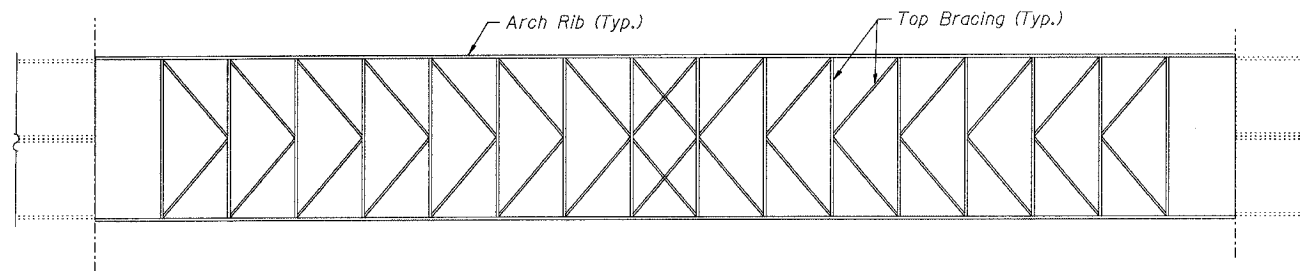
AT ABUTMENTS
(S. Abut. shown, N. Abut. similar)
(Painting includes end diaphragms)



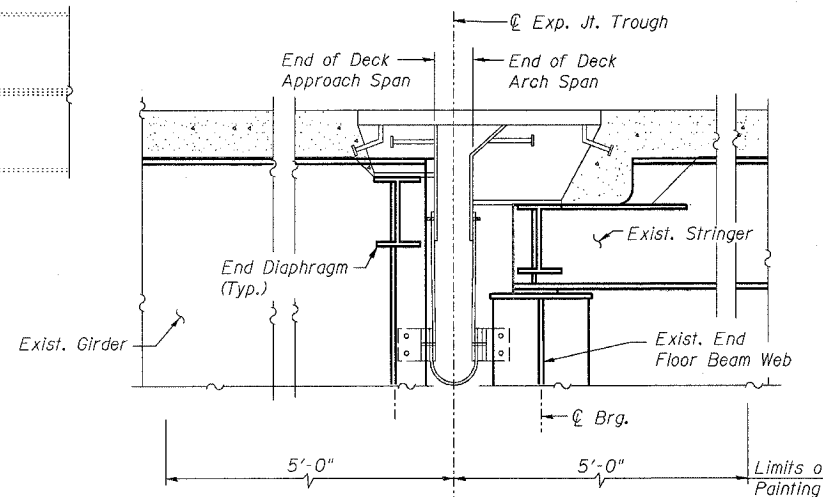
AT APPROACH EXPANSION JOINTS
(Painting includes end diaphragms)



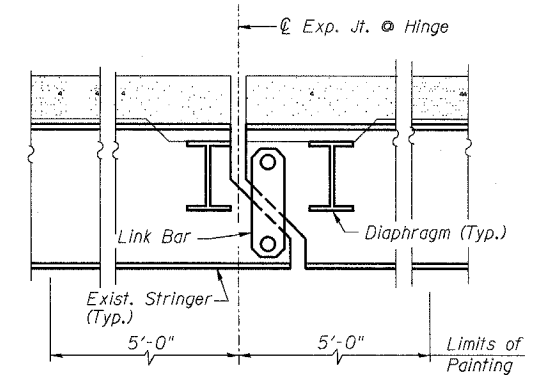
EXISTING FIXED BEARING
(Cost of Re-Greasing included with
Cleaning and Painting Existing Structural Steel)



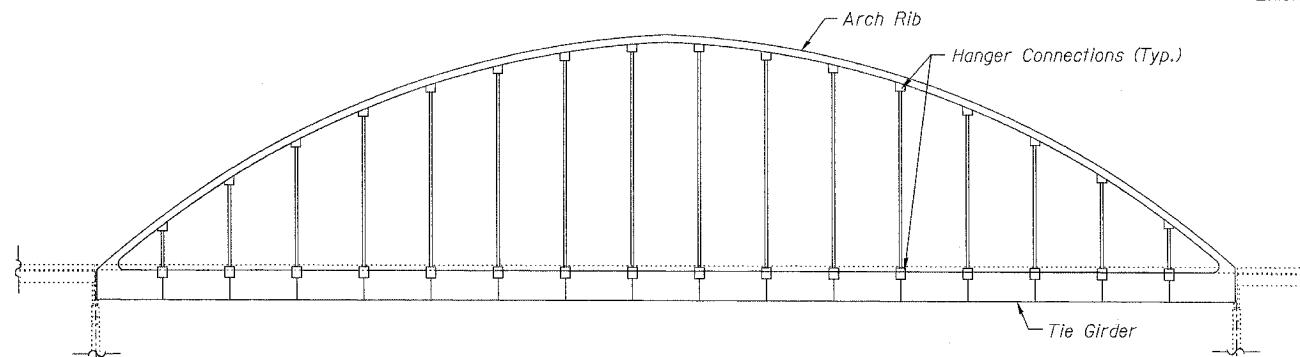
TOP PLAN - TIED ARCH SPAN
(Painting includes Arch Ribs, Hanger Connections, Tie Girders & Top Bracing)



AT EXPANSION JOINT - TIED ARCH SPAN
(Pier 34 shown near edge of Deck, Pier 35 opposite hand)
(Painting includes live load supports, end floor beams,
end diaphragms and bearings)



AT INTERMEDIATE HINGES - TIED ARCH SPAN
(Painting includes link bars and diaphragms)



ELEVATION - TIED ARCH SPAN
(Painting includes Arch Ribs, Hanger Connections, Tie Girder & Top Bracing)

DESIGNED -	MRB
CHECKED -	HMA
DRAWN -	AR/VH
CHECKED -	HMA

benesch

alfred benesch & company
Engineers - Surveyors - Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

PAINTING LIMITS
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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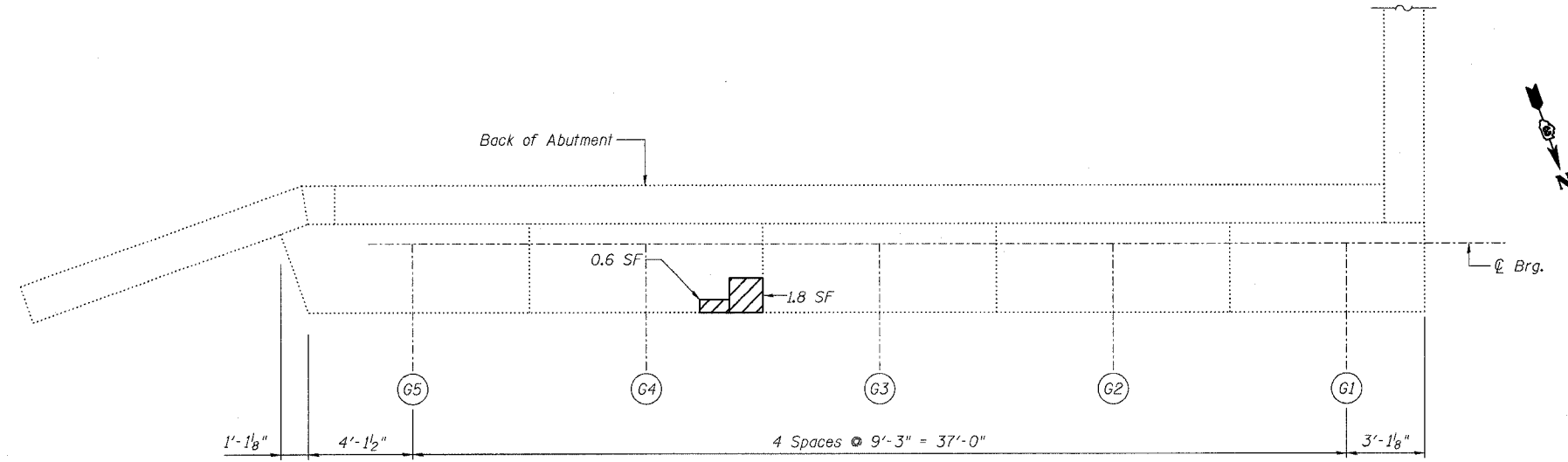
10/16/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

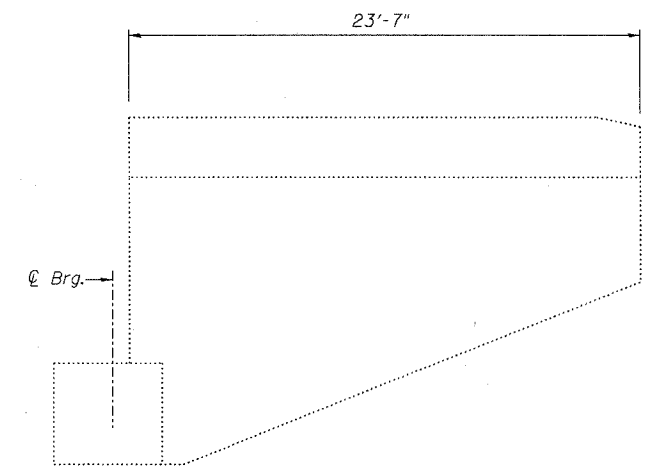
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
F.A.I. 39	50-4B	LASALLE		211
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 219
313 SHEETS

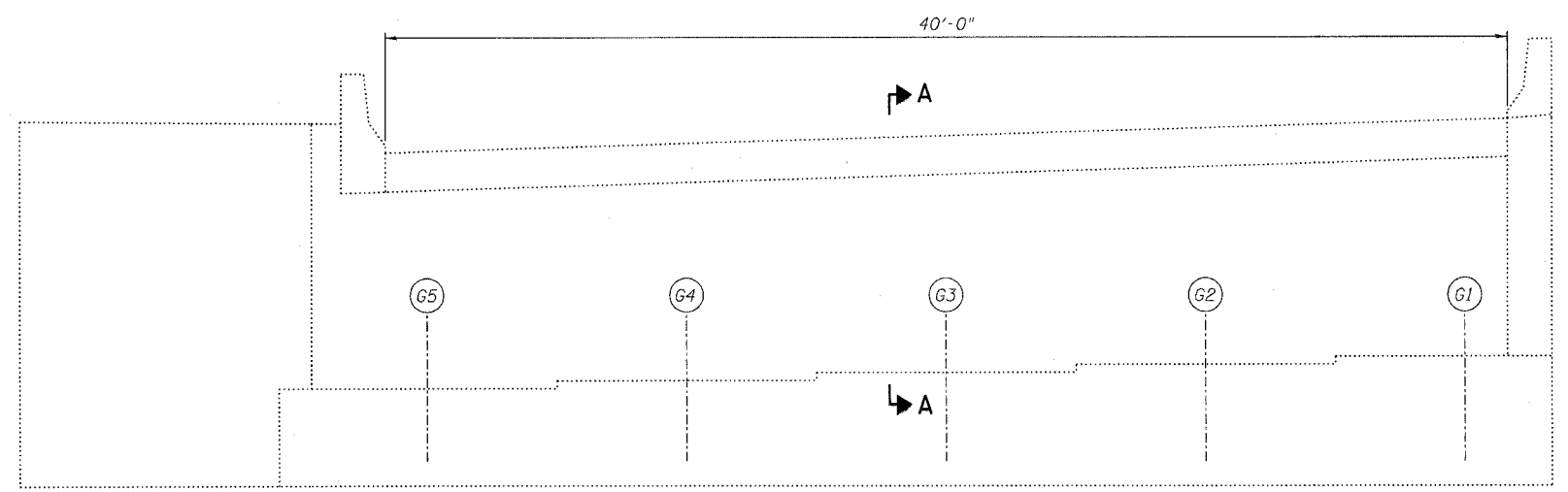
Contract # 66586



PLAN VIEW



SOUTHWEST WINGWALL



SOUTHBOUND ELEVATION
(Looking South)

NOTE:

The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.

CONCRETE REPAIR - SOUTH ABUT. (SB)
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	2.4

DESIGNED	JGY
CHECKED	MTH
DRAWN	ADB
CHECKED	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chattanooga, Illinois 62629
(217) 483-4158
FAX (217) 483-4706

benesch
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

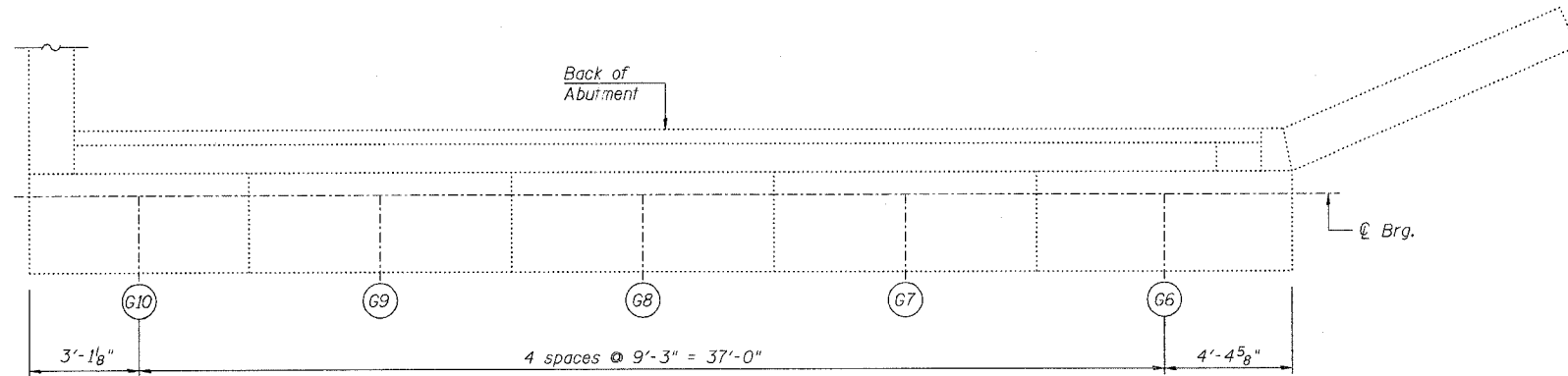
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

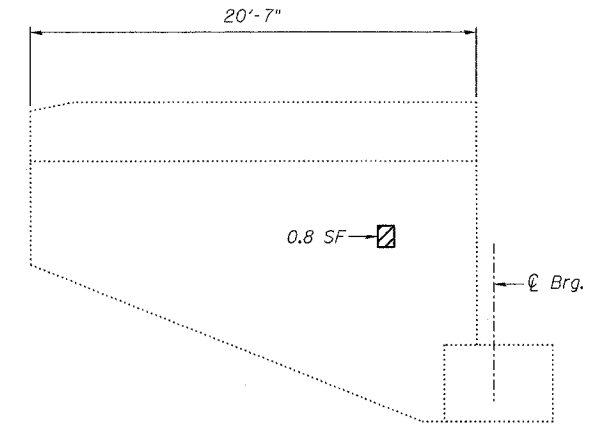
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		215	220
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract # 66586

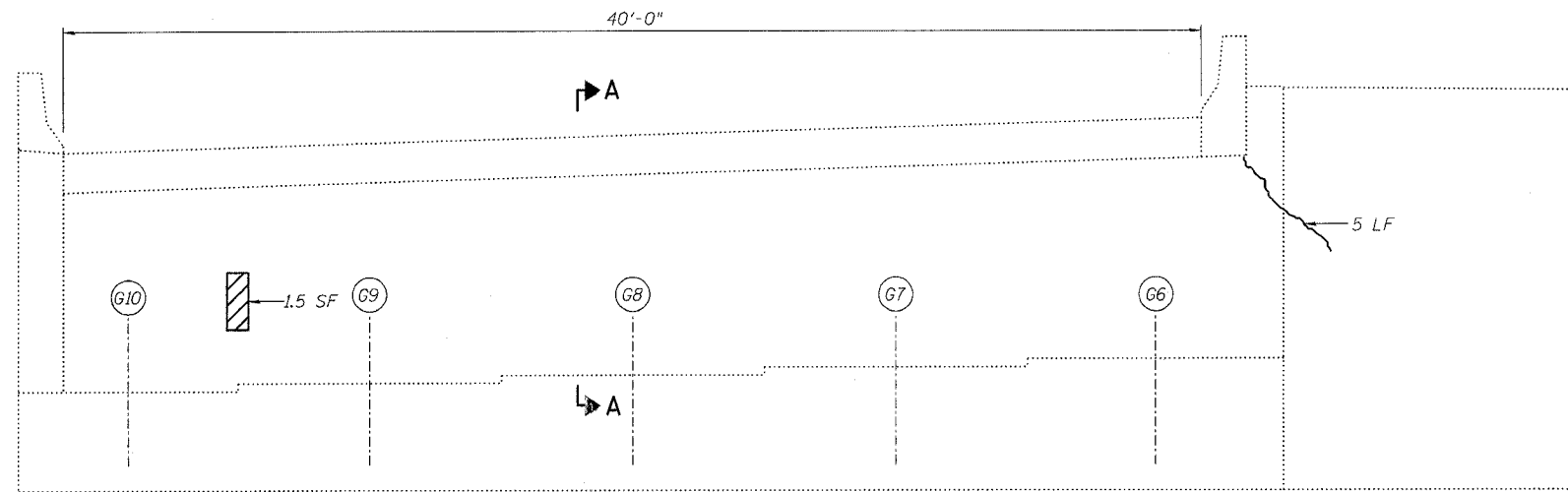
SHEET NO. 220
313 SHEETS



PLAN VIEW



SOUTHEAST WINGWALL



NORTHBOUND ELEVATION
(Looking South)

NOTE:

The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Epoxy Crack Sealing (Cracks \geq 1/16" Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	2.3
Epoxy Crack Sealing	LF	5

DESIGNED	JGY
CHECKED	MTH
DRAWN	ADB
CHECKED	MTH

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210 W. Chestnut
Chatham, Illinois 62629
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FAX (217) 483-4706

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0490
Job # 3856

CONCRETE REPAIR - SOUTH ABUT. (NB)
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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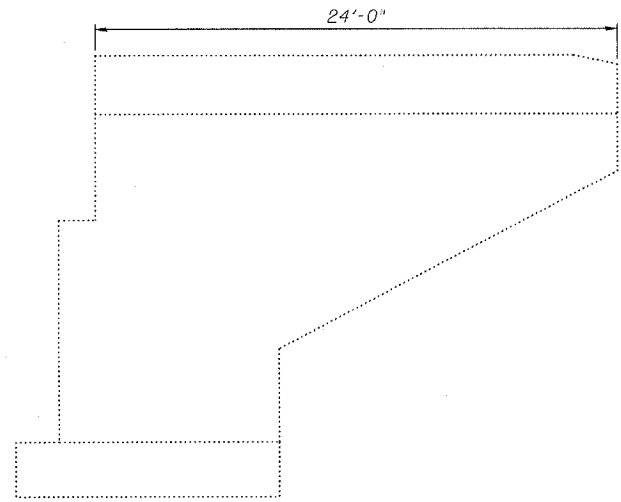
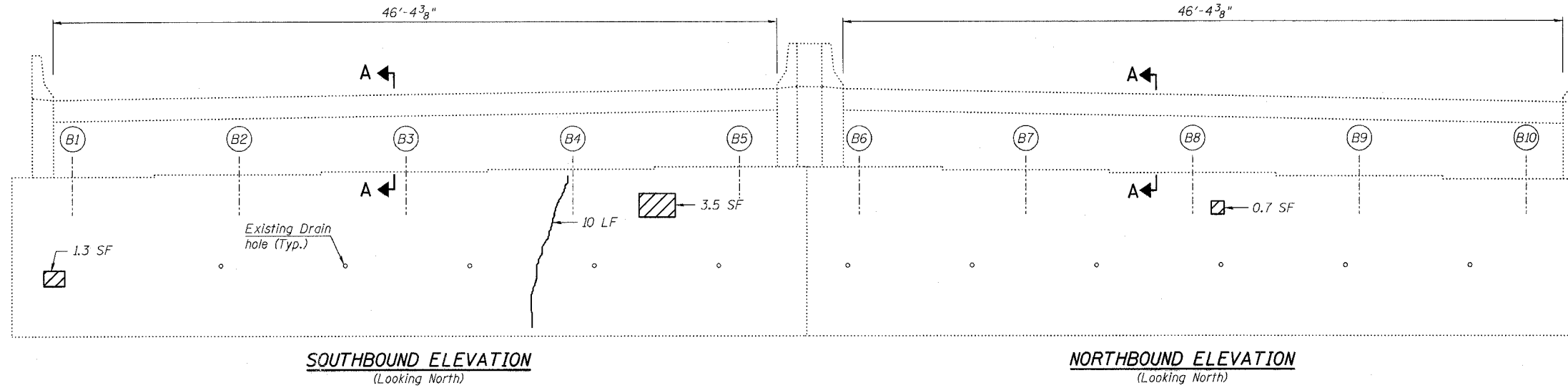
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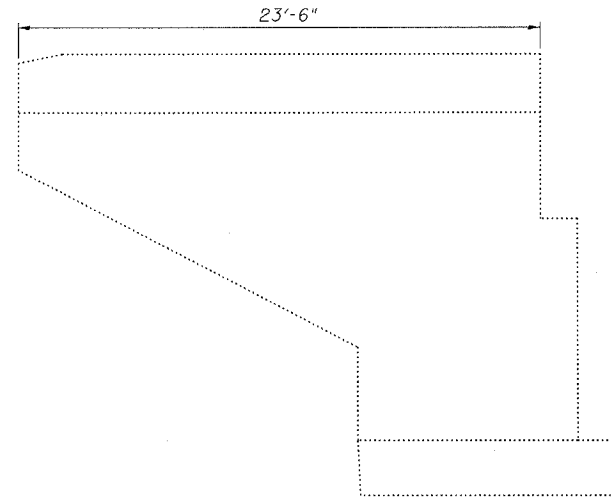
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 246	SHEET NO. 221	SHEET
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract # 66586



NORTHEAST WINGWALL



NORTHWEST WINGWALL

NOTE:

The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Epoxy Crack Sealing (Cracks $\geq \frac{1}{16}$ " Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	5.5
Epoxy Crack Sealing	LF	10

DESIGNED	JGY
CHECKED	MTH
DRAWN	ADB
CHECKED	MTH

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210 W. Chestnut
Charlton, Illinois 62629
(217) 483-4168
FAX (217) 483-4106

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-865-0450
Job # 3856

CONCRETE REPAIR - NORTH ABUTMENT
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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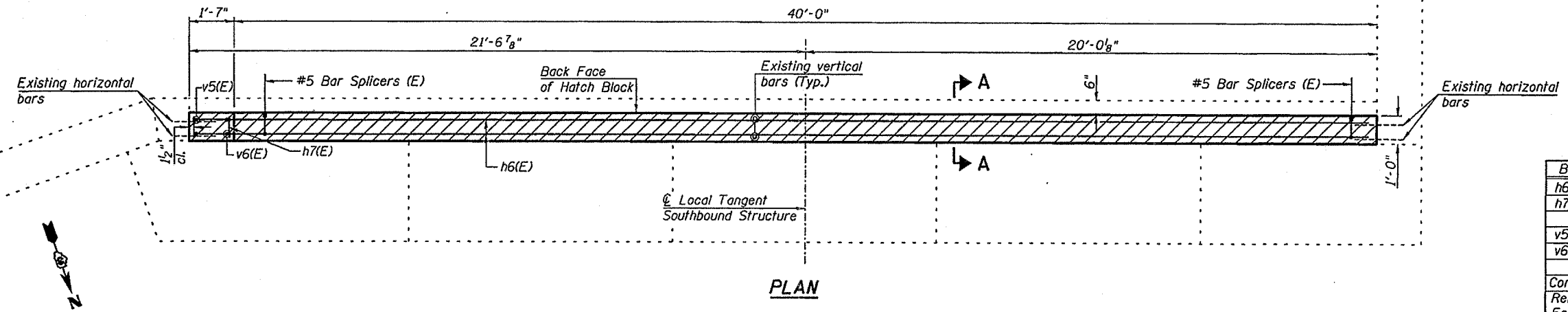
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 222
F.A.I. 39	50-4B	LASALLE		246 A	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66586

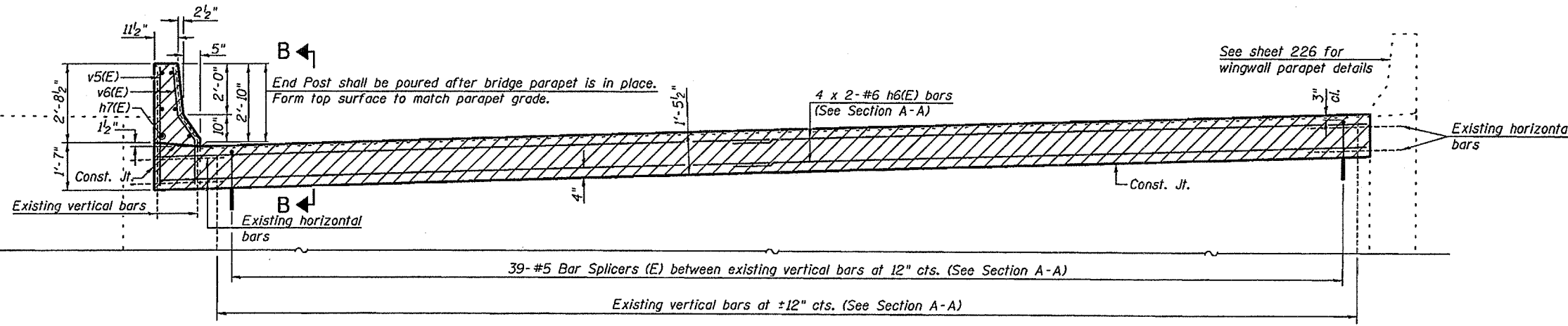


PLAN

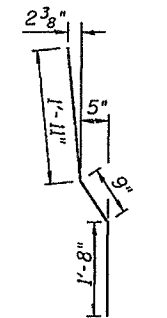
ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	8	#6	22'-0"	—
h7(E)	6	#4	0'-10"	—
v5(E)	2	#4	4'-0"	—
v6(E)	2	#5	4'-4"	—
Concrete Superstructure			Cu. Yd.	4.7
Reinforcement Bars, Epoxy Coated			Pound	290

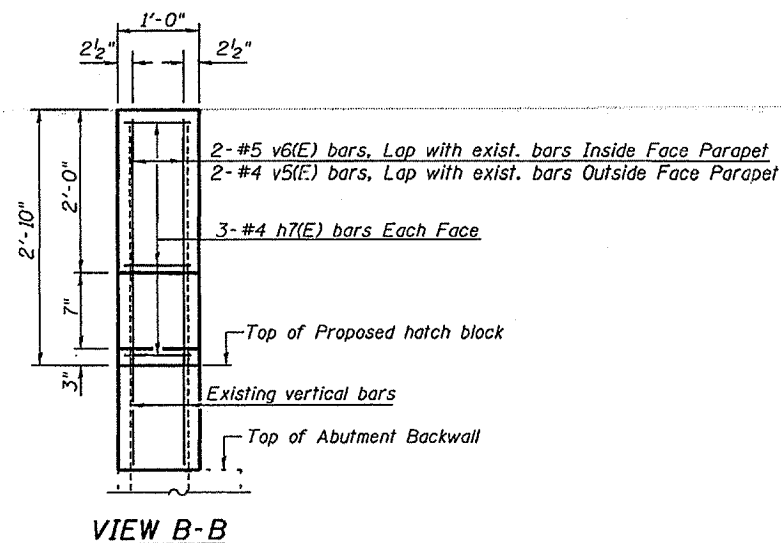
Reinforcement Bars designated (E) shall be epoxy coated.



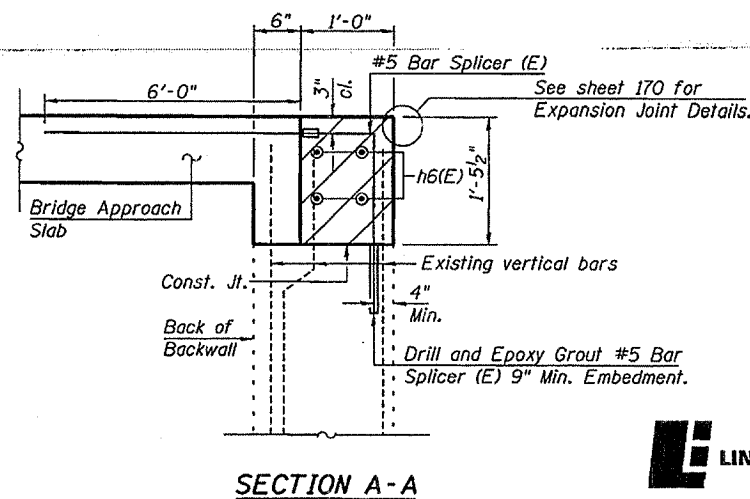
ELEVATION
(Looking South)



BAR v6(E)



VIEW B-B



SECTION A-A

NOTES:

- Existing reinforcement shall be cleaned, straightened and incorporated into the new concrete, in accordance with IDOT Standard Specifications Article 501.03. Cost included in "Concrete Removal".
- See Sheet 217 for bar splicer details.
- Hatched area to be poured after superstructure false work has been removed.
- Bars indicated thus 4 x 2-#6 etc. indicates 4 lines of bars with 2 lengths per line.

MIN. BAR LAP

#6 = 2'-7"

DESIGNED	ADB
CHECKED	STD
DRAWN	ADB
CHECKED	MTH

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210 W. Chestnut
Chatham, Illinois 62629
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FAX (217) 483-4706

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alfred benesch & company
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-585-0450
Job # 3858

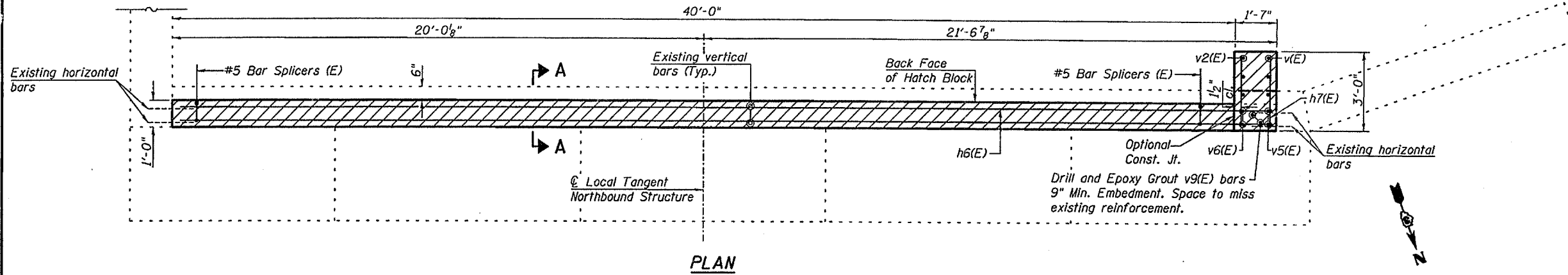
BACKWALL REHAB. - SOUTH ABUT. (SB)
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
F.A.I. 39	50-4B	LASALLE	246	246
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 66586

SHEET NO. 223
313 SHEETS

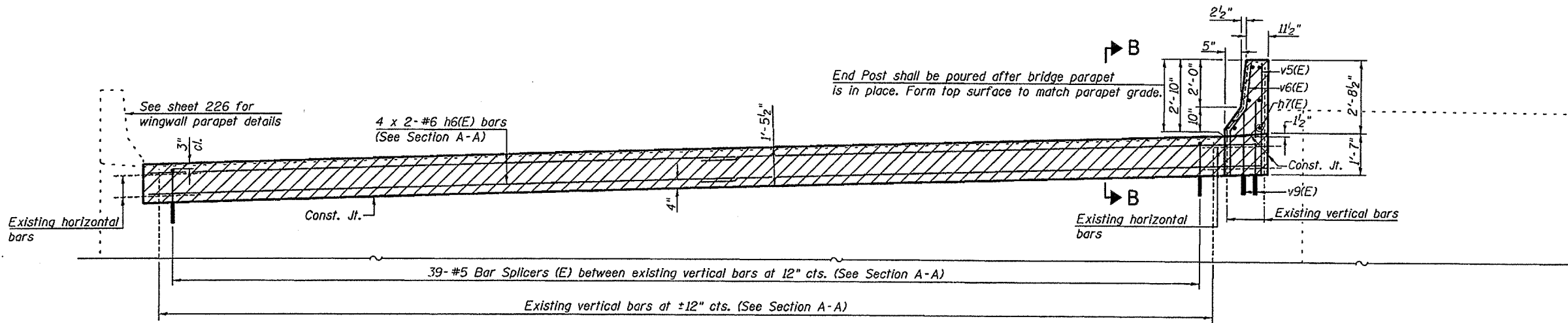


PLAN

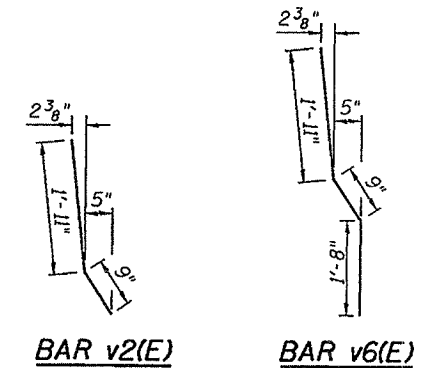
ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h6(E)	8	#6	22'-0"	—
h7(E)	6	#4	2'-10"	—
v(E)	2	#4	2'-6"	—
v2(E)	2	#5	2'-8"	—
v5(E)	3	#4	4'-0"	—
v6(E)	3	#5	4'-4"	—
v9(E)	2	#6	3'-4"	—
Concrete Superstructure			Cu. Yd.	4.6
Reinforcement Bars, Epoxy Coated			Pound	310

Reinforcement Bars designated (E) shall be epoxy coated.

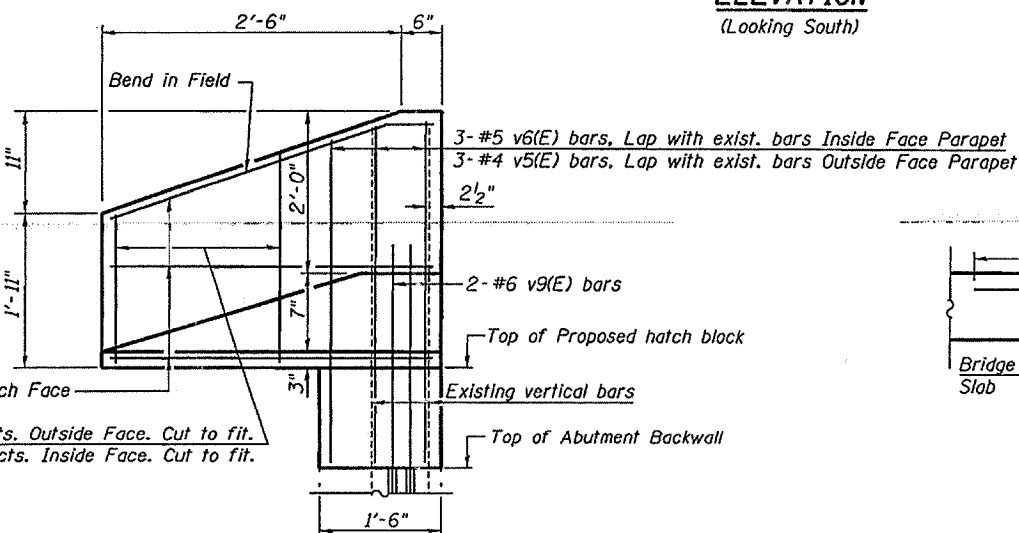


ELEVATION
(Looking South)

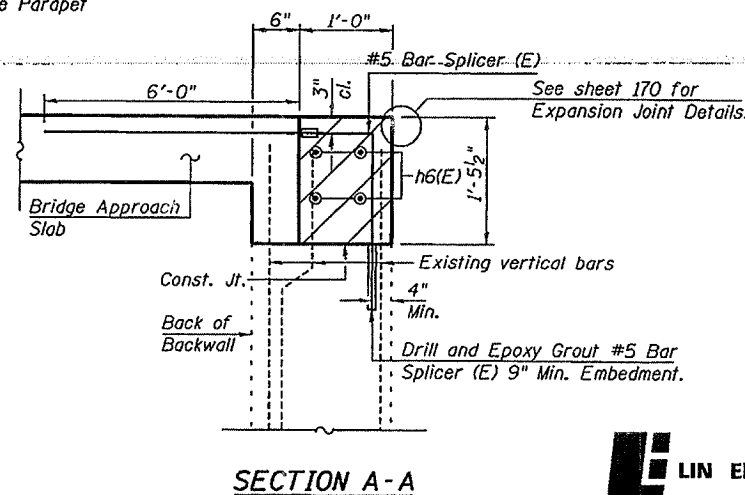


BAR v2(E)

BAR v6(E)



VIEW B-B



SECTION A-A

NOTES:

- Existing reinforcement shall be cleaned, straightened and incorporated into the new concrete, in accordance with IDOT Standard Specifications Article 501.03. Cost included in "Concrete Removal".
- See Sheet 217 for bar splicer details.
- Hatched area to be poured after superstructure false work has been removed.
- Bars indicated thus 4 x 2-#6 etc. indicates 4 lines of bars with 2 lengths per line.

MIN. BAR LAP

#6 = 2'-7"

DESIGNED	ADB
CHECKED	STD
DRAWN	ADB
CHECKED	MTH

benesch
LIN ENGINEERING, LTD.

210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

benesch

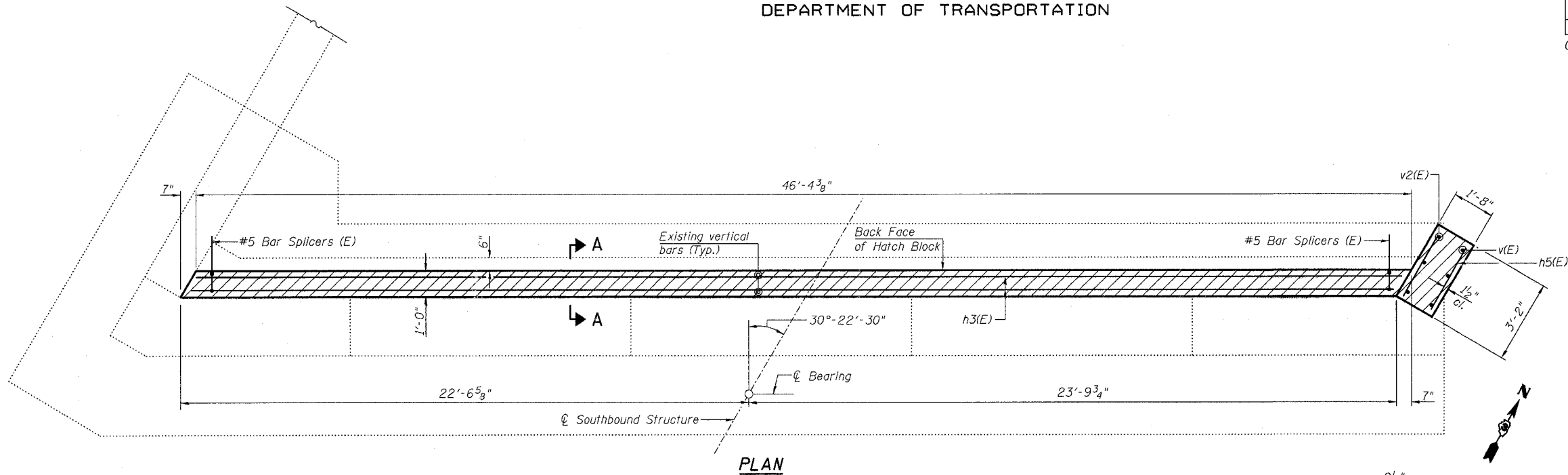
alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-669-0450
Job # 3856

BACKWALL REHAB.- SOUTH ABUT. (NB)
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 224
F.A.I. 39	50-4B	LASALLE		211	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66586

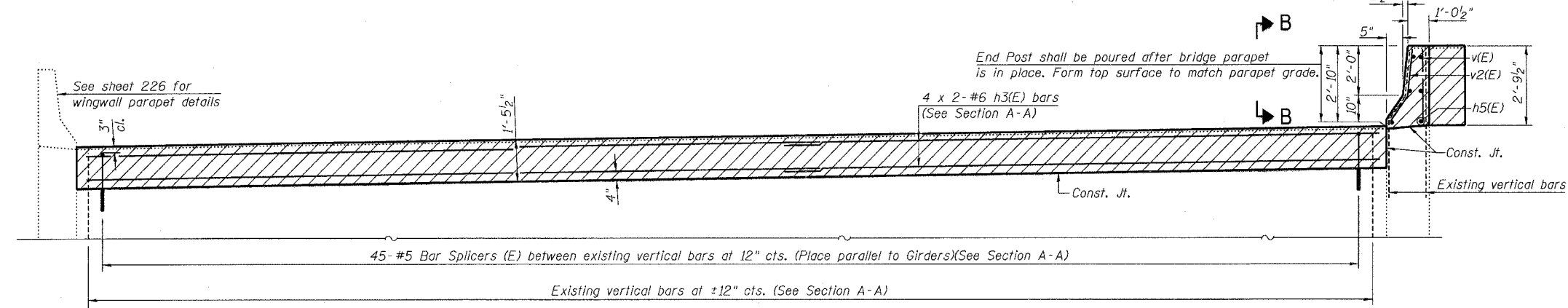


PLAN

ABUTMENT
BILL OF MATERIAL

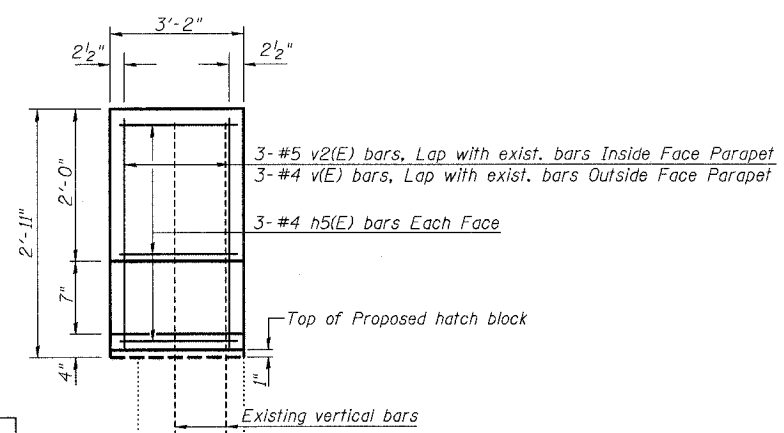
Bar	No.	Size	Length	Shape
h3(E)	8	#6	24'-4"	—
h5(E)	6	#4	2'-11"	—
v(E)	3	#4	2'-6"	—
v2(E)	3	#5	2'-8"	—
Concrete Superstructure			Cu. Yd.	5.2
Reinforcement Bars, Epoxy Coated			Pound	320

Reinforcement Bars designated (E) shall be epoxy coated.

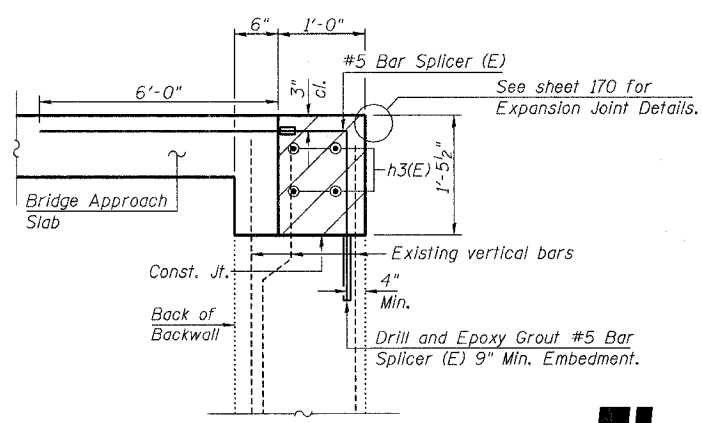


ELEVATION
(Looking North)

MIN. BAR LAP
#6 = 2'-7"



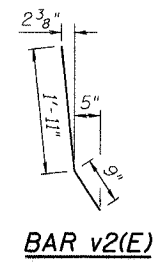
VIEW B-B



SECTION A-A

NOTES:

- Existing reinforcement shall be cleaned, straightened and incorporated into the new concrete, in accordance with IDOT Standard Specifications Article 501.03. Cost included in "Concrete Removal".
- See Sheet 217 for bar splicer details.
- Hatched area to be poured after superstructure false work has been removed.
- Bars indicated thus 4 x 2-#6 etc. indicates 4 lines of bars with 2 lengths per line.



DESIGNED	ADB
CHECKED	STD
DRAWN	ADB
CHECKED	MTH

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210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

BACKWALL REHAB. - NORTH ABUT. (SB)
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

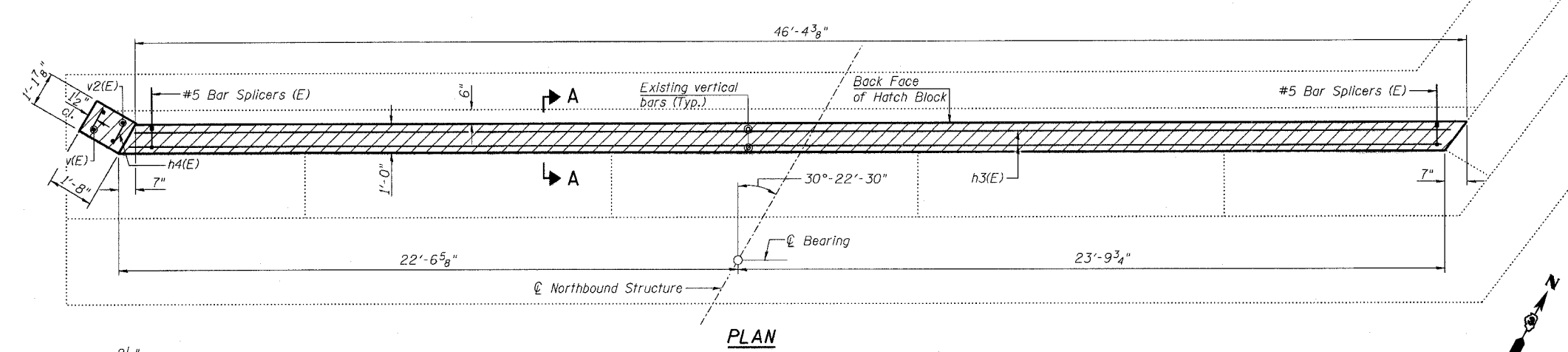
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE	248	248
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 225
313 SHEETS

Contract # 66586

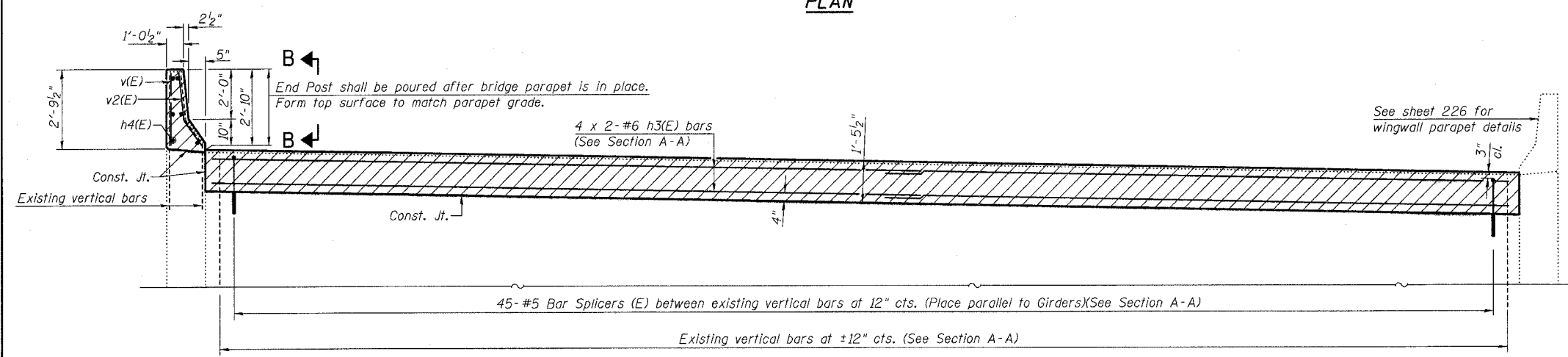


PLAN

ABUTMENT
BILL OF MATERIAL

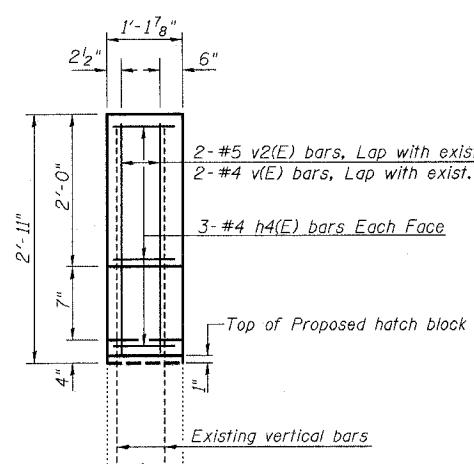
Bar	No.	Size	Length	Shape
h3(E)	8	#6	24'-4"	—
h4(E)	6	#4	1'-0"	—
v(E)	2	#4	2'-6"	—
v2(E)	2	#5	2'-8"	—
Concrete Superstructure			Cu. Yd.	5.0
Reinforcement Bars, Epoxy Coated			Pound	310

Reinforcement Bars designated (E) shall be epoxy coated.

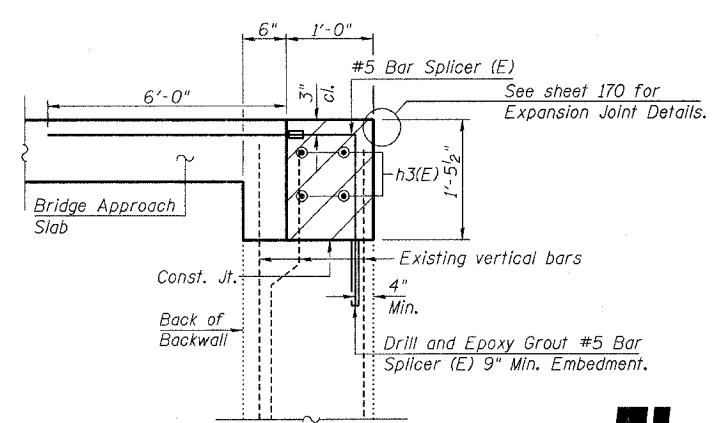


ELEVATION
(Looking North)

MIN. BAR LAP
#6 = 2'-7"



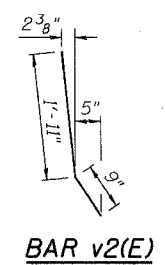
VIEW B-B



SECTION A-A

NOTES:

- Existing reinforcement shall be cleaned, straightened and incorporated into the new concrete, in accordance with IDOT Standard Specifications Article 501.03. Cost included in "Concrete Removal".
- See Sheet 217 for bar splicer details.
- Hatched area to be poured after superstructure false work has been removed.
- Bars indicated thus 4 x 2-#6 etc. indicates 4 lines of bars with 2 lengths per line.



DESIGNED	ADB
CHECKED	STD
DRAWN	ADB
CHECKED	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chariton, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

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alfred benesch & company
Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3856

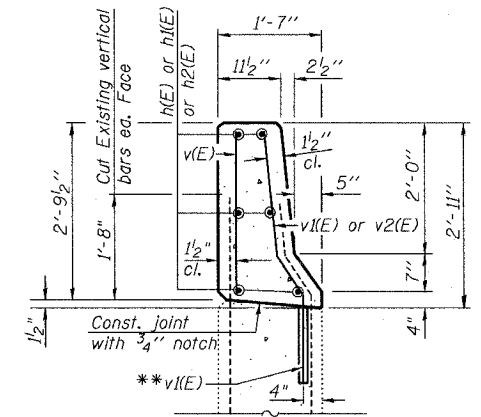
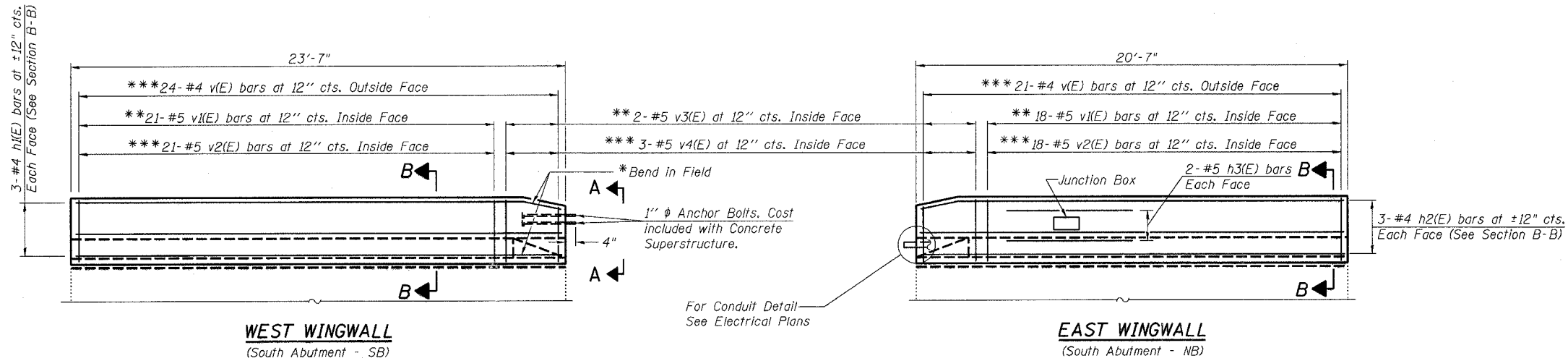
BACKWALL REHAB. - NORTH ABUT. (NB)
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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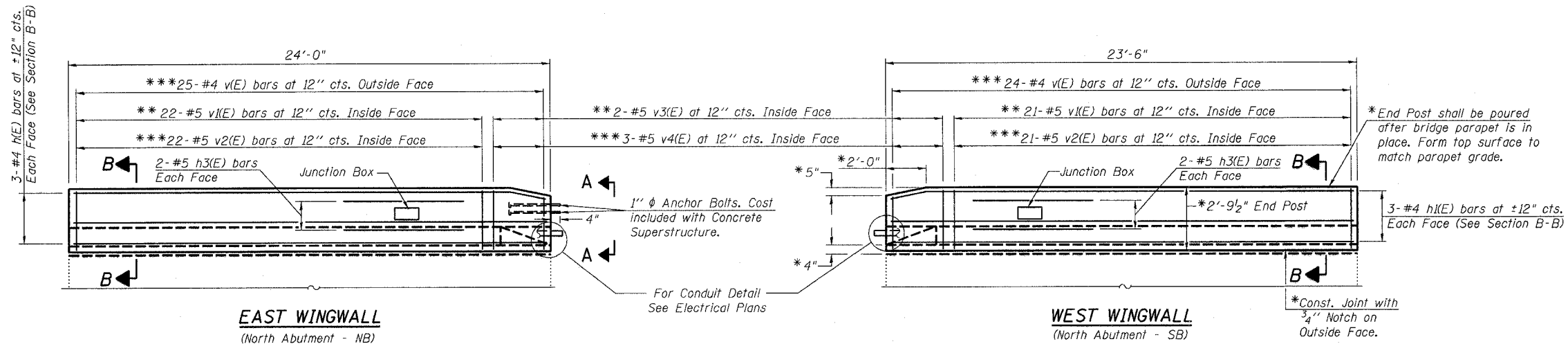
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 226 313 SHEETS
F.A.I. 39	50-4B	LASALLE		249	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66586



SECTION B-B

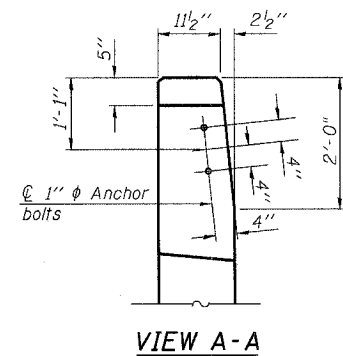
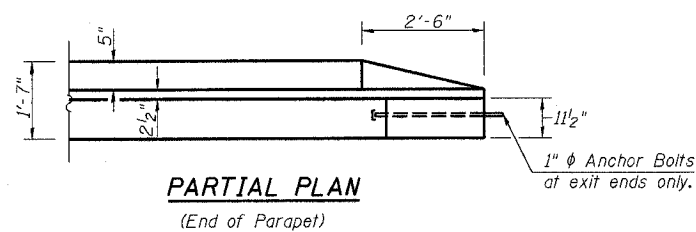


**ABUTMENT WINGWALL
BILL OF MATERIAL**

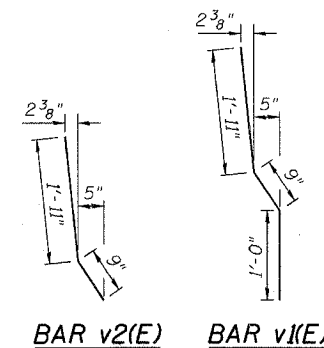
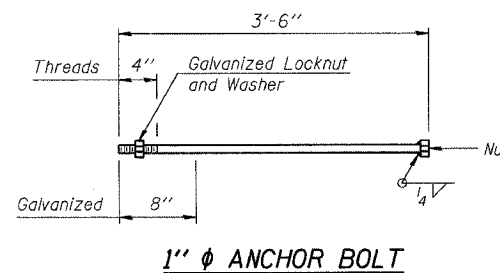
Bar	No.	Size	Length	Shape
h(E)	6	#4	23'-9"	—
h(E)	12	#4	23'-4"	—
h2(E)	6	#4	20'-4"	—
h3(E)	12	#5	6'-0"	—
v(E)	94	#4	2'-6"	—
v(E)	82	#5	3'-8"	—
v2(E)	82	#5	2'-8"	—
v3(E)	8	#5	3'-5"	—
v4(E)	12	#5	2'-8"	—
Reinforcement Bars, Epoxy Coated			Pound	1200

Reinforcement Bars designated (E) shall be epoxy coated.

OUTSIDE ELEVATION OF PARAPET



- * Typical on all four wingwall parapets.
- ** Drill and Epoxy Grout v(E) and v3(E) bars 9" min. embedment at 12" cts. between existing vertical bars.
- *** Lap 1'-8" min. with existing vertical bars.



NOTES:

- Quantity of concrete in end post included with Concrete Superstructure on sheets 222 thru 225.
- Existing reinforcement shall be cleaned, straightened and incorporated into the new concrete, in accordance with IDOT Standard Specifications Article 501.03. Cost included in "Concrete Removal".
- For locations of Junction Boxes, see Electrical Plans.

**ABUTMENT WINGWALL PARAPETS
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)**

lin ENGINEERING, LTD.
 210 W. Chestnut
 Crofton, Illinois 62629
 (217) 483-4168
 FAX (217) 483-4706

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 alfred benesch & company
 Engineers • Surveyors • Planners
 2105 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450
 Job # 3956

DESIGNED	ADB
CHECKED	STD
DRAWN	ADB
CHECKED	MTH

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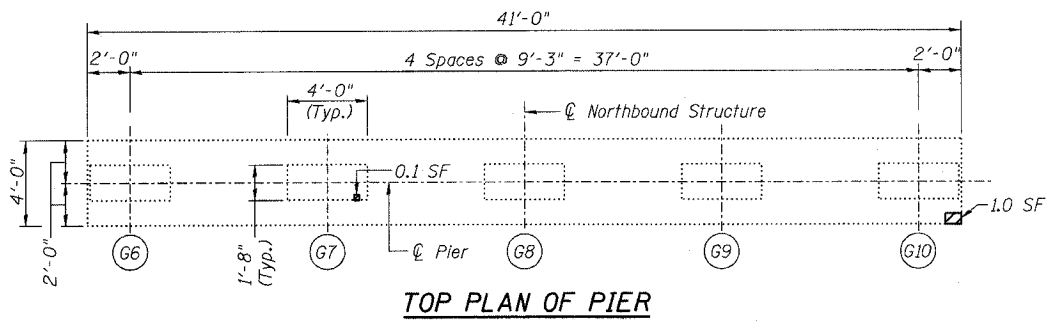
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

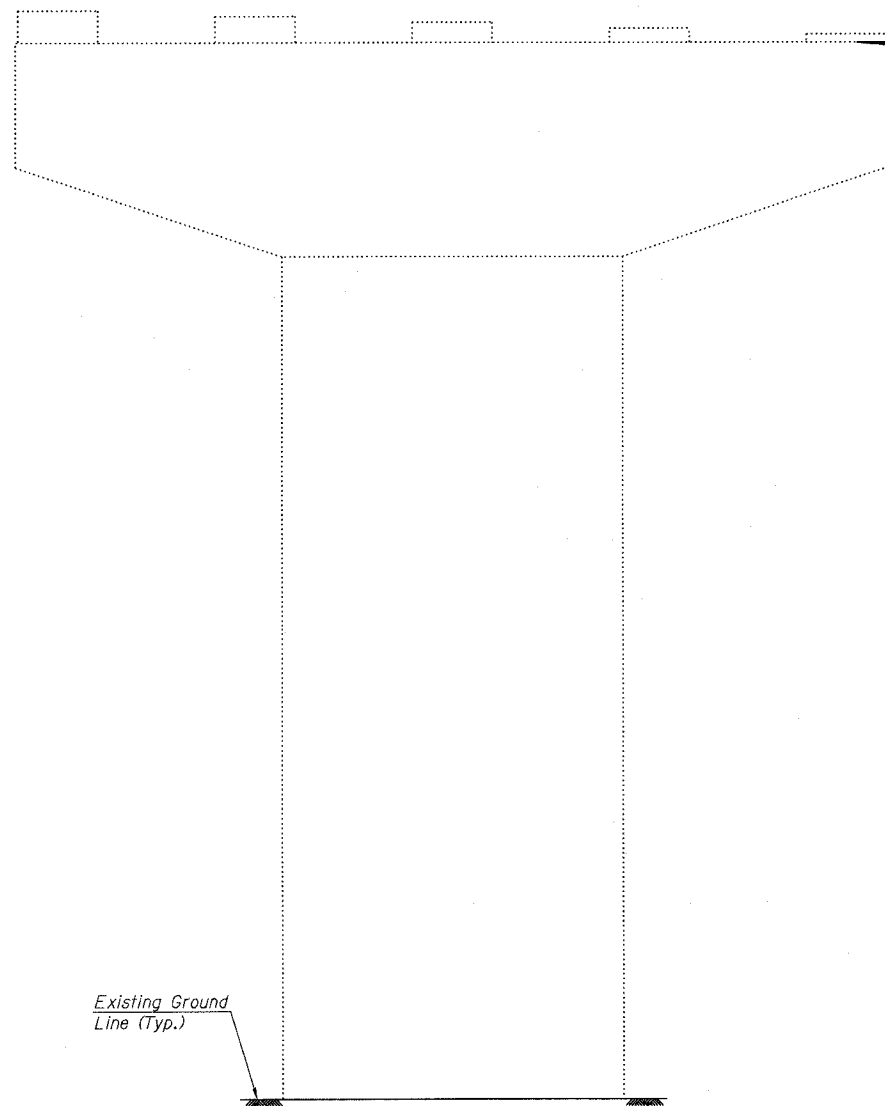
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 250	SHEET NO. 250	SHEET
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

SHEET NO. 227
313 SHEETS
Contract # 66586

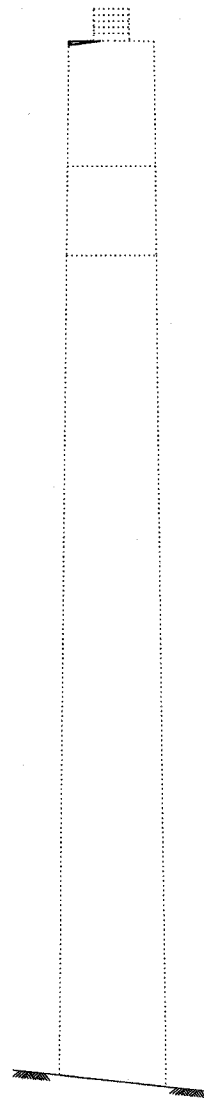


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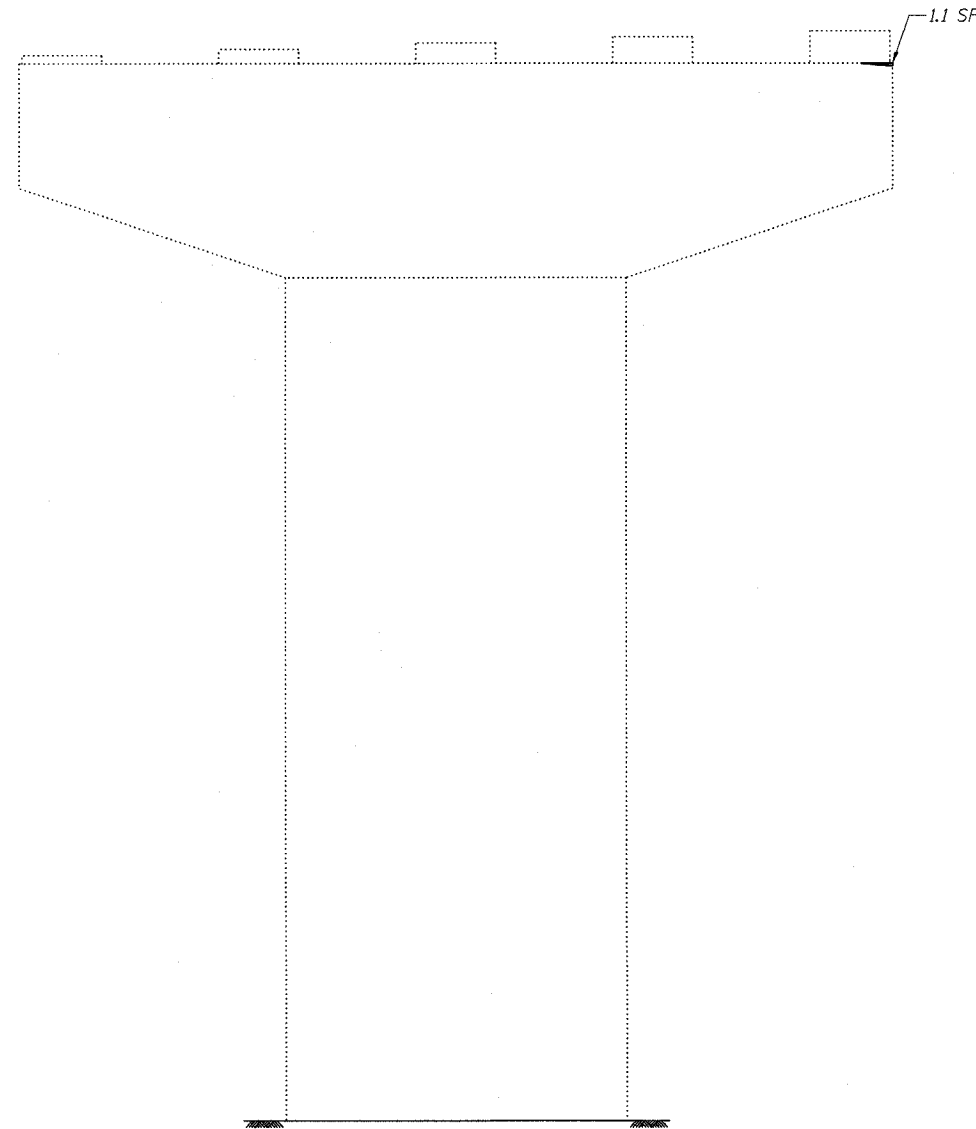
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



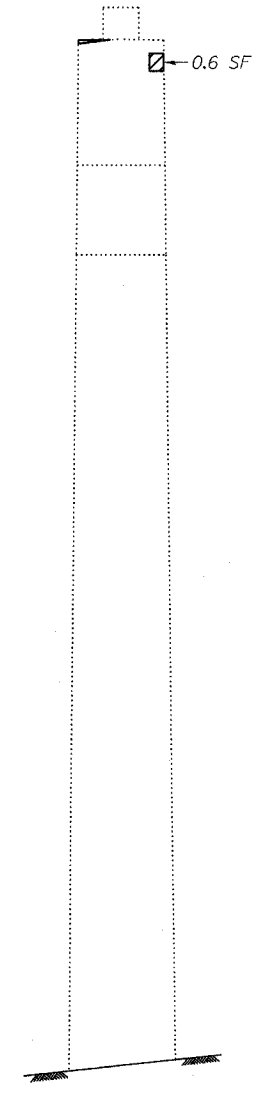
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	2.8

DESIGNED ADB
CHECKED DLS
DRAWN KHH
CHECKED MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

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225 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

PIER REPAIR - PIER 1 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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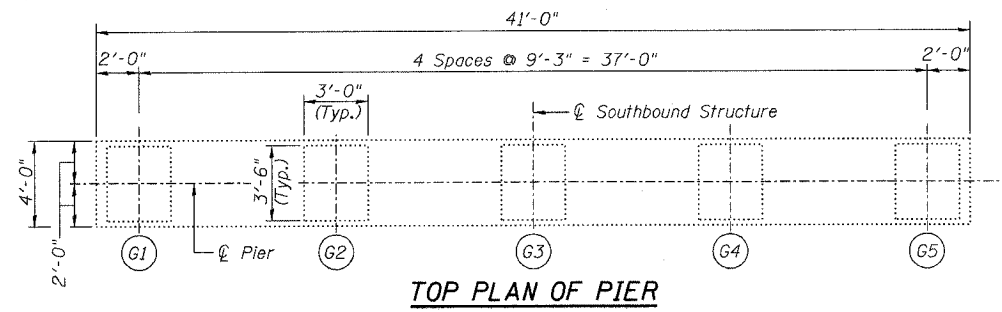
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.I. 39	50-4B	LASALLE	251	251	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

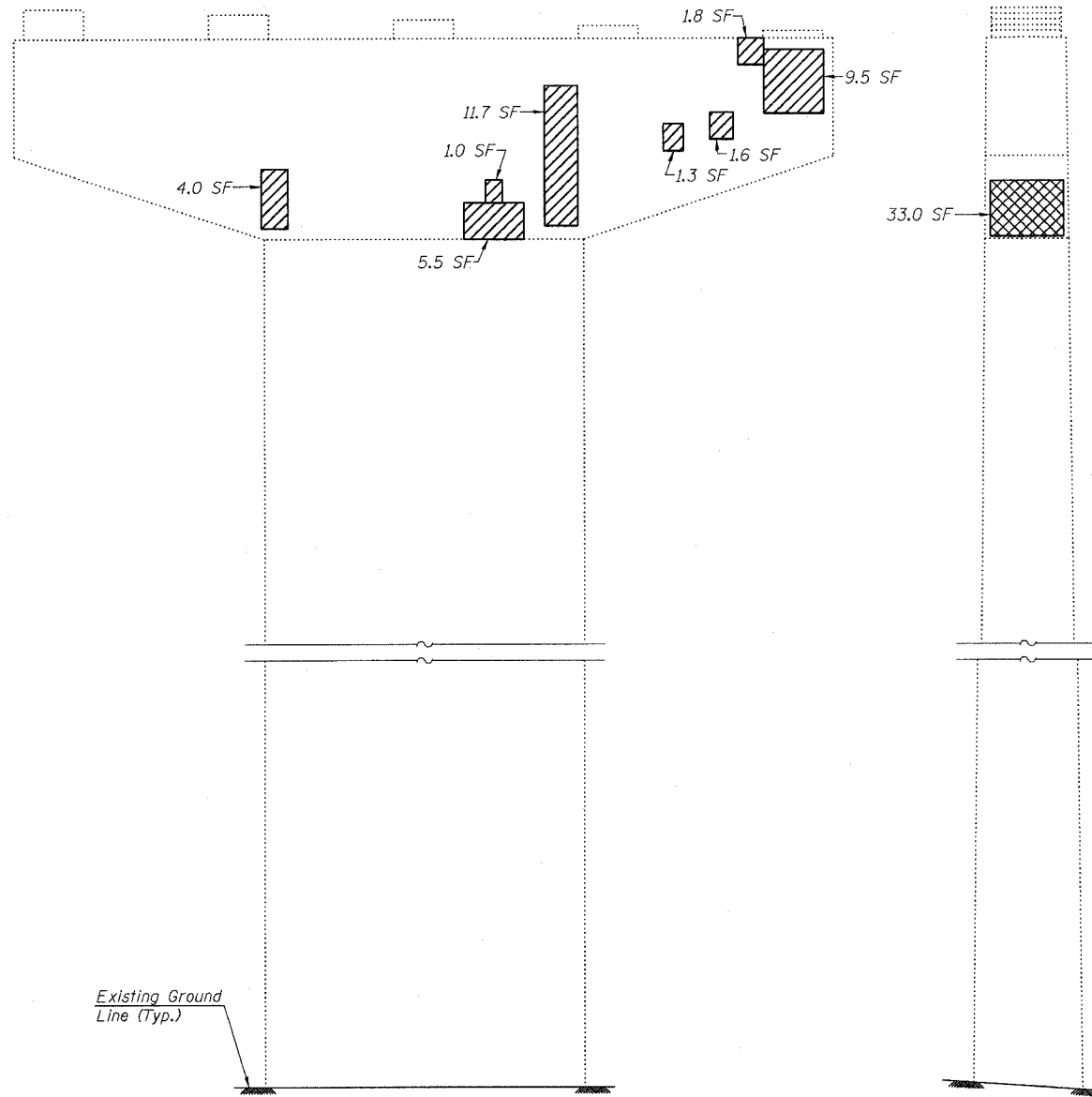
Contract # 66586

NOTES:

- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 230 for rehabilitation of concrete pedestals.

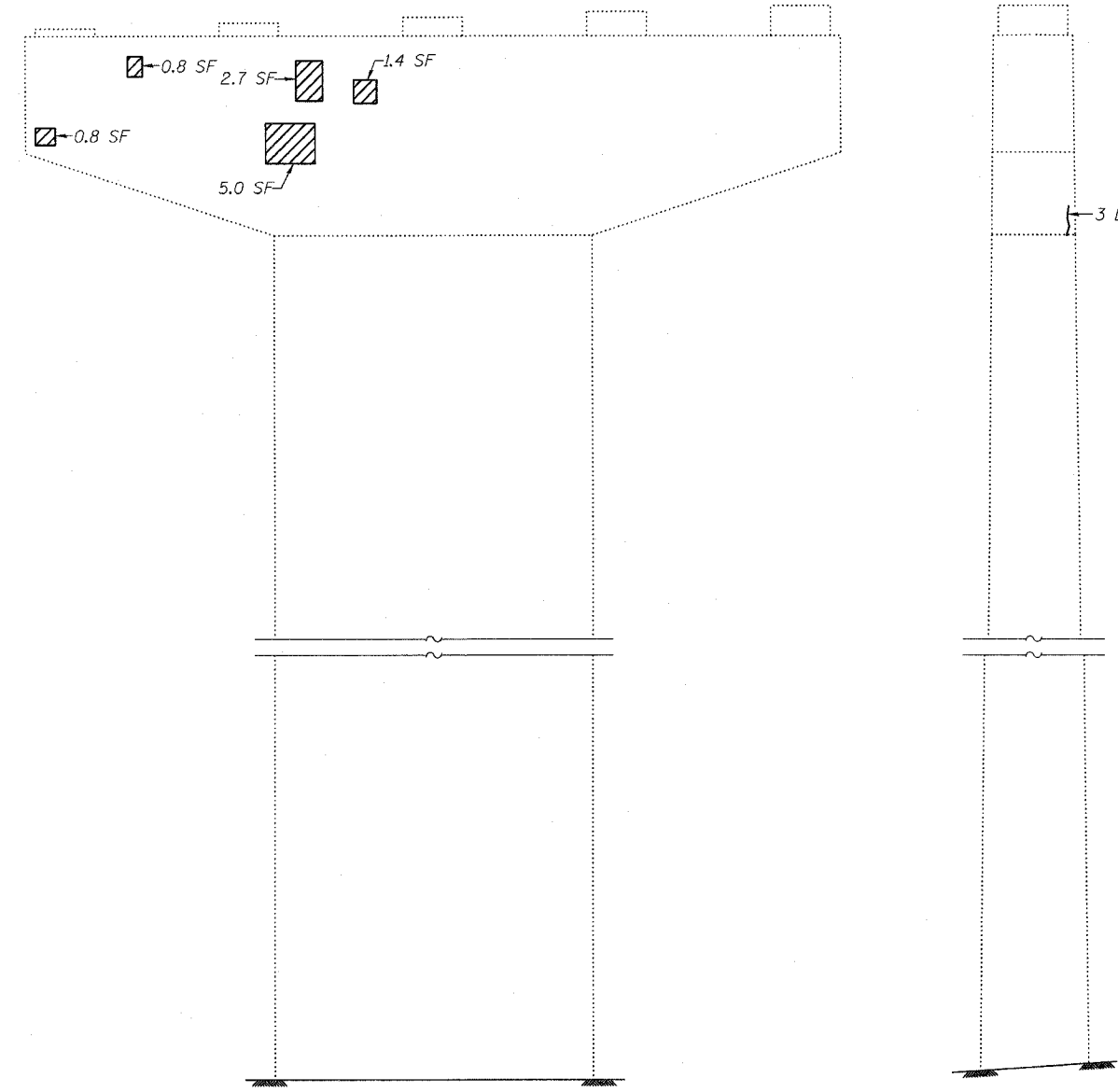


TOP PLAN OF PIER



ELEVATION
(Looking North)

END VIEW
(Looking West)



ELEVATION
(Looking South)

END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- Epoxy Crack Sealing (Cracks > 1/16" Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	47.1
Structural Repair of Concrete (Depth greater than 5")	SF	33.0
Epoxy Crack Sealing	LF	3

PIER REPAIR - PIER 2 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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Chicago, Illinois 60601
312-565-0450
Job # 3856

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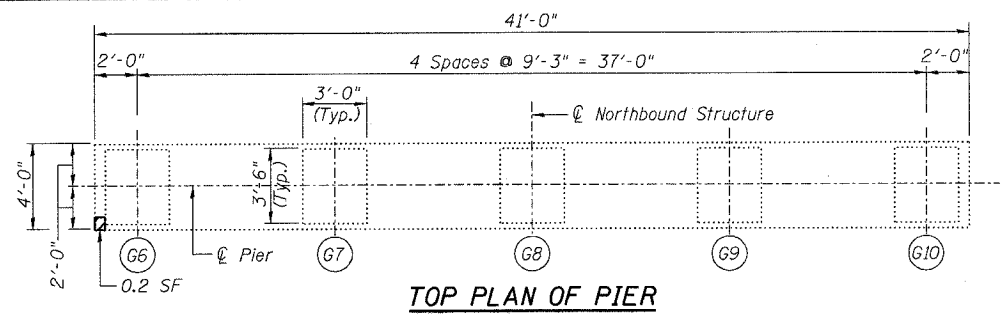
8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

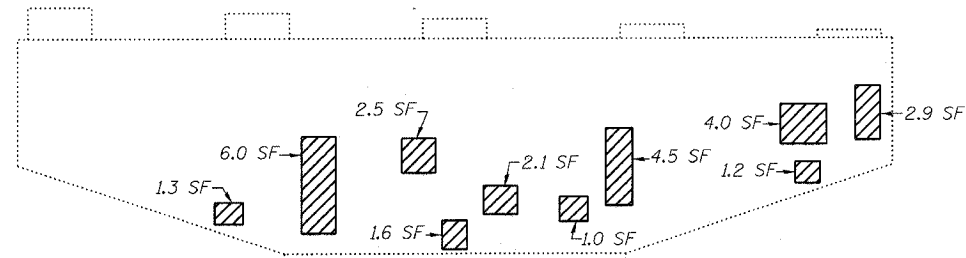
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 229 313 SHEETS
F.A.I. 39	50-4B	LASALLE	259		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	Contract # 66586		

NOTES:

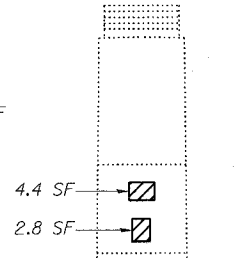
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 231 for rehabilitation of concrete pedestals.



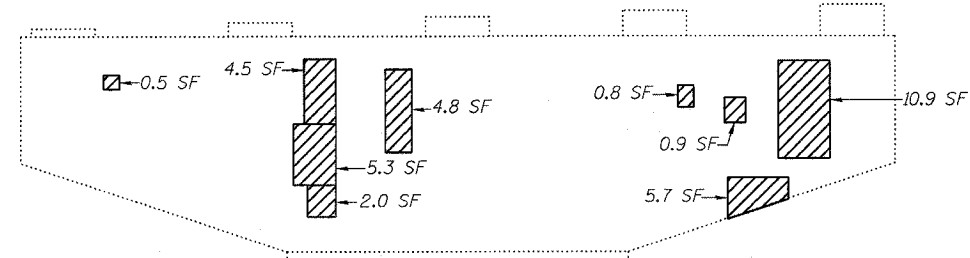
TOP PLAN OF PIER



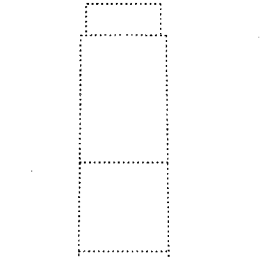
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	69.9
Structural Repair of Concrete (Depth greater than 5")	SF	15.0

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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210 W. Chestnut
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Job # 3858

PIER REPAIR - PIER 2 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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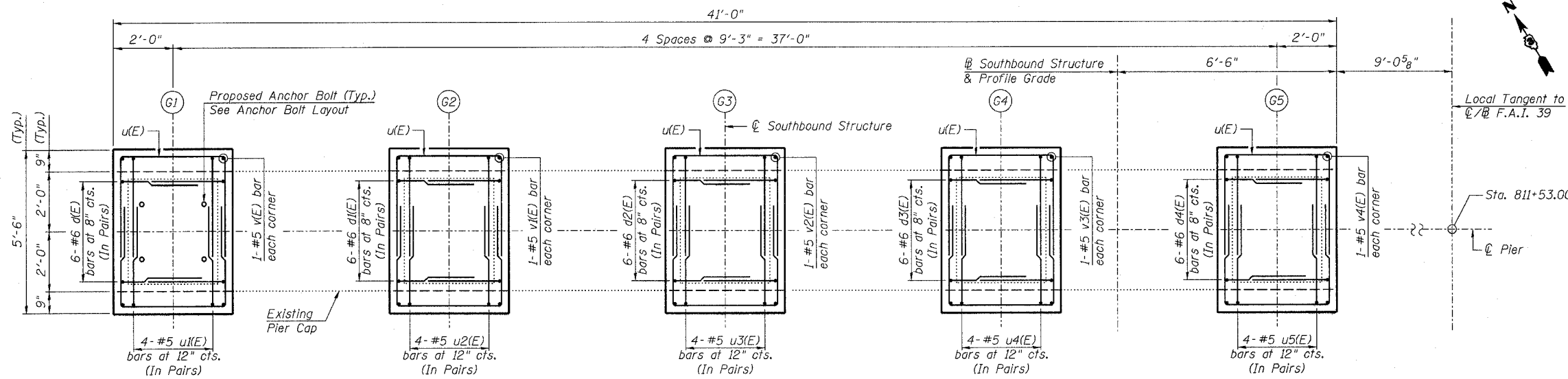
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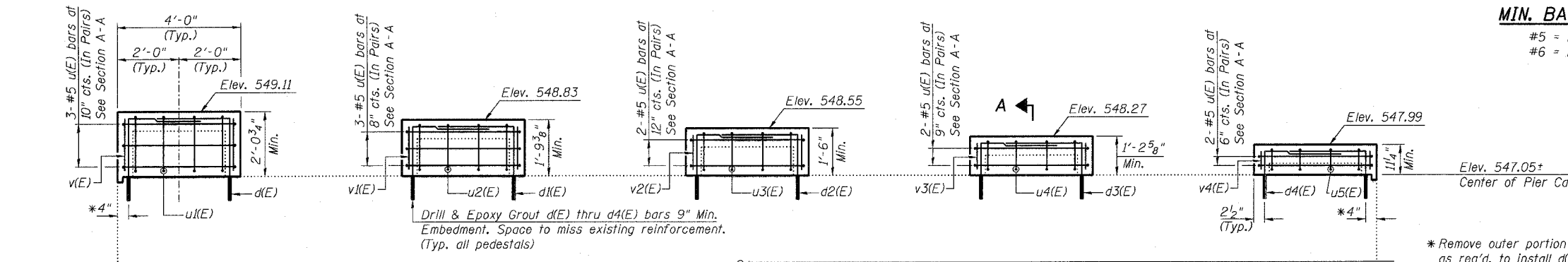
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 253	SHEET 253	SHEET NO. 230
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

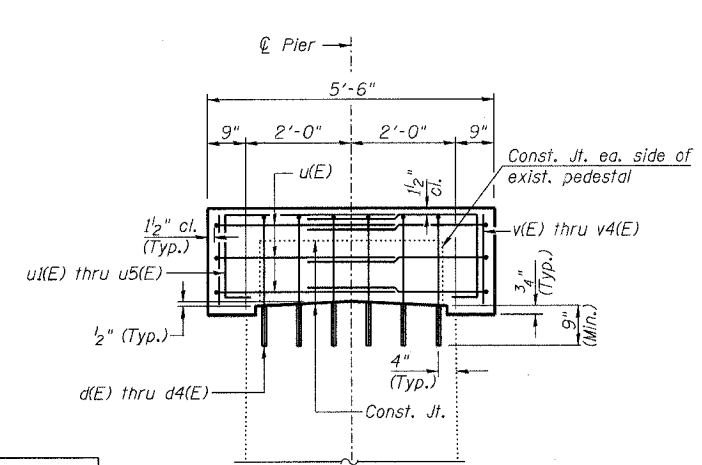
Contract # 66586



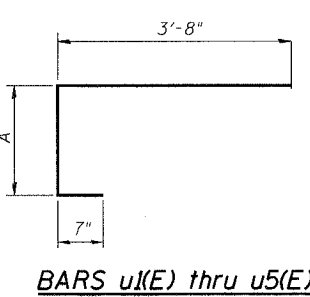
TOP PLAN OF PIER



ELEVATION
(Looking North)

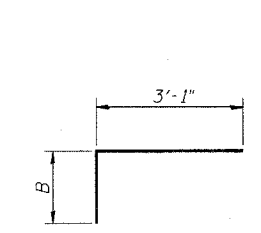


SECTION A-A



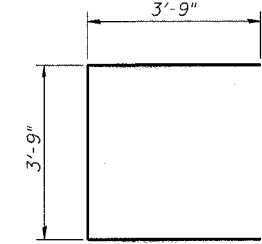
BARS u(E) thru u5(E)

Bar	A
u1(E)	1'-10"
u2(E)	1'-6"
u3(E)	1'-3"
u4(E)	1'-0"
u5(E)	8"



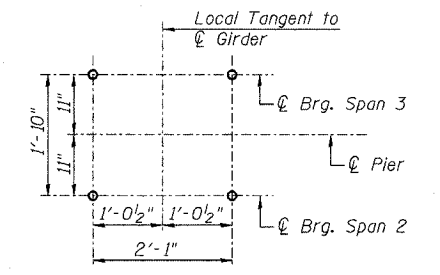
BARS d(E) thru d4(E)

Bar	B
d1(E)	2'-8"
d2(E)	2'-5"
d3(E)	2'-2"
d4(E)	1'-10"
d4(E)	1'-7"



BAR u(E)

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 2 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1(E)	12	#6	5'-9"	└
d2(E)	12	#6	5'-6"	└
d3(E)	12	#6	4'-11"	└
d4(E)	12	#6	4'-8"	└
u1(E)	24	#5	11'-3"	└
u2(E)	8	#5	6'-1"	└
u3(E)	8	#5	5'-9"	└
u4(E)	8	#5	5'-6"	└
u5(E)	8	#5	5'-3"	└
v1(E)	4	#5	1'-10"	—
v2(E)	4	#5	1'-7"	—
v3(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
Concrete Structures		Cu. Yd.	5.2	
Reinforcement Bars, Epoxy Coated		Pound	1010	
Bridge Seat Sealer		Sq. Ft.	374	
Concrete Removal		Cu. Yd.	0.7	

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 2 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
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FAX (217) 483-4106

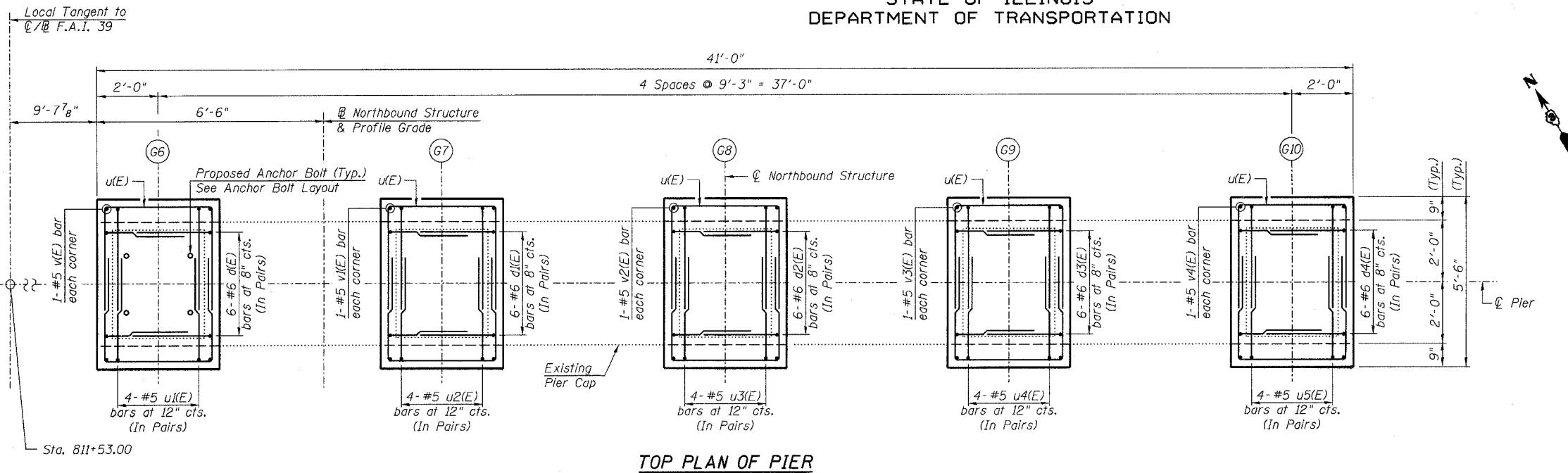
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

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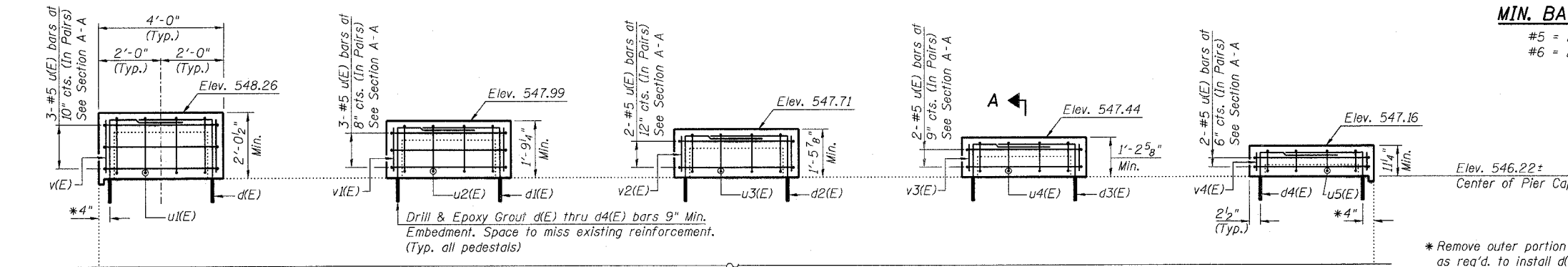
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEETS 25	PROJECT 25	SHEET NO. 231
FED. ROAD DIST. NO. 7					ILLINOIS FED. AID PROJECT

Contract # 66586



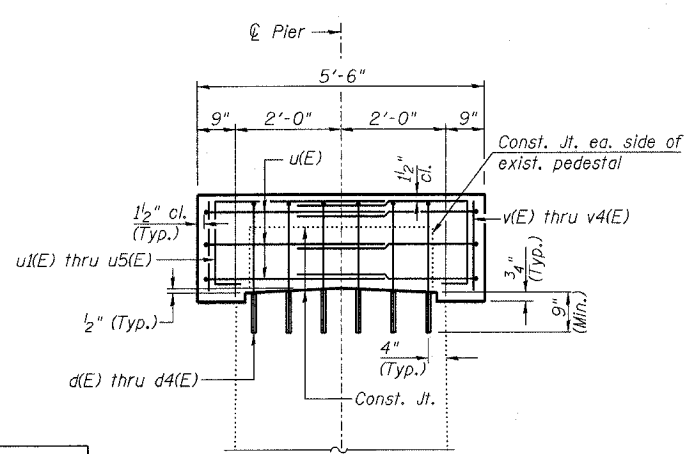
TOP PLAN OF PIER



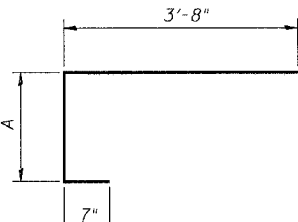
ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"

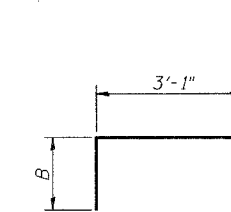


SECTION A-A



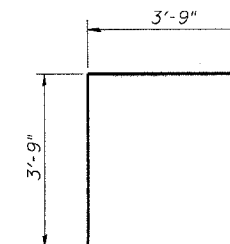
BARS u(E) thru u5(E)

Bar	A
u1(E)	1'-10"
u2(E)	1'-6"
u3(E)	1'-3"
u4(E)	1'-0"
u5(E)	8"



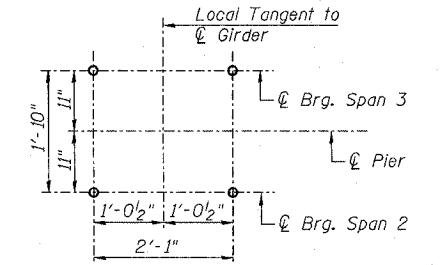
BARS d(E) thru d4(E)

Bar	B
d1(E)	2'-8"
d2(E)	2'-5"
d3(E)	2'-2"
d4(E)	1'-7"



BAR u(E)

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 2 NB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1(E)	12	#6	5'-9"	┌
d2(E)	12	#6	5'-6"	┌
d3(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-11"	┌
u1(E)	24	#5	11'-3"	┌
u2(E)	8	#5	6'-1"	┌
u3(E)	8	#5	5'-9"	┌
u4(E)	8	#5	5'-6"	┌
u5(E)	8	#5	5'-3"	┌
v1(E)	4	#5	1'-10"	┌
v2(E)	4	#5	1'-7"	┌
v3(E)	4	#5	1'-0"	┌
v4(E)	4	#5	0'-9"	┌
Concrete Structures			Cu. Yd.	5.2
Reinforcement Bars, Epoxy Coated			Pound	1010
Bridge Seat Sealer			Sq. Ft.	373
Concrete Removal			Cu. Yd.	0.7

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 2 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LIN ENGINEERING, LTD.
210 W. Chestnut
Chattanooga, Illinois 62629
(271) 483-4165
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Job # 3856

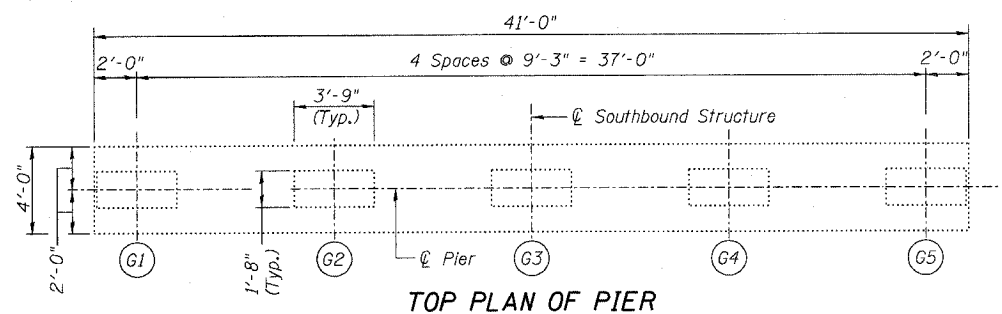
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		25	292
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66586

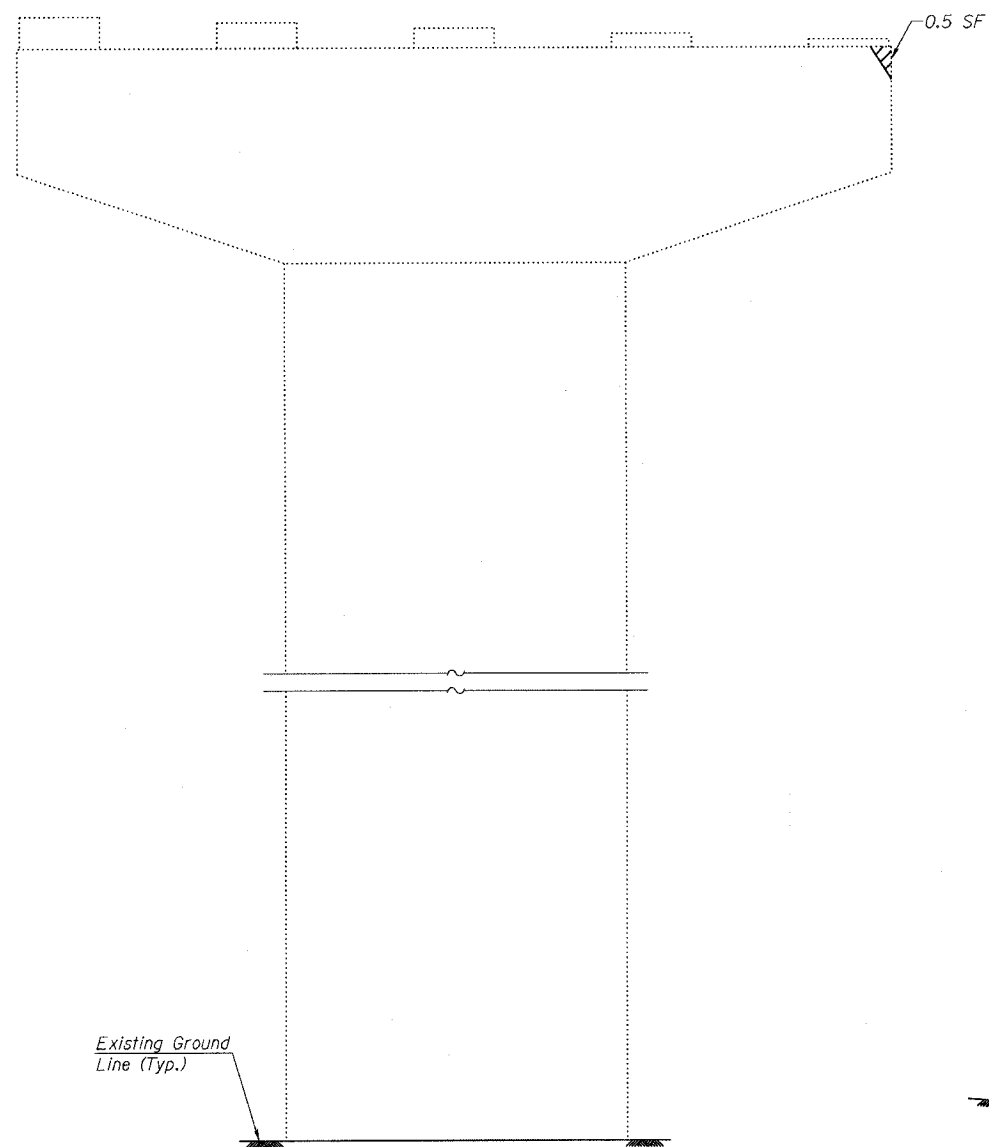
313 SHEETS



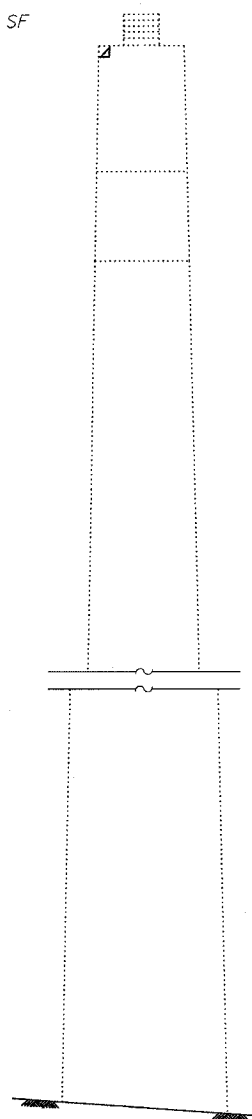
TOP PLAN OF PIER

NOTES:

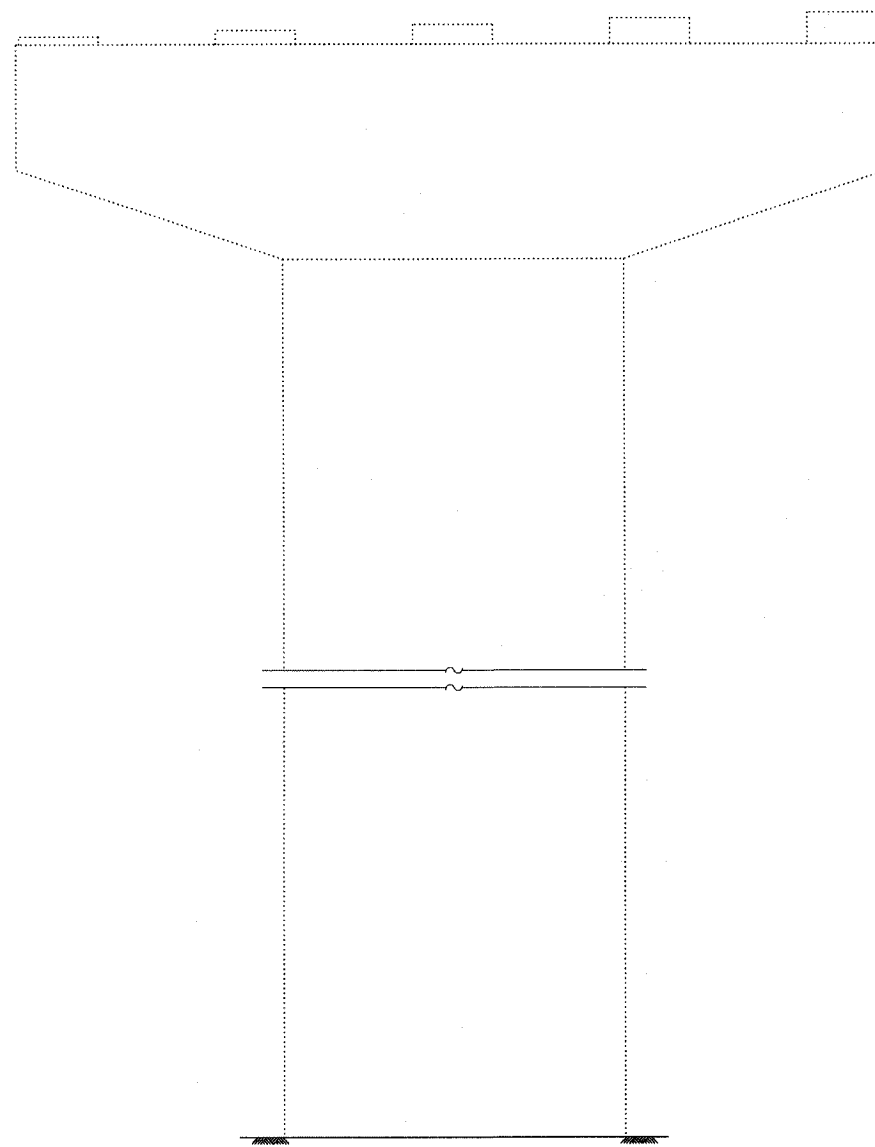
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



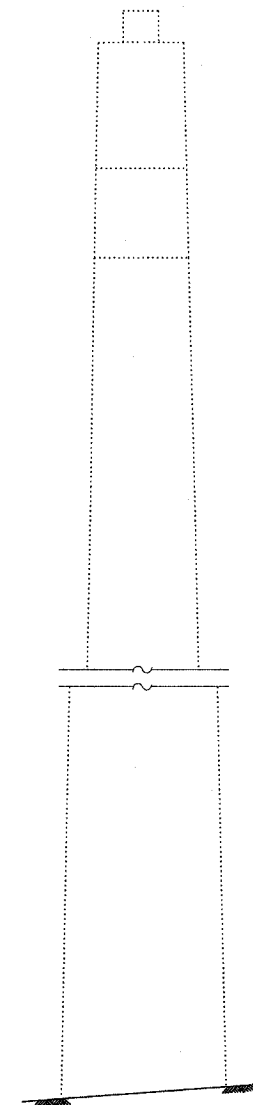
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.5

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 210 W. Chestnut
 Chatham, Illinois 62629
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 312-565-0450
 Job # 3856

PIER REPAIR - PIER 3 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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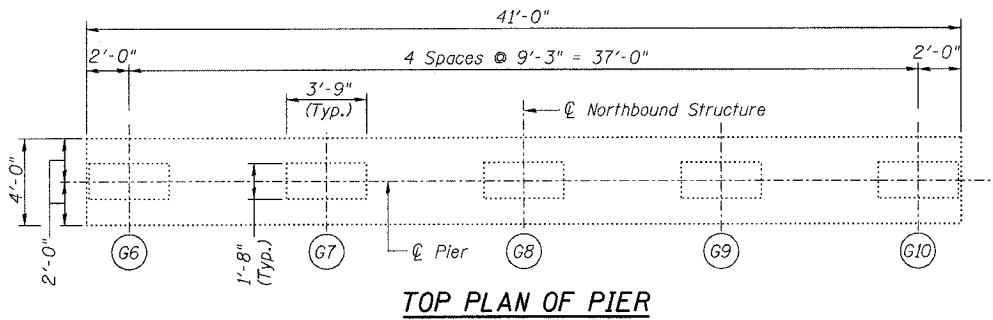
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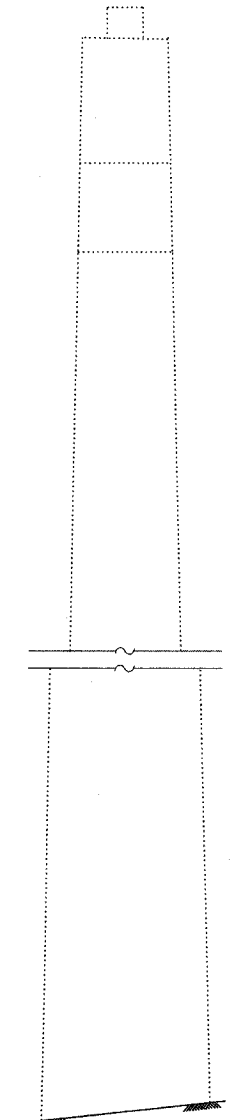
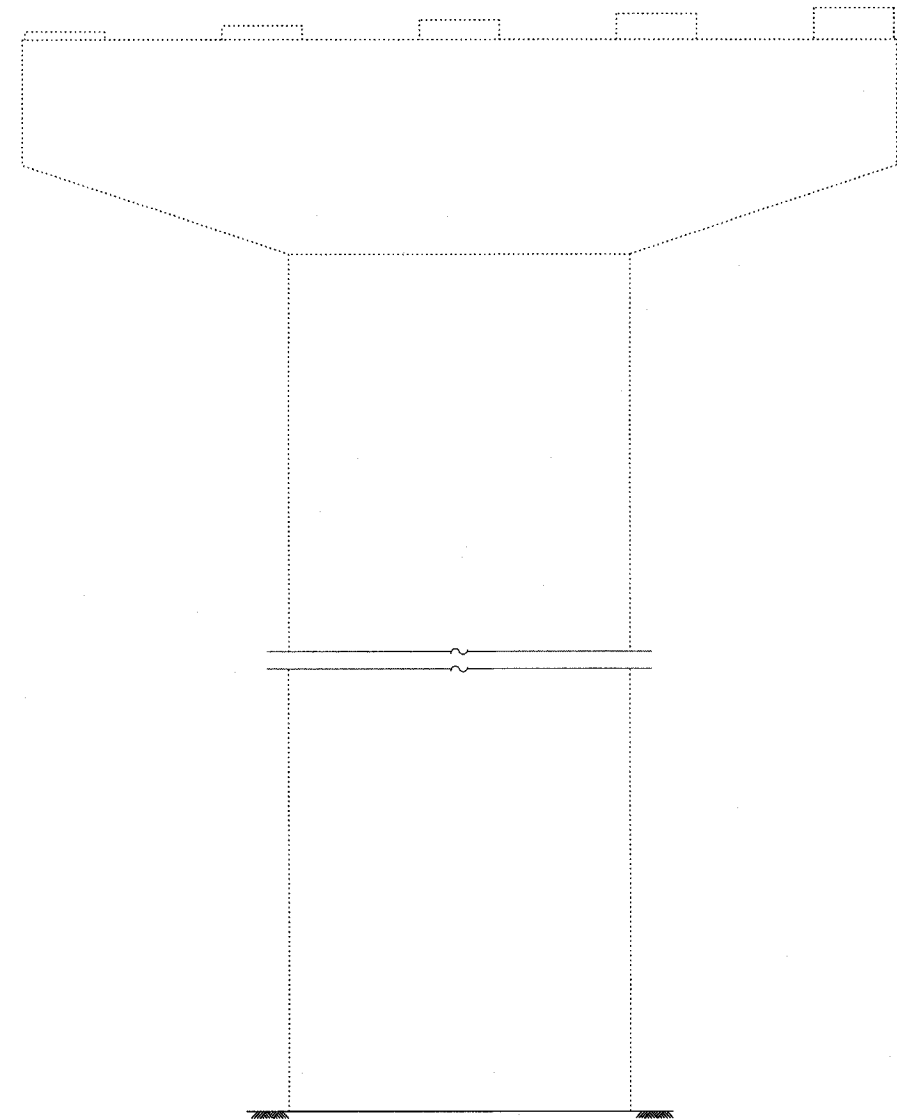
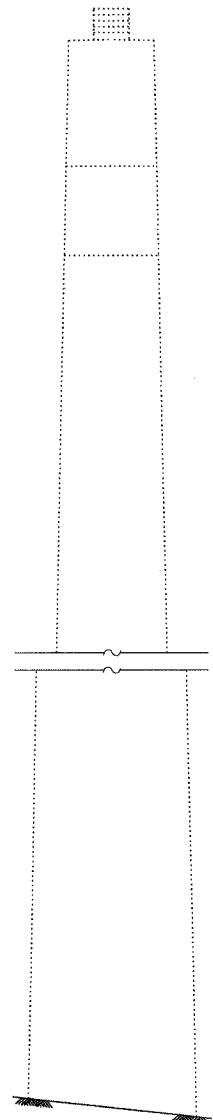
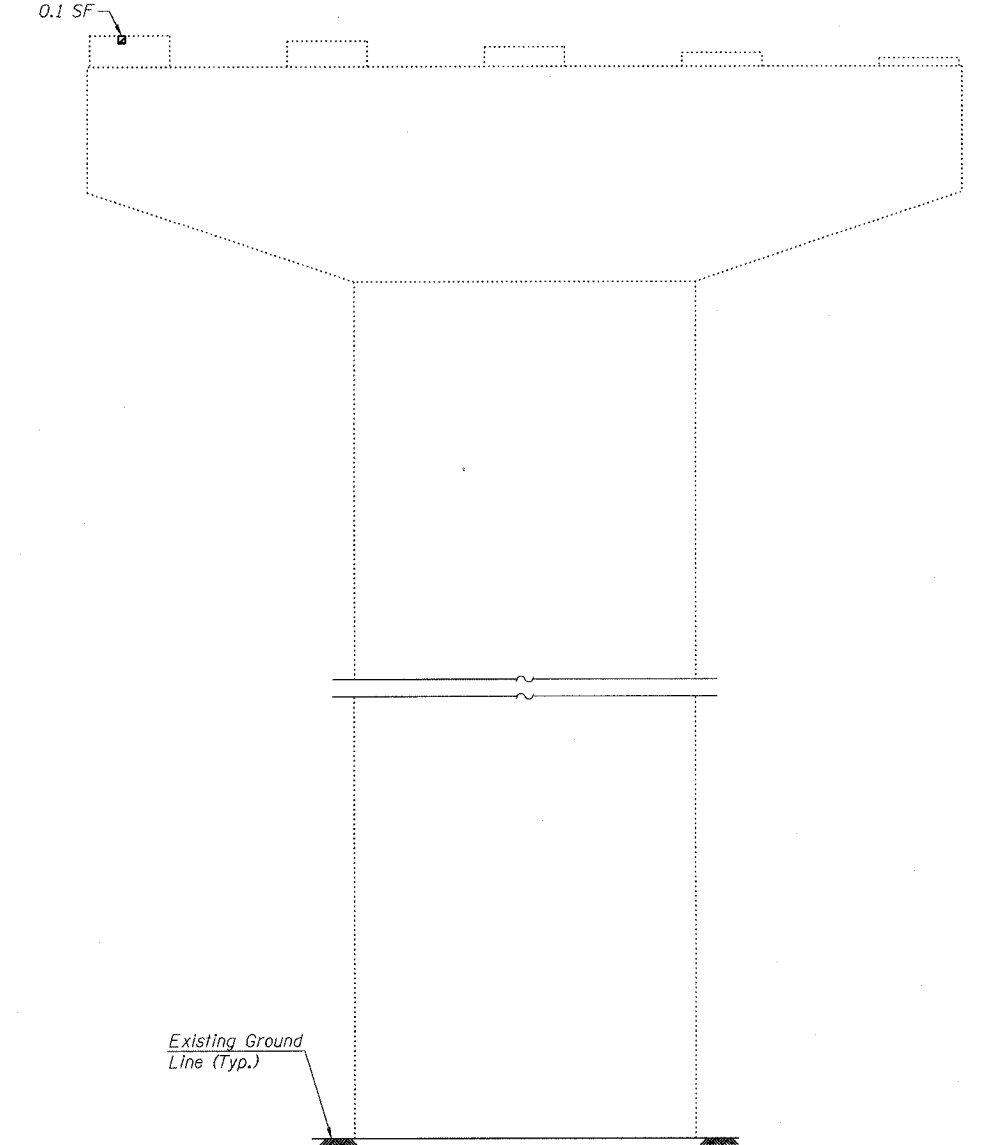
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 233
F.A.I. 39	50-4B	LASALLE		256	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66586



NOTES:
1. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



ELEVATION
(Looking North)

END VIEW
(Looking West)

ELEVATION
(Looking South)

END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.1

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

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 210 W. Chestnut
 Chatham, Illinois 62629
 (217) 483-4168
 FAX (217) 483-4706

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 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450
 Job # 3856

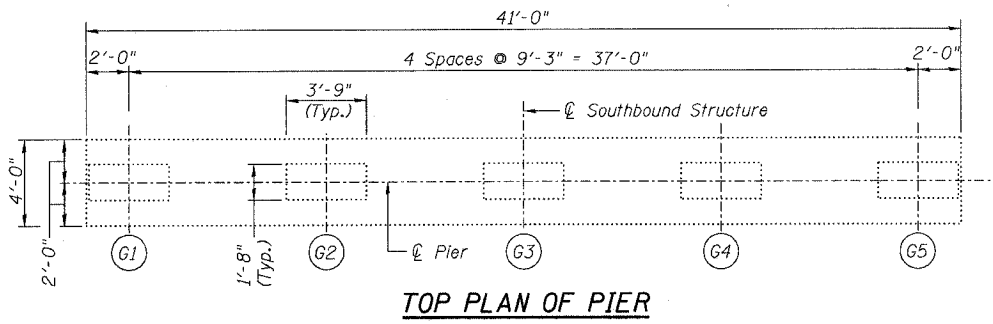
PIER REPAIR - PIER 3 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	251	251	234
FED. ROAD DIST. NO. 7	BLINDS	FED. AID PROJECT	313 SHEETS		

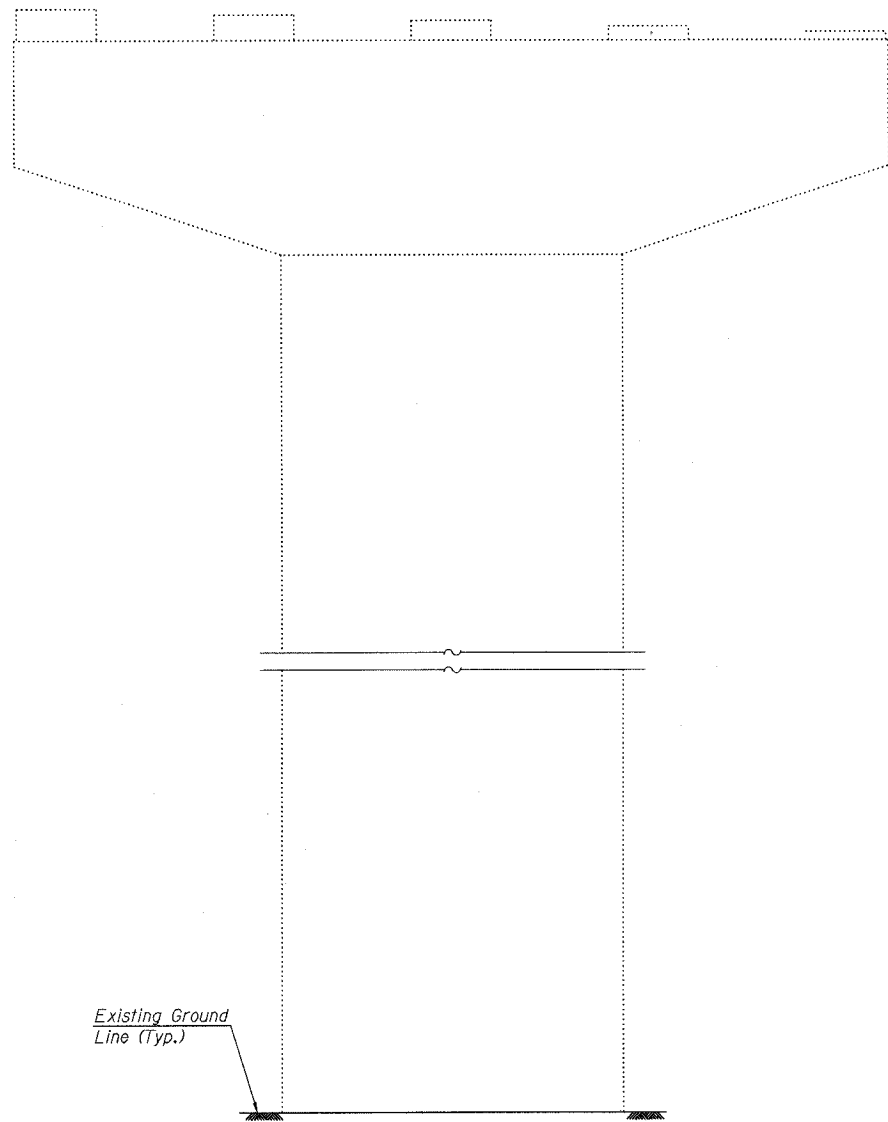
Contract # 66586



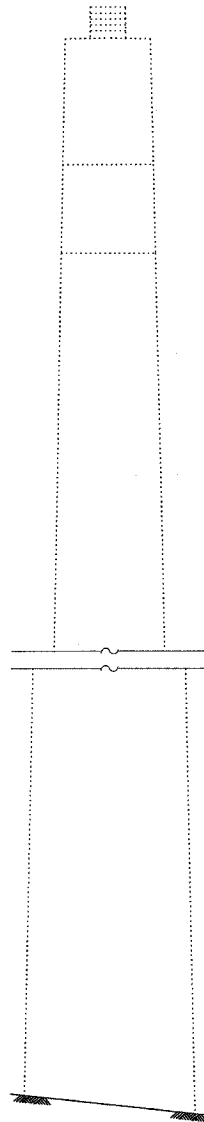
TOP PLAN OF PIER

NOTES:

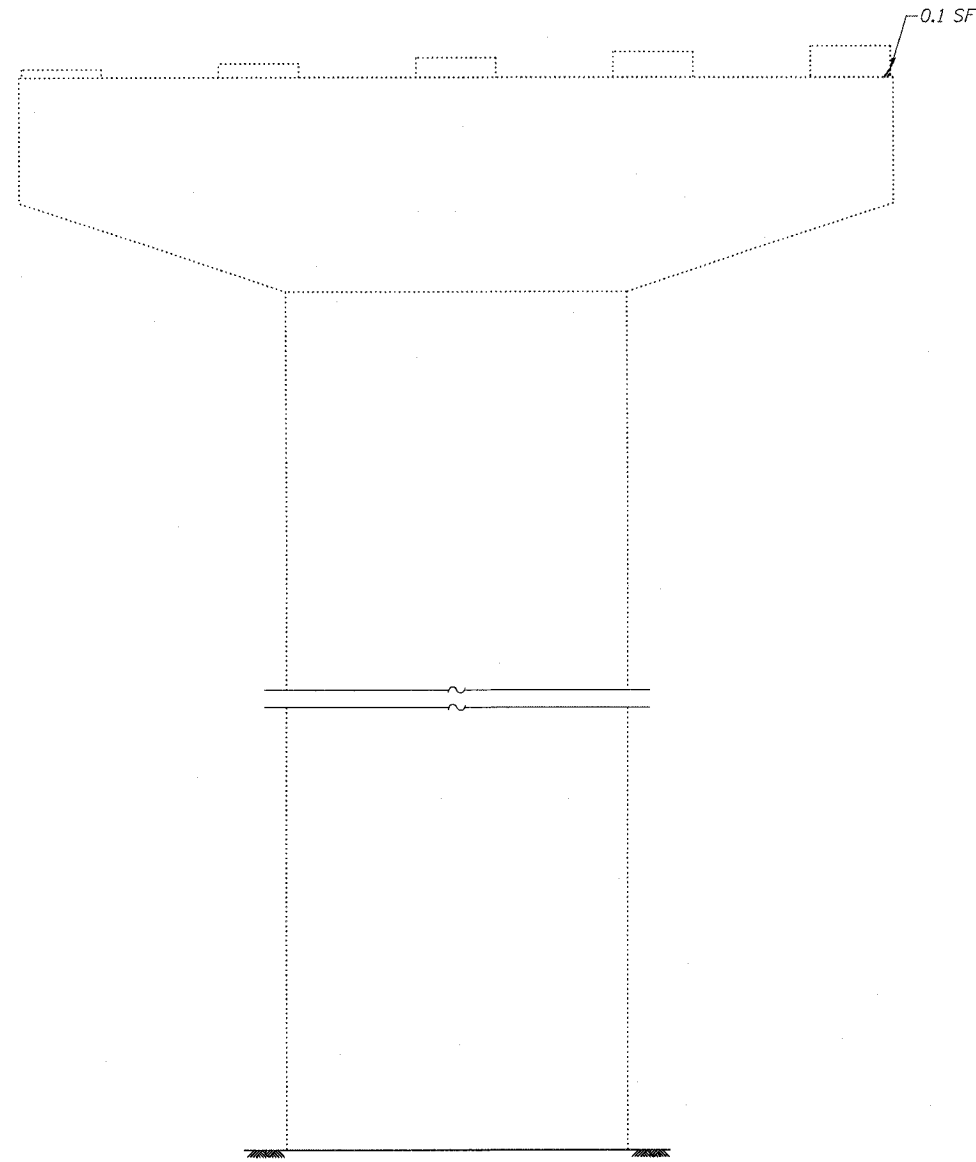
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



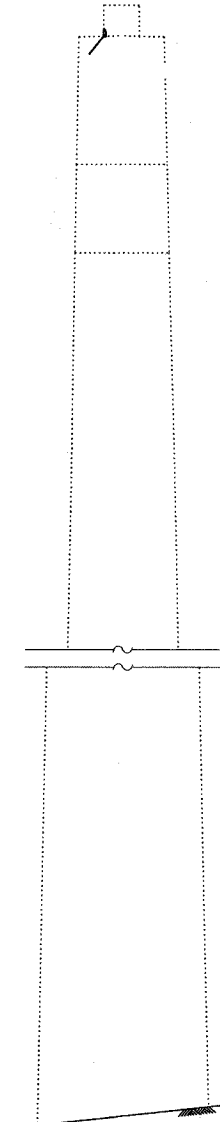
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete
 (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.1

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 Chicago, Illinois 60601
 312-565-0450
 Job # 3856

PIER REPAIR - PIER 4 SB
 ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
 THE ILLINOIS RIVER (PUBLIC WATERS)
 F.A.I. ROUTE 39 SEC. (50-4B) BR
 LASALLE COUNTY
 STATION 863+16.00
 STRUCTURE NO. 050-0191 (SB & NB)

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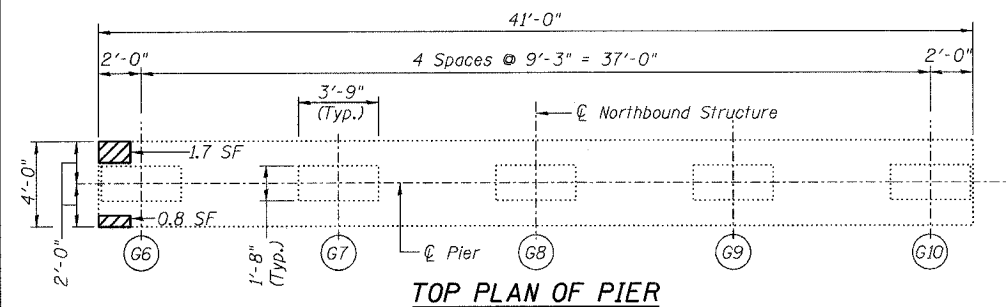
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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DISTRICT	SHEET	SHEET NO. 235 313 SHEETS
F.A.I. 39	50-4B	LASALLE		258	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

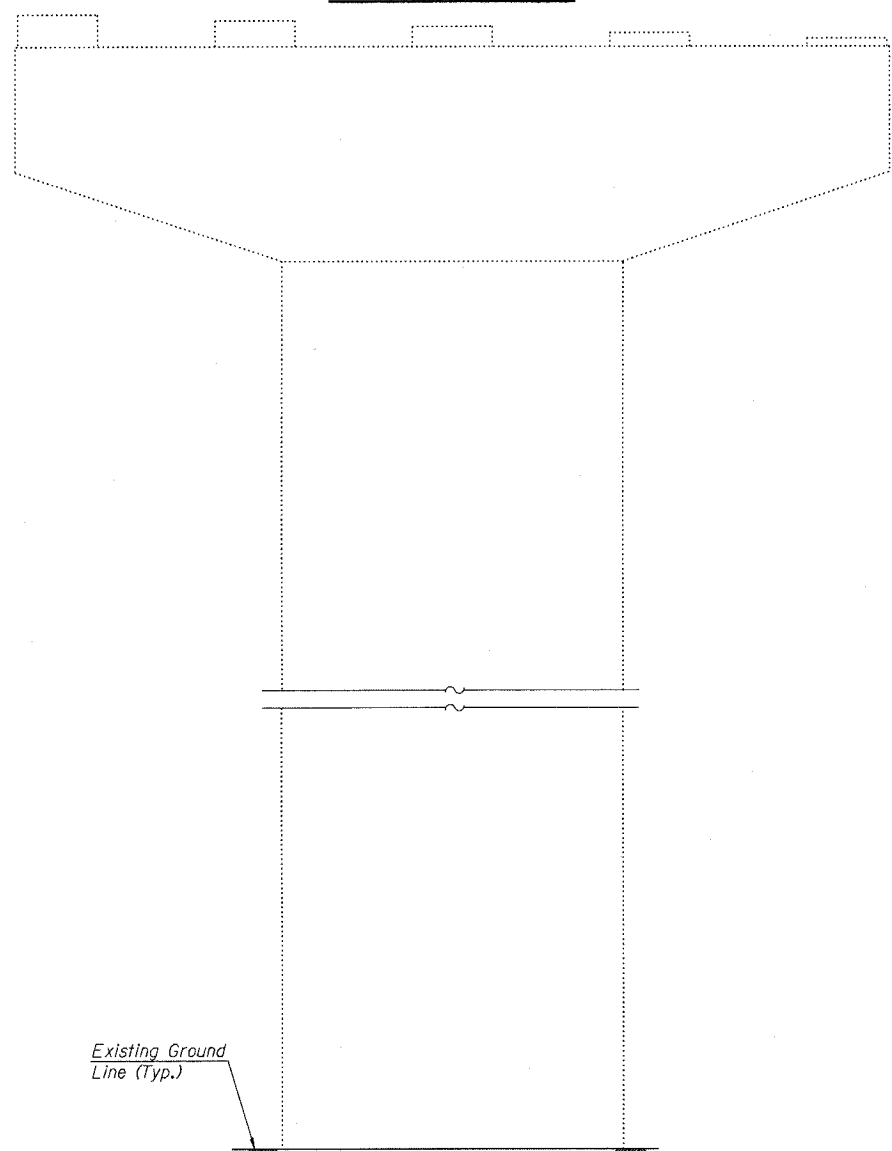
Contract # 66586



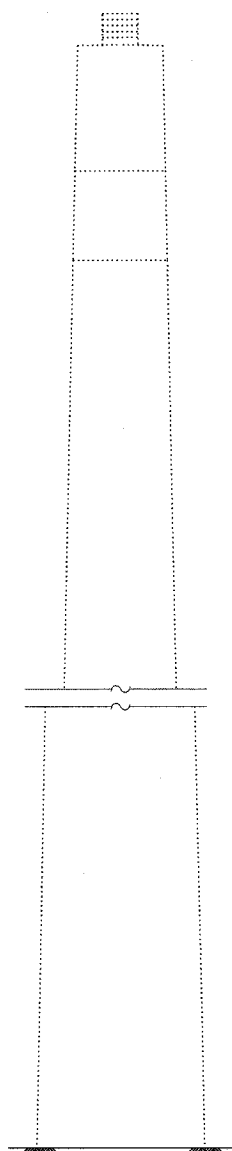
TOP PLAN OF PIER

NOTES:

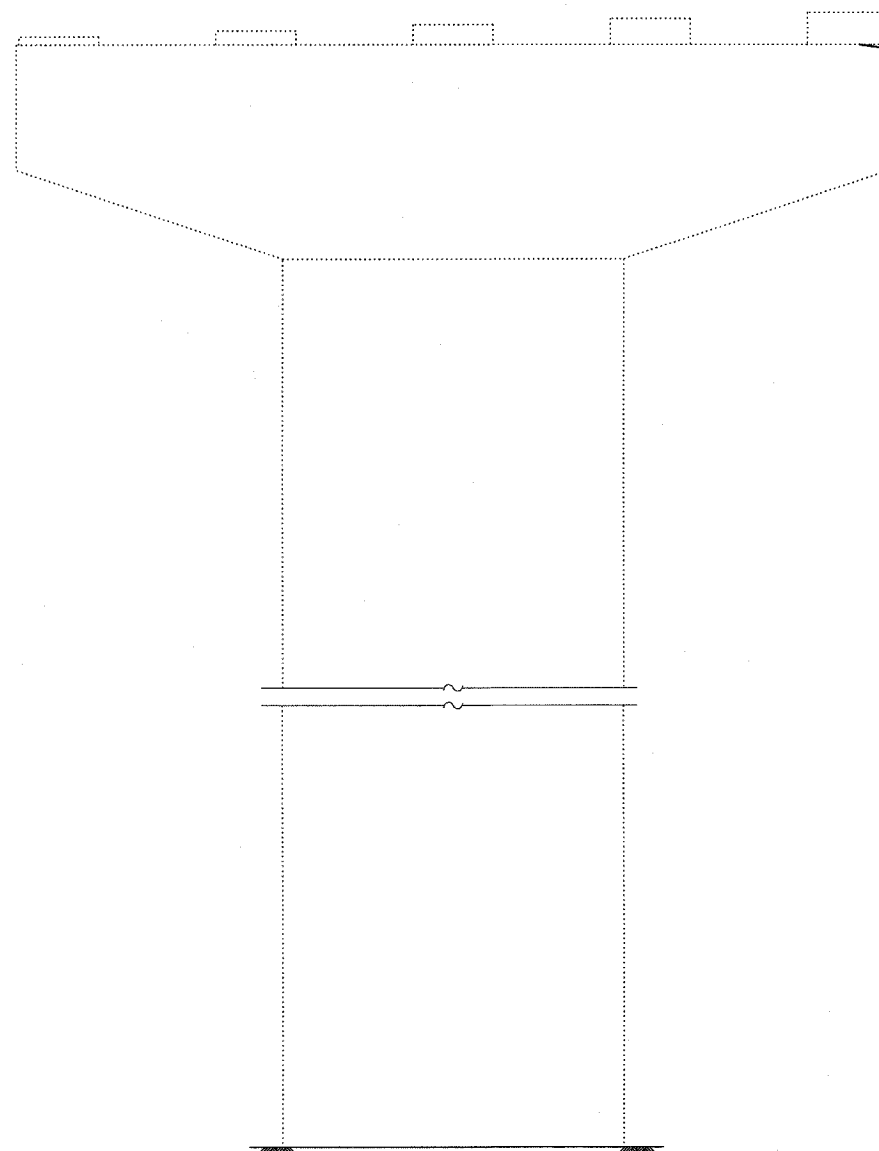
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



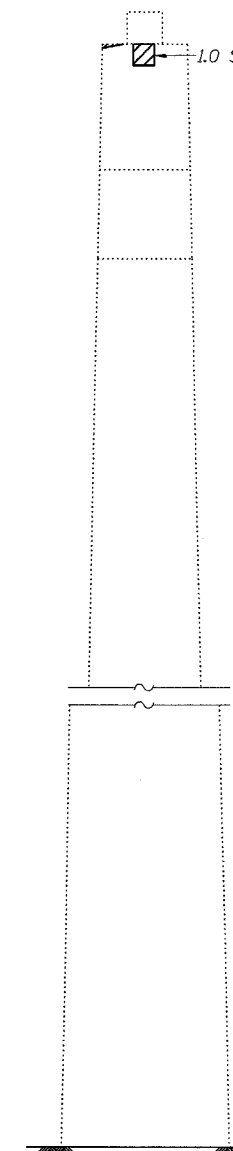
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground
Line (Typ.)

LEGEND
 Structural Repair of Concrete
(Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	3.5

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 312-565-0460
 Job # 3856

PIER REPAIR - PIER 4 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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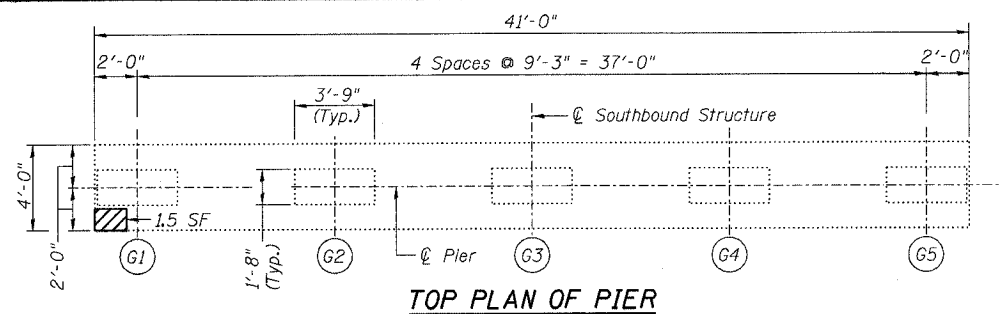
8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

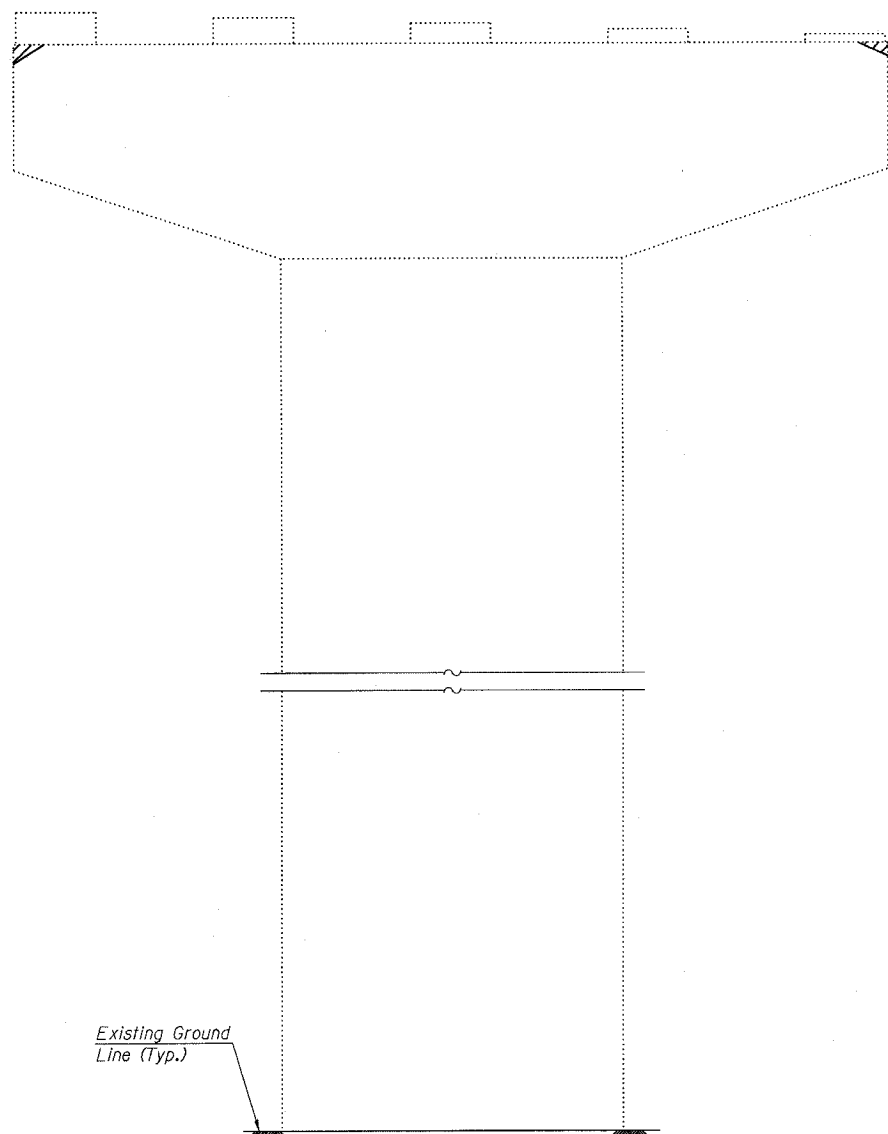
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 236 313 SHEETS
F.A.I. 39	50-4B	LASALLE		259	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract # 66586		

NOTES:

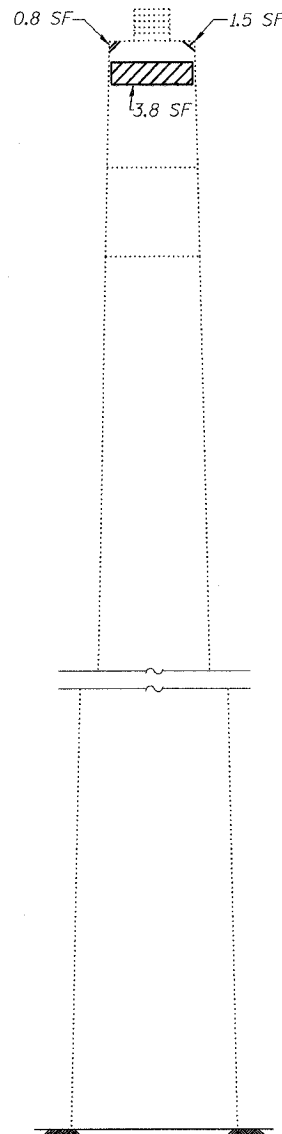
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



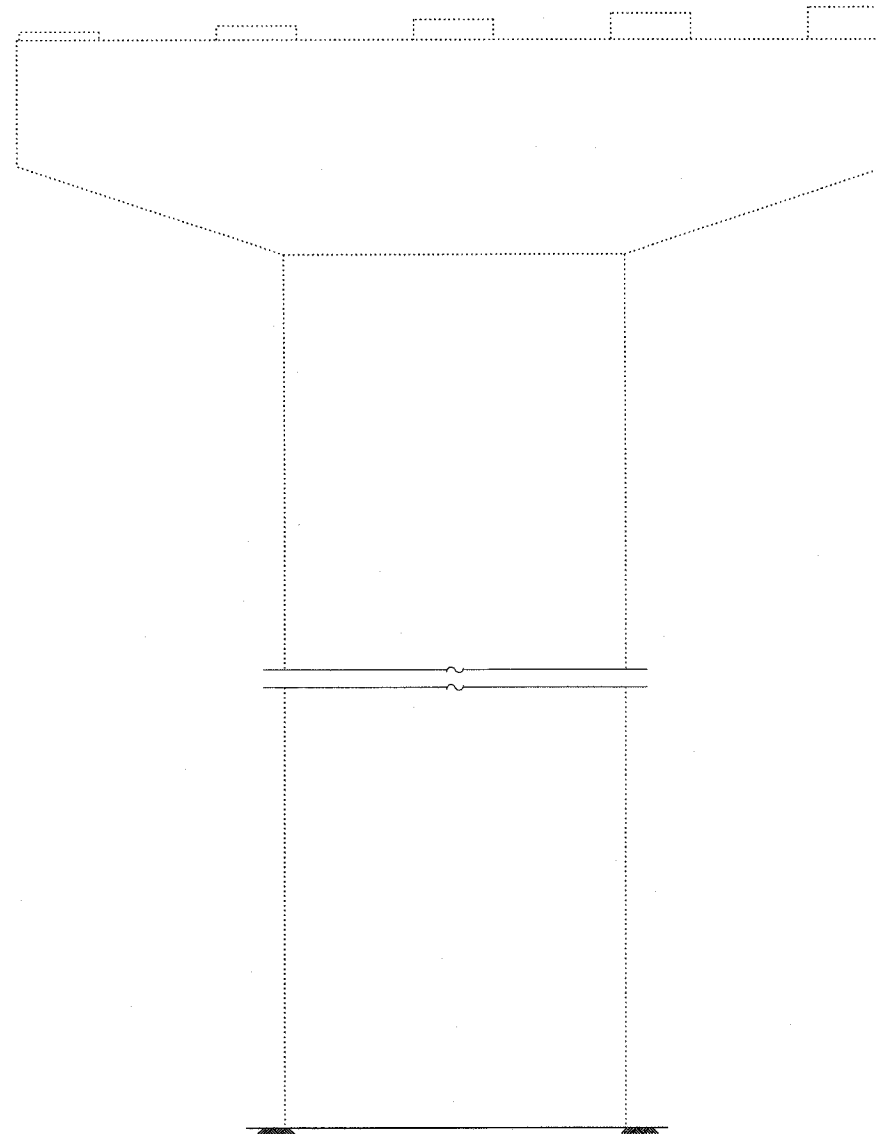
TOP PLAN OF PIER



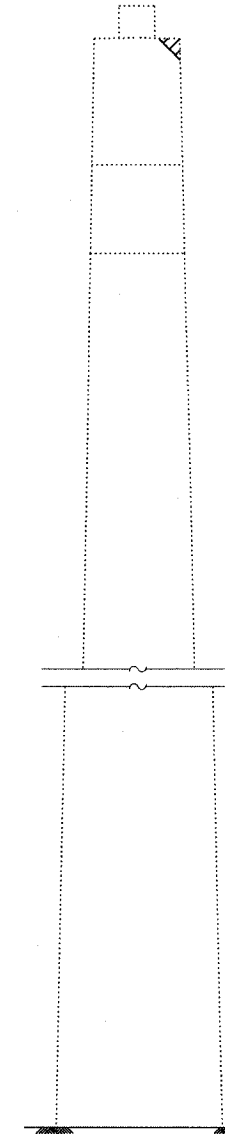
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	7.6

DESIGNED	ADB
CHECKED	DL S
DRAWN	KHH
CHECKED	MTH

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 Chicago, Illinois 60601
 312-265-0450
 Job # 3856

PIER REPAIR - PIER 5 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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8/30/2006

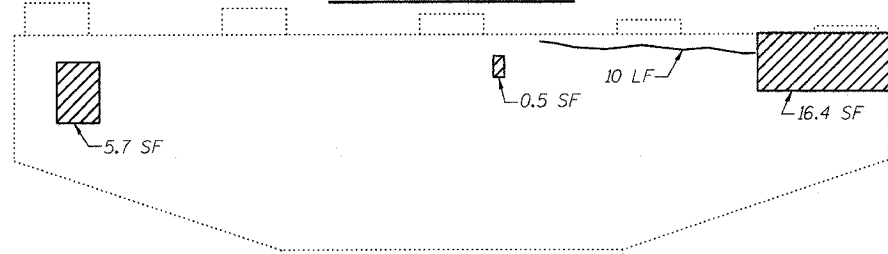
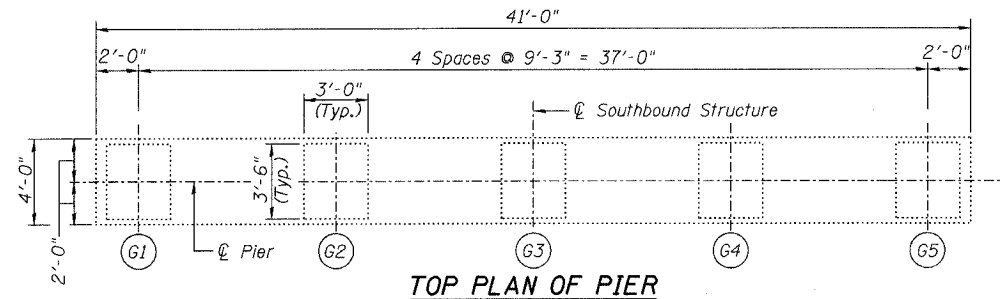
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 260	SHEET NO. 237
FED. ROAD DIST. NO. 7				ILLINOIS
FED. AID PROJECT				

Contract # 66586

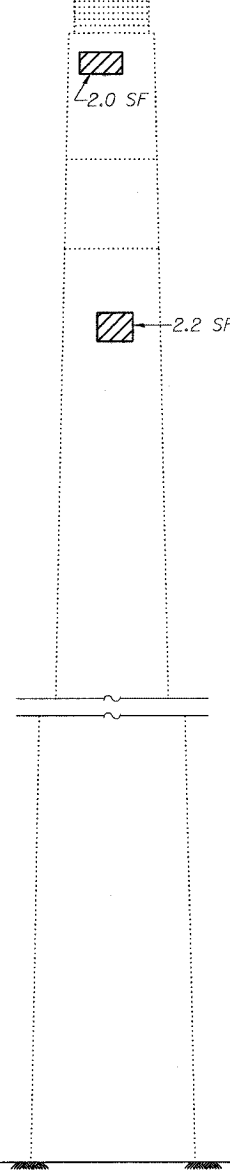
NOTES:

- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 239 for rehabilitation of concrete pedestals.

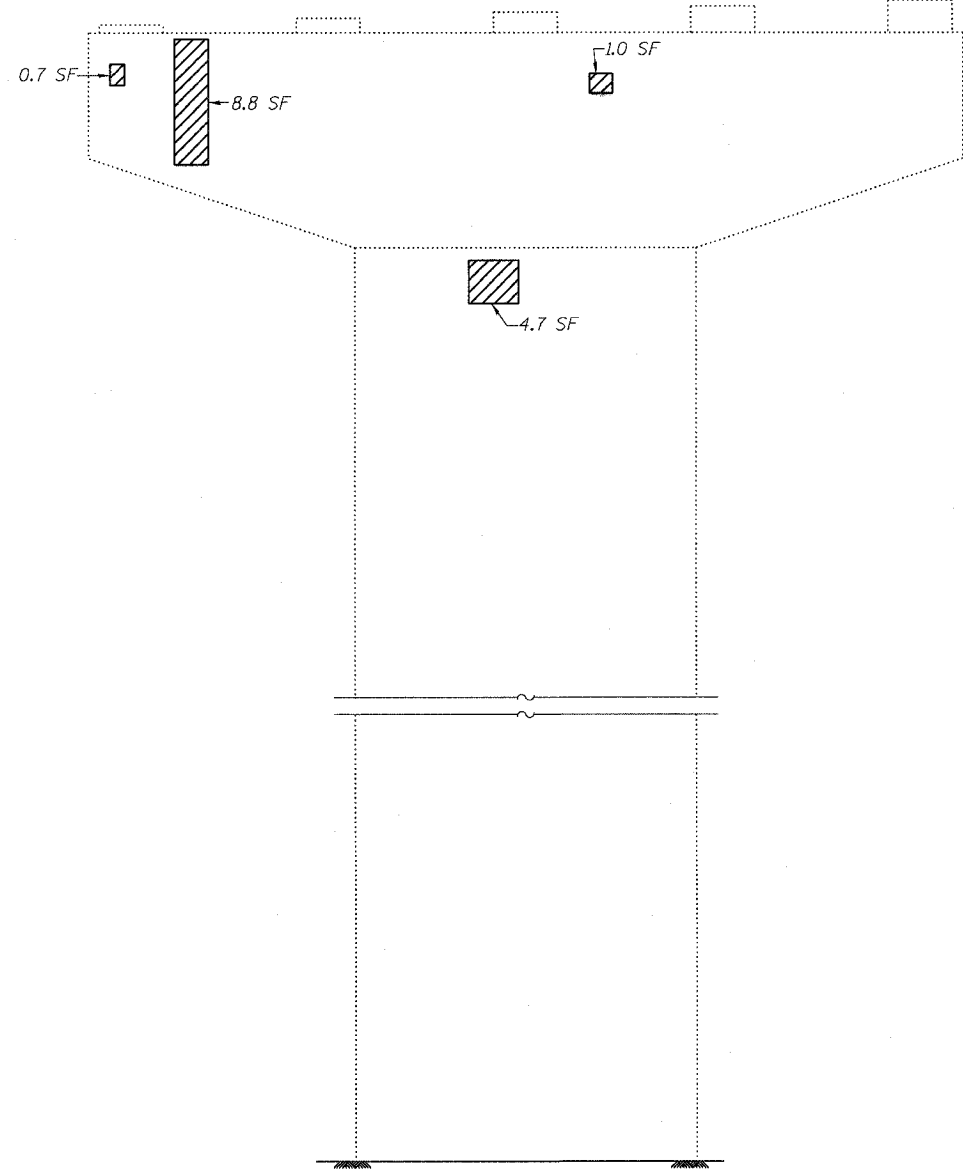


Existing Ground Line (Typ.)

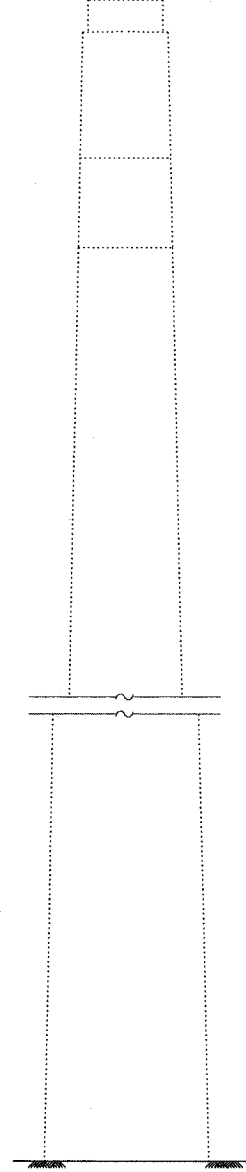
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

	Structural Repair of Concrete (Depth equal to or less than 5")
	Epoxy Crack Sealing (Cracks ≥ 1/8" Wide)
SF	Square Feet
LF	Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	42.0
Epoxy Crack Sealing	LF	10

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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Job # 3856

PIER REPAIR - PIER 6 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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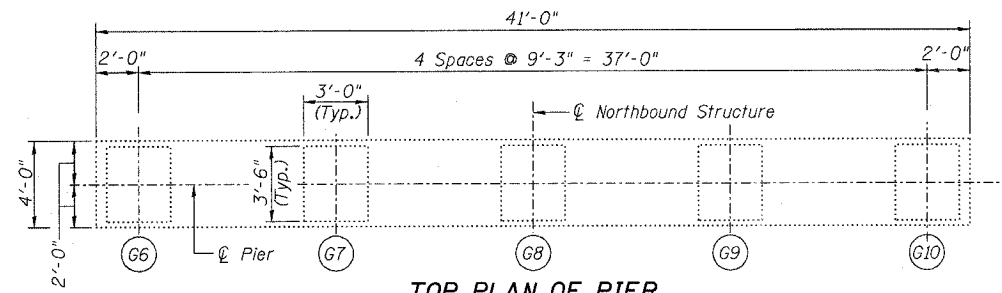
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE		238
313 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

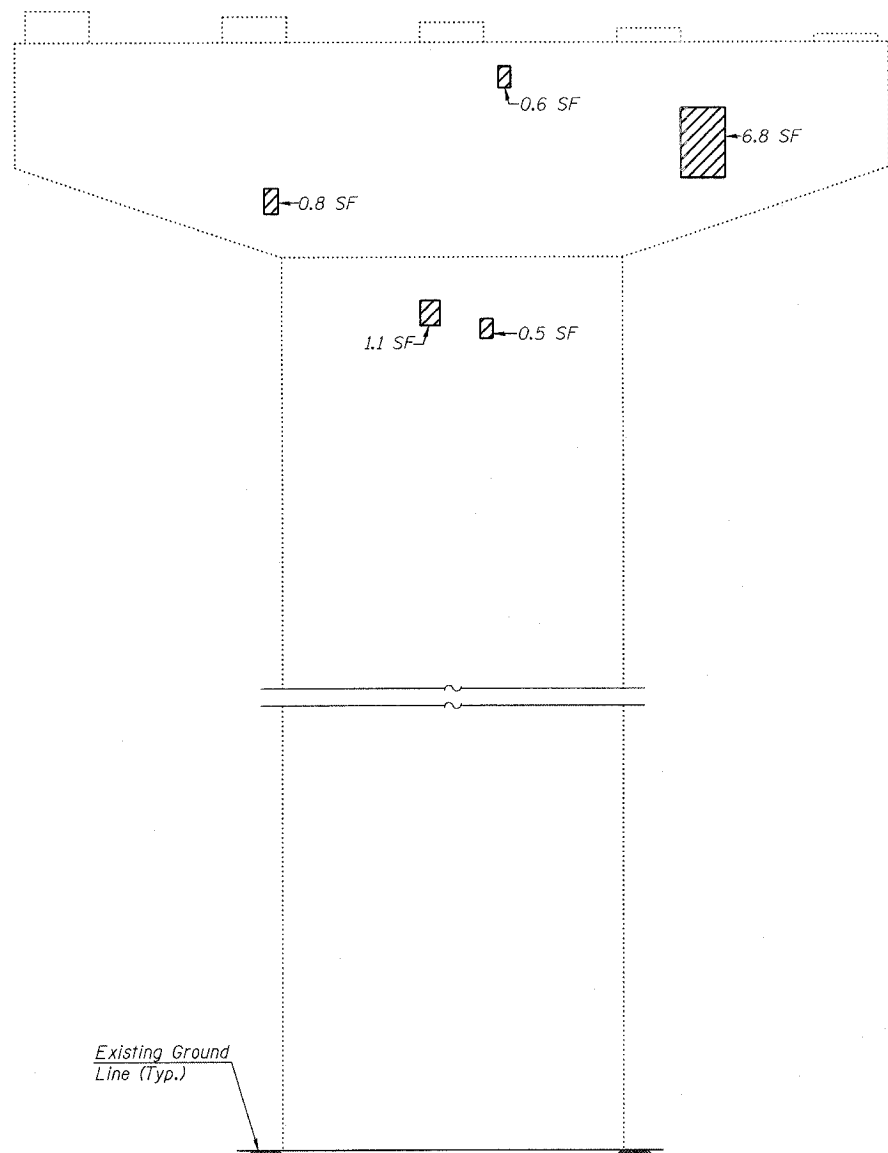
Contract # 66586

NOTES:

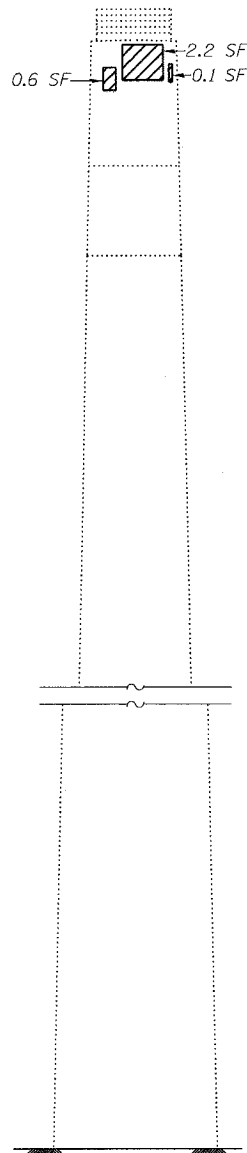
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 240 for rehabilitation of concrete pedestals.



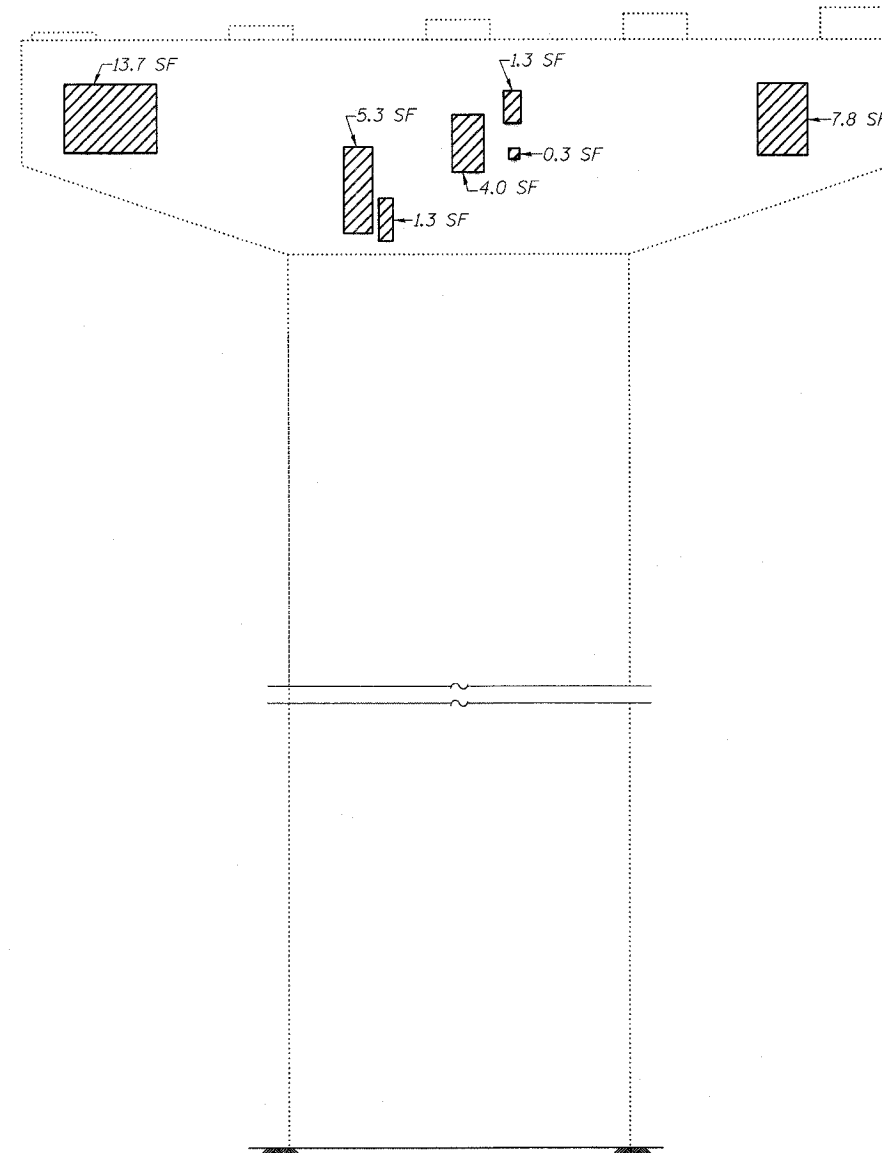
TOP PLAN OF PIER



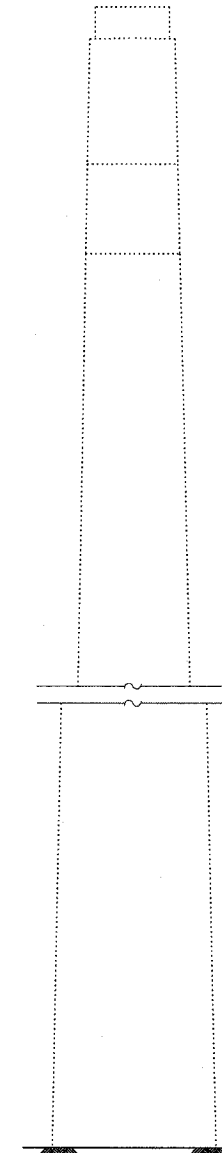
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	46.4

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 Job # 3856

PIER REPAIR - PIER 6 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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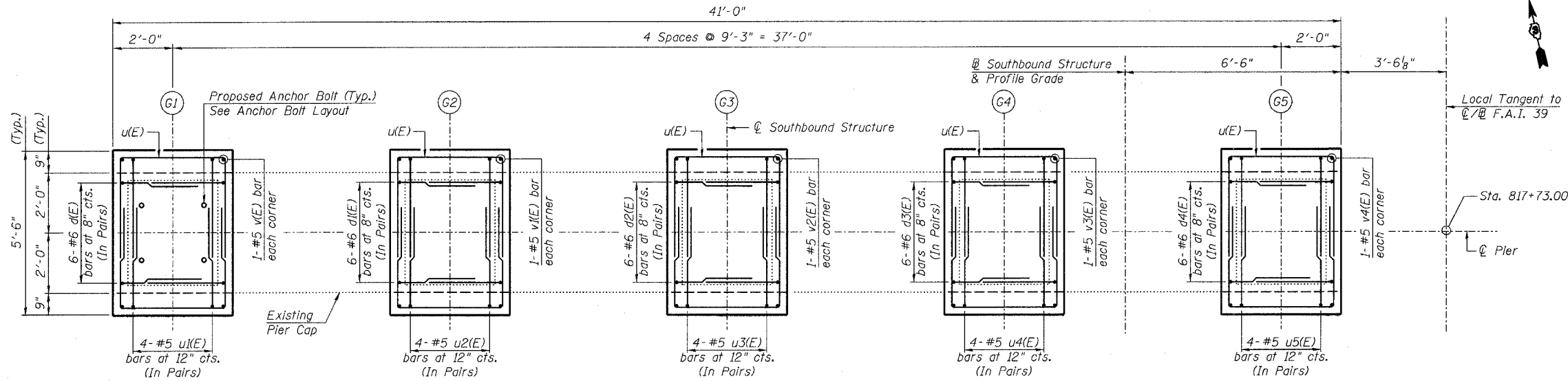
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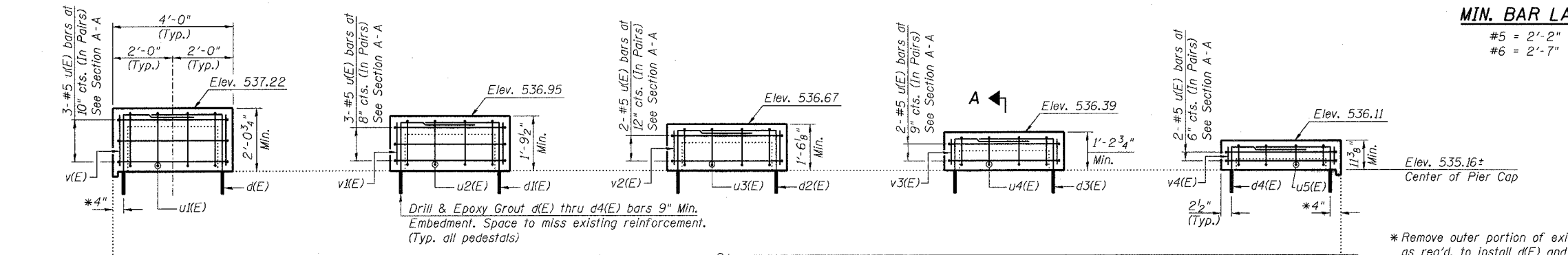
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 313	SHEET NO. 239
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

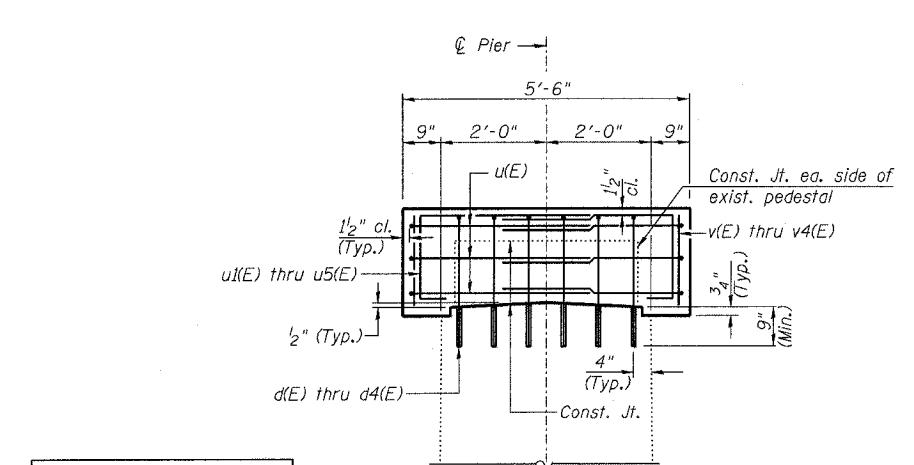
Contract # 66586



TOP PLAN OF PIER



ELEVATION
(Looking North)



SECTION A-A

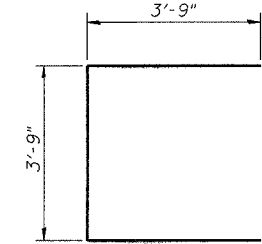
BARS u1(E) thru u5(E)

Bar	A
u1(E)	1'-10"
u2(E)	1'-6"
u3(E)	1'-3"
u4(E)	1'-0"
u5(E)	8"

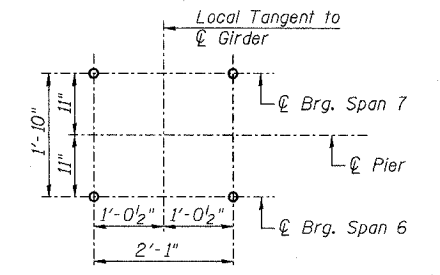
BARS d(E) thru d4(E)

Bar	B
d(E)	2'-8"
d1(E)	2'-5"
d2(E)	2'-2"
d3(E)	1'-10"
d4(E)	1'-7"

BAR u(E)



MIN. BAR LAP
#5 = 2'-2"
#6 = 2'-7"



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 6 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	12	#6	5'-9"	┌
d1(E)	12	#6	5'-6"	┌
d2(E)	12	#6	5'-3"	┌
d3(E)	12	#6	4'-11"	┌
d4(E)	12	#6	4'-8"	┌
u(E)	24	#5	11'-3"	┌
u1(E)	8	#5	6'-1"	┌
u2(E)	8	#5	5'-9"	┌
u3(E)	8	#5	5'-6"	┌
u4(E)	8	#5	5'-3"	┌
u5(E)	8	#5	4'-11"	┌
v(E)	4	#5	1'-10"	—
v1(E)	4	#5	1'-7"	—
v2(E)	4	#5	1'-4"	—
v3(E)	4	#5	1'-0"	—
v4(E)	4	#5	0'-9"	—
Concrete Structures		Cu. Yd.	5.2	
Reinforcement Bars, Epoxy Coated		Pound	1010	
Bridge Seat Sealer		Sq. Ft.	375	
Concrete Removal		Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space pedestal reinforcement to miss proposed anchor bolts.
3. See Sheet 19 for removal details.
4. See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 6 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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312-965-0450
Job # 3856

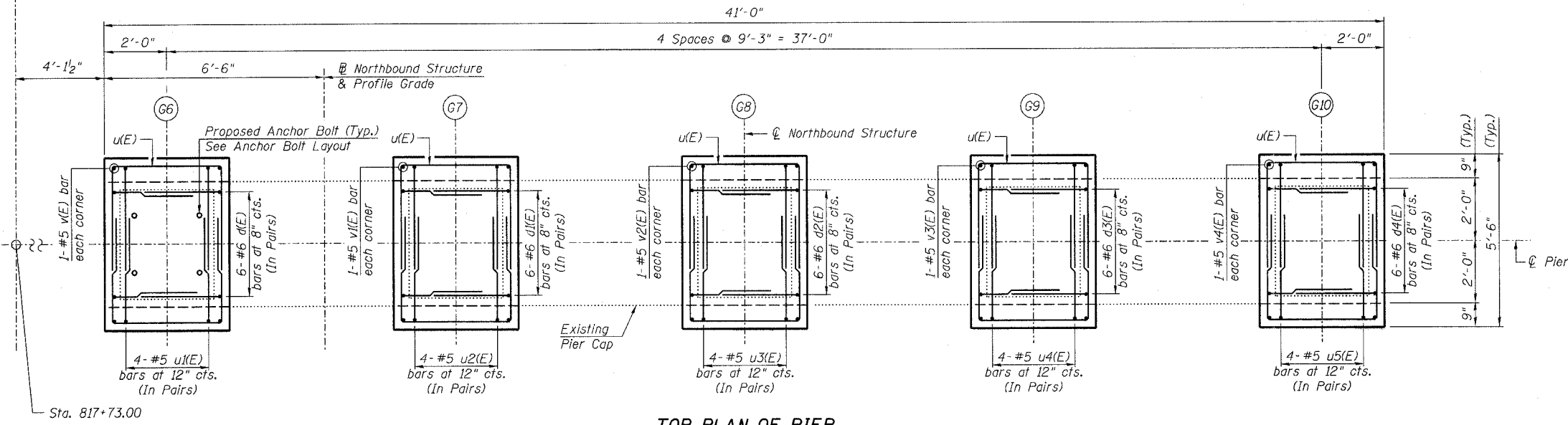
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

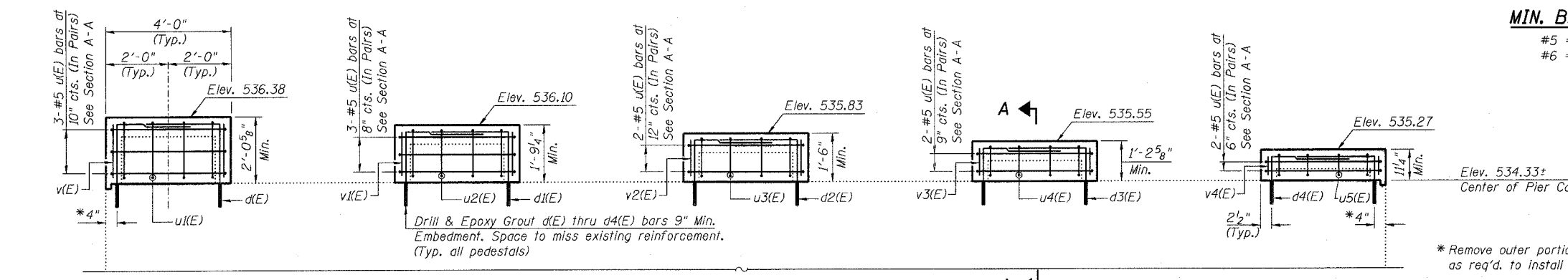
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 213	SHEET NO. 240
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	313 SHEETS

Contract # 66586

Local Tangent to
@ 7@ F.A.I. 39

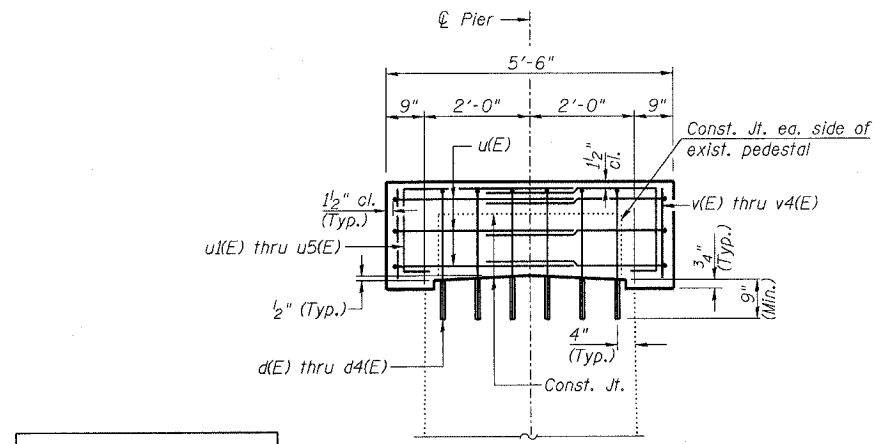


TOP PLAN OF PIER

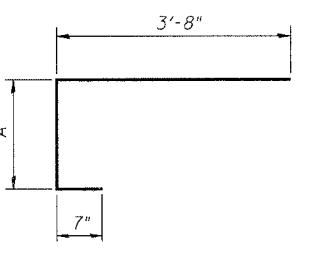


ELEVATION
(Looking North)

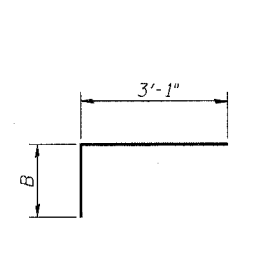
MIN. BAR LAP
#5 = 2'-2"
#6 = 2'-7"



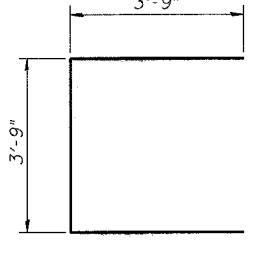
SECTION A-A



Bar	A
u1(E)	1'-10"
u2(E)	1'-6"
u3(E)	1'-3"
u4(E)	1'-0"
u5(E)	8"

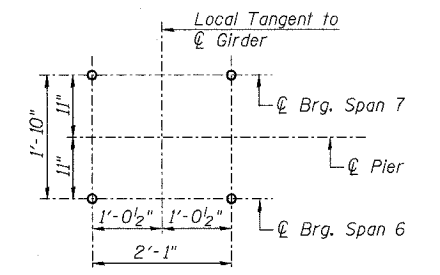


Bar	B
d1(E)	2'-8"
d2(E)	2'-5"
d3(E)	2'-2"
d4(E)	1'-10"



BAR u(E)

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 6 NB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1(E)	12	#6	5'-9"	┌
d2(E)	12	#6	5'-6"	┌
d3(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-11"	┌
u1(E)	24	#5	11'-3"	┌
u2(E)	8	#5	6'-1"	┌
u3(E)	8	#5	5'-9"	┌
u4(E)	8	#5	5'-6"	┌
u5(E)	8	#5	5'-3"	┌
v1(E)	4	#5	1'-10"	—
v2(E)	4	#5	1'-7"	—
v3(E)	4	#5	1'-4"	—
v4(E)	4	#5	1'-0"	—
Concrete Structures		Cu. Yd.	5.2	
Reinforcement Bars, Epoxy Coated		Pound	1010	
Bridge Seat Sealer		Sq. Ft.	374	
Concrete Removal		Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 6 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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Job # 3856

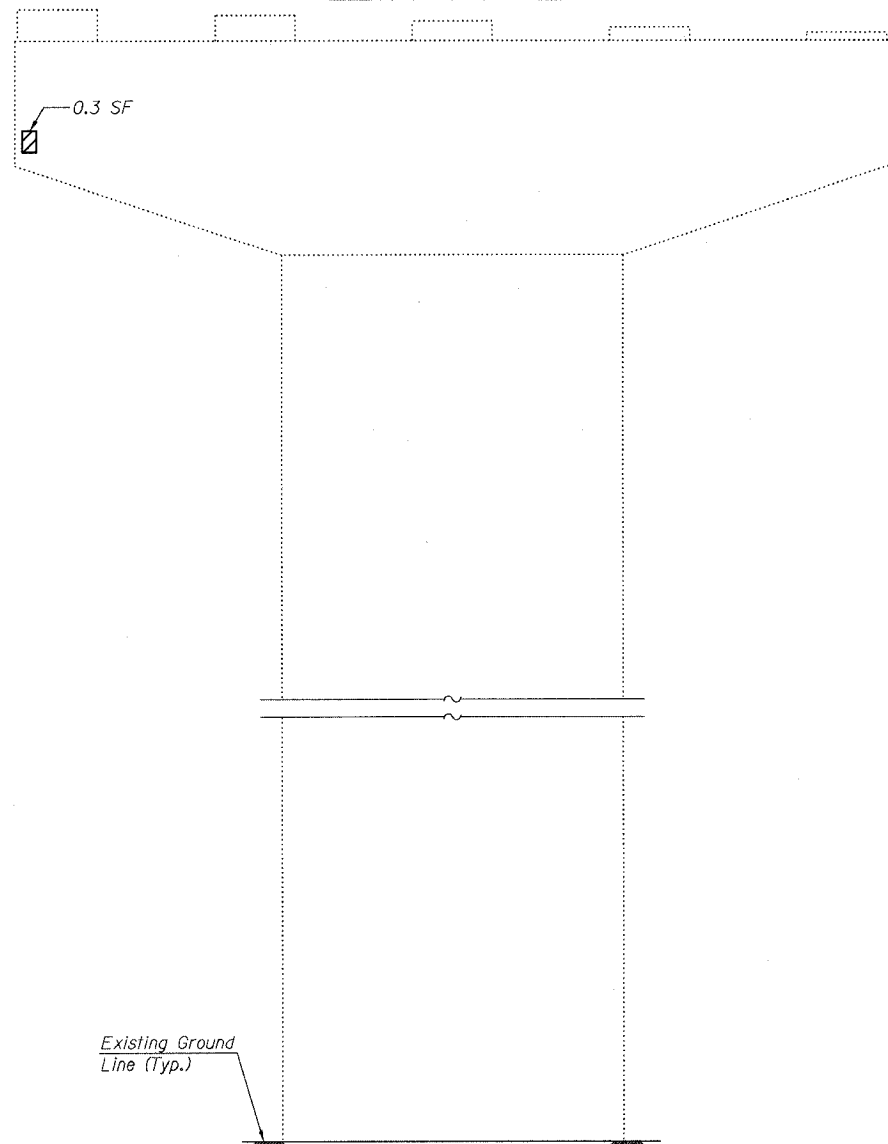
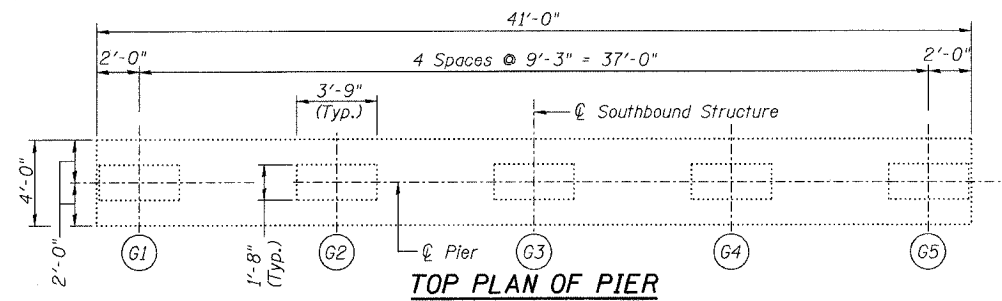
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

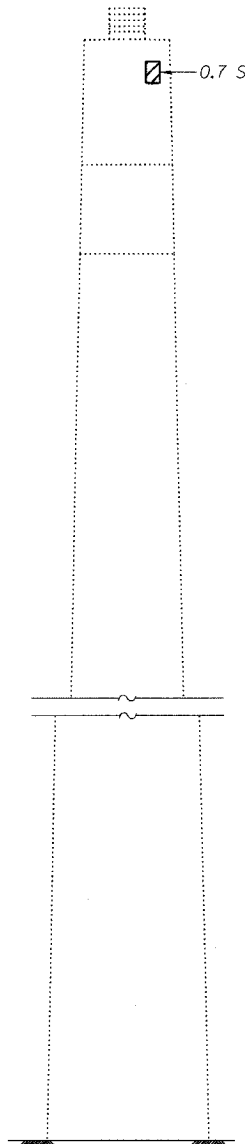
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEETS 241	PISET 241	SHEET NO. 241
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	
Contract # 66586					

NOTES:

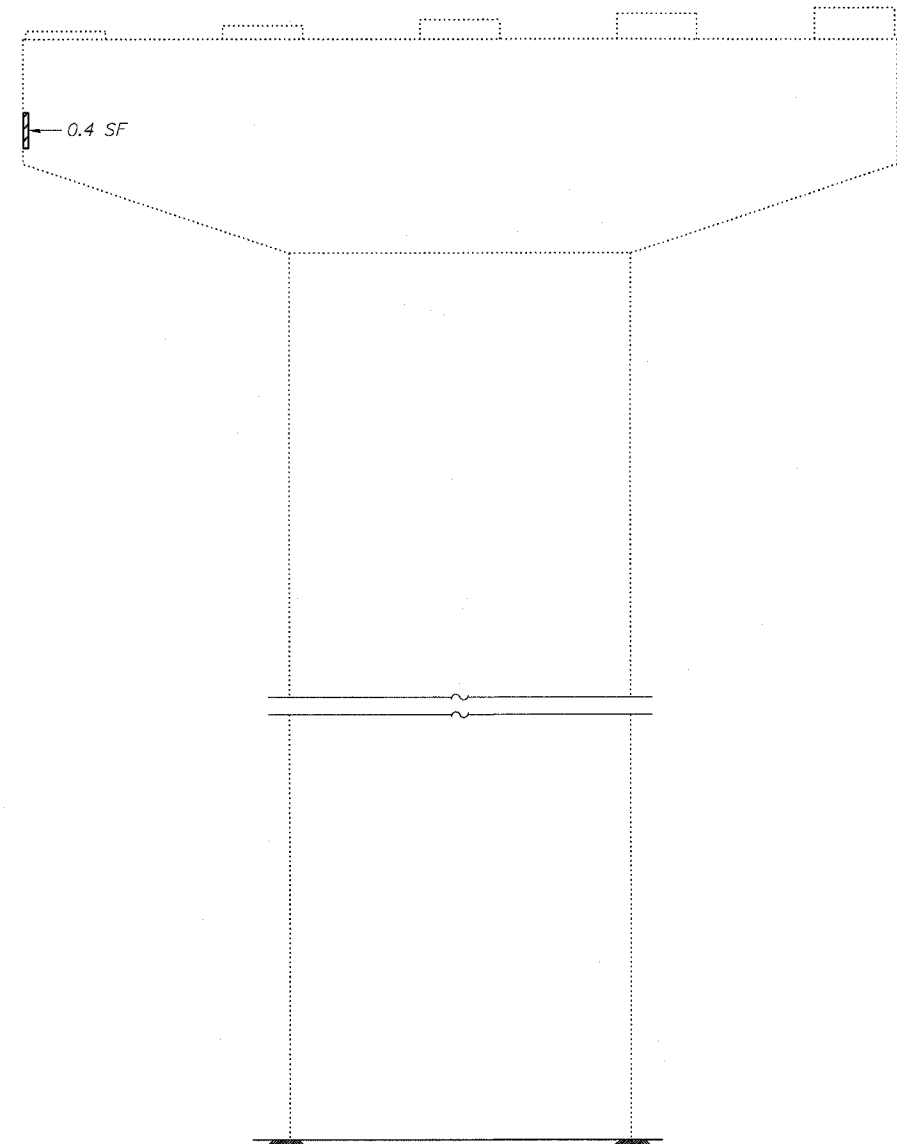
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



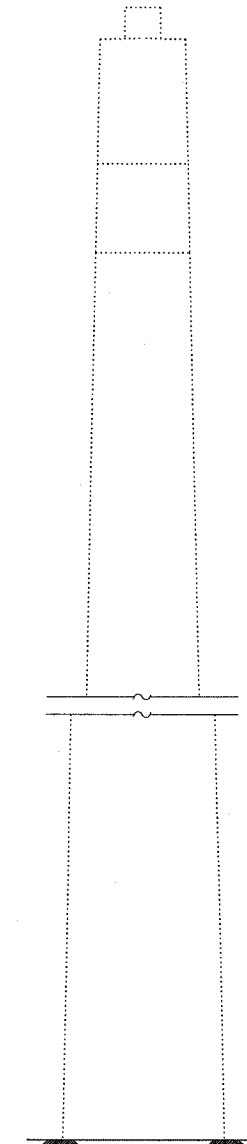
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.4

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

LIN ENGINEERING, LTD.
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 Chicago, Illinois 60601
 312-365-0450
 Job # 3856

PIER REPAIR - PIER 7 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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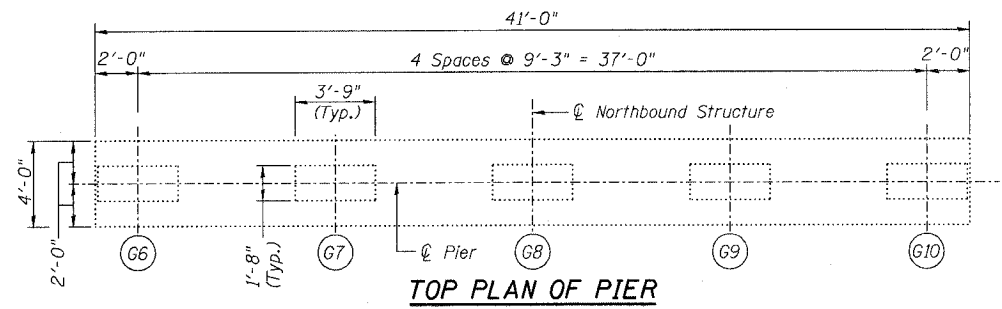
8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

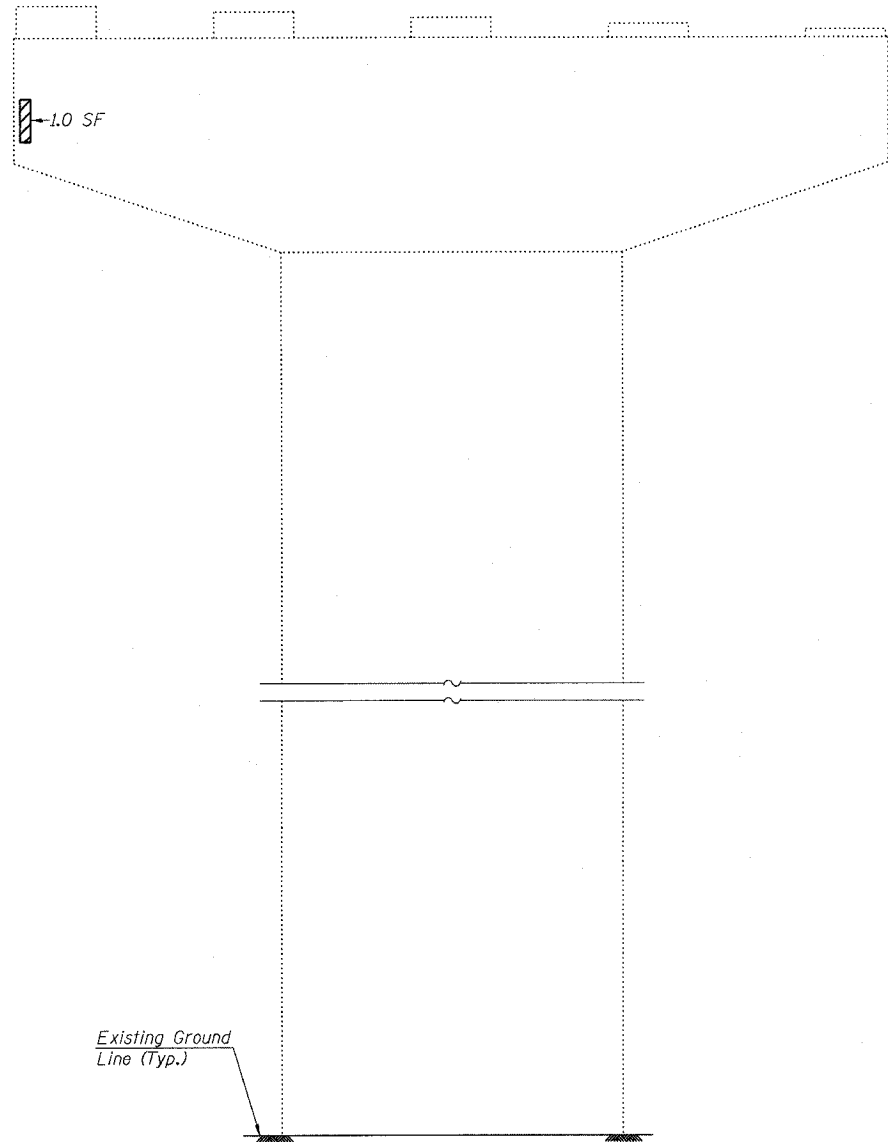
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET NO. 242	SHEET 242	SHEET 313 SHEETS
FED. ROAD DIST. NO. 7		ILL. ROAD PROJECT NO.	Contract # 66586		

NOTES:

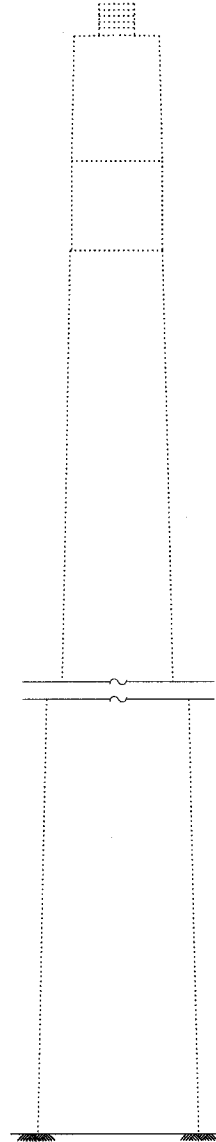
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



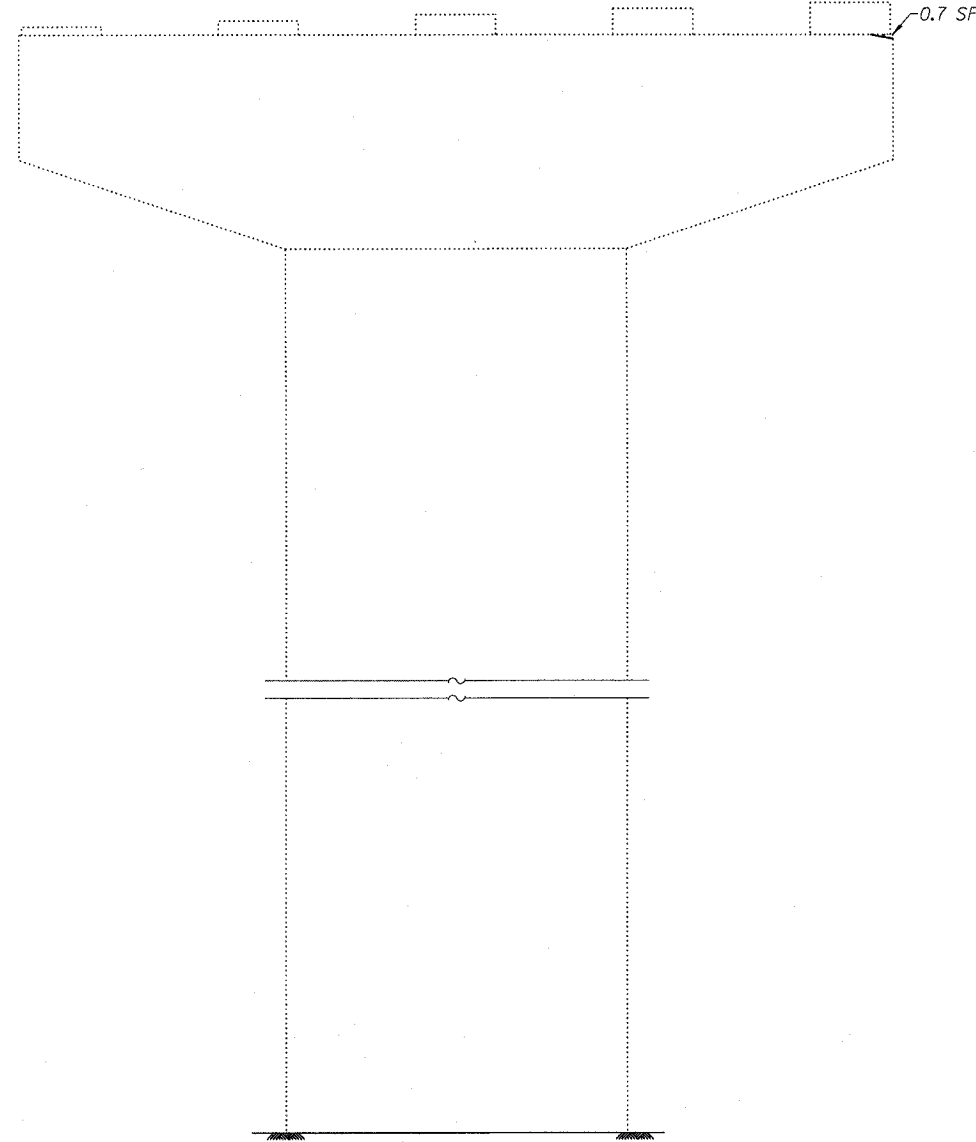
TOP PLAN OF PIER



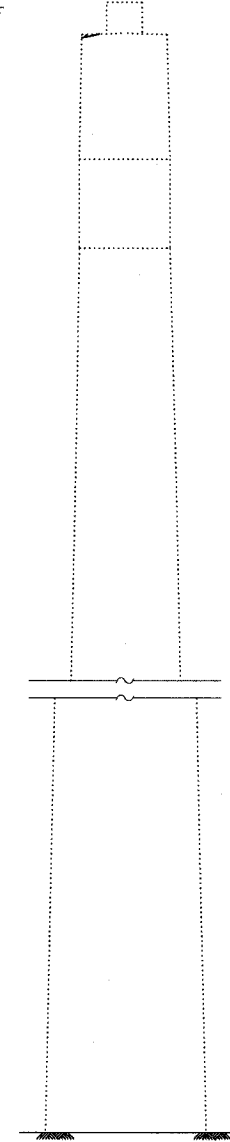
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.7

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 Job # 3856

PIER REPAIR - PIER 7 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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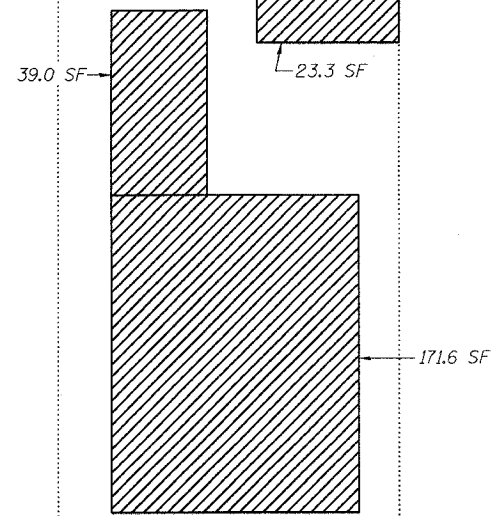
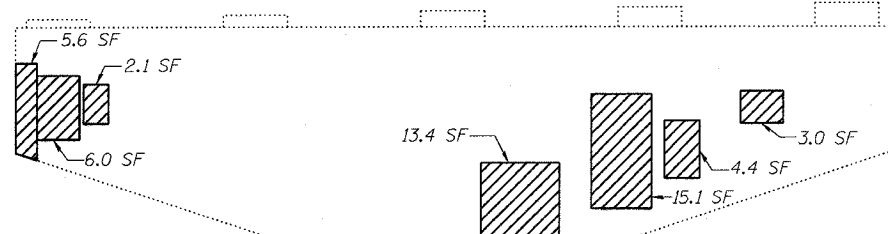
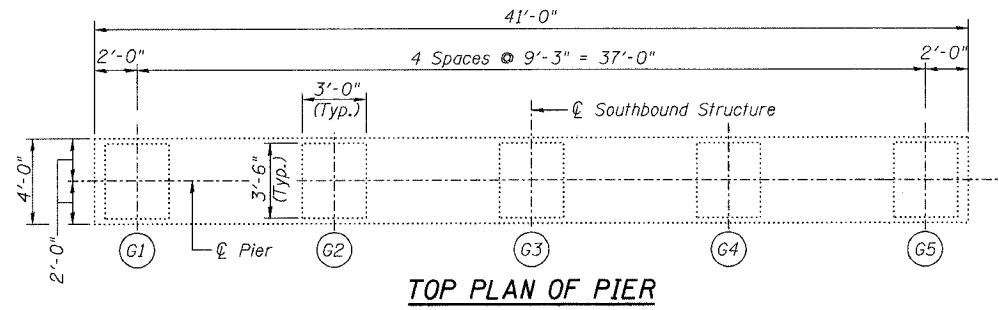
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEETS 313	SHEET 243	SHEET NO. 243
FED. ROAD DIST. NO. 7		ILL. DIST.	FED. AID PROJECT-		

Contract # 66586

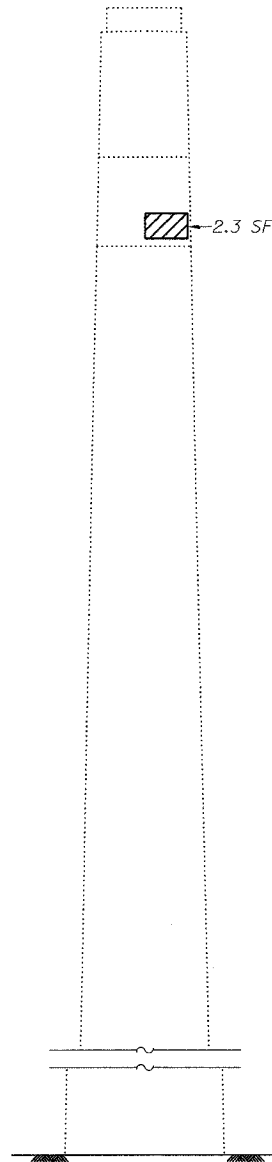
NOTES:

- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 245 for rehabilitation of concrete pedestals.

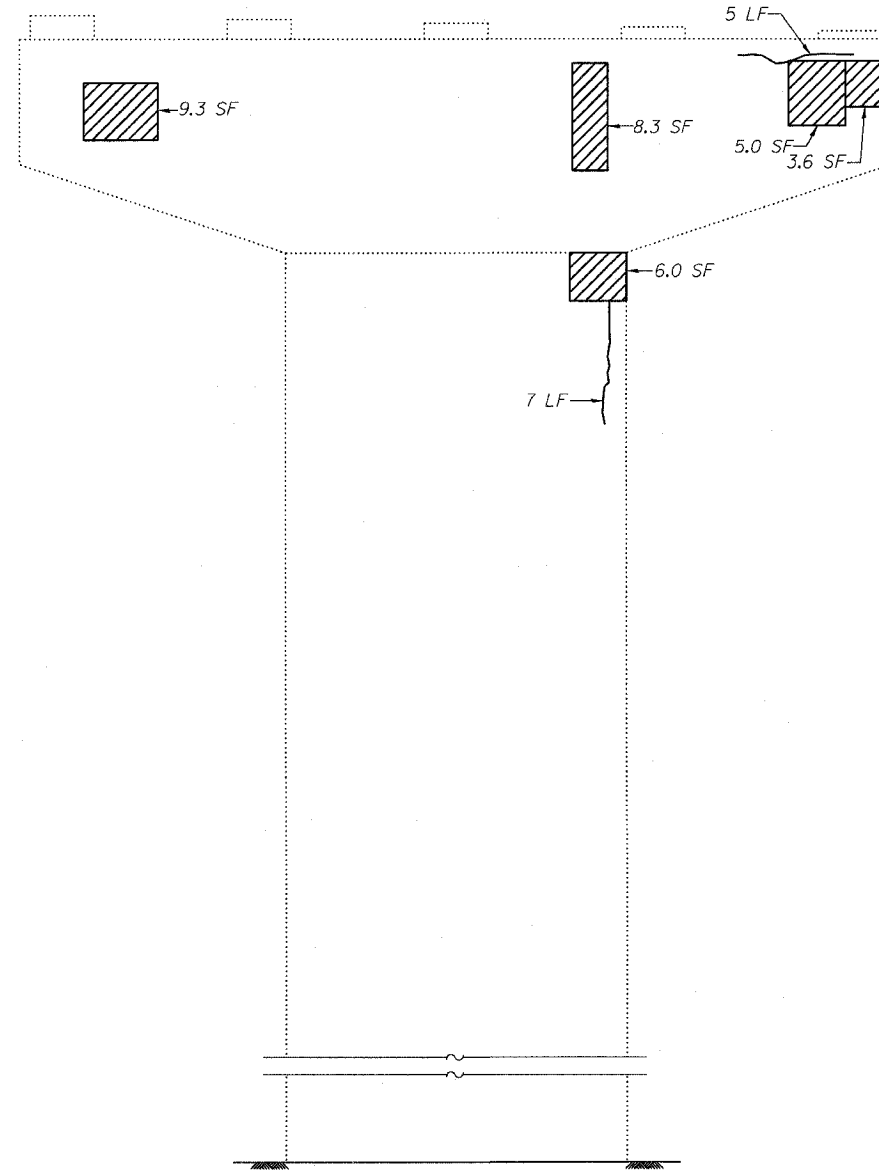


Existing Ground Line (Typ.)

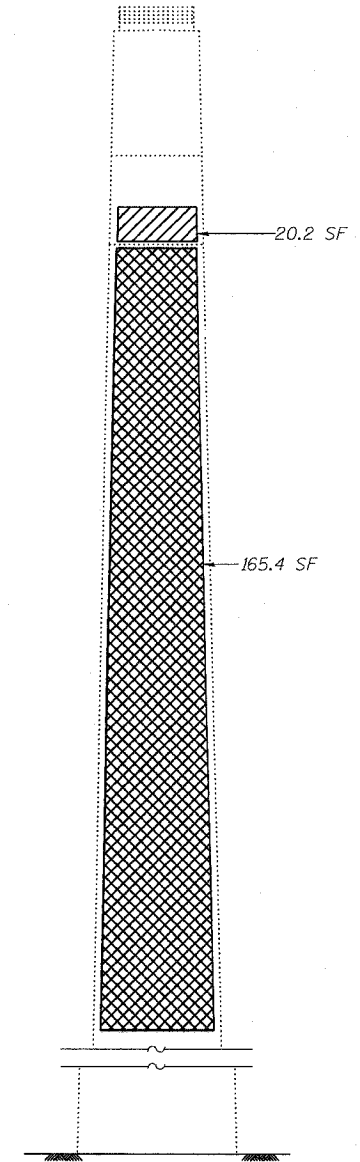
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- Epoxy Crack Sealing (Cracks > 1/16" Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	338.2
Structural Repair of Concrete (Depth greater than 5")	SF	165.4
Epoxy Crack Sealing	LF	12

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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210 W. Chestnut
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312-565-0450
Job # 3856

PIER REPAIR - PIER 10 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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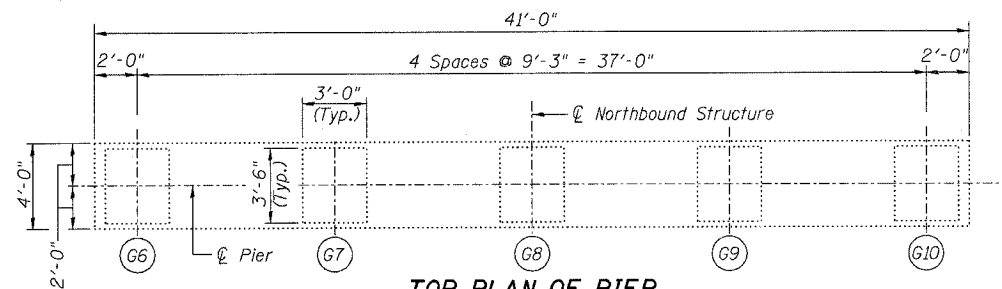
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 313	SHEET 207	SHEET NO. 244 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

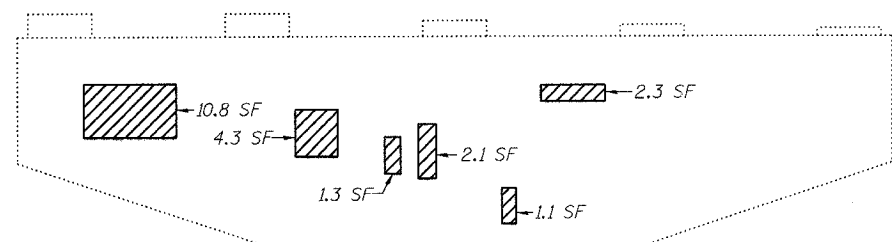
Contract # 66586

NOTES:

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- See Sheet 246 for rehabilitation of concrete pedestals.



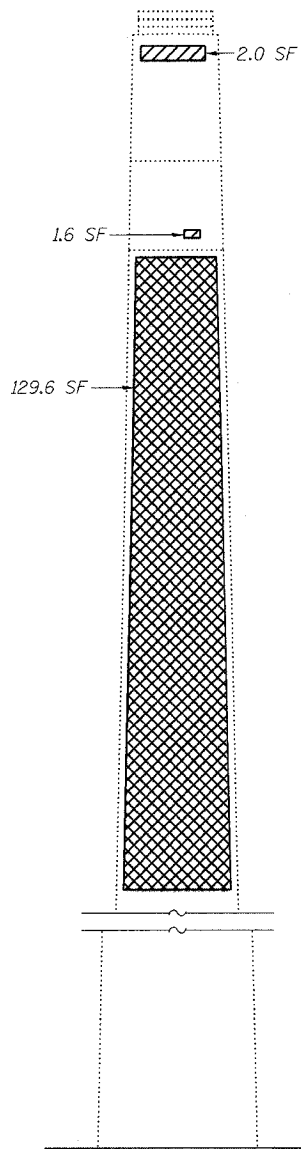
TOP PLAN OF PIER



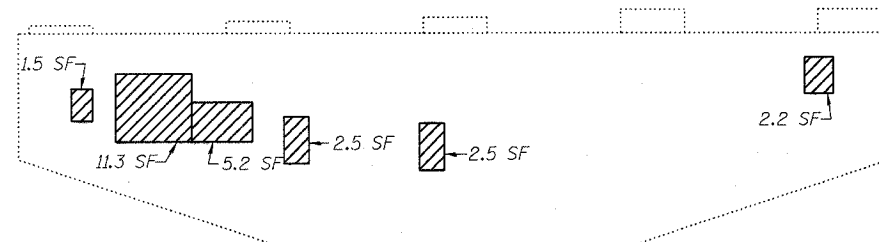
1.1 SF
1.6 SF

Existing Ground Line (Typ.)

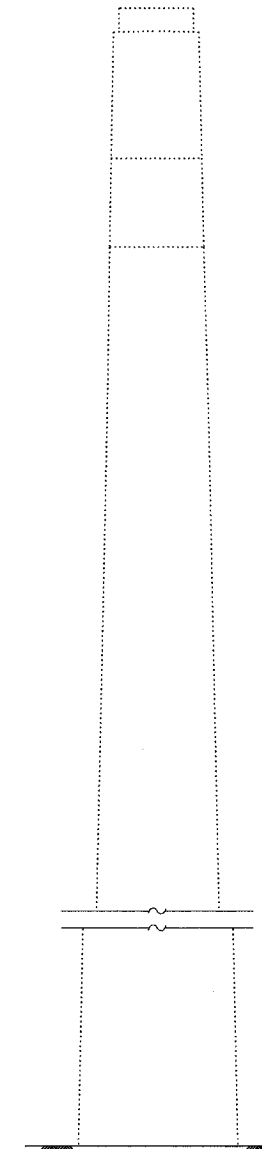
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	53.4
Structural Repair of Concrete (Depth greater than 5")	SF	129.6

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- SF Square Feet

DESIGNED -	ADB
CHECKED -	DLS
DRAWN -	KHH
CHECKED -	MTH

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Job # 3856

PIER REPAIR - PIER 10 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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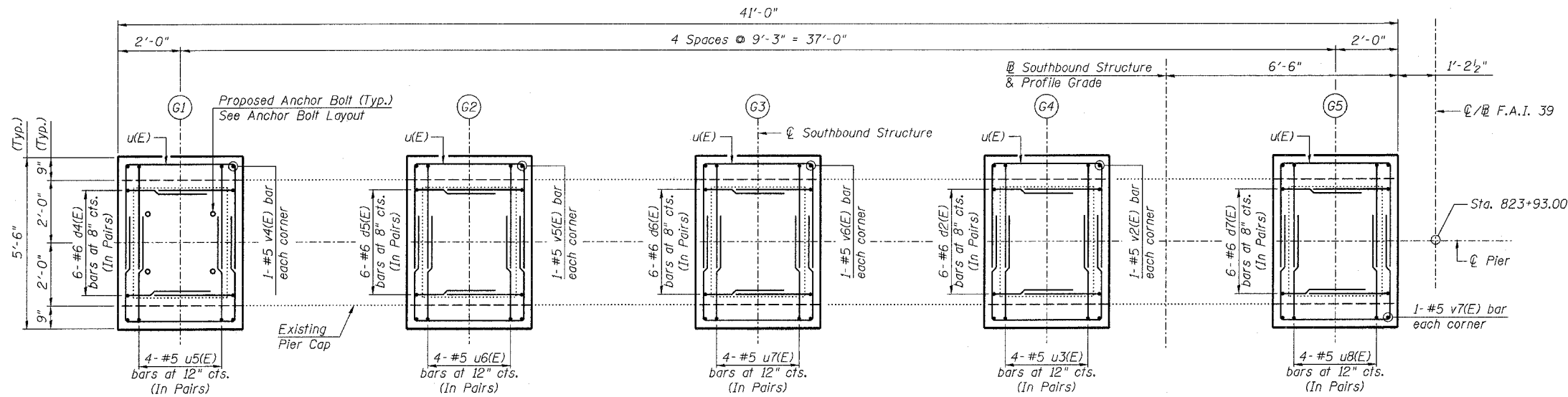
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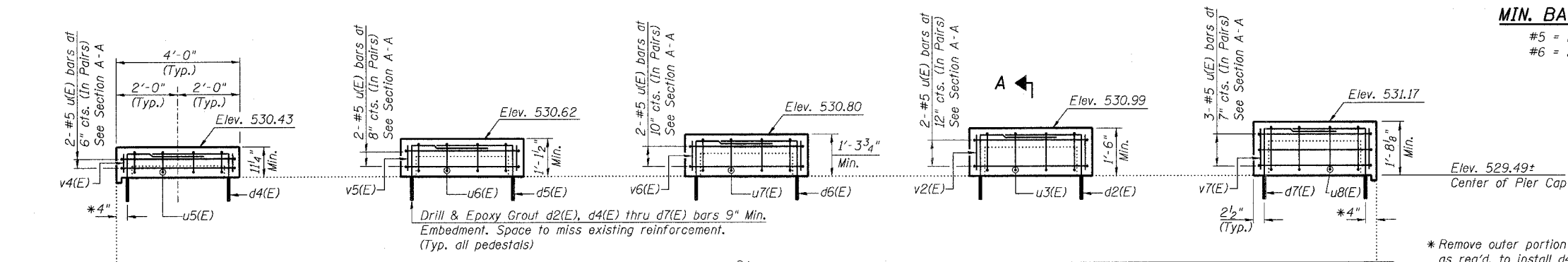
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 208	SHEET NO. 245
FED. ROAD DIST. NO. 7				ILLINOIS
FED. AID PROJECT				313 SHEETS

Contract # 66586

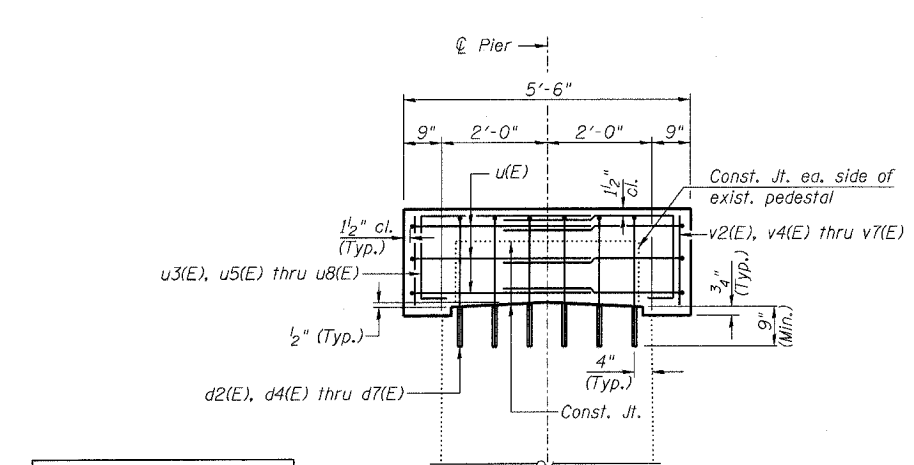


TOP PLAN OF PIER

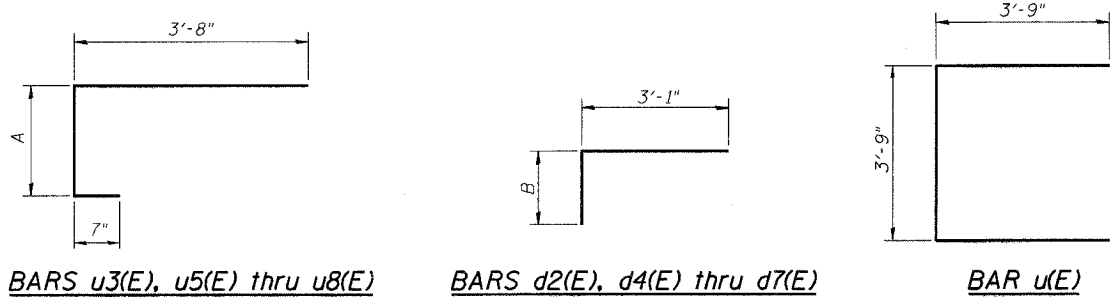


ELEVATION
(Looking North)

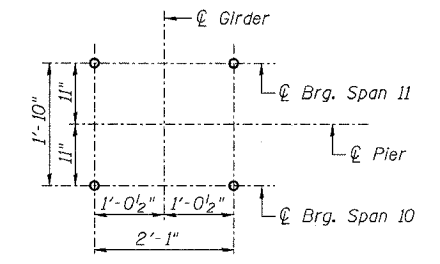
MIN. BAR LAP
#5 = 2'-2"
#6 = 2'-7"



SECTION A-A



DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 10 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	└
d4(E)	12	#6	4'-8"	└
d5(E)	12	#6	4'-10"	└
d6(E)	12	#6	5'-0"	└
d7(E)	12	#6	5'-5"	└
u(E)	22	#5	11'-3"	└
u3(E)	8	#5	5'-6"	└
u5(E)	8	#5	4'-11"	└
u6(E)	8	#5	5'-2"	└
u7(E)	8	#5	5'-4"	└
u8(E)	8	#5	5'-8"	└
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures		Cu. Yd.	4.8	
Reinforcement Bars, Epoxy Coated		Pound	960	
Bridge Seal Sealer		Sq. Ft.	356	
Concrete Removal		Cu. Yd.	0.7	

- NOTES:
- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
 - Space pedestal reinforcement to miss proposed anchor bolts.
 - See Sheet 19 for removal details.
 - See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 10 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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Chicago, Illinois 60601
312-965-0450
Job # 3856

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Chicago, Illinois 60629
(271) 483-4668
FAX (271) 483-4106

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET NO. 270	SHEET
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

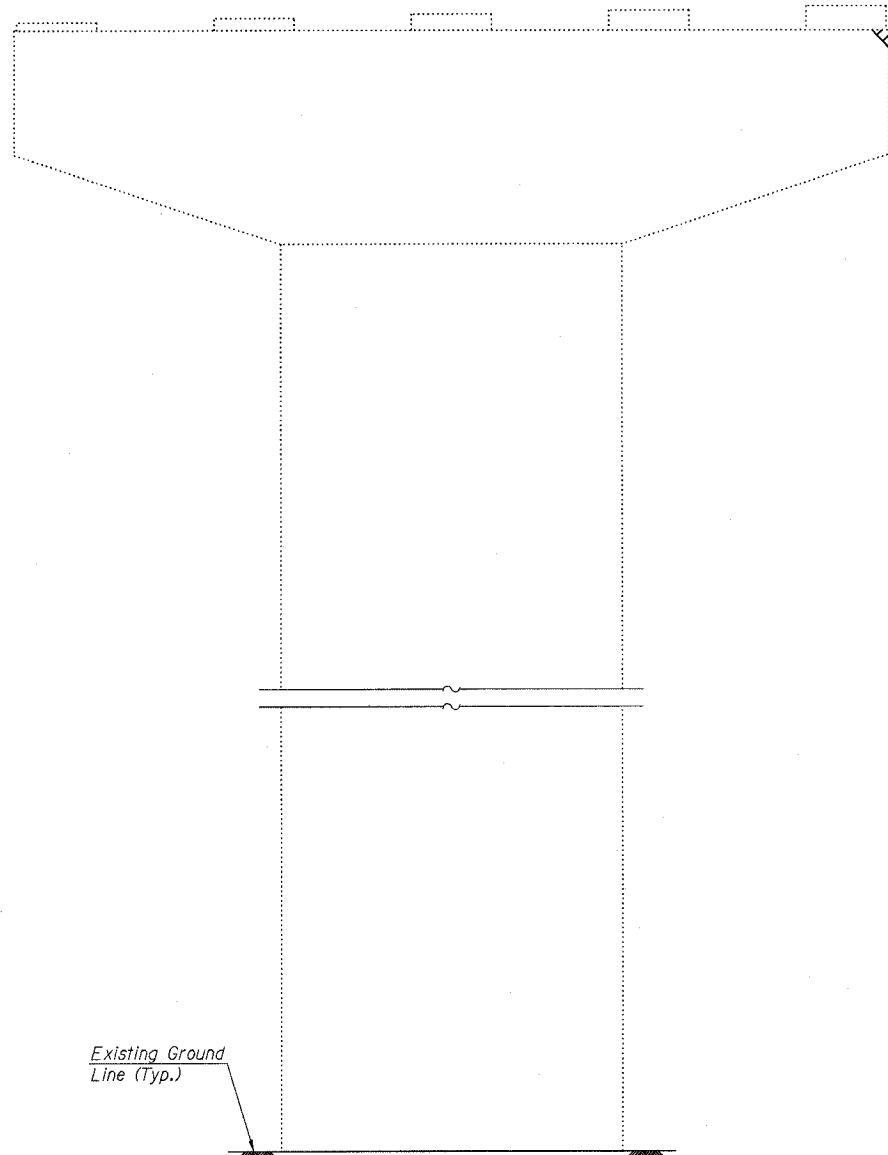
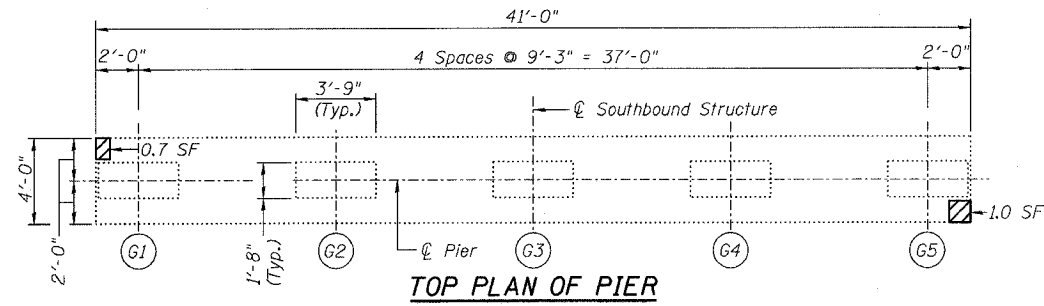
SHEET NO. 247

313 SHEETS

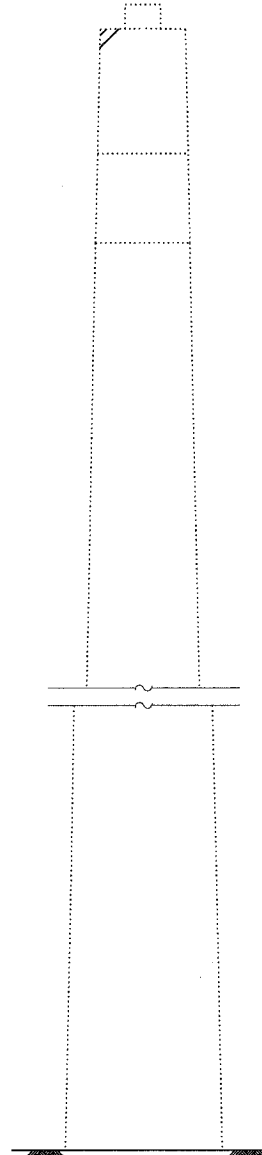
Contract # 66586

NOTES:

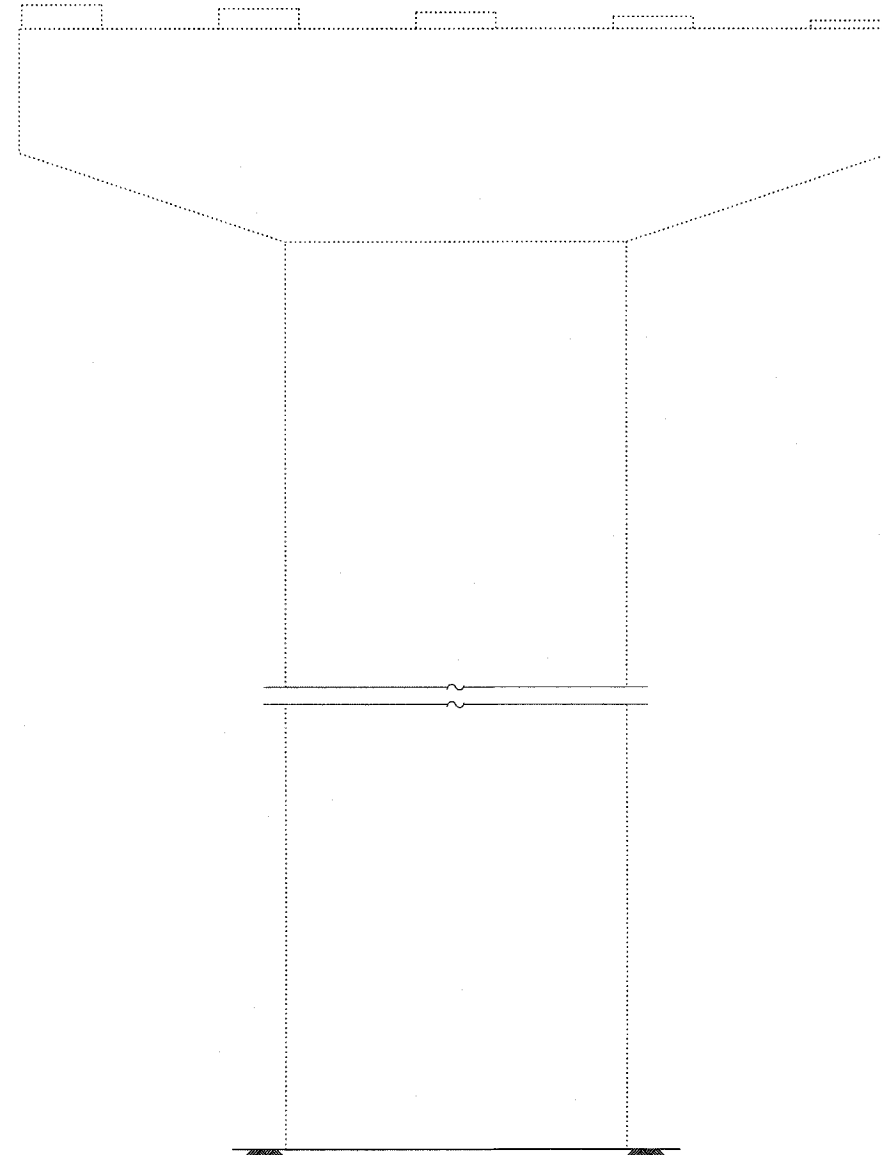
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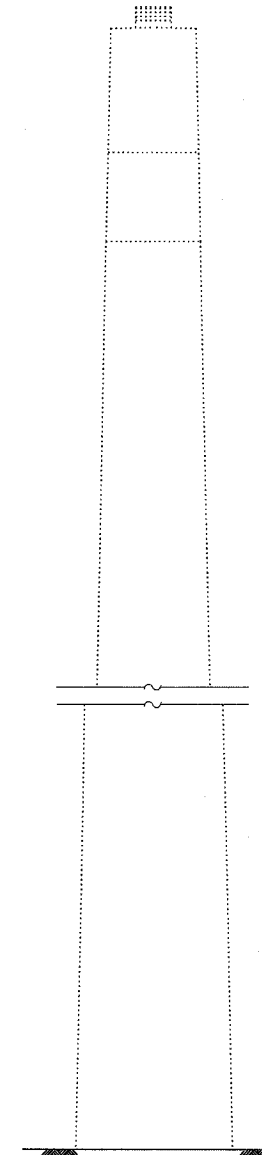
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.7

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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Chatham, Illinois 62629
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FAX (217) 483-4706

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Job # 3856

PIER REPAIR - PIER 11 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

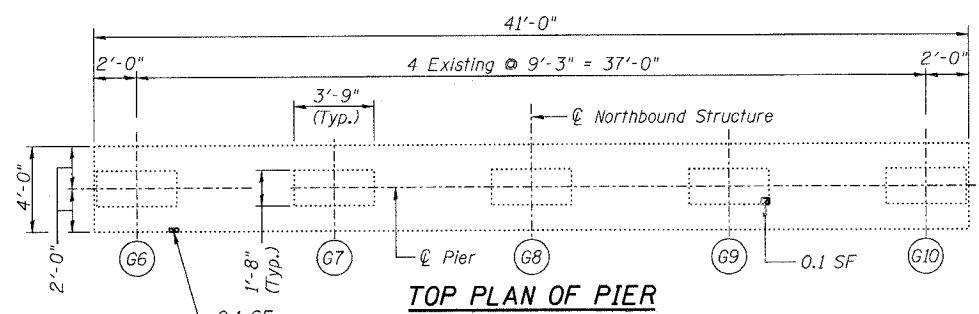
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		271	248
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66586

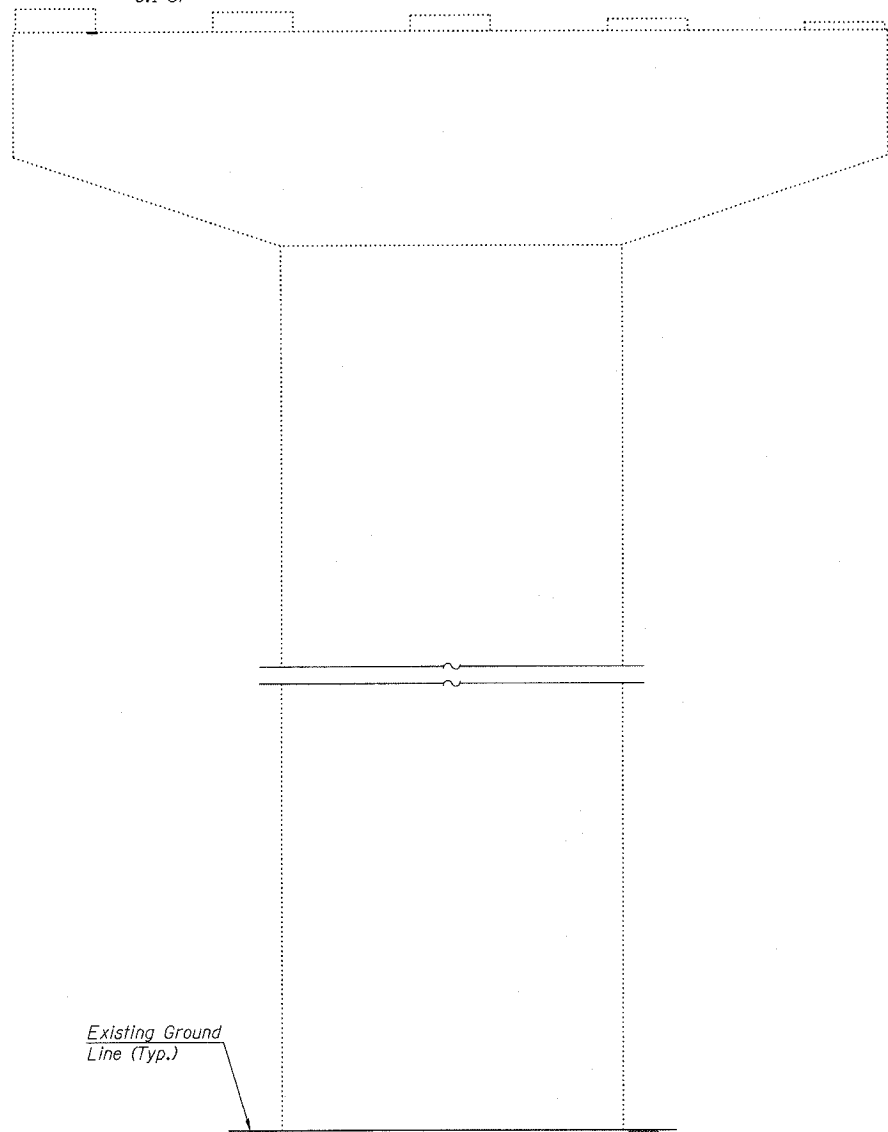
313 SHEETS

NOTES:

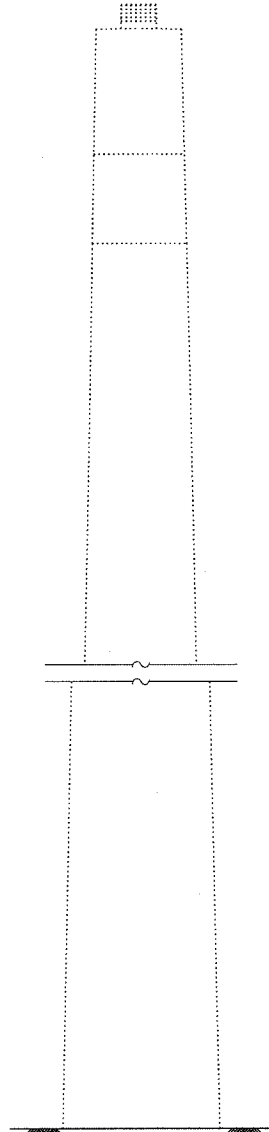
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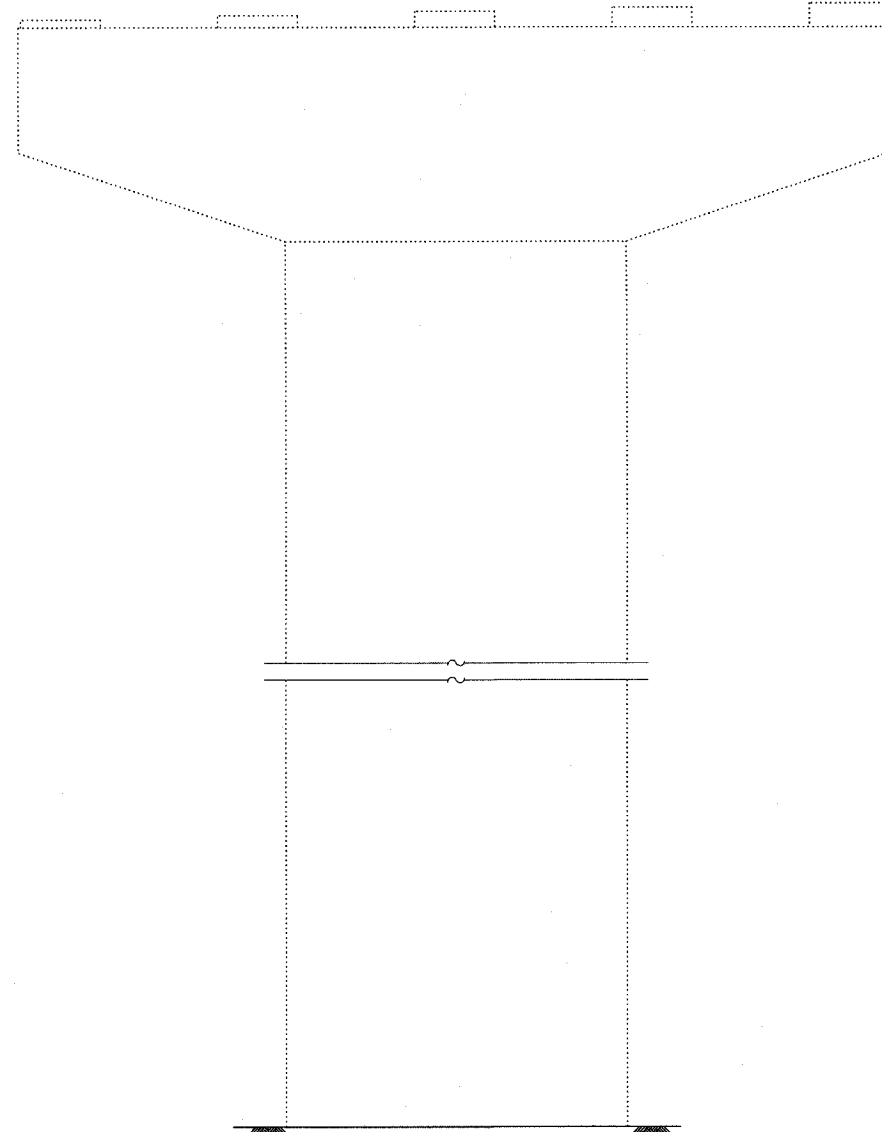
TOP PLAN OF PIER



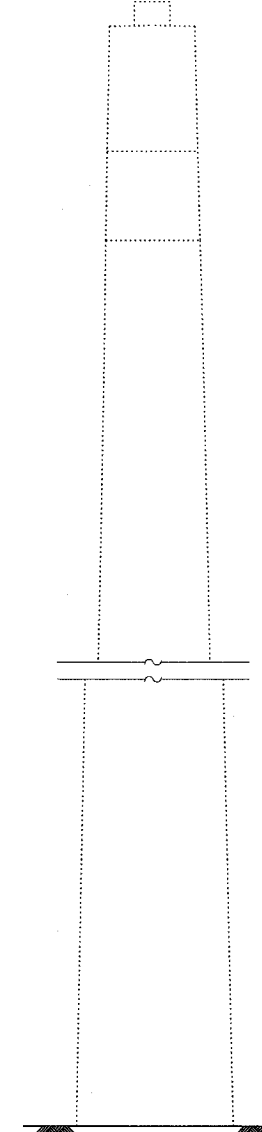
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.2

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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210 W. Chestnut
Chatham, Illinois 62629
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312-565-0450
Job # 3856

PIER REPAIR - PIER 11 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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8/30/2006

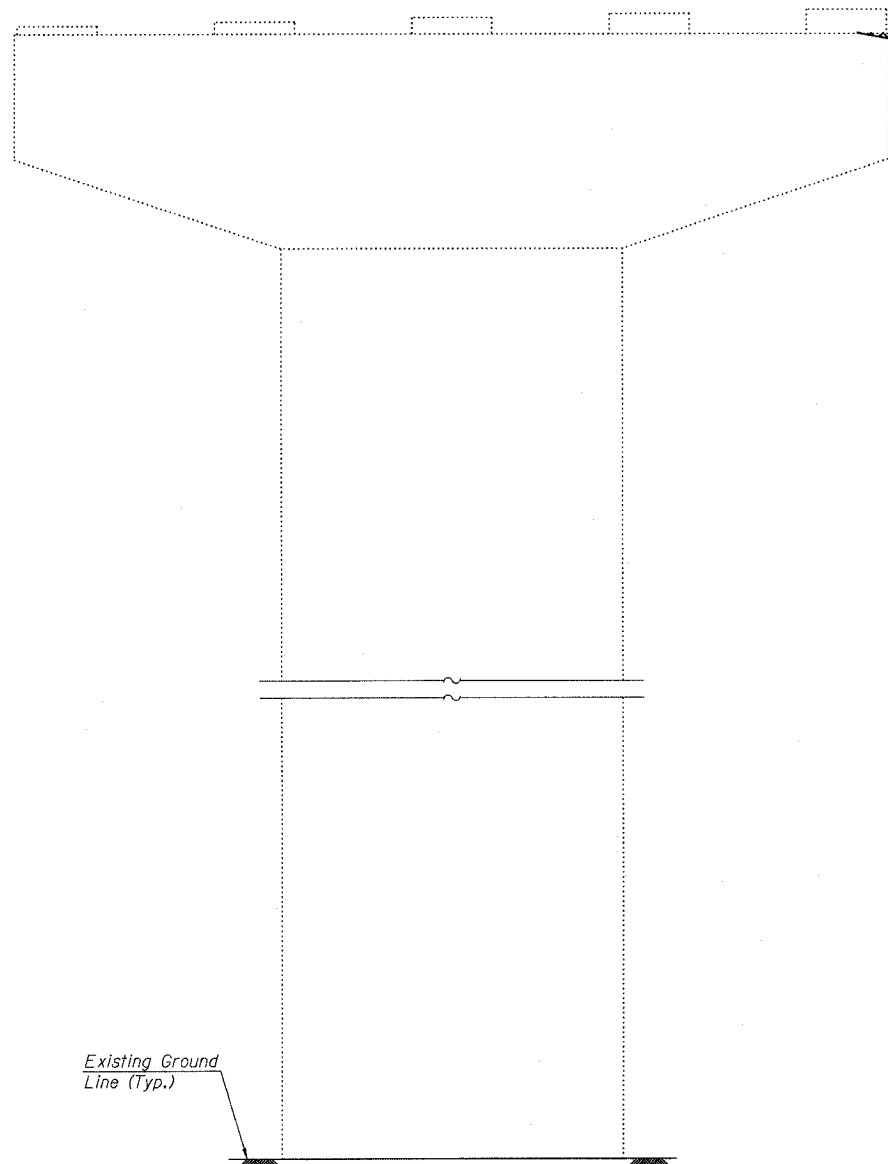
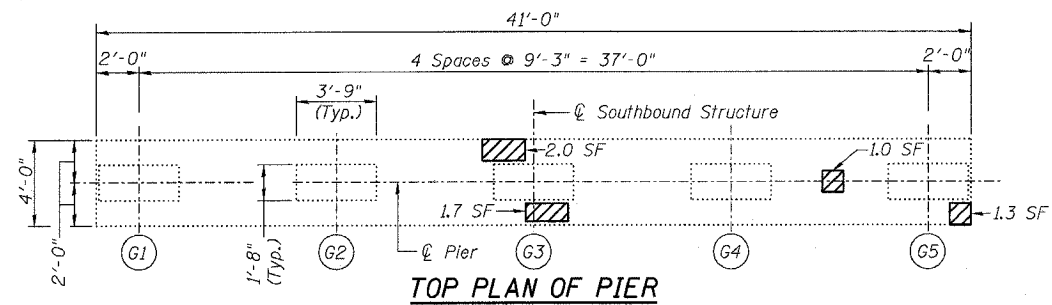
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 217	SHEET 217	SHEET NO. 249
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

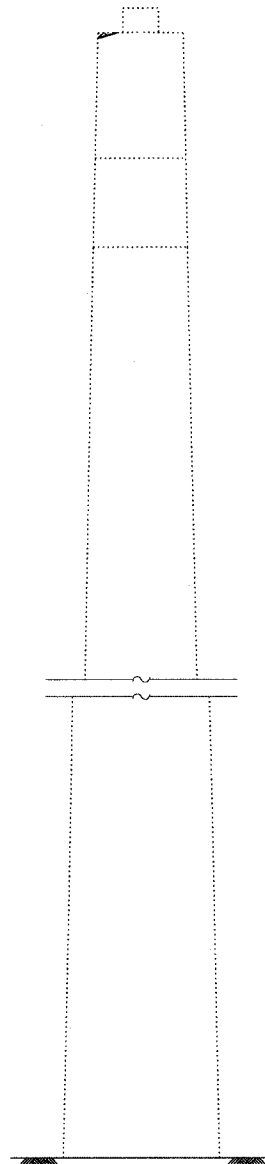
Contract # 66586

NOTES:

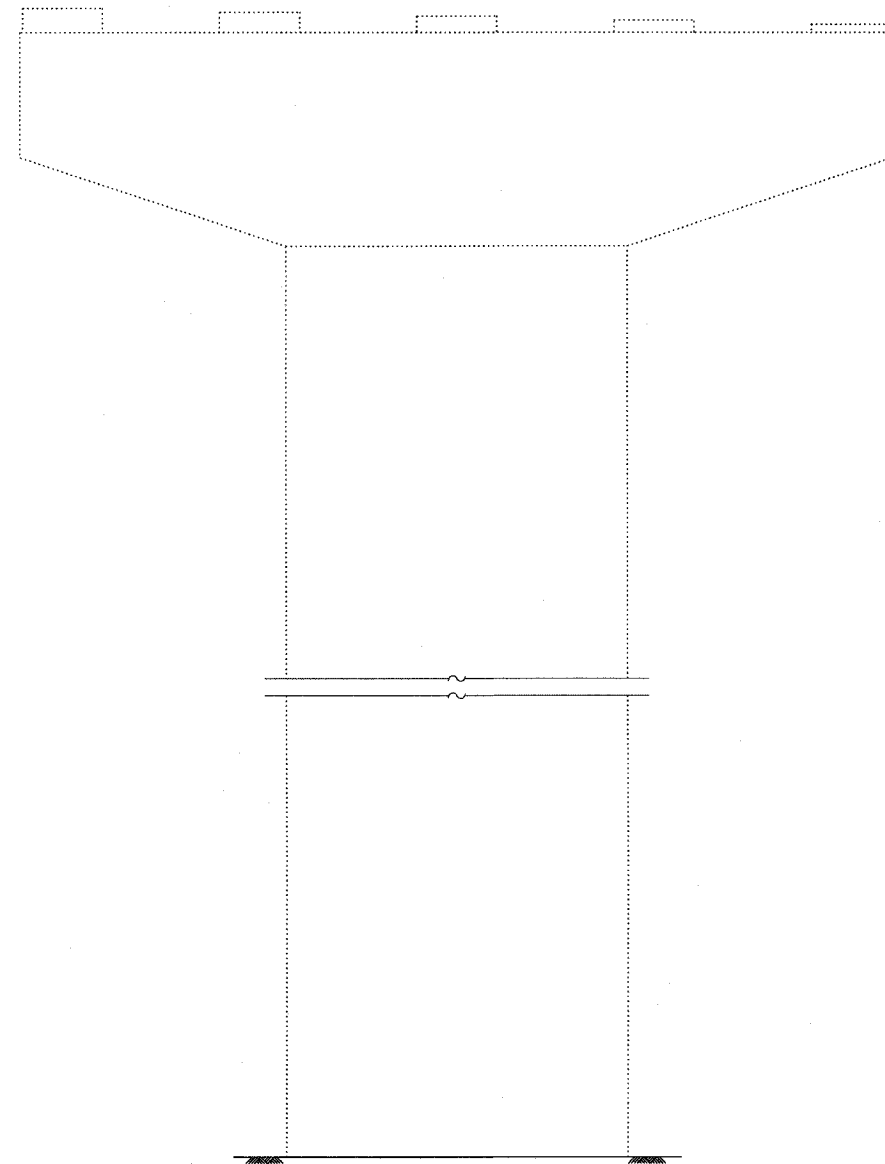
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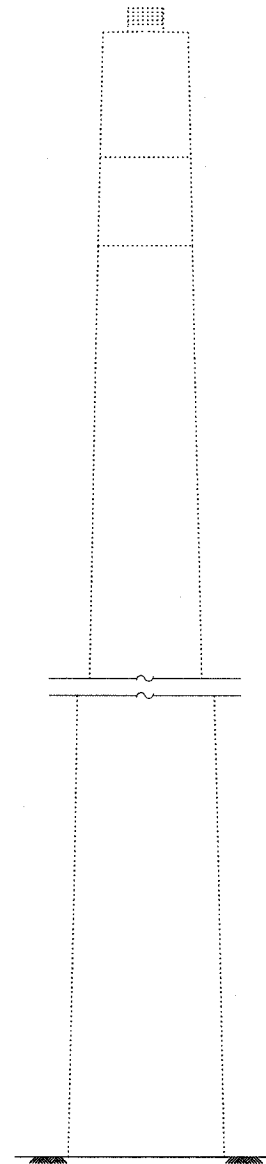
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete
(Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	6.0

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 Job # 3856

PIER REPAIR - PIER 12 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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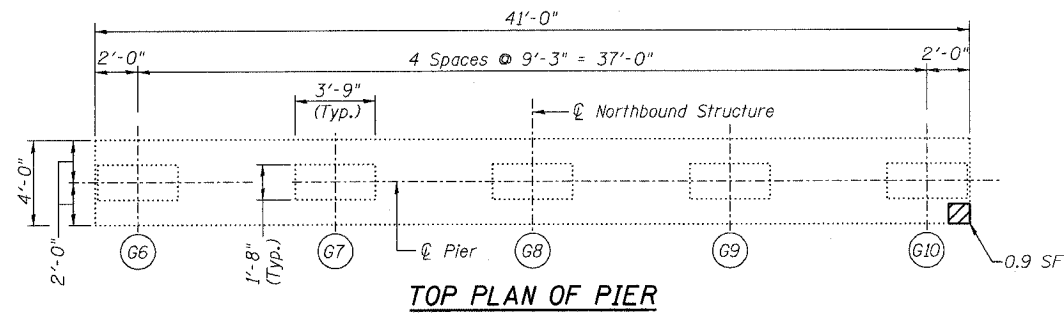
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		213	313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

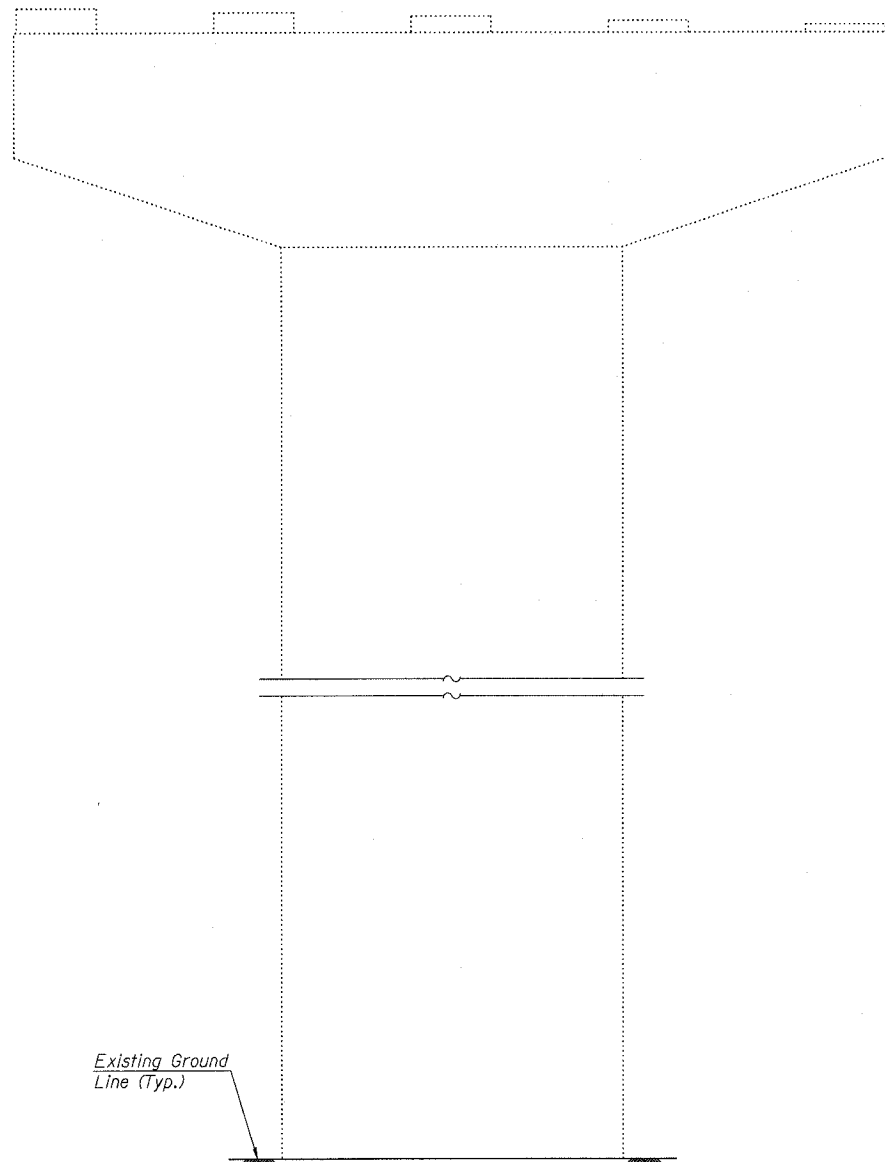
Contract # 66586

NOTES:

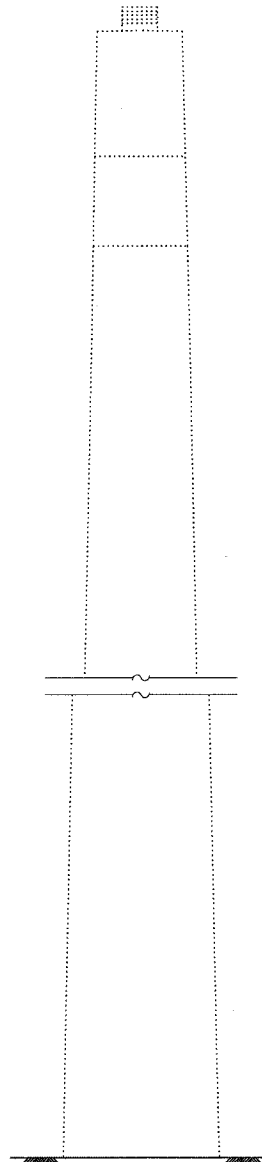
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



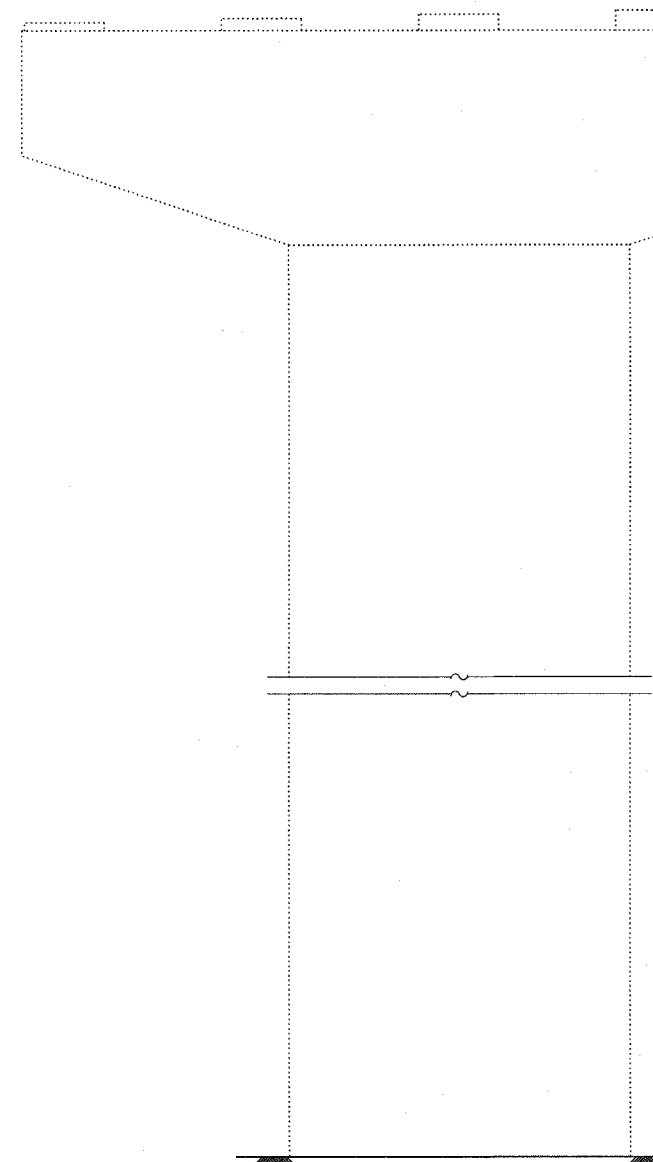
TOP PLAN OF PIER



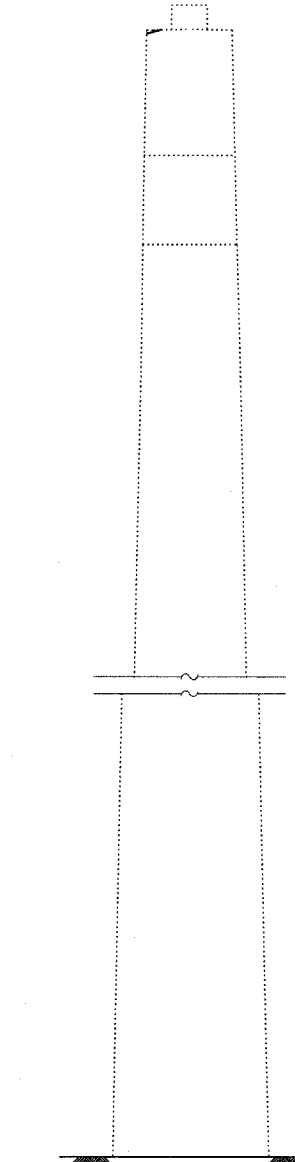
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.8

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

LIN ENGINEERING, LTD.
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 312-565-0450
 Job # 3656

PIER REPAIR - PIER 12 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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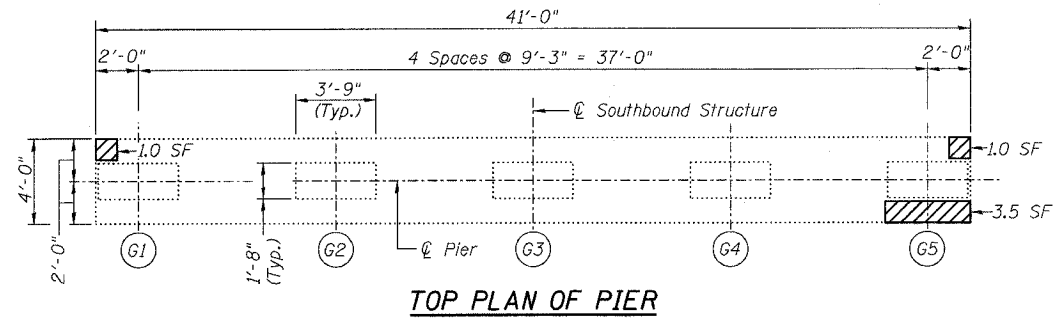
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	NO. SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		274	251
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

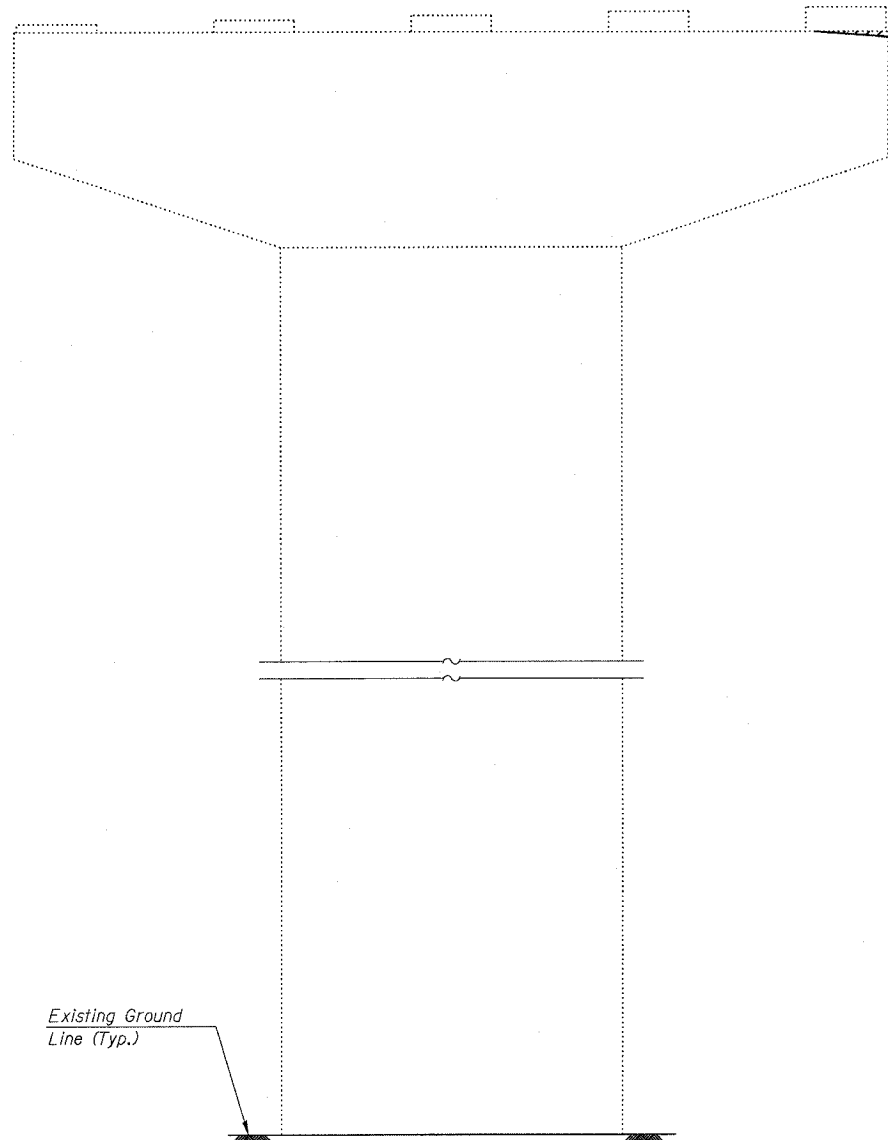
Contract # 66586

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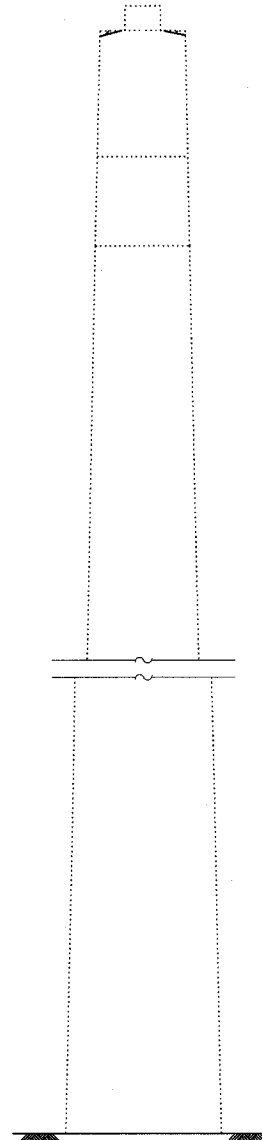
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



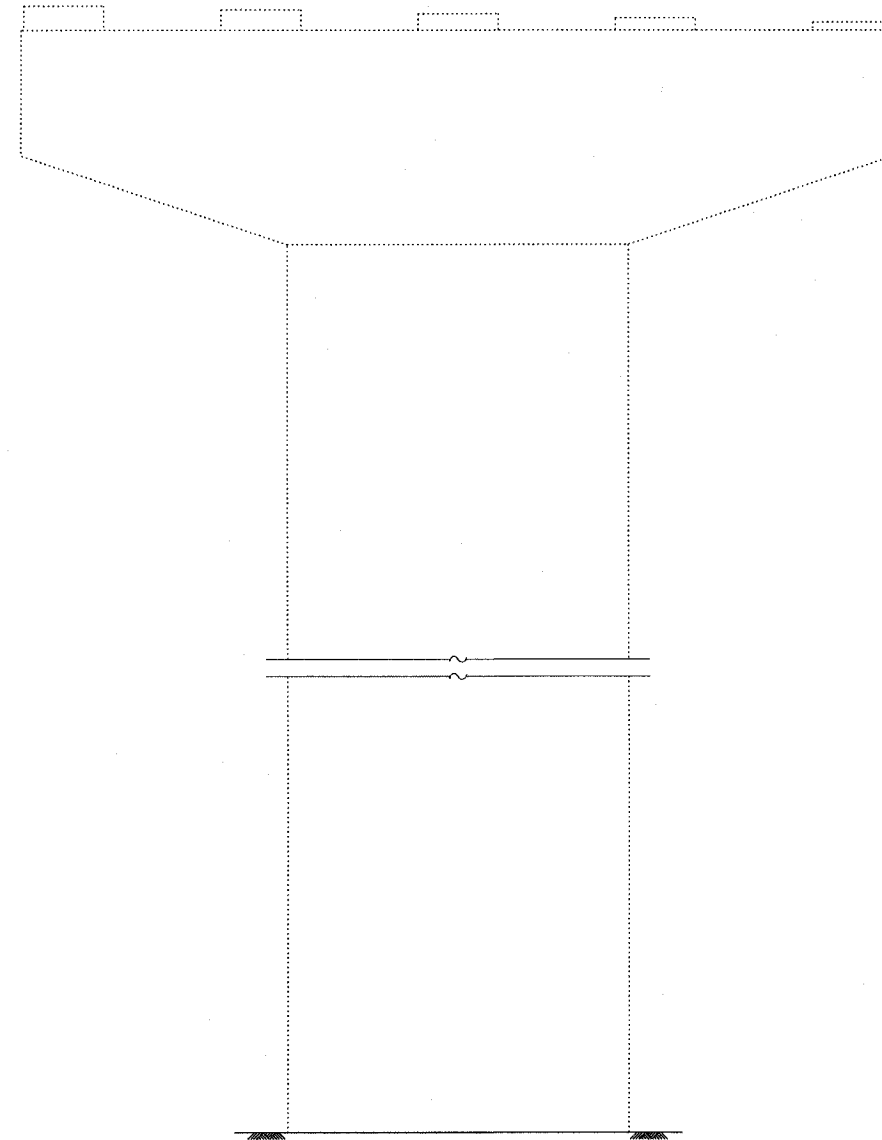
TOP PLAN OF PIER



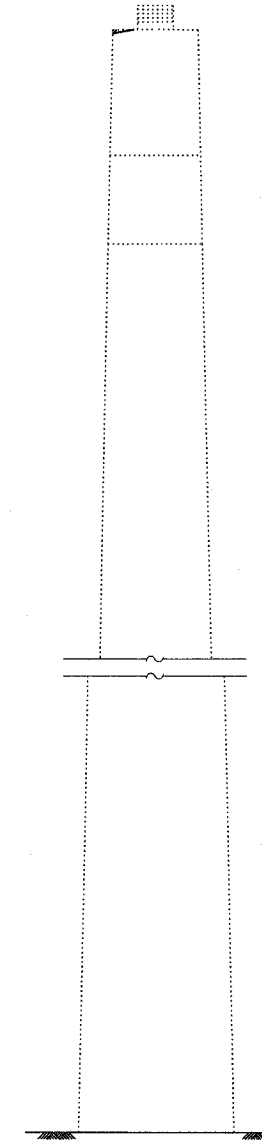
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	5.5

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 312-965-0450
 Job # 3856

PIER REPAIR - PIER 13 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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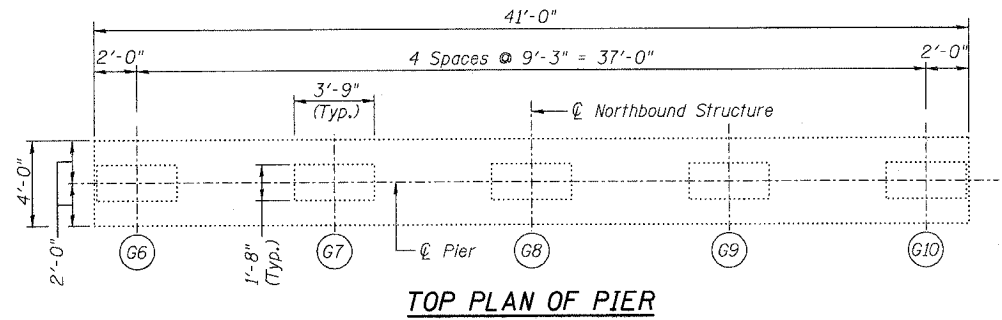
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 252
F.A.I. 39	50-4B	LASALLE		25	313 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

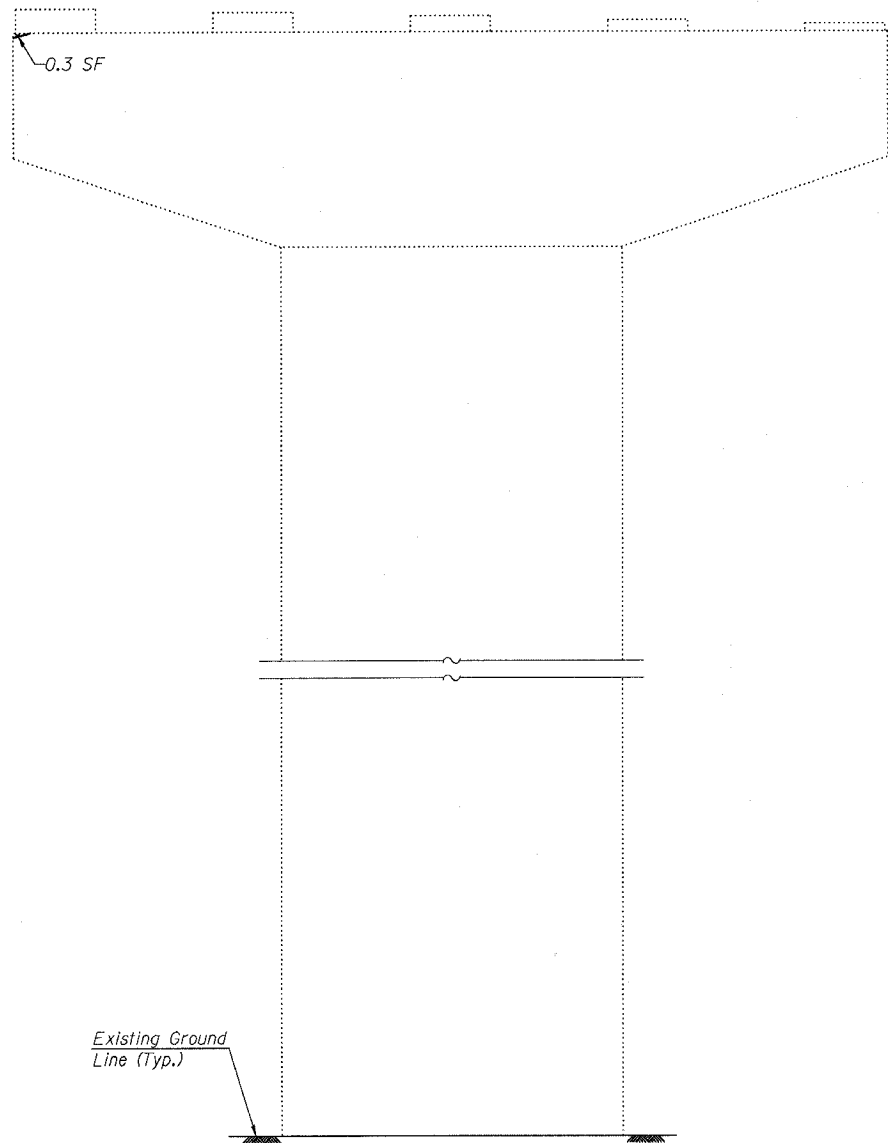
Contract # 66586

NOTES:

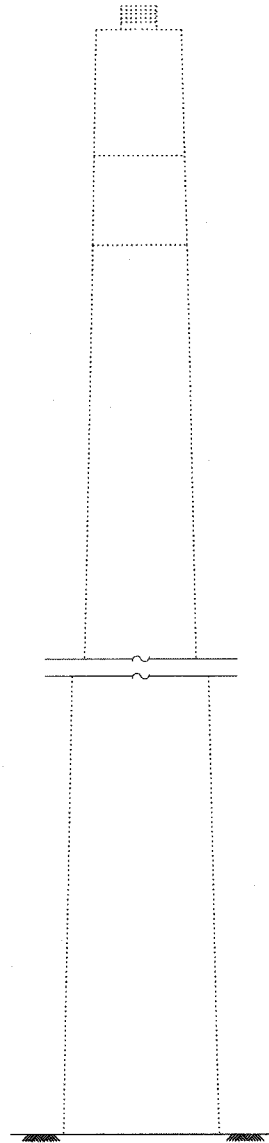
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



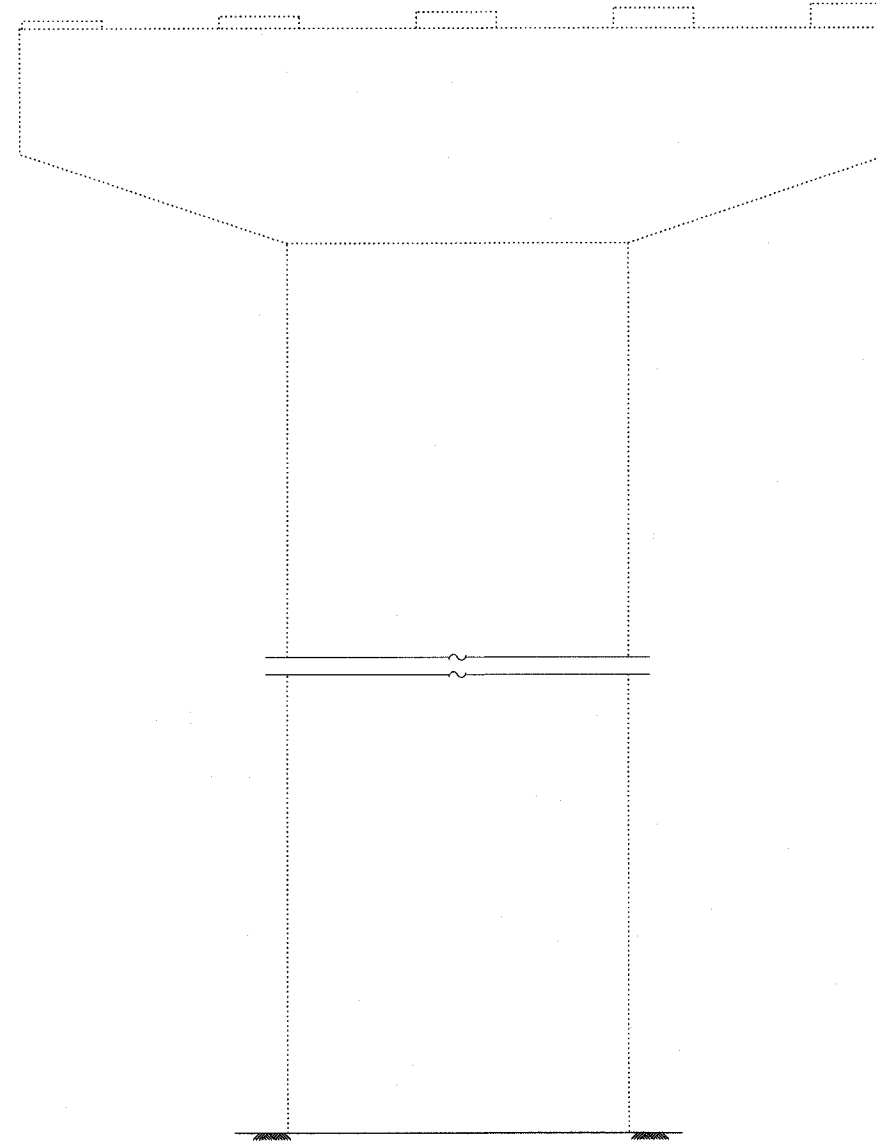
TOP PLAN OF PIER



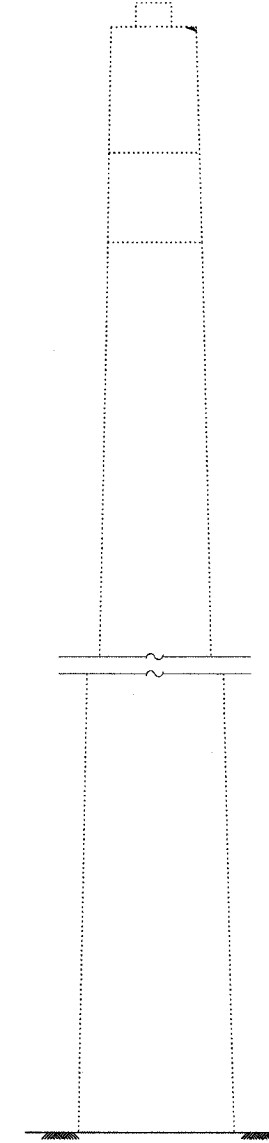
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.3

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450
 Job # 3856

PIER REPAIR - PIER 13 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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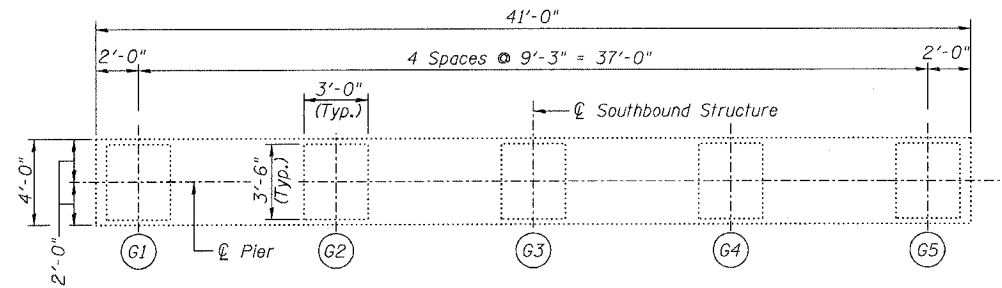
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEETS 276	SHEET 276	SHEET NO. 253 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

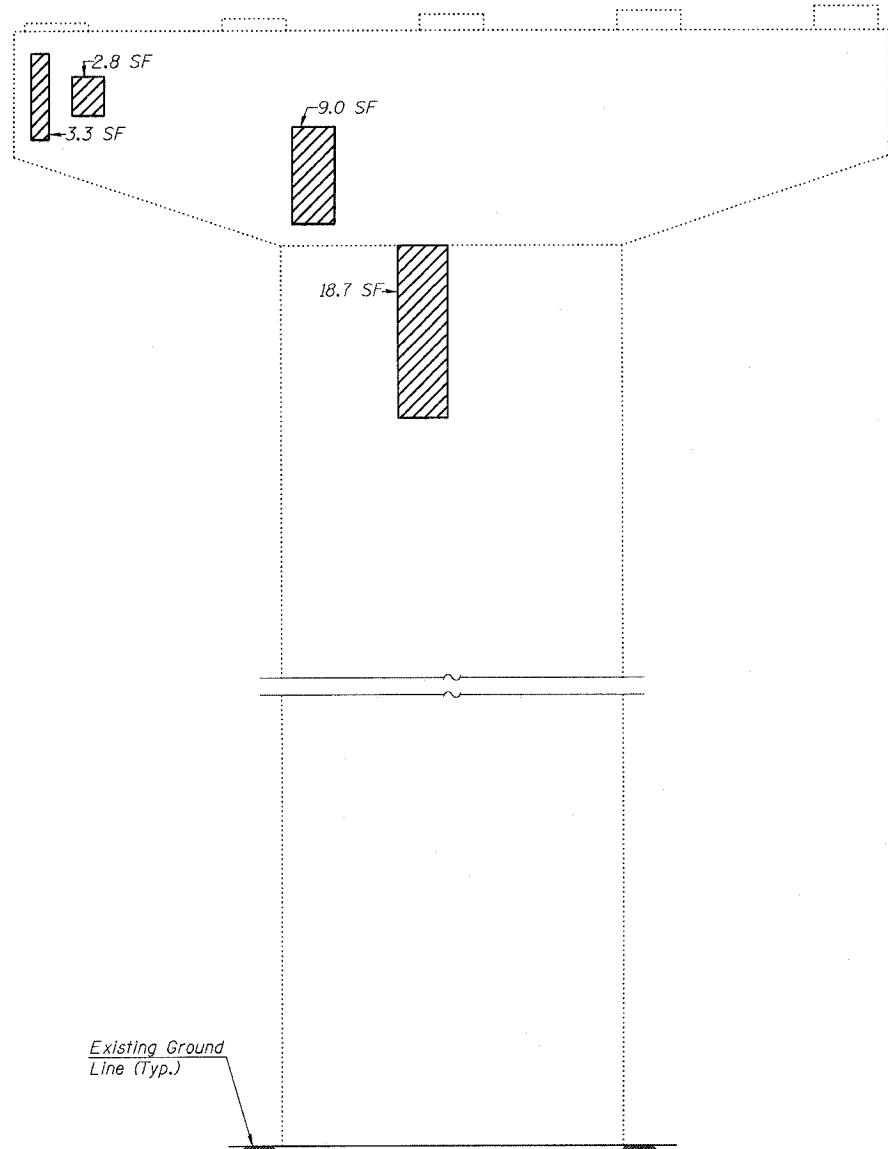
Contract # 66586

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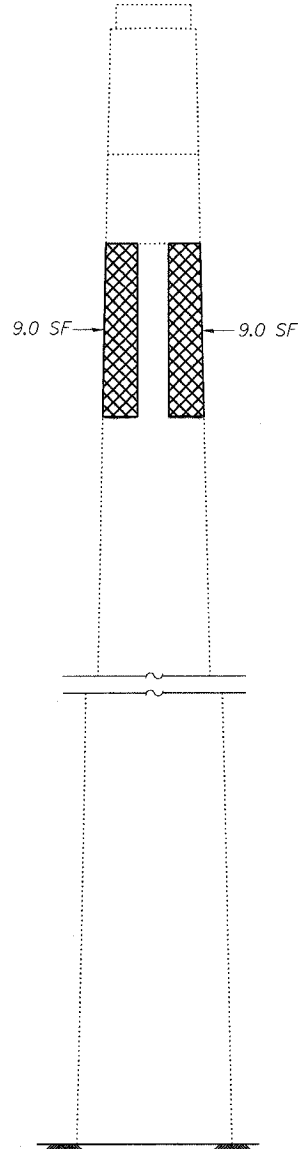
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 255 for rehabilitation of concrete pedestals.



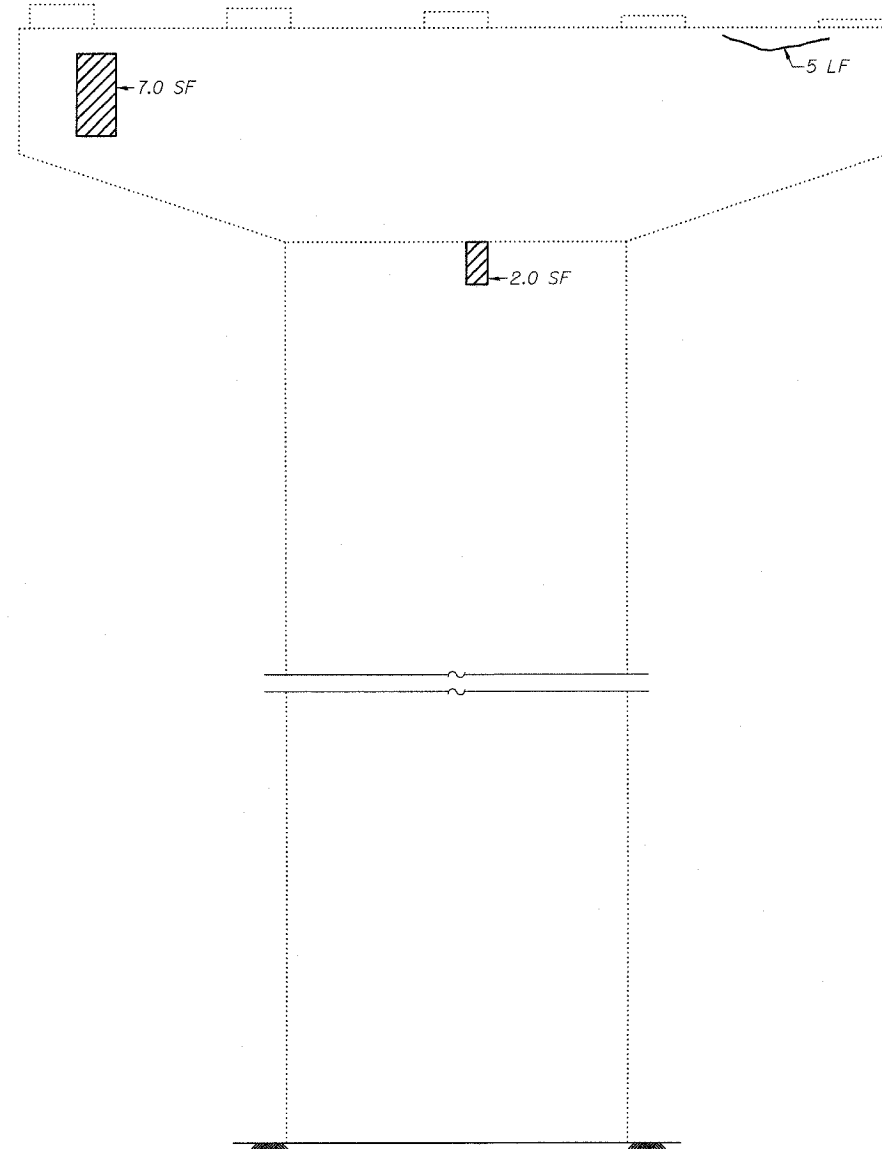
TOP PLAN OF PIER



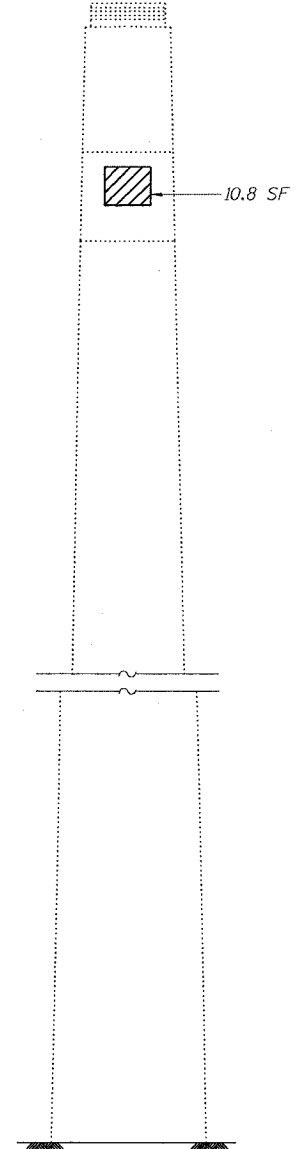
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- Epoxy Crack Sealing (Cracks ≥ 1/16" Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	53.6
Structural Repair of Concrete (Depth greater than 5")	SF	18.0
Epoxy Crack Sealing	LF	5

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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Job # 3856

PIER REPAIR - PIER 14 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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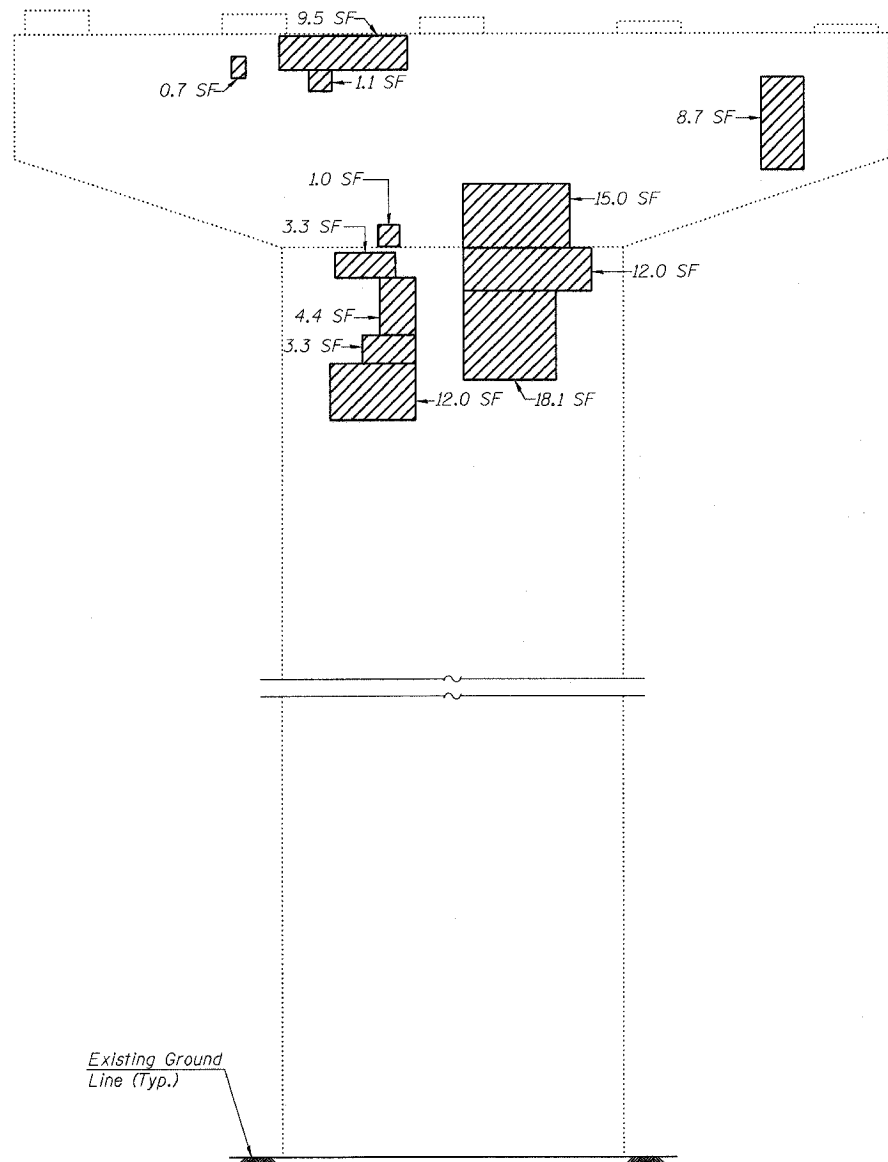
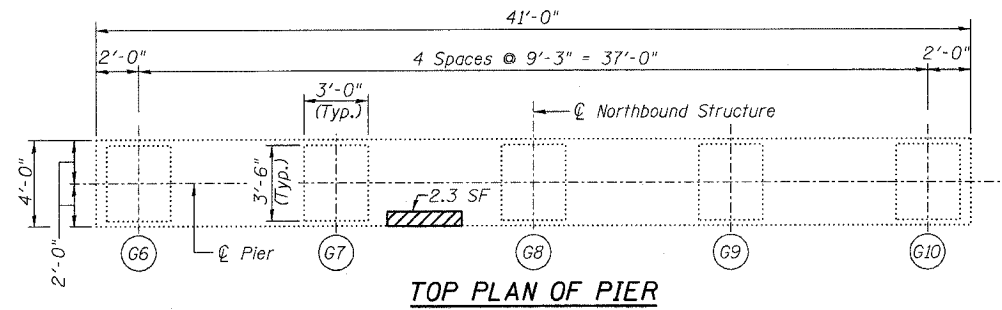
8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

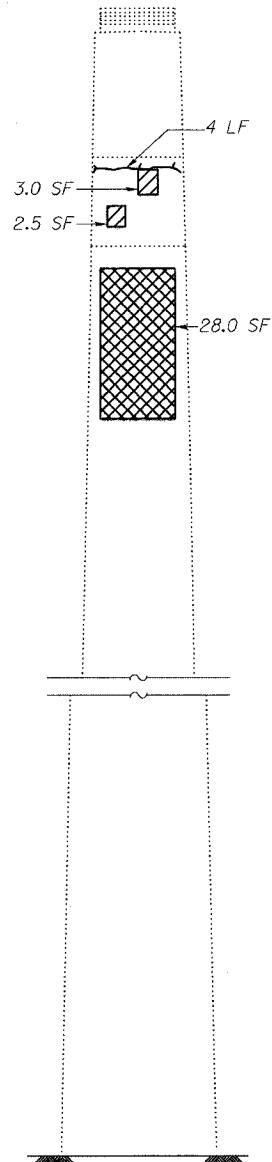
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 211	SHEET NO. 254 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT- Contract # 66586		

NOTES:

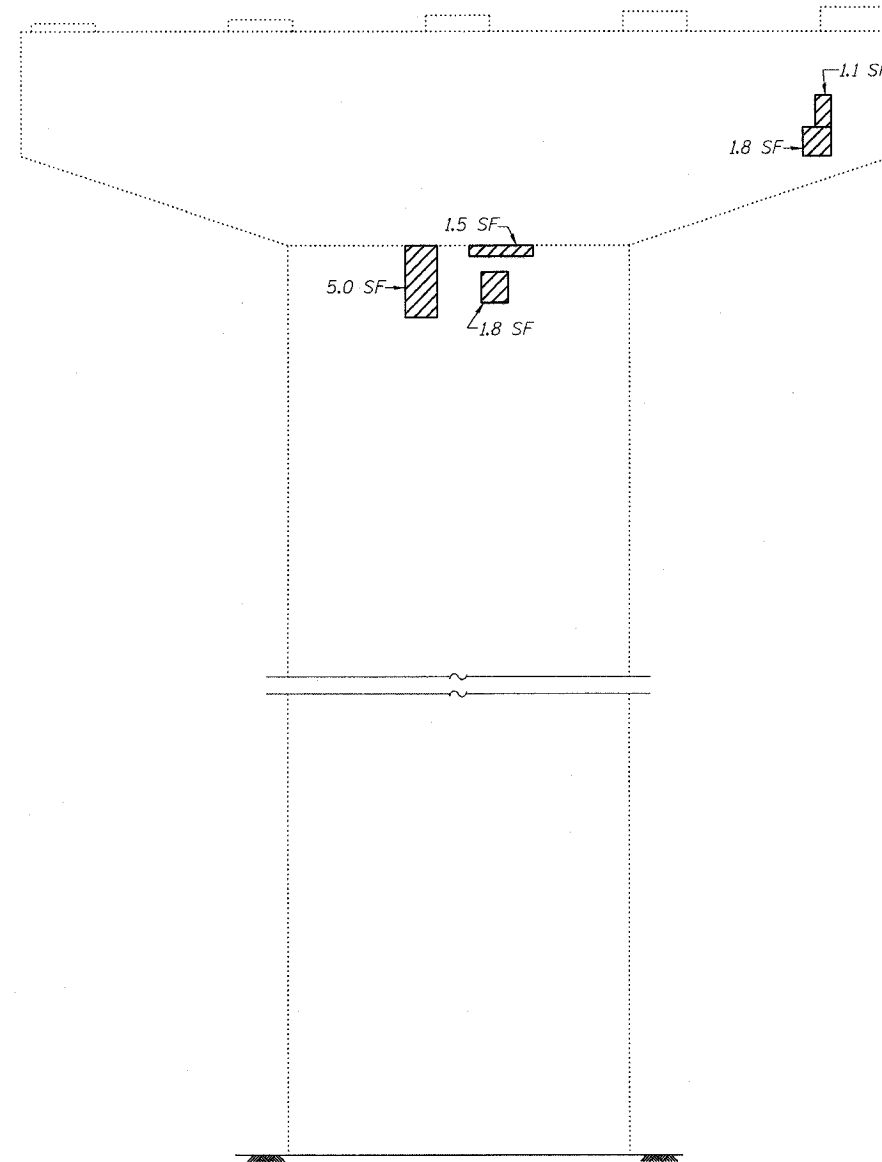
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 256 for rehabilitation of concrete pedestals.



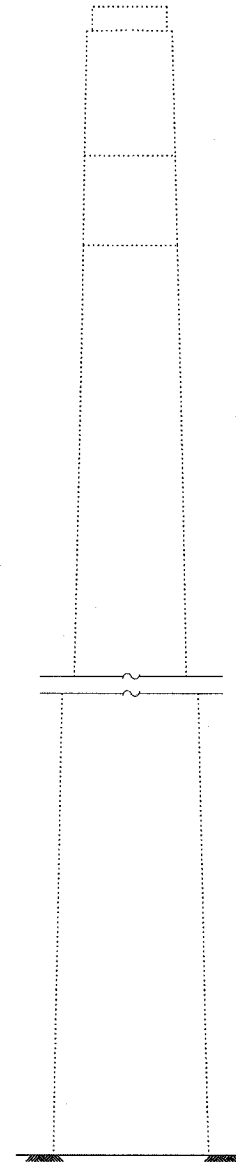
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

	Structural Repair of Concrete (Depth equal to or less than 5")
	Structural Repair of Concrete (Depth greater than 5")
	Epoxy Crack Sealing (Cracks ≥ 1/16" Wide)
SF	Square Feet
LF	Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	108.1
Structural Repair of Concrete (Depth greater than 5")	SF	28.0
Epoxy Crack Sealing	LF	4

PIER REPAIR - PIER 14 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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312-565-0450
Job # 3056

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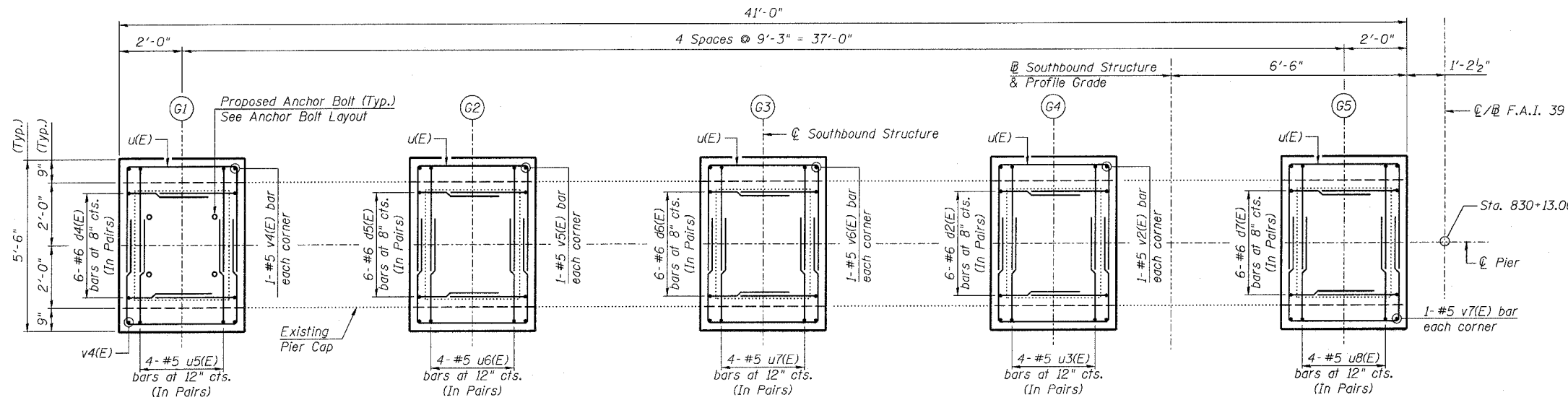
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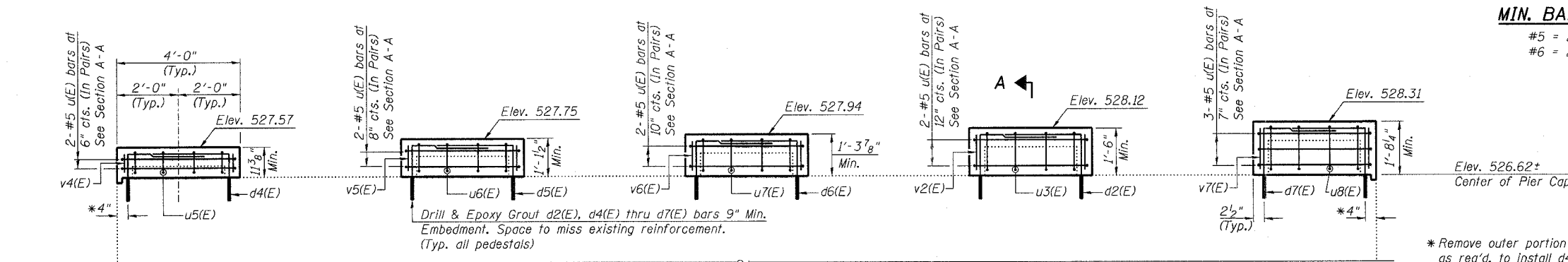
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 278	SHEET NO. 278	SHEET NO. 255
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

313 SHEETS
Contract # 66586

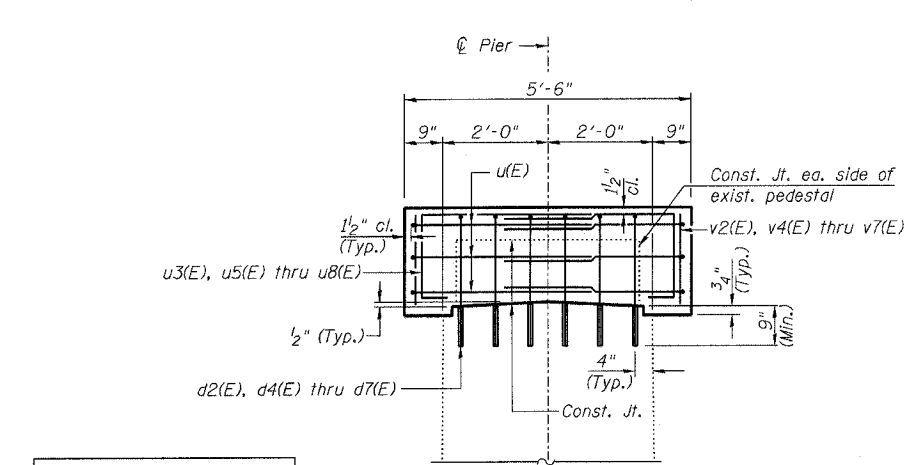


TOP PLAN OF PIER

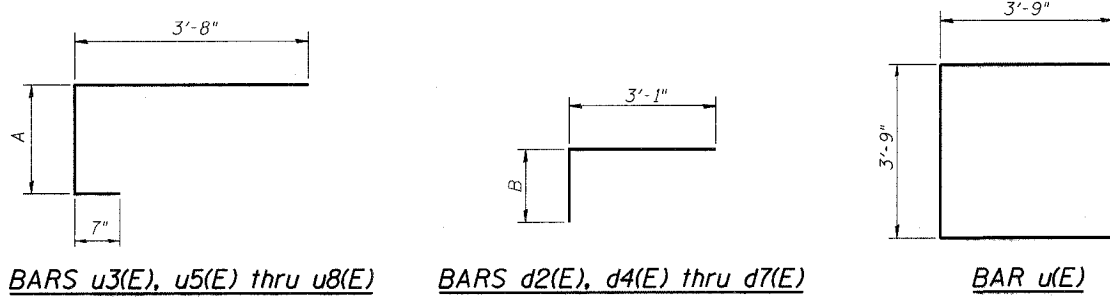


ELEVATION
(Looking North)

MIN. BAR LAP
#5 = 2'-2"
#6 = 2'-7"



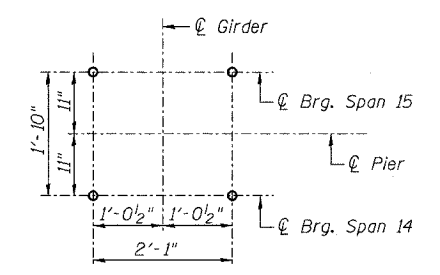
SECTION A-A



Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 14 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	└
d4(E)	12	#6	4'-8"	└
d5(E)	12	#6	4'-10"	└
d6(E)	12	#6	5'-0"	└
d7(E)	12	#6	5'-5"	└
u(E)	22	#5	11'-3"	└
u3(E)	8	#5	5'-6"	└
u5(E)	8	#5	4'-11"	└
u6(E)	8	#5	5'-2"	└
u7(E)	8	#5	5'-4"	└
u8(E)	8	#5	5'-8"	└
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures	Cu. Yd.	4.8		
Reinforcement Bars, Epoxy Coated	Pound	960		
Bridge Seat Sealer	Sq. Ft.	357		
Concrete Removal	Cu. Yd.	0.7		

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 14 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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Job # 3856

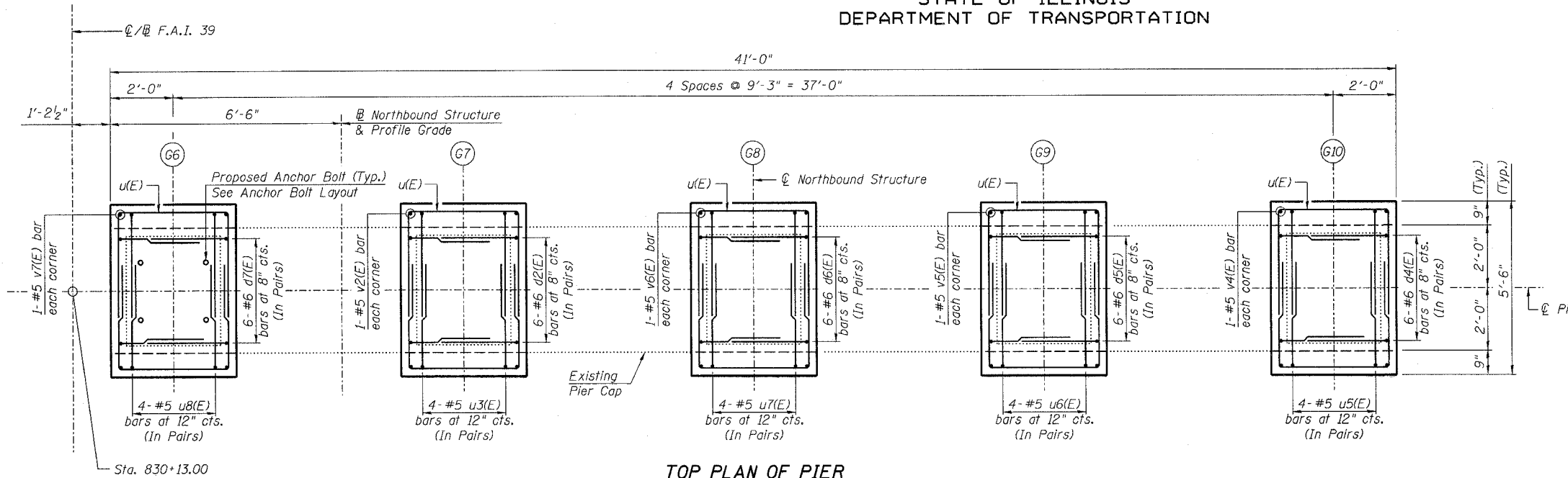
LIN ENGINEERING, LTD.
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(217) 483-4168
FAX (217) 483-4106

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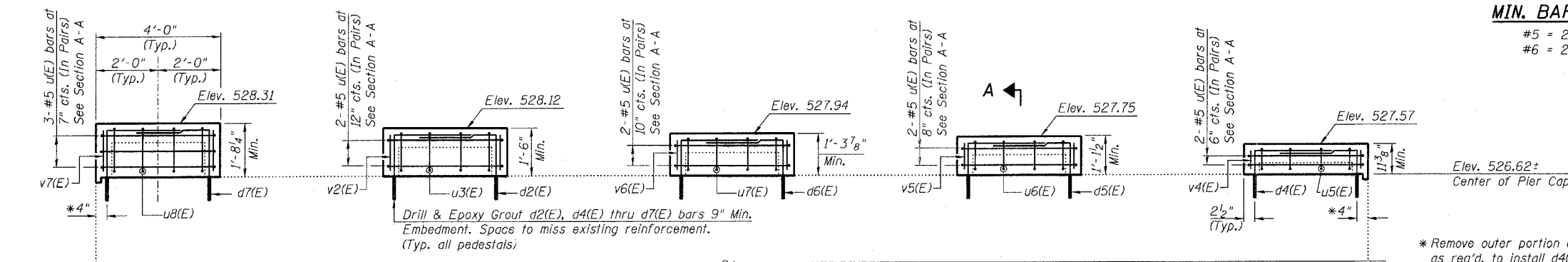
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	DATE 2/19	SHEET 219	SHEET NO. 256 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 66586



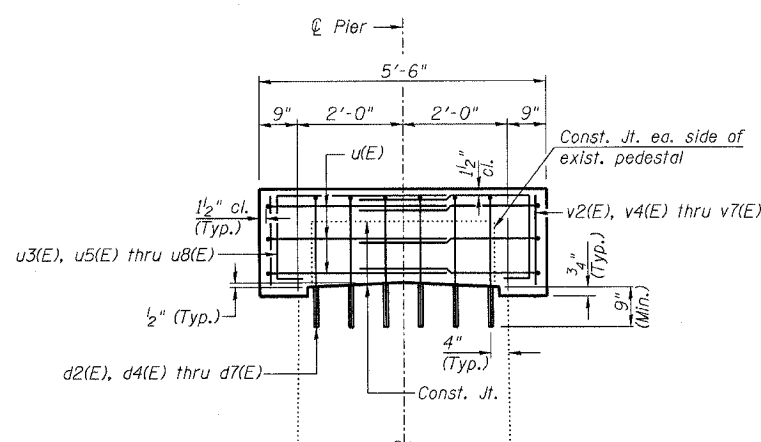
TOP PLAN OF PIER



ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"



SECTION A-A

BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-11"
u8(E)	1'-5"

BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"

BAR u(E)

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH

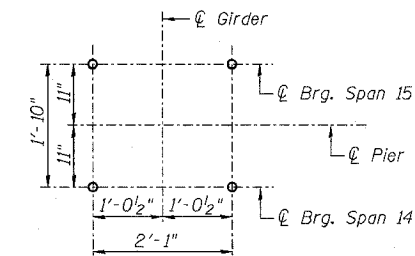
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FAX (217) 483-4706

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312-565-0450
Job # 3856

PEDESTAL REHAB. - PIER 14 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

NOTES:

1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space pedestal reinforcement to miss proposed anchor bolts.
3. See Sheet 19 for removal details.
4. See Sheet 215 for bearing details.



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 14 NB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-8"	┌
d5(E)	12	#6	4'-10"	┌
d6(E)	12	#6	5'-0"	┌
d7(E)	12	#6	5'-5"	┌
u(E)	22	#5	11'-3"	┌
u3(E)	8	#5	5'-6"	┌
u5(E)	8	#5	4'-11"	┌
u6(E)	8	#5	5'-2"	┌
u7(E)	8	#5	5'-4"	┌
u8(E)	8	#5	5'-8"	┌
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures	Cu. Yd.	4.8		
Reinforcement Bars, Epoxy Coated	Pound	960		
Bridge Seat Sealer	Sq. Ft.	357		
Concrete Removal	Cu. Yd.	0.7		

Reinforcement Bars designated (E) shall be epoxy coated.

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08/05/00 AM

8/30/2006

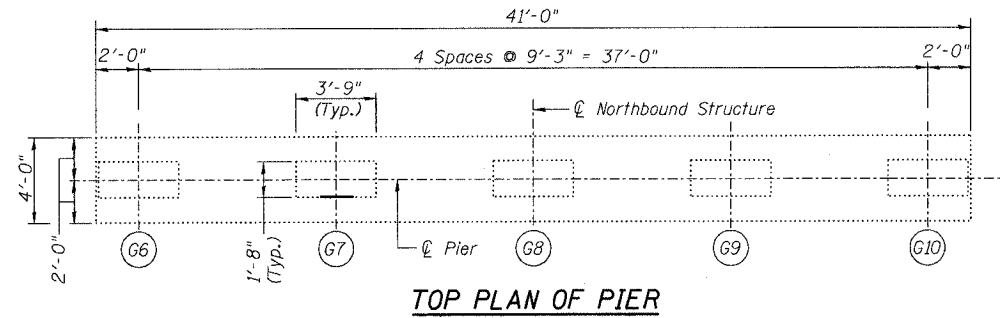
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 280	SHEET 280	SHEET NO. 257
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

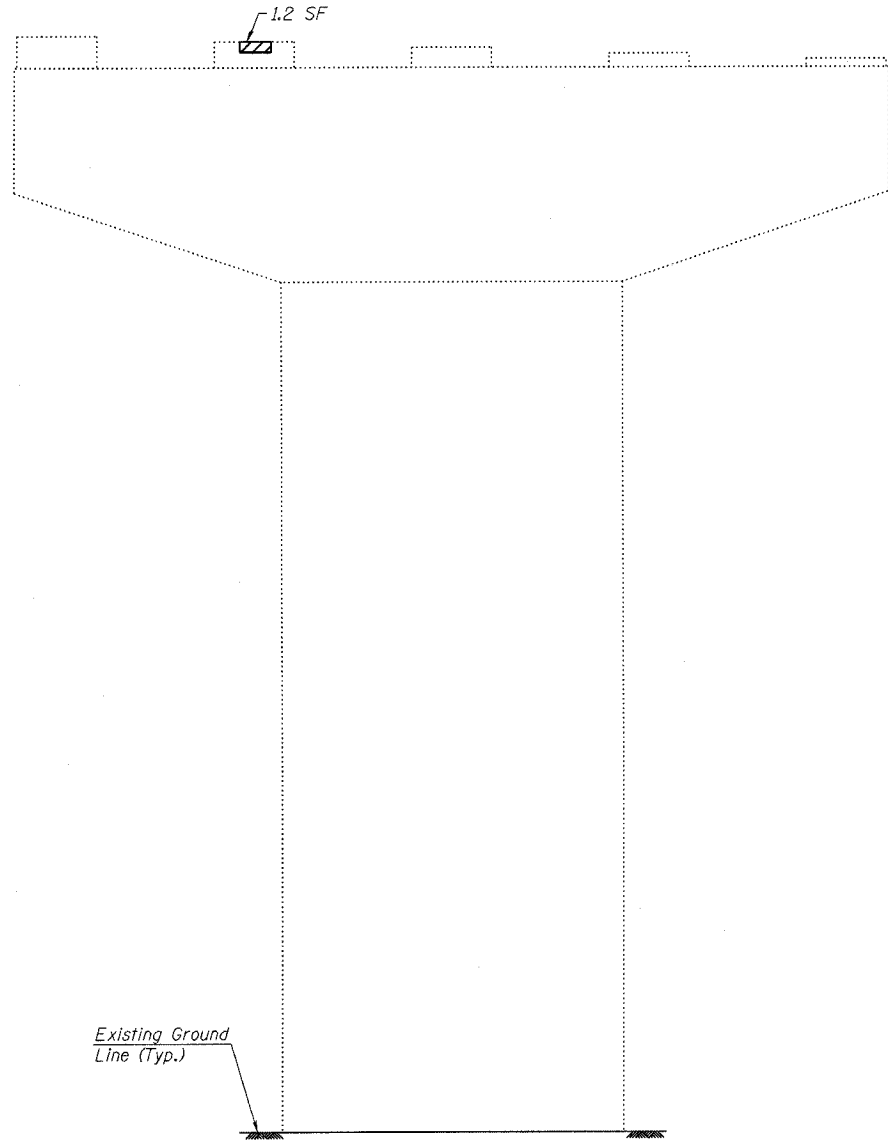
Contract # 66586

NOTES:

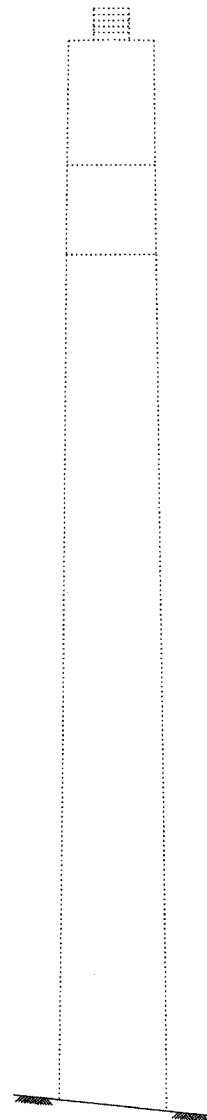
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



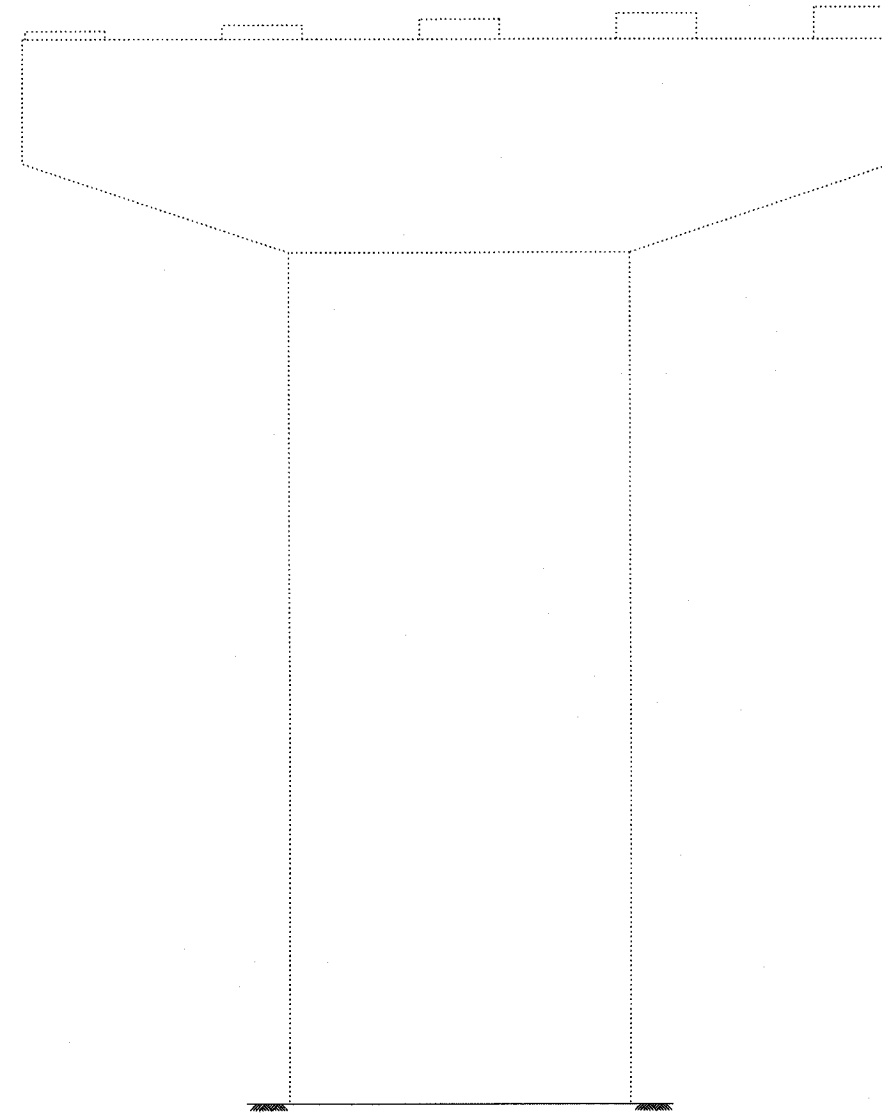
TOP PLAN OF PIER



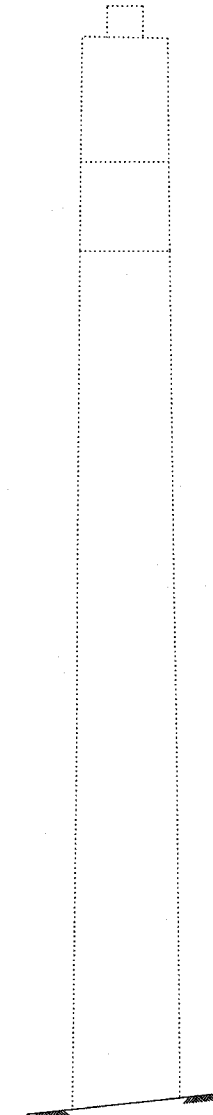
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.2

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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312-565-0450
Job # 3856

PIER REPAIR - PIER 15 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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8/30/2006

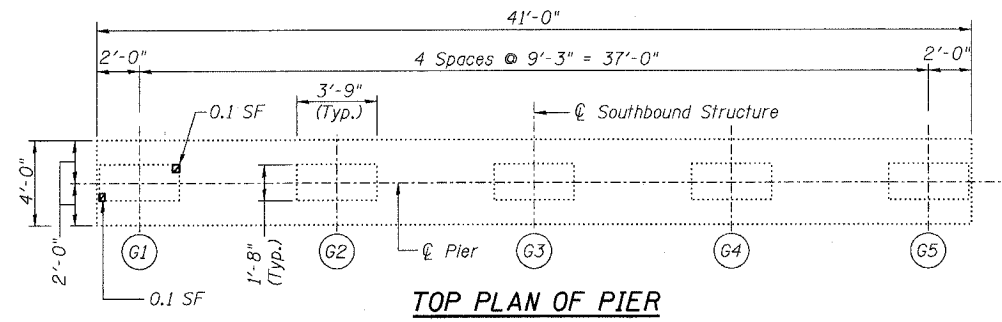
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 281	SHEET 281	SHEET NO. 258 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

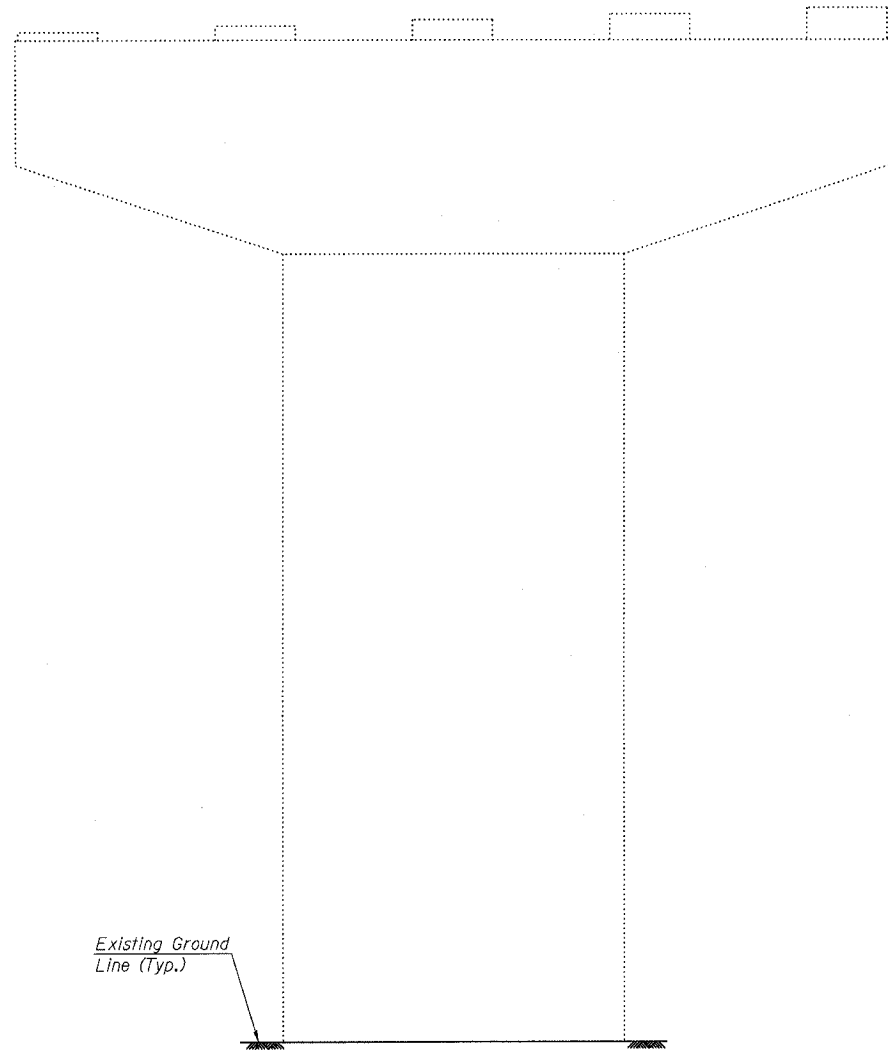
Contract # 66586

NOTES:

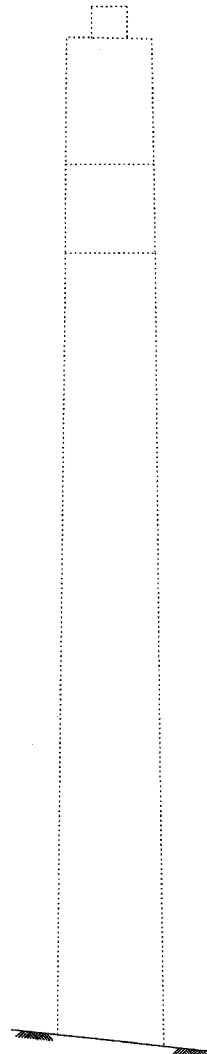
1. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



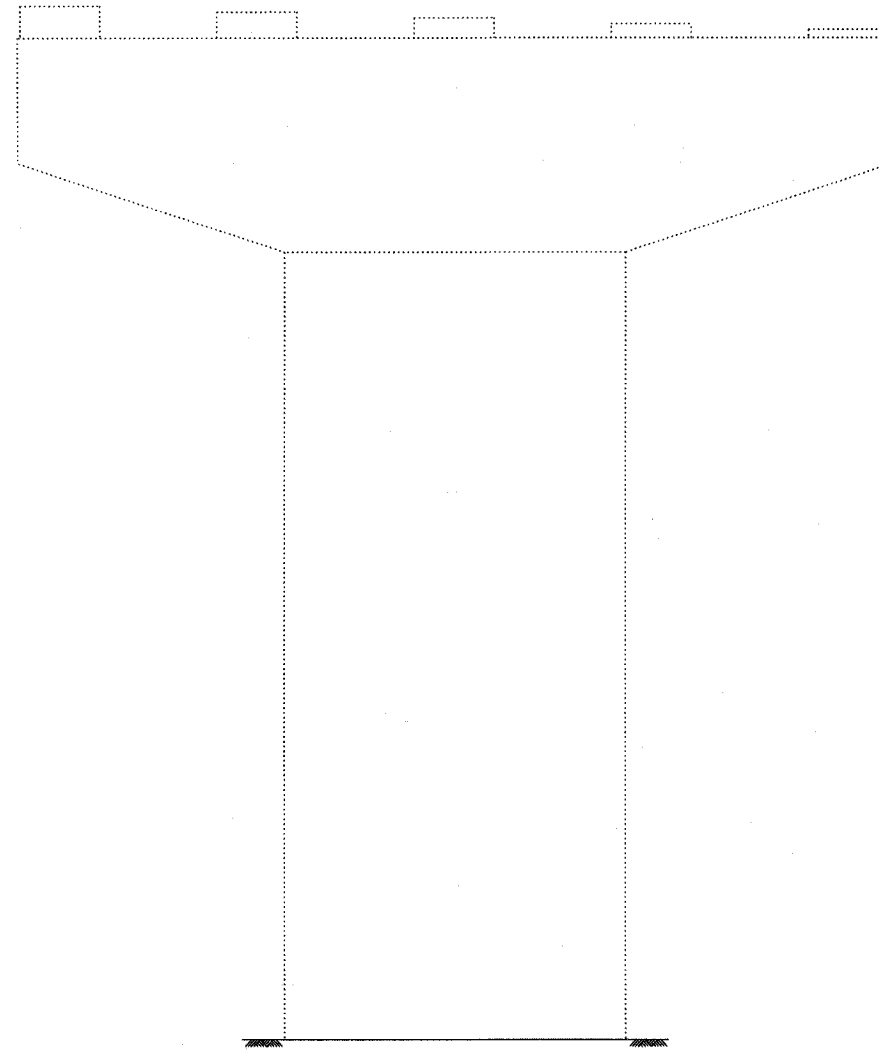
TOP PLAN OF PIER



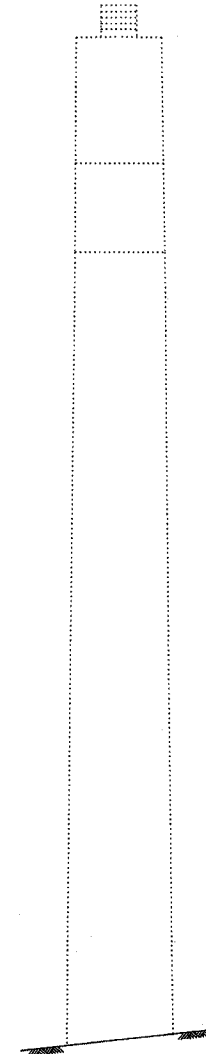
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND
 Structural Repair of Concrete (Depth equal to or less than 5")
 SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.2

DESIGNED	ADB
CHECKED	DLB
DRAWN	KHH
CHECKED	MTH

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 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450
 Job # 3858

PIER REPAIR - PIER 16 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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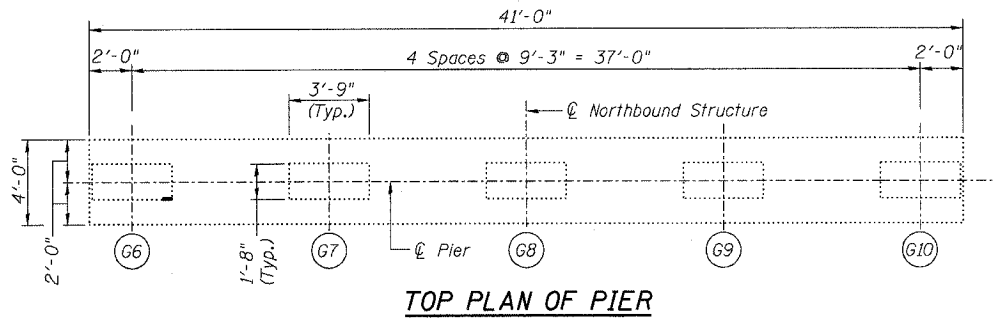
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

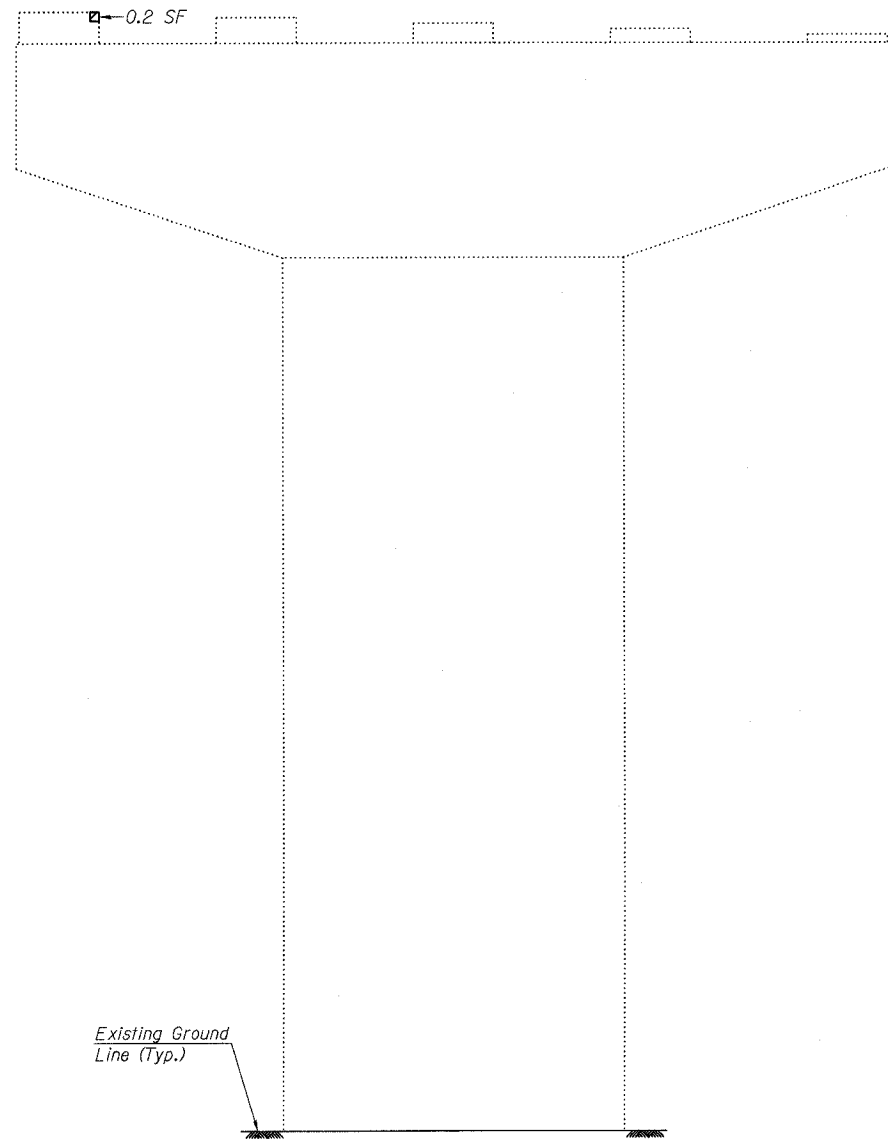
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 288	SHEET NO. 259
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 66586

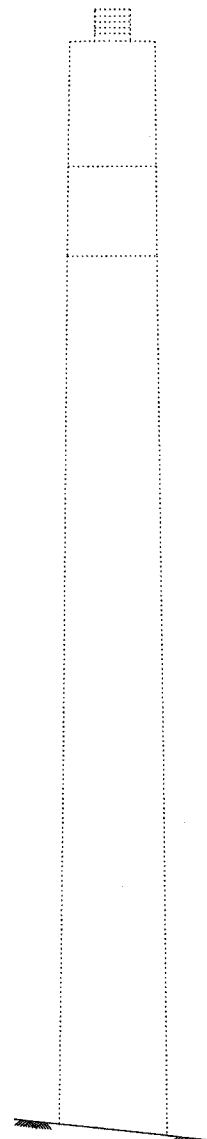


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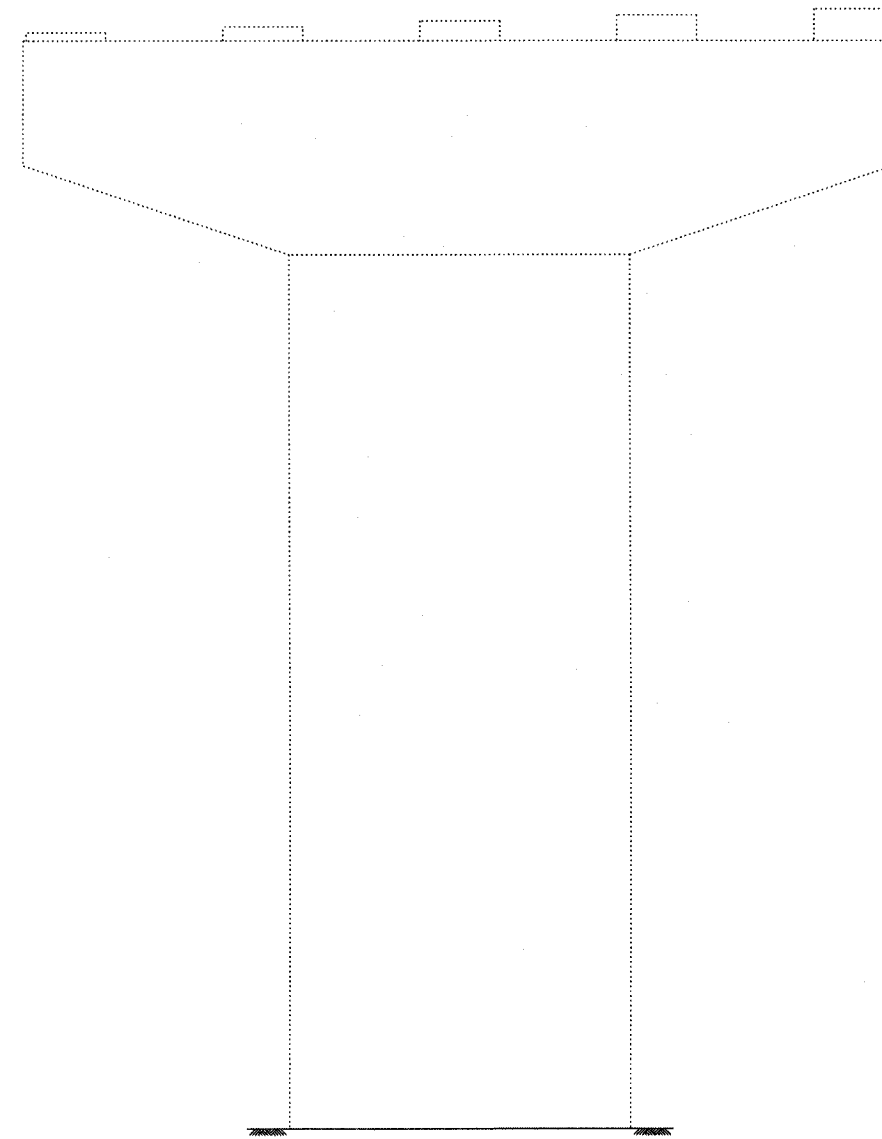
1. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



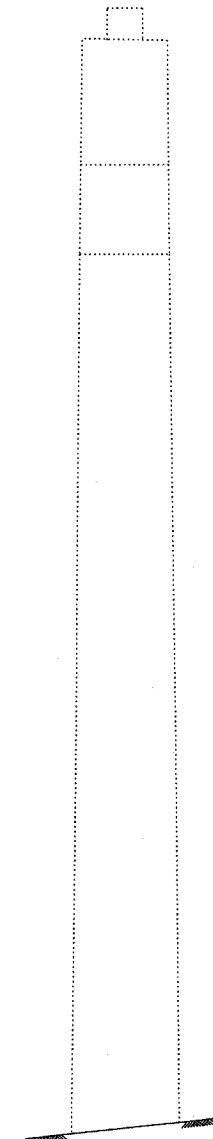
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.2

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Job # 3856

PIER REPAIR - PIER 16 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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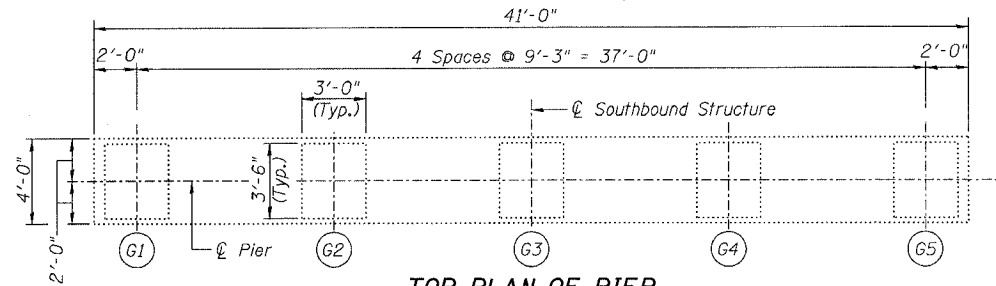
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 283	SHEET NO. 283	SHEET NO. 260 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

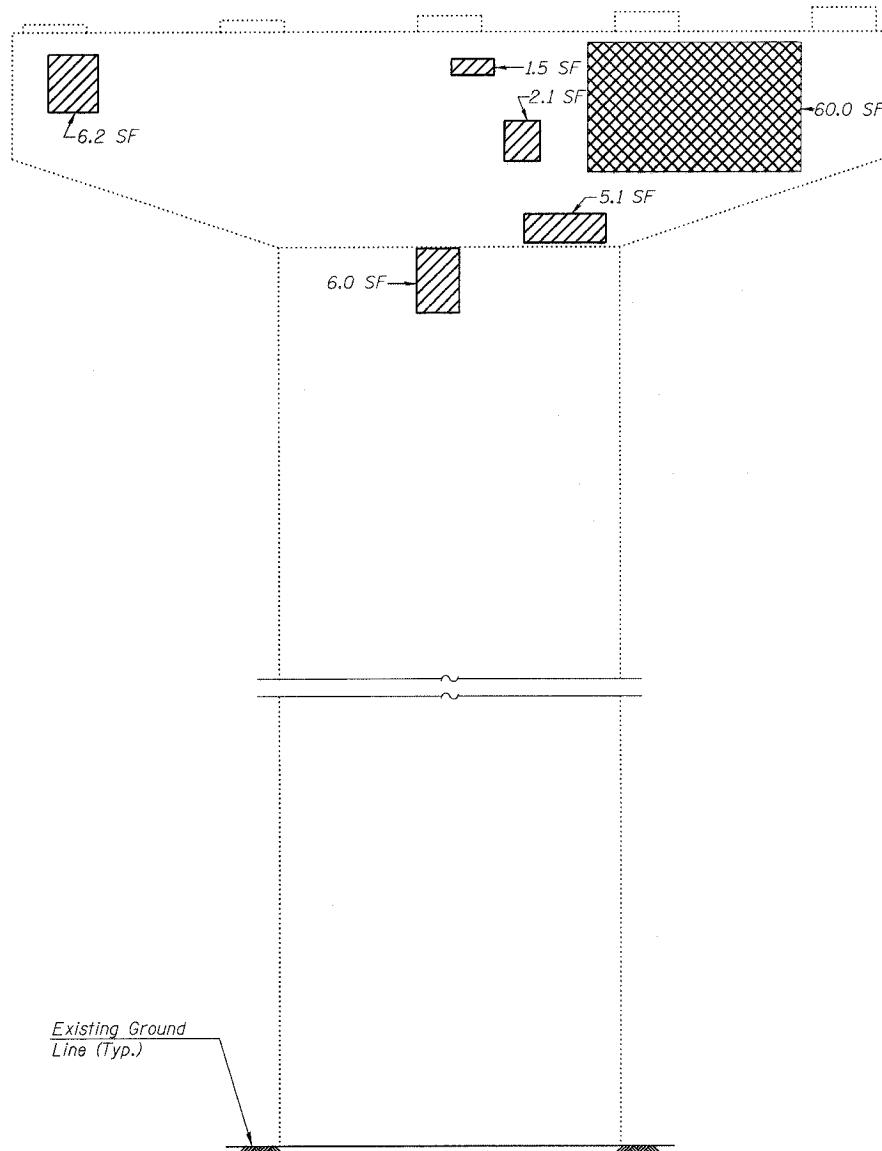
Contract # 66586

NOTES:

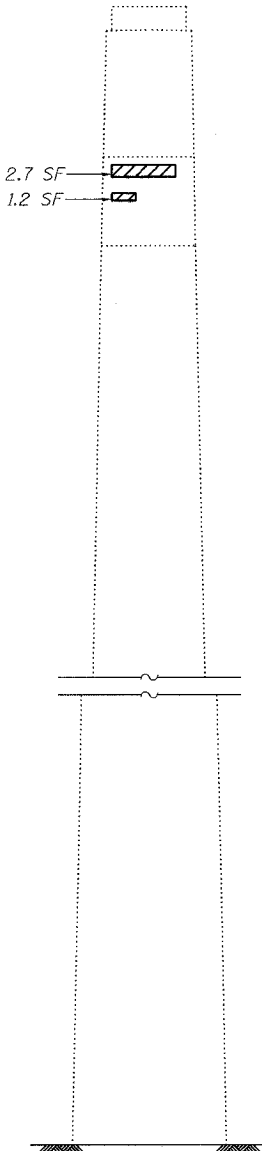
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 262 for rehabilitation of concrete pedestals.



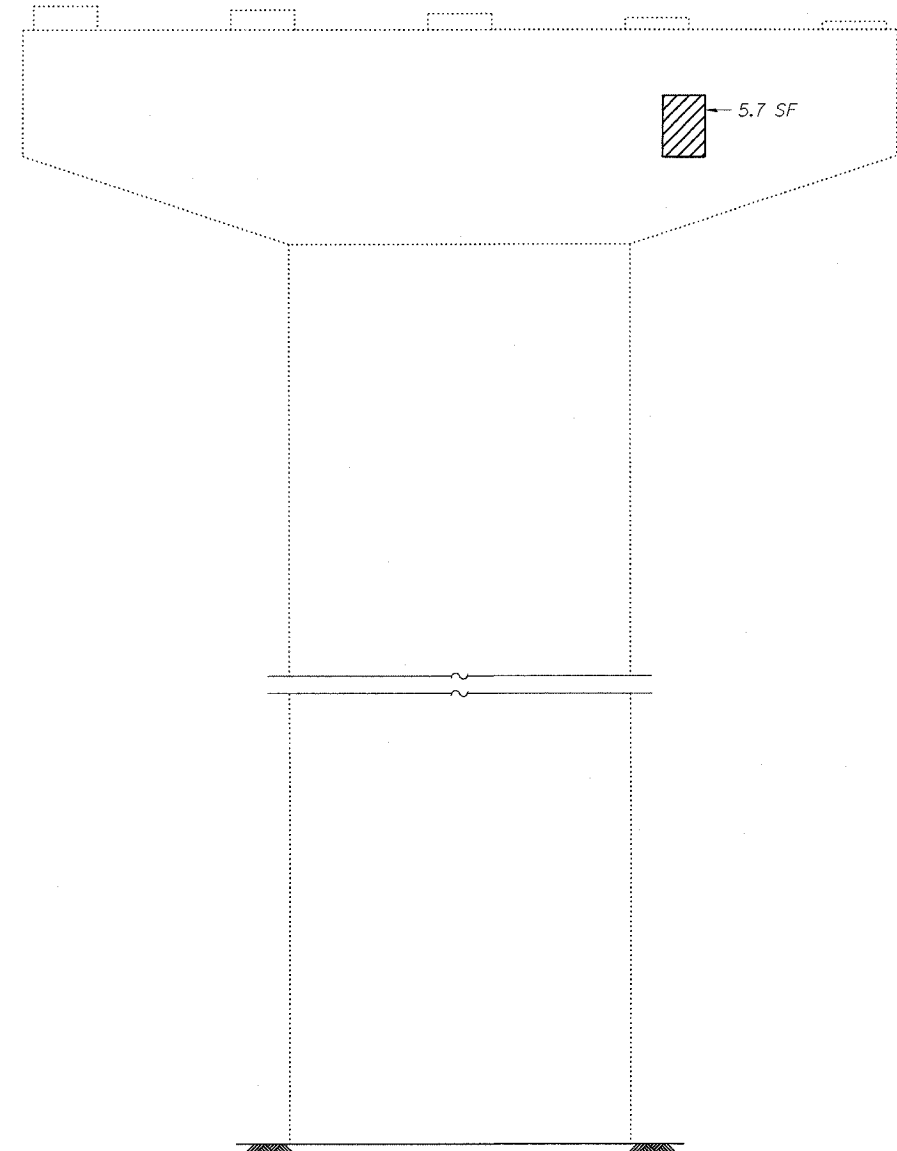
TOP PLAN OF PIER



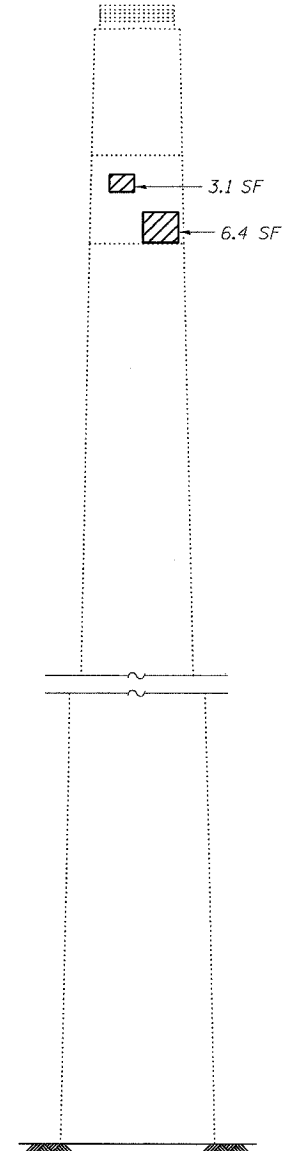
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	40.0
Structural Repair of Concrete (Depth greater than 5")	SF	60.0

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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Job # 3856

PIER REPAIR - PIER 17 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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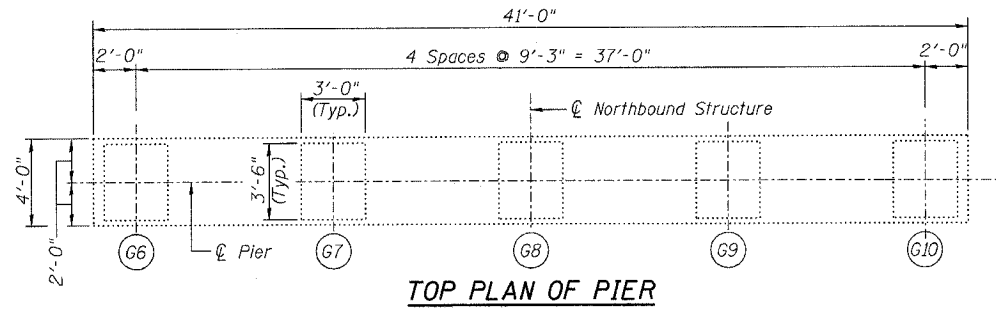
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

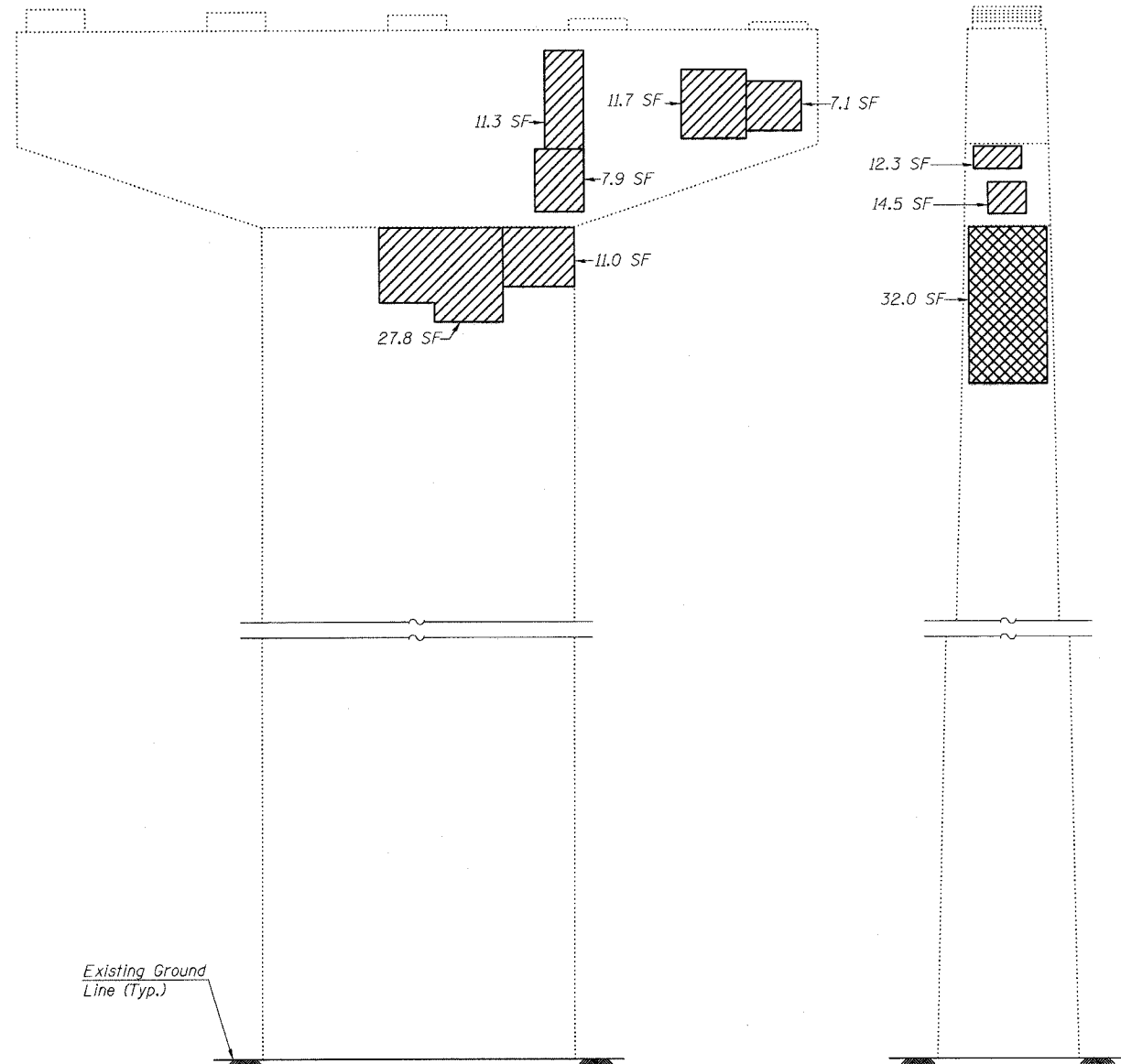
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 284	SHEET NO. 261 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	Contract # 66586

NOTES:

- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 263 for rehabilitation of concrete pedestals.

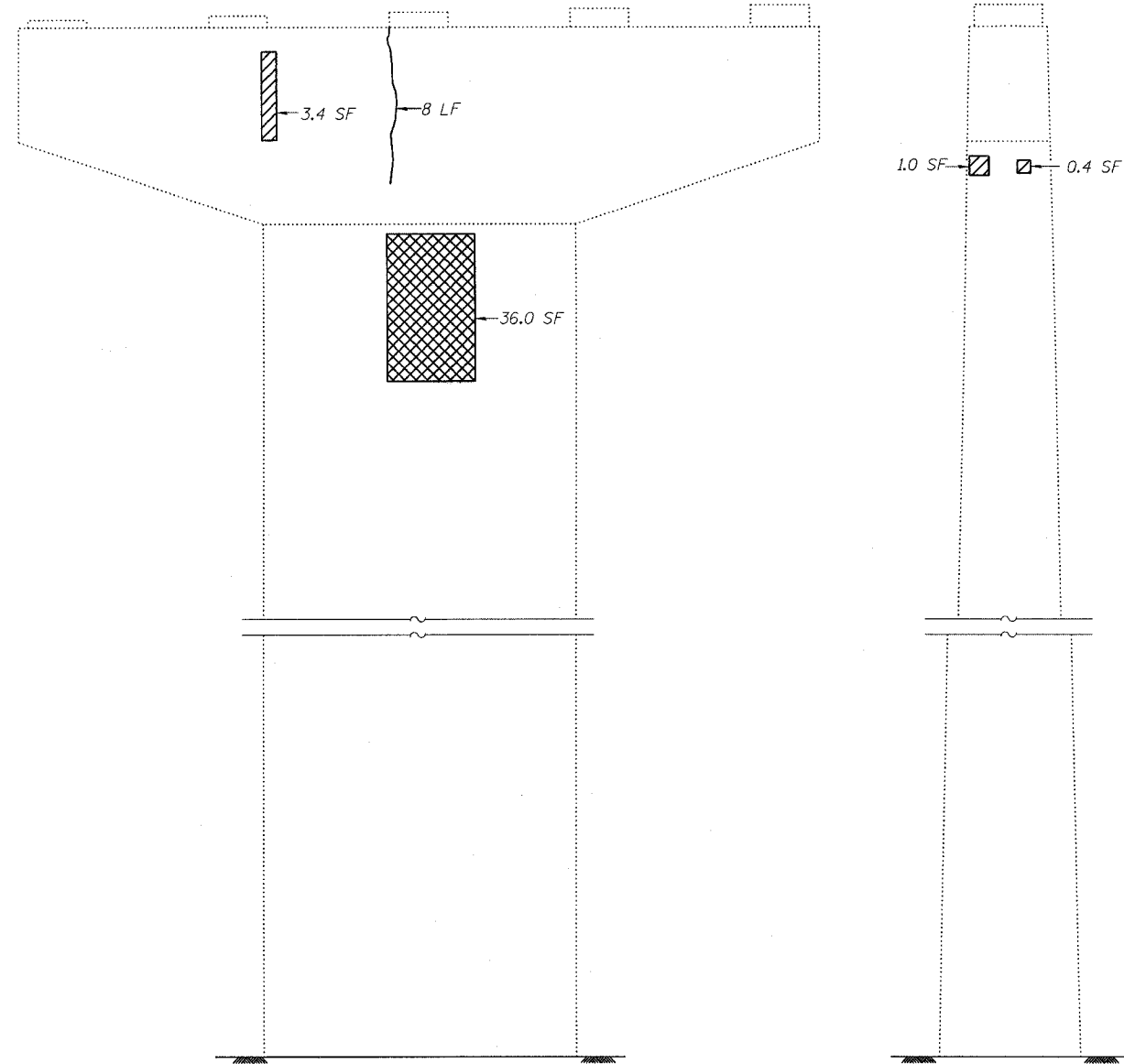


TOP PLAN OF PIER



ELEVATION
(Looking North)

END VIEW
(Looking West)



ELEVATION
(Looking South)

END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- Epoxy Crack Sealing (Cracks ≥ 1/16" Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	108.4
Structural Repair of Concrete (Depth greater than 5")	SF	68.0
Epoxy Crack Sealing	LF	8

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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Job # 3856

PIER REPAIR - PIER 17 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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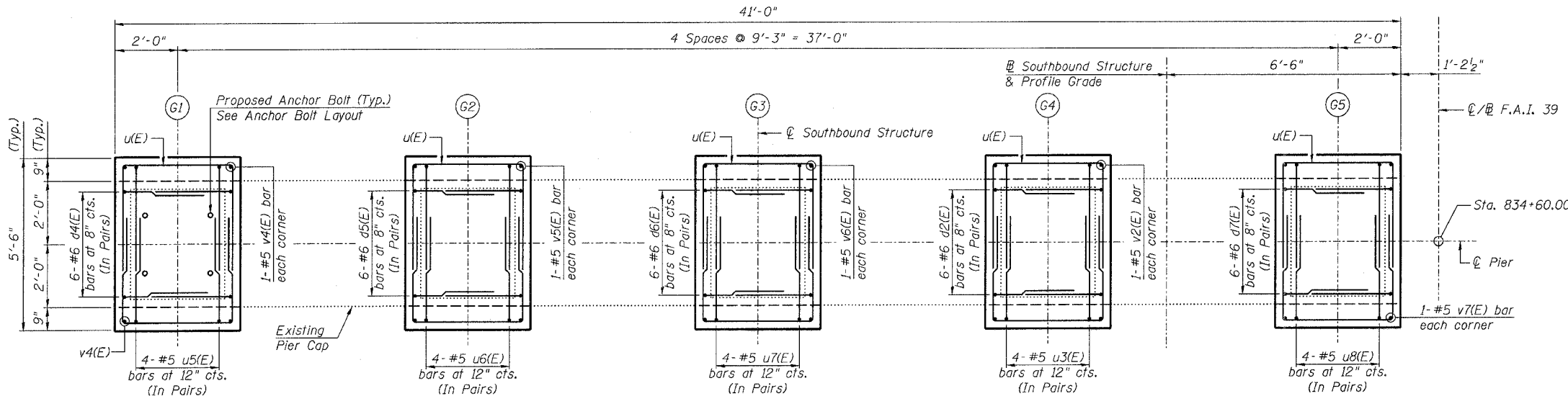
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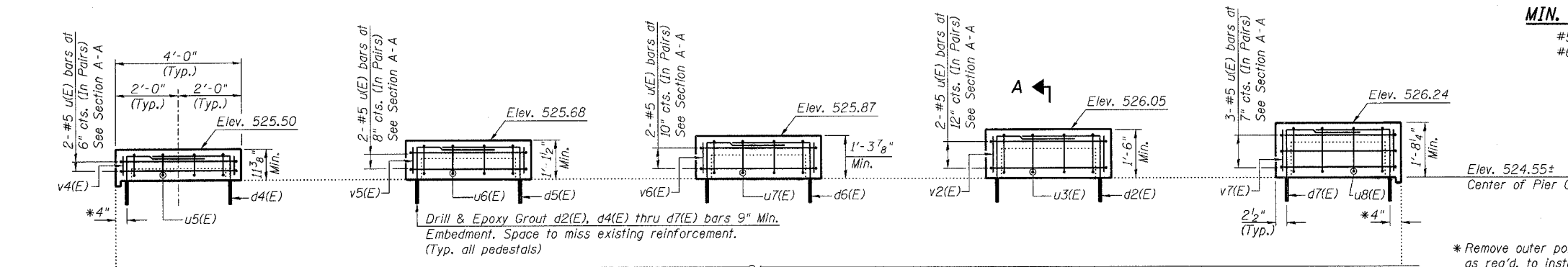
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
F.A.I. 39	50-4B	LASALLE	2/85	262
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		313 SHEETS

Contract # 66586



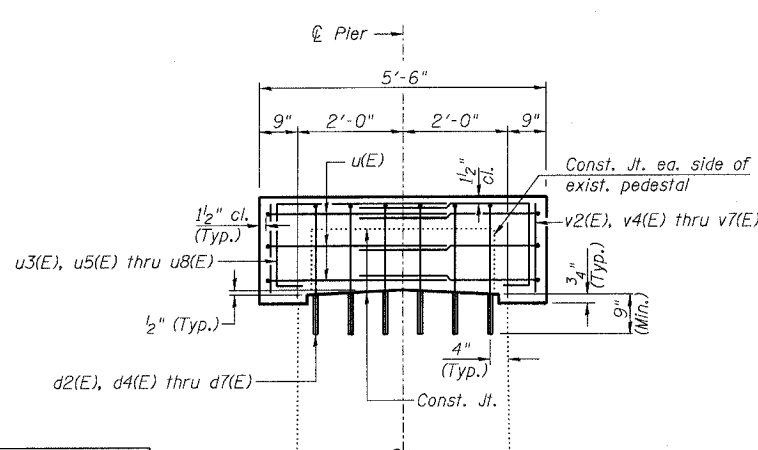
TOP PLAN OF PIER



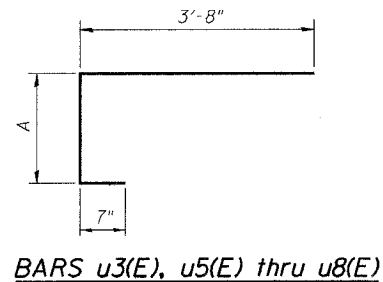
ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"

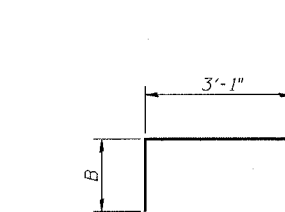


SECTION A-A



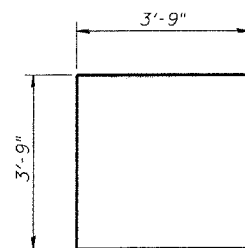
BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"



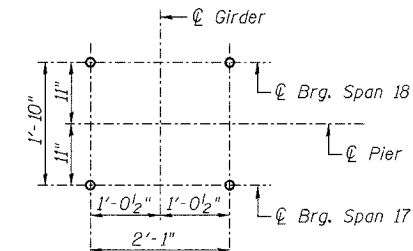
BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"



BAR u(E)

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 17 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-8"	┌
d5(E)	12	#6	4'-10"	┌
d6(E)	12	#6	5'-0"	┌
d7(E)	12	#6	5'-5"	┌
u(E)	22	#5	11'-3"	┌
u3(E)	8	#5	5'-6"	┌
u5(E)	8	#5	4'-11"	┌
u6(E)	8	#5	5'-2"	┌
u7(E)	8	#5	5'-4"	┌
u8(E)	8	#5	5'-8"	┌
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures		Cu. Yd.	4.8	
Reinforcement Bars, Epoxy Coated		Pound	960	
Bridge Seat Sealer		Sq. Ft.	357	
Concrete Removal		Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 17 SB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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Job # 3856

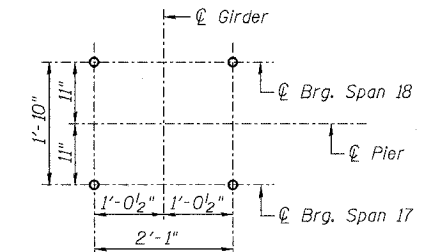
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8/30/2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 286	SHEET NO. 263 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	Contract # 66586



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

**PIER 17 NB
BILL OF MATERIAL**

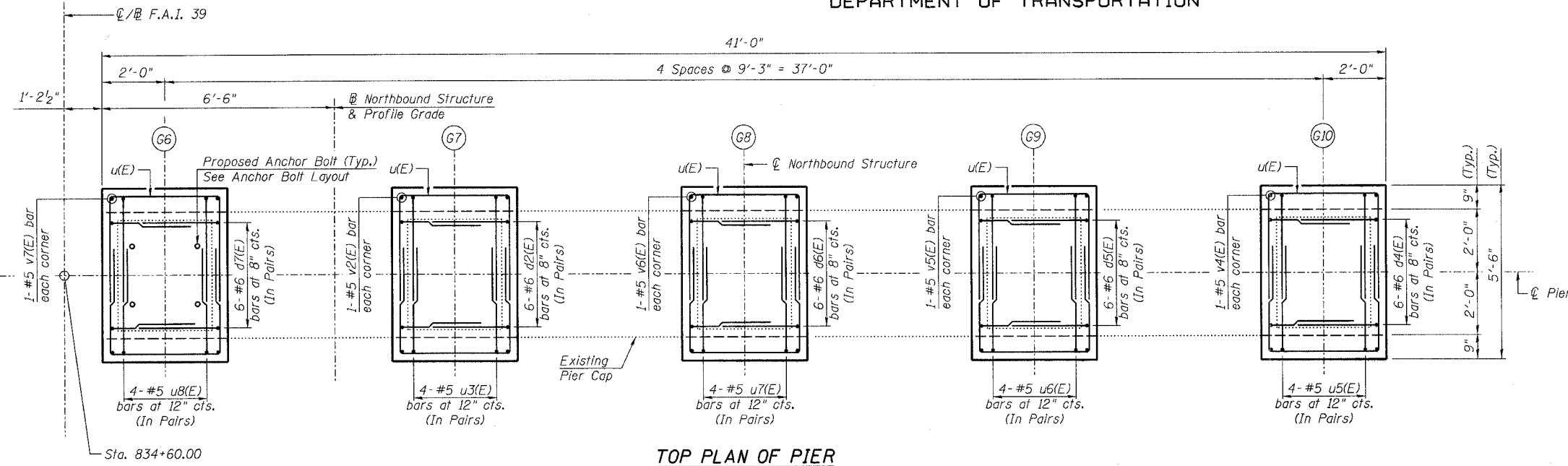
Bar No.	Size	Length	Shape
d2(E)	#6	5'-3"	┌
d4(E)	#6	4'-8"	┌
d5(E)	#6	4'-10"	┌
d6(E)	#6	5'-0"	┌
d7(E)	#6	5'-5"	┌
u(E)	#5	11'-3"	▬
u3(E)	#5	5'-6"	▬
u5(E)	#5	4'-11"	▬
u6(E)	#5	5'-2"	▬
u7(E)	#5	5'-4"	▬
u8(E)	#5	5'-8"	▬
v2(E)	#5	1'-4"	▬
v4(E)	#5	0'-9"	▬
v5(E)	#5	0'-11"	▬
v6(E)	#5	1'-2"	▬
v7(E)	#5	1'-6"	▬
Concrete Structures	Cu. Yd.	4.8	
Reinforcement Bars, Epoxy Coated	Pound	960	
Bridge Seat Sealer	Sq. Ft.	357	
Concrete Removal	Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

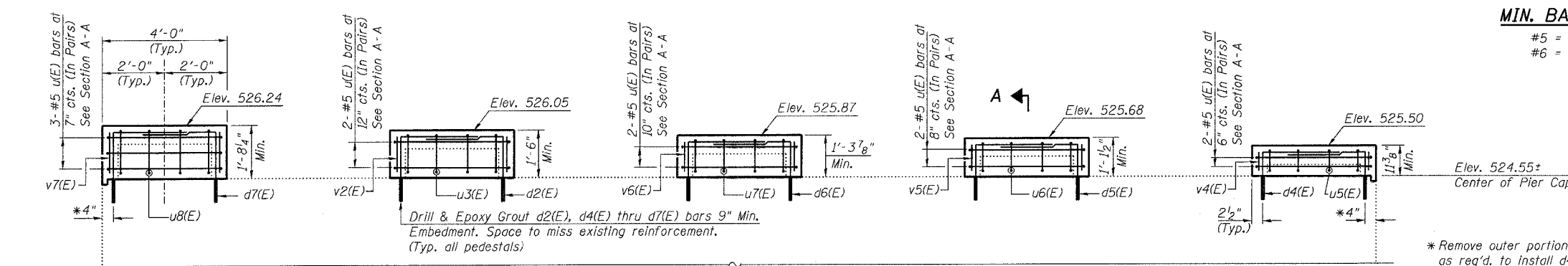
NOTES:

1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space pedestal reinforcement to miss proposed anchor bolts.
3. See Sheet 19 for removal details.
4. See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 17 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)



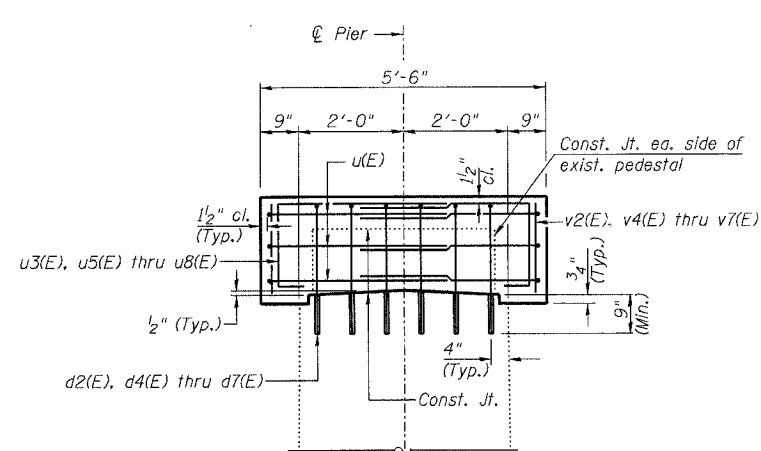
TOP PLAN OF PIER



ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"



SECTION A-A

BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"

BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"

BAR u(E)

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH

lin ENGINEERING, LTD.

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FAX (217) 483-4706

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312-565-0450
Job # 3856

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

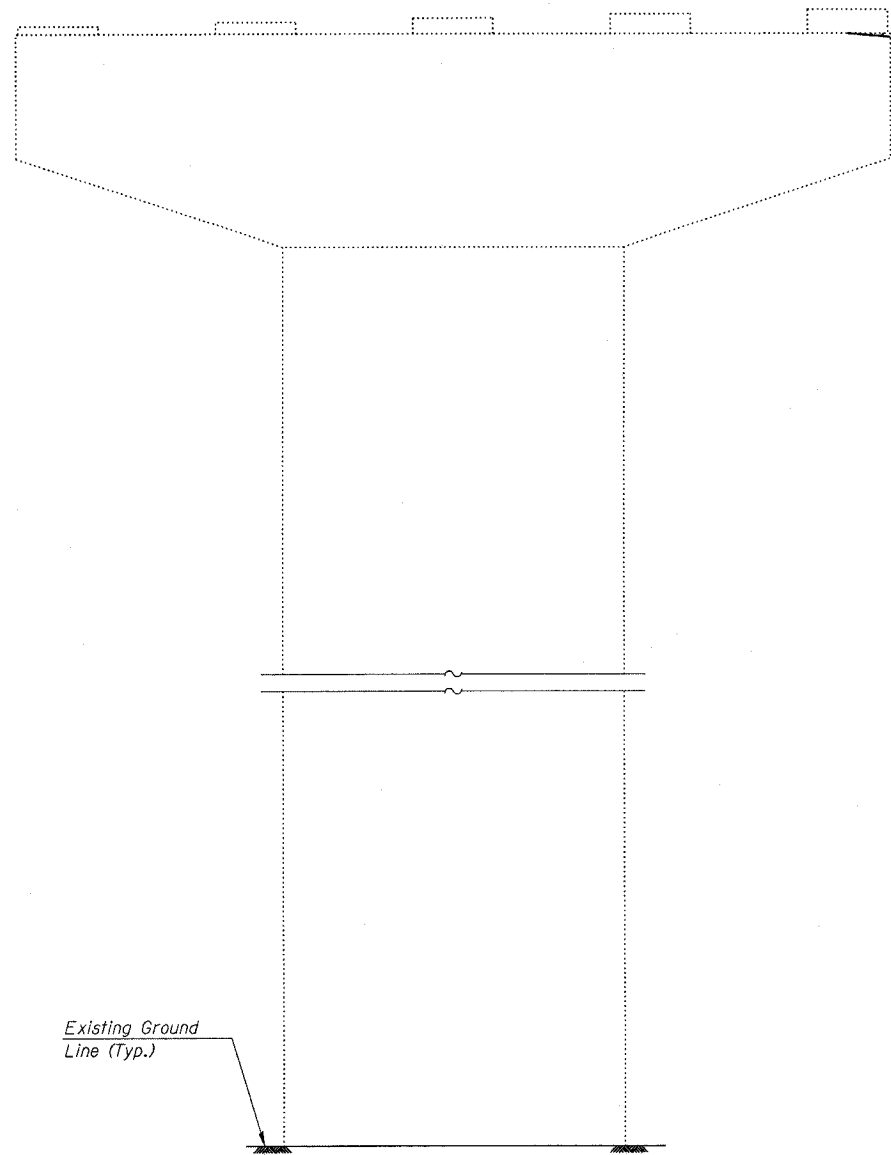
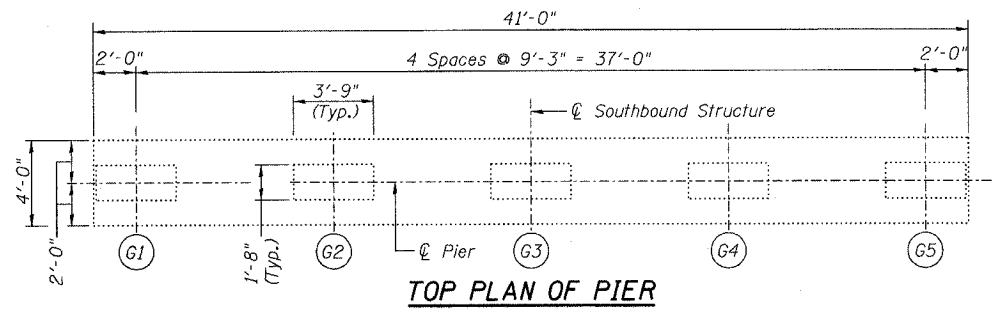
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 264	SHEET NO. 264
FED. AID DIST. NO. 7				ILLINOIS FED. AID PROJECT

Contract # 66586

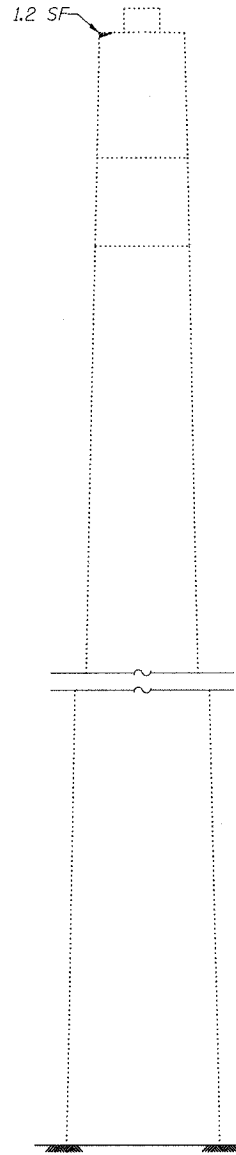
313 SHEETS

NOTES:

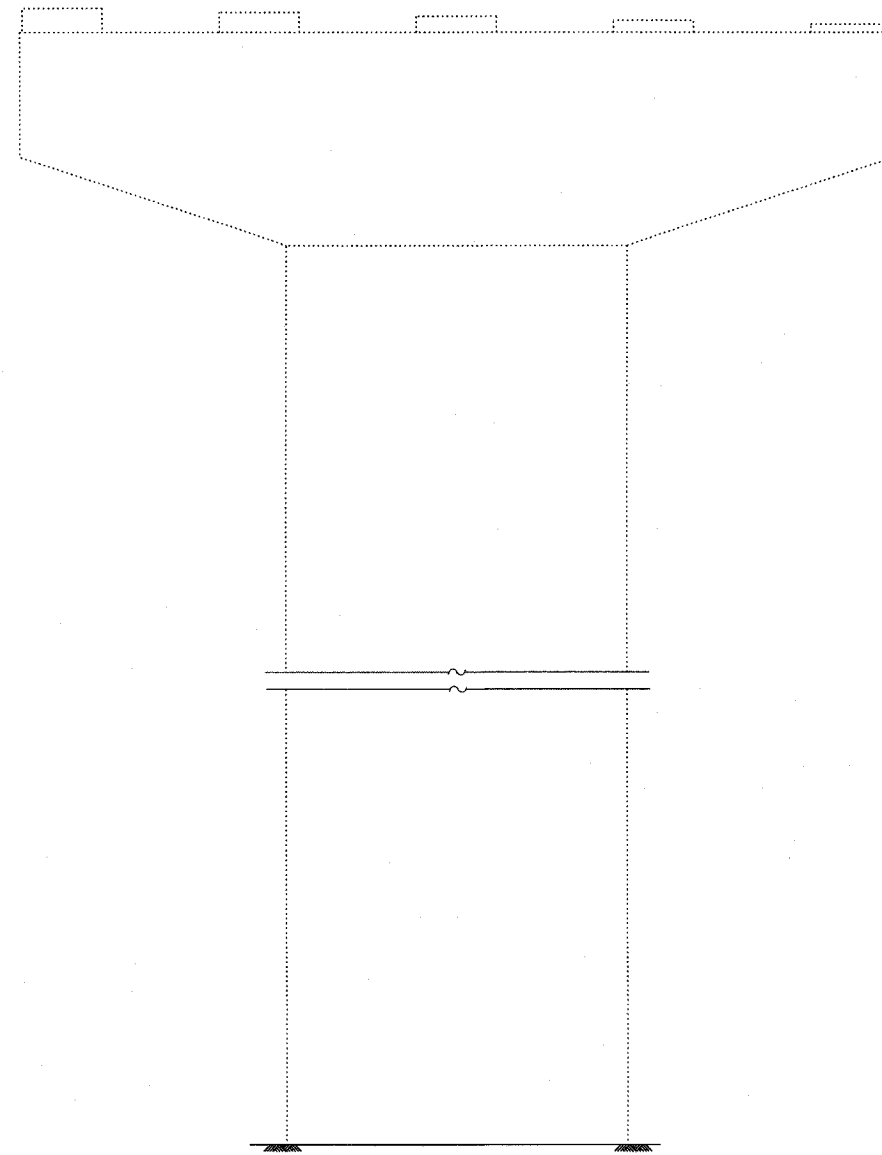
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



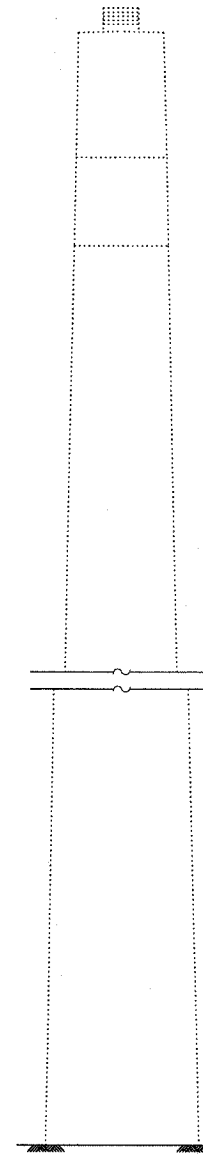
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.2

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

LIN ENGINEERING, LTD.
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Chatham, Illinois 62629
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Chicago, Illinois 60601
312-565-0450
Job # 3856

PIER REPAIR - PIER 19 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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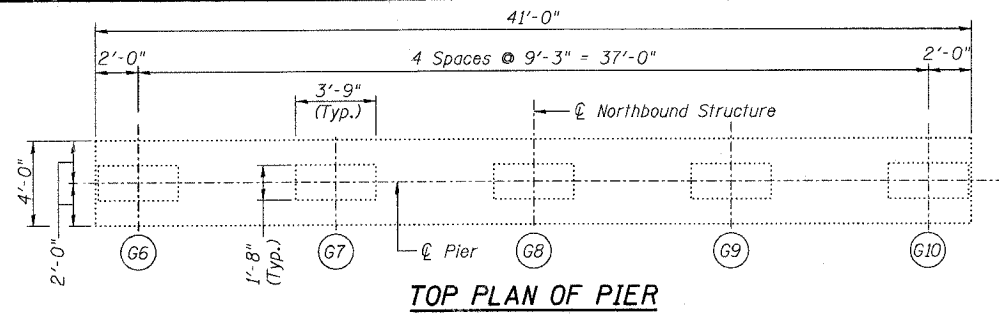
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET NO. 265	SHEET 188	SHEET NO. 265 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

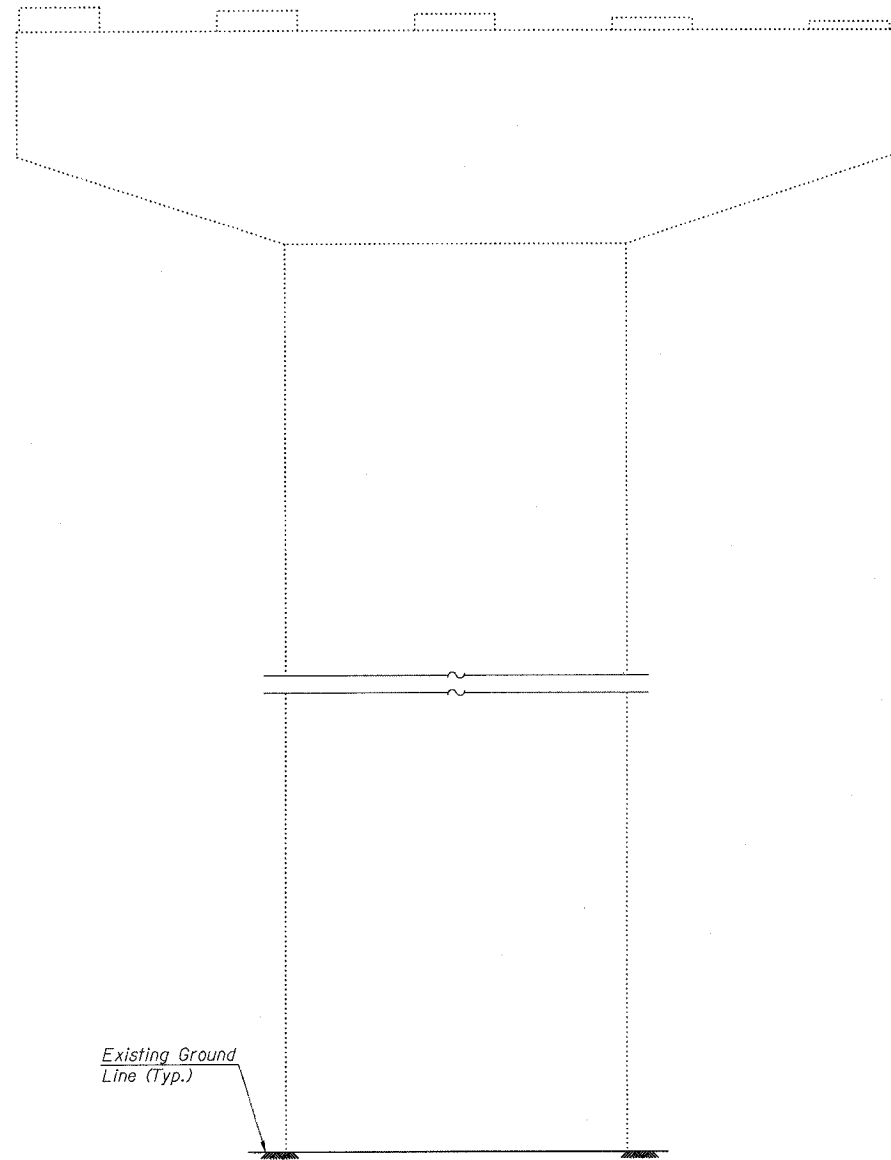
Contract # 66586

NOTES:

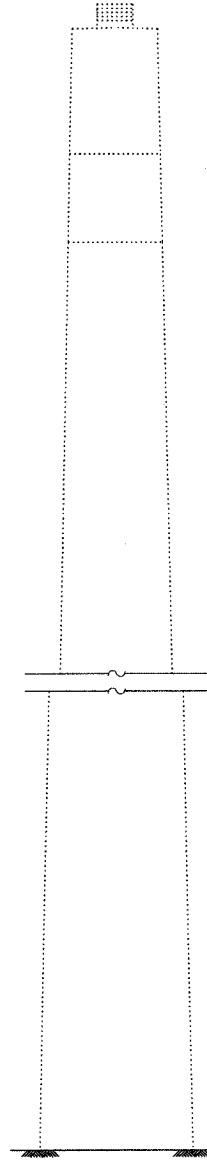
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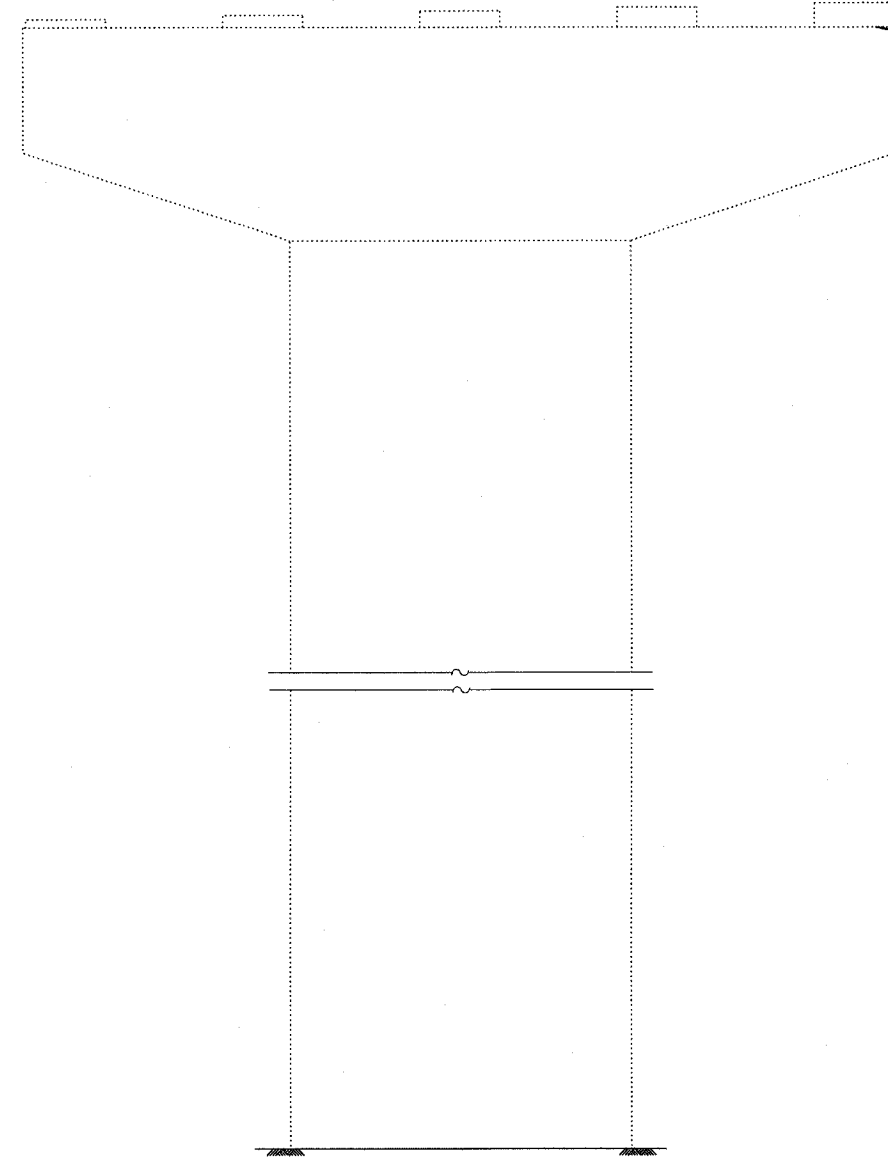
TOP PLAN OF PIER



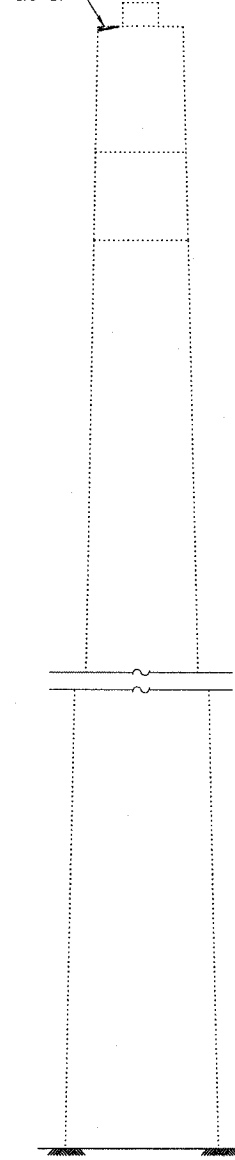
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	1.0

DESIGNED	ADB
CHECKED	DLB
DRAWN	KHH
CHECKED	MTH

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Chicago, Illinois 60601
312-666-0450
Job # 3856

PIER REPAIR - PIER 19 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

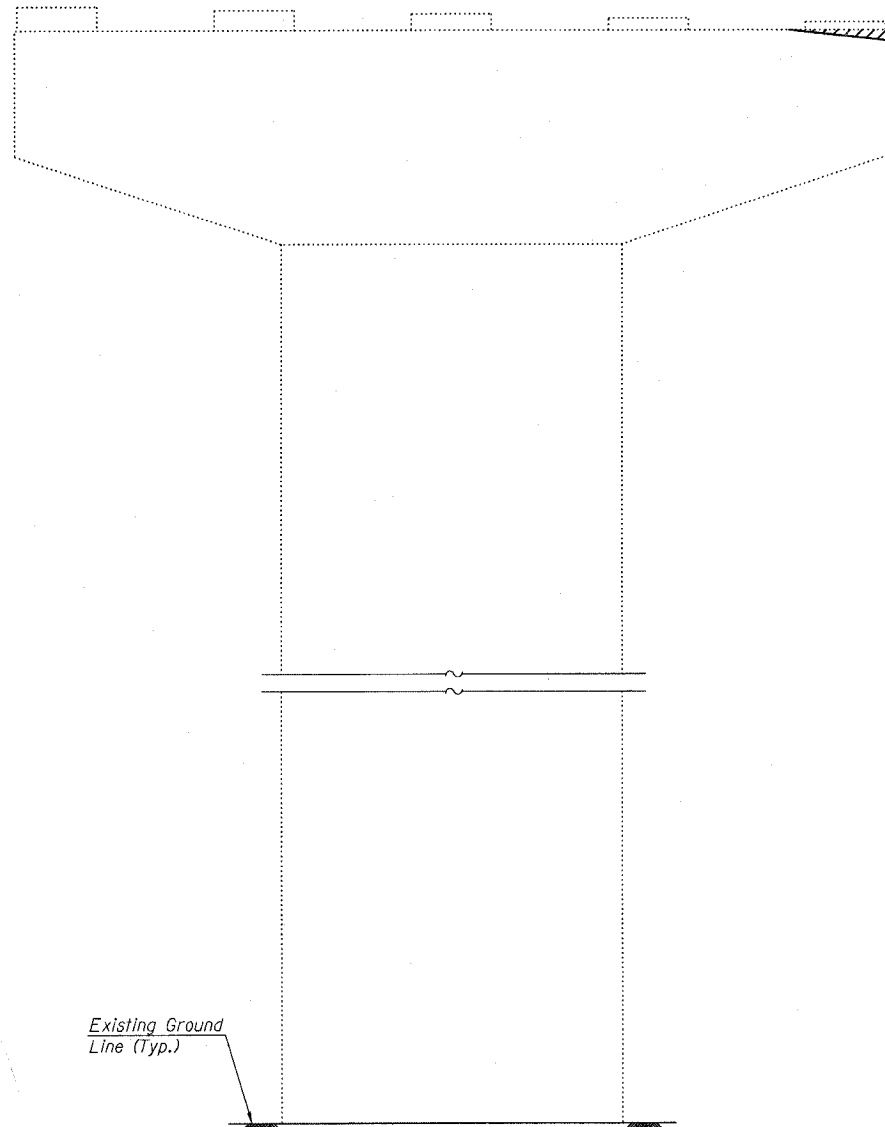
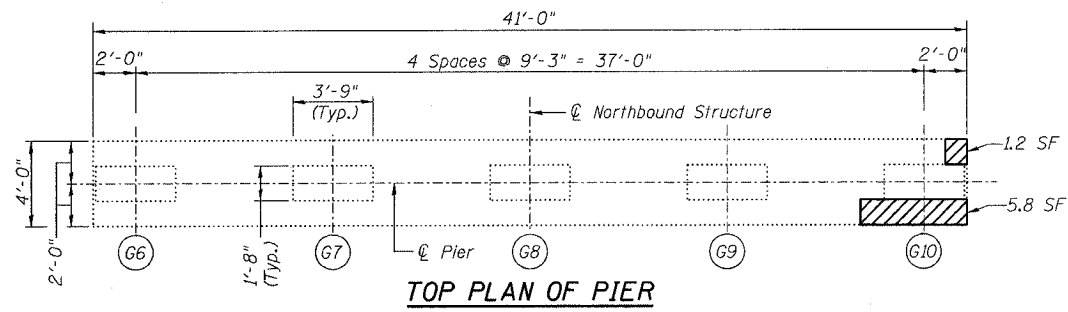
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEETS 289	SHEET NO. 289	SHEET NO. 266
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract # 66586

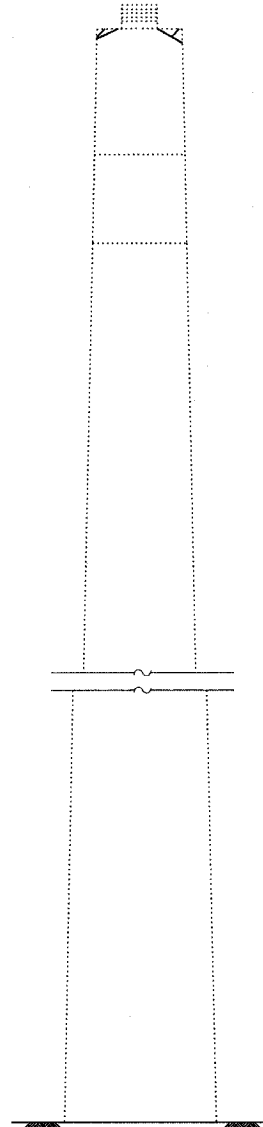
313 SHEETS

NOTES:

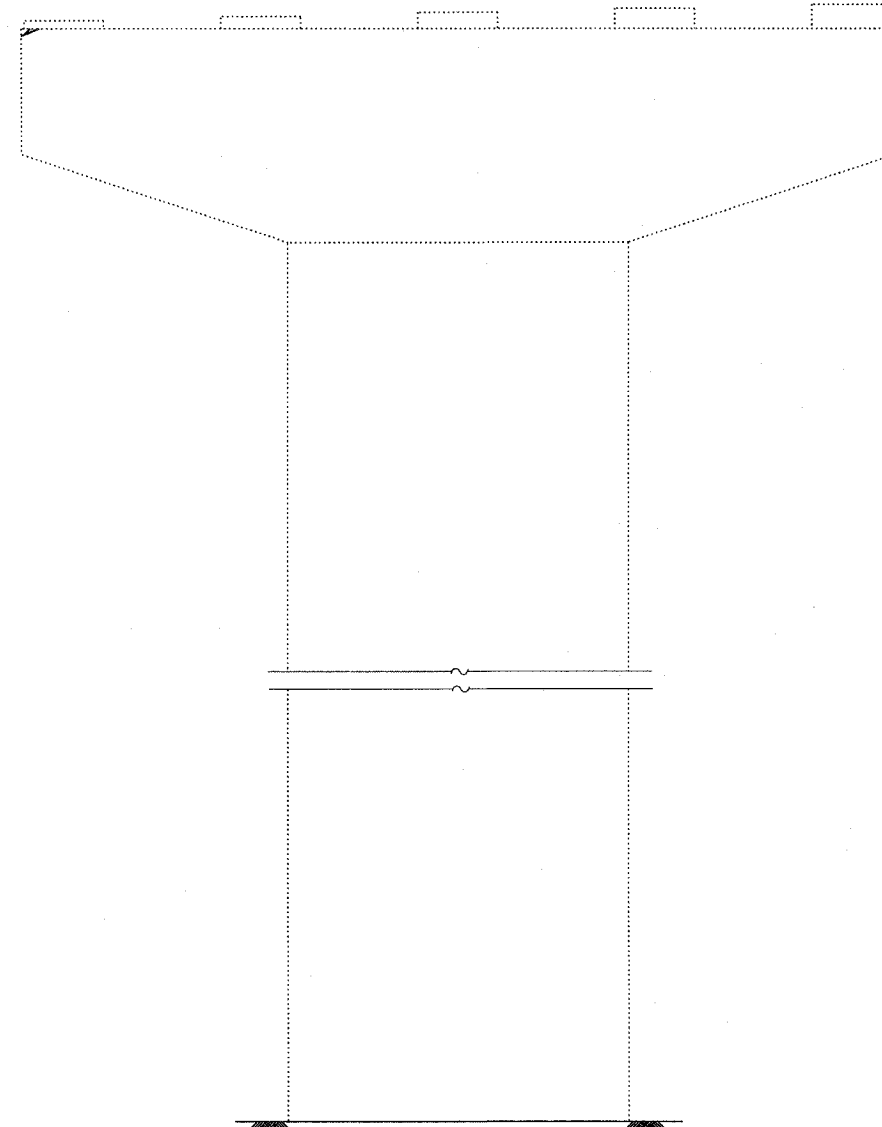
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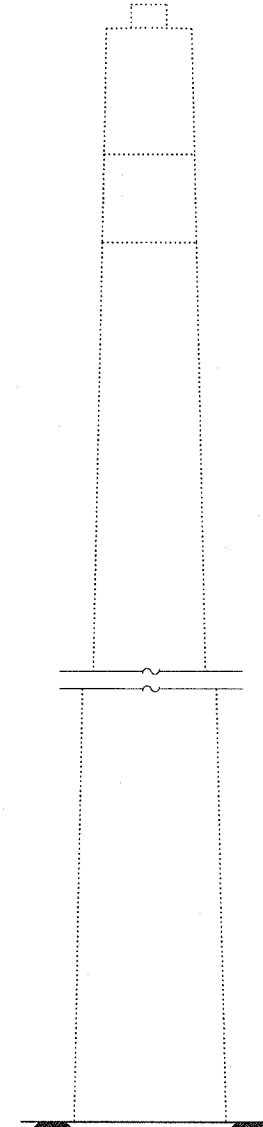
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	7.0

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH



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312-565-0450
Job # 3856

PIER REPAIR - PIER 20 NB
ABRAHAM LINCOLN BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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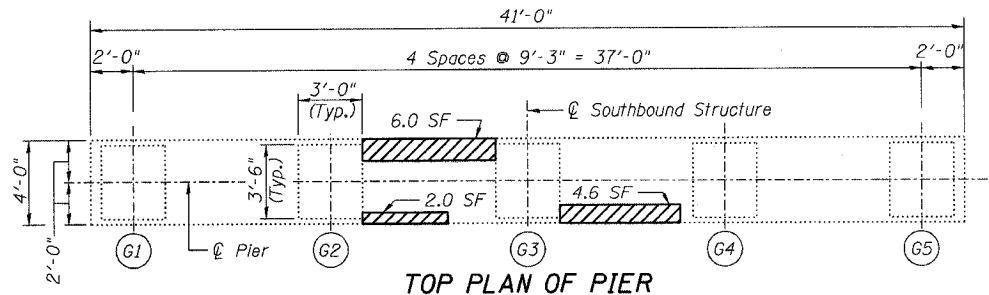
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	290		267
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			313 SHEETS

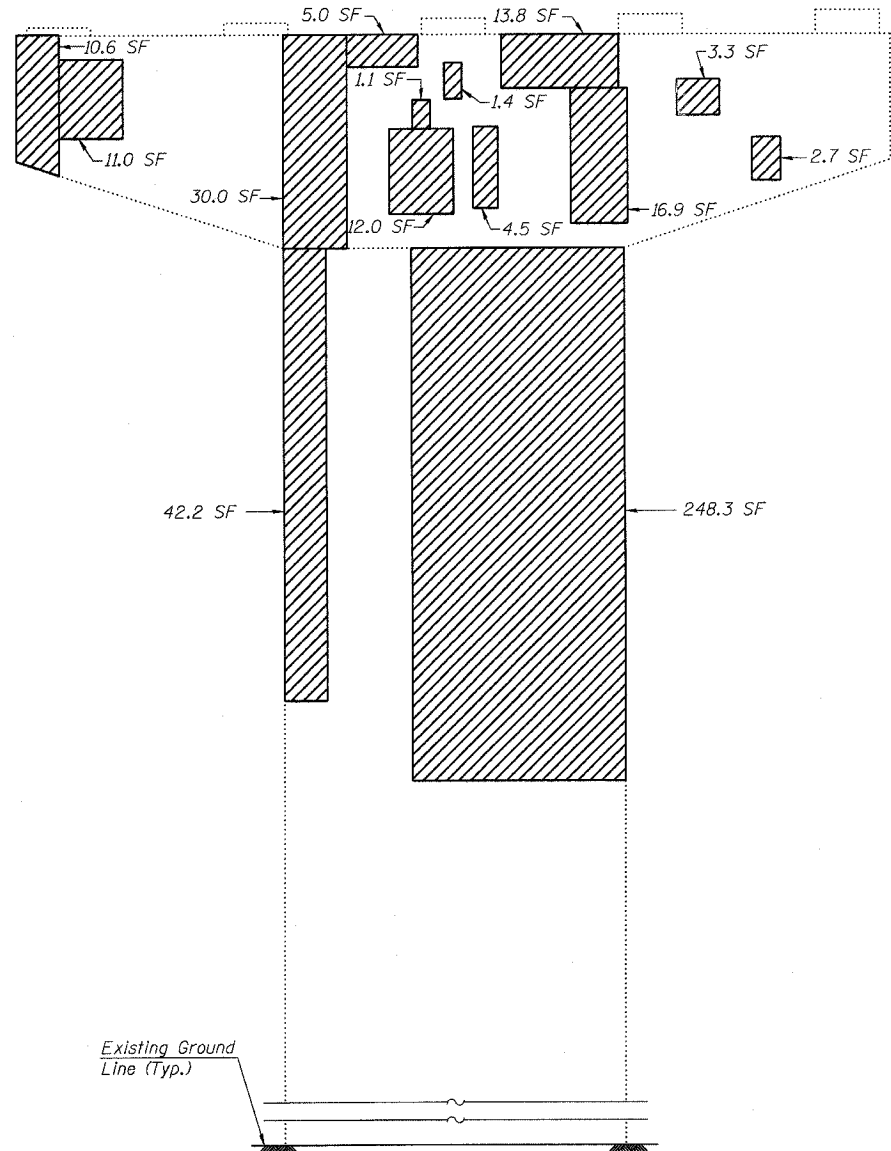
Contract # 66586

NOTES:

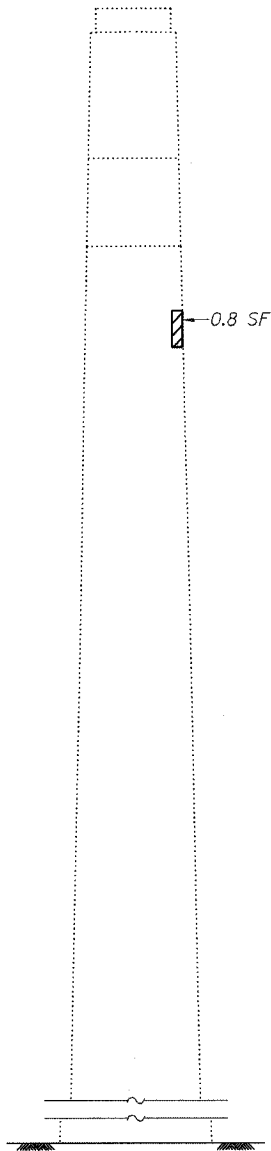
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 269 for rehabilitation of concrete pedestals.



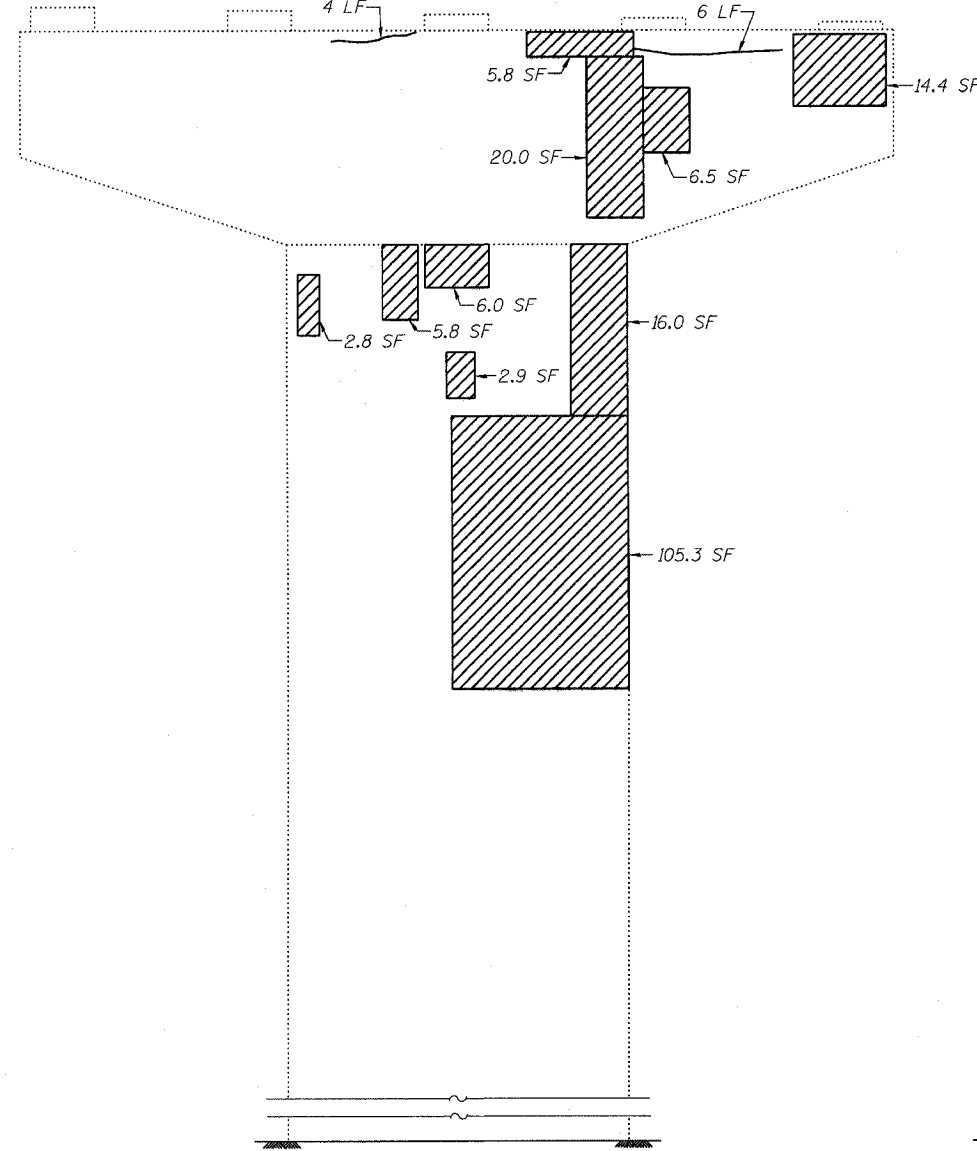
TOP PLAN OF PIER



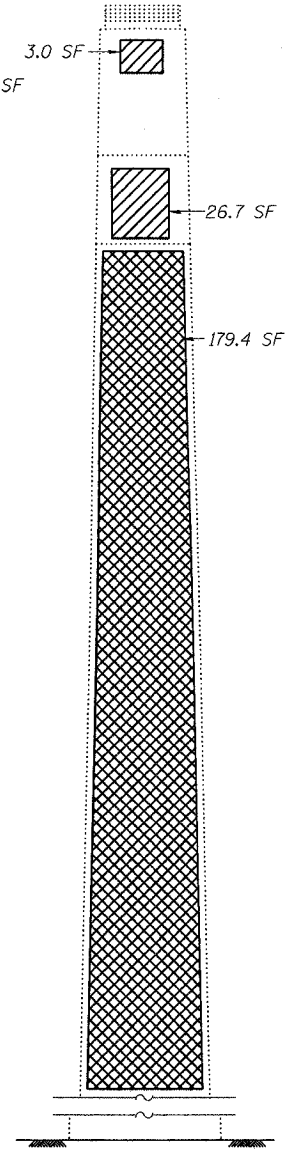
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- Epoxy Crack Sealing (Cracks $\geq \frac{1}{16}$ " Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	631.4
Structural Repair of Concrete (Depth greater than 5")	SF	179.4
Epoxy Crack Sealing	LF	10

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

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312-585-0450
Job # 3856

PIER REPAIR - PIER 21 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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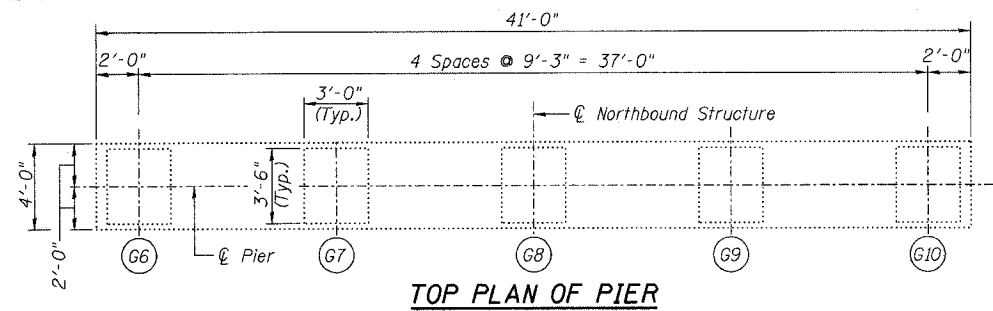
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	291		268
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT		313 SHEETS

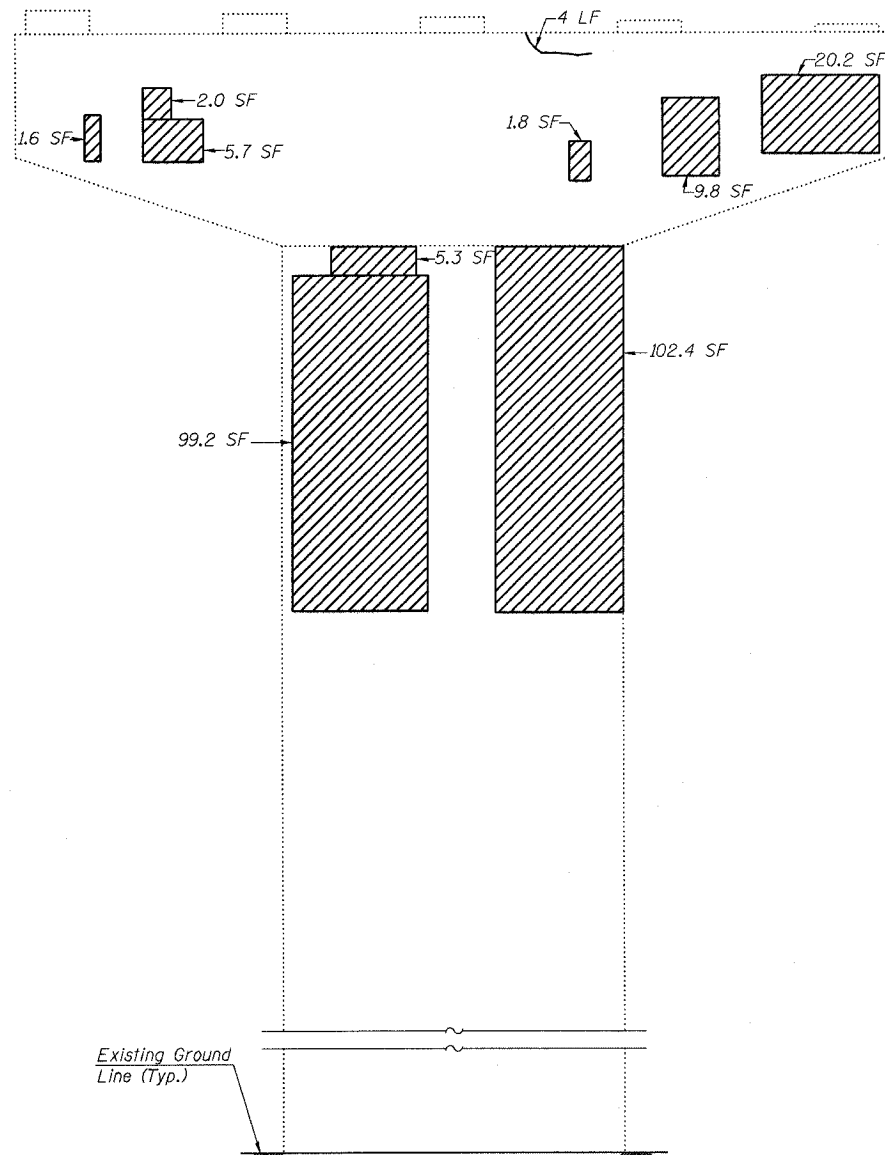
Contract # 66586

NOTES:

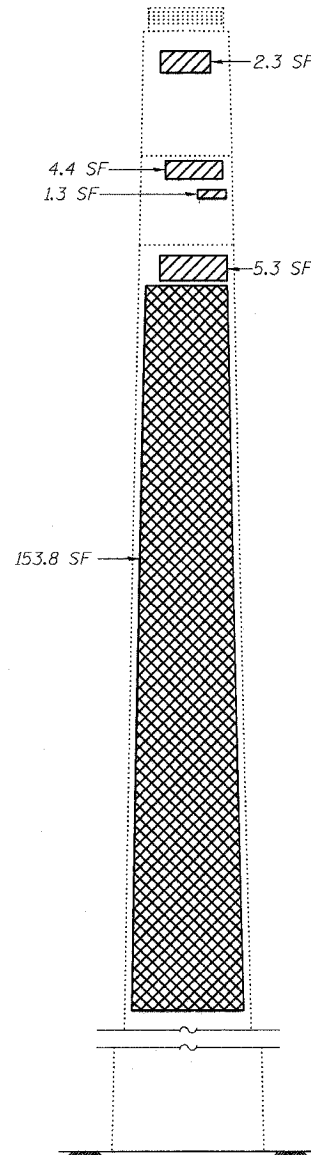
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- See Sheet 270 for rehabilitation of concrete pedestals.



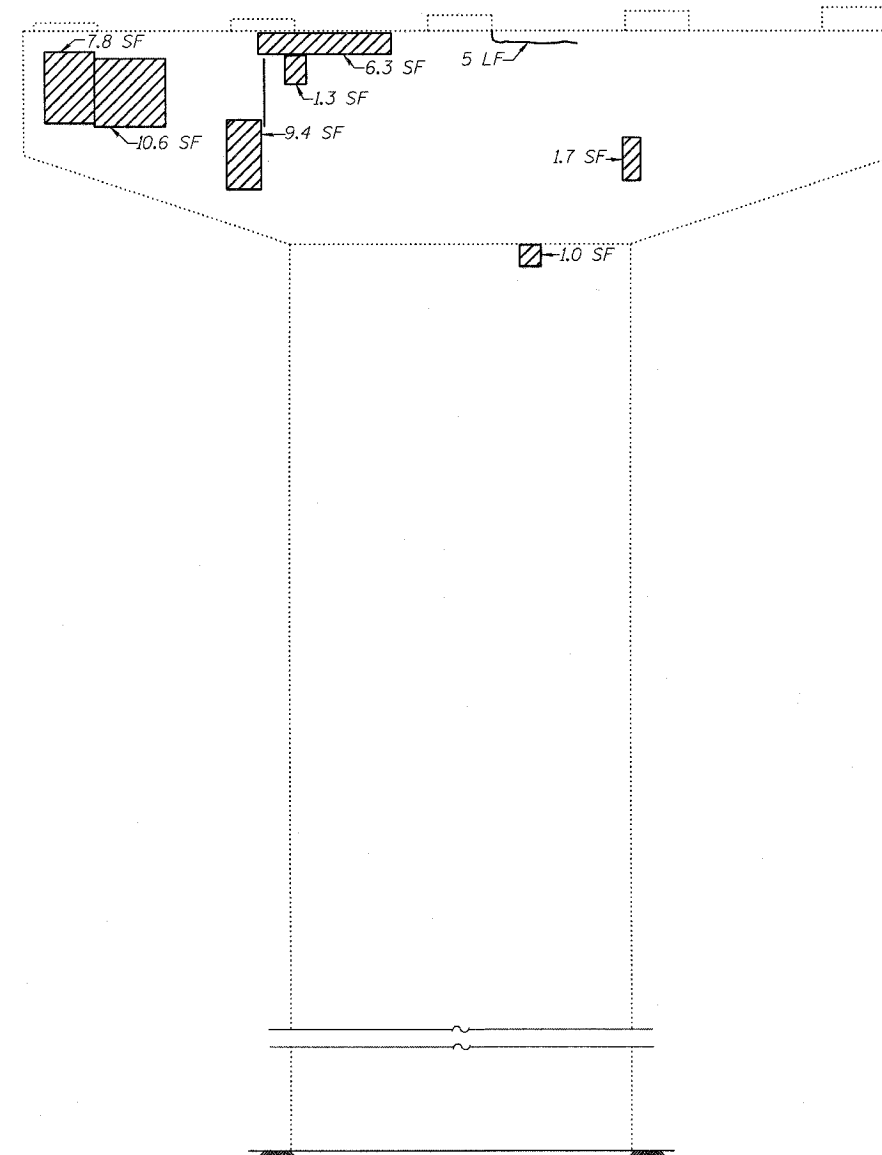
TOP PLAN OF PIER



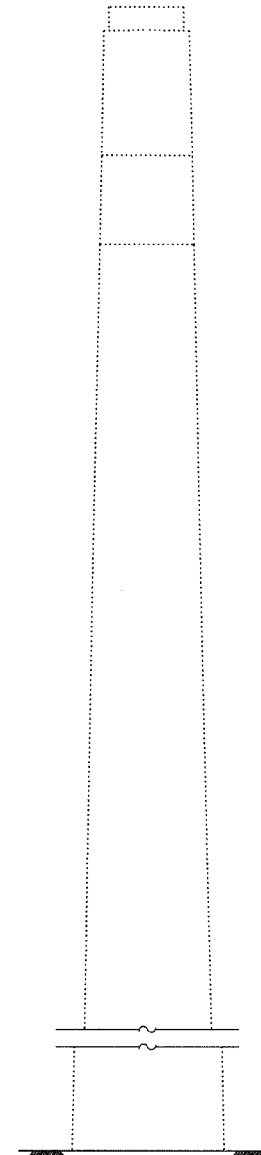
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

Existing Ground Line (Typ.)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Structural Repair of Concrete (Depth greater than 5")
- Epoxy Crack Sealing (Cracks ≥ 1/16" Wide)
- SF Square Feet
- LF Linear Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	299.4
Structural Repair of Concrete (Depth greater than 5")	SF	153.8
Epoxy Crack Sealing	LF	9

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

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Job # 3856

PIER REPAIR - PIER 21 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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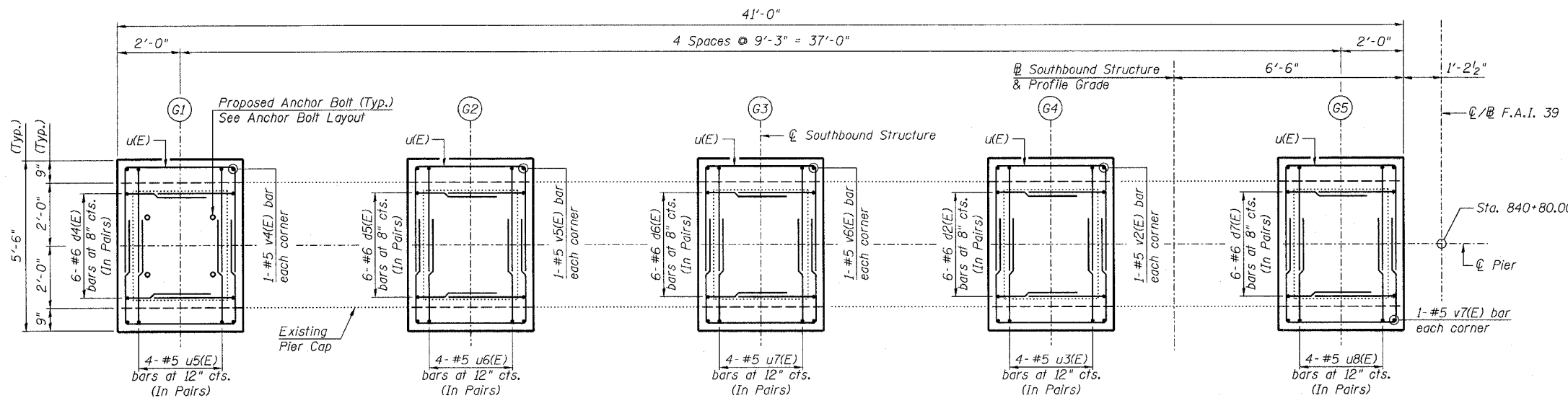
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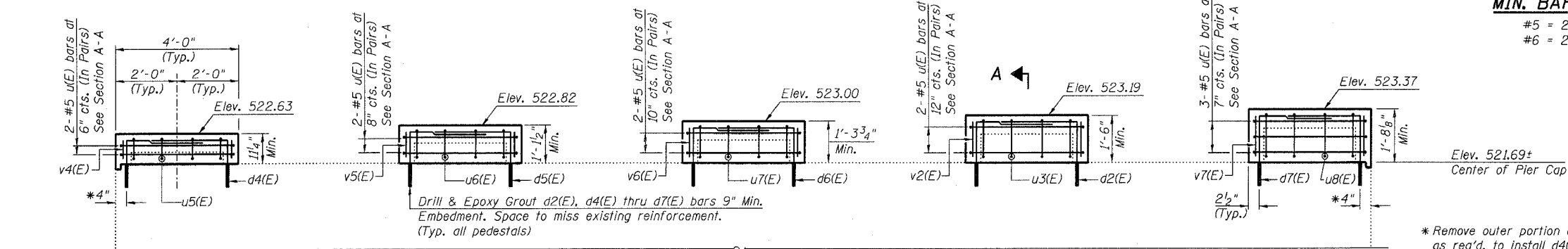
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	29	269
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		313 SHEETS

Contract # 66586



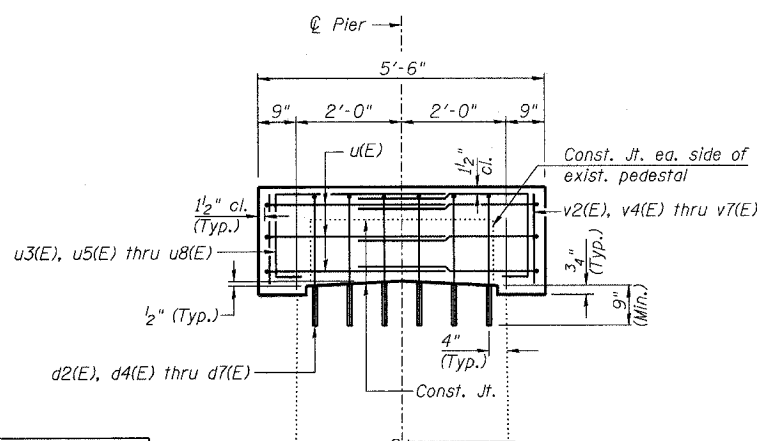
TOP PLAN OF PIER



ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"



SECTION A-A

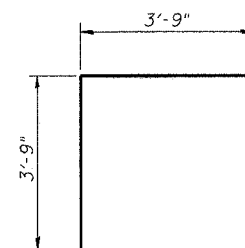
BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"

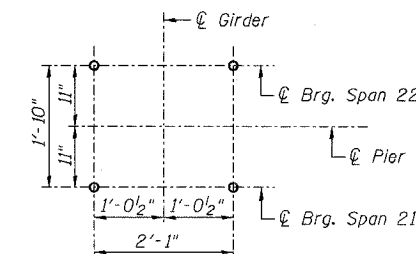
BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"

BAR u(E)



DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 21 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-8"	┌
d5(E)	12	#6	4'-10"	┌
d6(E)	12	#6	5'-0"	┌
d7(E)	12	#6	5'-5"	┌
u(E)	22	#5	11'-3"	┌
u3(E)	8	#5	5'-6"	┌
u5(E)	8	#5	4'-11"	┌
u6(E)	8	#5	5'-2"	┌
u7(E)	8	#5	5'-4"	┌
u8(E)	8	#5	5'-8"	┌
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures		Cu. Yd.	4.8	
Reinforcement Bars, Epoxy Coated		Pound	960	
Bridge Seat Sealer		Sq. Ft.	356	
Concrete Removal		Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 21 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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312-565-0450
Job # 3856

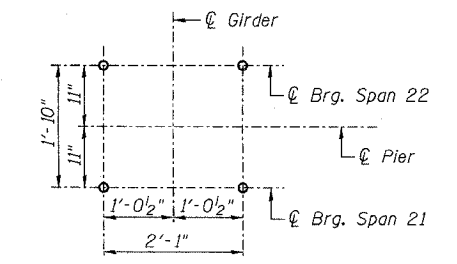
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 293	SHEET NO. 270 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

Contract # 66586



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

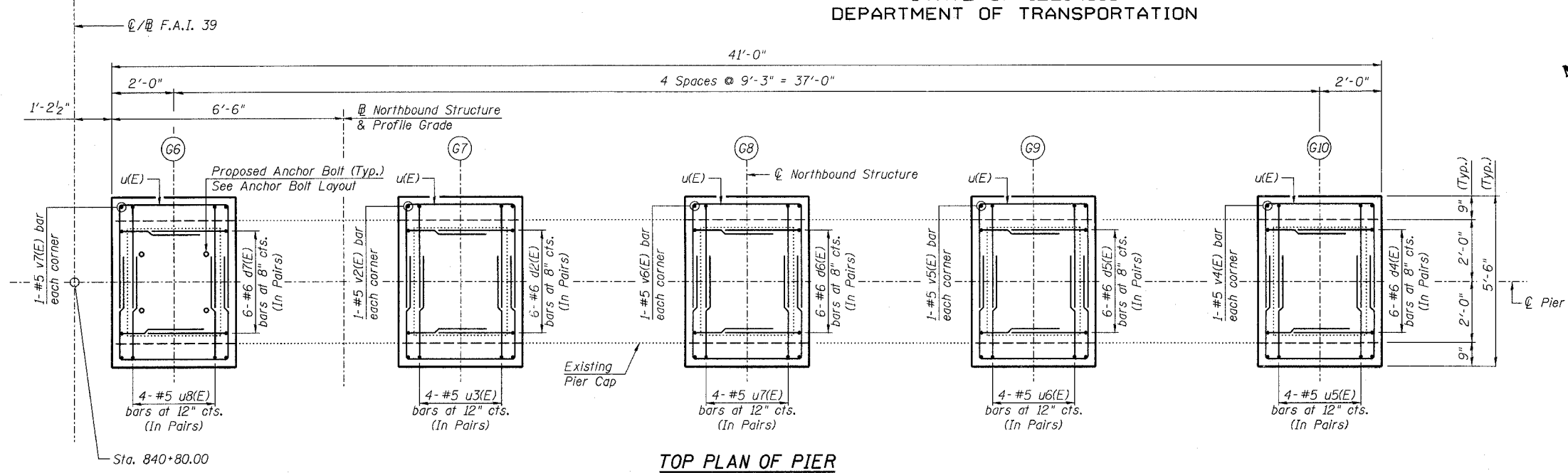
**PIER 21 NB
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-8"	┌
d5(E)	12	#6	4'-10"	┌
d6(E)	12	#6	5'-0"	┌
d7(E)	12	#6	5'-5"	┌
u(E)	22	#5	11'-3"	┌
u3(E)	8	#5	5'-6"	┌
u5(E)	8	#5	4'-11"	┌
u6(E)	8	#5	5'-2"	┌
u7(E)	8	#5	5'-4"	┌
u8(E)	8	#5	5'-8"	┌
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures		Cu. Yd.	4.8	
Reinforcement Bars, Epoxy Coated		Pound	960	
Bridge Seat Sealer		Sq. Ft.	356	
Concrete Removal		Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

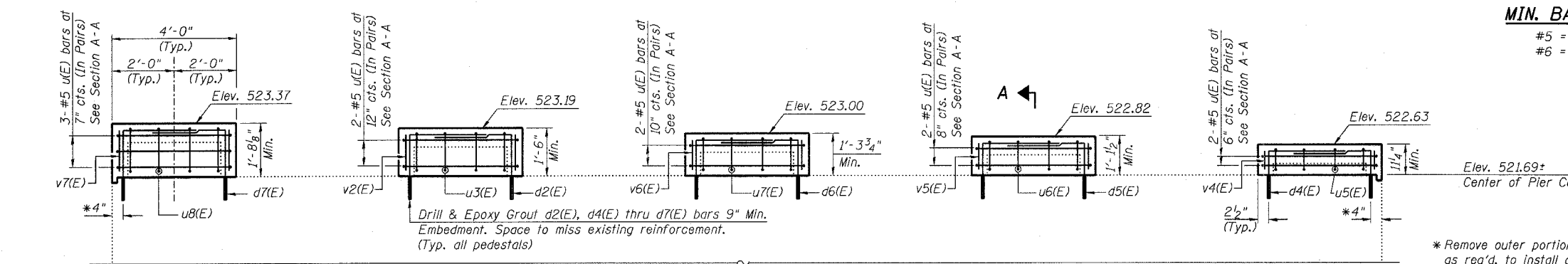
1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space pedestal reinforcement to miss proposed anchor bolts.
3. See Sheet 19 for removal details.
4. See Sheet 215 for bearing details.



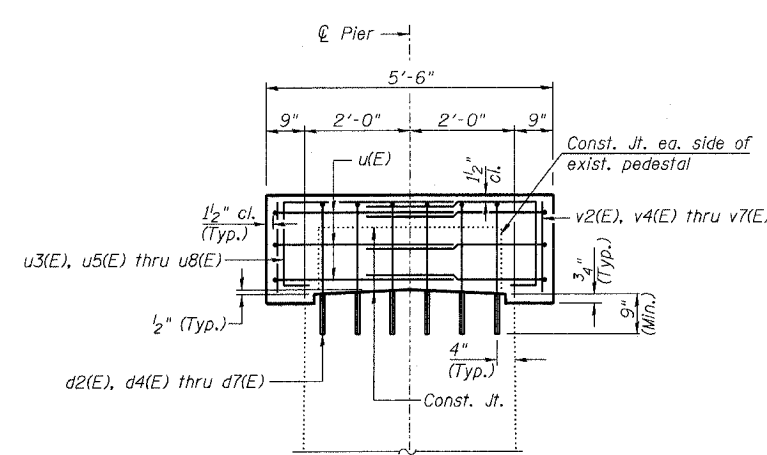
TOP PLAN OF PIER

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"



ELEVATION
(Looking North)



SECTION A-A

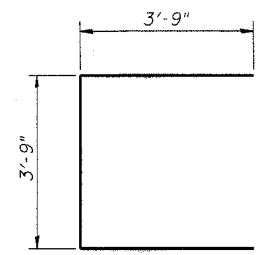
BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"

BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"

BAR u(E)



DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0450
Job # 3856

PEDESTAL REHAB. - PIER 21 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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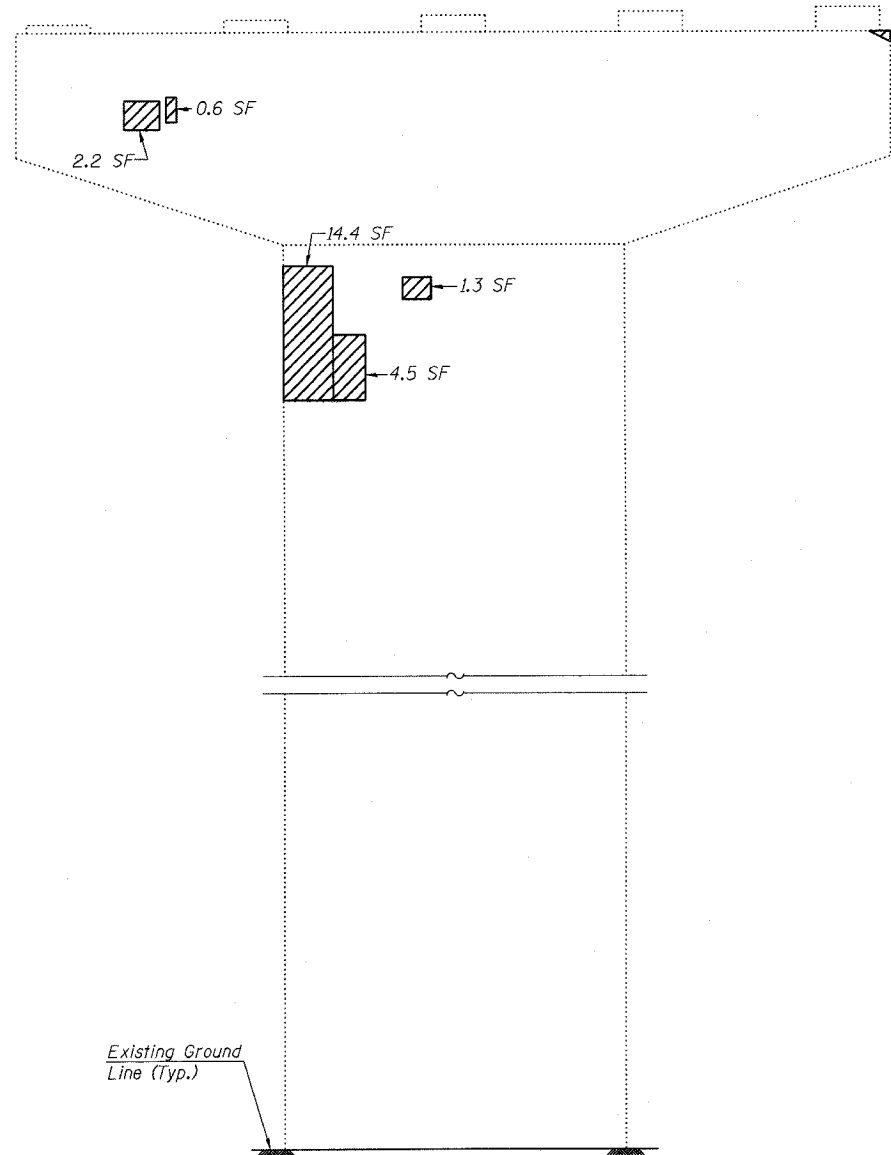
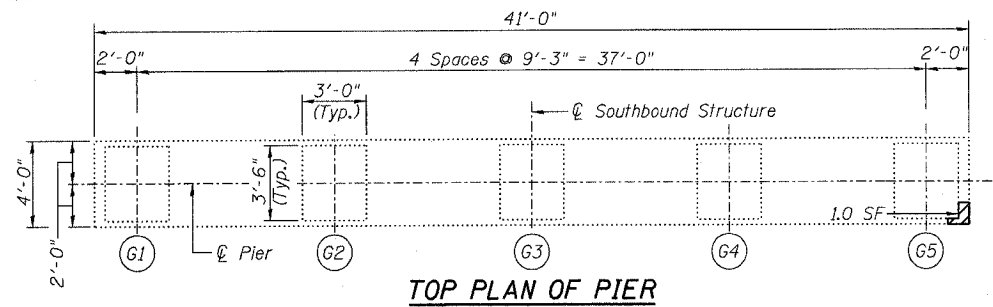
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 39	50-4B	LASALLE	294	271
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

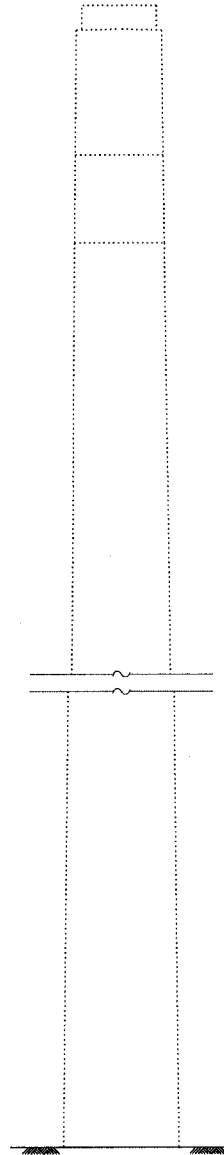
Contract # 66586

NOTES:

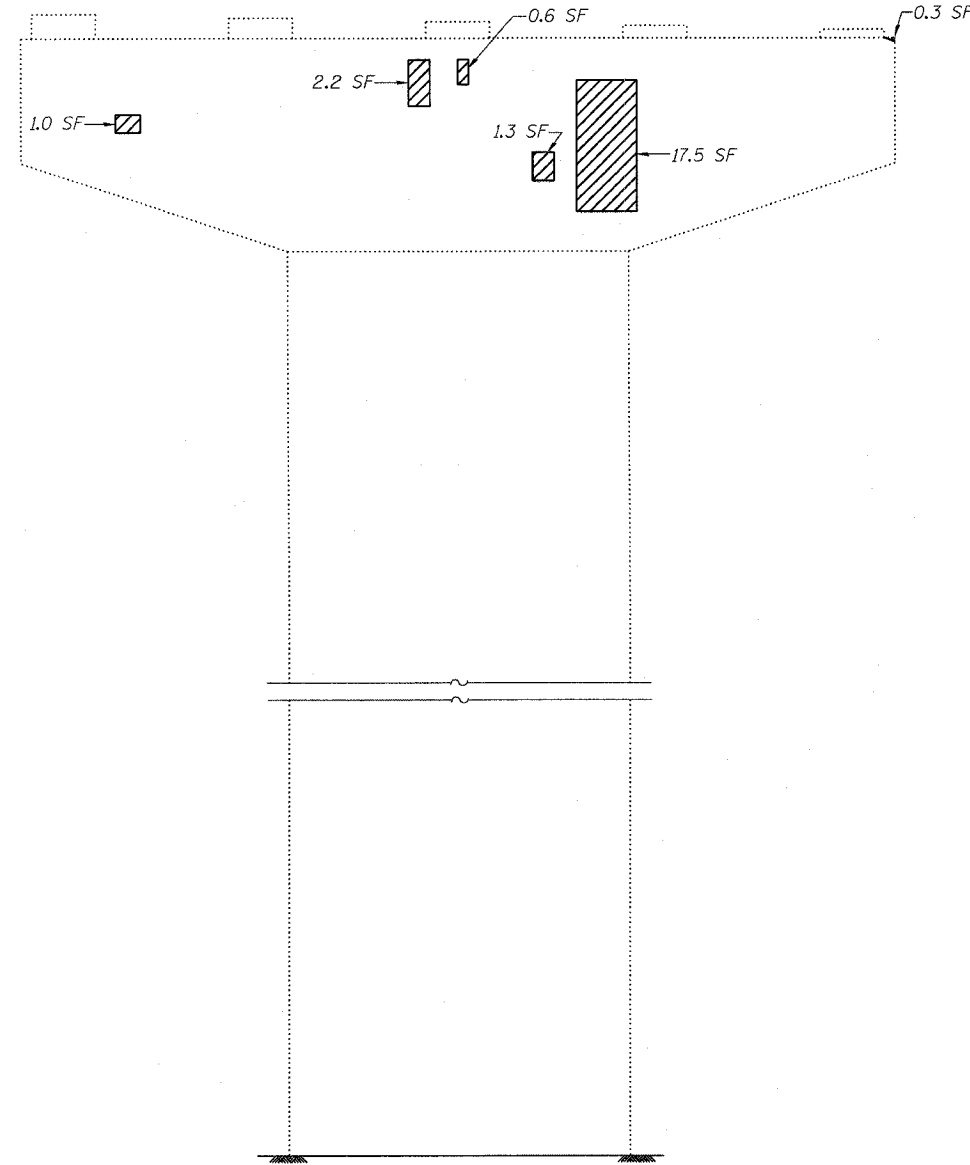
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 273 for rehabilitation of concrete pedestals.



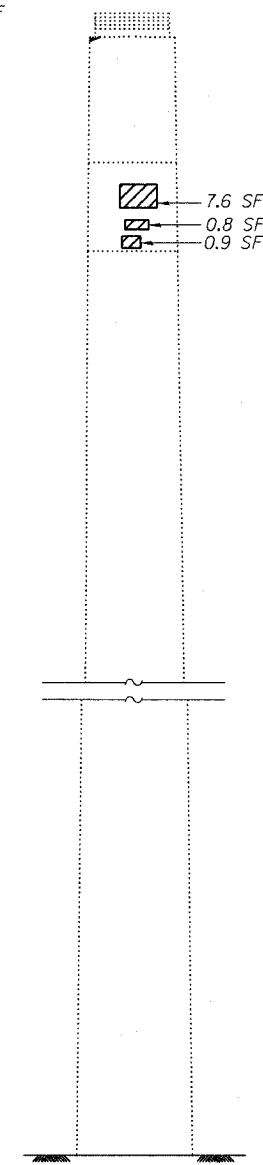
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	56.2

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4706

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alfred benesch & company
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0450
Job # 3856

PIER REPAIR - PIER 25 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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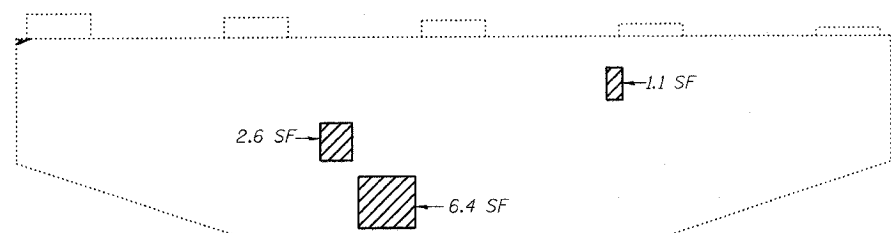
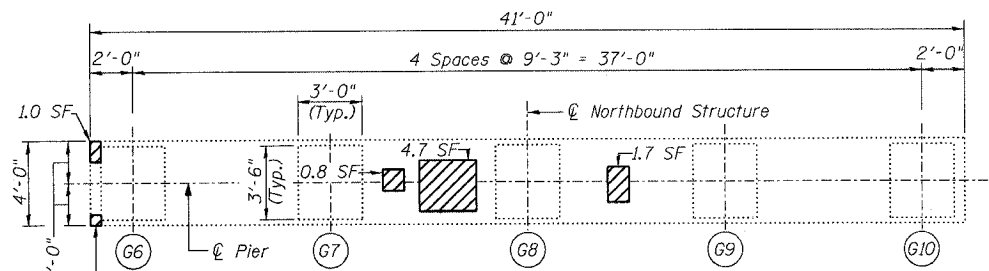
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 313	SHEET NO. 272
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 66586

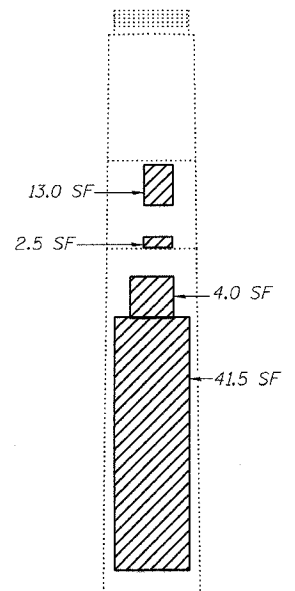
NOTES:

- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.
- See Sheet 274 for rehabilitation of concrete pedestals.

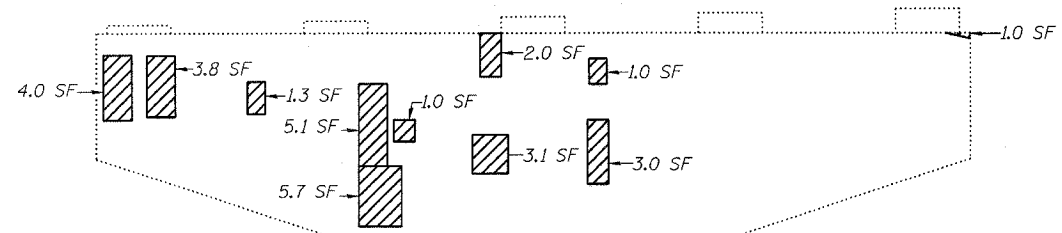


Existing Ground Line (Typ.)

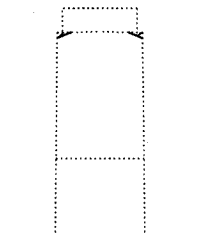
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	127.9

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

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210 W. Chestnut
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(217) 483-4168
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0460
Job # 3856

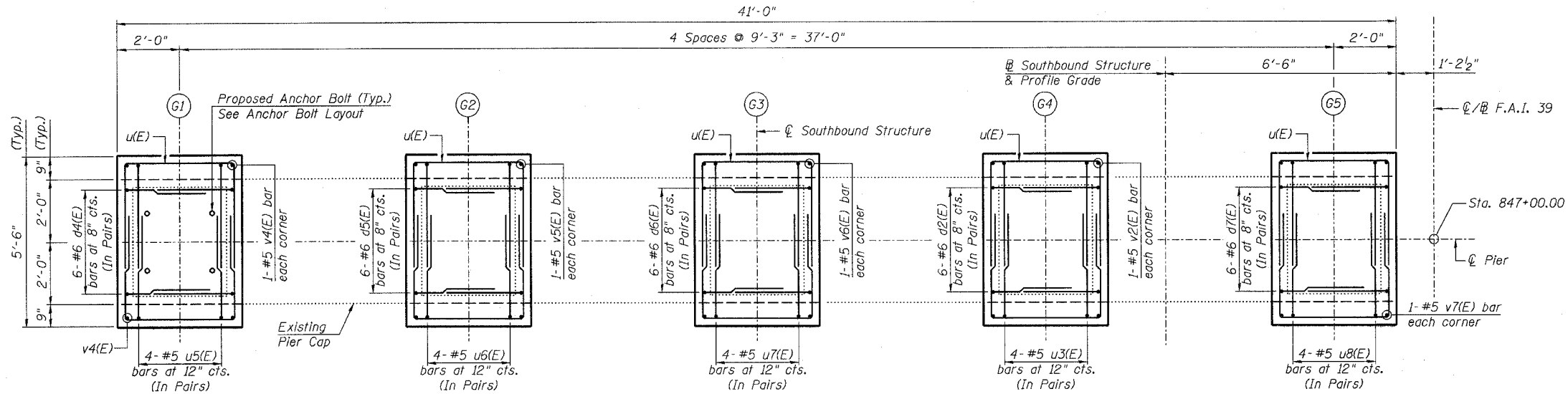
PIER REPAIR - PIER 25 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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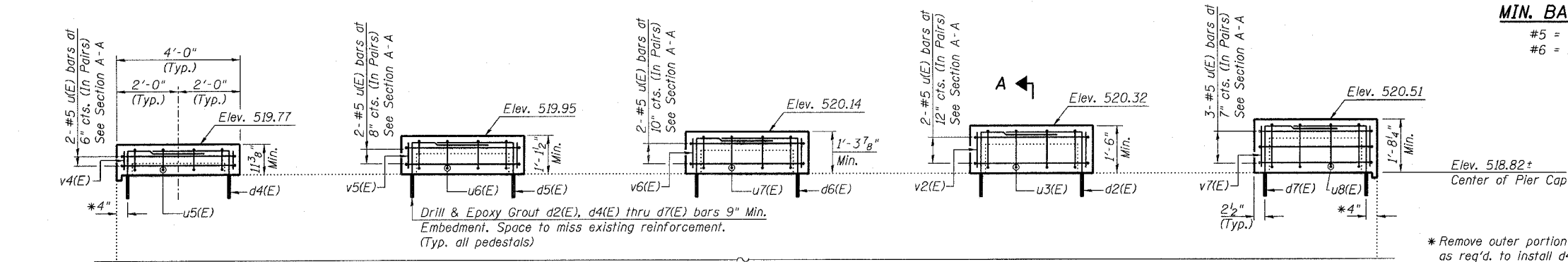
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE	296	296	273
FED. ROAD DIST. NO. 7					ILLINOIS FED. AID PROJECT-

Contract # 66586



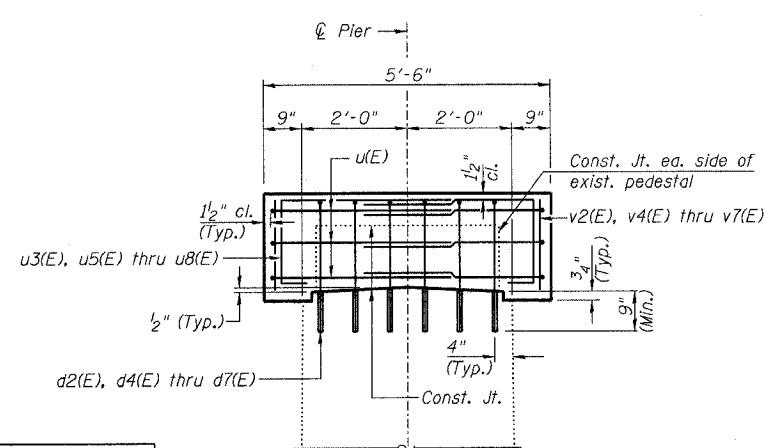
TOP PLAN OF PIER



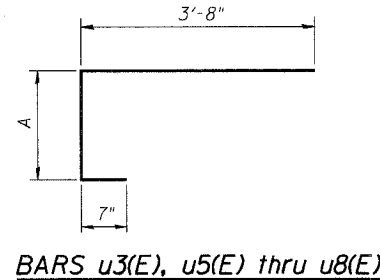
ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"

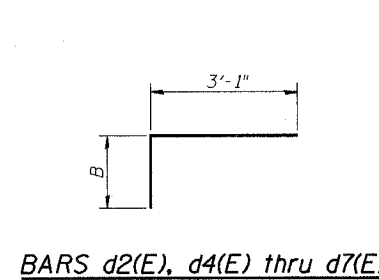


SECTION A-A



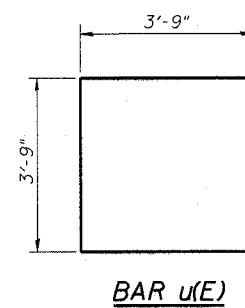
BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"

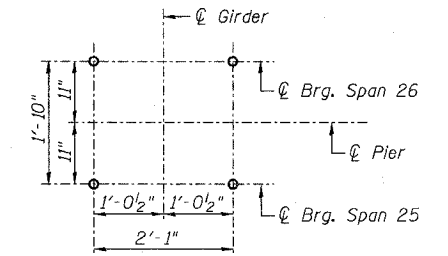


BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"



BAR u(E)



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 25 SB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-8"	┌
d5(E)	12	#6	4'-10"	┌
d6(E)	12	#6	5'-0"	┌
d7(E)	12	#6	5'-5"	┌
u(E)	22	#5	11'-3"	┌
u3(E)	8	#5	5'-6"	┌
u5(E)	8	#5	4'-11"	┌
u6(E)	8	#5	5'-2"	┌
u7(E)	8	#5	5'-4"	┌
u8(E)	8	#5	5'-8"	┌
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures	Cu. Yd.	4.8		
Reinforcement Bars, Epoxy Coated	Pound	960		
Bridge Seat Sealer	Sq. Ft.	357		
Concrete Removal	Cu. Yd.	0.7		

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

1. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
2. Space pedestal reinforcement to miss proposed anchor bolts.
3. See Sheet 19 for removal details.
4. See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 25 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LIN ENGINEERING, LTD.
210 W. Chestnut
Chatham, Illinois 62629
(217) 483-4668
FAX (217) 483-4706

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alfred benesch & company
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3886

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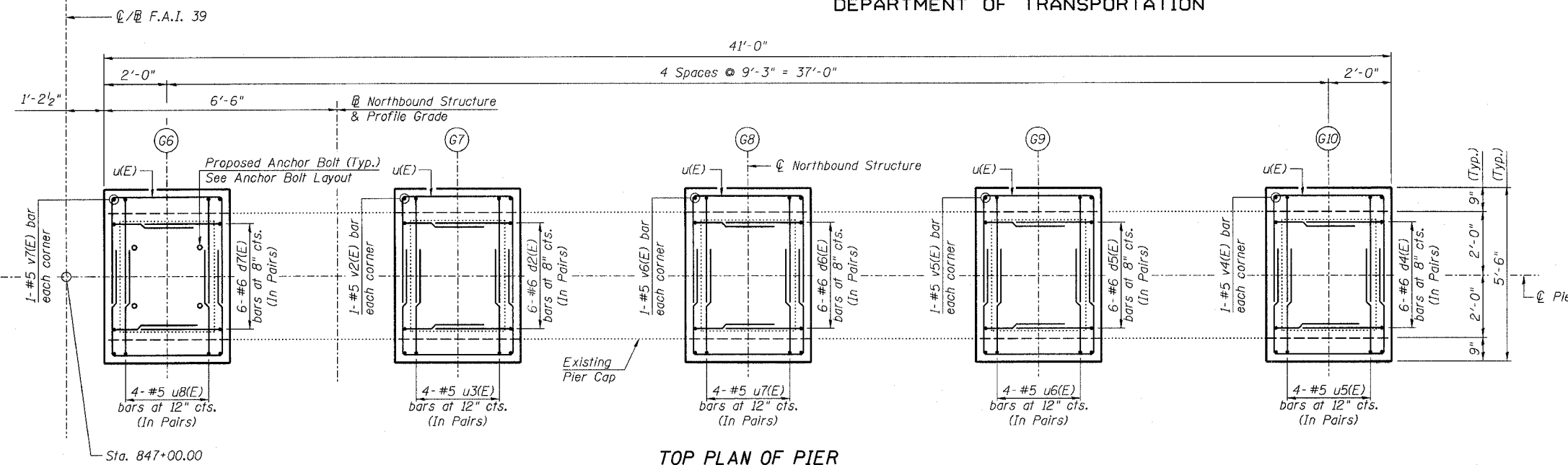
8/30/2006

DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH

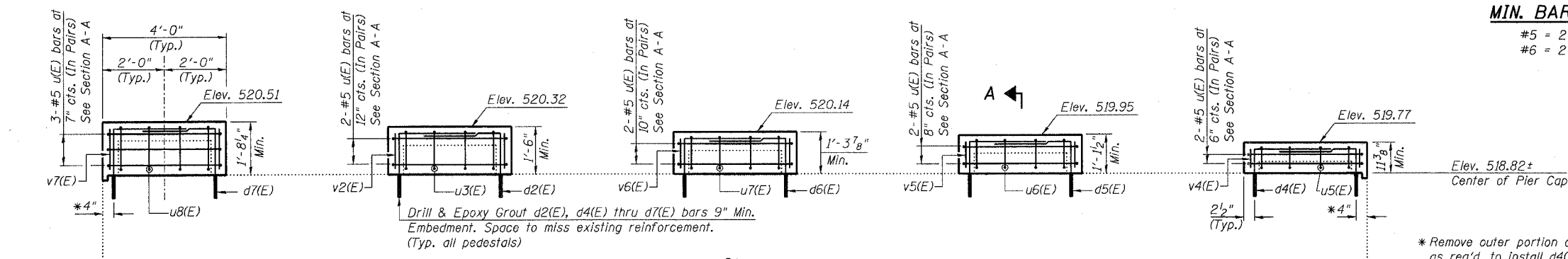
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	SHEET 271	SHEET NO. 274
FED. ROAD DIST. NO. 7				ILLINOIS FED. AID PROJECT

Contract # 66586



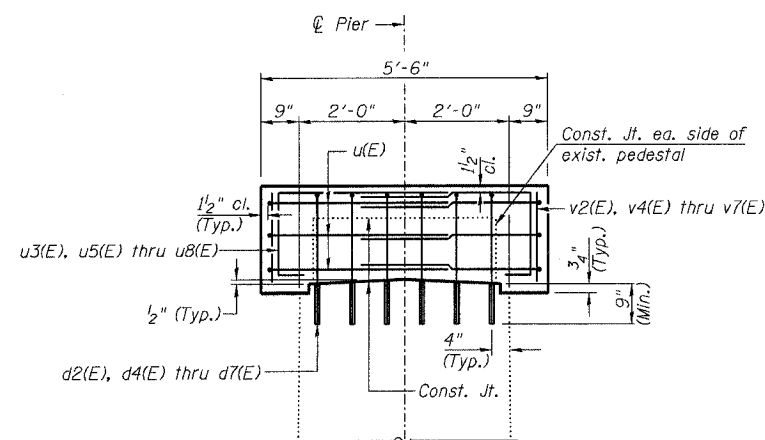
TOP PLAN OF PIER



ELEVATION
(Looking North)

MIN. BAR LAP

#5 = 2'-2"
#6 = 2'-7"



SECTION A-A

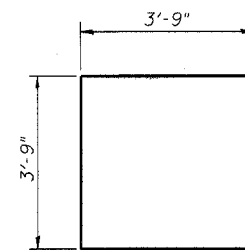
BARS u3(E), u5(E) thru u8(E)

Bar	A
u3(E)	1'-3"
u5(E)	8"
u6(E)	11"
u7(E)	1'-1"
u8(E)	1'-5"

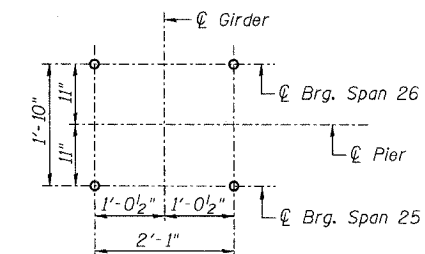
BARS d2(E), d4(E) thru d7(E)

Bar	B
d2(E)	2'-2"
d4(E)	1'-7"
d5(E)	1'-9"
d6(E)	1'-11"
d7(E)	2'-4"

BAR u(E)



DESIGNED - DLS
CHECKED - STD
DRAWN - SGL
CHECKED - MTH



ANCHOR BOLT LAYOUT
(Typ. each pedestal)

PIER 25 NB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d2(E)	12	#6	5'-3"	┌
d4(E)	12	#6	4'-8"	┌
d5(E)	12	#6	4'-10"	┌
d6(E)	12	#6	5'-0"	┌
d7(E)	12	#6	5'-5"	┌
u(E)	22	#5	11'-3"	┌
u3(E)	8	#5	5'-6"	┌
u5(E)	8	#5	4'-11"	┌
u6(E)	8	#5	5'-2"	┌
u7(E)	8	#5	5'-4"	┌
u8(E)	8	#5	5'-8"	┌
v2(E)	4	#5	1'-4"	—
v4(E)	4	#5	0'-9"	—
v5(E)	4	#5	0'-11"	—
v6(E)	4	#5	1'-2"	—
v7(E)	4	#5	1'-6"	—
Concrete Structures		Cu. Yd.	4.8	
Reinforcement Bars, Epoxy Coated		Pound	960	
Bridge Seat Sealer		Sq. Ft.	357	
Concrete Removal		Cu. Yd.	0.7	

Reinforcement Bars designated (E) shall be epoxy coated.

NOTES:

- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
- Space pedestal reinforcement to miss proposed anchor bolts.
- See Sheet 19 for removal details.
- See Sheet 215 for bearing details.

PEDESTAL REHAB. - PIER 25 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

LIN ENGINEERING, LTD.
20 W. Chestnut
Chatham, Illinois 62629
(217) 483-4168
FAX (217) 483-4106

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Engineers • Surveyors • Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3856

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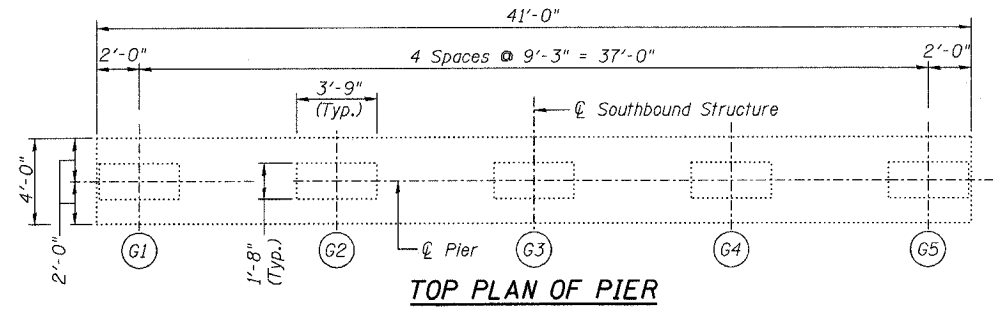
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		28	275
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

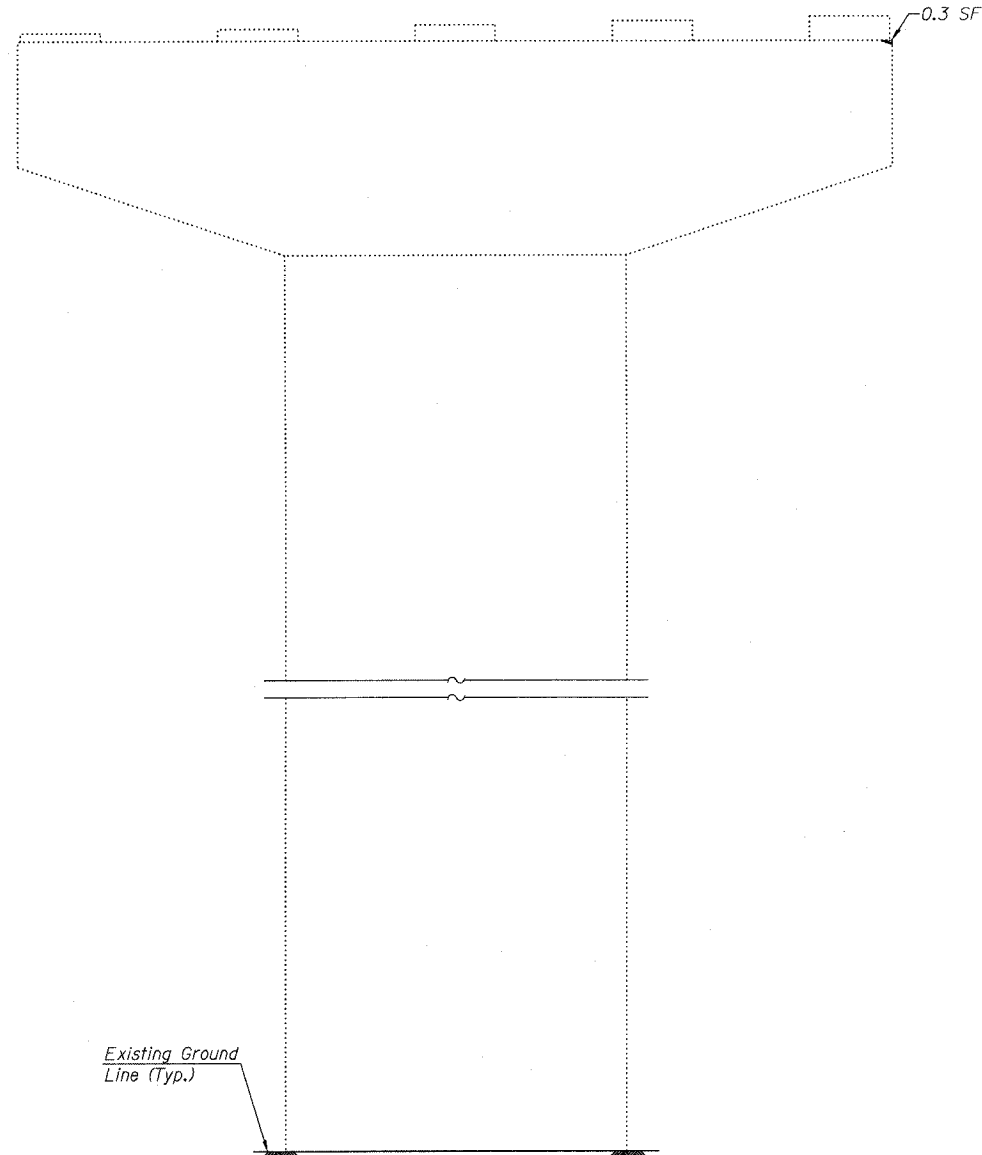
Contract # 66586

NOTES:

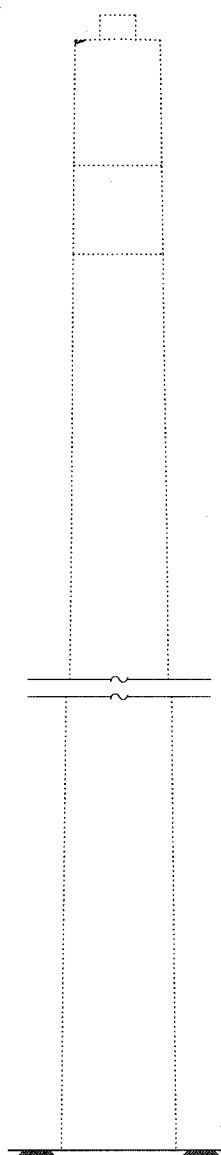
1. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



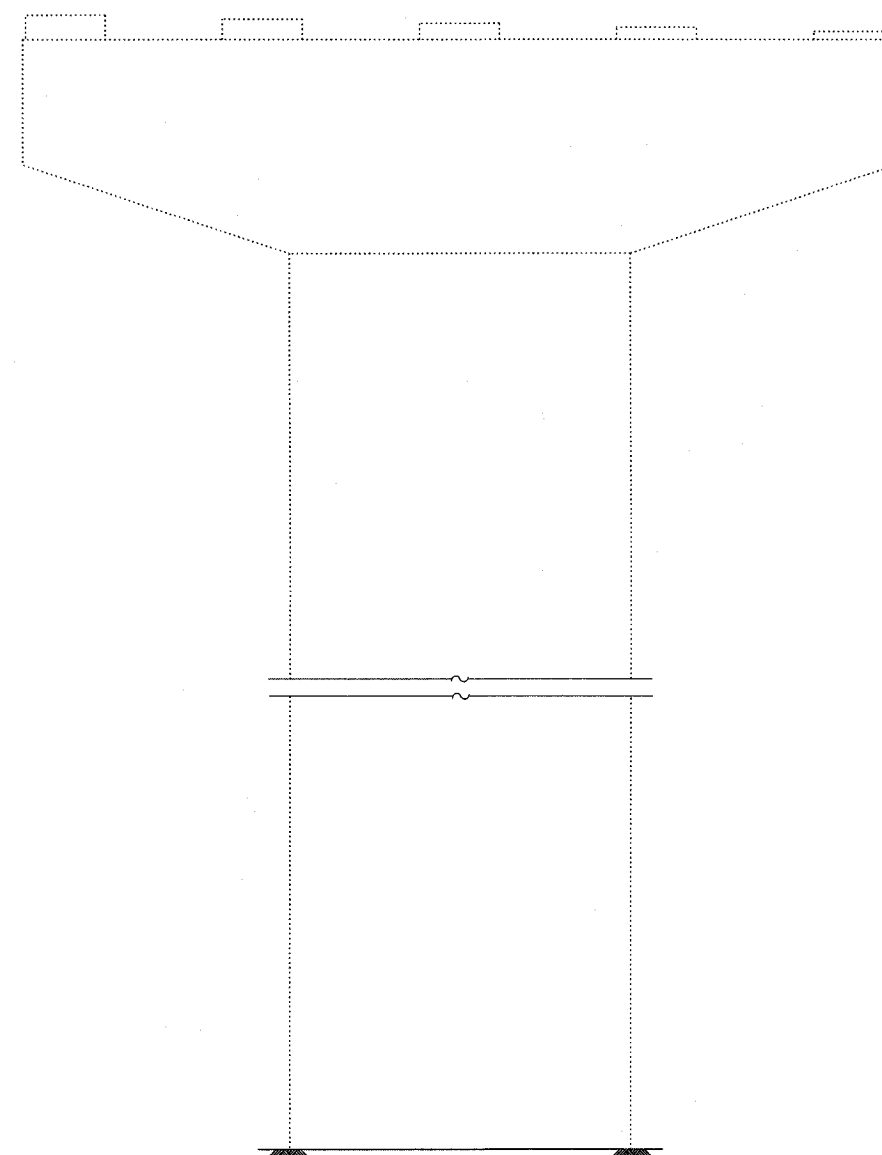
TOP PLAN OF PIER



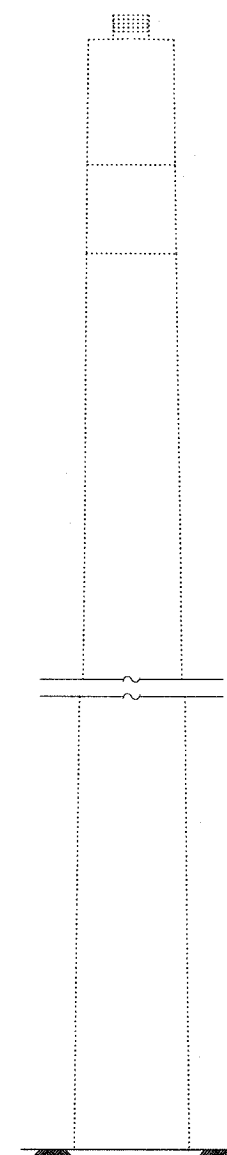
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

Structural Repair of Concrete
(Depth equal to or less than 5")
SF Square Feet

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.3

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210 W. Chestnut
Chatham, Illinois 62629
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3856

PIER REPAIR - PIER 26 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

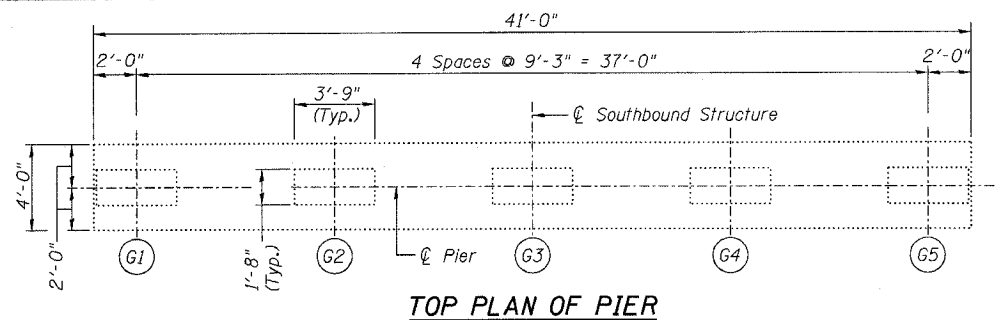
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO.
F.A.I. 39	50-4B	LASALLE		276	276
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 66586

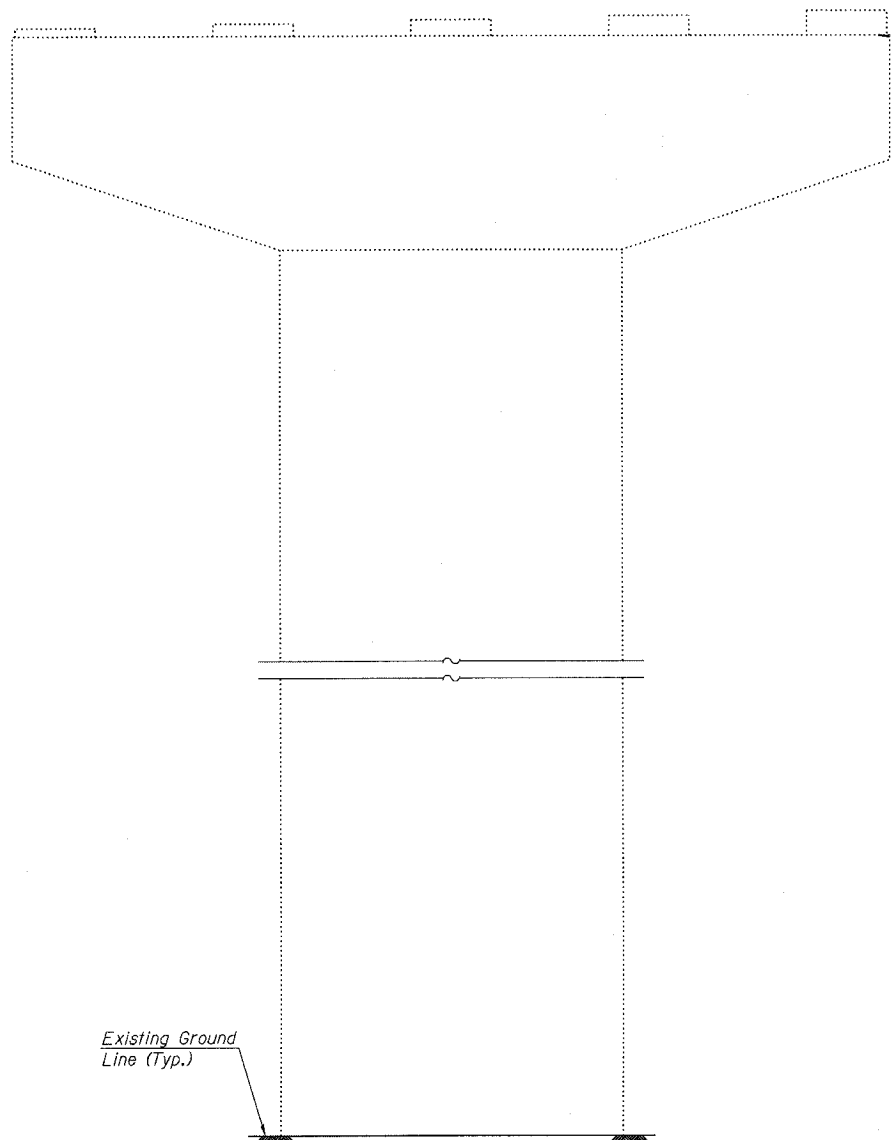
313 SHEETS

NOTES:

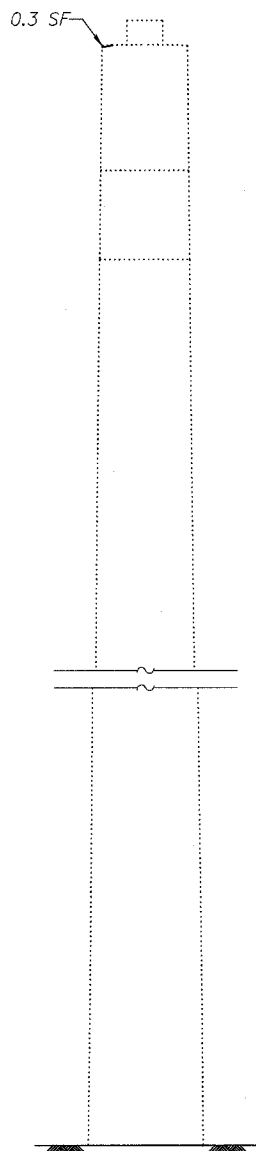
- The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



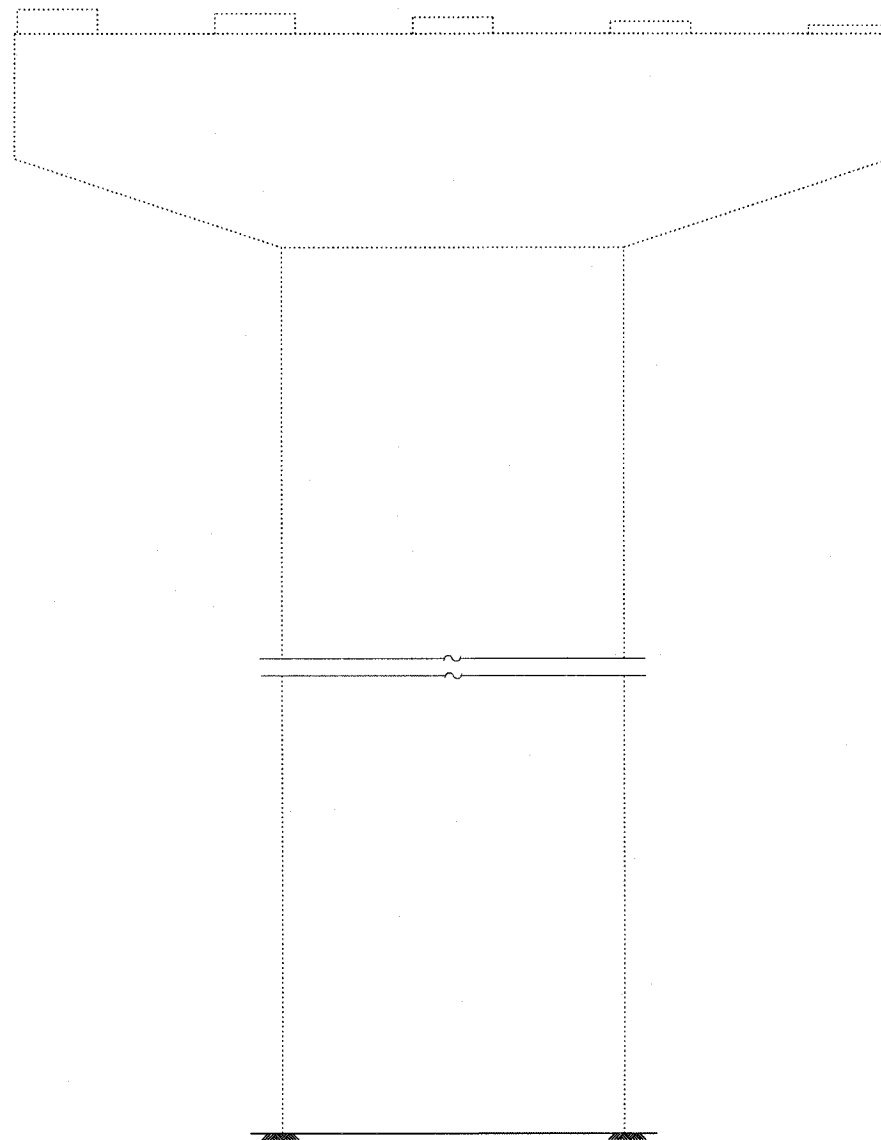
TOP PLAN OF PIER



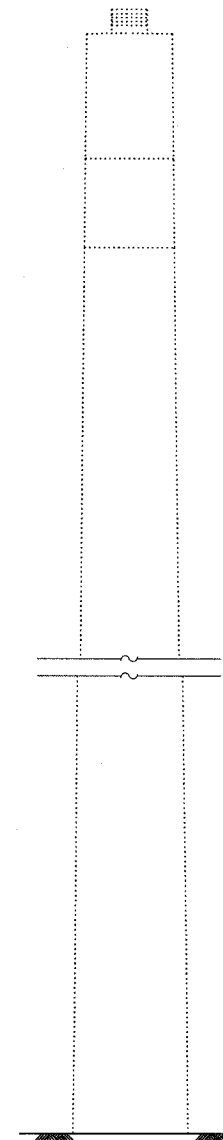
ELEVATION
(Looking North)



END VIEW
(Looking West)



ELEVATION
(Looking South)



END VIEW
(Looking East)

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- SF Square Feet

DESIGNED	ADB
CHECKED	BLS
DRAWN	KHH
CHECKED	MTH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.3

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210 W. Chestnut
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450
Job # 3856

PIER REPAIR - PIER 27 SB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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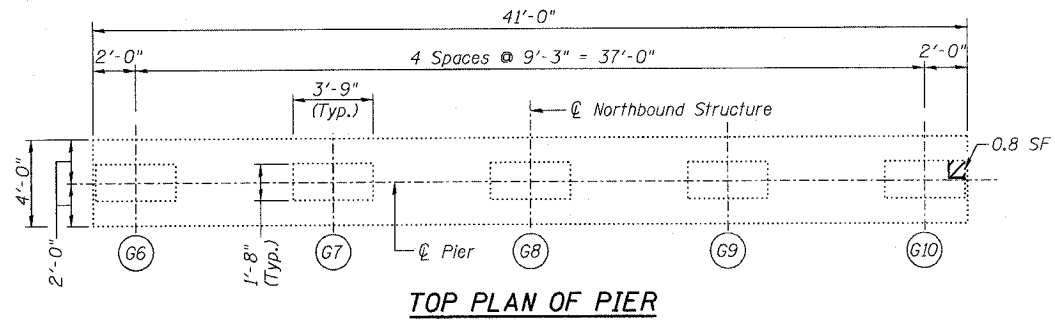
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

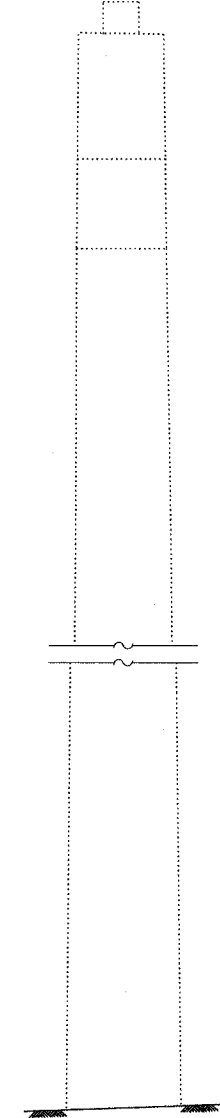
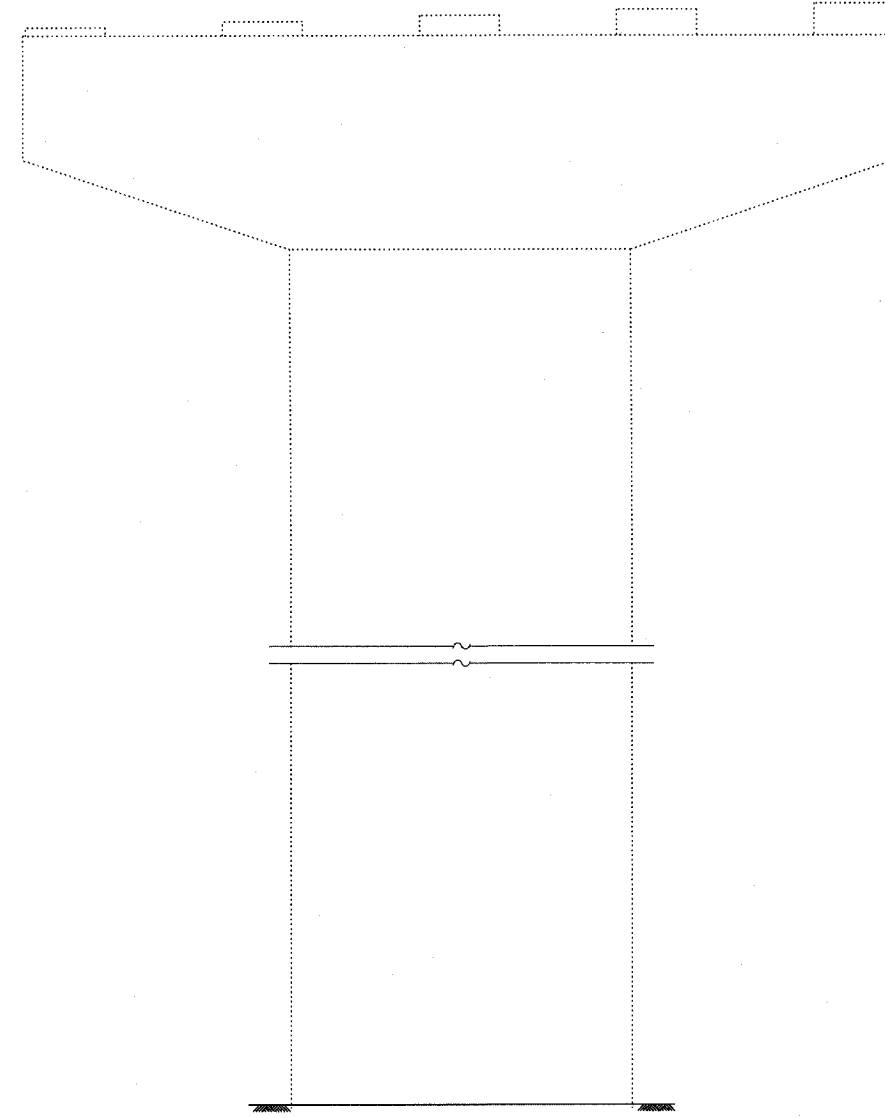
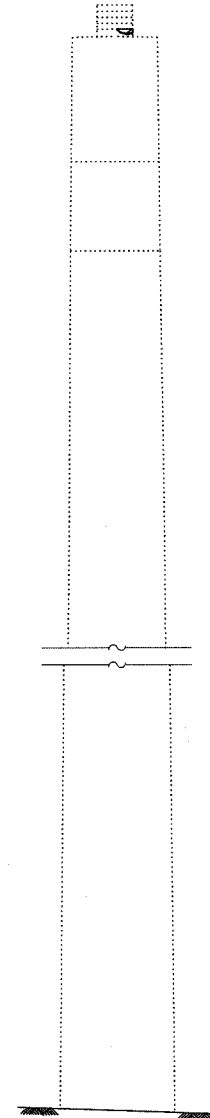
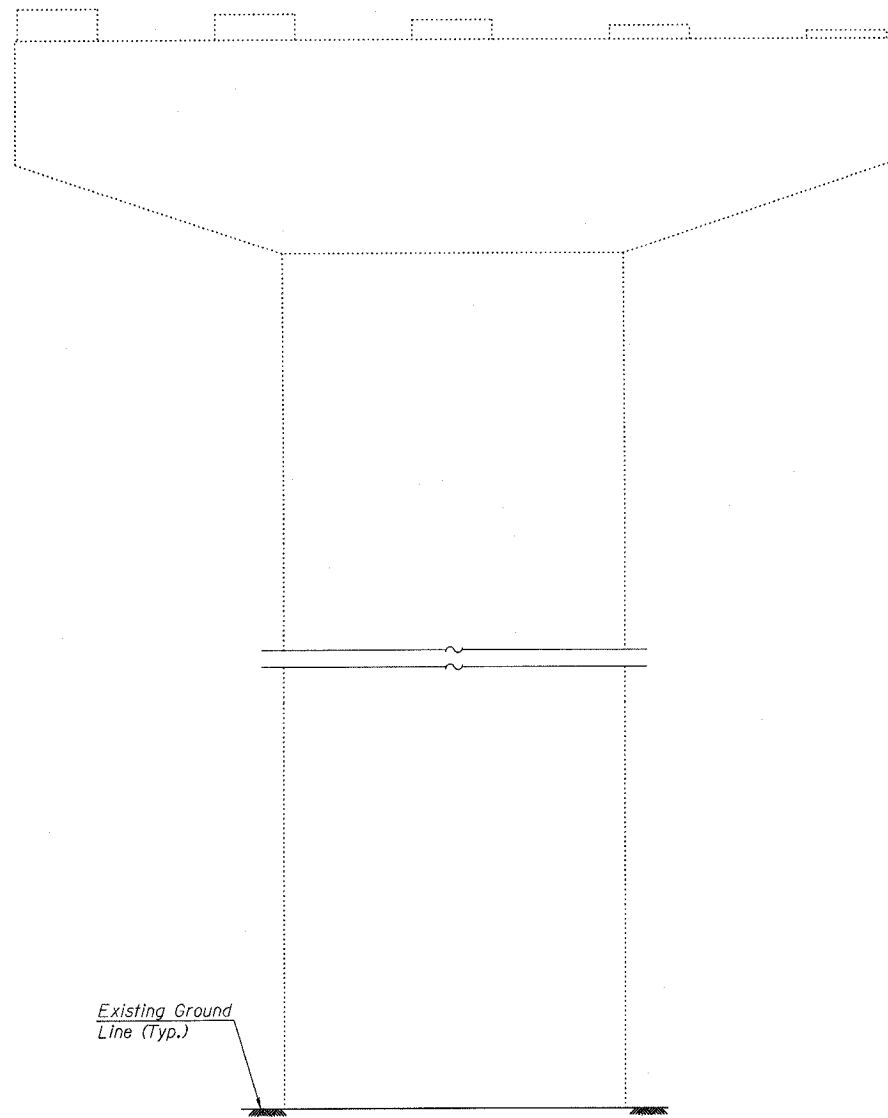
ROUTE NO. F.A.I. 39	SECTION 50-4B	COUNTY LASALLE	TOTAL SHEETS 300	SHEET NO. 300	SHEET NO. 277 313 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract # 66586



NOTES:

1. The quantities shown are for estimating purposes only. The area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the as-built plans.



LEGEND

Structural Repair of Concrete (Depth equal to or less than 5")
SF Square Feet

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SF	0.8

DESIGNED	ADB
CHECKED	DLS
DRAWN	KHH
CHECKED	MTH

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210 W. Chestnut
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FAX (217) 483-4706

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450
Job # 3856

PIER REPAIR - PIER 27 NB
ABRAHAM LINCOLN MEMORIAL BRIDGE OVER
THE ILLINOIS RIVER (PUBLIC WATERS)
F.A.I. ROUTE 39 SEC. (50-4B) BR
LASALLE COUNTY
STATION 863+16.00
STRUCTURE NO. 050-0191 (SB & NB)

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