

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2011-068-BR	COOK	21	1
		ILLINOIS	CONTRACT NO. 60P87	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENTS ARE LOCATED IN THE CITY OF CHICAGO.

**PROPOSED
HIGHWAY PLANS**

LOCATION 1: FAP ROUTE 391: 39TH ST AT RACINE & RR
LOCATION 2: FAI ROUTE 90/94: I-90/94 AT ASHLAND AVE.

SECTION: 2011-068-BR
SUBSTRUCTURE REPAIRS
COOK COUNTY

C-91-625-11

TRAFFIC DATA

39TH ST. (PERSHING RD):
2006 ADT = 17,000
POSTED SPEED LIMIT = 30 MPH

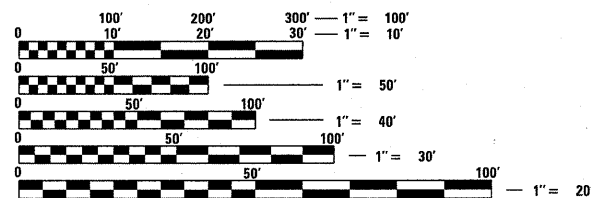
RACINE AVE:
2010 ADT = 2,900
POSTED SPEED LIMIT = 30 MPH

I-90/94:
2009 ADT = 323,400
POSTED SPEED LIMIT = 55 MPH

ASHLAND AVE:
2010 ADT = 34,100
POSTED SPEED LIMIT = 20 MPH

CORTLAND ST:
2010 ADT = 13,200
POSTED SPEED LIMIT = 20 MPH

LOCATION 2: SN 016-0133
I-90/94 OVER ASHLAND AVE.

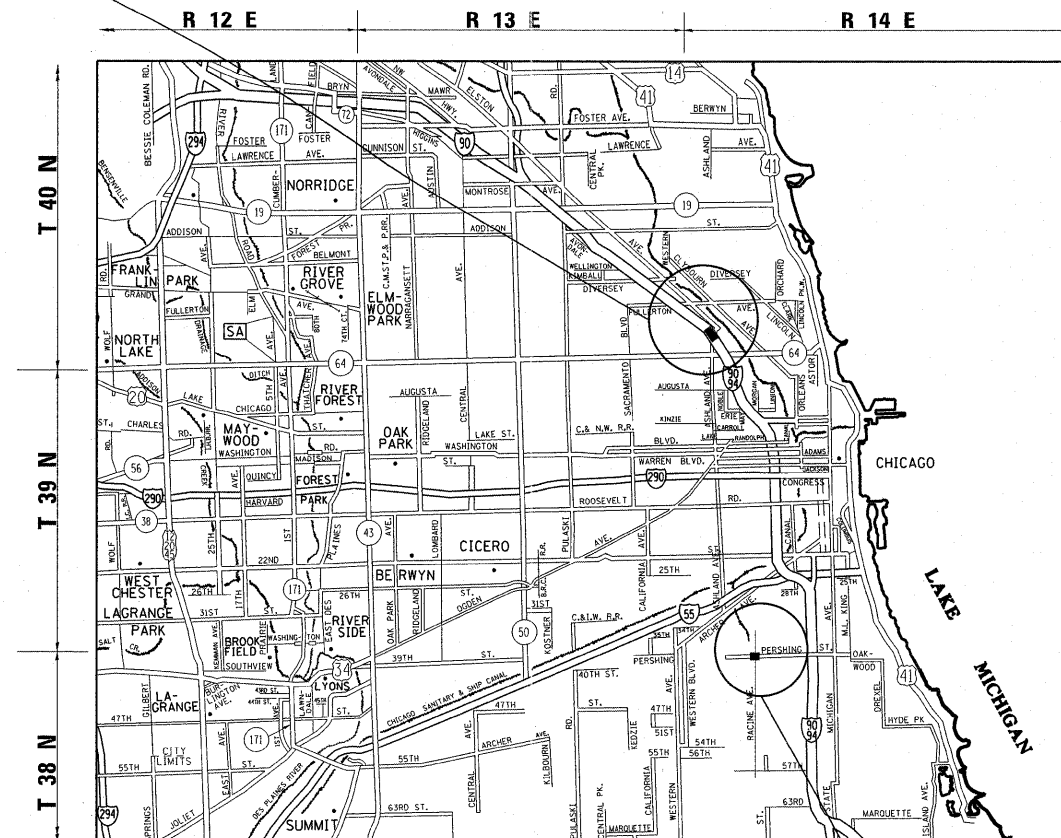


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

C.U.A.N.
CHICAGO UTILITY ALERT NETWORK
(312) 744-7000

PROJECT ENGINEER ROBERT BORO (847) 705-4237
PROJECT MANAGER ISSAM RAYYAN

CONTRACT NO. 60P87



LOCATION 1:
GROSS LENGTH = NET LENGTH = 652.20FT. = 0.124MILE
LOCATION 2:
GROSS LENGTH = NET LENGTH = 1547.40FT. = 0.293MILE
TOTAL LENGTH = 2199.60FT. = 0.417MILE

LOCATION 1: SN 016-0396
39TH ST OVER RACINE AVE. & RR



LOCATION OF SECTION INDICATED THIS: - [Symbol] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 12-23 20 11

Dean Okin
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 3 20 12
John D. Baranzelli, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

February 3 20 12
William R. Frye, Jr.
acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
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9-18	SUBSTRUCTURE REPAIRS
19	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE (TC-09)
20	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)
21	ARTERIAL ROAD INFORMATION SIGN (TC-22)

STATE STANDARDS

STANDARD NO.	DESCRIPTION
701400-05	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-06	LANE CLOSURE, FREEWAY/EXPRESSWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-08	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS & CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION & ORDERING OF MATERIALS.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 FOR ARTERIALS AND (847)705-4151 FOR EXPRESSWAYS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE "ARTERIAL ROAD INFORMATION SIGN (TC-22)" IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.

CONCRETE SUPERSTRUCTURE SHALL HAVE A SEVEN DAY MINIMUM CURE.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 36, UNLESS OTHERWISE NOTED.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS $\frac{3}{4}$ " ϕ , OPEN HOLES $\frac{1}{8}$ " ϕ , UNLESS OTHERWISE NOTED.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS, SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

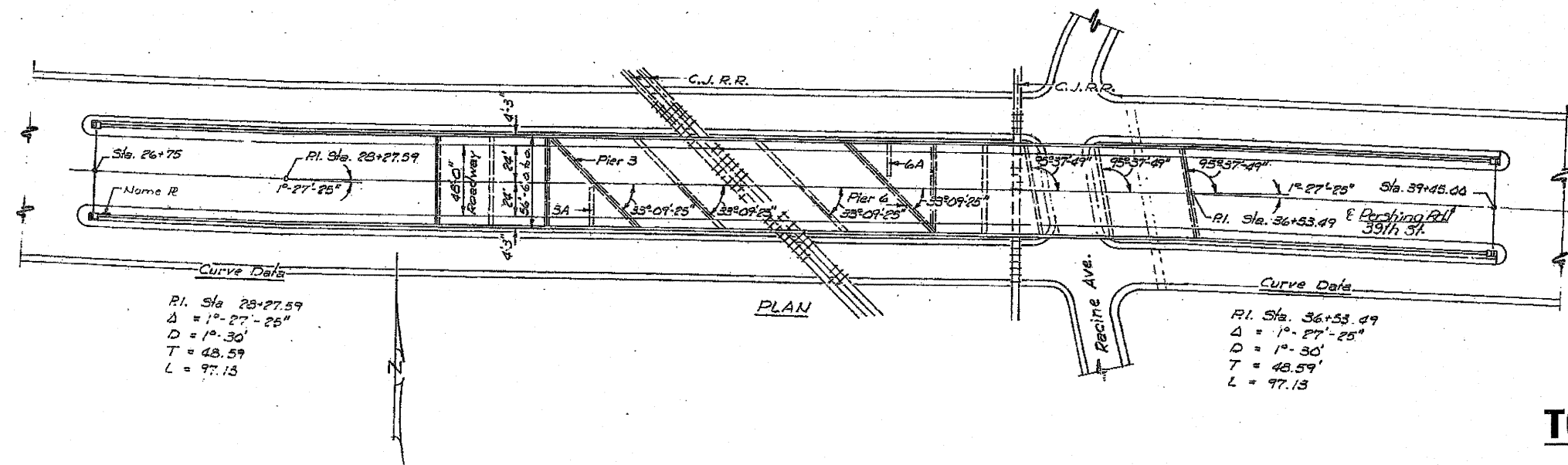
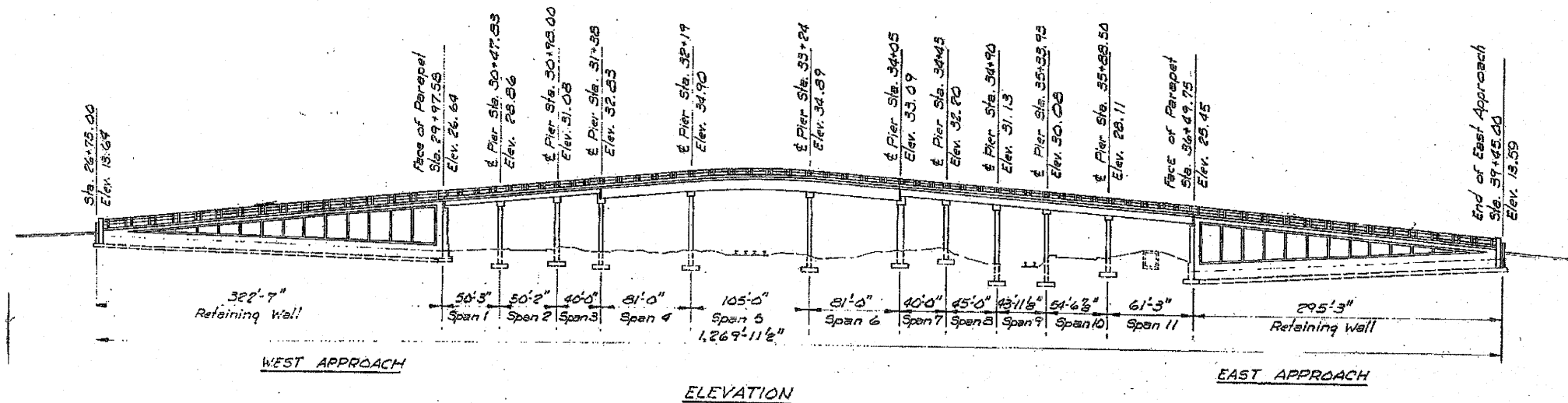
ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M300, TYPE 1. COST INCLUDED WITH STRUCTURAL STEEL REPAIR.

DIAPHRAGM CONNECTION HOLES SHALL BE $\frac{1}{8}$ " ϕ FOR $\frac{3}{4}$ " ϕ BOLTS. TWO HARDENED WASHERS SHALL BE REQUIRED AT DIAPHRAGM CONNECTIONS.

FILE NAME =	USER NAME = pstelar	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cs:\pr_work\pwidot\petelar\d0283496\0162	11-sht-plan.dgn	DRAWN -	REVISED -			90/94	2011-068-BR	COOK	21	2	
	PLOT SCALE = 50,0000' / 1"v	CHECKED -	REVISED -			CONTRACT NO. 60P87					
	PLOT DATE = 12/22/2011	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE:	SHEET NO. OF SHEETS STA.		TO STA.			

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE: 0014						SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE							
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	FAD 391		FAI 9094		CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE							
				LOC 1	LOC 2	LOC 1	LOC 2												
				016-0396	016-0133	0014	0014												
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	1.5	1.5														
67100100	MOBILIZATION	L SUM	1	0.5	0.5														
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.5	0.5														
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1		1														
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1		1														
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1		1														
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1		1														
Z0001901	JACK AND REPOSITION BEARINGS	EACH	1	1															
Z0001905	STRUCTURAL STEEL REPAIR	POUND	730	730															
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	669	124	545														
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	55	55															
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	102.8	51.4	51.4														
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1		1														
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	40	17	23														

Rev.



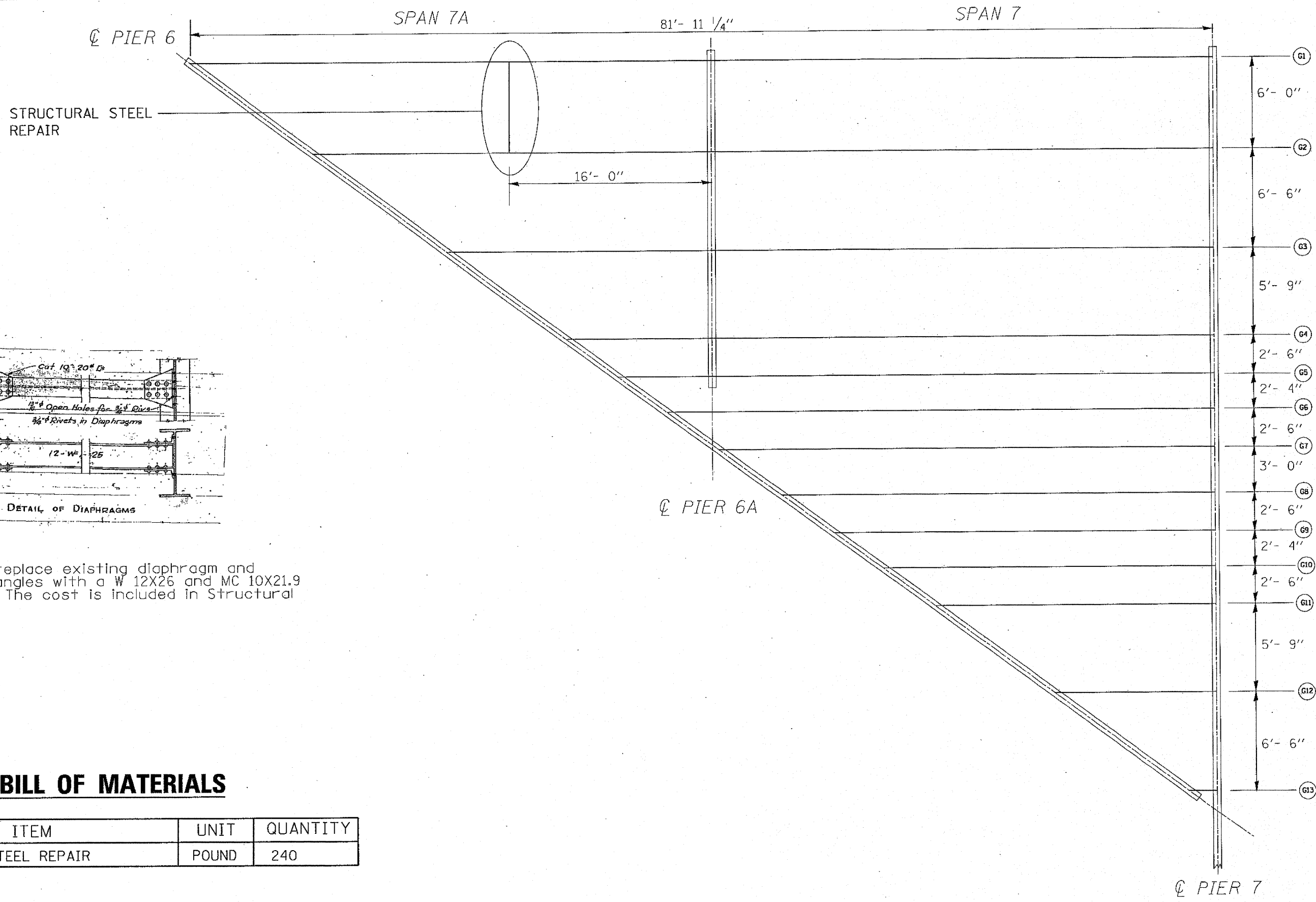
TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ. FT.	124.0
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5")	SQ. FT.	55.0
STRUCTURAL STEEL REPAIR	POUND	730
TEMPORARY SHORING AND CRIBBING	EACH	17
JACK & REPOSITION BEARING	EACH	1



David Carl Puzey 1/31/12
Exp. 11/30/12

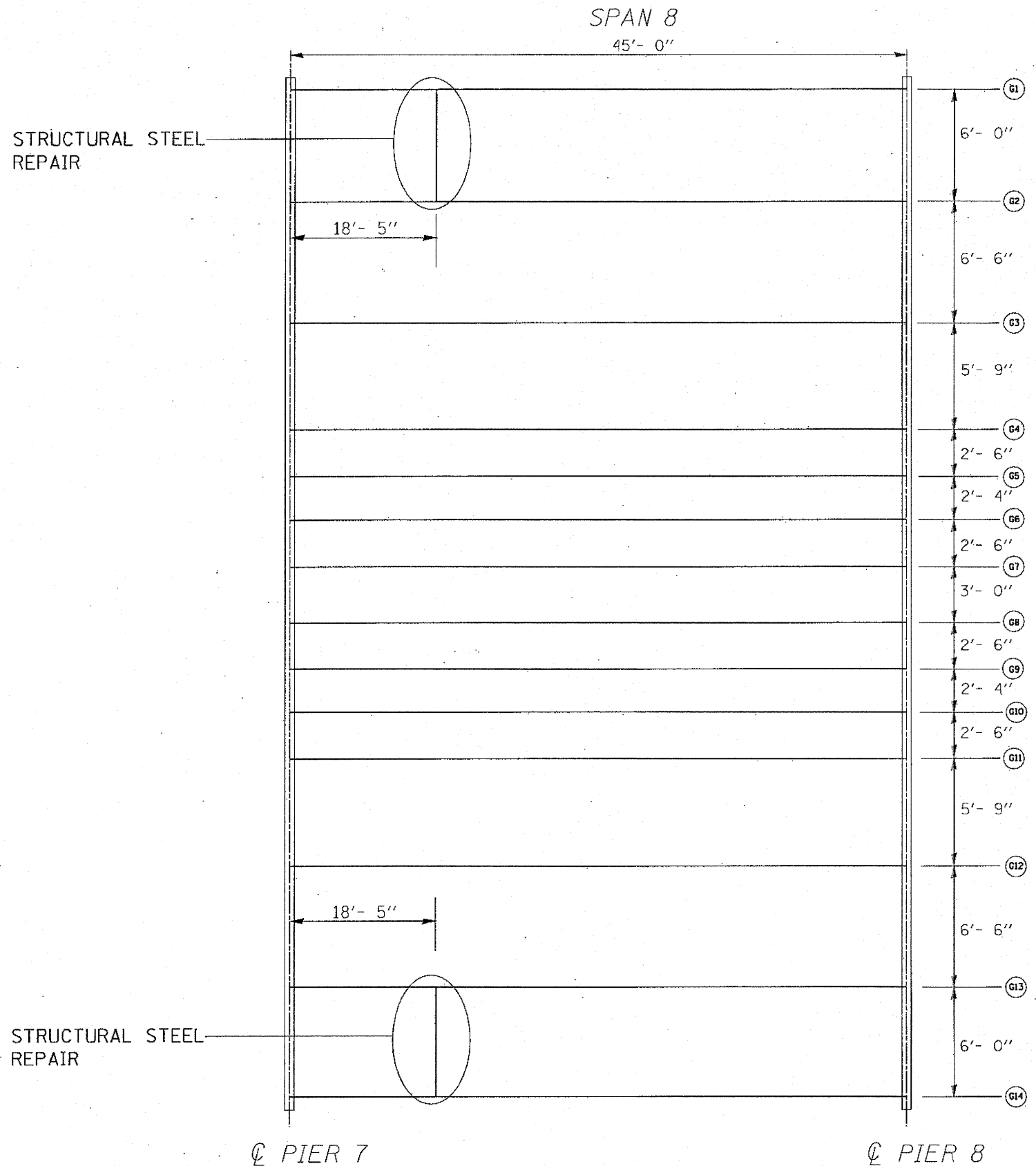
FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	39TH ST. (PERSHING RD) OVER RACINE AVE (SN 016-0396) ELEVATION AND GENERAL PLAN	F.A.I. RTE. 90/94	SECTION 2011-068-BR	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 4	
os:\pwork\pudat\curryw\d0283496\N1624	II-sht-plan.dgn	DRAWN - ARP	REVISED -			SCALE:	SHEET NO. 1 OF 7 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	
		CHECKED - AM	REVISED -								
		DATE - 12/22/11	REVISED -								



BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL REPAIR	POUND	240

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	39TH ST. (PERSHING RD) OVER RACINE AVE (SN 016-0396) STRUCTURAL STEEL REPAIR	P.A.I. RTE. 90/94	SECTION 2011-068-BR	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 5	
on\pwork\p\dot\curryw\ad283496\016211-eh-1-plan.dgn	PLOT SCALE = 3/4" = 1'-0"	DRAWN - ARP	REVISED -			SCALE:	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 60P87	
PLOT DATE = 1/19/2012	DATE = 12/22/11	CHECKED - AM	REVISED -								

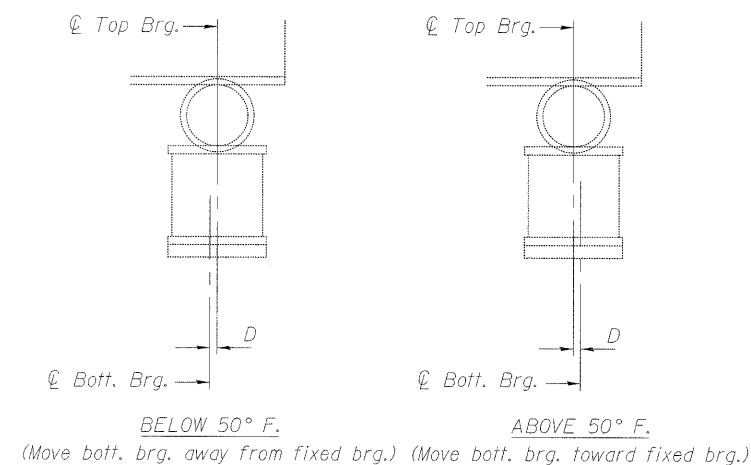
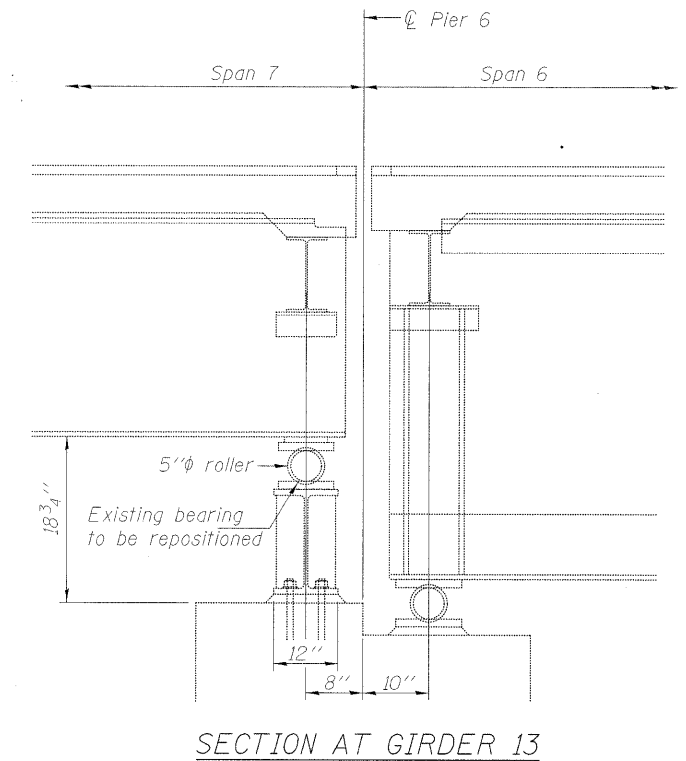
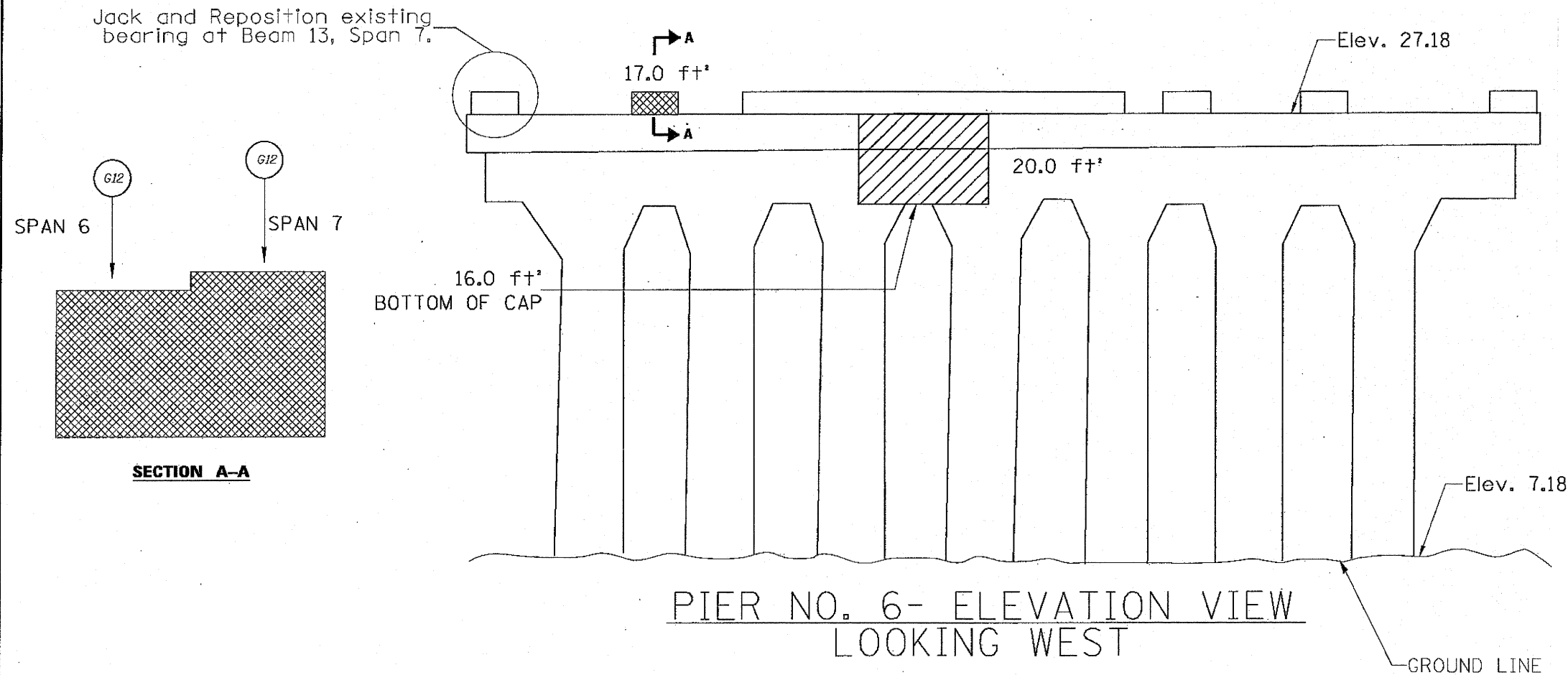


NOTE:
Remove and replace existing diaphragms and channel clip angles with a W 12X26 and MC 10X21.9 respectively. The cost is included in Structural Steel Repair.
See Sheet 5 of 21 for diaphragm detail.

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL STEEL REPAIR	POUND	490

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	39TH ST. (PERSHING RD) OVER RACINE AVE (SN 016-0396) STRUCTURAL STEEL REPAIR	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\dot\curryw\08283496\0162	01-sht-plan.dgn	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	6
PLOT SCALE = 3/4" = 1' / m		CHECKED - AM	REVISED -			CONTRACT NO. 60P87				
PLOT DATE = 1/19/2012		DATE - 12/22/11	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE:	SHEET NO. 3 OF 7 SHEETS	STA.	TO STA.			



— Structural Repair of Concrete (Depth equal to or less than 5")

— Structural Repair of Concrete (Depth greater than 5")

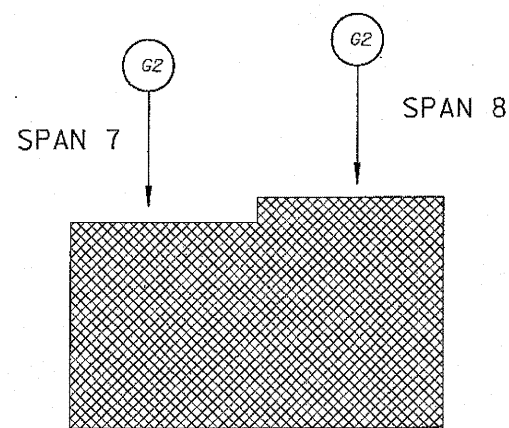
— Temporary Shoring and Cribbing

NOTES: Beams are numbered from North to South end of the Pier.

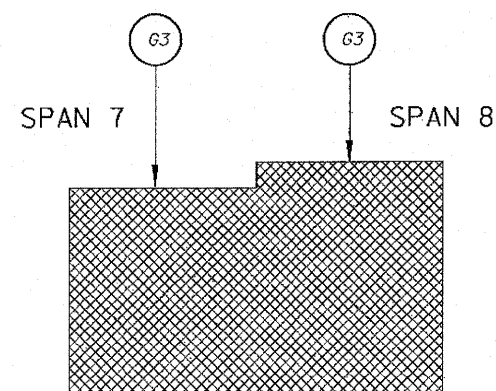
REACTION TABLE		
PIER 6	SPAN 6	SPAN 7
Reaction DL	28.2 kips	13.9 kips
Reaction SDL	25.8 kips	12.8 kips
Reaction LL	37.6 kips	32.6 kips
Reaction Impact	9.14 kips	9.78 kips
Reaction Total	100.74 kips	69.08 kips

BILL OF MATERIAL

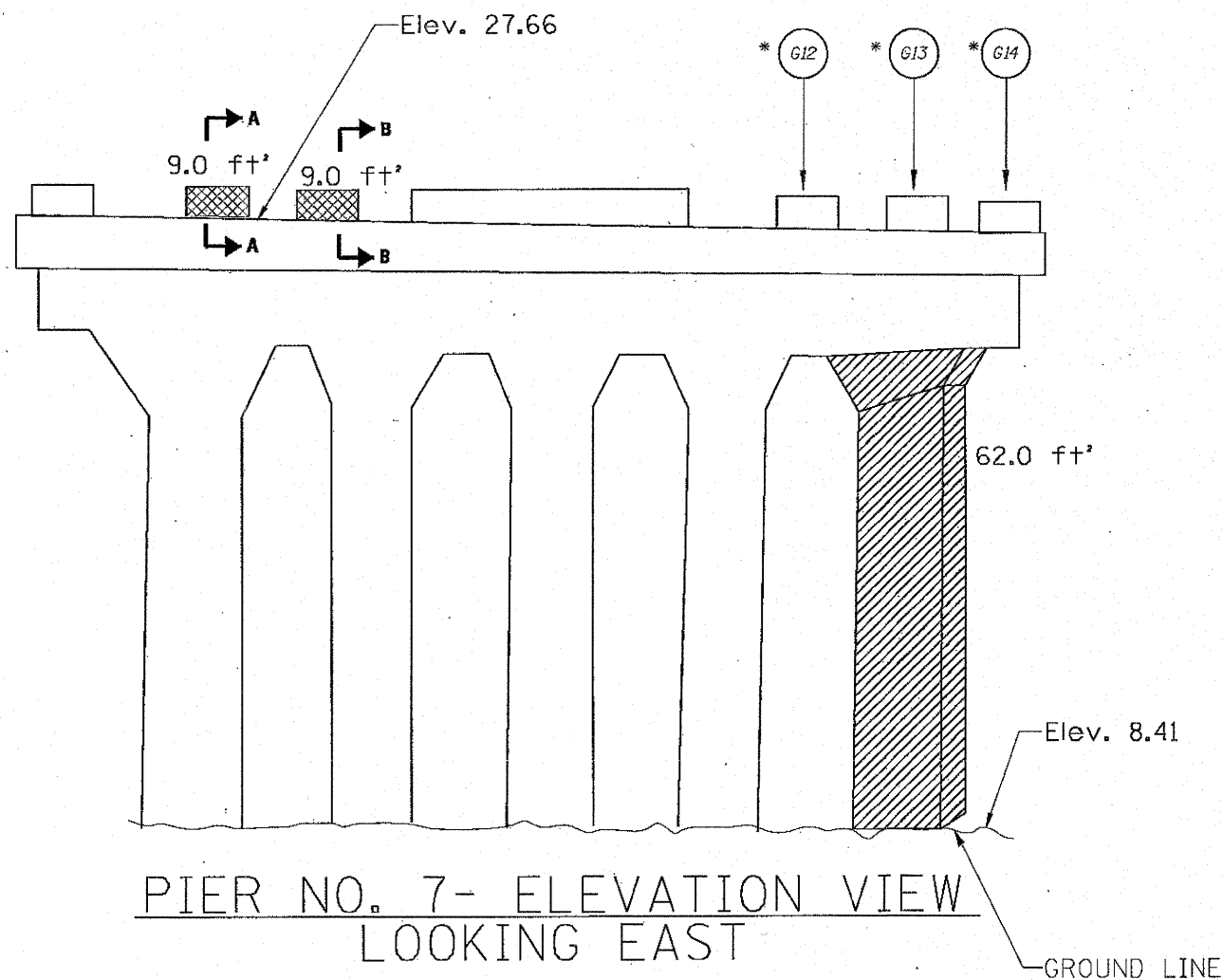
ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	36.0
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	17.0
Temporary Shoring and Cribbing	EACH	2
Jack & Reposition Bearing	EACH	1




SECTION A-A

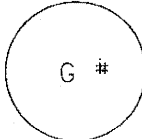


SECTION B-B



 — Structural Repair of Concrete (Depth equal to or less than 5")

 — Structural Repair of Concrete (Depth greater than 5")

 — Temporary Shoring and Cribbing

NOTES: Beams are numbered from North to South end of the Pier.

* Temporary Shoring and Cribbing required for East Face and West Face of Pier.

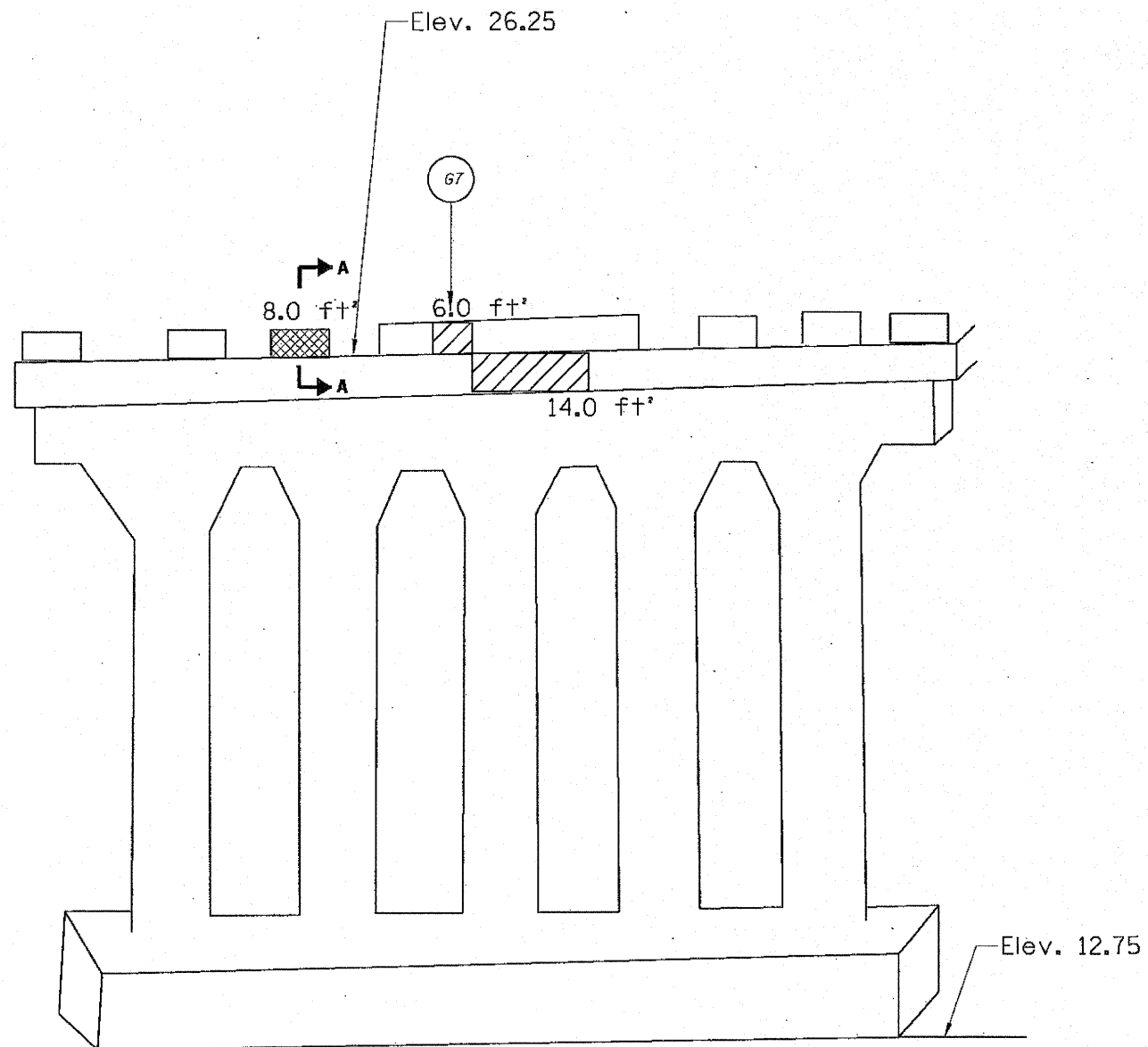
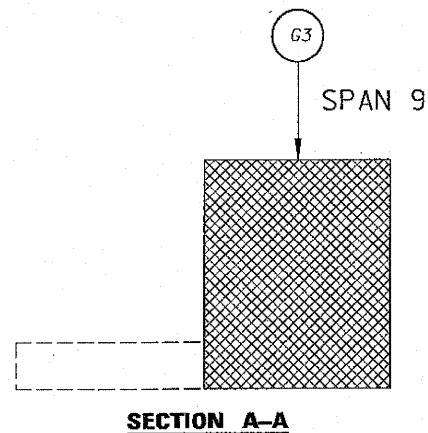
REACTION TABLE

PIER 7	
Reaction DL	15.8 kips
Reaction SDL	14.3 kips
Reaction LL	33.7 kips
Reaction Impact	10.1 kips
Reaction Total	73.91 kips

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	62.0
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	18.0
Temporary Shoring and Cribbing	EACH	10

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	39TH ST. (PERSHING RD) OVER RACINE AVE (SN 016-0396) SUBSTRUCTURE REPAIRS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\curryw\d8283498\0162	11-shr-plan.dgn	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	8	
PLOT SCALE = 3/4" = 1' - 0"		CHECKED - AM	REVISED -			CONTRACT NO. 60P87					
PLOT DATE = 1/19/2012		DATE - 12/22/11	REVISED -			ILLINOIS FED. AID PROJECT					



▨ —Structural Repair of Concrete (Depth equal to or less than 5")

▩ —Structural Repair of Concrete (Depth greater than 5")

○ G # — Temporary Shoring and Cribbing

NOTES: Beams are numbered from North to South end of the Pier.

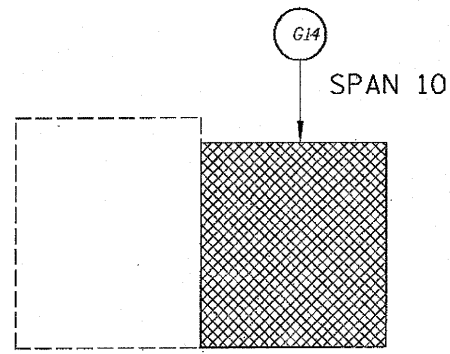
PIER NO. 9- ELEVATION VIEW
LOOKING EAST

REACTION TABLE	
PIER 9	
Reaction DL	19.2 kips
Reaction SDL	17.4 kips
Reaction LL	35.3 kips
Reaction Impact	9.88 kips
Reaction Total	81.78 kips

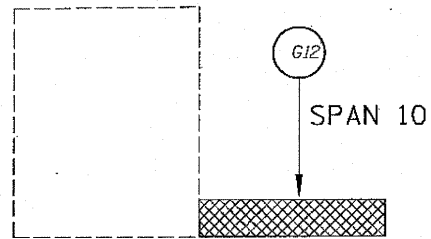
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	20.0
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	8.0
Temporary Shoring and Cribbing	EACH	2

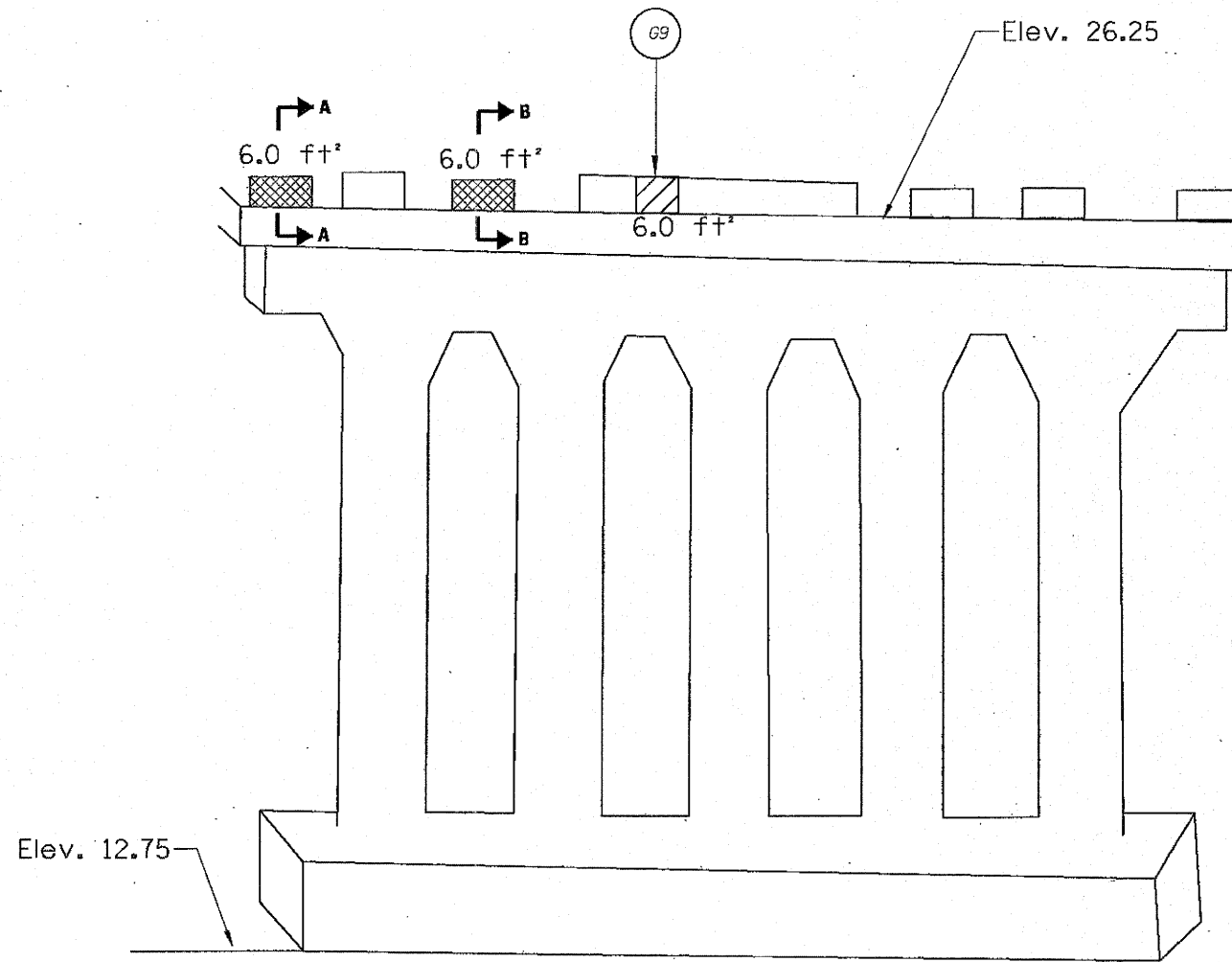
FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	39TH ST. (PERSHING RD) OVER RACINE AVE (SN 016-0396) SUBSTRUCTURE REPAIRS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
o:\p\work\p\dot\curryw\0283496\016211-sht-plan.dgn	PLOT SCALE = 3/4" = 1' = 3042.6523 mm	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	9
	PLOT DATE = 1/19/2012	CHECKED - AM	REVISED -			SCALE: SHEET 6 OF 7 SHEETS STA. TO STA.		CONTRACT NO. 60P87		
		DATE - 12/22/11	REVISED -			ILLINOIS FED. AID PROJECT				




SECTION A-A




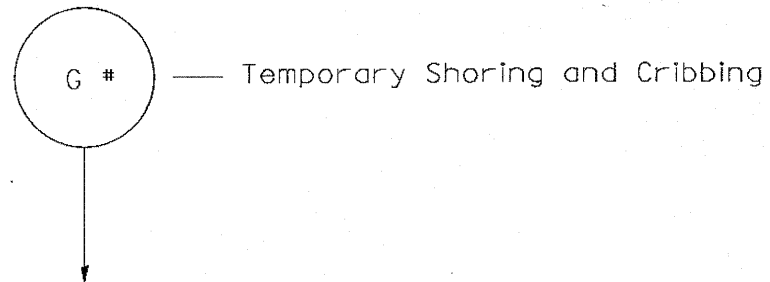
SECTION B-B



**PIER NO. 9- ELEVATION VIEW
LOOKING WEST**

 —Structural Repair of Concrete (Depth equal to or less than 5")

 —Structural Repair of Concrete (Depth greater than 5")



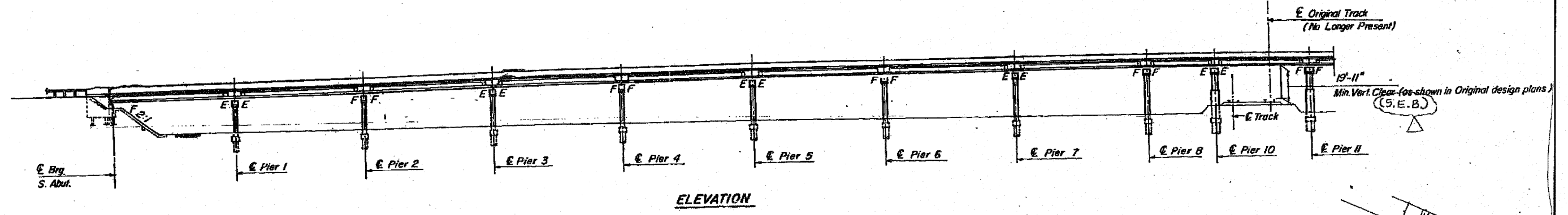
NOTES: Beams are numbered from North to South end of the Pier.

REACTION TABLE	
PIER 9	
Reaction DL	19.2 kips
Reaction SDL	17.4 kips
Reaction LL	35.3 kips
Reaction Impact	9.88 kips
Reaction Total	81.78 kips

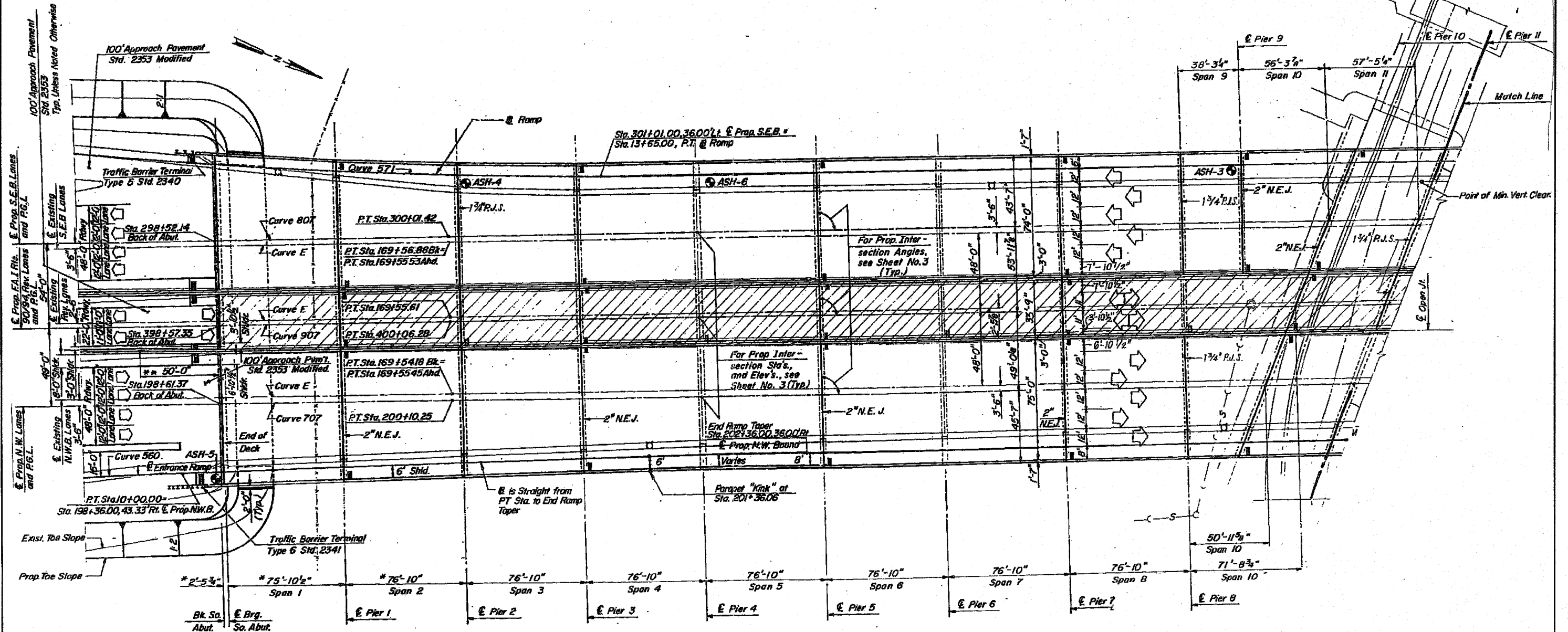
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	6.0
Structural Repair of Concrete (Depth greater than 5")	SQ. FT.	12.0
Temporary Shoring and Cribbing	EACH	3

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	39TH ST. (PERSHING RD) OVER RACINE AVE (SN 016-0396) SUBSTRUCTURE REPAIRS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\curryw\09283496\016283496\shs\plan.dgn	11-shs\plan.dgn	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	10
PLOT SCALE = 3942.6523' / 1"	CHECKED - AM	REVISED -	REVISED -			CONTRACT NO. 60P87				
PLOT DATE = 1/19/2012	DATE - 12/22/11	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT				



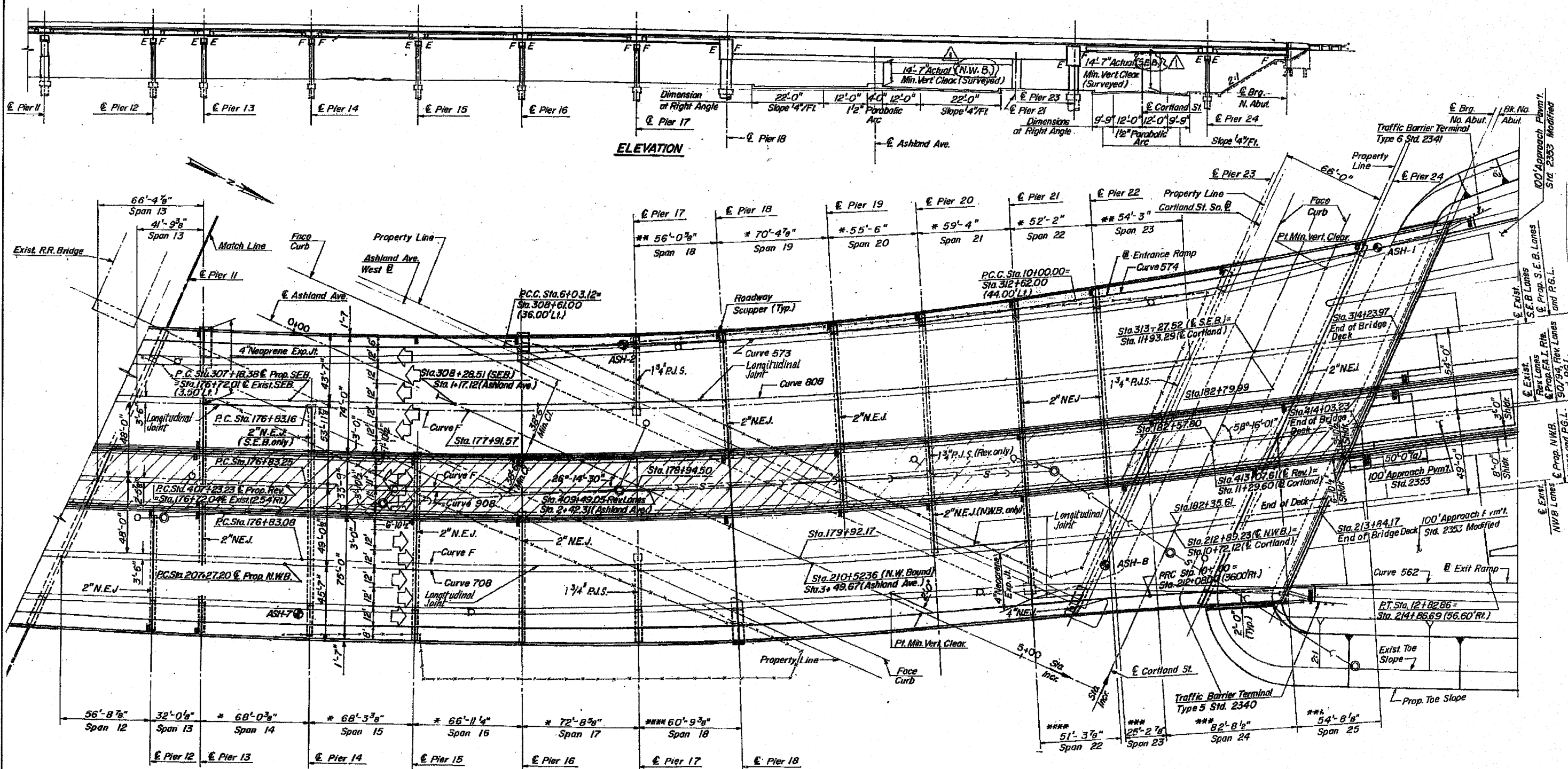
ELEVATION



PLAN

* Measured at Rt. Angles to \bar{E} Substructure
 ** 50'-0" - Transition Length for Shoulder Widths
 (At open Joint between Rev. Lanes and N.W.B. Lanes only)

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-90/4 OVER ASHLAND AVE. (SN 016-0133) ELEVATION AND GENERAL PLAN	F.A.I. RTE. 90/94	SECTION 2011-068-BR	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 11
CONTRACT NO. 60P87	SCALE:	SHEET NO. 1 OF 8 SHEETS	STA. TO STA.			ILLINOIS FED. AID PROJECT				
PLOT SCALE = 3/4" = 3942.6623' / m	CHECKED - AM	REVISED -								
PLOT DATE = 1/19/2012	DATE = 12/22/11	REVISED -								

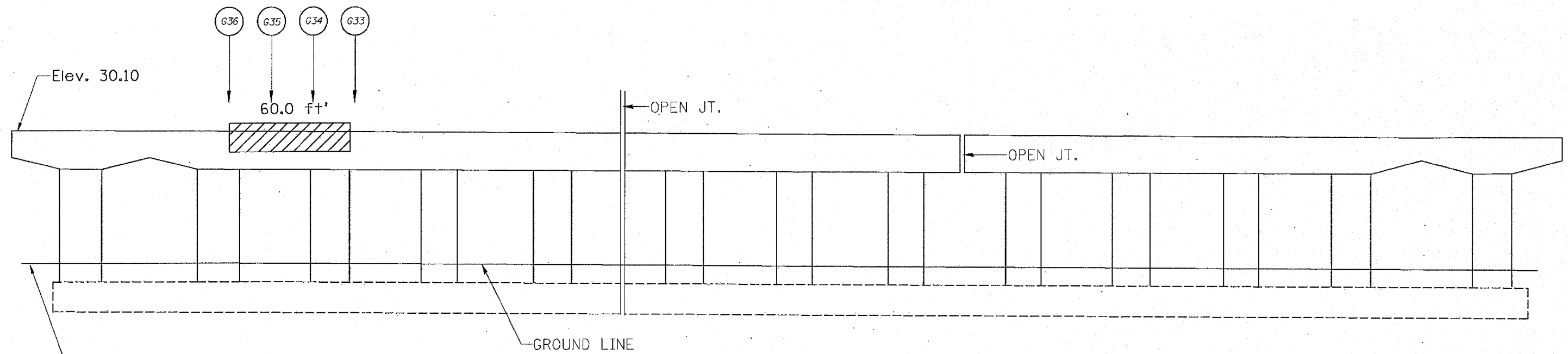


ELEVATION

PLAN

* Measured at Rt. Angles to \bar{C} Substructure
 ** Measured along \bar{C} S.E. Bound Lanes
 *** Measured along \bar{C} Reversible Lanes
 **** Measured along \bar{C} N.W. Bound Lanes

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-9094 OVER ASHLAND AVE. (SN 016-0133) ELEVATION AND GENERAL PLAN	F.A.I. RTE. 90/94	SECTION 2011-068-BR	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 12
CONTRACT NO. 60P87	SCALE: SHEET NO. 2 OF 8 SHEETS	CHECKED - AM	REVISED -			STATION TO STATION	ILLINOIS FED. AID PROJECT			
DATE - 12/22/11	DATE - 12/22/11	REVISOR -	REVISOR -							



PIER NO. 1- ELEVATION VIEW
LOOKING SOUTH

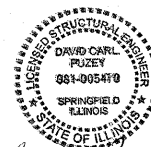
TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ. FT.	545.0
TEMPORARY SHORING AND CRIBBING	EACH	23

▨ — Structural Repair of Concrete (Depth equal to or less than 5")

○ G # — Temporary Shoring and Cribbing

NOTES: Beams are numbered from West to East end of the Pier.



David Carl Puzey 1/31/12
Expires 11/30/12

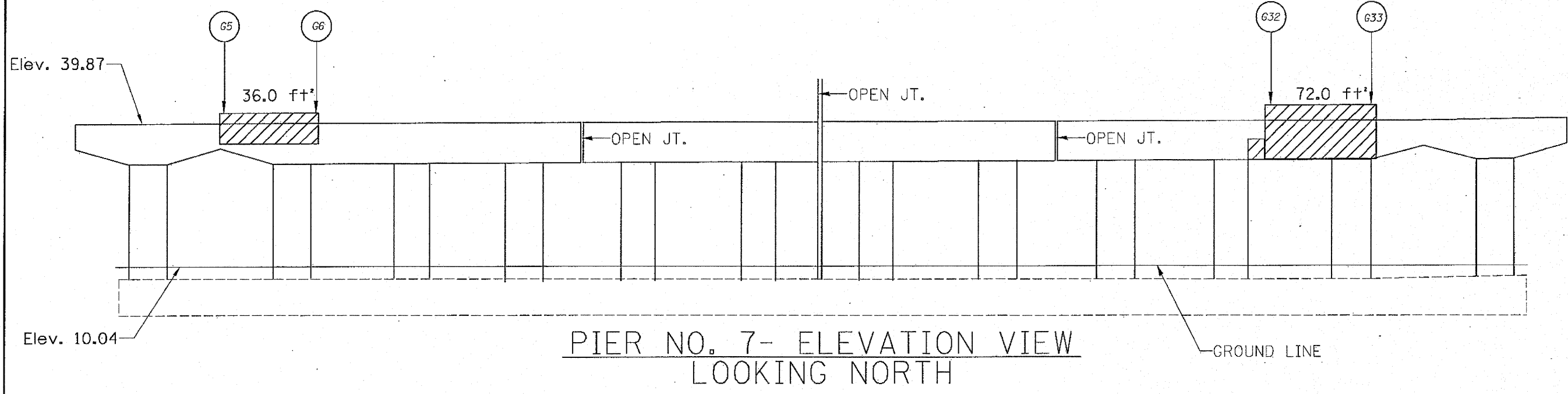
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	60.0
Temporary Shoring and Cribbing	EACH	4

REACTION TABLE

PIER 1	
Reaction DL	54.4 kips
Reaction SDL	10.4 kips
Reaction LL	30.7 kips
Reaction Impact	7.61 kips
Reaction Total	103.11 kips

FILE NAME =	USER NAME = curryev	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-90/94 OVER ASHLAND AVE. (SN 016-0133) SUBSTRUCTURE REPAIRS	F.A.I. RTE. 90/94	SECTION 2011-068-BR	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 13
DRAWN - ARP	CHECKED - AM	REVISED -	SCALE:			SHEET 3 OF 8 SHEETS STA.	TO STA.	CONTRACT NO. 60P87		
PLOT SCALE = 3942.8523' / m	DATE - 12/22/11	REVISED -	ILLINOIS FED. AID PROJECT							
PLOT DATE = 1/19/2012		REVISED -								



▨ — Structural Repair of Concrete (Depth equal to or less than 5")

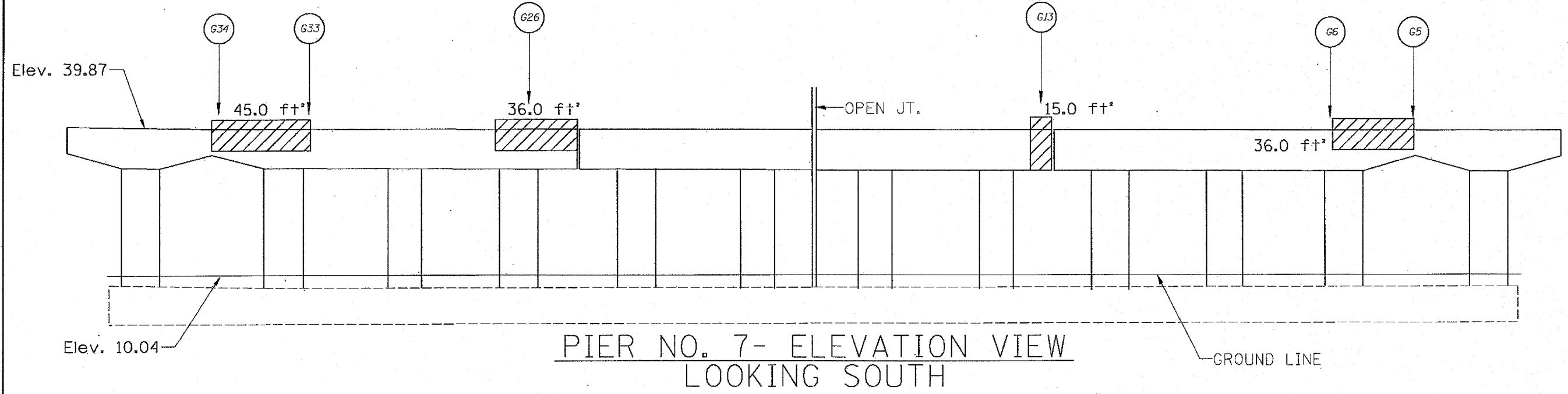
○ G # — Temporary Shoring and Cribbing

NOTES: Beams are numbered from West to East end of the Pier.

REACTION TABLE	
PIER 7	
Reaction DL	54.4 kips
Reaction SDL	10.4 kips
Reaction LL	36.9 kips
Reaction Impact	9.15 kips
Reaction Total	110.85 kips

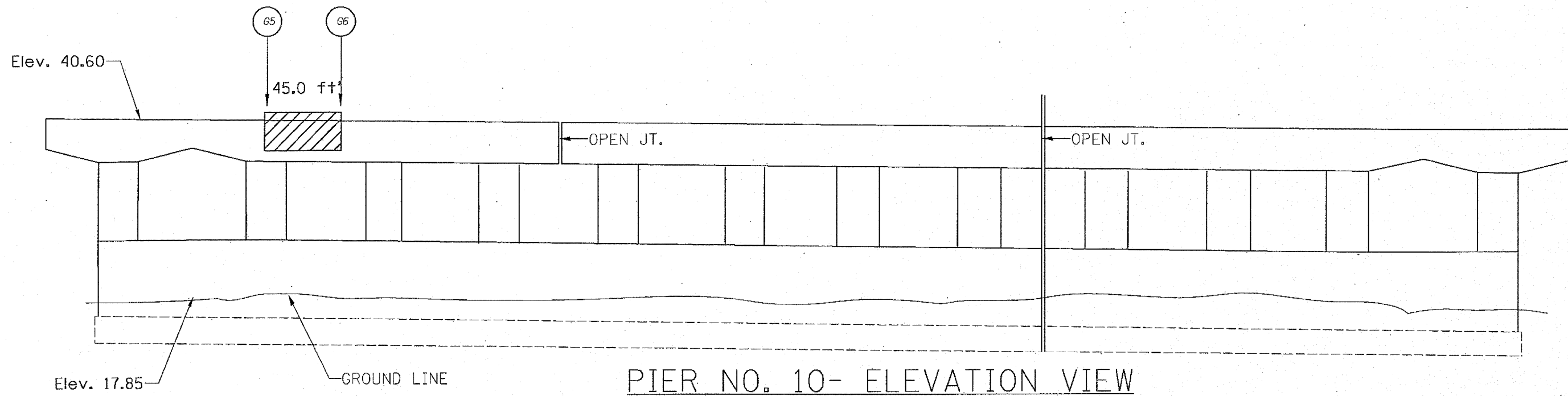
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	240.0
Temporary Shoring and Cribbing	EACH	10



FILE NAME =	USER NAME = ourryow	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-9094 OVER ASHLAND AVE. (SN 016-0133) SUBSTRUCTURE REPAIRS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pw_work\p\dot\ourryow\d0283496\0162911-sh1-plan.dgn	PLOT SCALE = 3942.6523' / m	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	14	
	PLOT DATE = 1/19/2012	CHECKED - AM	REVISED -			CONTRACT NO. 60P87					
		DATE - 12/22/11	REVISED -			ILLINOIS FED. AID PROJECT					

SCALE: SHEET 4 OF 8 SHEETS STA. TO STA.



PIER NO. 10- ELEVATION VIEW
LOOKING NORTH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	45.0
Temporary Shoring and Cribbing	EACH	2

REACTION TABLE

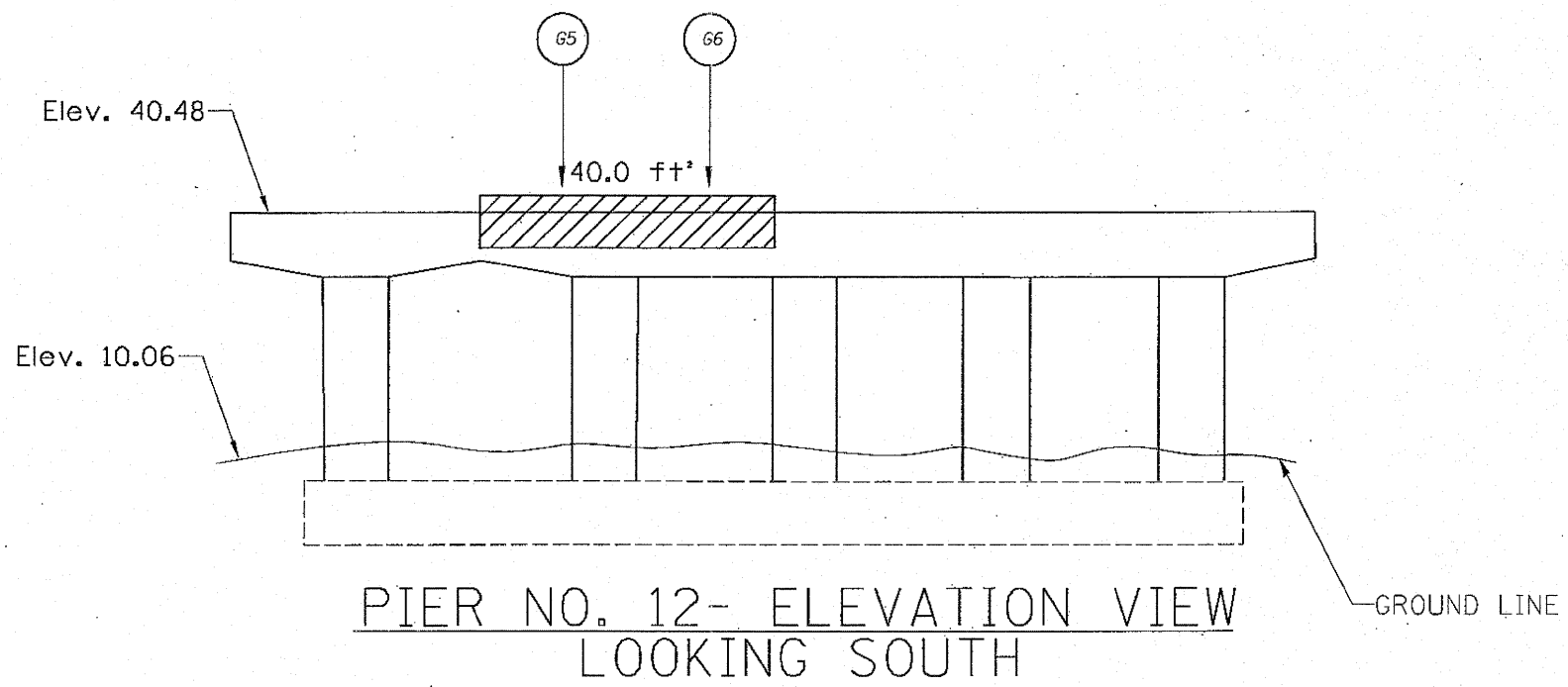
PIER 10	
Reaction DL	40.6 kips
Reaction SDL	7.8 kips
Reaction LL	46.6 kips
Reaction Impact	12.58 kips
Reaction Total	107.58 kips

— Structural Repair of Concrete (Depth equal to or less than 5")

— Temporary Shoring and Cribbing

NOTES: Beams are numbered from West to East end of the Pier.

D:\102511-shr-plan.dgn 1/19/2012 2:18:45 PM User=curryw



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	40.0
Temporary Shoring and Cribbing	EACH	2

REACTION TABLE

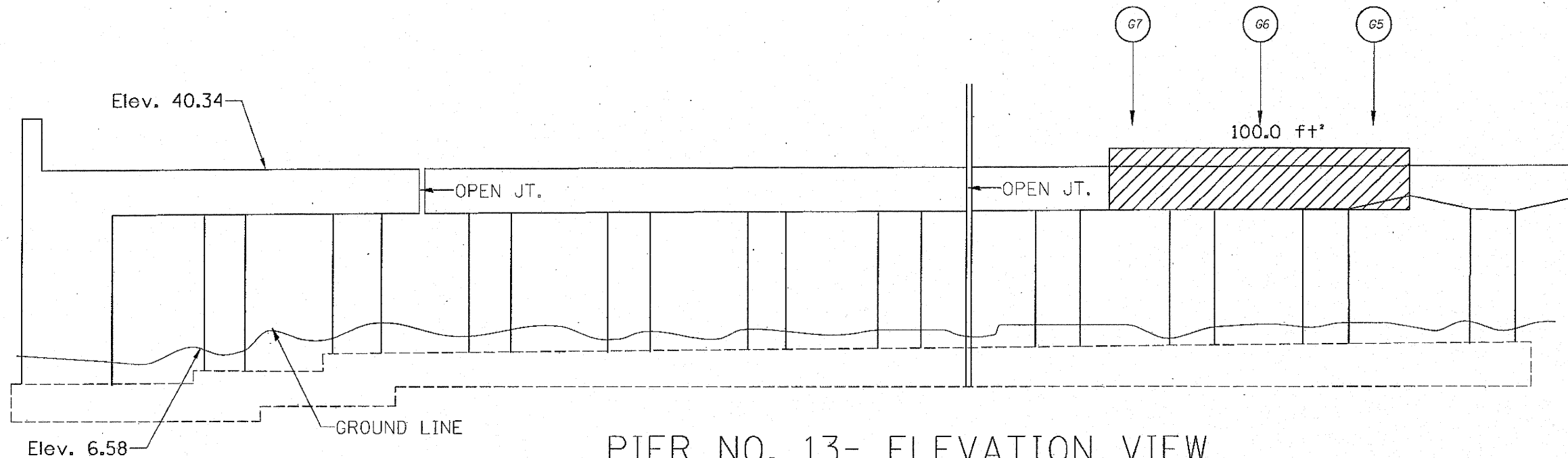
PIER 12	
Reaction DL	40.6 kips
Reaction SDL	7.8 kips
Reaction LL	46.6 kips
Reaction Impact	12.58 kips
Reaction Total	107.58 kips

— Structural Repair of Concrete (Depth equal to or less than 5")

— Temporary Shoring and Cribbing

NOTES: Beams are numbered from East to West end of the Pier.

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-90/94 OVER ASHLAND AVE. (SN 016-0133) SUBSTRUCTURE REPAIRS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\peditos\curryw\d8283496\0162	11-sht-plan.dgn	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	16
PLOT SCALE = 3/4" = 1' / m		CHECKED - AM	REVISED -			SCALE: SHEET 6 OF 8 SHEETS STA. TO STA.		CONTRACT NO. 60P87		
PLOT DATE = 1/19/2012		DATE - 12/22/11	REVISED -			ILLINOIS FED. AID PROJECT				



PIER NO. 13- ELEVATION VIEW
LOOKING NORTH

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	100.0
Temporary Shoring and Cribbing	EACH	3

REACTION TABLE

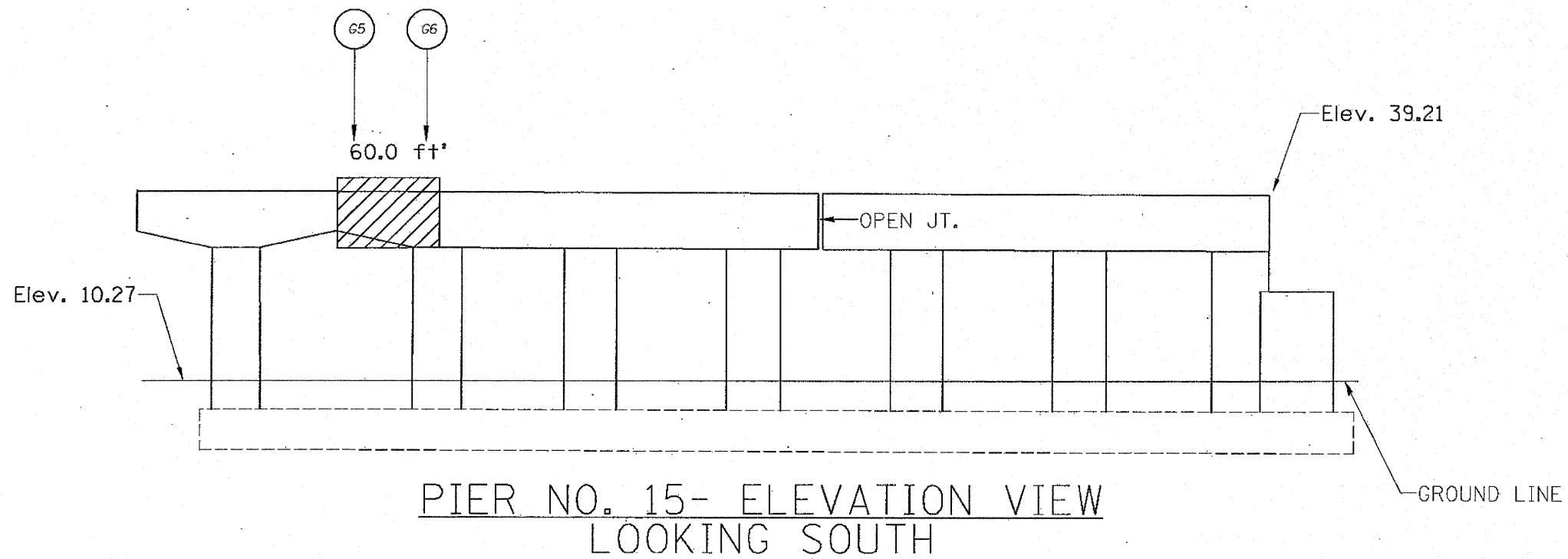
PIER 13	SPAN 14	SPAN 13
Reaction DL	48.2 kips	22.7 kips
Reaction SDL	9.2 kips	4.3 kips
Reaction LL	48.0 kips	39.5 kips
Reaction Impact	12.43 kips	11.85 kips
Reaction Total	117.83 kips	78.35 kips

— Structural Repair of Concrete (Depth equal to or less than 5")

— Temporary Shoring and Cribbing

NOTES: Beams are numbered from East to West end of the Pier.

FILE NAME =	USER NAME = curryw	DESIGNED - ARP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-90/4 OVER ASHLAND AVE. (SN 016-0133) SUBSTRUCTURE REPAIRS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\curryw\d8283496\01628	11-shit-plan.dgn	DRAWN - ARP	REVISED -			90/94	2011-068-BR	COOK	21	17
PLOT SCALE = 3/4" = 1' - 0"		CHECKED - AM	REVISED -			CONTRACT NO. 60P87				
PLOT DATE = 1/19/2012		DATE - 12/22/11	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE: 1" = 10' - 0"		SHEET 7 OF 8 SHEETS		STA. TO STA.		



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal to or less than 5")	SQ. FT.	60.0
Temporary Shoring and Cribbing	EACH	2

REACTION TABLE	
PIER 15	
Reaction DL	48.3 kips
Reaction SDL	9.3 kips
Reaction LL	37.4 kips
Reaction Impact	9.69 kips
Reaction Total	104.69 kips

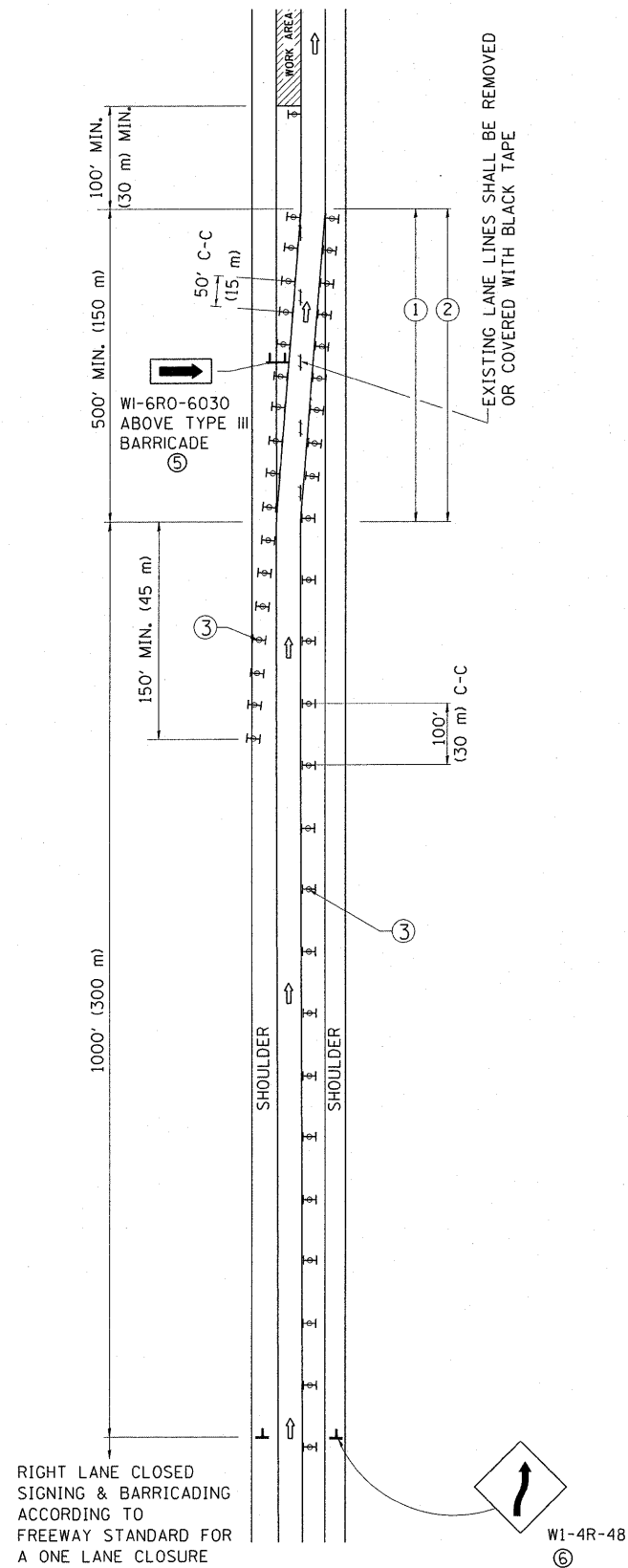
— Structural Repair of Concrete (Depth equal to or less than 5")

— Temporary Shoring and Cribbing

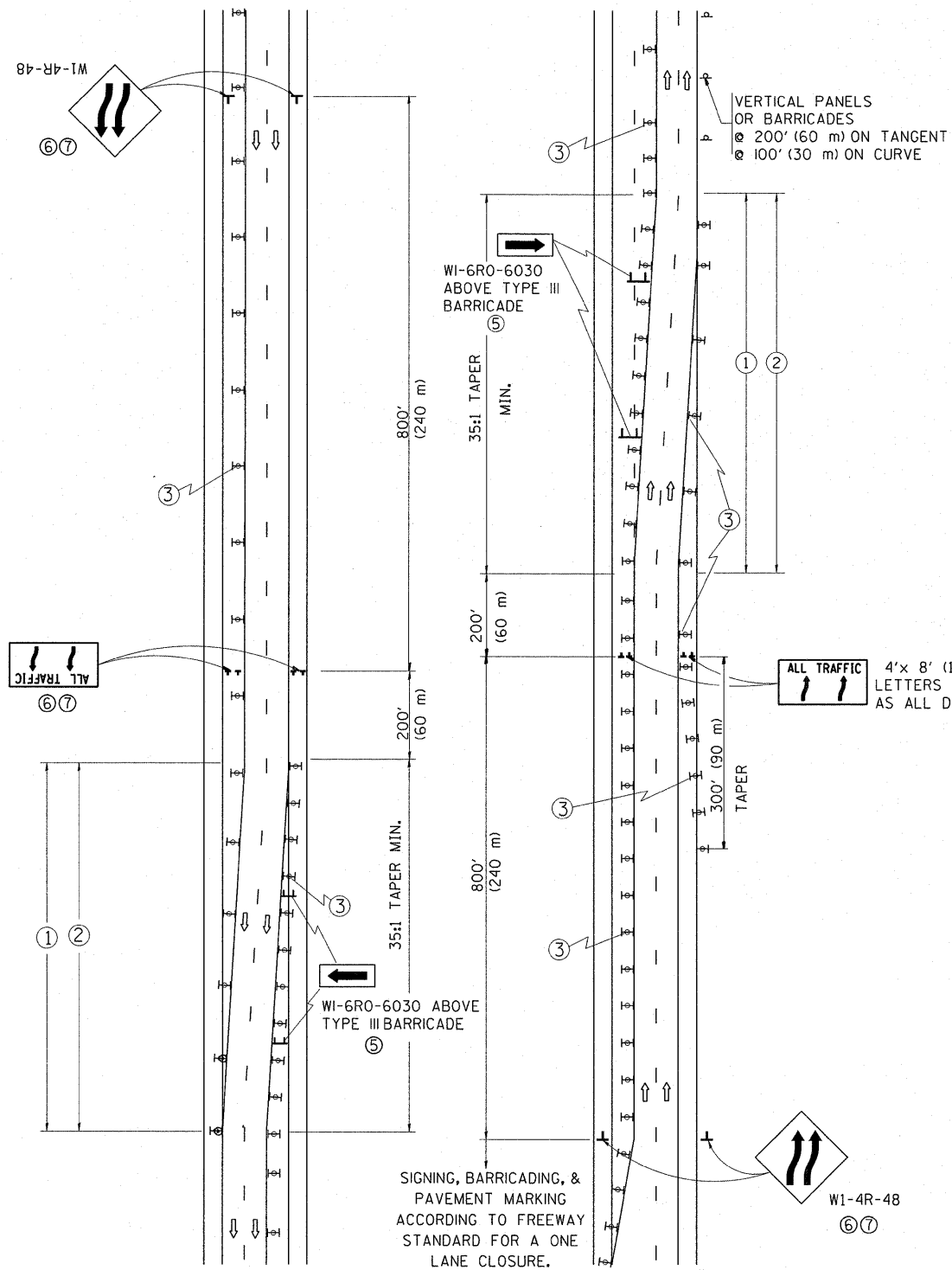
NOTES: Beams are numbered from East to West end of the Pier.

D:\62511-shr-plan.dgn 1/19/2012 2:18:01 PM User=curryw

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- ⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- ⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

4' x 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.

SYMBOLS

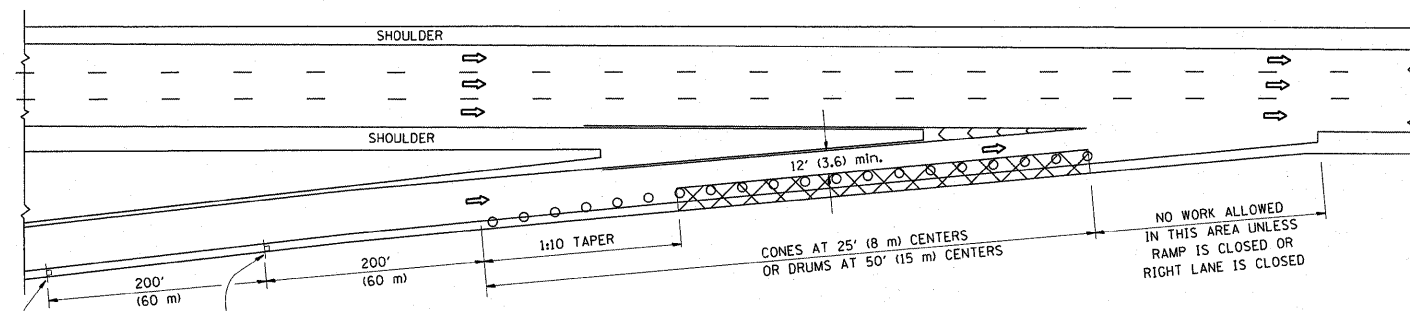
- DIRECTION OF TRAFFIC
 - WORK AREA
 - SIGN ON PORTABLE OR PERMANENT SUPPORT
 - TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- W1-4R-48
W24-1-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

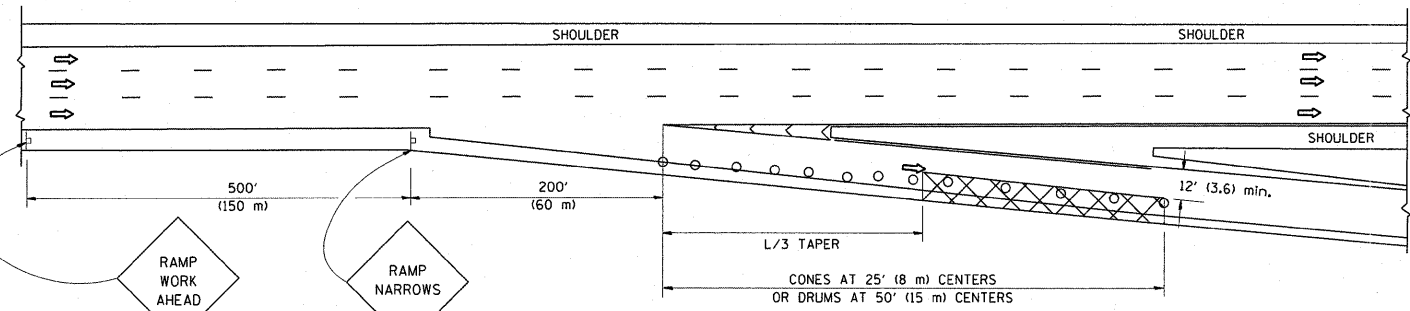
FILE NAME =	USER NAME = patelar	DESIGNED - DWS	REVISED - JAF 01-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE		F.A.I. RTE. 90/94	SECTION 2011-068-BR	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 19
PILOT SCALE = 50,0052' / in.	CHECKED -	REVISED - SPB 01-07	TC-09				CONTRACT NO. 60P87				
PILOT DATE = 12/22/2011	DATE = 02-87	REVISED - SPB 12-09	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PARTIAL RAMP CLOSURE DETAILS

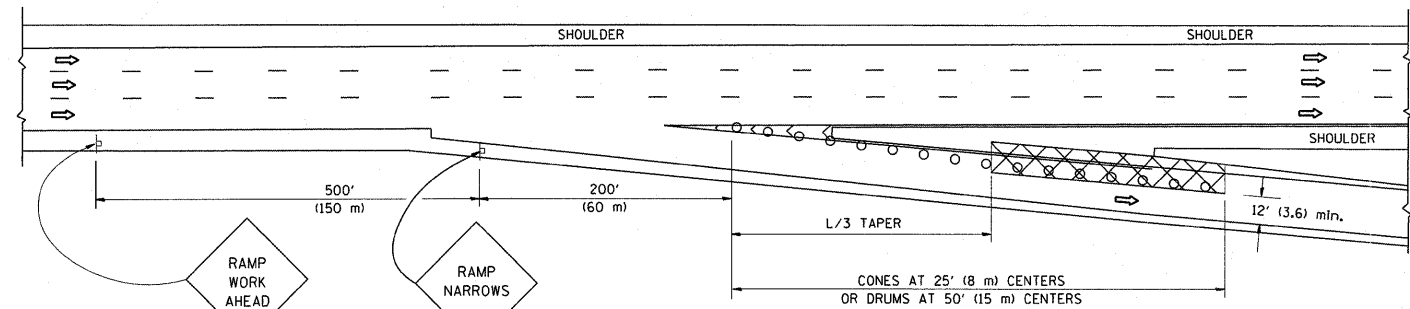
SHOULDER CLOSURE DETAILS



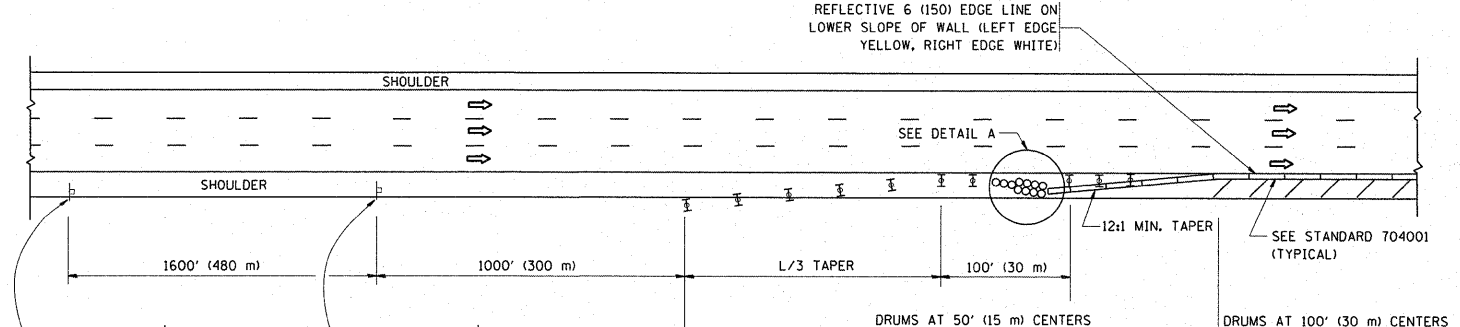
TYPICAL ENTRANCE RAMP



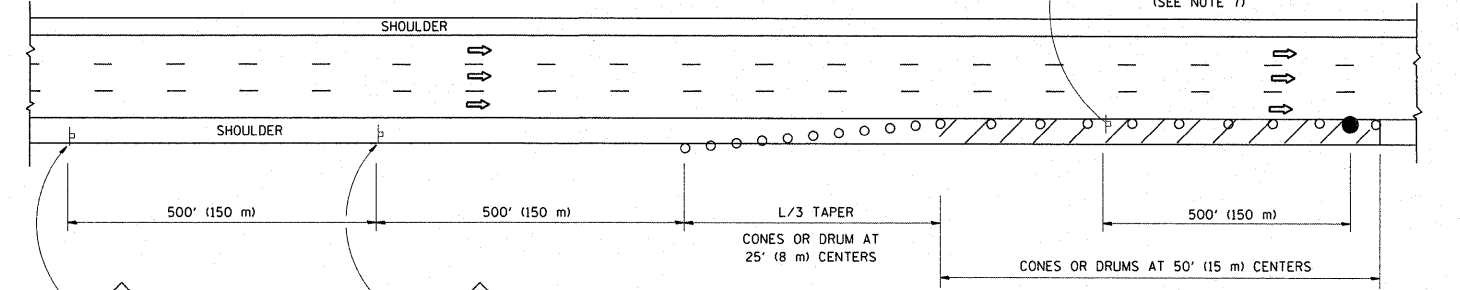
TYPICAL EXIT RAMP



TYPICAL EXIT RAMP



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

SYMBOLS

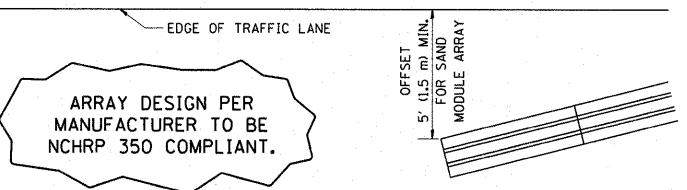
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC: $L = 0.65(W)(S)$ ENGLISH: $L = (W)(S)$
	W = WIDTH OF OFFSET IN FEET (METERS)
	S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

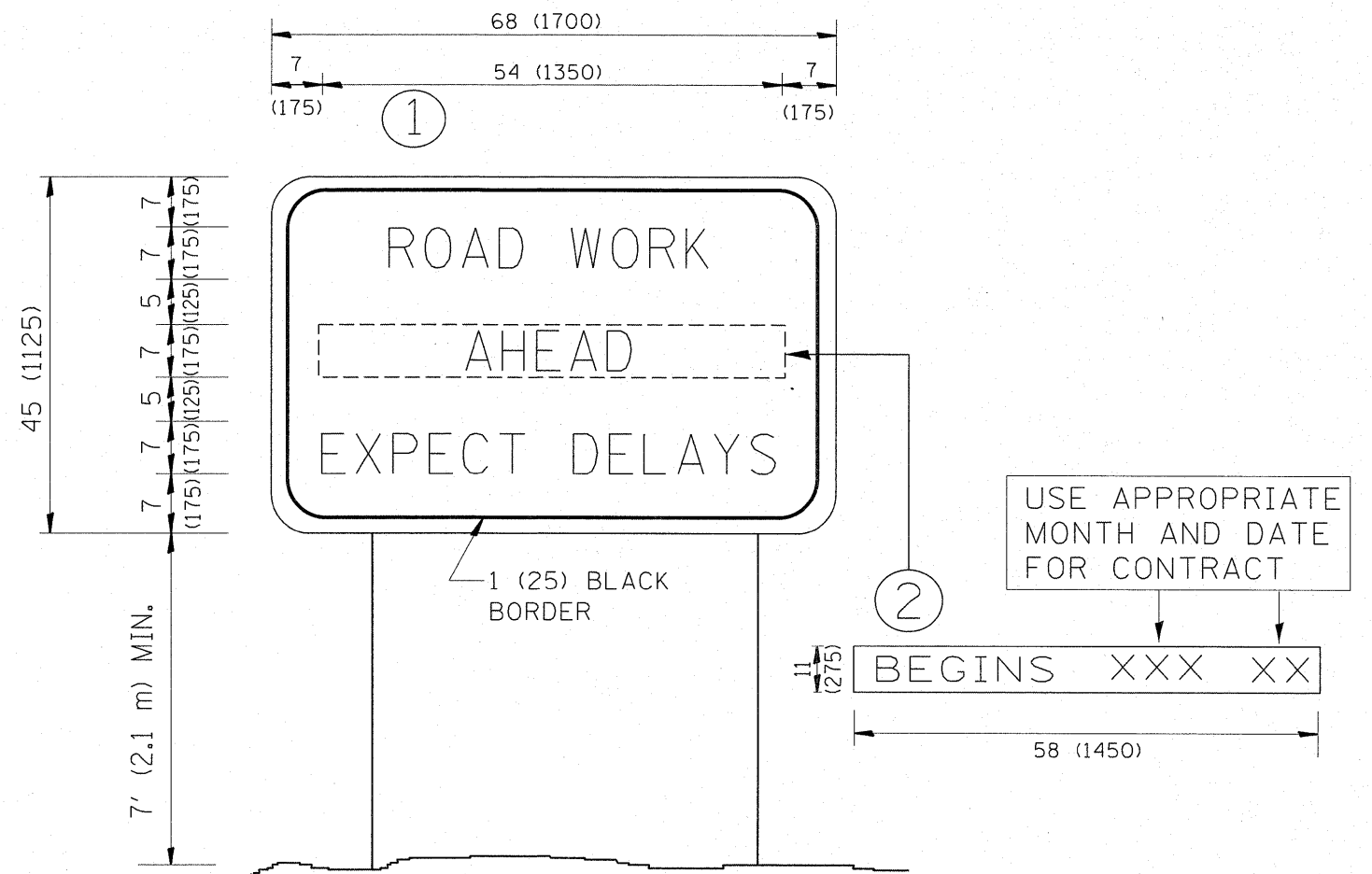


ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT.

DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = petalar	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
es:\px_work\pavidot\petalar\d0283496\0162	11-sht-plan.dgn	DRAWN - D.W.S.	REVISED - J.A.F. 12-06		90/94	2011-068-BR	COOK	21	20			
PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - S.P.B. 01-07	REVISED - S.P.B. 12-09		TC-17			CONTRACT NO. 60P87				
PLOT DATE = 12/22/2011	DATE - 11-96	REVISED - S.P.B. 12-09	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = patelar	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pr-work\p1dot\patelar\d0283496\0162	11-sht-plan.dgn	DRAWN -	REVISED - R. MIRS 12-11-97			90/94	2011-068-BR	COOK	21	21
	PLOT SCALE = 50.0033 ' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99			TC-22		CONTRACT NO. 60P87		
	PLOT DATE = 12/22/2011	DATE -	REVISED - C. JUCIUS 01-31-07			SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.
					FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT			