

02-28-14 LETTING ITEM 119

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-043BR	COOK	22	1
		ILLINOIS	CONTRACT NO. 60W97	

\*22 + 2 = 24

FOR INDEX OF SHEETS SEE SHEET NO. 2

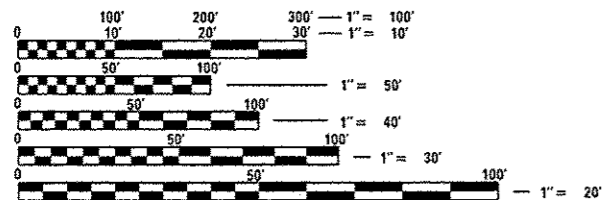
IMPROVEMENTS ARE LOCATED IN THE CITY OF FOREST VIEW AND THE VILLAGES OF SUMMIT AND DOLTON.

VARIOUS LOCATIONS  
VARIOUS STRUCTURES  
SECTION 2013-043BR  
BRIDGE REPAIR  
COOK COUNTY

D-91-411-13



SEE LOCATION MAPS  
SHEETS 5-7



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.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: J. ALAIN MIDY (847) 221-3056  
PROJECT MANAGER: ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 60W97

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED December 11, 2013

John Fortman  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

\_\_\_\_\_ 20 \_\_\_\_\_  
ENGINEER OF DESIGN AND ENVIRONMENT

\_\_\_\_\_ 20 \_\_\_\_\_  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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22B	ARTERIAL ROAD INFORMATION SIGN (TC-22)

## STATE STANDARDS

STANDARD NO.	STANDARD DESCRIPTION
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 M) TO (600 MM) FROM PAVEMENT EDGE
701101-04	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES

## GENERAL NOTES

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS. 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 REPAIRS SHALL INCLUDE BUT NOT BE LIMITED TO AREAS SHOWN. THE ACTUAL AREAS TO BE DETERMINED BY THE ENGINEER AT THE TIME OF THE CONSTRUCTION.

REMOVAL OF EXISTING TIMBERS AND HARDWARE SHALL BE INCLUDED IN THE COST OF TREATED TIMBERS

FASTENERS SHALL BE ASTM A325 TYPE 1, MECHANICALLY GALVANIZED. COST OF NEW FASTENERS IS INCLUDED IN THE PAY ITEM "TREATED TIMBER".

ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111. EXCEPT HIGH STRENGTH BOLTS SHALL BE MECHANICALLY GALVANIZED.

ALL TIMBERS, INCLUDING LAMINATED TIMBERS, SHALL BE WHITE OAK OR RED OAK WITH  $F_b = 1,600$  PSI (MIN.) AND PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT BOARD MEASURE FOR TREATED TIMBER.

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE CONTRACTOR SHALL OBTAIN COAST GUARD APPROVAL FOR ANY WORK THAT MAY INTERFERE WITH NAVIGATIONAL OPERATIONS OF THE NAVIGABLE WATERS. A WORK PLAN SHALL BE PREPARED BY THE CONTRACTOR, REVIEWED AND APPROVED BY THE ENGINEER AND BE SUBMITTED BY THE ENGINEER TO THE COAST GUARD AT THE ADDRESS LISTED BELOW FOR THE APPROVAL.

BRIDGE ADMINISTRATOR  
US COAST GUARD DISTRICT  
1240 E. NINTH ST.  
CLEVELAND, OH 44199-2060

EPOXY GROUTING TO BE DONE IN ACCORDANCE WITH ARTICLE 584 OF THE STANDARD SPECIFICATIONS

THE CONTRACTOR SHALL CONTACT THE IDOT TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

NO OVERNIGHT LANE CLOSURES WILL BE PERMITTED.

TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) SHALL ONLY APPLY TO S.N.'S 016-0014, 016-0015, 016-0158, AND 016-0159.

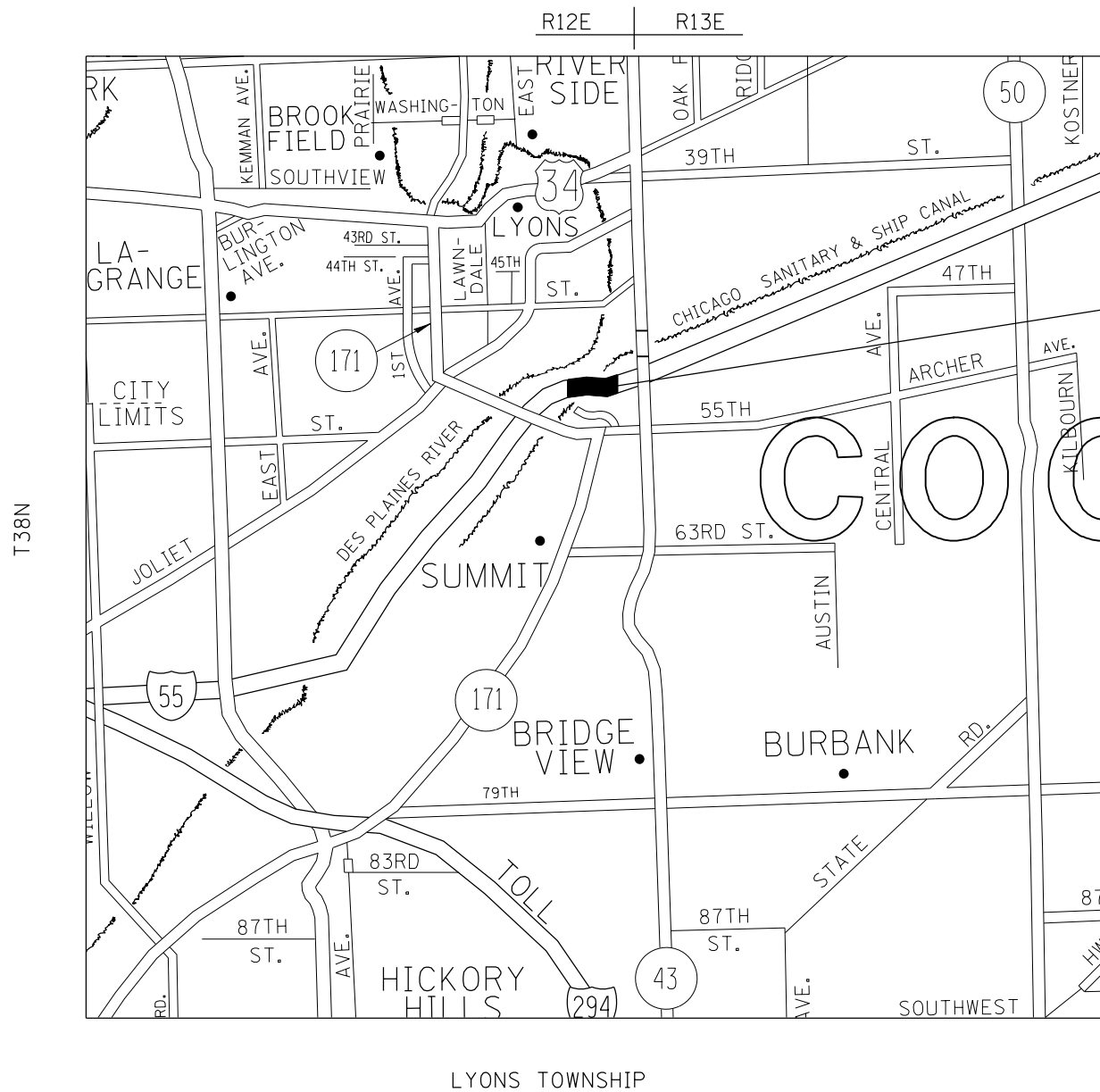
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c:\pwwork\pwwork\hardnetbr\08259751\0	1113-shr-plandgn	DRAWN - 11 /20 /13	REVISED -			VAR.	2013-043BR	COOK	22	2	
Default	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -			CONTRACT NO. 60W97					
	PLOT DATE = 1/14/2014	DATE - 11 /21 /13	REVISED -			[ILLINOIS] FED. AID PROJECT					
				SCALE: SHEET OF SHEETS STA. TO STA.							

SUMMARY OF QUANTITIES			URBAN 100% STATE TOTAL QUANTITIES						CONSTRUCTION TYPE CODE			SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	0014							CODE NO	ITEM	UNIT	TOTAL QUANTITIES							
50700105	TREATED TIMBER	F. B. M.	8886	8886																
50700305	HARDWARE	POUND	14,530	14,530																
59000200	EPOXY CRACK INJECTION	FOOT	14	14																
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3																
67100100	MOBILIZATION	L SUM	1	1																
X0326162	UNDERWATER INSTALLATION OF TREATED TIMBER	F. B. M.	8387	8387																
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	3	3																
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	2	2																
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1																
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1																
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52																
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1																

LOCATION	1				2				3			4				5			
STRUCTURE NUMBER	016-0014				016-0015				016-0991			016-0158				016-0159			
	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.	NORTH BASCULE	SOUTH BASCULE	TOTAL	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.
8x12 TIMBER UNDERWATER	*4	18'-10"	75.33'		*0	18'-10"	0'												
	12	13'-11"	167'		12	13'-11"	167'												
	8	18'-4"	146.7'		8	18'-4"	146.7'												
	4	17'-10"	71.3'		4	17'-10"	71.3'												
TOTAL			460.3'	3683			385'	3080											
6x12 TIMBER UNDERWATER	14	2'-0"	28'		30	2'-0"	60'					7	12'-8"	88.7'		1	12'-8"	12.67'	
												1	16'-0"	16'					
												1	10'-10"	10'					
												2	22'-6"	45'					
TOTAL			28'	168			60'	360						159.7	959			12.67'	77
STRUCTURAL REPAIR OF CONCRETE < OR = TO 5"									2 SF	1 SF	3 SF								
STRUCTURAL REPAIR OF CONCRETE > 5"									2 SF	0 SF	2 SF								
EPOXY CRACK INJECTION									14 FT	0 FT	14 FT								
6x12 TIMBER												2	12'-8"	25.33'	152	4	12'-8"	50.67'	305
4"x8"x1" TIMBER												7	1'-0"	7'	19	9	1'-0"	9'	24
4"x8"x1" TIMBER UNDERWATER												19	1'-0"	19'	51	3	1'-0"	3'	8

\*NOTE: TIMBERS THAT SPAN BETWEEN STRUCTURES 016-0014 AND 016-0015 HAVE BEEN CONSOLIDATED, AND ARE ACCOUNTED FOR UNDER '\* OF TIMBERS' FOR S.N. 016-0014.

FILE NAME =	USER NAME = hardnetbr	DESIGNED - BH, RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SCHEDULE OF QUANTITIES</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
en:\p\work\p\dot\hardnetbr\0359751\041113-whi-plan.dgn	DRAWN - 11 / 20 / 13	REVISED -	VAR.						2013-043BR	COOK	22	4	
PLOT SCALE = 100.0000 ' / in.	CHECKED - JAM	REVISED -	CONTRACT NO. 60W97										
Default	DATE - 11 / 21 / 13	REVISED -	ILLINOIS FED. AID PROJECT										
				SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.			



LOCATION 1: SN 016-0014  
 I-55 (STEVENSON) (EB)  
 OVER SAN & SHIP CANAL

LOCATION 2: SN 016-0015  
 I-55 (STEVENSON) (WB)  
 OVER SAN & SHIP CANAL

VILLAGE OF SUMMIT

TRAFFIC DATA

I-55 OVER CHICAGO S&S CANAL

2012 ADT =144,700  
 POSTED SPEED LIMIT =55 MPH

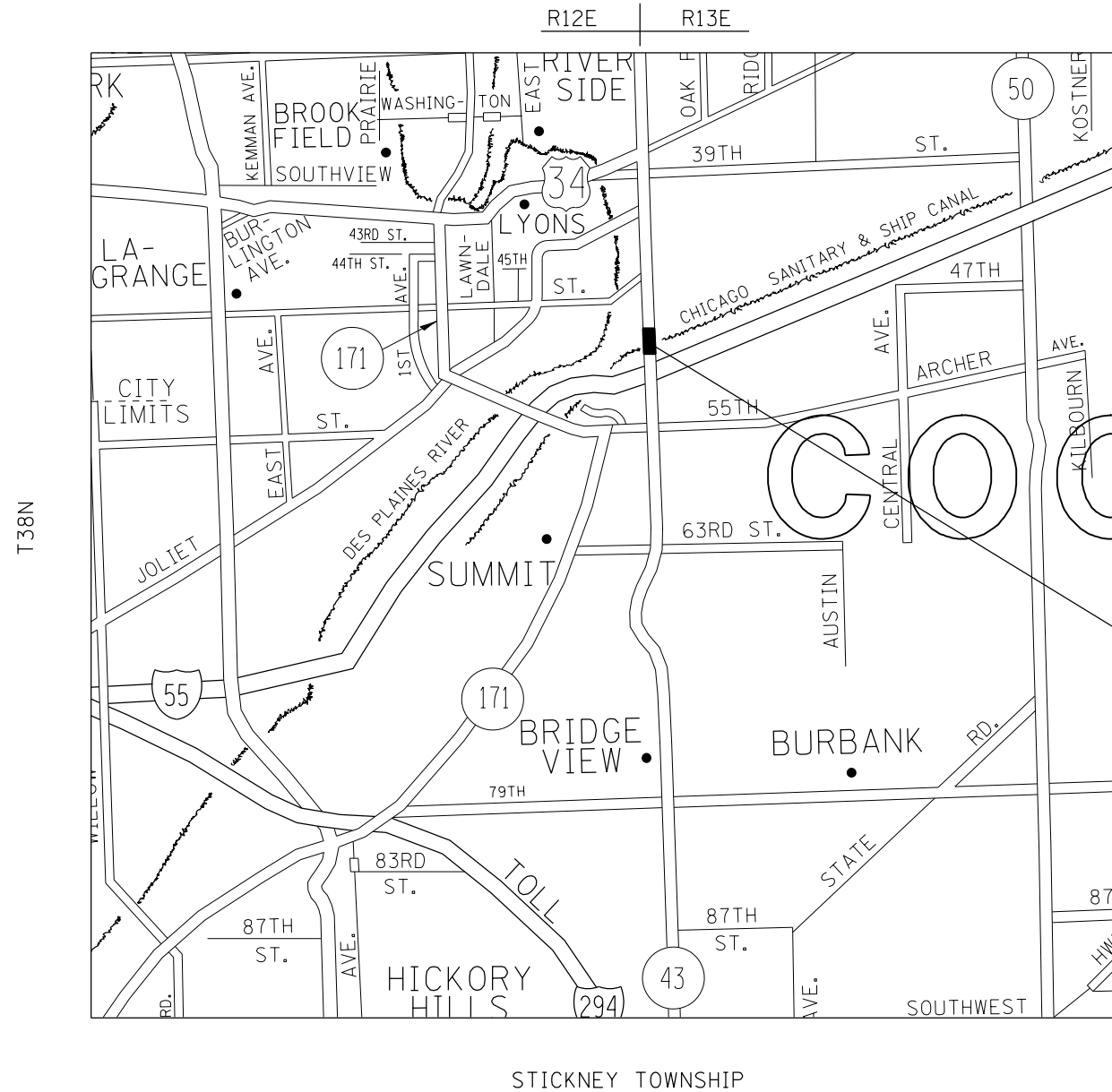
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	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP  
 LOCATIONS 1-2**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-043BR	COOK	22	5
CONTRACT NO. 60W97			ILLINOIS FED. AID PROJECT	



TRAFFIC DATA

I-43 OVER CHICAGO S&S CANAL

2012 ADT =18,650  
 POSTED SPEED LIMIT =40 MPH

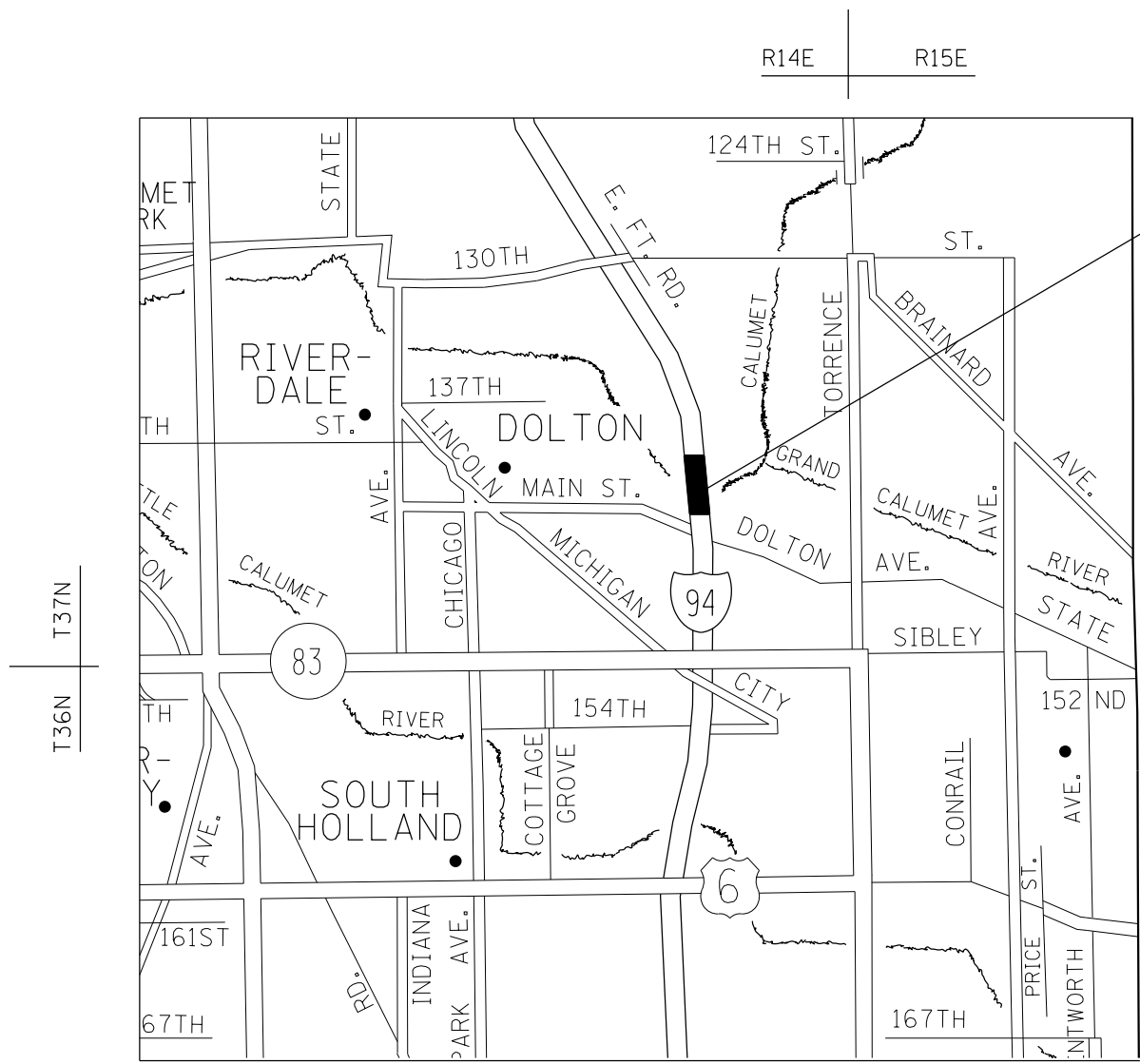
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	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP  
 LOCATION 3**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-043BR	COOK	22	6
CONTRACT NO. 60W97			ILLINOIS FED. AID PROJECT	



LOCATION 4: SN 016-0158  
 I-94 (BISHOP FORD) (SB)  
 OVER LITTLE CALUMET RIVER

LOCATION 5: SN 016-0159  
 I-94 (BISHOP FORD) (NB)  
 OVER LITTLE CALUMET RIVER

VILLAGE OF DOLTON

TRAFFIC DATA

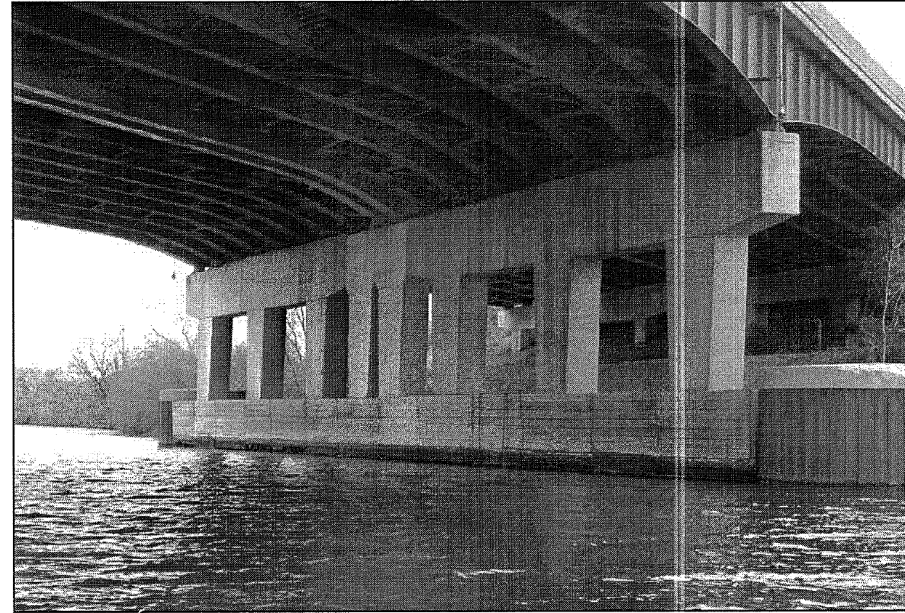
I-94 OVER CALSAG CHANNEL  
 2012 ADT =158,600  
 POSTED SPEED LIMIT =55 MPH

THORTON TOWNSHIP

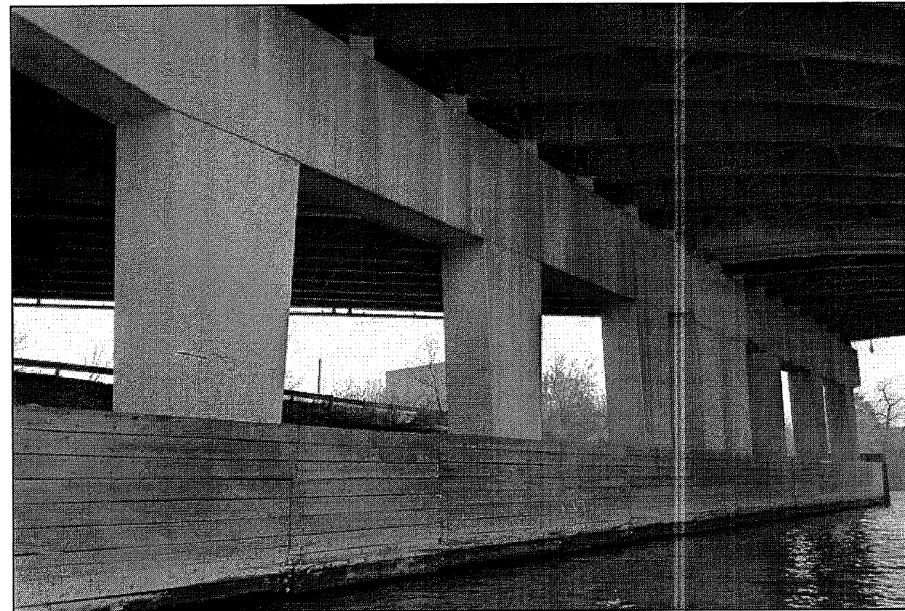
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Default	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -	SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT <b>CONTRACT NO. 60W97</b>					







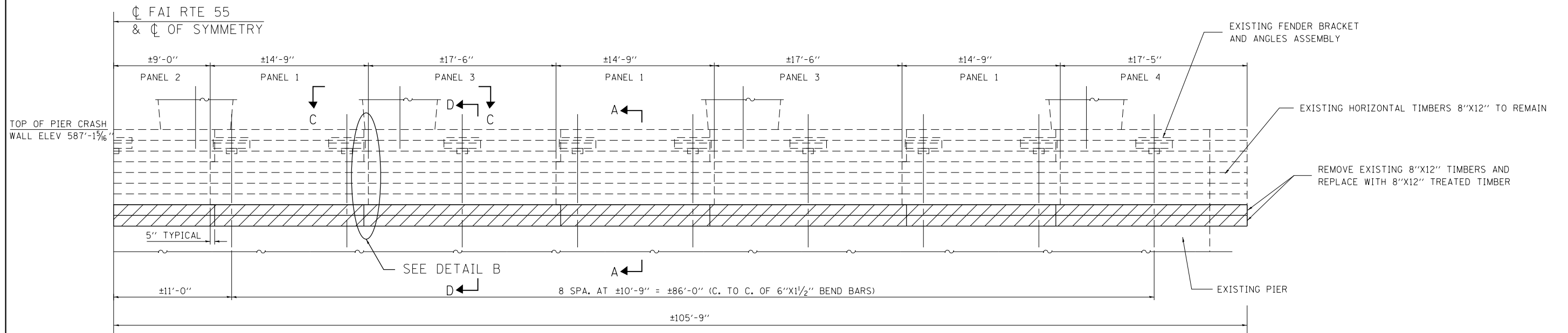
View of Pier 3, Looking Northeast.



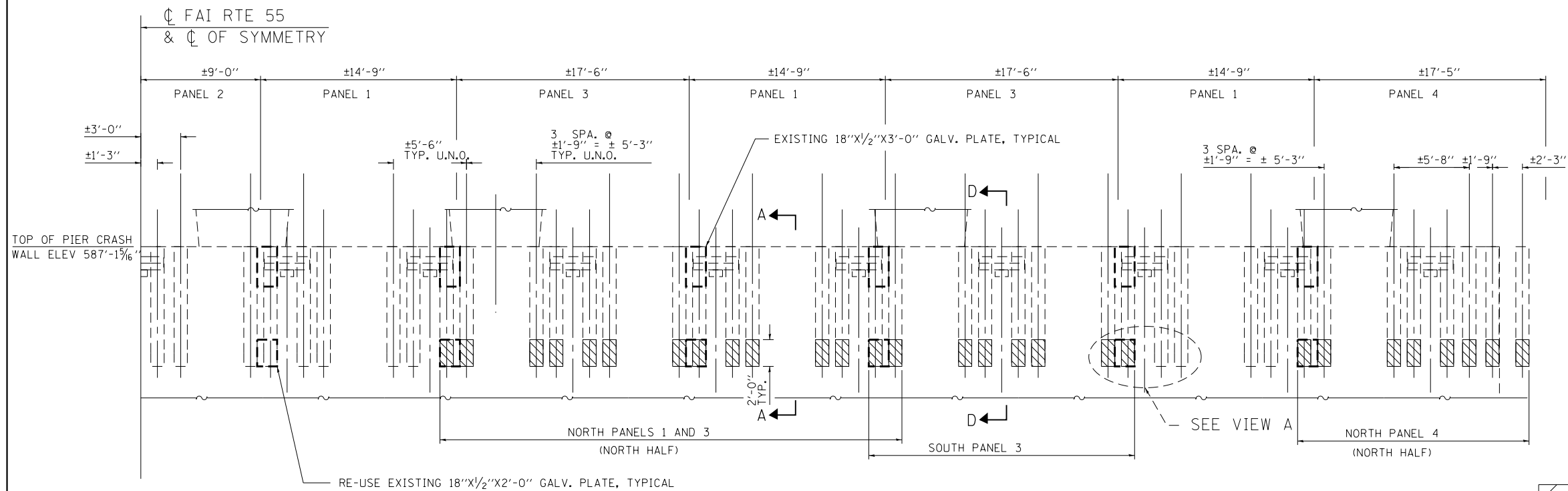
View of Pier 2, Looking Northwest.

LOCATIONS 1-2  
 I-55 OVER  
 CHICAGO SANITARY &  
 SHIPPING CANAL  
 S.N. 016-0014, 016-0015

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATIONS 1-2 BRIDGE REPAIR PLANS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -		SCALE:      SHEET 2 OF 7 SHEETS      STA.      TO STA.			CONTRACT NO. 60W97				
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -		ILLINOIS FED. AID PROJECT							



PIER FENDER  
 PIER NO 2 EAST ELEVATION (LOOKING WEST) (NORTH HALF) S.N. 016-0015  
 PIER NO 3 WEST ELEVATION (LOOKING EAST) (SOUTH HALF) S.N. 016-0014



PIER FENDER - EXISTING VERTICAL TIMBER 6" X 12" LOCATION AND SPACING  
 PIER NO 2 EAST ELEVATION (LOOKING WEST) (NORTH HALF) S.N. 016-0015  
 PIER NO 3 WEST ELEVATION (LOOKING EAST) (SOUTH HALF) S.N. 016-0014

NOTE:  
 SEE SPECIAL PROVISION FOR UNDERWATER INSTALLATION OF TREATED TIMBER

**LEGEND**

EXISTING HORIZONTAL TIMBERS 8" X 12" TO BE REMOVED AND REPLACED

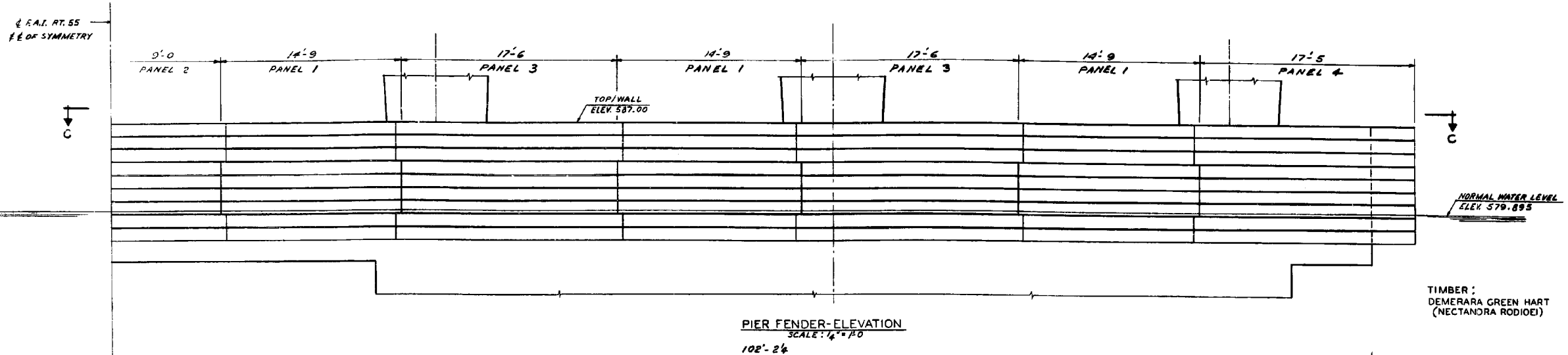
REMOVE BOTTOM 2' OF EXISTING 6" X 12" POSTS AT LOCATIONS OF MISSING HORIZONTAL TIMBERS AND WHERE NEEDED.

LOCATION OF MISSING HORIZONTAL TIMBERS - PIER 3:

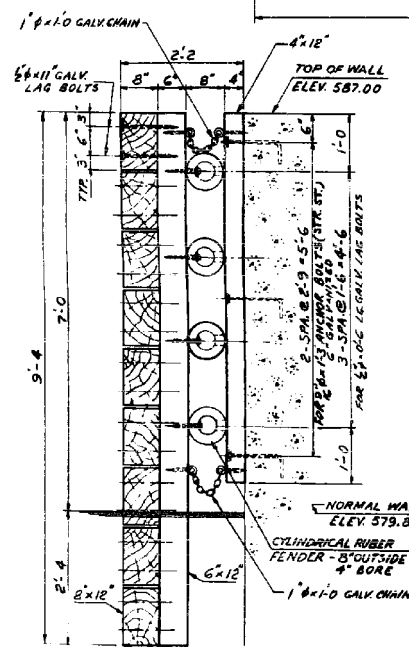
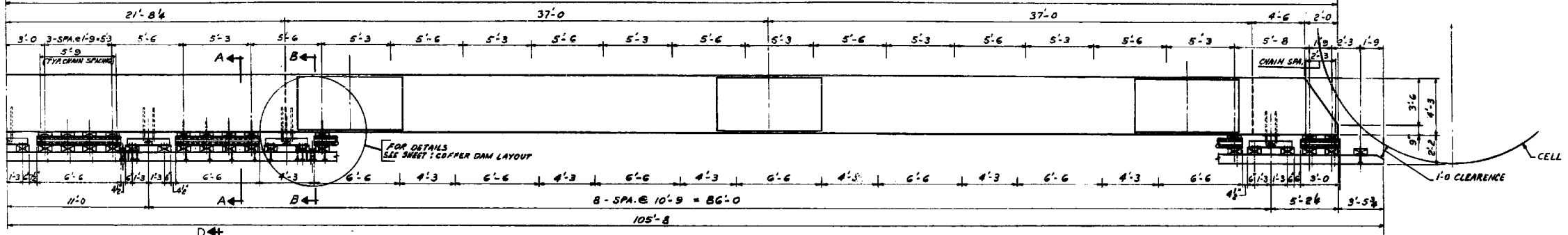
1. NORTH PANEL 4
2. NORTH PANEL 1
3. NORTH PANEL 3
4. SOUTH PANEL 3

FILE NAME =	USER NAME = hardnettr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATIONS 1-2 BRIDGE REPAIR PLANS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -				CONTRACT NO. 60W97			ILLINOIS FED. AID PROJECT	
							SCALE:	SHEET 3 OF 7 SHEETS	STA.	TO STA.	

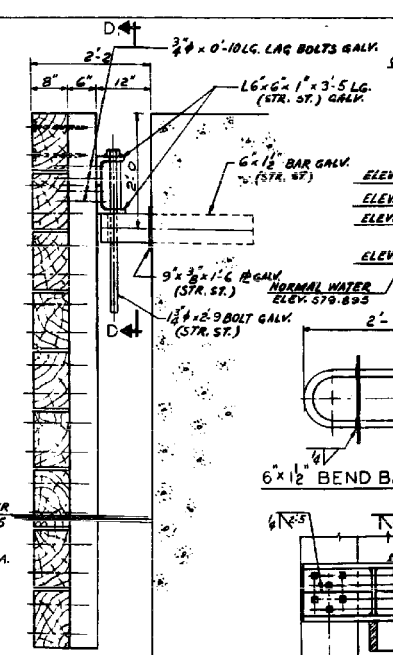




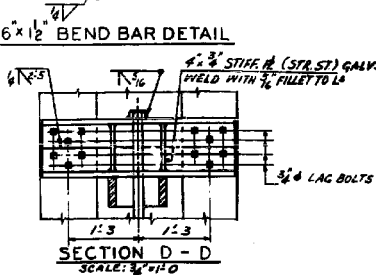
TIMBER:  
DEMERARA GREEN HART  
(NECTANDRA RODIOE)



SECTION A-A  
SCALE: 3/4" = 1'-0"



SECTION B-B  
SCALE: 3/4" = 1'-0"

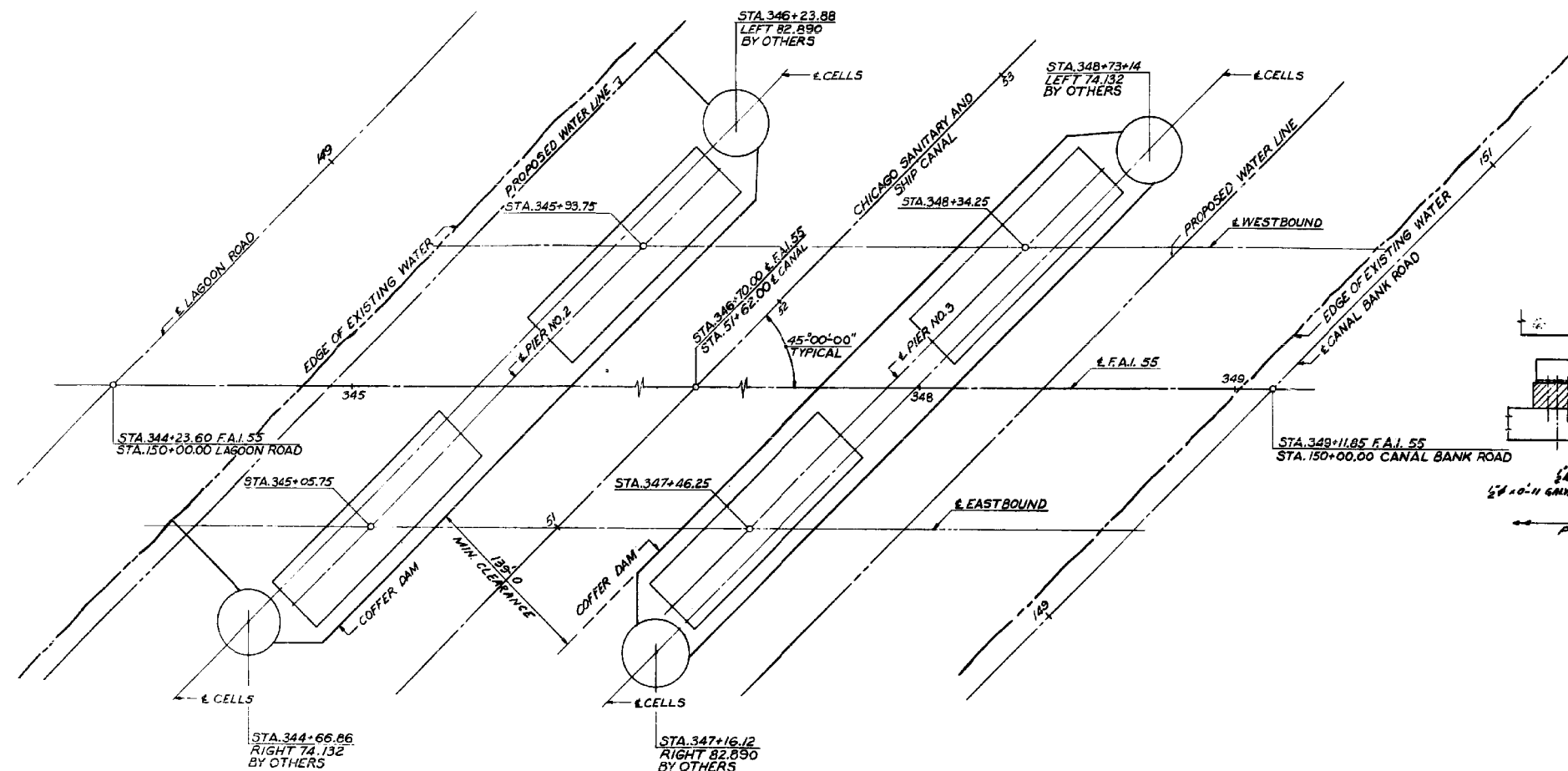


SECTION D-D  
SCALE: 3/4" = 1'-0"

**FOR INFORMATION ONLY**

EXISTING PLAN  
LOCATIONS 1-2  
I-55 OVER  
CHICAGO SANITARY &  
SHIPPING CANAL  
S.N. 016-0014, 016-0015

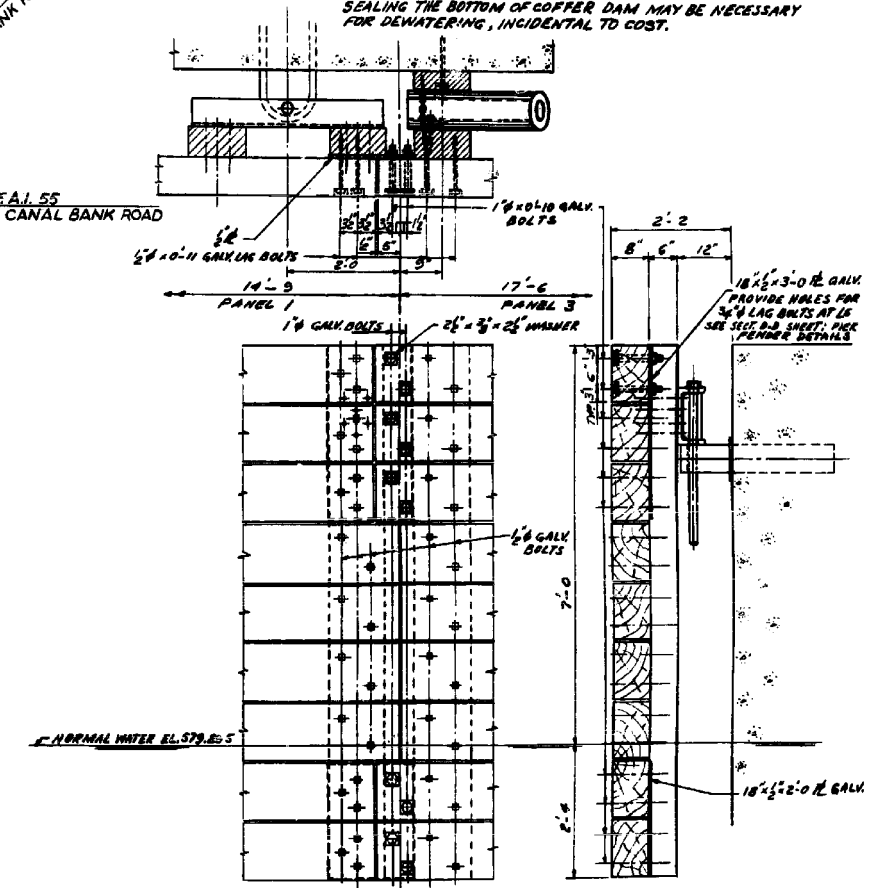
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Default	PLOT DATE = 12/11/2013	CHECKED - JAM	REVISED -			CONTRACT NO. 60W97					
		DATE - 11 / 21 / 13	REVISED -			SCALE:	SHEET 5 OF 7 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	



COFFER DAM LAYOUT

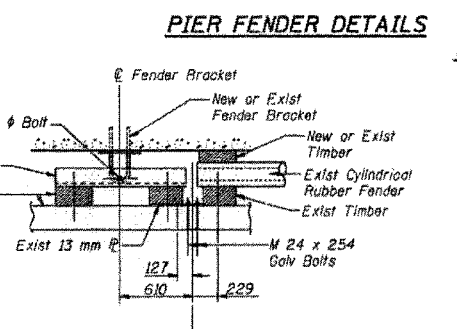
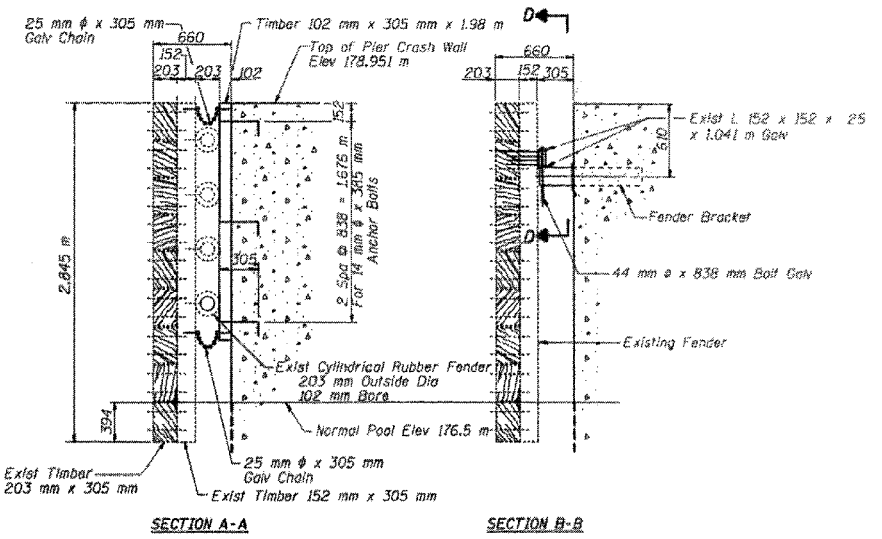
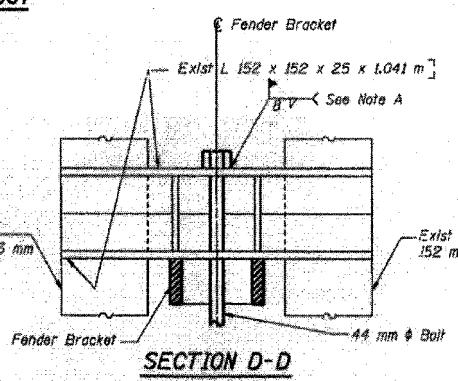
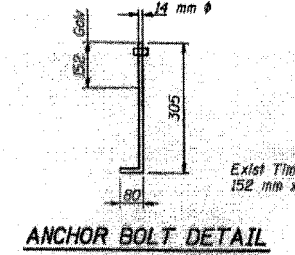
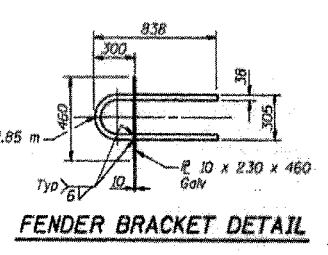
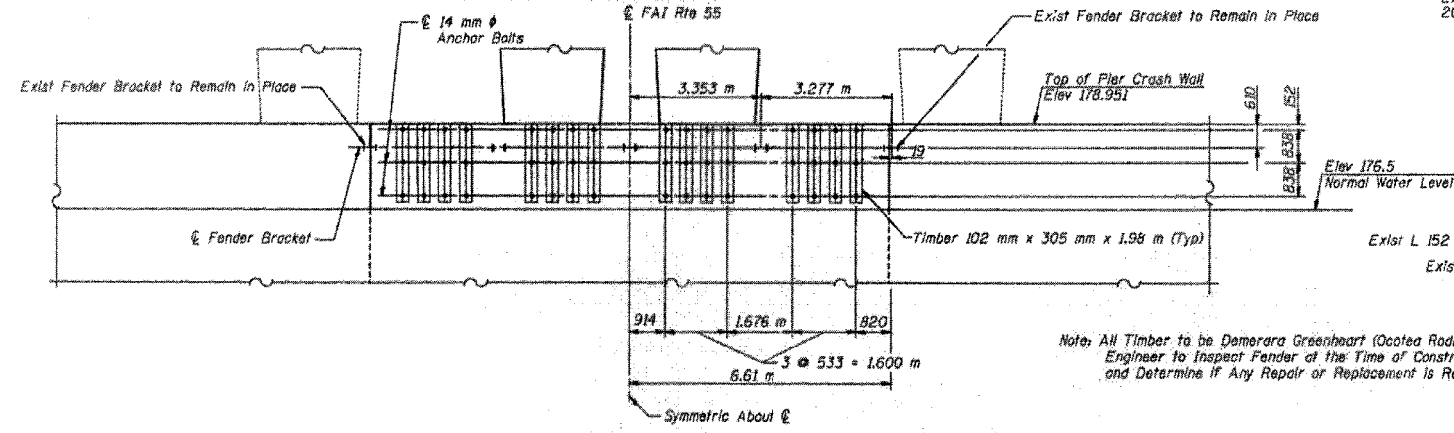
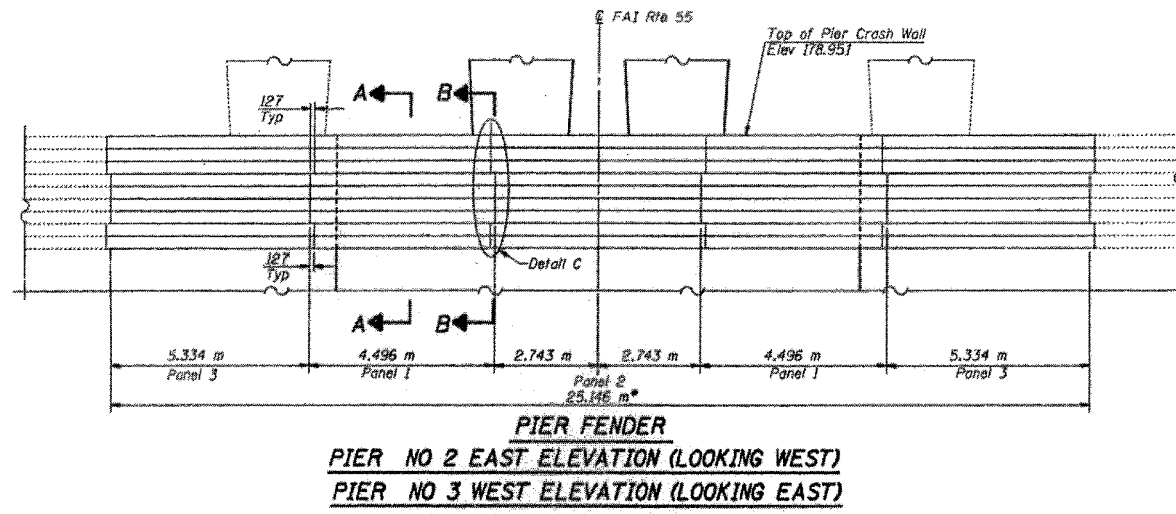
**FOR INFORMATION ONLY**

NOTE: PLAN LOCATION OF COFFER DAM SHALL BE CONTRACTOR'S OPTION. COFFER DAMS MAY BE RETURNED TO CANAL BANKS. COFFER DAM PLANS SHALL BE SUBMITTED FOR ENGINEERS APPROVAL. SEALING THE BOTTOM OF COFFER DAM MAY BE NECESSARY FOR DEWATERING, INCIDENTAL TO COST.



EXISTING PLAN LOCATIONS 1-2 I-55 OVER CHICAGO SANITARY & SHIPPING CANAL S.N. 016-0014, 016-0015

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATIONS 1-2 BRIDGE REPAIR PLANS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	11113-sht-plan.dgn	DRAWN - 11 /20 /13	REVISED -			VAR.	2013-043BR	COOK	22	13	
	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -			CONTRACT NO. 60W97					
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -			ILLINOIS FED. AID PROJECT					



- FENDER PANEL REMOVAL & REINSTALLATION PROCEDURE**
1. Remove the M24 Bolts that Connect the Panels Together (See Detail C).
  2. Remove the Chain from the Timber Attached to the Pier (See Section A-A).
  3. Air Arc Gouge the Weld Connecting the Existing 44 mm phi Bolt Head to the Existing L 152 x 152 x 25 and Remove the Bolt (See Section D-D).
  4. Remove the Panel.
  5. After the Pier Widening has Been Completed Reattach the Timber Panels to the Pier using a new 44 mm phi Bolt.
  6. Weld the Bolt Head to the Existing Angle on the Panel.
  7. Attach the Existing Chain to the Timber on the Crash Wall.

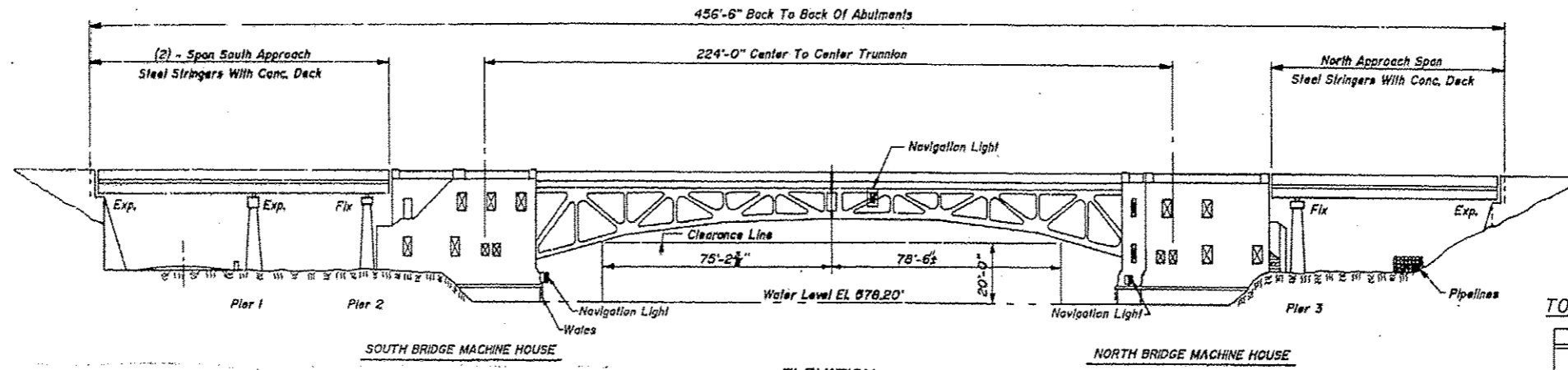
\* Remove Existing Pier Fender Panels in This Area and Reattach Panels after Pier Widening Has Been Completed.

**PIERC NO 2 & NO 3 - FENDER STEVENSON EXPRESSWAY OVER CHICAGO SANITARY AND SHIP CANAL FAI RTE 55 SECTION 0707-616 B STA 20+513.228 COOK COUNTY STRUCTURE NUMBER 016-0014 (E.B.) STRUCTURE NUMBER 016-0015 (W.B.)**

**FOR INFORMATION ONLY**

FILE NAME =	USER NAME = hardnettr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATIONS 1-2 BRIDGE REPAIR PLANS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	11113-sht-plan.dgn	DRAWN - 11 /20 /13	REVISED -		SCALE:	SHEET 7 OF 7 SHEETS	STA.	TO STA.	2013-043BR	COOK	22	14
		CHECKED - JAM	REVISED -									
		DATE - 11 /21 /13	REVISED -									
							CONTRACT NO. 60W97		ILLINOIS FED. AID PROJECT			

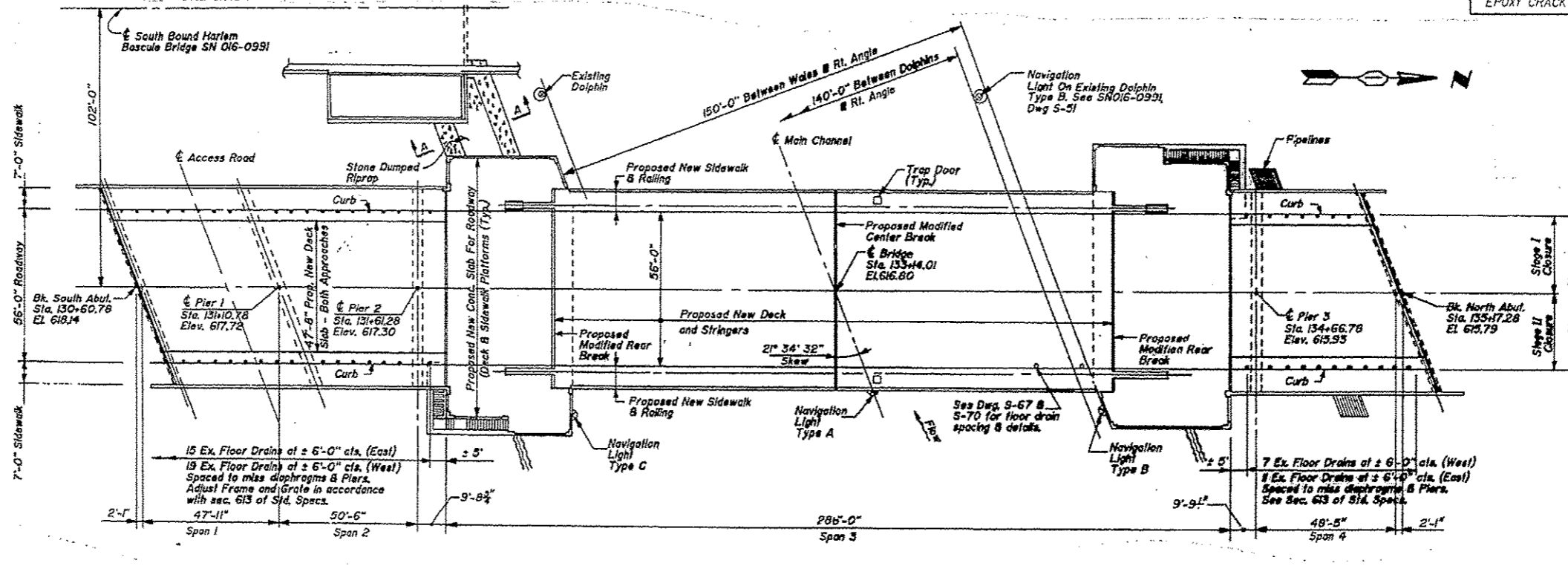
EXISTING PLAN  
LOCATIONS 1-2  
I-55 OVER  
CHICAGO SANITARY &  
SHIPPING CANAL  
S.N. 016-0014, 016-0015



ELEVATION

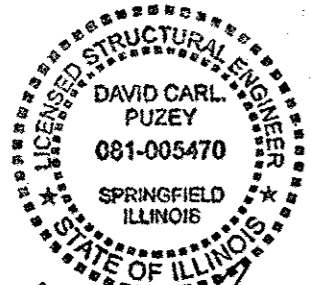
TOTAL BILL OF MATERIAL S.N. 016-0991

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE > 5"	SF	2
STRUCTURAL REPAIR OF CONCRETE ≤ 5"	SF	3
EPOXY CRACK INJECTION	FEET	14



PLAN

NOTE:  
 Navigational Lighting Key  
 A - 360°-Green  
 B - 180°-Red  
 C - 180°-Red



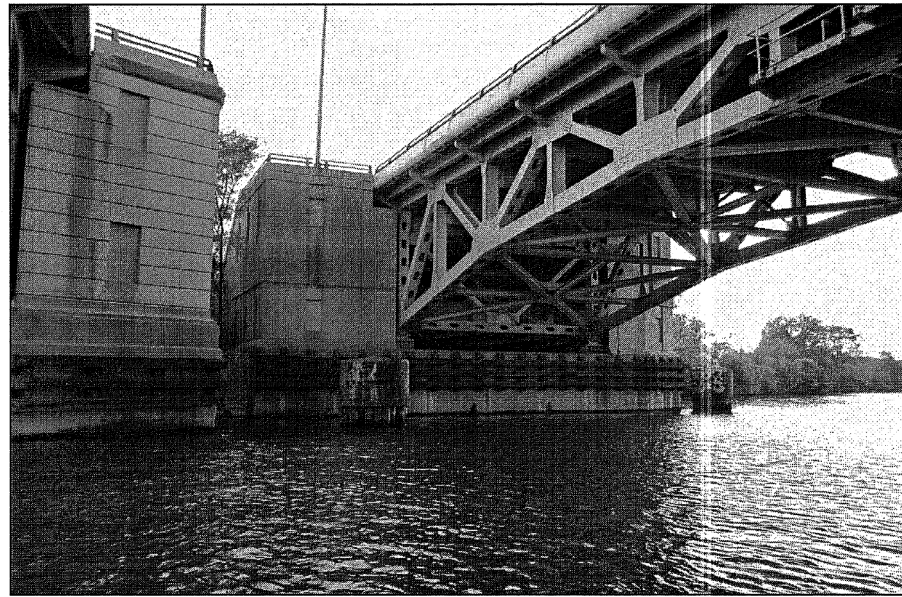
*David Carl Puzey* 1/30/14  
 Expires 11/30/14

LOCATION 3  
 IL-43 OVER  
 CHICAGO SANITARY &  
 SHIPPING CANAL  
 S.N. 016-0991

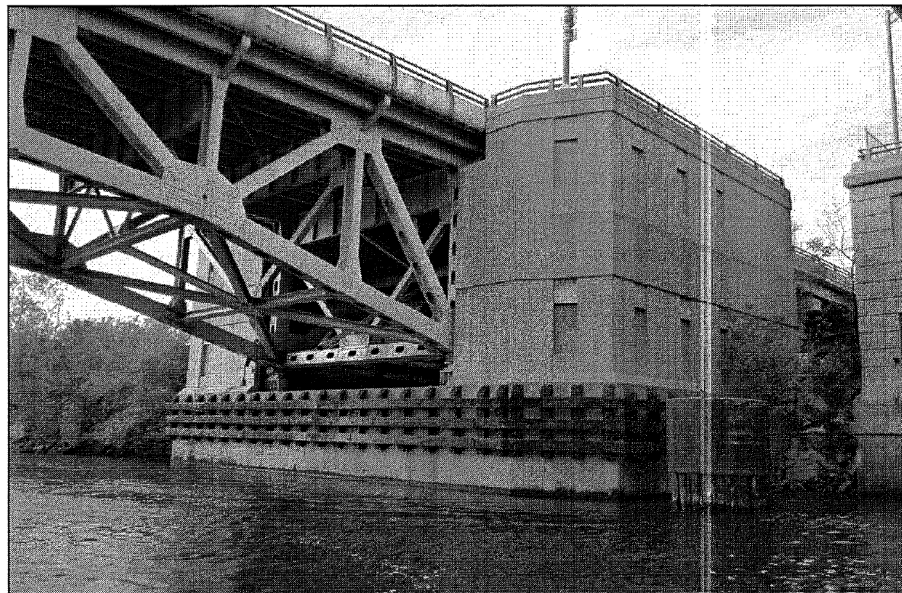
FILE NAME: c:\pwworkspace\shardnet\br\03259751\041113-shr-plan.dgn	USER NAME: shardnetbr	DESIGNED: BH, RA	REVISED:	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION 3 BRIDGE REPAIR PLANS		F.A. RTE.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:	
Default	PLOT SCALE: 100.0000 / 1 in.	CHECKED: JAM	REVISED:		SCALE:	SHEET 1 OF 5 SHEETS	STA.:	VAR.:	2013-043BR	COOK	22	15
	PLOT DATE: 12/11/2013	DATE: 11/21/13	REVISED:		TO STA.:							
												CONTRACT NO. 60W97

ILLINOIS FED. AID PROJECT





View of the South Bascule Pier for Structure No. 016-0991, Looking Southwest.

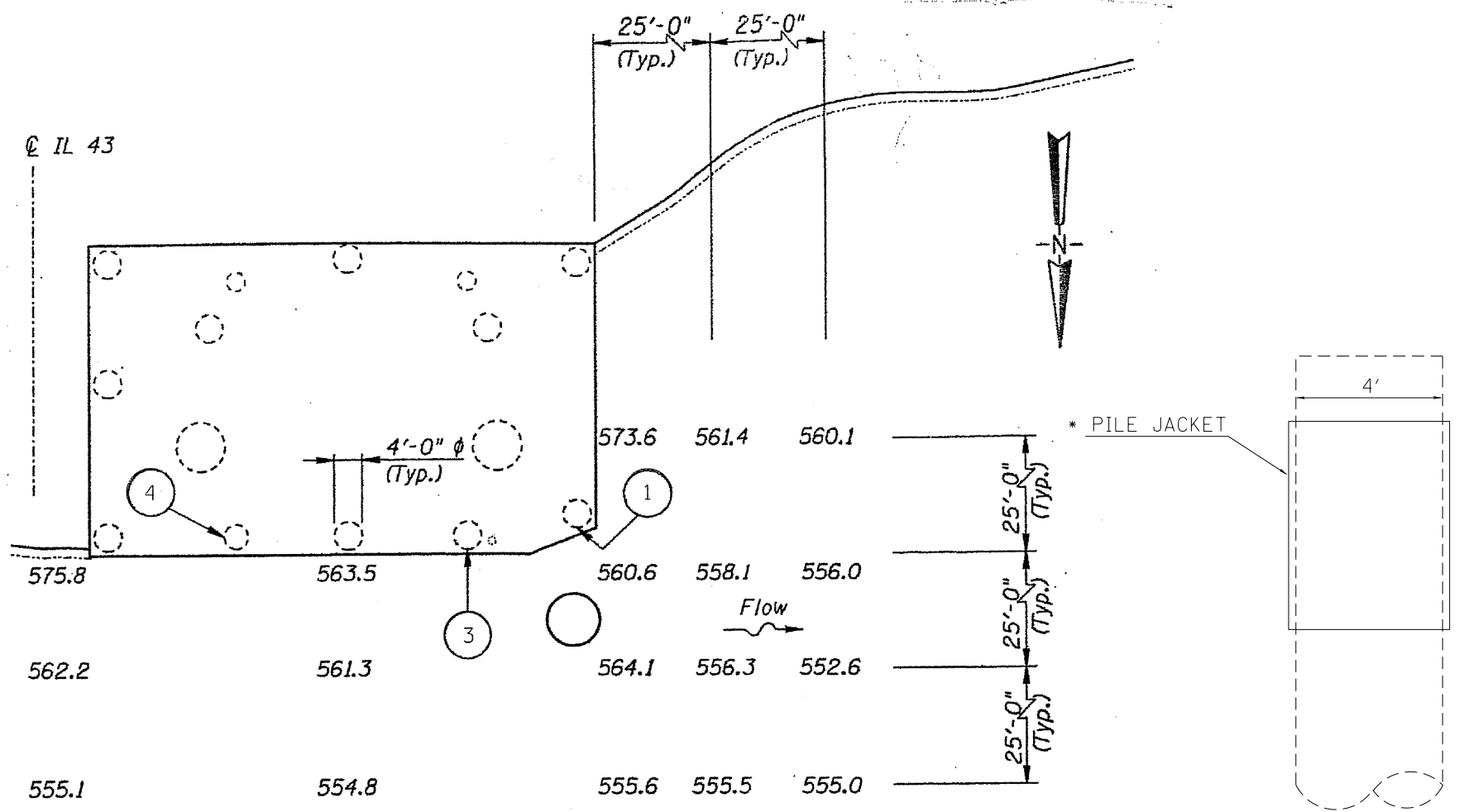


View of the North Bascule Pier for Structure No. 016-0991, Looking Northwest.

LOCATION 3  
 IL-43 OVER  
 CHICAGO SANITARY &  
 SHIPPING CANAL  
 S.N. 016-0991

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATION 3 BRIDGE REPAIR PLANS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\work\pwork\hardnettbr\d0359751\041113-shr-plan.dgn		DRAWN - 11 /20 /13	REVISED -		SCALE:	SHEET 2 OF 5 SHEETS	STA.	TO STA.	VAR.	2013-043BR	COOK	22 16
Default		CHECKED - JAM	REVISED -		CONTRACT NO. 60W97							
		DATE - 11 /21 /13	REVISED -		ILLINOIS FED. AID PROJECT							

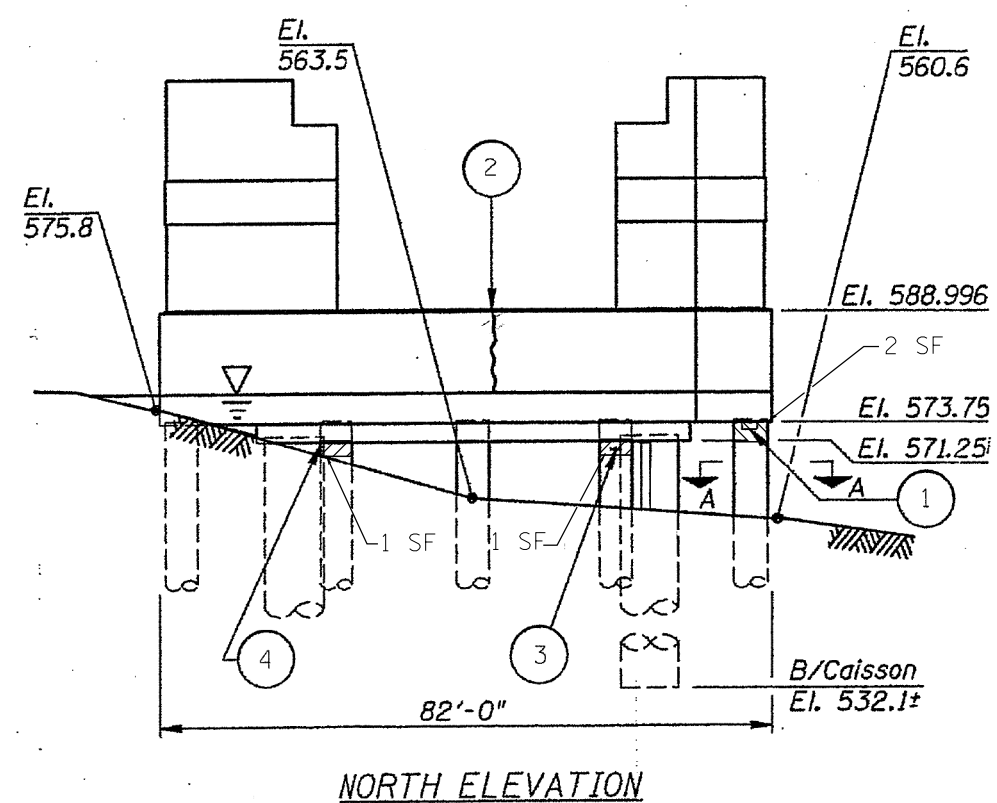




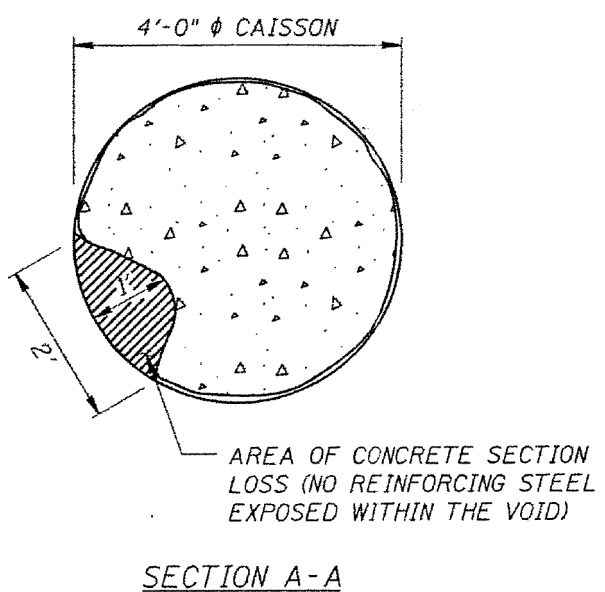
NOTE:

- ① STRUCTURAL REPAIR OF CONCRETE MEASURING 2 FEET WIDE WITH UP TO 1 FOOT PENETRATION DOWN 1 FOOT ON THE NORTH SIDE OF THE CAISSON NEAREST THE NORTHWEST CORNER OF THE PIER.
- ② EPOXY CRACK INJECTION, 1/8 INCH WIDE, NEAR THE MIDPOINT OF THE NORTH PIER FACE FROM THE TOP OF THE PIER WALL TO THE WATERLINE.
- ③ STRUCTURAL REPAIR OF CONCRETE 1.5 FEET WIDE BY 3 INCHES HIGH WITH 4 INCHES PENETRATION ON THE NORTH SIDE OF THE FOURTH CAISSON FROM THE NORTHEAST CORNER OF THE PIER WALL.
- ④ STRUCTURAL REPAIR OF CONCRETE 1.5 FEET WIDE BY 2 INCHES HIGH WITH 3 INCHES PENETRATION AT THE INTERFACE OF THE CAISSON AND THE PIER WALL ON THE EAST SIDE OF THE SECOND CAISSON FROM THE NORTHEAST CORNER OF THE PIER WALL

PLAN



NORTH ELEVATION



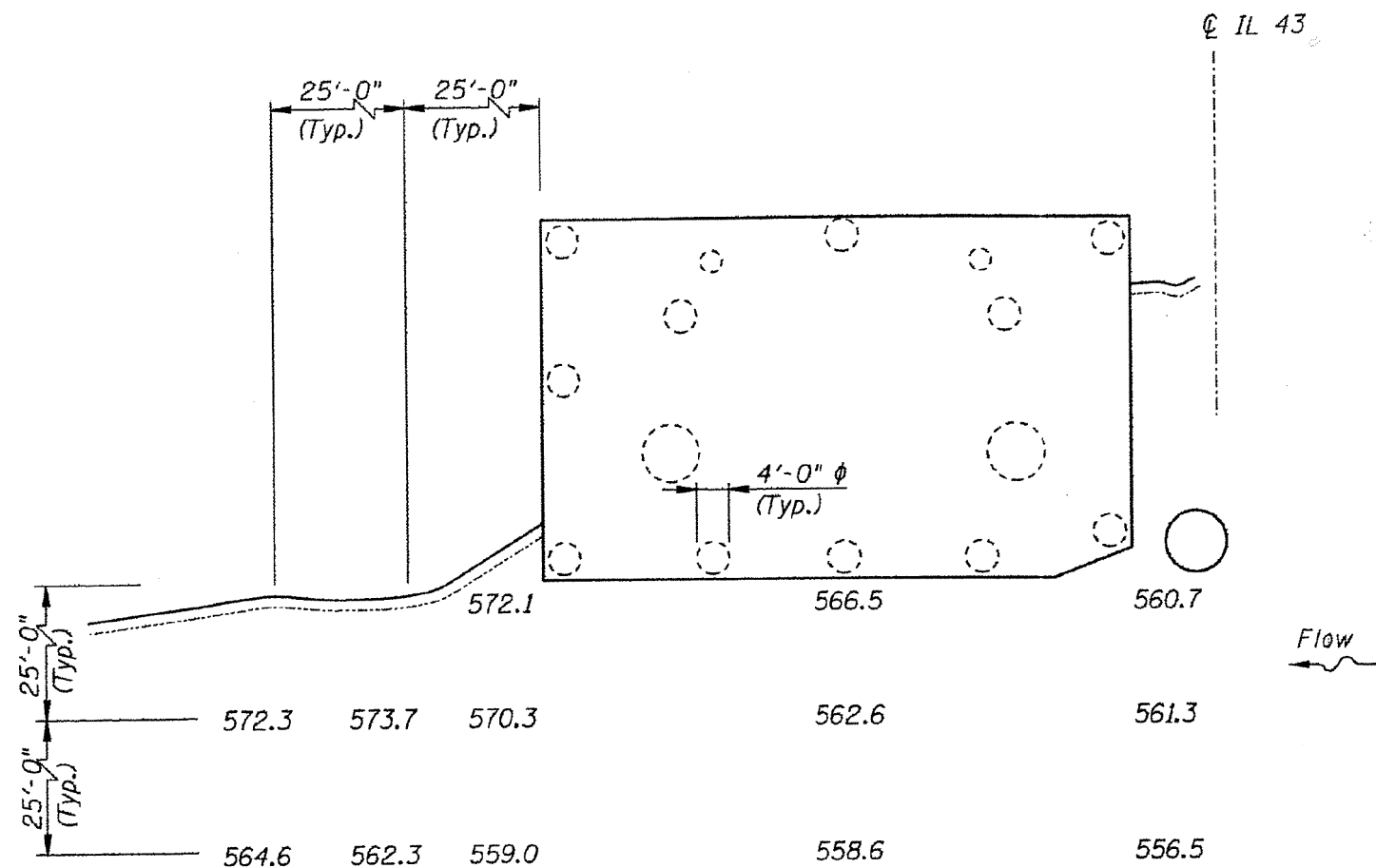
SECTION A-A

- LEGEND
- STRUCTURAL REPAIR OF CONCRETE > 5" (2 SF)
  - STRUCTURAL REPAIR OF CONCRETE ≤ 5" (2 SF)

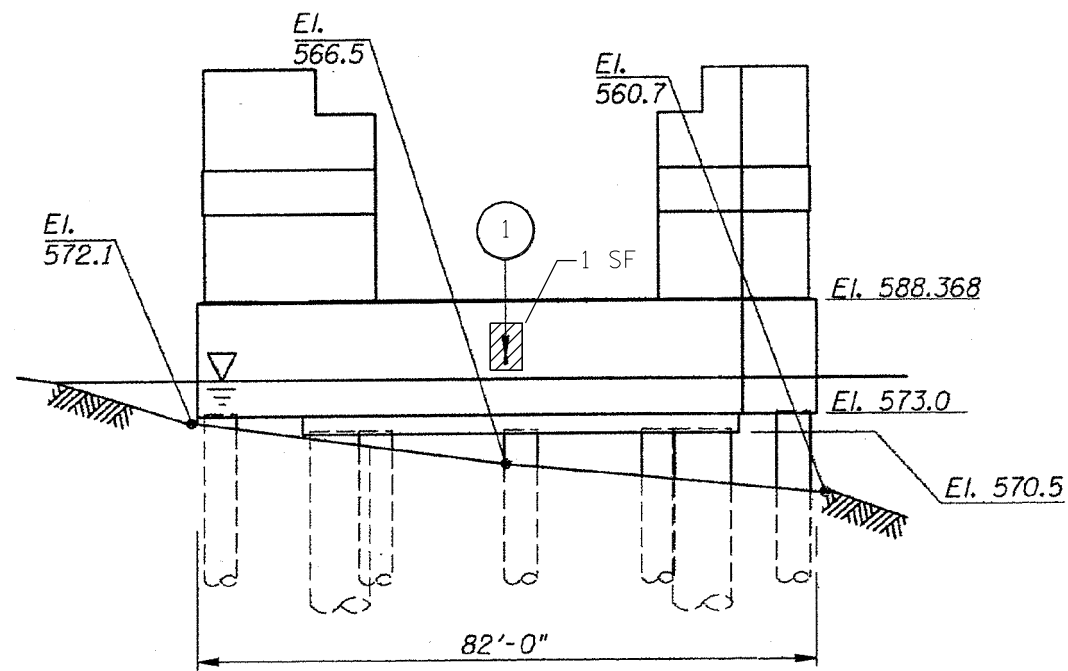
\* NOTE: COST OF THE JACKET WILL BE INCLUDED IN THE PAY ITEM: 'STRUCTURAL REPAIR OF CONCRETE'. SEE SPECIAL PROVISION FOR PILE JACKETING.

LOCATION 3  
IL-43 OVER  
CHICAGO SANITARY &  
SHIPPING CANAL  
S.N. 016-0991

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATION 3 BRIDGE REPAIR PLANS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
Default	11113-shr-plan.dgn	DRAWN - 11 /20 /13	REVISED -		SCALE:	SHEET 3 OF 5 SHEETS	STA.	TO STA.	VAR.	2013-043BR	COOK	22	17
	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -		CONTRACT NO. 60W97								
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -		ILLINOIS FED. AID PROJECT								



PLAN



SOUTH ELEVATION

NOTE:

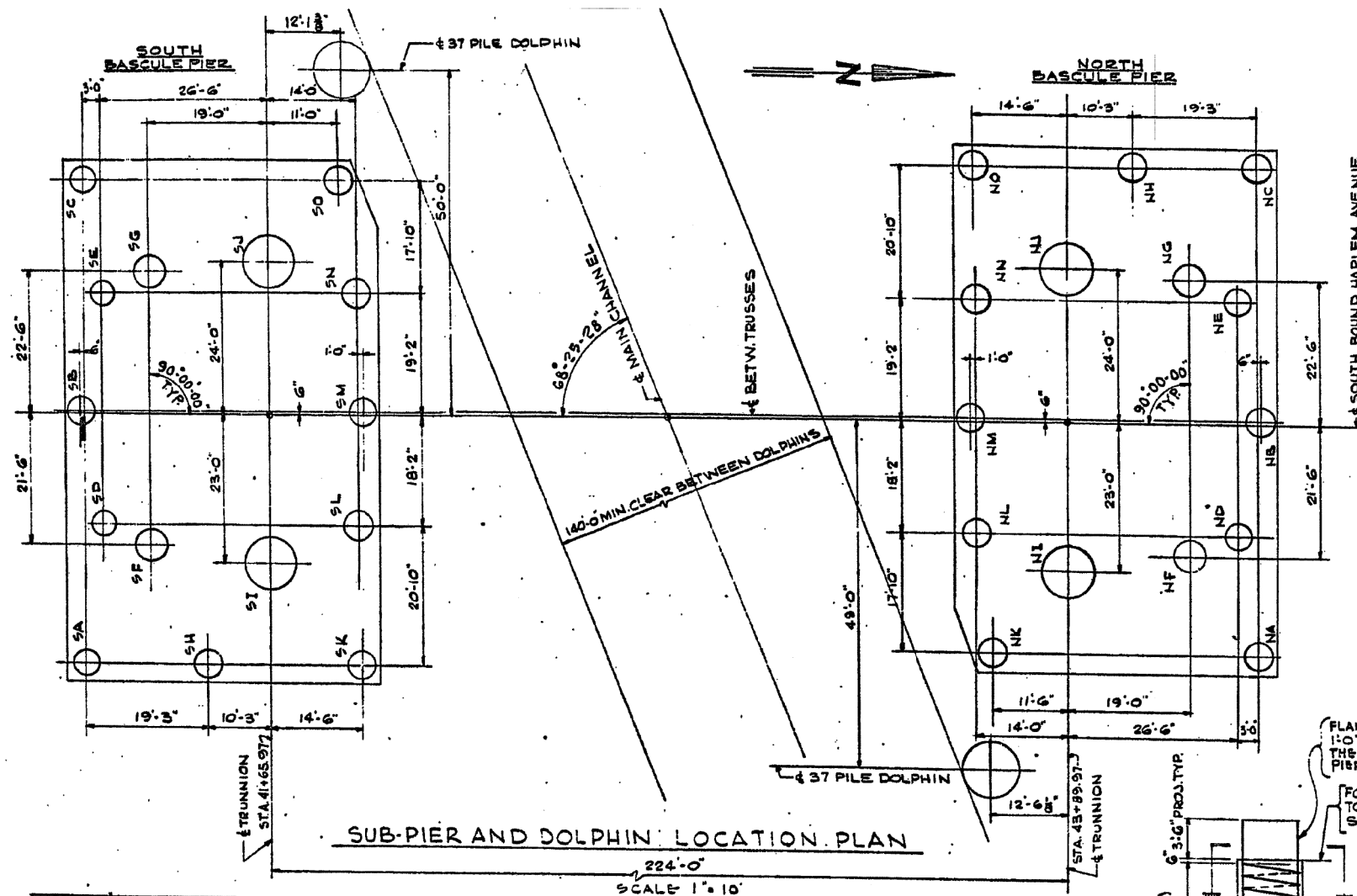
- ① STRUCTURAL REPAIR OF CONCRETE SECTION LOSS MEASURING 4 INCHES WIDE BY 1 FOOT HIGH WITH 1/2 INCH PENETRATION AT THE MIDPOINT OF THE SOUTH PIER FACE FROM 2 FEET ABOVE THE WATERLINE TO 3 FEET ABOVE THE WATERLINE

LEGEND

STRUCTURAL REPAIR OF CONCRETE ≤ 5" (1 SF)

LOCATION 3  
IL-43 OVER  
CHICAGO SANITARY &  
SHIPPING CANAL  
S.N. 016-0991

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATION 3 BRIDGE REPAIR PLANS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	ct:\pwork\pwork\hardnettbr\d0359751\041113-shr-plan.dgn	DRAWN - 11 /20 /13	REVISED -		SCALE:	SHEET 4 OF 5 SHEETS	STA. TO STA.	VAR.	2013-043BR	COOK	22	18
	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -					CONTRACT NO. 60W97				
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -					ILLINOIS FED. AID PROJECT				

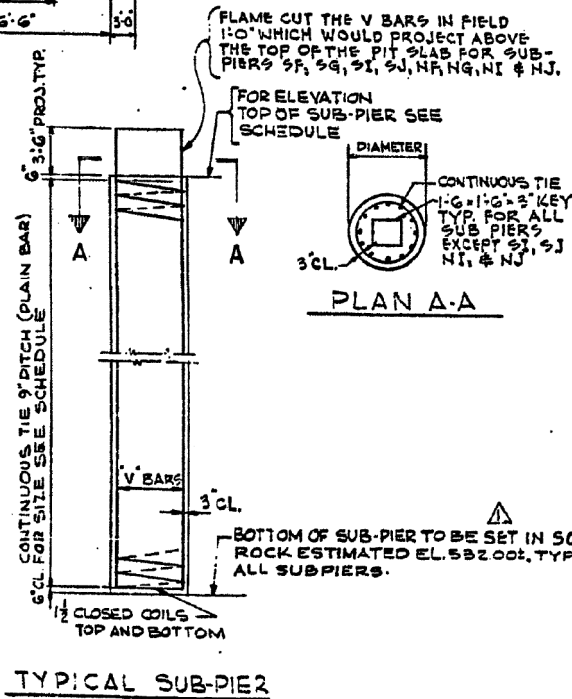


SUB-PIER AND DOLPHIN LOCATION PLAN

SCALE 1" = 10'

SUB-PIER SCHEDULE SOUTH PIER					
SUB-PIER	DIAMETER	ELEVATION TOP OF SUB-PIER	REINFORCEMENT		
			V BARS	CONTINUOUS COIL TIE	SIZE LENGTH
SA	4'-0"	574.00	12-#11 x 45'-6"	4	628'
SB	4'-0"	571.50	12-#11 x 43'-0"	4	592'
SC	4'-0"	574.00	12-#11 x 45'-6"	4	628'
SD	4'-0"	571.50	12-#11 x 43'-0"	4	592'
SE	4'-0"	571.50	12-#11 x 43'-0"	4	592'
SF	5'-0"	571.50	18-#11 x 43'-0"	4	761'
SG	5'-0"	571.50	18-#11 x 43'-0"	4	761'
SH	4'-0"	574.00	12-#11 x 43'-0"	4	628'
SI	8'-6"	571.50	53-#11 x 43'-0"	5	1357'
SJ	8'-6"	571.50	53-#11 x 43'-0"	5	1357'
SK	4'-0"	574.00	12-#11 x 43'-0"	4	628'
SL	4'-0"	571.50	13-#11 x 43'-0"	4	592'
SM	4'-0"	571.50	12-#11 x 43'-0"	4	592'
SN	4'-0"	571.50	13-#11 x 43'-0"	4	592'
SO	4'-0"	574.00	12-#11 x 45'-6"	4	628'

SUB-PIER SCHEDULE NORTH PIER					
SUB-PIER	DIAMETER	ELEVATION TOP OF SUB-PIER	REINFORCEMENT		
			V BARS	CONTINUOUS COIL TIE	SIZE LENGTH
NA	4'-0"	573.25	12-#11 x 44'-9"	4	617'
NB	4'-0"	570.75	12-#11 x 42'-3"	4	581'
NC	4'-0"	573.25	12-#11 x 44'-9"	4	617'
ND	4'-0"	570.75	12-#11 x 42'-3"	4	581'
NE	4'-0"	570.75	12-#11 x 42'-3"	4	581'
NF	5'-0"	570.75	18-#11 x 42'-3"	4	747'
NG	5'-0"	570.75	18-#11 x 42'-3"	4	747'
NH	4'-0"	573.25	12-#11 x 44'-9"	4	617'
NI	8'-6"	570.75	53-#11 x 42'-3"	5	1332'
NJ	8'-6"	570.75	53-#11 x 42'-3"	5	1332'
NK	4'-0"	573.25	12-#11 x 44'-9"	4	617'
NL	4'-0"	570.75	13-#11 x 42'-3"	4	581'
NM	4'-0"	570.75	12-#11 x 42'-3"	4	581'
NN	4'-0"	570.75	13-#11 x 42'-3"	4	581'
NO	4'-0"	573.25	12-#11 x 44'-9"	4	617'



TYPICAL SUB-PIER

- NOTES:**
- EL. 532.00 (BOTTOM OF SUB-PIER) IS ESTIMATED ON THE BASIS OF SOIL BORINGS. EXACT ELEVATIONS OF BOTTOM OF SUB-PIER WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
  - CONTRACTOR SHALL MAKE PROPER PROVISIONS TO MAINTAIN CLEARANCE OF REINFORCEMENT FOR THE ENTIRE DEPTH OF SUB-PIER.
  - USE 1/2" CLOSED COILS TOP AND BOTTOM OF EACH SPIRAL. USE 4" SPACER BARS FOR 4'-0" AND 5'-0" SUB-PIERS AND 5" SPACER BARS FOR 8'-0" SUB-PIERS. THESE SPACER BARS WILL BE MEASURED FOR PAYMENT ON THE BASIS OF 25 LBS. PER LIN. FT. OF SPACER BAR AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR REINFORCEMENT BARS.
  - IF THE BOTTOM OF SUB-PIER IS LOWER THE CONTRACTOR SHALL EXTEND THE REINFORCEMENT BY SPLICING TO EACH VERTICAL BAR AN EQUAL SIZE BAR EXTENDING TO THE BOTTOM OF SUB-PIER AND PROVIDING A 24 BAR DIAMETER LAP.
- FOR PRESET ANCHOR BOLTS IN SUB-PIERS SEE DRGS. S-4 & S-18.

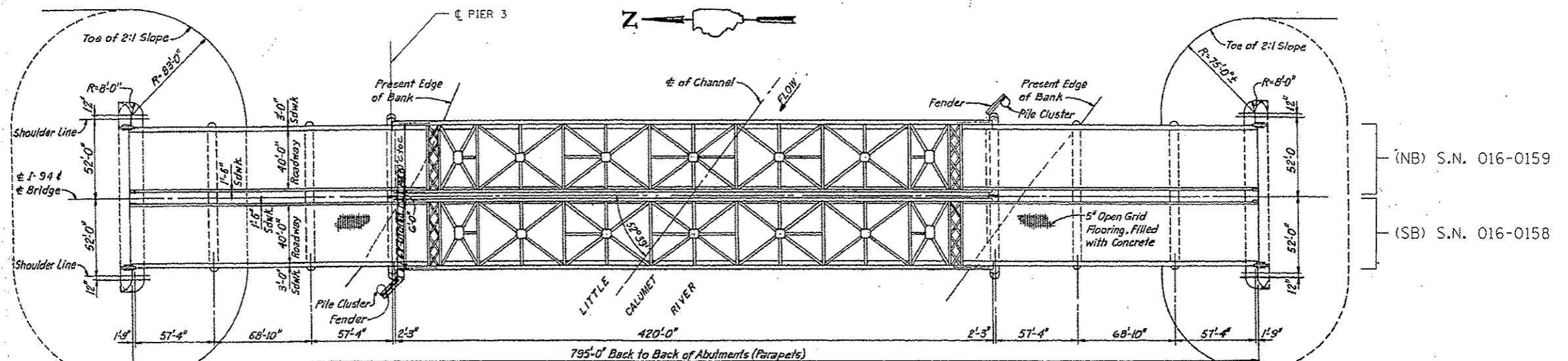
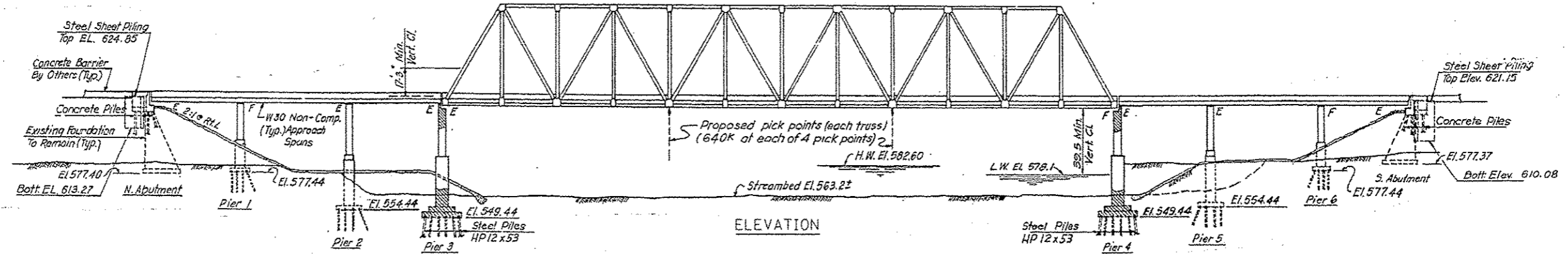
**FOR INFORMATION ONLY**

EXISTING PLAN  
LOCATION 3  
IL 43 OVER  
CHICAGO SANITARY &  
SHIPPING CANAL  
S.N. 016-0991

**Design Stresses**  
 $f_c = 3500$  psi  
 $f_y = 60,000$  psi (Reinforcing)  
 $f_s = 20,000$  psi (AASHTO M 183)  
 $f_s = 27,000$  psi (AASHTO M 223, Gr. 50)

**Loading**  
 $H_S = 20' 4$  ALT.  
 Allow for 25 psf for  
 Future wearing surface

**Design Specifications**  
 AASHTO 1989 & Interim  
 AASHTO 1983 Seismic Guide Specifications



PLAN

**TOTAL BILL OF MATERIAL**  
 S.N. 016-0158 & S.N. 016-0159

ITEM	UNIT	TOTAL
TREATED TIMBER	F.B.M.	1595
HARDWARE	POUND	7320
UNDERWATER INSTALLATION OF TREATED TIMBER	F.B.M.	1095

**BILL OF MATERIAL S.N. 016-0158**

ITEM	UNIT	TOTAL
TREATED TIMBER	F.B.M.	1181
HARDWARE	POUND	3660
UNDERWATER INSTALLATION OF TREATED TIMBER	F.B.M.	1010

**BILL OF MATERIAL S.N. 016-0159**

ITEM	UNIT	TOTAL
TREATED TIMBER	F.B.M.	414
HARDWARE	POUND	3660
UNDERWATER INSTALLATION OF TREATED TIMBER	F.B.M.	85

LEGEND

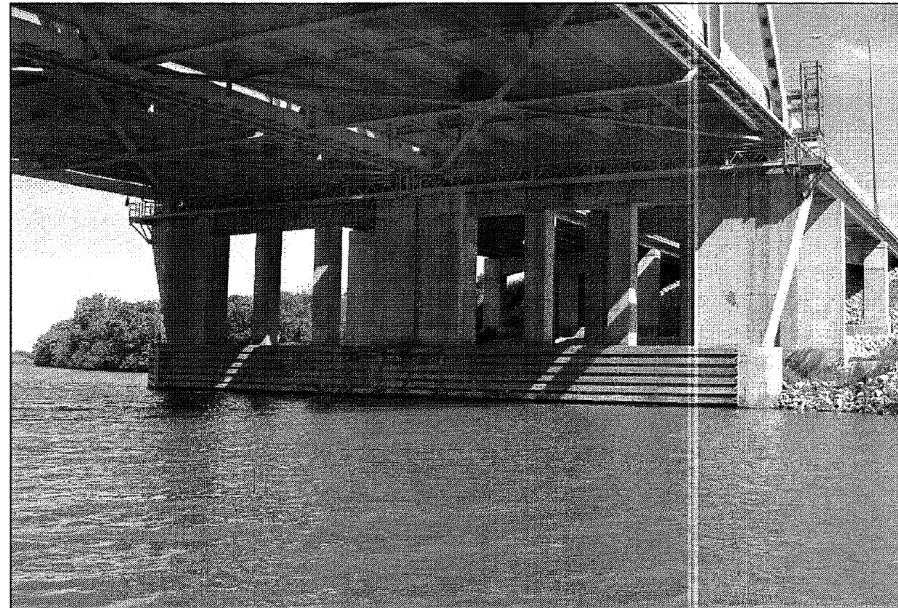
TIMBER REPLACEMENT



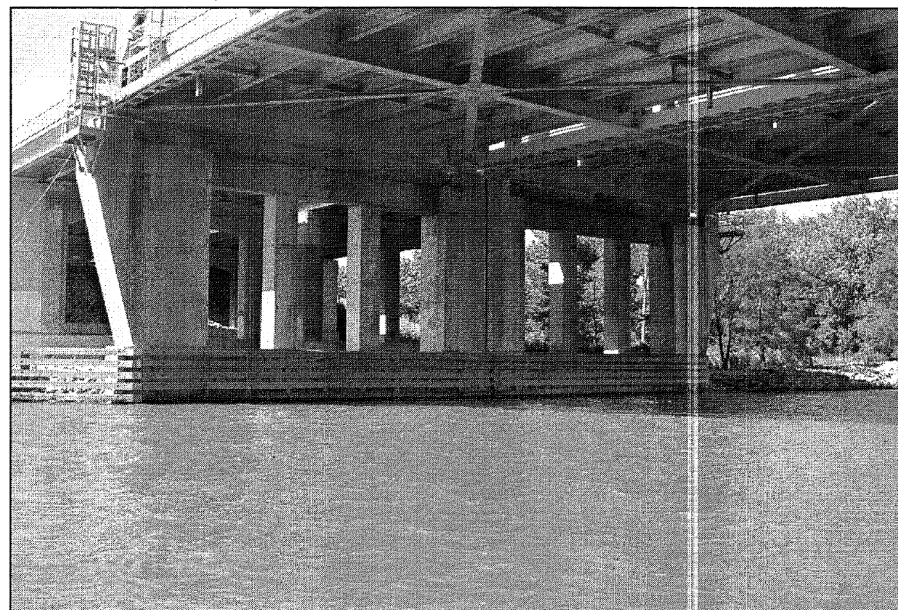
*David Carl Puzey* 1/23/14  
 Expires 1/30/14

LOCATIONS 4-5  
 I-94 OVER  
 LITTLE CAL SAG  
 CHANNEL  
 S.N. 016-0158, 0159

FILE NAME: c:\pwork\pwork\hardnettr\08359781\01113-ehc-plan.dgn	USER NAME: hardnettr	DESIGNED: BH; RA	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATIONS 4-5 BRIDGE REPAIR PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE: 1/8" = 1'-0"	PLotted: 12/11/2013	DRAWN: 11/20/13	REVISED: -			VAR.	2013-043BR	COOK	22	20	
Default		CHECKED: JAM	REVISED: -			CONTRACT NO. 60W97					
		DATE: 11/21/13	REVISED: -			ILLINOIS FED. AID PROJECT					



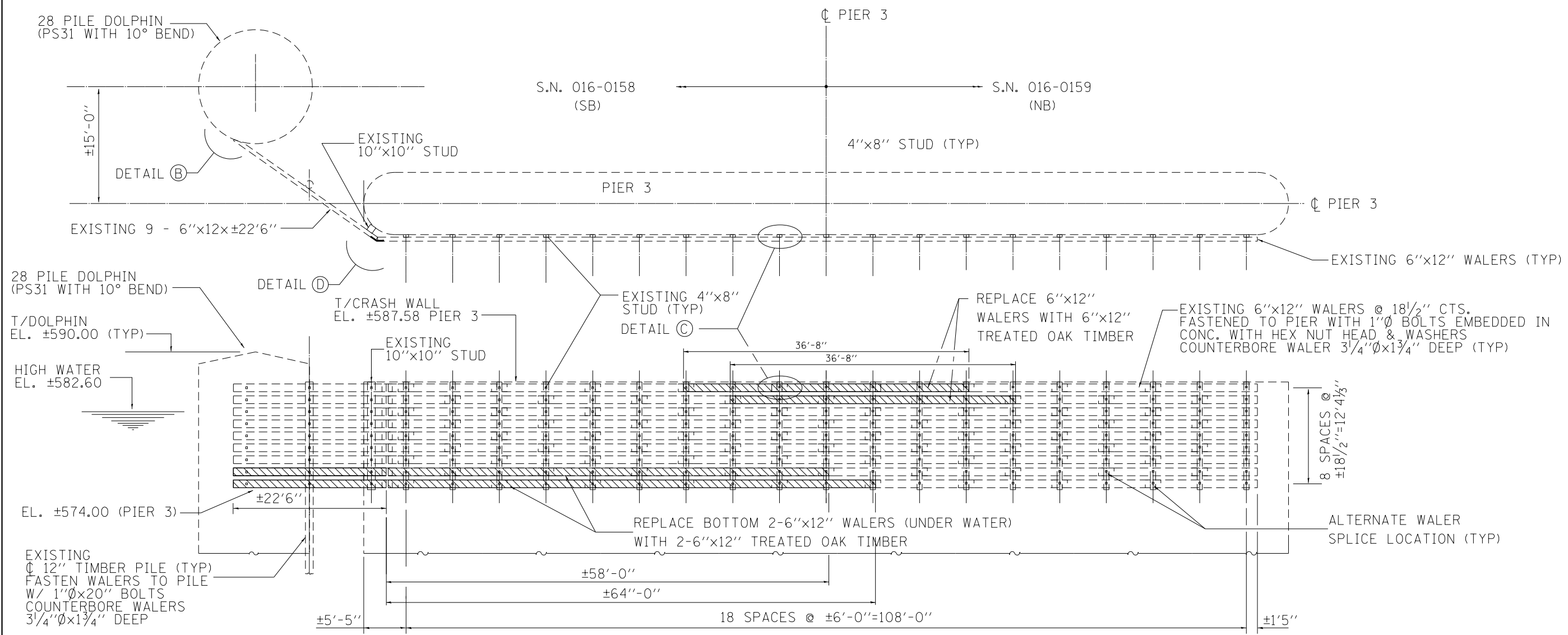
View of Northbound and Southbound Pier 3, Looking Northwest.



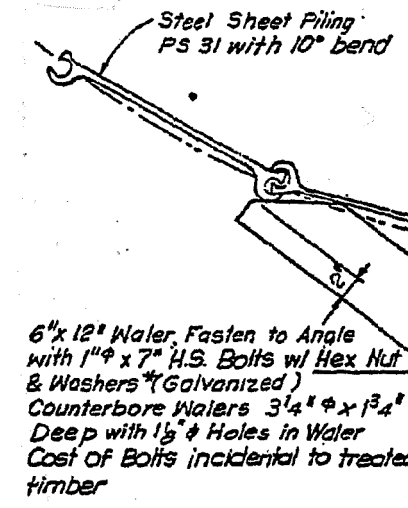
View of Northbound and Southbound Pier 4, Looking Southwest.

LOCATIONS 4-5  
 I-94 OVER  
 LITTLE CAL SAG  
 CHANNEL  
 S.N. 016-0158, 0159

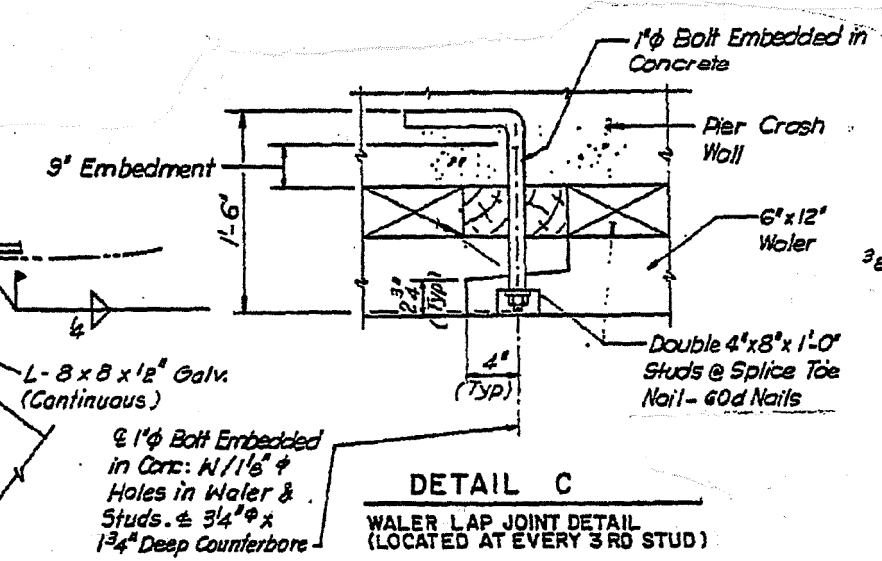
FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATIONS 4-5 BRIDGE REPAIR PLANS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw\work\p\pidot\hardnettbr\d0359751\041113-shr-plan.dgn	DRAWN - 11 /20 /13	REVISED -	VAR.					2013-043BR	COOK	22	21	
Default	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -		SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.			CONTRACT NO. 60W97				
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -		ILLINOIS FED. AID PROJECT							



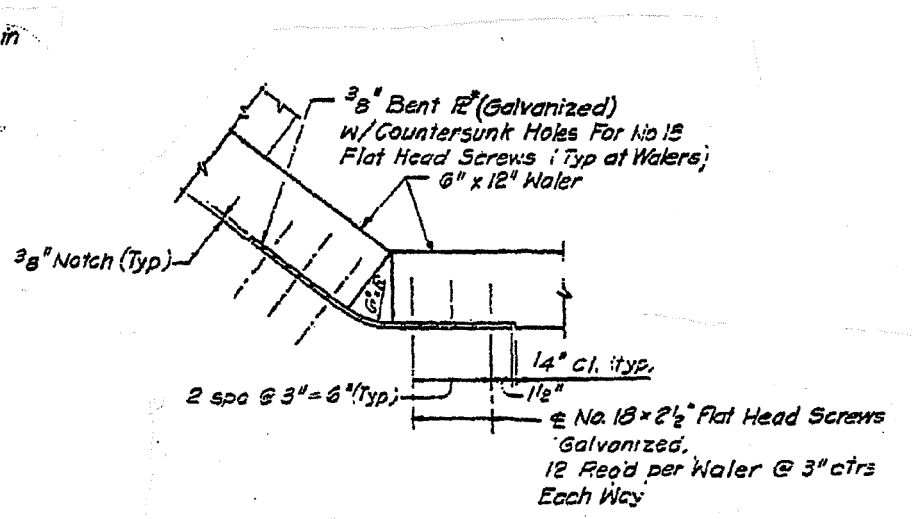
**PIER NO. 3 NORTH ELEVATION (LOOKING NORTH)**



**DETAIL B**



**DETAIL C  
WALER LAP JOINT DETAIL  
(LOCATED AT EVERY 3RD STUD)**



**DETAIL D**

LEGEND

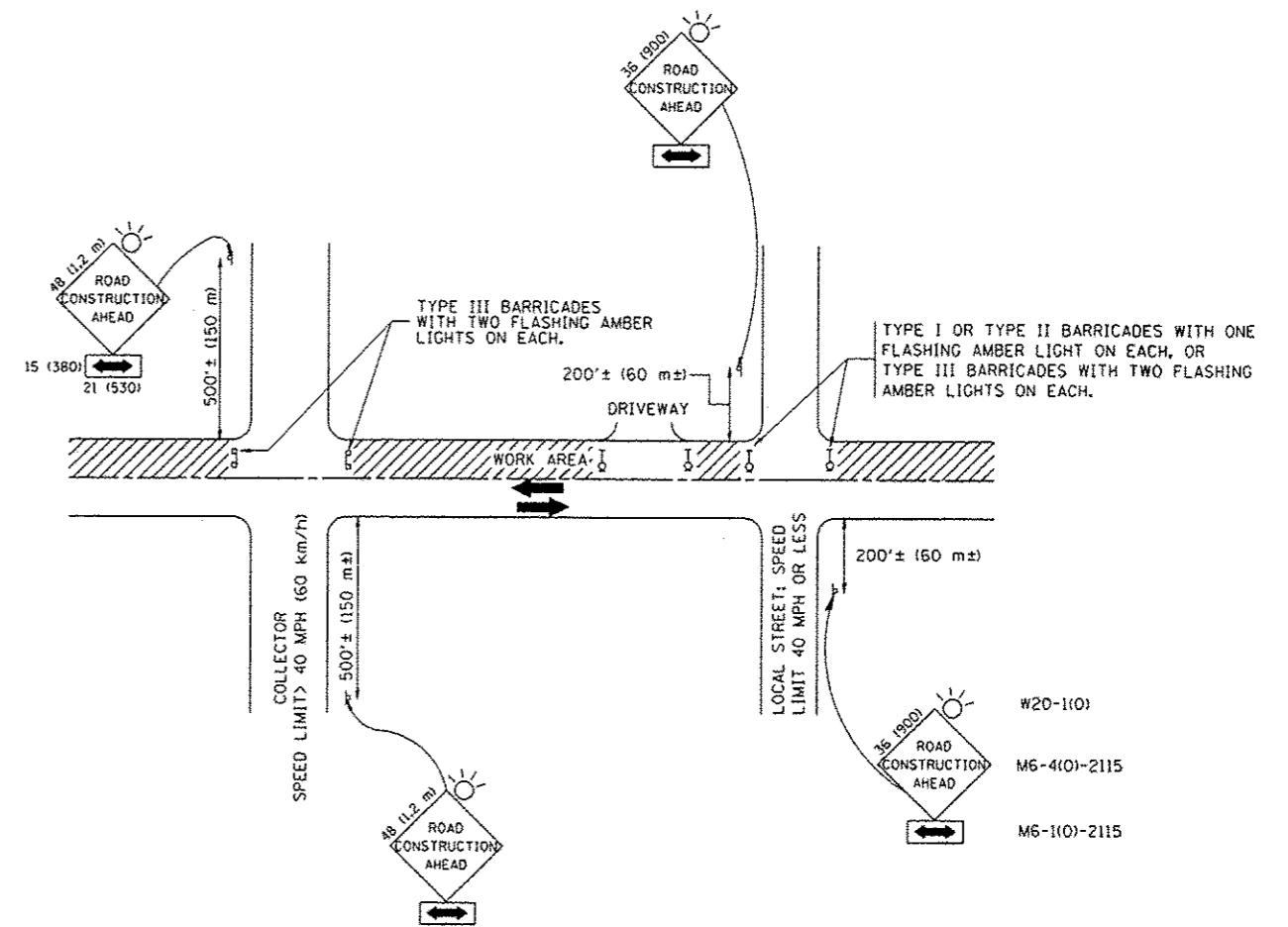


NOTE

SEE SPECIAL PROVISIONS FOR UNDERWATER INSTALLATION OF TREATED LUMBER

FILE NAME =	USER NAME = hardnettr	DESIGNED - BH; RA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATIONS 4-5 BRIDGE REPAIR PLANS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
Default	Plot Scale = 100.0000' / in.	CHECKED - JAM	REVISED -		SCALE:	SHEET 3 OF 3 SHEETS	STA.	TO STA.	VAR.	2013-043BR	COOK	22	22
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -										

ILLINOIS FED. AID PROJECT



**TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

**NOTES:**

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS:
  1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
 

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 70150), STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

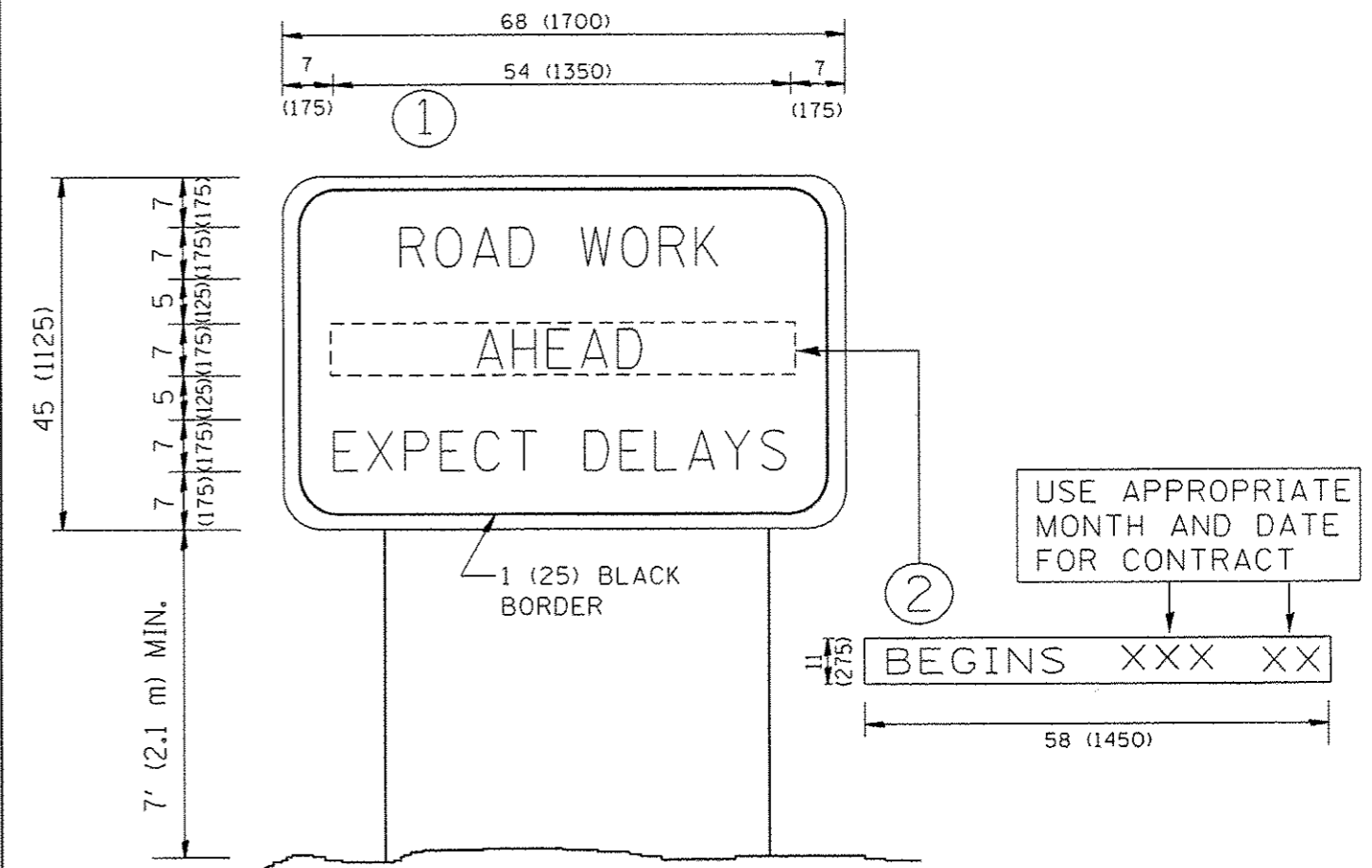
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME *	USER NAME * hardnetbr	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
c:\pwwork\pwwork\hardnetbr\d0297751\0	41113:ahs:plandgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE * 100.0000 * / in.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE * 1/14/2014	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS		F.A. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	VAR.	2013-0438R	COOK	22	22A
STA. TO STA.		TC-10		CONTRACT NO. 60W97		
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 = hardnetbr	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\hardnetbr\d8359751\ND	11113-shc-planidgn	DRAWN -	REVISED - R. MIRS 12-11-97			VAR.	2013-043BR	COOK	22	228
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED - T. RAMMACHER 02-02-99			TC-22		CONTRACT NO. 60W97		
	PLOT DATE = 1/14/2014	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