

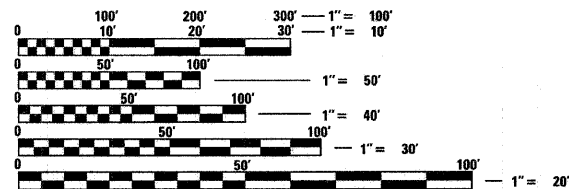
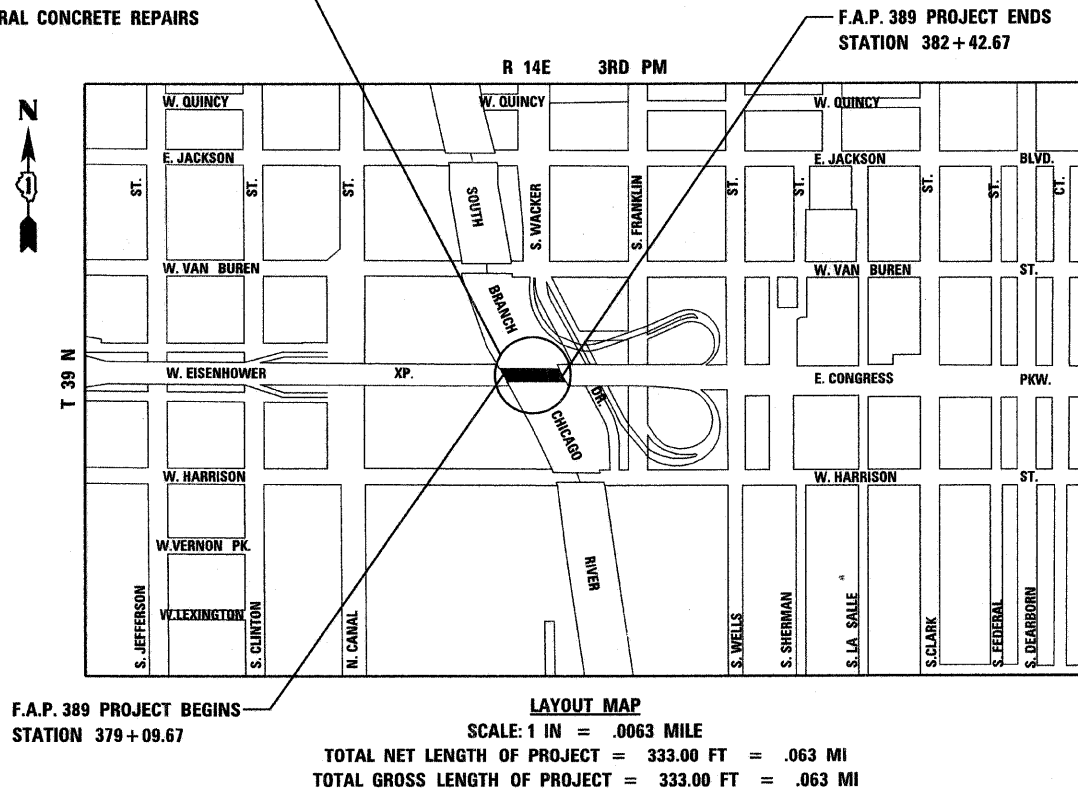
FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS IMPROVEMENT IS LOCATED
IN THE CITY OF CHICAGO

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 389
CONGRESS PARKWAY OVER SOUTH BRANCH CHICAGO RIVER
SECTION 2424.2 B-1
PIER PROTECTION CELL (DOLPHIN) REPLACEMENT
COOK COUNTY
C-91-188-08
PROJECT: BRF-0389(003)

PROJECT LOCATION: THE PROJECT INCLUDES THE REMOVAL & REPLACEMENT OF THE TWO EXISTING DOLPHINS AT THE NW & SE QUADRANTS OF THE CONGRESS PARKWAY BRIDGE (SN 016-2445) OVER THE SOUTH BRANCH OF THE CHICAGO RIVER. THE REPLACEMENT OF THE EXISTING TIMBER FENDER SYSTEM AND MISCELLANEOUS STRUCTURAL CONCRETE REPAIRS ALONG EACH RIVER PIER.

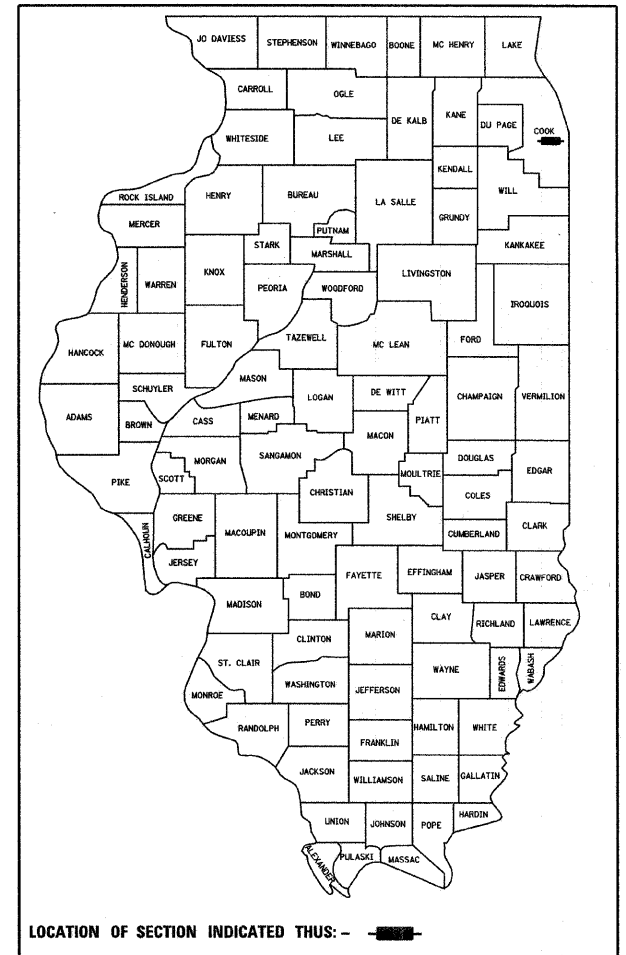


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

C.U.A.N.
DIGGER - CHICAGO UTILITY ALERT NETWORK
1-312-744-7000

DESIGN - CONSULTANT SERVICES, DISTRICT ONE - BRIAN KUTTAB/PROJECT MANAGER 847-705-4431

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2 B-1	COOK	23	1
FED. ROAD DIST. NO. 1	ILLINOIS		+ 1	
CONTRACT NO. 60E11			24	
D-91-188-08				



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 26 20 08

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

December 5, 20 08
[Signature]
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

December 5, 20 08
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



230 WEST MONROE STREET, SUITE 900
CHICAGO, ILLINOIS 60606
TEL: 312-782-8150 FAX: 312-782-1684



[Signature]
EXPIRES: November 30, 2009



[Signature]
EXPIRES: November 30, 2008

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

CONTRACT NO. 60E11

GENERAL NOTES

1. ALL ELEVATIONS IN THIS PLAN SET ARE BASED ON THE CHICAGO CITY DATUM. THE CONVERSION EQUATION FROM CCD TO NAVD 88 IS: NAVD 88 ELEVATION = CCD + 579.19.
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE RESPECTIVE UTILITIES OF THE CITY OF CHICAGO. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL THE CHICAGO UTILITY ALERT NETWORK (C.U.A.N.) AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRICAL, TELEPHONE, CABLE, AND GAS FACILITIES (48 HOURS NOTIFICATION IS REQUIRED). THE CONTRACTOR SHALL CONTACT THE CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT, PERMIT SECTION AT (312) 747-7893 FOR WATER AND CITY SEWER LOCATIONS.
3. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THE DRAWINGS, REPRESENT DATA RECEIVED FROM VARIOUS SOURCES. IT IS NOT GUARANTEED TO BE CORRECT OR ALL INCLUSIVE. THE CONTRACTOR SHALL CONDUCT HIS OWN INVESTIGATIONS INTO THE LOCATION, SIZE, DEPTH, AND NATURE OF ANY AND ALL EXISTING UTILITIES WHICH MAY IMPACT THE WORK UNDER THIS CONTRACT. ANY EXISTING UTILITIES WHICH ARE TO REMAIN IN SERVICE SHALL BE FULLY PROTECTED BY THE CONTRACTOR AND ANY DAMAGE CAUSED BY THE CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY AND ALL SURFACE AND UNDERGROUND UTILITIES, EVEN THOUGH THEY MAY NOT BE IDENTIFIED ON THE PLANS.
4. WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBIC, MARINE TRAFFIC ON THE RIVER, AND ADJOINING COMMERCIAL AND RESIDENTIAL AREAS.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM IDOT.
6. ANY EXISTING DRAINAGE FACILITIES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO IDOT.
7. EXISTING PAVEMENT, SIDEWALKS, OR EMBANKMENT DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE ENGINEER AT NO COST TO THE DEPARTMENT.
8. CDOT STAFF WILL OPERATE THE BRIDGE THROUGHOUT THE DURATION OF THIS PROJECT. COORDINATION BETWEEN THE CONTRACTOR AND BRIDGE TENDER IS REQUIRED TO PREVENT DISRUPTION TO WATERWAY TRAFFIC. ROUTINE MAINTENANCE OF THE LIFT SPAN WILL REMAIN THE RESPONSIBILITY OF CDOT AS PER THEIR CURRENT AGREEMENT WITH THE DEPARTMENT. THE CONTRACTOR WILL MAINTAIN ACCESS TO THE BRIDGE HOUSE AND MECHANICAL ROOMS AT ALL TIMES. THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY FOR THE DURATION OF THIS PROJECT. THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. THE CONTRACTOR SHALL SUBMIT FOUR (4) COPIES OF THE REQUIRED SHOP DRAWINGS FOR REVIEW AND APPROVAL TO THE BUREAU OF BRIDGES AND STRUCTURES, 2300 SOUTH DIRKSEN PARKWAY, SPRINGFIELD, IL 62764. AFTER APPROVAL OF THE INITIAL SUBMITTAL, THE CONTRACTOR SHALL SUBMIT ONE (1) SET OF SHOP DRAWINGS TO THE ENGINEER OF MATERIALS, 126 EAST ASH STREET, SPRINGFIELD, IL 62706, AND EIGHT (8) SETS OF SHOP DRAWINGS TO BE DISTRIBUTED TO:
 - DISTRICT 1 DISTRICT ENGINEER (1)
 - FABRICATOR (1)
 - CONTRACTOR (2)
 - RESIDENT ENGINEER (2)
 - DISTRICT 1 BUREAU OF MATERIALS (2)
11. THE CONTRACTOR SHALL HIRE A QUALIFIED ENVIRONMENTAL FIRM TO CARRY OUT SAMPLING AND ANALYSIS OF ALL EXCAVATED RIVER SEDIMENTS. ALL RIVER SEDIMENTS EXCAVATED AND DETERMINED BY THE ENVIRONMENTAL FIRM TO BE CONTAMINATED SHALL BE MANAGED OFF-SITE AS NON-SPECIAL WASTE. THE RIVER SEDIMENTS POTENTIAL CONTAMINANTS OF CONCERN ARE UNKNOWN AND SHALL BE ANALYZED ACCORDINGLY AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS. PAYMENT FOR THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 669 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
12. THE CONTRACTOR SHALL COMPLY WITH ALL FLOODWAY CONDITION AT NO ADDITIONAL COST TO THE CONTRACT.

SHEET INDEX

- | | |
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| 1 | COVER SHEET |
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| 4 | SCHEDULE OF QUANTITIES |
| 5 | ALIGNMENT, TIES AND BENCHMARKS |
| 6 | EROSION AND SEDIMENT CONTROL PLAN |
| 7 | NAVIGATION LIGHTS - EAST & WEST DOLPHINS |
| 7a | NAVIGATION LIGHTS DETAILS |
| 8-23 | STRUCTURAL PLANS |

STATE STANDARDS

280001-04 TEMPORARY EROSION CONTROL SYSTEMS

PROJECT COMMITMENTS:

1. A COE PERMITS WILL BE REQUIRED FOR THIS PROJECT AND THE CONTRACTOR SHALL FULLY COMPLY WITH ALL THE REQUIREMENTS OF THE COE/404 PERMIT. PAYMENT FOR THESE REQUIREMENTS SHALL BE INCLUDED IN THE COST OF THE VARIOUS CONTRACT PAY ITEMS.
2. THE PLANNED WORK DOES NOT REQUIRE A COAST GUARD BRIDGE PERMIT AMENDMENT OR PERM IT PROCESS, BUT THE PLACEMENT OF EQUIPMENT IN THE WATERWAY, OR TEMPORARY REDUCTIONS TO NAVIGATION CLEARANCES, REQUIRES COORDINATION WITH THIS OFFICE TO ENSURE THAT NAVIGATION IS NOT IMPEDED DURING THE WORK. THIS OFFICE MUST BE CONTACTED AS SOON AS POSSIBLE, BUT NO LESS THAN 30 DAYS PRIOR TO THE START OF WORK, TO COORDINATE THE IN-WATER WORK ON THE SOUTH BRANCH OF CHICAGO RIVER. ANY WORK BARGES IN THE WATERWAY USED TO ACCOMPLISH THE WORK MAY NEED TO MOVE FOR PASSING VESSEL TRAFFIC AND/OR BE MOVED OUTSIDE OF THE NAVIGATION CHANNEL DURING NON-WORK. PLEASE CONTACT KURT CARLSON AT (216) 902-6086 TO COORDINATE THE PLANNED WORK, RECEIVE WRITTEN AUTHORIZATION FROM THE COAST GUARD, AND ISSUE NOTICES TO MARINERS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUATE PROTECTION OF ALL EXISTING SEWER LINES, SEWER STRUCTURES, MWRD DISTRICT FACILITIES IN THE GENERAL AREA, AND BENCH MONUMENTS. A 24-HOUR ACCESS SHALL BE MAINTAINED. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

PARSONS BRINCKERHOFF	USER NAME = psteld	DESIGNED - SBC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND GENERAL NOTES HIGHWAY STANDARDS AND COMMITMENTS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = NONE	CHECKED - AH	REVISED -		CONTRACT NO. 60E11						
	PLOT DATE = 10/15/2008	DATE - 10/15/08	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7a SHEETS	STA. 379+09.67 TO STA. 382+42.67	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

LOCATION:
 FAP 389-CONGRESS PARKWAY OVER THE SOUTH BRANCH OF
 CHICAGO RIVER-COOK COUNTY
 CITY OF CHICAGO

SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE	CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	X032-2A
20700220	POROUS GRANULAR EMBANKMENT	CU YD	88	88
28000400	PERIMETER EROSION BARRIER	FOOT	125	125
59000200	EPOXY CRACK INJECTION	FOOT	12	12
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1.0	1.0
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	33	33
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	91	91
X0326143	SEDIMENT CONTROL SILT CURTAIN	L SUM	1.0	1.0
X8260110	NAVIGATION LIGHTING SYSTEM	L SUM	1.0	1.0
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0	1.0
Z0076600	TRAINEES	HOOR		
X0326229	DOLPHINS	EACH	2	2
X0326230	REMOVE EXISTING TIMBER PILE DOLPHINS	EACH	2	2
X0326231	REMOVAL OF EXISTING TIMBER FENDERS	L SUM	1.0	1.0
X0326232	FENDER SYSTEM	L SUM	1.0	1.0



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PLOT DATE = 10/16/2008	DATE - 10/15/08	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES	
SCALE: NONE	SHEET NO. 3 OF 7a SHEETS
STA. 379+09.67 TO STA. 382+42.67	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2 B-I	COOK	23	3
CONTRACT NO. 60E11				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

POROUS GRANULAR EMBANKMENT				CU YD
LOCATION	STATION	OFFSET	UNIT	QUANTITY
NORTHWEST DOCKWALL	378+83.60	76.25 LT	CU YD	88
TOTAL CU YD				88

PERIMETER EROSION BARRIER				FOOT
LOCATION	STATION	OFFSET	UNIT	QUANTITY
NORTHWEST DOCKWALL	378+90.00	NA	FOOT	50
SOUTHEAST DOCKWALL	382+35.00	NA	FOOT	75
TOTAL FOOT				125

EPOXY CRACK INJECTION				FOOT
LOCATION	STATION	OFFSET	UNIT	QUANTITY
WEST RIVER PIER	379+72.28	NA	FOOT	12
TOTAL FOOT				12

SEDIMENT CONTROL SILT CURTAIN				L. SUM
LOCATION	STATION	OFFSET	UNIT	QUANTITY
WEST RIVER PIER	379+72.28	NA	L. SUM	0.5
EAST RIVER PIER	381+65.21	NA	L. SUM	0.5
TOTAL L. SUM				1.0

STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)				SQ FT
LOCATION	STATION	OFFSET	UNIT	QUANTITY
WEST RIVER PIER	379+72.28	NA	SQ FT	0
EAST RIVER PIER	381+65.21	NA	SQ FT	33
TOTAL SQ FT				33

STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)				SQ FT
LOCATION	STATION	OFFSET	UNIT	QUANTITY
WEST RIVER PIER	379+72.28	NA	SQ FT	49
EAST RIVER PIER	381+65.21	NA	SQ FT	42
TOTAL SQ FT				91

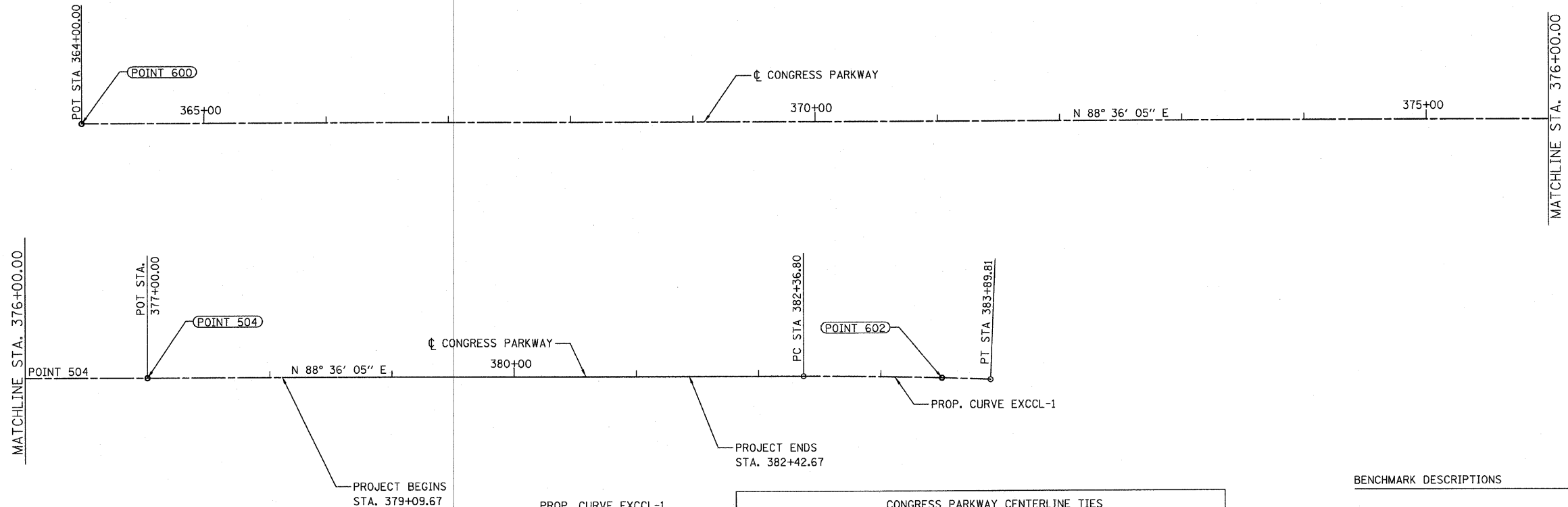
NAVIGATION LIGHTING SYSTEM				L. SUM
LOCATION	STATION	OFFSET	UNIT	QUANTITY
SOUTHEAST DOLPHIN	382+18.13	86.50 RT	L. SUM	0.5
NORTHWEST DOLPHIN	379+24.16	86.50 LT	L. SUM	0.5
TOTAL L. SUM				1.0

DOLPHINS				EACH
LOCATION	STATION	OFFSET	UNIT	QUANTITY
SOUTHEAST DOLPHIN	382+18.13	86.50 RT	EACH	1
NORTHWEST DOLPHIN	379+24.16	86.50 LT	EACH	1
TOTAL EACH				2

REMOVE EXISTING TIMBER PILE DOLPHINS				EACH
LOCATION	STATION	OFFSET	UNIT	QUANTITY
SOUTHEAST DOLPHIN	382+18.13	86.50 RT	EACH	1
NORTHWEST DOLPHIN	379+24.16	86.50 LT	EACH	1
TOTAL EACH				2

REMOVAL OF EXISTING TIMBER FENDERS				L. SUM
LOCATION	STATION	OFFSET	UNIT	QUANTITY
WEST RIVER PIER	379+72.28	NA	L. SUM	0.5
EAST RIVER PIER	381+65.21	NA	L. SUM	0.5
TOTAL L. SUM				1.0

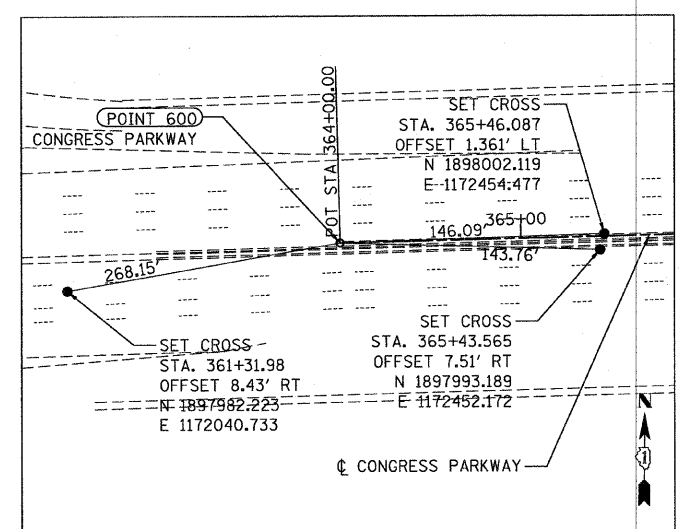
FENDER SYSTEM				L. SUM
LOCATION	STATION	OFFSET	UNIT	QUANTITY
WEST RIVER PIER	379+72.28	NA	L. SUM	0.5
EAST RIVER PIER	381+65.21	NA	L. SUM	0.5
TOTAL L. SUM				1.0



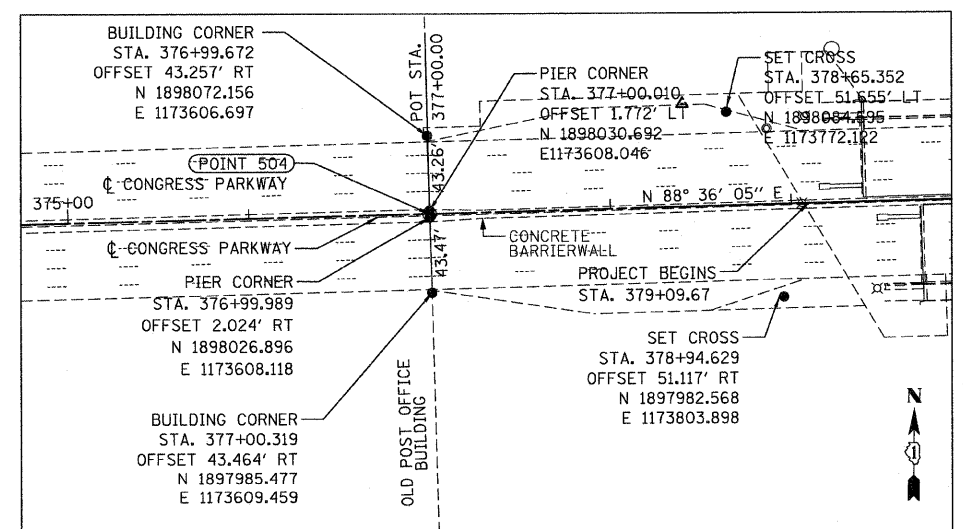
PROP. CURVE EXCCL-1
 PI STA. = 383+13.31
 $\Delta = 2^\circ 17' 43''$ (RT)
 $D = 1^\circ 30' 00''$
 $R = 3,819.72'$
 $T = 76.52'$
 $L = 153.01'$
 $E = 0.77'$
 P.C. STA. = 382+36.80
 P.T. STA. = 383+89.81

CONGRESS PARKWAY CENTERLINE TIES				
600	POT	STA. 364+00.00	N 1897997.193	E 1172308.467
504	POT	STA. 377+00.00	N 1898028.920	E 1173608.080
602	POT	STA. 383+50.00	N 1898043.107	E 1174257.910

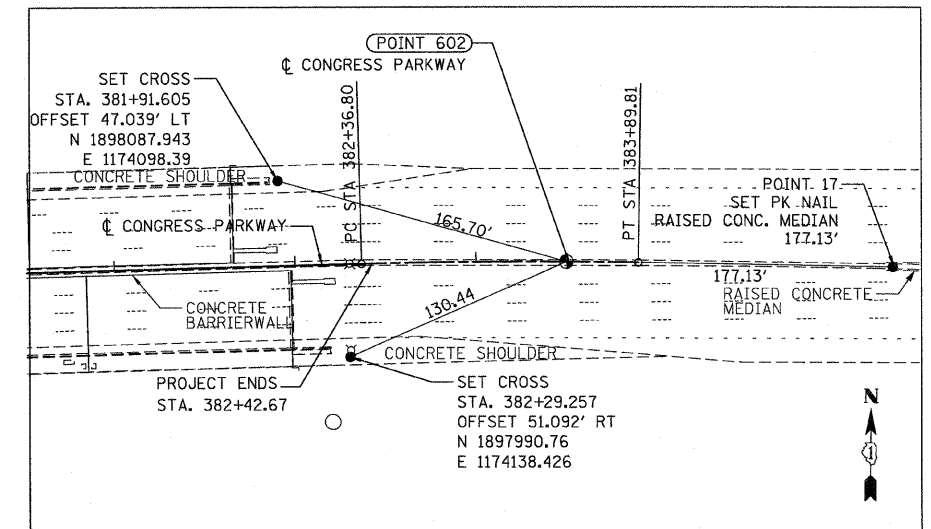
BENCHMARK DESCRIPTIONS	
BENCHMARK 1	BRASS DISK SET IN SIDEWALK ON THE SOUTHERLY SIDE OF HARRISON STREET EAST OF FRANKLIN STREET. ELEV. 17.655
BENCHMARK 3	BRASS DISK SET IN SIDEWALK NEAR THE NE CORNER OF WELLS STREET AND HARRISON STREET. ELEV. 14.214
BENCHMARK 2259	"X" CUT ON TOP OF STONE BASE UNDER SOUTH SIDE OF OF WINDOW ON EAST SIDE OF 2-STORY BRICK BUILDING AT THE NW CORNER OF CLINTON STREET AND POLK STREET. ELEV. 15.173



POINT 600



POINT 504



POINT 602



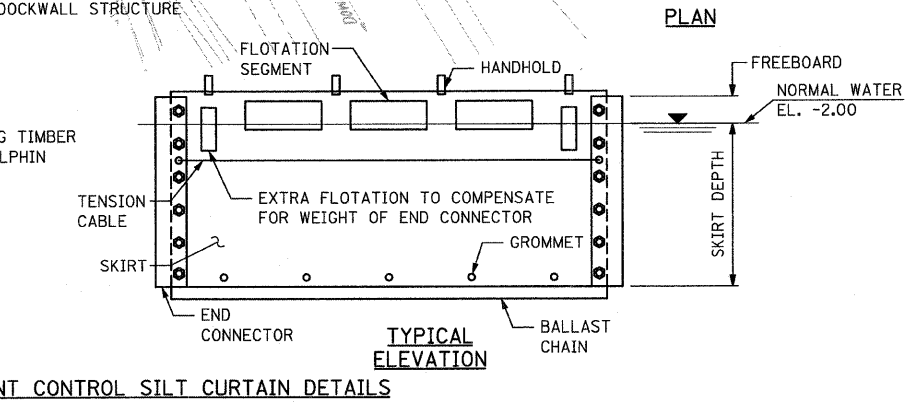
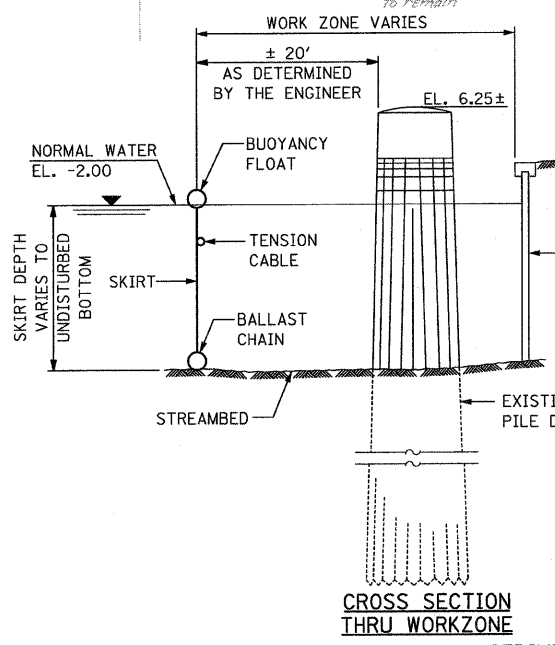
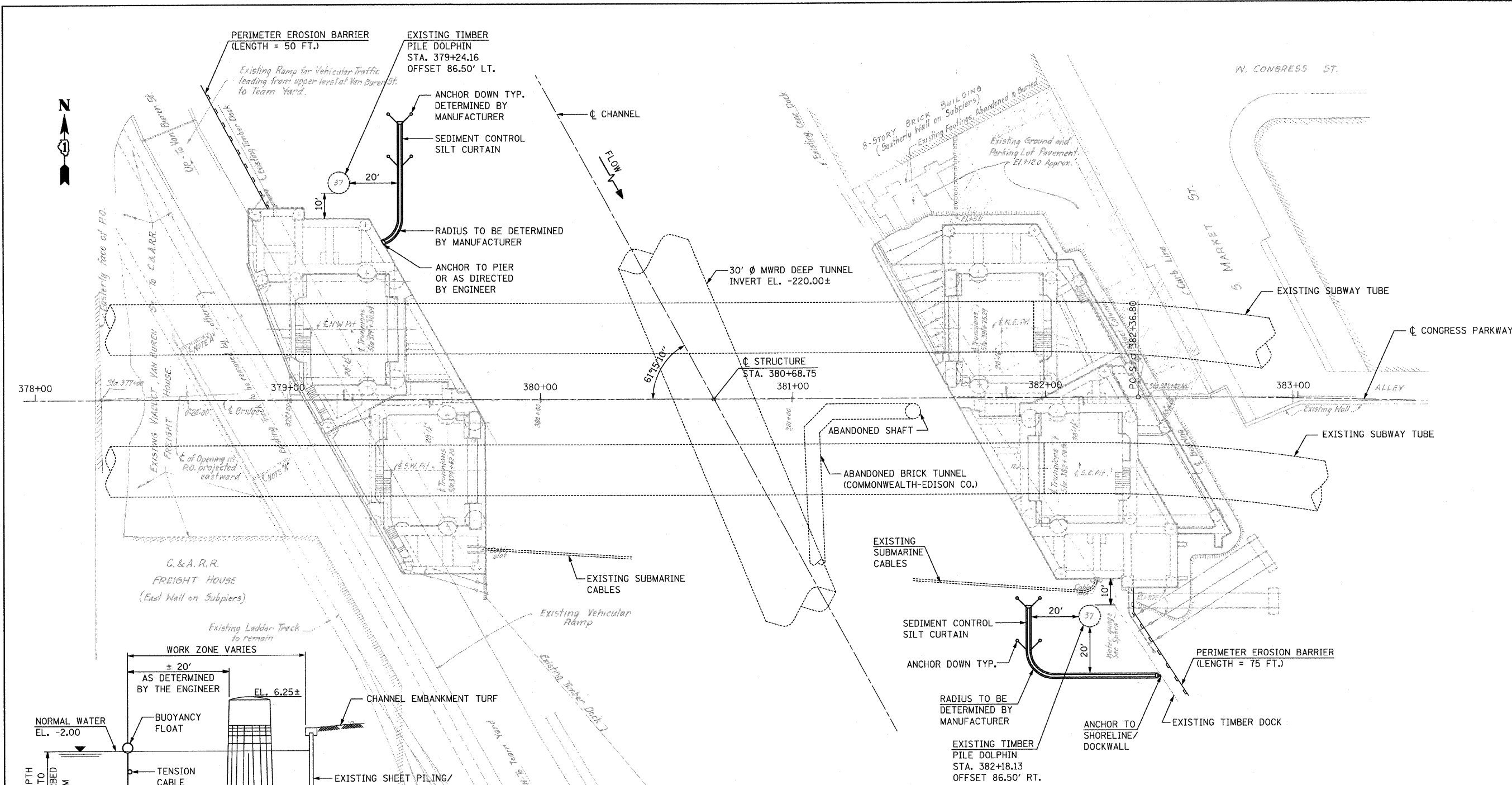
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PLOT DATE = 10/15/2008	DATE - 10/15/08	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT AND BENCHMARKS

SCALE: 1" = 50' SHEET NO. 5 OF 7a SHEETS STA. 379+09.67 TO STA. 382+42.67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2 B-1	COOK	23	5
CONTRACT NO. 60E11				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- NOTES:
1. ANY EXISTING CHANNEL EMBANKMENT TURF DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED ACCORDING TO ARTICLE 250.06 (b) OF THE STANDARD SPECIFICATIONS AND/OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED IN THE CONTRACT.
 2. THE CONTRACTOR SHALL INSTALL A FLOATING BOOM AROUND THE WORK BARGE AREA IN THE EVENT OF OIL AND/OR FUEL LEAKAGE FROM CONSTRUCTION EQUIPMENT AND TO ACCUMULATE EXCESS BROKEN TIMBER PILE PIECES DURING THE DOLPHIN REMOVAL ACTIVITIES. THIS COST SHALL BE INCLUDED WITH SEDIMENT CONTROL SILT CURTAIN.
 3. ANCHOR CURTAIN TO MAINTAIN STATIONARY LOCATION THROUGHOUT CONSTRUCTION.
 4. SEE SPECIAL PROVISIONS FOR SEDIMENT CONTROL SILT CURTAIN.
 5. SEE STANDARD 280001 FOR PERIMETER EROSION BARRIER DETAILS.

LEGEND

— PERIMETER EROSION BARRIER

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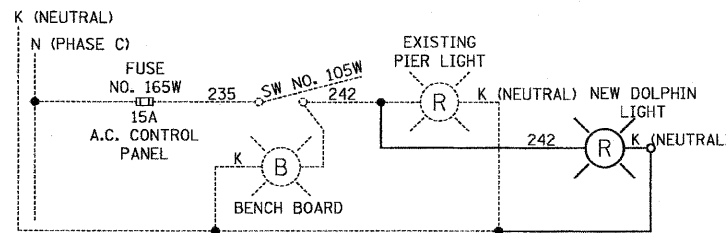
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN
 SCALE: NONE SHEET NO. 6 OF 7a SHEETS STA. 379+09.67 TO STA. 382+42.67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2 B-1	COOK	23	6
CONTRACT NO. 60E11				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

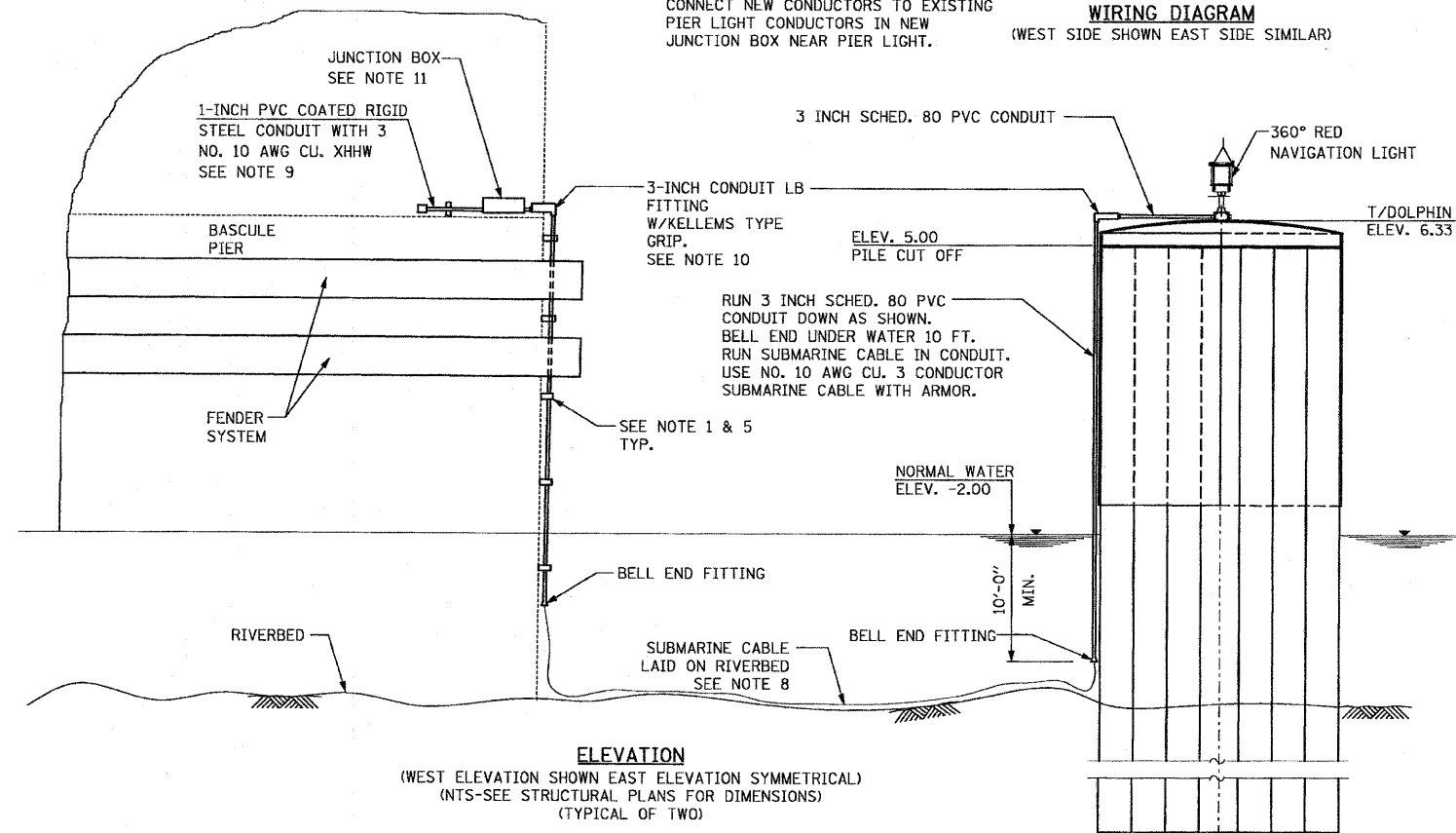
LEGEND

----- EXISTING
 _____ NEW

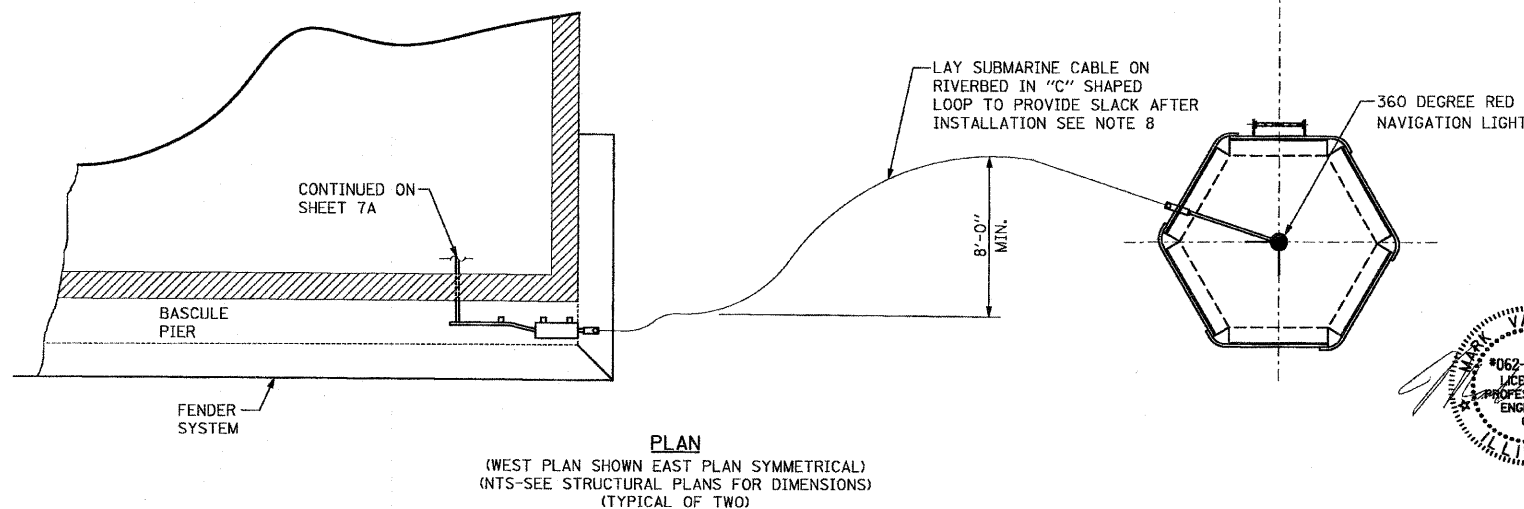


WIRING DIAGRAM
 (WEST SIDE SHOWN EAST SIDE SIMILAR)

NOTE:
 CONNECT NEW CONDUCTORS TO EXISTING PIER LIGHT CONDUCTORS IN NEW JUNCTION BOX NEAR PIER LIGHT.



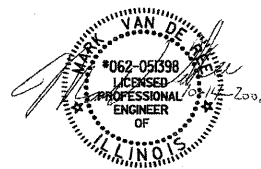
ELEVATION
 (WEST ELEVATION SHOWN EAST ELEVATION SYMMETRICAL)
 (NTS-SEE STRUCTURAL PLANS FOR DIMENSIONS)
 (TYPICAL OF TWO)



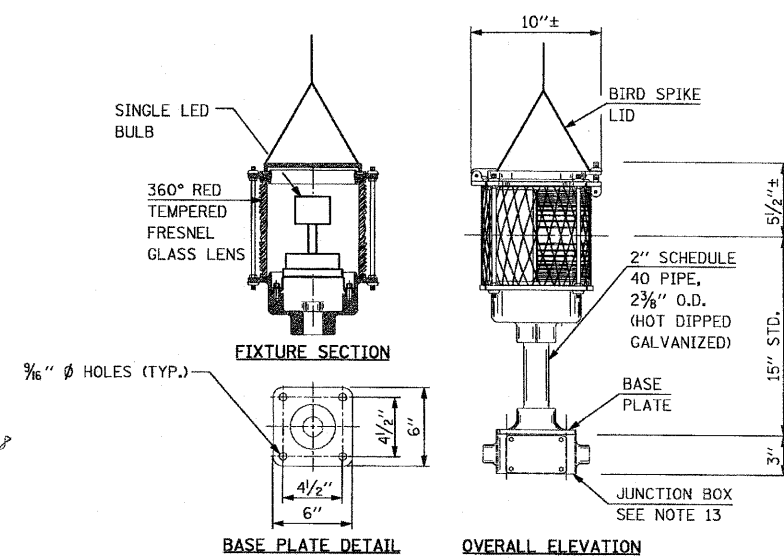
PLAN
 (WEST PLAN SHOWN EAST PLAN SYMMETRICAL)
 (NTS-SEE STRUCTURAL PLANS FOR DIMENSIONS)
 (TYPICAL OF TWO)

NOTES:

1. ALL FASTENERS AND MOUNTING HARDWARE SHALL BE GRADE 316 STAINLESS STEEL (ASTM A593). REFER TO STRUCTURAL SHEET 4 FOR ANCHOR AND FASTENER SIZES. MINIMUM ANCHOR PULLOUT STRENGTH SHALL BE 1400LBS.
2. INSTALL SUBMARINE CABLE, CONDUIT, PIER LIGHT IN ACCORDANCE WITH THE CURRENT EDITION OF NFPA-70 (NATIONAL ELECTRICAL CODE - NEC) ALL DEVICES, EQUIPMENT, BOXES, TERMINALS AND SPLICES SHALL BE UL LISTED. ALL EQUIPMENT AND DEVICES SHALL BE GROUNDED WITH A NO. 10 AWG COPPER GROUND CONDUCTOR. GROUND CONDUCTOR SHALL BOND THE DOLPHIN PIER LIGHTS TO THE EXISTING PIER LIGHT CIRCUIT DISTRIBUTION PANELS.
3. REFER TO SPECIAL PROVISIONS FOR MATERIAL AND DEVICE SPECIFICATIONS.
4. 3 INCH SCHEDULE 80 PVC CONDUIT SHALL BE USED FOR THE SUBMARINE CABLE AS SHOWN ON THE PLANS. PROVIDE CONDUIT REDUCERS TO FIT PIER LIGHTS AS NEEDED.
5. ALL CONDUIT SHALL BE MOUNTED ON ONE INCH STRUT EVERY FIVE FEET, VERTICALLY AND HORIZONTALLY. STRUT SHALL BE 14 GAGE MINIMUM GRADE 316 STAINLESS STEEL (ASTM A240). STRUT SHALL BE RIGIDLY ANCHORED TO PILES, PILE CAP, BASCULE PIERS, AND FOUNDATIONS. CONDUIT SHALL BE STRAPPED TO STRUT USING ASTM A316 UL LISTED STRAPS.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING ALL ASPECTS OF THIS INSTALLATION FOR APPROVAL BY THE ENGINEER PRIOR TO PURCHASING AND INSTALLING. SHOP DRAWINGS SHALL INCLUDE DIMENSIONS, MAKE AND MODEL.
7. WIRE NUTS SHALL NOT BE ALLOWED. ALL TERMINATIONS SHALL BE BY TERMINAL AND LUG. SPLICING SHALL BE BY WATERPROOF CRIMPED COMPRESSION BUTT SPLICES WITH HEAT SHRINK OVER TOP OVERLAPPING EDGES BY 2 INCHES MINIMUM EACH SIDE OF COMPRESSION BARREL. ALL TERMINATION AND SPLICE PRODUCTS SHALL BE UL LISTED AND 600V RATED.
8. SUBMARINE CABLE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS. MINIMUM REQUIREMENTS SHALL BE 3-NO. 10 AWG COPPER CONDUCTORS WITH STEEL ARMOR CLAD INSULATION.
9. FIELD ROUTE PVC COATED RIGID STEEL CONDUITS WITH CONDUCTORS TO EXISTING PIER LIGHT OR NEW PIER LIGHT CIRCUIT JUNCTION BOX. CONNECT CONDUCTORS TO EXISTING PIER LIGHT 120 VOLTS A.C. CIRCUIT. PROPOSED CONNECTION SHALL BE SHOWN ON CONTRACTORS SHOP DRAWINGS SUBMITTED FOR APPROVAL.
10. PROVIDE 3 INCH CONDUIT LB FITTING WITH INTEGRAL KELLEMS TYPE CABLE GRIP FOR SUBMARINE CABLE SUPPORT. KELLEM STYLE GRIP SHALL BE GRADE 316 STAINLESS STEEL, SIZED TO PROVIDE SUPPORT FOR 5 TIMES CABLE WEIGHT IN FREE AIR.
11. JUNCTION BOXES (JB) SHALL BE GRADE 316 STAINLESS STEEL (ASTM A240) MINIMUM 14 GAUGE, NEMA 4X WITH EXTERNAL MOUNTING EARS. ANCHORS SHALL BE PER NOTE 1. JB SHALL BE MINIMUM 12H X 10W X 6D INCHES, WITH GROUNDED COVER.
12. ALL WORK SHALL BE PERFORMED BY LICENSED JOURNEYMEN ELECTRICIANS, SUPERVISED BY A LICENSED MASTER ELECTRICIAN.
13. SUPPORT RATED BOX PROVIDED BY PIER LIGHT MANUFACTURER.
14. TO MAKE THE NAVIGATION LIGHT CIRCUIT COMPLIANT WITH CURRENT NATIONAL ELECTRIC CODE (NEC), REPLACE THE EXISTING 30A FUSE NO. 165 WITH A 15A FUSE OF THE SAME TYPE. EXISTING 30A LABEL ON PANEL BOARD SHALL BE REMOVED AND REPLACED WITH A 15A LABEL. COST IS INCLUDED IN THE COST OF NAVIGATION LIGHTING SYSTEM.



EXPIRES: November 30, 2009



DOLPHIN LAMP ASSEMBLY
 (2 REQUIRED)



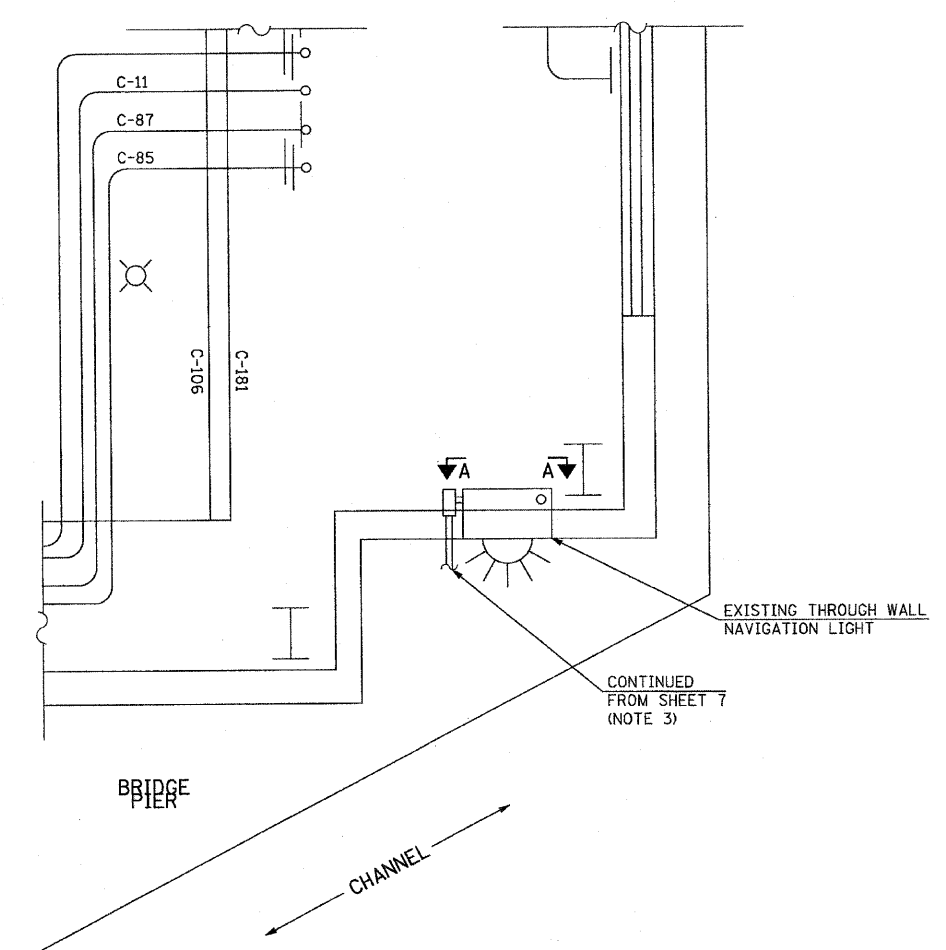
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FILE NAME = D160E11-sh1-olo.dgn	DRAWN - BLC	REVISED -
PLOT SCALE = NONE	CHECKED - MVD	REVISED -
PLOT DATE = 10/14/2008	DATE = 10/15/08	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

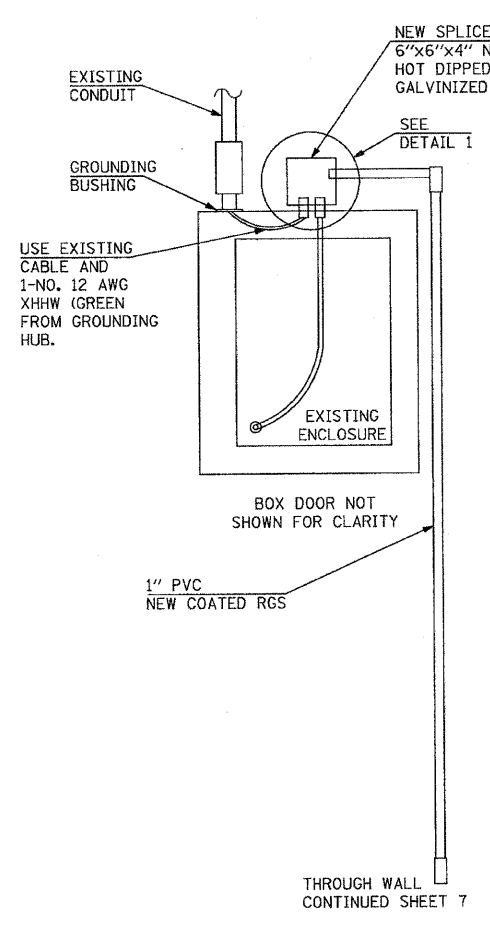
**NAVIGATION LIGHTS
 EAST & WEST DOLPHINS**

SCALE: NONE SHEET NO. 7 OF 7a SHEETS STA. 379+09.67 TO STA. 382+42.67

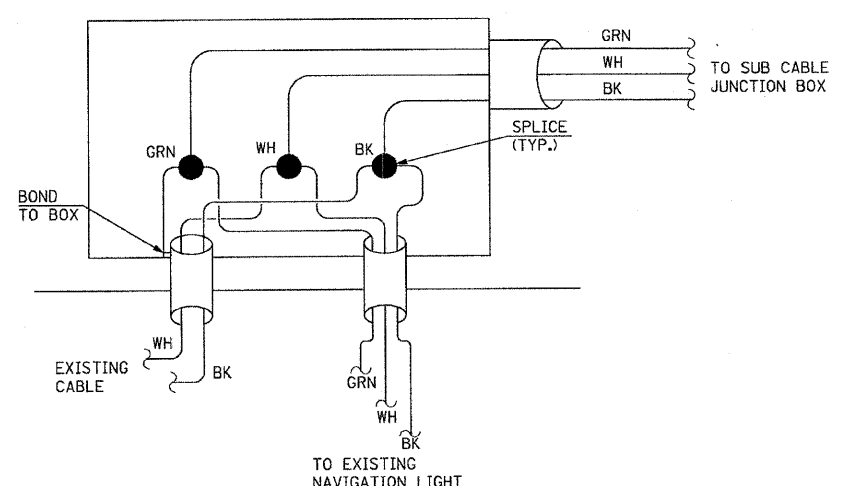
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389	2424.2 B-1	COOK	23	7
				CONTRACT NO. 60E11
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				



PLAN
(EXISTING INSTALLATION WITH NEW INTERFACING CABLE AND CONDUIT)



SECTION A-A
(THROUGH WALL NAVIGATION LIGHT)



DETAIL 1

- NOTES:**
1. USING A MULTIMETER, MEASURE RESISTANCE FROM ELECTRICAL SERVICE ENTRANCE GROUND TO THE EXISTING CONDUIT WHERE IT CONNECTS TO THE "THROUGH WALL" NAVIGATION LIGHT.
 - 2a. IF THE CONDUIT RESISTANCE MEASUREMENT FROM NOTE 1 IS 1 OHM OR LESS; THEN, INSTALL A GROUNDING HUB OR GROUNDING BUSHING ON THE END OF THE EXISTING CONDUIT INSIDE THE "THROUGH WALL" NAVIGATION LIGHT ENCLOSURE AND ROUTE A NEW GREEN NO. 10 AWG COPPER XHHW INSULATED GROUND CONDUCTOR FROM THE HUB OR BUSHING TO INSIDE THE NEW SPLICE BOX INSTALLED ABOVE THE "THROUGH WALL" NAVIGATION LIGHT ENCLOSURE. BOND THE GROUND CONDUCTOR TO THE NEW SPLICE BOX.
 - 2b. IF THE CONDUIT RESISTANCE TO GROUND FROM NOTE 1 CANNOT BE REDUCED TO 1 OHM OR LESS; THEN, PROCEED WITH THE INSTALLATION IN NOTE 2A AND RUN A NEW GREEN NO. 10 AWG COPPER XHHW INSULATED GROUND CONDUCTOR FROM THE CONDUIT GROUNDING HUB OR BUSHING BACK TO THE BENCH BOARD AND CONNECT TO A SOLID GROUND THERE. BOND THE NEW GROUND CONDUCTORS TO THE CONDUIT GROUNDING HUB OR BUSHING AND NEW SPLICE BOX. WORK UNDER THIS ITEM THAT IS ADDITIONAL TO THE NOTE 2A INSTALLATION WILL BE CONSIDERED "EXTRA WORK" AND WILL BE PAID SEPARATELY.
 3. PERFORM INSTALLATION OF DOLPHIN LIGHT WITH CONDUIT, SUB CABLE, BOXES AND DEVICES AS DETAILED ON SHEET 7, COMPLETE TO JUNCTION BOX ON PIER CAP.
 4. CORE DRILL WALL FOR 1" PVC COATED RGS (RIGID GALVANIZED STEEL) CONDUIT. GROUT CLOSED AFTER CONDUIT INSTALLATION. CARE MUST BE TAKEN NOT TO DAMAGE WALL PANELS. ANY DAMAGED WALL PANEL SHALL BE REPLACED IN-KIND AT CONTRACTOR'S EXPENSE.
 5. ROUTE 1", PVC COATED RIGID GALVANIZED STEEL CONDUIT ON TOP OF PIER CAP, THROUGH WALL SURROUNDING MACHINERY AREA AT DOCK LEVEL, TO 6" X 6" X 4" HOT DIPPED GALVANIZED SPLICE BOX MOUNTED ABOVE ACCESS BOX FOR THE EXISTING.
 6. CONNECT 2-1" PVC COATED RGS NIPPLES FROM 6" X 6" X 4" SPLICE BOX TO PIER LIGHT ENCLOSURE FLANGE.
 7. INSTALL NEW DOLPHIN LIGHT CONDUCTORS PER THE NOTES ON SHEET 7.
 8. INSTALL A 12-3 SOWA CABLE FROM THE SPLICE BOX TO THE EXISTING PIER LIGHT.
 9. SPLICE EXISTING NAVIGATION LIGHT CONDUCTORS TO NEW DOLPHIN LIGHT AND SOWA CABLE AS SHOWN IN DETAIL 1.
 10. THE CONTRACTOR SHALL FURNISH ALL ITEMS TO PROVIDE COMPLETE FUNCTIONAL DOLPHIN NAVIGATION LIGHT. THESE ITEMS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS. ITEMS LISTED ARE FOR EAST AND WEST DOLPHIN INSTALLATIONS.
 - a. 2 EA. NAVIGATION LIGHT FIXTURES WITH 360 DEGREE RED LENS AND LED LAMP PER THE SPECIFICATIONS.
 - b. 2 EA. SUBMARINE CABLE APPROXIMATELY 100 FEET IN LENGTH PER THE SPECIFICATION.
 - c. 90 LINEAR FEET OF 3 INCH PVC SCHEDULE 80 CONDUITS.
 - d. 4 EA. THREE INCH LB CONDUIT FITTINGS.
 - e. 4 EA. KELLEM TYPE GRIPS
 - f. 2 EA. 12 INCH HEIGHT X 10 INCH WIDTH X 6 INCH DEPTH, 316 STAINLESS STEEL, NEMA 4X, JUNCTION BOX.
 - g. 80 LINEAR FEET OF ONE INCH PVC COATED RIGID GALVANIZED STEEL CONDUIT.
 - h. 2 EA. 6" HEIGHT X 6" WIDE X 4" DEPTH, NEMA 12, HOT DIPPED GALVANIZED STEEL SPLICE BOX, PAINTED GRAY.
 - i. 10 LINEAR FEET OF 3 CONDUCTOR NO. 12 AWG "SOWA" FLEXIBLE CABLE.
 - j. 300 LINEAR FEET OF NO. 10 AWG CONDUCTOR WITH TYPE XHHW INSULATION.
 - k. AS REQUIRED 1 INCH PVC COATED CONDUIT FITTINGS, LENGTH AS REQUIRED 316 STAINLESS STEEL STRUT AND ASSOCIATED CONDUIT SUPPORT HARDWARE. ALL LENGTHS ARE APPROXIMATE THE CONTRACTOR SHALL VERIFY ALL LENGTHS BEFORE CONSTRUCTION.
 - l. 1-15AMP, 120V a.c. FUSE AND LABEL.
 11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND VERIFY EXISTING FIELD CONDITIONS PRIOR TO ORDERING MATERIALS AND STAGING CONSTRUCTION. ANY QUANTITY ADJUSTMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND MEET HIS/HER APPROVAL. VARIATIONS IN QUANTITIES SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION. HOWEVER THE CONTRACTOR WILL BE PAID AT THE CONTRACT UNIT PRICE FOR THE WORK COMPLETED.



EXPIRES: November 30, 2009

	USER NAME = petald	DESIGNED - MVD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NAVIGATION LIGHT DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = NONE	CHECKED - MVD	REVISED -		SCALE: NONE SHEET NO. 7a OF 7a SHEETS STA. 379+09.67 TO STA. 382+42.67			CONTRACT NO. 60E11				
	PLOT DATE = 10/14/2008	DATE - 10/15/08	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 389	2424.2 B-1	COOK	23	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
16 SHEETS

Contract No. 60E11

B.M. (CDOT Wacker Drive Rehabilitation Survey Marker #1), Elev. 17.655'
3" brass disk set in sidewalk on the southerly side of Harrison Street, 3.6' southerly of the northerly back of curb,
3.1' northerly of the southerly back of curb, 15.5' easterly of the westerly traffic signal, 33.4' easterly of a utility manhole
and 29.9' easterly of the easterly edge of pavement of Franklin Street. (Northing = 897601.505, Easting = 174477.842)

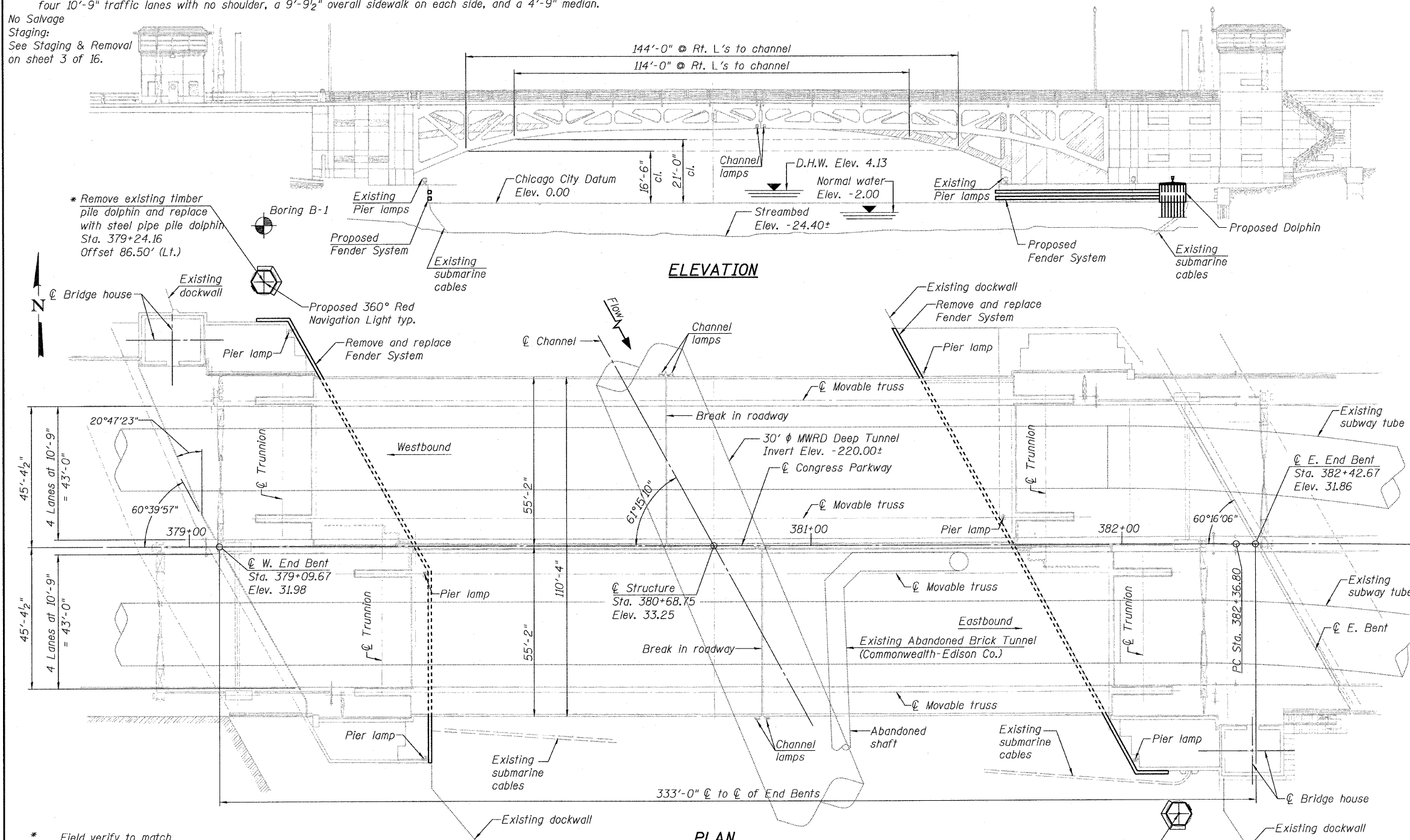
Existing Structure:

The existing structure is a dual double-leaf, trunnion type bascule bridge, carrying the eastbound and westbound traffic of Congress Parkway over the South Branch of the Chicago River. The movable structure has an overall length of approximately 333'-0" (C to C of end bents) and has an out-to-out deck width of approximately 110'-4". The deck cross section consists of four 10'-9" traffic lanes with no shoulder, a 9'-9 1/2" overall sidewalk on each side, and a 4'-9" median.

No Salvage

Staging:

See Staging & Removal on sheet 3 of 16.



ELEVATION

PLAN

SCOPE OF WORK

- Remove the existing timber fender system and replace with a self-restoring rubber type.
- Remove existing timber pile dolphins at the southeast and northwest ends and replace with pipe pile dolphins at the same location.
- Repair outside face of the river piers with epoxy crack injection and structural repair of concrete.
- Repair the eroded section behind the northwest dock wall at the west bridge house.
- Remove and replace pier dock ladders.
- Install one navigation light at each new dolphin.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

- f'c = 3,500 psi
- fy = 60,000 psi (reinforcement)
- fy = 35,000 psi ASTM A 252, GR. 2 (Pipe piles)
- fy = 36,000 psi (AASHTO M 270, GR. 36)

SEISMIC DATA

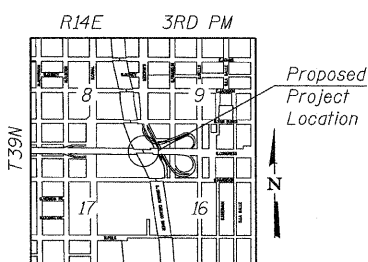
- Seismic Performance Category (SPC) = A
- Bedrock Acceleration Coefficient (A) = 0.032g
- Site Coefficient (S) = 1.0

EXISTING CURVE DATA

- Δ = 2°17'43" (Rt.)
- D = 1°30'00"
- T = 76.52'
- L = 153.02'
- E = 0.77'
- R = 3,819.72'
- P.C. = Sta. 382+36.80
- P.T. = Sta. 383+89.82
- P.I. = Sta. 383+13.32

Note:

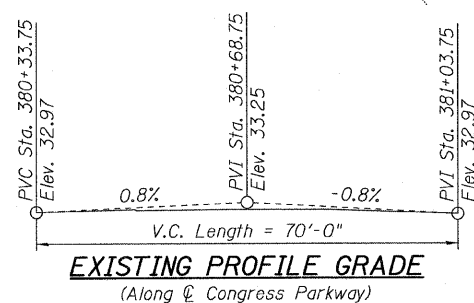
An abbreviated Hydraulic Report was made and no further hydraulic study is needed.
All existing channel and pier lamps remain in place.



LOCATION SKETCH

* Field verify to match existing station & offset.

DESIGNED	S. CHELBIAN
CHECKED	A. HAMMAD
DRAWN	D.C.PATEL
CHECKED	A. HAMMAD



EXISTING PROFILE GRADE
(Along C Congress Parkway)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



Signed Ahmad M. Hammad, S.E., IL Lic. No. 081-005467
Expires 11-30-2008

Date 10-15-2008

LEGEND

Soil Boring Location



GENERAL PLAN & ELEVATION
CONGRESS PARKWAY OVER
SOUTH BRANCH CHICAGO RIVER
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.P. 389	2424.2 B-1	COOK	23	9	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract No. 60E11

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to routine 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 upon the unit price bid for the work.

Concrete repair areas are based on the Underwater Inspection Report dated April 28, 2005. The Engineer shall approve all concrete repair areas and crack sealing prior to commencement of work. Any areas not shown on the plans shall be repaired if directed by the Engineer.

INDEX OF SHEET

- 1 General Plan & Elevation
- 2 General Data
- 3 Removal & Staging Plan
- 4 Dolphin Plan & Details
- 5-6 Fender System
- 7 Miscellaneous Details
- 8 East River Pier Repairs
- 9 West River Pier Repairs
- 10 West Dock Wall Repairs
- 11-12 Soil Boring Logs
- 13-16 Existing Plans

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Porous Granular Embankment	Cu. Yd.	-	88	88
Epoxy Crack Injection	Foot	-	12	12
Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft.	-	91	91
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	-	33	33
Removal of Existing Timber Fenders	L. Sum	-	1.0	1.0
Fender System	L. Sum	-	1.0	1.0
Remove Existing Timber Pile Dolphins	Each	-	2	2
Dolphins	Each	-	2	2
Navigation Lighting System	L. Sum	-	1.0	1.0

DESIGNED	S. CHELBIAN
CHECKED	A. HAMMAD
DRAWN	S. CHELBIAN
CHECKED	A. HAMMAD

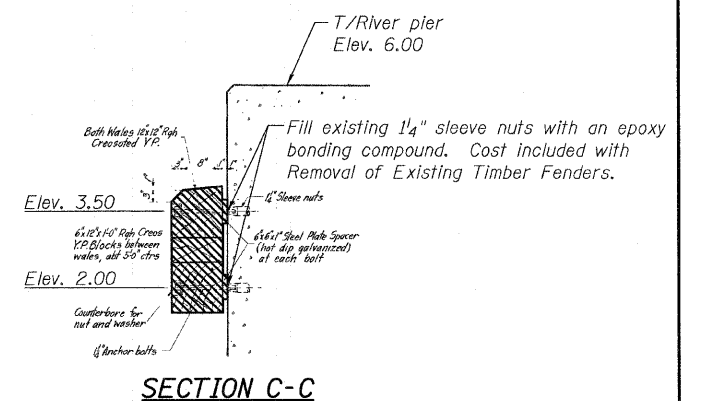
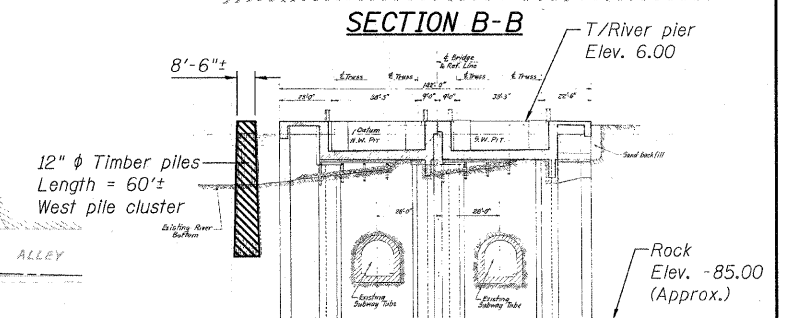
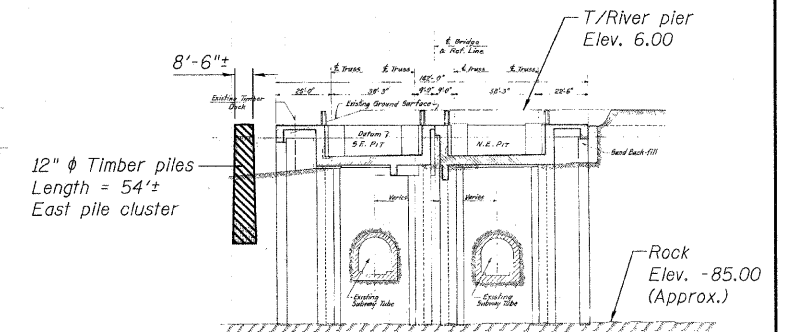
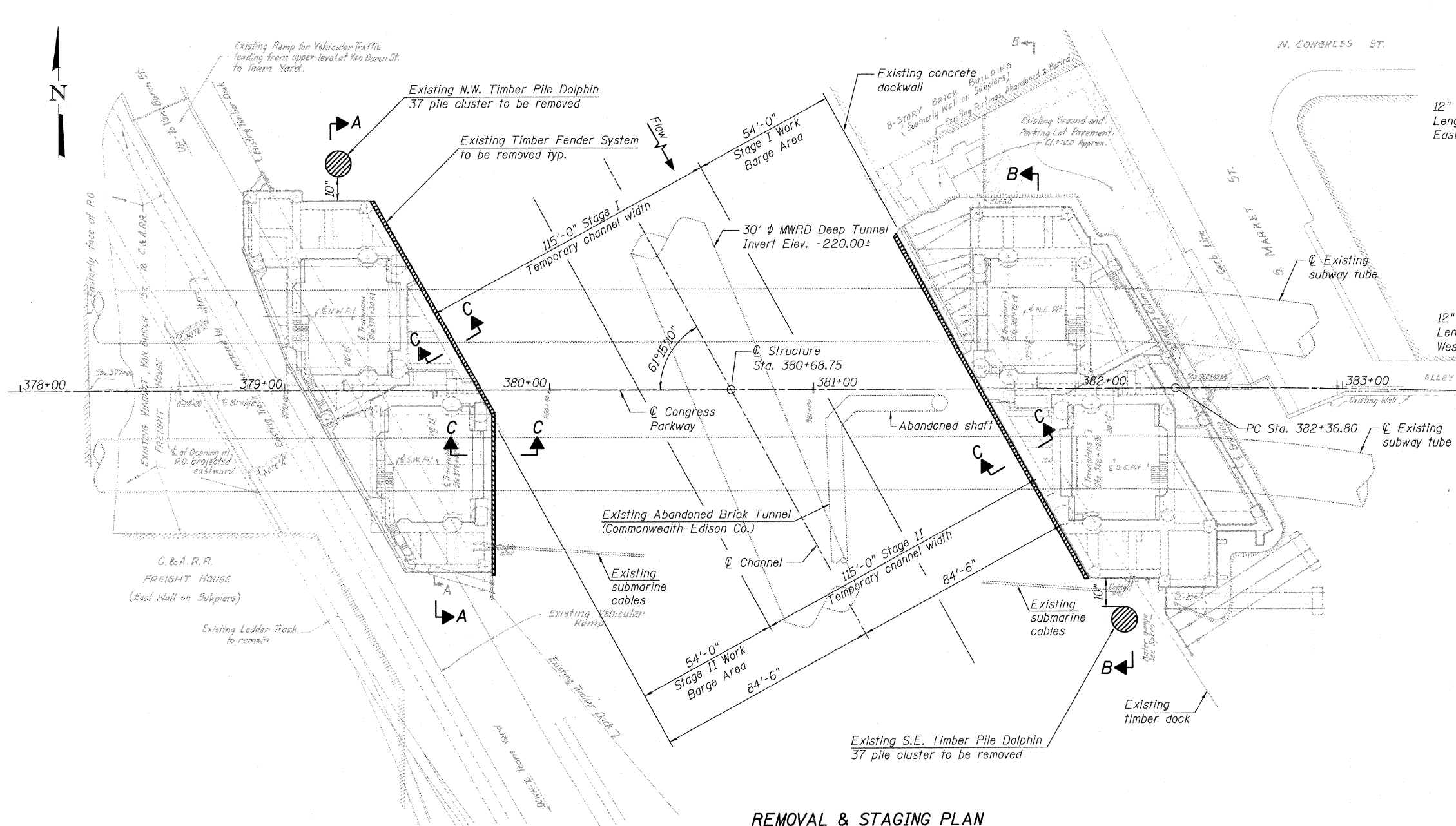
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F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 3
F.A.P. 389	2424.2 B-1	COOK	23	10	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 60E11



REMOVAL & STAGING PLAN

STAGE CONSTRUCTION SEQUENCE:

- Stage I: Remove and replace east river pier fender system, perform structural repairs to the east river pier, remove and replace the dock ladder, and remove and replace the dolphin at the southeast corner while maintaining river traffic.
- Stage II: Remove and replace west river pier fender system, perform structural repairs to the west river pier, remove and replace the dock ladder, and remove and replace the dolphin at the northwest corner while maintaining river traffic.

Notes:

Work required to comply with all coast guard closure and navigation requirements shall be included in the total contract cost.
 Temporary construction equipment, barges, and other marine vessels shall not be anchored to the steel superstructure of the bascule bridge as to not interfere with the bridges opening operation. Use existing anchor points provided along the river piers and/or dockwalls.
 Plans, elevations, and details shown are based on original drawings. Elevations shown are based on Chicago City Datum.
 Prior to commencing work, the Contractor shall verify the location of all existing cables, tunnels, and utilities. Work shall be provided in such a manner so as not to disturb or damage the existing cables, tunnels, and utilities.
 If an existing timber pile breaks during removal operations, the Contractor is required to remove the remaining remnants of the existing timber pile prior to installation of any new pipe piles.
 All work, including structural concrete repairs, shall be completed on one side of the channel at a time using staged construction. See stage construction sequence.

LEGEND

Hatched area indicates removal.

DESIGNED	S. CHELBAN
CHECKED	A. HAMMAD
DRAWN	D.C.PATEL
CHECKED	A. HAMMAD

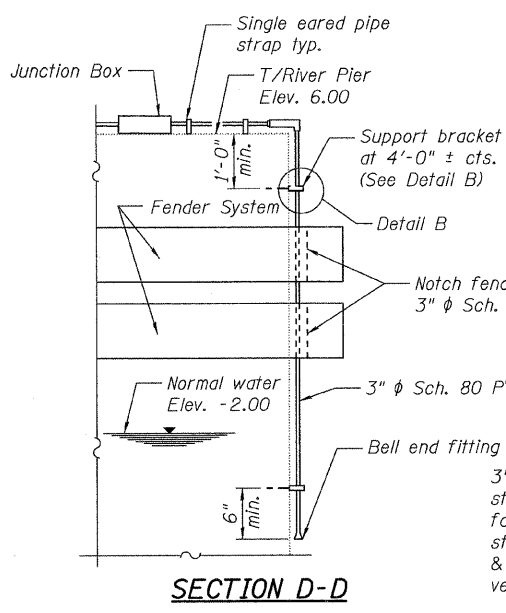
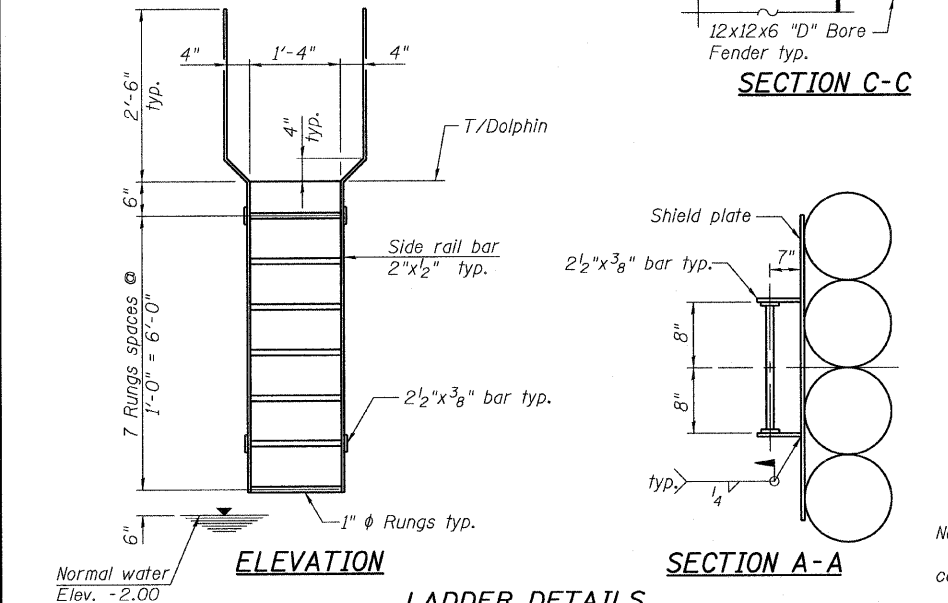
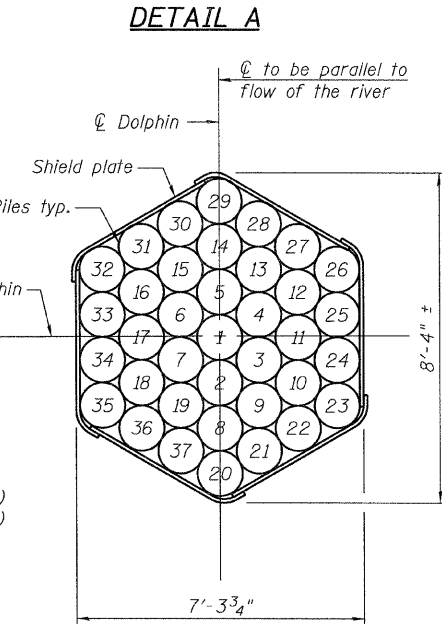
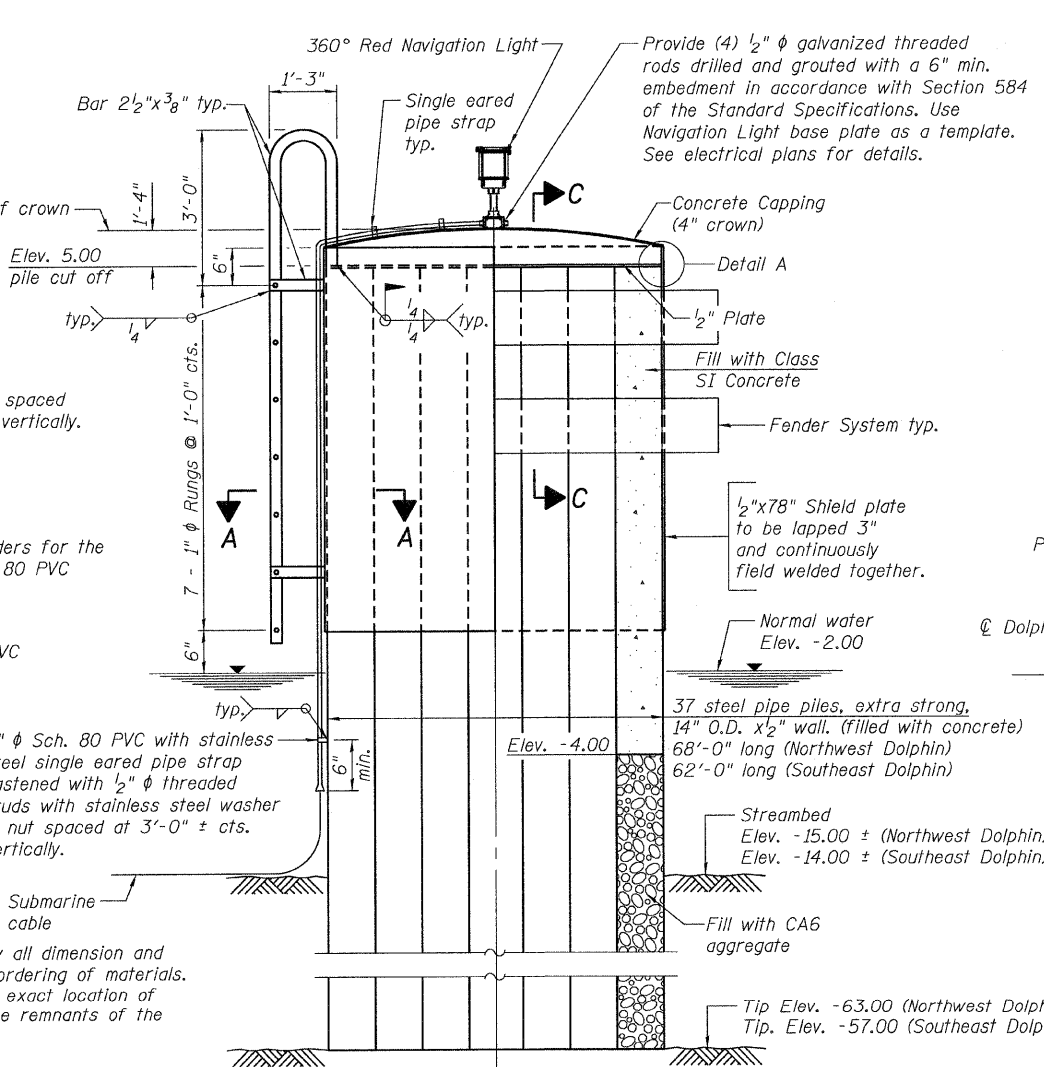
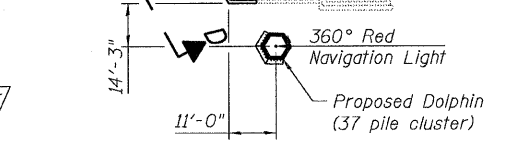
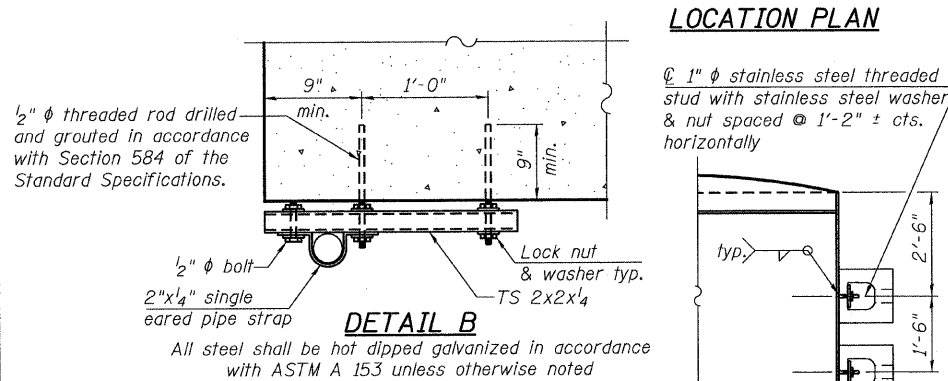
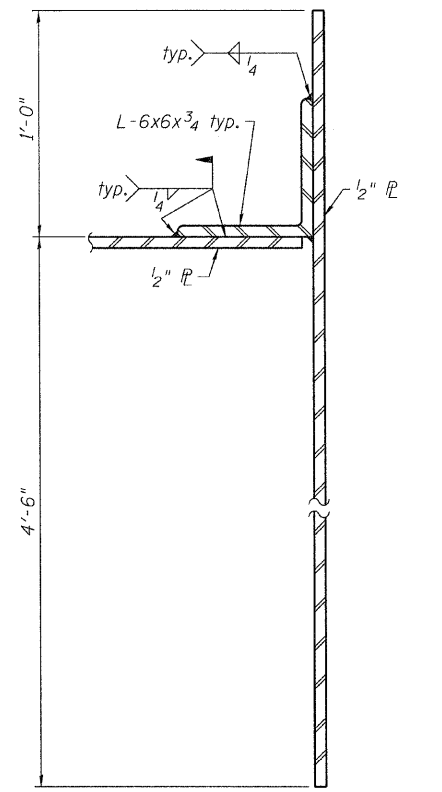
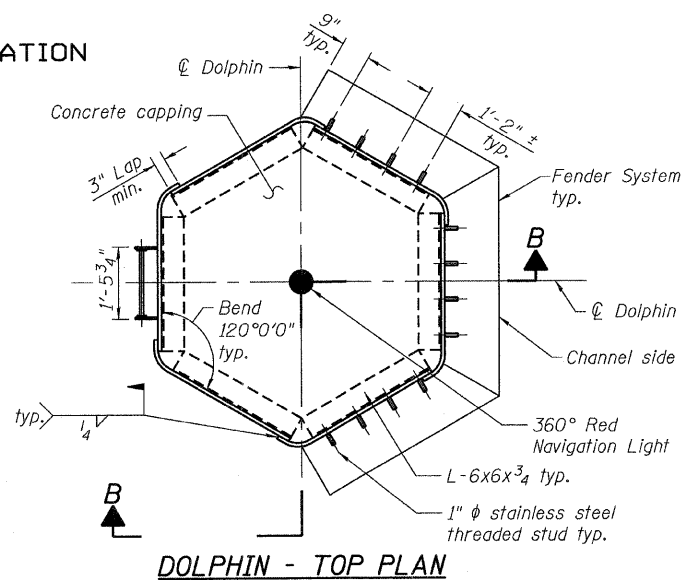
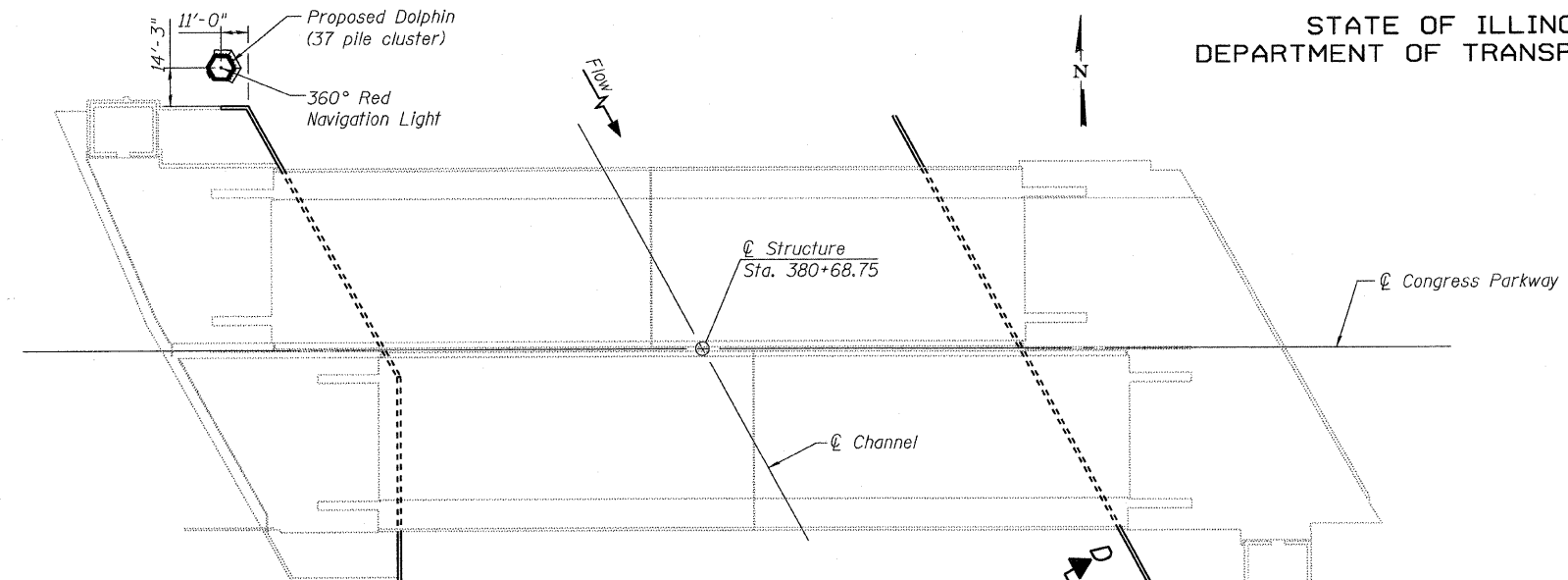


REMOVAL AND STAGING PLAN
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
F.A.P. 389	2424.2 B-1	COOK	23	11	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 60E11



Notes:
It shall be the responsibility of the Contractor to verify all dimension and conditions existing in the field prior to construction and ordering of materials. The replacement dolphins shall be installed in the same exact location of the existing timber pile dolphins without deviation after the remnants of the existing timber pile dolphins have been pulled. Number on the piles denotes driving sequence. Below Elev. -4.00', all new pipe piles shall be filled with CA6 coarse aggregate according to the quality standards and gradation specified in Section 1004 of the Standard Specifications and the remaining top 9 feet shall be filled with Class S1 Concrete according to Section 512 of the Standard Specifications. The new piles should be installed with care in order not to cause any damage to the existing subway tube or other underground facilities. Cost of navigation lights, submarine cable assembly, and attachments are all included with Navigation Lighting System. See Special Provisions. See electrical plans for navigation lights.

DESIGNED	J.Q.Zhong
CHECKED	S. CHELBIAN
DRAWN	D.C.PATEL
CHECKED	J.Q.Zhong



DOLPHIN PLAN AND DETAILS
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

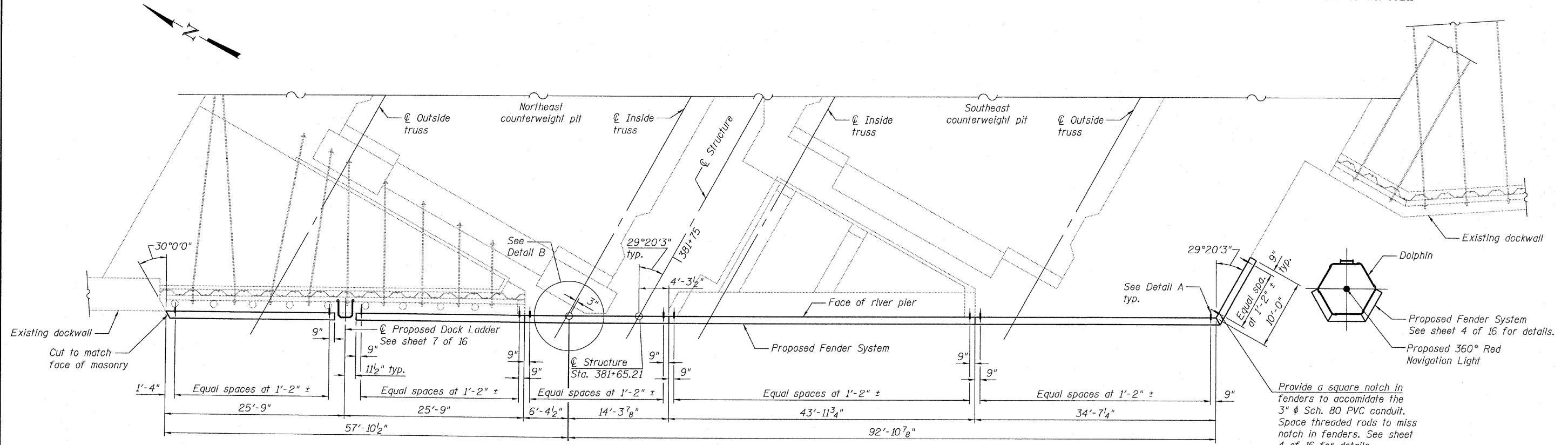
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

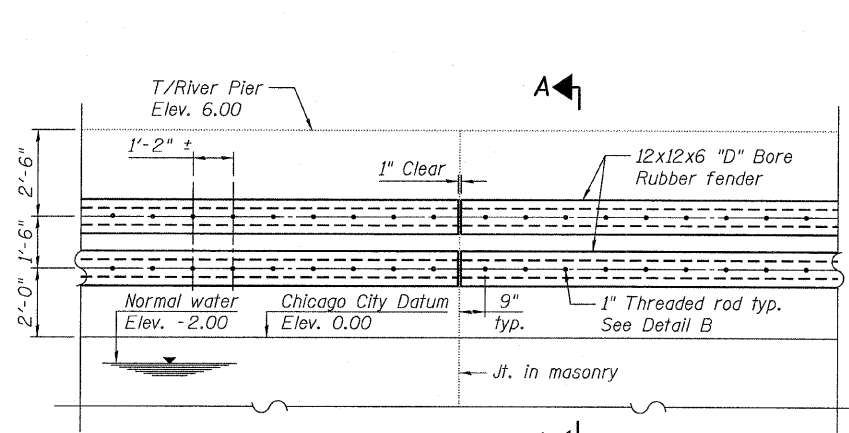
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
16 SHEETS

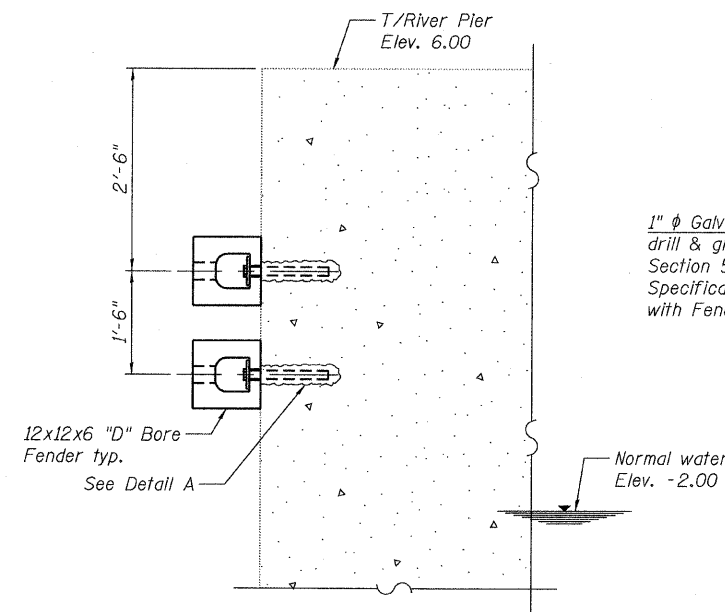
Contract No. 60E11



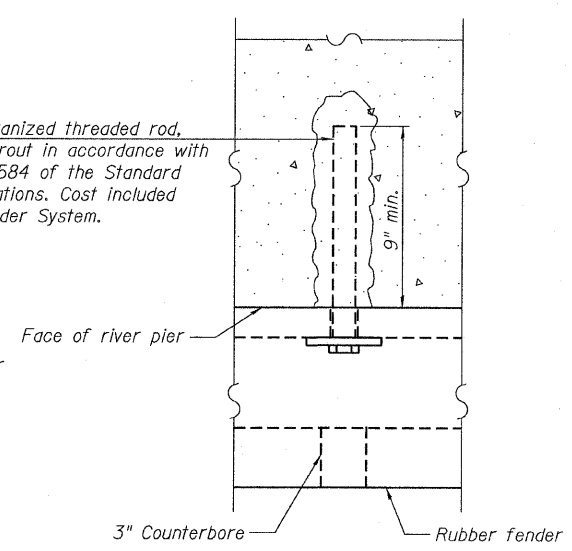
FENDER SYSTEM PLAN - EAST RIVER PIER



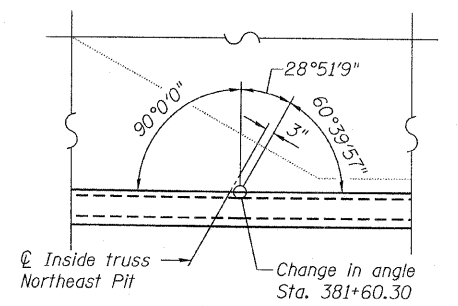
PARTIAL ELEVATION



SECTION A-A



DETAIL A



DETAIL B

FENDER SYSTEM DETAILS

FENDER SYSTEM - EAST PIER
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445



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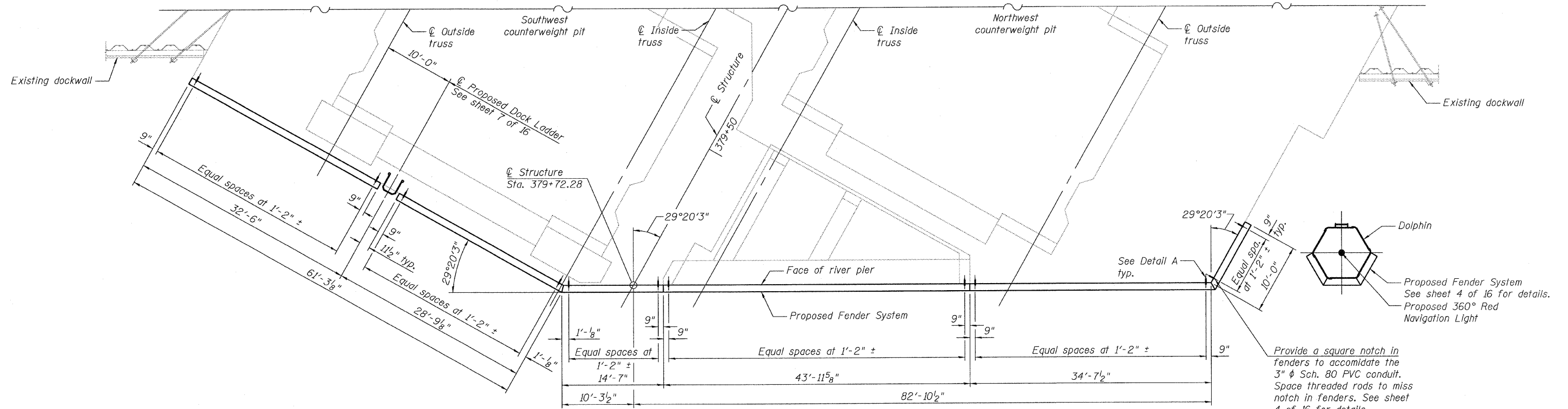
DESIGNED	S. CHELBIAN
CHECKED	A. HAMMAD
DRAWN	S. CHELBIAN
CHECKED	A. HAMMAD

Note:
All hardware, bolts, nuts, washers, and plate washers shall be galvanized in accordance with AASHTO M 232. Cost of Dock Ladders is included with Fender System.

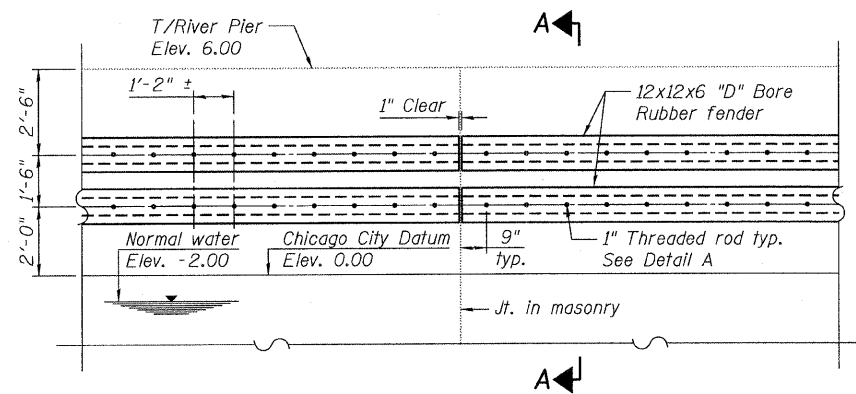
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

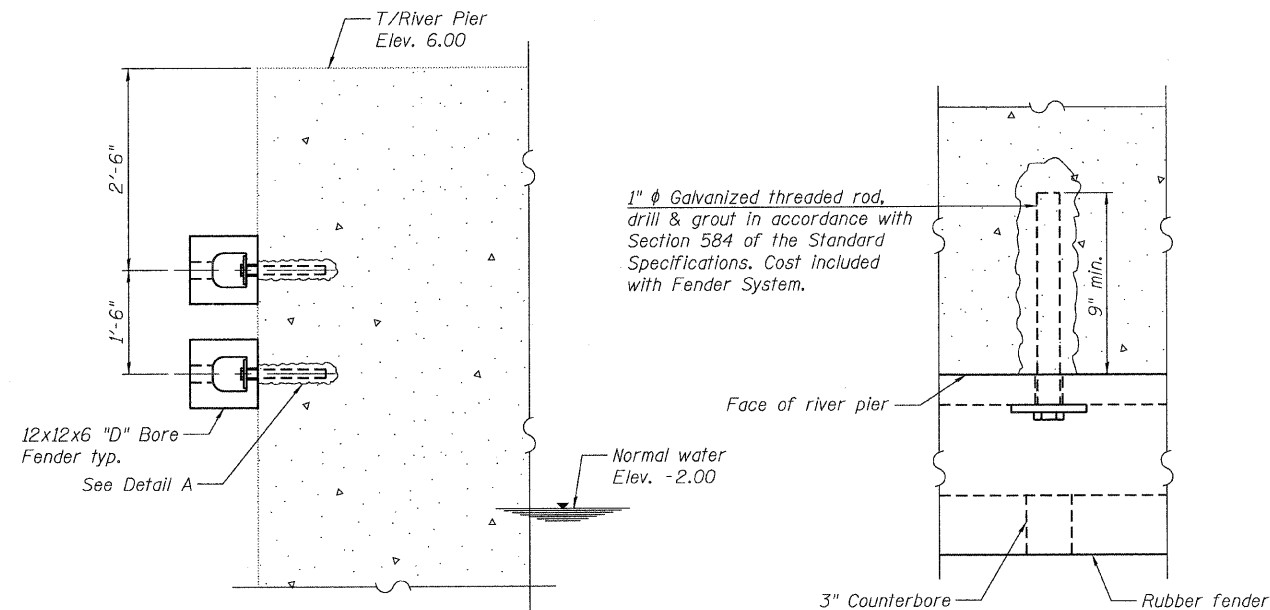
Contract No. 60E11



FENDER SYSTEM PLAN - WEST RIVER PIER



PARTIAL ELEVATION



SECTION A-A

DETAIL A

FENDER SYSTEM DETAILS

DESIGNED	S. CHELBAN
CHECKED	A. HAMMAD
DRAWN	D.C.PATEL
CHECKED	A. HAMMAD

Note:
All hardware, bolts, nuts, washers, and plate washers shall be galvanized in accordance with AASHTO M 232. Cost of Dock Ladders is included with Fender System.

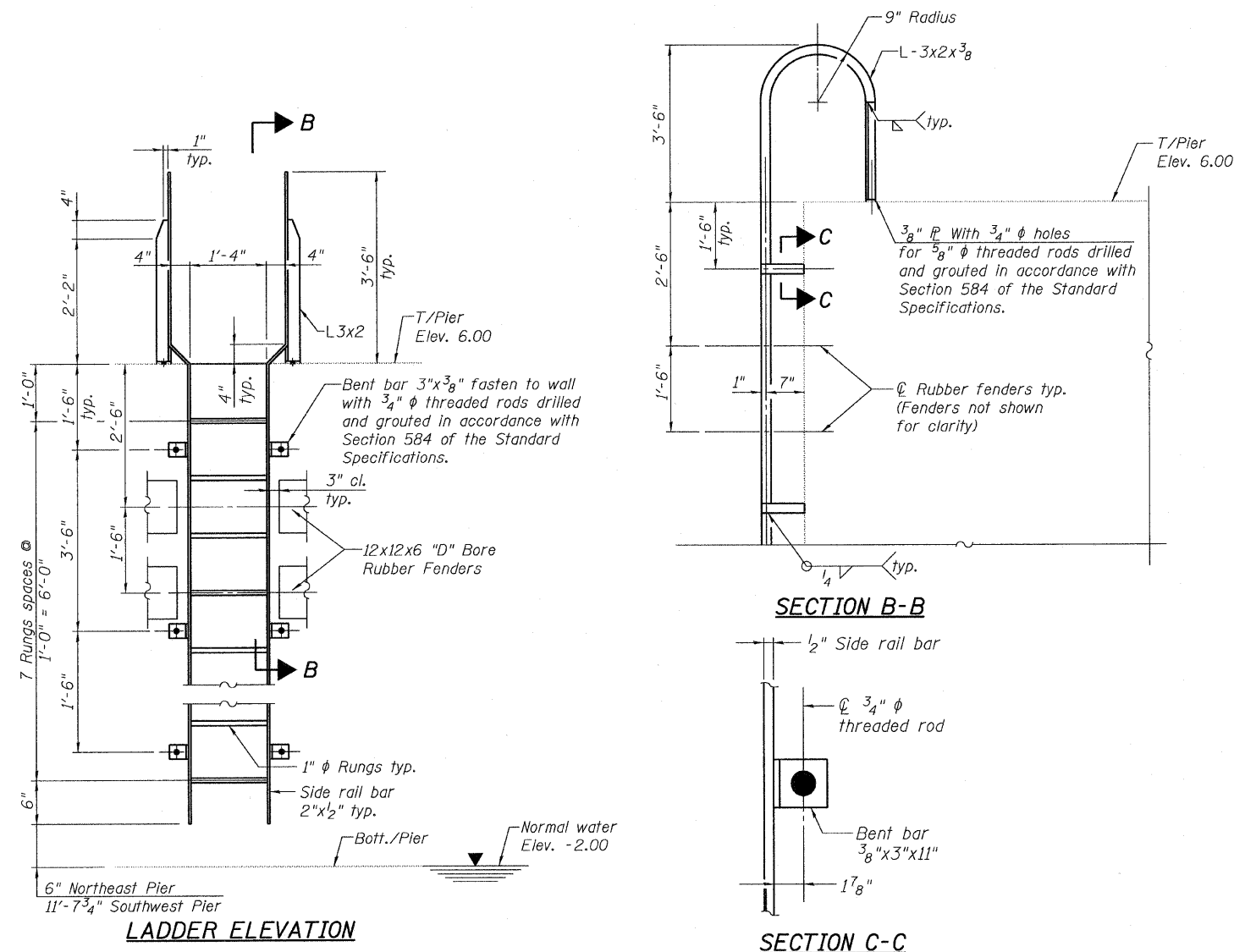
FENDER SYSTEM - WEST PIER
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7
F.A.P. 389	2424.2 B-1	COOK	23	14	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 60E11



RIVER PIER DOCK LADDER DETAILS

All steel shall be hot dipped galvanized in accordance with ASTM A 153 unless otherwise noted

BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Timber Fenders	L. Sum	1.0
Fender System	L. Sum	1.0
Remove Existing Timber Pile Dolphins	Each	2
Dolphins	Each	2
Navigation Lighting System	L. Sum	1.0

ESTIMATED QUANTITIES

Item	Unit	Total
Removal of Existing Timber Fenders		
Dock Ladder Removal	Each	2
Timber Fender Removal	Foot	611
Remove Existing Timber Pile Dolphins		
Steel Jacket Removal	Pound	9,432
Bituminous Concrete Capping Removal	Cu. Yd.	5.2
12" ϕ Timber Pile Removal	Foot	4,218
Fender System		
Dock Ladders	Each	2
Rubber Fenders	Foot	643
Dolphins		
Concrete Filled Metal Shell Piles, 14" ϕ	Foot	4,810
Steel Jackets	Pound	11,282
Concrete Capping	Cu. Yd.	4.0
Rubber Fenders	Foot	50
Ship Ladders	Each	2

Not to be included in the Bill of Material. This estimate is for information only and includes all items required to quantify the removal and replacement of both dolphins and the fender system on both river piers.

DESIGNED	S. CHELBIAN
CHECKED	A. HAMMAD
DRAWN	D.C.PATEL
CHECKED	A. HAMMAD

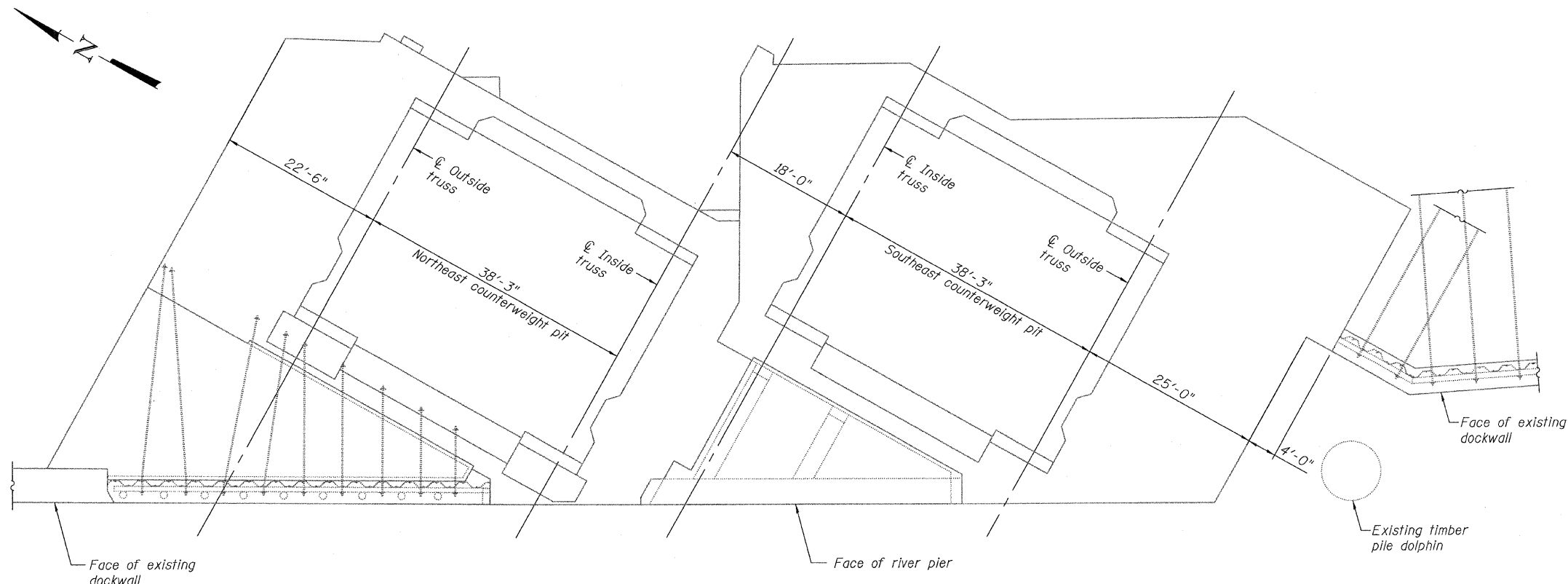


MISCELLANEOUS DETAILS
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

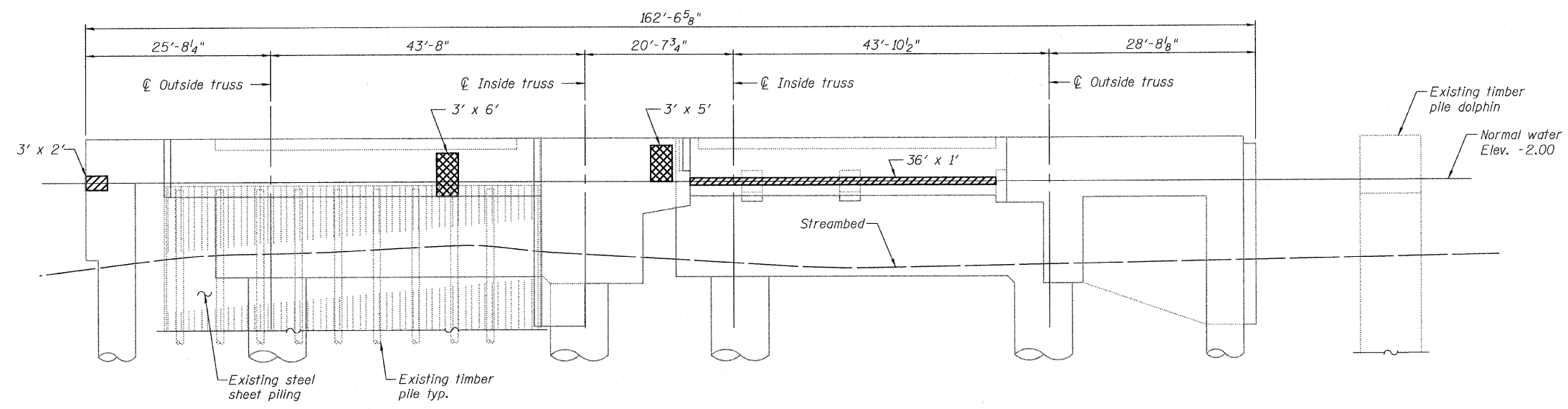
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
F.A.P. 389	2424.2 B-1	COOK	23	15	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 60E11



PLAN

Notes:
Existing reinforcing bars that have been cut and/or damaged during repair operations shall be supplemented by new in kind reinforcing bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. A mechanical bar splicer shall be used when it is not feasible to provide the minimum bar lap. No welding of bars shall be performed. See Special Provisions for Structural Repair of Concrete.
For below water line concrete repairs utilizing formwork, the concrete mix shall be placed by pumping through ports, which shall be installed at the bottom of each formed repair area.
Areas are in square feet (sq. ft.).

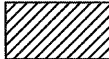



ELEVATION
(Looking East)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	42.0
Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	33.0

LEGEND

-  Structural Repair of Concrete Depth equal to or less than 5"
-  Structural Repair of Concrete Depth greater than 5"

DESIGNED	S. CHELBIAN
CHECKED	A. HAMMAD
DRAWN	D.C.PATEL
CHECKED	A. HAMMAD



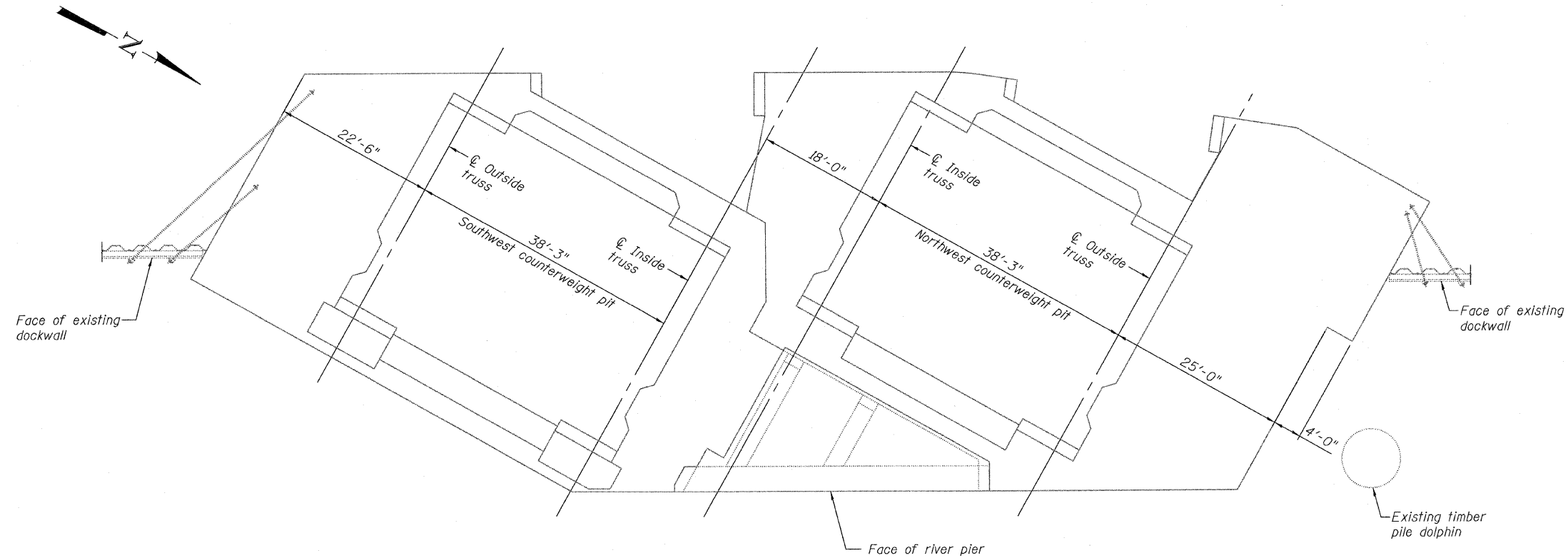
EAST RIVER PIER REPAIRS
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

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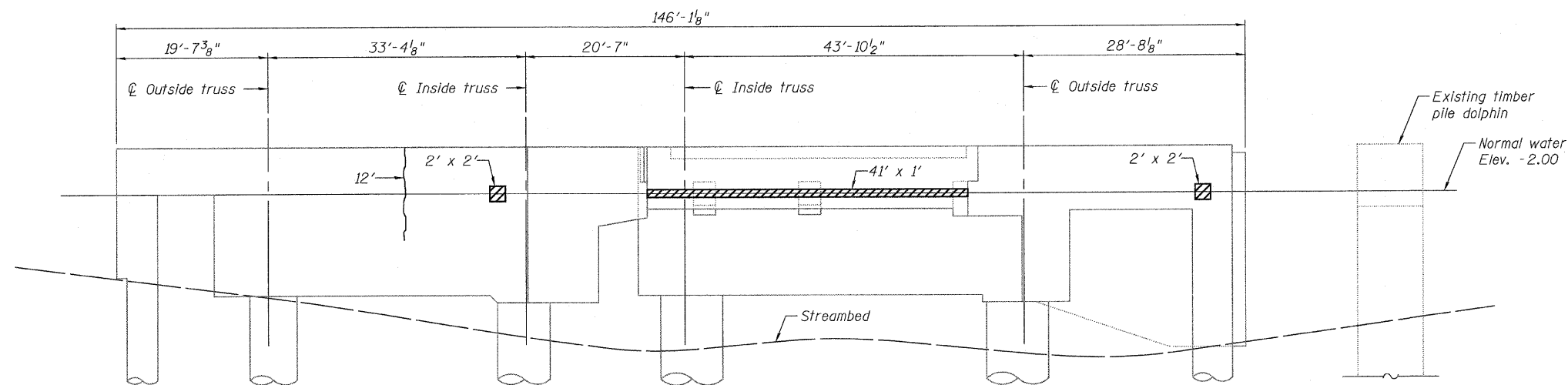
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATE	SHEET	SHEET NO.
F.A.P. 389	2424.2 B-1	COOK	23	16	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract No. 60E11



PLAN



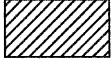

ELEVATION
(Looking West)

Notes:
Existing reinforcing bars that have been cut and/or damaged during repair operations shall be supplemented by new in kind reinforcing bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. A mechanical bar splicer shall be used when it is not feasible to provide the minimum bar lap. No welding of bars shall be performed. See Special Provisions for Structural Repair of Concrete.
For below water line concrete repairs utilizing formwork, the concrete mix shall be placed by pumping through ports, which shall be installed at the bottom of each formed repair area.
Areas are in square feet (sq. ft.).
Crack widths shown to be repaired are $\frac{1}{8}'' \pm \frac{1}{16}''$ unless otherwise noted.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	49.0
Epoxy Crack Injection	Foot	12

LEGEND

-  Structural Repair of Concrete
Depth equal to or less than 5"
-  Epoxy Crack Injection

DESIGNED	S. CHELBAN
CHECKED	A. HAMMAD
DRAWN	D.C.PATEL
CHECKED	A. HAMMAD



WEST RIVER PIER REPAIRS
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 389	2424.2 B-1	COOK	23	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract No. 60E11

Geo Services Inc. Geotechnical, Environmental & Civil Engineering
805 Algonquin Court, Suite 204
Naperville, Illinois 60563
(630) 251-2300

SOIL BORING LOG PAGE 1 of 3
DATE November 2, 2007
LOGGED BY MD
GSI JOB No. 07211

ROUTE I-290 DESCRIPTION Illinois Department Of Transportation Work Order NO. 8-Solls Study
SECTION xx LOCATION I-290 Over The South Branch Of The Chicago River, Chicago, Illinois
COUNTY Cook DRILLING METHOD Rotary HAMMER TYPE CME Automatic

STRUCT. NO. xx
Station xx
BORING NO. **B-2**
Northing xx
Easting xx
Ground Surface Elev. 100.3 ft

DEPTH (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	SURFACE WATER ELEV. (ft)	STREAM BED ELEV. (ft)	GROUNDWATER ELEV. (ft)	FIRST ENCOUNTER UPON COMPLETION (ft)	AFTER xx HRS. (ft)	DEPT. H (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	SURFACE WATER ELEV. (ft)	STREAM BED ELEV. (ft)	GROUNDWATER ELEV. (ft)	FIRST ENCOUNTER UPON COMPLETION (ft)	AFTER xx HRS. (ft)	DEPT. H (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	
																						DESCRIPTION
0				n/a	n/a	n/a	n/a	n/a					n/a	n/a	n/a	n/a	n/a					
1																						
2																						
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Soils: RIVER, BARGE, RIVER MUCK--black-very loose (A-8) Strong Fuel Odor, RIVER, CLAY--gray-soft to medium stiff (A-6) Wet to -40.0'

Geo Services Inc. Geotechnical, Environmental & Civil Engineering
805 Algonquin Court, Suite 204
Naperville, Illinois 60563
(630) 251-2300

SOIL BORING LOG PAGE 2 of 3
DATE November 2, 2007
LOGGED BY MD
GSI JOB No. 07211

ROUTE I-290 DESCRIPTION Illinois Department Of Transportation Work Order NO. 8-Solls Study
SECTION xx LOCATION I-290 Over The South Branch Of The Chicago River, Chicago, Illinois
COUNTY Cook DRILLING METHOD Rotary HAMMER TYPE CME Automatic

STRUCT. NO. xx
Station xx
BORING NO. **B-2**
Northing xx
Easting xx
Ground Surface Elev. 100.3 ft

DEPTH (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	SURFACE WATER ELEV. (ft)	STREAM BED ELEV. (ft)	GROUNDWATER ELEV. (ft)	FIRST ENCOUNTER UPON COMPLETION (ft)	AFTER xx HRS. (ft)	DEPT. H (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	SURFACE WATER ELEV. (ft)	STREAM BED ELEV. (ft)	GROUNDWATER ELEV. (ft)	FIRST ENCOUNTER UPON COMPLETION (ft)	AFTER xx HRS. (ft)	DEPT. H (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	
																						DESCRIPTION
0				n/a	n/a	n/a	n/a	n/a					n/a	n/a	n/a	n/a	n/a					
1																						
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Soils: CLAY--gray-soft to medium stiff (A-6) Wet to -40.0', SILTY LOAM to SILT-gray-dense (A-4), CLAY LOAM--gray-stiff (A-4/A-6), SILTY LOAM to SILT-gray-dense (A-4)

Geo Services Inc. Geotechnical, Environmental & Civil Engineering
805 Algonquin Court, Suite 204
Naperville, Illinois 60563
(630) 251-2300

SOIL BORING LOG PAGE 3 of 3
DATE November 2, 2007
LOGGED BY MD
GSI JOB No. 07211

ROUTE I-290 DESCRIPTION Illinois Department Of Transportation Work Order NO. 8-Solls Study
SECTION xx LOCATION I-290 Over The South Branch Of The Chicago River, Chicago, Illinois
COUNTY Cook DRILLING METHOD Rotary HAMMER TYPE CME Automatic

STRUCT. NO. xx
Station xx
BORING NO. **B-2**
Northing xx
Easting xx
Ground Surface Elev. 100.3 ft

DEPTH (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	SURFACE WATER ELEV. (ft)	STREAM BED ELEV. (ft)	GROUNDWATER ELEV. (ft)	FIRST ENCOUNTER UPON COMPLETION (ft)	AFTER xx HRS. (ft)	DEPT. H (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	SURFACE WATER ELEV. (ft)	STREAM BED ELEV. (ft)	GROUNDWATER ELEV. (ft)	FIRST ENCOUNTER UPON COMPLETION (ft)	AFTER xx HRS. (ft)	DEPT. H (ft)	BLOW COUNT (tsf)	U.C.S. (tsf)	M.O.I.S.T. (%)	
																						DESCRIPTION
0				n/a	n/a	n/a	n/a	n/a					n/a	n/a	n/a	n/a	n/a					
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Soils: SILTY LOAM to SILT-gray-dense (A-4), Drillers Observation: Apparent Bedrock, End of Boring @ -90.0' Rotary Drilling 40.0' Casing Used CME Automatic Hammer

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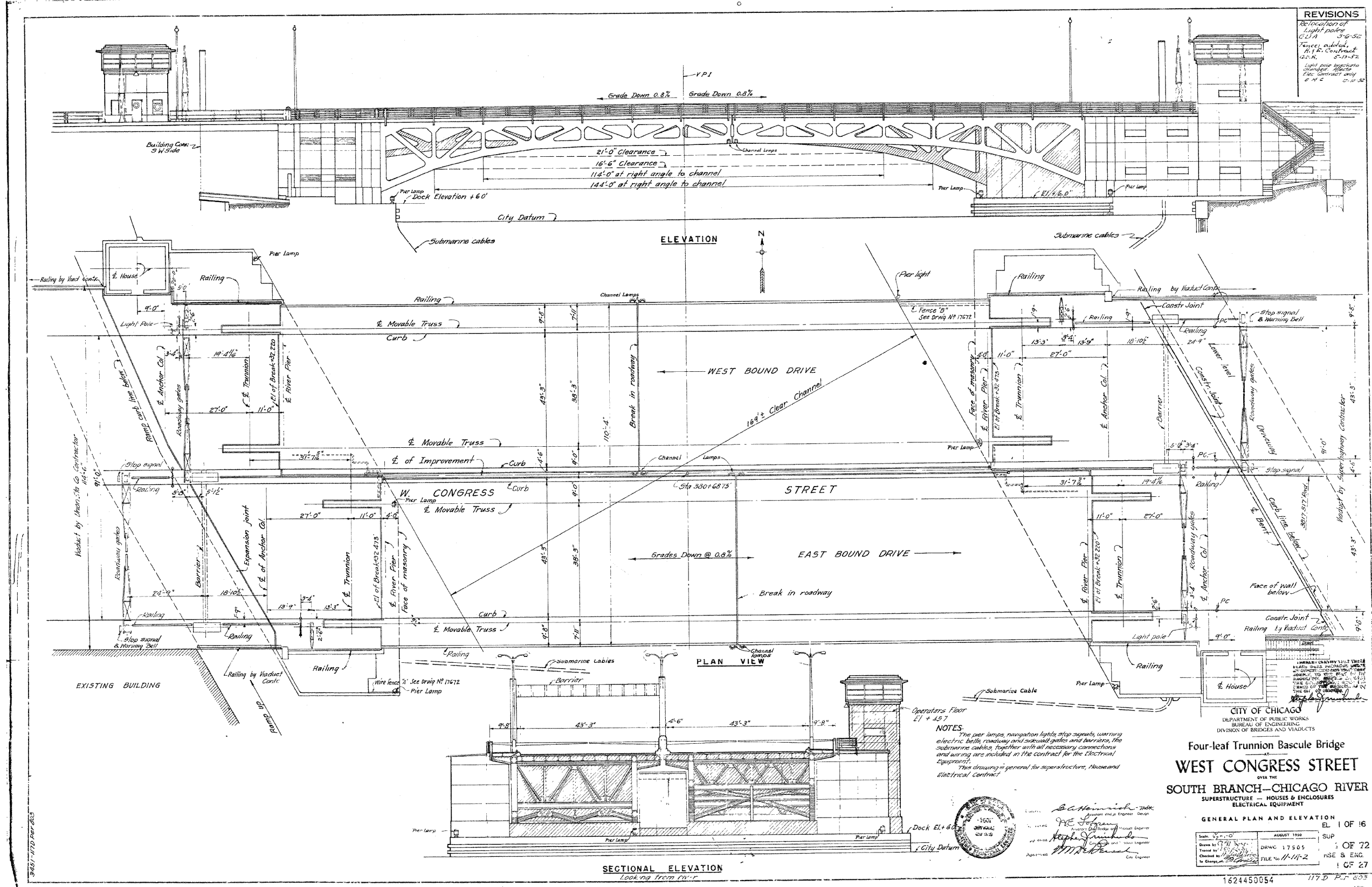
SOIL BORING LOGS
F.A.P. RT. 389 - SEC. 2424.2 B-1
COOK COUNTY
STATION 380+68.75
STRUCTURE NO. 016-2445

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 389	2424.2 B-1	COOK	23	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract No. 60E11

REVISIONS
Relocation of Light poles 6/11/52 3/4-52
Fence added to the Contract 6/11/52 5/12-52
Light pole supports changed to meet the Contract only 6/11/52 5/12-52



NOTES:
The per lamps, navigation lights, stop signals, warning electric bells, roadway and sidewalk gates and barriers, the submarine cables, together with all necessary connections and wiring are included in the contract for the Electrical Equipment.
This drawing is general for superstructure, Houses and Electrical Contract.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
DIVISION OF BRIDGES AND VIADUCTS

Four-leaf Trunnion Bascule Bridge
AT
WEST CONGRESS STREET
OVER THE
SOUTH BRANCH—CHICAGO RIVER
SUPERSTRUCTURE — HOUSES & ENCLOSURES
ELECTRICAL EQUIPMENT

Scale: 1/4" = 1'-0"	DATE: AUGUST 1950
Drawn by: [Signature]	DRWC 17505
Checked by: [Signature]	FILE No. 11-114-2
Approved: [Signature]	

1624450054 117-D P.C. 803

FOR INFORMATION ONLY

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