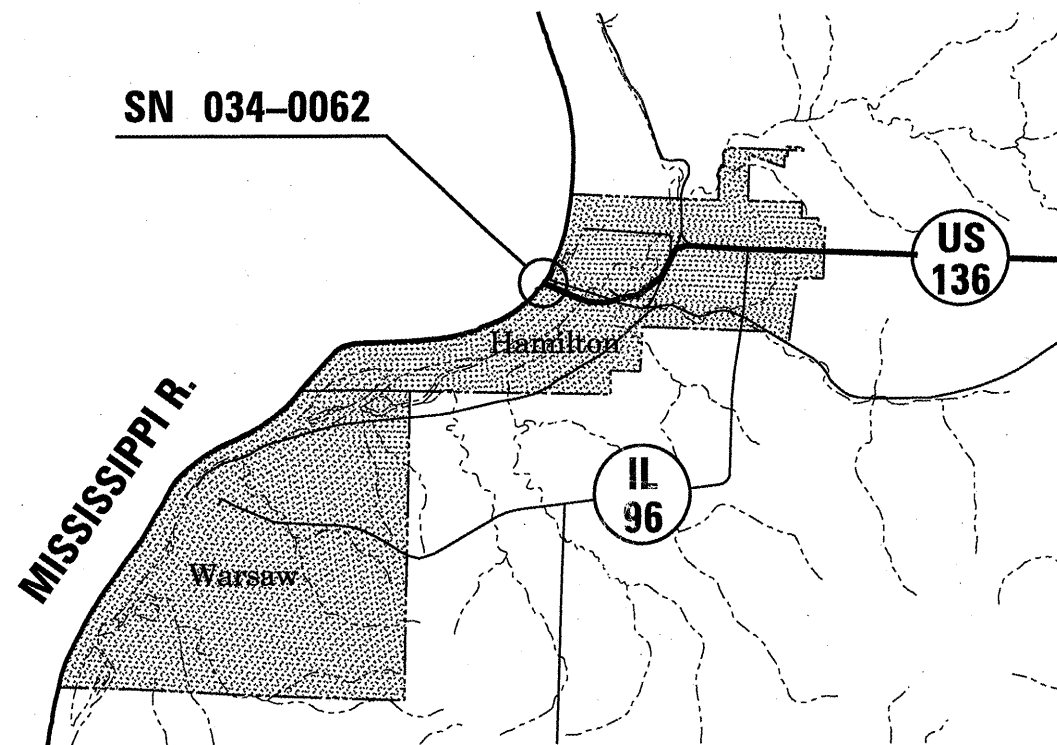


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FAP ROUTE 315 (US 136)
SECTION (22B)I-1

BRIDGE REPAIR
HANCOCK COUNTY
C-96-183-10



NET LENGTH = 3340 FT. = 0.63 MILE

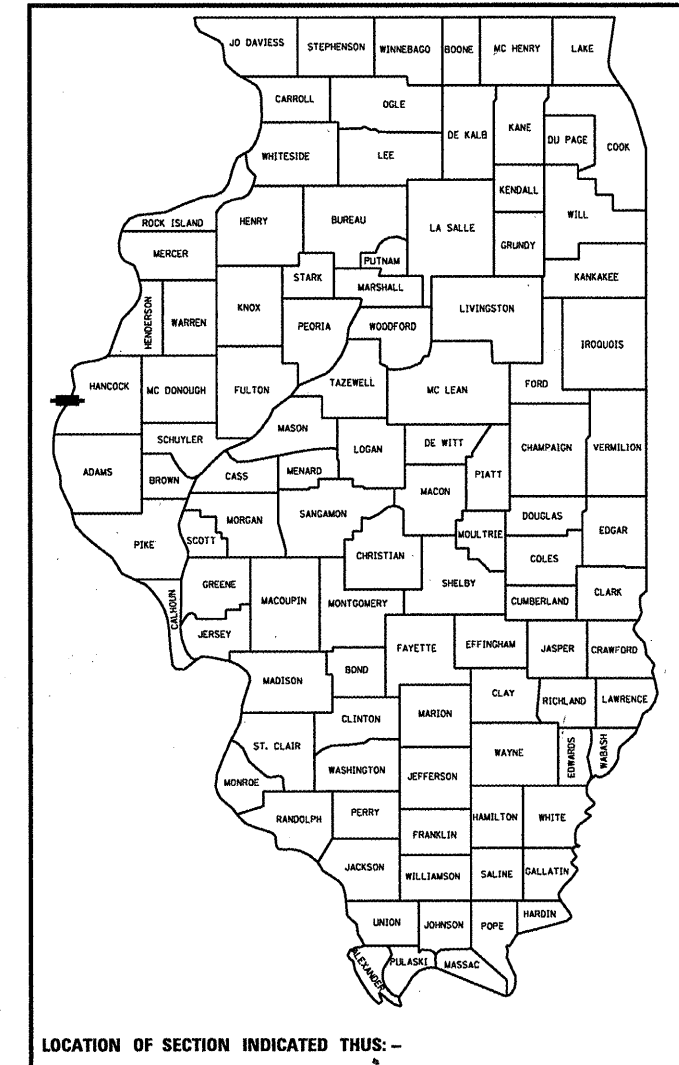
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

D6 BRIDGE MAINTENANCE ENGINEER -
STEVE BERAN (217) 785-9290
D6 BRIDGE INSPECTION ENGINEER -
DAVE COPENBARGER (217) 785-5306

CONTRACT NO. 72D52

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B)I-1	HANCOCK	13	1
FED. ROAD DIST. NO. 6	ILLINOIS	CONTRACT NO. 72D52		

C-96-183-10



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED February 17 20 10
Reg. Z. Dinkell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 7 20 10
Scott E. Stitt P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

May 7 20 10
Christine M. Reedlee
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(228)-1	HANCOCK	13	2
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 6		ILLINOIS	FED. AID PROJECT	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX, STANDARDS, & GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 SCHEDULE OF REPAIRS
- 5-11 PLAN SHEETS
- 12 PARAPET REPAIR DETAILS
- 13 HANDRAIL REPAIR DETAILS

STANDARDS

- 701101-02
- 701106-02
- 701421-02
- 701423-03
- 701901-01
- 704001-06

GENERAL NOTES:

THE 2 AREAS OF PARAPET REPAIR SHALL NOT BE WORKED ON CONCURRENTLY. IN ORDER TO MINIMIZE THE LENGTH OF LANE CLOSURE, THE FIRST AREA SHALL BE COMPLETED BEFORE WORK BEGINS ON THE SECOND AREA. WHERE BARRIER WALL IS USED, A MINIMUM 17'-6" WIDTH SHALL REMAIN OPEN TO TRAFFIC.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.

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 WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STD SPECS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50 DEG F.

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

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

PRIOR TO POURING NEW CONCRETE, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE SURFACES IN CONTACT WITH CONCRETE. TIGHTLY ADHERED PAINT MAY REMAIN UNLESS OTHERWISE NOTED. REMOVAL SHALL BE ACCOMPLISHED BY METHODS THAT WILL NOT DAMAGE THE STEEL AND THE COST WILL BE INCLUDED IN THE PAY ITEM COVERING REMOVAL OF EXISTING CONCRETE.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT 6**

EXAMINED Feb 10 20 10
Ron J. Hami
ENGINEER OF OPERATIONS

EXAMINED Feb 10 20 10
Ron J. Hami
ENGINEER OF PROGRAM IMPLEMENTATION

EXAMINED Feb 17 20 10
Laura R. Macenik
ENGINEER OF PROGRAM DEVELOPMENT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**INDEX, STANDARDS,
& GENERAL NOTES**

FAP 315 (IS 136)
SECTION (228)-1
HANCOCK COUNTY

SCALE: VERT. _____
HORIZ. _____
DATE _____ DRAWN BY _____
CHECKED BY _____

CONTRACT NO. 72052

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
315	(22B)-1	HANCOCK	13 3
STA.		TO STA.	
FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT			

S U M M A R Y O F Q U A N T I T I E S

CODE NO.	ITEM	UNIT	100% STATE
			SFTY-2A
			TOTAL QTY
5012400	CONCRETE REMOVAL	CU YD	1.6
50157300	PROTECTIVE SHIELD	SQ YD	50
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.6
50501140	STRUCTURAL STEEL REPAIR	L SUM	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	106
50900705	HANDRAIL REMOVAL	L SUM	1
50901760	PIPE HANDRAIL	FOOT	68
67100100	MOBILIZATION	L SUM	1
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1
X7010825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423 (SPECIAL)	L SUM	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	250
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	250
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1
Z0030330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

FAP 315 (US 136)
SECTION (22B)-1
HANCOCK COUNTY

VERT. SCALE:
HORIZ. DATE

DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B)I-1	HANCOCK	13	4
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 6		ILLINOIS FED. AID PROJECT		

REPAIR SCHEDULE				
REPAIR LETTER	LOCATION	DEFICIENCY	REPAIR	PAY ITEM(S)
A	NORTH PARAPET • EXPANSION JOINT #2 (PIER 2)	CONC. SPALLING AROUND EXPANSION PLATE	REMOVE AND REPLACE PARAPET SECTION	50100705,50157300,50300255,50800205
B	3RD CROSSFRAME EAST OF PIER 3, INSIDE OF NORTH FASCIA GIRDER	1 BOLT MISSING	REPLACE 7/8" BOLT	50501140
C	2ND CROSSFRAME WEST OF PIER 4, BETWEEN SOUTH FASCIA GIRDER AND ADJACENT GIRDER	4 BOLTS MISSING, EACH SIDE	REPLACE 7/8" BOLTS	50501140
D	PIER 5 PROTECTION CELL HANDRAIL	DAMAGED HANDRAIL	REMOVE REMAINING HANDRAIL	50900705
E	PIER 5 PROTECTION CELL CATWALK HANDRAIL	DAMAGED HANDRAIL	REMOVE AND REPLACE HANDRAIL	50900705,50901760
F	FASCIA GIRDER • 3RD CROSSFRAME EAST OF SPAN 6 SPLICE	2 HOLES IN WEB	FILL HOLES WITH 7/8" BOLTS	50501140
G	SOUTH PEDESTRIAN RAIL, CENTER OF SPAN 9	1 NUT MISSING	REPLACE 3/4" NUT	50501140
H	PIER 9, BEARING UNDER FIRST GIRDER NORTH OF SOUTH FASCIA GIRDER	3 NUTS MISSING	REPLACE 1-1/2" NUTS	50501140
I	NORTH PARAPET • EXPANSION JOINT #4 (PIER 9)	CONC. SPALLING AROUND EXPANSION PLATE	REMOVE AND REPLACE PARAPET SECTION	50100705,50157300,50300255,50800205
J	PIER 10, BEARING UNDER NORTH FASCIA GIRGER	1 NUT MISSING	REPLACE 1-1/2" NUT	50501140
K	PIER 10, BEARING UNDER FIRST GIRDER SOUTH OF NORTH FASCIA GIRDER	4 NUTS MISSING	REPLACE 1-1/2" NUTS	50501140
L	PIER 10, BEARING UNDER MIDDLE GIRGER	3 NUTS MISSING	REPLACE 1-1/2" NUTS	50501140
M	PIER 10, BEARING UNDER FIRST GIRDER NORTH OF SOUTH FASCIA GIRDER	1 NUT MISSING	REPLACE 1-1/2" NUT	50501140
N	PEDESTRIAN RAIL ON PARAPET, NEAR PIER 12	1 NUT MISSING	REPLACE 5/8" NUT	50501140
O	RETAINER PLATE FOR BEARING UNDER NORTH FASCIA GIRDER. • EXPANSION JOINT NEAR PIER 12	RETAINER PLATE BOLT MISSING	REPLACE 7/8" THREADED STUD AND NUT	50501140

NOTES:

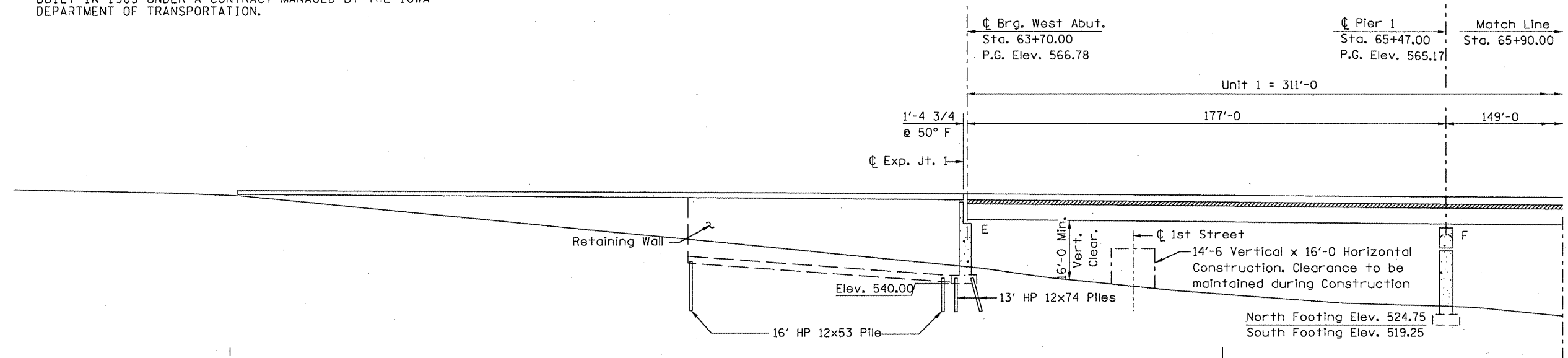
THE CONTRACTOR SHALL VERIFY BOLT AND NUT SIZES IN THE FIELD PRIOR TO ORDERING MATERIALS.

ANY DAMAGED THREADS ON EXISTING BOLTS OR STUDS SHALL BE REPAIRED PRIOR TO INSTALLING NEW NUTS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR STRUCTURAL STEEL REPAIR.

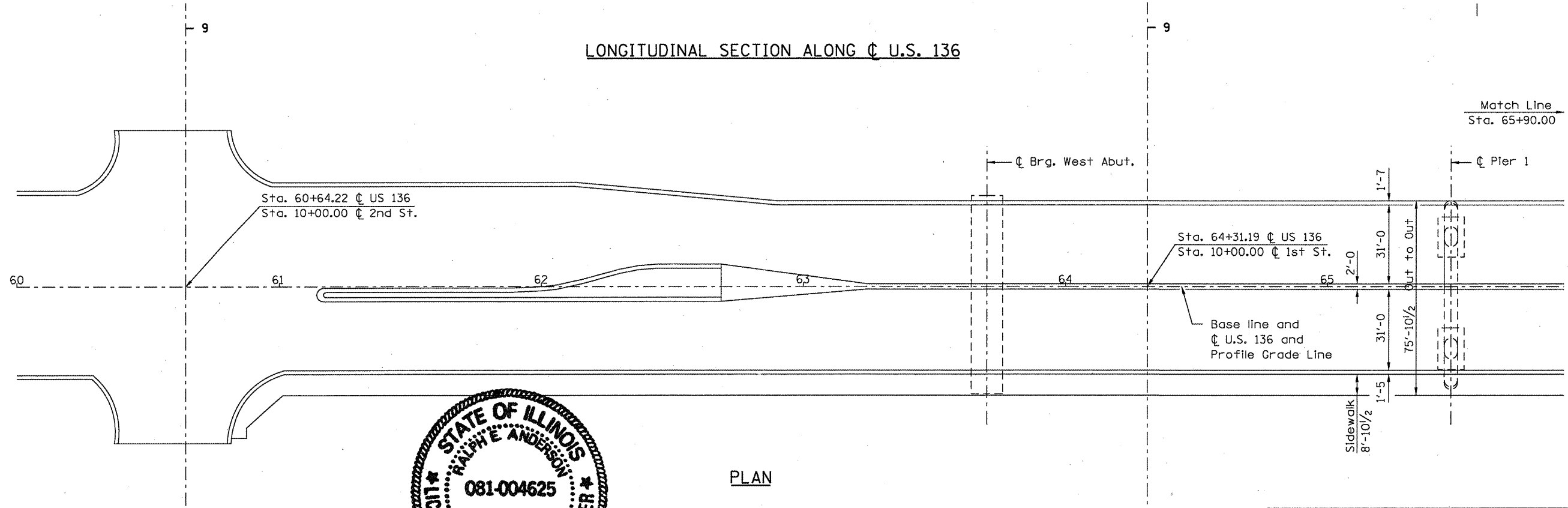
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	SCHEDULE OF REPAIRS	
		FAP 315 (US 136)	
		SECTION (22B)I-1	
		HANCOCK COUNTY	
		VERT. SCALE:	DRAWN BY
		HORIZ. DATE	CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B)-1	HANCOCK	13	5

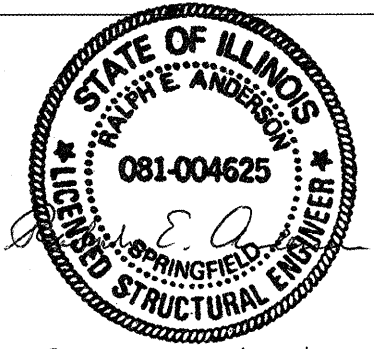
EXISTING STRUCTURE:
 SN 034-0062 CONSISTS OF 15 STEEL MULTI-BEAM WELDED PLATE GIRDER SPANS, WITH AN OVERALL LENGTH OF 3,340 FT MEASURED FROM BACK-TO-BACK OF ABUTMENTS, AND A TOTAL DECK WIDTH OF 75' 10". THE BRIDGE ROADWAY, COMPRISED OF TWO LANES IN EACH DIRECTION DIVIDED BY A BARRIER WALL, HAS A TOTAL COMBINED WIDTH OF 62' 0". THERE IS AN 8' 10" WIDE SIDEWALK ON THE SOUTH SIDE OF THE BRIDGE. THE BRIDGE CARRIES US 136 OVER THE MISSISSIPPI RIVER BETWEEN HAMILTON, ILLINOIS, AND KEOKUK, IOWA, AND WAS BUILT IN 1985 UNDER A CONTRACT MANAGED BY THE IOWA DEPARTMENT OF TRANSPORTATION.



LONGITUDINAL SECTION ALONG C U.S. 136



PLAN

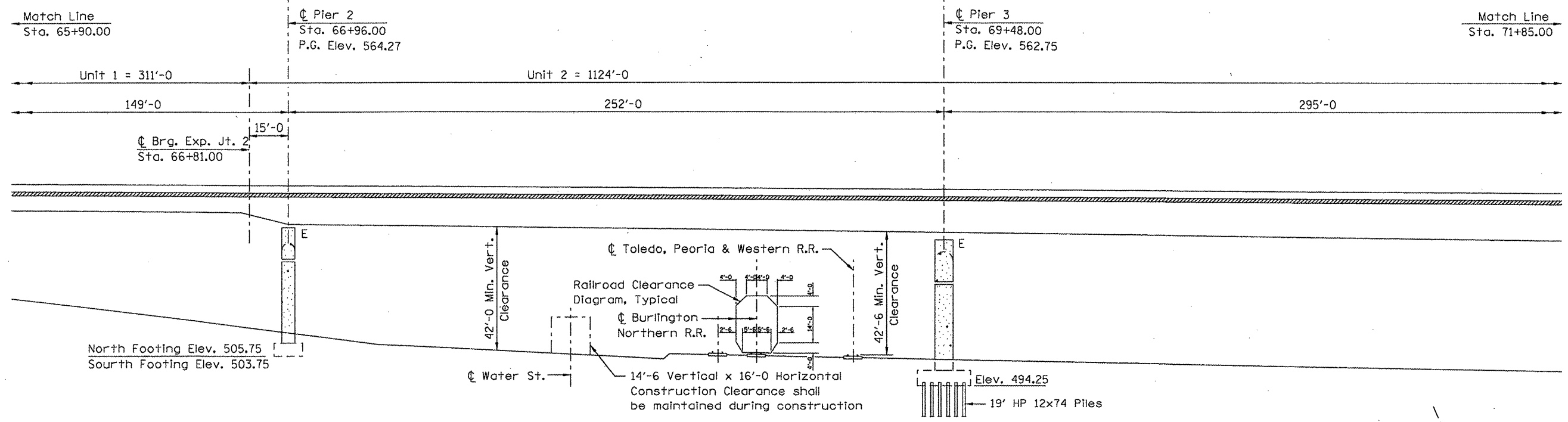


Expires 11/30/2010

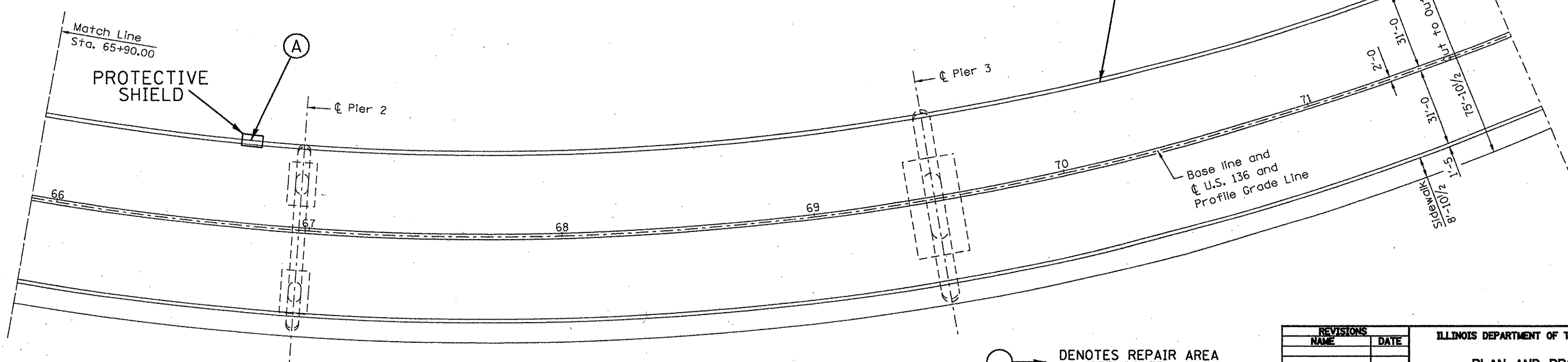
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (22B)-1
 HANCOCK COUNTY
 SN 034-0062

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(228)1-1	HANCOCK	13	6



LONGITUDINAL SECTION ALONG U.S. 136



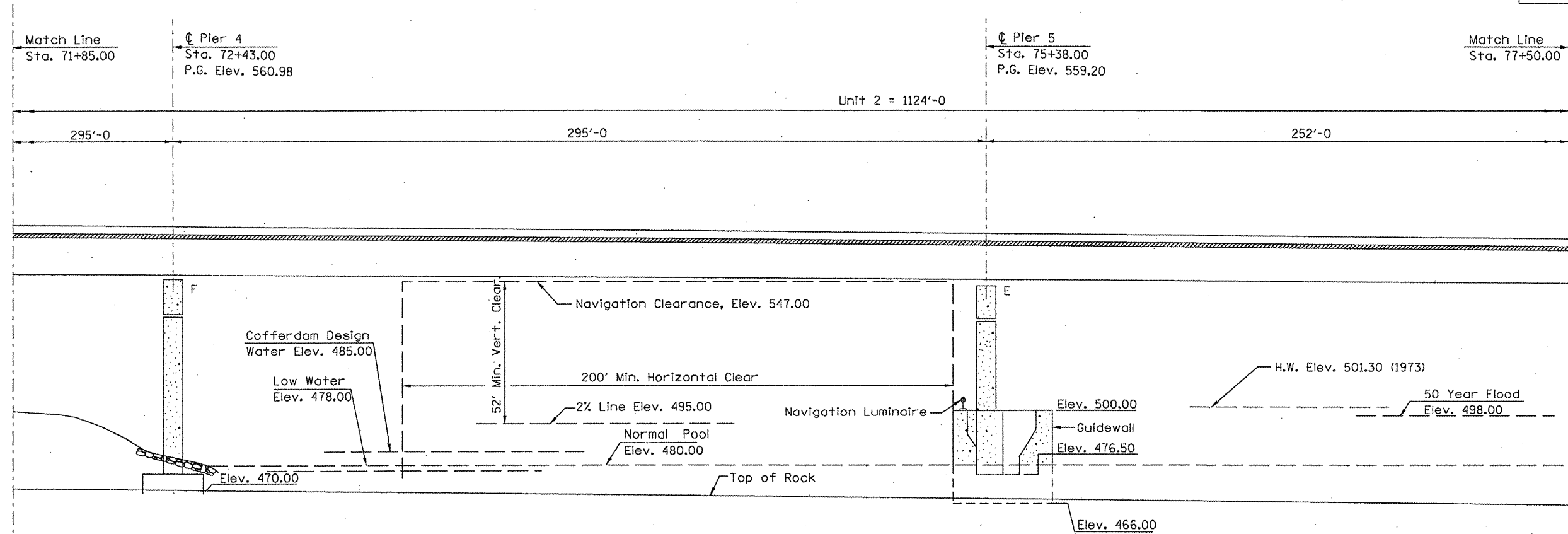
PLAN

○ DENOTES REPAIR AREA (SEE SCHEDULE)

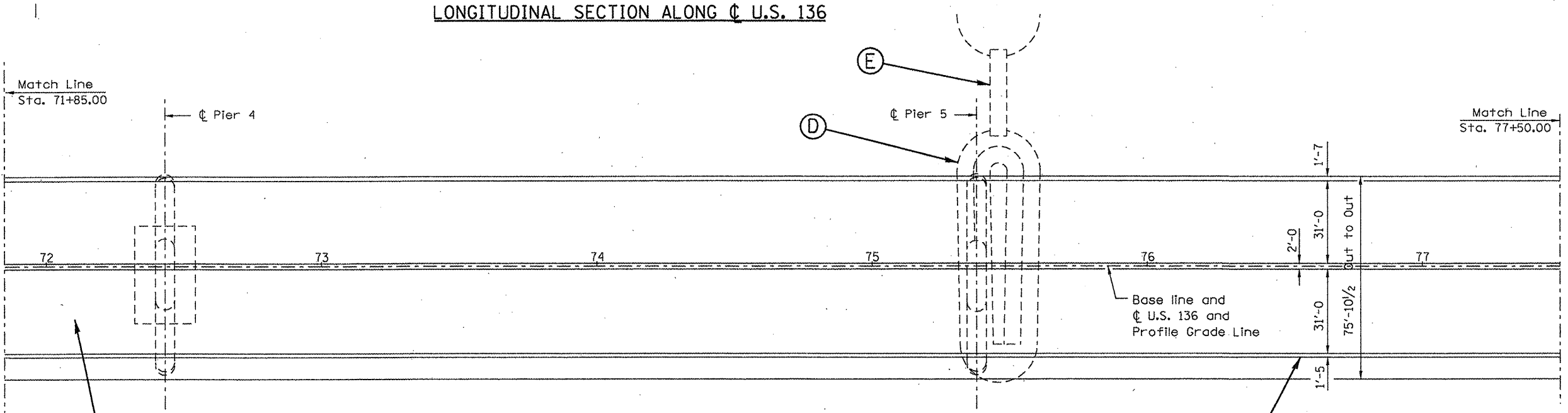
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (228)1-1
 HANCOCK COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B11-1)	HANCOCK	13	7
STA. 71+85.00		TO STA. 77+50.00		
FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT				



LONGITUDINAL SECTION ALONG C U.S. 136



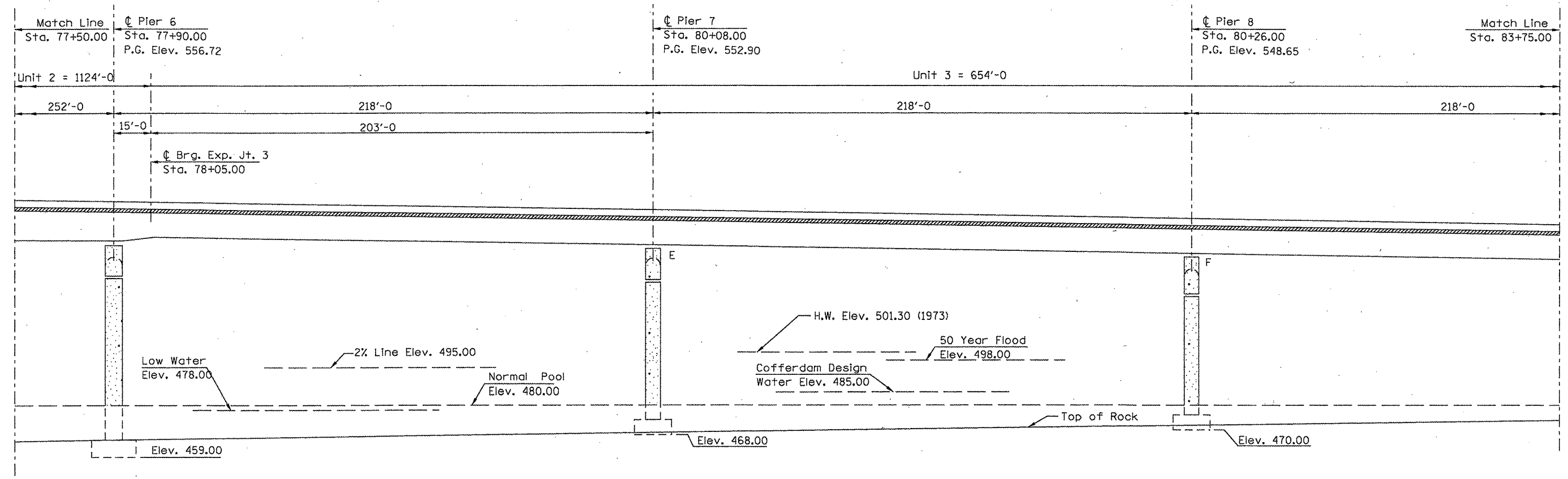
○ DENOTES REPAIR AREA (SEE SCHEDULE)

PLAN

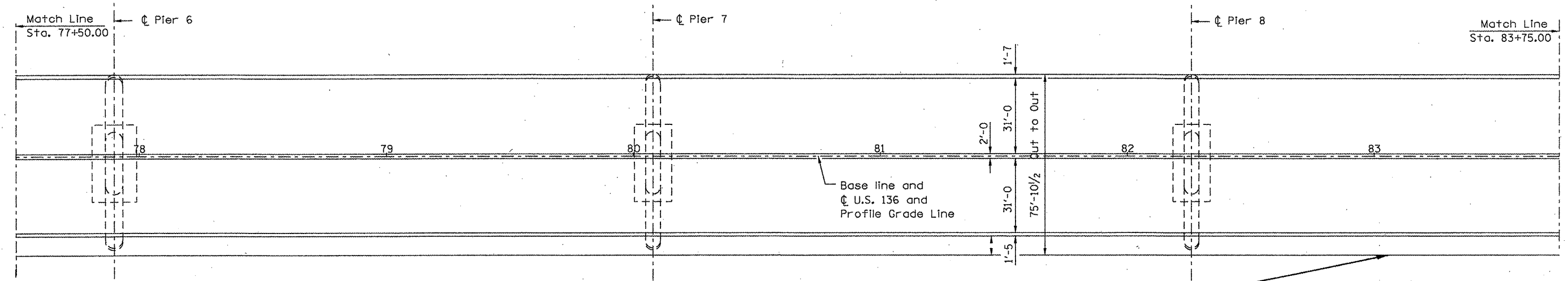
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (22B11-1)
 HANCOCK COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B)-1	HANCOCK	13	8



LONGITUDINAL SECTION ALONG C U.S. 136



○ DENOTES REPAIR AREA (SEE SCHEDULE)

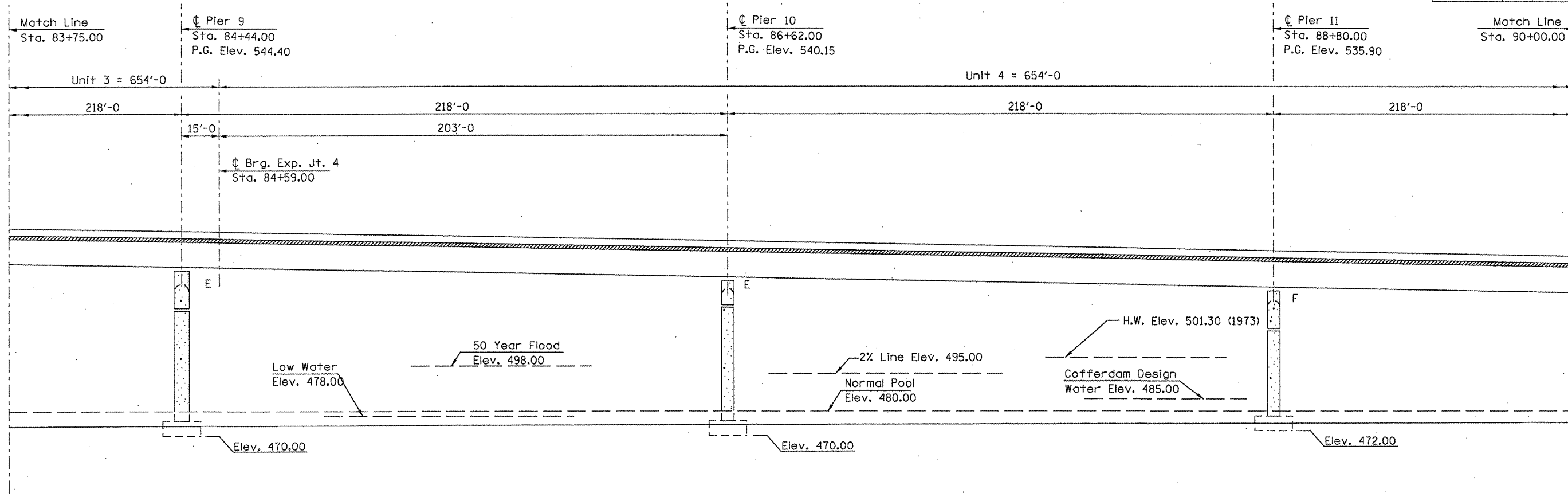
PLAN

○ G

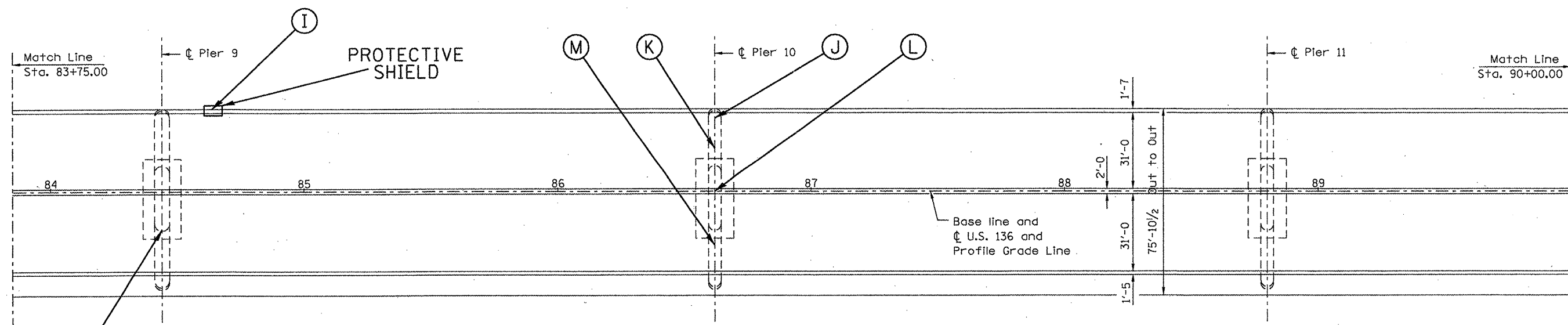
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (22B)-1
 HANCOCK COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	22BII-1	HANCOCK	13	9



LONGITUDINAL SECTION ALONG C U.S. 136



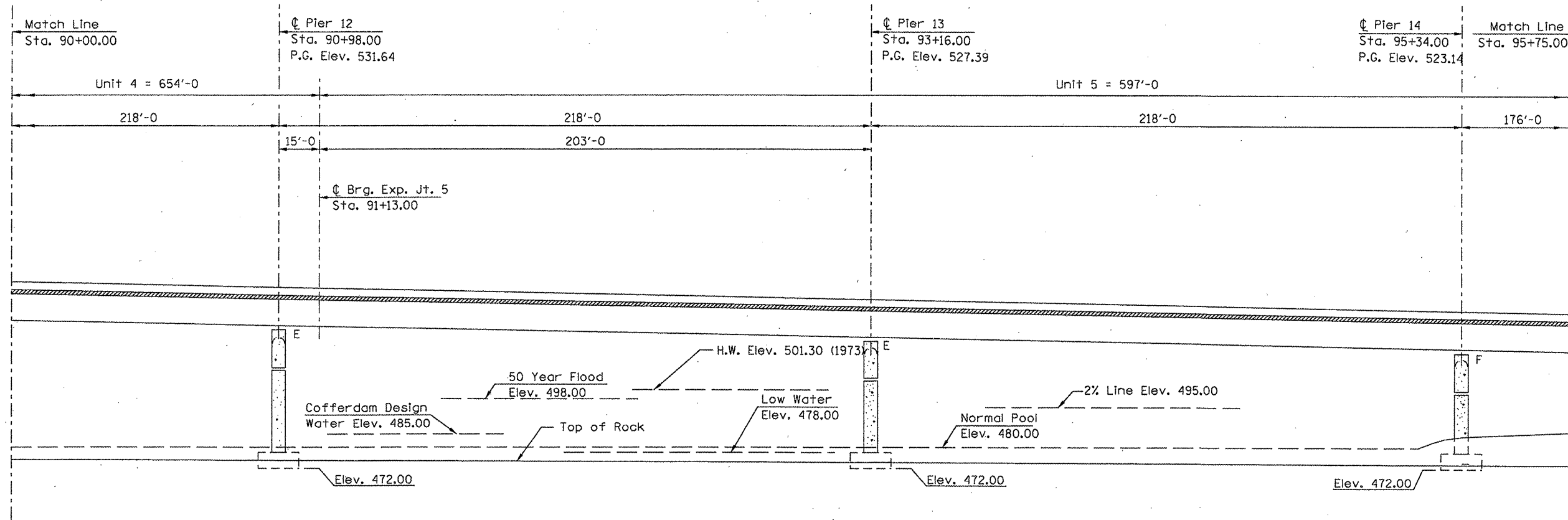
○ → DENOTES REPAIR AREA (SEE SCHEDULE)

PLAN

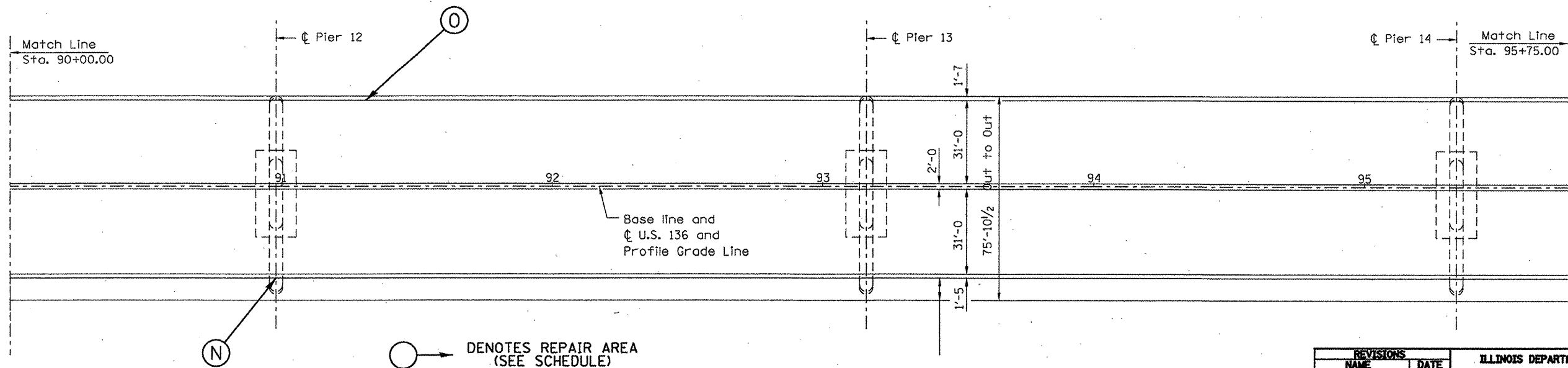
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (22BII)-1
 HANCOCK COUNTY

F.A.C. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B)-1	HANCOCK	13	10



LONGITUDINAL SECTION ALONG U.S. 136

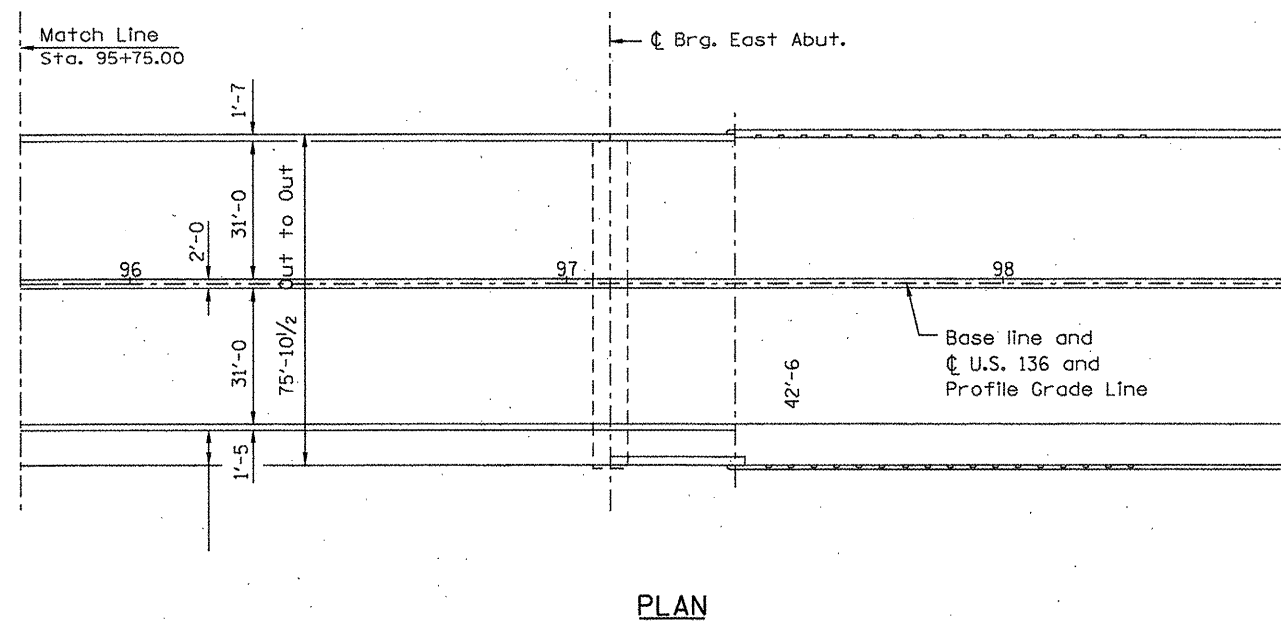
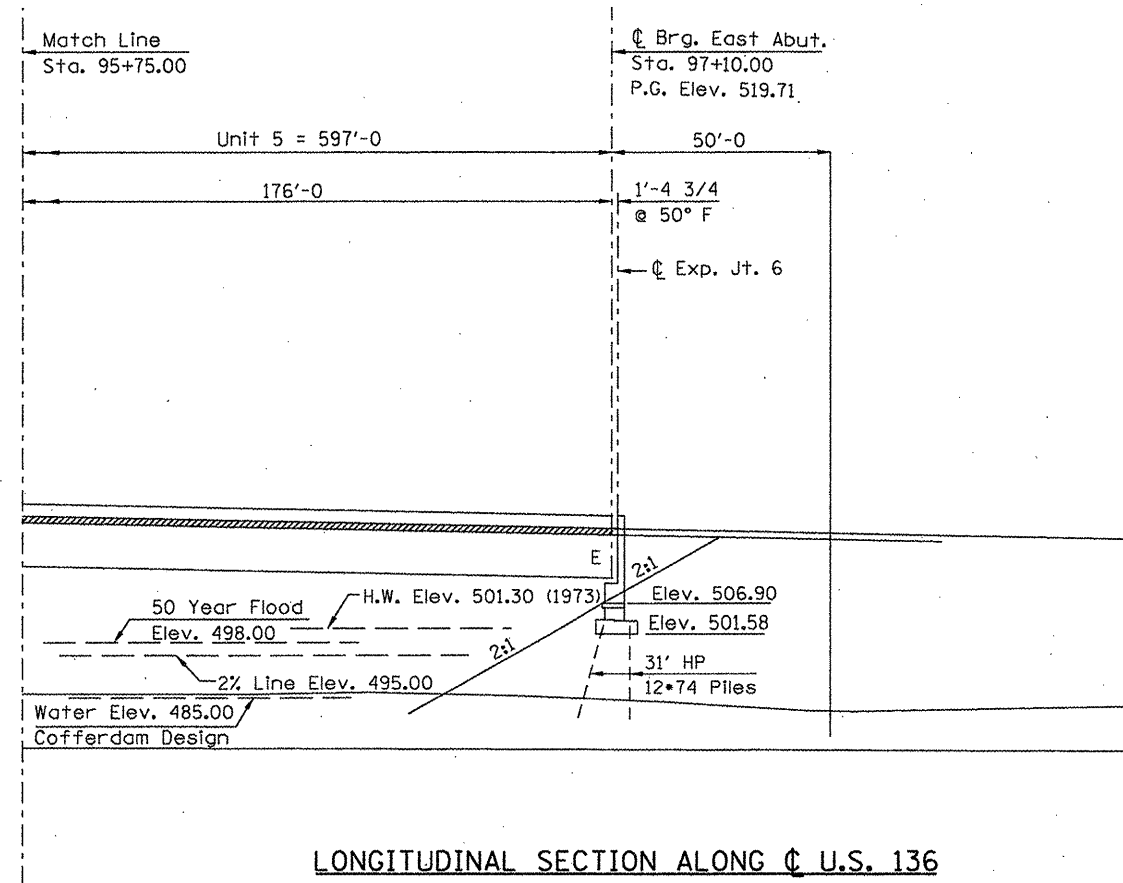


PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (22B)-1
 HANCOCK COUNTY

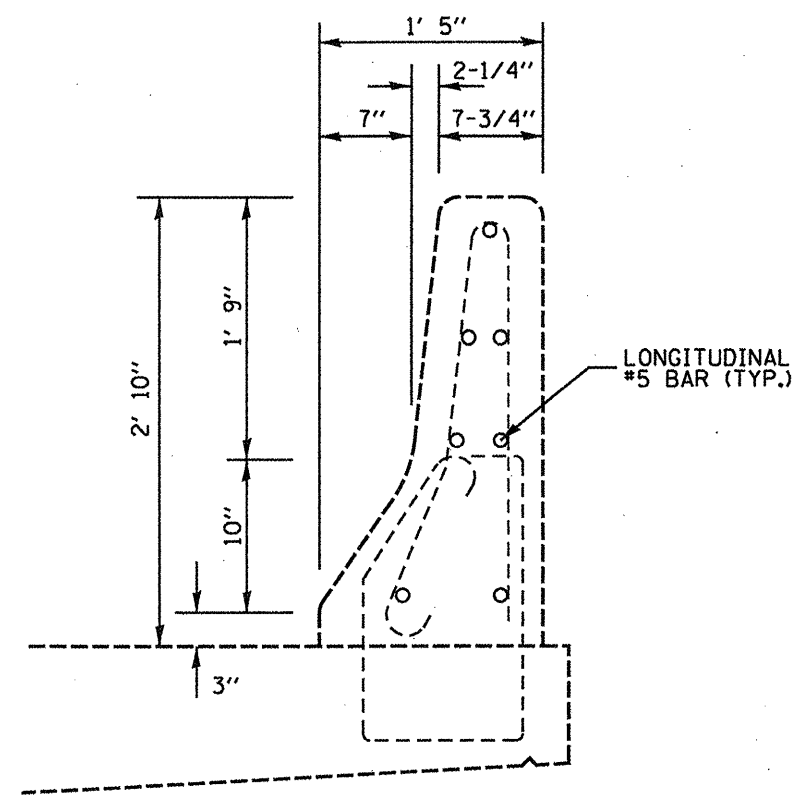
F.A.P. RY.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(22B)-1	HANCOCK	13	11



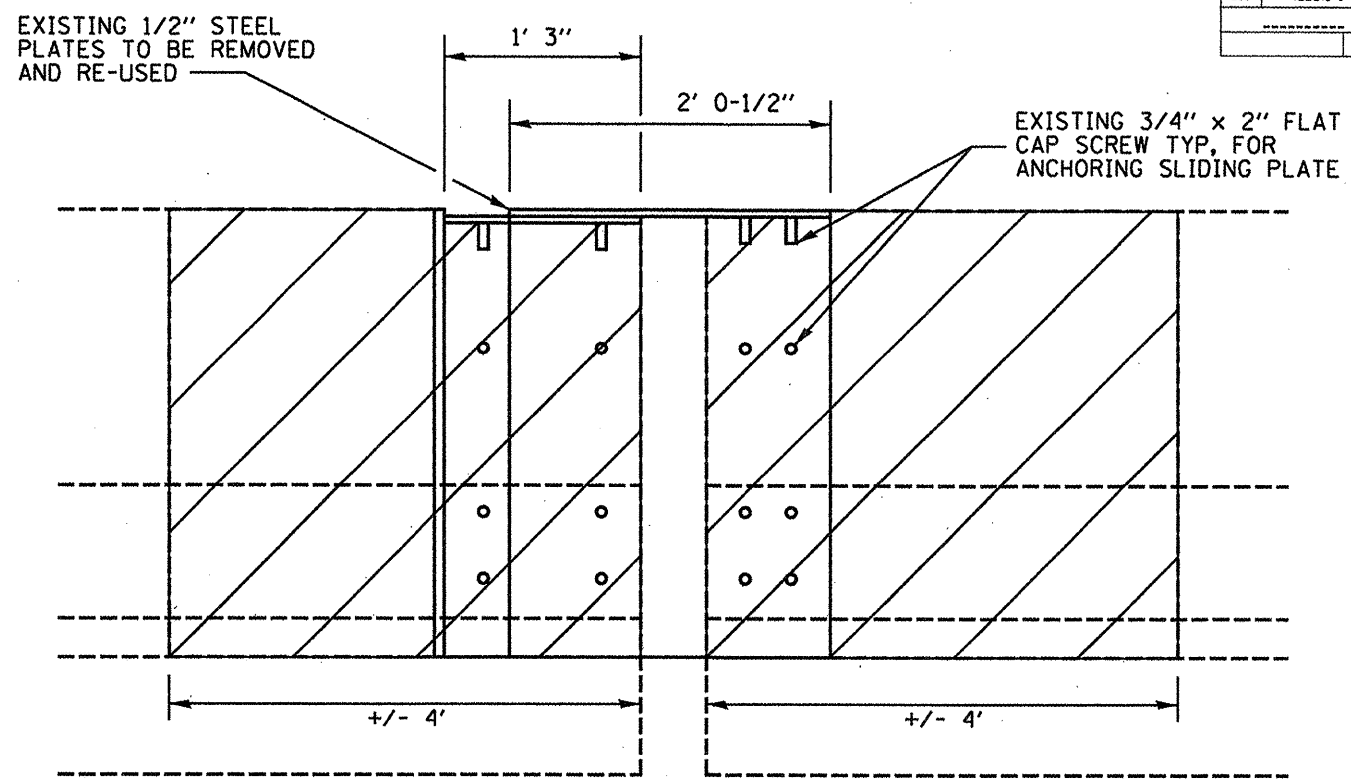
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
 FAP 315 (US 136)
 SECTION (22B)-1
 HANCOCK COUNTY

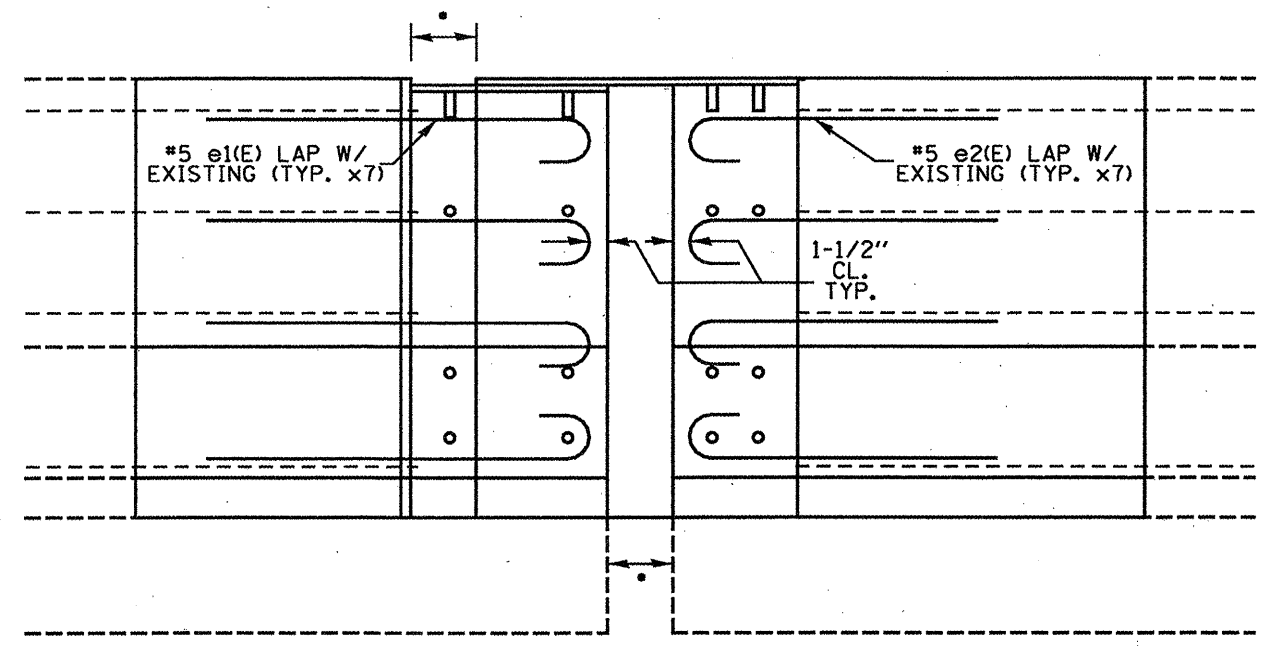
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	122B11-1	HANCOCK	13	12



EXISTING EDGE PARAPET
CROSS SECTION W/ REINFORCEMENT



EXISTING TYPICAL PARAPET
ELEVATION VIEW AT EXPANSION JTS.



PROPOSED TYPICAL PARAPET
ELEVATION VIEW AT EXPANSION JTS.
(VERTICAL REINFORCEMENT NOT SHOWN)

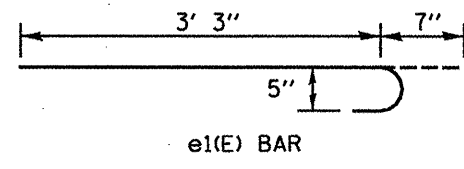
BILL OF MATERIAL (2 JOINTS)				
BAR	NO.	SIZE	SHAPE	LENGTH
e1(E)	14	5		3' 10"
e2(E)	14	5		3' 5"
REINFORCEMENT BARS (EPOXY COATED)				106 LBS
CONC. REMOVAL				1.6 CU YD
CONC. SUPERSTRUCTURE				1.6 CU YD

NOTES:

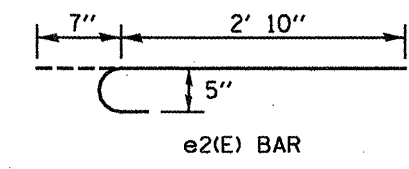
ALL EXISTING REINFORCEMENT IS TO REMAIN. ANY DAMAGE TO EXISTING REINFORCEMENT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL PROPOSED REINFORCEMENT SHALL BE LAPPED A MINIMUM OF 2' 2" WITH THE EXISTING REINFORCEMENT. THE PROPOSED REINFORCEMENT MAY BE TRIMMED TO FIT PROVIDED THAT THE MINIMUM LAP LENGTH IS STILL ACHIEVED.

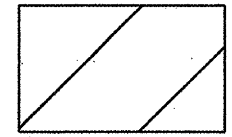
THE SLIDING PLATES SHALL BE RE-ANCHORED WITH NEW 3/4" DIAMETER, 2" LONG FLAT HEAD CAP SCREWS AFTER THE NEW CONCRETE IS POURED. THE EXISTING SCREW HOLES SHALL BE RE-USED. THE CONCRETE INSERTS USED FOR ANCHORING SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR CONCRETE SUPERSTRUCTURE.



e1(E) BAR



e2(E) BAR



PROPOSED
CONCRETE
REMOVAL

REVISIONS	
NAME	DATE

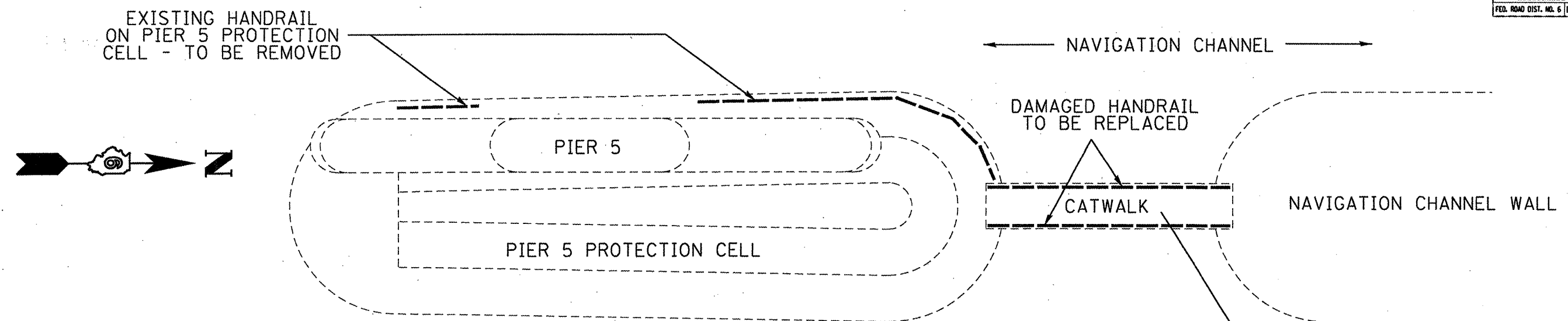
ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET REPAIR DETAILS

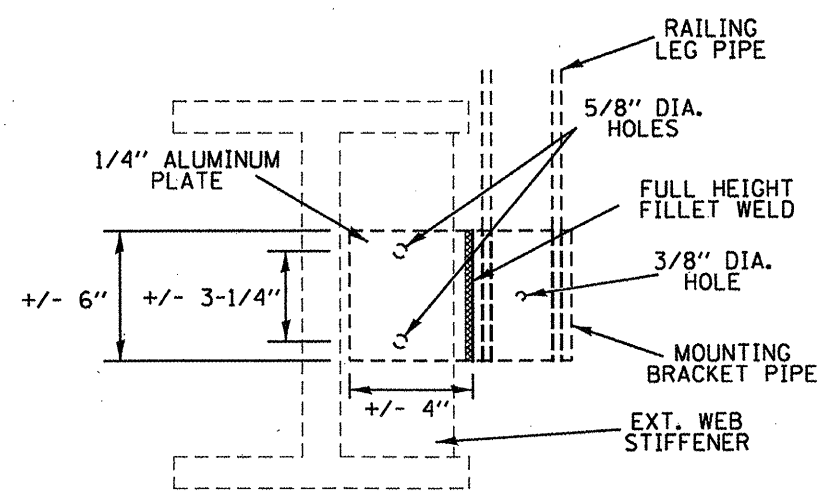
FAP 315 (US 136)
SECTION 122B11-1
HANCOCK COUNTY

• EXPANSION GAP DIMENSION SHALL MATCH THE EXISTING GAP DIMENSION BETWEEN DECK ENDS AT TIME OF CONCRETE POUR.

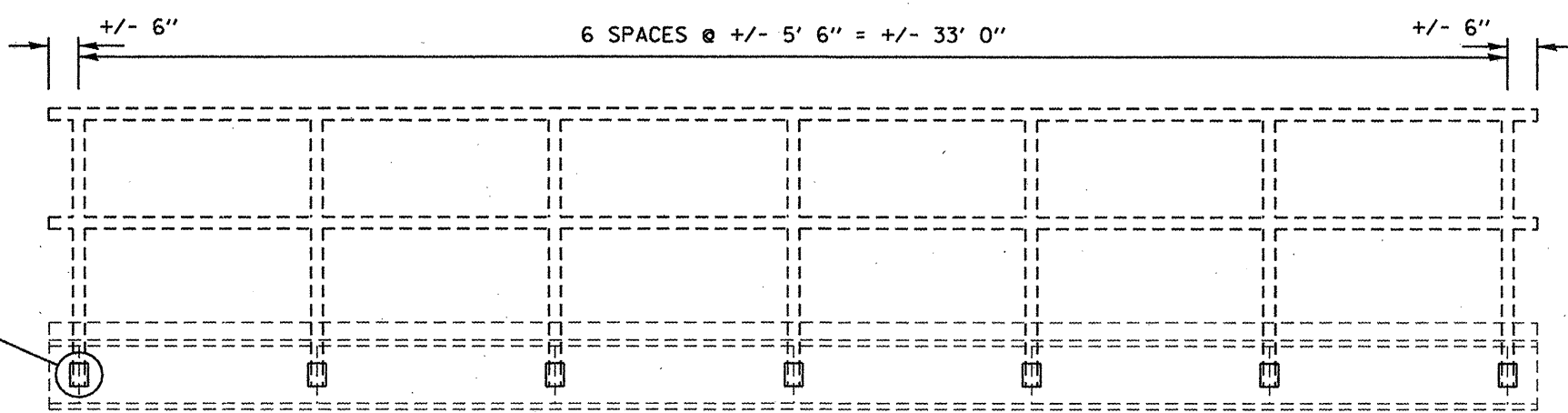
CONTRACT NO. 72052				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	(228)1-1	HANCOCK	13	13
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 6 ILLINOIS FED. AID PROJECT				



HANDRAIL REPAIR AREAS - PLAN VIEW



TYPICAL EXISTING RAIL MOUNTING BRACKET ELEVATION VIEW



EXISTING CATWALK HANDRAIL ELEVATION

NOTES:

THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL PLAN DIMENSIONS PRIOR TO HANDRAIL FABRICATION.

THE NEW HANDRAIL SHALL BE HOLLANDER SPEED-RAIL REMOVABLE RAILING OR EQUIVALENT (WWW.HOLLANDER.COM). THE CONTRACTOR SHALL DESIGN A NEW HANDRAIL SYSTEM AND SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS. THE HANDRAIL SHALL CONFORM TO ALL APPLICABLE OSHA STANDARDS, SPECIFICALLY 1910.23(e). THE RAIL SHALL BE CONSTRUCTED IN INDIVIDUAL SECTIONS BETWEEN 6' AND 16' IN LENGTH AND SHALL PROVIDE FOR EASY REMOVAL DURING FLOOD EVENTS. MOUNTING THE RAIL TO THE CATWALK USING THE EXISTING HOLES IN THE WEB STIFFENERS IS PREFERRED, BUT OTHER METHODS OF ATTACHMENT MAY BE USED IF APPROVED BY THE ENGINEER. THE PIPE USED SHALL BE 2" I. D. SCHEDULE 40, ALUMINUM ALLOY 6061-T6, WITH AN ANODIZED FINISH. ALL FITTINGS AND COUPLINGS SHALL ALSO HAVE AN ANODIZED FINISH. THE NEW HANDRAIL SHALL BE MEASURED FOR PAYMENT ALONG THE TOTAL LENGTH OF THE FINISHED RAILING.

ANY EXISTING HANDRAIL OR MOUNTING BRACKETS PRESENT ON THE CATWALK SHALL BE REMOVED PRIOR TO NEW RAIL INSTALLATION. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR HANDRAIL REMOVAL.

ACCESS TO THE WORK AREA SHALL BE VIA LOCK AND DAM #19. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ARMY CORPS OF ENGINEERS. THE CONTACT PERSON WILL BE LOCK MASTER, BILL ROBINSON, PHONE (319) 524-2631. THE CORPS OF ENGINEERS SHALL HAVE AUTHORITY TO REGULATE THE CONTRACTORS ACCESS TO THE WORK AREA. SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO IN NO WAY INHIBIT THE FLOW OF BARGE TRAFFIC OR ENCUMBER THE OPERATION OF THE LOCK.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

HANDRAIL DETAILS

FAP 315 (US 136)
SECTION (228)1-1
HANCOCK COUNTY

SCALE: VERT. _____
HORIZ. _____

DATE _____

DRAWN BY _____
CHECKED BY _____