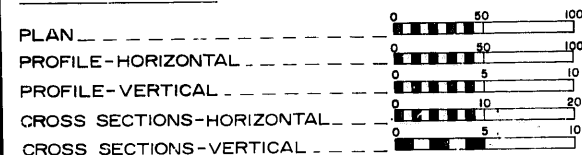


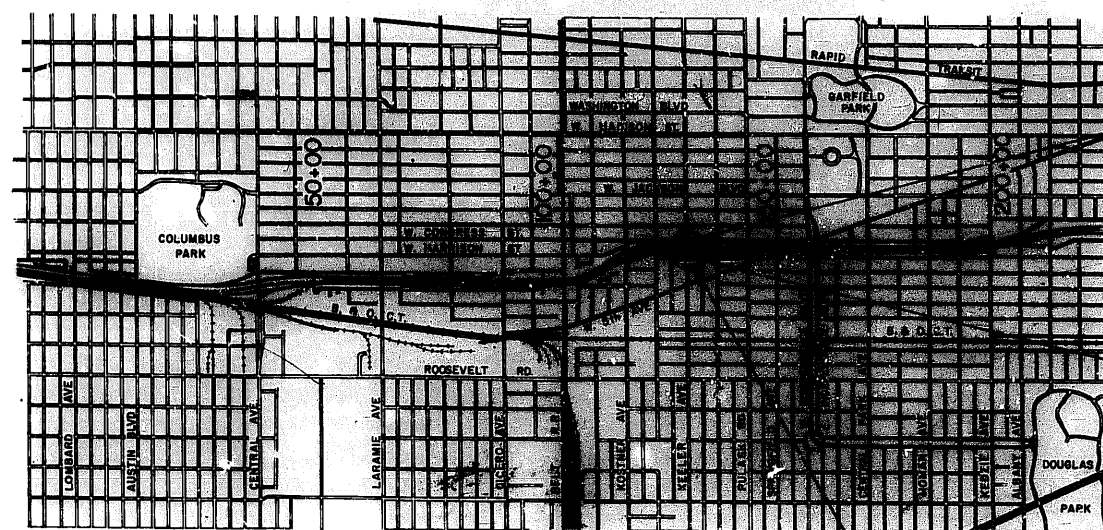
SCALE IN FEET



KEELER AVENUE

DESCRIPTION OF WORK: THE IMPROVEMENT CONSISTS OF THE FOLLOWING ITEMS TO BE APPLIED TO THE EXISTING BRIDGE: REMOVE EXISTING BRIDGE DECK AND INSTALL A NEW CONCRETE DECK, PARAPET, AND PEDESTRIAN SAFETY FENCE. THE LONGITUDINAL DECK JOINT SHALL BE ELIMINATED IN THE REPLACEMENT DECK AND EXISTING EXPANSION JOINTS AT ABUTMENTS SHALL BE REMOVED AND REPLACED WITH A NEOPRENE EXPANSION JOINT OR 2 1/2" PREMOLDED JOINT SEAL, AS DETAILED. THE ABUTMENT BACKWALLS WILL BE REPAIRED OR REBUILT AS DETAILED. THE EXISTING STRUCTURAL STEEL AND FIXED PIER BEARINGS SHALL BE CLEANED AND PAINTED AND THE ABUTMENT ROLLER BEARINGS AND EXPANSION PIER ROCKER BEARINGS REPLACED WITH ELASTOMERIC BEARING PADS AND STEEL BOLSTERS. INSTALL FOUR INCH TRANSVERSE EXPANSION JOINT FILLER AT THE END OF THE APPROACH SLABS AND REPAIR DAMAGED CURBS AND SIDEWALKS. REMOVE AND REPLACE THE APPROACH SLABS AND SIDEWALK SECTIONS AS DETAILED. THE BRIDGE SUBSTRUCTURE UNITS SHALL BE REPAIRED AS DETAILED IN THE PLANS. ALL OF THE WORK DESCRIBED SHALL BE ACCOMPLISHED UTILIZING STAGED CONSTRUCTION TO MAINTAIN TWO WAY TRAFFIC FLOW ACROSS THE STRUCTURE AT ALL TIMES.

T. 39 N.



R. 13 E.

LOCATION MAP

APPROXIMATE SCALE: 1" = 2000'



GRAPHIC SCALE

KEELER AVENUE BRIDGE
 Bridge No. 016-2088
 Three span continuous steel wide
 flange beam bridge (Three 66'-9"
 Spans) with approach slabs, abutments
 and piers at Sta. 132 + 60.98
 on the eastbound Baseline of the
 Eisenhower Expressway, (I-290).

END PROJECT
 12 + 81.60

BEGIN PROJECT
 9 + 98.77



William Gentry
 WILLIAM GENTRY
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF ILLINOIS NO. 62-29876
 DATE 9/23/86

NET LENGTH OF PROJECT (ALONG KEELER AVE.) = 282.83 FT. ± 0.0836 MI.
 NET LENGTH OF PROJECT (ALONG I-290) = 0.0 FT. ± 0.0 MI.

PLANS PREPARED BY
 AMERICAN ENGINEERING COMPANY
 CONSULTING ENGINEERS
 ROLLING WOODS, ILL. LEXINGTON, KY.

CONTRACT NO. 80444

COOK COUNTY SECTION 2929.1 BR (80) F.A.I. ROUTE 290

A

B

C

0

A

B

C

D

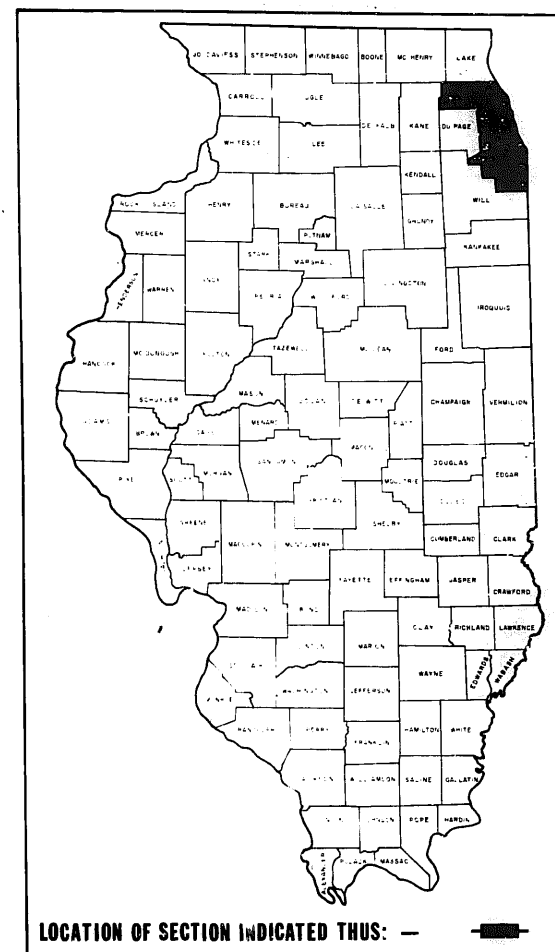
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
 FEDERAL AID INTERSTATE HIGHWAY

F.A.I. ROUTE 290
 SECTION: 2929.1 BR (80)
 PROJECT: I-290-4(100)94
 COOK COUNTY
 REHABILITATION OF KEELER AVENUE BRIDGE OVER
 EISENHOWER EXPRESSWAY

C-91-050-80

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 290	*	COOK	37	1
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT I-290-4(100)94		
* 2929.1 BR (80)				



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUBMITTED *August 17, 1989*
 EXAMINED *James C. Higney* DISTRICT ENGINEER
 PASSED *Harry D. Gould* ENGINEER OF PLANS AND CONTRACTS
 APPROVED *Robert A. Wilson* ENGINEER OF DESIGN
Robert A. Wilson DIRECTOR OF HIGHWAYS

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVED
 DIVISION ADMINISTRATOR DATE

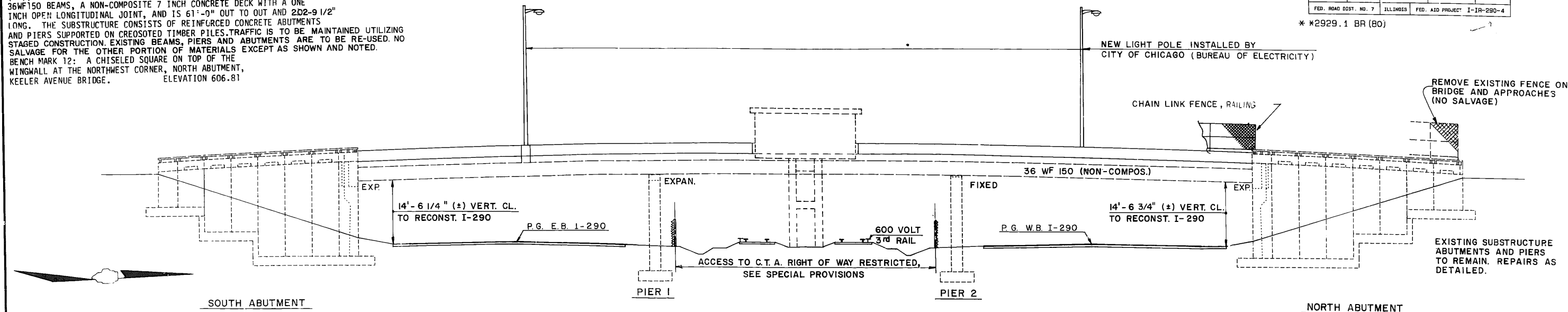
THE EXISTING BRIDGE NO. 016-2068 AT STATION 132+60.98 (F.A.I. 290 EASTBOUND BL) WAS BUILT IN 1953 AS F.A. ROUTE 131-PROJECT U.I. 261 (61), SECTION 062-2929.1-M.F.T. THE BRIDGE CONSISTS OF TWELVE 36WF150 BEAMS, A NON-COMPOSITE 7 INCH CONCRETE DECK WITH A ONE INCH OPEN LONGITUDINAL JOINT, AND IS 61'-0" OUT TO OUT AND 202'-9 1/2" LONG. THE SUBSTRUCTURE CONSISTS OF REINFORCED CONCRETE ABUTMENTS AND PIERS SUPPORTED ON CREOSOTED TIMBER PILES. TRAFFIC IS TO BE MAINTAINED UTILIZING STAGED CONSTRUCTION. EXISTING BEAMS, PIERS AND ABUTMENTS ARE TO BE RE-USED. NO SALVAGE FOR THE OTHER PORTION OF MATERIALS EXCEPT AS SHOWN AND NOTED. BENCH MARK 12: A CHISELED SQUARE ON TOP OF THE WINGWALL AT THE NORTHWEST CORNER, NORTH ABUTMENT, KEELER AVENUE BRIDGE. ELEVATION 606.81

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

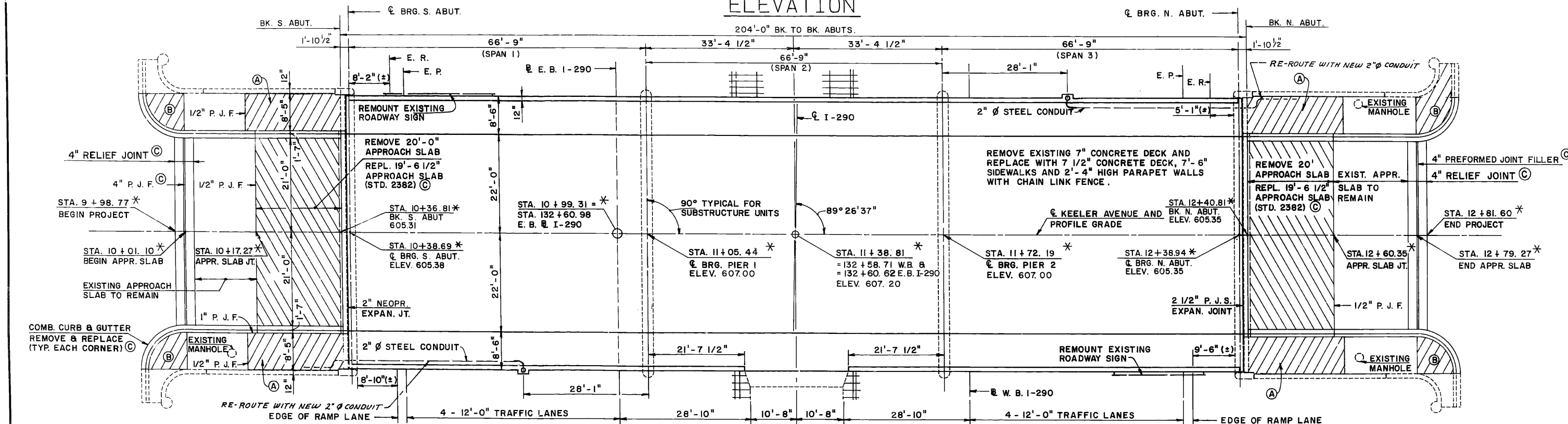
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	**	COOK	39	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-IR-290-4	

SHEET NO. 1
23 SHEETS

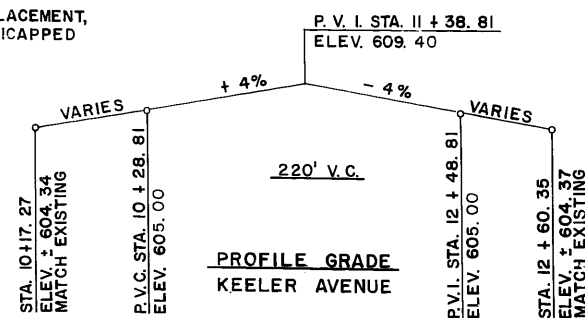
* 2929.1 BR (80)



ELEVATION



- (A) 22'-3" SIDEWALK REMOVAL, 22'-9 1/2" REPLACEMENT (SEE ROADWAY PLANS)
- (B) SIDEWALK REMOVAL AND REPLACEMENT, ACCESS RAMP FOR THE HANDICAPPED (SEE ROADWAY PLANS)
- (C) SEE ROADWAY PLANS



DESIGNED	BLW
CHECKED	MVM
DRAWN	BSB
CHECKED	MVM

DESIGN STRESSES

NEW CONSTRUCTION:
 $f'_c = 3,500$ psi - CONCRETE
 $f_y = 60,000$ psi - REINFORCEMENT
 $f_y = 36,000$ psi - M183
 EXISTING STRUCTURE:
 $f_s = 18,000$ psi - (ASTM A7) 36WF150 BEAMS
 $f_c = 1,200$ psi - CONCRETE

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

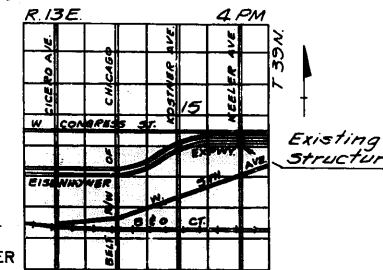
James J. [Signature]
Engineer of Bridges and Structures

PLAN

* STATIONS FROM EXISTING PLANS



Homer M. Walker
HOMER M. WALKER
REGISTERED STRUCTURAL ENGINEER
STATE OF ILLINOIS NO. 81-3549
Sept 23, 1986
DATE



LOCATION SKETCH

DESIGN LOADING HS 20-44
NO ALLOWANCE FOR FUTURE WEARING SURFACE
DESIGN SPECIFICATIONS 1983 A.A.S.H.T.O.
WITH 1984 THRU 1988 INTERIMS

GENERAL PLAN AND ELEVATION
KEELER AVENUE Over
I-290

F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEAD LOAD REACTIONS (KIPS)
AT ABUTMENTS

BEAM NUMBER	1, 12	2, 11	3-5, 8-10	6, 7
STEEL DEAD LOAD	6.09	6.30	4.68	4.46
CONCRETE DEAD LOAD	18.00	17.74	12.96	10.32
50 psf CONST. DL	6.02	8.20	7.02	5.52
TOTAL LOAD **	30.11	32.24	24.66	20.30

AT PIERS

BEAM NUMBER	1, 12	2, 11	3-5, 8-10	6, 7
STEEL DEAD LOAD	16.69	17.28	12.82	12.23
CONCRETE DEAD LOAD	49.31	48.62	35.53	28.31
50 psf CONST. DL	16.50	22.46	19.25	15.13
TOTAL LOAD **	82.50	88.36	67.60	55.67

** CONCRETE AND CONSTRUCTION DEAD LOADS ARE TO BE USED ONLY IF THE BRIDGE BEAMS ARE RAISED PRIOR TO REMOVAL OF THE EXISTING CONCRETE DECK.

GENERAL NOTES:

ALL EXTERIOR SURFACES OF THE FASCIA BEAMS, INCLUDING THE BOTTOM OF THE LOWER FLANGES, AND THE EXTERIOR BEARING ASSEMBLIES SHALL USE THE THREE COAT LEAD AND CHROMATE FREE ALKYLID PRIMER SYSTEM FOR SHOP AND/OR FIELD PAINTING. THE COLOR OF THE FINAL FINISH COAT SHALL BE BLUE (MUNSELL 10B 3/4)

ALL OTHER EXISTING OR NEW STRUCTURAL STEEL SHALL RECEIVE ONE COAT OF THE LEAD AND CHROMATE FREE ALKYLID PRIMER AND TWO COATS OF ALUMINUM PAINT

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD 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 THE SCOPE OF WORK, HOWEVER; THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

ALL CONTACT SURFACE AREAS OF NEW AND EXISTING STRUCTURAL STEEL SHALL BE FREE OF PAINT OR LACQUER.

ALL EXISTING STRUCTURAL STEEL SHALL BE CLEANED BY METHOD II, EXCEPT AREAS AND LOCATIONS NOTED IN THE SPECIAL PROVISIONS SHALL BE CLEANED BY METHOD I. (ARTICLE 509.06)

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF THE BEAMS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

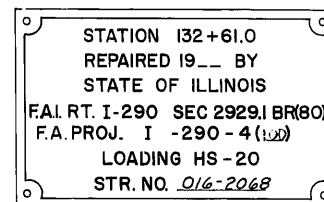
NEW REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF THE AASHTO M-42, M-31 OR M-53 GRADE 60.

EXPANSION BOLTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS PROVIDING MINIMUM CERTIFIED PROOF LOAD = 4,000 POUNDS AND 3/4" DIA. x 12" HOOKED BOLTS.

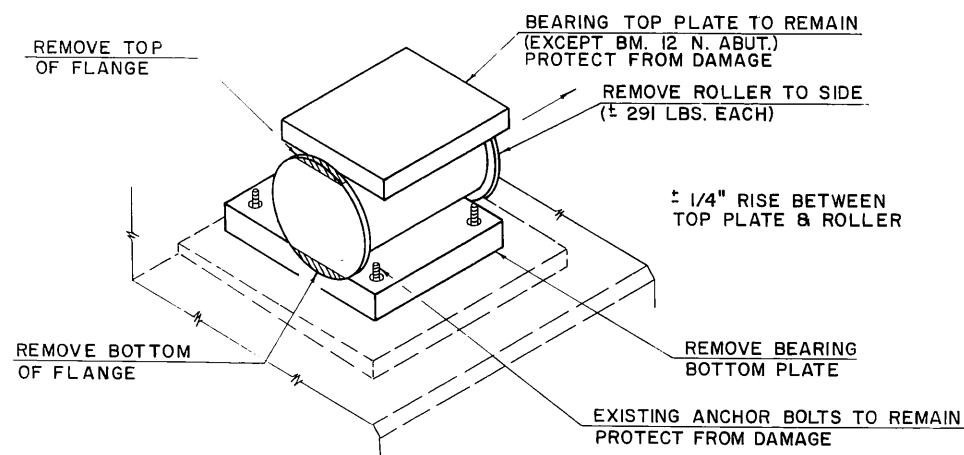
TWO LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UTILIZING STAGE CONSTRUCTION.

ALL EXISTING TOP FLANGE SURFACES WHICH SHALL BE IN CONTACT WITH NEW CONCRETE SHALL BE CLEANED TO SATISFY ART. 509.06 (b) METHOD II. COST SHALL BE INCIDENTAL TO REMOVAL OF EXISTING CONCRETE DECK.

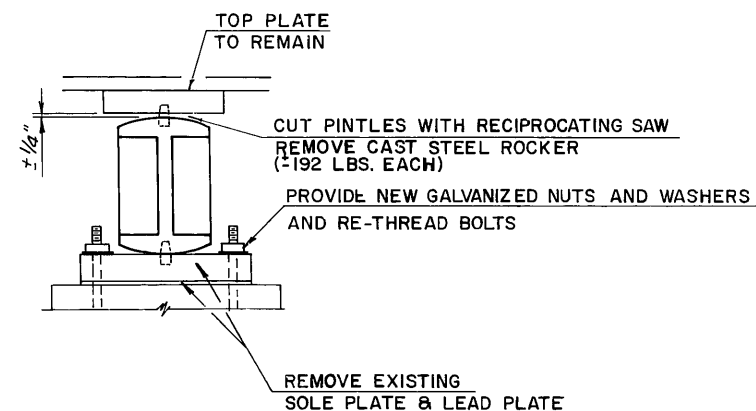
JACKING NOTE: FOR BEAM RAISING SEE SPECIAL PROVISIONS,
JACK & REMOVE EXISTING BEARINGS



NAME PLATE
SEE STD. 2113



BEARING REMOVAL DETAIL
AT ABUTMENT
SEE SHEET NO. 17 FOR DETAILS



BEARING REMOVAL DETAIL
AT PIER I
SEE SHEET NO. 18 FOR DETAILS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.I. 290	*	COOK	39	16	23 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-IR-290-4		

*2929.1 BR (80)

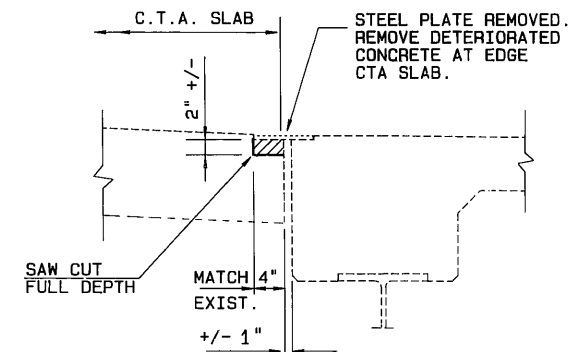
TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER.	SUBST.	TOTAL
CONCRETE REMOVAL	CU. YD.	-	12	12
REMOVAL OF EXISTING CONCRETE DECK	LUMP SUM	1	-	1
CLASS X CONCRETE	CU. YD.	-	22.0	22.0
STRUCTURAL STEEL	POUND	23,430	-	23,430
CLEANING AND PAINTING STEEL BRIDGE	LUMP SUM	1	-	1
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	36	-	36
REINFORCEMENT BARS	POUNDS	-	1,120	1,120
REINFORCEMENT BARS (EPOXY COATED)	POUND	78,910	1,740	80,650
PROTECTIVE SHIELD	SQ. YD.	1,357	-	1,357
NEOPRENE EXPANSION JOINT 2"	LIN. FT.	62.5	-	62.5
PREFORMED JOINT SEAL 2 1/2"	LIN. FT.	63	-	63
NAME PLATE	EACH	1	-	1
PEDESTRIAN RAILING	LIN. FT.	373	-	373
JACK & REMOVE EXISTING BEARING	EACH	36	-	36
CLEANING AND PAINTING METAL HANDRAIL	LIN. FT.	-	194	194
BRIDGE HANDRAIL REMOVAL	LIN. FT.	404	-	404
PROTECTIVE COAT *	SQ. YD.	1,493	-	1,493
C.T.A. JOINT SEAL	LIN. FT.	23.5	-	23.5
REPAIR CONCRETE STRUCTURES ①	SQ. FT.	-	450	450
EPOXY CRACK SEALING ①	LIN. FT.	-	40	40
BEAM STRAIGHTENING ②	EACH	2	-	2
REMOVE & RE ERECT BRIDGE MOUNT SIGNS	EACH	2	-	2
PROTECT & MAINTAIN EXIST. UNDERPASS LUMINAIRE	LUMP SUM	-	1	1
INSTALL & REMOVE TEMP. CONCRETE BARRIER	UNIT	27	-	27
RELOCATE TEMP. CONCRETE BARRIER	UNIT	27	-	27
CLASS X CONCRETE SUPERSTRUCTURES	CU YD.	392.5	-	392.5

① QUANTITIES SHOWN ARE ESTIMATES AND SHOULD NOT BE TAKEN AS MAXIMUM LIMITS

② 2 LOCATIONS SEE SHEET NO. 5 AND SPECIAL PROVISIONS

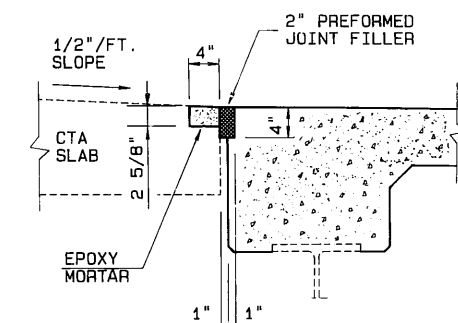
* QUANTITY INCLUDES BRIDGE DECK SURFACE



SECTION E-E
(EXISTING)

C.T.A. JOINT SEAL, 2"

INCLUDES SAW CUTTING AND REMOVAL OF EXISTING CONCRETE, EPOXY MORTAR REPAIRS TO C.T.A. SLAB EDGE, 2" PREFORMED JOINT FILLER, AND ALL INCIDENTALS NECESSARY TO COMPLETE THE JOINT. SEE #7 FOR LOCATION AND LENGTH.



SECTION E-E
(PROPOSED)

GENERAL NOTES, BILL OF MATERIALS
STRINGER JACKING DETAILS

KEELER AVENUE OVER

I-290

F.A.I. RTE. 290, SECTION 2929.1, BR (80)

COOK COUNTY

STA. 132+60.98

F.A.I. 290 (E.B. BL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

SHEET NO. 3

23 SHEETS

STAGE I; PHASE 1

*2929.1 BR (80)

1. DIVERT TRAFFIC TO WESTERN HALF OF BRIDGES, INSTALL TEMPORARY CONCRETE BARRIER, STD. 2383 AND TYPE 1 OR 2 TEMPORARY BARRICADES, AND CLOSE THE EASTERN HALF OF THE BRIDGE FOR REPAIRS.

2. INSTALL TEMPORARY LANE CLOSURES ON I-290 TO INSTALL UNDERBRIDGE CONDUIT SUPPORT AND PROTECTION SYSTEMS AND PROTECTIVE SHIELD. NOTIFY AND ALLOW COMMONWEALTH EDISON TO SUPPORT AND PROTECT THEIR UTILITY CONDUITS. CONTRACTOR WILL SUPPORT AND PROTECT THE UTILITY SYSTEM OWNED BY THE CITY OF CHICAGO, BUREAU OF ELECTRICITY. (SEE SHEET # 12)

3. IF C.T.A. STATION IS OPERATIONAL DURING THIS CONTRACT, PEDESTRIAN ACCESS WILL BE MAINTAINED AND THE C.T.A. WILL BE NOTIFIED IN WRITING TWO WEEKS IN ADVANCE OF CONSTRUCTION DISRUPTIONS TO ACCESS TO THEIR FACILITIES. CONSTRUCT AN 8'-0" HIGH WOOD BARRIER ALONG THE END OF THE EAST SIDEWALK TO PROTECT PEDESTRIANS FROM CONSTRUCTION OPERATIONS. (COST INCIDENTAL)

4. REMOVE EXISTING BRIDGE DECK AND APPROACH SLABS WITHIN LIMITS SHOWN AND LOOSEN THE DIAPH. BOLTS BETWEEN BMS. 2 & 3.

5. INSTALL JACKING AND RAISE BEAMS 3 THROUGH 6 TO ALLOW REMOVAL OF EXISTING ABUTMENT ROLLER BEARINGS AND SOLE PLATES, AND EXPANSION PIER ROCKERS AND SOLE PLATES. INSTALL ELASTOMERIC BEARINGS AND STEEL BOLSTERS, REMOVE JACKS.

6. BEGIN REPAIRS TO SUBSTRUCTURE, ABUTMENT BACKWALL MODIFICATIONS, APPROACH SLAB REPAIRS, CURB AND GUTTER REPAIRS AND BEGIN CLEANING AND PAINTING STRUCTURAL STEEL. BEGIN INSTALLATION OF STEEL DIAPHRAGMS, SPECIFY INSTALLING BOLTS ONLY FINGER TIGHT IN STAGE I, ANGLES, ETC.

7. FORM AND PLACE CONCRETE FOR NEW BRIDGE DECK WITHIN LIMITS SHOWN.

STAGE I; PHASE 2

1. INSTALLED TRAFFIC CONTROL DEVICES TO REMAIN.

2. IF C.T.A. STATION ACCESS IS TO BE MAINTAINED, ALLOW PEDESTRIAN ACCESS FROM NORTH END OF BRIDGE SIDEWALK.

3. REMOVE EXISTING SIDEWALK AND RAILING FROM SOUTH ABUTMENT TO CENTERLINE OF C.T.A. PLATFORM. MAINTAIN PEDESTRIAN ACCESS TO TERMINAL FROM OPPOSITE END OF BRIDGE. NOTIFY C.T.A. OF CHANGE TO BUS STOP LOCATION.

4. INSTALL JACKING AND RAISE BEAMS 1 AND 2 AT SOUTH ABUTMENT AND PIER 1. REMOVE BEARINGS AND REPLACE WITH ELASTOMERIC PADS AND STEEL BOLSTERS AS DETAILED.

5. REBUILD SIDEWALK, PARAPET AND PEDESTRIAN RAILING AS DETAILED.

6. WHEN NEW SIDEWALK HAS ACQUIRED ADEQUATE STRENGTH, INSTALL 8'-0" HIGH WOOD PEDESTRIAN BARRIER AND BEGIN REMOVAL AND REPLACEMENT OPERATIONS ON SIDEWALK FROM CENTERLINE OF C.T.A. TERMINAL PLATFORM TO NORTH ABUTMENT.

7. INSTALL JACKING AND RAISE BEAMS 1 AND 2 AT NORTH ABUTMENT. REMOVE BEARINGS AND REPLACE WITH ELASTOMERIC PADS AND STEEL BOLSTERS AS DETAILED.

8. REBUILD REMAINDER OF EAST SIDEWALK, PARAPET AND PEDESTRIAN RAILING AS DETAILED.

9. REMOVE AND REPLACE DIAPH. CONNECTION BOLTS BETWEEN BM. 2 AND 3 AFTER EAST SIDEWALK IS IN PLACE.

STAGE II:

1. WHEN NEW CONCRETE DECK HAS ACQUIRED ADEQUATE STRENGTH, RELOCATE TEMPORARY CONCRETE BARRIER AND BARRICADES TO EASTERN HALF OF BRIDGE AND DIVERT TRAFFIC TO EASTERN HALF OF BRIDGE.

2. REMOVE EXISTING HANDRAIL, BRIDGE DECK, SIDEWALK AND APPROACH SLAB WITHIN LIMITS.

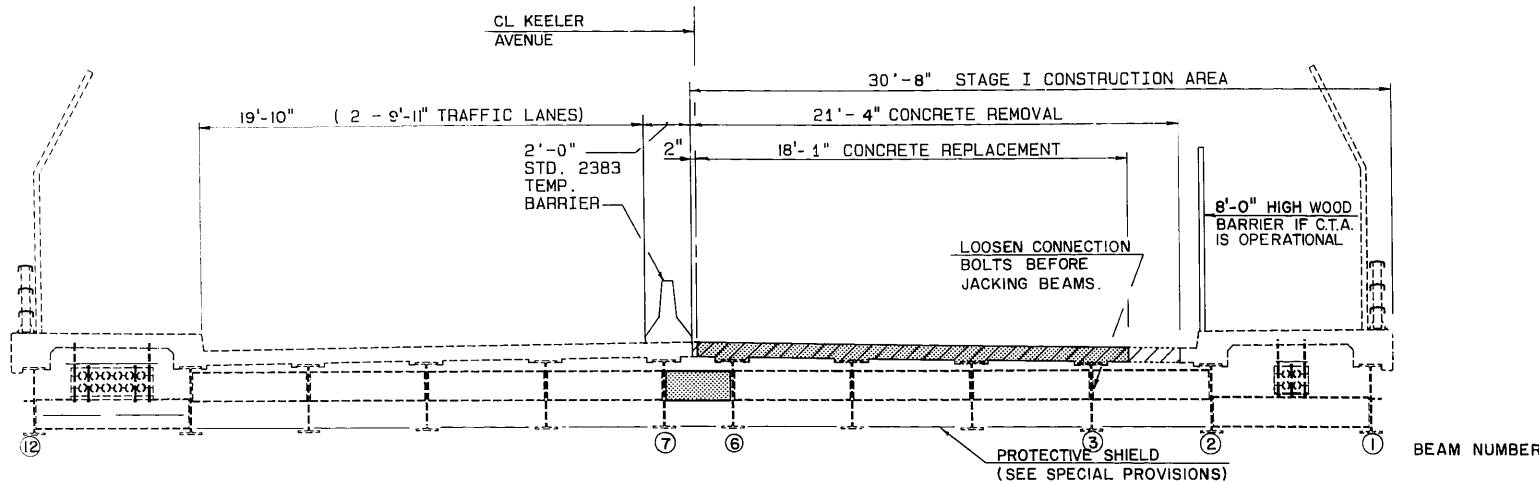
3. INSTALL JACKING AND RAISE BEAMS 7 THROUGH 12 TO ALLOW REMOVAL OF EXISTING ABUTMENT ROLLER BEARINGS AND SOLE PLATES, AND EXPANSION PIER ROCKERS AND SOLE PLATES. REMOVE AND REPAIR DAMAGED SECTION OF BEAM 12. INSTALL ELASTOMERIC BEARINGS AND STEEL BOLSTERS, REMOVE JACKS.

4. FORM AND PLACE CONCRETE FOR REMAINDER OF NEW BRIDGE DECK, SIDEWALK, AND PARAPET WITHIN LIMITS SHOWN. INSTALL PEDESTRIAN RAILING ON PARAPET.

5. COMPLETE INSTALLATION OF STEEL DIAPHRAGMS BY FULLY TIGHTENING BOLTS.

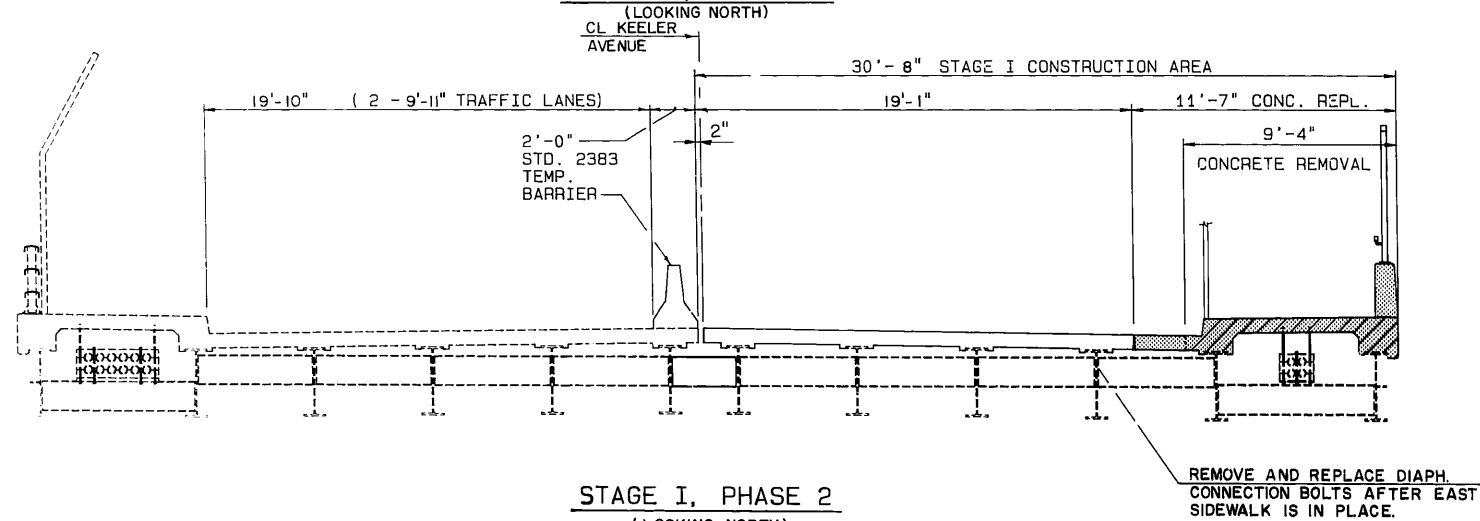
6. COMPLETE REPAIRS TO SUBSTRUCTURE, APPROACHES, SIDEWALK MODIFICATIONS FOR HANDICAP RAMPS, SUPERSTRUCTURE PAINTING AND ALL OTHER WORK REQUIRED BY THE CONTRACT.

7. REMOVE TEMPORARY CONCRETE BARRIERS AND RELOCATE TRAFFIC CONTROL BARRICADES IN ACCORDANCE WITH STANDARD U-3 TO ALLOW APPLICATION OF FINAL PAVEMENT MARKINGS AS DETAILED IN THE PLANS.



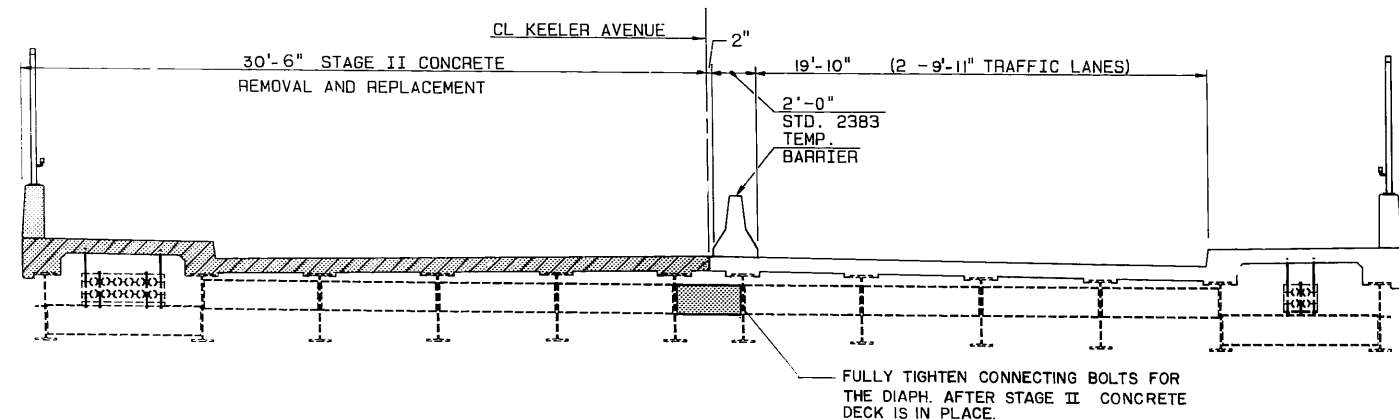
STAGE I, PHASE 1

(LOOKING NORTH)



STAGE I, PHASE 2

(LOOKING NORTH)



STAGE II

(LOOKING NORTH)

DESIGNED	MVM
CHECKED	HMM
DRAWN	BSB
CHECKED	MVM

- INDICATES CONCRETE REMOVAL
- INDICATES NEW CONSTRUCTION

STAGE CONSTRUCTION DETAILS
KEELER AVENUE OVER

I-290

F.A.I. RTE. 290, SECTION 2929.1 BR (80)

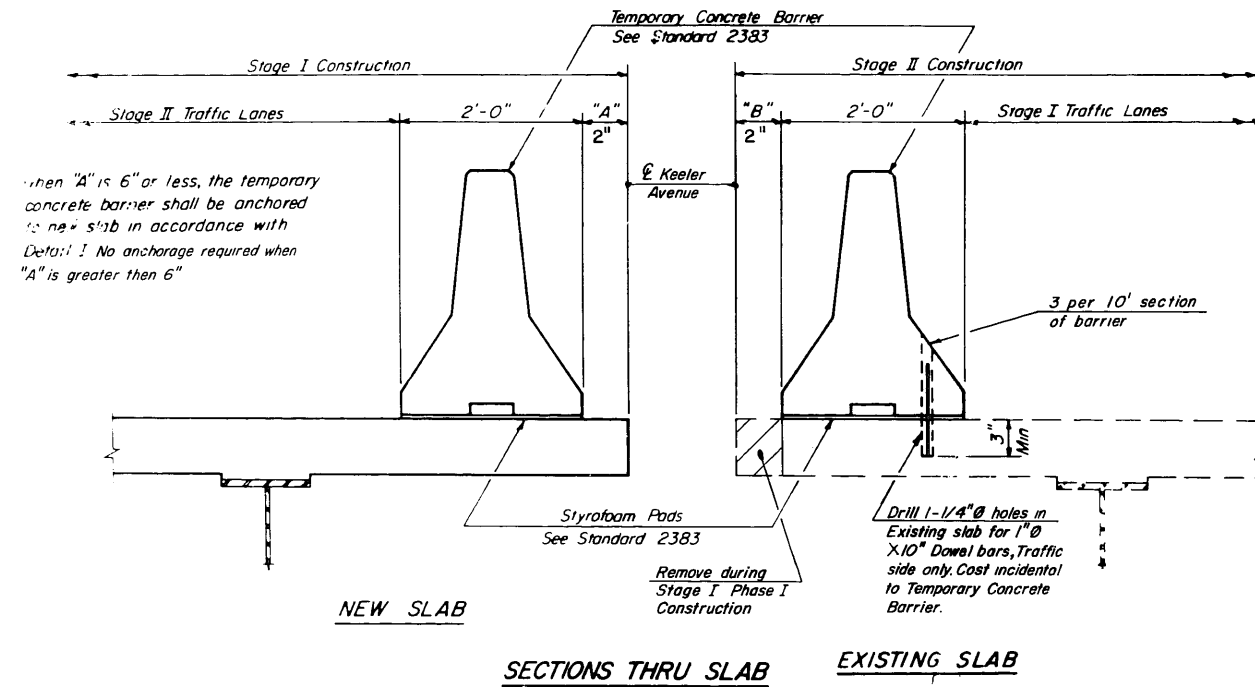
COOK COUNTY

STA. 132+60.98

F.A.I. 290 (E.B. BL)

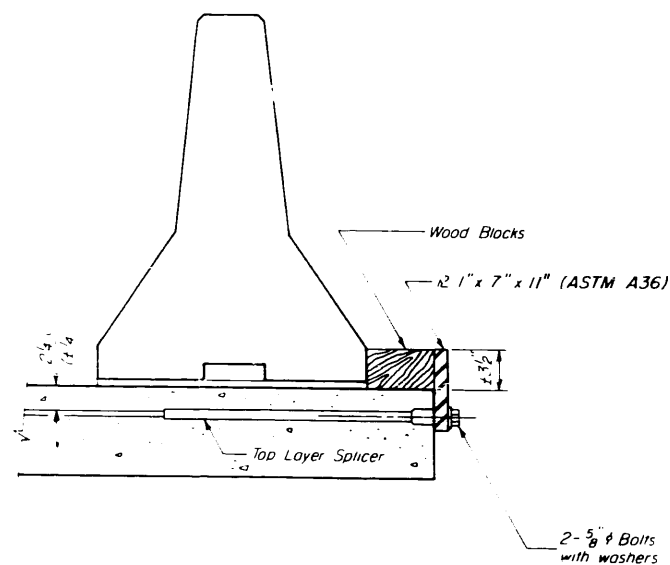
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
290		COOK	37	18	23 SHEETS
2929.1 BR(80)					

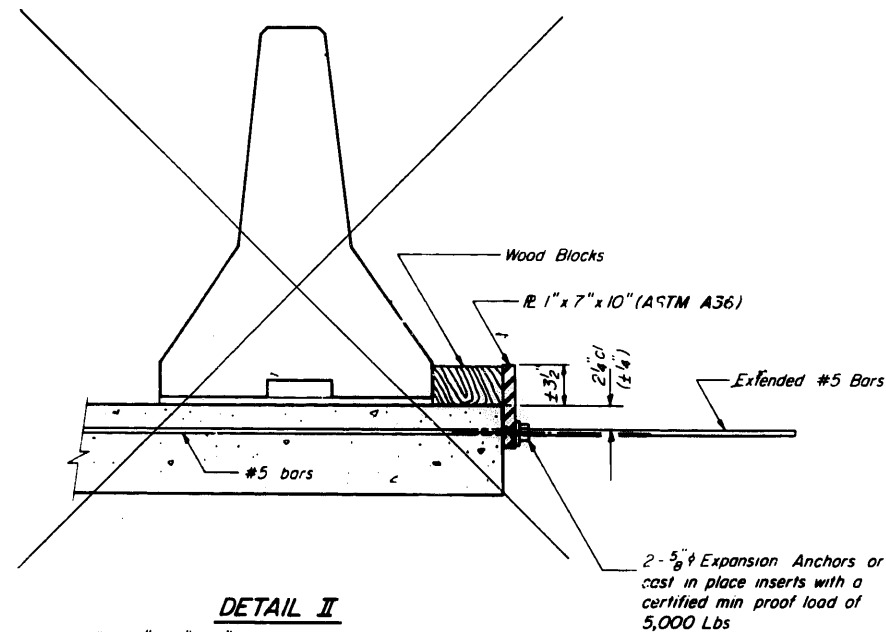


NOTES

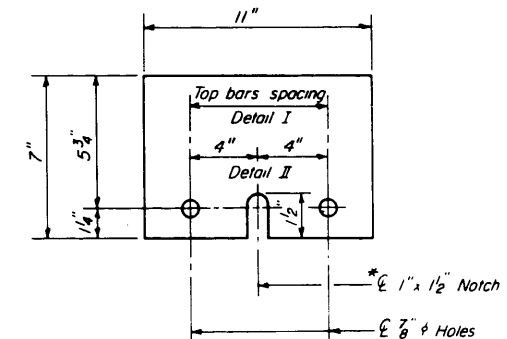
- Detail I - With Bar Splicer or Couplers**
Connect one (1) 1" x 7" x 10" steel PL to the top layer of couplers with 2-5/8" bolts screwed to coupler at approximate 1/2 of each 10'-0" barrier panel.
- Detail II - With Extended Reinforcement Bars**
Connect one (1) 1" x 7" x 10" steel PL to the concrete slab with 2-5/8" Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate 1/2 of each 10'-0" barrier panel.
- Cost of anchorage is incidental to Temporary Concrete Barrier.



The 1" x 7" x 11" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1" x 7" x 10"

* Required only with Detail II

**TEMPORARY CONCRETE BARRIER FOR
STAGE CONSTRUCTION**

F.A.I. RTE. 290, SECTION 2929.1 BR(80)
COOK COUNTY

STA. 132+60.98 F.A.I. 290 (E.B.B.)

DESIGNED
CHECKED
DRAWN
CHECKED

R-27 6-15-83

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

SHEET NO. 5
23 SHEETS

*2929.1 BR (80)



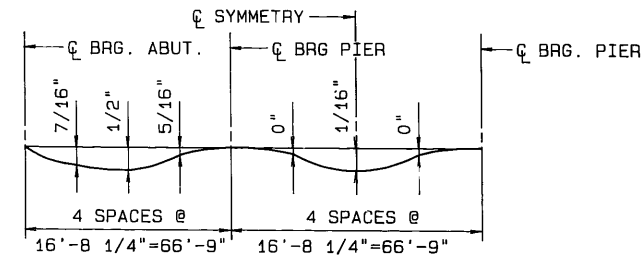
* VARIABLE
(NOT LESS THAN 1/4")

AT MINIMUM FILLET

AT MAXIMUM FILLET

TO DETERMINE "T": AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT THE INTERVALS SHOWN BELOW. THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION" ON SHEET , MINUS SLAB THICKNESS, EQUALS THE FILLET HEIGHTS "T" ABOVE TOP FLANGE OF THE BEAMS.

FILLET HEIGHTS

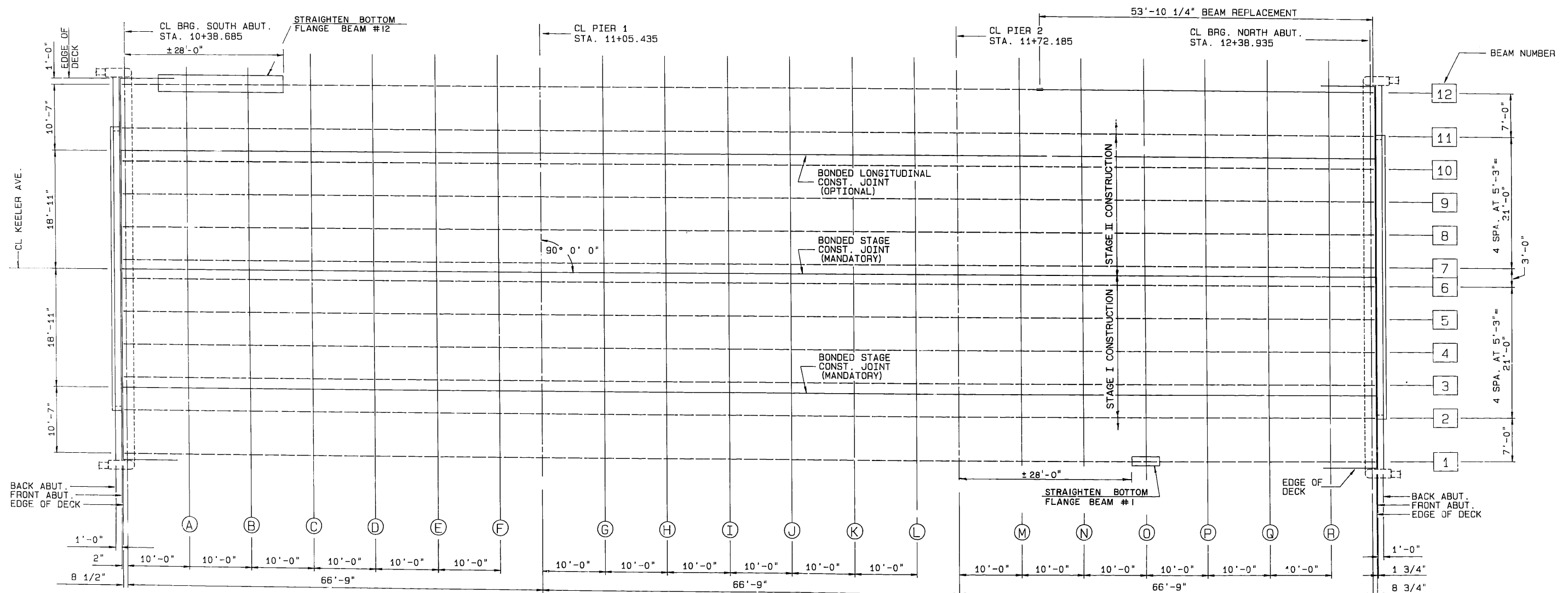


DEAD LOAD DEFLECTION DIAGRAM

(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: THE ABOVE DEFLECTIONS ARE NOT TO BE USED IN THE FIELD IF THE ENGINEER IS WORKING FROM THE "GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS", AS SHOWN ON SHEET # 6 OF 23

NOTES: FOR BEAM STRAIGHTENING, SEE SPECIAL PROVISIONS
FOR BEAM REPLACEMENT, SEE SHEET # 15.



PLAN

DESIGNED	MVM
CHECKED	HMW
DRAWN	TM
CHECKED	MVM

TOP OF SLAB ELEVATIONS
KEELER AVENUE OVER
I-290

F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	1	COOK	37	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-IR-290-4	

SHEET NO. 6

23 SHEETS

*2929.1 BP (80)

BEAMS 1 & 12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	29.500	605.800	605.800
FT.S.ABUT	1037.810	29.500	605.837	605.837
EDGE DECK	1037.977	29.500	605.843	605.843
CL BRG.	1038.685	29.500	605.869	605.869
A	1048.685	29.500	606.214	606.253
B	1058.685	29.500	606.524	606.592
C	1068.685	29.500	606.797	606.874
D	1078.685	29.500	607.034	607.102
E	1088.685	29.500	607.234	607.277
F	1098.685	29.500	607.399	607.413
CL PIER 1	1105.435	29.500	607.489	607.489
G	1115.435	29.500	607.592	607.589
H	1125.435	29.500	607.659	607.660
I	1135.435	29.500	607.689	607.694
J	1145.435	29.500	607.683	607.687
K	1155.435	29.500	607.641	607.641
J	1165.435	29.500	607.562	607.558
CL PIER 2	1172.185	29.500	607.489	607.489
M	1182.185	29.500	607.349	607.372
N	1192.185	29.500	607.173	607.226
O	1202.185	29.500	606.961	607.034
P	1212.185	29.500	606.712	606.789
Q	1222.185	29.500	606.427	606.487
R	1232.185	29.500	606.106	606.134
CL BRG	1238.935	29.500	605.869	605.869
EDGE DECK	1239.664	29.500	605.842	605.842
FT.N.ABUT	1239.810	29.500	605.837	605.837
BK.N.ABUT	1240.810	29.500	605.800	605.800

BEAMS 2 & 11

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	22.500	605.722	605.722
FT.S.ABUT	1037.810	22.500	605.759	605.759
EDGE DECK	1037.977	22.500	605.765	605.765
CL BRG.	1038.685	22.500	605.791	605.791
A	1048.685	22.500	606.137	606.176
B	1058.685	22.500	606.446	606.514
C	1068.685	22.500	606.719	606.796
D	1078.685	22.500	606.956	607.024
E	1088.685	22.500	607.157	607.200
F	1098.685	22.500	607.321	607.335
CL PIER 1	1105.435	22.500	607.411	607.411
G	1115.435	22.500	607.514	607.511
H	1125.435	22.500	607.581	607.582
I	1135.435	22.500	607.611	607.616
J	1145.435	22.500	607.605	607.609
K	1155.435	22.500	607.563	607.563
J	1165.435	22.500	607.485	607.481
CL PIER 2	1172.185	22.500	607.411	607.411
M	1182.185	22.500	607.271	607.294
N	1192.185	22.500	607.095	607.148
O	1202.185	22.500	606.883	606.956
P	1212.185	22.500	606.635	606.712
Q	1222.185	22.500	606.350	606.410
R	1232.185	22.500	606.028	606.056
CL BRG	1238.935	22.500	605.791	605.791
EDGE DECK	1239.664	22.500	605.764	605.764
FT.N.ABUT	1239.810	22.500	605.759	605.759
BK.N.ABUT	1240.810	22.500	605.722	605.722

BONDED LONGITUDINAL STAGE CONST. JOINT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	18.916	605.013	605.013
FT.S.ABUT	1037.810	18.916	605.050	605.050
EDGE DECK	1037.977	18.916	605.056	605.056
CL BRG.	1038.685	18.916	605.082	605.082
A	1048.685	18.916	605.428	605.467
B	1058.685	18.916	605.737	605.805
C	1068.685	18.916	606.010	606.087
D	1078.685	18.916	606.247	606.315
E	1088.685	18.916	606.448	606.491
F	1098.685	18.916	606.612	606.626
CL PIER 1	1105.435	18.916	606.702	606.702
G	1115.435	18.916	606.805	606.802
H	1125.435	18.916	606.872	606.873
I	1135.435	18.916	606.902	606.907
J	1145.435	18.916	606.896	606.900
K	1155.435	18.916	606.854	606.854
J	1165.435	18.916	606.776	606.772
CL PIER 2	1172.185	18.916	606.702	606.702
M	1182.185	18.916	606.562	606.585
N	1192.185	18.916	606.386	606.439
O	1202.185	18.916	606.174	606.247
P	1212.185	18.916	605.926	606.003
Q	1222.185	18.916	605.641	605.701
R	1232.185	18.916	605.319	605.347
CL BRG	1238.935	18.916	605.082	605.082
EDGE DECK	1239.664	18.916	605.055	605.055
FT.N.ABUT	1239.810	18.916	605.050	605.050
BK.N.ABUT	1240.810	18.916	605.013	605.013

BEAMS 3 & 10

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	17.250	605.039	605.039
FT.S.ABUT	1037.810	17.250	605.076	605.076
EDGE DECK	1037.977	17.250	605.082	605.082
CL BRG.	1038.685	17.250	605.108	605.108
A	1048.685	17.250	605.454	605.474
B	1058.685	17.250	605.763	605.798
C	1068.685	17.250	606.036	606.075
D	1078.685	17.250	606.273	606.307
E	1088.685	17.250	606.474	606.496
F	1098.685	17.250	606.638	606.645
CL PIER 1	1105.435	17.250	606.728	606.728
G	1115.435	17.250	606.831	606.830
H	1125.435	17.250	606.898	606.898
I	1135.435	17.250	606.928	606.930
J	1145.435	17.250	606.922	606.924
K	1155.435	17.250	606.880	606.880
J	1165.435	17.250	606.802	606.800
CL PIER 2	1172.185	17.250	606.728	606.728
M	1182.185	17.250	606.588	606.600
N	1192.185	17.250	606.412	606.438
O	1202.185	17.250	606.200	606.237
P	1212.185	17.250	605.952	605.991
Q	1222.185	17.250	605.667	605.697
R	1232.185	17.250	605.345	605.359
CL BRG	1238.935	17.250	605.108	605.108
EDGE DECK	1239.664	17.250	605.081	605.081
FT.N.ABUT	1239.810	17.250	605.076	605.076
BK.N.ABUT	1240.810	17.250	605.039	605.039

BEAMS 4 & 9

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	12.000	605.121	605.121
FT.S.ABUT	1037.810	12.000	605.158	605.158
EDGE DECK	1037.977	12.000	605.164	605.164
CL BRG.	1038.685	12.000	605.190	605.190
A	1048.685	12.000	605.536	605.556
B	1058.685	12.000	605.845	605.880
C	1068.685	12.000	606.118	606.157
D	1078.685	12.000	606.355	606.389
E	1088.685	12.000	606.556	606.578
F	1098.685	12.000	606.720	606.727
CL PIER 1	1105.435	12.000	606.810	606.810
G	1115.435	12.000	606.913	606.912
H	1125.435	12.000	606.980	606.980
I	1135.435	12.000	607.010	607.012
J	1145.435	12.000	607.005	607.007
K	1155.435	12.000	606.962	606.962
J	1165.435	12.000	606.884	606.882
CL PIER 2	1172.185	12.000	606.810	606.810
M	1182.185	12.000	606.670	606.682
N	1192.185	12.000	606.495	606.521
O	1202.185	12.000	606.282	606.319
P	1212.185	12.000	606.034	606.073
Q	1222.185	12.000	605.749	605.779
R	1232.185	12.000	605.427	605.441
CL BRG	1238.935	12.000	605.190	605.190
EDGE DECK	1239.664	12.000	605.163	605.163
FT.N.ABUT	1239.810	12.000	605.158	605.158
BK.N.ABUT	1240.810	12.000	605.121	605.121

BEAMS 5 & 8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	6.750	605.203	605.203
FT.S.ABUT	1037.810	6.750	605.240	605.240
EDGE DECK	1037.977	6.750	605.246	605.246
CL BRG.	1038.685	6.750	605.272	605.272
A	1048.685	6.750	605.618	605.638
B	1058.685	6.750	605.927	605.962
C	1068.685	6.750	606.200	606.239
D	1078.685	6.750	606.437	606.471
E	1088.685	6.750	606.638	606.660
F	1098.685	6.750	606.802	606.809
CL PIER 1	1105.435	6.750	606.892	606.892
G	1115.435	6.750	606.995	606.994
H	1125.435	6.750	607.062	607.062
I	1135.435	6.750	607.092	607.094
J	1145.435	6.750	607.087	607.089
K	1155.435	6.750	607.044	607.044
J	1165.435	6.750	606.966	606.964
CL PIER 2	1172.185	6.750	606.892	606.892
M	1182.185	6.750	606.752	606.764
N	1192.185	6.750	606.577	606.603
O	1202.185	6.750	606.364	606.401
P	1212.185	6.750	606.116	606.155
Q	1222.185	6.750	605.831	605.861
R	1232.185	6.750	605.509	605.523
CL BRG	1238.935	6.750	605.272	605.272
EDGE DECK	1239.664	6.750	605.245	605.245
FT.N.ABUT	1239.810	6.750	605.240	605.240
BK.N.ABUT	1240.810	6.750	605.203	605.203

BEAMS 6 & 7

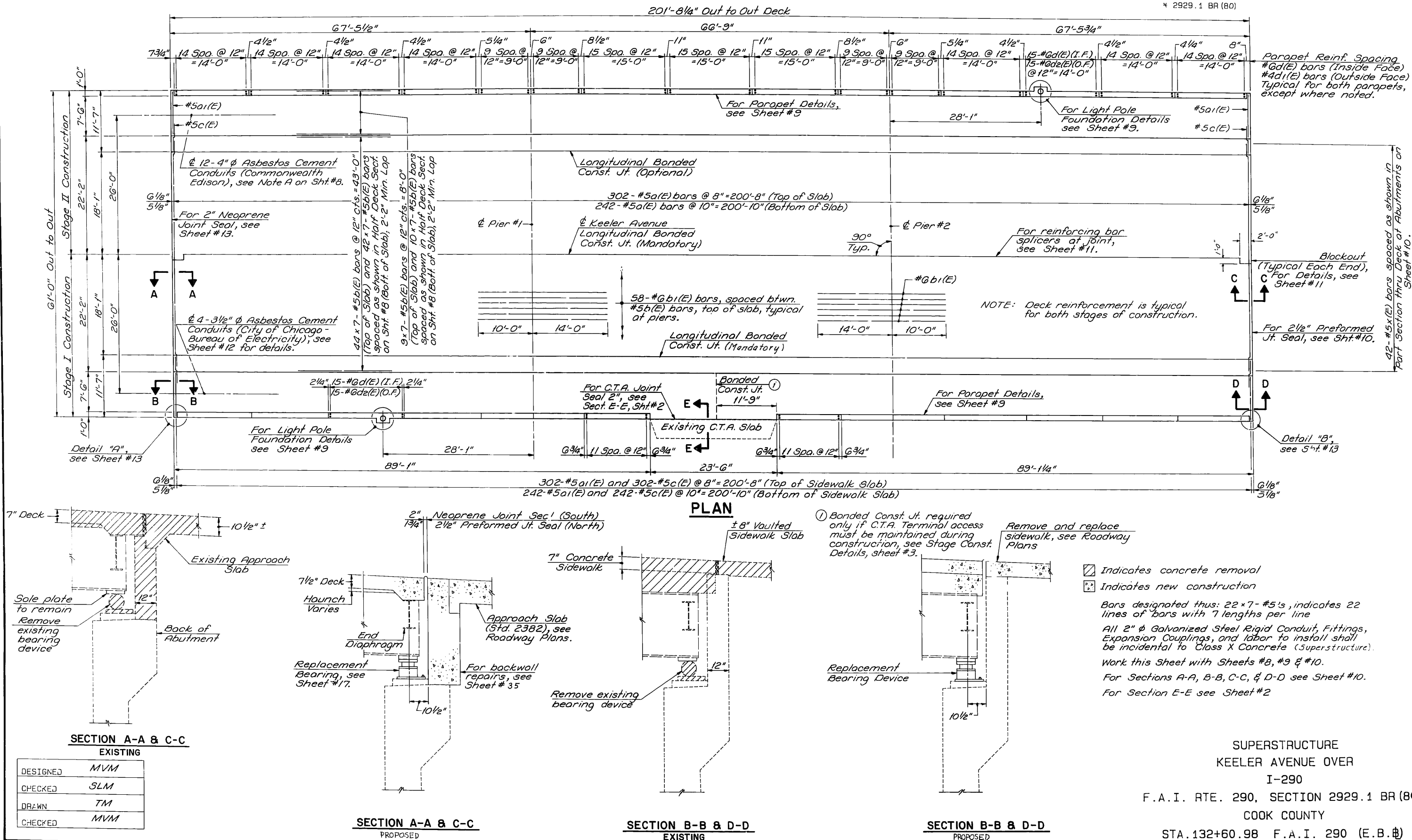
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	ELEV. ADJUST. FOR DEAD LOAD DEFLECTION
BK.S.ABUT	1036.810	1.500	605.285	605.285
FT.S.ABUT	1037.810	1.500	605.322	605.322
EDGE DECK	1037.977	1.500	605.328	605.328
CL BRG.	1038.685	1.500	605.354	605.354
A	1048.685	1.500	605.700	605.720
B	1058.685	1.500	606.009	606.044
C	1068.685	1.500	606.282	606.321
D	1078.685	1.500	606.519	606.553
E	1088.685	1.500	606.720	606.742
F	1098.685	1.500	606.884	606.891
CL PIER 1	1105.435	1.500	606.974	606.974
G	1115.435	1.500	607.077	607.076
H	1125.435	1.500	607.144	607.144
I	1135.435	1.500	607.174	607.176
J	1145.435	1.500	607.169	607.171
K	1155.435	1.500	607.126	607.126
J	1165.435	1.500	607.048	607.046
CL PIER 2	1172.185	1.500	606.974	606.974
M	1182.185	1.500	606.834	606.846
N	1192.185	1.500	606.659	606.685
O	1202.185	1.500	606.446	606.483
P	1212.185	1.500	606.198	606.237
Q	1222.185	1.500	605.913	605.943
R	1232.185	1.500	605.591	605.605
CL BRG	1238.935	1.500	605.354	605.354
EDGE DECK	1239.664	1.500	605.327	605.327
FT.N.ABUT	1239.810	1.500	605.322	605.322
BK.N.ABUT	1240.810	1.500	605.285	605.285

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	29	COOK	39	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

SHEET NO. 7
23 SHEETS

* 2929.1 BR (80)



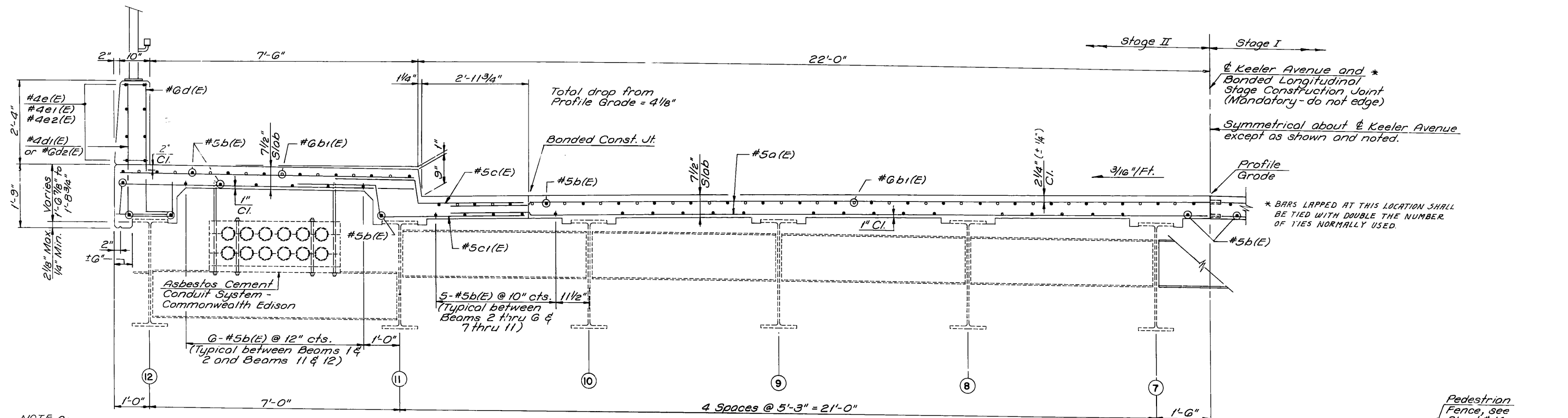
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	22
FED. RD. DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-IR-290-4	

SHEET NO. 8

23 SHEETS

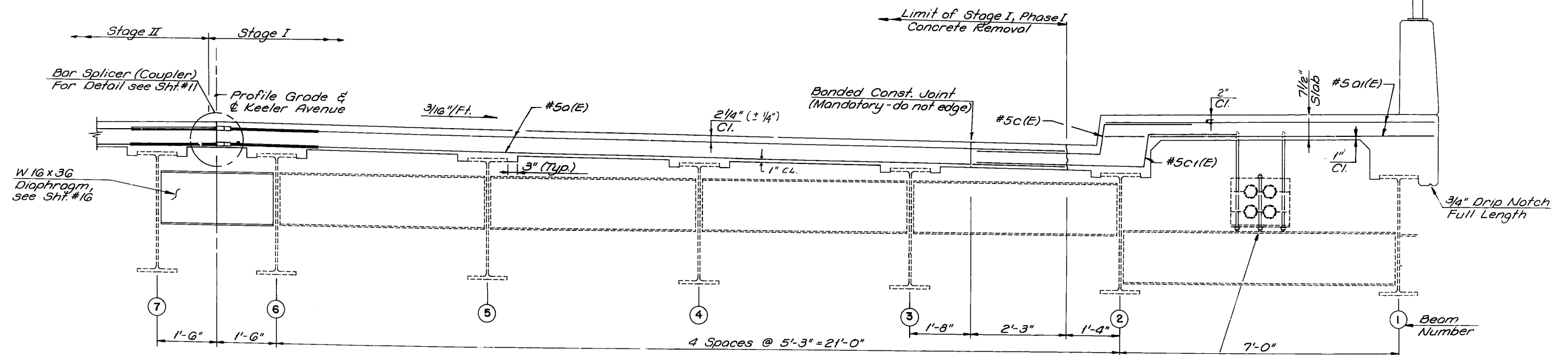
*2929.1 BR (80)



NOTE A:

Commonwealth Edison shall be responsible for the protection, support and rehanging of their conduit system. The Contractor will make every effort to cooperate with Commonwealth Edison in scheduling and performing this work.

EAST HALF DECK SECTION
(LOOKING NORTH)



WEST HALF DECK SECTION
(LOOKING NORTH)

SUPERSTRUCTURE DETAILS
KEELER AVENUE OVER
I-290

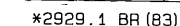
F.A.I. RTE. 290, SECTION 2929.1 BR (80)

COOK COUNTY

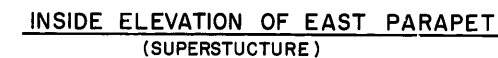
STA. 132+60.98 F.A.I. 290 (E.B. 12)

DESIGNED	MVM
CHECKED	SLM
DRAWN	TM
CHECKED	MVM

SHEET NO. 9
29 SHEETS

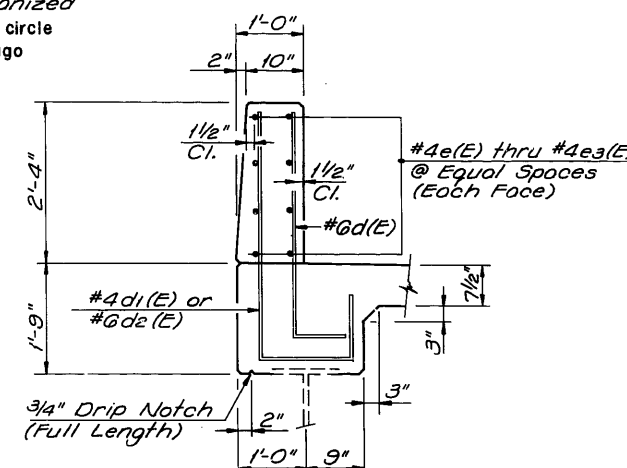


NOTE: Install name plate on the parapet wall indicating Route, Section, Structure Number and year rebuilt.



1" ϕ ANCHOR BOLT
(50,000 PSI MIN. YIELD)

1/2" Preformed Cork Joint
Filler, in accordance with
Articles 715.07, or 715.08
(Cost Incidentals).



F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

LIGHT POLE FOUNDATION DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1-1A-290-4		

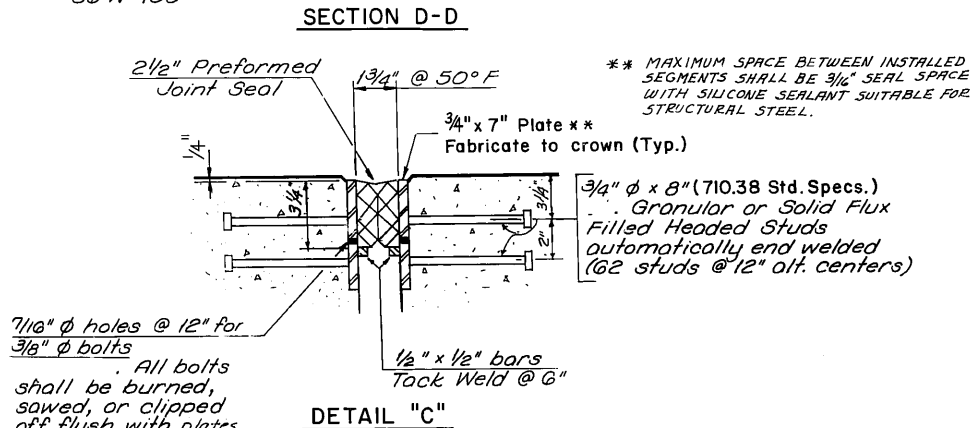
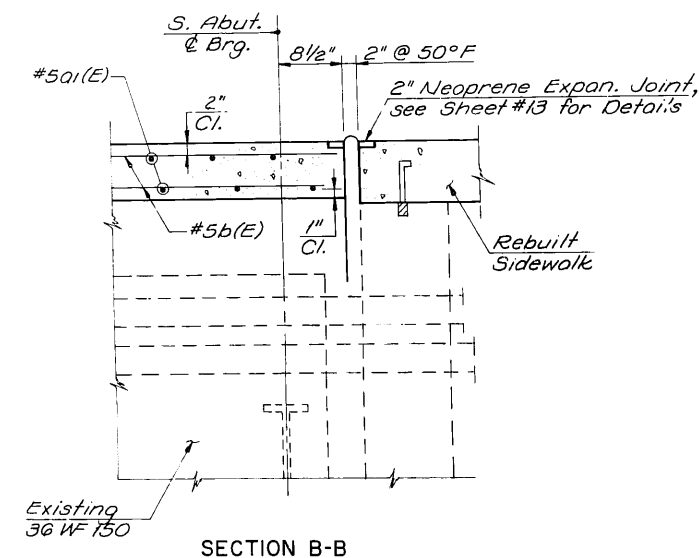
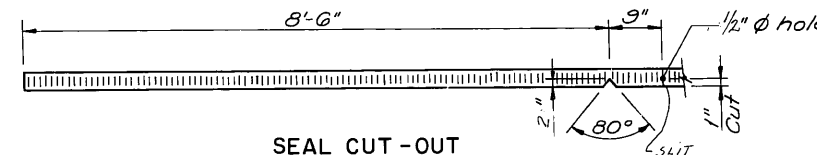
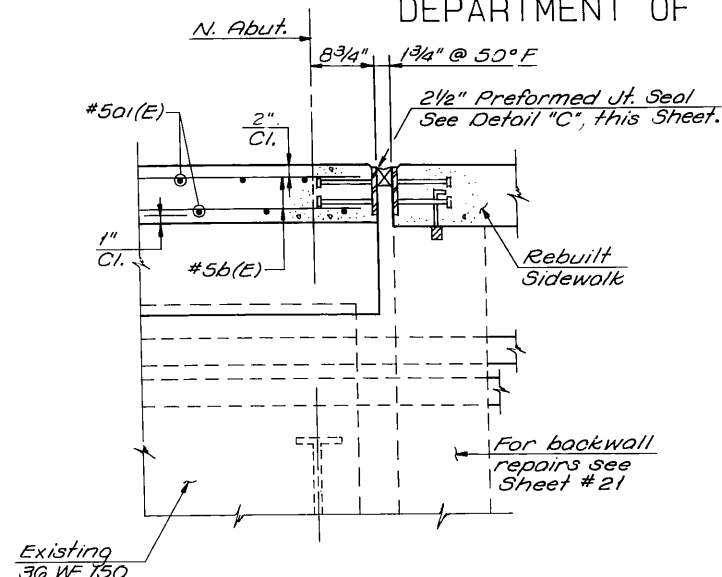
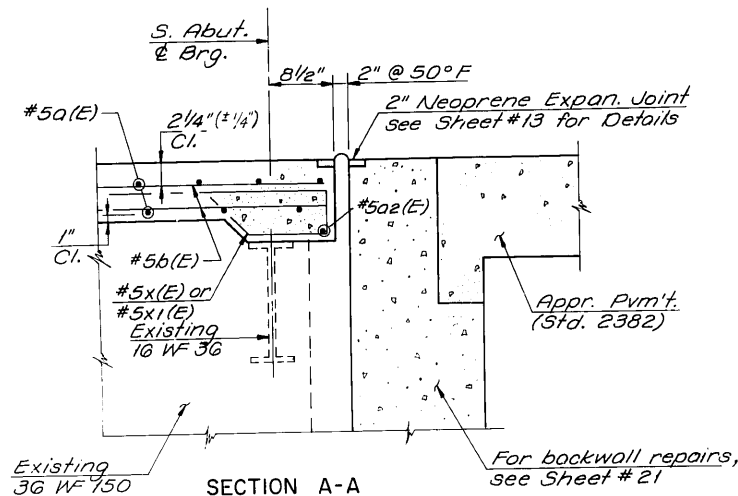
SHEET NO. 10

23 SHEETS

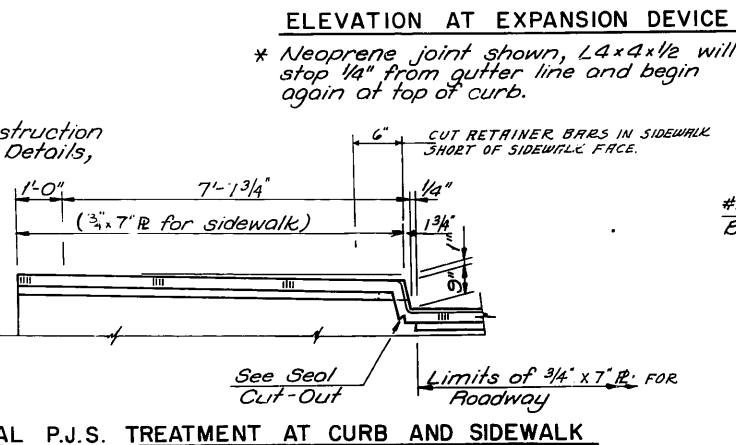
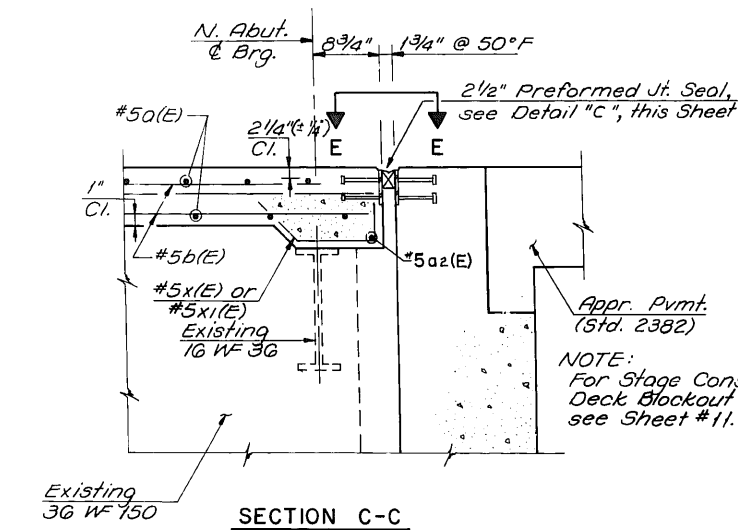
*2929.1 BR (83)

BILL OF MATERIAL

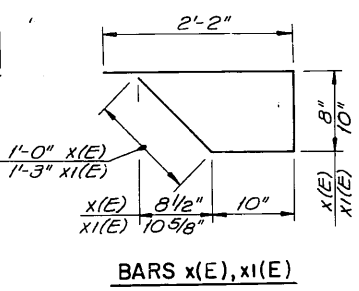
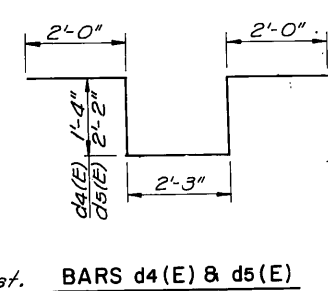
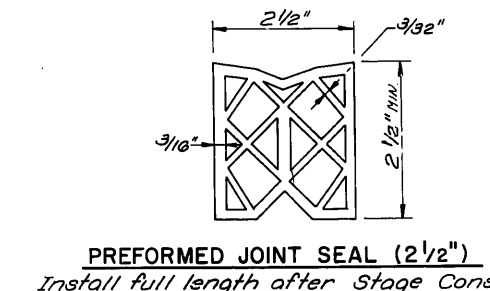
Bar	Number	Size	Length	Shape
a(E)	1088	#5	20'-11"	
o1(E)	1088	#5	8'-3"	
o2(E)	4	#5	23'-0"	
b(E)	868	#5	30'-8"	
b1(E)	116	#6	24'-0"	
c(E)	604	#5	6'-0"	
c1(E)	484	#5	7'-2"	
d(E)	372	#6	4'-0"	
d1(E)	342	#4	5'-8"	
d2(E)	30	#6	5'-8"	
d3(E)	6	#6	6'-2"	
d4(E)	8	#6	8'-11"	
d5(E)	2	#6	10'-7"	
e(E)	128	#4	14'-0"	
e1(E)	64	#4	9'-3"	
e2(E)	24	#4	15'-8"	
e3(E)	16	#4	11'-10"	
x(E)	60	#5	4'-8"	
x1(E)	24	#5	5'-1"	
CLASS X CONCRETE * CU YD 392.5				
REIN BARS (EPOXY CTD) POUND 78,910				
NEOPRENE EXP JT 2" LIN FT 62.5				
PREF JOINT SEAL 2 1/2" LIN FT 63				



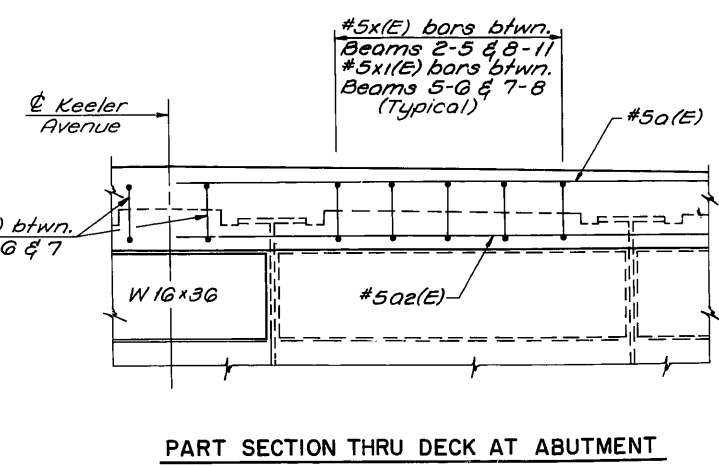
NOTE:
AFTER FABRICATION, ALL SURFACES OF THE
STEEL PLATES SHALL BE GIVEN ONE SHOP COAT
OF PAINT SPECIFIED FOR STRUCTURAL STEEL.



DESIGNED	MVM
CHECKED	SLM
DRAWN	TM
CHECKED	MVM



NOTE: See sheet #7 for location of
Section A-A, B-B, C-C, and D-D.

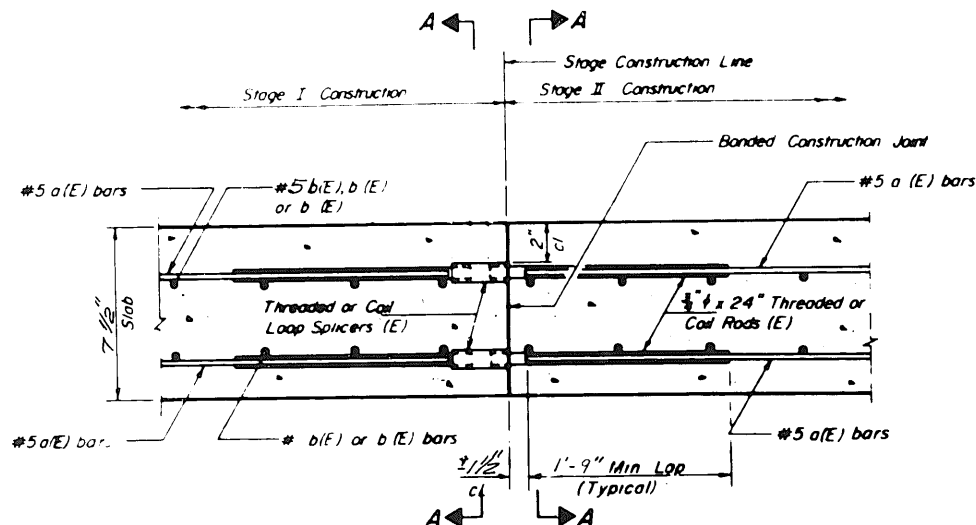


SUPERSTRUCTURE DETAILS
KEELER AVENUE OVER
I-290
F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

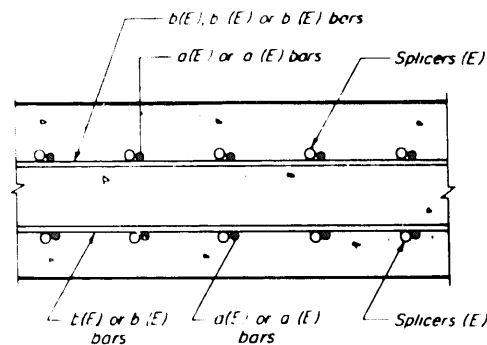
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED BY	FAI	SECTION	COOK	39	25	SHEET NO. 11
CHECKED BY						23 SHEETS
DRAWN BY						
CHECKED BY						

* 2929.1 BR(80)



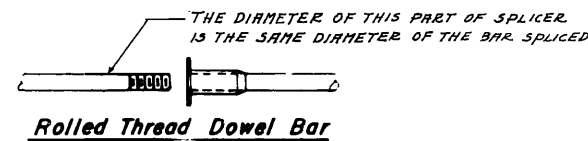
SECTION THRU SLAB



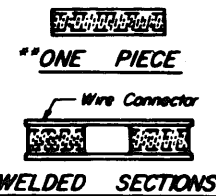
SECTION A-A

SPLICER DETAILS
(No. Reg'd 544)

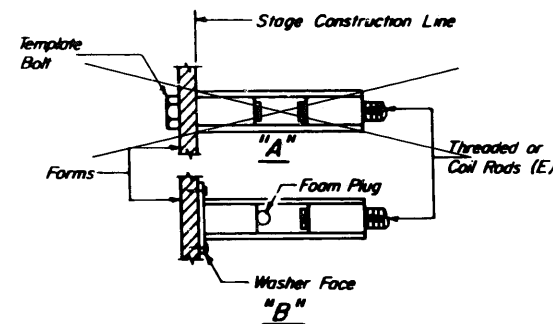
Splicer assemblies incidental to
"REINFORCEMENT BARS
(EPOXY COATED)"



Rolled Thread Dowel Bar



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



INSTALLATION AND SETTING METHODS
"A" Set splicer by means of a template bolt.
"B" Set splicer by nailing to wood forms or cementing to steel forms.
(E) Indicates epoxy coating

NOTES

Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.

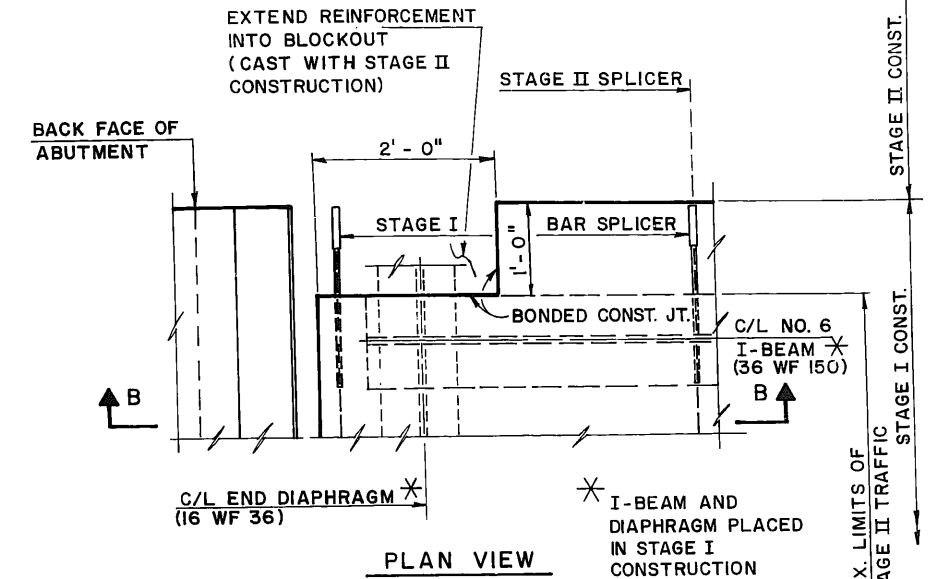
All reinforcement bars shall be lapped and tied to the splicer rods.
Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

- Minimum Capacity = $1.25 \times f_y \times A_l$
(Tension in kips)
- Minimum Pull-out Strength = $1.25 \times f_{allow} \times A_l$
(Tension in kips)

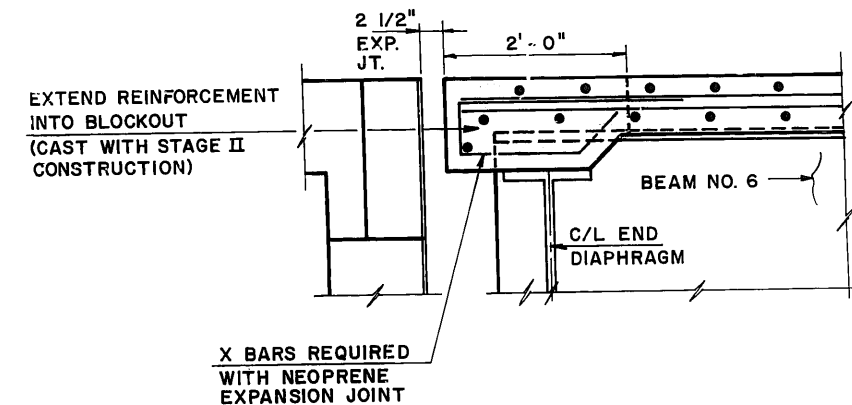
Where f_y = Yield strength of lapped reinforcement bars in k.s.i.
 f_{allow} = Allowable tensile stress in lapped reinforcement bars in k.s.i. (Service Load)
 A_l = Tensile stress area of lapped reinforcement bars.
* 28 day concrete

Typical Splicer (Coupler) Assembly Sizes

In Slabs	#5 bar lap with $\frac{3}{4}$ " ϕ Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 230 kips-tension Minimum Pull-out Strength = 92 kips-tension
In Sub-structures	#7 bar lap with 1" ϕ Splicer (Coupler) x 3'-5" Splicer Rods	Minimum Capacity = 451 kips-tension Minimum Pull-out Strength = 180 kips-tension
	#8 bar lap with 1 $\frac{1}{4}$ " ϕ Splicer (Coupler) x 4'-6" Splicer Rods	Minimum Capacity = 589 kips-tension Minimum Pull-out Strength = 236 kips-tension



PLAN VIEW



SECTION B-B

STAGE CONSTRUCTION DECK BLOCKOUT DETAILS

(END DIAPHRAGM DETAIL, FOR USE WHERE STAGE II TRAFFIC WILL NOT BE ON CANTILEVER PORTION)

BAR SPLICER (COUPLER) DETAILS
AT STAGE CONSTRUCTION
KEELER AVENUE OVER

I-290
F.A.I. RTE. 290, SECTION 2929.1 BR(80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290(E.B. 1)

DESIGNED	
CHECKED	
DRAWN	
CHECKED	MVA

BSD-1 12-1-83

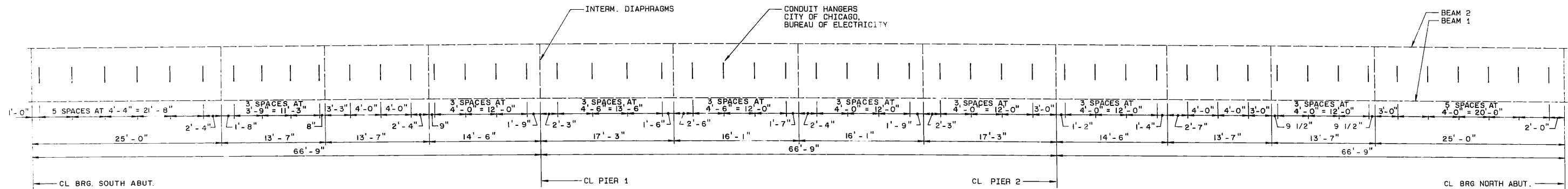
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	37	26
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT	I-IR-290-4	

*2929.1 BR (80)

SHEET NO. 12

23 SHEETS



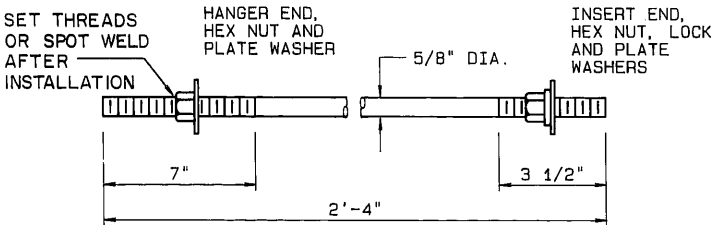
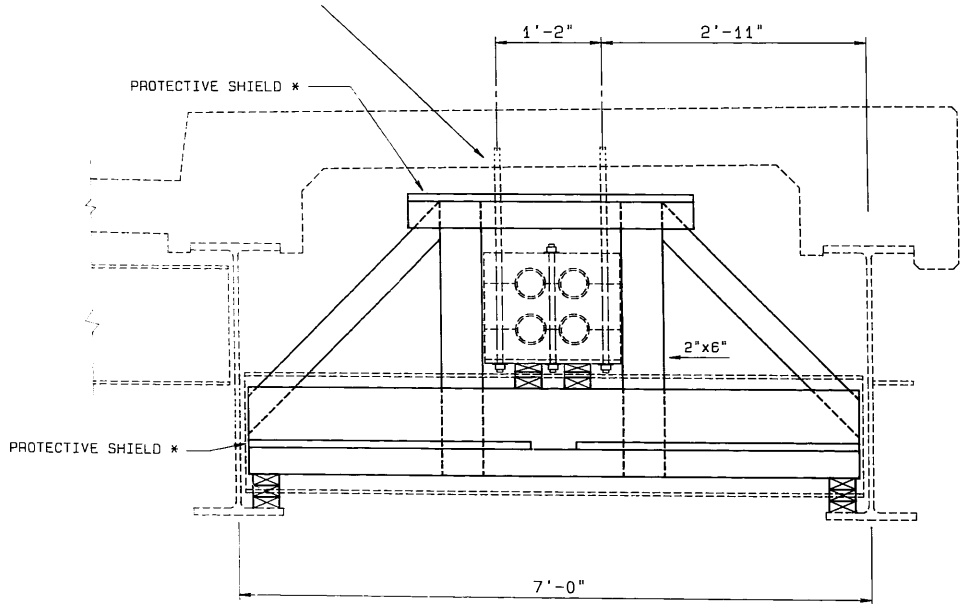
CONDUIT HANGER LAYOUT

HANGER SPACING SHOWN IS FROM EXISTING PLANS.
CONTRACTOR WILL FIELD VERIFY DIMENSIONS BEFORE
LOCATING SUPPORT SYSTEM AND DECK INSERTS.

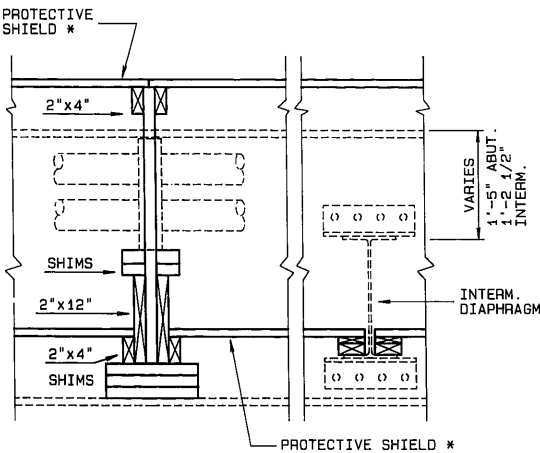
NOTE:

Commonwealth Edison shall be responsible for the protection, support and rehanging of their conduit system. The Contractor will make every effort to cooperate with Commonwealth Edison in scheduling and performing this work.

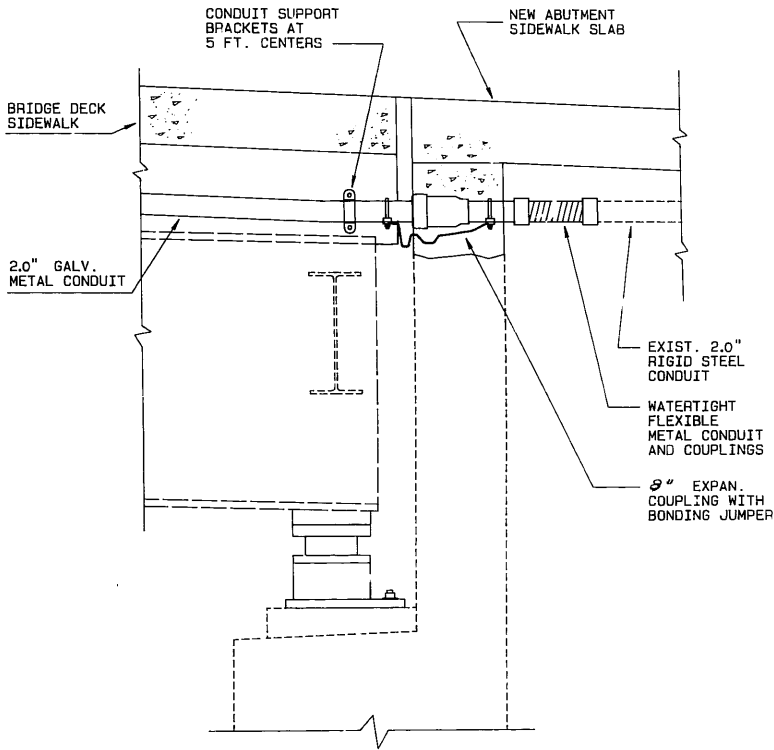
EXISTING RUSTED 5/8" DIA. HANGER RODS ARE TO BE CUT AND REMOVED AFTER CONDUIT IS PROPERLY SUPPORTED. SUPPLY 100 REPLACEMENT 5/8"x28" STAINLESS STEEL RODS WITH 2-S.S. NUTS AND WASHERS EACH, AND 100 5/8" GALVANIZED THREADED INSERTS, TO BE CAST IN PLACE.



STAINLESS STEEL HANGER ROD



SIDE



2.0" CONDUIT AT BACKWALL DETAIL

CONDUIT FITTINGS AND COUPLINGS, EXPANSION COUPLINGS, AND ALL OTHER MISC. MATERIAL AND LABOR NECESSARY TO INSTALL SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCIDENTAL TO THE CONDUIT.

TEMPORARY CONDUIT SUPPORTS
CITY OF CHICAGO, BUREAU OF ELECTRICITY CONDUITS

ALL MATERIALS AND LABOR NECESSARY TO SUPPORT, PROTECT, AND RECONNECT EXISTING CITY OF CHICAGO ASBESTOS CEMENT CONDUITS SHALL BE INCIDENTAL TO "REMOVAL OF EXISTING CONCRETE DECK."

* NOTE: FOR PROTECTIVE SHIELD REQUIREMENTS, SEE SPECIAL PROVISIONS.

UTILITY CONDUIT DETAILS
KEELER AVENUE OVER

I-290
F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

DESIGNED	MVM
CHECKED	SLM
DRAWN	BsB
CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAI 290	*	COOK	39	27
SHEET NO. 13				
23 SHEETS				
PROJECT NO. 1-IR-290-4				
* 2929.1 BR (80)				

Joint Size	"C" at 50°F	"D" at 50°F
2	2"	1 1/2" min
2 1/2	2 1/2"	1 3/4" min
3	3"	2" min

INSTALLATION NOTES

Use anchor blocks and continuous seal as anchor bolt location templates

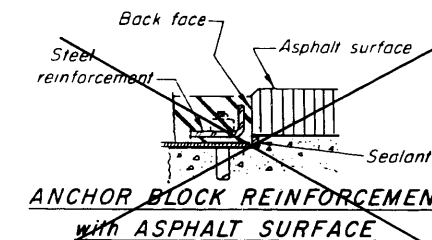
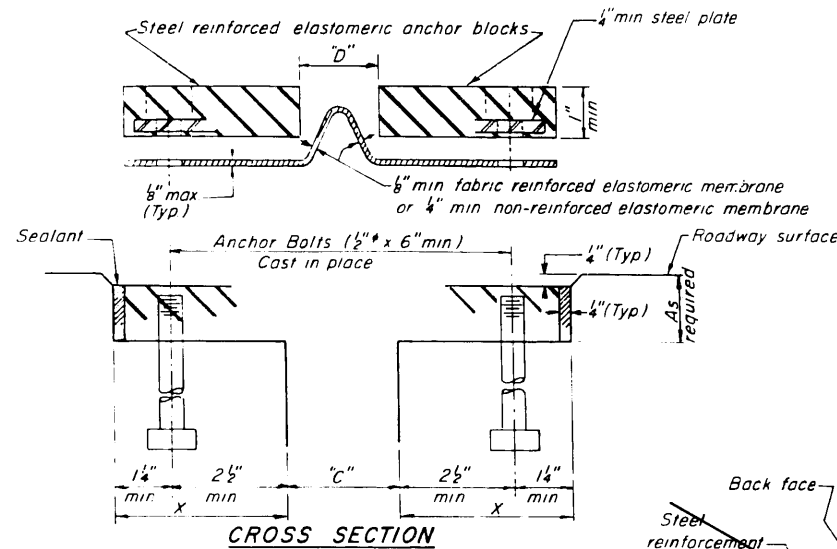
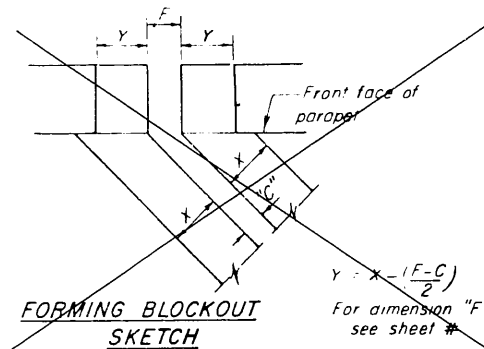
1. Install sponge mandrels into positions shown to form flap convolution
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy)
3. Install continuous seal in roadway
4. Install anchor blocks as indicated

NOTE A - Maximum spacing of anchor bolts shall be 12" centers

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts



GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Bridge Special Provision No. 9.

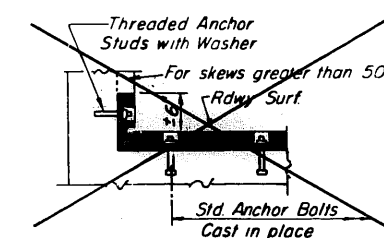
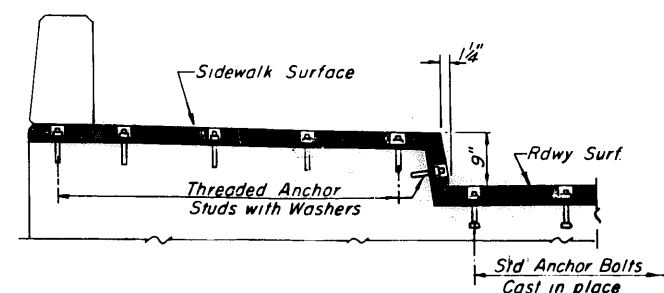
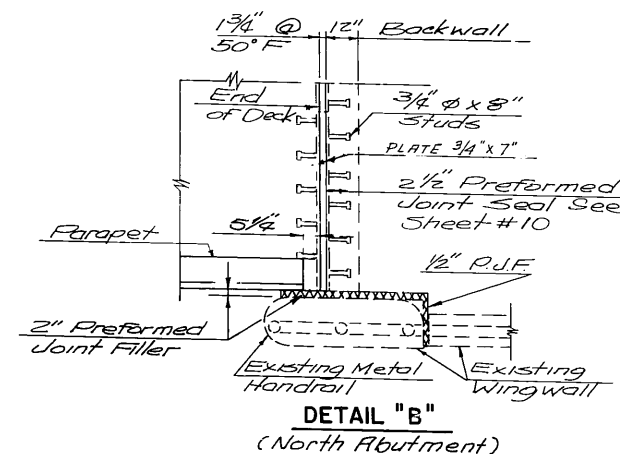
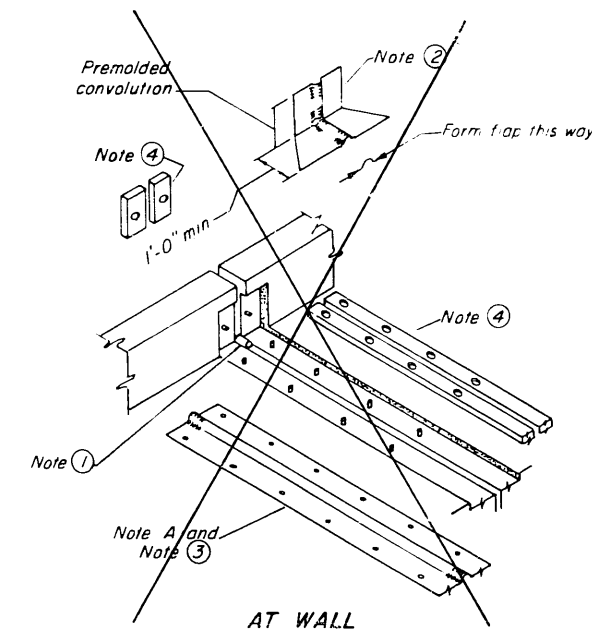
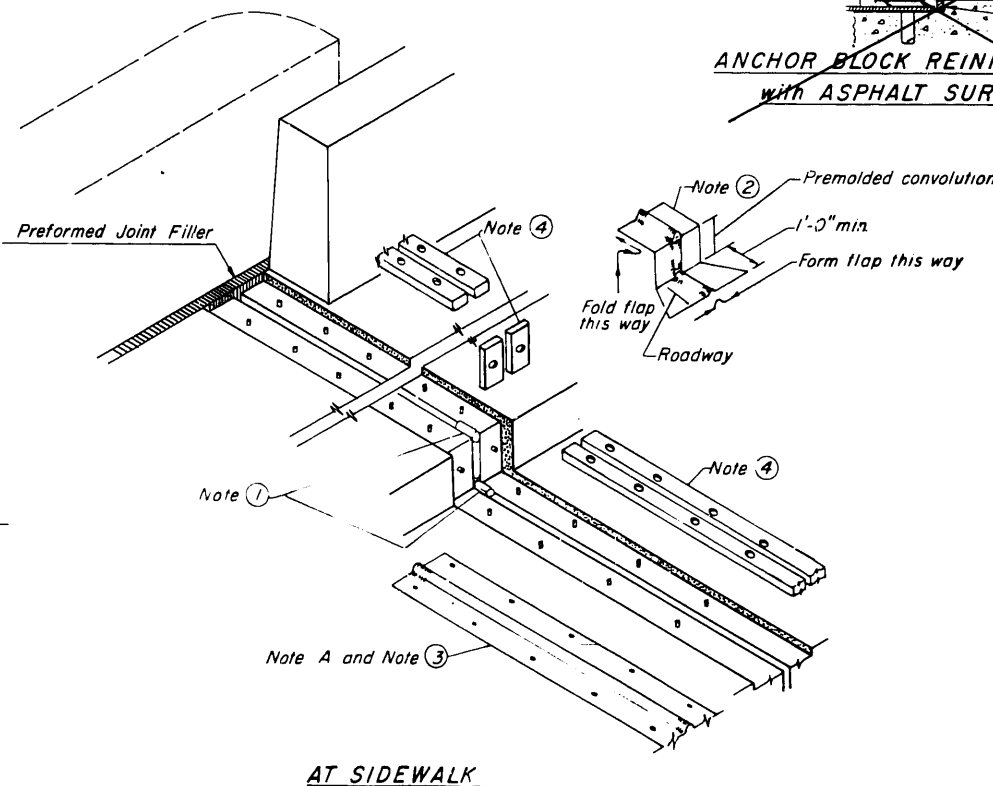
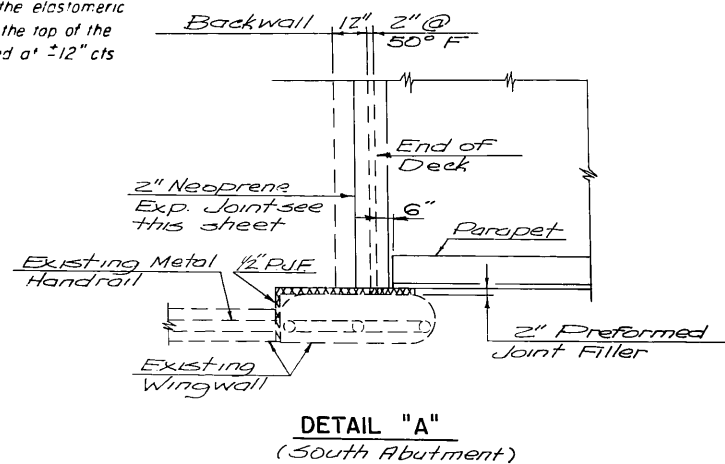
The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a memory to return to its molded position upon joint closure.

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.



TYPICAL END TREATMENTS

CONTINUOUS SEAL TYPE
NEOPRENE EXPANSION JOINTS
For 2" Movement

KEELER AVENUE Over
I-290
F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. 4)

DESIGNED	ALF
CHECKED	MVM
DRAWN	ALF
CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NO. 10	SHEET NO.	COUNTY	TOTAL SHEETS	SHEET NO.
1901	*	COOK	37	28

SHEET NO 14
23 SHEETS

* 2927.132180

NOTES

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per lineal foot for Pedestrian Railing. The 9 gauge fabric ties shall be in accordance with Article 710.33(f) of the Standard Specifications.

Installation of the chain link fabric shall be in accordance Section 629 of the Standard Specifications.

Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M183.

The chain link fabric shall be placed along Pedestrian Side as shown on Section A-A.

Stretchers bars shall be used at all four sides of each panel.

A When railing is galvanized:

All posts, railing, splices, anchor devices and bent plates shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. All bolts, nuts and washers shall be galvanized in accordance with AASHTO M-232.

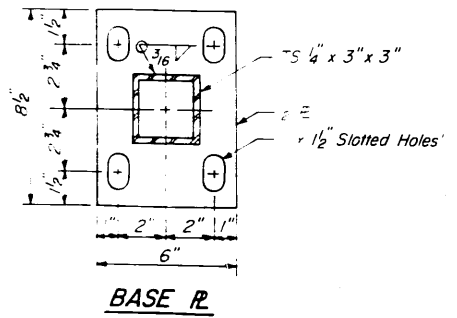
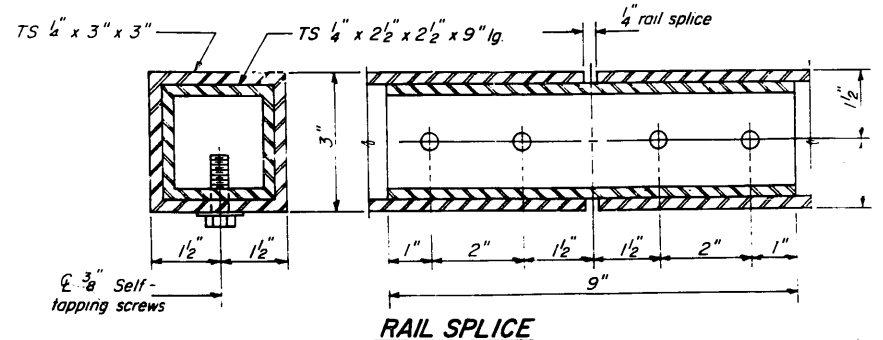
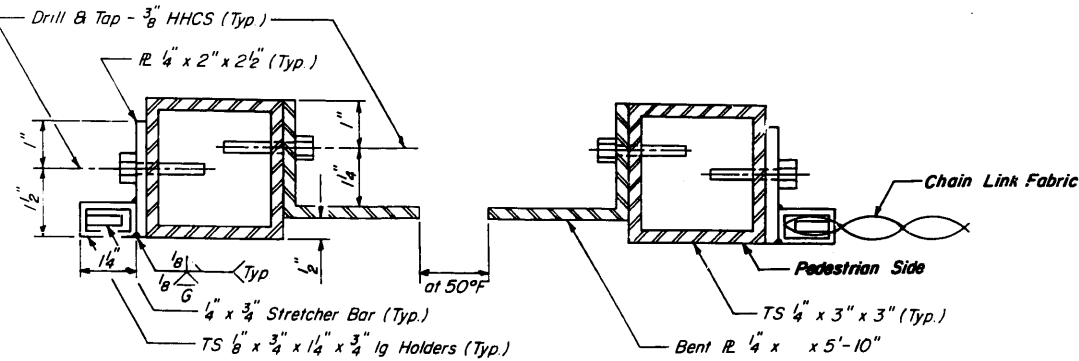
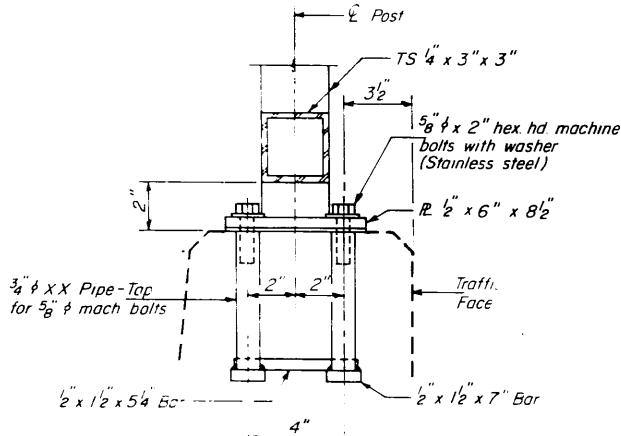
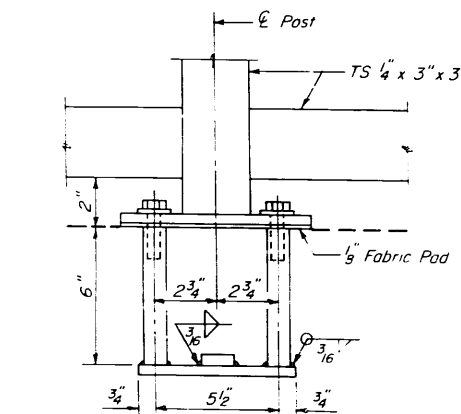
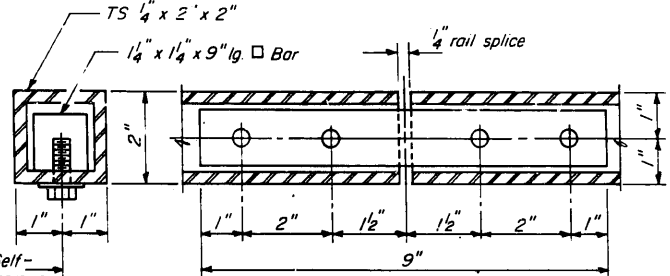
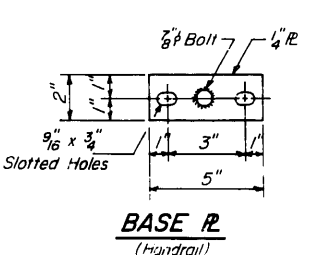
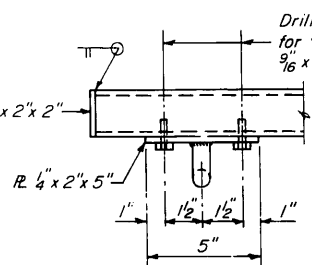
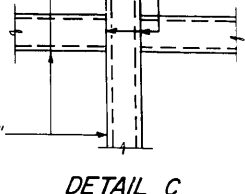
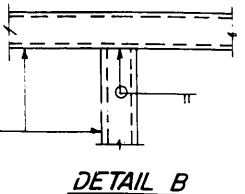
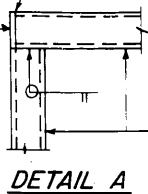
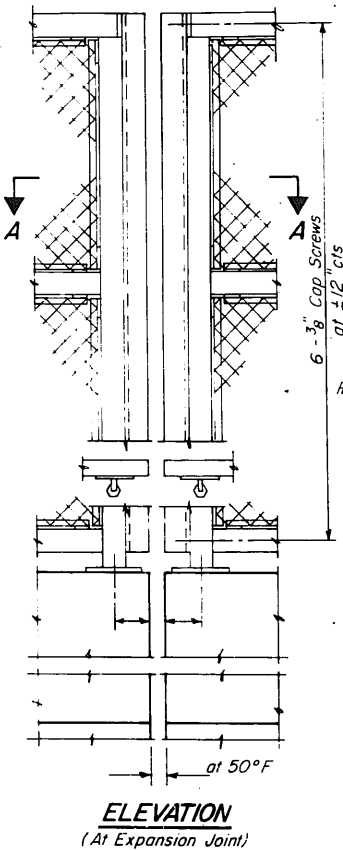
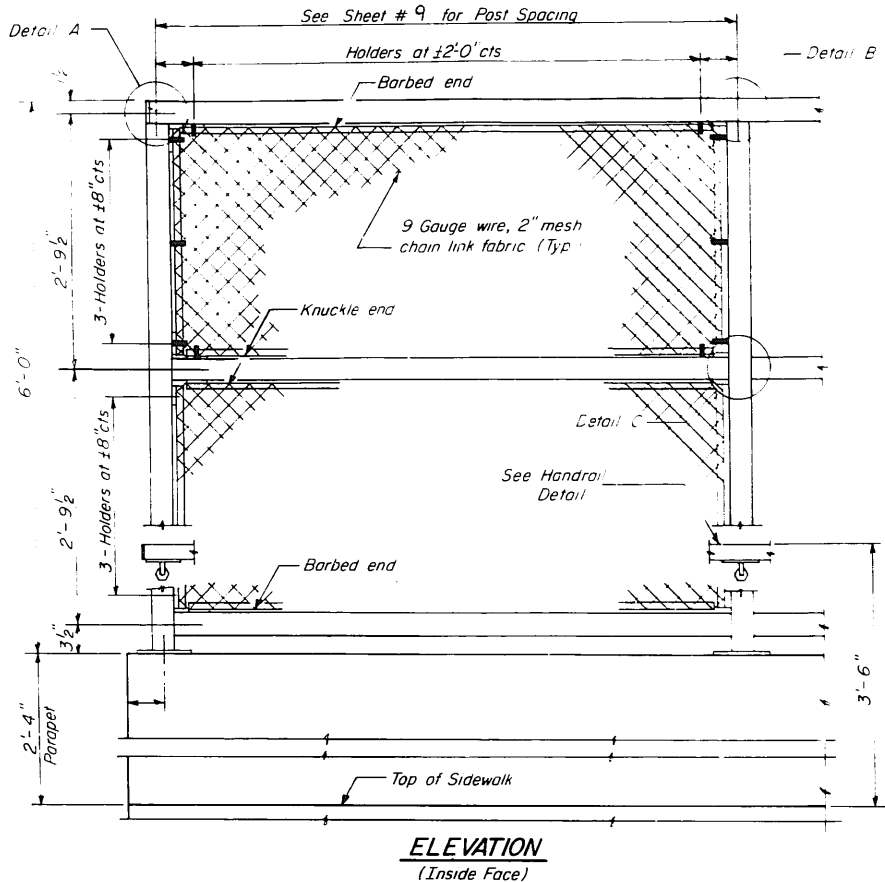
Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

The chain link fabric shall conform to the requirements of Article 710.33(a)(1)(2) or (3) of the Std. Specs.

B When railing is painted:

All posts, railing, splices, anchor devices and bent plates shall be painted using the zinc-silicate and vinyl paint system.

The chain link fabric shall conform to the requirements of Article 710.33(a)(4) of the Std. Specs.



BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing	Lin. Ft	373

DESIGNED
CHECKED
DRAWN
CHECKED

R-28 12-31-87 (10'-0" Maximum Post Spacing)

ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN RAILING
KEELER AVENUE OVER I-64
FAIRFAX, ILL. SECTION 29201 BR (80)
COOK COUNTY
STA 132+60.98 TO 132+61.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

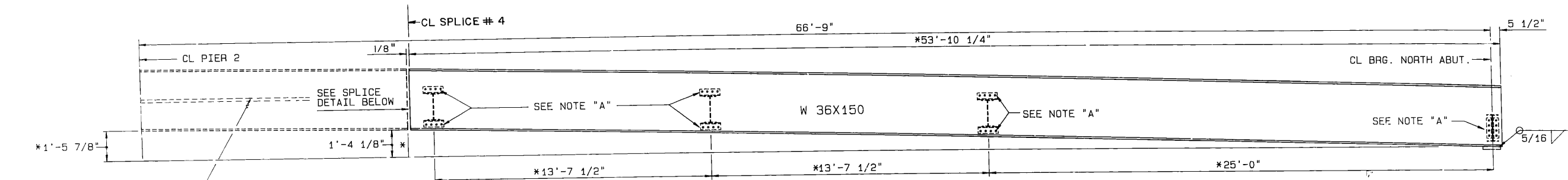
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F.A.I. 290	*	COOK	37	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-1R-290-4	

SHEET NO. 15

23 SHEETS

*2929.1 BR (80)

Note: See Sheet #5 for Beam Replacement Location on Framing Plan.

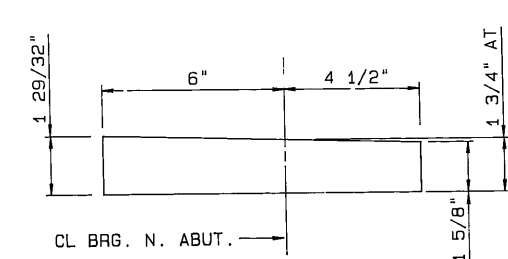
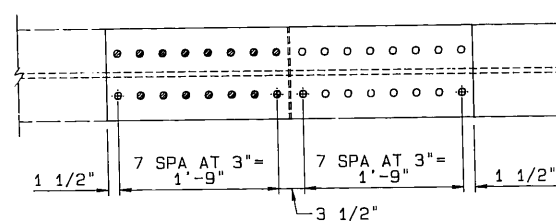


SHADOW PLATE, FULL LENGTH
OUTSIDE FACE OF WEB ONLY
(SEE EXISTING PLAN SHEET 5 OF 35)

DAMAGED BEAM REPLACEMENT
BEAM 12, SPAN 3

(* DIMENSIONS FROM EXISTING PLANS, FIELD VERIFY)

ALL CONTACT SURFACES OF JOINTS FOR THE DIAPHRAGMS AND BEAM SPLICE SHALL BE FREE OF PAINT OR LACQUER. (CONTACT AREAS OF EXISTING BEAMS SHALL BE CLEANED BY METHOD I.)



NOTE "A":
FIELD DRILL 7/8" Ø HOLES TO RECONNECT EXISTING DIAPHRAGM CONNECTIONS USING 3/4" Ø H.S. BOLTS WITH HARDENED WASHERS (COST INCIDENTAL TO BEAM REPLACEMENT)

BEARING PLATE

PL 1 15/16" X 10 1/2" X 1'-1" (1 req'd.)

BEAM REPLACEMENT PROCEDURE

THE FOLLOWING PROCEDURES FOR REPLACING THE SECTION OF FASCIA BEAM AND THE TRAFFIC CONTROL ON WESTBOUND I-290 MAY BE VARIED TO SUIT FIELD CONDITIONS, AS DETERMINED BY THE ENGINEER IN THE FIELD.

1. ONCE STAGE II REMOVAL OF THE EXISTING CONCRETE SIDEWALK AND BRIDGE DECK HAS PROGRESSED TO THE POINT WHERE BEAM 12 (OVER THE WESTBOUND LANES OF I-290) IS EXPOSED AND IS NO LONGER SUPPORTING ANY CONCRETE DEAD LOAD, OPERATIONS TO REPLACE THE BEAM SECTION FROM SPLICE #4 TO THE NORTH ABUTMENT MAY BEGIN.
2. TO MINIMIZE DISRUPTION TO I-290 TRAFFIC, A TEMPORARY 3-LANE CLOSURE OF THE WESTBOUND LANES SHOULD BE INSTALLED ONLY DURING ACTUAL BEAM REMOVAL AND REPLACEMENT OPERATIONS. THE CONTRACTOR SHOULD ATTEMPT ALL REMOVAL AND REPLACEMENT OPERATIONS WITH HIS EQUIPMENT ON KEELER AVENUE, NOT BELOW ON THE EXPRESSWAY. 3-LANE CLOSURES OF THE EXPRESSWAY MAY BE CONDUCTED BETWEEN THE HOURS OF 1:00 A.M. AND 11:00 A.M., SUNDAYS ONLY. SEE SPECIAL PROVISIONS. FOR RAMP CLOSURE, SEE SHEET #7.
3. EXISTING COMMONWEALTH EDISON CONDUITS MUST BE SUPPORTED FROM THE INTERIOR GIRDERS.

4. REMOVE DIAPHRAGM CONNECTION BOLTS. SECURE BEAM SECTION FROM ABOVE AND REMOVE SPLICE BOLTS AND PLATES (NO SALVAGE). REMOVE DAMAGED BEAM SECTION, EXISTING ROLLER BEARING AND BEARING BOTTOM PLATE.

5. INSTALL NEW BEARING BOLSTER AND CONNECT NEOPRENE BEARING TO BEAM BEARING PLATE.

6. INSTALL NEW BEAM SECTION AND RECONNECT SPLICE WITH NEW SPLICE PLATES AND 7/8" DIA. HIGH STRENGTH BOLTS AS DETAILED. RECONNECT EXISTING DIAPHRAGMS USING 3/4" DIA. HIGH STRENGTH BOLTS.

7. REINSTALL "PROTECTIVE SHIELD" AND CONDUIT SUPPORT SYSTEM. CONTINUE WITH STAGE II DECK REPLACEMENT.

BEAM REPLACEMENT QUANTITIES	
STRUCTURAL STEEL	LBS. 8,600
TRAFFIC CONTROL & PROTECTION, THREE LANE CLOSURE, LOCATION 1	
LUMP SUM	

BEAM REPLACEMENT DETAILS
KEELER AVENUE OVER
I-290

F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

SPLICE

SPLICE FASTNERS SHALL BE HIGH STRENGTH BOLTS, AASHTO M164. BOLTS 7/8" DIA., OPEN HOLES 15/16" DIAMETER.

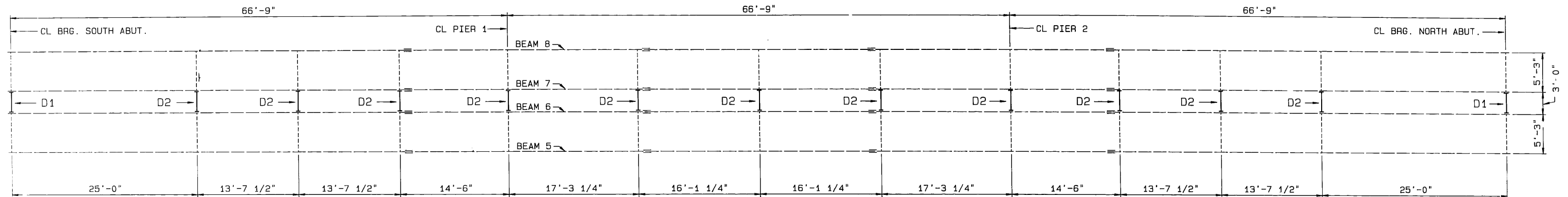
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CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

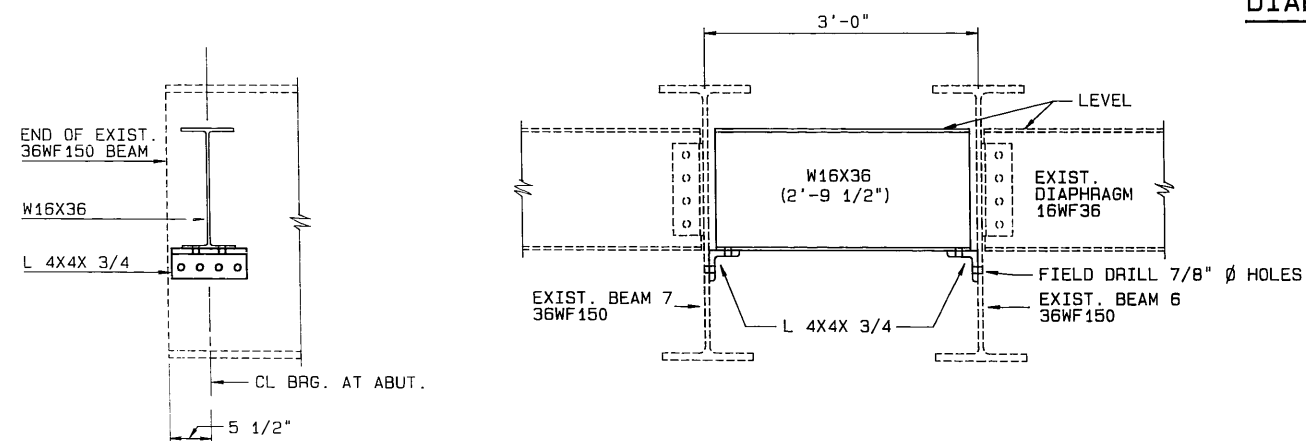
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

SHEET NO. 16
23 SHEETS

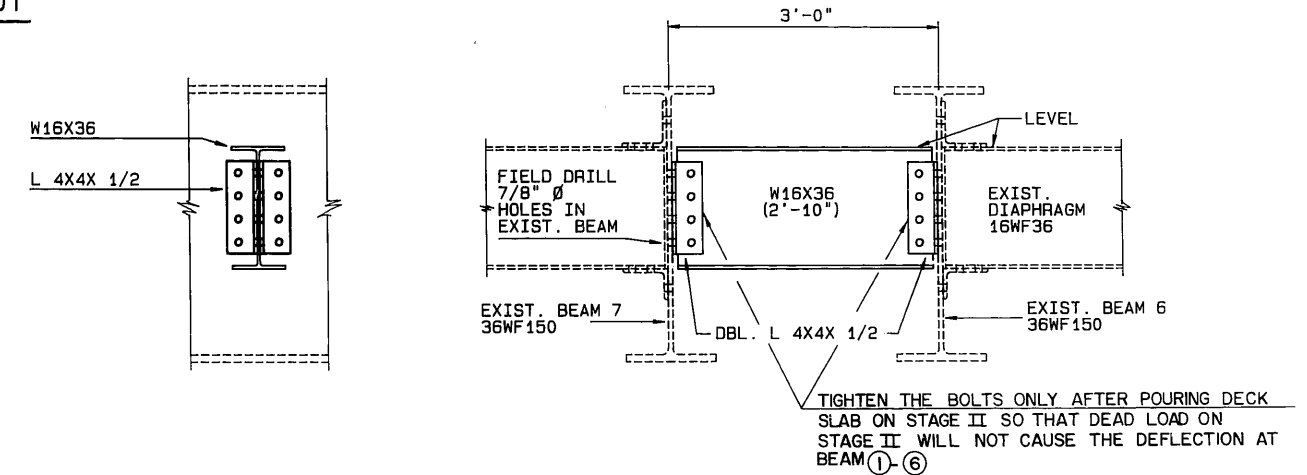
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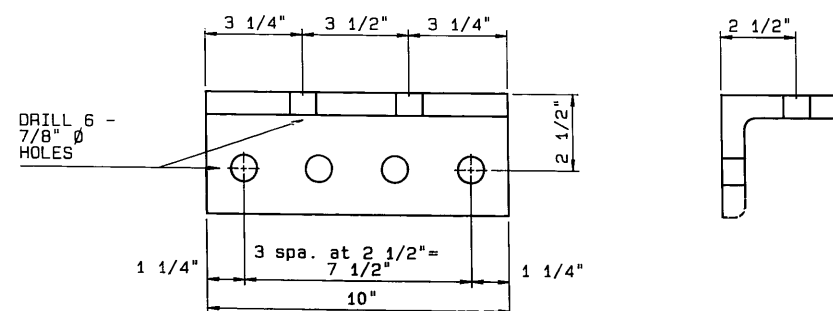
DIAPHRAGM LAYOUT



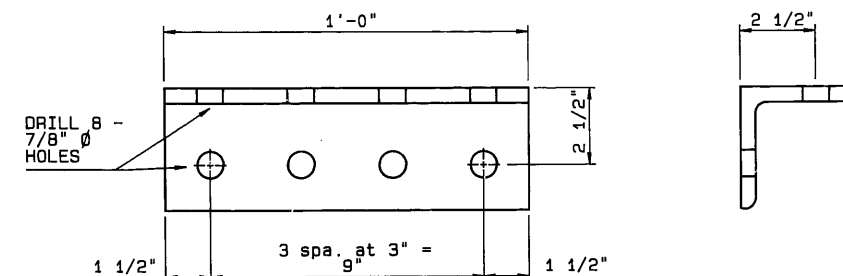
DIAPHRAGM D1 DETAIL



DIAPHRAGM D2 DETAIL



DIAPHRAGM D1 CONNECTION
ANGLE 4X4X 3/4



DIAPHRAGM D2 CONNECTION
ANGLE 4X4X 1/2

- NOTES:
1. ALL CONTACT SURFACES OF JOINTS FOR DIAPHRAGMS SHALL BE FREE OF PAINT AND LACQUER.
 2. ALL DIAPHRAGM CONNECTION FASTENERS ARE 3/4" DIA. H.S. (M164) BOLTS IN 13/16 DIA. HOLES, IN ANGLE. HOLES IN EXISTING GIRDERS TO BE DRILLED 7/8" IN THE FIELD. NO BURNING OF HOLES IN BEAMS WILL BE ALLOWED. USE HARDENED WASHERS OVER ALL 7/8" DIA. HOLES.

STRUCTURAL STEEL
KEELER AVENUE OVER
I-290
F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

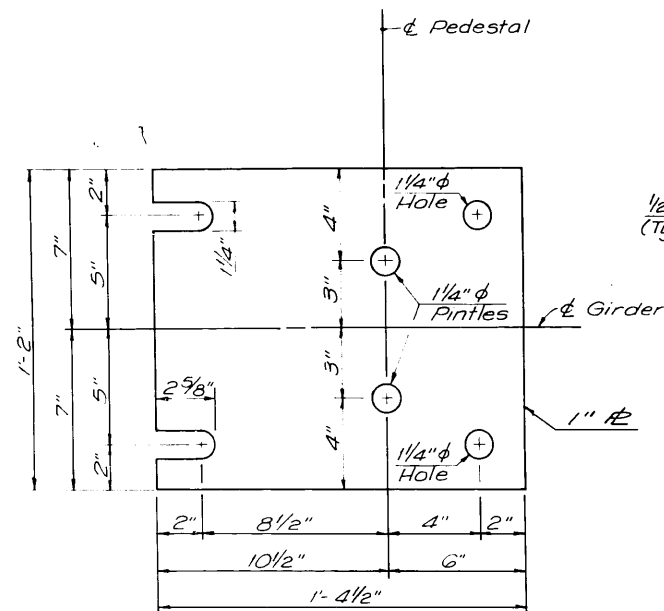
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DRAWN	JM
CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

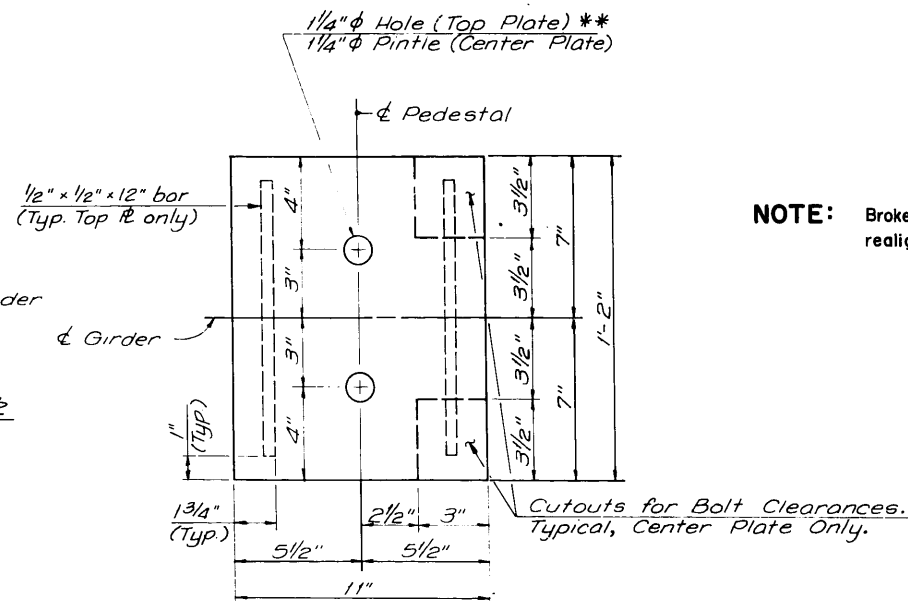
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA.I. 290	*	COOK	39	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

SHEET NO. 17
23 SHEETS

*2929.1 BR (80)

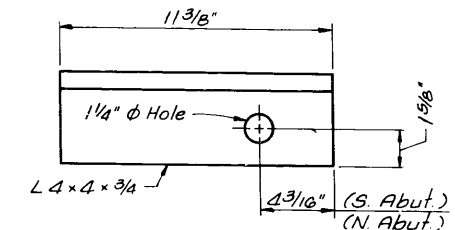


PLAN-PEDESTAL BOTTOM PLATE



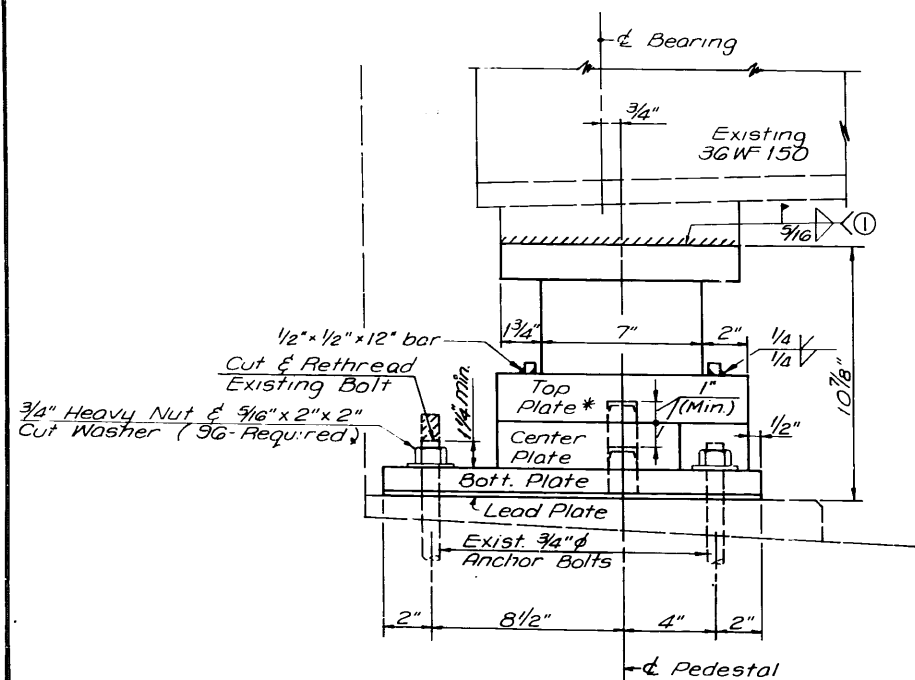
PLAN-PEDESTAL CENTER PLATE
AND TOP PLATE

NOTE: Broken, Rusted out, or misaligned existing bolts to be realigned or replaced, incidental to new bearings.

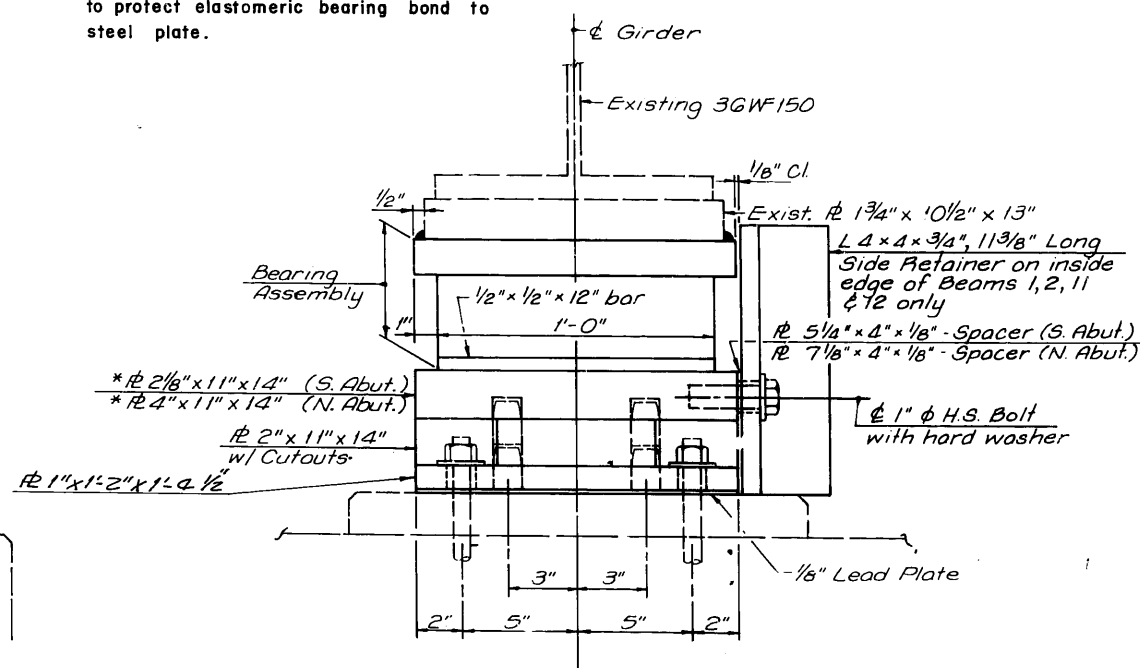


SIDE RETAINER
8 Required (4 Ea. Abutment)

- * The Top Plate may be fabricated to size using multiple plates (minimum individual plate thickness $\geq 1/2$ "), groove welded all around, or a single plate milled to thickness.
- ** 1 1/4" ϕ holes Top Plate may be drilled in the field and varied to align bearing as detailed.
- ① Build up weld fillet with multiple passes. Allow bearing top plate to cool between weld passes to protect elastomeric bearing bond to steel plate.



SIDE



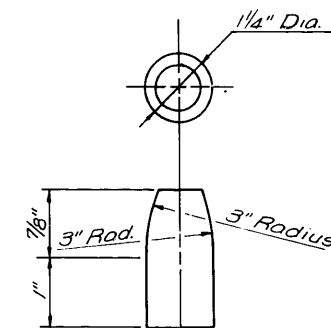
FRONT

9-Layers of 3/8" Elastomer,
55 Durometer (South Abut.)
5-Layers of 3/8" Elastomer,
55 Durometer (North Abut.)

8-3/32" Steel Plates (South Abut.)
4-3/32" Steel Plates (North Abut.)

4 1/8" x 7" x 12" Elastomeric Pad (South Abut.) - 12 Required
2 1/4" x 7" x 12" Elastomeric Pad (North Abut.) - 12 Required

ELASTOMERIC BEARING ASSEMBLIES



DETAIL OF PINTLE
(96-Required)

Pintles shall be threaded or press fit into plate.

STEEL PEDESTAL ABUTMENT
8. BEARING ASSEMBLIES
KEELER AVENUE OVER
I - 290

FA.I. RTE. 290, SECTION 2929.1 BR(80)

COOK COUNTY

STA. 132+60.98 FA.I.290 (E.B. 1)

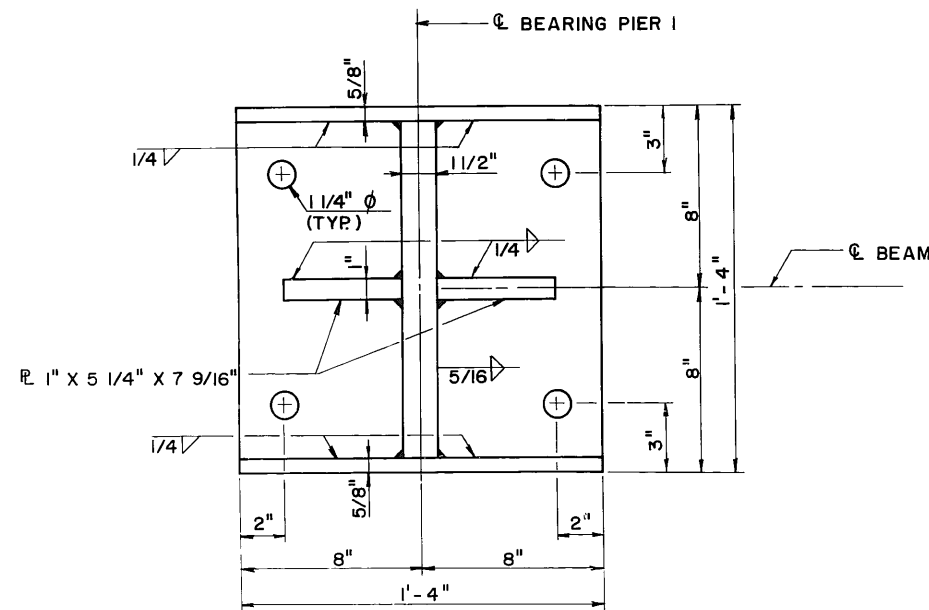
DESIGNED	BLW
CHECKED	MVM
DRAWN	RRY
CHECKED	MVM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

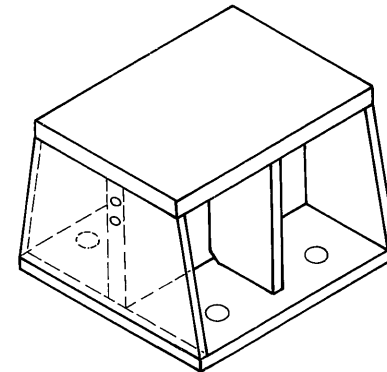
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-IR-290-4	

SHEET NO. 18
23 SHEETS

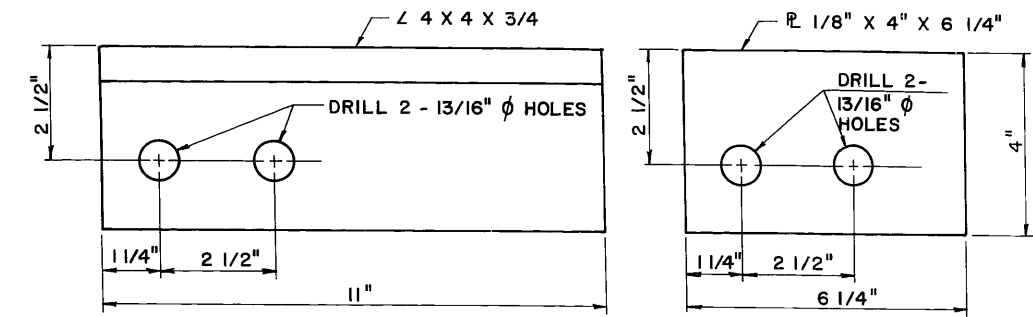
*2929.1 BR (80)



PLAN



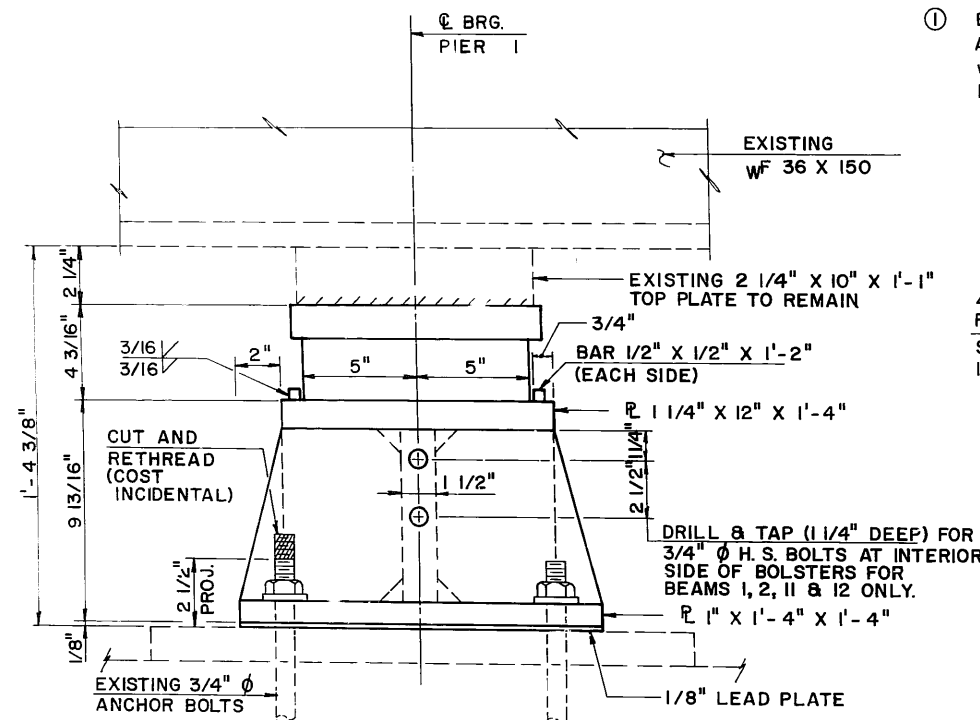
BOLSTER ISOMETRIC



SIDE RETAINER
(4 REQUIRED)

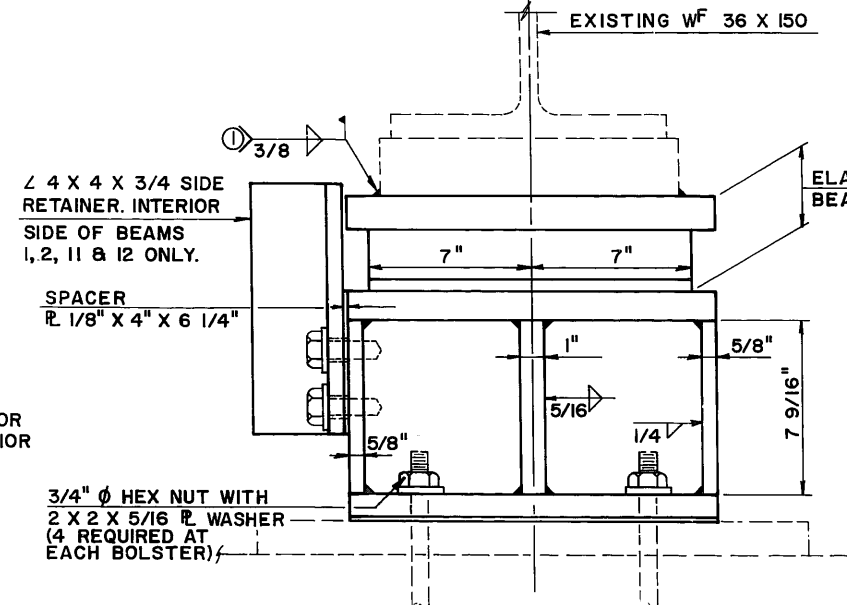
SPACER PLATE
(4 REQUIRED)

NOTE: 2-3/4" ϕ X 2" H.S. BOLTS
WITH WASHERS REQUIRED FOR
EACH SIDE RETAINER.



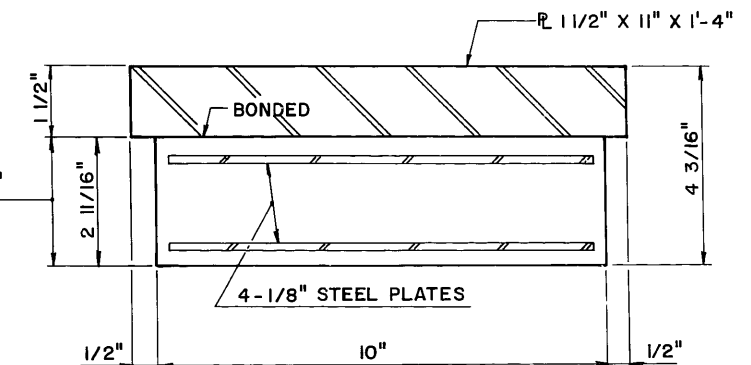
SIDE

- ① Build up weld fillet with multiple passes.
Allow bearing top plate to cool between
weld passes to protect elastomeric
bearing bond to steel plate.

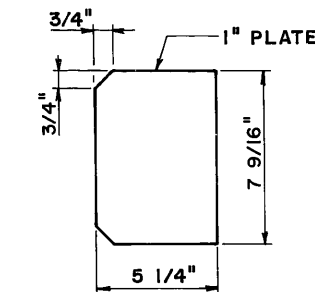


FRONT

5 LAYERS OF 7/16"
ELASTOMER
(55 DUROMETER)



10" x 14" TYPE I ELASTOMERIC BEARING
(12 REQUIRED)



STIFFENER DETAIL

DESIGNED	MVM
CHECKED	SLM
DRAWN	BSB
CHECKED	MVM

PIER I STEEL BOLSTERS
(12 REQUIRED)

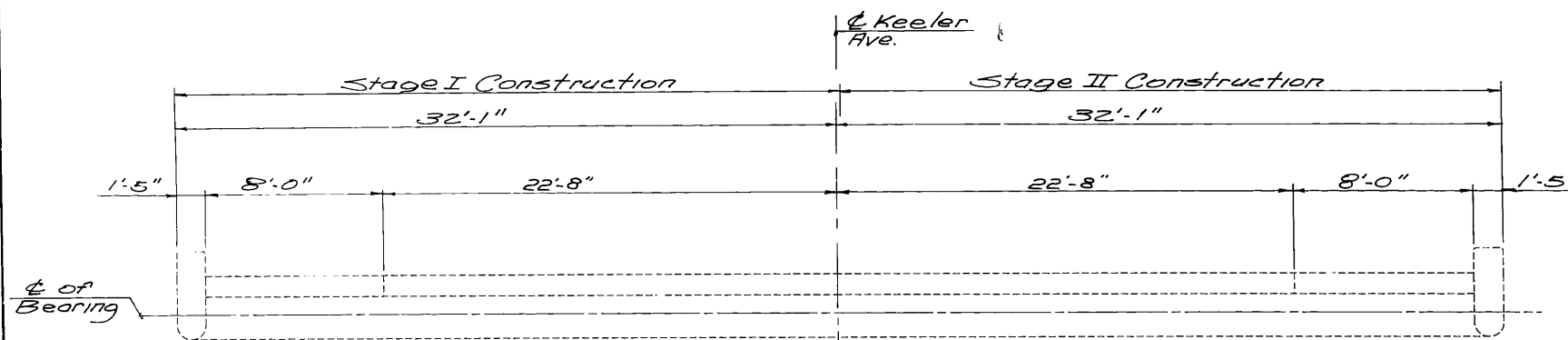
PIER I BEARING ASSEMBLIES
KEELER AVENUE OVER
I-290
F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

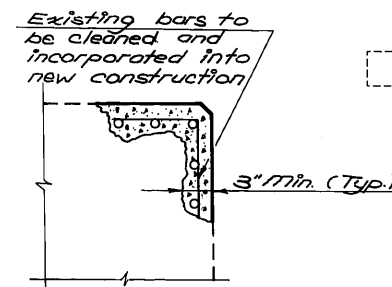
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

SHEET NO. 19
23 SHEETS

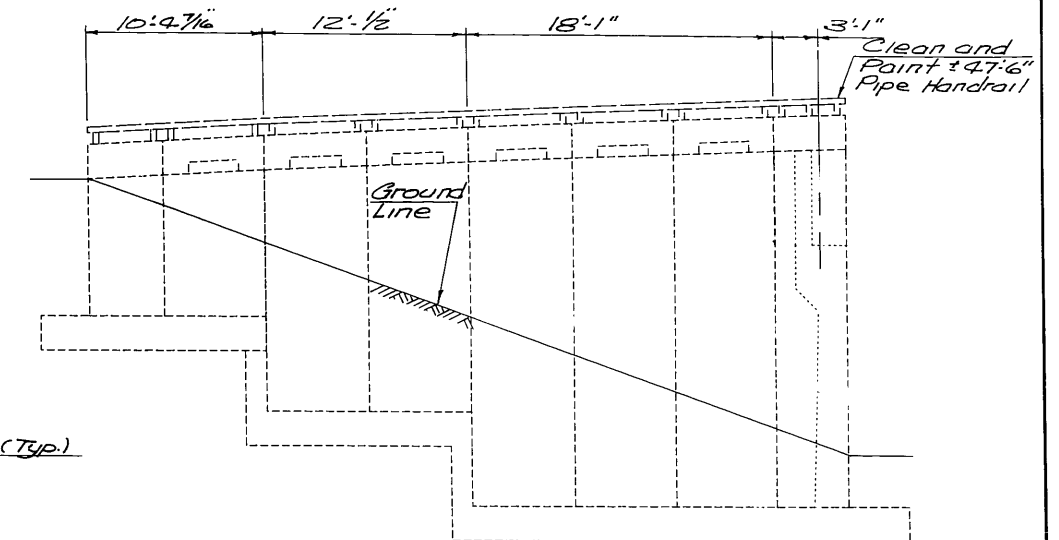
*2929.1 BR (80)



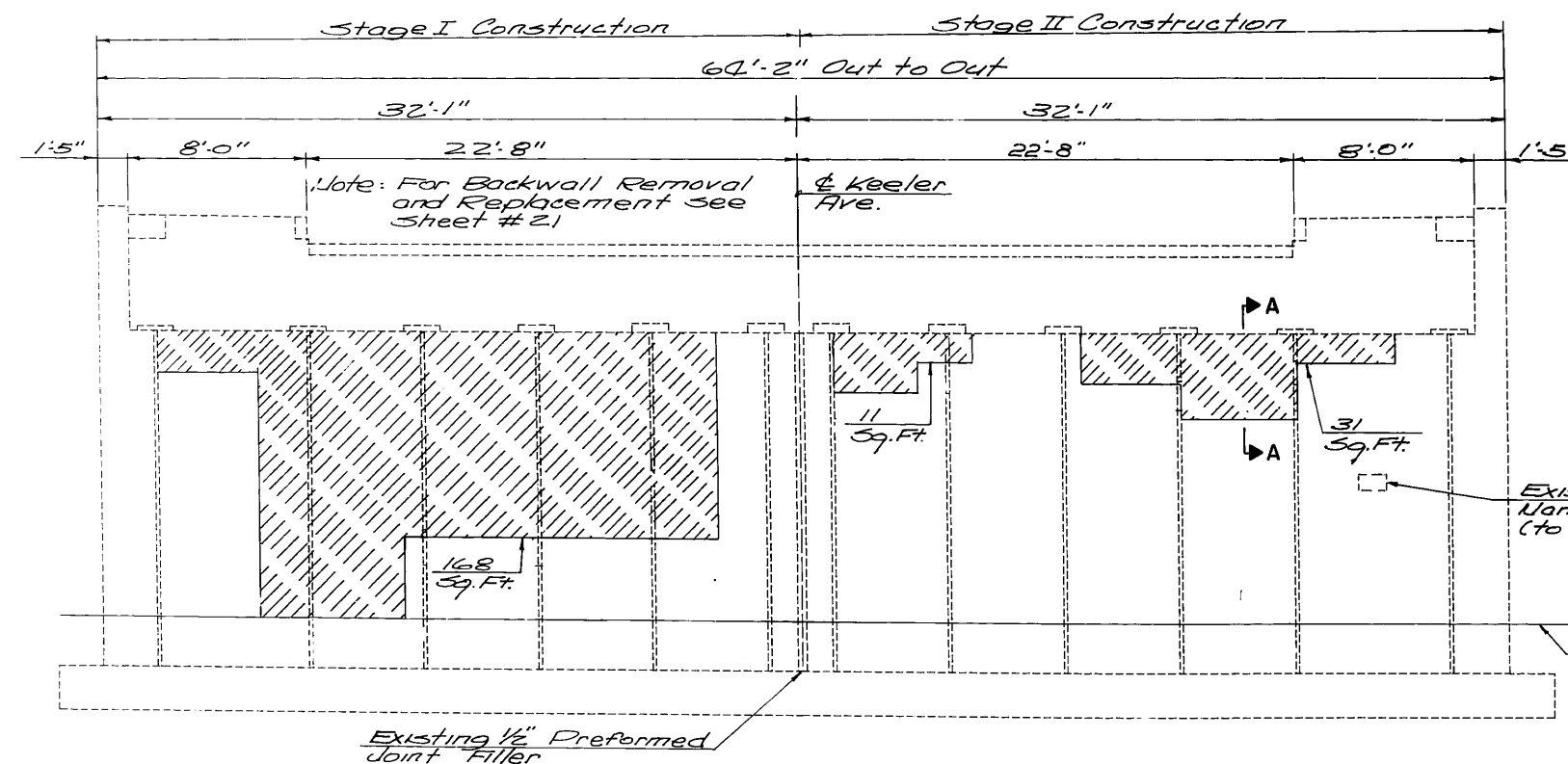
PLAN



SECTION A-A



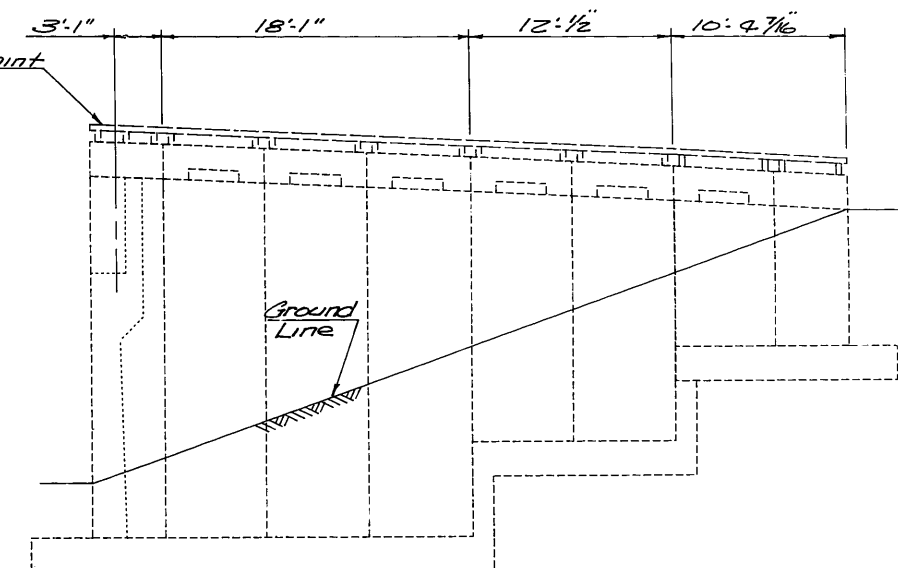
SOUTH EAST WINGWALL
(No Repairs)



ELEVATION
(Looking South)

REPAIR CONCRETE STRUCTURE

Clean and Paint
±47'-6" Pipe
Handrail

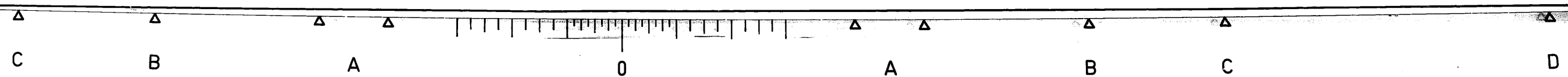


SOUTH WEST WINGWALL

DESIGNED	BLW
CHECKED	MVM
DRAWN	TAM
CHECKED	MVM

SOUTH ABUTMENT
KEELER AVENUE OVER
I-290

F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B.#)



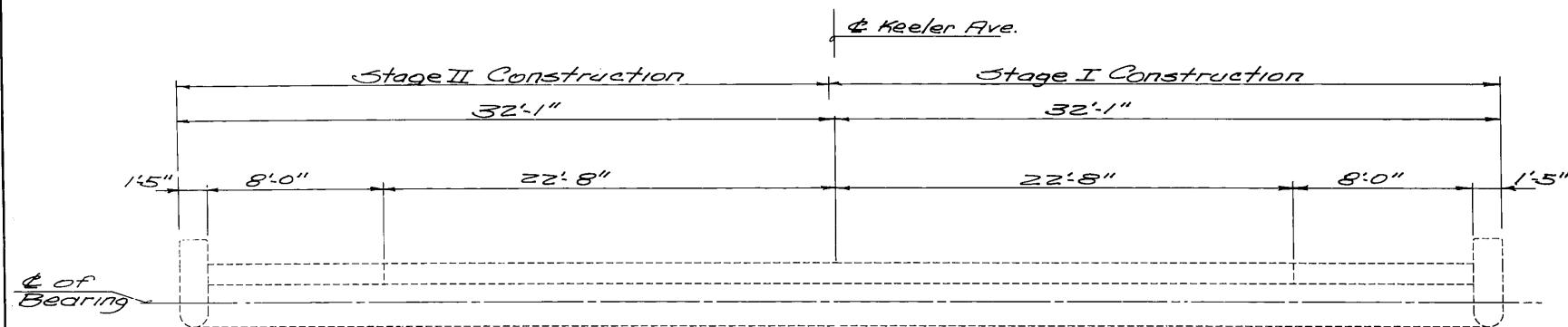
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

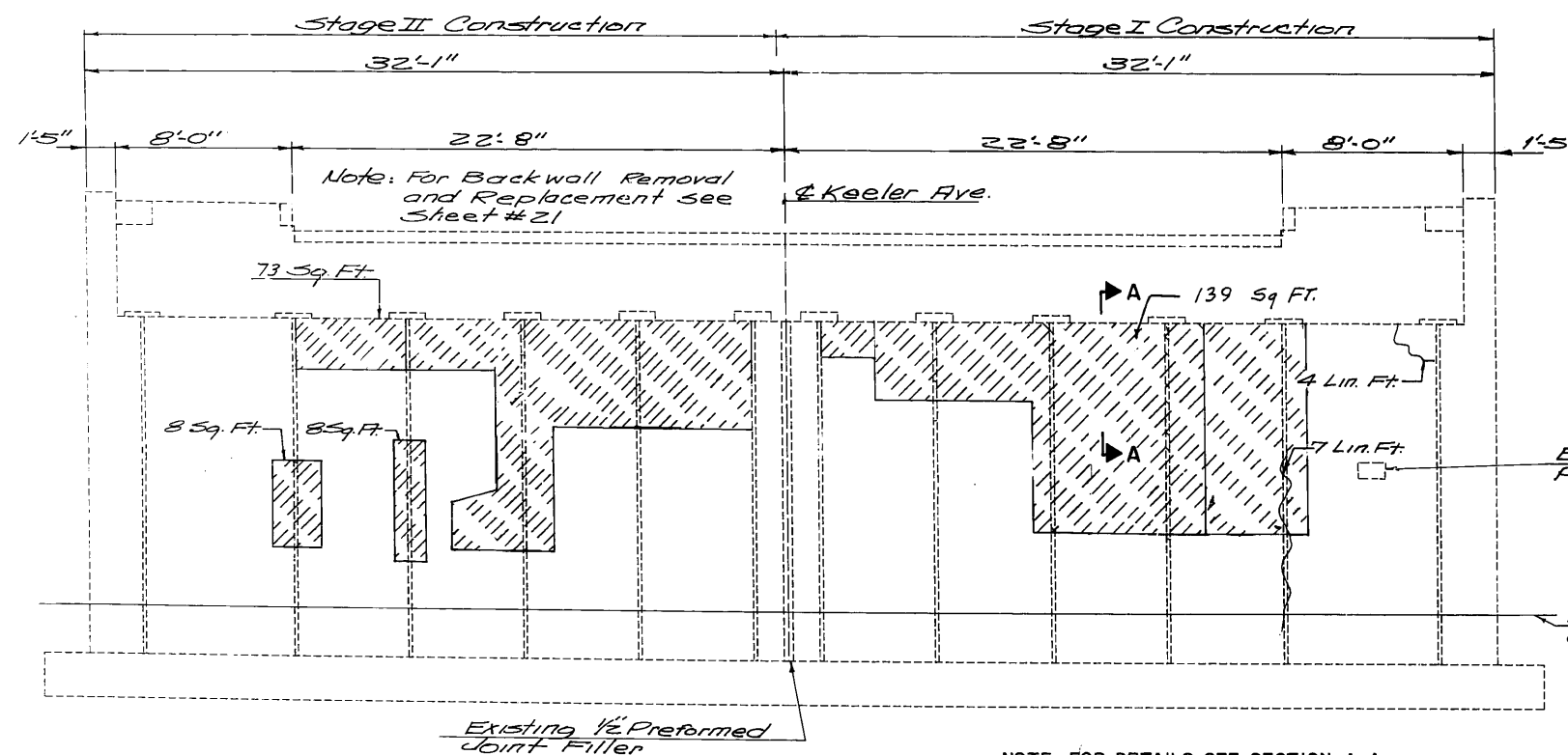
SHEET NO. 20

23 SHEETS

*2929.1 BR (R0)



PLAN

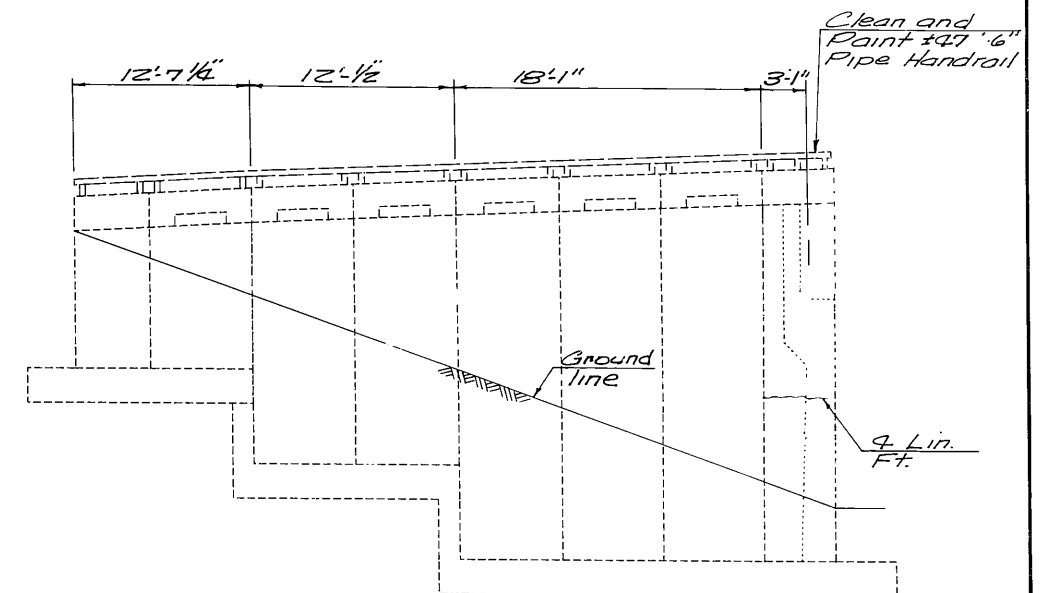


ELEVATION
(Looking North)

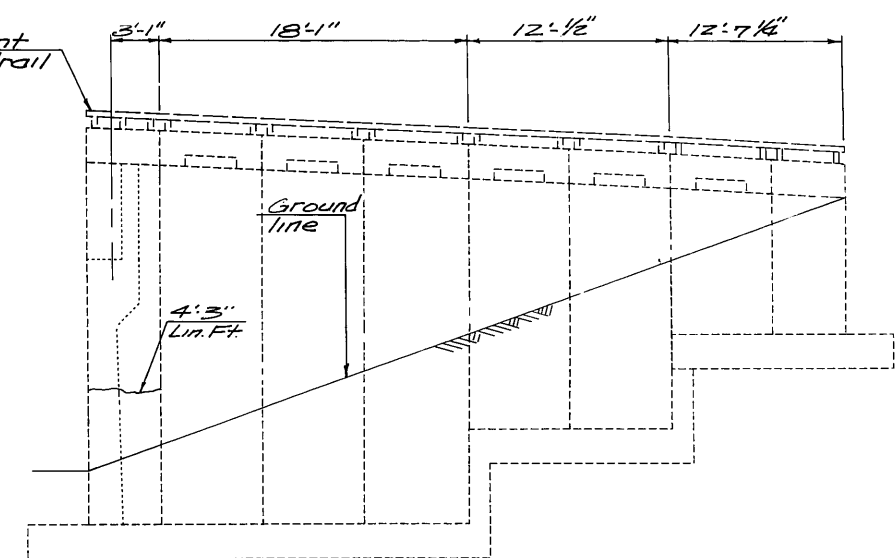
NOTE: FOR DETAILS SEE SECTION A-A
ON SHEET NO. 19.

INDICATES CRACKS

REPAIR CONCRETE STRUCTURE



NORTH WEST WINGWALL



NORTH EAST WINGWALL

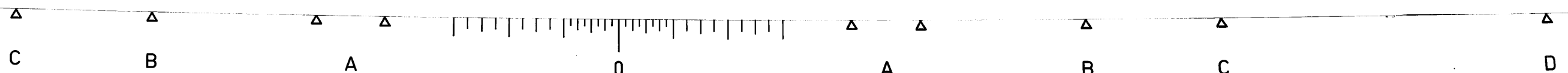
NORTH ABUTMENT
KEELER AVENUE OVER
I-290

F.A.I. RTE. 290, SECTION 2929.1 BR (R0)

COOK COUNTY

STA. 132+60.98 F.A.I. 290 (E.B. 0)

DESIGNED	BLW
CHECKED	MVM
DRAWN	TM
CHECKED	MVM

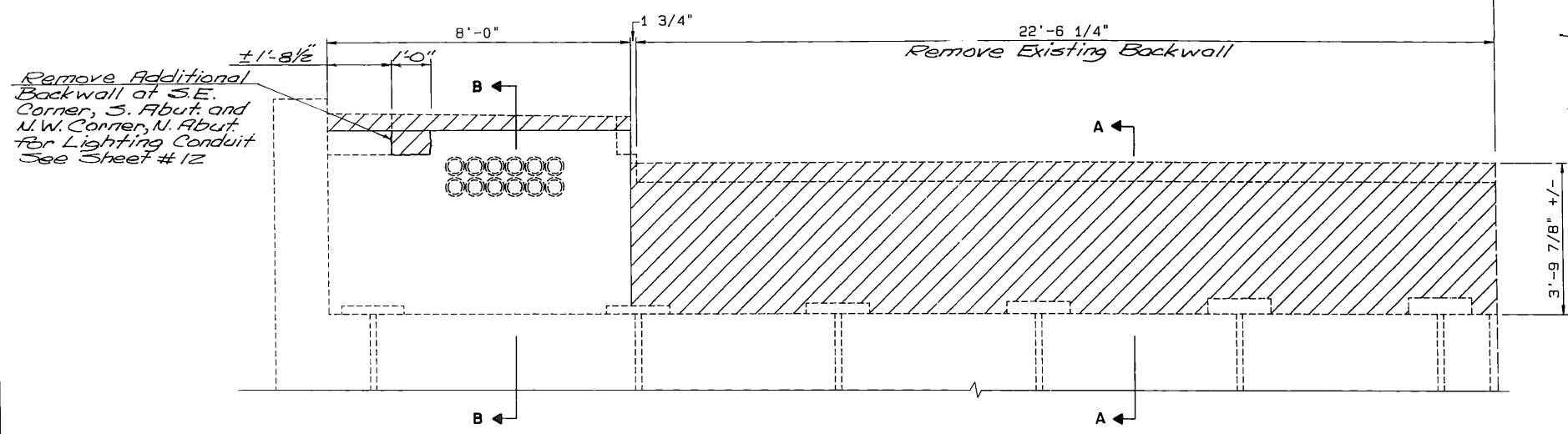


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

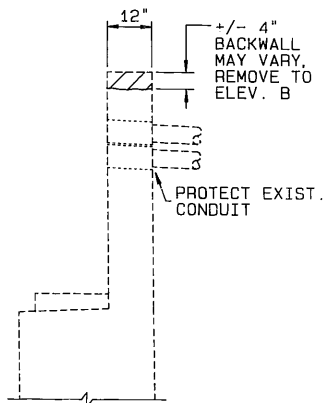
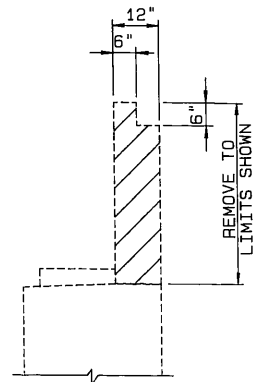
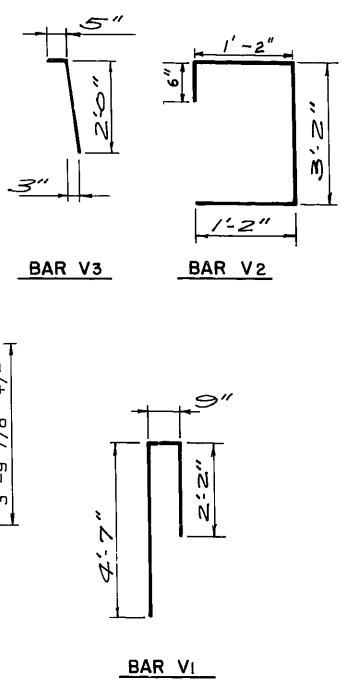
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 290	*	COOK	39	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	I-IR-290-4	

SHEET NO. 21
23 SHEETS

*2929.1 BR (80)



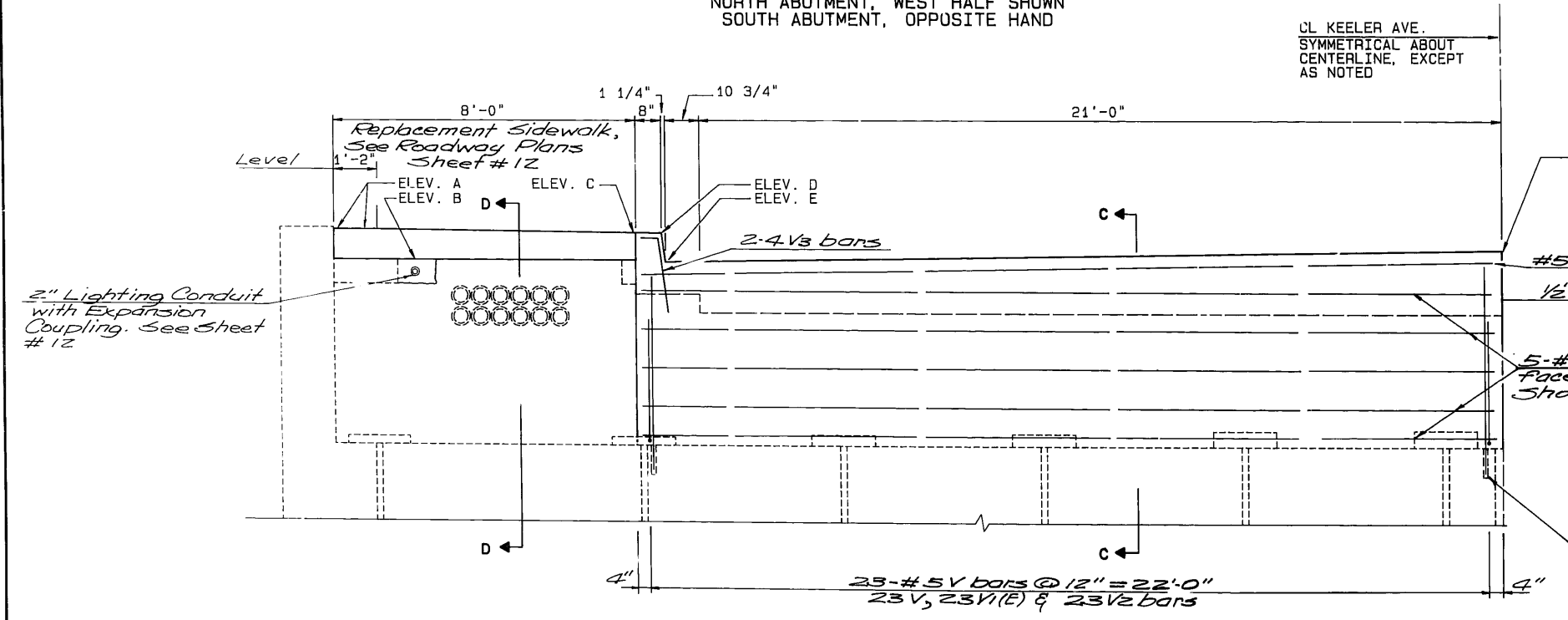
Remove Additional Backwall at S.E. Corner, S. Abut. and N.W. Corner, N. Abut. for Lighting Conduit See Sheet # 12



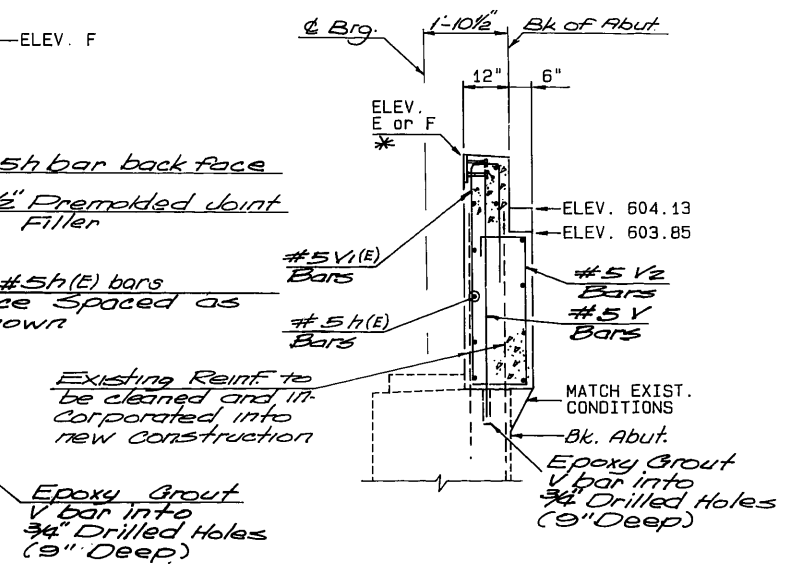
HALF ELEVATION, REMOVAL
NORTH ABUTMENT, WEST HALF SHOWN
SOUTH ABUTMENT, OPPOSITE HAND

SECTION A-A
(Existing)

SECTION B-B



2" Lighting Conduit with Expansion Coupling. See Sheet # 12



For Sidewalk Details See Roadway Sheet # 12

INDICATES CONCRETE REMOVAL

HALF ELEVATION, NEW CONSTRUCTION

SECTION C-C

SECTION D-D

* Steel Plate 3/4" x 7" for 2 1/2" F.U.S. Shown for N. Abut. S. Abut. Backwall will be Formed for 2" Neoprene Joint, see Sheets 10 and 13

DESIGNED	βLW
CHECKED	MVM
DRAWN	TM
CHECKED	MVM

ABUTMENT BACKWALL ELEVATIONS						
LOCATION	A	B	C	D	E	F
FRONT FACE	605.84	605.05	605.76	605.75	605.00	605.35
BACK FACE	--	605.05	605.72	605.71	604.96	605.31

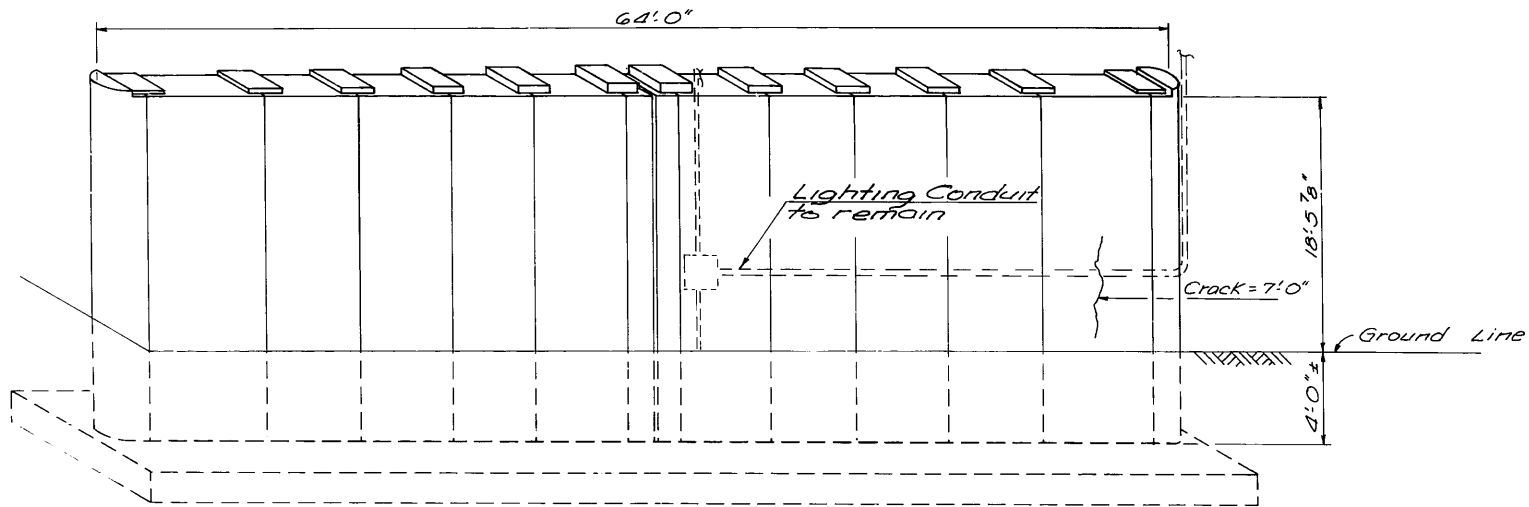
BILL OF MATERIAL							
ITEM	UNIT	QUANTITY	Bar	Number	Size	Length	Shape
CONCRETE REMOVAL	CU. YD.	12					
CLASS "X" CONCRETE	CU. YD.	22.0	h(E)	22	#5	22'-4"	
REINF. BARS	LBS.	1120					
REPAIR CONC. STRUCT.	SQ. FT.	450	V	46	#5	5'-7"	
EPOXY CRACK SEALING	LIN. FT.	15	V(E)	46	#5	7'-6"	
REINF. BARS(EPOXY CTU)	LBS.	1740	V2	46	#5	6'-0"	
			V3	4	#4	2'-5"	

ABUTMENT DETAILS
KEELER AVENUE OVER
I-290
F.A.I. RTE. 290, SECTION 2929.1 BR (80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 (E.B. BL)

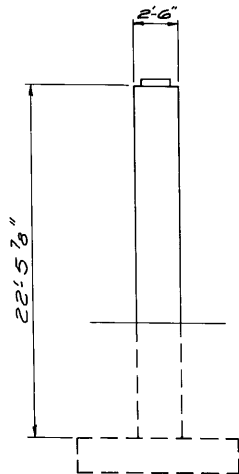
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
S B I F A 290	*	COOK	37	36	22
FED. ROAD DIST. NO. 7	ILLINOIS	FEC. AID PROJECT T-1R-290-4			23 SHEETS

* 2929.1 BR(80)



ELEVATION - NORTH FACE



WEST END VIEW

CONCRETE REPAIR NOTES:

EXPOSED REINFORCEMENT SHALL BE CLEANED AND INCORPORATED INTO CONCRETE PATCH, OR NEW REPLACEMENT REINFORCEMENT ADDED AND SPLICED WITH THE EXISTING RETAINED REINFORCEMENT.

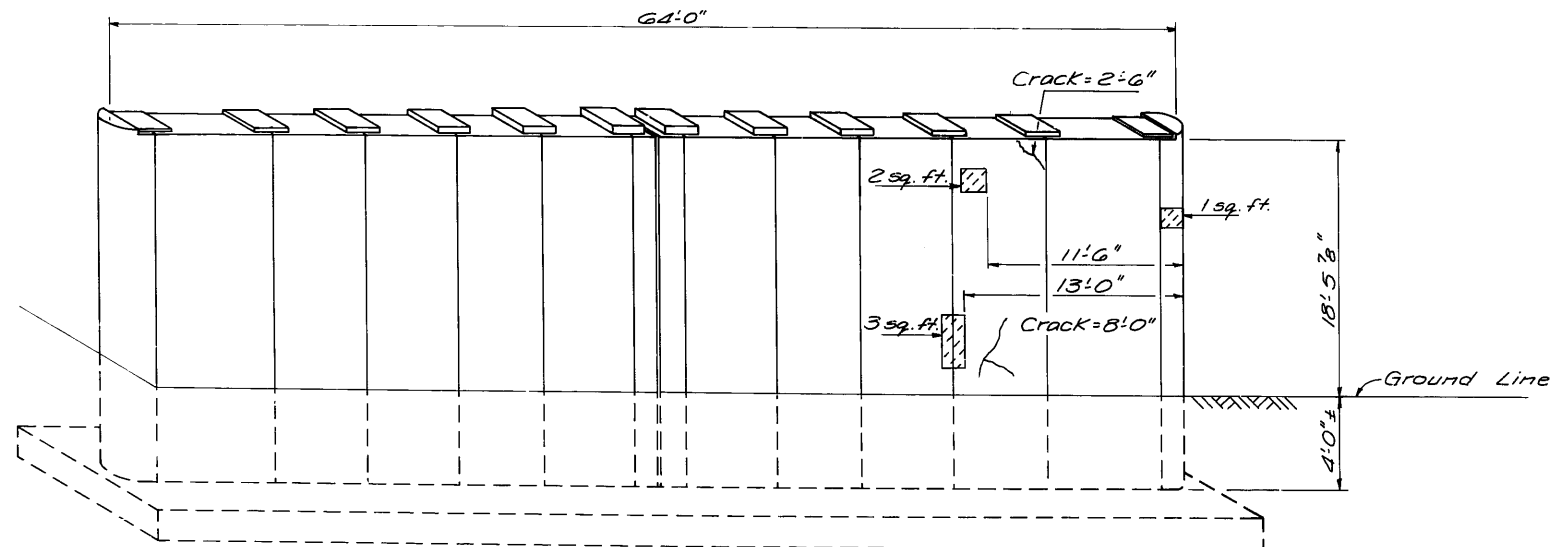
FILL HOLES AT TIE ROD ENDS WHERE PATCH HAS SPALLED AND REMOVE LOOSE PATCHES.

FILL HOLES AS SPECIFIED FOR REPAIR CONCRETE STRUCTURE.

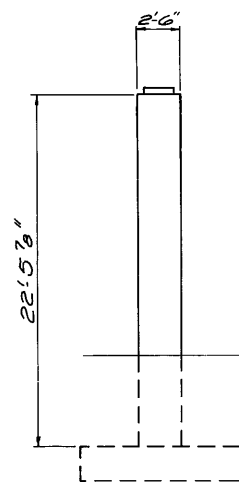
AREA AROUND SPALLS TO BE TAPPED WITH HAMMER FOR DULL HOLLOW SOUND TO INDICATE EXTENT OF UNSOUND CONCRETE.

BONDING AGENTS ARE TO BE EXTENDED AT LEAST 1" BEYOND THE PERIMETER OF THE PATCH IN ORDER TO INSURE PROPER BONDING OF THE EDGES.

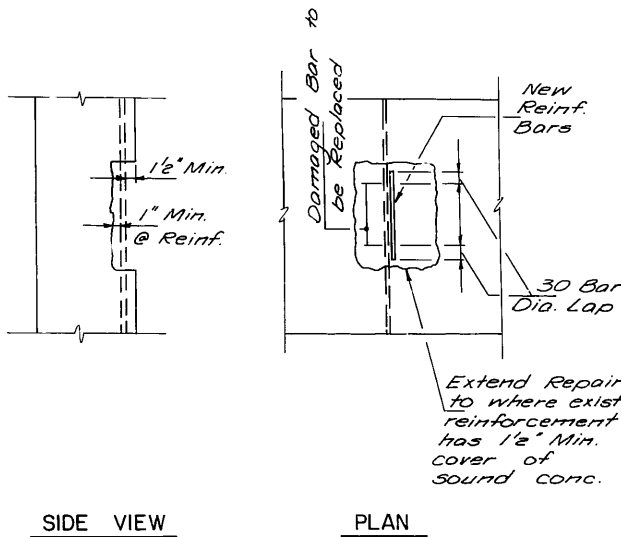
EXISTING REINFORCEMENT HAVING 10% OR MORE OF CROSS SECTIONAL AREA LOST TO CORROSION OR DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH NEW REINFORCEMENT, LAPPED AS NOTED.



ELEVATION - SOUTH FACE



EAST END VIEW



SIDE VIEW

PLAN

VERTICAL REPAIR

DESIGNED	JNG
CHECKED	MVM
DRAWN	RBV
CHECKED	MVM

LEGEND

Indicates Repair Concrete Structure

Indicates Cracks

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Repair Concrete Structure	Sq. Ft.	6
Epoxy Crack Sealing	Lin. Ft.	17

PIER 1
KEELER AVENUE Over
I-290
F.A.I. RTE. 290, SECTION 2929.1BR(80)
COOK COUNTY
STA. 132+60.98 F.A.I. 290 E.B.

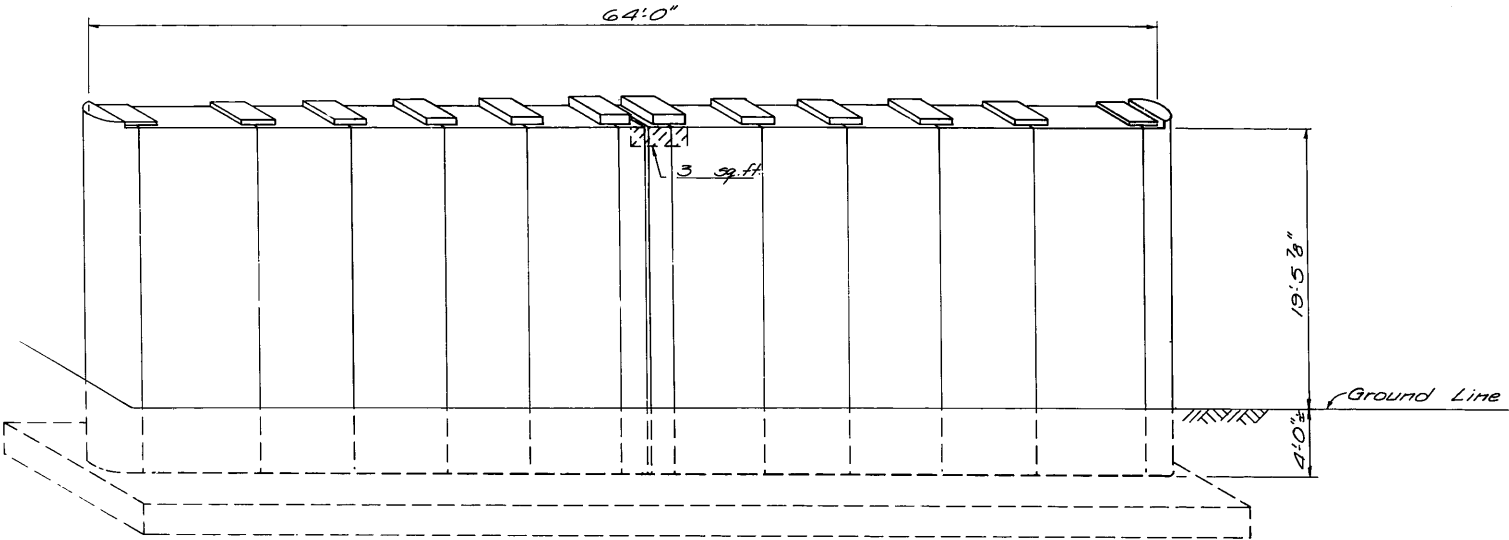
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S B I. F A 290	+	COOK	37	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT I-IR-290-4		

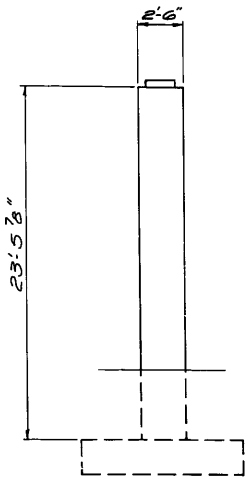
SHEET NO 23

23 SHEETS

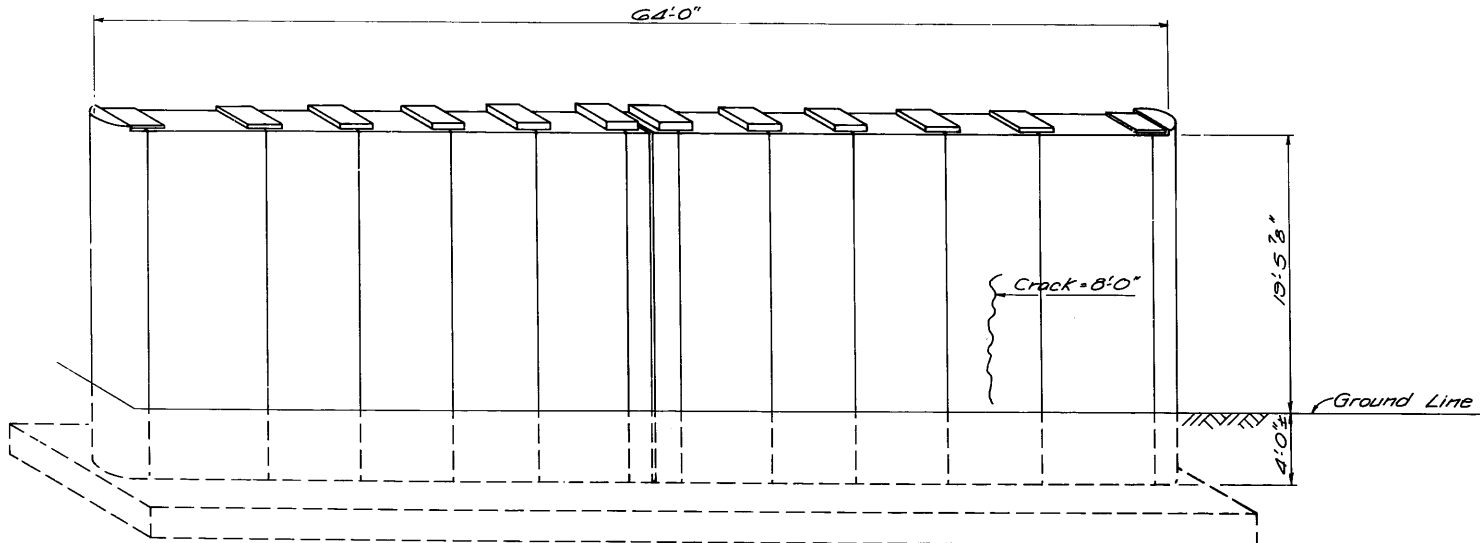
+ 2929.1 BR(80)



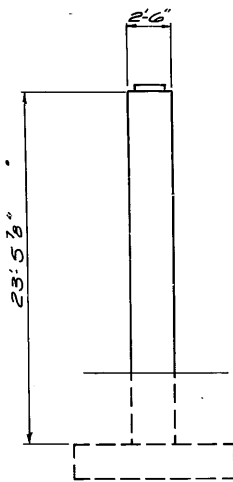
ELEVATION - NORTH FACE



WEST END VIEW



ELEVATION - SOUTH FACE



EAST END VIEW

For Vertical Repair
Detail, See Sheet # 22

DESIGNED	JNG
CHECKED	MVM
DRAWN	RBV
CHECKED	MVM

LEGEND

- Indicates Repair
Concrete Structure
- Indicates Cracks

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Repair Concrete Structure	Sq. Ft.	3
Epoxy Crack Sealing	Lin. Ft.	8

PIER 2
KEELER AVENUE Over
I-290
F.A.I. RTE.290, SECTION 2929.1 BR(80)
COOK COUNTY
STA. 132+60.98 FA.1.290 E.B. 2