LOMBARD BRIDGE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-290	3131-206 VB-BR(80)	COOK	28	1
REG. ROAD DIST. NO.	ILLINOIS	FEDERAL AID PROJECT ACIR-290-4(95)91		

PC-91-272-77

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID INTERSTATE HIGHWAY

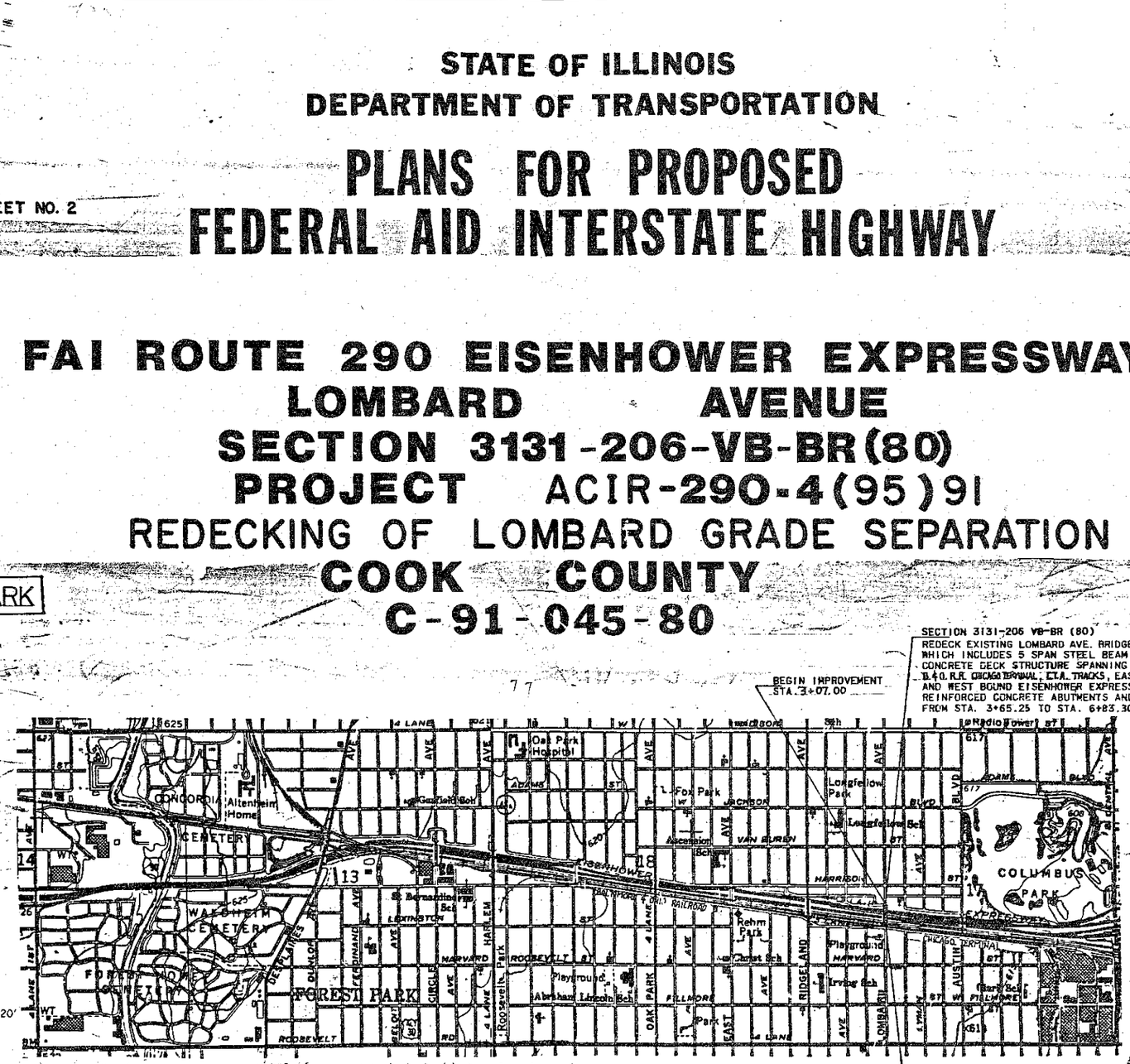
FOR INDEX OF SHEET, SEE SHEET NO. 2

FAI ROUTE 290 EISENHOWER EXPRESSWAY
LOMBARD AVENUE
SECTION 3131-206-VB-BR(80)
PROJECT ACIR-290-4(95)91
REDECKING OF LOMBARD GRADE SEPARATION
COOK COUNTY
C-91-045-80

VILLAGE OF OAK PARK

SECTION 3131-206 VB-BR (80)
REDECK EXISTING LOMBARD AVE. BRIDGE WHICH INCLUDES 5 SPAN STEEL BEAM AND CONCRETE DECK STRUCTURE SPANNING OVER B.&O.R.R. CHICAGO TERMINAL, C.T.A. TRACKS, EAST BOUND AND WEST BOUND EISENHOWER EXPRESSWAY REINFORCED CONCRETE ABUTMENTS AND PIERS FROM STA. 3+65.25 TO STA. 6+83.30

BEGIN IMPROVEMENT STA. 3+07.00



END IMPROVEMENT STA. 7+33.00

OAK PARK TOWNSHIP

NET LENGTH OF PROJECT = 426.0 FT. = 0.0807 MILES

LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 3-31 19 92
DISTRICT ENGINEER
EXAMINED 4-7 19 92
ENGINEER OF PLANS AND CONTRACTS
PASSED 4-7 92
ENGINEER OF DESIGN
APPROVED 4-7 92
DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
JAMES M. NAKAWATASE
2493
REGISTERED STRUCTURAL ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ENGINEER DATE

Nakawatase, Rutkowski, Wyne & Yi, Inc.
ENGINEERS • ARCHITECTS
203 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

100'	200'	300'	1"= 100'
0 10'	20'	30'	1"= 10'
0 50'	100'		1"= 50'
0 50'	100'		1"= 40'
0 50'	100'		1"= 30'
0 50'	100'		1"= 20'

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.

PLAN PREPARATION ENGINEER - MATT / R. SHAH - 708-705-4437

CONTRACT NO. 80047

COOK COUNTY SECTION 3131-206-VB-BR(80) FAI ROUTE 290

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 1-290	3131-206-VB-BR (80)	COOK	28	2
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT 1R-290-4		

LOMBARD AVENUE

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANT.	CONSTRUCTION TYPE CODE X931-50	SFTY3Q
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	45		45
40600850	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, TYPE 2	TON	44		44
40801300	PROTECTIVE COAT	SQ YD	25		25
50102400	CONCRETE REMOVAL	CU YD	5	5	
50104800	REMOVAL OF EXISTING CONCRETE DECK	L SUM	1	1	
50300300	PROTECTIVE COAT	SQ YD	1732	1732	
50400300	CLASS X CONCRETE	CU YD	5	5	
50300250	CLASS X CONCRETE SUPERSTRUCTURE	CU YD	519	519	
50700400	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	12710	12710	
50900300	CLEANING AND PAINTING STEEL BRIDGE	L SUM	1	1	
* X1004585	PRUNING EXISTING TREES	EACH	10		10
* X1004591	PRUNING EXISTING INTERMEDIATE TREES	EACH	10		10
64201000	SEEDING, CLASS 2, SPECIAL	ACRE	0.02		0.02
51200200	REINFORCEMENT BARS, EPOXY COATED	POUND	102,494	102,494	
51400100	NAME PLATES	EACH	1	1	
61260100	INLETS TO BE ADJUSTED	EACH	1		1
61700036	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	170		170
61701000	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ YD	448		448
61701700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL & REPLACEMENT	LIN FT	40		40
61704600	SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	144		144
64600400	ENGINEER FIELD OFFICE, TYPE A	CAL MO	6	6	
62911900	TEMPORARY FENCE	LIN FT	200		200
64801700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1	
65000100	MOBILIZATION	L SUM	1	1	
Z0047300	PROTECTIVE SHIELD	SQ YD	1675	1675	
Z0064800	SELECTIVE CLEARING	UNIT	2		2
X0834300	CTA JOINT SEAL	LIN FT	14	14	
TX005100	REMOVE AND RE-ERECT BRIDGE MOUNTED SIGN	EACH	1	1	
50300120	PREFORMED JOINT SEAL 2 1/2"	LIN FT	45	45	
50300130	PREFORMED JOINT SEAL 4"	LIN FT	45	45	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANT.	CONSTRUCTION TYPE CODE X931-50	SFTY3Q
50300320	ELASTOMERIC BEARING ASSEMBLY TYPE II,	EACH	8	8	
50300330	ELASTOMERIC BEARING ASSEMBLY TYPE III,	EACH	24	24	
50700705	JACK AND REMOVE EXISTING BEARINGS	EACH	32	32	
Z0065700	SLOPE WALL REPAIR	SQ YD	20	20	
62900540	CHAIN LINK FENCE, 6' (BRIDGE)	LIN FT	640	640	
* Z0020300	EPOXY CRACK SEALING	LIN FT	215	215	
50300155	NEOPRENE EXPANSION JOINT 2 1/2"	LIN FT	45	45	
* X0300154	FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	571	571	
Δ Z0076600	TRAINEES	HOUR	500		
© T5030200	PREFORMED PLASTIC PAVEMENT MARKING - LINE 4"	LIN FT	620		620
© T5010400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	LIN FT	263		263
© T5010700	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	LIN FT	70		70
T5040200	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	10	10	
© L0008500	RELOCATE EXISTING LIGHTING UNIT	EACH	4	4	
© L0007700	PROTECT AND MAINTAIN EXISTING UNDERPASS LUMINAIRE	L. SUM	1	1**	
© 66200100	TRENCH AND BACKFILL FOR ROADWAY LIGHTING	LIN FT	15	15**	
© 66300600	CONDUIT IN TRENCH, 2" DIA. GALVANIZED STEEL	LIN FT	15	15**	
© 66302500	CONDUIT PUSHED, 2" DIA. GALVANIZED STEEL	LIN FT	45	45**	
© 66304600	CONDUIT ATTACHED TO STRUCTURE 2" DIA. GALVANIZED STEEL	LIN FT	40	40**	
© L0704800	JUNCTION BOX, CAST IRON, EMBEDDED IN STRUCTURE 12"x8"x6"	EACH.	4	4**	
© L0710700	JUNCTION BOX, CAST IRON, ATTACHED TO STRUCTURE, 12"x8"x6"	EACH	5	5**	
© X6600014	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/0 NO.6	LIN FT	905	905**	
Z0007200	BRIDGE SEAT SEALER	L SUM	1	1	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L. SUM	1	1	
Z0037400	PAVEMENT MARKING REMOVAL	LIN FT.	110		110

* INDICATES NON PARTICIPATING

** CONSTRUCTION CODE SFTY-1E

Δ CONSTRUCTION TYPE CODE Y080

© SPECIALTY ITEM

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
* 2	SUMMARY OF QUANTITIES INDEX OF SHEETS & GENERAL NOTES
3 THRU 16	LOMBARD AVENUE BRIDGE
16A THRU 21	LOMBARD AVENUE BRIDGE
22	PAVEMENT MARKING, PARAPET WALL & MISC. APPROACH DETAILS
23	TRAFFIC CONTROL LOMBARD PLAN
24	DISTRICT ONE FREEWAY STANDARD ONE LANE CLOSURE
25	DISTRICT ONE FREEWAY STANDARD TWO LANE CLOSURE
26 & 27	DELETED
28	ELECTRICAL DETAILS

STATE STANDARDS

STANDARD NO.	DESCRIPTION
1686-4	SYMBOLS & ABBREVIATIONS
2113-2	DETAILS OF NAME PLATE FOR BRIDGES
2130-9	COMBINATION CONCRETE CURB & GUTTER
2298-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2299-11	DESIGN OF TRAFFIC CONTROL DEVICES
2300-3	FLAGGER TRAFFIC CONTROL SIGN
2356-1	SIDEWALK RAMP FOR THE HANDICAPPED
2307-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES SHORT-TIME OPERATION, DAY OR NIGHT.
2323-11	PAVEMENT JOINTS
2314-5, 2419, U-1, U-2, U-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

Nakawatase, Rutkowski, Wyns & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

LOMBARD AVE. BRIDGE

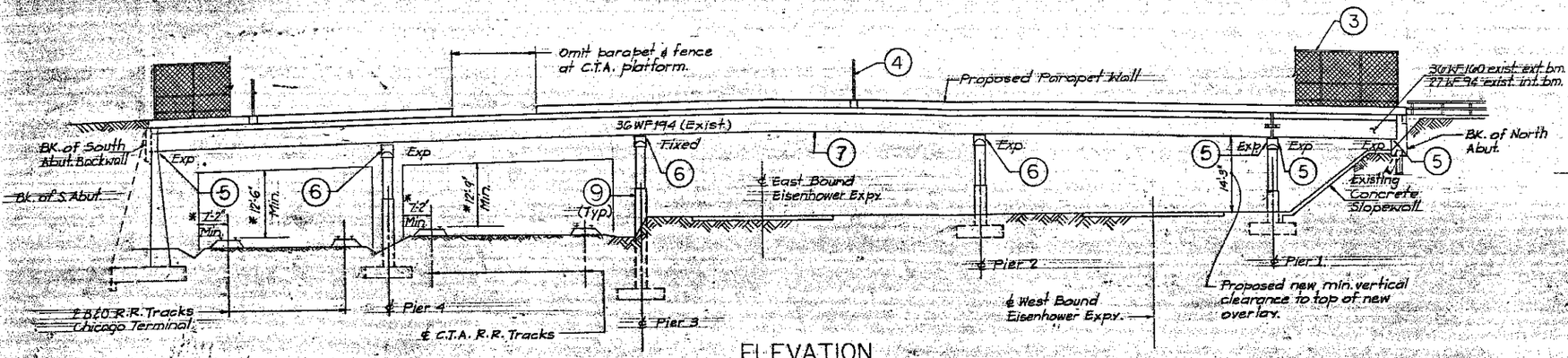
STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

REV. 6.27.86 RS

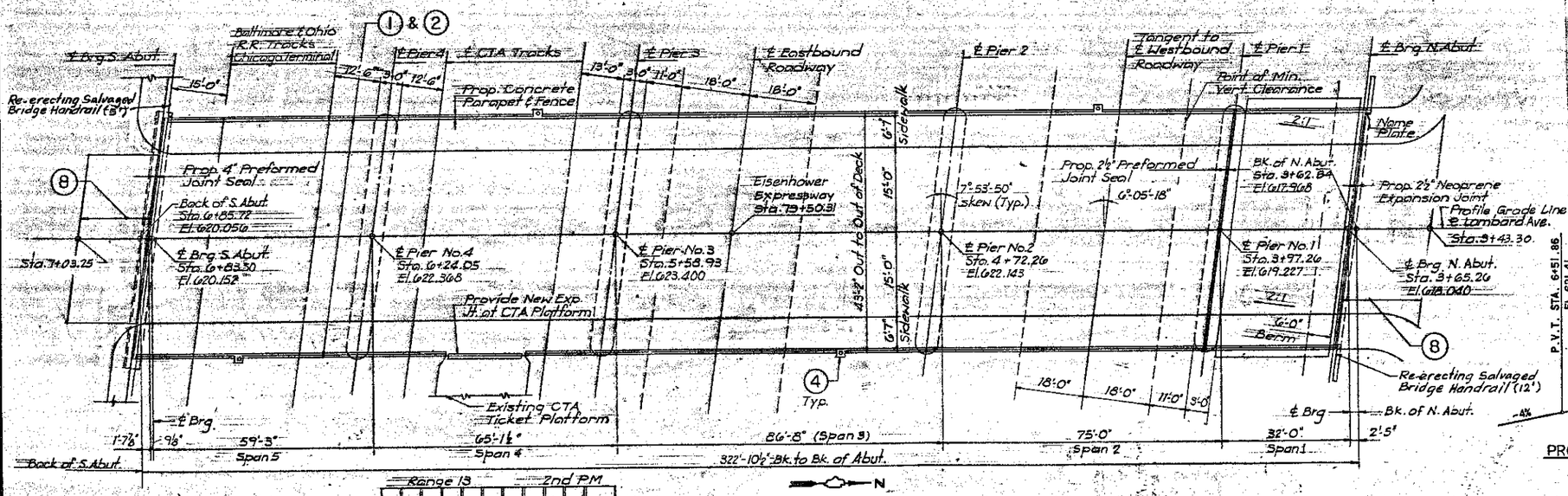
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 1-290	3131.2-206-VB-BR (80)	COOK	28	3
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT I-290-4		

SHEET NO. 1 OF 19 SHEETS

BENCH MARK
ELEVATION 618.31
FIRE HYDRANT FLANGE BOLT
WITH ARROW POINTING TO IT
AT ℄ LOMBARD AVE., & FLOURNOY
BETWEEN BLDGS # 920 & 924

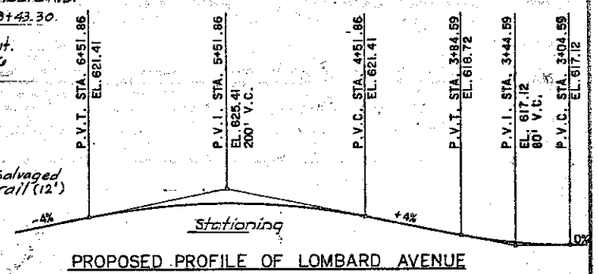


ELEVATION
(LOOKING WEST)

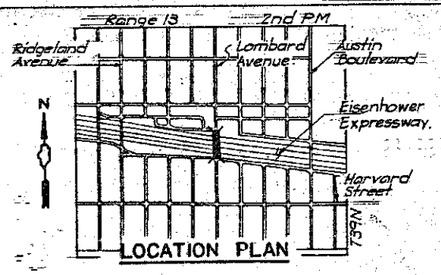


PLAN

Note: For Stage Construction Sequence, See Sheet #3 of 19



PROPOSED PROFILE OF LOMBARD AVENUE



LOCATION PLAN

CONSTRUCTION LEGEND (NOT SEQUENTIAL)

1. REMOVE EXISTING DECK, SIDEWALK, HANDRAIL AND PEDESTRIAN FENCE.
2. INSTALL NEW 7-1/2" DECK, SIDEWALK AND CONCRETE PARAPET.
3. INSTALL NEW 6'-0" HIGH CHAIN LINK FENCE ON TOP OF NEW PARAPET.
4. REMOVE AND REINSTALL EXISTING LIGHTPOLE ON TOP OF NEW PARAPET.
5. REMOVE AND REPLACE EXPANSION BEARINGS WITH ELASTOMERIC BEARINGS.
6. SANDBLAST AND PAINT ALL REMAINING BEARINGS PER METHOD II
7. CLEAN AND PAINT STEEL BEAMS & DIAPHRAGMS
8. REMOVE BITUMINOUS SURFACE AT THE APPROACHES AND REPLACE WITH TAPERED BITUMINOUS CLASS I
9. REPAIR PIERS AND ABUTMENTS AS REQUIRED.

NOTE: BRIDGE WILL BE CLOSED FOR THE DURATION OF THE REHABILITATION TO VEHICLE TRAFFIC AND STAGE CONSTRUCTION TO BE UTILIZED FOR PEDESTRIAN TRAFFIC.

DESIGN STRESS (EXIST. PORTION)

fc = 1200 PSI (CONCRETE)
fs = 20000 PSI (REINFORCEMENT)
fs = 18000 PSI (EXISTING STRUCTURAL STEEL)

DESIGN STRESSES (NEW PORTION)

f'c = 3500 PSI
fy = 60000 PSI (REINF.)
fy = 36000 PSI (STR. STEEL) (AASHTO M183)

LOADING HS 20-44
FUTURE WEARING SURFACE 25 PSF

DESIGN SPECIFICATIONS
AASHTO
1989

EXISTING STRUCTURE DATA

STRUCTURE NO:	016-2062
YEAR BUILT:	1957
DESCRIPTION:	FIVE SPAN WIDE FLANGE BEAM BRIDGE
WIDTH:	43'-2" OUT TO OUT OF DECK
LENGTH:	322'-10½" BACK TO BACK OF ABUTMENT

DESIGNED	EMM
CHECKED	AS
DRAWN	JN
CHECKED	AS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges and Structures

STATE OF ILLINOIS
JAMES M. NAKAWATASE
2493
REGISTERED STRUCTURAL ENGINEER

Nakawatase, Rutkowski, Wyns & Yi, Inc.
ENGINEERS + ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

GENERAL PLAN AND ELEVATION

LOMBARD AVE. BRIDGE
STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I-290
SECTION 3131.-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

REV. 6-27-90 R.S.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-290	3131-206-VB(BR)	COOK	28	4
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT IR-290-4		

SHEET NO. 2 OF 19 SHEETS

GENERAL NOTES

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS TO BE 7/8" DIAMETER. OPEN HOLES TO BE 15/16" DIAMETER UNLESS OTHERWISE NOTED.

THE CONTRACTOR MUST USE EXTREME CARE WHEN DOING CONCRETE REMOVAL AS NOT TO NICK, CUT, OR DAMAGE ANY OF THE STRUCTURAL STEEL.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND MAINTAIN ALL SERVICE FOR UTILITY LINES AT THE BRIDGE DURING ALL STAGES OF CONSTRUCTION.

EXISTING LIGHT POLES SHALL BE RELOCATED ON TOP OF NEW PARAPET. SEE SPECIAL PROVISIONS.

PLAN DIMENSIONS AND DETAILS RELATIVE TO 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 ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING 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.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM PIER 2, 3 AND 4 SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ALL EXISTING STRUCTURAL STEEL SHALL BE CLEANED BY METHOD A.

THE THREE COAT LEAD AND CHROMATE FREE ALKYD PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF EXISTING AND NEW STRUCTURAL STEEL. THE PAINT COLOR FOR THE EXTERIOR FACE OF THE FACIA BEAM ARE TO BE INTERSTATE GREEN AND THE REMAINDER OF THE STEEL IS TO BE LIGHT GREY.

ALL CONTACT SURFACES OF JOINTS FOR THE DIAPHRAGMS SHALL BE FREE OF PAINT OR LACQUER.

THE CONTRACTOR WILL BE REQUIRED TO MARK, ON TOP OF THE CONCRETE DECK, THE LOCATIONS OF THE TOP FLANGE OF ALL THE STEEL BEAMS, PRIOR TO ANY REMOVAL OF THE BRIDGE CONCRETE DECK. SAW CUTTING DIRECTLY OVER THE TOP OF THE BEAM FLANGES IS NOT PERMITTED.

CALCULATED WEIGHT OF STRUCTURAL STEEL = 12,710 lbs. (M183)

ALL TOP SURFACES OF ABUTMENTS SHALL RECEIVE BRIDGE SEAL SEALER. ESTIMATED QUANTITY = 342 SQ. FT.

REMOVAL OF EXISTING BRIDGE HANDRAIL AND PEDESTRIAN FENCE ARE INCIDENTAL TO REMOVAL OF EXISTING CONCRETE DECK.

EXISTING UNDERPASS LUMINAIRES WHICH ARE ATTACHED TO THE UNDERSIDE OF THE BRIDGES SHALL BE MAINTAINED OPERATIONAL THROUGHOUT THE DURATION OF THE CONTRACT AND SHALL BE PROTECTED FROM DAMAGE. FOR DETAILS, SEE SPECIAL PROVISIONS.

Two 8" adjusted shims, of the dimensions of the bottom Bearing Plates shall be provided for each Bearing in addition to all other plates or shims.

NOTE: SEE SPECIAL PROVISION "PROTECT AND MAINTAIN EXISTING UNDERPASS LUMINAIRE" FOR WORK AND ITEMS INCIDENTAL TO THIS PAY ITEM.

THE CONTRACTOR SHALL FURNISH AND INSTALL AN INSULATED GROUNDING CONDUCTOR- GREEN SOLID COLOR INSULATION IN CONDUITS AS FOLLOWS:

A) INSTALL 1-1/C NO. 6 AWG GROUNDING CONDUCTOR IN EXISTING 2" OR 2 1/2" DIA. CONDUITS, INCIDENTAL TO CLASS X CONCRETE SUPERSTRUCTURE.

B) INSTALL 1-1/C NO. 10 AWG GROUNDING CONDUCTOR IN EXISTING 1" DIA. CONDUITS, INCIDENTAL TO PROTECT AND MAINTAIN EXISTING UNDERPASS LUMINAIRE.

DESIGNED	WLW
CHECKED	WLW
DRAWN	KC
CHECKED	WLW

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB	SUPER	TOTAL
CLASS X CONCRETE	CU YD	.5		5
PROTECTIVE SHIELD	SQ YD		1675	1675*
REINFORCEMENT BAR (EPOXY COATED)	POUND	1080	101,314	102,494
PREFORMED JOINT SEAL (2 1/2")	LIN FT		45	45
PREFORMED JOINT SEAL (4")	LIN FT		45	45
NEOPRENE EXPANSION JOINT (2 1/2")	LIN FT		46	45
C.T.A. JOINT SEAL	LIN FT		14	14
PROTECTIVE COAT	SQ YD	2	1730	1732
REMOVAL OF EXISTING CONCRETE DECK	L SUM		1	1
RELOCATE EXISTING LIGHTING UNIT	EACH		4	4
CHAIN LINK FENCE, 6' (BRIDGE)	LIN FT		640	640
CONCRETE REMOVAL	CU YD	5		5
FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT		571	571
EPOXY CRACK SEALING	LIN FT	215		215
STRUCTURAL STEEL	POUND		12710	12710
ELASTOMERIC BEARING ASSEMBLY TYPE II	EACH		8	8
ELASTOMERIC BEARING ASSEMBLY TYPE III	EACH		24	24
NAME PLATES	EACH		1	1
JACKING AND REMOVING EXISTING BEARING	EACH		32	32
CLEANING AND PAINTING STEEL BRIDGE	L. SUM		1	1
REMOVE AND RE-ERECT BRIDGE MOUNTED SIGNS	EACH		1	1
SLOPE WALL REPAIR	SQ.YD.	20		20
Class X Concrete Superstructure	Cu.Yd.		519	519
BRIDGE SEAT SEALER	L SUM	1		1

* AT ABUTMENTS AND PIER #1

STATION 79+50.31
REHABILITATED 1990 BY
STATE OF ILLINOIS
F.A.I. RT. 290 SEC. 3131-206-VB-BR(80)
F.A. PROJ. ACIR-290-4(95)
LOADING HS20 & ALT.
STR. NO. 016 - 2062

NAME PLATE
STD. 2113

INDEX OF SHEETS

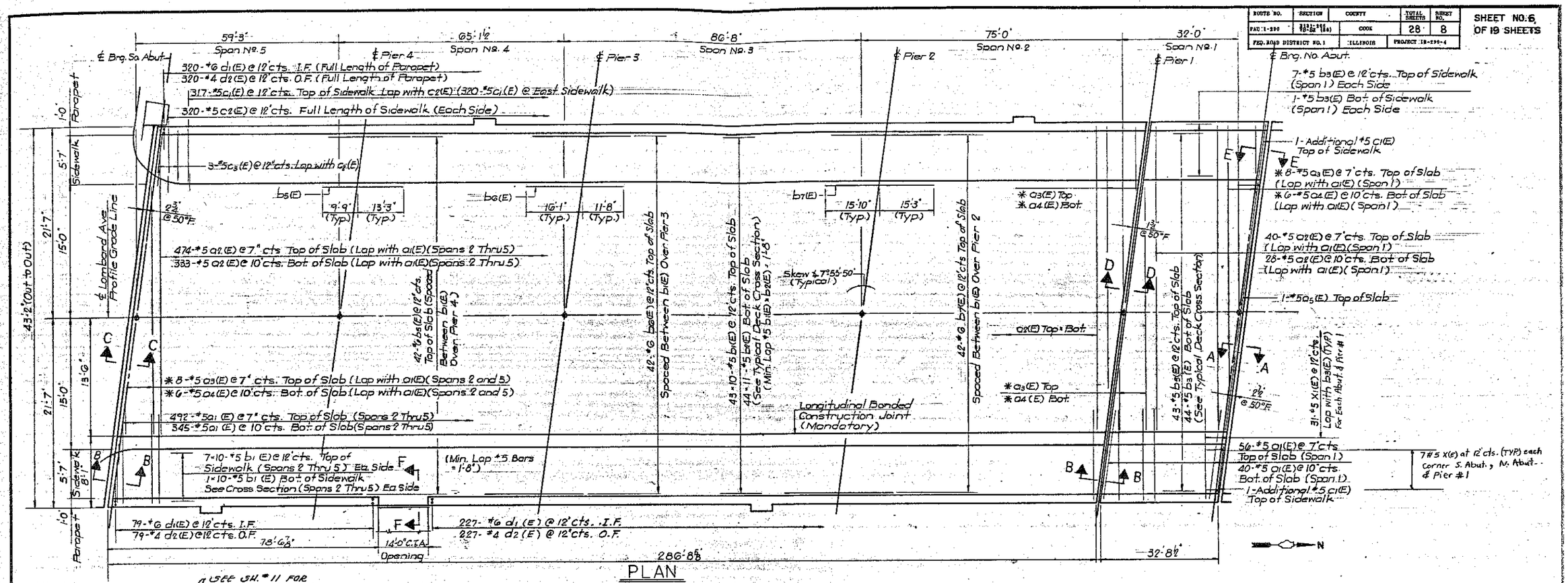
INDEX OF SHEETS,
GENERAL NOTES & BILL OF MATERIAL

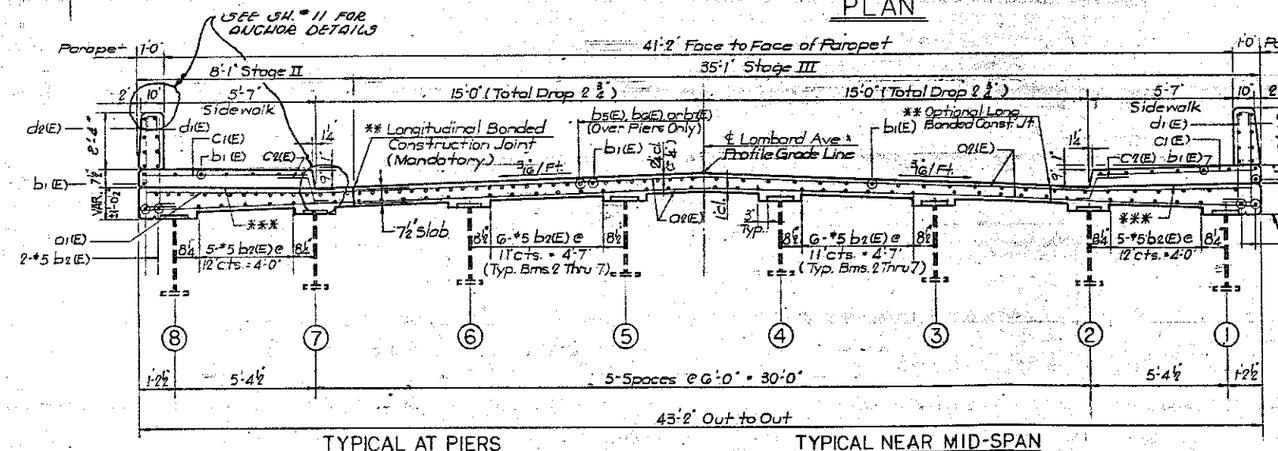
LOMBARD AVE. BRIDGE
STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

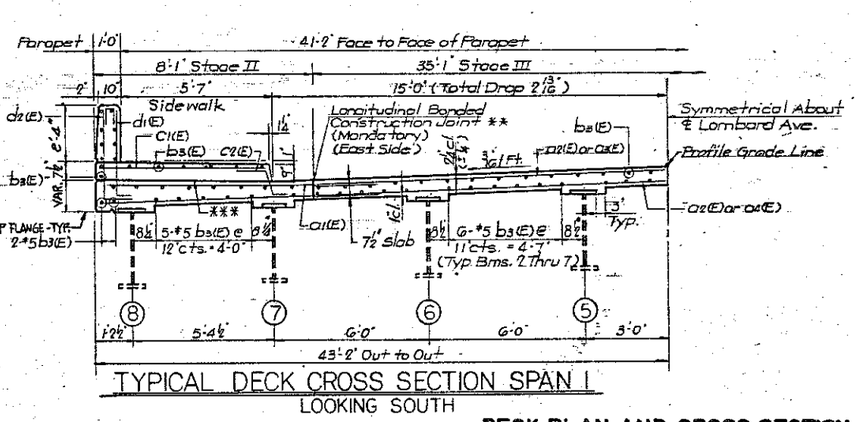
Nakawatase, Rutkowski, Wyns & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI Rt. 290	3131-206-VB-BR (80)	COOK	28	8
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT IR-290-4		

SHEET NO. 6 OF 19 SHEETS







Note:
For Bill of Material and Reinforcement Bar Detail See Sht No. 7 of 19.
For sections A-A, B-B, C-C, D-D, E-E & F-F see sht. no. 7 of 19.
* See Cutting Diagram sht. no. 7 of 19.
** Do not edge longitudinal joints.
*** Mandatory Bonded Construction Joint
BARS INDICATED THUS 20X3-#5 etc. INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

DESIGNED	GP
CHECKED	WW
DRAWN	KC
CHECKED	WW

Nakawatase, Rutkowski, Wyre & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

DECK PLAN AND CROSS SECTION

LOMBARD AVE. BRIDGE

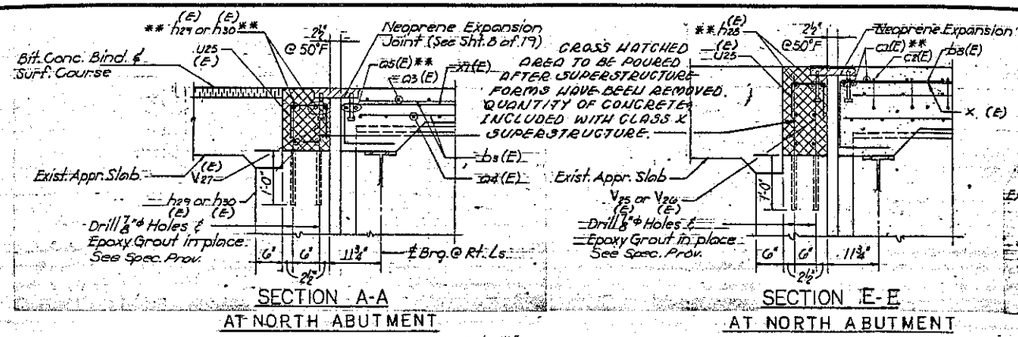
STRUCTURE, REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

REV. 6-27-90 R.S.

SHEET 8 OF 28

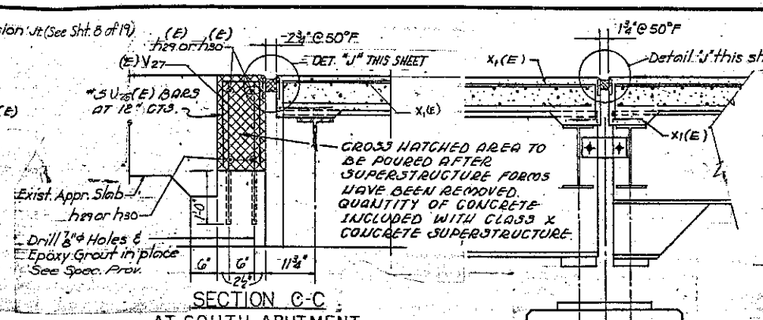
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1-290	3131-206-VB-BR (80)	COOK	28	9
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT: IR-290-4		

SHEET NO. 7 OF 19 SHEETS



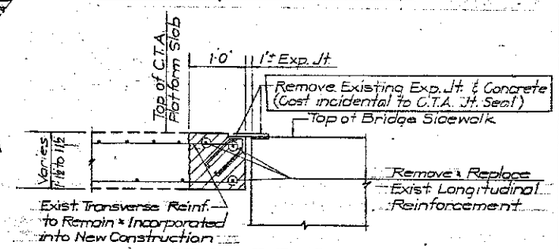
SECTION A-A
AT NORTH ABUTMENT

SECTION E-E
AT NORTH ABUTMENT

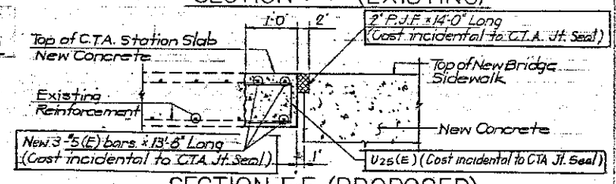


SECTION C-C
AT SOUTH ABUTMENT

SECTION D-D
AT PIER NO. 1

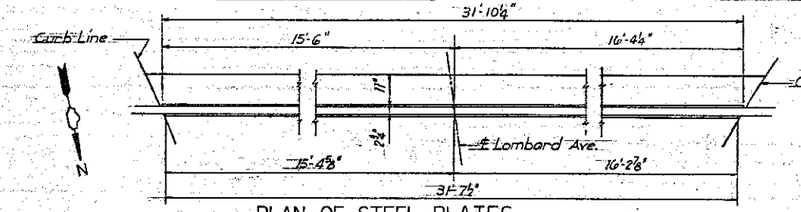


SECTION F-F (EXISTING)



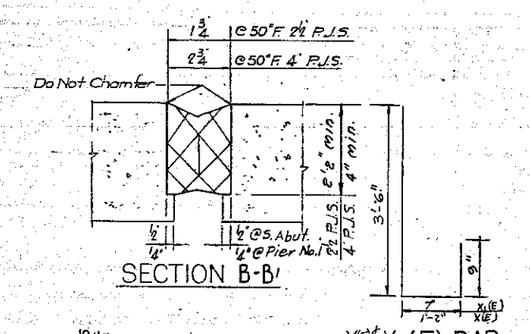
SECTION F-F (PROPOSED)

Note: For C.T.A. Joint Seal see Special Provisions.



PLAN OF STEEL PLATES
AT SOUTH ABUTMENT

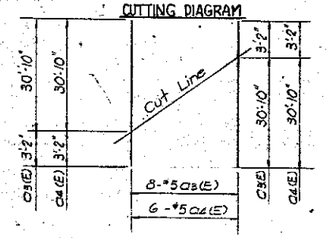
** Note (E) (E) (E)
Place h28, h29, h30, a6(E) and c1(E) bars in back of anchor bolt as shown if required to maintain 1" cl. (+0-⅛"). Anchor bolts should be tied to h28, h29, h30, a5(E) and c1(E) bars.



SECTION B-B'

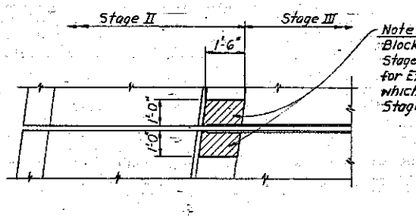
X(E) & X1(E) BAR

CUTTING DIAGRAM



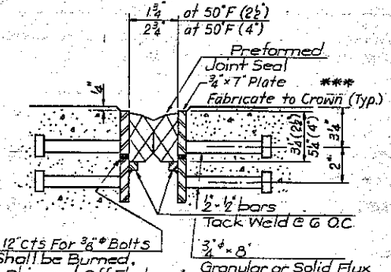
a3(E) & a4(E) BAR

* Deck Slab Bar: See Cutting Diagram this Sheet. Place Bars as Shown, Cut Along Line. Use Half of Bars at One End of Bridge and Use Remaining Half at Opposite End.



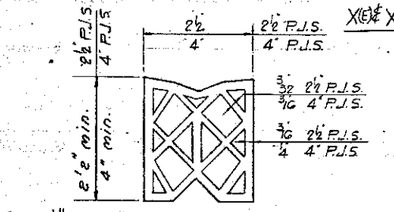
BLOCKING DIAGRAM OF EXP JT AT PIER #1
SOUTH ABUTMENT (SIMILAR)

Note: Blocked Out Concrete at Stage II pour to leave Space for Expansion Joint Plates which shall be placed in Stage III Concrete Pour.

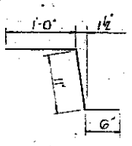


DETAIL "J"
PIER NO. 1 & SO. ABUTMENT

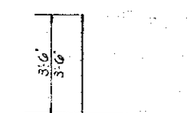
*** FURNISH IN SEGMENTS OF 20 FT. MAXIMUM LENGTH. MAXIMUM SPACE BETWEEN INSTALLED SEGMENTS SHALL BE 3/16". SEAL SPACE WITH SILICONE SEALANT SUITABLE FOR STRUCTURAL STEEL.



2½" OR 4" PREFORMED JT. SEAL



C2(E) BAR



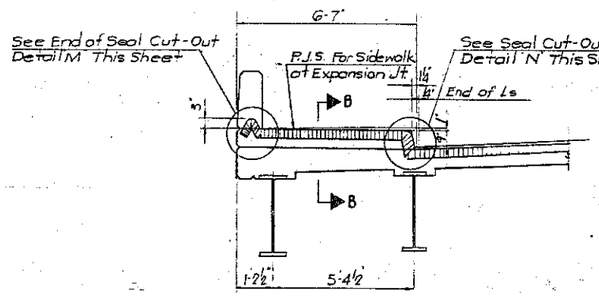
d1(E) & d2(E) BAR

BILL OF MATERIAL

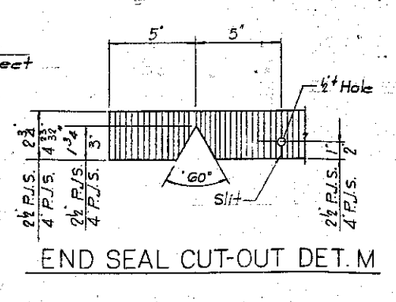
	Bar	No.	Size	Length	Shape
	a1(E)	933	#5	10'-6"	
	a2(E)	875	#5	32'-9"	
*	a3(E)	16	#5	34'-0"	
*	a4(E)	12	#5	34'-0"	
*	a5(E)	1	#5	28'-6"	
	b1(E)	590	#5	30'-2"	
	b2(E)	484	#5	27'-7"	
	b3(E)	103	#5	32'-3"	
	b5(E)	42	#6	23'-0"	
	b6(E)	42	#6	27'-9"	
	b7(E)	42	#6	31'-1"	
	X(E)	56	#5	5'-5"	
	c1(E)	639	#5	6'-2"	
	c2(E)	640	#5	2'-5"	
	c3(E)	3	#5	5'-3"	
	d1(E)	626	#6	5'-0"	
	d2(E)	626	#4	4'-6"	
	X1(E)	124	#5	4'-10"	

ITEM	UNIT	TOTAL
Class X Concrete Superstr.	Cu. Yd.	469.2
Protective Shield	Sq. Yd	1674.9
Reinforcement Bar (Epoxy Coated)	Pound	97,330
Preformed Joint Seal (2½")	Lin. Ft.	45
Preformed Joint Seal (4")	Lin. Ft.	45
Neoprene Expansion Jt. (2½")	Lin. Ft.	45
C.T.A. Joint Seal	Lin. Ft.	14
Removal of Existing Concrete Deck	L.Sum	1
Relocation of Existing Lighting Unit	Each	4

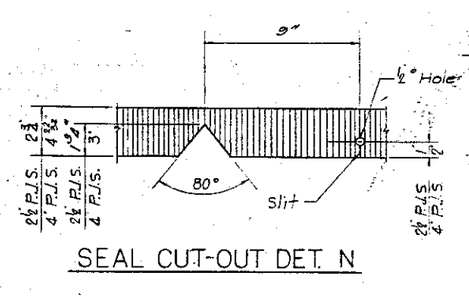
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED. BARS INDICATED THUS 20 x 3 - #5 etc. INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.



SECTION THRU SIDEWALK
SO. ABUTMENT & PIER 1



END SEAL CUT-OUT DET. M



SEAL CUT-OUT DET. N

DESIGNED	GP
CHECKED	WW
DRAWN	KC
CHECKED	W.W

Nakawatase, Rutkowski, Wyns & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

DECK & EXPANSION JOINT DETAILS

LOMBARD AVE. BRIDGE
STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

REV. 6-27-90 R.S.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1-290	3131-206-VB-BR (80)	COOK	28	10
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT ER-290-4		

SHEET NO. 8 OF 19 SHEETS

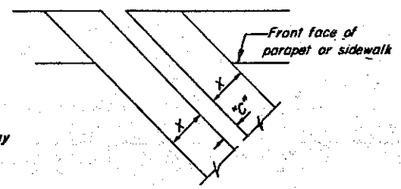
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Joint Size	"C" at 50°F	"D" at 50°F
2½	2½"	1¾" min.

INSTALLATION NOTES

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.

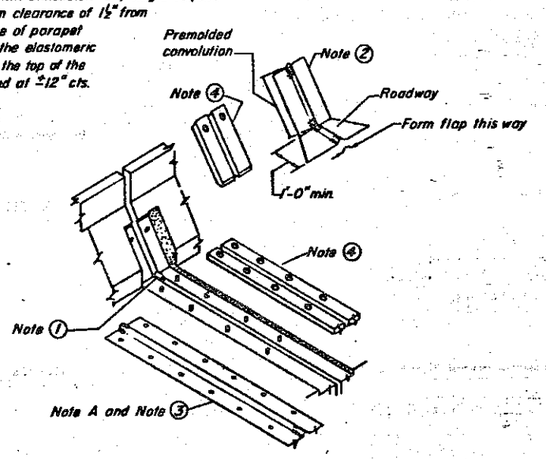


FORMING BLOCKOUT SKETCH

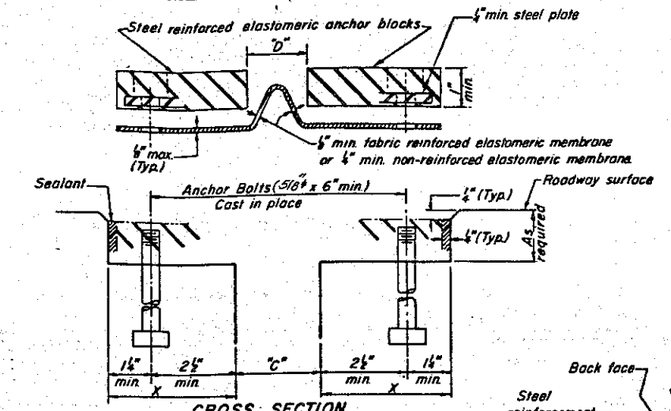
SKEW LIMITATIONS

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

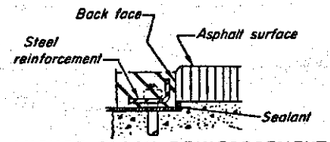
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



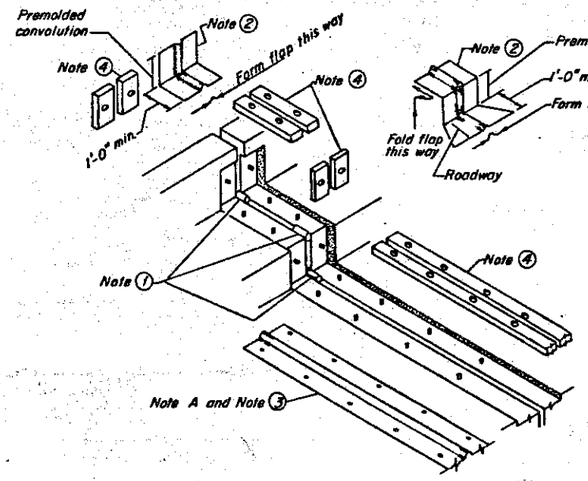
AT PARAPET



CROSS SECTION

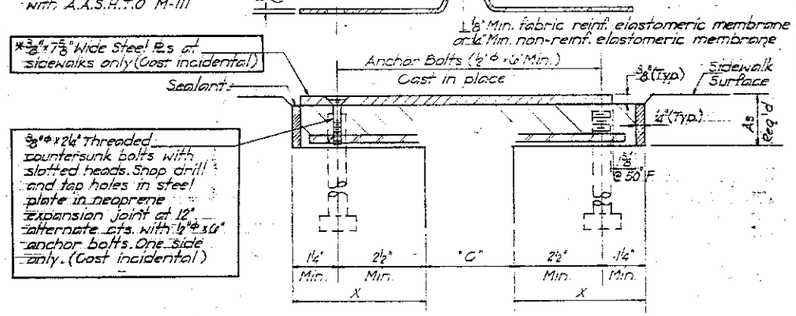


ANCHOR BLOCK REINFORCEMENT with ASPHALT SURFACE

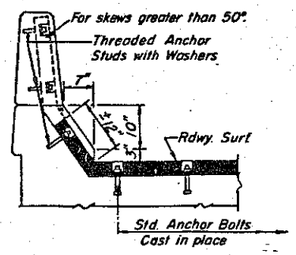


AT SIDEWALK or MEDIAN

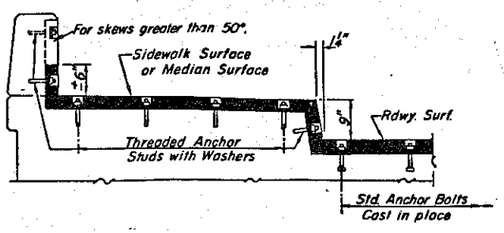
*Galvanize in accordance with A.A.S.H.T.O M-111



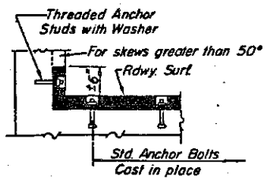
CROSS SECTION AT SIDEWALK



AT PARAPET



AT SIDEWALK or MEDIAN



AT WALL

TYPICAL END TREATMENTS

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 Special Provisions.

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.

DESIGNED	GP
CHECKED	WW
DRAWN	KC
CHECKED	WW

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS

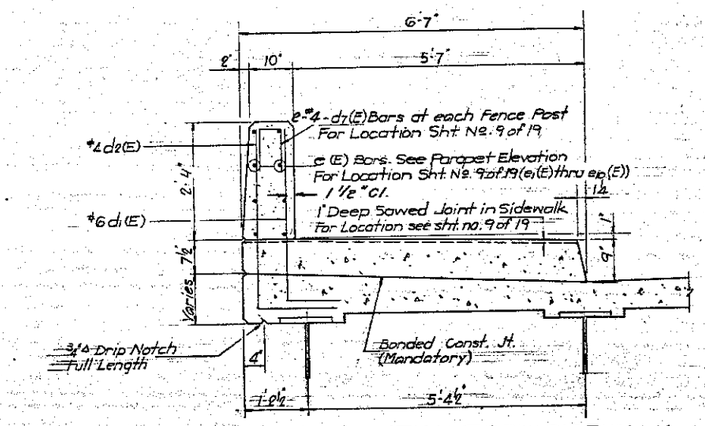
LOMBARD AVE. BRIDGE

STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

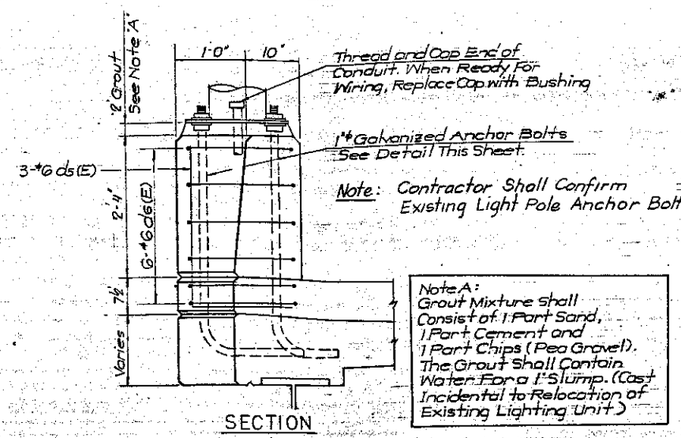
Nakawatase, Rutkowski, Wyns & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1-290	88-82-2(0)	COOK	28	12
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT IR-290-4		

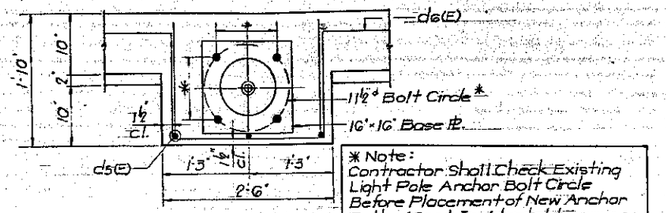
SHEET NO. 10 OF 19 SHEETS



TYPICAL SECTION THRU SIDEWALK



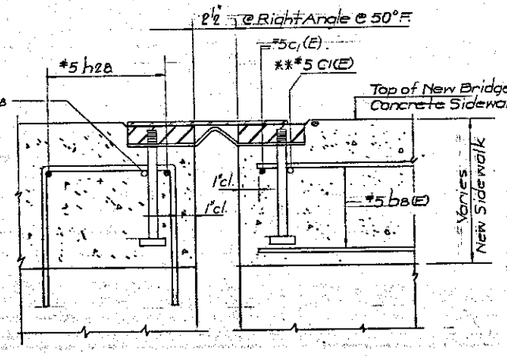
SECTION



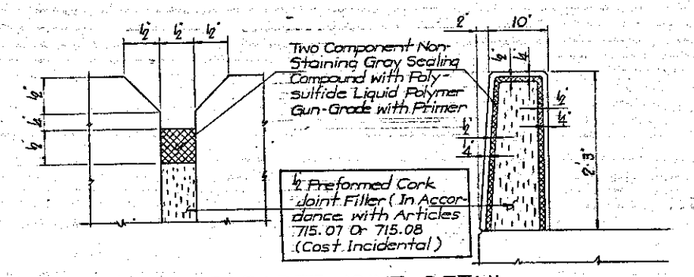
PLAN

LIGHT POLE SUPPORT DETAILS

(See Sheet No. 28 for Electrical Details)

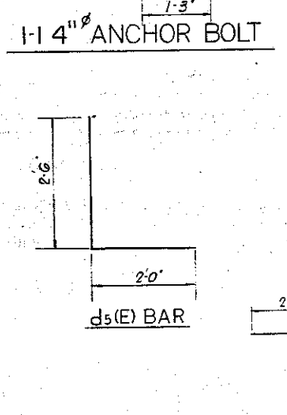


DETAIL "E"



PARAPET JOINT DETAIL

NOTE: ALL EDGES SHALL HAVE 3/4" CHAMFER.



1-1 4" ϕ ANCHOR BOLT

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
c1(E)	48	#4	16'-3"	
c2(E)	32	#4	8'-10"	
c3(E)	32	#4	14'-7"	
c4(E)	32	#4	10'-8"	
c5(E)	64	#4	15'-5"	
c6(E)	32	#4	12'-0"	
c7(E)	64	#4	15'-3"	
c8(E)	32	#4	16'-0"	
c9(E)	8	#4	5'-2"	
c10(E)	8	#4	6'-2"	
d5(E)	12	#6	4'-6	
d6(E)	24	#6	8'-11"	
d7(E)	24	#4	2'-0"	

ITEM	UNIT	TOTAL
Class X Concrete Superstructure	Cu Yd	48.9
Reinforcement Bar (Epoxy Coated)	Pound	3930
Chain Link Fence, 6' (Bridge)	Lin Ft	620

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

BARS INDICATED THUS 20-#3-#5 etc. INDICATES 20 LINES OF BARS WITH 3 LENGTHS PER LINE.

PARAPET DETAILS

LOMBARD AVE. BRIDGE

STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

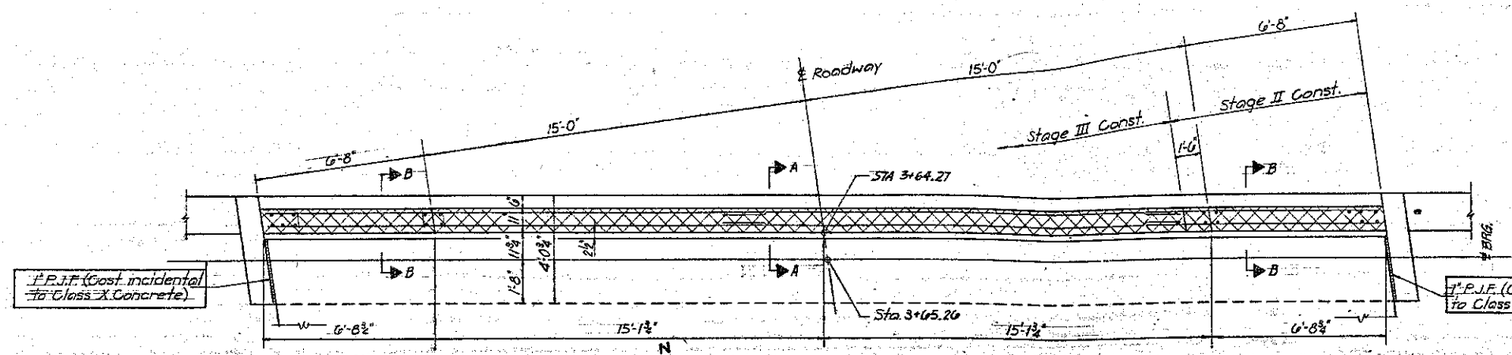
DESIGNED	GP
CHECKED	WW
DRAWN	KC
CHECKED	WW

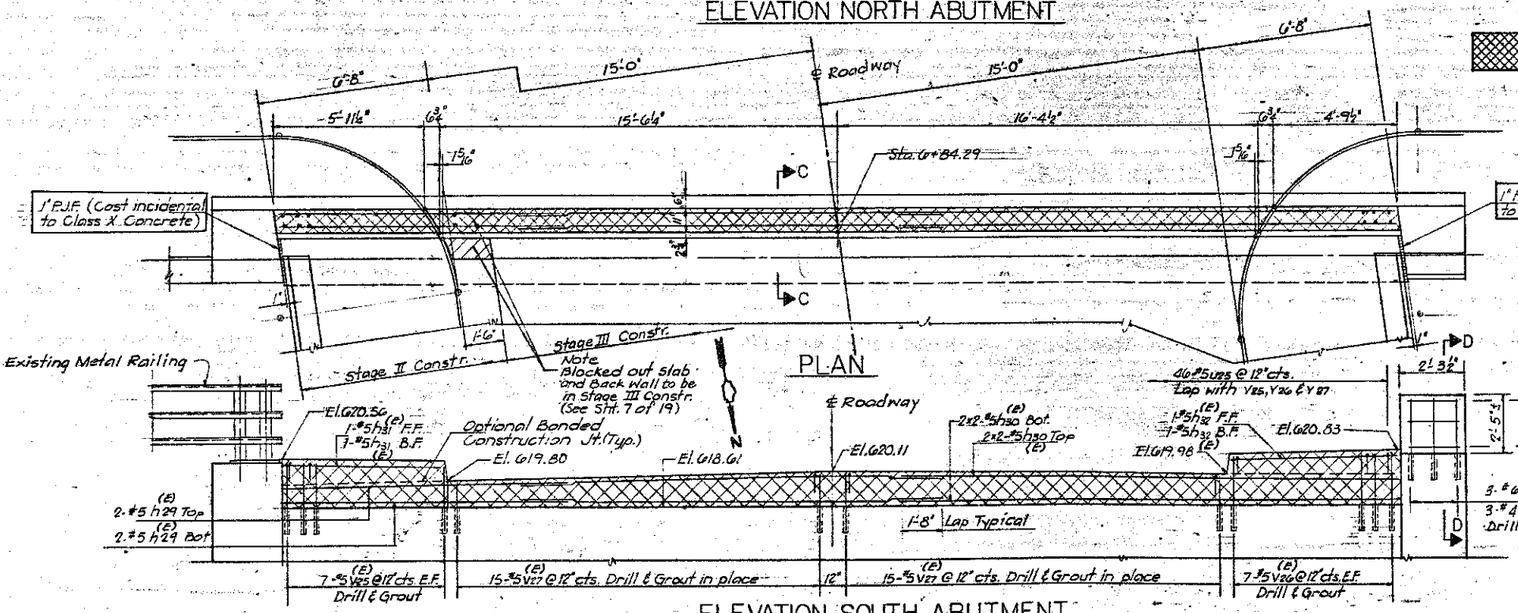
Nakewstase, Rutkowski, Wyne & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

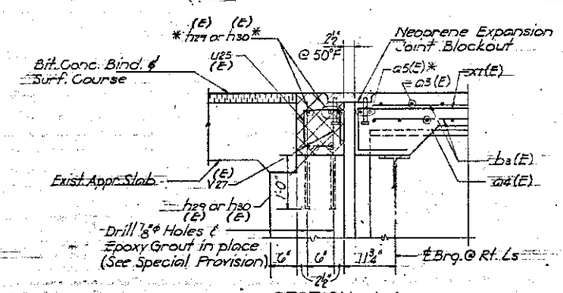
REV. 6-21-90 R3.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 1-290	3131-206-VB(80)	COOK	28	18
FED. ROAD DISTRICT NO. 1	ILLINOIS	PROJECT IR-290-4		

SHEET NO. 18 OF 19 SHEETS



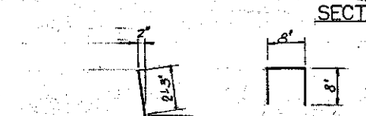




* Note
See ** note on sheets 7 & 10 of 19.

BAR LIST

BAR	NUMBER S. ABUT.	NUMBER N. ABUT.	SIZE	LENGTH	SHAPE
d25(E)	8	–	#6	3'-3"	L
d26(E)	8	–	#4	3'-3"	⌐
h28(E)	–	4	#5	6'-3"	—
h29(E)	4	4	#5	9'-8"	—
h30(E)	8	8	#5	18'-6"	—
h31(E)	2	–	#5	5'-8"	—
h32(E)	2	–	#5	4'-6"	—
V25(E)	14	14	#5	2'-8"	—
V26(E)	14	14	#5	2'-10"	—
V27(E)	60	60	#5	2'-0"	—
e25(E)	6	6	#4	2'-0"	—
U25(E)	46	46	#5	2'-0"	⊓



NOTES:

CROSS HATCHED AREA TO BE POURED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED. FORM TOP SURFACE TO MATCH SUPERSTRUCTURE. CONCRETE QUANTITY IS BILLED WITH "CLASS X CONCRETE SUPERSTRUCTURE", SEE SHEET # 7 OF 19.

EXISTING REINFORCEMENT EXTENDING INTO NEW CONSTRUCTION SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO NEW CONSTRUCTION. COST INCIDENTAL TO " CONCRETE REMOVAL".

EXISTING REINFORCEMENT NOT EXTENDING INTO NEW CONSTRUCTION SHALL BE CUT OFF AND COVERED WITH A 2" LAYER OF CEMENT GROUT. COST INCIDENTAL TO " CONCRETE REMOVAL".

BILL OF MATERIAL

ITEM	UNIT	TOTAL
REINFORCEMENT BARS (EPOXY COATED)	POUND	1080

DESIGNED	GP
CHECKED	WW
DRAWN	JN
CHECKED	WW

Nakawatase, Rutkowski, Wyss & Yi, Inc.
ENGINEERS • ARCHITECTS
205 WEST WACKER DRIVE
CHICAGO, ILLINOIS 60606

LOMBARD AVE. BRIDGE

STRUCTURE REHABILITATION
EISENHOWER EXPRESSWAY I 290
SECTION 3131-206-VB-BR (80)
COOK COUNTY
STATION 79+50.31

NORTH & SOUTH ABUTMENT

REV. 6-27-90 R.S.