[redacted] Run for 6/27/86 Letting

5/14/86

PLANS FOR PROPOSED FEDERAL-AID BRIDGE REPLACEMENT & REHABILITATION PROGRAM

SCALES
PLAN 1 INCH = 50 FEET
PROFILE (HOR.) 1 INCH = 50 FEET
PROFILE (VERT.) 1 INCH = 5 FEET
CROSS SECTIONS 1 INCH = 5 FEET

SECTION 83-00297-00-BR
CITY OF ROCKFORD
ILLINOIS PROJECT BR-M-5099(24)

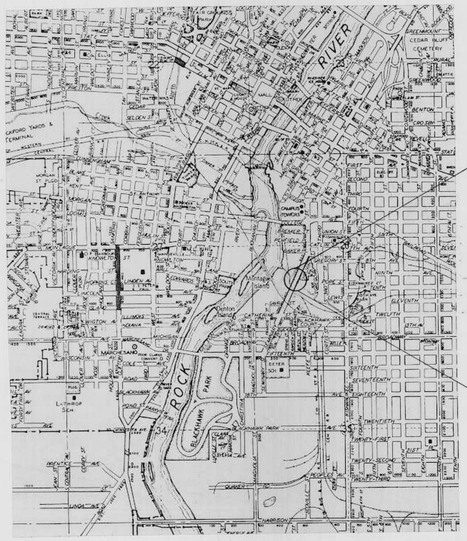
JOB NO. C-92-062-83
FAU ROUTE 5112 SEMINARY STREET

INDEX OF SHEETS

STANDARDS

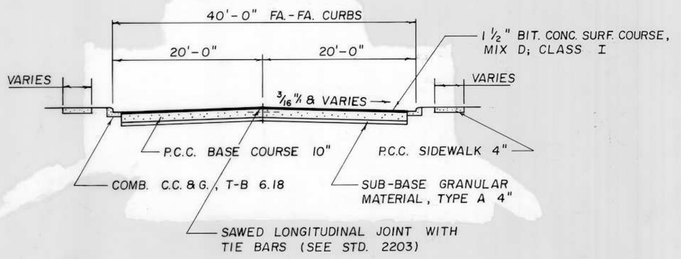
2113-2	NAME PLATE
2130-9	COMBINATION CONCRETE CURB AND GUTTER
2203-12	PORTLAND CEMENT CONCRETE BASE COURSE WITH BITUMINOUS SURFACE
2298-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2299-10	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2300-3	FLAGGER TRAFFIC CONTROL SIGN
2360-2	BRIDGE APPROACH PAVEMENT
U-1	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

CONTRACT No. 41428



LOCATION MAP

NET LENGTH = 270 FEET = 0.051 MILE



DESIGN CLASS TS-3
20 YEAR DHV = 655

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
209002	POROUS GRANULAR EMBANKMENT	CU YD	484
210001	TRENCH BACKFILL	CU YD	26
213003	SUB-BASE---GRANULAR MATERIAL, TYPE A 4"	SQ YD	812
304005	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	568
406013	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D; CLASS I	TON	89
501001	REMOVAL OF EXISTING STRUCTURES	EACH	1
504003	CLASS X CONCRETE	CU YD	70.1
505004	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	2739
505014	PRECAST CONCRETE PLANK (7")	SQ FT	3075
507004	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2777
510003	HARDWARE	POUND	1602
512001	REINFORCEMENT BARS	POUND	24900
512002	REINFORCEMENT BARS (EPOXY COATED)	POUND	2890
513015	FURNISHING STEEL PILES HP10X57	LIN FT	741
513016	FURNISHING STEEL PILES HP12X53	LIN FT	612
513027	DRIVING STEEL PILES	LIN FT	1284
513036	TEST PILE STEEL HP12X53	EACH	2
514001	NAME PLATES	EACH	1
603034	STORM SEWERS, TYPE 2 12"	LIN FT	80
603036	STORM SEWERS, TYPE 2 15"	LIN FT	30
603040	STORM SEWERS, TYPE 2 21"	LIN FT	24
604004	STORM SEWER REMOVAL 10"	LIN FT	80
604007	STORM SEWER REMOVAL 15"	LIN FT	28
604011	STORM SEWER REMOVAL 21"	LIN FT	10
612425	INLETS, SPECIAL, NO. 1	EACH	4
616044	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	LIN FT	396
617001	PAVEMENT REMOVAL	SQ YD	724
617002	DRIVEWAY PAVEMENT REMOVAL	SQ YD	89
617006	SIDEWALK REMOVAL	SQ FT	1267
623001	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 5 INCH	SQ YD	89
624001	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	2141
642001	SEEDING, CLASS I	ACRE	0.05
647001	PAVEMENT MARKING TAPE	LIN FT	27
X40811	BRIDGE APPROACH PAVEMENT (STANDARD 2360 MODIFIED)	SQ YD	244
X50813	STEEL RAILING, TYPE T-1 (SPECIAL)	LIN FT	110.75
Z10317	PORTLAND CEMENT MORTAR FAIRING COURSE	LIN FT	527
Z10530	WATERPROOFING MEMBRANE SYSTEM	SQ YD	234
Z10527	TRAINEE NON-PARTICIPATING	HOUR	1,000
XX2159	SWIVEL INSERTS & NUTS	EACH	8

CONSTRUCTION TYPE CODE X080

THE ACCEPTANCE OF THIS PROJECT IS BASED ON THE MINIMUM DESIGN CRITERIA FOR A FEDERAL-AID BRIDGE REPLACEMENT & REHABILITATION PROGRAM.
ACCEPTED FEB 21, 1986
Illinois E. Thom
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

307-828

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SUBMITTED Feb. 19, 1986
Brad T. Mowry, City Engineer
LOCAL AGENCY REPRESENTATIVE
PASSED FEB 21, 1986
Illinois E. Thom
DISTRICT ENGINEER OF LOCAL ROADS & STREETS
APPROVED February 21, 1986
William D. Dot
DISTRICT ENGINEER

PLANS PREPARED BY:
Harold P. Wendler & Associates
DIXON, ILLINOIS
ROCKFORD, ILLINOIS
PRINCETON, ILLINOIS

RICHARD A. BAUMANN 062-035617 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
Richard A. Baumann
Feb 19, 1986

50-42

B.M.#1 CHISELED "□" IN N.W. CORNER OF R.R. CROSSING LIGHT FOOTING STA. 18+70 21' LT. ELEV. 100.00

B.M.#2 CHISELED "□" IN S.W. CORNER OF FLAGPOLE BASE STA. 21+80 75' RT. ELEV. 99.06

PAVEMENT REMOVAL

LOCATION	SQ.YD.
STA. 19+25 – 20+00	346
STA. 20+93 – 21+75	378
TOTAL	724 SQ.YD.

SIDEWALK REMOVAL

LOCATION	SQ.FT.
RT. STA. 19+44 – 20+00	825
LT. STA. 19+70 – 20+00	319
RT. STA. 20+93 – 21+05	63
LT. STA. 20+93 – 21+08	60
TOTAL	1267 SQ.FT.

DRIVEWAY PAVEMENT REMOVAL

LOCATION	SQ.YD.
LT. STA. 19+15 – 19+70	40
RT. STA. 21+12 – 21+78	49
TOTAL	89 SQ.YD.

PORTLAND CEMENT CONCRETE BASE COURSE 10"

LOCATION	SQ.YD.
STA. 19+25 – 19+93	280
STA. 21+05 – 21+75	288
TOTAL	568 SQ.YD.

BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CL. I

LOCATION	TON
STA. 19+25 – 20+27.67	36
STA. 20+80.33 – 21+75	33
BRIDGE	20
TOTAL	89 TON

BRIDGE APPROACH PAVEMENT (STD. 2360 MODIFIED)

LOCATION	SQ.YD.
STA. 19+93 – 20+27.67	143
STA. 20+80.33 – 21+05	101
TOTAL	244 SQ.YD.

REINFORCEMENT BARS (STD. 2360 MODIFIED)

LOCATION	LBS.
STA. 19+93 – 20+27.67	12340
STA. 20+80.33 – 21+05	8640
TOTAL	20980 LBS.

STORM SEWER REMOVAL 10"

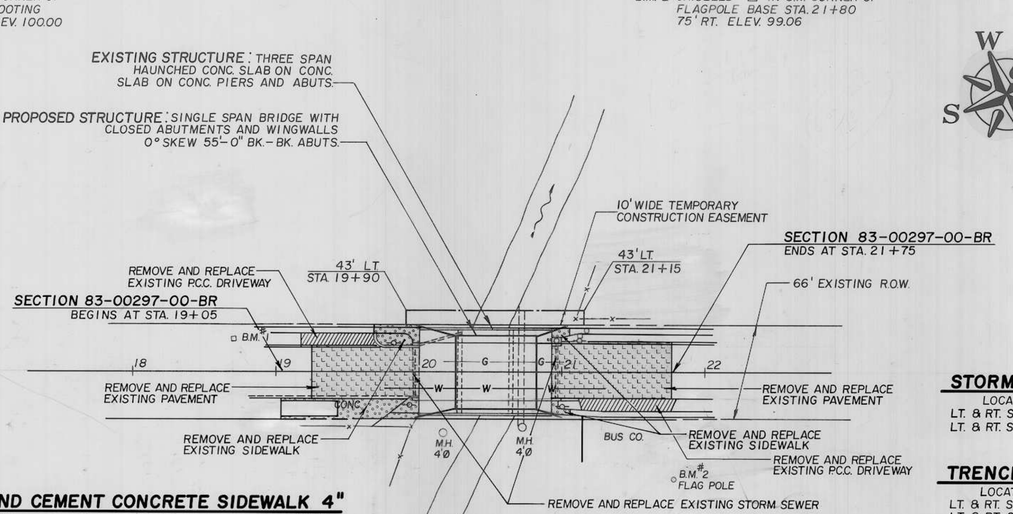
LOCATION	LIN.FT.
LT. & RT. STA. 19+97	40
LT. & RT. STA. 20+93	40
TOTAL	80 LIN.FT.

STORM SEWER REMOVAL 15"

LOCATION	LIN.FT.
LT. STA. 20+00 – 20+28	28
TOTAL	28 LIN.FT.

STORM SEWER REMOVAL 21"

LOCATION	LIN.FT.
LT. STA. 20+90 – 21+00	10
TOTAL	10 LIN.FT.



PORTLAND CEMENT CONCRETE SIDEWALK 4"

LOCATION	SQ.FT.
LT. STA. 19+70 – 20+27.67	508
RT. STA. 19+05 – 20+27.67	1394
LT. STA. 20+80.33 – 21+08	126
RT. STA. 20+80.33 – 21+05	113
TOTAL	2141 SQ.FT.

COMBINATION CONCRETE CURB & GUTTER TYPE B6-18

LOCATION	LIN.FT.
LT. STA. 19+25 – 20+27.67	103
RT. STA. 19+25 – 20+27.67	103
LT. STA. 20+80.33 – 21+75	95
RT. STA. 20+80.33 – 21+75	95
TOTAL	396 LIN.FT.

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT

LOCATION	SQ.YD.
LT. STA. 19+15 – 19+70	40
RT. STA. 21+12 – 21+78	49
TOTAL	89 SQ.YD.

SUB BASE GRANULAR MATERIAL TYPE A 4"

LOCATION	SQ.YD.
STA. 19+25 – 20+27.67	423
STA. 20+80.33 – 21+75	389
TOTAL	812 SQ.YD.

STEEL RAILING, TYPE T-1 (SPECIAL)

LOCATION	LIN.FT.
LT. STA. 19+94.75 – 20+27	32.25
RT. STA. 19+94.75 – 20+27	32.25
LT. STA. 20+81 – 21+07	26.00
RT. STA. 20+81 – 21+01.25	20.25
TOTAL	110.75 LIN.FT.

INLET SPECIAL NO. 1

LOCATION	EACH
LT. STA. 19+97	1
RT. STA. 19+97	1
LT. STA. 20+97	1
RT. STA. 20+97	1
TOTAL	4 EACH

POROUS GRANULAR EMBANKMENT

LOCATION	CU.YD.
STA. 20+00 – 20+28	351
STA. 20+80 – 20+93	133
TOTAL	484 CU.YD.

STORM SEWERS TYPE 2-12"

LOCATION	LIN.FT.
LT. & RT. STA. 19+97	40
LT. & RT. STA. 20+97	40
TOTAL	80 LIN.FT.

TRENCH BACKFILL

LOCATION	CU.YD.
LT. & RT. STA. 19+97	13
LT. & RT. STA. 20+97	13
TOTAL	26 CU.YD.

STORM SEWERS TYPE 2-15"

LOCATION	LIN.FT.
LT. STA. 19+99 – 20+29	30
TOTAL	30 LIN.FT.

STORM SEWERS TYPE 2-21"

LOCATION	LIN.FT.
LT. STA. 20+78 – 21+02	24
TOTAL	24 LIN.FT.

UTILITIES

ELECTRIC: COMMONWEALTH EDISON COMPANY, ROCKFORD, ILLINOIS, (815) 229-0660

TELEPHONE: ILLINOIS BELL TELEPHONE COMPANY, ROCKFORD, ILLINOIS, (800) 572-9424

GAS: NORTHERN ILLINOIS GAS, AURORA, ILLINOIS, (312) 355-8000

WATER: ROCKFORD WATER DEPARTMENT, ROCKFORD, ILLINOIS, (815) 987-5629

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

PLAN: SURVEYED, PLOTTED, PLANS CHECKED, ALIGNMENT CHECKED, R.P. & M.'S NOTED, STRUCTURE NOTAT'NS CHK'D, NOTE BOOK, NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, PLANS CHECKED, R.P. & M.'S NOTED, STRUCTURE NOTAT'NS CHK'D, NOTE BOOK, NO., BY, DATE

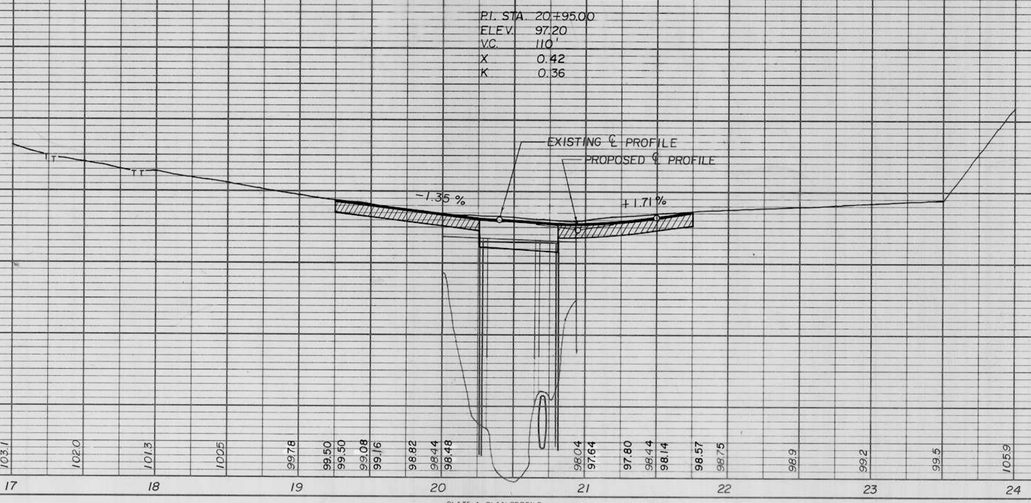


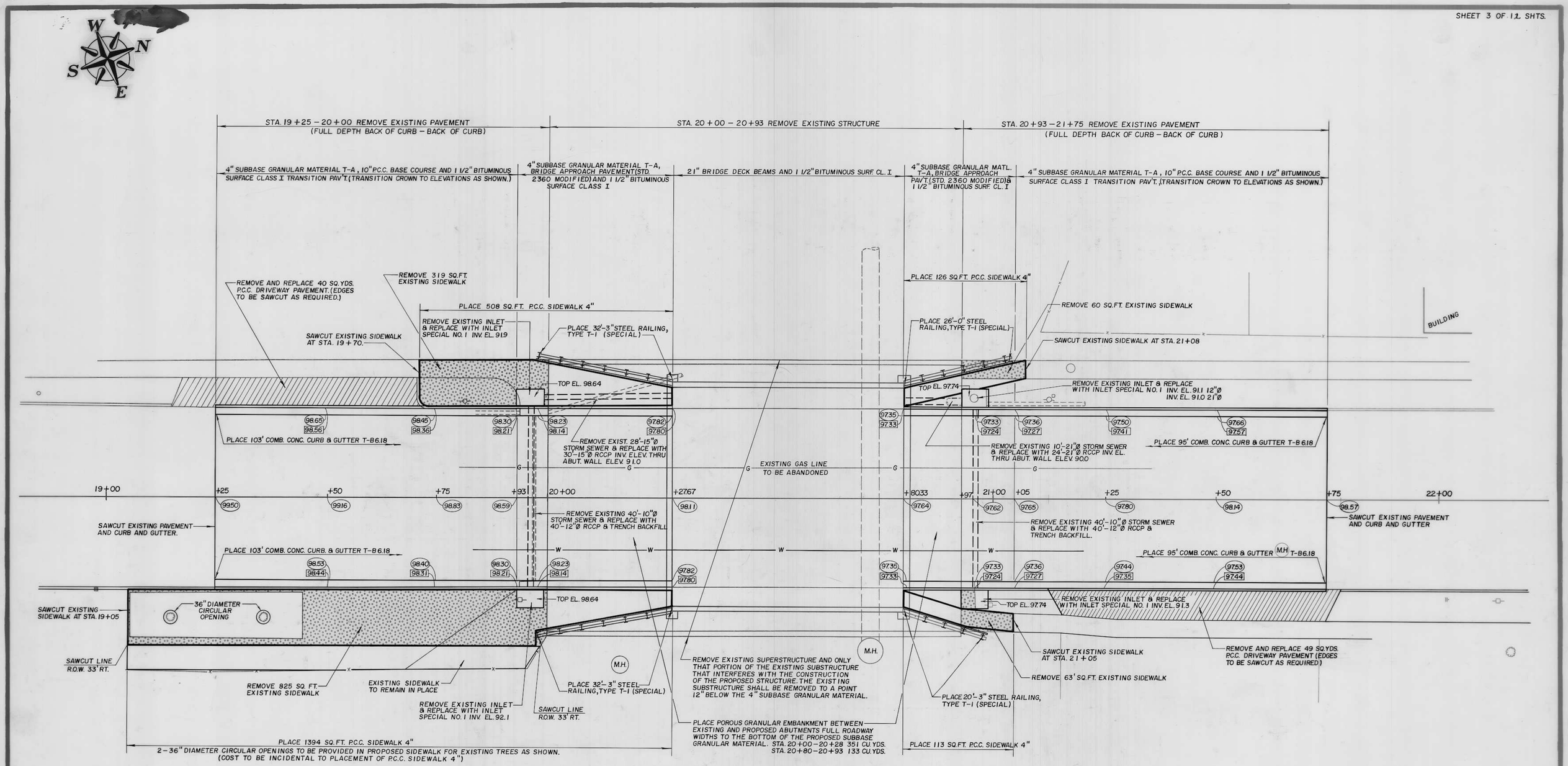
PLATE 1 PLAN-PROFILE O. P. R. & R. E. STANDARD

EUGENE DIETZGEN CO.

307-829

SECTION 83-00297-00-BR
CITY OF ROCKFORD
SEMINARY STREET

50-41



LEGEND

- DRIVEWAY PAV'T. TO BE REMOVED
- SIDEWALK TO BE REMOVED
- (9724) PROPOSED BITUMINOUS SURF ELEV.
- 9724 PROPOSED FLOW LINE ELEV.

NOTES

BLEND TOP OF CURB FROM 9" HEIGHT AT END OF DECK TO STANDARD 6" HEIGHT AT INLETS.

BLEND SIDEWALKS FROM END OF BRIDGE TO EXISTING SIDEWALK AND SLOPE TO DRAIN AS DIRECTED BY THE ENGINEER IN THE FIELD.

PCC BASE COURSE 10" SHALL BE CONSTRUCTED WITH NORMAL CROWN SLOPE (3/16" PER FOOT) FROM STATION 19+93 TO STATION 20+27.67 AND FROM STATION 20+80.33 TO STATION 21+05.

PCC BASE COURSE 10" BETWEEN STATION 19+25 - STATION 19+93 AND STATION 21+05 - STATION 21+75 SHALL BE CONSTRUCTED WITH CROWN SLOPE TRANSITIONED FROM EXISTING ROADWAY CROWN TO PROPOSED NORMAL CROWN IN THE LENGTH SPECIFIED AND AS SHOWN BY THE GIVEN ELEVATIONS.

PAINT PAVEMENT MARKING TO BE DONE BY OTHERS AFTER CONSTRUCTION IS COMPLETE.

SAWCUTS WILL BE INCIDENTAL TO THE CONTRACT.

TELEPHONE CONDUIT LINE TO BE RELOCATED ON WEST SIDE OF PROPOSED STRUCTURE AS DETAILED ON BRIDGE SHEETS 1,2,3,&4.

THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF THE WATERMAIN PRIOR TO STRUCTURE REMOVAL OR PILE DRIVING. THE WATERMAIN IS NOT TO BE DISTURBED DURING CONSTRUCTION.

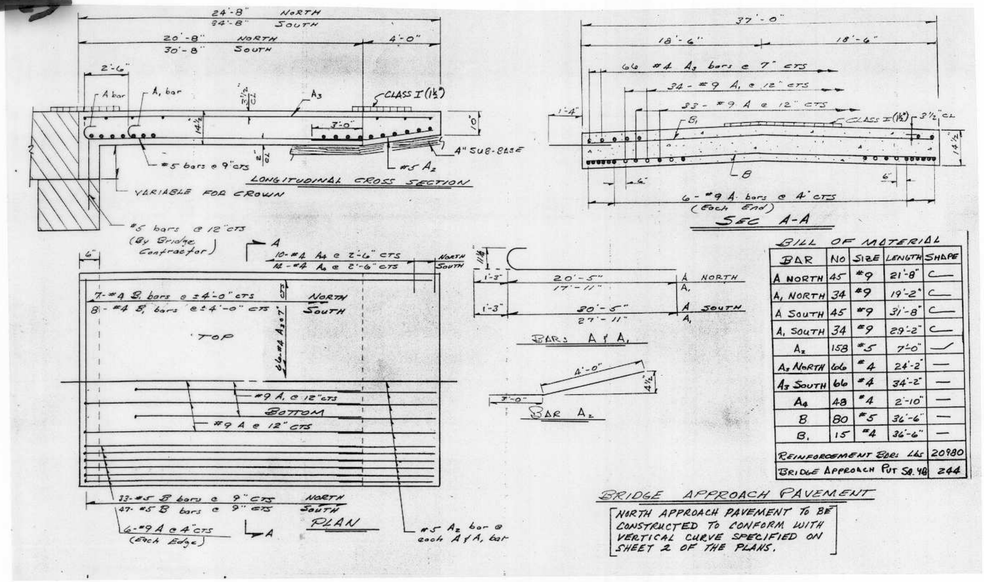
STEEL RAILING, TYPE T-1 (SPECIAL) INSTALLATION

THE SEQUENCE OF ERECTION FOR TYPE T-1 STEEL RAILING SHALL BE AS FOLLOWS:

1) AFTER THE STRUCTURE HAS BEEN ERECTED AND PRIOR TO COMPLETE BACKFILLING BEHIND THE ABUTMENTS, ELEVATIONS FOR THE TOP OF THE SIDEWALKS SHALL BE DETERMINED ALONG ALL FOUR WINGWALLS AT THE WINGPILE LOCATIONS.
2) THE HOLES IN THE WING PILES SHALL THEN BE LOCATED AND DRILLED ACCORDING TO THE DETAIL ON SHEET 4.
3) THE RAIL POSTS SHALL THEN BE MOUNTED, ADJUSTED AND PLUMBED PRIOR TO FINISHING BACKFILLING OPERATIONS AND POURING CONCRETE SIDEWALKS.

307-830

DETAILED PROJECT PLAN
SECTION 83-00297-00-BR
CITY OF ROCKFORD
SEMINARY STREET



BILL OF MATERIAL

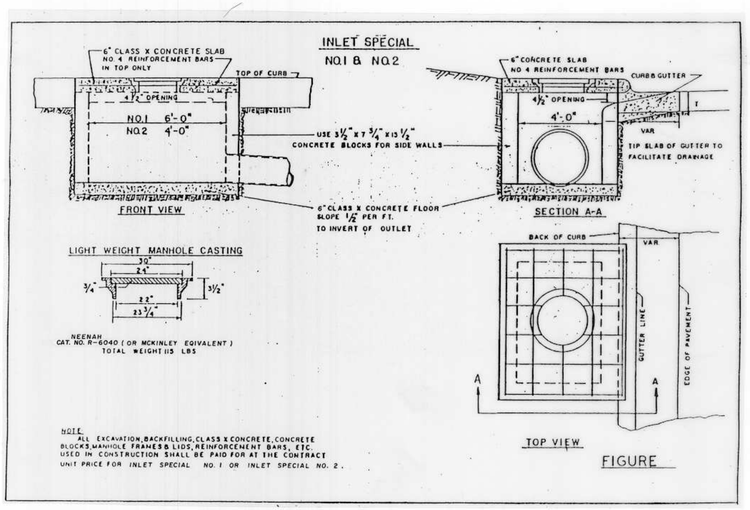
BAR	No	SIZE	LENGTH	SHAPE
A NORTH	45	#9	21'-8"	C
A, NORTH	34	#9	19'-2"	C
A SOUTH	45	#9	31'-8"	C
A, SOUTH	34	#9	29'-2"	C
A_2	158	#5	7'-0"	/
A_3 NORTH	66	#4	24'-2"	—
A_3 SOUTH	66	#4	34'-2"	—
A_4	48	#4	2'-10"	—
B	80	#5	34'-6"	—
B,	15	#4	34'-6"	—
REINFORCEMENT EPOXI LBS				20980
BRIDGE APPROACH PVT SQ.YD.				244

BRIDGE APPROACH PAVEMENT

NORTH APPROACH PAVEMENT TO BE CONSTRUCTED TO CONFORM WITH VERTICAL CURVE SPECIFIED ON SHEET 2 OF THE PLANS.

BRIDGE APPROACH PAVEMENT STD. 2360 (MODIFIED)

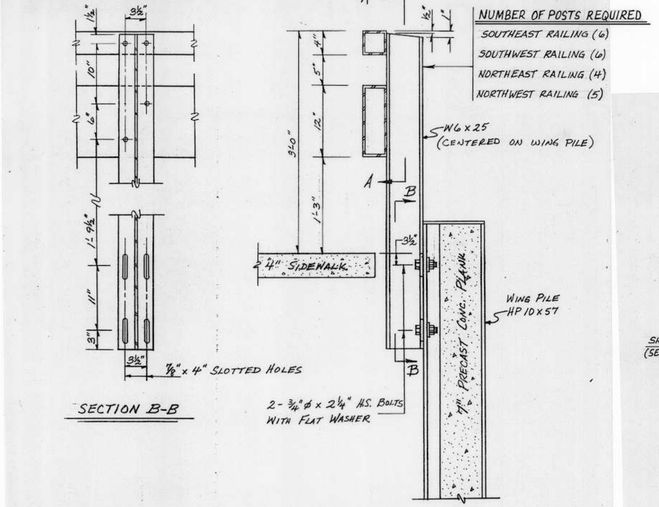
(USE BRIDGE APPROACH PAVEMENT STANDARD 2360 FOR ALL DETAILS EXCEPT THOSE SHOWN ABOVE WHICH MODIFIES THE STANDARD FOR DIFFERENT PAVEMENT LENGTHS.)

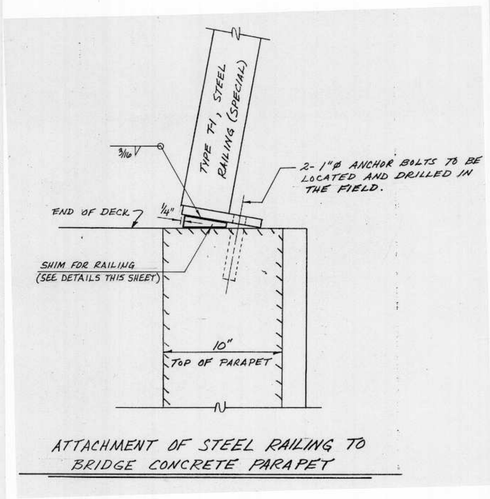


NOTE
ALL EXCAVATION, BACKFILLING, CLASS X CONCRETE, CONCRETE BLOCKS, MANHOLE FRAMES & LIDS, REINFORCEMENT BARS, ETC. USED IN CONSTRUCTION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR INLET SPECIAL NO. 1 OR INLET SPECIAL NO. 2.

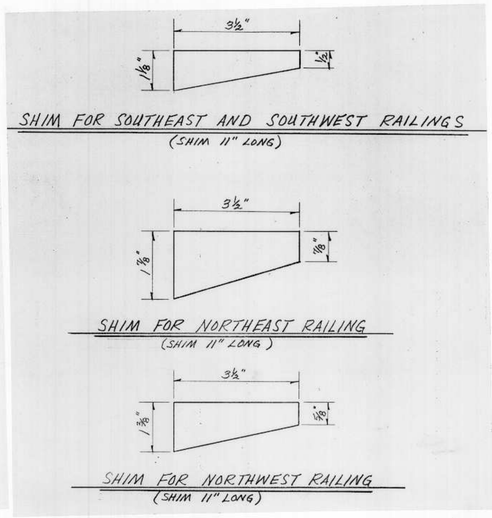
FIGURE

INLET SPECIAL NO. 1





ATTACHMENT OF STEEL RAILING TO BRIDGE CONCRETE PARAPET



STEEL RAILING TYPE T-1 POST DETAILS

(USE STEEL RAILING TYPE T-1 STANDARD FOR ALL DETAILS EXCEPT RAIL-POST ATTACHMENT WHICH IS TO BE AS SHOWN ABOVE.)

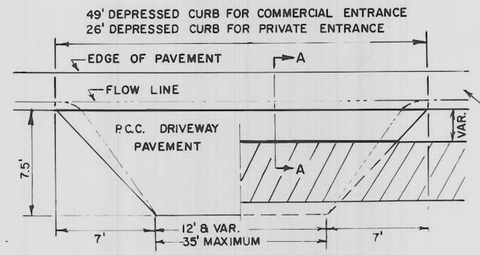
307-831

APPROACH SLAB, STEEL RAILING, AND INLET DETAILS
SECTION 83-00297-00-BR
SEMINARY STREET
CITY OF ROCKFORD
WINNEBAGO COUNTY

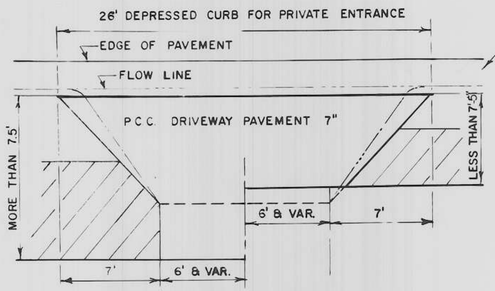
ENTRANCE APPROACHES-URBAN AREA

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
	*		12	5
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

83-00297-00-BR
CITY OF ROCKFORD

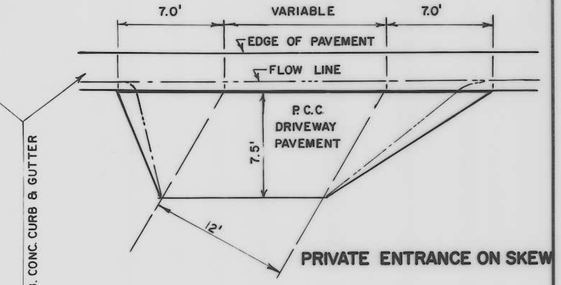


NO SIDEWALK EXISTING SIDEWALK

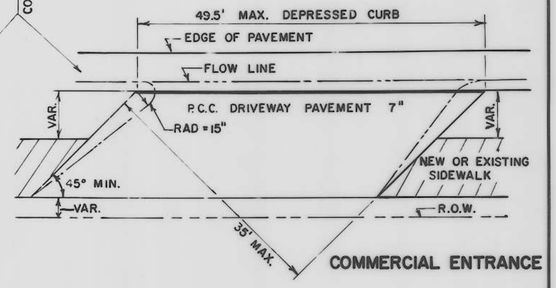


NEW SIDEWALK

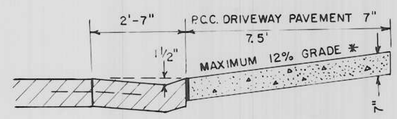
COMB. CONC. CURB & GUTTER



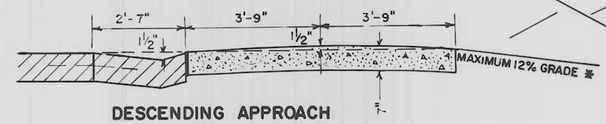
PRIVATE ENTRANCE ON SKEW



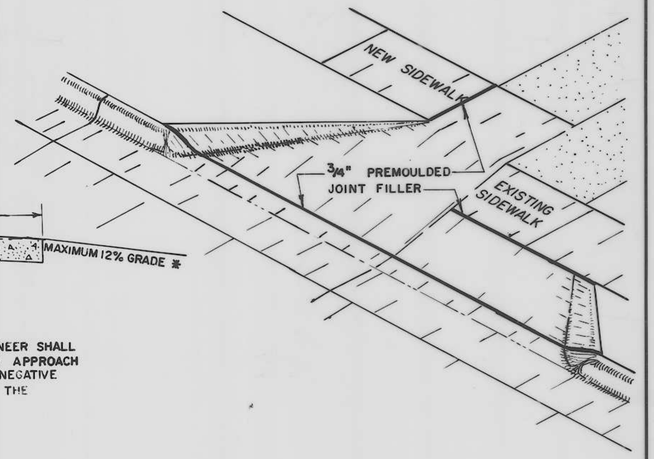
COMMERCIAL ENTRANCE



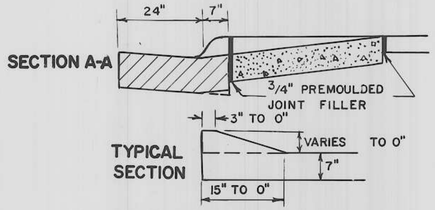
ASCENDING APPROACH



DESCENDING APPROACH



* IN CASES WHERE GRADE EXCEEDS 12%, THE RESIDENT ENGINEER SHALL CHECK WITH DISTRICT DESIGN OFFICE TO DETERMINE NEW APPROACH GRADE, PARTICULAR ATTENTION SHALL BE PAID TO THE NEGATIVE GRADE TO PREVENT DRAINAGE FROM OVERFLOWING INTO THE PRIVATE ENTRANCE.



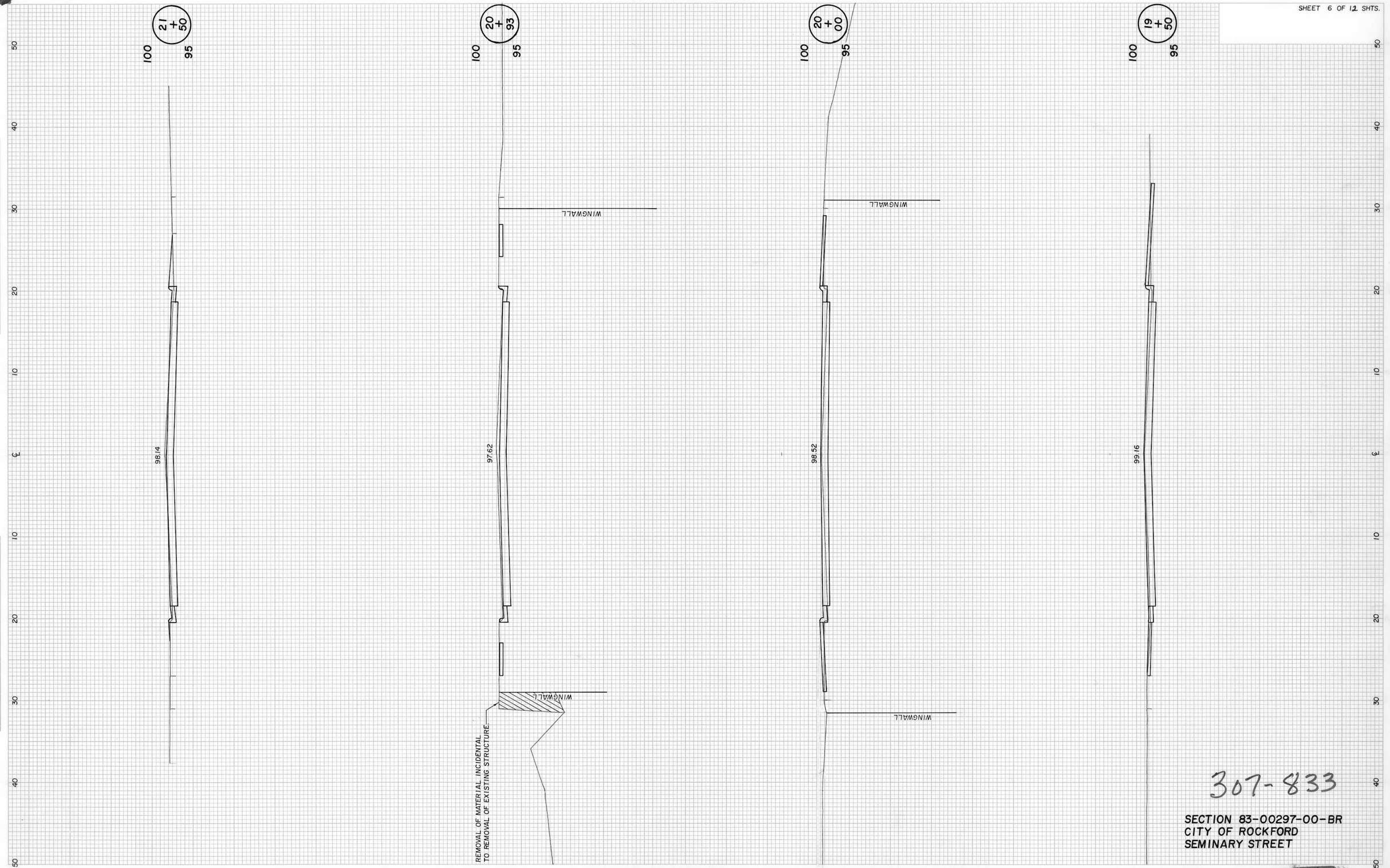
TYPICAL SECTION

THE VARIABLE HEIGHT INTEGRAL CURB AND PREMOULDED JOINT FILLER WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF P.C.C. DRIVEWAY PAVEMENT, 7".

307-832
SEMINARY ST

A656 300 126 3 9-61

41.2



FINAL SURVEY — NOTE BOOK No. — SUBMITTED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK No. — SUBMITTED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

307-833

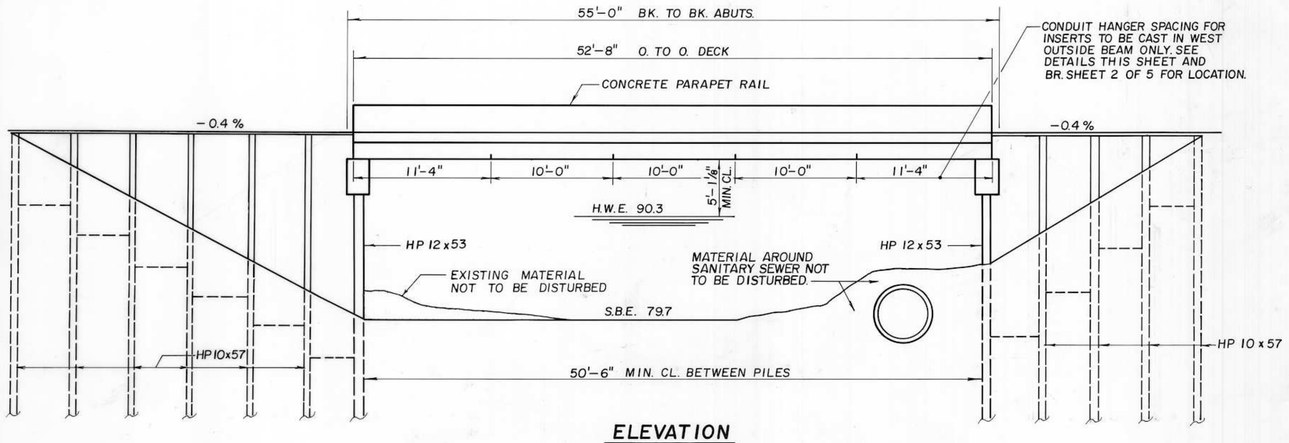
SECTION 83-00297-00-BR
CITY OF ROCKFORD
SEMINARY STREET

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

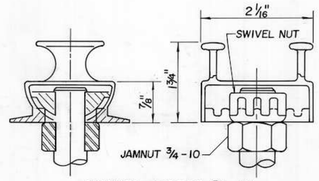
BENCHMARK: CHISELED "□" IN N.W. CORNER OF R.R. CROSSING LIGHT FOOTING 21' LT. STA. 18+70 ELEV. 100.00 (ASSUMED)

EXISTING STRUCTURE: THREE SPAN HAUNCHED CONCRETE SLAB ON CONCRETE SLAB, ON CONCRETE PIERS AND ABUTMENTS. TO BE REMOVED BY CONTRACTOR.

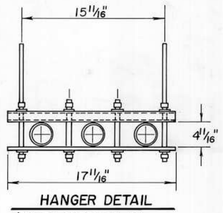
SALVAGE: NONE



ELEVATION



SWIVEL INSERT ¾-10



HANGER DETAIL
(TO BE SUPPLIED BY ILLINOIS BELL TELEPHONE)

SWIVEL INSERT DETAILS

SWIVEL INSERT PART #84099-26 (8 REQ'D)
SWIVEL NUT PART #84099-27 (8 REQ'D)

SUPPLIER: CONDUX INTERNATIONAL

ILLINOIS BELL TELEPHONE WILL PROVIDE ALL MATERIAL FOR HANGERS.

CONTRACTOR TO CAST HANGERS INTO BEAM AS DETAILED.

CONTRACTOR SHALL PROVIDE FOR CONDUIT TO PASS THRU TOP OF NORTHWEST AND SOUTHWEST WINGWALLS AS REQUIRED BY ILLINOIS BELL TELEPHONE. CONDUIT TO PASS THRU PANEL ADJACENT TO CAP THAT IS POURED IN FIELD.

GENERAL NOTES

CLASS "X" CONCRETE SHALL BE USED THROUGHOUT EXCEPT IN THE PRESTRESSED BEAMS.

ONE HP 12 X 53 TEST PILE SHALL BE DRIVEN IN A PERMANENT LOCATION IN EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINING PILING.

BACKFILLING OF ABUTMENTS SHALL NOT BE DONE UNTIL THE DECK BEAMS ARE IN PLACE AND THE DOWEL BARS ARE GROUTED AND CURED.

FOR BORING DATA, SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL CLEAN OUT THE CHANNEL WITHIN THE RIGHT-OF-WAY AS SHOWN IN ELEVATION. THE COST FOR REMOVAL OF THE HATCHED AREAS SHALL BE INCIDENTAL.

ALL TRANSVERSE TIE-ASSEMBLIES (NUTS, BOLTS, AND WASHERS) FOR THE CONCRETE DECK SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH A.A.S.H.T.O. DESIGNATION M232.

A CALCIUM NITRATE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CLASS X CONCRETE AND THE CONCRETE FOR THE PRECAST PRESTRESSED CONCRETE DECK BEAMS, *PRECAST CONCRETE PLANKS AND PAVEMENT.*

THE UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS SHOW APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE ANY PILING ARE DRIVEN SO THAT THESE UTILITIES WILL NOT BE DAMAGED. ANY DAMAGE WILL BE REPAIRED AT THE CONTRACTORS EXPENSE, AS DIRECTED BY THE ENGINEER.

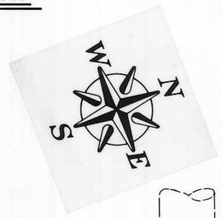
THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF THE WATERMAIN PRIOR TO STRUCTURE REMOVAL OR PILE DRIVING. THE WATERMAIN IS NOT TO BE DISTURBED DURING CONSTRUCTION.

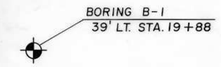
THE CONTRACTOR MAY USE HP 12X53 PILES IN ALL WINGWALLS INSTEAD OF HP 10X57 AT THE SAME COST. PLATES ON TOP OF PILES, BOLTS AND ALL DETAILS SHALL CHANGE ACCORDINGLY.

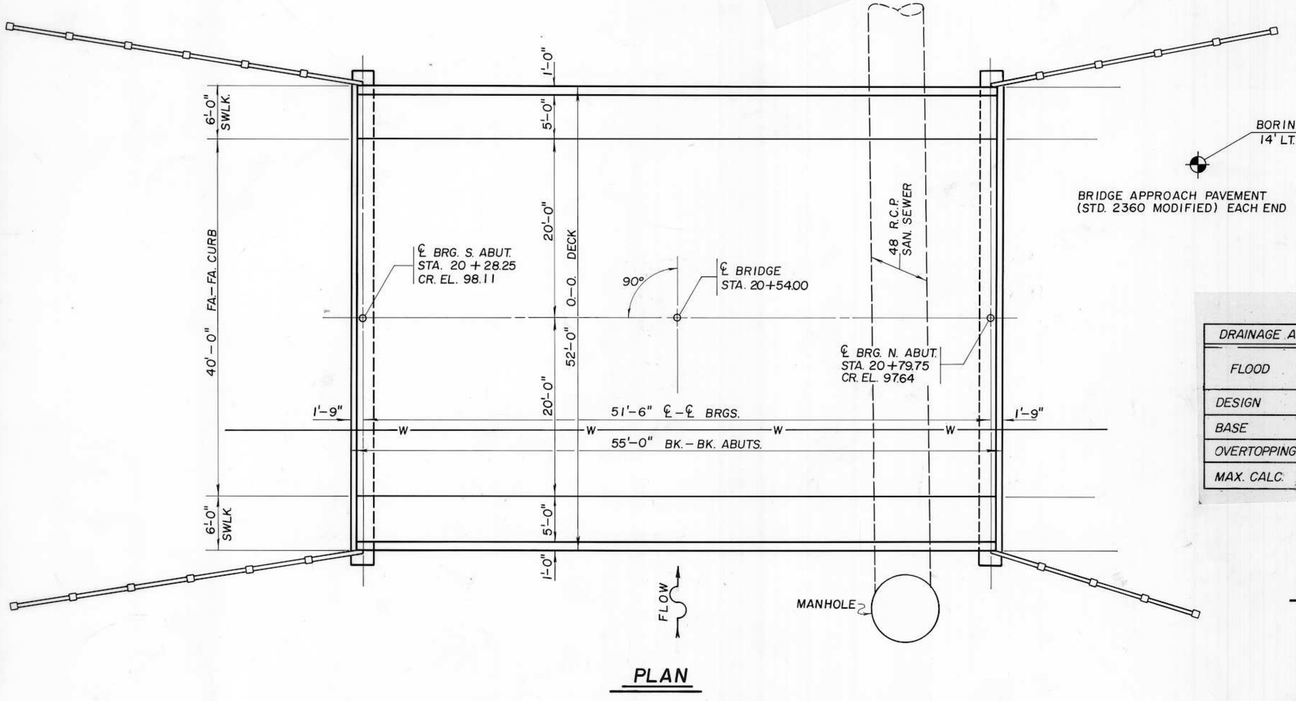
BILL OF MATERIAL

BRIDGE

ITEM	UNIT	SUBSTR.	SUPER.	TOTAL
CLASS X CONCRETE	CU.YDS.	35.2	34.9	70.1
REINFORCEMENT BARS	LBS.	3920		3920
REINFORCEMENT BARS (EPOXY COATED)	LBS.		2890	2890
PRECAST PRESTRESSED CONCRETE DECK BEAMS (21")	SQ.FT.		2739	2739
FURNISHING AND ERECTING STRUCTURAL STEEL	LBS.		2777	2777
MEMBRANE WATERPROOFING	SQ.YD.		234	234
PRECAST CONCRETE PLANK (7")	SQ.FT.	3075		3075
FURNISHING STEEL PILES, HP 12 x 53	LIN.FT.	612		612
FURNISHING STEEL PILES, HP 10 x 57	LIN.FT.	741		741
DRIVING STEEL PILES	LIN.FT.	1284		1284
TEST PILES, STEEL HP 12 x 53	EACH	2		2
HARDWARE	LBS.	1602		1602
NAMEPLATES	EACH			1
REMOVAL OF EXISTING STRUCTURES	EACH			1
BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D; CLASS I	TON		20	20
PORTLAND CEMENT MORTAR FAIRING COURSE	LIN.FT.		527	527
NON PARTICIPATING				
SWIVEL INSERT AND NUT	EACH		8	8







BRIDGE APPROACH PAVEMENT (STD. 2360 MODIFIED) EACH END

PLAN

WATERWAY INFORMATION

DRAINAGE AREA = 16.28 SQ. MI. LOW GRADE ELEV. 98.0 at STA. 21+00

FLOOD	FREQ. YR.	Q. C.F.S.	OPENING SQ. FT. EXIST.	OPENING SQ. FT. PROP.	NAT. H.W.E.	HEAD-FT. EXIST.	HEAD-FT. PROP.	HEADWATER EL. EXIST.	HEADWATER EL. PROP.
DESIGN	30	2064	420	382	90.3		0.04		
BASE	100	2643	528	437	91.6		0.01		
OVERTOPPING									
MAX. CALC.	500								

DESIGN STRESSES

PRESTR. UNITS

f'c = 5000 P.S.I.
f'ci = 4000 P.S.I.
f's = 270,000 P.S.I.
fsi = 189,000 P.S.I.

FIELD UNITS

f'c = 3500 P.S.I.
f's = 60,000 P.S.I. (REINFORCEMENT)

DESIGN SPECIFICATIONS: 1983 AASHTO
(ALLOWED FOR 25 LBS./SQ.FT. FUTURE WEARING SURFACE)

LOADING HS 20-44

KEITH CREEK
BUILT 1986 BY
CITY OF ROCKFORD
SECTION 83-00297-00-BR
STA. 20+54.00
STR. NO. 102-6072 LOADING HS 20

LETTERING FOR NAMEPLATE

SEE STD. 2113

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".

Harold P. Wendler

STATE OF ILLINOIS
HAROLD P. WENDLER
2743
REGISTERED STRUCTURAL ENGINEER

307-834

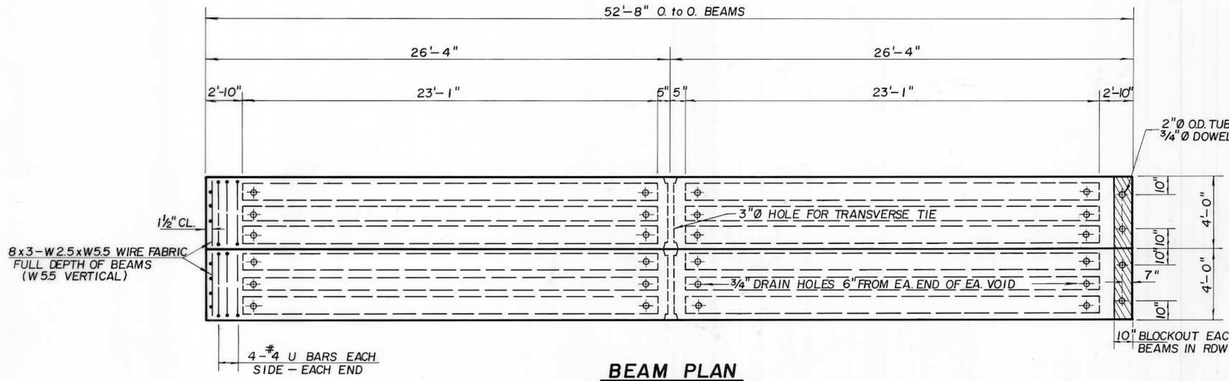
GENERAL PLAN AND ELEVATION
SEMINARY STREET
SECTION 83-00297-00-BR
CITY OF ROCKFORD
WINNEBAGO COUNTY

50-46

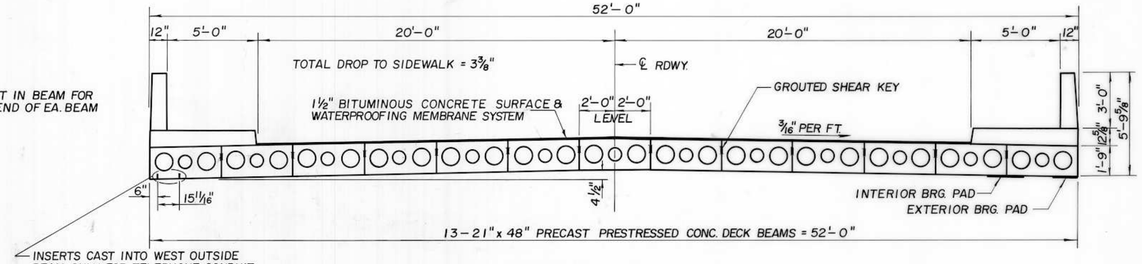
PLANS PREPARED BY:

Harold P. Wendler & Associates

DIXON, ILLINOIS
ROCKFORD, ILLINOIS
PRINCETON, ILLINOIS

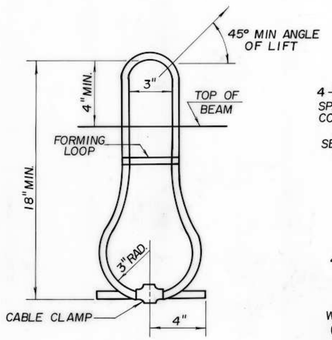


BEAM PLAN



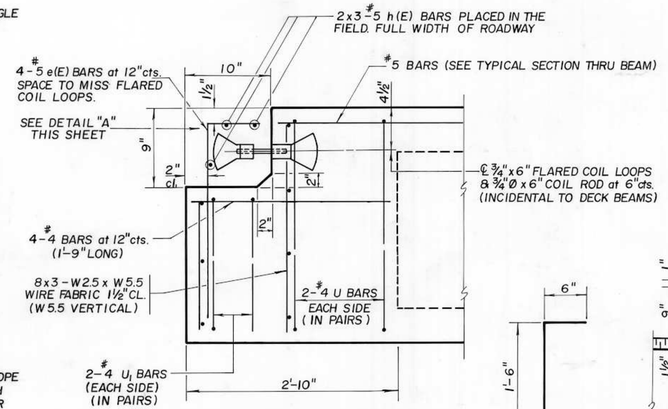
CROSS SECTION

(LOOKING NORTH)



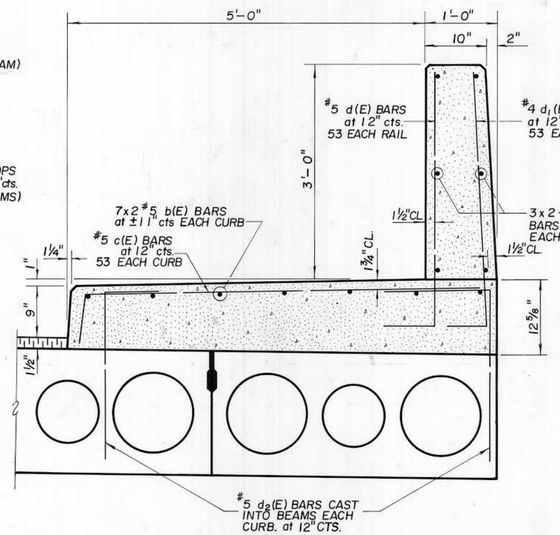
DETAIL OF LIFTING LOOP

LIFTING LOOPS SHALL BE 6x25 CLASS WIRE 5/8"Ø ROPE WITH FIBER CORE, MIN. ULTIMATE TENSILE STRENGTH SHALL BE 33,000 LBS.. EACH BEAM SHALL HAVE FOUR LIFTING LOOPS, TWO CAST IN EACH END AS SHOWN. LOOPS SHALL BE BURNED OFF AFTER BEAMS HAVE BEEN ERECTED.



END OF BEAM (ABUT. END)

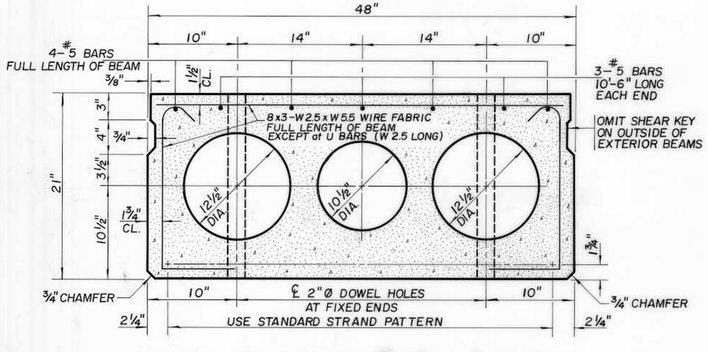
BAR e(E)



SECTION THRU CURB

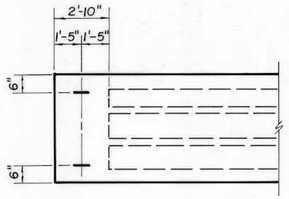
MIN. BAR LAP

#4	1'-4"
#5	1'-8"



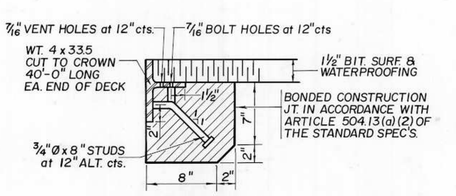
TYPICAL SECTION THRU 21"x 48" BEAM

21-#7 WIRE - ½"Ø STRANDS. EACH STRAND STRESSED TO 28,900 LBS. 12 STRANDS 1¾" UP, 5 STRANDS 3¼" UP, 2 STRANDS 6" UP, 2 STRANDS 9" UP. NOTE: PLACE STRANDS SYMMETRICALLY ABOUT ℄ OF BEAM.

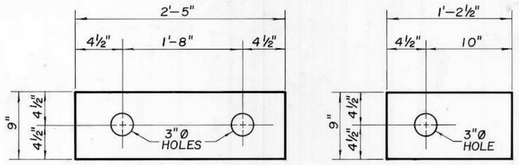


PLAN OF END OF BEAM SHOWING LOCATION OF LIFTING LOOPS

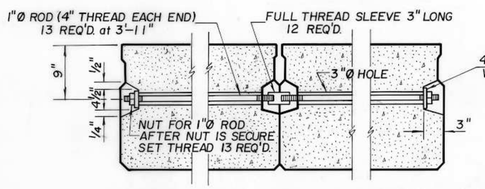
EACH BEAM SHALL HAVE FOUR LIFTING LOOPS, TWO CAST IN EACH END AS SHOWN ABOVE. LOOPS SHALL BE BURNED OFF AFTER BEAMS HAVE BEEN ERECTED.



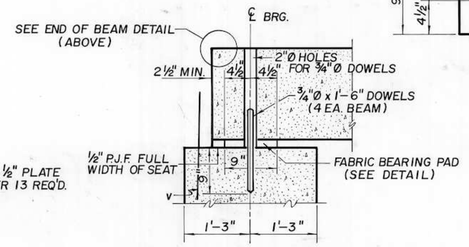
DETAIL "A"



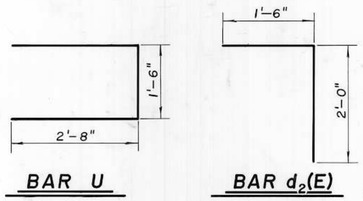
1/2" FABRIC BEARING PAD



TRANSVERSE TIE ASSEMBLY

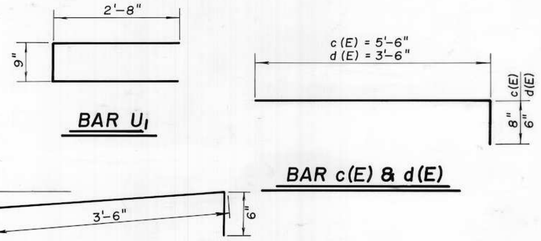


SECTION THRU ABUTMENTS



BAR U

BAR d2(E)



BAR U1

BAR c(E) & d(E)

BAR d1(E)

GENERAL NOTES

PRESTRESSING STEEL SHALL BE NON-GALVANIZED HIGH STRENGTH, STRESS-RELIEVED 7-WIRE STRAND, GRADE 270. THE NOMINAL DIAMETER SHALL BE ½" AND THE NOMINAL CROSS-SECTIONAL AREA SHALL BE 0.153 SQ. IN.

LIFTING LOOPS SHALL BE 5/8" DIAMETER, 6 X 25 CLASS WIRE ROPE WITH FIBER CORE AND SHALL HAVE A MINIMUM ULTIMATE TENSILE STRENGTH OF 33,000 LBS., AS SHOWN, OR 2 ½" Ø - 270 KSI STRANDS.

THE 1" Ø RODS IN THE TRANSVERSE TIE ASSEMBLY SHALL BE TIGHTENED TO A SNUG FIT AND THE THREADS SET. POCKETS THAT RECEIVE TRANSVERSE TIE BAR ON OUTSIDE SHALL BE FILLED WITH GROUT AFTER TRANSVERSE TIE ASSEMBLY IS IN PLACE.

REINFORCEMENT BARS SHALL CONFORM TO A.A.S.H.T.O. M-31 OR M-53, GRADE 60.

THE BEARING SEAT SURFACES SHALL BE ADJUSTED BY SHIMMING TO ASSURE FIRM AND EVEN BEARING. TWO 1/8" FABRIC ADJUSTING SHIMS OF THE DIMENSIONS OF THE EXTERIOR BEARING PAD SHALL BE PROVIDED FOR EACH BEARING.

A CALCIUM NITRITE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR PRECAST PRESTRESSED CONCRETE DECK BEAMS.

REQUIRED RELEASE STRENGTH, F'CI, SHALL BE 4,000 P.S.I.

THE WT 4 X 33.5 STRUCTURAL TEE AND 3/4" Ø X 8" STUDS ARE ALL INCLUDED FOR PAYMENT PER POUND OF STRUCTURAL STEEL.

BILL OF MATERIAL - SUPERSTR.

BAR	NO.	SIZE	LENGTH	SHAPE
b(E)	28	#5	27'-0"	
c(E)	106	#5	6'-2"	
d(E)	106	#5	4'-0"	
d1(E)	106	#4	4'-0"	
e(E)	24	#4	26'-10"	
h(E)	12	#5	20'-9"	
CLASS X CONCRETE			CU YDS.	34.9
REINFORCEMENT BARS (EPOXY CTD)			LBS.	2890
PREC. PRESTR. CONC. DK. BMS. (21")			SQ. FT.	2739
FURN. & ERECTING STRUCT. STEEL			LBS.	2777
MEMBRANE WATERPROOFING			SQ. YD.	234
BITUMINOUS CONC. SURF. CSE. 1½"			TON	20

BARS INDICATED THUS: 7 x 2 - #5 ETC. INDICATES 7 LINES OF BARS WITH 2 LENGTHS PER LINE.

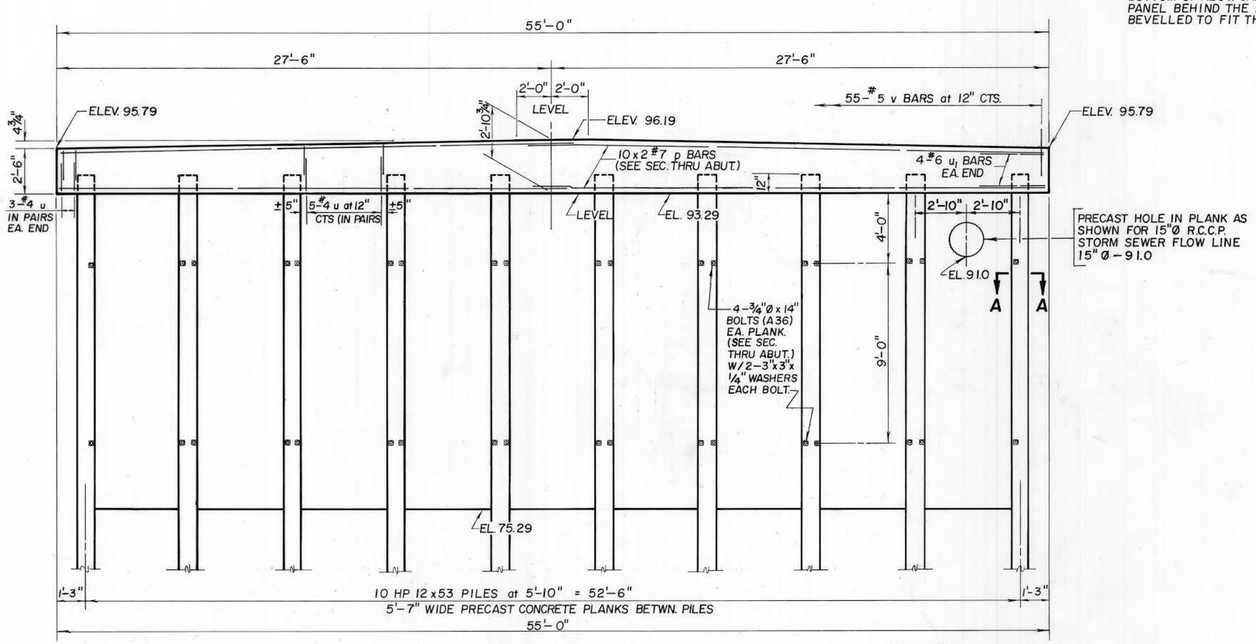
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

307-835

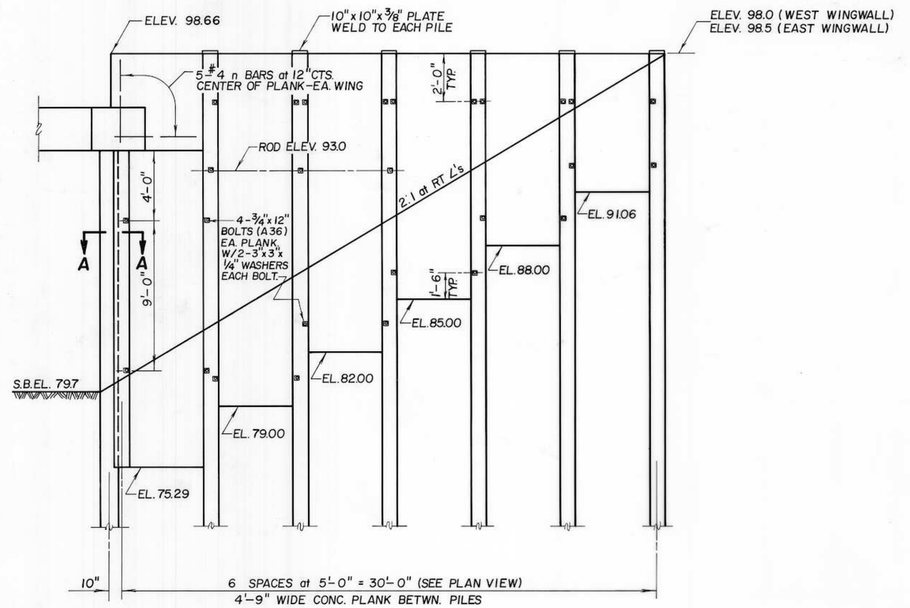
SUPERSTRUCTURE
SEMINARY STREET
SECTION 83-00297-00-BR
CITY OF ROCKFORD
WINNEBAGO COUNTY

NOTE: PRECAST CONCRETE PANEL ADJACENT TO ABUT. CAP SHALL BE POURED IN TWO SECTIONS WITH A JOINT AT THE BOTTOM OF ABUT. CAP AS SHOWN. THE PANEL BEHIND THE ABUT. SHALL BE BEVELLED TO FIT THE CAP.

CONTRACTOR TO PROVIDE FOR TELEPHONE CONDUIT AS REQUIRED BY ILLINOIS TELEPHONE COMPANY IN PANEL ADJACENT TO CAP THAT IS POURED IN FIELD. WEST WING ONLY.



ELEVATION - SOUTH ABUTMENT

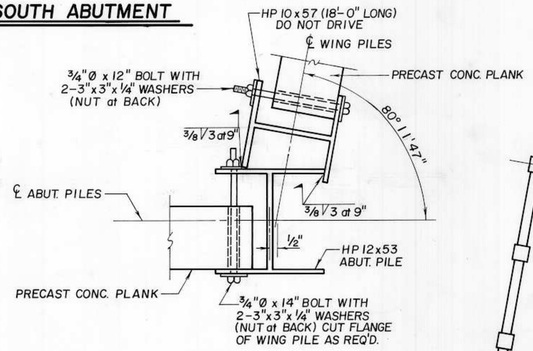


WINGWALL ELEVATION

PILE DATA

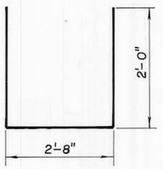
TYPE	HP 12 x 53 (ABUT.) HP 10 x 57 (WINGS)
CAPACITY	36 TON (ABUT.) DRIVE TO GRADE (WINGS)
NO. REQ'D.	9 + 1 TEST PILE (ABUT.) 14 WINGS
EST. LENGTH	9 at 34' (ABUT.) 12 at 32' (WINGS) 2 at 18' (WINGS)

THE CONTRACTOR MAY USE HP 12X53 PILES IN ALL WINGWALLS INSTEAD OF HP 10X57 AT THE SAME COST. PLATES ON TOP OF PILES, BOLTS AND ALL DETAILS SHALL CHANGE ACCORDINGLY.

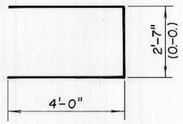


SECTION A-A

PLAN-SOUTH ABUTMENT



BAR u



BAR u_1

MIN. BAR LAP

#4	1'-4"
#7	2'-9"

BILL OF MATERIALS - SO. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
p	20	#7	28'-9"	———
u	102	#4	6'-8"	⊔
u_1	8	#6	10'-7"	▭
v	55	#5	3'-0"	———
n	10	#4	4'-0"	———

CLASS X CONCRETE	CU. YDS.	176
REINFORCEMENT BARS	LBS.	1960
PRECAST CONC. PLANK (7")	SQ. FT.	1767
FURN. STEEL PILES HP 12x53	LIN. FT.	306
FURN. STEEL PILES HP 10x57	LIN. FT.	420
DRIVING STEEL PILES	LIN. FT.	690
TEST PILES STEEL HP12x53	EACH	1
HARDWARE	LBS.	902

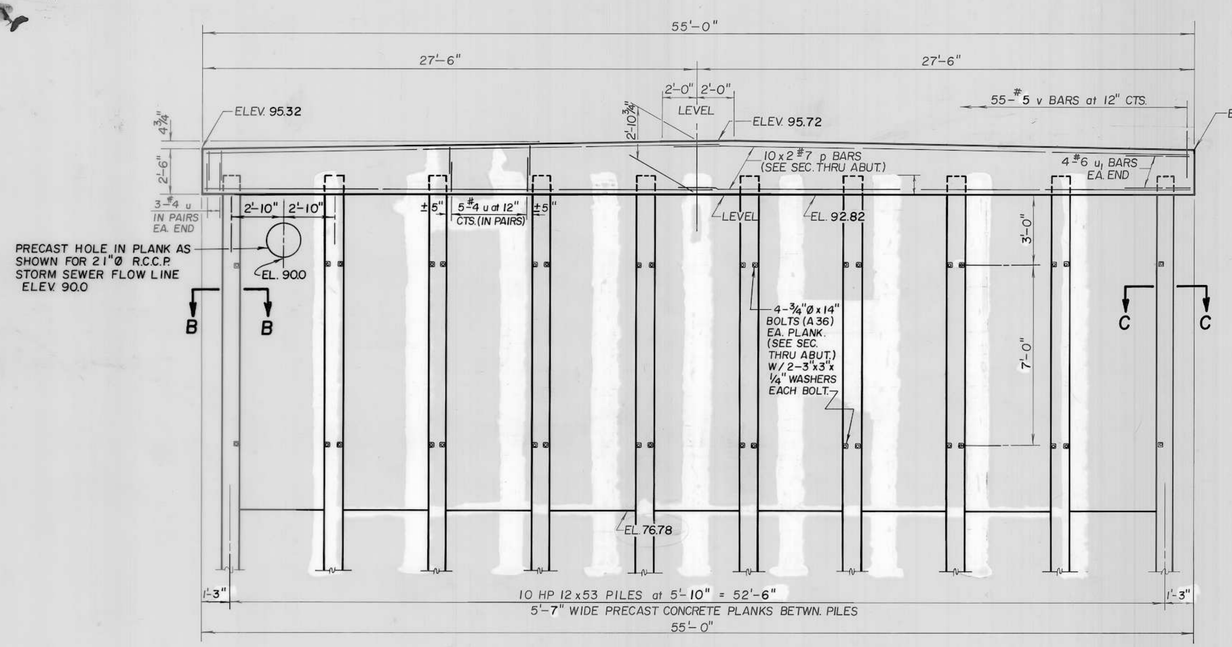
BARS INDICATED THUS: 10 x 2-#7 ETC. INDICATES 10 LINES OF BARS WITH 2 LENGTHS PER LINE.

307-836

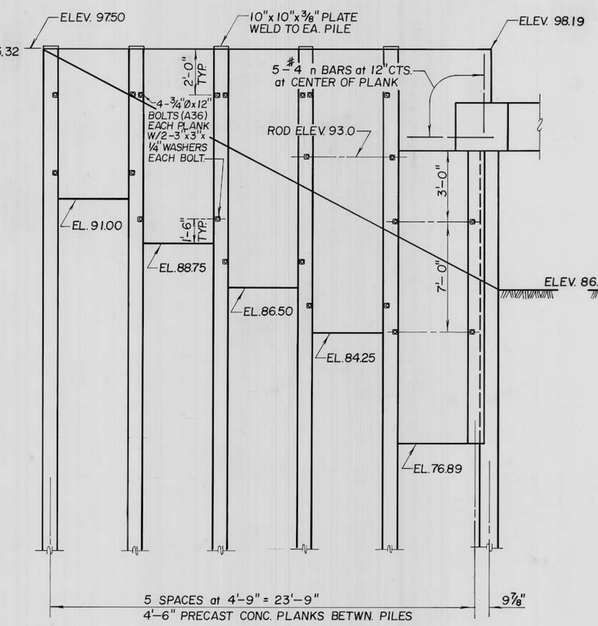
SOUTH ABUTMENT
SEMINARY STREET
SECTION 83-00297-00-BR
CITY OF ROCKFORD
WINNEBAGO COUNTY

NOTE : PRECAST CONCRETE PANEL ADJACENT TO ABUT. CAP SHALL BE POURED IN TWO SECTIONS WITH A JOINT AT THE BOTTOM OF ABUT. CAP AS SHOWN. THE PANEL BEHIND THE ABUT. SHALL BE BEVELLED TO FIT THE CAP.

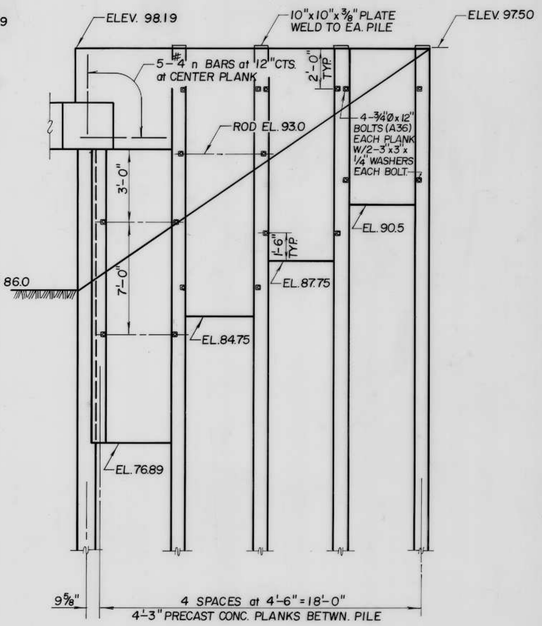
CONTRACTOR TO PROVIDE FOR TELEPHONE CONDUIT AS REQUIRED BY ILLINOIS TELEPHONE COMPANY IN PANEL ADJACENT TO CAP THAT IS POURED IN FIELD. WEST WING ONLY.



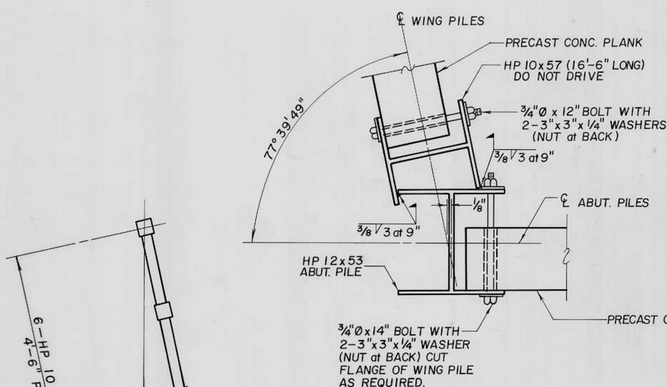
ELEVATION — NORTH ABUTMENT



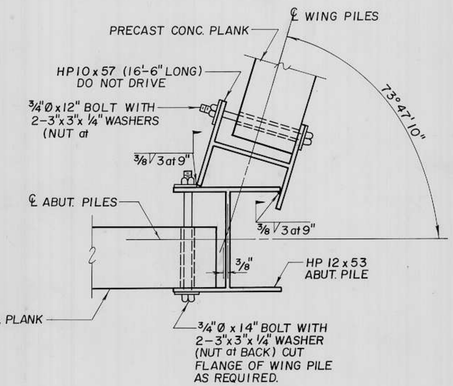
NORTHWEST WINGWALL ELEVATION



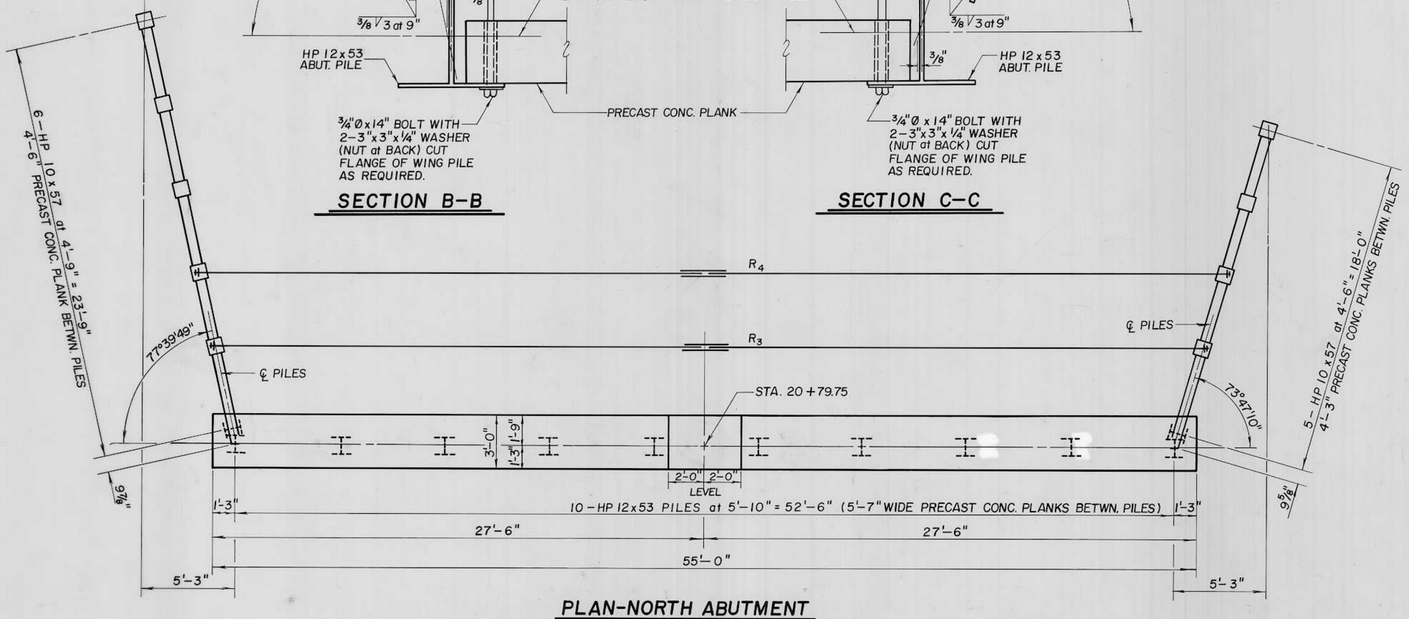
NORTHEAST WINGWALL ELEVATION



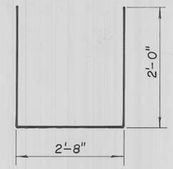
SECTION B-B



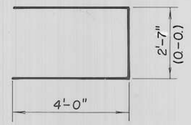
SECTION C-C



PLAN-NORTH ABUTMENT



BAR u



BAR u1

PILE DATA

TYPE	HP 12x53 (ABUT.) HP 10x57 (WINGS)
CAPACITY	36 TON (ABUT.) DRIVE TO GRADE (WINGS)
NO. REQUIRED	9+1 TEST PILE (ABUT.) 11 (WINGS)
EST. LENGTH	9 at 34' (ABUT.) 9 at 32' (WINGS) 2 at 16.5' (WINGS)

THE CONTRACTOR MAY USE HP 12X53 PILES IN ALL WINGWALLS INSTEAD OF HP 10X57 AT THE SAME COST. PLATES ON TOP OF PILES, BOLTS AND ALL DETAILS SHALL CHANGE ACCORDINGLY.

MIN. BAR LAP

#4	1'-4"
#7	2'-9"

BILL OF MATERIALS- NO. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
p	20	#7	28'-9"	———
u	102	#4	6'-8"	⊔
u1	8	#6	10'-7"	▭
v	55	#5	3'-0"	———
n	10	#4	4'-0"	———
CLASS X CONCRETE		CU.YDS.		176
REINFORCEMENT BARS		LBS.		1960
PRECAST CONC. PLANK (7")		SQ.FT.		1308
FURN. STEEL PILES HP 12x53		LIN.FT.		306
FURN. STEEL PILES HP 10x57		LIN.FT.		321
DRIVING STEEL PILES		LIN.FT.		594
TEST PILES STEEL HP12x53		EACH		1
HARDWARE		LBS.		700

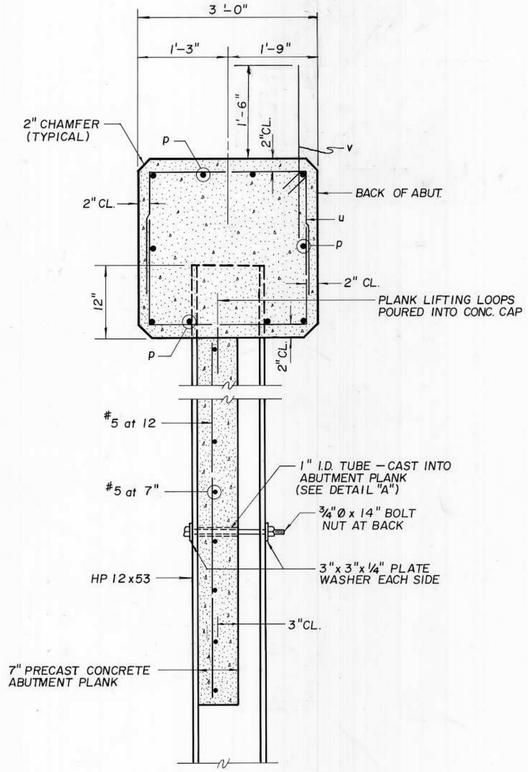
BARS INDICATED THUS : 10x2 #7 ETC. INDICATES 10 LINES OF BARS WITH 2 LENGTHS PER LINE.

307-837

NORTH ABUTMENT
SEMINARY STREET
SECTION 83-00297-00-BR
CITY OF ROCKFORD
WINNEBAGO COUNTY

BILL OF HARDWARE

ITEM	NO.	SIZE
ROD R	1	1¼"Ø x 55'-10"
ROD R_1	1	1⅛"Ø x 57'-6"
ROD R_2	1	1"Ø x 59'-3"
ROD R_3	1	1¼"Ø x 56'-6"
ROD R_4	1	1⅛"Ø x 58'-10"
WASHERS	10	4"x 4"x ½"
NUTS	4	1¼"Ø
NUTS	4	1⅛"Ø
NUTS	2	1"Ø
BOLTS	72	¾"Ø x 14"
BOLTS	84	¾"Ø x 12"
WASHERS	312	3"x 3"x ¼"



SECTION THRU ABUT.

GENERAL NOTES

ALL TIE RODS SHALL BE FASTENED TO THE STEEL H-PILES BY DRILLING A HOLE THROUGH THE FLANGES ADJACENT TO THE WEB. THE RODS, PLATE WASHERS AND NUTS ARE INCLUDED IN THE QUANTITY FOR HARDWARE. ALL OTHER MATERIAL AND LABOR REQUIRED FOR THE INSTALLATION OF THE ANCHOR RODS SHALL BE INCLUDED IN THE UNIT COST BID PER POUND FOR HARDWARE.

ALL CONCRETE PLANKS SHALL BE PLACED TIGHT AGAINST THE FRONT FLANGE OF THE STEEL PILES. ALL 3/4" Ø BOLTS ANCHORING THE PLANK TO THE STEEL PILES SHALL BE PLACED WITH THE NUTS AT THE BACK OF THE ABUTMENT.

ALL PRECAST CONCRETE PLANK, ANCHOR RODS AND BOLTS SHALL BE IN PLACE AND ANCHORED AND ALL DECK BEAMS IN PLACE AND SECURED BEFORE THE ABUTMENTS ARE BACKFILLED.

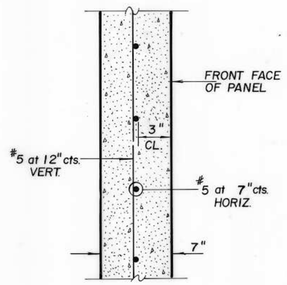
THE TOPS OF ALL WINGWALL PILES SHALL HAVE A 10" X 10" X 3/8" PLATE SPOT WELDED TO THE PILES AFTER THE PILES ARE CUT TO GRADE AND THE PLANKS ARE IN PLACE. COST OF THESE PLATES SHALL BE CONSIDERED INCIDENTAL TO THE PILING.

ALL EXPOSED PORTIONS OF THE PILING AND PLATES ON THE WINGWALL PILES SHALL BE PAINTED WITH 2 COATS OF ALUMINUM PAINT AND ONE COAT OF PRIME COAT PAINT IN ACCORDANCE WITH ARTICLES 509.03 AND 509.05 OF THE STANDARD SPECIFICATIONS.

THE LIFTING LOOPS IN TOP OF THE ABUTMENT PLANKS SHALL NOT BE REMOVED AND SHALL BE POURED INTO THE ABUTMENT CAP. THESE LOOPS SHALL HAVE 18 INCHES OF LENGTH EXPOSED AND A MINIMUM OF 6 INCHES FROM THE PLANK SO THAT GOOD ANCHORAGE IS OBTAINED IN THE CAP.

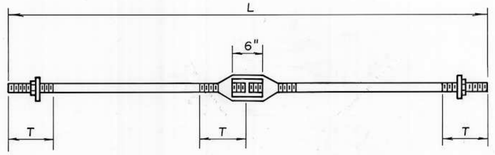
THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN DRIVING THE STEEL PILES, SO THAT THEY WILL BE IN THE CORRECT POSITION AFTER DRIVING. A TEMPLATE OR OTHER APPROVED METHOD SHALL BE USED FOR THIS ACCURACY AND ONLY MINIMUM TOLERANCE WILL BE ALLOWED.

A CALCIUM NITRITE CORRISION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR PRECAST CONCRETE PLANKS.



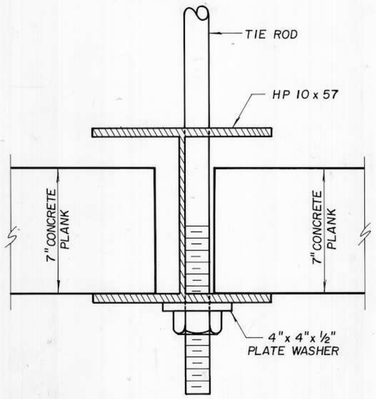
SECTION THRU PRECAST PLANK

ABUTMENT AND WINGWALLS

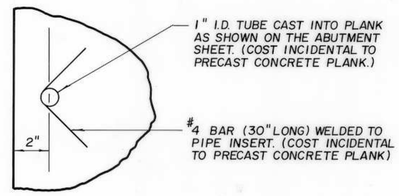


ROD DETAILS AND DIMENSIONS

RODS	SIZE	NO.	L	T	TURN-BUCKLE	EACH ROD		
						PLATE WASHERS		NUT
						SIZE	NO.	
R	1¼"Ø	1	55'-10"	9"	1-1¼"Ø	4"x 4"x ½"	2	2-1¼"Ø
R_1	1⅛"Ø	1	57'-6"	9"	1-1⅛"Ø	4"x 4"x ½"	2	2-1⅛"Ø
R_2	1"Ø	1	59'-3"	9"	1- 1"Ø	4"x 4"x ½"	2	2- 1"Ø
R_3	1¼"Ø	1	56'-6"	9"	1-1¼"Ø	4"x 4"x ½"	2	2-1¼"Ø
R_4	1⅛"Ø	1	58'-10"	9"	1-1⅛"Ø	4"x 4"x ½"	2	2-1⅛"Ø



WINGWALL PILE ANCHOR DETAIL



DETAIL "A"

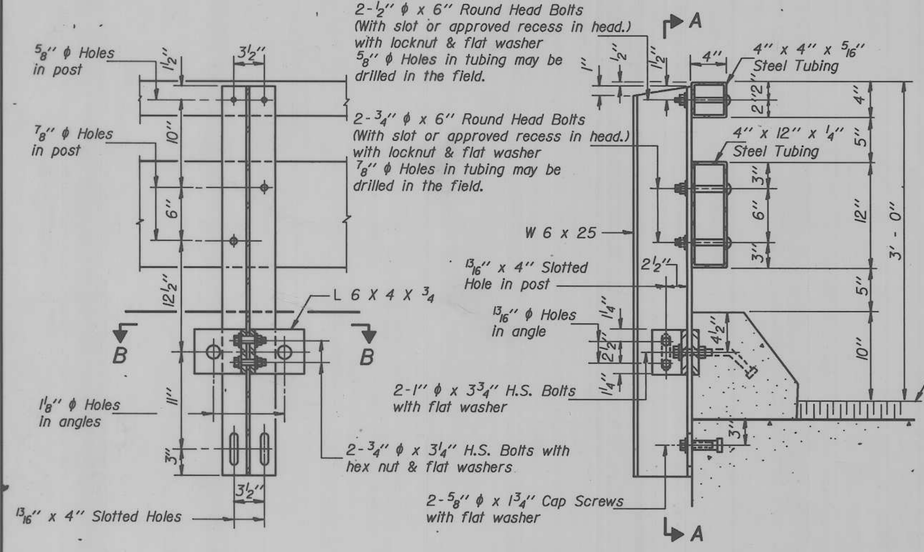
307-838

ABUTMENT DETAILS
SEMINARY STREET
SECTION 83-00297-00-BR
CITY OF ROCKFORD
WINNEBAGO COUNTY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

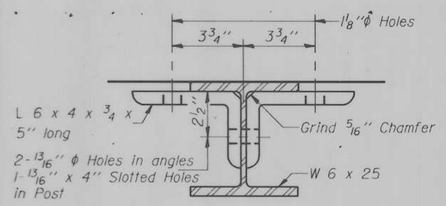
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. P.A.U. 5112	83-0021-00-BR	WINNEBAGO	12	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- BR-M-5094(34)		

SHEET NO.
SHEETS

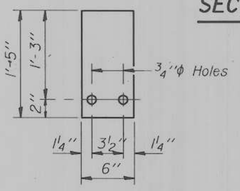


SECTION A-A

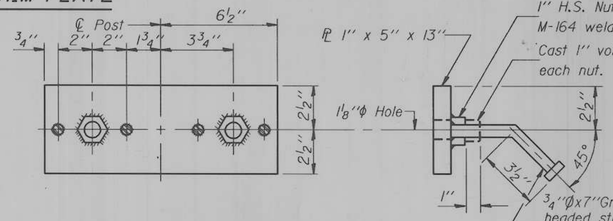
SECTION AT RAIL POST



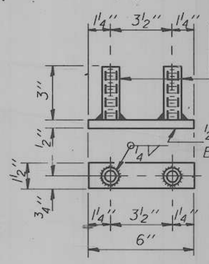
SECTION B-B



1/4" SHIM PLATE



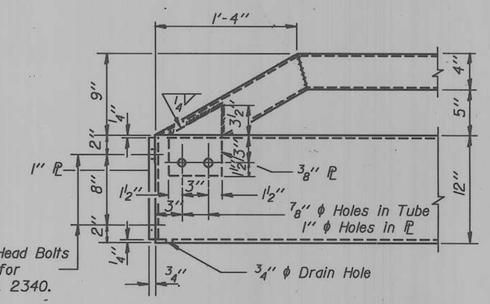
TOP ANCHOR DEVICE

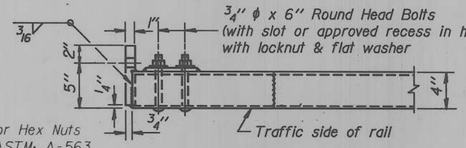


BOTTOM ANCHOR DEVICE

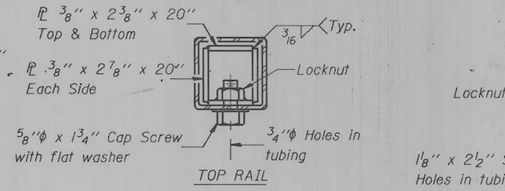
* Threaded areas shall be plugged or blocked off during casting of beam.

1 1/8" ϕ Holes for 1" ϕ x 4" Round Head Bolts Provide 2 flat washers & locknuts for guard rail connection shown on Std. 2340.

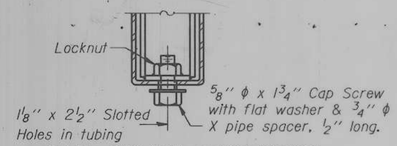




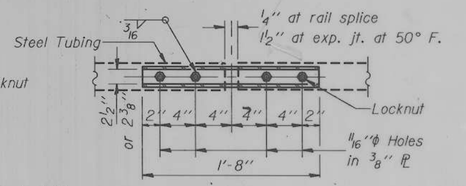
END OF RAIL DETAILS



SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE PL TYPICAL

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM desingnation A-500 Grade B Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts and angles shall conform to AASHTO M-223, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE T-1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place 1/8" fabric bearing pad between the post and concrete.

The 3/4" ϕ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

For multi-span bridges, sufficient 1/4" x 6" x 1'-5" galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to Steel Railing.

CURB & RAIL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e		#6		
Reinforcement Bars			Lbs.	
Class X Concrete			Cu. Yds.	
Steel Railing Type T-1			Lin. Ft.	

TYPE T-1 STEEL RAILING

307-839

SEMINARY ST

	19
DESIGNED	EXAMINED
CHECKED	ENGINEER OF BRIDGE DESIGN
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES
	APPROVED
	DIRECTOR OF HIGHWAYS

R-24A 12-31-84 (11'-0" Maximum Post Spacing)