AMERICAN ENGINEERING CO.
CONSULTING ENGINEERS
LEXINGTON, KENTUCKY

UPDATE DATE

LETTING DATE 7-10-87

DESIGNED BY SRS DATE 9-28-86
DETAILED BY BSB DATE 11-25-86
TRACED BY DATE
CHECKED BY SLM DATE 9-28-86
CHECKED BY SRS & SLM DATE 9-28-86
CHECKED BY DATE

REVISED Added P.E. Info. for 1½" Exp. Joint 9-28-86
REVISED Added Info. for Neop. Exp. Dam. Sht. 9-29-86
REVISED Revised Structural Steel Weight 9-29-86

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

JEFFERSON COUNTY
LOUISVILLE - LEXINGTON ROAD (I-64)
OVER TUCKER STATION ROAD

REFERENCE AND ESTIMATE OF QUANTITIES

ITEM / LOCATION	SHEET NUMBER	CLASS A CONCRETE	CLASS AA CONCRETE	REINF. STEEL	REINF. STEEL EPOXY COATED	STRUCTURE EXCAVATION COMMON	STRUCTURE EXCAVATION SOLID ROCK	CRUSHED AGGREGATE SLOPE PROTECTION	STRUCTURAL STEEL (1)	TYPE II P.P.C. I-BEAM	HP 12 X 53 STEEL PILES TEST PILES	HP 12 X 53 STEEL PILES LIN. FT.	ELECTRICAL CONDUIT (2)	REMOVE EXISTING BRIDGE HANDRAIL (3)	REMOVE CONCRETE MASONRY	EXP. JT. - 1½" NEOPR.
		CU. YDS.	CU. YDS.	LBS.	LBS.	CU. YDS.	CU. YDS.	TONS	LUMP SUM	LIN. FT.	LIN. FT.		LUMP SUM	LUMP SUM	CU. YDS.	LIN. FT.
WESTBOUND BRIDGE																
TITLE	1-2															
GENERAL NOTES	3-4															
LAYOUT	5-6							358								
SUBSTRUCT. LAYOUT & PILE RECORD	7															
ABUTMENT	8-10	29.2		1,979		52	19									
INTEGRAL PILE END BENT	11-13	28.1		1,952							19	88				
PIER 1	14&16	48.3		7,936		30	58									
PIER 2	15&16	48.4		7,923		40	50									
SUPERSTRUCTURE	17-25		213.2	2,547	39,922										73	
FRAMING PLAN	26															
PPC I-BEAM	27									629.5						
CONSTRUCTION ELEVATIONS	28-30															
SUBSURFACE EXPLORATION	31-32															
W.B.B. SUB-STRUCTURE TOTAL		154.0	—	19,790	—	122	127	358	—	—	19	88	—	—	—	
W.B.B. SUPER-STRUCTURE TOTAL		—	213.2	2,547	39,922	—	—	—	—	629.5	—	—	—	—	73	125
NEOP. EXP. DAMS	33															
EASTBOUND BRIDGE																
TITLE	1-2															
GENERAL NOTES	3-4															
LAYOUT	5-6							358								
SUBSTRUCT. LAYOUT & PILE RECORD	7															
ABUTMENT	8-10	28.4		1,979		62	17									
INTEGRAL PILE END BENT	11-13	29.2		1,952							18	116				
PIER 1	14&16	46.9		7,759		6	69									
PIER 2	15&16	48.0		7,923		38	56									
SUPERSTRUCTURE	17-25		213.2	2,547	39,922										73	
FRAMING PLAN	26															
PPC I-BEAM	27									629.5						
CONSTRUCTION ELEVATIONS	28-30															
SUBSURFACE EXPLORATION	31-32															
E.B.B. SUB-STRUCTURE TOTAL		152.5	—	19,613	—	106	142	358	—	—	18	116	—	—	—	
E.B.B. SUPER-STRUCTURE TOTAL		—	213.2	2,547	39,922	—	—	—	—	629.5	—	—	—	—	73	125
NEOP. EXP. DAMS	33															
SUB-STRUCTURE TOTAL		306.5	—	39,403	—	228	269	716	—	—	37	204	—	—	—	
SUPER-STRUCTURE TOTAL		—	426.4	5,094	79,844	—	—	—	1	1,259.0	—	—	1	1	146	250
GRAND TOTAL		306.5	426.4	44,497	79,844	228	269	716	1	1,259.0	37	204	1	1	146	250

(1) APPROXIMATE WEIGHT OF STRUCTURAL STEEL IS 1,699 (3285) LBS.

(2) SEE SHEET 20 FOR LIST OF ITEMS INCLUDED IN THIS BID ITEM.

(3) APPROXIMATE LENGTH OF EXISTING BRIDGE HANDRAIL TO BE REMOVED IS 633 L.F.

AMERICAN ENGINEERING COMPANY
CONSULTING ENGINEERS
LEXINGTON, KENTUCKY

STEPHEN L. MULLOY 11408 REGISTERED PROFESSIONAL ENGINEER STATE OF KENTUCKY

S. Stephen L. Mulloy — 10/10/86
Signed — Date

* 000IR 00642 123
FSP 056 0064 015-018 035D

Widen I-64 Over Tucker Station Road SHEET 1 OF 33

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P.E. PROJECT NO. *

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
I-IR 64-2(132)12		21440

UPDATE DATE

LETTING DATE

DESIGNED BY SLM	CHECKED BY SBS	DATE 9-26	REVISED Delete 1" Pref Cork Exp Jt. Add'l from Bill of Mat'l
DETAILED BY SSS	CHECKED BY SLM	DATE 9-26	REVISED Delete Std. Dwg. BJJ-004-05
TRACED BY	CHECKED BY	DATE	REVISED

DATE 2-28-07 DATE DATE

BILL OF INCIDENTAL MATERIALS

ITEM	NO.	DESCRIPTION	LOCATION
PLASTIC PIPE	16	1" INSIDE ø x 1'-1" LONG	WING BARRIERS (1)
ELASTOMERIC BEARING PADS	16	1/2"x 9"x 1'-4" NON-SHIMMED	ABUTMENT & END BENT (3)
ELASTOMERIC BEARING PADS	24	TYPE 2-I SUB TYPE "Y"	PIERS 1 & 2 (3)
ELASTOMERIC BEARING PADS	8	1/2"x 9"x 1'-2" NON-SHIMMED	PIER 2 (3)
PREFORMED CORK EXP. JOINT MATERIAL	2	1/2"x 2'-0" x 60'-0"	ABUTMENT & END BENT (2)
PREFORMED CORK EXP. JOINT MATERIAL	1	1/2"x 2'-10" x 10'-9"	PIER 1 (2)
PREFORMED CORK EXP. JOINT MATERIAL	1	1/2"x 1'-5" x 10'-9"	PIER 2 (2)
PREFORMED CORK EXP. JOINT MATERIAL	1	1/2"x 1'-6" x 60'-0"	PIER 2 (2)
JOINT WATERPROOFING	150LF	SEE GENERAL NOTES	ABUTMENT & END BENT (2)
ANCHOR DOWELS	56	1 1/2" ø x 2'-0"	ABUT, END BENT & PIER 2 (2)
DOWEL SLEEVES	56	2" ø x 5"	ABUT, END BENT & PIER 2 (2)
STYROFOAM	1	3"x 1'-3"x 13'-0"	PIER 2 (2)
STYROFOAM	1	3"x 2'-7"x 15'-0"	PIER 1 (2)
THREADED ANCHOR RODS	200	3/4" ø x 2'-0"	BEAMS & DIAPHRAGMS (3)
INSERTS	200	3/4" INSIDE DIAMETER	BEAMS & DIAPHRAGMS (3)
PREFORMED CORK EXP. JT. MATERIAL	4	1" x 4'-0" x 36'-0"	PIER 1 & PIER 2 (1) ~OUT

(1) INCIDENTAL TO CLASS "AA" CONCRETE
(2) INCIDENTAL TO CLASS "A" CONCRETE
(3) INCIDENTAL TO TYPE II P.P.C. I-BEAM

REFERENCES:
STANDARD DRAWINGS AND SPECIAL PROVISIONS LISTED BELOW ARE THE CURRENT EDITIONS, AND ARE TO BE USED WITH THESE PLANS.

SPECIAL PROVISIONS:

698 (85)	SELECT GRANULAR EMBANKMENT AND EARTH CORE AT END-BENT STRUCTURES

STANDARD DRAWINGS:

BBP-001-06	ELASTOMERIC BEARING PADS FOR PRESTRESSED BEAMS
BGX-006-04	STENCIL CONSTRUCTION DATE FOR BRIDGES
BJE-001-05	ARMORED EDGE FOR CONCRETE
BJJ-004-05	PREFORMED CORK EXPANSION JOINT MATERIAL DETAILS FOR CONCRETE BRIDGE FLOOR ~OUT
BPS-003-03	12" STRUCTURAL STEEL BEARING PILE AT 53 LBS.
RBC-001-04	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A & A-1
RGX-100-01	TREATMENT OF EMBANKMENTS AT BRIDGE END-BENT STRUCTURES
RGX-105-01	TREATMENT OF EMBANKMENTS AT BRIDGE END-BENT STRUCTURES

SPECIAL NOTES:

Masonry coating concrete finish

Epoxy coated reinforcing bars installation materials

Widen I-64 Over Tucker Station Road SHEET 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477 + 11.37 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

BRUNING 44-132 69827

UPDATE DATE

LETTING DATE

DATE | DATE | DATE

REVISED DATE 9-86 | REVISED DATE 10-86 | REVISED DATE

DESIGNED BY SLM | CHECKED BY SRS

DETAILED BY CSS+SWF | CHECKED BY SRS+SLM

TRACED BY | CHECKED BY

DATE

SPECIFICATIONS

THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION SHALL APPLY TO THIS PROJECT.

DESIGN LOAD

THIS BRIDGE IS DESIGNED FOR HS20-44 LIVE LOAD, AS SPECIFIED IN 1985 AASHTO SPECIFICATIONS OR THE ALTERNATE LOADING OF TWO 24-KIP AXLES SPACED FOUR FEET APART, WHICHEVER PROVIDES THE GREATER STRESSES. THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 84 MPH.

DESIGN METHOD

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

MATERIALS DESIGN SPECIFICATIONS

FOR CLASS "A" REINFORCED CONCRETE
F'C = 3500 PSI

FOR CLASS "AA" REINFORCED CONCRETE
F'C = 4000 PSI

FOR STEEL REINFORCEMENT
FY = 60000 PSI

FOR PRESTRESSED GIRDER CONCRETE
F'C = 5200 PSI
F'CI = 4300 PSI
F'S = 270000 PSI

FOR STRUCTURAL STEEL
FY = 36000 PSI FOR A36 STEEL

MATERIALS

ASTM SPECIFICATIONS, CURRENT EDITION, AS DESIGNATED BELOW SHALL GOVERN THE MATERIALS FURNISHED.

ASTM A36-84A	STRUCTURAL STEEL, 36,000 PSI MINIMUM YIELD
ASTM A416-80	LOW RELAXATION UNCOATED SEVEN-WIRE STABILIZED STRAND FOR PRESTRESSED CONCRETE, GRADE 270
ASTM A615-81A	DEFORMED AND PLAIN BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 60
ASTM A82-79	COLD DRAWN STEEL WIRE FOR CONCRETE REINFORCEMENT
ASTM D1752-67 (1978)	PREMOLDED CORK FILLER, TYPE II

CONCRETE

CLASS "AA" CONCRETE IS TO BE USED THROUGHOUT THE SUPERSTRUCTURE.
CLASS "A" CONCRETE IS TO BE USED THROUGHOUT THE SUBSTRUCTURE. PRESTRESSED GIRDER CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

CLEANING AND PAINTING

ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH SECTION 607.25 OF THE STANDARD SPECIFICATIONS.

PREFORMED CORK EXPANSION JOINT MATERIAL

PREFORMED CORK EXPANSION JOINT FILLER SHALL CONFORM TO SUBSECTION 807.03.02 (TYPE II) OF THE KENTUCKY DEPARTMENT OF HIGHWAYS SPECIFICATIONS.

JOINT WATERPROOFING

THE ABUTMENT & INTEGRAL PILE END BENT SHALL RECEIVE JOINT WATERPROOFING AT THE FOLLOWING LOCATIONS:

1) 1" VERTICAL JOINT IN THE DIAPHRAGM @ CENTERLINE I-64.
2) 1/2" HORIZONTAL JOINT AT THE JUNCTION BETWEEN THE END DIAPHRAGMS AND THE ABUTMENT CAP OR END BENT PILE CAP.
3) 1/2" VERTICAL JOINT IN THE WINGWALLS.

ALL WATERPROOFING MATERIALS USED SHALL CONFORM TO THE REQUIREMENTS OF SECTION 808 OF THE STANDARD SPECIFICATIONS. JOINT WATERPROOFING SHALL CONSIST OF AN ASPHALT PRIME COAT, AN ASPHALT MOPPING COAT, AND TWO ALTERNATE LAYERS OF FABRIC OF SPECIFIED WIDTHS AND ASPHALT MOPPING COATS. THE SURFACE OF CONCRETE FOR A DISTANCE OF AT LEAST 13 INCHES EACH SIDE OF THE JOINTS SHALL BE TREATED WITH A ASPHALT PRIME COAT AND PERMITTED TO SET THROUGHLY BEFORE THE FIRST MOP COAT IS APPLIED. A MOP COAT OF HOT ASPHALT SHALL THEN BE APPLIED AND A STRIP OF FABRIC 12 INCHES WIDE PRESSED INTO IT AND CENTERED OVER THE JOINT. THIS SHALL BE FOLLOWED WITH A SECOND MOPPING OF HOT ASPHALT, COVERING THE FABRIC AND THE REMAINING PRIMED SURFACE, AND A STRIP OF FABRIC 24 INCHES WIDE PRESSED AND CENTERED OVER THE JOINT. A FINAL MOPPING OF HOT ASPHALT COMPLETELY COVERING THE FABRIC AND LAPPING ONTO THE CONCRETE SHALL THEN BE APPLIED. THE COST OF THIS WORK INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN A SATISFACTORY MANNER IS TO BE INCLUDED IN THE UNIT PRICE FOR CLASS "AA" CONCRETE.

SLOPE PROTECTION

SLOPE PROTECTION SHALL BE CRUSHED AGGREGATE SLOPE PROTECTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

PRESTRESSING REINFORCEMENT

PRESTRESSING STRANDS SHALL BE STABILIZED STRAND (1/2" NOMINAL DIAMETER 270 GRADE LOW-RELAXATION UNCOATED SEVEN-WIRE STRAND IN ACCORDANCE WITH ASTM A416).

UNCOATED SEVEN-WIRE STRESS-RELIEVED STRAND IN ACCORDANCE WITH AASHTO M 203 GRADE 270 MAY BE USED INSTEAD OF STABILIZED. HOWEVER, IF THE STRESS-RELIEVED STRAND ALTERNATE IS CHOSEN, THE CONSULTANT THAT DEVELOPED THESE PLANS SHALL PROVIDE THE DESIGN FOR THE STRESS-RELIEVED STRAND AND ALSO REVISE THE ORIGINAL PLANS TO REFLECT THE CHANGES.

THIS DESIGN AND PLAN MODIFICATION SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. COST OF THE PRESTRESSING STRAND IS INCLUDED IN THE COST OF THE PRESTRESSED BEAM.

ELASTOMERIC BEARING PADS (SHIMMED AND NON-SHIMMED)

THE MATERIAL SPECIFICATIONS FOR ELASTOMERIC BEARING PADS SHALL CONFORM TO THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES EXCEPT THAT THE REQUIREMENT OF THE LOW TEMPERATURE TEST IS WAIVED AND A DUROMETER HARDNESS OF 50 OR 60 IS REQUIRED. THE COST OF THIS ITEM IS TO BE INCLUDED IN THE PRICE PER LINEAR FOOT FOR PRECAST BEAMS.

DEFORMED WIRE FABRIC

DEFORMED WIRE FABRIC MAY BE USED IN THE PRECAST BEAMS IN LIEU OF REINFORCING BARS, PROVIDED AN EQUIVALENT AREA OF STEEL IS FURNISHED. WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M 221 (A497) AND IS TO BE MADE OF DEFORMED WIRE CONFORMING TO AASHTO SPECIFICATION M 225 (A496).

STYROFOAM FORM FOR DIAPHRAGM KEYS

A STYROFOAM PAD SHALL BE PLACED OVER THE SHEAR KEYS WHEN FORMING THE DIAPHRAGM. WHEN THE CONCRETE IN THE DIAPHRAGM HAS SET THE STYROFOAM SHALL BE REMOVED.

REINFORCEMENT

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS.

EPOXY COATED REINFORCING STEEL

ALL REINFORCING BARS DESIGNATED BY SUFFIX (E) IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS.

BEVELED EDGES

ALL EXPOSED EDGES SHALL BE BEVELED 7/8" UNLESS OTHERWISE SHOWN.

REMOVE CONCRETE MASONRY

PORTIONS OF THE EXISTING REINFORCED CONCRETE BRIDGE SHALL BE REMOVED AS SHOWN ON THE PLANS. CONCRETE REMOVAL SHALL BE DONE IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS, EXCEPT AS NOTED IN THE PLANS. PROPER CARE SHALL BE TAKEN TO PROTECT THE EXISTING REINFORCEMENT SO IT CAN BE REUSED IN THE NEW CONSTRUCTION.

EXISTING REINFORCING STEEL

THE EXISTING REINFORCING STEEL, AS NOTED IN THE PLANS, SHALL BE EXPOSED AND CLEANED OF CONCRETE, EXCESSIVE RUST, AND OTHER FOREIGN MATTER. IT SHALL BE STRAIGHTENED AND BENT TO LAP WITH THE NEW BARS. MINIMUM LAPS, AS SHOWN ON THE PLANS, ARE REQUIRED AND THE EXCESS MAY BE CUT OFF. THE COST OF CUTTING, BENDING AND CLEANING EXISTING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR REMOVE CONCRETE MASONRY.

BONDING NEW CONCRETE TO OLD CONCRETE

NEW CONCRETE SHALL BE BONDED TO OLD CONCRETE AS SHOWN ON PLANS WITH A TWO-COMPONENT EPOXY RESIN SYSTEM CONFORMING TO SECTION 736 AND 833 OF THE SPECIFICATIONS . THE COST OF THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIALS IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR CLASS "A" CONCRETE OR CLASS "AA" CONCRETE AS NOTED IN THE PLANS.

DRILLING HOLES AND GROUTING DOWEL BARS INTO EXISTING CONCRETE

THE COST OF DRILLING HOLES IN EXISTING CONCRETE AND GROUTING DOWEL BARS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CLASS "A" CONCRETE OR CLASS "AA" CONCRETE AS NOTED IN THE PLANS. GROUTING SHALL BE IN ACCORDANCE WITH SECTION 736 AND 833 OF THE STANDARD SPECIFICATIONS.

BILL OF INCIDENTAL MATERIAL

THE QUANTITIES SHOWN IN THE "BILL OF INCIDENTAL MATERIALS" ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ENOUGH MATERIAL TO COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE COST OF THESE ITEMS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE QUANTITIES SPECIFIED IN THE "BILL OF INCIDENTAL MATERIALS" TABLE.

GENERAL NOTES

Widen I-64 Over Tucker Station Road SHEET 3

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477+11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE

ELECTRICAL CONDUIT

THE LUMP SUM BID FOR THIS ITEM SHALL INCLUDE FURNISHING ALL JUNCTION BOXES, EXPANSION FITTINGS, CONDUIT AND ALL OTHER MATERIALS AND LABOR NECESSARY FOR PLACING THESE MATERIALS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

DIMENSIONS

DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

PAYMENT FOR STRUCTURAL STEEL

THE LUMP SUM BID FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL STRUCTURAL STEEL, WELDING AND WELDING MATERIALS, PAINT AND ALL LABOR AND MATERIALS NECESSARY TO ERECT THE STEEL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. APPROXIMATE WEIGHT OF STRUCTURAL STEEL SHOWN IN THE ESTIMATE OF QUANTITIES DOES NOT INCLUDE OVERRUN OR WELD MATERIAL.

CONSTRUCTION IDENTIFICATION

THE NAMES OF THE PRIME CONTRACTOR AND THE SUB-CONTRACTOR SHALL BE IMPRINTED IN THE CONCRETE WITH ONE INCH LETTERS AT A LOCATION DESIGNATED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL PLANS, EQUIPMENT AND LABOR NECESSARY TO DO THE WORK FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

TEMPORARY SUPPORTS

TEMPORARY SUPPORTS OR SHORING WILL NOT BE PERMITTED UNDER THE GIRDERS WHEN POURING THE CONCRETE FLOOR SLAB OR WHEN TAKING "TOP OF BEAM" ELEVATIONS.

TENSIONING METHOD

BEAMS SHALL BE PRETENSIONED.

CONSTRUCTION METHOD

NO BOND STRESS SHALL BE TRANSFERRED TO THE CONCRETE, NOR SHALL END ANCHORS BE RELEASED, UNTIL THE CONCRETE HAS ATTAINED A COMPRESSIVE STRENGTH AS SHOWN BY STANDARD CYLINDERS MADE AND CURED IDENTICALLY WITH THE GIRDERS, OF AT LEAST A MINIMUM STRENGTH OF 4,300 PSI. CYLINDER STRENGTH SHALL BE 5,200 PSI BEFORE BRIDGE IS OPEN TO TRAFFIC. AN INITIAL FORCE SHALL BE APPLIED TO EACH LOW RELAXATION STRAND SUCH AS TO DEVELOP A STRESS OF 202,500 PSI. BEAMS WITH HONEYCOMB OF SUCH EXTENT AS TO AFFECT THE STRENGTH OR RESISTANCE TO DETERIORATION WILL NOT BE ACCEPTED. AN ALLOWANCE OF .0005L SHALL BE MADE FOR SHORTENING OF BEAMS DUE TO SHRINKAGE AND ELASTIC CHANGE. SHOP PLANS SHALL SHOW A DETENSIONING PLAN BY NUMBERING IN SEQUENCE THE STRAND PATTERN.

PAYMENT FOR PRECAST CONCRETE BEAMS

THE BASIS OF PAYMENT FOR THE PRESTRESSED CONCRETE BEAMS SHALL BE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF BEAM, IN ACCORDANCE WITH THE SPECIFICATIONS.

TESTING PRESTRESSED CONCRETE MEMBERS

IN ADDITION TO THE REQUIREMENTS OF SECTION 605 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS, FABRICATORS OF PRESTRESSED CONCRETE MEMBERS SHALL FURNISH, AS PART OF THEIR QUALITY CONTROL EQUIPMENT, A PACHOMETER FOR DETERMINING THE DEPTH OF CONCRETE COVER OVER STEEL REINFORCEMENT. THE METER FURNISHED SHALL BE AN "A" METER AS MANUFACURED BY JAMES ELECTRONICS, INC., CHICAGO, ILLINOIS OR APPROVED EQUAL. THE PACHOMETER SHALL BE AVAILABLE FOR USE BY BOTH THE FABRICATOR'S QUALITY CONTROL PERSONNEL AND BY THE DEPARTMENT'S INSPECTOR(S).

NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING THE METER AS THIS IS CONSIDERED INCIDENTAL TO THE PRESTRESSED CONCRETE WORK.

SAWCUTTING EXISTING CONCRETE

PRIOR TO THE REMOVAL OF THE EXISTING CONCRETE MASONRY, CUT THE SURFACE WITH A CONCRETE SAW TO A DEPTH OF ONE INCH TO FACILITATE A NEAT LINE. THE COST OF CUTTING CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR REMOVE CONCRETE MASONRY.

FOUNDATION PRESSURE

ABUTMENT FOOTINGS ARE DESIGNED FOR A MAXIMUM PRESSURE OF 13,800 PSF.
PIER FOOTINGS ARE DESIGNED FOR A MAXIMUM PRESSURE OF 10,700 PSF. PILE BENTS ARE DESIGNED FOR A MAXIMUM AXIAL LOAD OF 54.2 TONS PER PILE AND A MAXIMUM HORIZONTAL SHEAR OF 1.40 TONS PER PILE.

PILING

PILING SHALL BE DRIVEN TO REFUSAL OR TO SOLID ROCK.

TEST PILES SHALL BE DRIVEN WHERE DESIGNATED ON THE PLANS TO DETERMINE THE LENGTH OF PILE REQUIRED.

ALL TEST PILES SHALL BE ACCURATELY LOCATED SO THAT THEY MAY BE USED IN THE FINISHED STRUCTURE.

CONSTRUCTION STAGING

THE CONTRACTOR SHALL ARRANGE TO DO THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIAL NOTES RELATIVE TO CONSTRUCTION STAGING AS NOTED ON THE ROADWAY PLANS DURING CONSTRUCTION OF THIS PROJECT.

DESIGNED BY SLM DATE 9-86
DETAILED BY BSB DATE 9-86
TRACED BY DATE
CHECKED BY SRS DATE 9-86
CHECKED BY SRS DATE 9-86
CHECKED BY DATE
REVISED
REVISED
REVISED

GENERAL NOTES

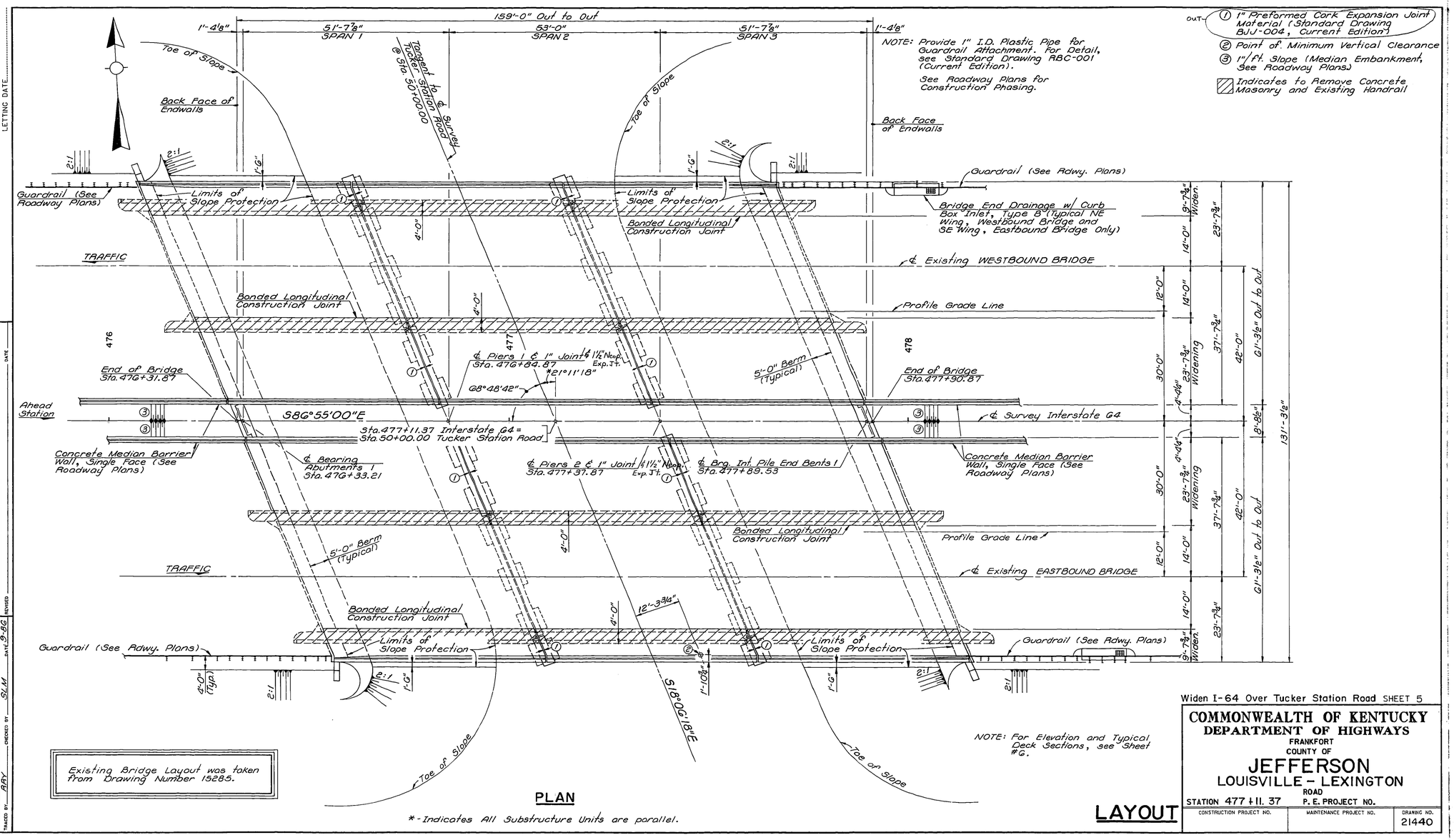
Widen I-64 Over Tucker Station Road SHEET 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477+11.37 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE



① 1" Preformed Cork Expansion Joint Material (Standard Drawing BJJ-004, Current Edition)

② Point of Minimum Vertical Clearance

③ 1"/Ft. Slope (Median Embankment, See Roadway Plans)

Indicates to Remove Concrete Masonry and Existing Handrail

NOTE: Provide 1" I.D. Plastic Pipe for Guardrail Attachment. For Detail, see Standard Drawing RBC-001 (Current Edition).

See Roadway Plans for Construction Phasing.

NOTE: For Elevation and Typical Deck Sections, see Sheet #6.

Existing Bridge Layout was taken from Drawing Number 15285.

PLAN

*-Indicates All Substructure Units are parallel.

LAYOUT

DESIGNED BY	HWW	CHECKED BY	SLH & SRS
DETAILED BY	SWF	CHECKED BY	REH & SLM
TRACED BY	RAY	CHECKED BY	SLM

Added 1½" Neop. Exp. Jt. to ℄ Piers 1 & 2	REVISED	DATE 9-86
	REVISED	DATE 9-86
	REVISED	DATE 9-86

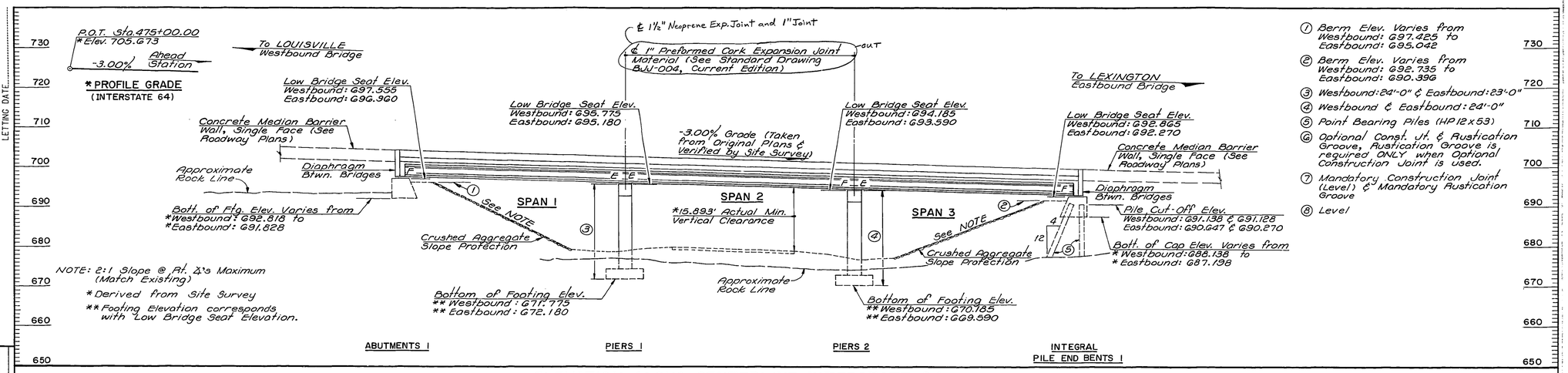
Widen I-64 Over Tucker Station Road SHEET 5

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477+11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE



ELEVATION ALONG CENTERLINE INTERSTATE 64

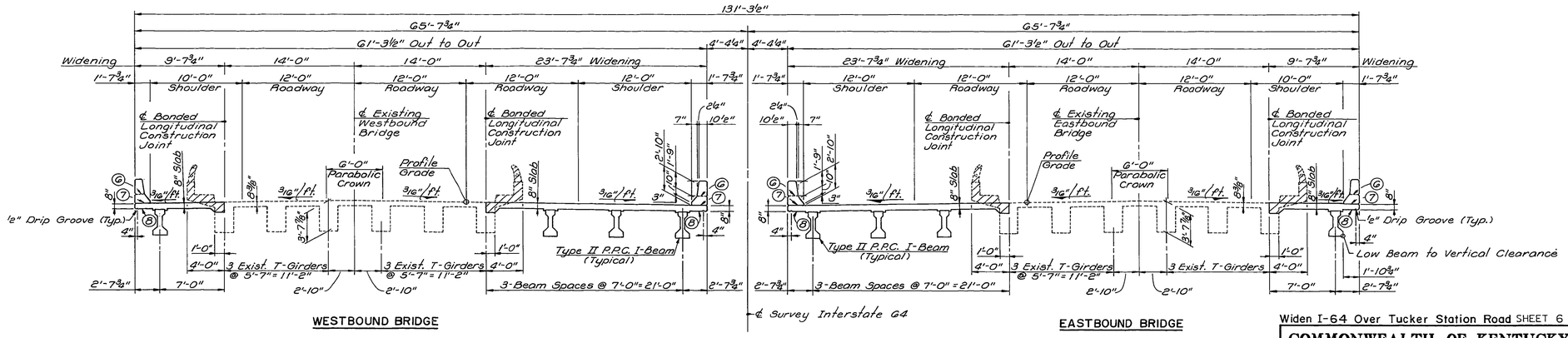
(LOOKING NORTH)

TWIN BRIDGE WIDENING

51'-7⅞" ~ 53'-0" ~ 51'-7⅞" Type II P.P.C. I-Beam Composite Single Span

HS20-44A, 2-36'-0" Roadways, 36'-0" Median, 21°11'18" Skew Lt.

136'-0" Out to Out Shoulders, 2:1 Fill Slopes



WESTBOUND BRIDGE

EASTBOUND BRIDGE

TYPICAL DECK SECTIONS

(LOOKING AHEAD)

Existing Deck Sections were taken from Drawing Number 15283.

▨ Indicates to Remove Concrete Masonry and Existing Handrail.

ELEVATION AND TYPICAL DECK SECTIONS

Widen I-64 Over Tucker Station Road SHEET 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

DESIGNED BY	HMW	CHECKED BY	SLM & SRS	DATE 9-86
DETAILED BY	SHF	CHECKED BY	REV. & SLM	DATE 2-86
TRACED BY	RAY	CHECKED BY	SLM	DATE 9-86

DATE 9-26-87 — REVISED — Changed 1"Neop. Exp. Jt. @ Piers to 1½" Neop. Exp. Jt.

DATE — REVISED

DATE — REVISED

8438

UPDATE DATE

LETTING DATE

DESIGNED BY	S.H.H	CHECKED BY	S.R.S	DATE	9.86	REVISED
DETAILED BY	S.H.H	CHECKED BY	S.H.	DATE	9.86	REVISED
TRACED BY		CHECKED BY		DATE		REVISED

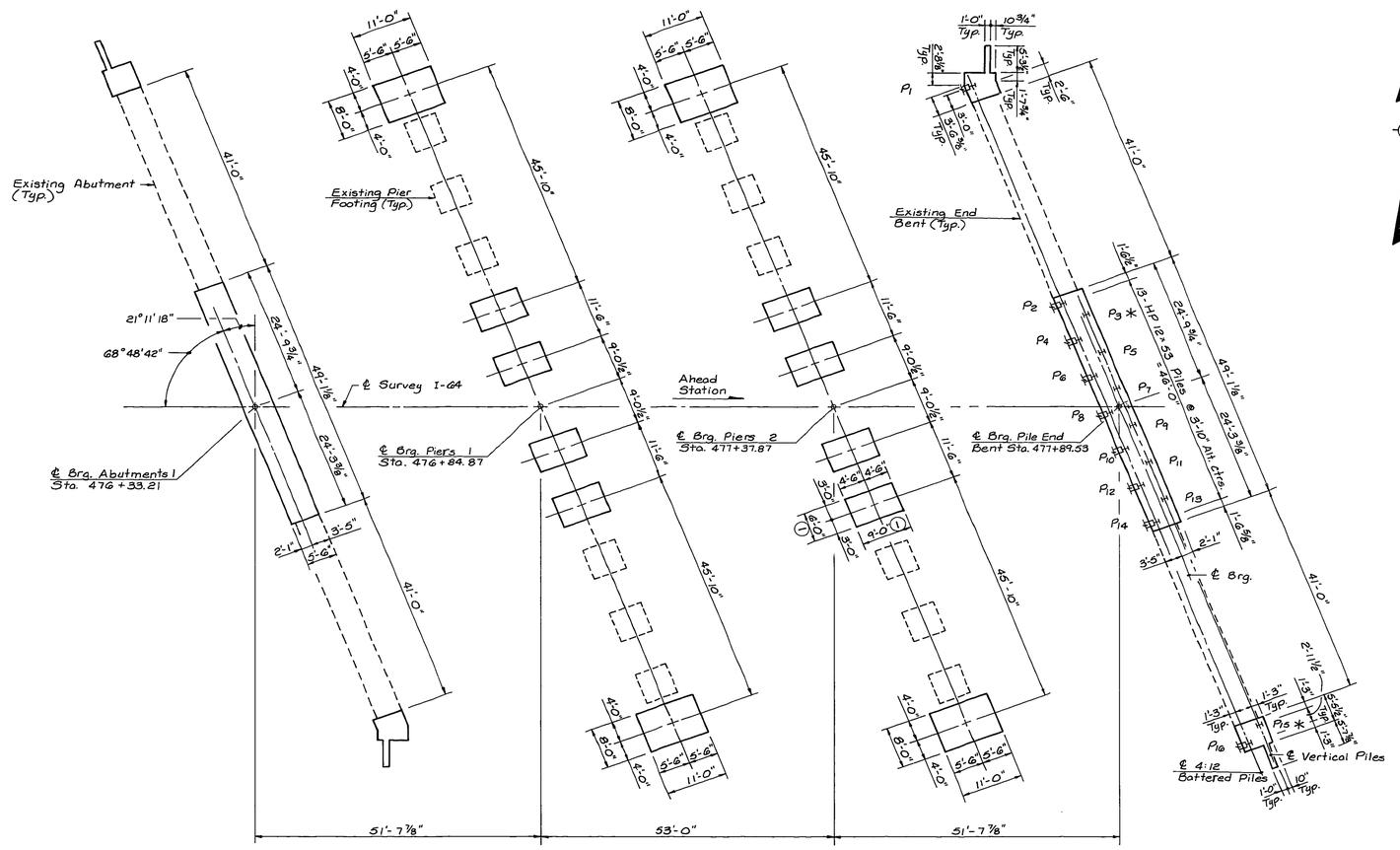
DATE

DATE

DATE

PILE RECORD

PILE NUMBER	CUTOFF ELEVATION AS SHOWN	TIP-OF-PILE AS DRIVEN	LENGTH OF PILE IN PLACE (LIN. FT.)	CALCULATED BEARING CAPACITY (TONS)
P1	691.138			
P2	691.128			
P3 *				
P4				
P5				
P6				
P7	691.128			
P8	690.647			
P9				
P10				
P11				
P12				
P13				
P14	690.647			
P15 *	690.270			
P16	690.270			



ABUTMENTS 1 PIERS 1 PIERS 2 INTEGRAL PILE END BENTS 1

Notes:
All Substructure Units are parallel
* Denotes Test Piles
① Typical except where noted.
All Piles are HP 12×53

PILE RECORD

AFTER ALL PILES HAVE BEEN DRIVEN, THE ENGINEER SHALL RECORD FOR EACH PILE, THE TIP-OF-PILE ELEVATION AS DRIVEN, THE LENGTH OF PILE IN PLACE AND THE CALCULATED BEARING CAPACITY AND SHALL RETURN ONE BLUE LINE COPY OF THIS SHEET WITH THIS DATA TO THE DIRECTOR OF THE DIVISION OF BRIDGES SO THAT THE DATA MAY BE RECORDED ON THE ORIGINAL PLANS. LENGTHS OF PILES IN PLACE SHOWN HEREON ARE THE ACTUAL LENGTHS OF PILES IN THE FINISHED STRUCTURE BELOW CUTOFF ELEVATION.
THIS PILE RECORD DOES NOT REPLACE OTHER RECORDS OF PILES REQUIRED TO BE KEPT AND SUBMITTED BY THE RESIDENT ENGINEER.

SUBSTRUCTURE LAYOUT & PILE RECORD

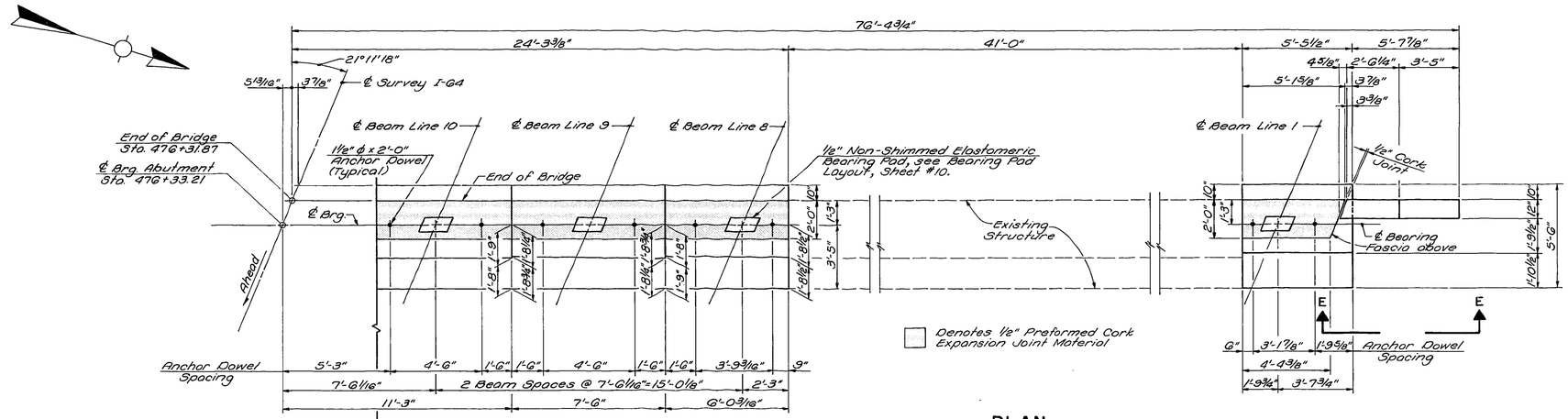
Widen I-64 Over Tucker Station Road SHEET 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477+11.37 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE

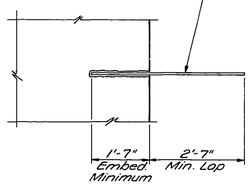


PLAN

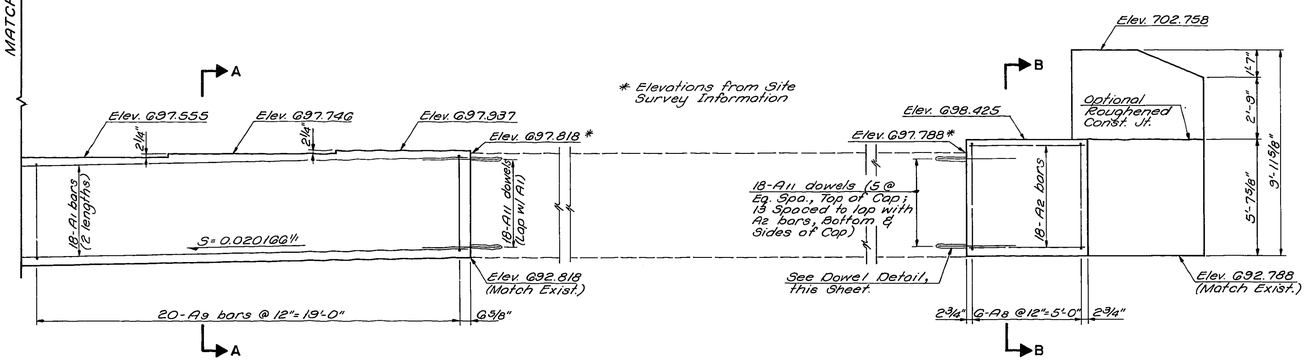
NOTE:
For Wing Reinforcement, See Wing Details, Sheet #10.

MATCH LINE

Grout All dowel bars into 1" ϕ x 2'-0" deep holes drilled into existing abutment. See the General Notes.



DOWEL DETAIL



ELEVATION

ABUTMENT

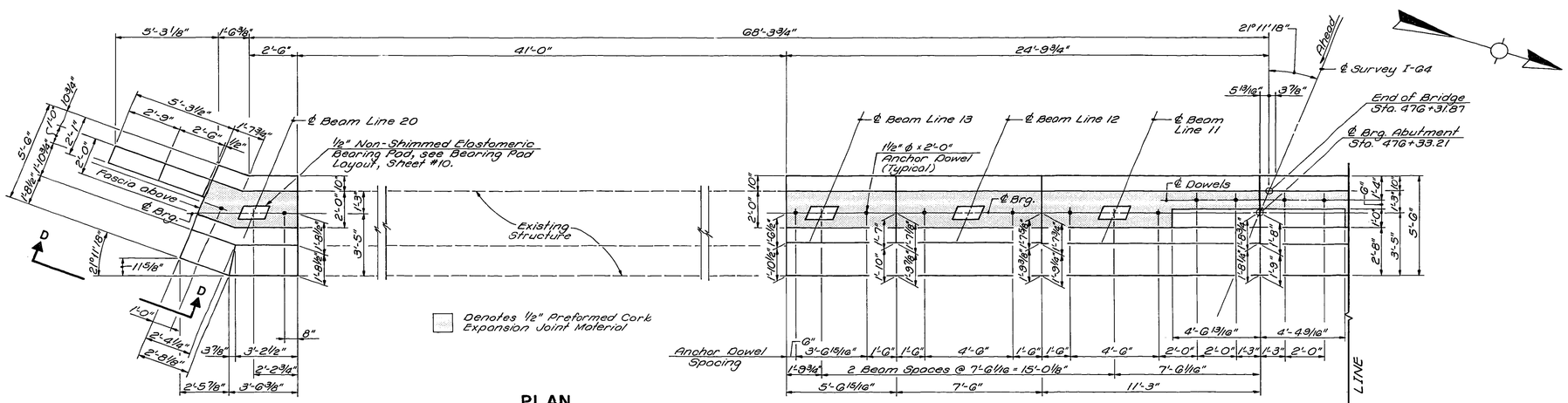
DESIGNED BY	SLM	CHECKED BY	SRS	DATE	9/86
DETAILED BY	ALF	CHECKED BY	SRS	DATE	9/86
TRACED BY		CHECKED BY		DATE	

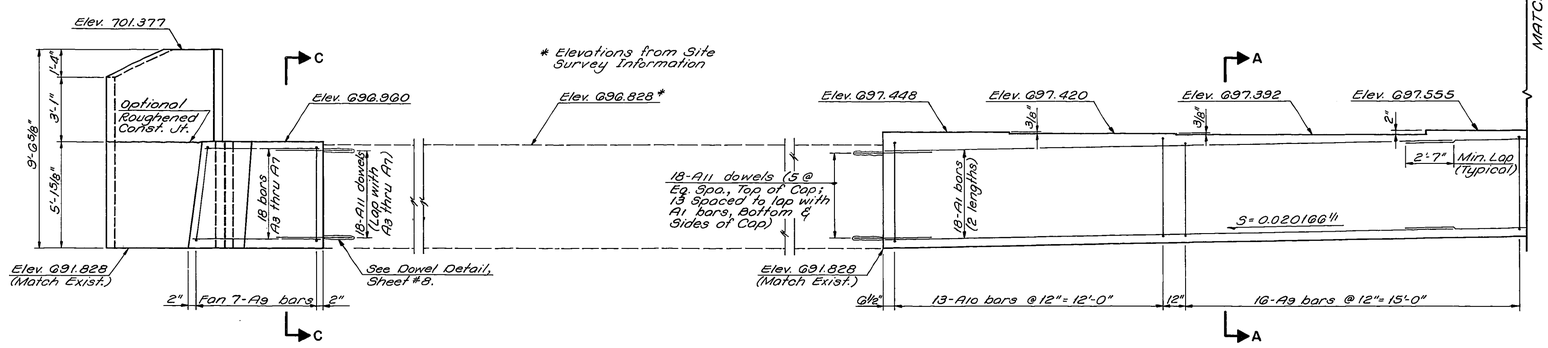
REVISED DATE
REVISED DATE
DATE

Widen I-64 Over Tucker Station Road SHEET 8

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440





ELEVATION

ABUTMENT

UPDATE DATE
LETTING DATE

	DATE		DATE		DATE
DESIGNED BY SLM	CHECKED BY SEC	DATE 2/96	REVISED		
DETAILED BY ALF	CHECKED BY SEC	DATE 2/96	REVISED		
TRACED BY	CHECKED BY	DATE	REVISED		

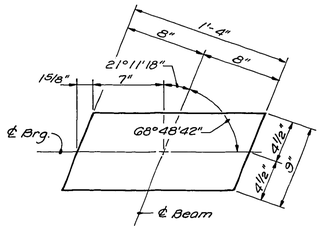
Widen I-64 Over Tucker Station Road SHEET 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

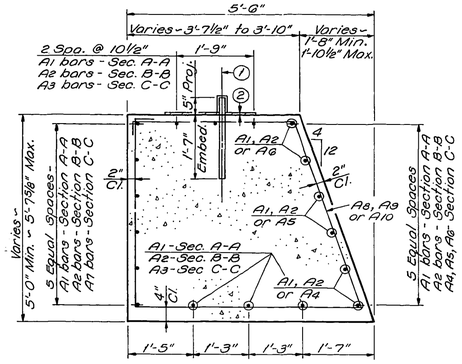
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE



BEARING PAD LAYOUT



SECTION A-A
SECTION B-B
SECTION C-C

ESTIMATE OF QUANTITIES

ITEM	UNIT	QUANTITY	
		W BOUND	E BOUND
CLASS "A" CONCRETE	C.Y.	29.2	28.4
STEEL REINFORCEMENT	LBS.	1,979	1,979

ANCHOR DOWEL NOTE

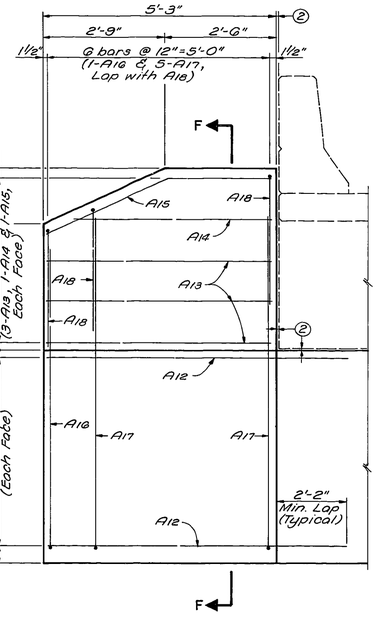
Anchor Dowels to be 1½" ϕ x 2'-0" AASHTO M222 Steel Pins. Dowel Sleeve to be 2" ϕ x 5" Std. Wt. Pipe Sleeve, closed at one end. Cost of Dowel and Sleeve are incidental to Class "A" Concrete. Pipe Sleeves to be secured to prevent floating while pouring concrete. Dowels to be in place before abutment is poured.

① ℄ Bearing & ℄ 1½" ϕ x 2'-0" Anchor Dowel (See Note above)

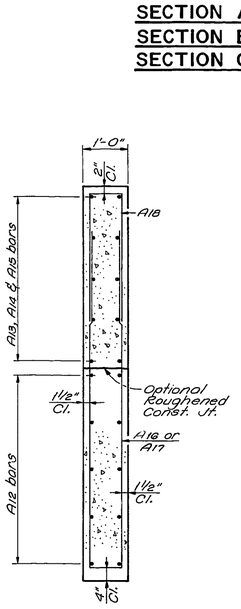
② ½" Preformed Cork Expansion Joint Material with Joint Waterproofing on the earth side, Cost incidental to Class "A" Concrete.

BILL OF REINFORCEMENT

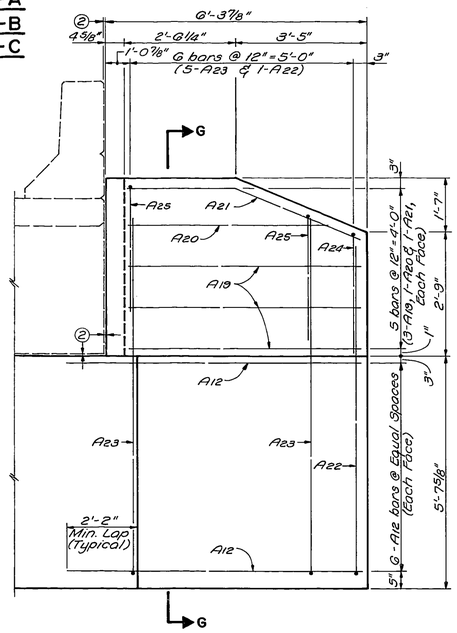
MARK	TYPE	SIZE	NUMBER	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A1	Str.	#6	36	25	10	Cap								
A2	Str.		18	5	4									
A3	Str.		6	4	0									
A4	①		2	5	9		3	6	2	3	2	1⅛	0	9¾
A5	①		2	5	5		3	4	2	1	1	1⅜	0	9
A6	①		2	5	2		3	2	2	0	1	10⅝	0	8⅜
A7	①	#6	6	3	8		2	4	1	4	1	2⅛	0	5¾
A8	②	#5	6	19	8		3	3	5	1	5	2	5	5¼
A9	②	#5	43	18	9		3	4	4	7	5	2	4	11¼
A10	②	#5	13	19	3		3	4	4	10	5	2	5	2
A11	Str.	#6	72	4	2	Cap								
A12	Str.	#6	22	7	9	Wingwalls								
A13	Str.	#4	6	5	0									
A14	Str.	#4	2	4	9									
A15	①	#4	2	5	2		2	10	2	4	2	1⅛	1	0¼
A16	③	#5	1	14	8		7	0	0	9				
A17	③	#5	5	17	4		8	4	0	9				
A18	③	#5	6	6	6		2	11	0	9				
A19	Str.	#4	6	5	8									
A20	Str.	#4	2	5	1									
A21	①	#4	2	5	11		3	7	2	4	2	1⅜	0	11¾
A22	③	#5	1	15	8		7	6	0	9				
A23	③	#5	5	18	2		8	9	0	9				
A24	③	#5	1	5	10		2	7	0	9				
A25	③	#5	5	6	4	Wingwalls	2	10	0	9				



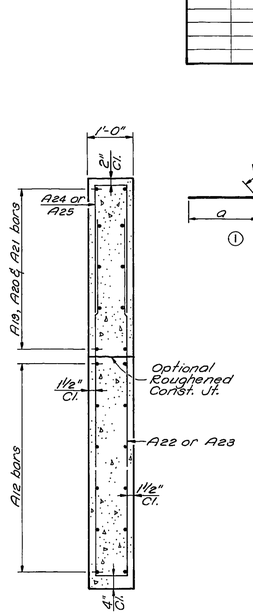
VIEW D-D



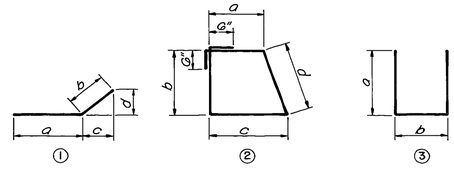
SECTION F-F



VIEW E-E



SECTION G-G



ABUTMENT DETAILS

Widen I-64 Over Tucker Station Road SHEET 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

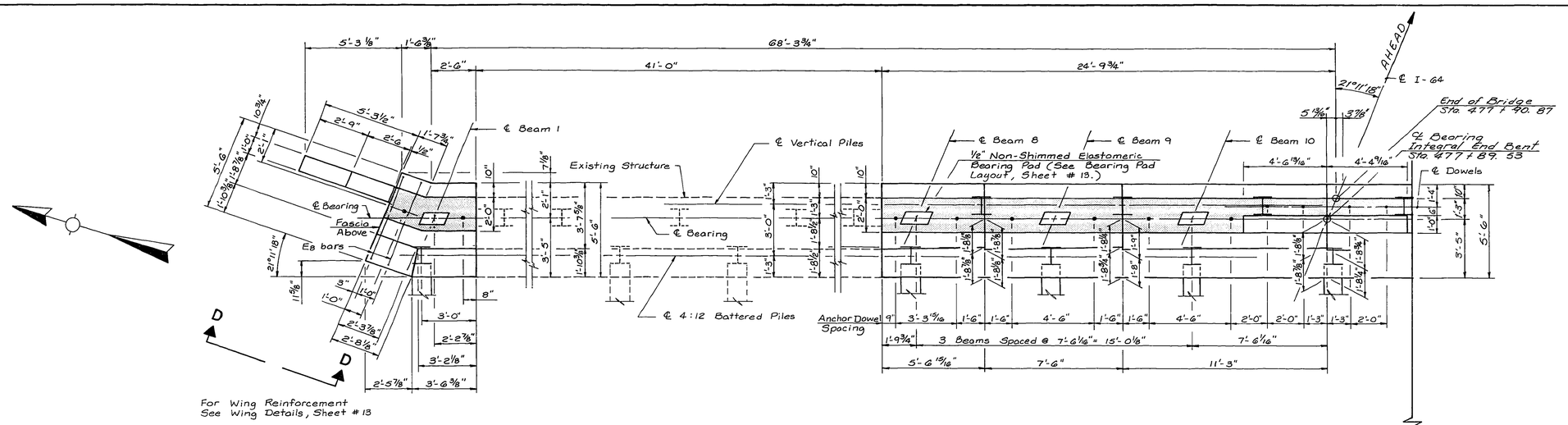
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

DESIGNED BY	SLM	CHECKED BY	SES	DATE 9/86	REVISED
DETAILED BY	ALF	CHECKED BY	SES	DATE 9/86	REVISED
TRACED BY		CHECKED BY		DATE	REVISED

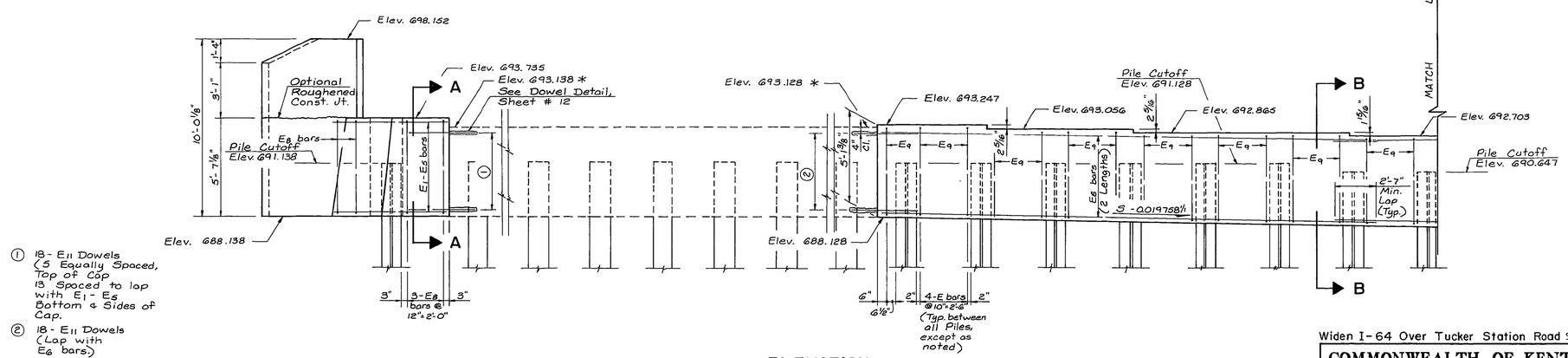
84198

UPDATE DATE:

LETTING DATE:



PLAN



ELEVATION

① 18 - E11 Dowels (5 Equally Spaced, Top of Cap 13 Spaced to lap with E1 - E5 Bottom & Sides of Cap.

② 18 - E11 Dowels (Lap with E8 bars.)

* Elevations from Site Survey Information.

☐ Denotes ½" Preformed Cork Expansion Joint Material.

INTEGRAL PILE END BENT

Widen I-64 Over Tucker Station Road SHEET 11

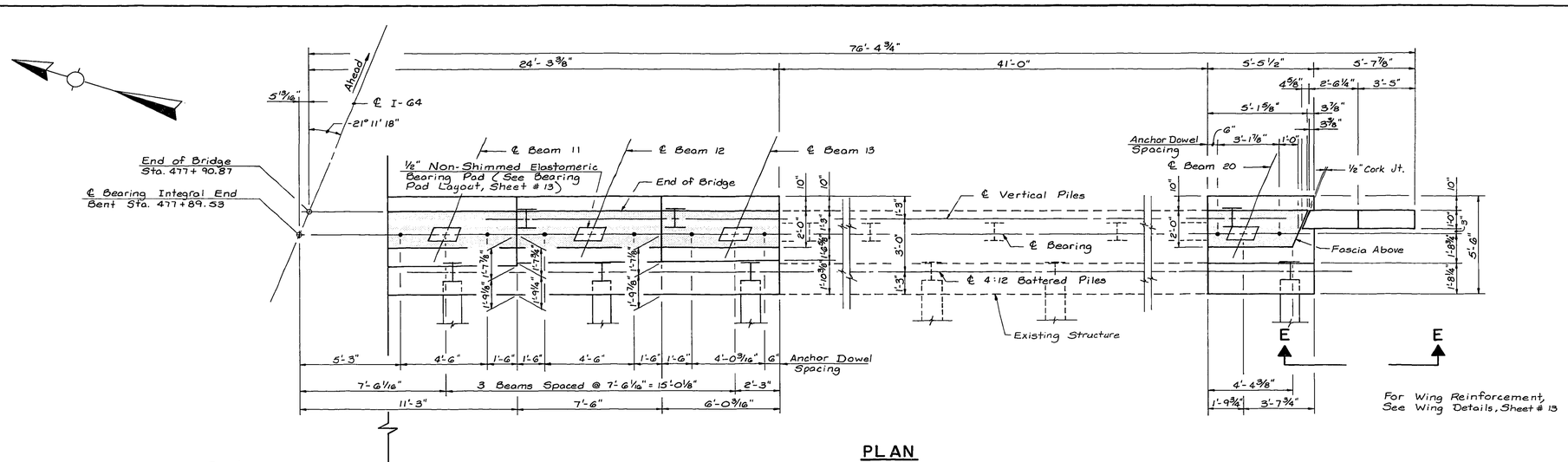
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

DESIGNED BY: SLM	CHECKED BY: SRS	DATE: 9-86	REVISED
DETAILED BY: SLM & SWF & GSB	CHECKED BY: SLM & SRS	DATE: 9-86	REVISED
TRACED BY:	CHECKED BY:	DATE:	REVISED
DATE			
DATE			
DATE			

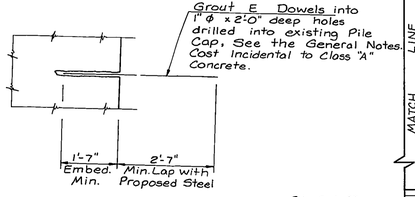
UPDATE DATE

LETTING DATE

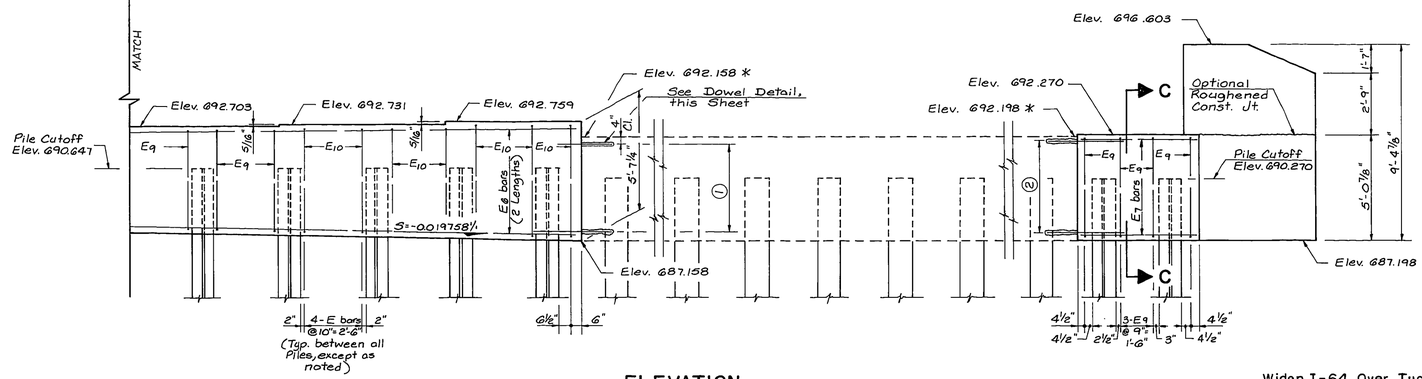


PLAN

For Wing Reinforcement, See Wing Details, Sheet # 13



DOWEL DETAIL



ELEVATION

① 18 - E11 Dowels (5 Equally Spaced, Top of Cap 13 Spaced to lap with E6 bars, Bottom & Sides of Cap.

② 18 - E11 Dowels (Lap with E7 bars.)

* Elevations from Site Survey Information.

☐ Denotes 1/2" Preformed Cork Expansion Joint Material.

INTEGRAL PILE END BENT

Widen I-64 Over Tucker Station Road SHEET 12

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11. 37 P. E. PROJECT NO.

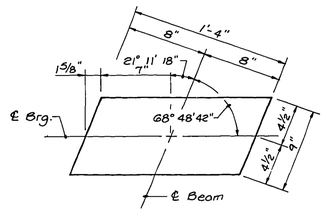
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

DESIGNED BY SLM	CHECKED BY SRS	DATE 9-86	REVISED
DETAILED BY SWF	CHECKED BY SLM + SRS	DATE 9-86	REVISED
TRACED BY	CHECKED BY	DATE	REVISED

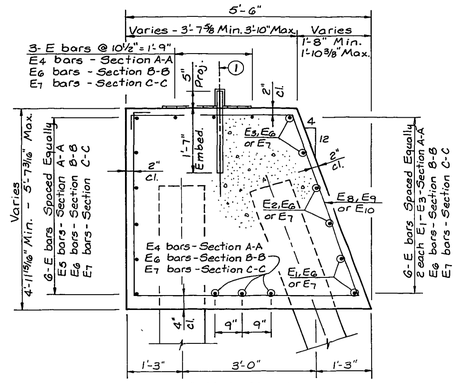
64789

UPDATE DATE

LETTING DATE



BEARING PAD LAYOUT



SECTION A-A
SECTION B-B
SECTION C-C

① ℄ Bearing & ℄ 1 1/2" ϕ x 2'-0" Anchor Dowel (See Note)

② 1/2" Preformed Cork Expansion Joint Material with Joint Waterproofing on earth side. Cost Incidental to Class "A" Concrete.

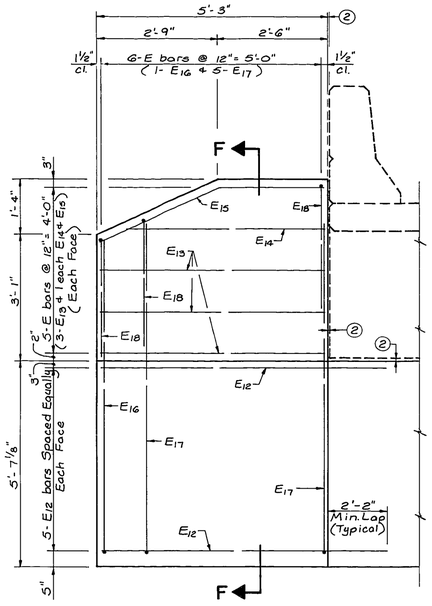
ESTIMATE OF QUANTITIES

ITEM	UNIT	QUANTITY	
		W BOUND	E BOUND
CLASS A CONCRETE	C.Y.	28.1	29.2
STEEL REINFORCEMENT	LBS.	1952	1952

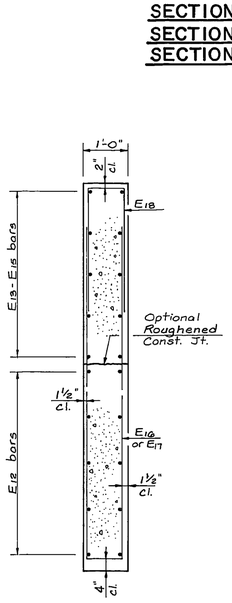
W BOUND - DENOTES WEST BOUND STRUCTURE
E BOUND - DENOTES EAST BOUND STRUCTURE

BILL OF REINFORCEMENT

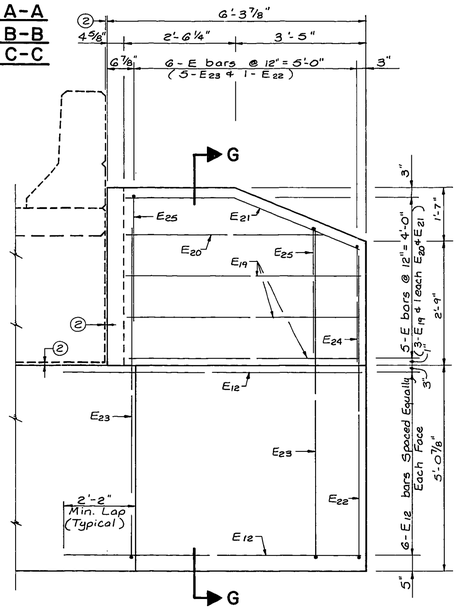
MARK	TYPE	SIZE	NUMBER	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
E1	①	#6	2	5	11	Cap	2	6	3	5	3	2 1/4	1	2 3/8
E2	①		2	5	8		2	4	3	4	3	1 1/4	1	2 1/2
E3	①		2	5	4		2	2	3	2	2	11 5/8	1	1 3/4
E4	Str.		6	4	6									
E5	①		6	3	11		1	5	2	6	2	4	0	10 7/8
E6	Str.		36	25	10									
E7	Str.	#6	18	5	4									
E8	②	#5	5	19	8		3	3	5	1	5	2	5	5 1/4
E9	②	#5	42	18	7		3	4	4	6	5	2	4	10 1/4
E10	②	#5	13	19	0		3	3	4	9	5	2	5	1 1/2
E11	Str.	#6	72	4	2	Cap								
E12	Str.	#6	22	7	9	Wingwalls								
E13	Str.	#4	6	5	0									
E14	Str.	#4	2	4	6									
E15	①	#4	2	5	2		2	10	2	4	2	1 1/8	1	0 1/4
E16	③	#5	1	15	6		7	5	0	9				
E17	③	#5	5	18	2		8	9	0	9				
E18	③	#5	6	6	6		2	11	0	9				
E19	Str.	#4	6	5	8									
E20	Str.	#4	2	5	1									
E21	①	#4	2	5	11		3	7	2	4	2	1 3/8	0	11 3/4
E22	③	#5	1	14	6		6	11	0	9				
E23	③	#5	5	16	4		7	10	0	9				
E24	③	#5	1	5	10		2	7	0	9				
E25	③	#5	5	5	0	Wingwalls	2	2	0	9				



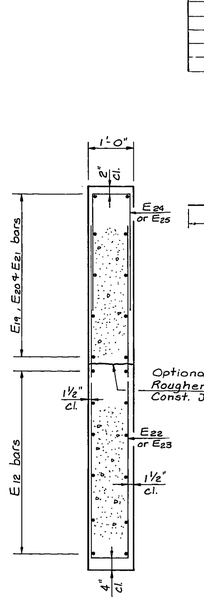
VIEW D-D



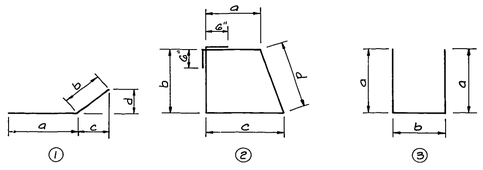
SECTION F-F



VIEW E-E



SECTION G-G



Notes:
Anchor Dowels to be 1 1/2" ϕ x 2'-0" AASHTO M222 Steel Pins. Dowel Sleeve to be 2" ϕ x 5" Standard Weight Pipe Sleeve closed at one end. Cost of Dowel and Sleeve are Incidental to Class "A" Concrete. Pipe Sleeves to be secure to prevent floating while pouring concrete. Dowels to be in place before cap is poured.

INTEGRAL PILE END BENT DETAILS

DATES
DESIGNED BY SLM CHECKED BY SRS DATE 9-86 REVISED
DETAILED BY SLM & SRS CHECKED BY SLM DATE 9-86 REVISED
TRACED BY SWF CHECKED BY DATE REVISED

Widen I-64 Over Tucker Station Road SHEET 13

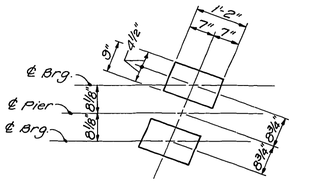
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

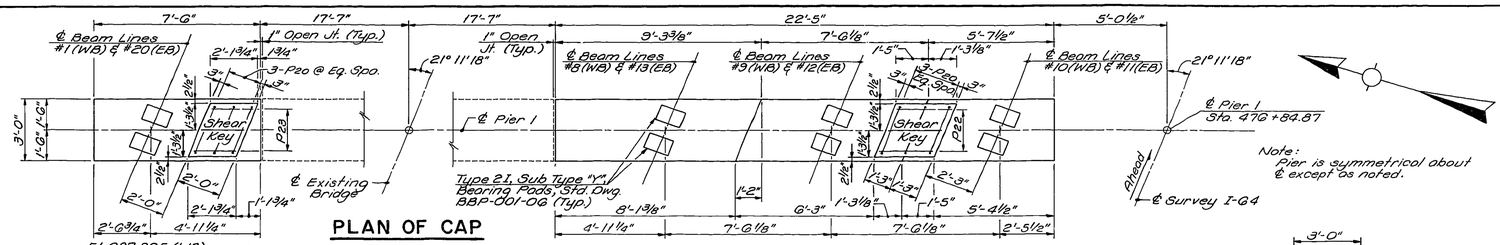
UPDATE DATE

LETTING DATE

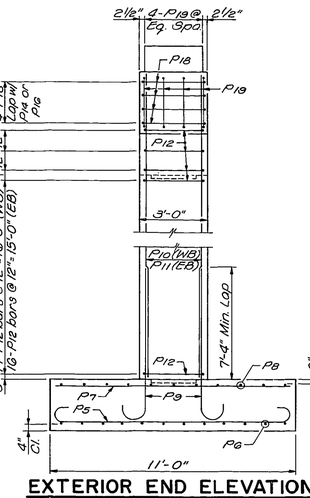
	DATE	DATE	DATE
DESIGNED BY	SLM	SLM	
CHECKED BY			
DETAILED BY	ALF		
CHECKED BY			
TRACED BY			
CHECKED BY			
REVISED	3/96	3/96	
DATE	3/96		



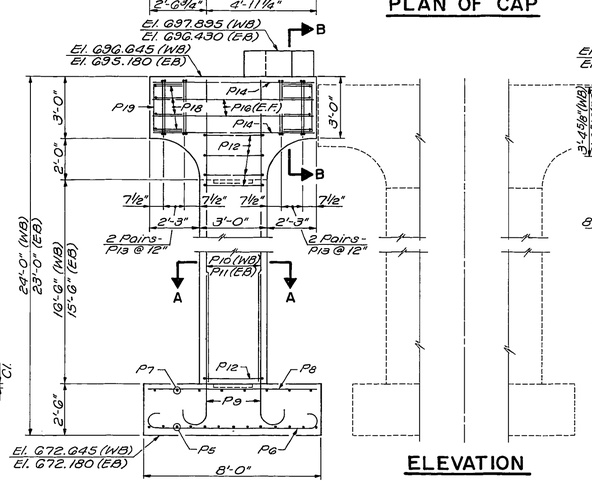
BEARING PAD LAYOUT



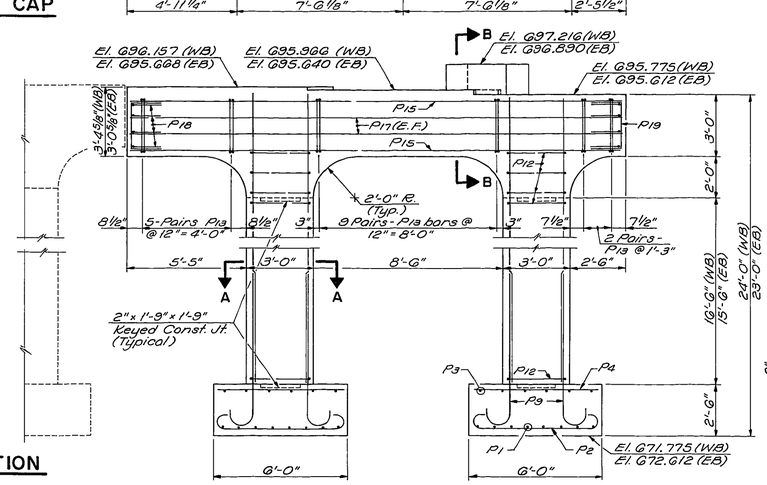
PLAN OF CAP

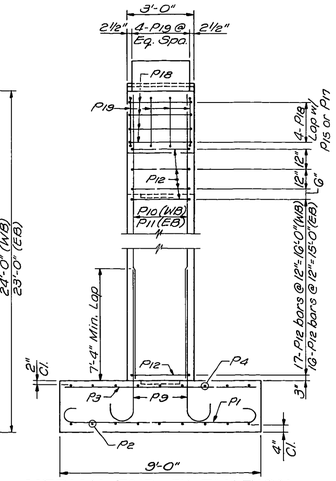


EXTERIOR END ELEVATION

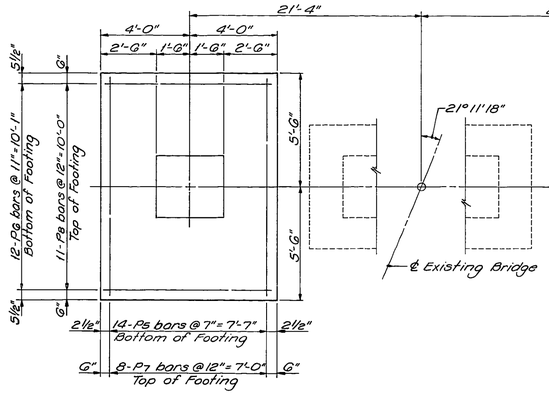


ELEVATION





MEDIAN END ELEVATION



PLAN OF FOOTING

PIER I

For Section A-A & B-B see Sheet #16
E.F. denotes Each Face
WB denotes Westbound Bridge
EB denotes Eastbound Bridge

Widen I-64 Over Tucker Station Road SHEET 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

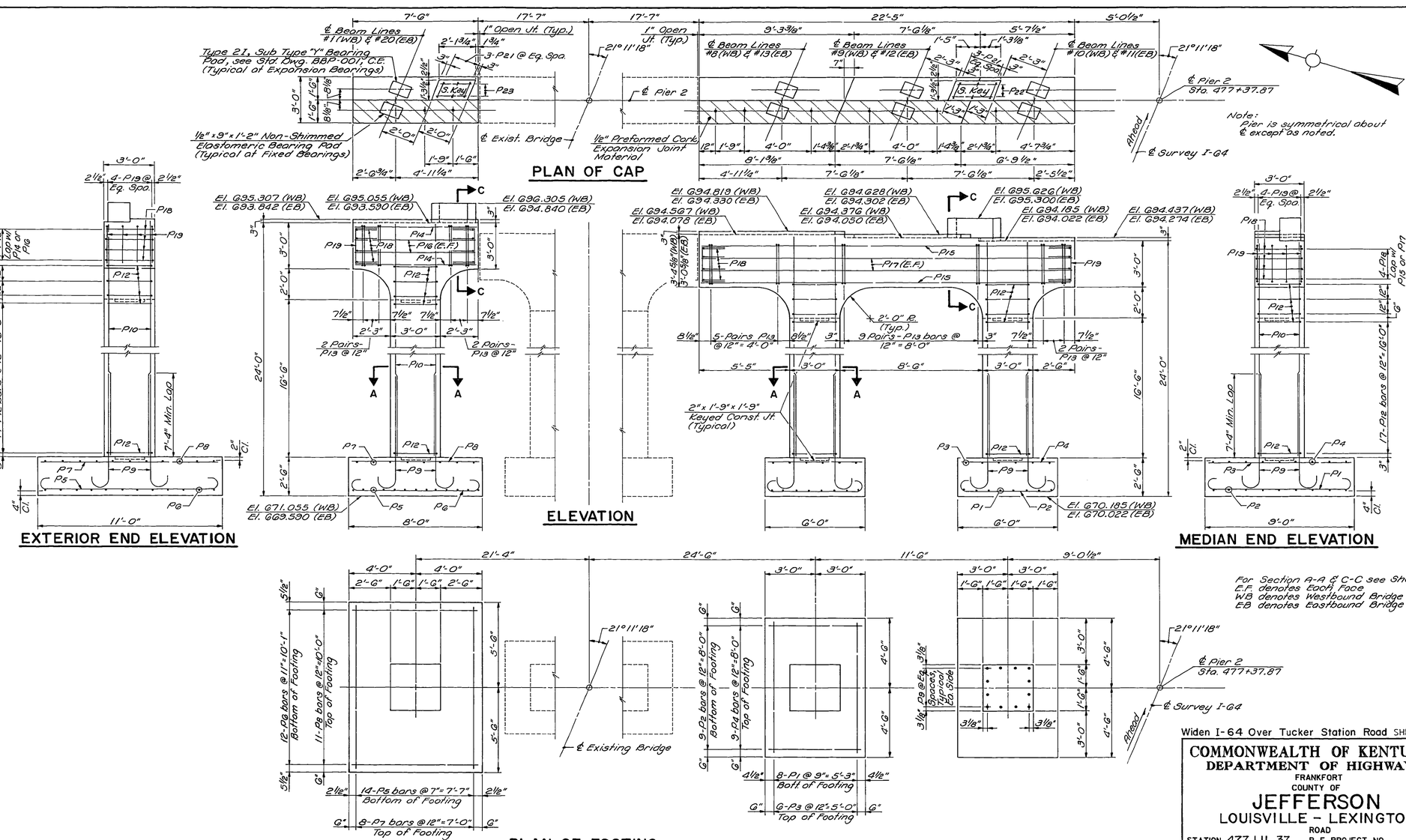
UPDATE DATE

LETTING DATE

DATE DATE DATE

DESIGNED BY	SAS	CHECKED BY	SLM	DATE	3/06	REVISED
DETAILED BY	ALF	CHECKED BY	SLM	DATE	3/06	REVISED
TRACED BY		CHECKED BY		DATE		REVISED

64728



For Section A-A & C-C see Sheet #16
E.F. denotes Each Face
WB denotes Westbound Bridge
EB denotes Eastbound Bridge

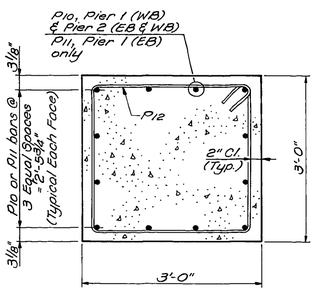
Widen I-64 Over Tucker Station Road SHEET 15

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477+11.37 P. E. PROJECT NO.

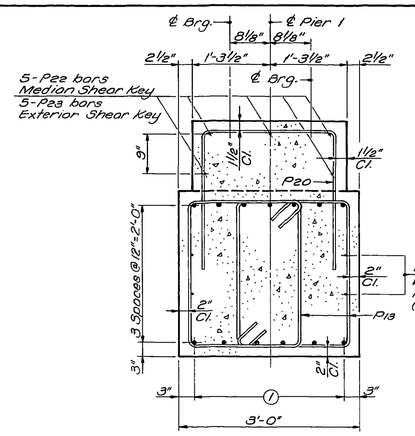
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE

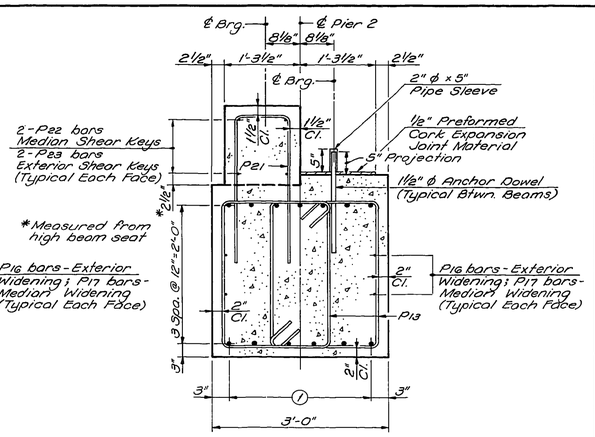


SECTION A-A



SECTION B-B

PIER 1



SECTION C-C

PIER 2

ANCHOR DOWEL NOTE

Anchor Dowels to be 1 1/2" ϕ x 2'-0" AASHTO M222 Steel Pins. Dowel Sleeves to be 2" ϕ x 5" Std. Wt. Pipe Sleeve closed at one end. Cost of Dowels and Sleeves to be incidental to Class "A" Concrete. Secure Sleeves to prevent floating while placing concrete. Sleeves are to rest on joint material.

① 7-P14 bars @ 5" = 2'-6" (Top of Pier Cap) 6-P14 bars @ 6" = 2'-6" (Bottom of Pier Cap) — Exterior Widening

7-P15 bars @ 5" = 2'-6" (Top of Pier Cap) 6-P14 bars @ 6" = 2'-6" (Bottom of Pier Cap) — Median Widening

BILL OF REINFORCEMENT

	MARK	TYPE	SIZE	NUMBER WB	NUMBER EB	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
PIER 1	P1	(1)	#6	16	16	10	2	Footing	8	2	1	0	0	6	8	8
	P2	(1)	#5	18	18	6	11		5	3	0	10	0	5	5	8
	P3	Str.	#5	12	12	8	8									
	P4	Str.	#5	18	18	5	8									
	P5	(1)	#7	14	14	12	5		10	1	1	2	0	7	10	8
	P6	(1)	#6	12	12	9	2		7	2	1	0	0	6	7	8
	P7	Str.	#5	8	8	10	8									
	P8	Str.	#5	11	11	7	8									
	P9	(2)	#10	36	36	10	10	Footing	9	0	1	10	1	1	9	6½
	P10	Str.	#10	36	—	21	3	Column								
	P11	Str.	#10	—	36	20	3	Column								
	P12	(3)	#4	60	57	11	5	Column	2	8	2	8				
	P13	(3)	#4	40	40	9	9	Cap	1	10	2	8				
	P14	Str.	#5	13	13	7	2									
	P15	Str.	#6	13	13	22	1									
	P16	Str.	#4	4	4	7	2									
	P17	Str.	#4	4	4	22	1									
	P18	(4)	#5	16	16	8	7		2	8	3	0				
	P19	(4)	#5	16	16	8	6	Cap	2	7	3	0				
	P20	(OMIT)														
	P21	(4)	#5	6	6	6	4	Shear Keys	1	1	2	8				
	P22	Str.	#5	4	4	2	4	Med. Shr. Key								
	P23	Str.	#5	4	4	1	10	Ext. Shr. Key								
PIER 2	P1	(1)	#6	16	16	10	2	Footing	8	2	1	0	0	6	8	8
	P2	(1)	#5	18	18	6	11		5	3	0	10	0	5	5	8
	P3	Str.	#5	12	12	8	8									
	P4	Str.	#5	18	18	5	8									
	P5	(1)	#7	14	14	12	5		10	1	1	2	0	7	10	8
	P6	(1)	#6	12	12	9	2		7	2	1	0	0	6	7	8
	P7	Str.	#5	8	8	10	8									
	P8	Str.	#5	11	11	7	8									
	P9	(2)	#10	36	36	10	10	Footing	9	0	1	10	1	1	9	6½
	P10	Str.	#10	36	36	21	3	Column								
	P11	(OMIT)														
	P12	(3)	#4	60	60	11	5	Column	2	8	2	8				
	P13	(3)	#4	40	40	9	9	Cap	1	10	2	8				
	P14	Str.	#5	13	13	7	2									
	P15	Str.	#6	13	13	22	1									
	P16	Str.	#4	4	4	7	2									
	P17	Str.	#4	4	4	22	1									
	P18	(4)	#5	16	16	8	7		2	8	3	0				
	P19	(4)	#5	16	16	8	6	Cap	2	7	3	0				
	P20	(OMIT)														
	P21	(4)	#5	6	6	6	4	Shear Keys	1	1	2	8				
	P22	Str.	#5	4	4	2	4	Med. Shr. Key								
	P23	Str.	#5	4	4	1	10	Ext. Shr. Key								

WB - denotes Westbound Pier
EB - denotes Eastbound Pier

ESTIMATE OF QUANTITIES

	ITEM	UNIT	QUANTITY WB	QUANTITY EB
PIER 1	CLASS "A" CONCRETE	CU YD	48.3	46.9
	STEEL REINFORCEMENT	LBS	7,936	7,759
PIER 2	CLASS "A" CONCRETE	CU YD	48.4	48.0
	STEEL REINFORCEMENT	LBS	7,923	7,923

DESIGNED BY SEC CHECKED BY SLM DATE 9/96 REVISED
DETAILED BY ALF CHECKED BY SLM DATE 9/96 REVISED
TRACED BY CHECKED BY DATE REVISED
DATE
DATE
DATE

MISC. PIER DETAILS

Widen I-64 Over Tucker Station Road SHEET 16

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11. 37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE.....

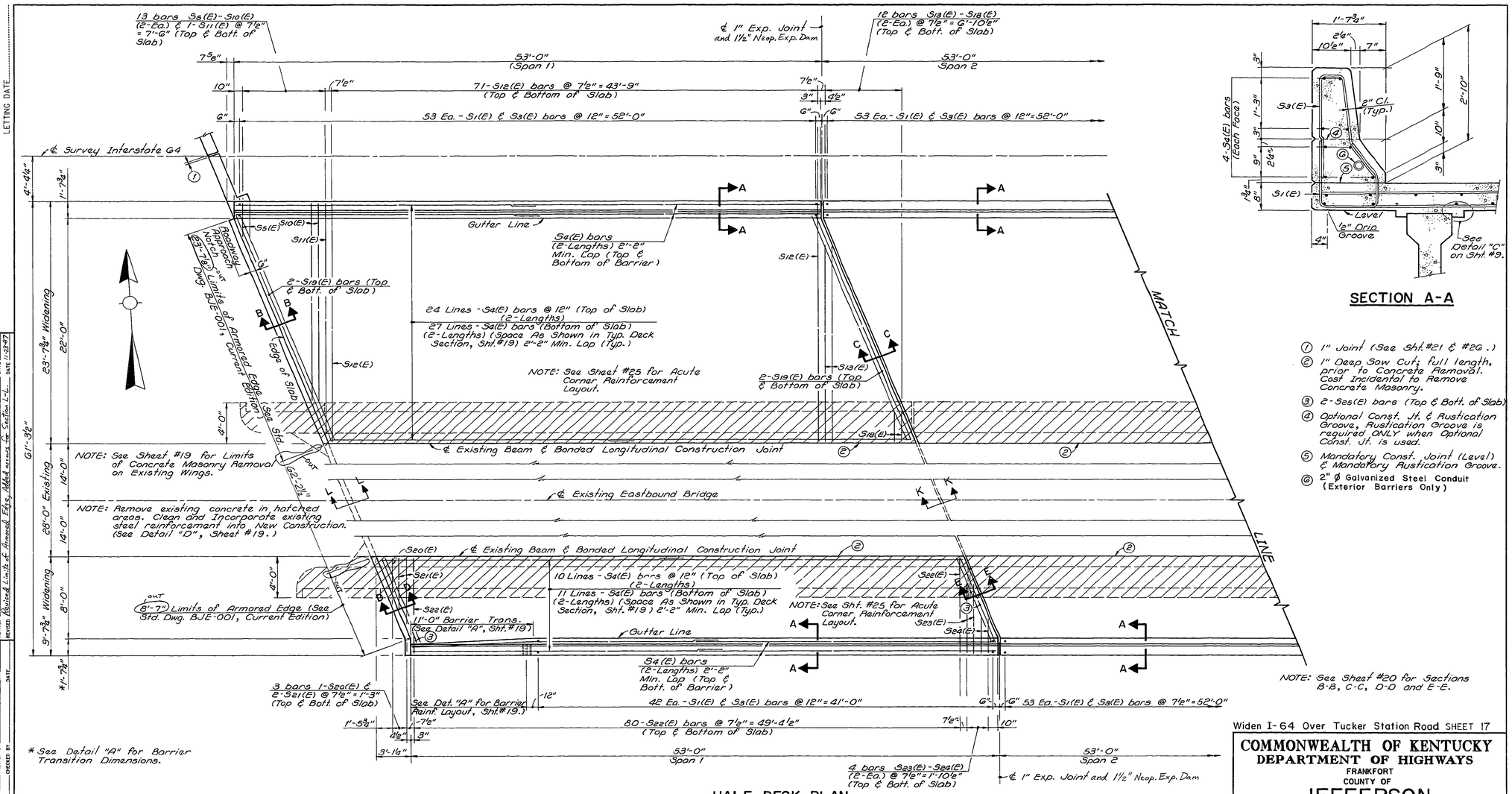
LETTING DATE.....

REVISED	Added 1½" Neop. Exp. Dam. to & 1" Exp. Joint @ Pier -3	DATE 2-28-97
REVISED	and Added Arrows for Section K-K	DATE 11-23-96
REVISED	Revised Limits of Armored Edge, Added notes	DATE
REVISED		DATE
REVISED		DATE

DESIGNED BY	SLM	DATE 3/96
DETAILED BY	SLM	DATE 3/96
CHECKED BY		DATE
TRACED BY		DATE

DESIGNED BY	SRS
DETAILED BY	RAY
CHECKED BY	
TRACED BY	

54178



NOTE: Span 1 Reinforcement Layout is typical for Span 2, Unless otherwise shown.

HALF DECK PLAN

(EASTBOUND BRIDGE SHOWN, WESTBOUND BRIDGE SYMMETRICAL ABOUT 180° ROTATION; EXCEPT AS NOTED)

NOTE: See Sheet #20 for Sections B-B, C-C, D-D and E-E.

SECTION A-A

① 1" Joint (See Sht.#21 & #26.)

② 1" Deep Saw Cut; full length, prior to Concrete Removal. Cost Incidental to Remove Concrete Masonry.

③ 2-S25(E) bars (Top & Bott. of Slab)

④ Optional Const. Jt. & Rustication Groove, Rustication Groove is required ONLY when Optional Const. Jt. is used.

⑤ Mandatory Const. Joint (Level) & Mandatory Rustication Groove.

⑥ 2" ∅ Galvanized Steel Conduit (Exterior Barriers Only)

SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 17

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477+11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO. 21440

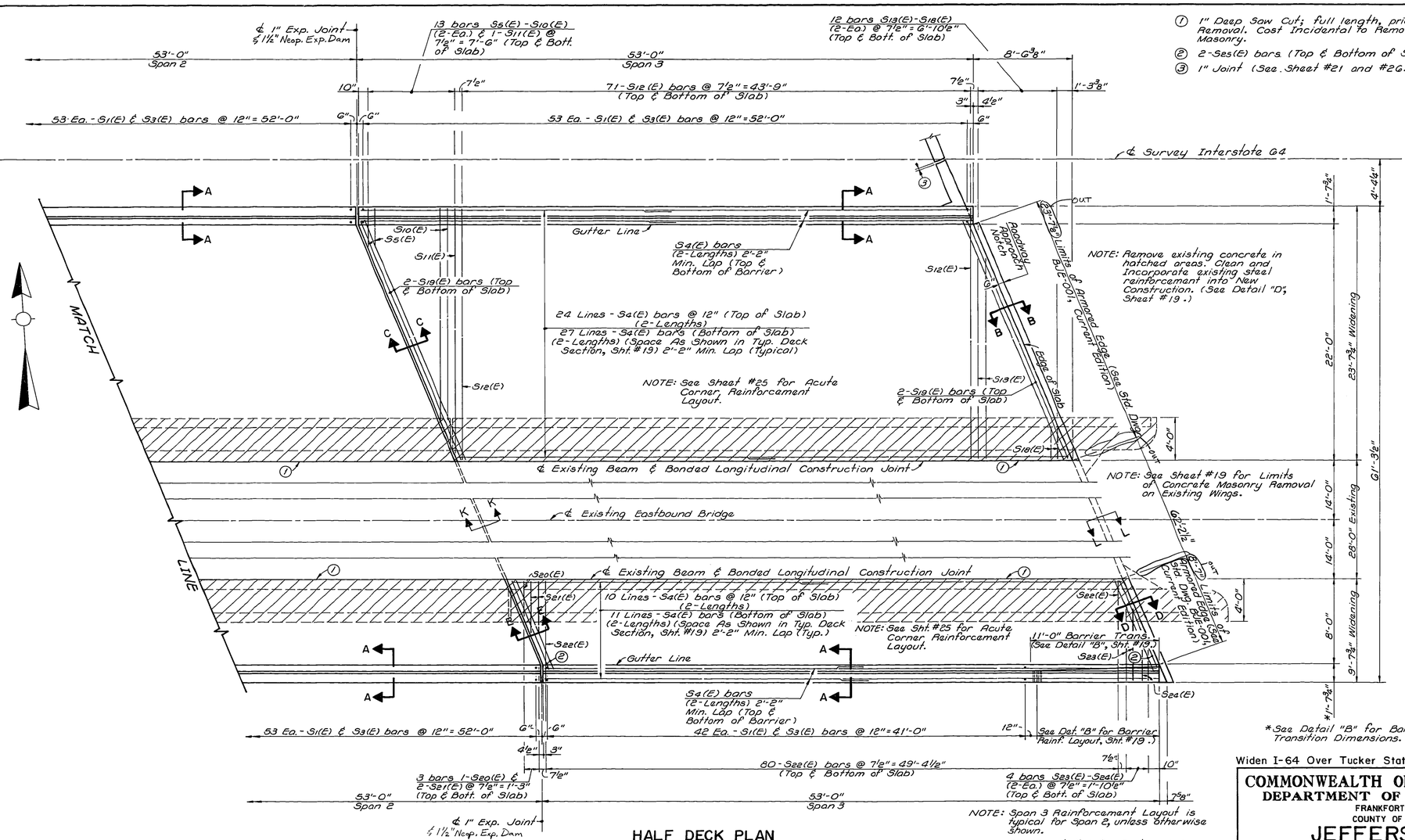
UPDATE DATE

LETTING DATE

DESIGNED BY	SAS	CHECKED BY	SLM	DATE	9/86
DETAILED BY	RAY	CHECKED BY	SLM	DATE	9/86
TRACED BY		CHECKED BY		DATE	

REVISED	Added 1½" Exp. Dam To ℄ 1" Exp. Joint and Added Arrows	DATE 2-28-87
REVISED	ELP	DATE
REVISED	To Sec"mn. K-K	DATE 1-28-87
REVISED	Revised Limits of Armored Edge, Added Arrows to Sec. K-K	DATE

64139



HALF DECK PLAN

(EASTBOUND BRIDGE SHOWN, WESTBOUND BRIDGE SYMMETRICAL ABOUT 180° ROTATION; EXCEPT AS NOTED)

SUPERSTRUCTURE

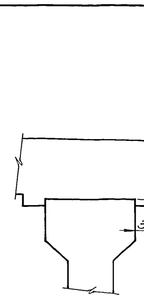
Widen I-64 Over Tucker Station Road SHEET 18

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

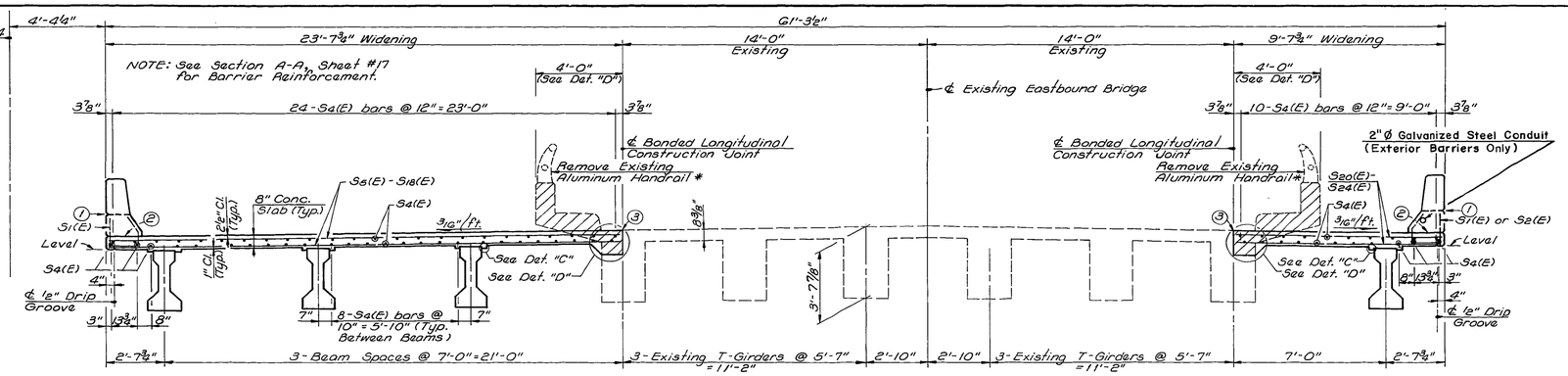
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

UPDATE DATE

LETTING DATE

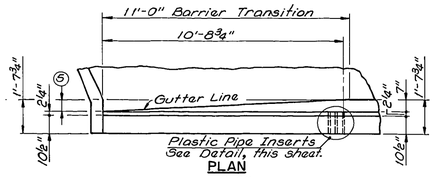


DETAIL "C"



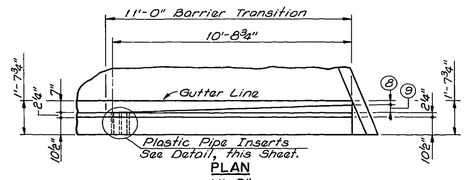
TYPICAL DECK SECTION

NOTE: See Section A-A, Sheet #17 and Sections F-F and G-G, this sheet for Barrier Reinforcement.



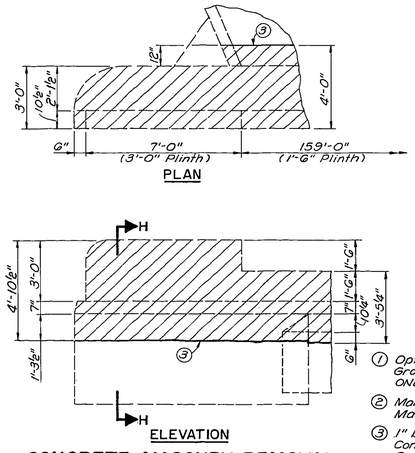
DETAIL "A"

(Span 1 EB Barrier Trans. Shown; Span 1 WB Barrier Trans. Similar)

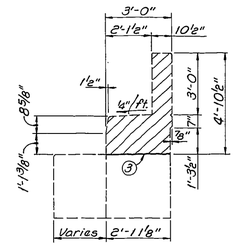


DETAIL "B"

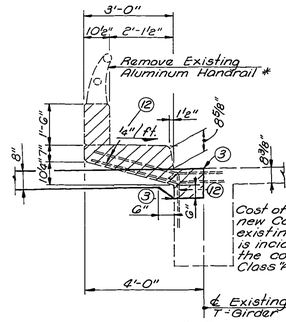
(Span 3 EB Barrier Trans. Shown; Span 3 WB Barrier Trans. Similar)



CONCRETE MASONRY REMOVAL ON EXISTING WINGS



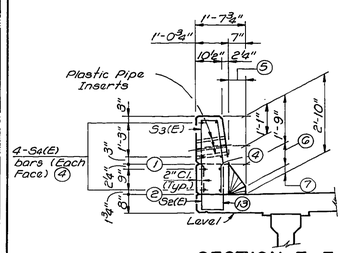
SECTION H-H



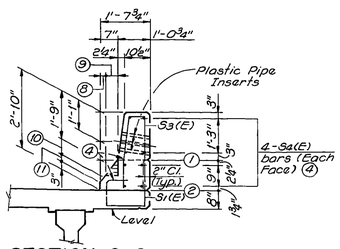
DETAIL "D"

NOTE: Remove existing concrete in hatched areas.

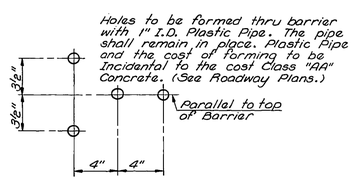
* Existing Aluminum Handrail shall be stock piled at job site for District Maintenance to remove.



SECTION F-F



SECTION G-G



PLASTIC PIPE INSERT LAYOUT

(Reference Ky. Std. Dwg. RBC-001 Current Edition)

1. Optional Const. Jt. & Rustication Groove, Rustication Groove is required ONLY when Optional Const. Jt. is used.
2. Mandatory Const. Jt. (Level) & Mandatory Rustication Groove
3. 1" Deep Saw Cut; full length, prior to Concrete Removal. Cost Incidental to Remove Concrete Masonry.
4. Field Bend As Required
5. Varies from 7" to 0"
6. Varies from 10" to 1'-1"
7. Varies from 3" to 0"
8. Varies from 7" to 2'8"
9. Varies from 0" to 4'8"
10. Varies from 0" to 7"
11. Varies from 10" to 3"
12. Clean and Incorporate existing steel reinforcement into New Construction.
13. Skew bar to maintain 2" minimum clearance & field bend to conform to slope.

SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 19

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477 + 11.37 P. E. PROJECT NO.

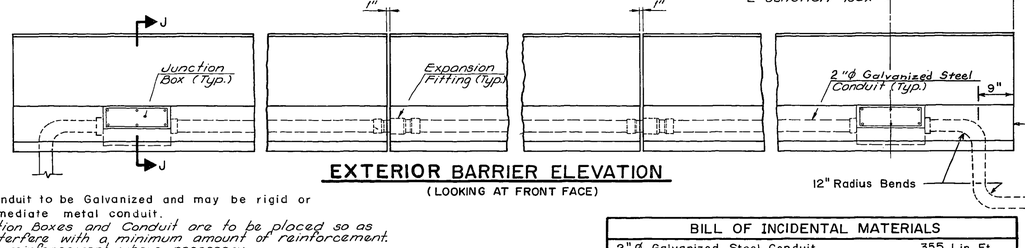
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

	DATE	REVISED
SLM	9/86	
SLM	9/86	

DESIGNED BY SAS CHECKED BY
DETAILED BY AAY CHECKED BY
TRACED BY CHECKED BY

UPDATE DATE

LETTING DATE



EXTERIOR BARRIER ELEVATION

(LOOKING AT FRONT FACE)

NOTES: All Conduit to be Galvanized and may be rigid or intermediate metal conduit.
Junction Boxes and Conduit are to be placed so as to interfere with a minimum amount of reinforcement. Bend reinforcement where necessary.

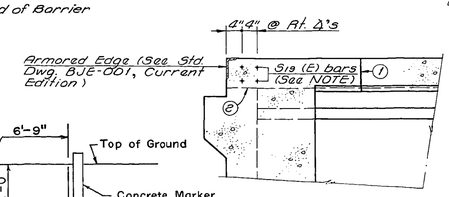
** Junction Box (NEMA 4); manufacturer and number may be the following, or approved equal.*

Manufacturer	Description	
O-Z/Gedney Co.	Type YU 16"x6"x6"	Type YR 18"x6"x6"
Spring City Electric Co.	Type IR 16"x6"x6"	Type ER 18"x6"x6"
Hope Electric Products Co.	Type H6200 16"x6"x6"	Type H700 18"x6"x6"

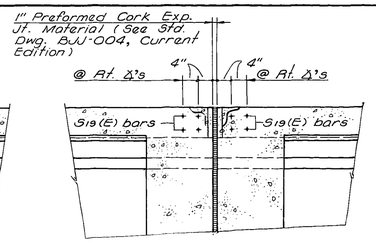
BILL OF INCIDENTAL MATERIALS

2"ø Galvanized Steel Conduit	355 Lin. Ft.
Concrete Markers	4 Each
*Junction Boxes	4 Each
2"ø Galvanized Conduit Caps	4 Each
Expansion Fittings	4 Each
¾"ø Galvanized Steel Conduit	4 Lin. Ft.

These materials are included in the lump sum bid for Electrical Conduit.

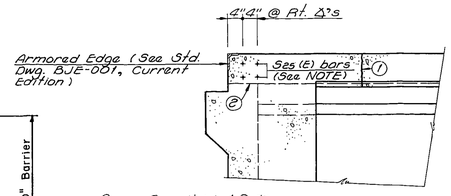


SECTION B-B

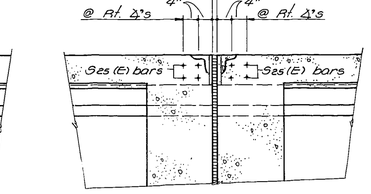


SECTION C-C

Sections C-C and E-E Note: Install 1½" Exp. Joint and Armored Edges. (See Sh. 28.) Also, see Joint Detail, Sheet 23.



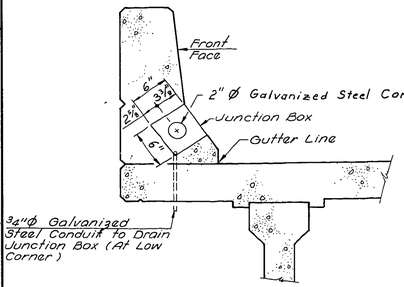
SECTION D-D



SECTION E-E

NOTE: Top Bars may be shifted slightly to miss Armored Edge straps.

1. Optional Roughened Bonded Construction Joint
2. Optional Construction Joint
3. ¾"ø Threaded Anchor Rod (Field Bend)
4. D20 bar (Each Face)
5. D21 bar (Each Face)
6. D22 bar (Each Face)
7. D23 bar (Each Face)
8. 2-D28 dowels (Space to Lap with horizontal reinforcement in Proposed Diaphragm.) See Detail "E", Sheet #25.

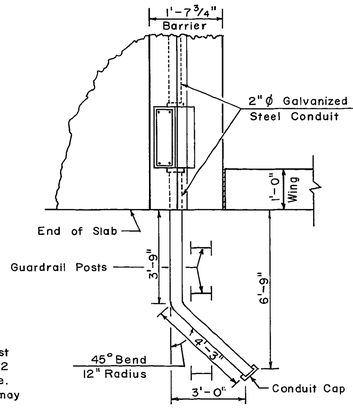


SECTION J-J

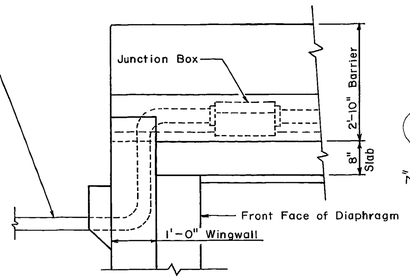
NOTES CONTINUED:

Concrete Marker at terminal points of conduit is to consist of a 4"x4"x36" reinforced concrete post with 4 size No. 2 deformed reinforcing steel rods. Marker to be 2" above grade. Expansion Fitting for 2" conduit, manufacturer and number may be any of the following, or approved equal.

Manufacturer	Number
Crouse-Hinds Co.	Type XJ641 with GC100 Bonding Jumper
O-Z/Gedney Co.	Type EX200 with BJ1520-24 Bonding Jumper
Spring City Elec. Co.	Type EF200 with EJ200 Bonding Jumper

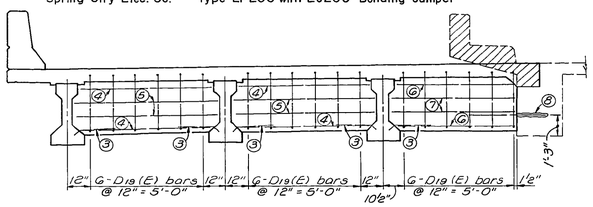


JUNCTION BOX PLAN

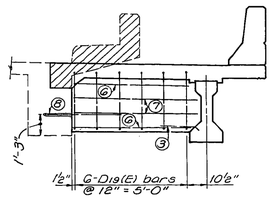


JUNCTION BOX ELEVATION

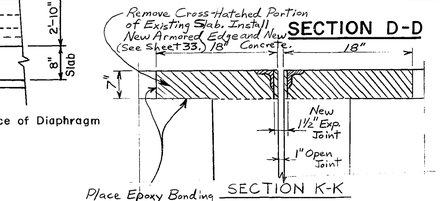
(Typical at Exterior Barrier Ends Only)



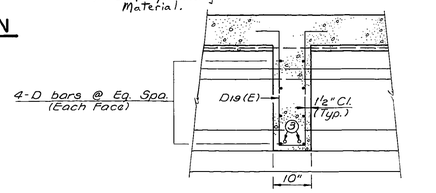
INTERMEDIATE DIAPHRAGM ELEVATION



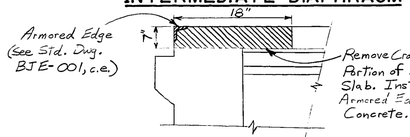
NOTE: Remove existing concrete in hatched areas. See Detail "D", Sheet #19.



SECTION K-K



INTERMEDIATE DIAPHRAGM



SECTION L-L

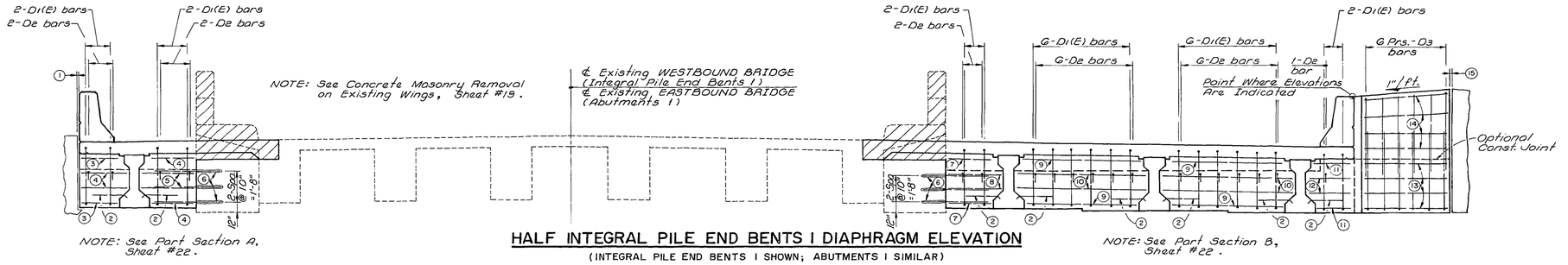
SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 20

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON ROAD
STATION 477 + 11. 37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

DESIGNED BY: SRS & MVM	CHECKED BY: SLM	DATE: 9/86	REVISED: Added Section K-K
DETAILED BY: RAY	CHECKED BY: SLM	DATE: 9/86	REVISED: & Added Sections C-C and E-E, Note
TRACED BY:	CHECKED BY:	DATE:	REVISED: Added Section L-L, & #10
04192			



NOTE: See Part Section A, Sheet #22.

NOTE: See Part Section B, Sheet #22.

HALF INTEGRAL PILE END BENTS 1 DIAPHRAGM ELEVATION

(INTEGRAL PILE END BENTS 1 SHOWN; ABUTMENTS 1 SIMILAR)

① 2" Preformed Cork Expansion Joint Material, Cost Incidental to Class "A" Concrete.

② ¾" ϕ Threaded Anchor Rod (Field Bend)

③ D4 bar (F.F.) & D7 bar (B.F.)

④ D5 bar (F.F.) & D7 bar (B.F.)

⑤ D6 bar (F.F.) & D7 bar (B.F.)

⑥ D8 dowels (Space to Lap with horizontal reinforcement in Proposed Diaphragm) See Detail "E", Sheet #25.

⑦ D5 bar (F.F.) & D10 bar (B.F.)

⑧ D6 bar (F.F.) & D10 bar (B.F.)

⑨ D7 bar (F.F.) & D10 bar (B.F.)

⑩ D9 bar (F.F.) & D10 bar (B.F.)

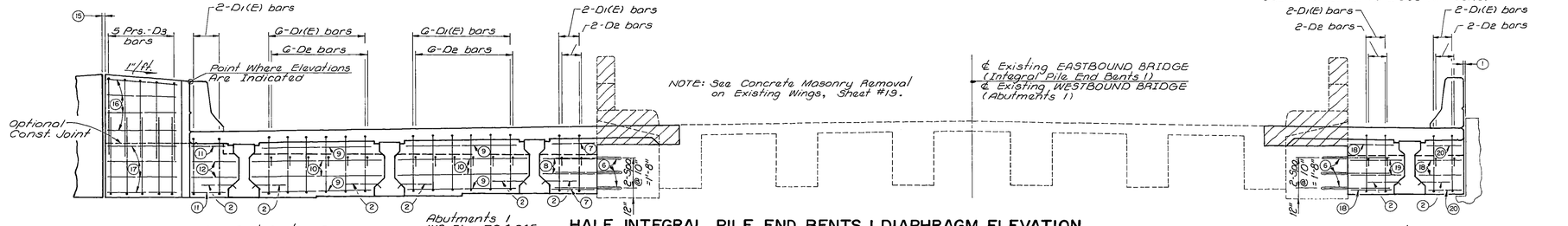
⑪ D4 bar (F.F.) & D10 bar (B.F.)

⑫ D5 bar (F.F.) & D10 bar (B.F.)

⑬ D11 bar (F.F.) & D10 bar (B.F.)

⑭ D11 bar (E.F.)

⑮ 1" Preformed Cork Expansion Joint Material, with Joint Waterproofing on earth side, Cost Incidental to Close "AA" Conc.



NOTE: See Part Section C, Sheet #22.

NOTE: See Part Section D, Sheet #22.

HALF INTEGRAL PILE END BENTS 1 DIAPHRAGM ELEVATION

(INTEGRAL PILE END BENTS 1 SHOWN; ABUTMENTS 1 SIMILAR)

⑯ D13 bar (E.F.)

⑰ D13 bar (F.F.) & D10 bar (B.F.)

⑱ D5 bar (F.F.) & D13 bar (B.F.)

⑲ D6 bar (F.F.) & D13 bar (B.F.)

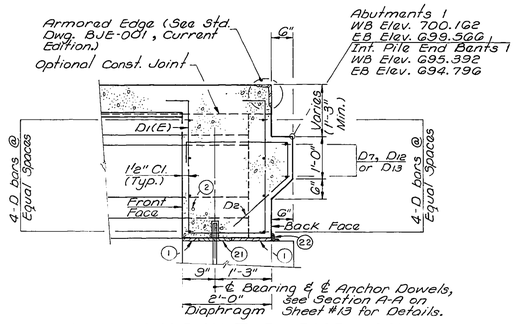
⑳ D4 bar (F.F.) & D13 bar (B.F.)

㉑ 2" Non-Shimmed Elastomeric Bearing Pad (See Sheet #10 & #13 for Detail.)

㉒ Joint Waterproofing required for the entire length of the horizontal joint. Cost incidental to Class "AA" Concrete.

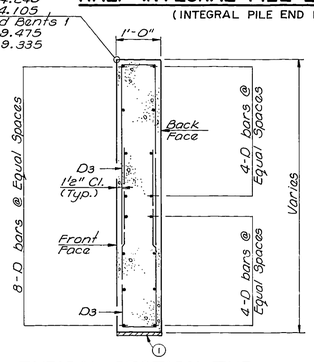
WB – Denotes Westbound
EB – Denotes Eastbound
E.F. – Denotes Each Face
F.F. – Denotes Front Face
B.F. – Denotes Back Face

NOTE: Work this Sheet with Sheet #22 & #26.



TYPICAL SECTION THRU DIAPHRAGMS

Abutments 1
WB Elev. 704.245
EB Elev. 704.105
Int. Pile End Bents 1
WB Elev. 699.475
EB Elev. 699.335



TYPICAL SECTION THRU DIAPHRAGMS BETWEEN BRIDGES

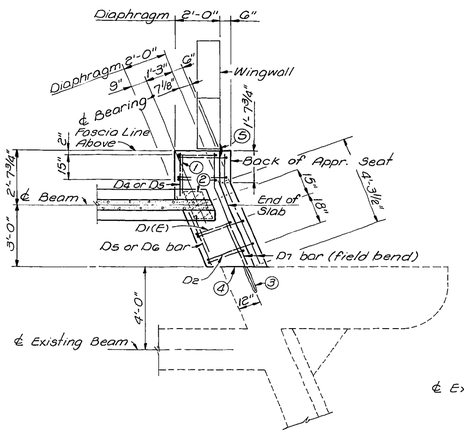
SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 21

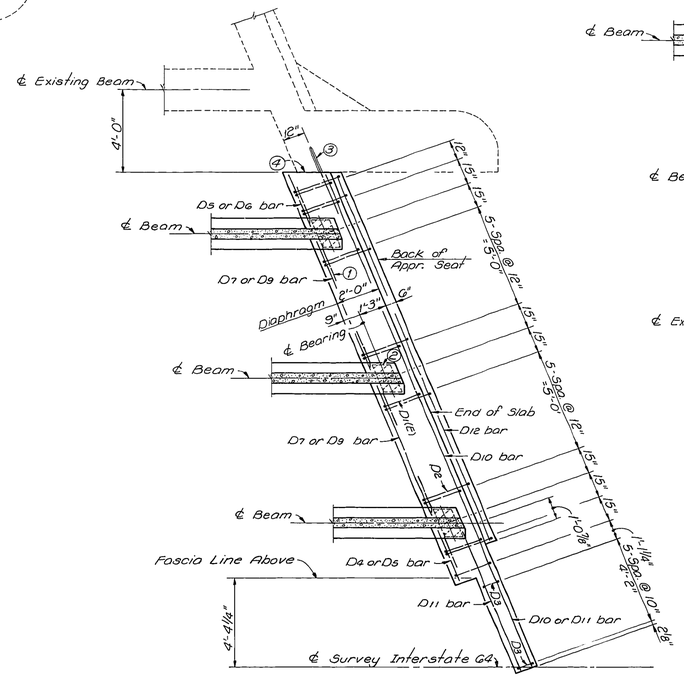
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 21440

UPDATE DATE:
LETTING DATE:

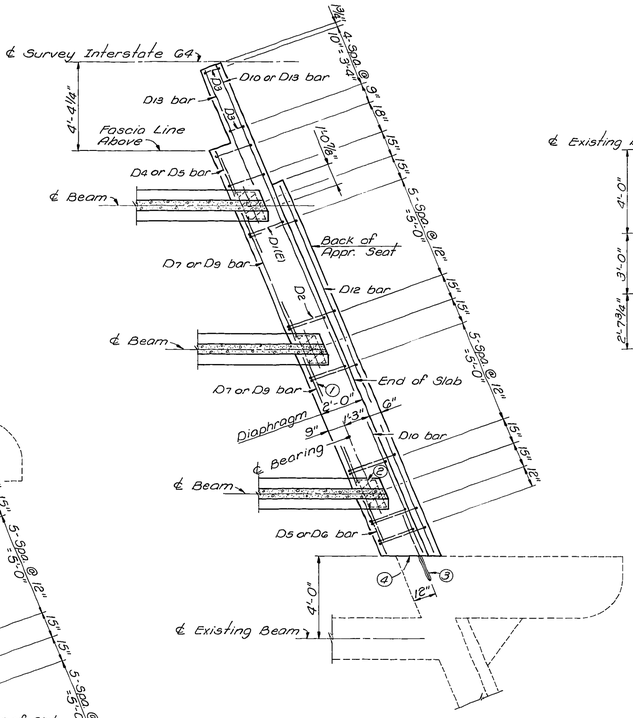
	DATE	REVISED	DATE	REVISED	DATE
DESIGNED BY: SRS	CHECKED BY: SLM	9/96	CHECKED BY:		
DETAILED BY: RAY	CHECKED BY: SLM	9/96	CHECKED BY:		
TRACED BY:	CHECKED BY:		CHECKED BY:		



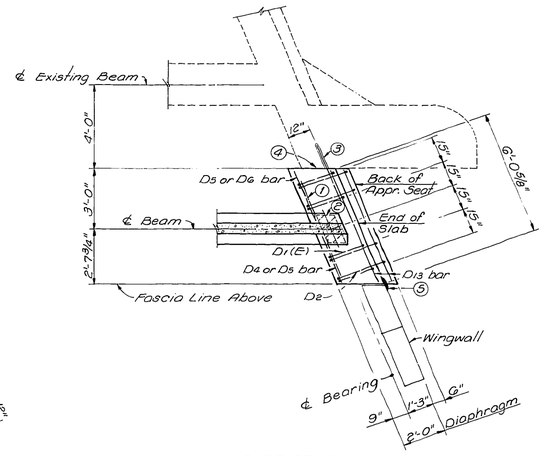
PART SECTION A



PART SECTION B



PART SECTION C



PART SECTION D

NOTE: Work this Sheet with Sheet #21 & Sheet #20.

(1) ¾" Threaded Anchor Rod (Field Bend)

(2) ½" Non-Shimmed Elastomeric Bearing Pad (See Sheet #10 and #13 for Detail.)

(3) D8 dowel (Space to Lap with horizontal reinforcement in Proposed Diaphragm) See Detail "E", Sheet #25.

(4) Bond New Concrete to Existing Concrete, Cost Incidental to Class "AA" Concrete.

(5) Joint Waterproofing required for the 1½" Joint between diaphragm & wingwall. Cost Incidental to Class "AA" Concrete.

PART SECTIONS AT INTEGRAL PILE END BENTS 1

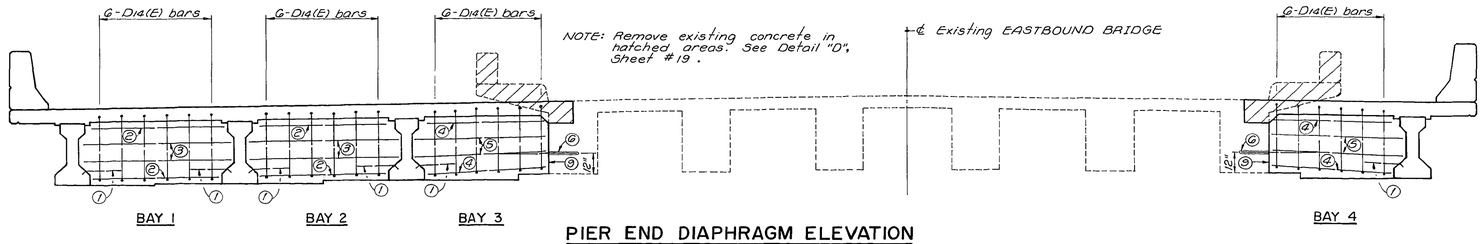
(INTEGRAL PILE END BENTS 1 SHOWN; ABUTMENTS 1 SIMILAR)

SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 22

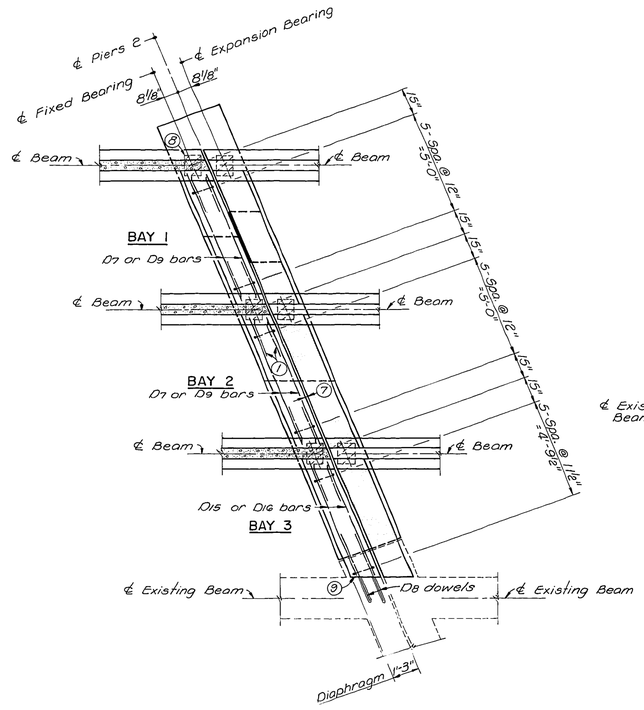
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477 + 11. 37 P. E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
21440

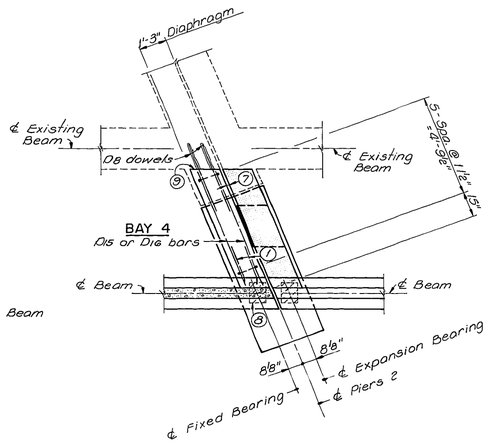
DESIGNED BY SAS CHECKED BY ____ DATE ____ REVISED
DETAILED BY RAY CHECKED BY SLM DATE 9/86 REVISED
TRACED BY ____ CHECKED BY SLM DATE 9/86 REVISED
CHECKED BY ____ DATE ____ REVISED
DATE
DATE
DATE
LETTING DATE:
UPDATE DATE:



PIER END DIAPHRAGM ELEVATION

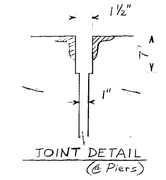
(PIERS 2, SPAN 2; LOOKING AHEAD STATION)





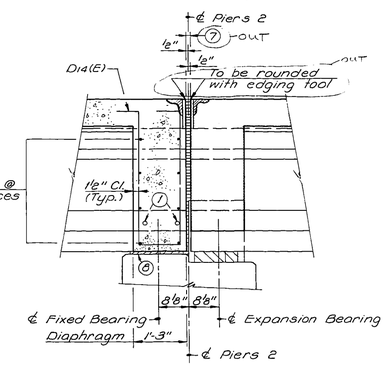
PART SECTION AT PIER

(PIERS 2, SPAN 2)



JOINT DETAIL (@ Piers)

Note:
Install 1½" Exp. Joint and Armored Edges (See Sh. 33) Also, See Joint Detail Above.



PIER DIAPHRAGM

(PIERS 2, SPAN 2)

① ⅜"ϕ Threaded Anchor Rod (Field Bend)
② D7 bar (Each Face)
③ D9 bar (Each Face)
④ D15 bar (Each Face)
⑤ D16 bar (Each Face)
⑥ 2-D8 dowels (Space to Lap with horizontal reinforcement in Proposed Diaphragm) See Detail "E", Sheet #25.
⑦ 1" Preformed Cork Expansion Joint Material (See Standard Drawing BJJ-004, Current Edition)
⑧ ½" Non-Shimmed Elastomeric Bearing Pad (See Sheet #14 for Detail.)
☐ Indicates diaphragm at Piers 2, Span 3 (See Sheet #24 for Details.)
⑨ Bond new concrete to existing concrete. Cost Incidental to Class "AA" Concrete.

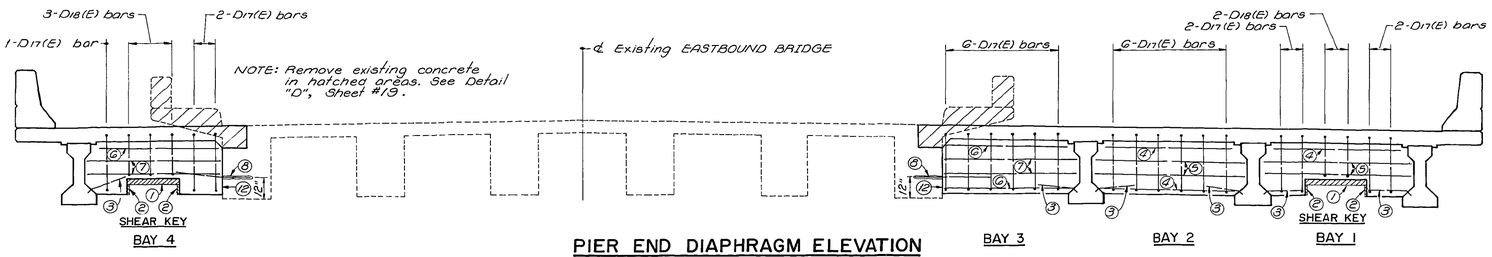
SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 23

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 21440

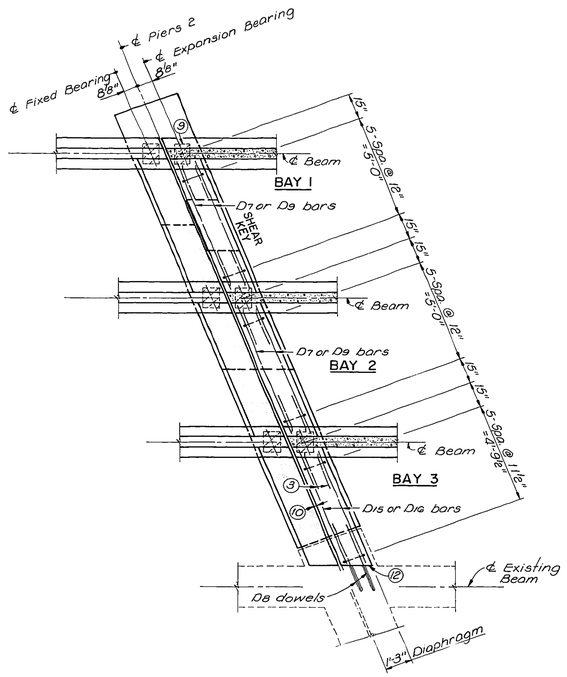
DESIGN BY: SAS DATE: 3/86 REVISED
DETAILED BY: RAY DATE: 3/86 REVISED
TRACED BY: DATE: REVISED
CHECKED BY: SLM DATE: 3/86 Added Joint Detail, Note To Plan, Pier Diaph. Section, & Part Section At Pier
CHECKED BY: SLM DATE: 7-28-87 Revised Pier Diaph. Section & Part Section At Pier
CHECKED BY: DATE:

FINAL DATE
LETTING DATE



PIER END DIAPHRAGM ELEVATION

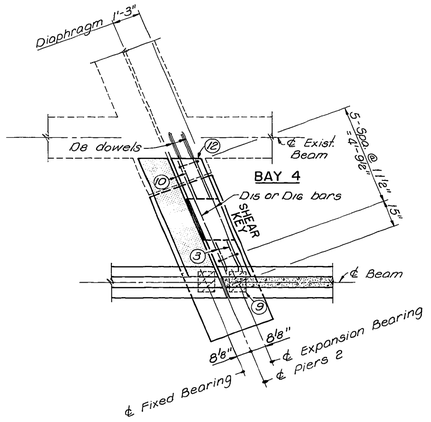
(PIERS 2, SPAN 3; PIERS 1, SPANS 1 & 2)



NOTE: Piers 2, Span 3 Shown; Piers 1, Span 1 and Piers 1, Span 2 Similar; except as follows: A. SHEAR KEYS continuous throughout both diaphragms. (See Sheet #14.)

B. BOTH Centerlines of Bearing are Expansion at Piers 1.

C. BEAM SEATS have same elev. at Piers 1 under both diaphragms. (See Sheet #14.)



PART SECTION AT PIER

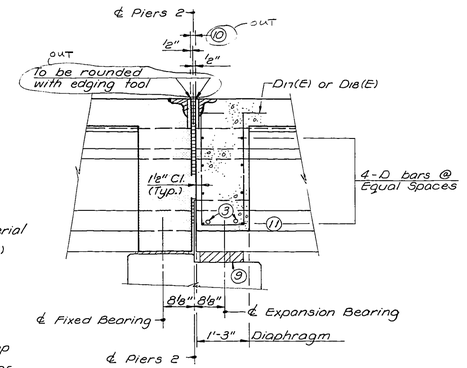
(PIERS 2, SPAN 3; PIERS 1, SPANS 1 & 2)

1. 3" Styrofoam
2. ½" Preformed Cork Expansion Joint Material
3. ¾"ϕ Threaded Anchor Rod (Field Bend)
4. D7 bar (Each Face)
5. D9 bar (Each Face)
6. D15 bar (Each Face)
7. D16 bar (Each Face)
8. 2-D8 dowels, Field Bend (Space to Lap with horizontal reinforcement in Proposed Diaphragm) See Det. "E", Sht. # 25.
9. Type 2-I; Sub Type "4" Elastomeric Bearing Pad (See Standard Drawing BBP-001, Current Edition)
10. 1" Preformed Cork Expansion Joint Material (See Standard Drawing BJJ-004, Current Edition)
11. Omit in Bays 1 & 4

□ Indicates diaphragm at Piers 2, Span 2 (See Sheet #23 for Details.)

12. Bond new concrete to existing concrete, Cost incidental to Class "AA" Concrete.

Note:
Install 1½" Exp Joint and Armored Edges (See Sh. 33) Also, see Joint Detail, Sh. 23.



PIER DIAPHRAGM

(PIERS 2, SPAN 3; PIERS 1, SPANS 1 & 2)

SUPERSTRUCTURE

Widen I-64 Over Tucker Station Road SHEET 24

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477+11.37 P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 21440

DESIGNED BY: SAS
DETAILED BY: RAY
TRACED BY:

	CHECKED BY	DATE	REVISED
Added Note & Det. Diaph. Section at Pier	SLM	9/86	
1" Preformed Cork Exp. Jt. Mat'l. & Top Jt.	SLM	9/86	
	CHECKED BY	DATE	REVISED
	CHECKED BY	DATE	

UPDATE DATE:
LETTING DATE:

UPDATE DATE

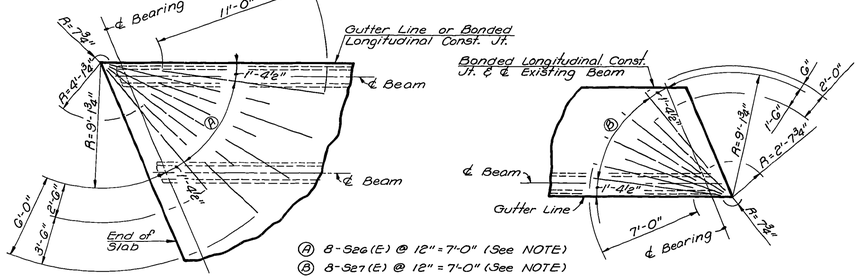
LETTING DATE

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NUMBER WB B	NUMBER EB B	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
S1(E)	(1)	#5	307	307	4	7	Barrier & Slab								
S2(E)	(2)	#5	11	11	3	10	Barrier & Slab	0	8¾	1	7				
S3(E)	(3)	#5	318	318	5	10	Barrier								
S4(E)	Str.	#5	528	528	27	7	Barrier & Slab								
S5(E)	Str.	#5	12	12	3	7	Slab								
S6(E)	"	"	"	"	6	9	"								
S7(E)					10	0									
S8(E)					13	3									
S9(E)			"	"	16	5									
S10(E)			12	12	19	9									
S11(E)			6	6	22	11									
S12(E)			426	426	23	5									
S13(E)			12	12	19	2									
S14(E)			"	"	15	11									
S15(E)					12	9									
S16(E)					9	6									
S17(E)			"	"	6	3									
S18(E)		#5	12	12	3	1									
S19(E)		#6	24	24	23	8									
S20(E)		#5	6	6	3	6									
S21(E)		"	12	12	5	2									
S22(E)			480	480	9	5									
S23(E)		"	12	12	6	7									
S24(E)		#5	12	12	3	5									
S25(E)		#6	24	24	9	0									
S26(E)	"	#6	48	48	11	0	"								
S27(E)	Str.	#6	48	48	7	0	Slab								

MARK	TYPE	SIZE	NUMBER WB B	NUMBER EB B	LENGTH Ft.	LENGTH In.	LOCATION	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
~~D1(E)~~	(4)	#5	40	40	9	1	Diaphragm	1	9	3	3				
D2	(5)	"	37	37	5	0	"								
D3	(2)	"	22	22	9	6	"	0	9	4	5				
D4	Str.	"	8	8	1	8									
D5	"	"	16	16	2	2									
D6			8	8	2	8									
D7			40	40	5	8									
D8			40	40	3	5									
D9			40	40	6	9									
D10			8	8	25	6									
D11			12	12	7	0									
D12			4	4	19	0									
D13	Str.		18	18	5	10									
D14(E)	(4)		24	24	8	4		1	0	3	3				
D15	Str.		26	26	5	5									
D16	Str.		32	32	5	11									
D17(E)	(4)		57	57	7	4		1	0	2	9				
D18(E)	(4)		15	15	5	6		1	0	1	10				
D19(E)	(6)		72	72	6	11									
D20	Str.		24	24	5	9									
D21	"		"	"	6	3									
D22	"		"	"	5	3									
D23	Str.	#5	24	24	5	6	Diaphragm								

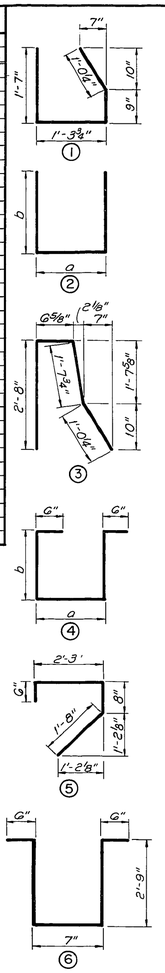
WB B denotes Westbound Bridge
EB B denotes Eastbound Bridge

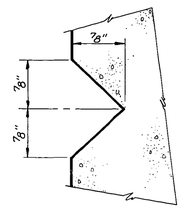


Ⓐ B-S26(E) @ 12" = 7'-0" (See NOTE)
Ⓑ B-S27(E) @ 12" = 7'-0" (See NOTE)

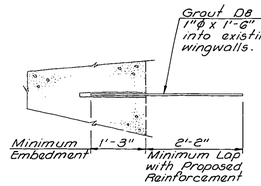
ACUTE CORNER REINFORCEMENT LAYOUTS

NOTE: Corner Reinforcement is to be placed beneath the longitudinal and transverse reinforcement in the top of slab.





RUSTICATION GROOVE DETAIL



DETAIL "E"

ESTIMATE OF QUANTITIES

ITEM	UNIT	QUANTITY Westbound	QUANTITY Eastbound
CLASS "AA" CONCRETE	CU YD	213.2	213.2
EPOXY COATED STEEL REINFORCEMENT	LBS	39,922	39,922
STEEL REINFORCEMENT	LBS	2,547	2,547
CONCRETE MASONRY REMOVAL	CU YD	73	73

DESIGNED BY SAS DATE 9/96 REVISED
DETAILED BY AAY DATE 9/96 REVISED
TRACED BY DATE REVISED
CHECKED BY SLM
CHECKED BY SLM
CHECKED BY

Widen I-64 Over Tucker Station Road SHEET 25

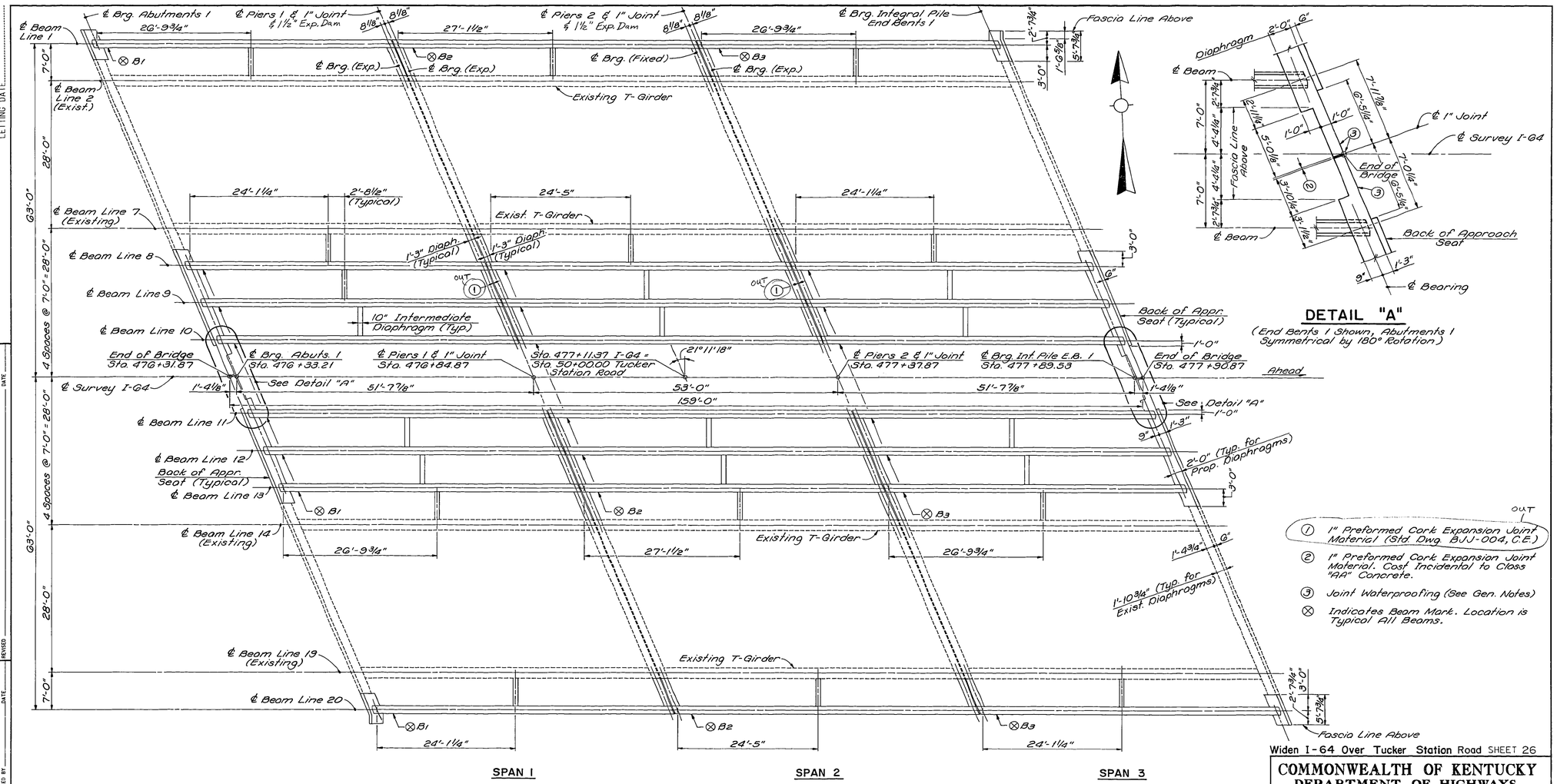
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477 + 11. 37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

SUPERSTRUCTURE

UPDATE DATE

LETTING DATE



DETAIL "A"

(End Bents 1 Shown, Abutments 1 Symmetrical by 180° Rotation)

OUT

① 1" Preformed Cork Expansion Joint Material (Std. Dwg. BJJ-004, C.E.)

② 1" Preformed Cork Expansion Joint Material. Cost Incidental to Class "AA" Concrete.

③ Joint Waterproofing (See Gen. Notes)

⊗ Indicates Beam Mark. Location is Typical All Beams.

FRAMING PLAN

Widen I-64 Over Tucker Station Road SHEET 26

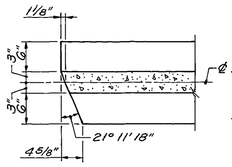
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477+11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

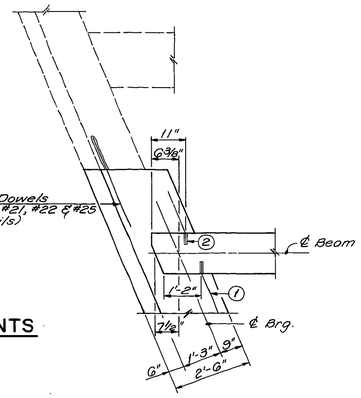
DESIGNED BY SRS	CHECKED BY SLM	DATE 8/96	REVISED Added 1½" Exp. Dam to E.B. Piers and 1" Joints - 4/97
DETAILED BY RLF	CHECKED BY SLM	DATE 5/96	REVISED
TRACED BY	CHECKED BY	DATE	REVISED

UPDATE DATE.....

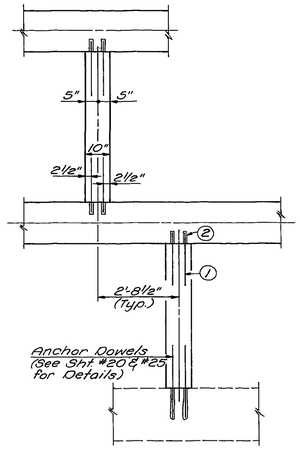
LETTING DATE.....



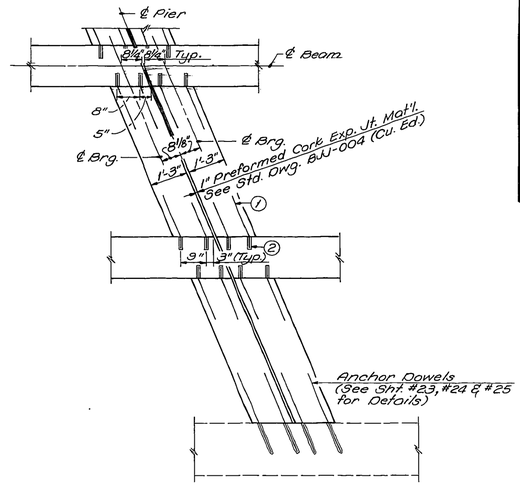
SECTION THRU BEAM
SHOWING TYPICAL BEAM END
AT ABUTMENTS & INTEGRAL END BENTS



END BENT
DIAPHRAGMS



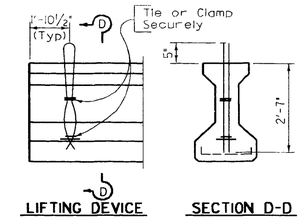
INTERMEDIATE
DIAPHRAGMS



PIER
DIAPHRAGMS

NOTE: Bars designated with Suffix (e) shall be Epoxy Coated in accordance with Current Specifications.

AS BUILT PRESTRESS DATA	
STRAND TYPE	
PRESTRESSED FORCE/STRAND	
CONC. RELEASE STRENGTH	
CONC. 28 DAY STRENGTH	
STRAND PATTERN	
NO. OF DRAPED STRANDS	
NO. OF DEBONDED STRANDS	
REMARKS:	
BY:	DATE:

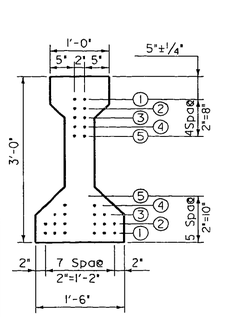


LIFTING DEVICE

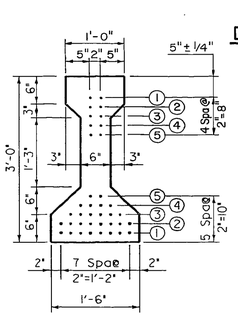
SECTION D-D

DETAIL "L"

NOTE:
Lifting Shall Be By Equal Loads
To Each Pair Of Loops.



SECTION A-A



SECTION B-B

① ¾" ϕ Threaded Anchor Rod (Field Bend as required)
② Threaded Inserts (¾" Inside Diameter)

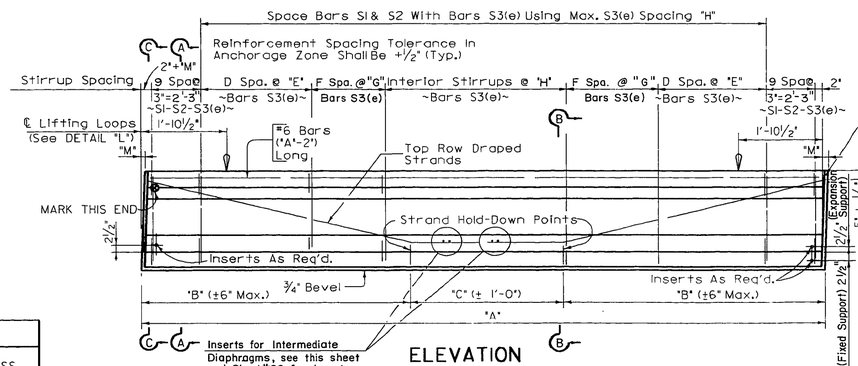
• These Dimensions Given On ℄ Of Beams.

BEAM DIMENSIONS •

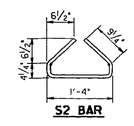
MARK	NO. REQ'D	DIMENSIONS A	B	C	D	E	F	G	H	M	APPROX. WT. EACH
B1	8	52'-2¾	15'-0"	22'-2¾	8	6"	7	6"	12"	-1⅛"	20,060
B2	8	52'-10⅞	15'-0"	22'-10⅞	8	6"	7	6"	12"	-1⅛"	20,320
B3	8	52'-2¾	15'-0"	22'-2¾	8	6"	7	6"	12"	-1⅛"	20,060

NUMBER OF ½" Ø - 7 WIRE STRANDS IN INDICATED ROWS

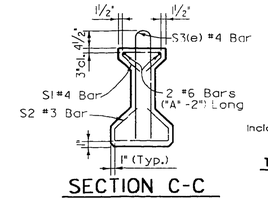
MARK	MIDSPAN (SECTION B - B) BOTTOM ①	②	TOP ①	②	END (SECTION A-A) BOTTOM ①	②	③	④	⑤	⑥	⑦	TOP ①	②	③	④	⑤	TOTAL NO.	INITIAL PRESTRESS FORCE / STRAND (LBS)
B1 thru B3	8	8		2	8	6						2	2				18	30,980



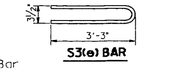
ELEVATION



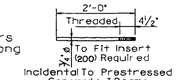
S2 BAR



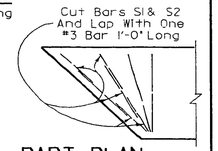
SECTION C-C
Typical Section Showing Steel Reinforcement



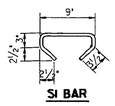
S3(e) BAR



BAR DETAIL
THREADED ANCHOR



PART PLAN
(Showing Skewed End, 15° Skew or Greater)



Widen I-64 Over Tucker Station Road SHEET 27

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11. 37 P. E. PROJECT NO.

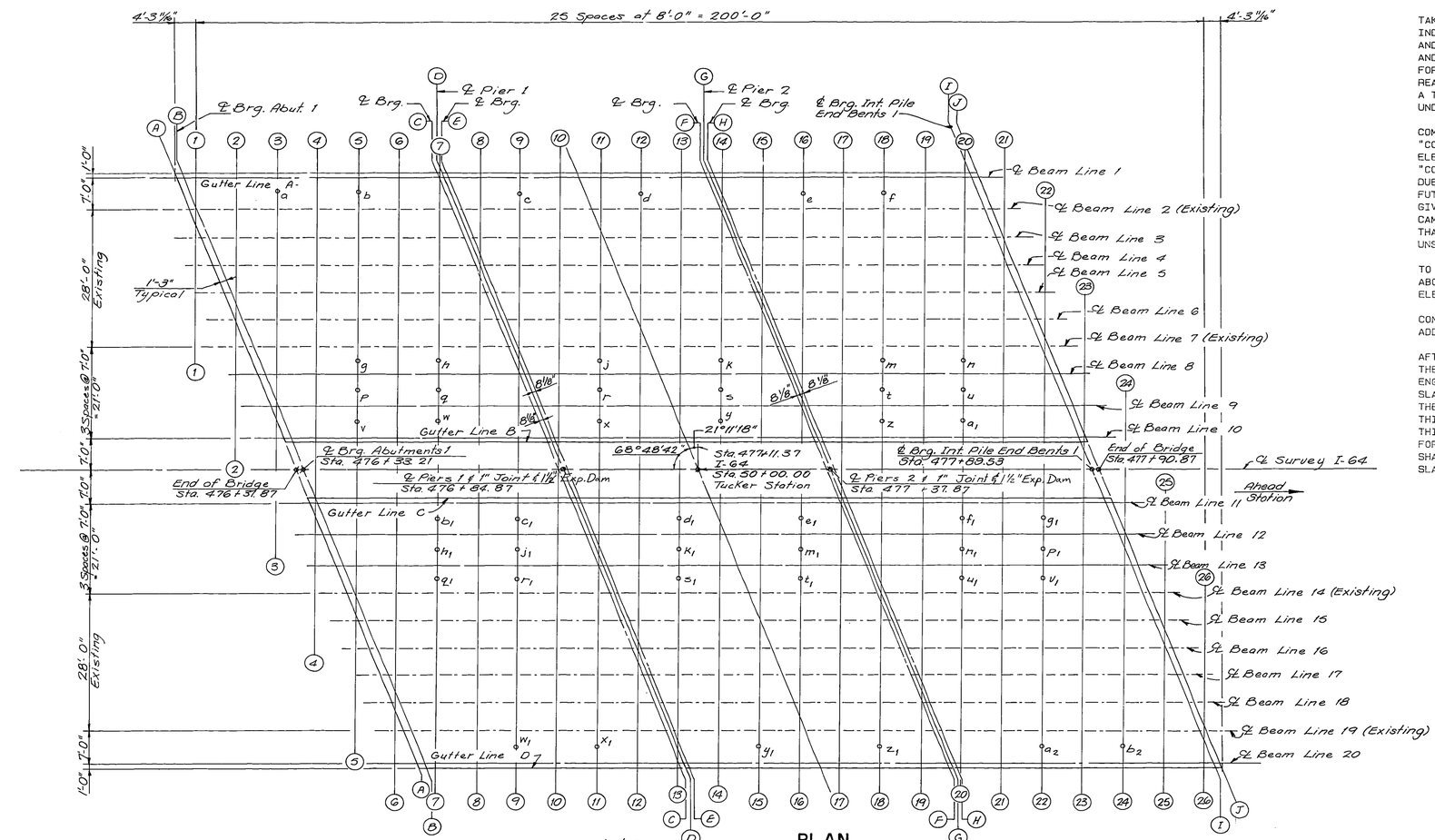
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

PRESTRESSED - CONCRETE I-BEAM, TYPE II DETAILS

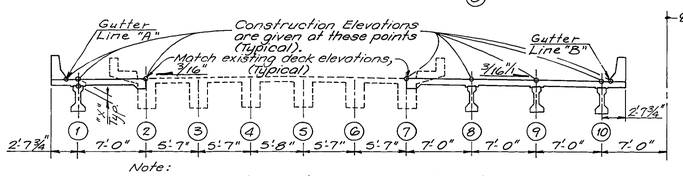
DESIGNED BY	SES	DATE	9/86	REVISED
DETAILED BY	ALF	DATE	9/86	REVISED
PREPARED BY GRAPHICS SECTION		DATE		REVISED
CHECKED BY	SLM	DATE	9/86	
CHECKED BY	SLM	DATE	9/86	
CHECKED BY		DATE		

UPDATE DATE .....

LETTING DATE .....

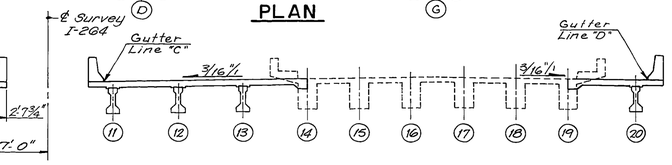


PLAN



Note:
Dimensions typical for each bridge. Circled numbers represent beam line nomenclature.

TYPICAL DECK SECTION



CONSTRUCTION ELEVATIONS

NOTES:

TAKE ELEVATIONS ON TOP OF EACH BEAM AT POINTS INDICATED AFTER THE DIAPHRAGMS ARE IN PLACE AND AFTER ALL FALSEWORK HAS BEEN REMOVED, AND, AT THE CONTRACTOR'S OPTION, AFTER FORMS FOR CONCRETE SLABS HAVE BEEN PUT IN PLACE. READ ELEVATIONS TO THREE (3) DECIMALS USING A TARGET ROD AND ENTER READINGS IN THE TABLE UNDER TOP OF BEAM ELEVATIONS.

COMPUTE "DIMENSION X" AS FOLLOWS: "CONSTRUCTION ELEVATIONS" MINUS "TOP OF BEAM ELEVATION" EQUALS "DIMENSION X". "CONSTRUCTION ELEVATIONS" INCLUDES CAMBER DUE TO WEIGHT OF CONCRETE SLAB, BARRIER, AND FUTURE SURFACING. MEASURING OF "DIMENSION X" GIVES THE FINAL CHECK ON BEAM TOLERANCES FOR CAMBER, BEAM DAMAGE, AND ERRORS IN ERECTION THAT PRODUCE REVERSE CAMBERS, SAGS, AND UNSIGHTLY FASCIA BEAMS.

TO SET TEMPLATES MEASURE "DIMENSION X" ABOVE TOP OF BEAM. DO NOT SET TEMPLATES BY ELEVATIONS.

CONSTRUCT BARRIER TO ROADWAY GRADE. DO NOT ADD CAMBER TO BARRIER.

AFTER THE SLAB FORMS ARE ERECTED AND BEFORE THE SLAB REINFORCEMENT IS PLACED. THE RESIDENT ENGINEER SHALL TAKE FIELD ELEVATIONS AT THE SLAB THICKNESS CHECK POINTS AND ENTER THEM IN THE TABLE IN THE SPACE PROVIDED. IF THE SLAB THICKNESS VARIES MORE THAN 1/4" FROM THE PLAN THICKNESS, ALLOWING 1/360 OF THE SLAB SPAN FOR DEFLECTION OF THE FORM WORK, THE FORM SHALL BE ADJUSTED UNTIL THE COMPUTED SLAB SLAB THICKNESS IS WITHIN THE TOLERANCE ALLOWED.

DESIGNED BY SLM	CHECKED BY SCS	DATE 8-86	REVISED Added 1 1/4" Exp. Dam 16 & Brs. 5 1" to 2" DATE 2-28-87
DETAILED BY BSB	CHECKED BY SLM	DATE 9-86	REVISED DATE
TRACED BY	CHECKED BY	DATE	REVISED DATE

64189

Widen I-64 Over Tucker Station Road SHEET 28

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – LEXINGTON
ROAD
STATION 477+11.37 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

GUTTER LINE A	
GRID	CONST ELEV.
A	702.305
B	702.265
1	702.186
2	701.969
3	701.741
4	701.504
5	701.258
6	701.002
C	700.737
7	700.736
D	700.715
E	700.693
8	700.518
9	700.297
10	700.066
11	699.825
12	699.574
13	699.313
F	699.147
G	699.125
H	699.103
14	699.062
15	698.846
16	698.620
17	698.385
18	698.140
19	697.885
20	697.621
I	697.575
J	697.535

CENTER LINE BEAM LINE 1			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	702.309		
B	702.269		
1	702.201		
2	701.984		
3	701.757		
4	701.520		
5	701.274		
6	701.018		
7	700.753		
C	700.741		
D	700.719		
E	700.697		
8	700.533		
9	700.312		
10	700.081		
11	699.841		
12	699.590		
13	699.330		
F	699.151		
G	699.129		
H	699.107		
14	699.076		
15	698.860		
16	698.635		
17	698.400		
18	698.156		
19	697.902		
20	697.638		
I	697.579		
J	697.539		

CENTER LINE BEAM LINE 2 *			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	702.337		
B	702.297		
2	702.086		
3	701.863		
4	701.629		
5	701.387		
6	701.134		
7	700.872		
C	700.769		
D	700.747		
E	700.725		
8	700.633		
9	700.416		
10	700.189		
11	699.951		
12	699.704		
13	699.448		
14	699.181		
F	699.179		
G	699.157		
H	699.135		
15	698.962		
16	698.741		
17	698.509		
18	698.268		
19	698.017		
20	697.756		
I	697.607		
J	697.567		

CENTER LINE BEAM LINE 7 *			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	702.011		
B	701.971		
3	701.838		
4	701.618		
5	701.388		
6	701.149		
7	700.900		
8	700.641		
C	700.443		
D	700.421		
E	700.399		
9	700.383		
10	700.169		
11	699.945		
12	699.712		
13	699.468		
14	699.215		
15	698.952		
F	698.853		
G	698.831		
H	698.809		
16	698.714		
17	698.495		
18	698.267		
19	698.029		
20	697.782		
21	697.525		
I	697.281		
J	697.241		

CENTER LINE BEAM LINE 8			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.820		
B	701.780		
3	701.720		
4	701.503		
5	701.276		
6	701.040		
7	700.794		
8	700.539		
9	700.274		
C	700.252		
D	700.230		
E	700.209		
10	700.052		
11	699.831		
12	699.601		
13	699.361		
14	699.111		
15	698.851		
F	698.662		
G	698.640		
H	698.619		
16	698.595		
17	698.380		
18	698.155		
19	697.920		
20	697.676		
21	697.422		
22	697.159		
I	697.091		
J	697.050		

CENTER LINE BEAM LINE 9			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.630		
B	701.589		
4	701.387		
5	701.164		
6	700.931		
7	700.688		
8	700.436		
9	700.174		
C	700.062		
D	700.040		
E	700.018		
10	699.934		
11	699.717		
12	699.490		
13	699.253		
14	699.006		
15	698.750		
16	698.483		
F	698.472		
G	698.450		
H	698.428		
17	698.263		
18	698.041		
19	697.810		
20	697.569		
21	697.319		
22	697.058		
I	696.900		
J	696.860		

CENTER LINE BEAM LINE 10			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.439		
B	701.399		
4	701.269		
5	701.050		
6	700.820		
7	700.581		
8	700.332		
9	700.073		
C	699.871		
D	699.849		
E	699.827		
10	699.814		
11	699.601		
12	699.377		
13	699.143		
14	698.900		
15	698.647		
16	698.384		
F	698.281		
G	698.259		
H	698.237		
17	698.145		
18	697.927		
19	697.699		
20	697.461		
21	697.214		
22	696.957		
I	696.709		
J	696.669		

GUTTER LINE B	
GRID	CONST ELEV.
A	701.412
B	701.371
4	701.253
5	701.033
6	700.804
7	700.565
8	700.317
9	700.059
C	699.844
D	699.822
E	699.800
10	699.797
11	699.584
12	699.361
13	699.128
14	698.885
15	698.632
16	698.370
F	698.254
G	698.232
H	698.210
17	698.128
18	697.910
19	697.683
20	697.446
21	697.199
22	696.942
I	696.682
J	696.642

* Theoretical elevations of existing deck. Match existing deck elevation when pouring new deck.

TABLE OF ELEVATIONS FOR CONTROL OF SLAB THICKNESS FOR WESTBOUND BRIDGE											
POINT	TOP OF SLAB ELEV.	BOTTOM OF SLAB ELEV.	COMPUTED SLAB THICKNESS	POINT	TOP OF SLAB ELEV.	BOTTOM OF SLAB ELEV.	COMPUTED SLAB THICKNESS	POINT	TOP OF SLAB ELEV.	BOTTOM OF SLAB ELEV.	COMPUTED SLAB THICKNESS
a	701.810			p	701.220						
b	701.331			q	700.741						
c	700.364			r	699.774						
d	699.647			s	699.059						
e	698.688			t	698.098						
f	698.212			u	697.623						
g	701.332			v	701.107						
h	700.847			w	700.635						
j	699.888			x	699.659						
k	699.163			y	698.953						
m	698.211			z	697.984						
n	697.729			a_1	697.515						

UPDATE DATE

LETTING DATE

	DATE	DATE	DATE
DESIGNED BY SLM	CHECKED BY SRS	DATE 9-86	REVISED
DETAILED BY BSB	CHECKED BY SLM	DATE 9-86	REVISED
TRACED BY	CHECKED BY	DATE	REVISED

CONSTRUCTION ELEVATIONS

Widen I-64 Over Tucker Station Road SHEET 29

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477 + 11.37 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

GUTTER LINE C	
GRID	CONST ELEV.
A	701.272
B	701.232
5	701.022
6	700.799
7	700.566
8	700.323
9	700.070
10	699.808
C	699.704
D	699.682
E	699.660
11	699.570
12	699.352
13	699.125
14	698.888
15	698.641
16	698.384
17	698.117
F	698.114
G	698.092
H	698.070
18	697.899
19	697.677
20	697.445
21	697.204
22	696.953
23	696.693
I	696.542
J	696.502

CENTER LINE BEAM LINE 11			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.276		
B	701.236		
5	701.037		
6	700.814		
7	700.581		
8	700.339		
9	700.087		
10	699.825		
C	699.708		
D	699.686		
E	699.664		
11	699.584		
12	699.367		
13	699.140		
14	698.903		
15	698.657		
16	698.401		
17	698.134		
F	698.118		
G	698.096		
H	698.074		
18	697.913		
19	697.692		
20	697.461		
21	697.220		
22	696.970		
23	696.709		
I	696.546		
J	696.506		

CENTER LINE BEAM LINE 12			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.304		
B	701.264		
5	701.138		
6	700.919		
7	700.689		
8	700.450		
9	700.201		
10	699.943		
C	699.736		
D	699.714		
E	699.692		
11	699.683		
12	699.470		
13	699.246		
14	699.013		
15	698.770		
16	698.517		
17	698.254		
F	698.146		
G	698.124		
H	698.102		
18	698.014		
19	697.796		
20	697.568		
21	697.331		
22	697.084		
23	696.827		
I	696.574		
J	696.534		

CENTER LINE BEAM LINE 13			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.332		
B	701.292		
5	701.239		
6	701.022		
7	700.796		
8	700.560		
9	700.315		
10	700.060		
11	699.795		
C	699.764		
D	699.742		
E	699.720		
12	699.571		
13	699.351		
14	699.121		
15	698.881		
16	698.631		
17	698.372		
F	698.174		
G	698.152		
H	698.130		
18	698.114		
19	697.899		
20	697.674		
21	697.440		
22	697.196		
23	695.943		
24	695.680		
I	695.602		
J	696.562		

CENTER LINE BEAM LINE 14 *			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.360		
B	701.320		
5	701.125		
6	700.902		
7	700.669		
8	700.427		
9	700.175		
10	699.914		
11	699.792		
C	699.770		
D	699.748		
E	699.672		
12	699.455		
13	699.228		
14	698.992		
15	698.745		
16	698.489		
17	698.223		
F	698.202		
G	698.180		
H	698.158		
18	698.001		
19	697.780		
20	697.549		
21	697.308		
22	697.058		
23	696.798		
24	696.630		
I	696.590		
J	696.264		

CENTER LINE BEAM LINE 19 *			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	701.034		
B	700.994		
5	700.876		
6	700.657		
7	700.428		
8	700.189		
9	699.941		
10	699.682		
C	699.466		
D	699.444		
E	699.423		
11	699.421		
12	699.208		
13	698.984		
14	698.751		
15	698.509		
16	698.256		
17	697.993		
F	697.876		
G	697.854		
H	697.833		
18	697.752		
19	697.534		
20	697.307		
21	697.069		
22	696.823		
23	696.566		
24	696.305		
I	696.264		

CENTER LINE BEAM LINE 20			
GRID	CONST ELEV.	TOP OF BEAM	DIM "X"
A	700.844		
B	700.803		
5	700.758		
6	700.542		
7	700.316		
8	700.080		
9	699.835		
10	699.580		
11	699.316		
12	699.276		
C	699.254		
D	699.232		
E	699.090		
13	698.870		
14	698.641		
15	698.401		
16	698.152		
17	697.893		
F	697.686		
G	697.664		
H	697.642		
18	697.633		
19	697.418		
20	697.194		
21	696.960		
22	696.717		
23	696.464		
24	696.201		
I	696.114		
J	696.074		

GUTTER LINE D	
GRID	CONST ELEV.
A	700.816
B	700.776
7	700.741
8	700.525
9	700.300
10	700.065
11	699.820
12	699.566
13	699.302
C	699.248
D	699.226
E	699.205
14	699.073
15	698.854
16	698.625
17	698.386
18	698.137
19	697.878
F	697.658
G	697.636
20	697.616
H	697.615
21	697.402
22	697.178
23	696.944
24	696.701
25	696.449
26	696.186
I	696.087
J	696.046

* Theoretical elevations of existing deck. Match existing deck elevation when pouring new deck.

TABLE OF ELEVATIONS FOR CONTROL OF SLAB THICKNESS FOR EASTBOUND BRIDGE											
POINT	TOP OF SLAB ELEV.	BOTTOM OF SLAB ELEV.	COMPUTED SLAB THICKNESS	POINT	TOP OF SLAB ELEV.	BOTTOM OF SLAB ELEV.	COMPUTED SLAB THICKNESS	POINT	TOP OF SLAB ELEV.	BOTTOM OF SLAB ELEV.	COMPUTED SLAB THICKNESS
b_1	700.635			q_1	700.849						
c_1	700.144			r_1	700.371						
d_1	699.193			s_1	699.403						
e_1	698.459			t_1	698.688						
f_1	697.515			u_1	697.727						
g_1	697.027			v_1	697.252						
h_1	700.743			w_1	700.372						
j_1	700.258			x_1	699.888						
k_1	699.299			y_1	698.927						
m_1	698.574			z_1	698.204						
n_1	697.621			a_2	697.251						
p_1	697.140			b_2	696.770						

UPDATE DATE

LETTING DATE

	DATE	DATE	DATE
DESIGNED BY SLM	CHECKED BY SRS	DATE 9-96	REVISED
DETAILED BY SSB	CHECKED BY SLM	DATE 9-96	REVISED
TRACED BY	CHECKED BY	DATE	REVISED

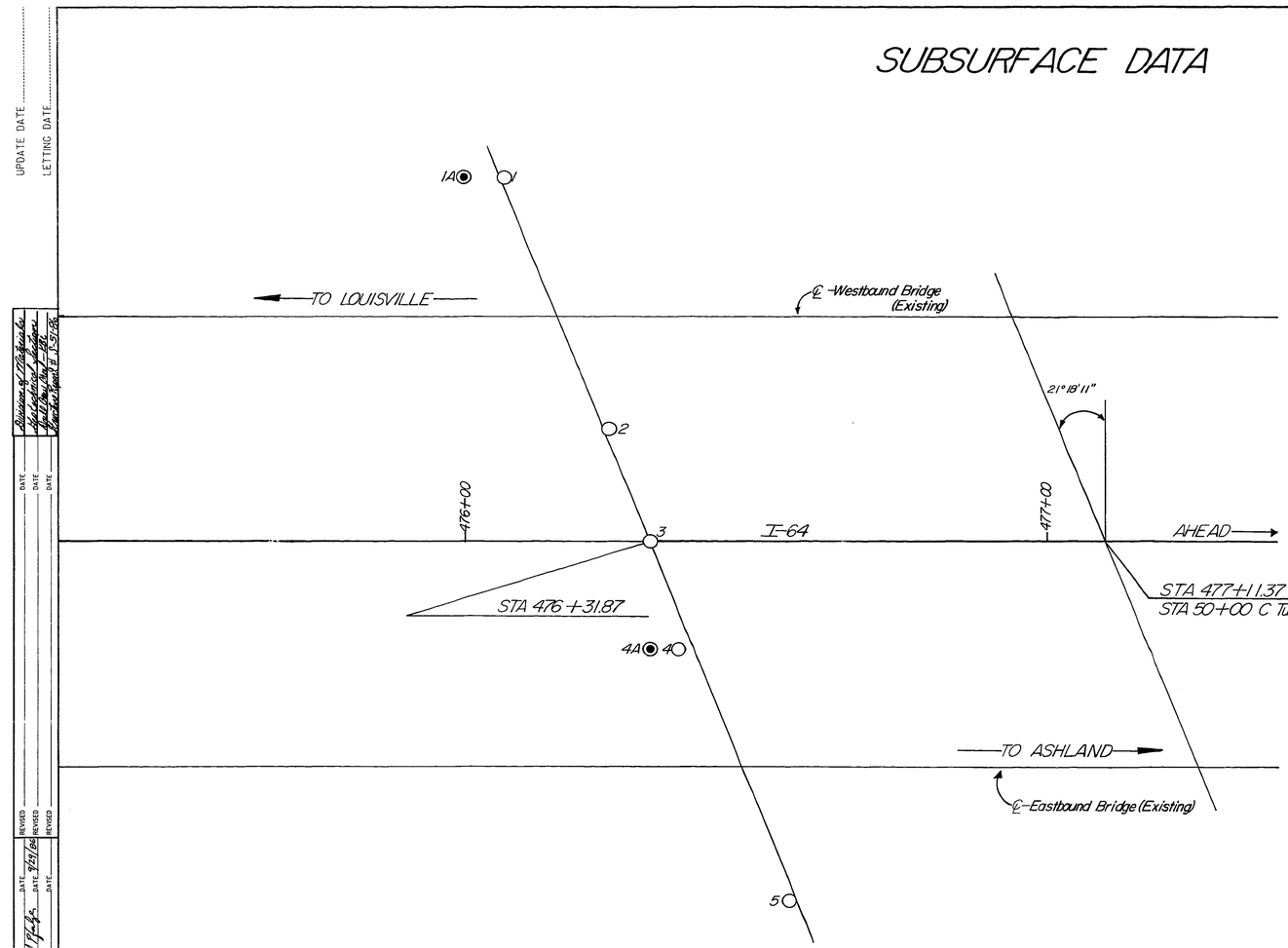
CONSTRUCTION ELEVATIONS

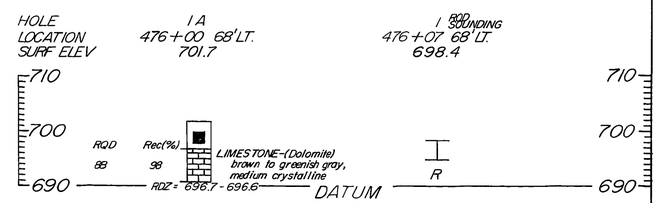
Widen I-64 Over Tucker Station Road SHEET 30

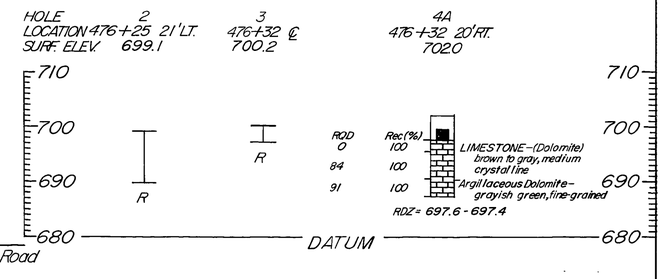
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - LEXINGTON
ROAD
STATION 477+11.37 P.E. PROJECT NO.

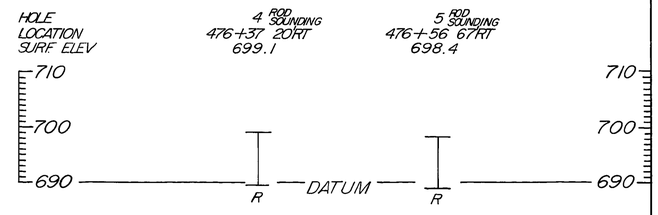
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

SUBSURFACE DATA









The Allowable Bearing Capacity is estimated to be 12 TSF.

UPDATE DATE
LETTING DATE

Revision of Title Sheet
Add Soundings & Profiles
Revise Scale & Layout
Per Letter Dated 4-15-86

DATE
DATE
DATE

DESIGNED BY W. J. Fields DATE
DETAILED BY [illegible] CHECKED BY W. J. Fields DATE 4/21/86
TRACED BY [illegible] CHECKED BY [illegible] DATE

REVISED
REVISED
REVISED

I-64 over TUCKER STATION ROAD SHEET 31

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-LEXINGTON ROAD
ROAD
IR 00642-123 FSP
STATION 477+11.37 P. E. PROJECT NO. 038 0064 05 018 031 D

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440

Description of Soil Compactness or Consistency

SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF PENETRATION RESISTANCE	RANGE OF UNCONFINED COMPRESSIVE STRENGTH
Coarse grained soils (More than half of material is larger than No. 200 sieve size.)	Very loose Loose Medium compact Compact Very compact	Less than 4 blows per foot 4 to 10 10 to 30 30 to 50 Greater than 50	Not applicable
Fine grained soils (More than half of material is smaller than No. 200 sieve size.)	Very soft Soft Medium stiff Stiff Very stiff Hard	Not applicable	Less than 0.25 tsf 0.25 to 0.5 0.5 to 1.0 1.0 to 2.0 2.0 to 4.0 Greater than 4.0

Unified Soil Classifications

MAJOR DIVISIONS		SYMBOL	NAME
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SAND AND SANDY SOILS	SW	Well-graded sands or gravelly sands, little or no fines.
		SP	Poorly graded sands or gravelly sands, little or no fines.
		SM	Silty sands, sand-silt mixture
		SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS	SILTS AND CLAYS LL IS LESS THAN 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	SILTS AND CLAYS LL IS GREATER THAN 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH	Inorganic clays of high plasticity, fat clays
UNCLASSIFIED MATERIAL		NONE	Non-classified material (i.e. overburden, pavement, coal mine waste, slag, rubble, talus, etc.) Include visual description.

AI	Activity Index
LI	Liquidity Index
N	Penetration Resistance
S+C(%)	Material finer than No.200 seive
○	Rockline Sounding
◒	Disturbed Sample Boring
◎	Undisturbed Sample Boring
◉	Undisturbed Sample Boring and Rock Core
●	Rock Core
⌖	Slope Inclinometer Installation
	typical applications: ○ ◒ ◎ ◉ ●
▬▶	Approximate Footing Elevation
▽	Water Elevation
▮	Thin-walled Tube Sample
<	Standard Penetration Test Sample
Qu	Unconfined Compressive Strength
w(%)	Moisture Content
RQD(%)	Rock Quality Designation
SDI(%)	Slake Durability Index
Rec.(%)	Core Recovery
ϕ	Angle of Internal Friction
$\bar{\phi}$	Effective Angle of Internal Friction
c	Cohesion
$\bar{c}$	Effective Cohesion
γ	Total Unit Weight
RDZ	Rock Disintegration Zone
OB	Overburden Bench
IB	Intermediate Bench
R	Refusal
NR	Refusal Not Encountered

Relation of RQD and in situ Rock Quality

RQD(%)	Rock Quality
90-100	Excellent
75-90	Good
50-75	Fair
25-50	Poor
0-25	Very Poor

LIMESTONE

SANDSTONE

COAL

SHALE, SOIL-LIKE (SDI ≤ 50)

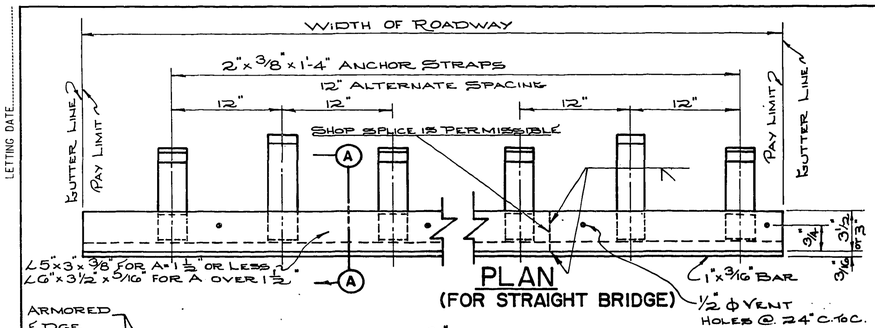
SHALE, INTERMEDIATE (50 < SDI < 95)

SHALE, ROCK-LIKE (SDI ≥ 95)

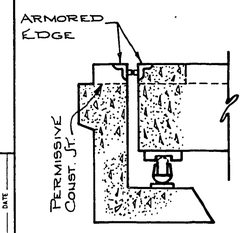
I-64 over TUCKER STATION ROAD SHEET 32

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-LEXINGTON ROAD
ROAD
STATION 477+11.37 P.E. PROJECT NO. IR 00642-123.ESF DSG 0064 054.18 091 D

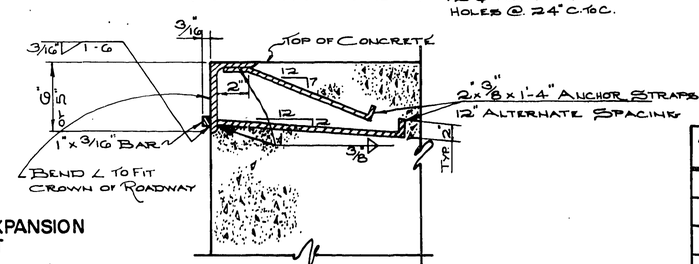
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21440



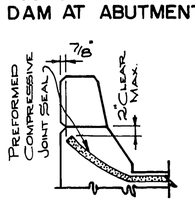
PLAN
(FOR STRAIGHT BRIDGE)



CROSS SECTION OF EXPANSION DAM AT ABUTMENT

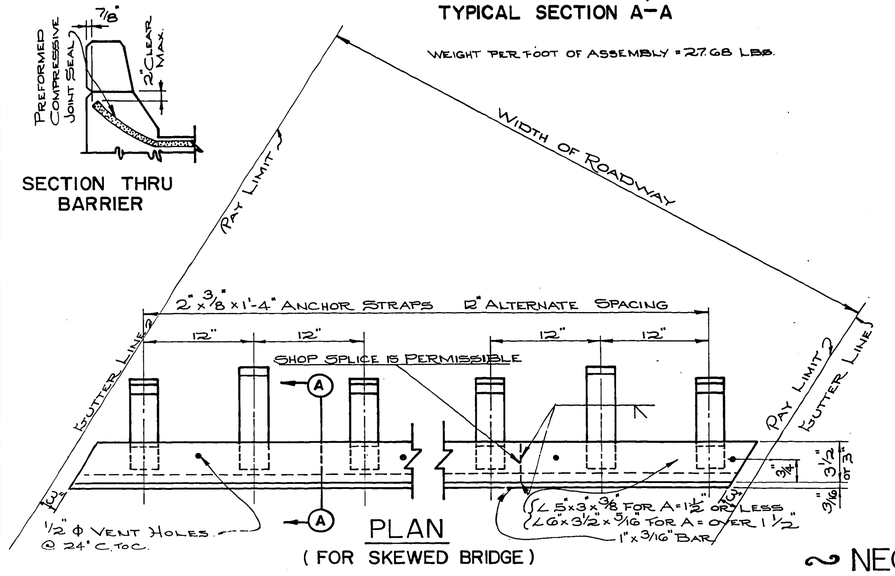


TYPICAL SECTION A-A

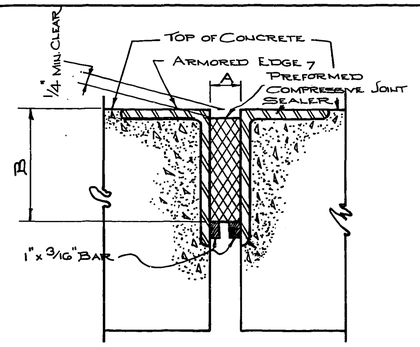


SECTION THRU BARRIER

WEIGHT PER FOOT OF ASSEMBLY = 27.68 LBS.



PLAN
(FOR SKEWED BRIDGE)

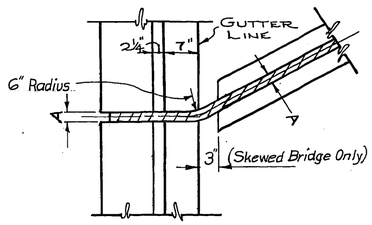


SECTION THRU DAM

B- SHALL BE THE COMPRESSED HEIGHT OF SEAL PLUS 1/4"

A = MINIMUM WIDTH OF JOINT OPENING AT 60° SEE DESIGN DRWGS.	REQUIRED MOVEMENT *
SIZE = 1 1/2"	1"
SIZE = 2"	1.5"
SIZE = 2 1/2"	2.0

* JOINT SEAL SUPPLIED MUST ACCOMODATE REQUIRED MOVEMENT. DIMENSION "A" SHALL BE SET WITH TEMPERATURE CHANGE CORRECTION AND AS RECOMMENDED BY SEALER MANFACTURER TO OBTAIN REQUIRED MOVEMENT.



PLAN VIEW AT GUTTER

INCREMENT FOR 10° TEMPERATURE CHANGE				
~ STEEL SPAN ~				
THRU 60'	61'-100'	101'-140'	141'-180'	
1/32"	1/16"	3/32"	1/8"	
~ CONCRETE SPAN ~				
0 - 80'	81'-140'	141'-200'	201'-260'	261'-320'
1/32"	1/16"	3/32"	1/8"	5/32"

GENERAL NOTES

SPECIFICATIONS: THE KENTUCKY DEPT. OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION WITH REVISIONS.

INSTALLATION PROCEDURE: THE ENDS OF THE JOINT SEAL SHALL BE SEALED TO PREVENT THE ENTRANCE OF WATER AND FOREIGN MATERIAL.

WELDING SPECIFICATION: ALL WELDING MATERIALS, WELDING TECHNIQUES AND WELDING PROCEDURE SHALL COMPLY WITH AMERICAN WELDING SOCIETY'S D11-80 STRUCTURAL WELDING CODE WITH REVISIONS.

MILL TEST REPORTS: NOTARIZED STATEMENTS IN TRIPLICATE SHALL BE FURNISHED TO THE DEPT. OF HIGHWAYS SHOWING THAT ALL STRUCTURAL STEEL CONFORM TO THE SPECIFICATIONS.

BASIS OF PAYMENT: THE ACCEPTED QUANTITIES OF EXPANSION DAM WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LIN. FT. FOR EACH SIZE, MEASURED ALONG THE C.ENTERLINE OF JOINT. THIS PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS (INCLUDING PREFORMED COMPRESSION JOINT SEALER WITH LUBRICANT ADHESIVE, ARMORED EDGES, ANCHOR STRAPS, 1"x 3/16" BARS, WELDING AND WELDING MATERIALS AND INSTALLING HARDWARE) AND INSTALLATION. PAYMENT WILL BE MADE UNDER:

PAY ITEM	PAY UNIT
EXPANSION DAM (SIZE) NEOPRENE	LINEAR FOOT

MATERIAL SPECIFICATION: STEEL MATERIAL SHALL CONFORM TO A.S.T.M. DESIGNATION A36. PREFORMED COMPRESSIVE JOINT SEALER WITH LUBRICANT ADHESIVE SHALL BE ACCORDANCE WITH SECTION 807.02.03 OF THE SPECIFICATION.

LOCATION: THE LOCATION OF EXPANSION DAMS SHALL BE IN ACCORDANCE WITH THE DETAIL PLANS.

PAINT: ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS.

SHEET 33

UPDATE DATE
LETTING DATE

DESIGNED BY — DATE 5/87
DETAILED BY — DATE 2-28-89
TRACED BY — DATE
CHECKED BY — DATE
CHECKED BY — DATE
REVISED Bevel at Gutter — DATE 3-18-86
REVISED This Sheet Added to Plans — DATE
REVISED — DATE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF

STATION 477+11.37 ROAD P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		2140

~ NEOPRENE EXPANSION DAMS (1 1/2", 2", and 2 1/2") ~