

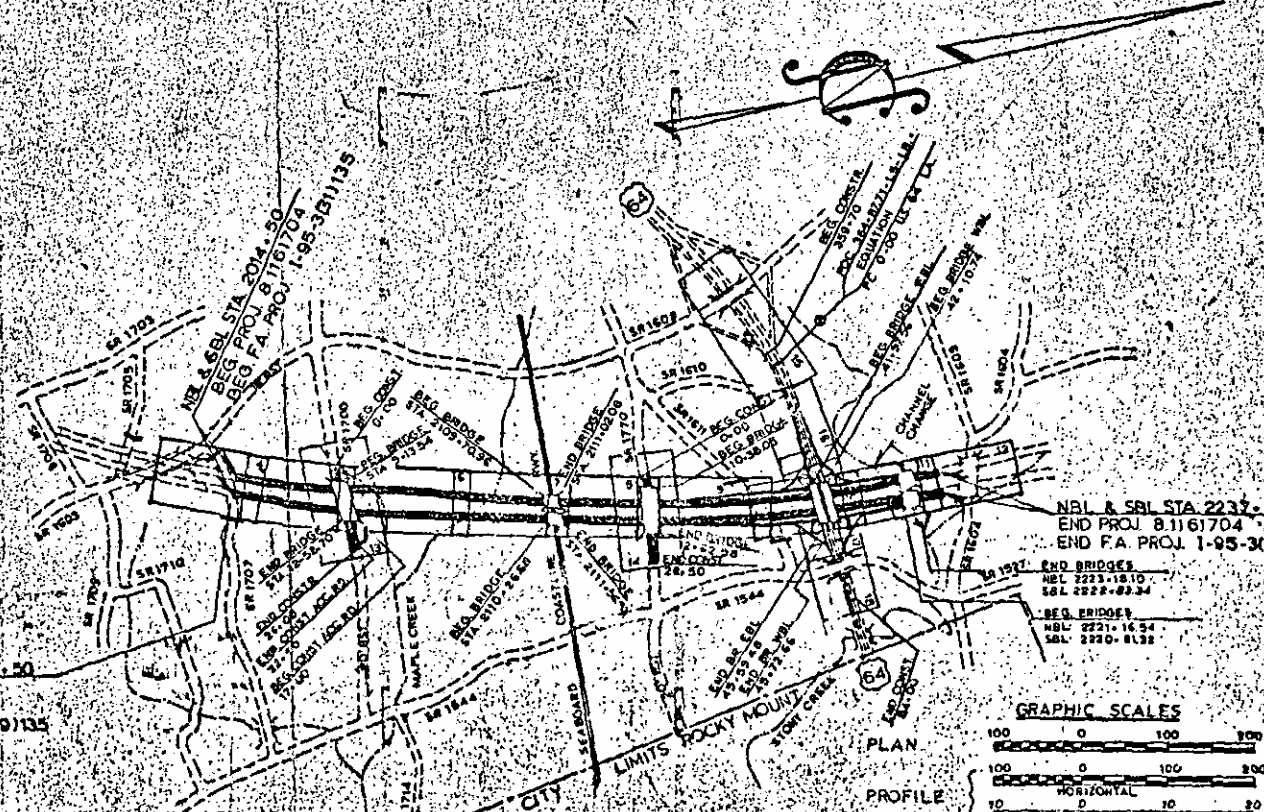
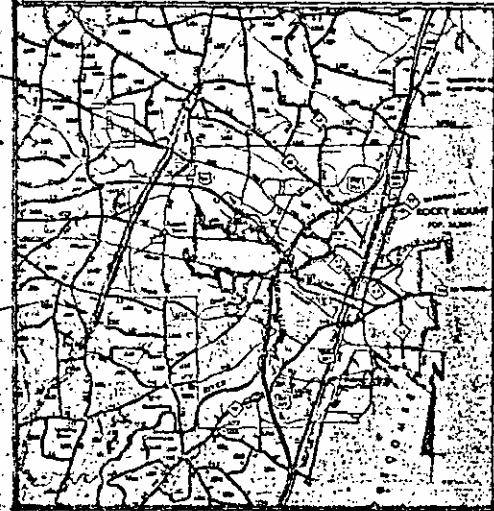
PLAN AND PROFILE OF PROPOSED STATE HIGHWAY NASH COUNTY

8.1161703
8.1161704

LOCATION: I-95 From approx 230' North of S.R. 1707, Northeastery to approx 317' South of S.R. 1804
 TYPE OF WORK: Grading, Drainage, Paving & Structures

CONVENTION

County Line	.....
City or Town Line	.....
Exist. Right of Way Line	.....
Right of Way Line	.....
Survey Line	.....
Property Line	.....
Exist. Fence	.....
Proposed Road	.....
Existing Road	.....
Railroad	.....
Control of Access Line	.....
Slope Stake Line	.....
Bridge	.....
Culvert	.....
Woods	.....
Telephone or Telegraph Pole	.....
Tower Pole and Line	.....
Power Pole	.....
Proposed Right of Way Marker	.....
Existing Right of Way Marker	.....
Guard Rail	.....
Sanitary Sewer Line	.....
Water Line	.....
Gas Line	.....
Proposed Woven Wire Fence	.....
Proposed Chain Link Fence	.....
Easement Line	.....
Brush Barrier	.....
Silt Check Dam - Type A	.....
Silt Basin - Type A	.....
Temporary Lateral Silt Ditch	.....
Temporary Silt Fence	.....
Galvanized Pipe (For Future Lighting)	.....
Bridge Approach Slope	.....
Median Uncleared Area	.....



SHIPPING POINT
ROCKY MOUNT

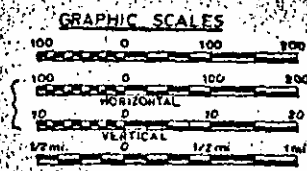
PREPARED IN OFFICE OF
DEPARTMENT OF TRANSPORTATION
AND HIGHWAY SAFETY
DIVISION OF HIGHWAYS
RALEIGH, N.C.
ROADWAY DESIGN UNIT - C.E. BISTLER (SUPERVISOR)

NBL & SBL STA 2014+50
BEG. R/W
PROJ. 8.1161703
F.A. PROJ. I-95-3(29)135

NBL & SBL STA 2237+00
END PROJ. 8.1161704
END F.A. PROJ. I-95-3(31)135

END BRIDGES
NBL 2223+18.10
SBL 2222+89.34

BEG. BRIDGES
NBL 2221+16.54
SBL 2220+81.22



DESIGN DESIGNATION

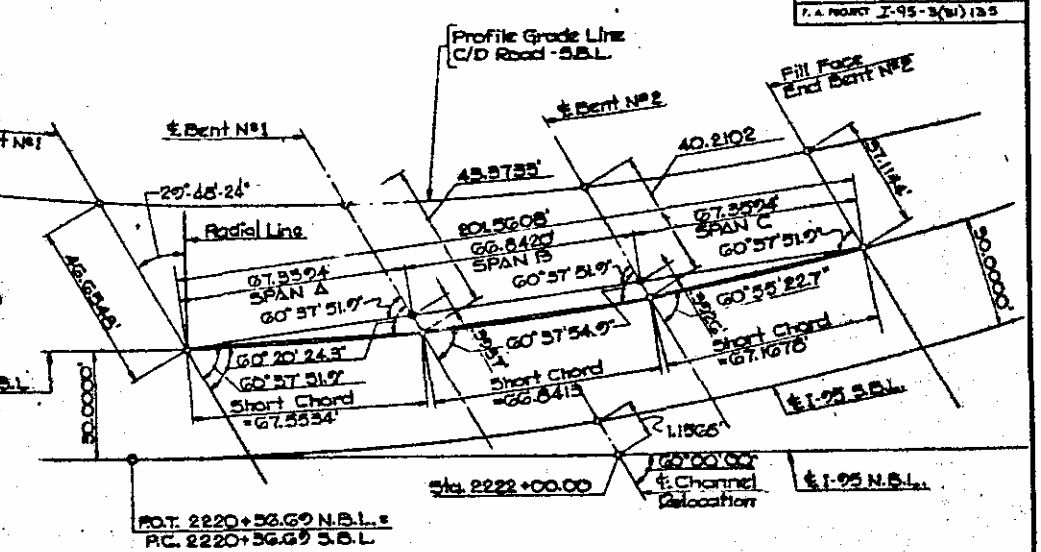
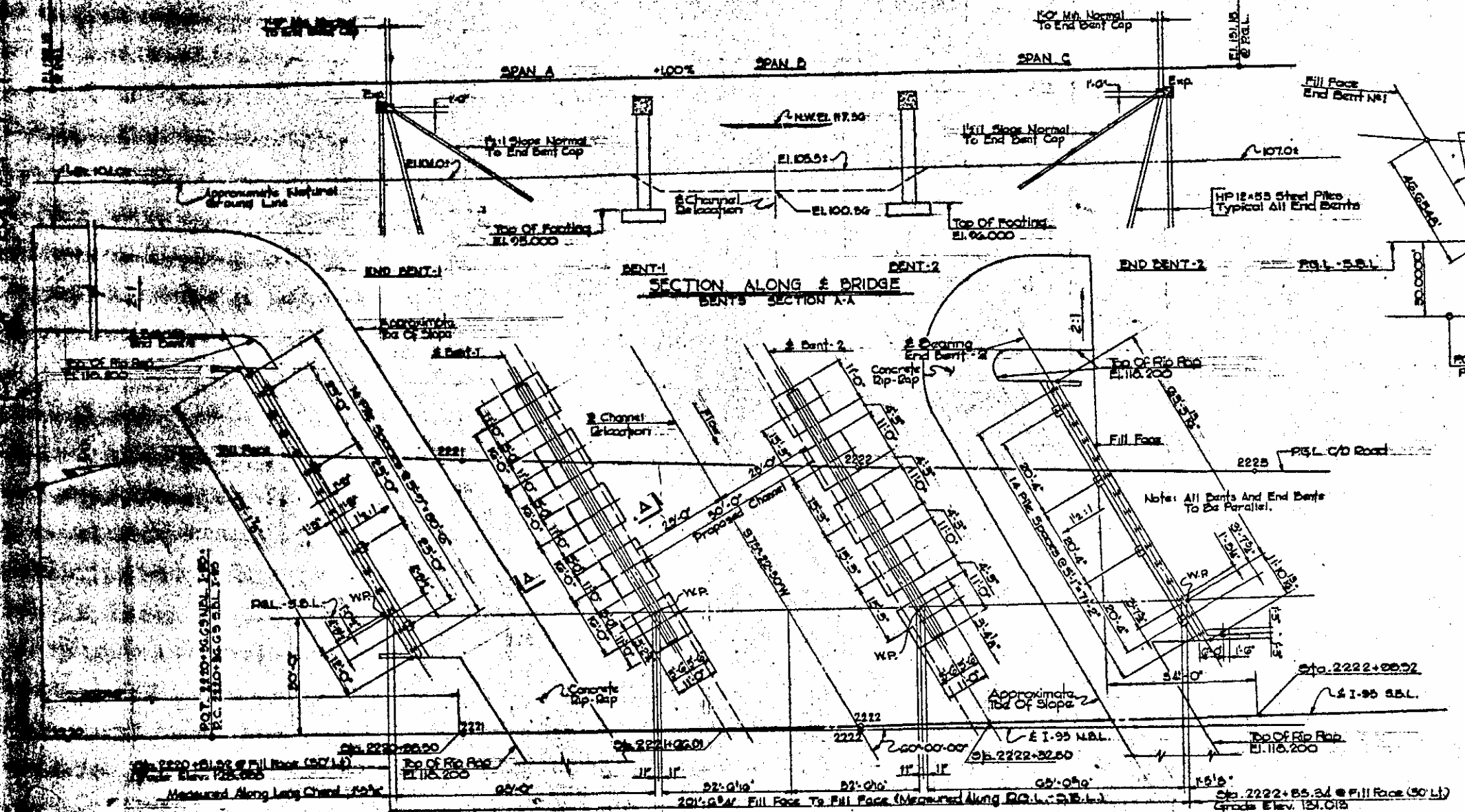
1975 ADT	15600 - 16400
1995 ADT	30200 - 31400
DHV	12%
P	60%
F	20%
V	70 MPH

PLANS PREPARED BY: RUMMEL, SLEPPER & SEAM, CONSULTING ENGINEERS

LENGTH OF ROADWAY F.A. PROJECT I-95-3(31)135 4.151 miles
 LENGTH OF STRUCTURES F.A. PROJECT I-95-3(31)135 0.083 miles

STATE APPROVED
DEPARTMENT OF TRANSPORTATION
FEDERAL

PROJECT: 8.1161704



LONG CHORD LAYOUT

NOTES

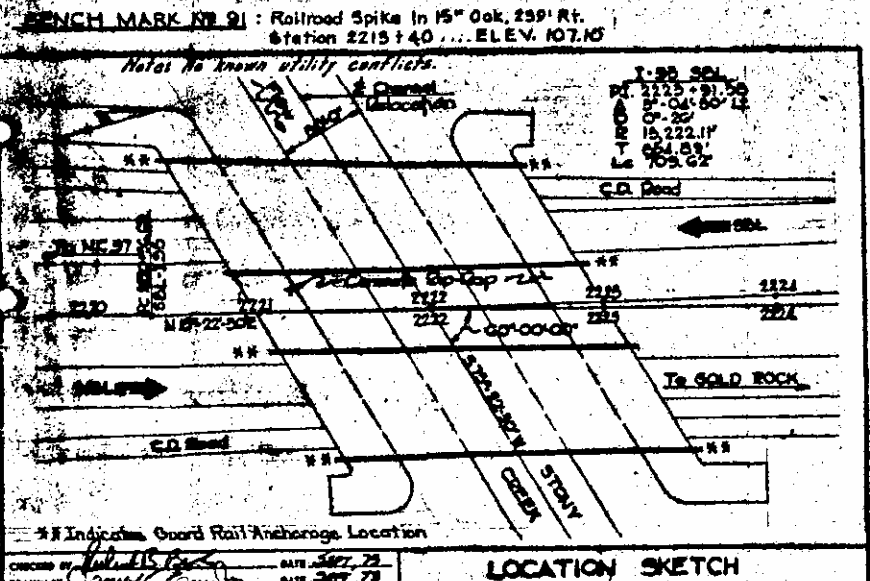
ASSUMED LIVE LOAD: HS-20-44 Or Alternate Loading.
 REFERENCE TO SHEET S-N: For Other Design Data And General Notes See Sheet S-N.

PILE CAPACITIES: Piles Are Designed For Bearing Capacities Of 30 Tons Per Pile.
BARRIER RAIL: For Concrete Barrier Rail See Special Provisions.
COFFERDAMS: For Cofferdams See Special Provisions.
COMPUTED FOUNDATION LOAD: Computed Foundation Loads For Bents Equals 3 Tons Per Square Foot.

PILES: PILES FOR END BENT 1 SHALL BE ASSURED AND DRIVEN THROUGH FILL IN ACCORDANCE WITH THE SPECIFICATIONS. PILES FOR END BENT 2 SHALL BE DRIVEN THROUGH FILL, NO AUGERING FOR THESE.

FOOTINGS: Footings to be carried at least 6' into rock with minimum thickness as shown on plans.
 Work is not to be started on Bents 1 & 2 until channel change has been excavated.

SCHEDULE OF WORK: Boulders in the vicinity of End Bent 2 shall be removed by the Roadway Contractor to a depth of 5 feet prior to placing the fill to allow the driving of steel piles.



PLAN

Notes: All Bents And End Bents To Be Parallel.
 Stationing: Sta. 2222+00.00, Sta. 2222+53.69 N.B.L., P.C. 2220+53.69 S.B.L.

TOTAL BILL OF MATERIAL - S.B.L.

	CLASS AA CONCRETE		CLASS A CONCRETE		REINFORCING STEEL	45° PRESTRESSED CONCRETE GIRDERS	HP 12 X 53 STEEL PILES	FOUNDATION EXCAVATION	COFFERDAMS FOR BENTS	5\"/>			
		CJ. YDS.	CJ. YDS.	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	CJ. YDS.	LUMP SUM	SO. YDS.	GALLONS	LIN. FT.	LUMP SUM
SUPERSTRUCTURE	424.4		107,878	30	2028.34						31	419.15	
END BENT NO. 1		27.2	5,294			18	710			85			
BENT NO. 1		196.0	19,847					472	LUMP SUM				
BENT NO. 2		184.8	18,394					454	LUMP SUM				
END BENT NO. 2		25.4	5,212			20	790			508			
CURVED END BLOCKS	0.9		12.9										
TOTALS	425.3	393.5	135,544	30	2028.34	38	1,500	928	LUMP SUM	1,403		413.15	LUMP SUM

HYDROGRAPHIC DATA

S.B.L.
 Design Discharge (Q50) = 7500 C.F.S.
 Basic Flood (Q100) = 9100 C.F.S.
 Design High Water Elevation = 117.36
 Basic Flood Elevation = 117.5

REINFORCING STEEL LENGTHS ARE BASED ON FOLLOWING MINIMUM SPLICE LENGTHS

BAR SIZE	SPLICE DISTANCE
#4	1'-3"
#5	1'-0"
#6	2'-0"
#7	2'-3"
#8	2'-6"
#9	2'-6"
#10	3'-3"
#11	3'-6"

PROJECT NO. 8.116104
NASH COUNTY
STATION: 2222+00 NBL I-95

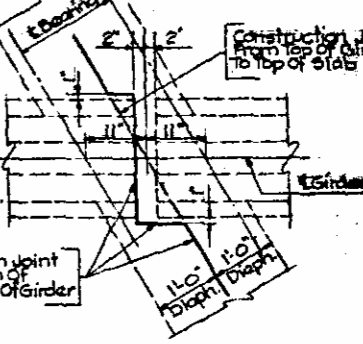
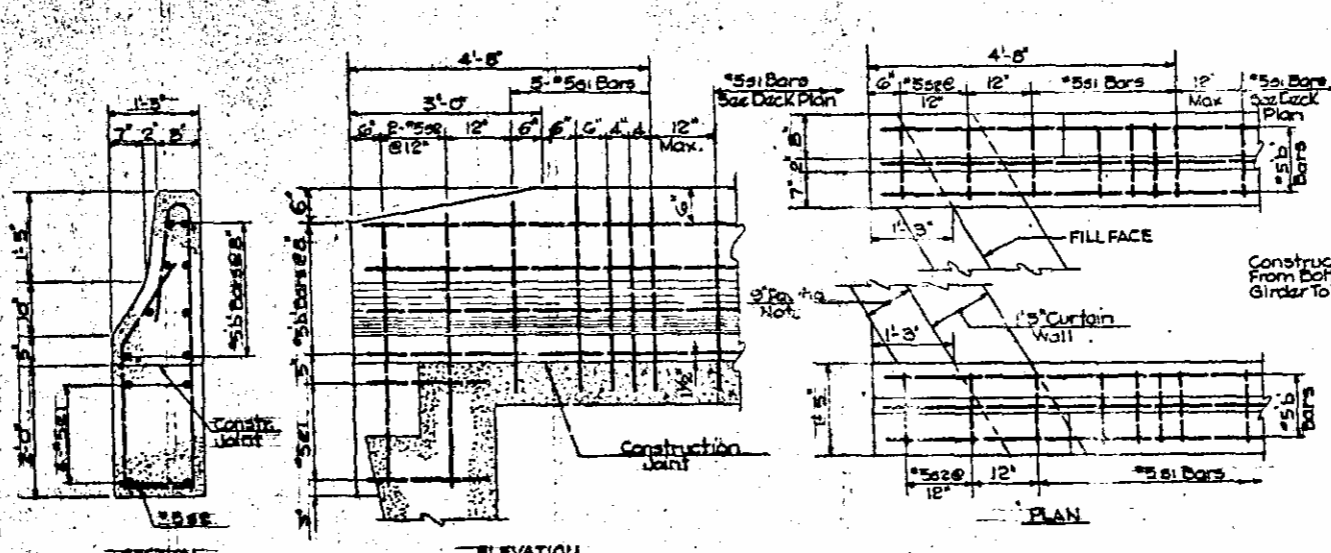
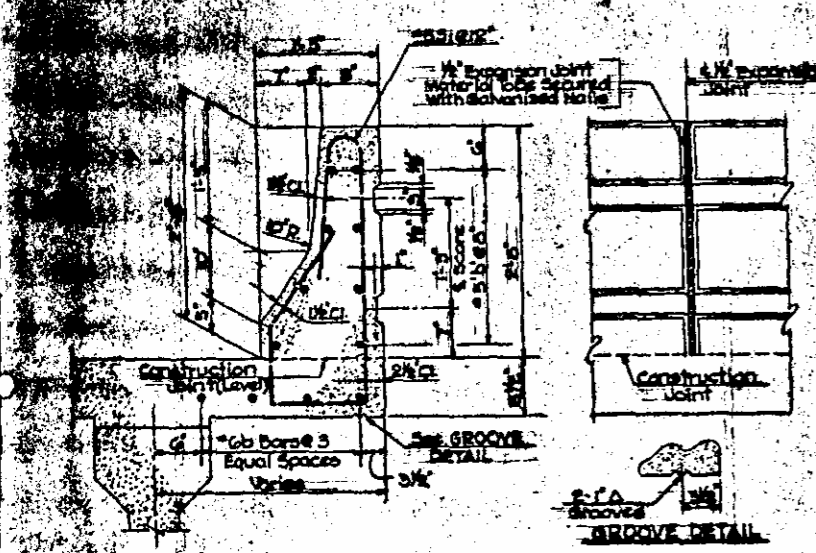
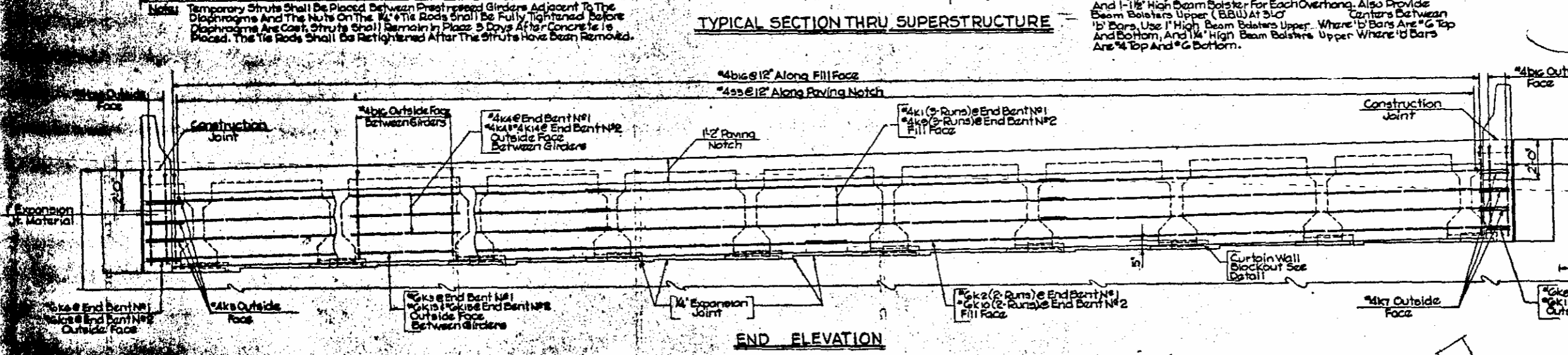
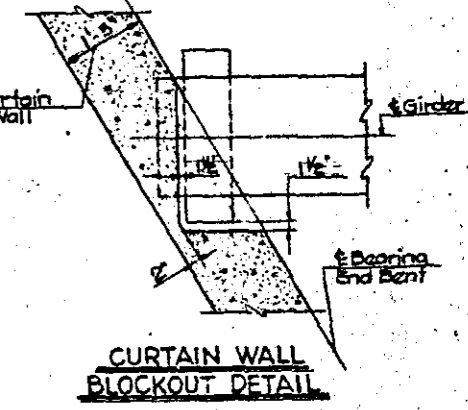
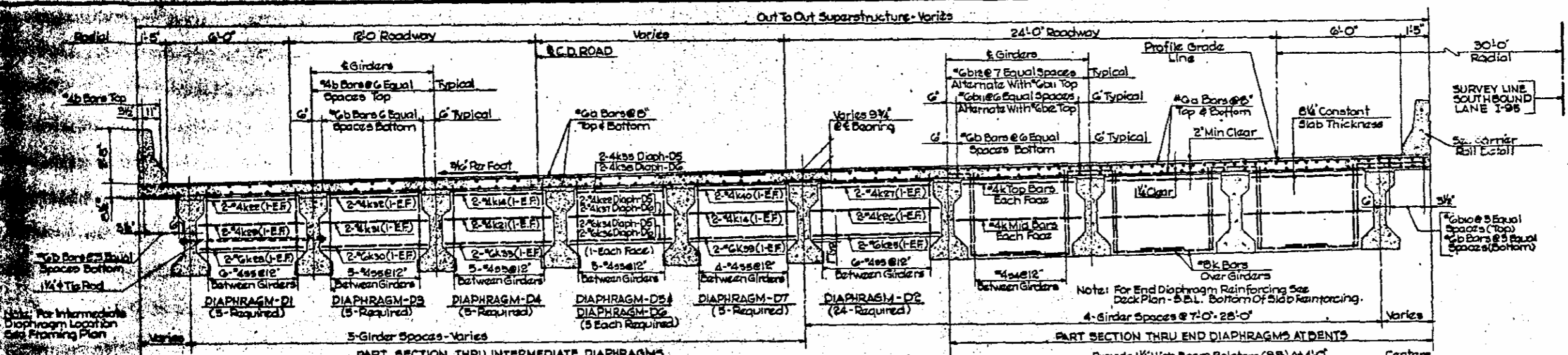
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 MADE
 GENERAL DRAWING FOR BRIDGE
 ON N. C. I-95 S.B.L.
 OVER STONY CREEK
 BETWEEN N. C. 97 AND ORLEANS BRICK

RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 RALEIGH, NORTH CAROLINA

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			2		
2			4		

129

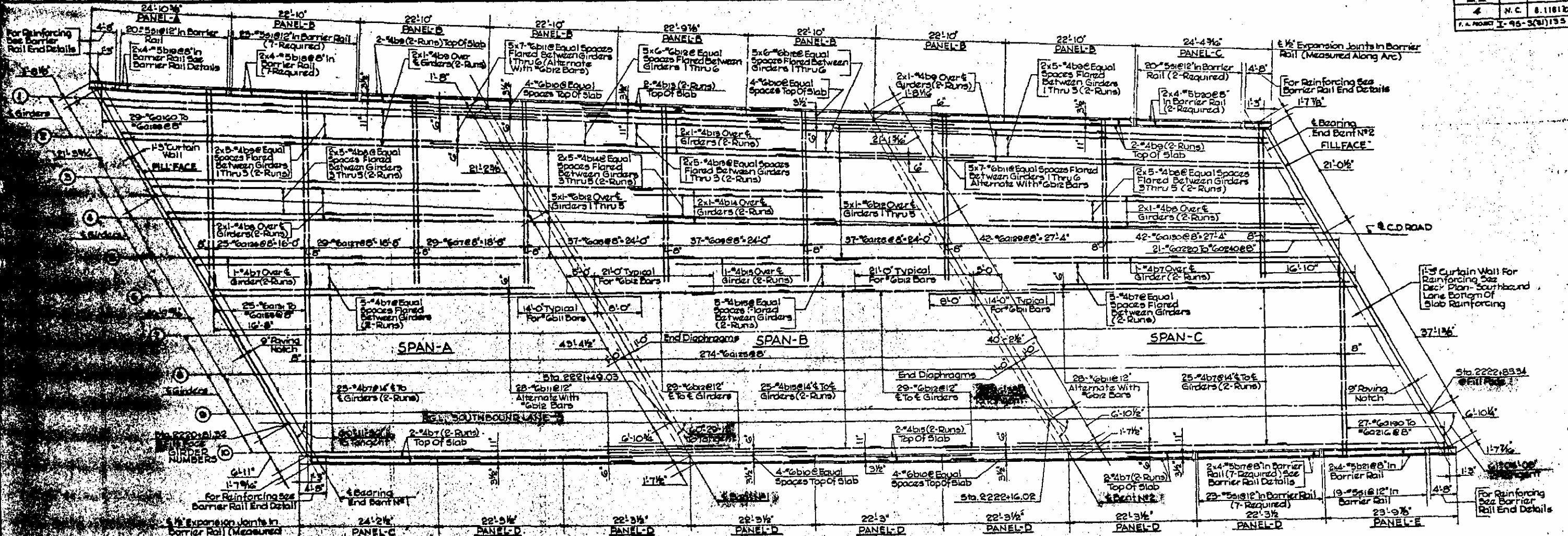


PROJECT NO. B.1161704
 WASH COUNTY
 STATION: 2222+00 NB I-95

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 STONY CREEK OVERPASS S.B.L.
 SUPERSTRUCTURE
 DETAILS

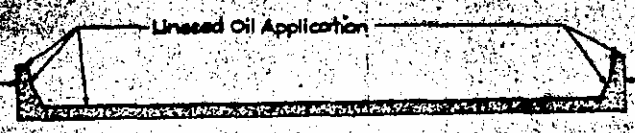
RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 RALEIGH, NORTH CAROLINA

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			3		



**DECK PLAN- SOUTHBOUND LANE
 TOP OF SLAB REINFORCING**

Notes:
 Transverse Reinforcing To Be Placed Perpendicular To Girders 6 Thru 10.
 Intermediate Diaphragms Not Shown, For Locations See Framing Plan.
 All Reinforcing Shown Is Top Of Slab Reinforcing Unless Otherwise Noted.
 For Reinforcing Of End Diaphragms See Deck Plan - Southbound Lane Bottom Of Slab Reinforcing.



**SKETCH SHOWING LIMIT OF
 LINSEED OIL APPLICATION**

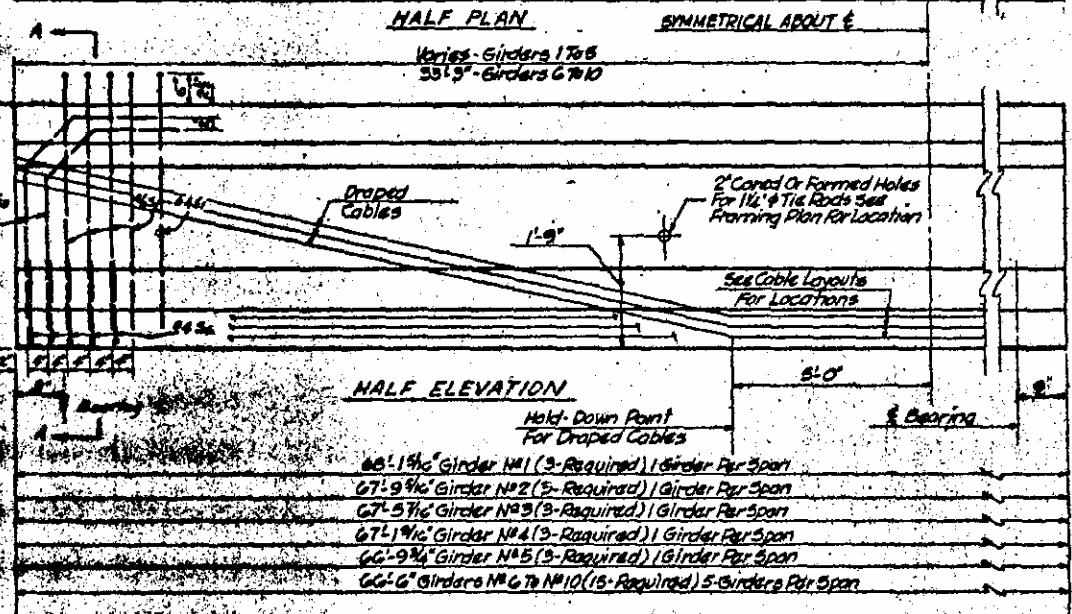
PROJECT NO. 8.1161704
NASH COUNTY
STATION: 7722+00 NEI I-95

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 STONY CREEK OVERPASS S.B.L.
 SUPERSTRUCTURE
 DECK PLAN - TOP OF SLAB REINFORCING

RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 RALEIGH, NORTH CAROLINA

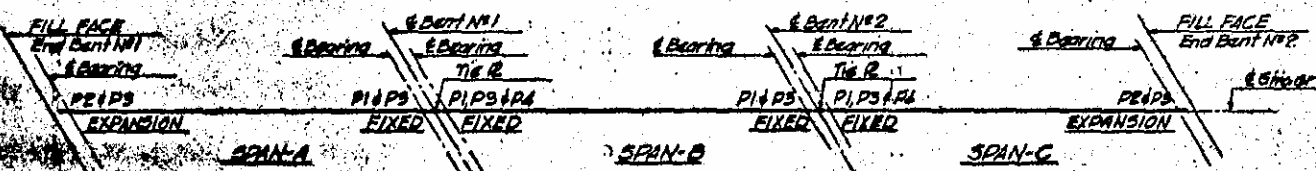
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			3		

Varies - Girders 1 To 5		29' 9" Girders 6 To 10		Remainders @ 20' Max.		Girders 1 To 5	
7'-10"	8' - 8 Spacing @ 8'-5 1/2"	15'-Spacing @ 11'-13'-0"		7'-Spacing @ 20'-11'-8"		Girders 6 To 10	
7'-10"	8' - 8 Spacing @ 8'-5 1/2"	15'-Spacing @ 11'-13'-0"					



GIRDER DETAILS

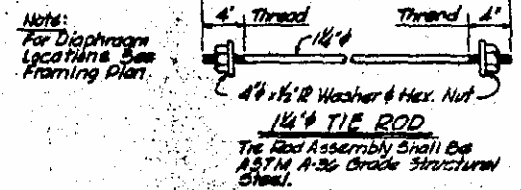
- 66'-1 1/2" Girder No 1 (3-Required) 1 Girder Per Span
- 67'-9 1/4" Girder No 2 (3-Required) 1 Girder Per Span
- 67'-5 1/2" Girder No 3 (3-Required) 1 Girder Per Span
- 67'-1 1/4" Girder No 4 (3-Required) 1 Girder Per Span
- 66'-9 1/4" Girder No 5 (3-Required) 1 Girder Per Span
- 66'-6" Girders No 6 To No 10 (15-Required) 5 Girders Per Span



BEARING PLATE LAYOUT

	SPAN-A		SPAN-B		SPAN-C	
	Int.	Ext.	Int.	Ext.	Int.	Ext.
Comber (Girders Alone In Place)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Superimposed Dead Load	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
Final Deflection	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"

Diaphragm-D1	7'-10"	5-Required
Diaphragm-D2	8'-1"	24-Required
Diaphragm-D3	7'-8"	5-Required
Diaphragm-D4	7'-5"	5-Required
Diaphragm-D5	7'-1"	5-Required
Diaphragm-D6	6'-8"	5-Required
Diaphragm-D7	6'-6"	5-Required

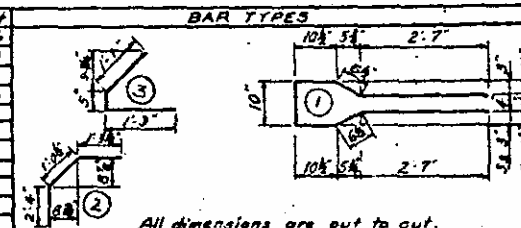


	Reinforcing steel LBS	5000 psi Concrete Cu. Yds	High Strength 7-wire Cables No.
GIRDER No 1	365	9.81	32
GIRDER No 2	368	9.76	32
GIRDER No 3	363	9.72	32
GIRDER No 4	365	9.67	32
GIRDER No 5	365	9.63	32
GIRDERS No 6 TO 10	659 Each	9.58 Each	32 Each

No.	Length	Total Length
30	Varies	2009.34'

REINFORCING STEEL FOR ONE GIRDER

Bar No.	Size	Type	Length	Weight
51	62	#4	8'-10"	360
51	61	#4	8'-10"	360
52	8	#6	8'-10"	100
53	8	#6	4'-8"	50
54	20	#4	2'-9"	37



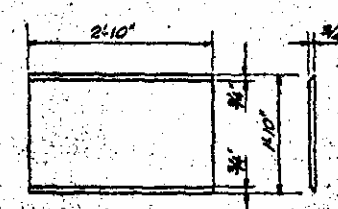
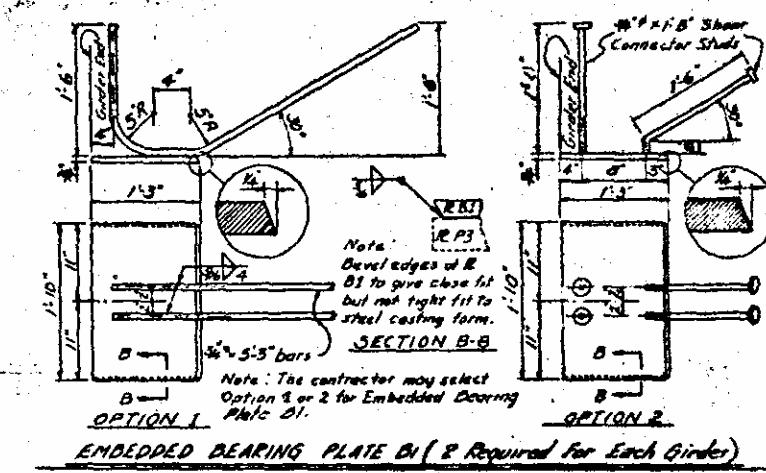
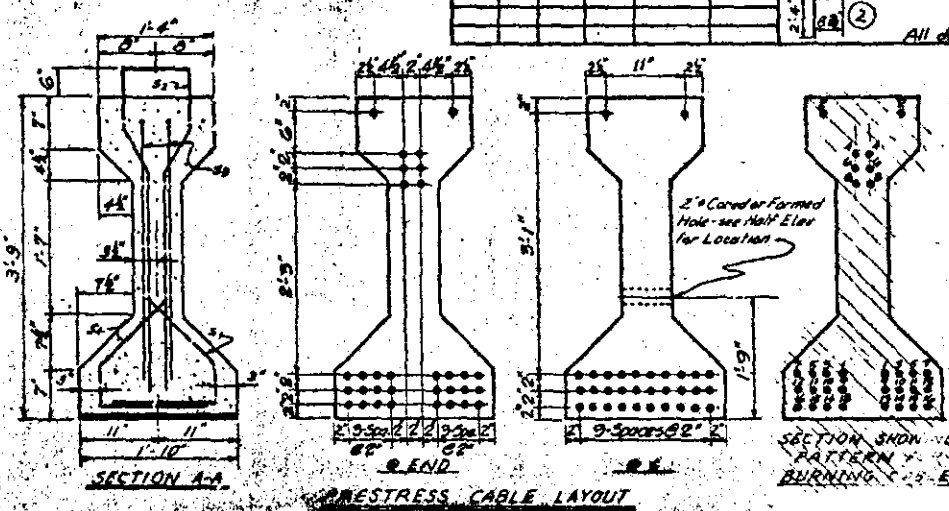
NOTES

All prestressing strand shall meet the requirements of A. S. T. M. - A416. Cables to be cut off flush with end of girder. No surface finish will be required for prestressed concrete girders. However the outside face of the exterior girders shall be carefully cleaned of drippings and other discolorations. See Specifications.

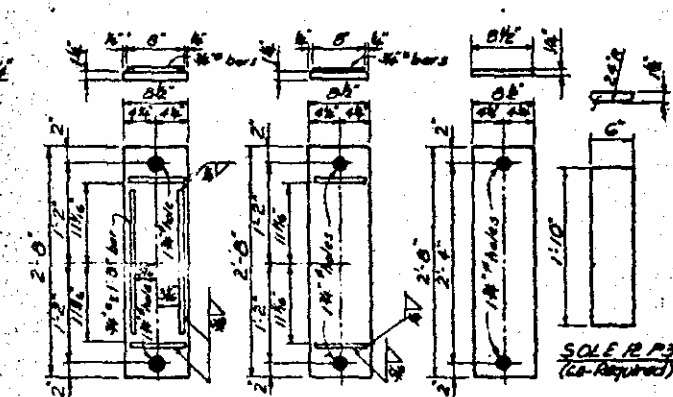
All prestressing strands shall be 7-wire stress relieved high strength cables in accordance with the Specifications.

TYPE AREA ULTIMATE STR. APPLIED PRESTRESS

High Str. 0.1152" 3,000 Lbs per cable 21,700 Lbs per cable

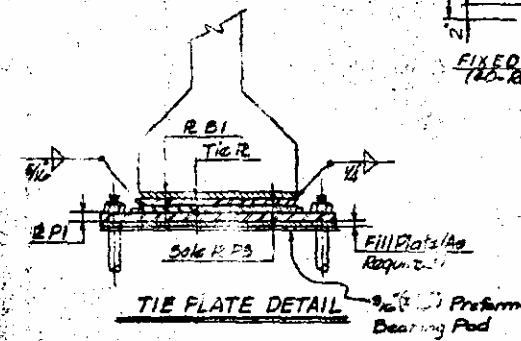


TIE PLATE



BEARING PLATE DETAILS

Note: Each Girder Requires 4-1 1/2" x 15" Anchor Bolts With Hex. Nuts In Addition To The Plates As Shown On BEARING PLATE LAYOUT.



Note: Masonry plates shall be smooth and straight on both sides. No surface finish required. All bearing assemblies shall be galvanized.

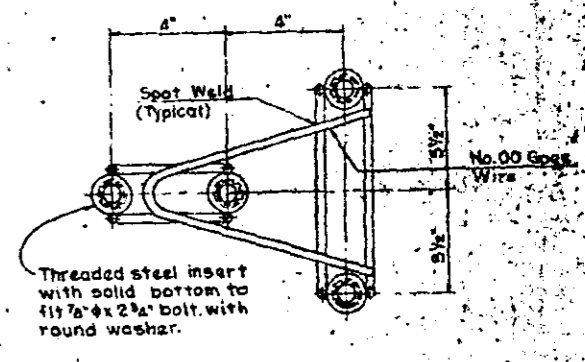
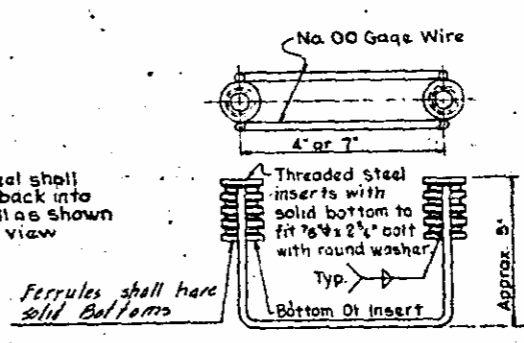
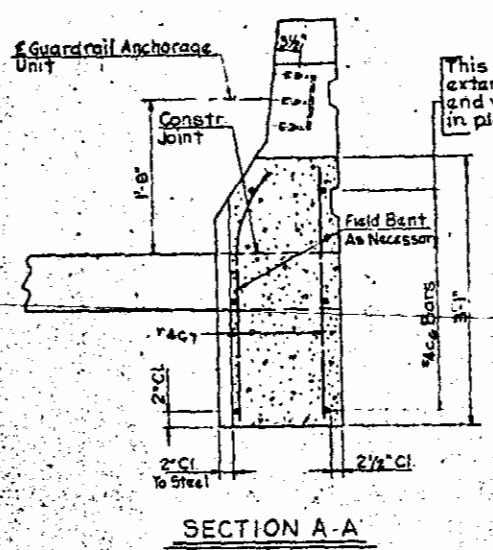
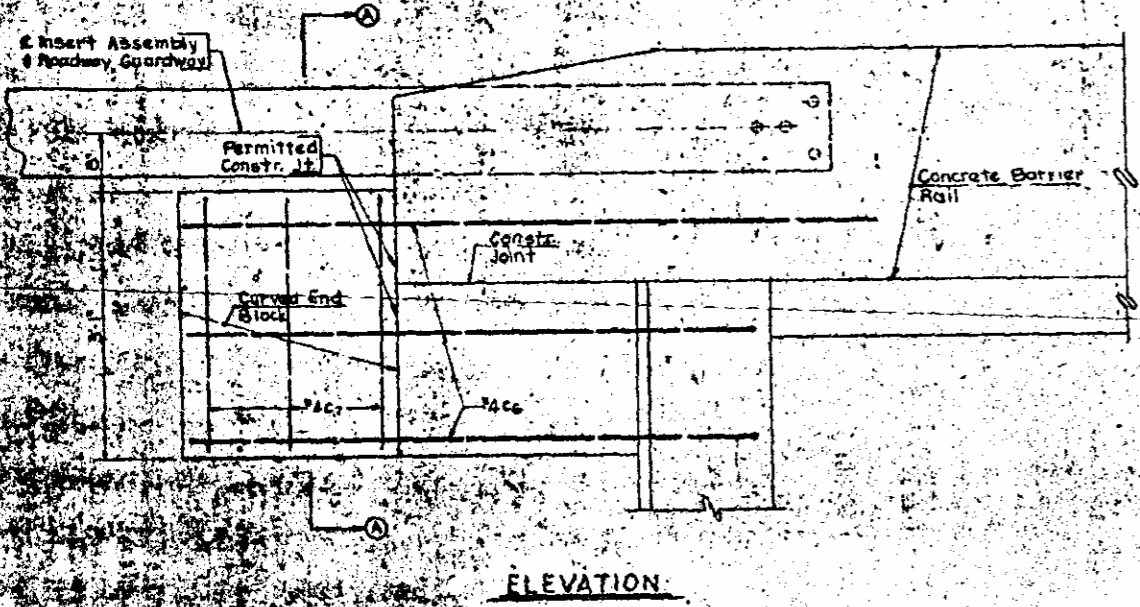
PROJECT No. 8 1161704
NASH COUNTY
STATION: 7222+00 MILE I-95

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH
STONY CREEK OVERPASS S.B.L.
STANDARD
45" PRESTRESSED
CONCRETE GIRDER
FEBRUARY, 1965

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			4		

SHEET NO. 5-106
TOTAL SHEETS 129

SPECIAL
Assembled By: [Signature] Date: 1/17/65
Checked By: [Signature] Date: 1/17/65
STANDARD
DRAWN BY: [Signature] DATE: 1/17/65
CHECKED BY: [Signature] DATE: 1/17/65



BILL OF MATERIAL FOR 1 CURVED END BLOCK

Bar No.	Size	Length	Weight
C6	6	8'-0"	32
C7	6	2'-9"	11
Reinforcing Steel			43 Lbs.
Class "AA" Concrete			0.3 C.Y.

NOTE: Curved End Blocks Are To Be Cast Only At End Posts Where Guard Rail Is To Be Attached.

GENERAL NOTES

The Cost Of The 4 Bolt Insert Assembly Unit Consisting Of The Insert Assembly And 4-7/8" x 2-3/4" Bolts With Washers Complete In Place Shall Be Included In The Unit Contract Price Bid For Class "AA" Concrete.

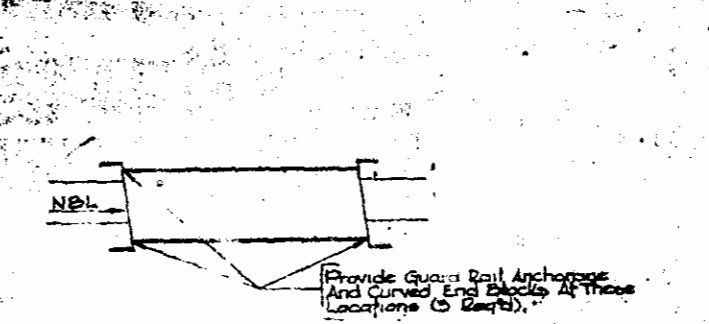
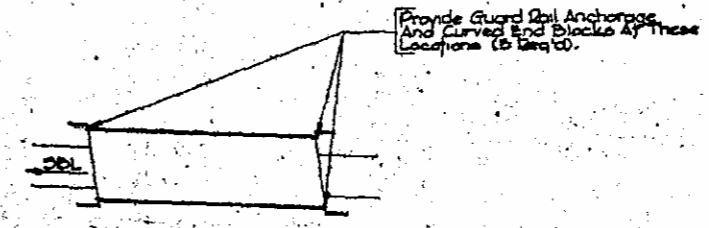
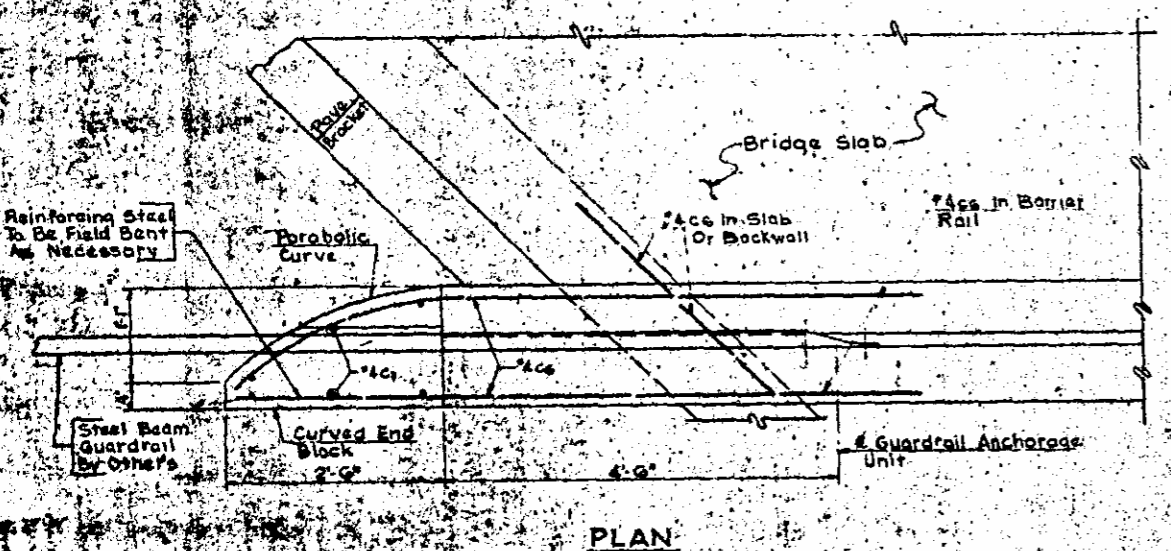
The Excavation And Backfill For Curved End Block Will Not Be Measured Or Paid For As A Separate Item. The Entire Cost Of This Work Shall Be Included In The Unit Price Bid For Class "AA" Concrete.

The Anchor Unit Shall Be Assembled In The Shop. Bolt Threads May Be Recut As Necessary To Insure Fit.

The 7/8" Bolts And Washers Shall Conform To The Requirements Of A.S.T.M. A 307 And Shall Be Galvanized To Conform To The Requirements Of A.S.T.M. A 153.

At The Contractors Option Stainless Steel Bolts And Washers May Be Used As An Alternate For The 7/8" Galvanized Bolts And Washers. They Shall Conform To Or Exceed The Mechanical Requirements Of A.S.T.M. A 307. The Use Of This Alternate Shall Be Approved By The Engineer.

The Threaded Steel Inserts Shall Conform To The Requirements Of A.S.T.M. A 108 With A Minimum Tensile Strength Of 80,000 psi.



PROJECT NO. 8,115120
 NEW COUNTY
 STATION: 222+00.85

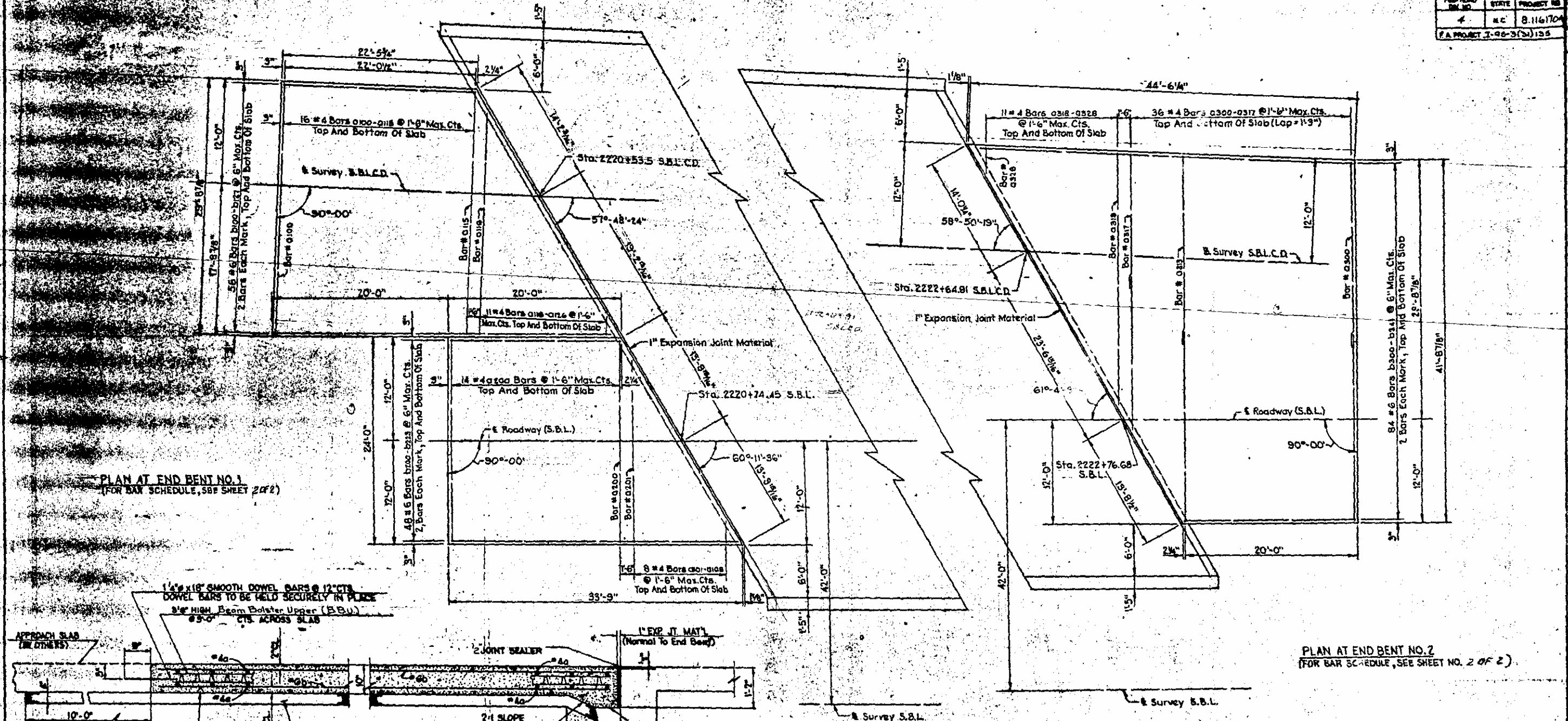
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 DETAILS FOR GUARD RAIL
 ANCHORAGE FOR BARRIER TYPE RAIL

RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 RALEIGH, NORTH CAROLINA

REVISIONS

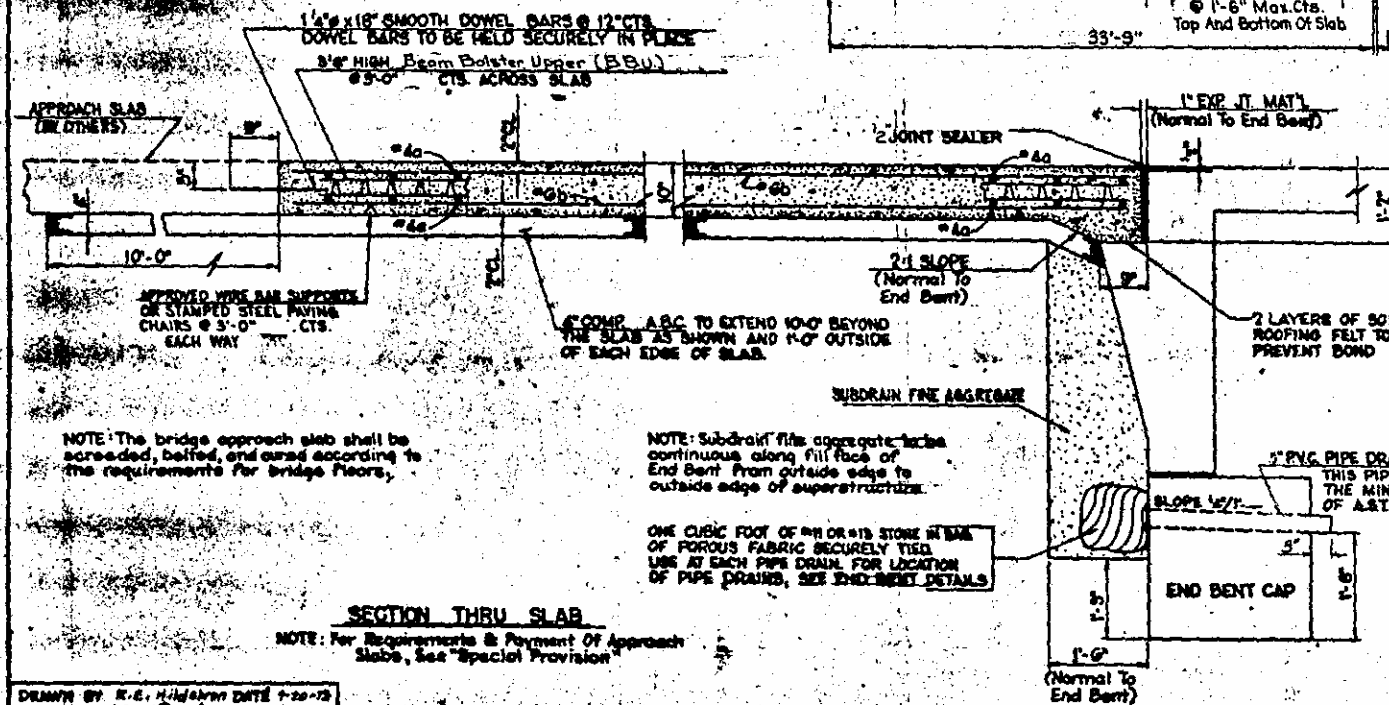
NO.	BY	DATE	NO.	BY	DATE
1			2		
3			4		

5-107
 7/29



PLAN AT END BENT NO. 1
(FOR BAR SCHEDULE, SEE SHEET 2 OF 2)

PLAN AT END BENT NO. 2
(FOR BAR SCHEDULE, SEE SHEET NO. 2 OF 2)



SECTION THRU SLAB

NOTE: For Requirements & Payment of Approach Slabs, See "Special Provision"

DRAWN BY R.E. Hildreth DATE 7-20-73
CHECKED BY J.C. Wink DATE 8-7-73

PROJECT No. 8.1161704

NASH COUNTY

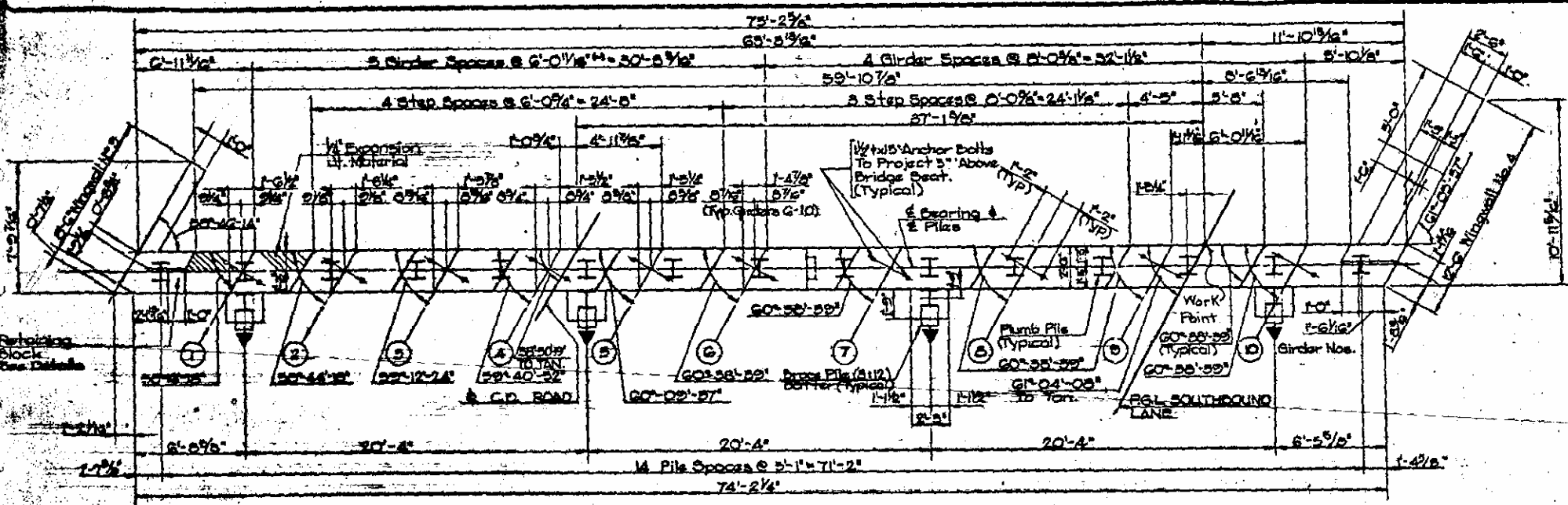
STATION 2222+00 (S.B.L.)

Sheet 1 of 2

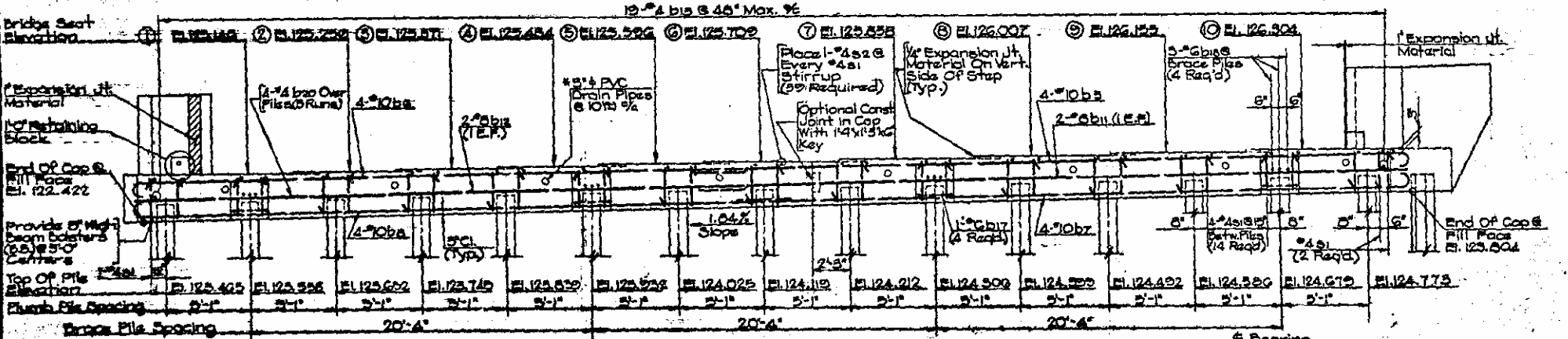
STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
RALEIGH
 BRIDGE APPROACH SLAB
 FOR
 RIGID PAVEMENT

REVISIONS						SHEET NO. 5-109
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 129
2			4			

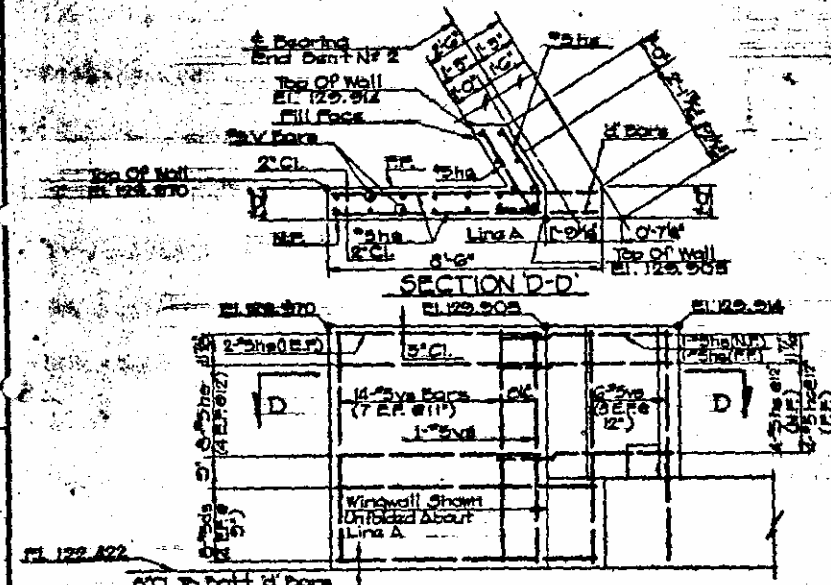
2220+11.3 App. Slab S.B.L.



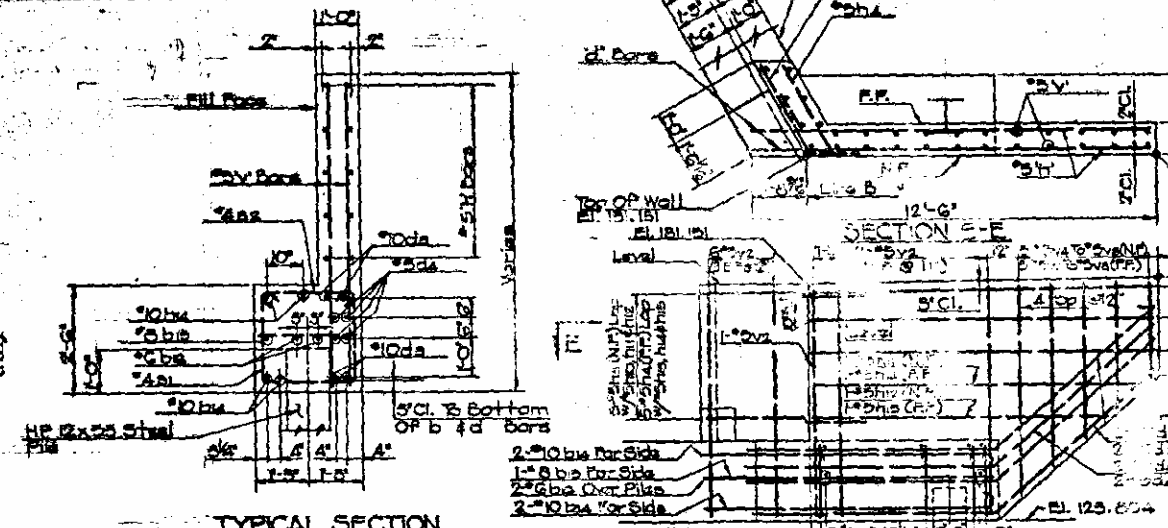
PLAN
END BENT NO. 2



ELEVATION
END BENT NO. 2

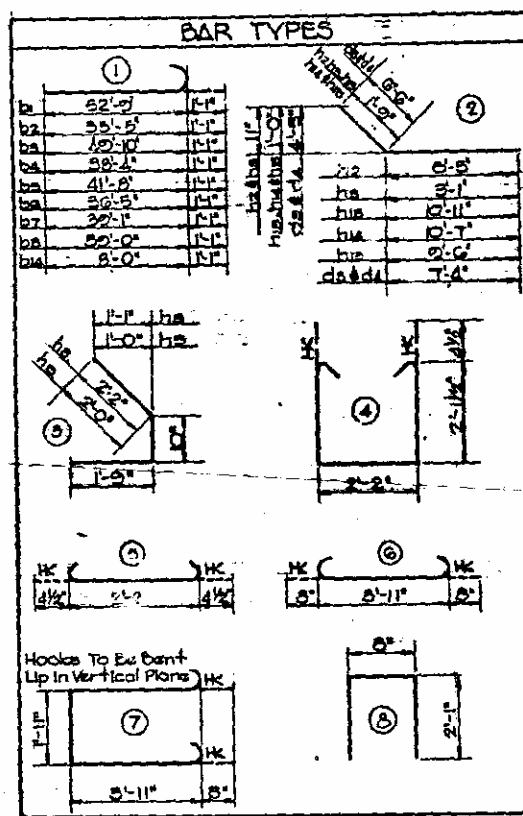


ELEVATION-WINGWALL NO. 3



TYPICAL SECTION
THRU WINGWALL NO. 4

ELEVATION-WINGWALL NO. 4



BILL OF MATERIAL - CONT'D
END BENTS - N#1 & N#2

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
	EA#1	EA#2			EA#1 EA#2	
d1	8		#5	Str.	9'-9"	81
d2	8		#5	Str.	10'-0"	83
d3	4		#10	Str.	13'-0"	238
d4	4		#5	Str.	13'-0"	58
d5	8		#5	Str.	8'-0"	67
vi	25		#5	Str.	7'-0"	108
va	25		#5	Str.	6'-10"	135
vb	21		#5	Str.	7'-2"	157
vc	2		#5	Str.	6'-5"	13
vd	2		#5	Str.	5'-7"	12
ve	2		#5	Str.	4'-8"	10
vf	2		#5	Str.	3'-0"	8
vg	2		#5	Str.	2'-11"	6

BILL OF MATERIAL
END BENTS - N#1 & N#2

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
	EA#1	EA#2			EA#1 EA#2	
b1	4		#10	Str.	53'-0"	927
b2	4		#10	Str.	53'-0"	928
b3	4		#10	Str.	50'-11"	876
b4	4		#10	Str.	50'-5"	875
b5	4		#10	Str.	42'-0"	750
b6	4		#10	Str.	37'-0"	645
b7	4		#10	Str.	40'-2"	691
b8	4		#10	Str.	40'-1"	690
b9	2		#5	Str.	52'-2"	275
b10	2		#5	Str.	55'-0"	187
b11	2		#5	Str.	50'-0"	212
b12	2		#5	Str.	57'-2"	108
b13	22	23	#4	Str.	2'-2"	52 33
b14	4		#10	Str.	9'-1"	150
b15	1		#8	Str.	8'-0"	21
b16	2		#6	Str.	7'-5"	22
b17	4		#6	Str.	11'-1"	67 67
b18	12	12	#8	Str.	5'-8"	25 25
b19	12		#4	Str.	20'-2"	254
b20	12		#4	Str.	25'-10"	207
h1	5		#5	Str.	8'-1"	42
h2	5		#5	Str.	10'-2"	58
h3	5		#5	Str.	4'-10"	25 25
h4	5		#5	Str.	8'-1"	16 16
h5	5		#5	Str.	4'-7"	24
h6	5		#5	Str.	5'-0"	10 10
h7	10		#5	Str.	8'-5"	88
h8	5		#5	Str.	4'-0"	25
h9	10		#5	Str.	6'-5"	67
h10	5		#5	Str.	10'-7"	53
h11	1		#5	Str.	10'-5"	11
h12	1		#5	Str.	9'-2"	10
h13	5		#5	Str.	12'-5"	40
h14	1		#5	Str.	12'-4"	13
h15	1		#5	Str.	11'-5"	12

BILL OF MATERIAL - CONT'D
END BENTS - N#1 & N#2

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
	EA#1	EA#2			EA#1 EA#2	
s1	72	66	#4	Str.	7'-2"	345 310
s2	72	66	#4	Str.	2'-11"	140 129
vi	25		#5	Str.	7'-0"	108
va	25		#5	Str.	6'-10"	135
vb	21		#5	Str.	7'-2"	157
vc	2		#5	Str.	6'-5"	13
vd	2		#5	Str.	5'-7"	12
ve	2		#5	Str.	4'-8"	10
vf	2		#5	Str.	3'-0"	8
vg	2		#5	Str.	2'-11"	6

* Note: For P.V.C. Pipe Drain Details, See End Bent No. 4.

PROJECT NO. 8161704

NASH COUNTY

STATION: 722+00 N.E.L. 1-95

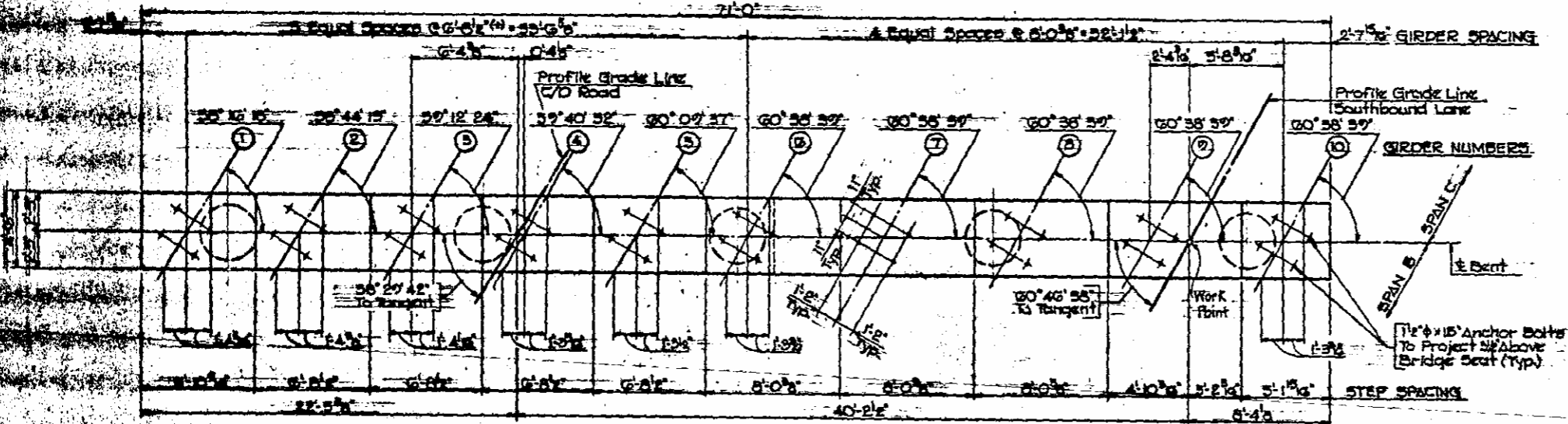
SHEET 2 OF 2

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 STONY CREEK OVERPASS S.B.L.
 SUBSTRUCTURE
 END BENT NO. 2

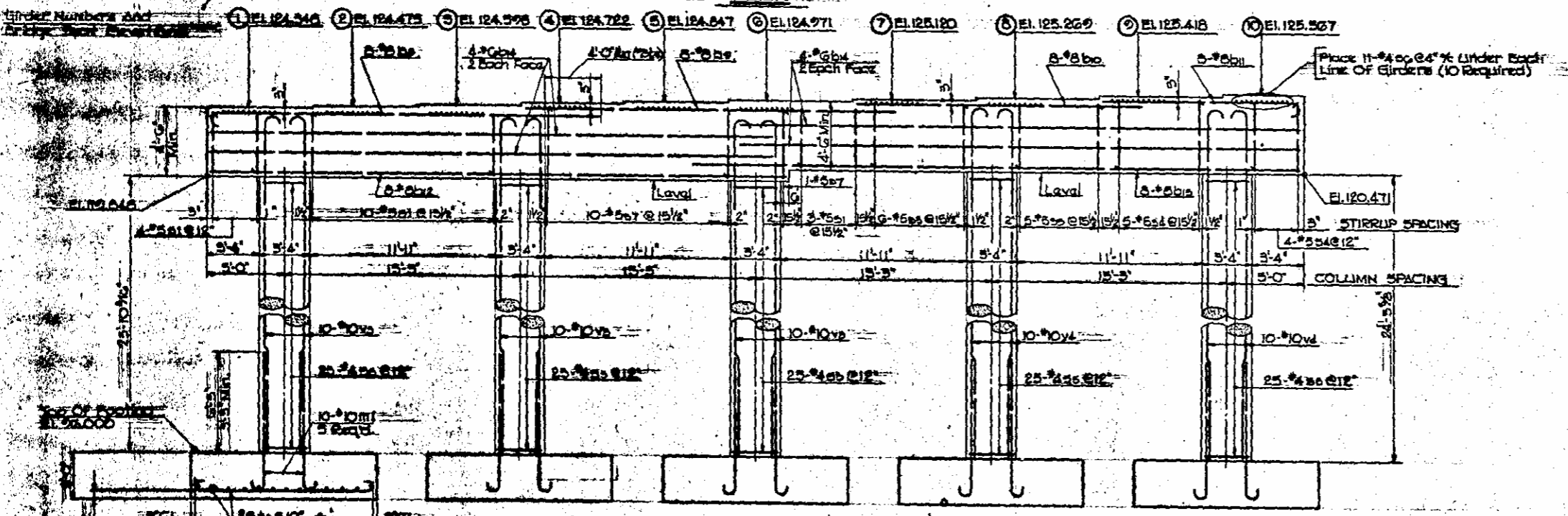
RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 RALEIGH, NORTH CAROLINA

REVISIONS

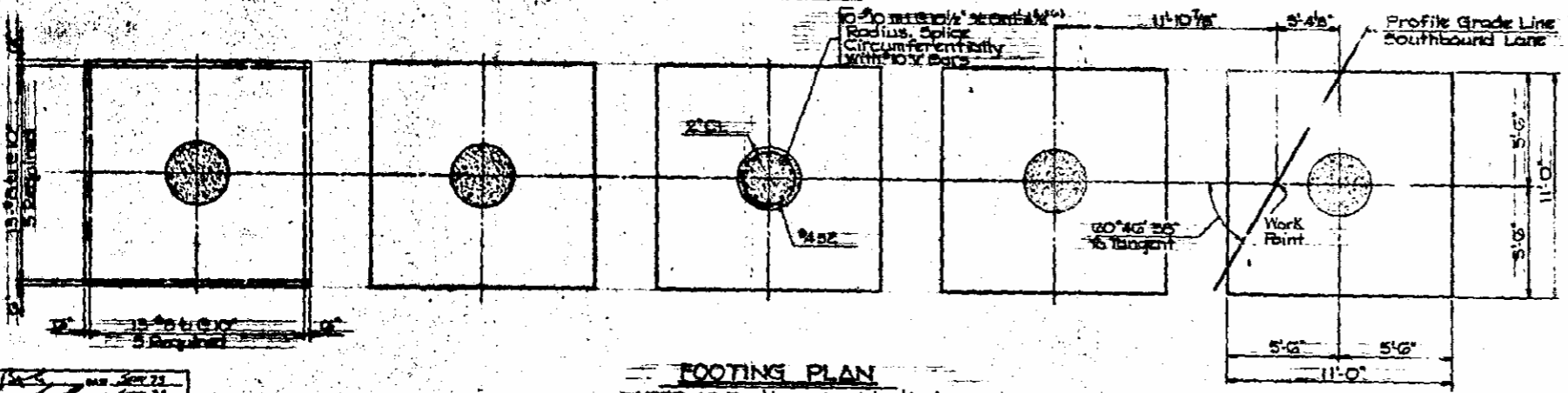
NO.	BY	DATE	NO.	BY	DATE
1			2		
3			4		



PLAN



ELEVATION



FOOTING PLAN

NOTE: All Footings Are Identical.

Note: For Bill of Material, See Sheet 3 of 3.

PROJECT No. 8.1161704

WASH COUNTY

STATION: 2772+00, N.E. 1-95

SHEET 2 OF 3

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION

STONY CREEK OVERPASS S. B. L.

SUBSTRUCTURE

BEAM NO. 2

RUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS
RALEIGH, NORTH CAROLINA

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			3		

DESIGNED BY: [Signature] DATE: MAY 23, 1955
DRAWN BY: [Signature] DATE: MAY 23, 1955

BILL OF MATERIAL

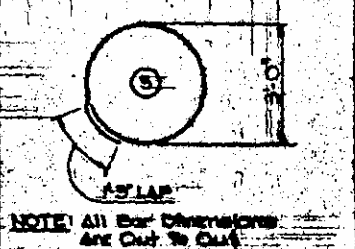
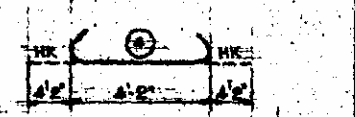
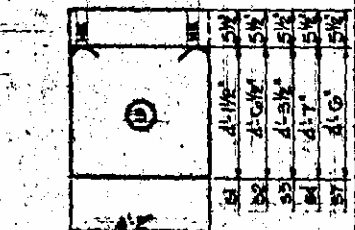
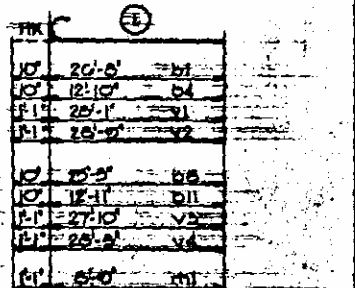
BAR TYPES

BENTS 1 & 2

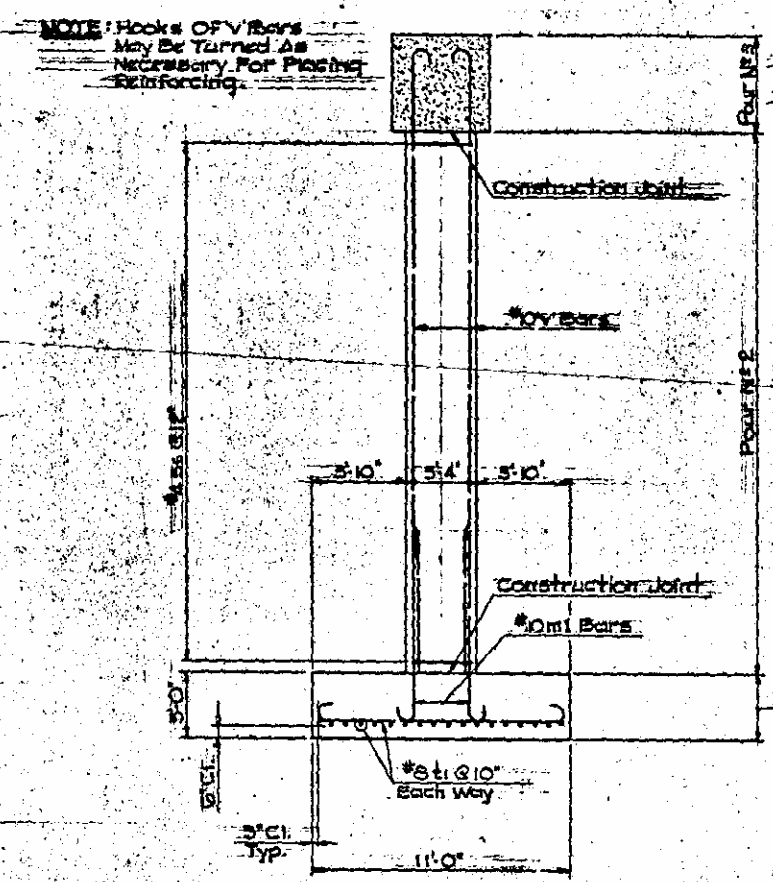
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
	BT.1	BT.2			BENT-1 BENT-2	
b1	8		#8	(1)	27'-0"	587
b2	8		#8	Str.	25'-0"	539
b3	8		#8	Str.	18'-7"	397
b4	8		#8	(1)	13'-5"	292
b5	8		#8	Str.	20'-11"	451
b6	8		#8	Str.	4'-0"	87
b7	8		#8	Str.	5'-11"	129
b8	8		#8	(1)	20'-3"	441
b9	8		#8	Str.	24'-0"	513
b10	8		#8	Str.	18'-0"	397
b11	8		#8	(1)	15'-0"	324
b12	8		#8	Str.	27'-4"	597
b13	8		#8	Str.	20'-5"	442
b14	8		#8	Str.	20'-5"	450

m1	50	60	#10	(1)	4'-10"	2,119	2,119
b1	10	17	#5	(6)	13'-4"	264	256
b2	12		#5	(8)	14'-2"	177	
b3	12	11	#5	(8)	13'-0"	171	157
b4	8	9	#5	(6)	14'-5"	134	134
b5	125	125	#4	(8)	10'-0"	691	691
b6	110	110	#4	(4)	4'-11"	361	361
b7		11	#5	(6)	14'-1"	102	

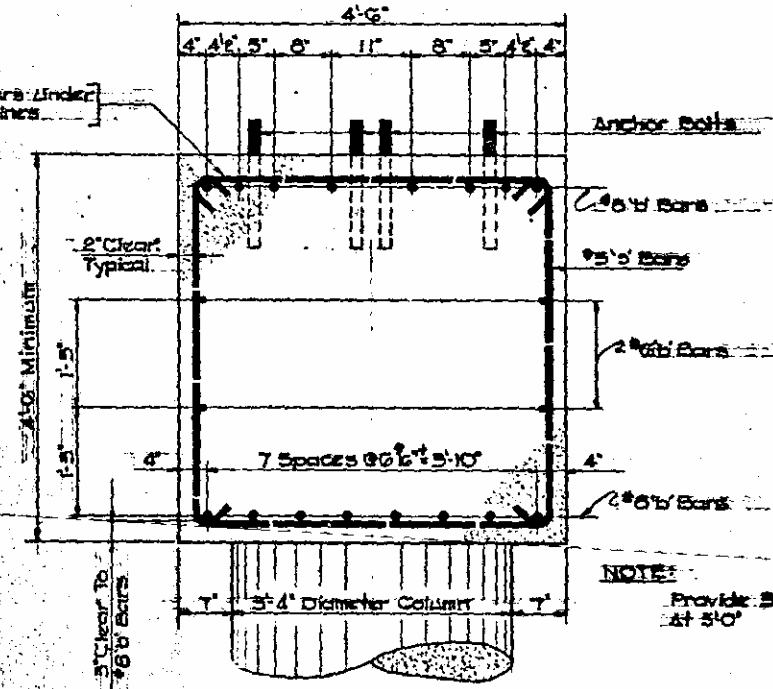
REINFORCING STEEL TOTALS			18,647	18,394
CLASS 'A' CONCRETE BREAKDOWN				
Pour N#1 Footings	C.Y.	67.2	67.2	
Pour N#2 Columns	C.Y.	59.4	59.4	
Pour N#3 Cap	C.Y.	59.4	59.4	
TOTAL	C.Y.	186.0	186.0	



NOTE: All Bar Dimensions are Out to Out



TYPICAL SECTION THRU BENTS



TYPICAL SECTION THRU CAPS

NOTE: Provide 3\"/>

PROJECT NO. 8.1161704
 NASH COUNTY
 STATION: 2222+00 NB. I-95

SHEET 3 OF 3
 STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
 STONY CREEK OVERPASS S.B.L.
 SUBSTRUCTURE
 BENT DETAILS

RUMMEL, KLEPPER & KAHL
 CONSULTING ENGINEERS
 RALEIGH, NORTH CAROLINA

REVISIONS			
NO.	BY	DATE	DESCRIPTION
1			
2			

CHECKED BY: [Signature] DATE: 5/27/75
 DRAWN BY: [Signature] DATE: 5/27/75