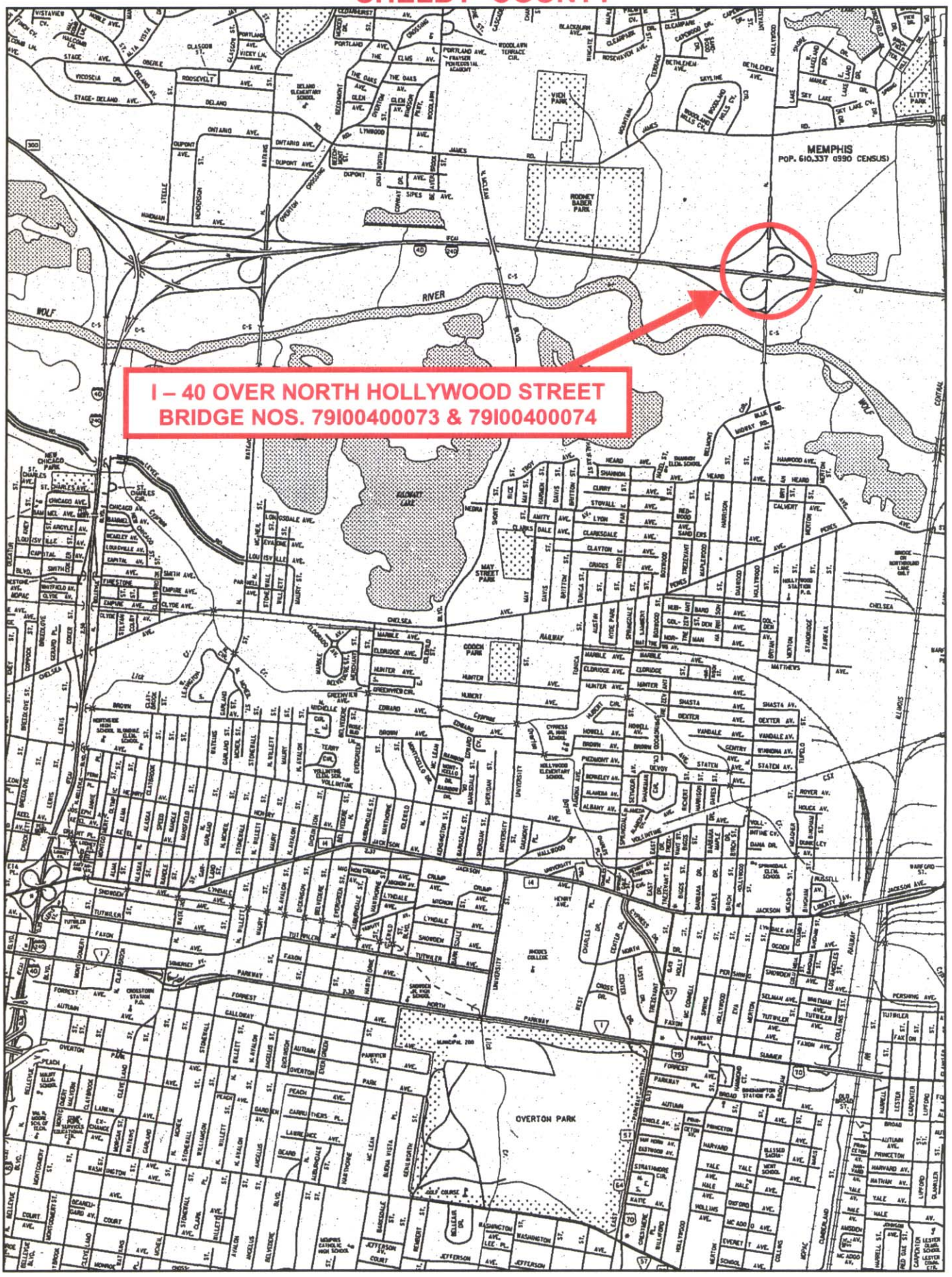
SHELBY COUNTY



TN TDOT Department of Transportation

Asset **#79I00400073**(Load Rating)

Region: 04, **County:** 79 - Shelby

Load Rating Lead: Yun Lin, **Load Rating Date:** 02/15/2024

CONDITION

41 - Structure Open/Posted/Closed	A - Open, no restriction
58 - Deck	7 - GOOD CONDITION - some minor problems.
59 - Superstructure	7 - GOOD CONDITION - some minor problems.
60 - Substructure	6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.
61 - Channel/Channel Protection	N - Not applicable.
62 - Culverts	N - Not applicable. Used if structure is not a culvert.
521 - Overall Bridge Cond	F - Fair

Load Rating / Post

548 - Ratings Based On	AASHTOWare BrR (4" asphalt)
505 - TDOT rating method	LRFR-RF - LOAD & RESISTANCE FACTOR RATING (RF) - HL93
65 - Inventory Rating Method	8 - Load and Resistance Factor Rating (LRFR) rating reported by rating factor (RF) method using HL-93 loadings
66 - Inventory Rating	34.02
NBI_066A	1.05
63 - Operating Rating Method	8 - Load and Resistance Factor Rating (LRFR) rating reported by rating factor (RF) method using HL-93 loadings
64 - Operating Rating	45.36
NBI_064A	1.40
516B - Single Unit Posting	
517B - Multi Unit Posting	
70 - Bridge Posting	5 - Equal to or above legal loads
534 - Posting Log Note	
552 - Posting Closure Comp	

Notes

Wearing Surf. thickness in load rating	4.00
ADTT used in Load rating	5000
547 - evaluation sheet note	

Load Rating Assumptions and QA Checklist - Consultant Calculations

Bridge ID 79I00400073 Bridge Location 79-I0040-7.51

Load Rating Date 2/13/24 Inspection Date 9/27/22 Current ADTT Considered ☐

Plans Set M-44-33 BR-33-29

Consultant Gresham

APPROVED
By Rebecca Hayworth, P.E. at 10:46 am, Feb 29, 2024

REVIEWED
By Rebecca Hayworth, P.E. at 2:59 pm, Feb 12, 2024

	Assumptions	QA
Dimensions match plans & field conditions		✔
Cross section Checked		✔
Framing plan Checked		✔
Material Properties Checked		✔
Condition Assumed for Load rating	Satisfactory (6)	✔
Deterioration/Damage Captured	N/A	✔
Shear Considered	Yes	✔
Rails Distribution	Evenly	✔
Asphalt Thickness (inches)	4.00	✔
Asphalt Considered Field Verified	No	✔
Distribution Factors Calc Method	AASHTOWare	✔
Impact Factor	20%	✔
AASHTO Trucks & TDOT Trucks Rated	Yes	✔

Comments

Results accepted. No posting required.

Bridge Maintenance Recommendations

Bridge Location No.: **79 - I0040 - 0759 R** Over/Under Pass No. 79 - 02821 - 0530
Co. Route Log Mile

Bridge Number: **79I00400073**

Crossing:

Road Name:

Road Name #2: NORTH HOLLYWOOD ST.

Region: 04

District: 45 Spec.Case: 0

Maint.Resp.: 01 Co.Seq: 01

Bridge Rating: FAIR

Inspection Cycle: 16 County: Shelby

@ ' x '
Barrels Length Width

Inspection Date: 8/12/2003 City:

Comments:

Maintenance Recommendations: **Maintenance Completed: by/date**

001	**LEVEL APPROACH NO. _1**
233	~~**UNDERPASS SUBSTRUCTURE PROTECTION GUARDRAILS ARE NON-EXISTENT**~~ N.A.
004	**REPAIR EMBANKMENT AT APPROACH NO. _2**
228	**APPROACH GUARDRAILS ARE SUBSTANDARD**
226	**GUARDRAIL TERMINALS AT APPROACH NO. 1 & 2 ARE SUBSTANDARD**
069	**REPAIR TEXTURE COAT ON SPAN NO. _ALL (NEEDS REPAINTING)**
171	**REPAIR BACKWALLS ON ABUTMENT NO. _1 (@ SPAN #1)**

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

Bridge Maintenance Recommendations

Bridge Location No.: **79 - I0040 - 0759 R** Over/Under Pass No.: 79 - 02821 - 0530
Co. Route Log Mile

Bridge Number: **79I00400073**

Crossing:

Road Name:

Road Name #2: NORTH HOLLYWOOD ST.

Region: 04

District: 45 Spec.Case: 0

Maint.Resp.: 01 Co.Seq: 01

Bridge Rating: FAIR

Inspection Cycle: 15 County: Shelby

Inspection Date: 9/12/01 City:

Comments:

@ ' x '
Barrels Length Width

Maintenance Recommendations:

		Maintenance Completed by/date
228	**APPROACH GUARDRAILS ARE SUBSTANDARD**	
226	**GUARDRAIL TERMINALS AT APPROACH NO. 1 & 2 ARE SUBSTANDARD**	
007	**CLEAN AND SEAL JOINT AT APPROACH NO. _1**	
001	**LEVEL APPROACH NO. _1**	
008	**REPAIR DRAINS AT APPROACH NO. _2**	
069	**REPAIR TEXTURE COAT ON SPAN NO. _ALL (NEEDS REPAINTING)**	
154	**REPAIR WINGS AT ABUTMENT NO. _1**	
171	**REPAIR BACKWALLS ON ABUTMENT NO. _2**	
233	**~~UNDERPASS SUBSTRUCTURE PROTECTION GUARDRAILS ARE NON-EXISTENT~~**	

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY_____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 09/12/2001

County:	79
Route:	I0040
Special Case:	0
County Sequence:	01
Log Mile:	7.59

Bridge Number: (Includes Item 5A) 79I004000731

Feature Intersected: I40-RL / N HOLLYWOOD ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	09/12/2001 8/12/2003
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
36	TRAFFIC SAFETY FEATURES	Br. Rail / Trans. / Appr. Rail / Terminal / SPEED LIMIT 1 / 0 / 0 / 0 / 55
41	STRC OPEN/CLOSED/POSTED (A K P)	A
58	DECK	7
59	SUPERSTRUCTURE	6
60	SUBSTRUCTURE	6
61	CHANL/CHANL PROTECTION	N
62	CULVERT AND RETAIN WALL	N
71	WATERWAY ADEQUACY	N
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8
521	OVERALL CONDITION (Circle One)	GOOD (FAIR) POOR CRITICAL

TEAM LEADER SIGNATURE

8/12/2003
REVIEW DATE

CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOURSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
- 2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
- 1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
- 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

Revised 09/21/2001

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

County:	79
Route:	02821
Special Case:	0
County Sequence:	01
Log Mile:	5.30

Bridge Number: (Includes Item 5A) 79I004000732

Feature Intersected: I40-RL / N HOLLYWOOD ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	09/12/2001 8/12/2003
10	MINIMUM V.C. OVER ROADWAY (ROADWAY + SHOULDERS)	16 FT. 6 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER ROADWAY (EXCLUDES SHOULDERS)	16 FT. 6 IN. ____ FT. ____ IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	~~75~~ 76 FT. ~~8~~ 0 IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: (H) R	16 FT. 6 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R	0 FT. 0 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	0 FT. 0 IN.

UNDERPASS SAFETY FEATURES

515 (A) TYPE UNDERPASS BARRIER: None Needed or N/A

Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL: N

(C) ADEQUACY OF TRANSITIONS: N

(D) ADEQUACY OF TERMINALS: N

554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
99 FT. 99 IN.
____ FT. ____ IN.

521 OVERALL CONDITION (Circle One)
GOOD (FAIR) POOR CRITICAL

HEIGHT POSTED AT BOTH APPROACHES? YES [ ] NO [X] N/A [ ]

555 COMMENTS _____

TEAM LEADER SIGNATURE

8/12/2003
REVIEW DATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

County:	79
Route:	I0040
Special Case:	0
County Sequence:	01
Log Mile:	7.59

Bridge Number: (Includes Item 5A) 79I004000731

Feature Intersected: I40-RL / N HOLLYWOOD ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	01/18/2000 9/12/2001
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.
36	TRAFFIC SAFETY FEATURES	Br. Rail / Trans. / Appr. Rail / Appr. Rail Ends
		1 / 0 / 0 / 0
41	STRC OPEN/CLOSED/POSTED (A K P)	A
58	DECK	7
59	SUPERSTRUCTURE	6
60	SUBSTRUCTURE	6
61	CHANL/CHANL PROTECTION	N
62	CULVERT AND RETAIN WALL	N
71	WATERWAY ADEQUACY	N
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8
521	OVERALL CONDITION (Circle One)	GOOD (FAIR) POOR CRITICAL

TEAM LEADER SIGNATURE

9/12/2001
REVIEW DATE

CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOURSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
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- 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.

Revised 06/15/2000

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Underpass Condition Coding Form

County:	79
Route:	02821
Special Case:	0
County Sequence:	01
Log Mile:	5.30

Bridge Number: (Includes Item 5A) 79I004000732

Feature Intersected: I40-RL / N HOLLYWOOD ST

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	INSPECTION DATE	01/18/2000 9/12/2001
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	16 FT. 6 IN. ____ FT. ____ IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	16 FT. 6 IN. ____ FT. ____ IN.
47	TOTAL HORIZONTAL UNDERCLEARANCE	75/76 FT. 9/0 IN.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS) Circle One: (H) R	16 FT. 6 IN.
55	MINIMUM LATERAL UNDERCLEARANCE ON RIGHT SIDE Circle One: (H) R	0 FT. 0 IN.
56	MINIMUM LATERAL UNDERCLEARANCE ON LEFT SIDE	0 FT. 0 IN.

UNDERPASS SAFETY FEATURES

515 (A) TYPE UNDERPASS BARRIER
None Needed or N/A

Revised Barrier Type

(B) ADEQUACY OF BARRIER OR RAIL N

(C) ADEQUACY OF TRANSITIONS N

(D) ADEQUACY OF TERMINALS N

554 VERTICAL CLEARANCE LISTED ON HEIGHT POSTING
99 FT. 99 IN.
____ FT. ____ IN.

521 OVERALL CONDITION (Circle One)
GOOD (FAIR) POOR CRITICAL

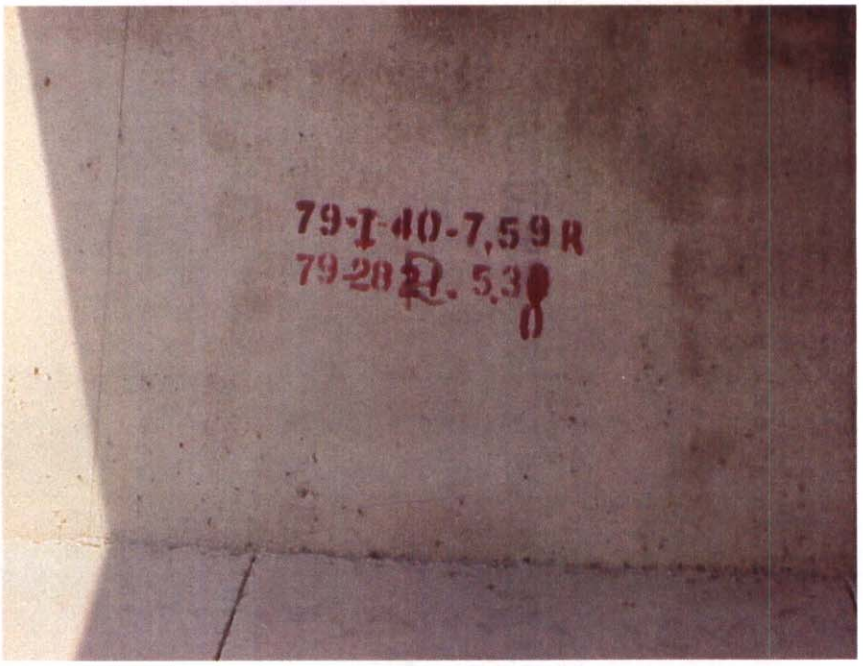
HEIGHT POSTED AT BOTH APPROACHES? YES [ ] NO [X] N/A [ ]

555 COMMENTS _____

9/12/2001
TEAM LEADER SIGNATURE — REVIEW DATE

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 08-12-03

ELEVATION LEFT SIDE



BRIDGE NO. ON ABUTMENT #1, BREASTWALL

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 08-12-03

LOOKING AHEAD ON ROUTE

VIEW ACROSS TOP OF DECK

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 08-12-03

LOOKING BACK ON ROUTE

APPROACH #1 ASPHALT SPALLING IN JOINT

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 08-12-03

ELEVATION LEFT SIDE

APPROACH #2 EMBANKMENT WASHING UNDER DRAIN

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 08-12-03

ABUTMENT #1

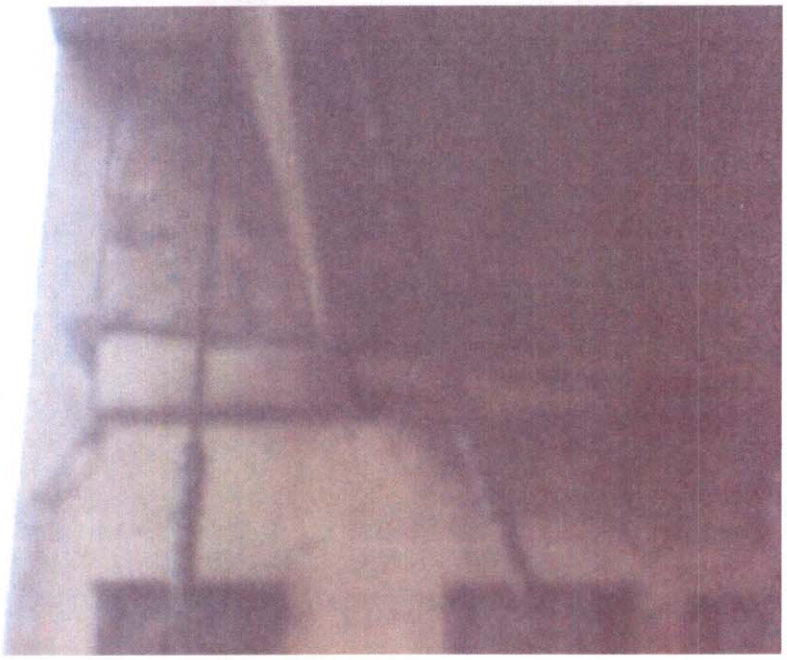
EELVATION RIGHT SIDE

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 08-12-03

ABUTMENT #2 WITH EARTHQUAKE DEVICE

BOTTOM OF DECK

Bridge Loc. No: 79 - I0040 - 07.59 - R **Date: 08-12-03**



ABUTMENT #2, LEFT SIDE OF BREASTWALL SPALLED TO STEEL

BRIDGE INSPECTION REPORT

AUG 12 20

Form BIR 3.0
(Rev. 9-22-98)
DT-0069

Field Report No. 16 Date 8-12-03
Previous Report No. 15 Date 9-12-01
Plans: YES ( ) NO ( )

Bridge No. 79I00400073 (Eleven Digit No.) Bridge Location No. 79 - I0040 - 0759 R (Co. Route Log Mile) 79 - 02821 - 0530 (OVER/UNDER PASS)

_____ (Road Name) over _____ (Crossing) _____ (CITY)

Year Constructed _____ County Shelby Maintenance District 45

Year Widened _____ Year Rehabilitated _____ _____ (Structure Name (If Named))

FEATURES

Wearing Surface Concrete ( ) Timber ( ) Asphalt (X) Depth 3 " (in.)

Flared Width Yes ( ) No (X) Median Width Open (X) None ( ) Closed ( )

Navigational Control Yes ( ) No (X) Bridge Skew 85R ° LT ( ) RT ( )

Structure Type (Main Span) CONC. BOX BEAM

Structure Type (Appr.Spans) _____

No. Main Spans 1 No. Approach Spans _____

Maximum Span Length 125.0 (***.* ft.)

Total Length 125.0 (***.* ft.)

INSPECTORS

1. GREER
2. LOVE
3. ADAMS
4. BYRD
5. REEVES
6. _____
7. _____
8. _____

WIDTHS (*.* ft.)

Deck Out-to-Out 71.5

Roadway Curb/Curb 69.5

Roadway Rail/Rail _____

Sidewalk Rt. _____ Lt. _____

*Approach Roadway 48

*(Does Not Include Shoulders)

Approach Shoulder Rt. 7 '
Lt. 11 '

CLEARANCES

Min. Vertical Clearance over Deck _____ (ft.-in.)

Min. Vertical Under Clearance 16 ' 6 " (ft.-in.)

Min. Lateral Under Clearance Rt. 5 ' (*.* ft.)

Min. Lateral Under Clearance Lt. 5 ' (*.* ft.)

FRACTURE CRITICAL: _____
(If Yes, Include BIR 3.9)

NBIS Bridge Length (<25 ft.) _____ (ft.-in.)

UNDERWATER INSPECTION

To Be Performed By: _____ Date _____

DOT FIELD TEAM ( ) CONTRACT DIVERS ( ) NONE REQUIRED ( )

Change in Structural Condition: Yes ( ) No (X) Major Repairs Made: Yes ( ) No (X)

COMMENTS

N035 ° 11 ' 29.4 "
W089 ° 58 ' 33.7 "
G.P.S. Location

BRIDGE RATING: ( ) (X) ( ) ( )
GOOD FAIR POOR CRITICAL

Supervising Bridge Inspector: Greer

Form BIR 3.1
(Rev. 9-22-98)
DT-0080

Bridge Location No. 79 - I0040 - 7.59 R (Co. / Route / Log Mile) Date _____

PERFORMANCE EVALUATION

Time of Day Inspected 10:00 AM Weather Conditions SUNNY 75°

Vehicles Observed ALL TYPES

LIVE LOAD BEHAVIOR

	YES	NO	Comments
Substructure			
Horiz./ Vert. Defl.	( )	(X)	
Vibration	( )	(X)	
Superstructure			
Horiz./ Vert. Defl.	( )	(X)	
Vibration	( )	(X)	

APPROACH

	Rating	Comments
Alignment	(G) F P C	
Slab	G F P C	N/A
Joints	(G) F P C	
Pavement	G F (P) C	APP. #1 - A.C CRACKING & SPALLING (001)
Embankment	G F (P) C	APP. #2 RT - WASHING (004)
Drains	G (F) P C	
PARAPET	(F)	

TRAFFIC SAFETY FEATURES

	Rating	STANDARD	SUB-STANDARD	Comments
Bridgerailing	G (F) P C	(X)	( )	
Transitions	(G) F P C	( )	(X)	
Guardrail	(G) F P C	( )	(X)	
Guardrail Terminal	(G) F P C	( )	(X)	

SIGNING

	YES	NO	NEEDED
Paddleboards	( )	(X)	( )
Vertical Clearance (<14'-6")	( )	(X)	( )
NARROW ( )	( )	(X)	( )
ONE LANE BRIDGE ( )	( )	(X)	( )

Weight Limit Posted
YES ( ) NO (X)
Gross..... _____ Tons
2 Axle..... _____ Tons
3 or more Axles.. _____ Tons

Other Signs or Plaques: CANTILEVER APP. #2 RT. & OVERHEAD RT SIDE SPAN #1

Comments Regarding any Problems with Signing: NONE

Form BIR 3.2
(Rev. 9-22-98)
DT-0081

Bridge Location No. 79 - I0040 - 7.59 R (Co. - Route - Log Mile)

Date AUG 12 [illegible]

DECK

Item	Rating	Comments
Wearing Surface	G (F) P C	
Deck - Structural Condition	G (F) P C	
Curbs	G F P C	
Median	G F P C	
Sidewalks	G F P C	
Parapet	G (F) P C	
Railing	G F P C	
Paint	G F P C	
Drains	G F P C	
Lighting Standards	G F P C	
Utilities	G F P C	
Joint Leakage	G F P C	
Expansion Joints	G F P C	

SUPERSTRUCTURE

Item	Rating	Comments
Bearing Devices	G F P C	
Beams BOX	G (F) P C	
Girders	G F P C	
P C C S	G F P C	
BOLTS (PCCS)	G F P C	
Floor Beams	G F P C	
Stringers	G F P C	
Diaphragms	G F P C	
Bracing	G F P C	
Trusses - General	G F P C	
Portals	G F P C	
Bracing	G F P C	
Paint	G F P C	
Alignment of Members	(G) F P C	

TEXTURE COAT

Item	Rating
Condition Rating	G F (P) C
Overall Appearance	G F (P) C
Staining Rating	G F (P) C
Fading	G F (P) C
Needs Spot Painting	YES ( ) NO (X)
Needs Repainting	YES (X) NO ( )
Scaling Rating	G (F) P C

Comments ______________________

RECOMMENDATIONS: REPAIR TEXTURE COAT ALL SPANS (069)

CLEAN SEAL JOINTS ( )
CLEAN DRAINS ( )

Form BIR 3.3
(Rev. 9-22-98)
DT-0082

Bridge Location No. 79 - 10040 - 7.59 R
Co. Route Log Mile

Date _____

SUBSTRUCTURE

ABUTMENTS

	Rating	Comments	PILES TO BE REPLACED: PILE(S)	ABUTMENT
Caps	(G) F P C			
Breastwall	G F P C			
Wings	G (F) P C			
Backwall	G F (P) C	SPAN # 1 - SPALLING (71)		
Plumb	(G) F P C			
Footing	G F P C			
Piles	G F P C			
Embankment	(G) F P C			
Bearing	G F P C			
Slope Paving	(G) F P C			
Rip Rap	G F P C			
Earthquake Devices	(G) F P C	ABUT # 2 ONLY		

PIERS

		PILE(S)	PIER
Caps	G F P C		
Columns	G F P C		
Plumb	G F P C		
Footings	G F P C N/A		
Piles	G F P C		
Bearing	G F P C		
Web	G F P C		
Earthquake Devices	G F P C		

BENTS

		PILE(S)	BENT
Caps	G F P C		
Columns	G F P C		
Plumb	G F P C		
Footings	G F P C N/A		
Piles	G F P C		
Bearing	G F P C		
Bracing	G F P C		
Earthquake Devices	G F P C		

Piles Need Replacement: NO (X) YES ( )

CUT VEGETATION NO (X) YES ( )

CLEAR DRIFT NO (X) YES ( )

RECOMMENDATIONS: _____

INSPECTION REPORT FOR UNDERPASS ROUTE

AUG 12 [illegible]

Page No.___

Form BIR 3.0A
(Rev. 9-22-98)
DT-1443

Field Report No. 16 Date 8-12-03
Previous Report No. 15 Date 9-12-01

Bridge No. 79I00400073 (Eleven Digit No.)

Underpass Location No. 79 - I0040 - 0759 R (Co. / Route / Log Mile)

-0- (Railroad/Walkway) or ___ - ___ - ___ (Co. / Route / Log Mile)

over/under 79 - 02821 - 0530 (Co. / Route / Log Mile)

County Shelby

Structure Name (If Named) _____

Year Constructed _____

Year Widened _____ Year Rehabilitated _____

GEOMETRIC FEATURES UNDER BRIDGE *(*.* ft. unless otherwise noted)*

Divided Highway LEFT RDWY ( ) RIGHT RDWY ( ) N.A. (X)

Type of Wearing Surface CONCRETE ( ) ASPHALT (X) GRAVEL ( )

Width of Approach Traveled Roadway 76 ft. (Does Not Include Shoulders)

Width of Median if Divided Highway N/A ft.

Approach Shoulder Width N/A ft. Right N/A ft. Left

*Horizontal Clearance Under Bridge 76 ft. 0 IN.

*Distance Between Pier Protection Guardrail and Substructure N/A ft. Right N/A ft. Left

*Width of Sidewalk Under Bridge 5 ft. Right 5 ft. Left

*Minimum Vertical Clearance: 16 ft. 6 in.

*Show on Sketch

TRAFFIC SAFETY FEATURES FOR UNDERPASS ROUTE

		STANDARD	SUB-STANDARD	NON EXIST
Pier Protection Railing or Parapet	G F P C	( )	( )	(X)
Approach Guardrail Transitions	G F P C	( )	( )	(X)
Approach Guardrail	G F P C	( )	( )	(X)
Approach Guardrail Terminal	G F P C	( )	( )	(X)

SIGNING FOR UNDERPASS ROUTE

Paddleboards	YES ( )	NO (X) NEEDED ( )
Vertical Clearance (<14'-6")	YES ( )	NO (X) NEEDED ( )
Narrow Passage	YES ( )	NO (X) NEEDED ( )
One Lane Passage	YES ( )	NO (X) NEEDED ( )

Other Underpass Signs Needed

NONE

INSPECTORS

1. BYRD
2. _____
3. _____
4. _____
5. _____
6. _____

Form BIR 3.0A (Continued)
(Rev. 9-22-98)
DT-1443

Page No. ___

Date _____

Underpass Location No. 79 - 10040 - 0759 R
Co. Route Log Mile

Other Signs or Plaques: @ SPAN #1 RT TO I-40 WEST

Comments Regarding any Problems with Signing: NONE

BRIDGE FEATURES *(*.* ft.)*

Bridge Skew 85 Rt

Structure Type (Main Span) Conc Box Beam No. Main Spans 1

Structure Type (Appr.Spans) _____ No. Appr. Spans _____

Maximum Span Length 125 (ft.) Total Length 125 (ft.)

Width of Bridge Out-to-Out 71.5 (ft.) Right Angle to Centerline of Bridge)

Width of Bridge Along Skew _____ (ft.) (If Unable to Measure at Right Angle to Centerline of Bridge)

Number of Lanes/Tracks on Bridge 6

BRIDGE CONDITION: G (F) P C

Does Potential Exist for Elements from Bridge Falling on Roadway Beneath YES ( ) NO (X)

Does Potential Exist Because of Deteriorated Condition or Failure of Major Member YES ( ) NO (X)

Comment on any Conditions of Bridge that would Effect Roadway Beneath:

NONE

Note: If Underpass Route is Divided Highway, Use Two of These Forms, One for Each Roadway.

MINIMUM PICTURES REQUIRED

1. Elevation View of Bridge on Both Sides Showing Underpass
2. View Showing Both Approaches to Bridge
3. View Showing Safety Features
4. View Showing Any Problems

Inspection Team's Summary

Bridge Location No. 79 -I0040 07.59R -

Inspection Date 08-12-03

Bridge Rating FAIR

This one span solid concrete box beam bridge with concrete substructure is in fair condition. Standard bridgerails, substandard guardrail & terminals are in place. Approach #1 A.C. is cracking & spalling. Approach #2 embankment washing backunder drain. Span #1 backwall spalling @ abut. #2. Min. vertical under clearance is 16'6". Texture coat on all parapets is poor.

Carolyne Adams

INSPECTOR

CROSS SECTION: YES ( ) NO (X) PONTIS: YES ( ) NO (X)

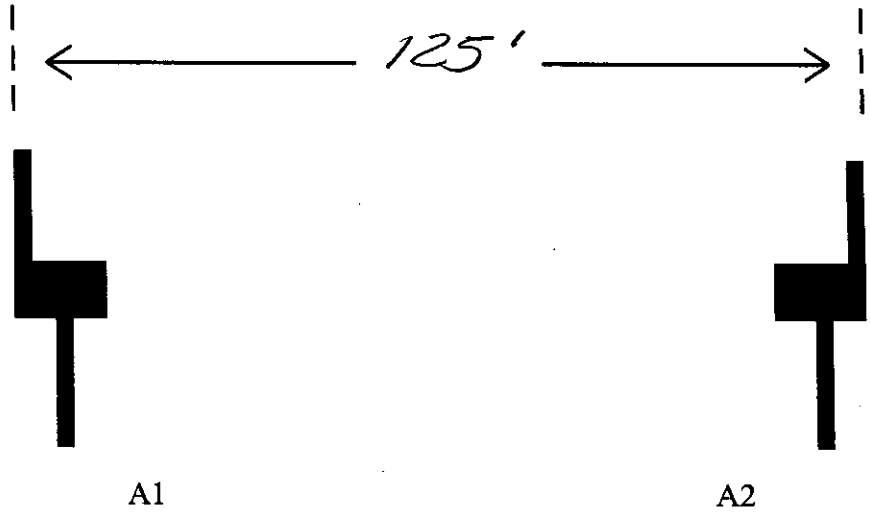
2003

79I00400073	79	I0040	0759	R	SKEW:	85R
BRIDGE NO.:	CO.	ROUTE	L.M.	L/R		

Direction of Route →

A1 A2

F = FIXED
E = EXPANSION
S = SIMPLE
C = CONTINUOUS



BIR 3.10
Rev. 06/22/01
ET-1510

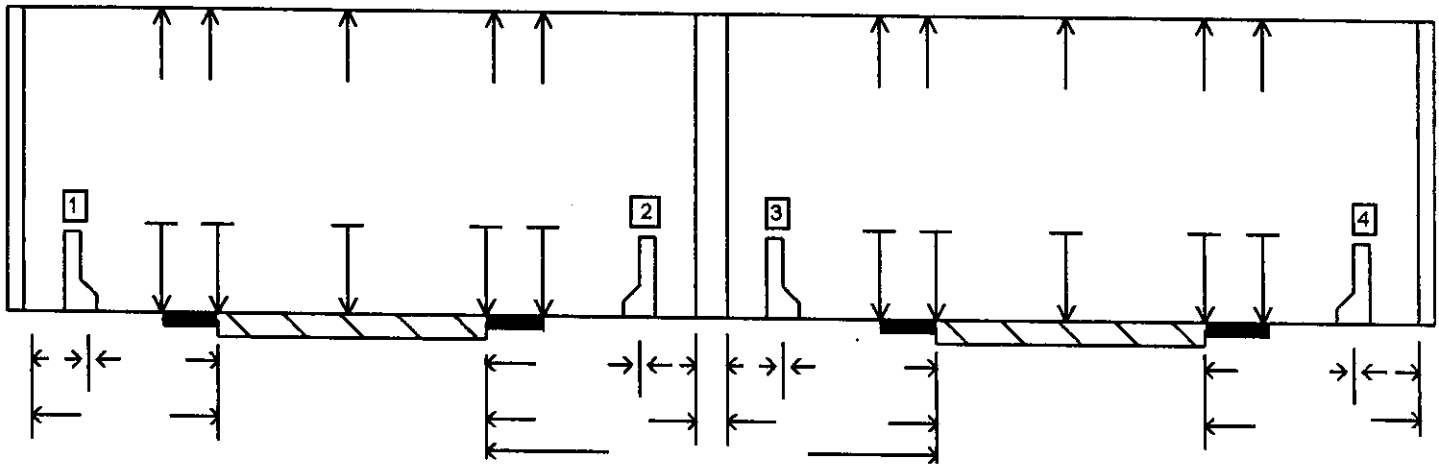
AUG 19 2003

BRIDGE LOC. NO. 79 I0040 0759 R
CO. ROUTE L. M. L/R

DATE: 2003

LATERAL AND VERTICAL CLEARANCES

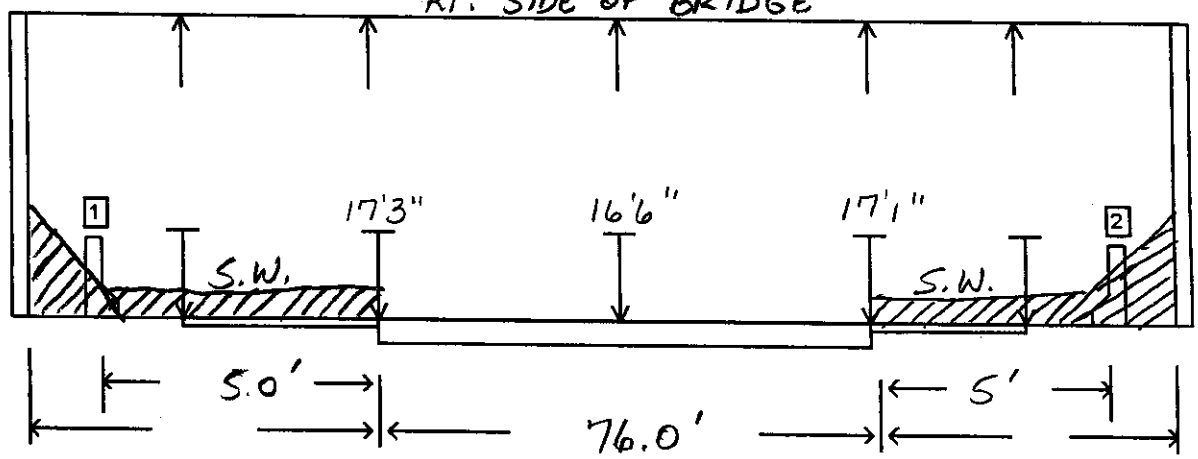
BENT/ABUT._____ BENT_____ BENT/ABUT._____



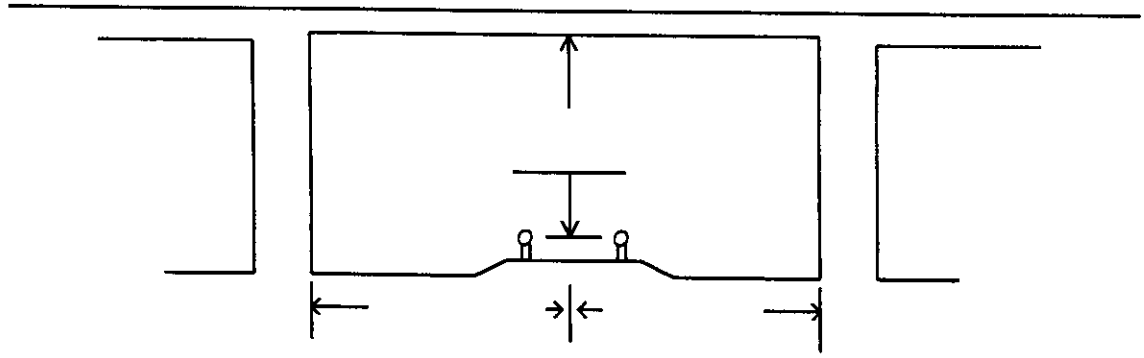
1.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[X]
2.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[X]
3.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[X]
4.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[X]

~~BENT~~/ABUT. 1 ~~BENT~~/ABUT. 2

RT. SIDE OF BRIDGE



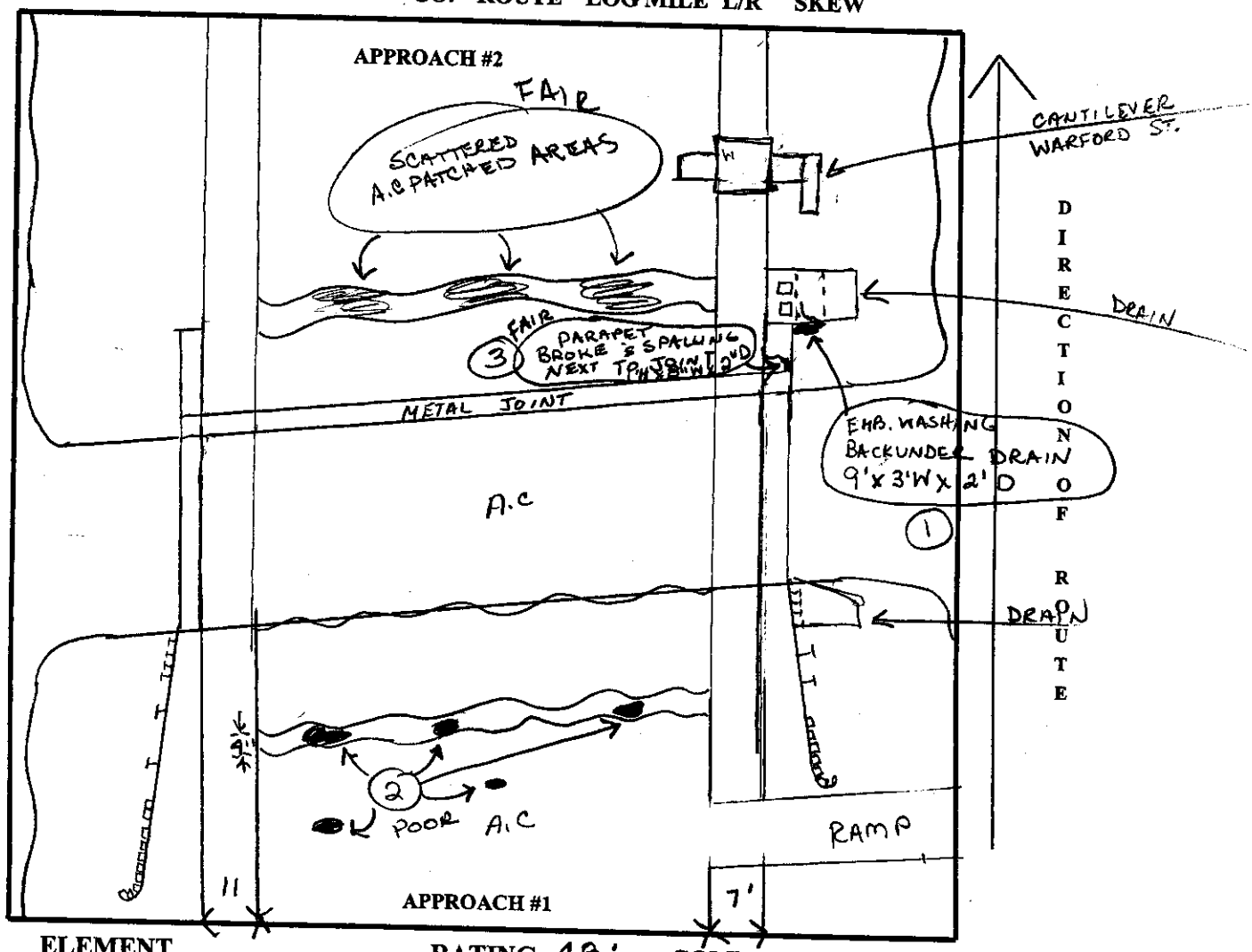
BENT/ABUT._____ BENT/ABUT._____



C.A

BRIDGE NO.: 79I00400074 | 79 | I0040 | 0759 | R | 85R | **DATE:** _____

CO. | ROUTE | LOG MILE | L/R | SKEW

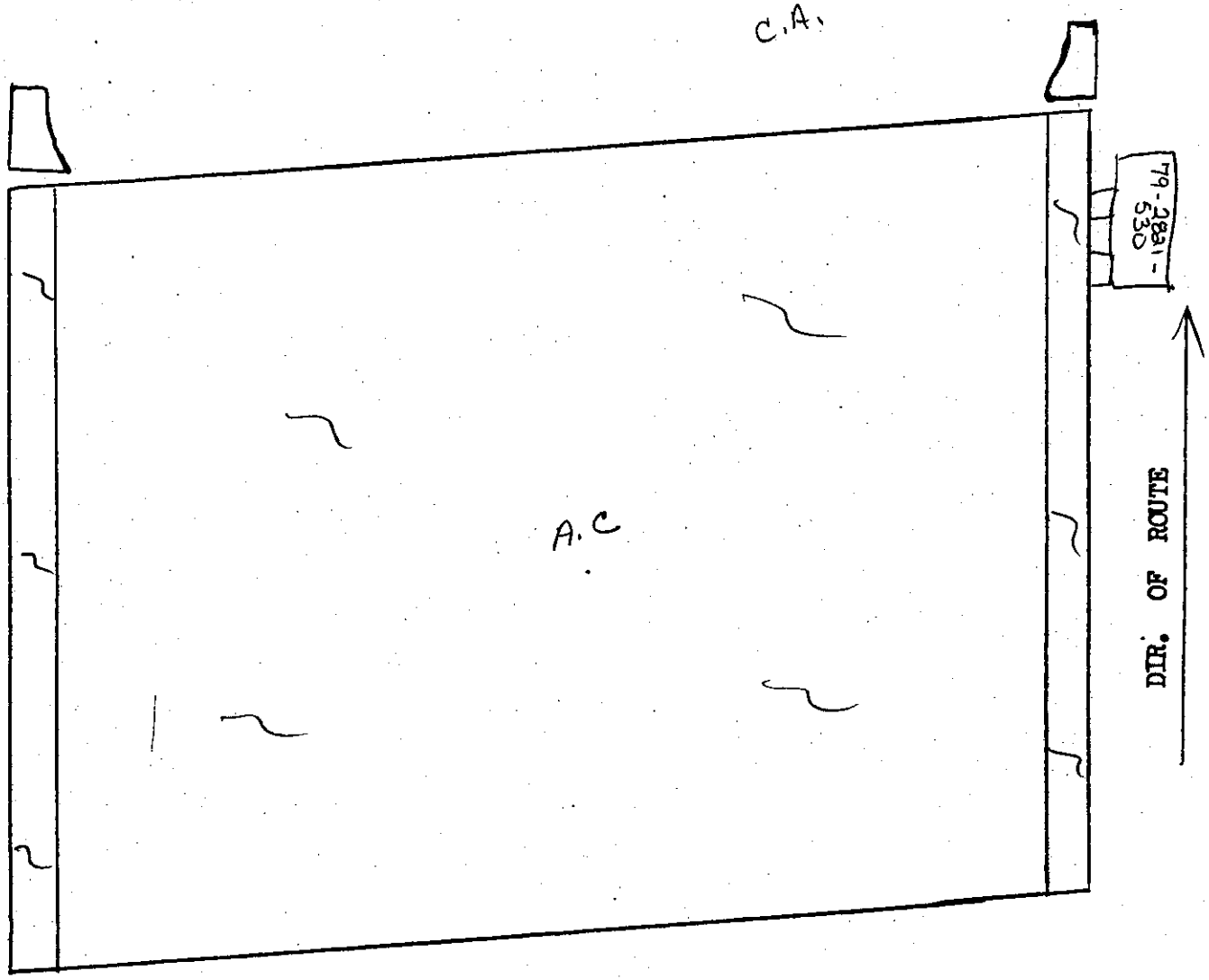


ELEMENT	RATING 48'	COMMENTS
ALIGNMENT	(G) F P C	
APPROACH PAVEMENT	G F (P) C	APP.#1&2 - SCATTERED SPALLED AREAS UP TO 2" DEEP X UP TO 3'L X UP TO 6"W SEE (2)
APPROACH SLAB	G F P C	N/V
APPROACH GUARDRAIL	(G) F P C	
EMBANKMENT	G F (P) C	APP.#2-RT - SEE (1)
DRAINS	G (F) P C	APP.#2 RT DRAIN - FINE CRACKS
APPROACH JOINT	(G) F P C	
SIGNS	(G) F P C	
PARAPET	(F)	SEE (3)

RT

AUG 1 0 200

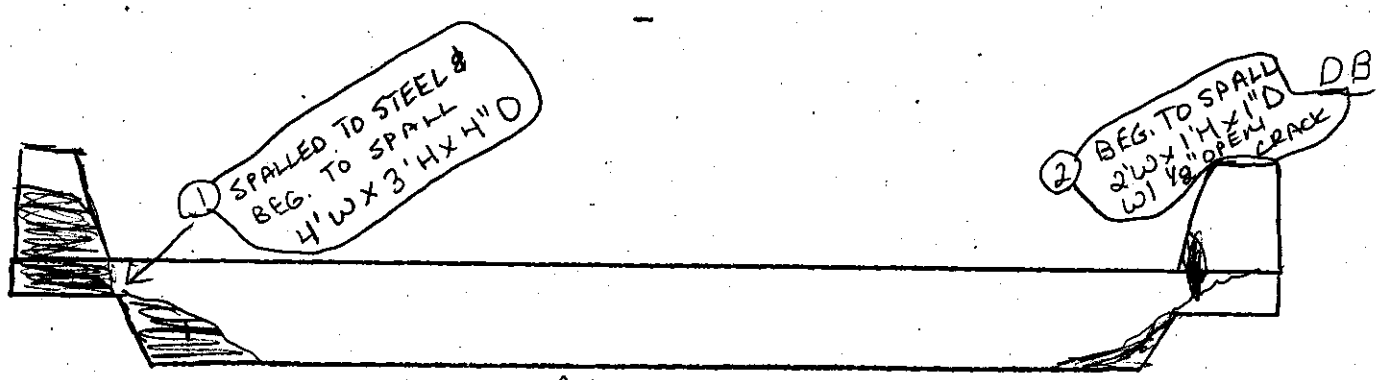
BRIDGE NO. 79 I-40 ~~EB~~ EBL SK. ____ RT. SPAN NO. 1

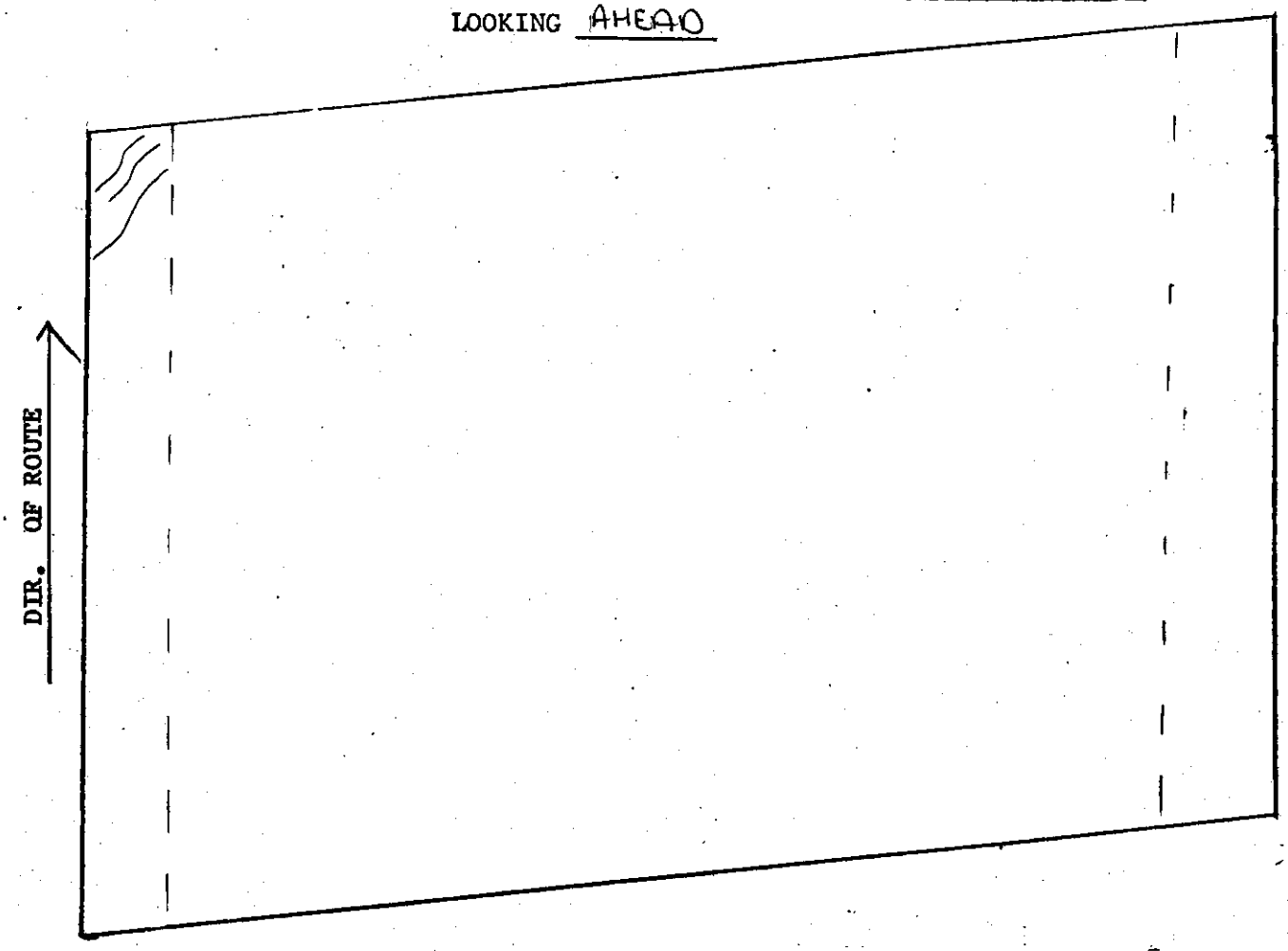


DECK	G (F) P C	SCATTERED FINE CRACKS
PARAPET	G (F) P C	" " " & MEDIUM SCALING & POPOUTS
DRAINS	G F P C	N/A
JOINT	G F P C	N/A
SIGNS	(G)	

RT

BRIDGE NO. 79 I 40 ~~259~~ EBL SK. ____ RT. SPAN NO. 1



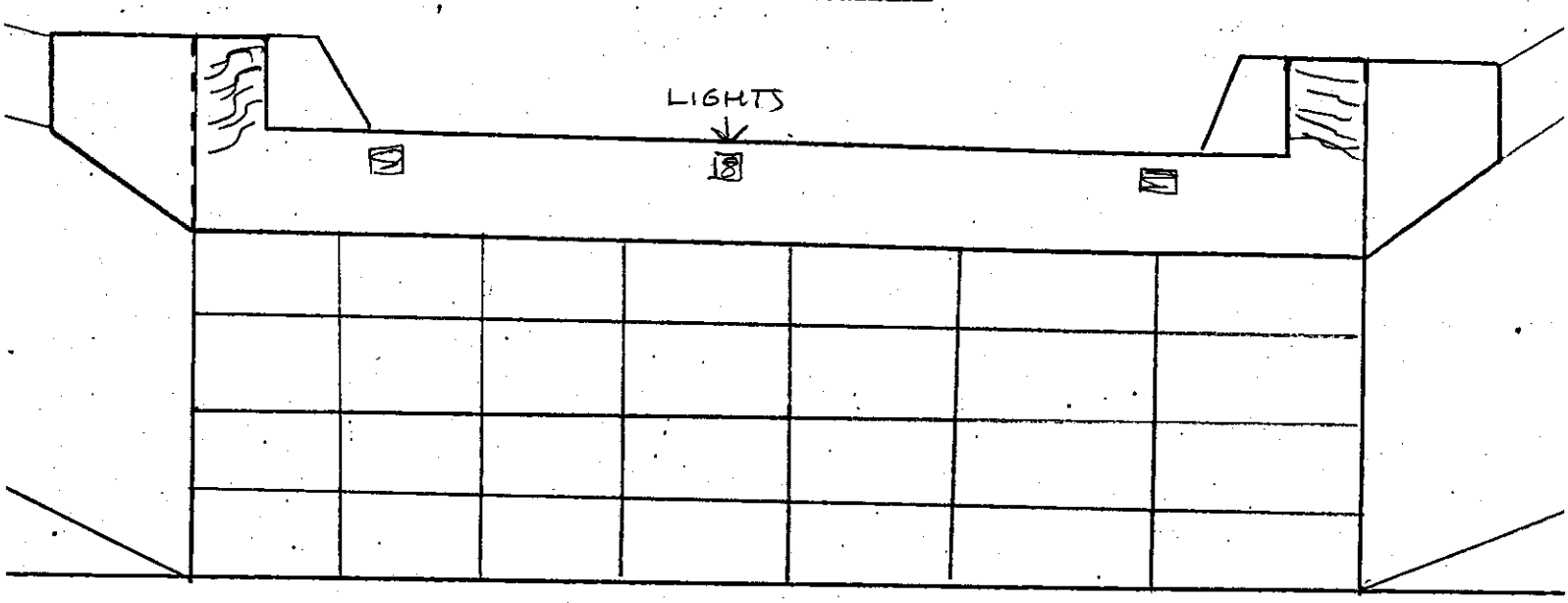


ELEMENT	RATING	COMMENT
BOTTOM DECK	G (F) P C	FINE CRACKS & DISCOLORATION
BACKWALL	G F (P) C	SEE (1) & (2)

BRIDGE NO. 79 I 40 262 RT QRL ABUT. NO. 1 AUG

DB

LOOKING Back

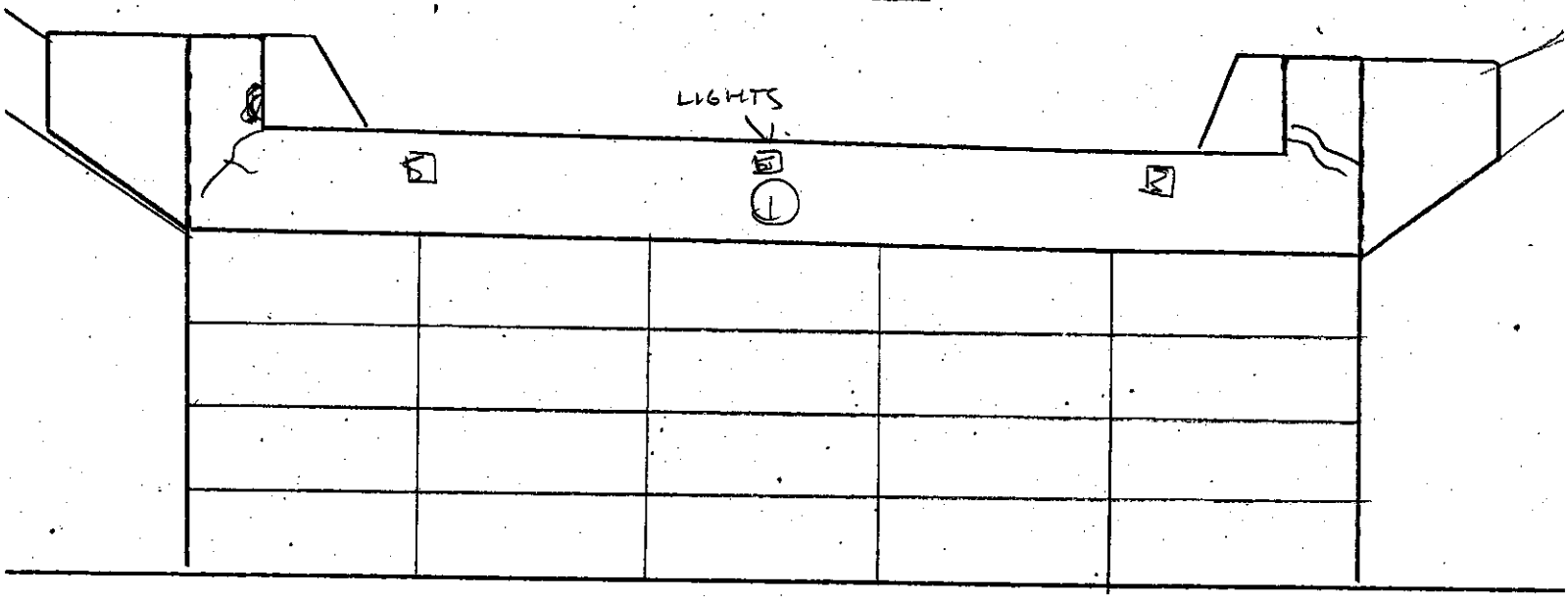


EMENT	RATING	COMMENTS
~~BEARING~~	~~G F P C~~	
~~PAINT~~ LIGHTS	(G) F P C	
CAP	G (F) P C	DISCOLORATION
WINGS	G (F) P C	FINE CRACKS
EMB.	(G) F P C	
VEG.	(G) F P C	
~~RIP-RAP~~	~~G F P C~~	
SLOPE PAV.	(G) F P C	
~~BACKWALL~~	~~G F P C~~	

BRIDGE NO. 79 I-40 ~~EAST~~ RT EB, L. ABUT. NO. 2

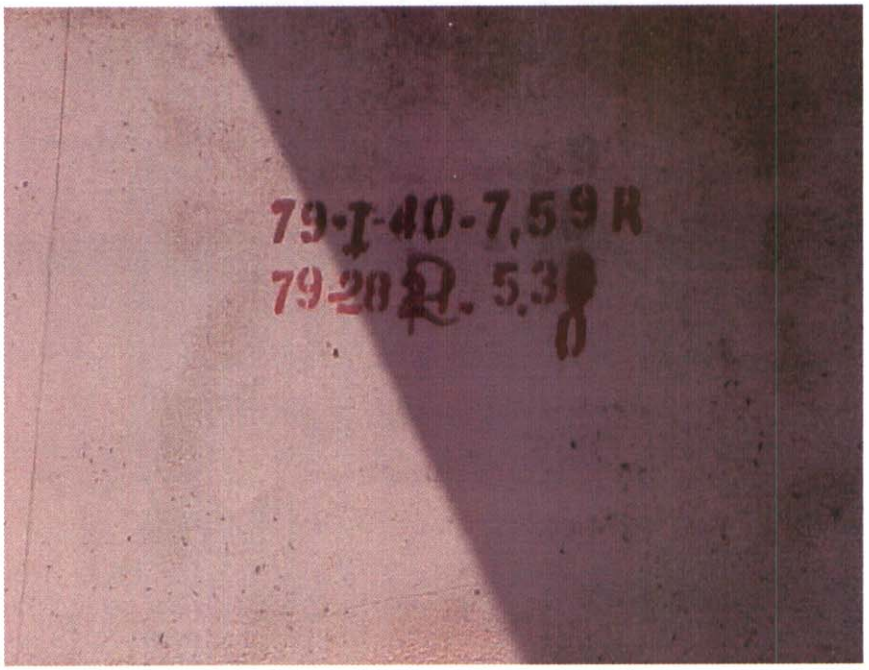
DB

LOOKING AHEAD



EMENT	RATING	COMMENTS
~~BEARING~~ EQ. D.	(G) F P C	(1)
~~PAINT~~ LIGHTS	(G) F P C	
CAP	G (F) P C	DISCOLORATION
WINGS	G (F) P C	FINE CRACKS
EMB.'	(G) F P C	
VEG.	(G) F P C	
~~RIP-RAP~~	~~G F P C~~	
SLOPE PAV.	(G) F P C	
~~BACKWALL~~	~~G F P C~~	

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 09-12-01



BRIDGE NO.

ELEVATION RIGHT SIDE

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 09-12-01

LOOKING AHEAD ON ROUTE

APPROACH #1 JOINT SPALLED

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 09-12-01

APPROACH #1 PAVEMENT SPALLED

VIEW ACROSS TOP OF DECK

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 09-12-01

LOOKING BACK ON ROUTE

SPAN #1, BOTTOM OF DECK

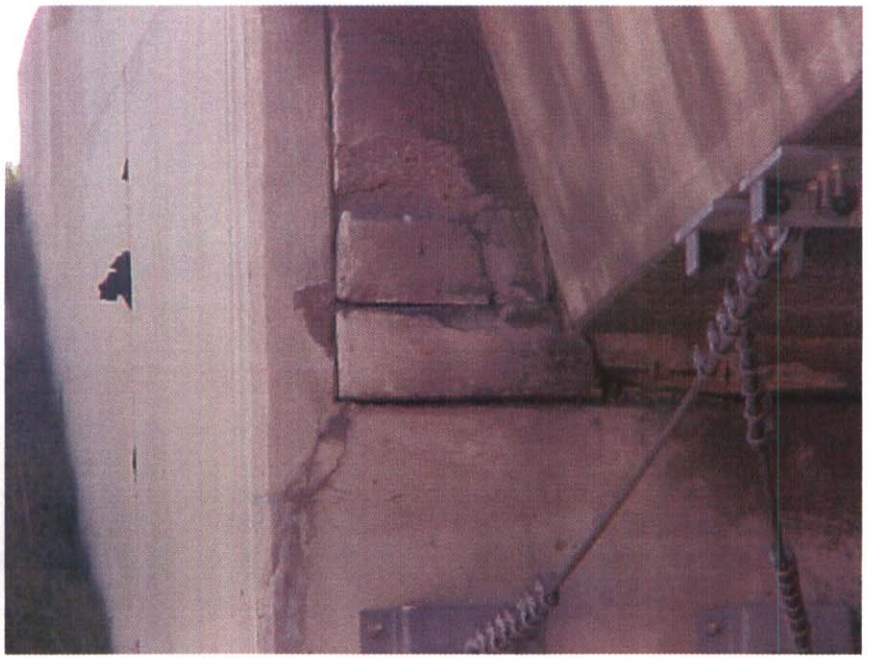
Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 09-12-01

ABUTMENT #2

ELEVATION LEFT SIDE

Bridge Loc. No: 79 - I0040 - 07.59 - R Date: 09-12-01

ABUTMENT #1, LEFT WING SPALLED



ABUTMENT #2, LEFT BACKWALL SPALLED

BRIDGE INSPECTION REPORT

Form BIR 3.0
(Rev. 9-22-98)
DT-0069

Field Report No. 15 Date 9-12-01
Previous Report No. 14 Date 1-18-2000
Plans: YES ( ) NO ( )

Bridge No. 79I00400073 (Eleven Digit No.) Bridge Location No. 79 - I0040 - 7.59 R (Co. Route Log Mile) 79 - 02821 - 0530 (OVER/UNDER PASS)

_____ (Road Name) over -0- _____ (Crossing) _____ (Structure Name (If Named))

Year Constructed _____ County Shelby Maintenance District 45

Year Widened _____ Year Rehabilitated _____

FEATURES

Wearing Surface Concrete ( ) Timber ( ) Asphalt (X) Depth 2" (in.)
Flared Width Yes ( ) No (X) Median Width Open (X) None ( ) Closed ( )
Navigational Control Yes ( ) No (X) Bridge Skew 85R ° LT ( ) RT ( )
Structure Type (Main Span) CONC. BOX BEAM
Structure Type (Appr.Spans) _____
No. Main Spans 1 No. Approach Spans _____
Maximum Span Length 125' (***.* ft.)
Total Length 125.0 (***.* ft.)

INSPECTORS

1. COLLINS
2. BYRD
3. REEVES
4. _____
5. _____
6. _____
7. _____
8. _____

WIDTHS (*.* ft.)

Deck Out-to-Out 71.5
Roadway Curb/Curb 69.5
Roadway Rail/Rail _____
Sidewalk Rt. 5 Lt. 5
*Approach Roadway 48'
*(Does Not Include Shoulders)
Approach Shoulder Rt. 7
Lt. 11

CLEARANCES

Min. Vertical Clearance over Deck _____ (ft.-in.)
Min. Vertical Under Clearance 16'-6" (ft.-in.)
Min. Lateral Under Clearance Rt. 5 (*.* ft.)
Min. Lateral Under Clearance Lt. 5 (*.* ft.)

FRACTURE CRITICAL: N/A
(If Yes, Include BIR 3.9)

NBIS Bridge Length (<25 ft.) N/A (ft.-in.)

UNDERWATER INSPECTION

To Be Performed By: Date _____
DOT FIELD TEAM ( ) CONTRACT DIVERS ( ) NONE REQUIRED (X)
Change in Structural Condition: Yes ( ) No (X)
Major Repairs Made: Yes ( ) No (X)

COMMENTS: N - 35°11'29.4"
W 89°58'33.7"

BRIDGE RATING: ( ) (+) ( ) ( )
GOOD FAIR POOR CRITICAL

Supervising Bridge Inspector: Jack Collins

SEP 12 2001

Form BIR 3.1
(Rev. 9-22-98)
DT-0080

Bridge Location No. 79 - I0040 - 7.59 R (Co. Route Log Mile)

Date _____

PERFORMANCE EVALUATION

Time of Day Inspected 11:00 Weather Conditions CLEAR & 85°

Vehicles Observed ALL TYPES

LIVE LOAD BEHAVIOR

	YES	NO	Comments
Substructure			
Horiz./ Vert. Defl.	( )	(X)	
Vibration	( )	(X)	
Superstructure			
Horiz./ Vert. Defl.	( )	(X)	
Vibration	( )	(X)	

APPROACH

	Rating	Comments
Alignment	(G) F P C	
Slab	G F P C	N/A
Joints	G F (P) C	APP#1 MAT MISSING -(007)
Pavement	G F (P) C	APP#1 A.C SPALLING (001)
Embankment	(G) F P C	
Drains	G F (P) C	APP#2 RT HOLE UNDER DRAIN (007)

TRAFFIC SAFETY FEATURES

	Rating	STANDARD	SUB-STANDARD	Comments
Bridgerailing	G (F) P C	(X)	( )	
Transitions	(G) F P C	( )	(X)	
Guardrail	(G) F P C	( )	(X)	
Guardrail Terminal	(G) F P C	( )	(X)	

SIGNING

	YES	NO	NEEDED
Paddleboards	( )	(X)	( )
Vertical Clearance (<14'-6")	( )	(X)	( )
NARROW ( )	( )	(X)	( )
ONE LANE BRIDGE ( )	( )	(X)	( )

Weight Limit Posted

YES ( ) NO (X)

Gross..... _____ Tons

2 Axle..... _____ Tons

3 or more Axles.. _____ Tons

Other Signs or Plaques: RIGHT SIDE -OVERHEAD -2821-5.30 -OK (79)

Comments Regarding any CANTILEVER L BOX @ APP#2 - 79-40-7.64 OK
Problems with Signing:

Form BIR 3.2
(Rev. 9-22-98)
DT-0081

Bridge Location No. 79 - 10040 - 7.59 R
Co. Route Log Mile

Date _____

DECK	Rating	Comments
Wearing Surface	G (F) P C	
Deck - Structural Condition	G (F) P C	
Curbs	G F P C	
Median	G F P C	
Sidewalks	G F P C	
Parapet	G (F) P C	
Railing	G F P C	
Paint	G F P C	
Drains	G F P C	
Lighting Standards	G F P C	
Utilities	(G) F P C	
Joint Leakage	G F P C	
Expansion Joints	G F P C	

SUPERSTRUCTURE		
Bearing Devices	G F P C	
Beams Box Soffit	G (F) P C	
Girders	G F P C	
P C C S	G F P C	
BOLTS (PCCS)	G F P C	
Floor Beams	G F P C	
Stringers	G F P C	
Diaphragms	G F P C	
Bracing	G F P C	
Trusses - General	G F P C	
Portals	G F P C	
Bracing	G F P C	
Paint	G F P C	
Alignment of Members	(G) F P C	

TEXTURE COAT

Condition Rating G F (P) C (069)
Overall Appearance G F (P) C
Staining Rating G F (P) C

Fading G F (P) C
Needs Spot Painting YES ( ) NO (X)
Needs Repainting YES (X) NO ( )

Comments _____ Scaling Rating G F (P) C

RECOMMENDATIONS: _____ CLEAN SEAL JOINTS ( )

_____ CLEAN DRAINS ( )

Form BIR 3.3
(Rev. 9-22-98)
DT-0082

Bridge Location No. 79 - 10040 - 7.59 R
Co. Route Log Mile

SEP 12 2001
Date

SUBSTRUCTURE

ABUTMENTS

	Rating	Comments	PILES TO BE REPLACED: PILE(S)	ABUTMENT
Caps	G (F) P C			
Breastwall	G F P C			
Wings	G F (P) C	ABUT #1 LT CRACKING & SPALLING (154)		
Backwall	G F (P) C	ABUT #2 LT SIDE SPALLING (171)		
Plumb	(G) F P C			
Footing	G F P C			
Piles	G F P C			
Embankment	G (F) P C			
Bearing	(G) F P C			
Slope Paving	G (F) P C			
Rip Rap	G F P C			
Earthquake Devices	(G) F P C			

PIERS

		PILE(S)	PIER
Caps	G F P C		
Columns	G F P C		
Plumb	G F P C		
Footings	G F P C		
Piles	G F P C		
Bearing	G F P C		
Web	G F P C		
Earthquake Devices	G F P C		

N/A

BENTS

		PILE(S)	BENT
Caps	G F P C		
Columns	G F P C		
Plumb	G F P C		
Footings	G F P C		
Piles	G F P C		
Bearing	G F P C		
Bracing	G F P C		
Earthquake Devices	G F P C		

N/A

Piles Need Replacement: NO (✓) YES ( )

CUT VEGETATION NO (✓) YES ( )

CLEAR DRIFT NO (✓) YES ( )

RECOMMENDATIONS:

Page 1 of 2

INSPECTION REPORT FOR UNDERPASS ROUTE

Page No. ___

Form BIR 3.0A
(Rev. 9-22-98)
DT-1443

Field Report No. _____ Date _____
Previous Report No. _____ Date _____

Bridge No. 79I00400073 (Eleven Digit No.)

Underpass Location No. 79 (Co.) - I0040 (Route) - 0759 R (Log Mile)

-0- (Railroad/Walkway) or ___ (Co.) - ___ (Route) - ___ (Log Mile)

over/under 79 (Co.) - 02821 (Route) - 0530 (Log Mile)

County Shelby

Structure Name (If Named) _____

Year Constructed _____

Year Widened _____ Year Rehabilitated _____

GEOMETRIC FEATURES UNDER BRIDGE *(*.* ft. unless otherwise noted)*

Divided Highway LEFT RDWY ( ) RIGHT RDWY ( ) N.A. (X)

Type of Wearing Surface CONCRETE (X) ASPHALT ( ) GRAVEL ( )

Width of Approach Traveled Roadway 36 ft. (Does Not Include Shoulders)

Width of Median if Divided Highway N/A ft.

Approach Shoulder Width N/A ft. Right N/A ft. Left

*Horizontal Clearance Under Bridge 86 ft. 0 IN.

*Distance Between Pier Protection Guardrail and Substructure N/A ft. Right N/A ft. Left

*Width of Sidewalk Under Bridge 5 ft. Right 5 ft. Left

*Minimum Vertical Clearance: 16 ft. 6 in.

*Show on Sketch

TRAFFIC SAFETY FEATURES FOR UNDERPASS ROUTE

		STANDARD	SUB-STANDARD	NON EXIST
Pier Protection Railing or Parapet	G F P C	( )	( )	(X)
Approach Guardrail Transitions	G F P C	( )	( )	(X)
Approach Guardrail	G F P C	( )	( )	(X)
Approach Guardrail Terminal	G F P C	( )	( )	(X)

SIGNING FOR UNDERPASS ROUTE

Paddleboards	YES ( )	NO (X) NEEDED ( )
Vertical Clearance (<14'-6")	YES ( )	NO (X) NEEDED ( )
Narrow Passage	YES ( )	NO (X) NEEDED ( )
One Lane Passage	YES ( )	NO (X) NEEDED ( )

Other Underpass Signs Needed

_____

_____

INSPECTORS

1. REEVES
2. _____
3. _____
4. _____
5. _____
6. _____

SEP 12 2001

Page No.___

Form BIR 3.0A (Continued)
(Rev. 9-22-98)
DT-1443

Date _____

Underpass Location No. 79 - 10040 - 0759 R
Co. Route Log Mile

Other Signs or Plaques: _____

_____

Comments Regarding any
Problems with Signing: _____

_____

BRIDGE FEATURES *(*.* ft.)*

Bridge Skew 85R+

Structure Type (Main Span) Conc Box Beam No. Main Spans 1

Structure Type (Appr.Spans) _____ No. Appr. Spans _____

Maximum Span Length 125 (ft.) Total Length 125 (ft.)

Width of Bridge Out-to-Out 71.5 (ft.) Right Angle to Centerline of Bridge)

Width of Bridge Along Skew _____ (ft.) (If Unable to Measure at Right Angle to Centerline of Bridge)

Number of Lanes/Tracks on Bridge 6

BRIDGE CONDITION: G (F) P C

Does Potential Exist for Elements from Bridge Falling on Roadway Beneath YES ( ) NO (X)

Does Potential Exist Because of Deteriorated Condition or Failure of Major Member YES ( ) NO (X)

Comment on any Conditions of Bridge that would Effect Roadway Beneath:

_____

_____

_____

Note: If Underpass Route is Divided Highway, Use Two of These Forms, One for Each Roadway.

MINIMUM PICTURES REQUIRED

1. Elevation View of Bridge on Both Sides Showing Underpass
2. View Showing Both Approaches to Bridge
3. View Showing Safety Features
4. View Showing Any Problems

Inspection Team's Summary

SEP 12 2001

Bridge Location No. 79 - 10040 - 7.59 R

Inspection Date 9-12-01

Bridge Rating FAIR

THIS ONE SPAN CONC. BOX BEAM WITH CONC. SUBSTRUCTURE BRIDGE IS IN FAIR CONDITION. ALL TRAFFIC SAFETY FEATURES ARE PRESENT. APP. #1 JOINT & PAVEMENT IS SPALLED & CRACKING. APP. #2 RT. DRAIN HAS A VOID AREA UNDER IT. TEXTURE COAT IS 90% MISSING ON THE WHOLE BRIDGE. ABUT. #1 LT. WING IS SPALLING & CRACKING. ABUT. #2 LT. BACKWALL IS SPALLING & CRACKING. THE MINIMUM VERTICAL CLEARANCE IS 16'6".

Derek Byrd

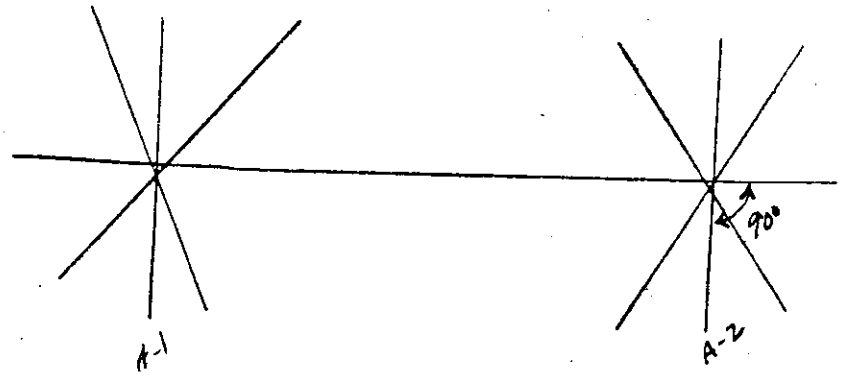
Cross Section: yes ( ) no (X)

Pontis: yes ( ) no (X)

RP

SEP 12 2001

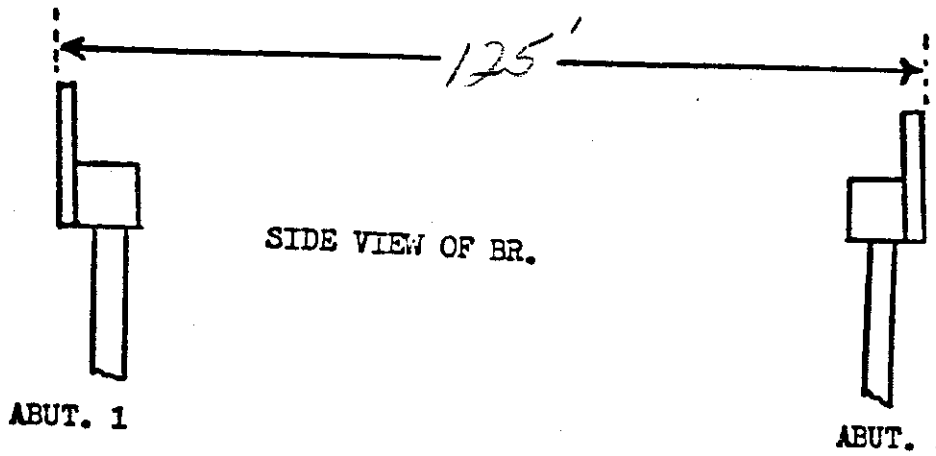
BR. NO. 79 I 40 259 EB,L SPAN NO. _____



Skew 90° ☐ Skew — Rt ☐ Skew — Lt. ☐

REQ. DATA.

F= FIXED
E = EXPANSION
S = SIMPLE
C = CONTINUOUS



SIDE VIEW OF BR.

SEP 12 2001

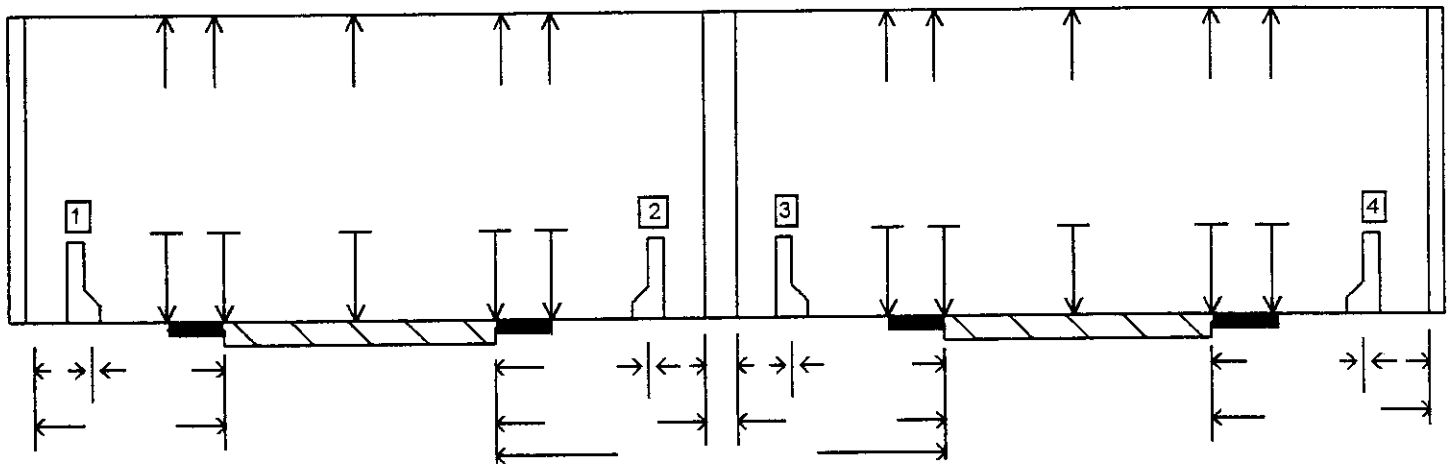
BIR 3.10
Rev. 06/22/01
ET-1510

BRIDGE LOC. NO. 79 (CO.) I0040 (ROUTE) 0759 (L. M.) R (L/R)

DATE: _____

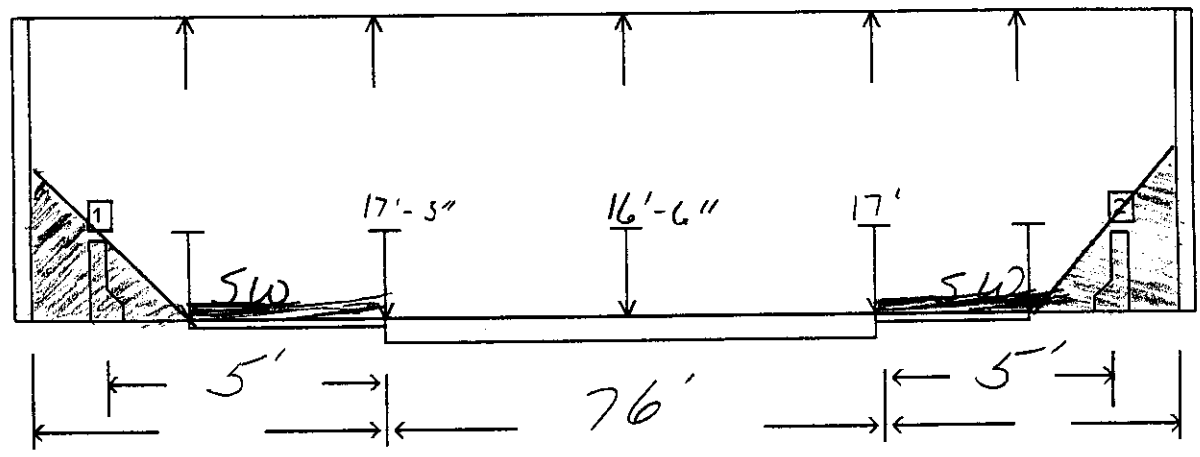
LATERAL AND VERTICAL CLEARANCES

BENT/ABUT._____ BENT_____ BENT/ABUT._____

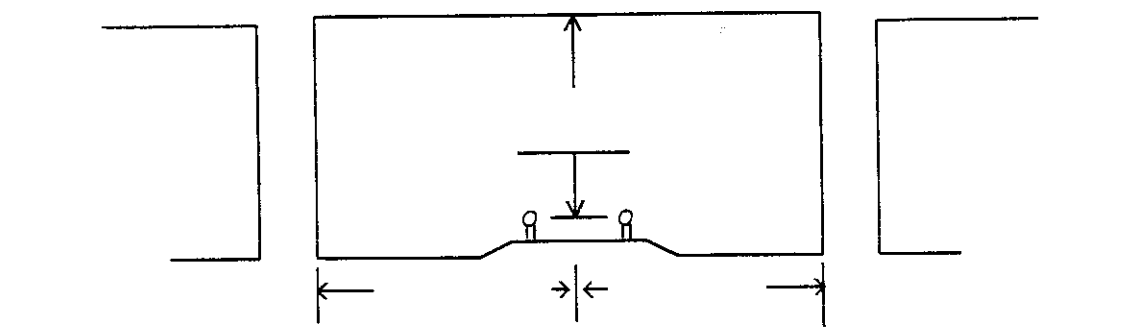


1.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[ ]
2.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[ ]
3.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[ ]
4.	RAIL/BARRIER TYPE:	W-SHAPE	[ ]	CONC. BARRIER	[ ]	NONE	[ ]

BENT/ABUT. 1 BENT/ABUT. 2



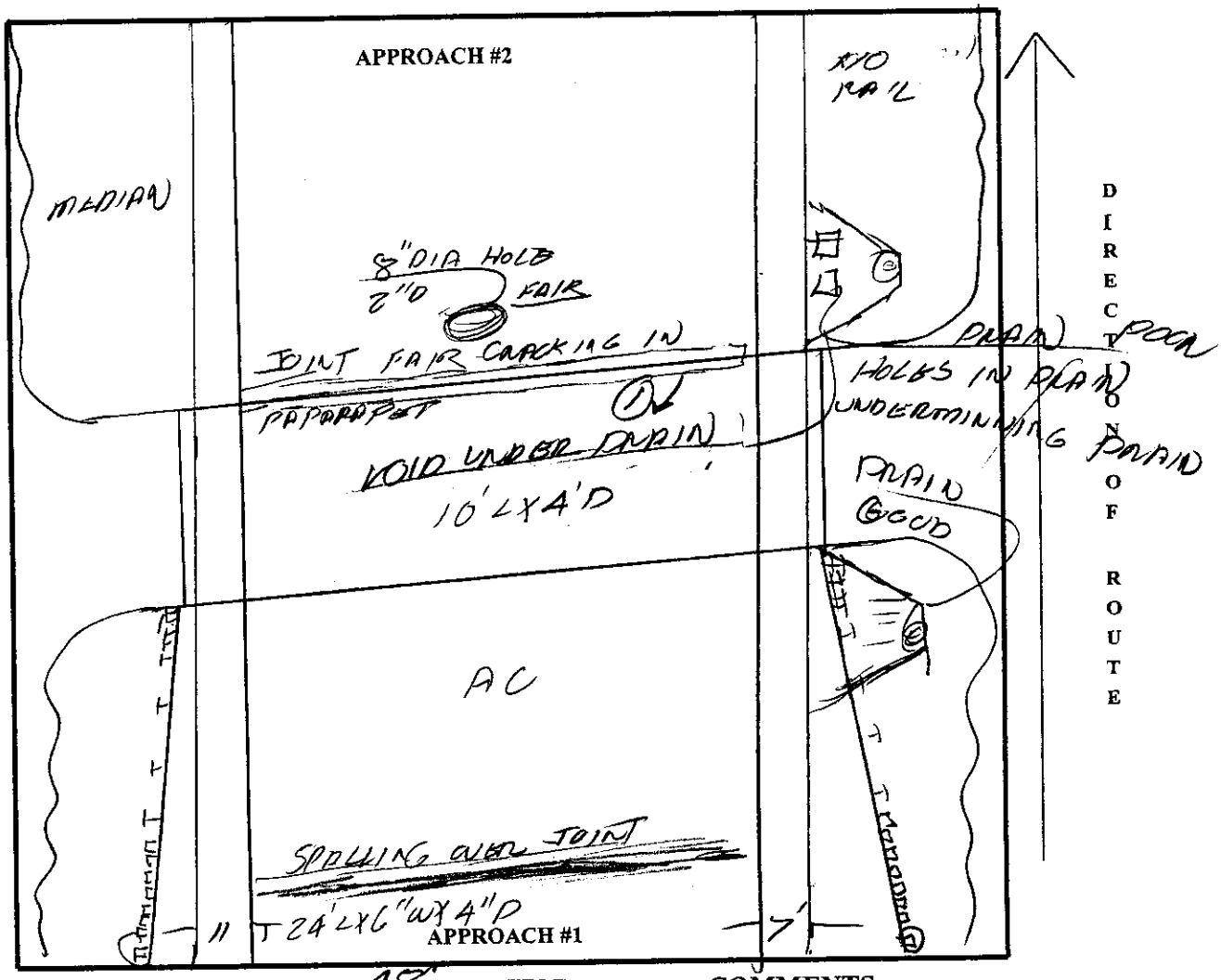
BENT/ABUT._____ BENT/ABUT._____



SEP 12 2007

BRIDGE NO.: 79I00400073 | 79 | I0040 | 0759 | R | 85R | DATE: _____

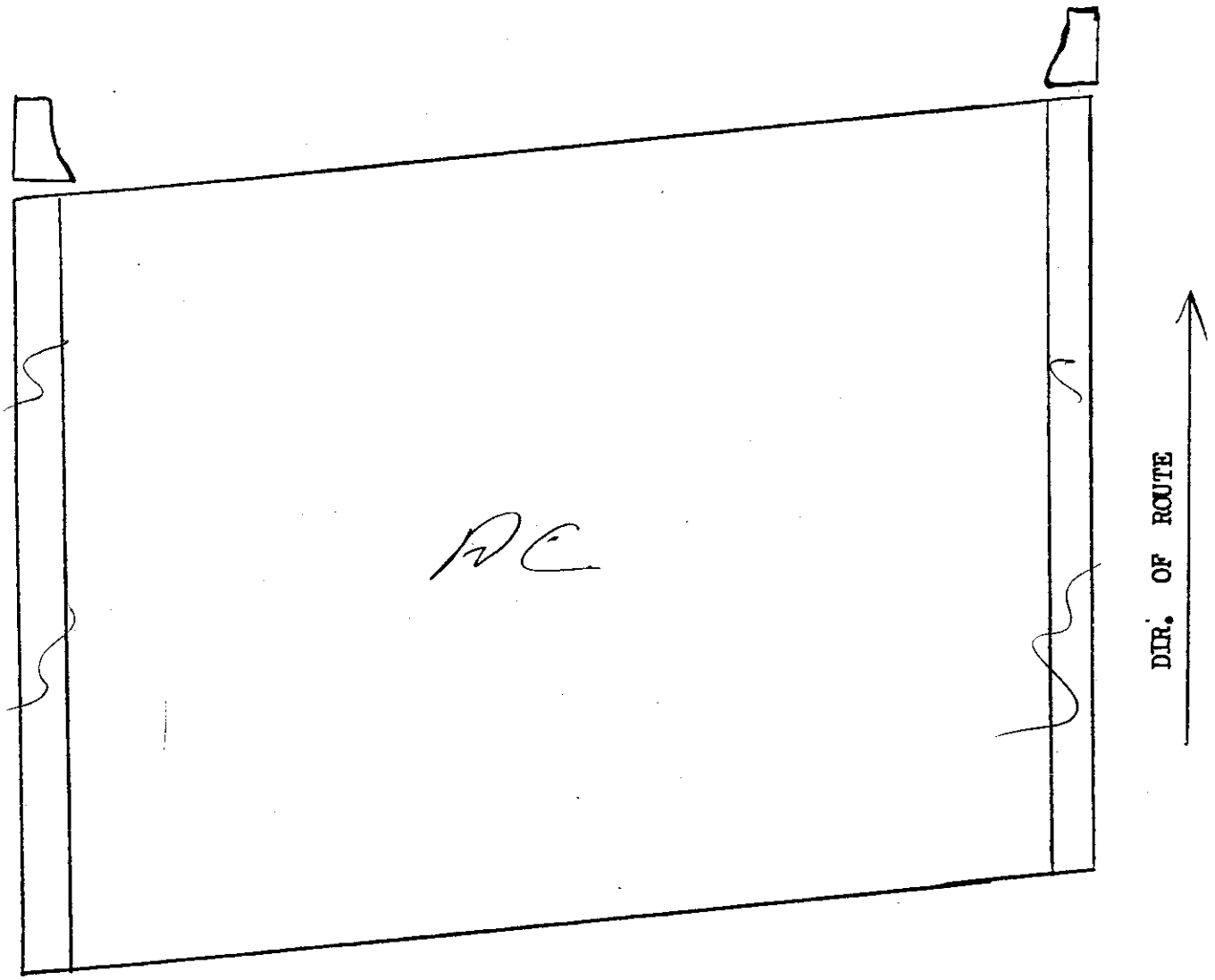
CO. ROUTE LOG MILE L/R SKEW



ELEMENT		RATING	COMMENTS
ALIGNMENT	(G) F P C		
APPROACH PAVEMENT	G F (P) C		APP #1 A.C SPALLING (001)
APPROACH SLAB	G F P C		N/A
APPROACH GUARDRAIL	(G) F P C		
EMBANKMENT	(G) F P C		
DRAINS	G F (P) C		APP #2 RT SEE (1) 1009
APPROACH JOINT	G F (P) C		APP #1 MAT MISSING (007)
SIGNS	(G) F P C		

RT

BRIDGE NO. 79 I 40 Z59EBL SK. ____ RT. SPAN NO. 1

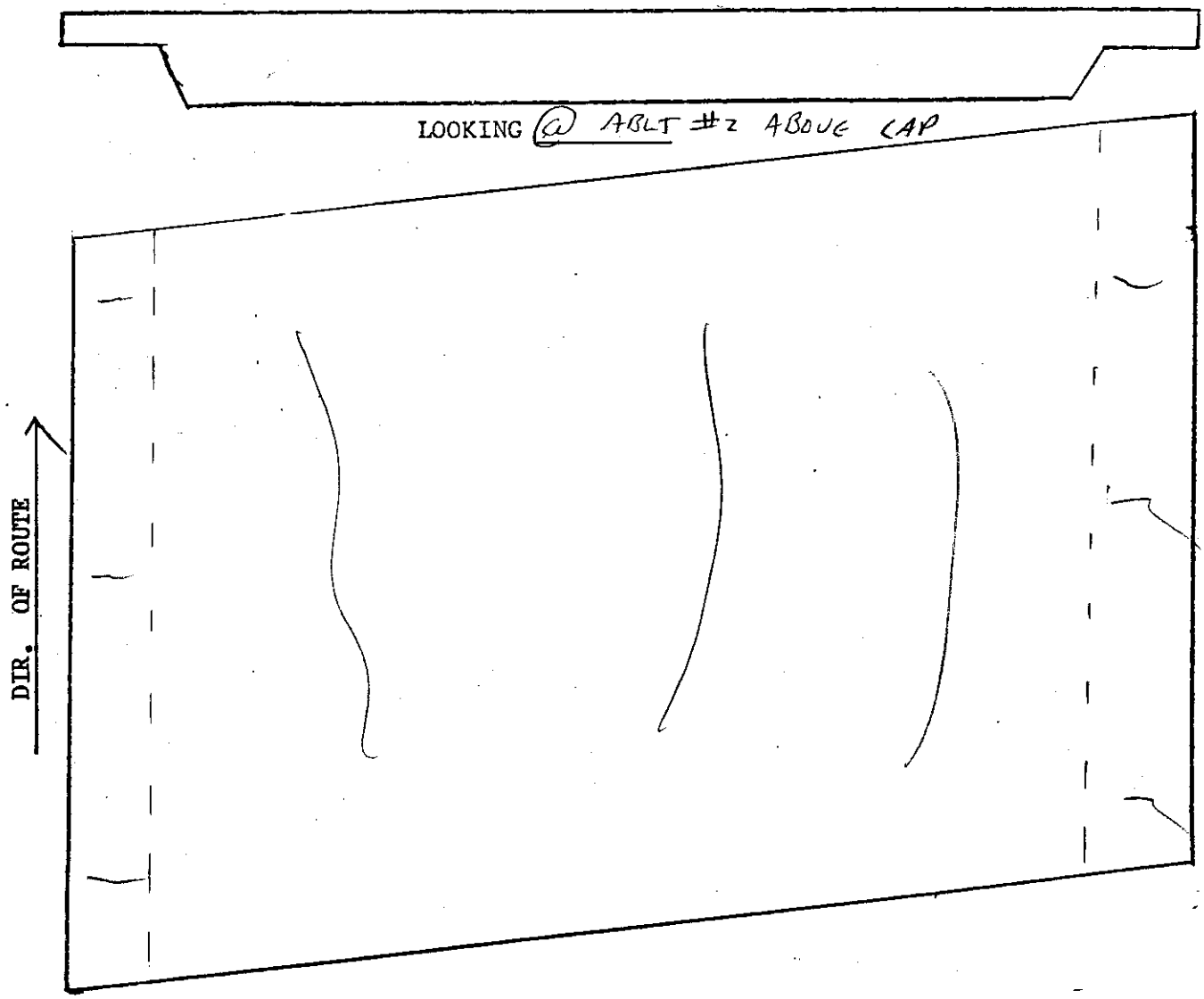


DECK	G (F) P C	SLIGHTLY RUTTED
PARAPET	G (F) P C	FINE CRACKS
DRAINS	G F P C	N/A
JOINT	G F P C	N/A

RT

SEP 12 2001

BRIDGE NO. 79 I 40 759 EBL SK. ____ RT. SPAN NO. 1

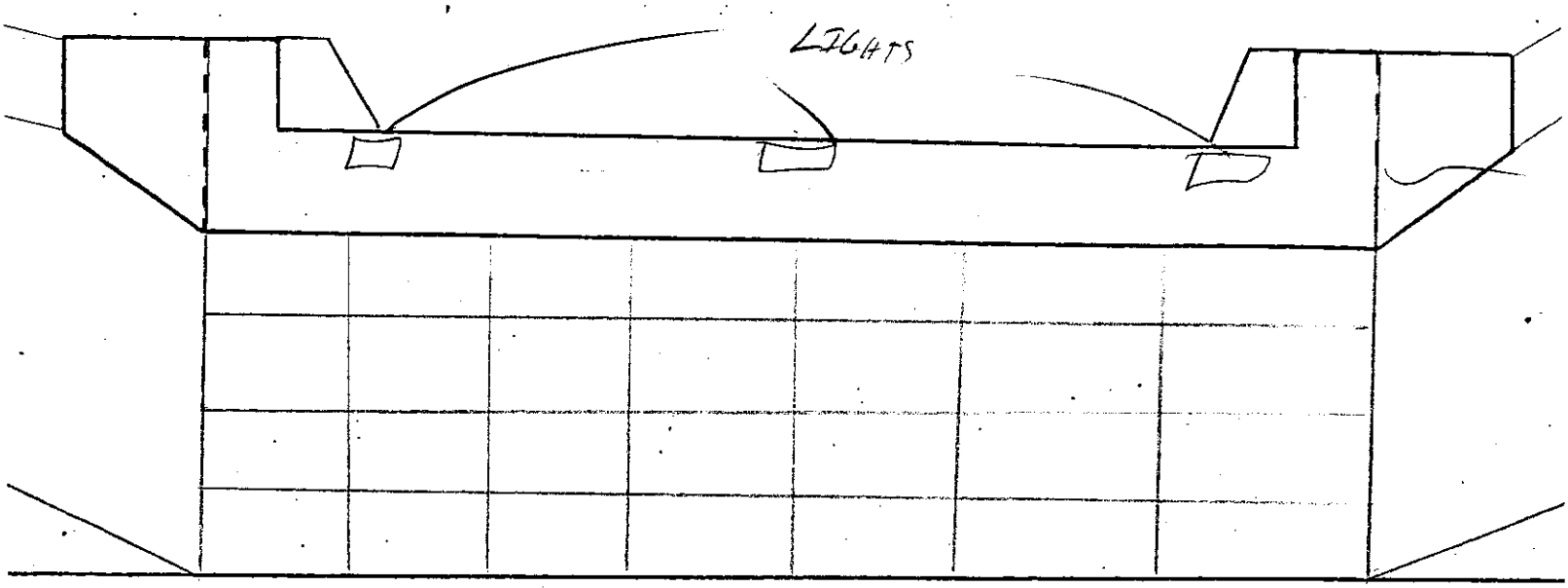


ELEMENT	RATING	COMMENT
BOTTOM DECK	G (F) P C	FINE CRACKS

RT

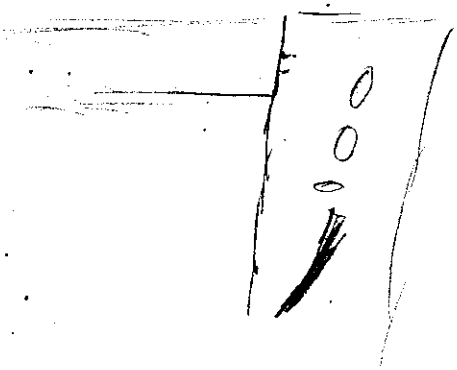
BRIDGE NO. 79 I 40 257 GRL ABUT. NO. 1

LOOKING BACK



LEMENT	RATING	COMMENTS
BEARING	G F P C	NN
PAINT	G (F) P C	SCALING
CAP	G (F) P C	FINE CRACK
WINGS	G F (P) C	SEE (1)
EMB.'	(G) F P C	
VEG.	G (F) P C	MODERATE GROWTH
RIP-RAP	G F P C	N/A
SLOPE PAV.	G (F) P C	
BACKWALL	G (F) P C	FINE CRACKS
GHTS	(C)	

LT. SIDE OF CAP



MEDIUM RANDOM CRACKS W/EFF ACTION & SPALLING

(1)

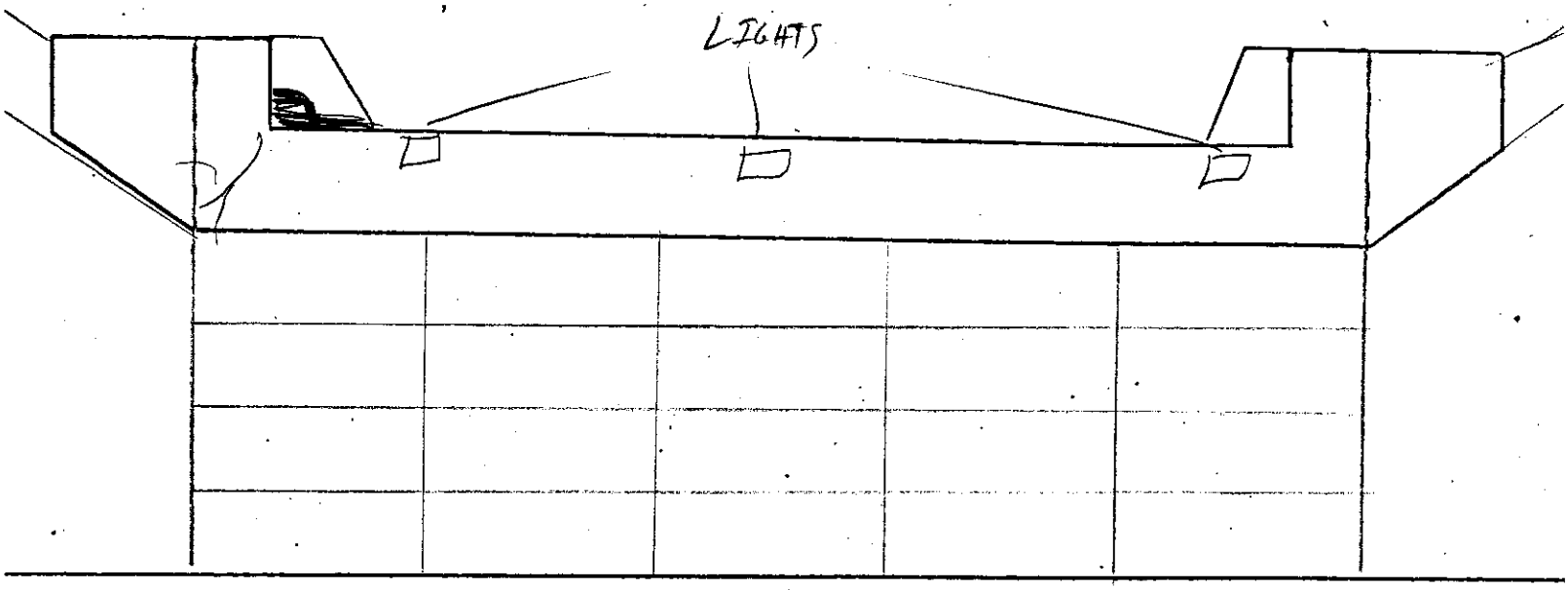
RT. SIDE TYP

$\frac{12'}{H} \times \frac{5'}{W} \times \frac{3''}{D}$

SEP 12 2001

BRIDGE NO. 79 I-40 RT 259 E.B.L. ABUT. NO. 2

LOOKING AHEAD



EMENT	RATING	COMMENTS
BEARING	(G) F P C	
PAINT	G (F) P C	SCALING
CAP	G (F) P C	FINE CRACKS W/EFF ACTION
WINGS	G (F) P C	FINE CRACKS W/EFF ACTION
EMB.	(G) F P C	
VEG.	G (F) P C	MODERATE GROWTH
RIP-RAP	G F P C	N/A
SLOPE PAV.	G (F) P C	FINE CRACKS
BACKWALL	G F (P) C	SPALLED: 2" x 8" x 5"
EARTH QUAKE	(G)	
LIGHTS	(G)	

ESTIMATED QUANTITIES

	ITEM NO.	ITEM DESCRIPTION	UNIT	79-I40-5.09 L&R OVER WOLF RIVER	79-2819-4.93 OVER I40-6.60	79-I40-7.60 L&R OVER FAU 2821	79-I40-8.25 L&R OVER I.C.G.RAILROAD	79-4186-2.11 OVER I40-9.36	79-I40-9.50 L&R OVER WOLF RIVER	TOTAL QUANTITIES
(1)	602-10.39	STRUCTURAL STEEL BRIDGE (REPAIRS)	EACH				24			24
(2)	604-03.60	BRIDGE JOINT SEISMIC MODIFICATION	EACH	48	36	36	28	40	30	218
(3)	604-10.42	CONCRETE REPAIRS	C.F.	36						36
	712-01	TRAFFIC CONTROL	L.S.	0.17	0.16	0.16	0.17	0.17	0.17	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	500	440		620	460	400	2420
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH			10	18			28
	712-05.01	WARNING LIGHTS (TYPE A)	EACH		6	2	4	6		18
	712-06	SIGNS (CONSTRUCTION)	S.F.		116	44	120	116		396
(4)	712-05.03	WARNING LIGHTS (TYPE C)	EACH				8			8
(5)	712-06.10	NEW SIGNS (CONSTRUCTION)	S.F.	232					232	464
(6)	712-06.16	SIGNS (CONSTRUCTION) (REDUCE SPEED WARNING)	EACH	4	2			2	4	12
	717-01	MOBILIZATION	L.S.	0.17	0.16	0.16	0.17	0.17	0.17	1
	712-08.03	ARROW BOARDS (TYPE C)	EACH			1	2			3

(1) INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY TO PROVIDE STRUCTURAL STEEL LATERAL SEISMIC RESTRAINTS.

(2) INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY TO PROVIDE WIRE ROPE SEISMIC RESTRAINTS.

(3) INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY TO PROVIDE CONCRETE LATERAL SEISMIC RESTRAINTS.

(4) TO BE USED ON FLEXIBLE DRUMS THROUGH TAPERS.

(5) INCLUDES THE INSTALLATION AND MAINTENANCE OF A NEW SIGN PANEL, SHEETING AND SUPPORTS.

(6) ITEM TO BE USED ONLY WHEN CONTRACTOR ESTABLISHES A REDUCED SPEED LIMIT WITHIN THE PROJECT CONSTRUCTION WORK ZONE LIMITS. ITEM INCLUDES SIGN FACE, SUPPORTS AND TWO (2) TYPE "B" FLASHING LIGHTS AS PER THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TURNING ON THE TYPE "B" FLASHERS WHEN WORKERS ARE IN THE CONSTRUCTION WORK ZONE AND TURNING THEM OFF WHEN WORKERS ARE NO LONGER PRESENT IN THE CONSTRUCTION WORK ZONE.

GALVANIZING OF NEW STEEL

ALL NEW STEEL SHALL BE GALVANIZED TO ASTM A123 STANDARDS.

NOTE: ROADSIDE BANKS/SLOPES USED BY THE CONTRACTOR FOR WORK ACCESS, PARKING, AND ANY OTHER OPERATIONS THAT ARE DISTURBED BY HIS OPERATIONS SHALL BE REPAIRED BY REGRADING, RESEEDING, MULCHING OR WHATEVER MEANS ARE NECESSARY TO RESTORE THE BANKS/SLOPES TO THE ORIGINAL CONDITION. ALL RESTORATION WORK SHALL MEET THE FULL SATISFACTION OF THE ENGINEER. COST OF ALL RESTORATION WORK SHALL BE INCLUDED IN ITEMS BID ON.

DESIGNED BY BRIAN EGLI DATE 01/1998
DRAWN BY SCOTT C. NELSON DATE 01/1998
SUPERVISED BY M.LAWSON & T.CHRISTIANSON DATE 01/1998
CHECKED BY M. LAWSON & B. EGLI DATE 02/1998

UTILITY NOTES

THE LOCATION OF UTILITIES SHALL BE FIELD LOCATED BY THE CONTRACTOR, AND BY CONTACTING THE UTILITY COMPANIES INVOLVED. SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC. AT 1-800-351-1111.

UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO CO-OPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT.

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITIES PRIOR TO SUBMITTING HIS BID, IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF THE WORK FOR THE PROJECT. SOME UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS, WHILE SOME WORK MAY BE REQUIRED "AROUND" UTILITY FACILITIES THAT WILL REMAIN IN PLACE. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCE CAUSED BY THE UTILITY ADJUSTMENTS.

THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.

CONST. WORK ZONE TRAFFIC CONTROL

ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF SIGN FACE IS FULLY COVERED

IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPERATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) S.F. AND 712-06.10, NEW SIGNS (CONSTRUCTION) S.F.

A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS FLAGGER SIGNS MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS THIRY (30) FEET SETBACK, THE ENGINEER SHALL APPROVE ALTERNATE LOCATIONS.

THE CONTRACTOR WILL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC, UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO BE PARKED WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS THRITY (30) FEET SETBACK, THE ENGINEER SHALL APPROVE ALTERNATE LOCATIONS.

PROJECT NO.	YEAR	SHEET NO.
79959-4152-04	1998	2

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	4-6-98	BKE	REVISED QUANTITY & ADDED NOTE
2	5-8-98	BKE	ADDED GENERAL NOTE
3	5-15-98	BKE	ADDED GENERAL NOTE

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (MARCH 1, 1995 EDITION)

DESIGN SPECIFICATIONS: AASHTO 1992 EDITION WITH ADDENDA.

STRUCTURAL STEEL: SHALL CONFORM TO AASHTO M270 GRADE 36 (ASTM A709 GRADE 36) UNLESS OTHERWISE NOTED.

REINFORCING STEEL: SEE THE STANDARD SPECIFICATIONS.

GROUTED BARS IN DRILLED HOLES: HORIZONTALLY DRILLED HOLES SHALL BE DRILLED ½" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT AND BAR DRIVEN TO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED ¼" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT AND BAR DRIVEN TO ITS SEAT. ALL GROUTING MATERIAL SHALL BE APPROVED BY T.D.O.T. MATERIALS AND TESTS.

SHOP DRAWINGS: SHALL BE SUBMITTED ACCORDING TO SPECIAL PROVISION NO. 105A. EXCEPT SHOP DRAWINGS SHALL BE SUBMITTED TO THE HEADQUARTERS BRIDGE INSPECTION AND REPAIR OFFICE IN LIEU OF THE DIVISION OF STRUCTURES.

BOLTS: SHALL BE HIGH TENSILE STRENGTH BOLTS (ASTM-A325), UNLESS OTHERWISE NOTED. SIZE TO BE AS NOTED ON PLANS. SEE AASHTO SPECIFICATIONS: ARTICLE 11.5.6 DIVISION II. EXISTING CONTRACT SURFACES SHALL BE CLEANED TO SSPC-10 SPECIFICATIONS PRIOR TO ATTACHMENT OF NEW MEMBERS.

CONCRETE: TO BE CLASS 'A' CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

CONCRETE CURING: ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

WELDING: ANSI/AASHTO/AWS D1.5-88 BRIDGE WELDING CODE AND THE STANDARD SPECIFICATIONS.

SPECIAL NOTE TO CONTRACTOR: CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO INSURE THAT NO DEBRIS IS DROPPED INTO THE STREAM. ANY DEBRIS WHICH IS ALLOWED TO DROP ON THE BANKS BELOW THE BRIDGE SHALL NOT BE ALLOWED TO ENTER THE STREAM AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. COST OF REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN ITEMS BID ON.

NOTE: ALL STRUCTURAL STEEL FOR SEISMIC RESTRAINER AND LATERAL RESTRAINERS, EXCEPT FOR NON-CORROSIVE WIRE ROPE AND THIMBLES, SHALL BE FABRICATED BY AISC, SIMPLE SPAN BRIDGES CATEGORY, CERTIFIED SHOP.

(1) SPECIAL NOTE CONCERNING DRILLED ANCHORS: AT ALL LOCATIONS WHERE A DRILLCO MAXI-BOLT OR ANCHOR BOLT IS SPECIFIED, A WILLIAMS UNDERCUTTING ANCHOR SHALL BE ACCEPTABLE AS WELL AS THE DRILLCO MAXI-BOLT.

(2) WIRE ROPE: WIRE ROPE SHALL BE AS SPECIFIED IN AASHTO DESIGNATION M277-81(1990).

(3) WIRE ROPE CLIPS: EACH CONNECTION SHALL HAVE A MINIMUM OF FOUR (4) WIRE ROPE CLIPS AND CUMULATIVELY DEVELOP 125% OF THE YIELD STRESS OF THE WIRE ROPE. THIS YIELD STRESS SHALL BE VERIFIED BY TENNESSEE DEPARTMENT OF TRANSPORTATION MATERIALS AND TEST.

WAYNE J. SHEAR
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 19224
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED QUANTITIES AND GENERAL NOTES

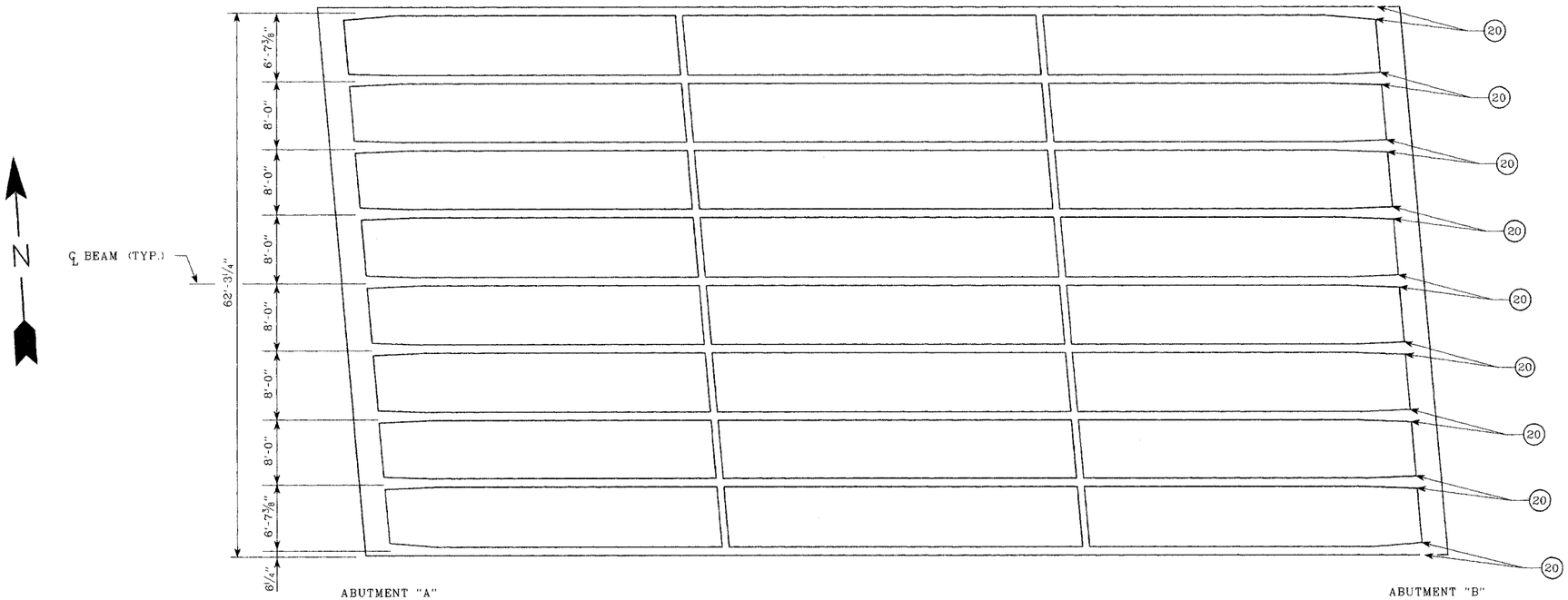
BRIDGE NO. 79-I40-5.09 (L&R)
BRIDGE NO. 79-2819-4.93
BRIDGE NO. 79-I40-7.60 (L&R)
BRIDGE NO. 79-I40-8.25 (L&R)
BRIDGE NO. 79-4186-2.11
BRIDGE NO. 79-I40-9.50 (L&R)
SHELBY COUNTY
1998

BR-33-29

PROJECT NO.	YEAR	SHEET NO.
79959-4152-04	1998	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	4-6-98	BKE	REVISED LIST OF DRAWINGS
2	4-15-98	BKE	REVISED LIST OF DRAWINGS
3	5-8-98	BKE	REVISED LIST OF DRAWINGS
4	5-15-98	BKE	REVISED LIST OF DRAWINGS



PLAN
(EASTBOUND)

NOTE:
DIMENSIONS GIVEN ARE RADIAL DIMENSIONS.
MEASUREMENTS ARE ACROSS BOTTOM OF BRIDGE.

LEGEND
(20) DENOTES: SEISMIC RESTRAINT TYPE (20). SEE DRAWING BR-33-45 AND BR-33-46 FOR DETAILS.

BRIDGE NO. 79I00400073 &
79I00400074

GENERAL SCOPE OF WORK

1) PROVIDE WIRE ROPE SEISMIC RESTRAINTS AT ABUTMENT "B" (TYPE 20). REFER TO LEGEND AND PLAN VIEW FOR DESCRIPTION AND LOCATIONS.

LIST OF DRAWINGS

4 5 2 0

DRAWING NO.	LAST REV. DATE	DRAWING
BR-33-34	5-15-98	SEISMIC RESTRAINER LAYOUT
BR-33-29	5-15-98	ESTIMATED QUANTITIES AND GENERAL NOTES
BR-33-45	4-15-98	LATERAL RESTRAINER DETAILS TYPE (20)
BR-33-46	4-15-98	LATERAL RESTRAINER DETAILS TYPE (20) CONTINUE
BR-33-49	5-8-98	BOLT INSTALLATION

LIST OF REFERENCE DRAWINGS

(TO BE PRINTED WITH PLANS)

DRAWING NO.	DRAWING
M-44-33, M-44-36 THRU 38, M-44-41 THRU 43	EXISTING BRIDGE DRAWNGS

LIST OF SPECIAL PROVISIONS

NO.	LAST REV. DATE	REGARDING
105A	**	APPROVAL OF SHOP DRAWINGS

** DENOTES: CURRENT REVISION DATE, AS PER CONTRACT DOCUMENTS.

WAYNE J. SEGLEM
REGISTERED ENGINEER
AGRICULTURE
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEISMIC RESTRAINER LAYOUT
INTERSTATE 40 (EASTBOUND) OVER
NORTH HOLLYWOOD STREET
BRIDGE NO. 79-I40-7.60
SHELBY COUNTY
1998

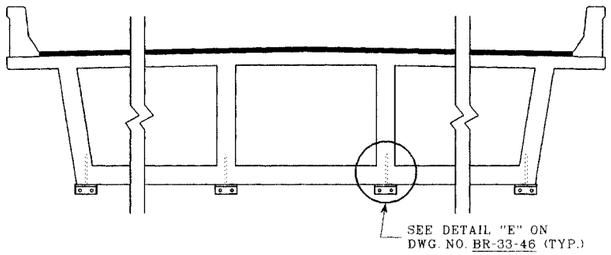
DESIGNED BY Brian Egli DATE September, 1997
DRAWN BY Cory Hawkins DATE December, 1997
SUPERVISED BY Mike Lawson, J. Christianson DATE December, 1997
CHECKED BY Mike Lawson, Brian Egli DATE February, 1998

BR-33-34

PROJECT NO.	YEAR	SHEET NO.
79959-4152-04	1998	

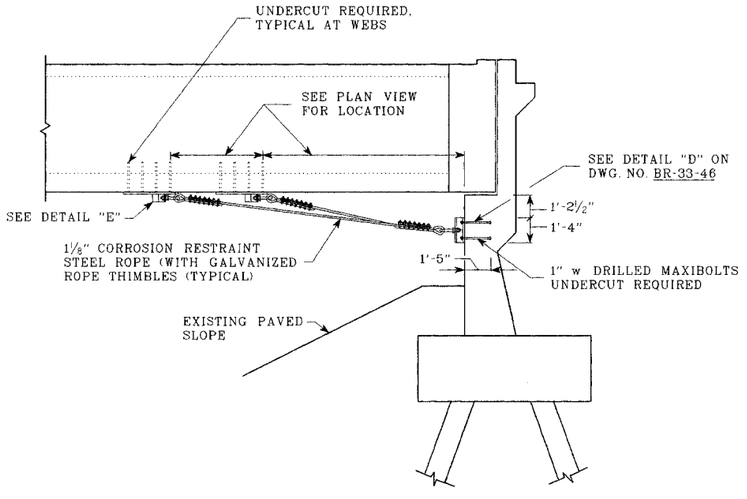
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	4-15-98	BKE	ADDED NUTS TO U-BOLTS

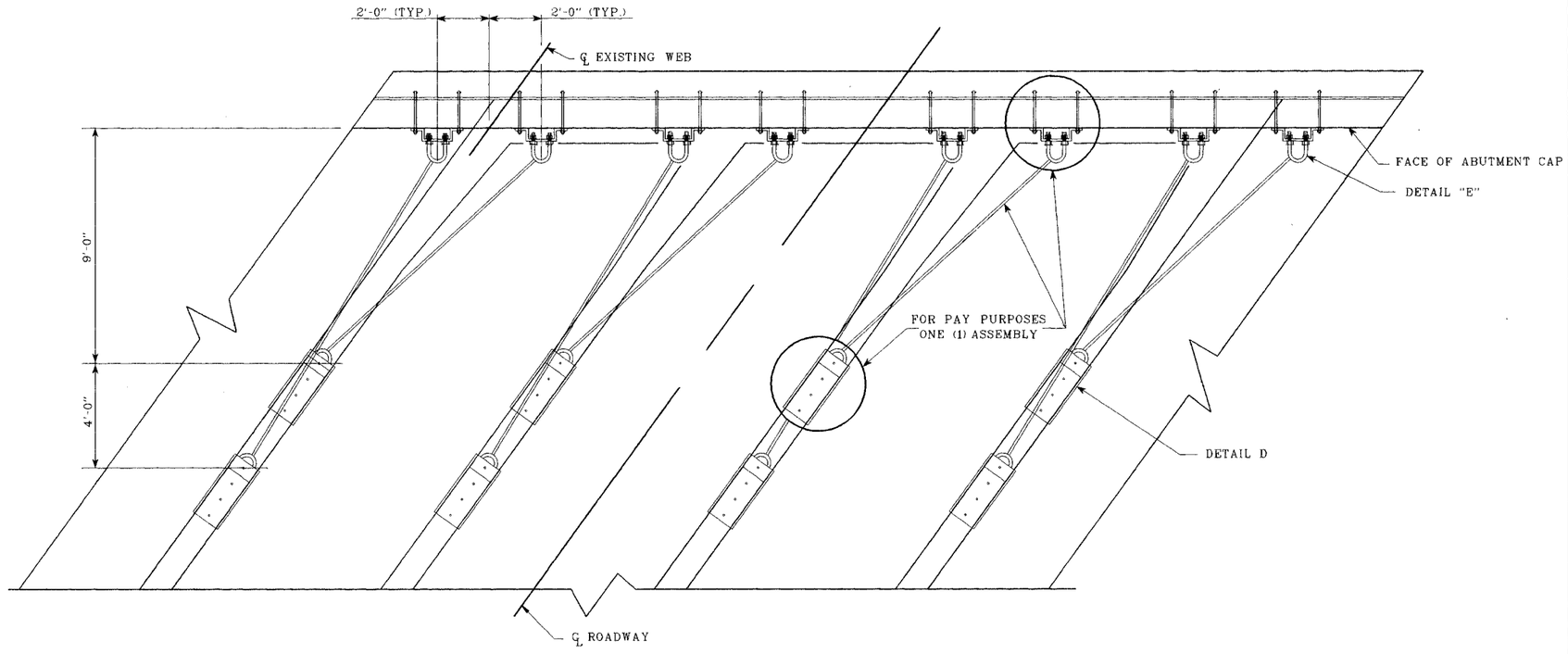


CROSS SECTION

SHOWING SEISMIC RESTRAINTS AT WEBS: TYPICAL AT BRIDGE NUMBERS:
(79-140-7.60 (8 CELLS), 79-2819-4.93 (8 CELLS) & 79-4186-2.11 (9 CELLS))



SEISMIC RESTRAINTS AT ABUTMENTS



PLAN SHOWING SEISMIC RESTRAINTS LOCATIONS

NOTES:

THESE DETAILS ARE APPLICABLE FOR THE FOLLOWING BRIDGES:
79-140-7.60, 79-2819-4.93 & 79-4186-2.11

FOR ADDITIONAL SEISMIC DETAILS, SEE DWG. NO. BR-33-46.

WAYNE J. SEIGLER
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NO. 19934
STATE OF TENNESSEE
12-29-98

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SEISMIC RESTRAINER DETAILS
TYPE (20)
SHELBY COUNTY
1998

DESIGNED BY Brian Egli DATE September, 1997
DRAWN BY Cory Staupins DATE December, 1997
SUPERVISED BY Mike Lawson, J. Christianson DATE December, 1997
CHECKED BY Mike Lawson, Brian Egli DATE February, 1998

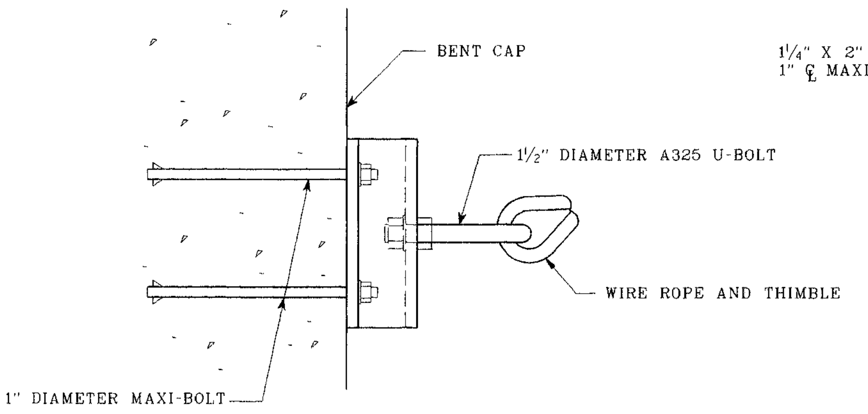
[1]SEISMIC RESTRAINT - BOX GIRDERS TYPE (20)

BR-33-45

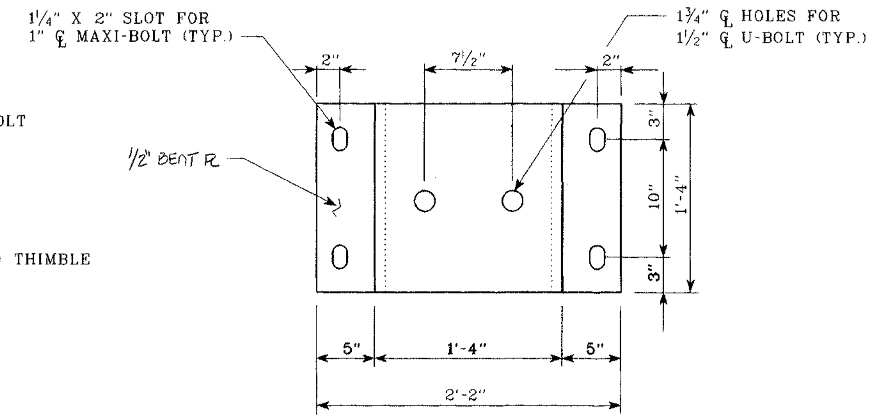
PROJECT NO.	YEAR	SHEET NO.
79959-4152-04	1998	

REVISIONS

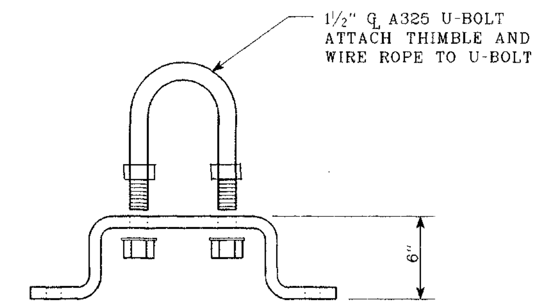
NO.	DATE	BY	BRIEF DESCRIPTION
1	4-15-98	BKE	ADDED NUT TO U-BOLT



DETAIL "D"



PLAN OF DETAIL "D"



SECTION OF DETAIL "D"

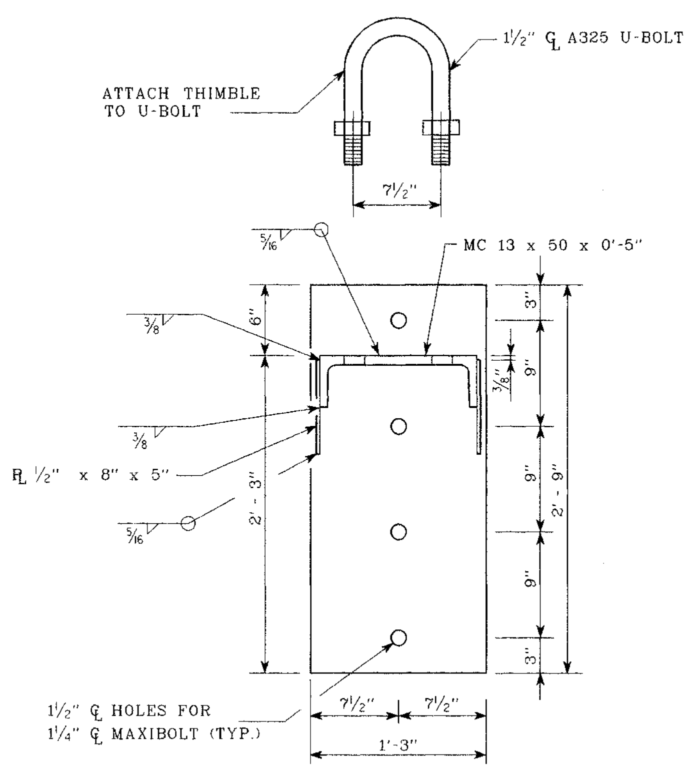
NOTES:

PROVIDE TYPE 20 SEISMIC RESTRAINTS AT BOTH ABUTMENTS AT BRIDGE NO. 79-2819-4.93 (36 ASSEMBLIES REQUIRED). ONE ABUTMENT AT BRIDGE NO.'S 79-140-7.60 (36 ASSEMBLIES REQUIRED) AND 79-4186-2.11 (40 ASSEMBLIES REQUIRED).

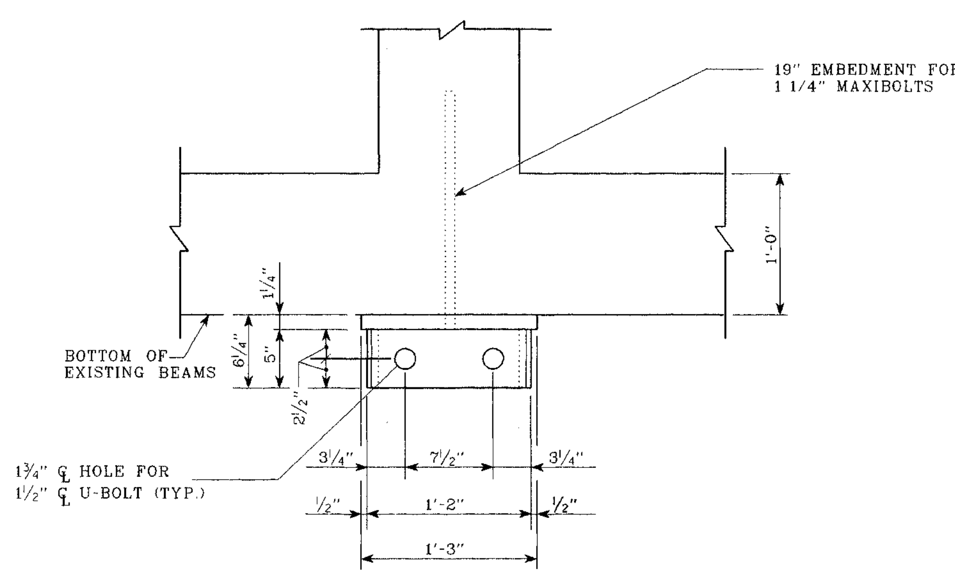
ALL STRUCTURAL STEEL PLATE AND SHAPES SHALL MEET ASTM A36, AND BOLTS AND RODS SHALL MEET ASTM A325. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

THE COST OF ALL LABOR AND MATERIALS REQUIRED FOR COMPLETE INSTALLATION OF TYPE 20 SEISMIC RESTRAINT IS TO BE INCLUDED IN THE PRICE BID FOR ITEM NO. 604-03.60, BRIDGE JOINT SEISMIC MODIFICATION, EACH. ONE (1) WIRE ROPE AND ACCOMPANYING PLATES, BOLTS, NUTS, RODS, AND WASHERS IS CONSIDERED ONE ASSEMBLY.

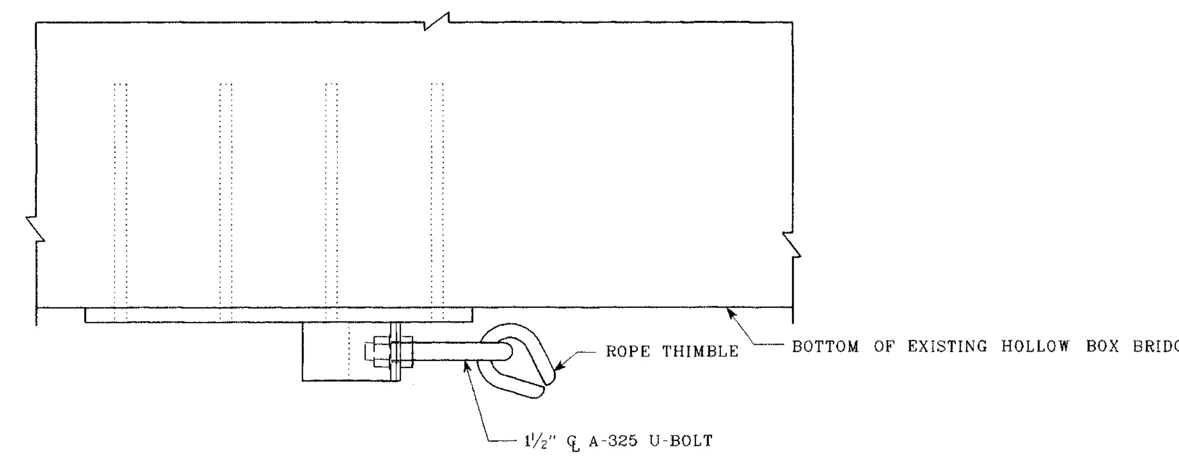
FOR PROCEDURES REGARDING THE INSTALLATION OF ANCHOR BOLTS SEE DWG. NO. BR-33-49.



PLAN OF DETAIL "E"



END VIEW OF DETAIL "E"



DETAIL "B"

①SEISMIC RESTRAINT - BOX GIRDERS TYPE ⑳ (CONTINUED)

DESIGNED BY	Brian Egli	DATE	September, 1997
DRAWN BY	Cory Hawkins	DATE	December, 1997
SUPERVISED BY	Mike Lawson, J. Christianson	DATE	December, 1997
CHECKED BY	Mike Lawson, Brian Egli	DATE	February, 1998

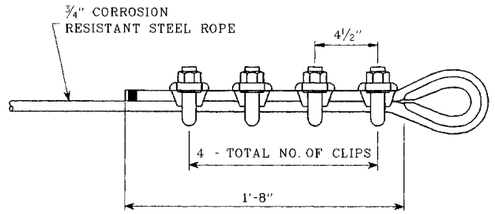
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SEISMIC RESTRAINER DETAIL
TYPE ⑳
SHELBY COUNTY
1998

BR-33-46

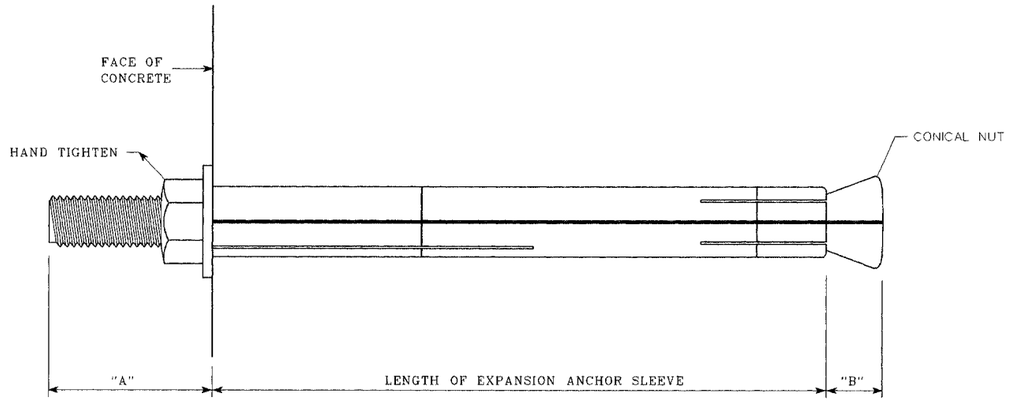
PROJECT NO.	YEAR	SHEET NO.
79959-4152-04	1998	

REVISIONS

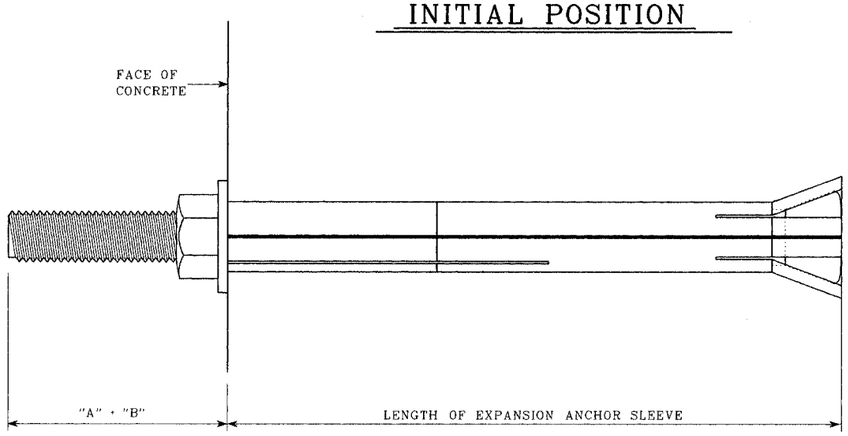
NO.	DATE	BY	BRIEF DESCRIPTION
1	5-8-98	B.K.E.	REVISED SHEET



WIRE ROPE CLIPS



INITIAL POSITION



SET POSITION

PROCEDURE FOR INSTALLATION OF ANCHOR BOLTS:

(3/4" DIAMETER DRILLCO MAXI-BOLT OR WILLIAMS BOLTS)(UNDERCUTING REQUIRED)

1. LOCATE PLACEMENT OF EXISTING REBAR IN VICINITY OF ANCHORS WITH A REBAR LOCATING DEVICE AND MAKE NECESSARY CORRECTIONS IN LOCATIONS OF ANCHORS ON CONCRETE. ANCHOR LOCATION MAY VARY PLUS OR MINUS 3 INCHES IN ANY DIRECTION BUT THE HOLE SHALL BE DRILLED WITHIN 6 DEGREES OF PERPENDICULAR TO THE NOMINAL CONCRETE SURFACE. CUTTING OF REBAR WILL BE ALLOWED.

2. HOLES SHALL BE DRILLED WITH A CARBIDE PERCUSSION DRILL BIT, A "REBAR EATER" BIT OR A DIAMOND CORE BIT.

3. THE DRILL BIT DIAMETER AND HOLE DEPTHS ARE SPECIFIED AS FOLLOWS:
   a) THE MAXIMUM DRILL BIT DIAMETER SHALL NOT EXCEED 1.172 INCH DIAMETER.
   b) THE HOLE DEPTH SHALL NOT BE LESS THAN THE ANCHOR EMBEDMENT PLUS 1½INCHES BUT MAY EXCEED THE SPECIFIED HOLE DEPTH BY NOT MORE THAN 1 INCH.

4. IF AN ANCHOR MUST BE RELOCATED AND A NEW HOLE DRILLED, THE OLD HOLE SHALL BE REPAIRED WITH A NON-SHRINKAGE PACK GROUT.

5. UNDERCUT IN PRIMARY HOLE SHALL BE AS SPECIFIED BY THE MANUFACTURER OF THE UNDERCUTTING TOOL.

6. CLEAN THE HOLE OF CONCRETE DUST AND DEBRIS USING OIL FREE COMPRESSED AIR OR BY VACUUMING. PLACE BEARING SLEEVE FLUSH WITH THE CONCRETE SURFACE.

7. THE EXPANSION SLEEVE IS TO EXPAND INTO THE UNDERCUT CREATED BY THE UNDERCUTTING TOOL THEREFORE THE ANCHOR TUBE MUST TERMINATE AT THE BASE OF THE UNDERCUT SECTION.

8. TO SET THE ANCHOR, IT IS NECESSARY TO DRAW THE CONICAL NUT OF THE STUD BOLT INTO THE ANCHOR SLEEVE. AFTER THE ASSEMBLY IS INSERTED INTO THE DRILLED HOLE, THE ANCHOR WILL BE CONSIDERED SET WHEN THE DIMENSION "A" (SEE ANCHOR SETTING DETAILS) HAS INCREASED BY AN AMOUNT EQUAL TO DIMENSION "B". AFTER THE STEEL PLATES ARE IN PLACE THE FINAL TENSION LOAD OF 28400 LBS. SHALL BE APPLIED. THE ANCHOR LOADS MAY BE APPLIED BY MANUAL TORQUING OR HYDRAULIC TENSIONING.

9. BECAUSE OF CLOSE TOLERANCE BETWEEN CONICAL NUT O.D. AND HOLE I.D. IT MAY BE NECESSARY TO LIGHTLY HAMMER THE ANCHOR INTO THE HOLE. IF HAMMERING IS NECESSARY, STEPS SHALL BE EMPLOYED WHICH WILL PREVENT DAMAGE TO THE STUD BOLT THREADS.

10. INSTALLATION PROCEDURES REQUIRED BY THE ANCHOR MANUFACTURER IN ADDITION TO THE INSTRUCTIONS LISTED ABOVE SHALL BE FOLLOWED.

11. BENT PLATES SHALL BE ASTM A709 (GRADE 36) MATERIAL GALVANIZED TO ASTM A123 STANDARD.

12. POSITION OF PLATE OR ANGLE ON BEAM:
    ABUTMENTS: THE PLATE OR ANGLE SHALL BE POSITIONED ON THE BEAM WITH CABLE IN THE FULL EXTENDED POSITION AND PLATE OR ANGLE POSITION MARKED. THE PLATE OR ANGLE SHALL THEN BE SHIFTED TOWARD THE ABUTMENT 3" AND THE ANCHOR BOLT LOCATIONS MARKED THROUGH THE PLATE OR ANGLE ANCHOR HOLES.
    BENTS (BEAM TO BEAM): AFTER ONE ANCHOR HAS BEEN ATTACHED THE ANGLE OF THE OTHER SHALL BE POSITIONED ON THE BEAM WITH CABLE IN THE FULL EXTENDED POSITION ANGLE POSITION MARKED. THE PLATE OR ANGLE SHALL THEN BE SHIFTED TOWARD THE BENT 3" AND THE ANCHOR BOLT LOCATIONS MARKED THROUGH THE ANGLE ANCHOR HOLE.

PROCEDURE FOR INSTALLATION OF ANCHOR BOLTS:

(3/4" ϕ HILTI BOLTS OR EQUAL)(NO UNDERCUTTING REQ'D)

1. INSTALLATION TO BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDED PROCEDURES.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ANCHOR SETTING DETAILS

BOLT INSTALLATION
SHELBY COUNTY
1998

DESIGNED BY Brian Egli DATE February, 1998
DRAWN BY Cory Hawkins DATE March, 1998
SUPERVISED BY Mike Lawson, T. Christianson DATE March, 1998
CHECKED BY Mike Lawson, Brian Egli DATE April, 1998

1

BR-33-49

NOTE: "E" DENOTES EXPANSION
"F" DENOTES FIXED
"H" DENOTES INTEGRAL

PROJECT NO.	YEAR	SHEET NO.
79007-4158-04	1985	14

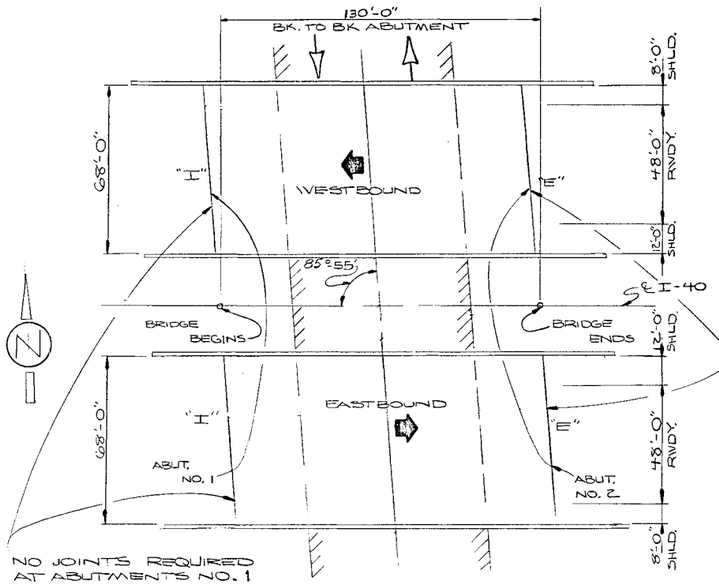
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

Scope of Work (General) Bridge No. 4

A. Remove and replace existing preformed elastic strip seal at abutment no. 2 both east & westbound lanes as shown in details type "E" on dwg. no. M-106-80.

B. Repave the existing east and westbound bridge decks including the approaches with new 1½" thick asphalt overlay as shown in details on dwg. no. M-106-75.



NO JOINTS REQUIRED AT ABUTMENTS NO. 1

NOTE TO CONTRACTOR: ABUTMENT NO. 1 IS INTEGRAL. ABUTMENT NO. 2 HAS AN EXISTING PREFORMED ELASTIC STRIP SEAL THAT IS TO BE REMOVED AND REPLACED WITH THE EXPANSION JOINT REPLACEMENT DETAIL TYPE "E" (SEE DWG. NO. M-106-80) ITEM NO. 604-10.41. SET NEW JOINT 2" @ 60° F WITH A TOTAL MOVEMENT OF 4" REQUIRED AT ABUTMENTS NO. 2 ONLY. EAST AND WESTBOUND LANES.

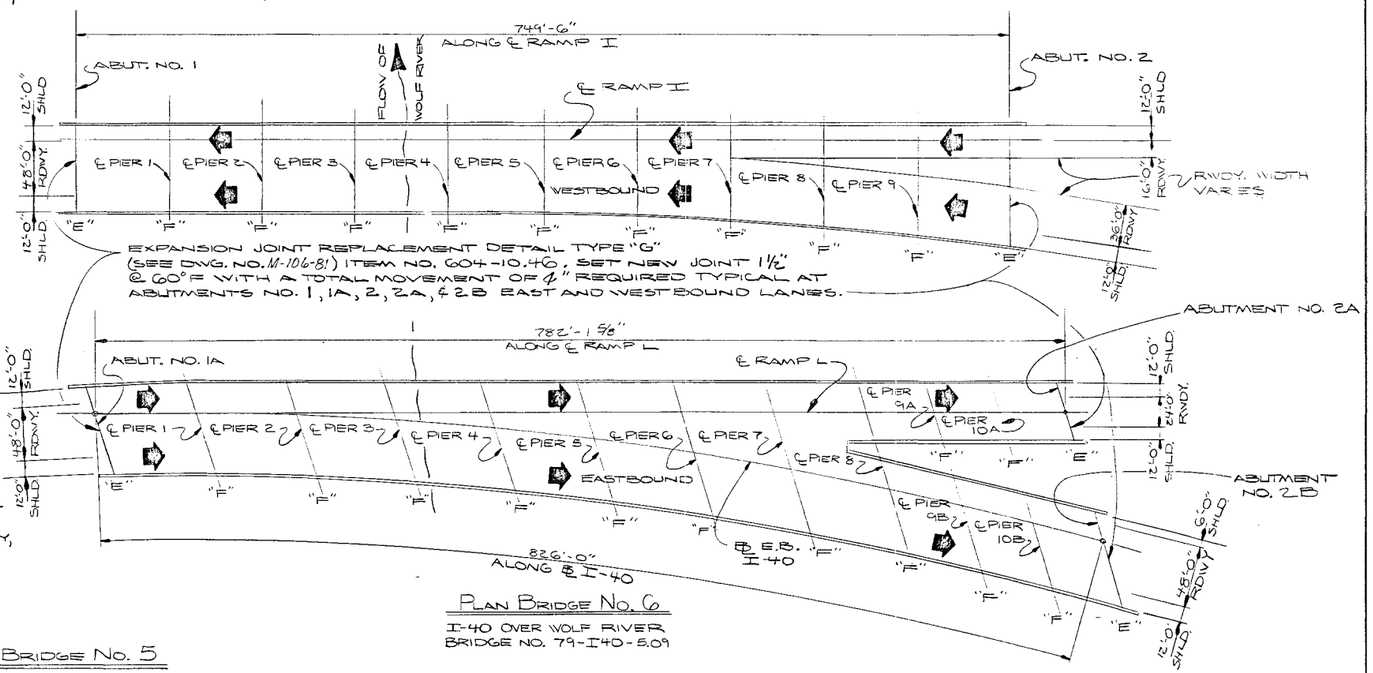
Plan Bridge No. 4

H-40 OVER HOLLYWOOD STREET
BRIDGE NO. 79-H40-7.60

Scope of Work (General) Bridge No. 6

A. Remove and repair existing expansion joints at abutments no. 1 & 2 both east and westbound lanes as shown in details type "G" on dwg. no. M-106-81.

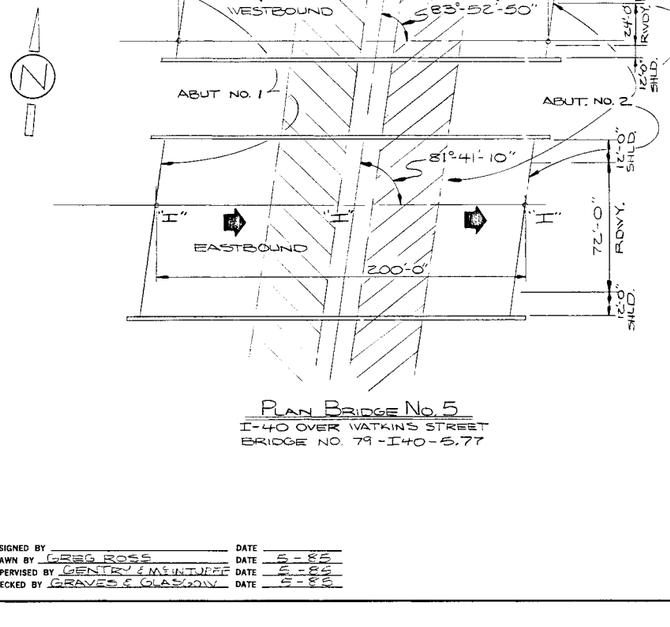
B. Repave the existing east and westbound bridge decks including the approaches with new 1½" thick asphalt overlay as shown in details on dwg. no. M-106-75.



EXPANSION JOINT REPLACEMENT DETAIL TYPE "G" (SEE DWG. NO. M-106-81) ITEM NO. 604-10.46, SET NEW JOINT 1½" @ 60°F WITH A TOTAL MOVEMENT OF 4" REQUIRED TYPICAL AT ABUTMENTS NO. 1, 1A, 2, 2A, & 2B EAST AND WESTBOUND LANES.

Plan Bridge No. 6

I-40 OVER WOLF RIVER
BRIDGE NO. 79-I40-5.09



RWDY VARIES

NOTE TO CONTRACTOR: THIS BRIDGE IS INTEGRAL ON BOTH ENDS. THERE WILL BE NO EXPANSION JOINT REPLACEMENT ON THIS BRIDGE. THIS BRIDGE TO BE PAVED OVER WITH 1½" ASPHALT OVERLAY, WITH A 75'-0" TAPER AT EACH END OF BRIDGE.

Scope of Work (General) Bridge No. 5

A. Repave the existing east and westbound bridge decks including the approaches with new 1½" thick asphalt overlay as shown in details on dwg. no. M-106-75.

Plan Bridge No. 5

I-40 OVER WATKINS STREET
BRIDGE NO. 79-I40-5.77

BRIDGE NO. 79I00400073 & 79I00400074

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

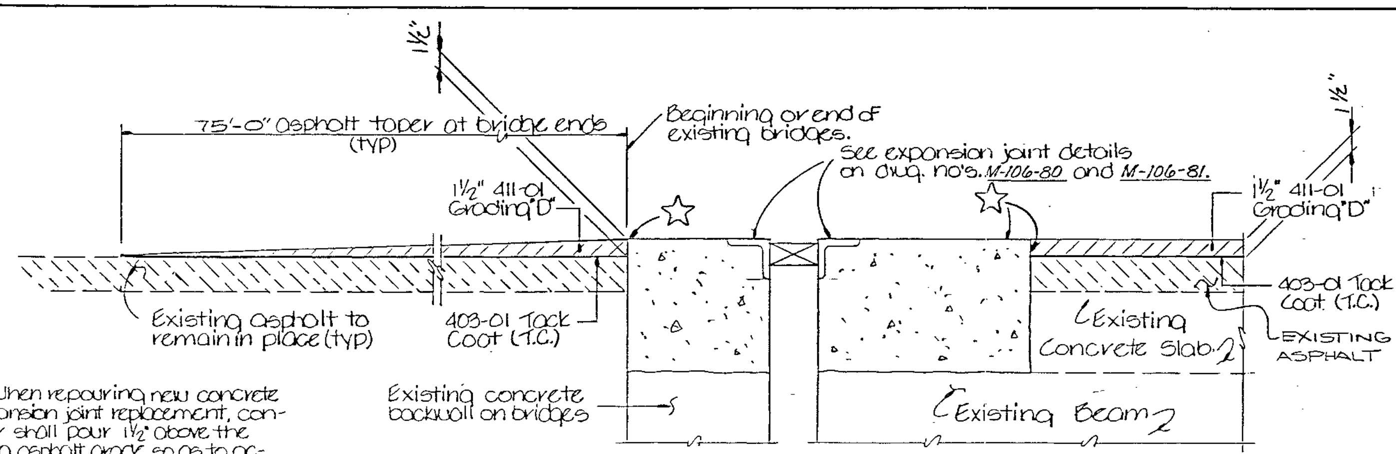
BRIDGE REPAIR FOR BRIDGES NO. 4 THRU 6.
INTERSTATE 40
SHELBY COUNTY
1985

DESIGNED BY
DRAWN BY GREG ROSS DATE 5-85
SUPERVISED BY GENTRY & MSINTOFF DATE 5-85
CHECKED BY GRAVES & GLASGOW DATE 5-85

CORRECT Clellan L Lovell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-106-74

BRUNING 44-141 61318



☆ Note: When repouring new concrete for expansion joint replacement, contractor shall pour 1½" above the existing asphalt grade so as to accomodate the new 1½" Grading "D" asphalt overlay.

SECTION SHOWING PAVING AND EXPANSION JOINT REPLACEMENT DETAILS

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING OF ALL EXISTING BRIDGE DECK DRAINS. WHEN PLACING THE NEW 1½" ASPHALT OVERLAY CARE SHALL BE TAKEN SO AS TO TAPER THE NEW OVERLAY AROUND THE BRIDGE DECK DRAINS. COST OF CLEANING THE DRAINS AND TAPERING THE NEW ASPHALT OVERLAY SHALL BE INCLUDED IN COST OF ITEMS BID ON.

PROJECT NO.	YEAR	SHEET NO.
79007-4158-04	1985	15

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED QUANTITIES

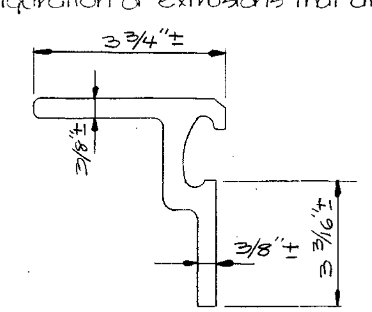
ITEM NO.	ITEM	UNIT		BRIDGE NO. 4 I-40/ HOLLYWOOD ST. BRIDGE NO. 79-I40-7.60	BRIDGE NO. 5 I-40/ WATKINS ST. BRIDGE NO. 79-I40-5.77	BRIDGE NO. 6 I-40/WOLF RIVER BRIDGE NO. 79-I40-5.09	TOTAL
403-01	Bituminous Material for tack Coat (T.C.)	Ton		.75	.75	1.5	3
① 411-01.01	Mineral Aggregate for Asphaltic Concrete Surface (ACS) Gr. "D"	Ton		227	381	1230	1838
411-01.02	Asphalt Cement for Asphaltic Concrete Surface (ACS) Gr. "D"	Ton		15	24	79	118
② 604-10.41	Expansion Joint Repair (Type "E")	L.F.		138	—	—	138
604-10.46	Expansion Joint Repair (Type "G")	L.F.		—	—	378	378

① DENOTES ITEMS FOR NEW 1½" ASPHALT OVERLAY ON BRIDGES NO. 4 THRU 6. SEE PAVING DETAILS ABOVE AND PLAN OF BRIDGES ON DWG. NO M-106-74

② DENOTES EXPANSION JOINT REPAIR ON BRIDGES NO. 4, & 6. SEE DETAILS AND NOTES ON DWG. NO'S. M-106-76, M-106-77, M-106-80, M-106-81, AND SEE SPECIAL NOTE BELOW.

Special Note Concerning Expansion Joint Repair Bid Item No's. 604-10.41, and 604-10.46.

The contractor shall inspect 450± Feet (22 individual pieces) of steel extrusions that are stored at the State Construction Office, located on Centennial Blvd. in Nashville, prior to submitting a bid for items no. 604-10.41 and 604-10.46. These extrusions are state property. The successful bidder on this project shall make provisions for picking up the extrusions and utilizing as much of the 450± Feet as reasonably possible in the fabrication of the expansion joints specified in item's no. 604-10.41 and 604-10.46. Shop drawings for the expansion joints shall show each individual piece of these extrusions and where they are used. See detail below for configuration of extrusions that are stock piled at the State Construction Office.



Extrusion Detail
STOCK PILED BY STATE

GENERAL NOTES:

DESIGN SPECIFICATION: AASHTO 1983 EDITION.

SPECIFICATIONS: STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (MARCH, 1981 EDITION).

LIST OF DRAWINGS

DRAWING	DWG. NO.	LAST REV. DATE
BRIDGE REPAIR DETAILS	M-106-74	
BRIDGE REPAIR AND ESTIMATED QUANTITIES	M-106-75	

REFERENCE DRAWINGS

BRIDGE NO. 4 M-44-33, 37, 38, 41
BRIDGE NO. 5 M-44-1, 9, & 10
BRIDGE NO. 6 M-44-70, 72, 73, 81, 91, 94, 108, 109, 110, & 111

LIST OF DRAWINGS TO BE PRINTED WITH PLANS

DRAWING	DWG. NO.	LAST REV. DATE
STRIP SEAL EXPANSION JOINTS REPLACEMENT CONSTRUCTION TYPE "E"	M-106-80	
STRIP SEAL EXPANSION JOINTS REPLACEMENT CONSTRUCTION TYPE "G"	M-106-81	
GENERAL NOTES FOR EXPANSION JOINT REPLACEMENT CONSTRUCTION TYPES "A" THRU "J"	M-106-76	
EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "A" THRU "J"	M-106-77	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

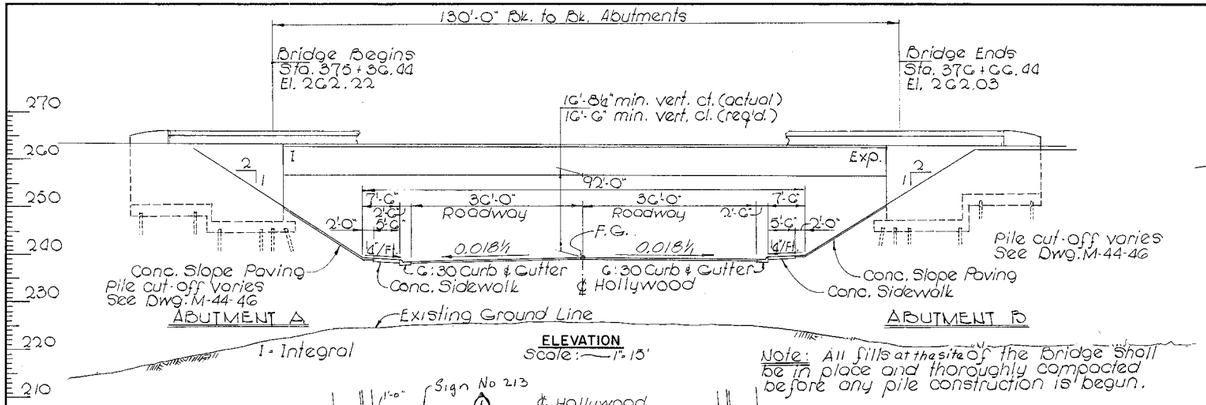
BRIDGE REPAIR AND ESTIMATED QUANTITIES FOR BRIDGES NO. 4 THRU 6
INTERSTATE 40
SHELBY COUNTY
1985

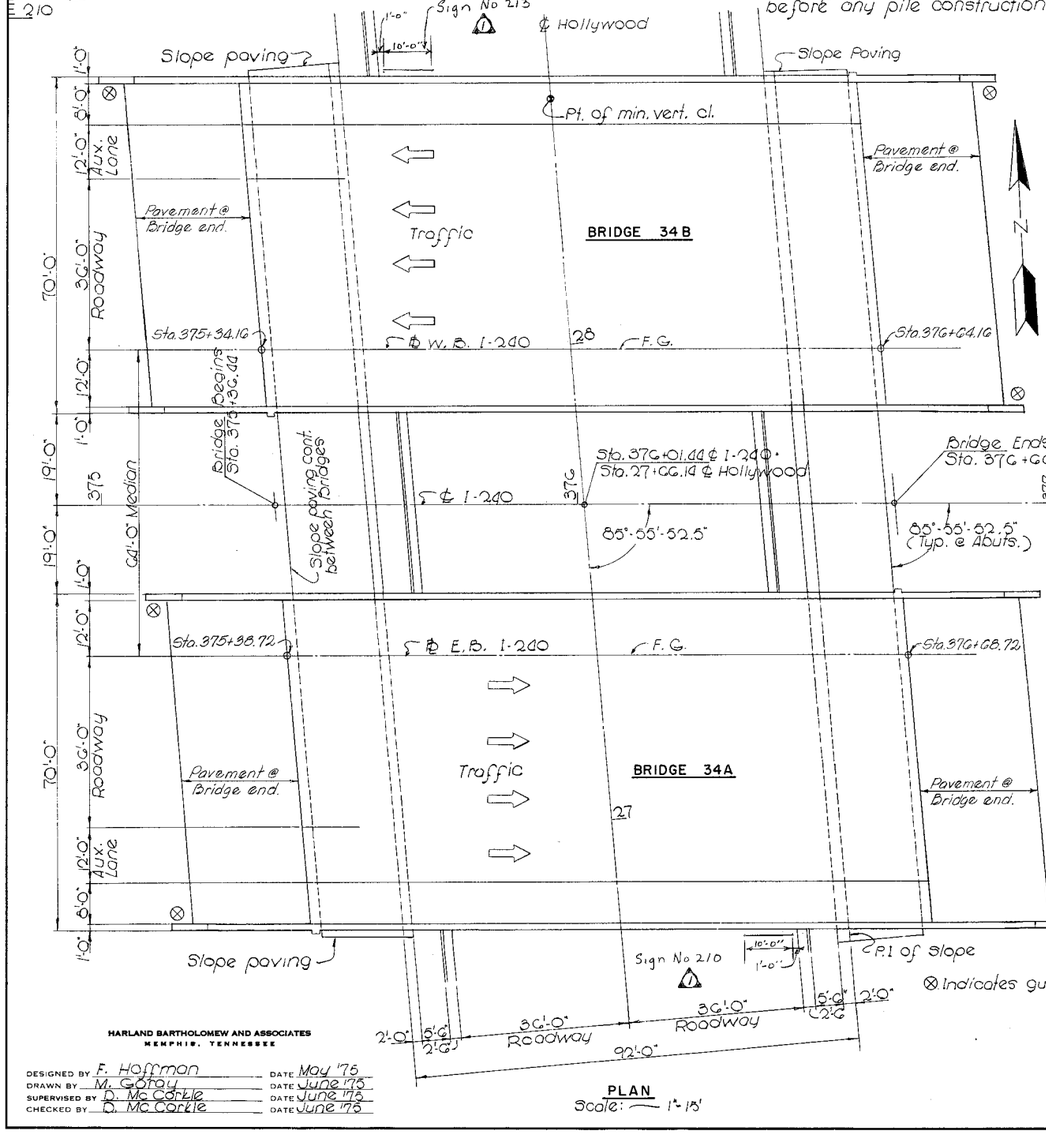
CORRECT Clellon L. Lovell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

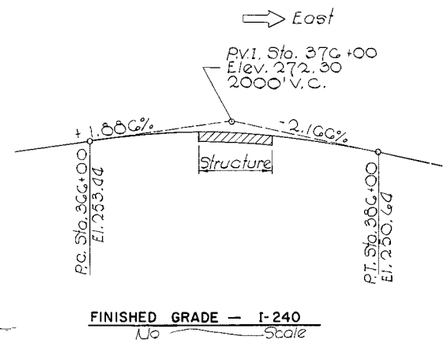
DESIGNED BY ______ DATE ______
DRAWN BY GLASGOW & ROSS DATE 6-85
SUPERVISED BY GENTRY & McINTURFF DATE 6-85
CHECKED BY GRAVES & HALL DATE 6-85

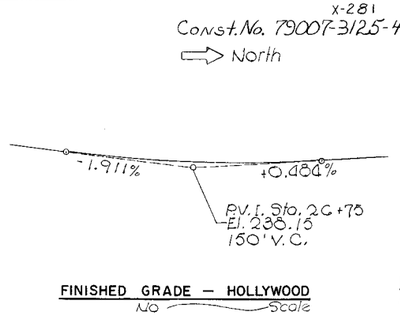
M-106-75

BRUNING 44-141 61318









PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(52)6	1975	

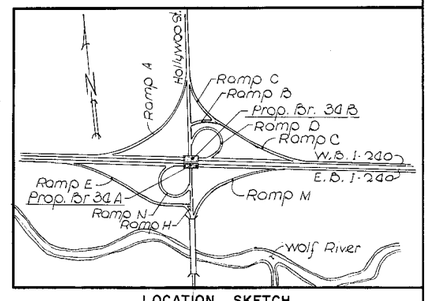
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	6/9/78	ELD	Showed location of Signs No 210 & 213

NOTES:
1. See Dwg. M-44-34 for General Notes and Summary of Estimated Quantities.

INDEX OF DRAWINGS	
DWG. NO.	TITLE
M-44-33	Bridge Layout
M-44-34	General Notes & Estimated Quantities.
M-44-35	Abutment A - E. B. Lanes
M-44-36	Abutment A - W. B. Lanes
M-44-37	Abutment B - E. B. Lanes
M-44-38	Abutment B - W. B. Lanes
M-44-39	Abutment Details
M-44-40	Footing Plan
M-44-41	Typical Sections
M-44-42	Top Slab Plan
M-44-43	Bottom Slab Plan
M-44-44	Post Tensioning Details
M-44-45	Screed Elevations
M-44-46	Foundation Data
M-8-149	Light Standard Support Details
M-28-1	Bridge Railing
K-80-14	Reinf. Bar Support Details.
K-86-104	Reinf. Conc. Pavement at Bridge Ends
H-5-111	Standard Pile Details
K-80-130	Preformed Elastic Joint Sealer
K-85-150	Standard Misc. Abutment & Drainage Details

BRIDGE NO. 79I00400073 & 79I00400074



LOCATION SKETCH

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.

BRIDGE LAYOUT
STA. 376+01.44

SHELBY COUNTY

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE May '75
DRAWN BY M. Gotay DATE June '75
SUPERVISED BY D. McCorkle DATE June '75
CHECKED BY D. McCorkle DATE June '75

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-33

Class "A" Grading "D" 2650 Cu. Yd. Bridge Deck Sealant 2650 Sq. Yd.

CONST. No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)6	1975	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

GENERAL NOTES

1. SPECIFICATIONS: Standard Road and Bridge Specifications of the Tennessee Department of Highways (1968 Edition)

2. LOADING: HS-20-44 and Alternate Military.

3. DESIGN SPECIFICATIONS: 1973 AASHO and Addenda.

4. CONCRETE: To be Class "A" f'c = 4000 psi for Superstructure concrete & 3000 psi for Substructure and parapets. See Special Provision Regarding Section 604 Concrete Structures.

5. REINFORCING STEEL: To be ASTM A615 Grade 60. Standard CRSI hook details apply unless otherwise noted on Bill of Steel. Bending dimensions shown are based on Grade 60 Steel. Spacing dimensions are center to center unless otherwise noted on detail drawings.

6. BRIDGE RAIL: Build bridge rail in accordance with Tenn. Std. Dwg. M-28-1

7. FINISHING CONCRETE SURFACES: Concrete finishing shall be in accordance with Section 604.22 of the Tennesse Standard Specifications except as modified by the Special Provision Regarding Section 604-Concrete Structures. A Textured Coated Finish shall be used in lieu of a Class 2 Finish. The color of the finish shall be similar to Federal Specification No. (See detail) Federal Color Standard 595a, and a color sample shall be Submitted to the Engineer of Structures for approval. All exposed concrete Surfaces, including concrete parapets and wingposts, piers and abutments above grade (but not including bridge slab), shall receive a textured coated finish.

8. FOUNDATION NOTE: FRICTION PILES: After excavating to the proposed footing elevations a test pile shall be driven at each substructure at the locations designated on drawing number M-44-40 . A load test will then applied to the test pile on Abut A-E.B. Lanes and Abut. B-W.B. Lanes. The load test shall be in accordance with Special Provision Regarding Load Test For Friction Piles." From the results of the load test the Engineer of Structures will determine final pile tip elevations. For pile design loads, cut-off elevations and pile tip elevations see table on Dwg. No. M-44-46.

9. Alternate piles: The contractor may use piling of a different materials or configuration from that shown on the plans provided the substitution meets minimum design standards and specifications, is approved by the Engineer and conforms to conditions established by the Special Provision No. 131, Regarding Section 606, Piling dated October 1, 1975.

11. LOADING TESTS: See Special Provision Regarding Load Teste for Friction Piles.

12. BRIDGE DECK SEALANT: The Bridge deck and reinforced approach slab shall be sealed in a future paving contract (2650 Sq. Yds. required.)

13. BRIDGE DECK FORMS: Bridge deck forms for concrete decks shall be constructed using either removable forms or permanent forms. In either case, forms shall be attached by means other than welding to support members. See Special Provision No. 450, "Special Provision Regarding Permanent Steel Bridge Deck Forms," Revised November 9, 1973.

14. POST TENSIONING: See Special Provision No. 560, Special Provision Regarding Post-Tensioned Prestressed Concrete and Notes on Dwg. M-44-44.

15. LINSEED OIL PROTECTIVE TREATMENT: Surfaces receiving a Textured Coated Finish shall not receive a linseed oil treatment. See Special Provisions regarding Section 604 - Concrete Structures.

16. BEARING DEVICES: In lieu of the bearing devices shown on these plans the Contractor may submit shop plans and design calculations of alternate bearing devices to the Engineer of Structures for approval. Bearing seat elevations shall be adjusted to compensate for differances in bearing heights. The bearings shall be capable of providing the following minimum requirements under service loads. (Laminated pads - 50 durometer req'd., plain pads - 70 durometer req'd.)

Total Movement - 7/8"
Dead Load Reaction - 150^K
Live Load Reaction - 35^K
Total (D.L.+L.L.+Z) Reaction - 185^K

QUANTITY NOTES

(1) Excavation based on lower roadway profile.

(2) See Alternate Pile note.

(3) The cost of polyethylene sheeting and all miscellaneous items necessary for installation to be included in the cost of perforated C.M. Pipe.

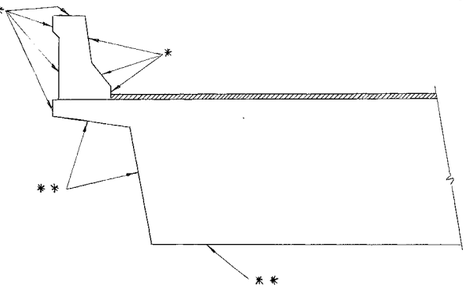
(4) Lump Sum for Structure Lighting includes 425± lin.ft. 2"ϕ conduit with pull wires, 130± lin.ft. 1"ϕ conduit with pull wires, 4 pull boxes, 6 conduilets, and 8 anchor bolts on each structure and all necessary materials for installation of future struct. lighting.

(5) The cost of 16 threaded steel inserts and 16-7/8"ϕ x 4" hex head bolts (A 307) shall be included in Bridge Items bid on.

(6) Quantity given is out-to-out of wingposts.

(7) The cost of light standard base including concrete and reinforcing to be included in price bid for bridge parapet.

(8) The cost of bituminous fiberboard, 2"ϕ Abutment drains and miscellaneous joint material to be included in bridge items bid on.



* Similar to Beige (Fed. Spec. No. 33690)
** Similar to Olive (Fed. Spec. No. 34258)

In addition to the above surfaces, all exposed Surfaces of abutments, wingwalls and wingposts & slope paving shall receive a texture coating finish Similar to Beige (Fed. Spec. No. 33690).

TEXTURED COATING DETAIL

SUMMARY OF ESTIMATED QUANTITIES

Item No.		204-02.01	604-03.01	604-03.02	604-25.04	606-09.01	606-09.02	606-09.03	615-05.03	616-08.	710-10	710-11	714-01.03	604-08.08	602-05.07	908-21.02
Description		Dry Excavation (Bridges)(1)	Class A Concrete (Bridges)	Steel Bar Reinforcement (Bridges)	Textured Coated Finish	Test Piles (Precast Conc. Size 1) (2)	Loading Test (Precast Conc. Size 1) (2)	Precast Conc. Piles - Size 1 (2)	Post-Tensioning	Concrete Parapet (6) (7)	6"ϕ Perf. C.M.P. (18ga) w/Porous Backfill (3)	6"ϕ C.M.P. underdrains (18 ga.)	Structure Lighting (4)	Linseed Oil Treatment	Preformed Elastic Joint Sealer Type I	Bearings (Laminated) E 1
Unit		Cu. Yds.	Cu. Yds.	Lbs.	Sq. Yds.	Lin. Ft.	Each	Lin. Ft.	Lump Sum	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lump Sum	Sq. Yds.	Lin. Ft.	Each
Bridge 34A	Abutment A	280	203.0	16,994	300	40		2260			135	4			67	
	Abutment B	280	225.9	17,282	300	40	1	2260			135	4		136	67	
	Pvmt at Br. Ends		139.9	33,046				80						362		
	Superstructure		620.4	108,217	1410				.5	376			.5	946		9
Bridge 34B	Abutment A	280	203.0	16,994	300	45	1	2535			135	4			67	
	Abutment B	280	225.9	17,282	300	40		2260			135	4		136	67	
	Pvmt at Br. Ends		139.9	33,046				80						362		
	Superstructure		620.4	108,217	1410				.5	376			.5	946		9
Total		1120	2378.4	351,678	4020	165	2	9475	1	752	540	16	1	2888	268	18

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE April 1975
DRAWN BY M. Gacay DATE April 1975
SUPERVISED BY D. McCorkle DATE April 1975
CHECKED BY D. McCorkle DATE April 1975

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.
GENERAL NOTES AND ESTIMATED QUANTITIES
STA. 376+01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-34

MICROFILMED

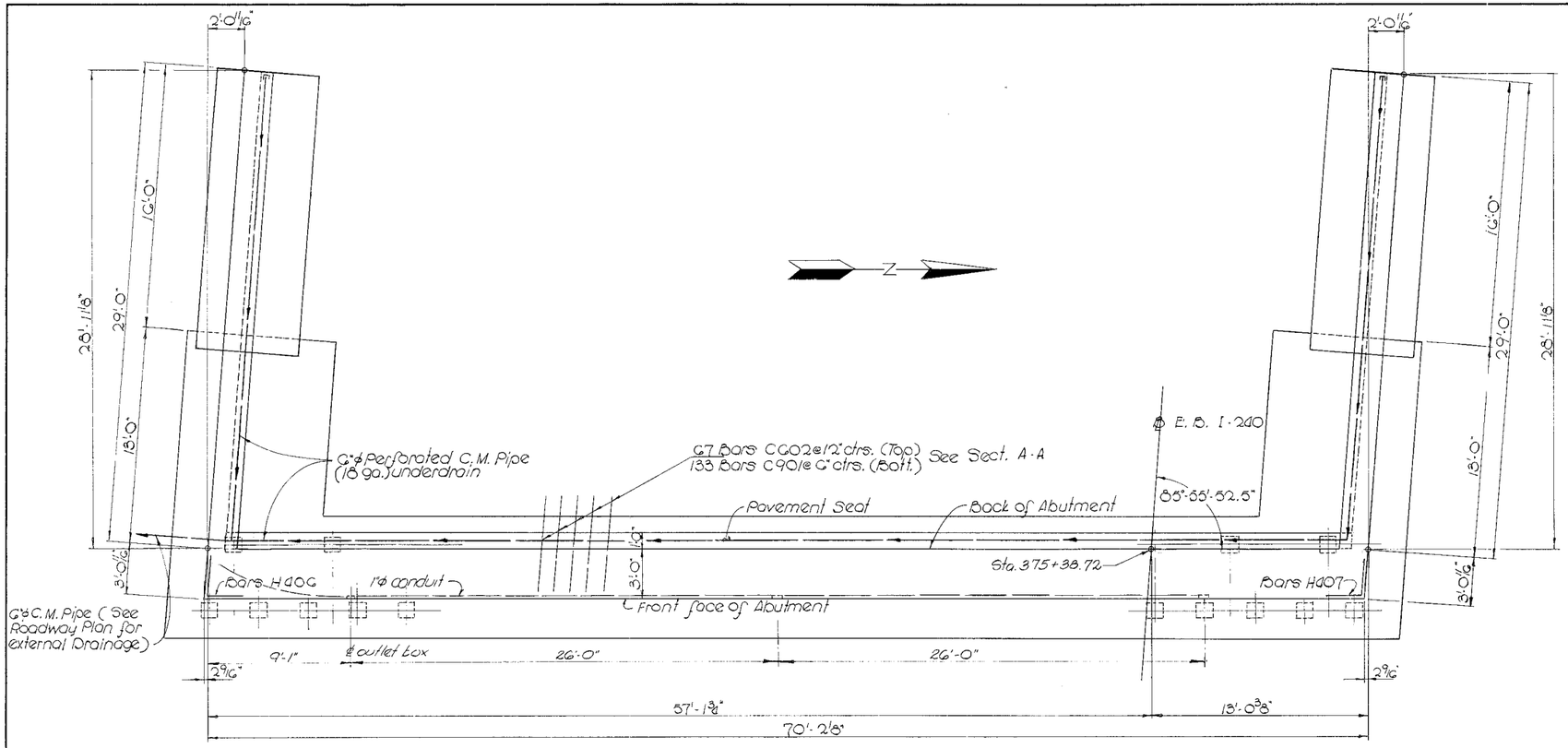
N1545

PROJECT NO.	YEAR	SHEET NO.
EAC I 240-1(132)6	1975	

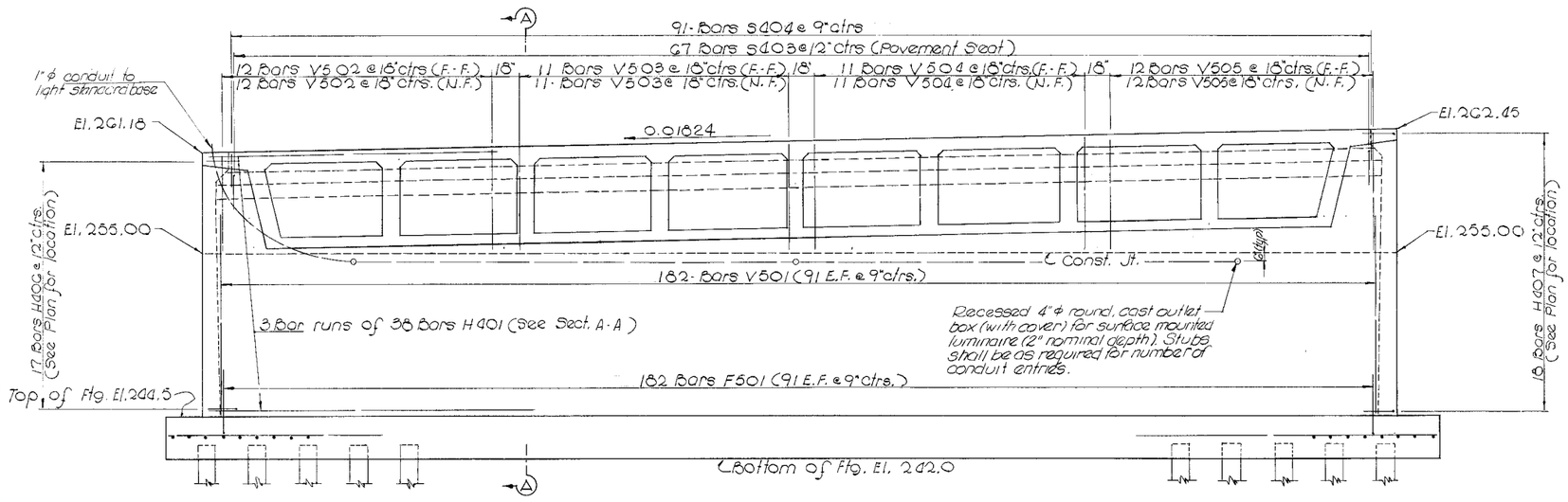
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

CONST. NO. 79007-3125-44



PLAN
Scale: — 1/8" = 1'-0"



ELEVATION
Scale: — 1/8" = 1'-0"

NOTES:

1. See Dwg. M-44-40 for Footing Layout, Bill of Steel and number and location of piles.
2. See Std. Dwg. M-28-1 for parapet & wingpost reinforcement to be placed in wingwall.
3. See Dwg. M-44-39 for Elevation View of Wings.
4. See Dwg. M-44-36 for Section A-A.

Note: Cost of Wingposts is to be included in the cost of the Bridge Rail System.

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY	F. Hoffman	DATE	June 1976
DRAWN BY	M. Gorday	DATE	June 1976
SUPERVISED BY	D. McCorkle	DATE	June 1976
CHECKED BY	D. McCorkle	DATE	June 1976

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.

ABUTMENT A - E. B. LANES
STA. 376+01.44

SHELBY COUNTY

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-44-35

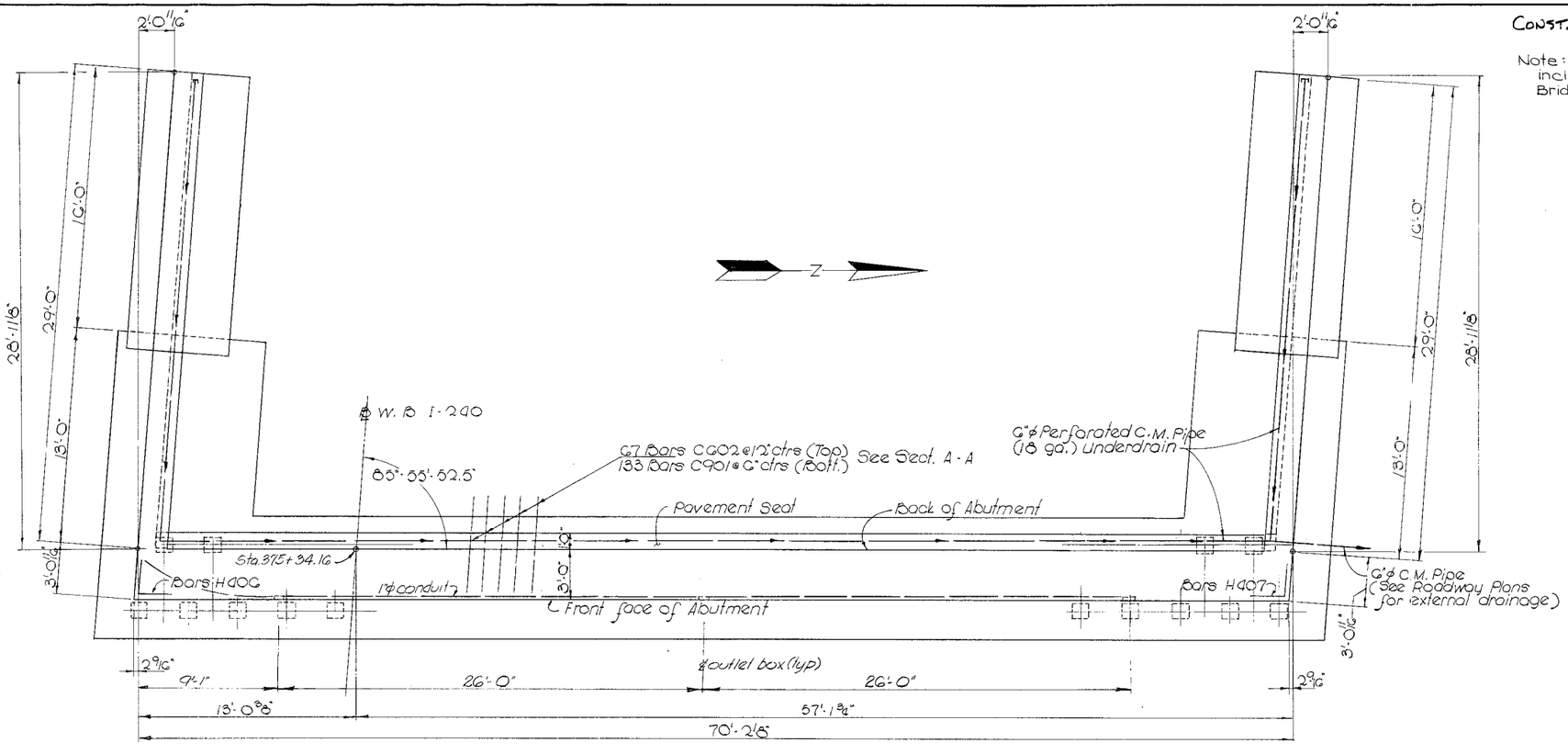
CONST. No. 79007-3125-44

Note: Cost of Wingposts is to be included in the cost of the Bridgerail System.

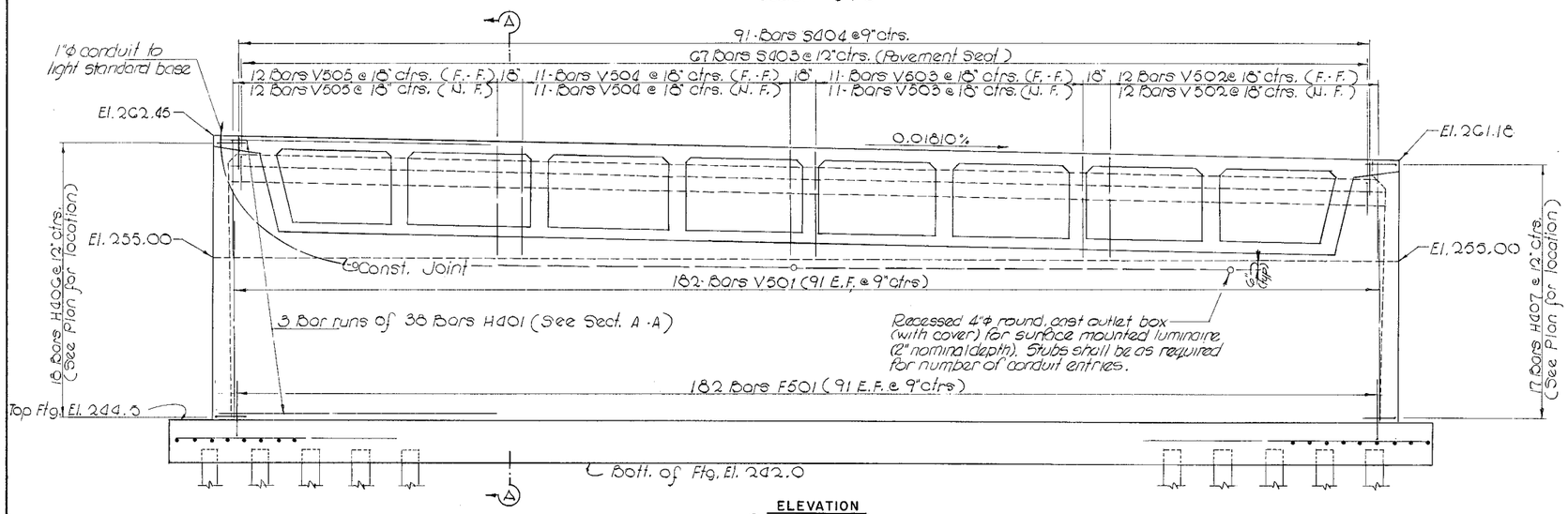
PROJECT NO.	YEAR	SHEET NO.
EACI-240-1(132)6	1975	

REVISIONS

NO	DATE	BY	BRIEF DESCRIPTION



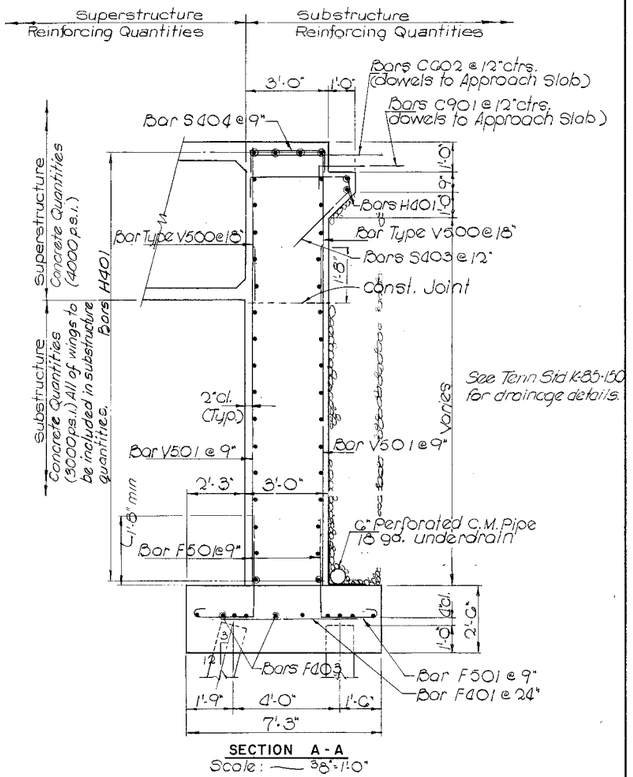
PLAN
Scale: 1/4" = 1'-0"



ELEVATION
Scale: 1/4" = 1'-0"

NOTES:
1. See Dwg. M-44-40 for Footing Layout, Bill of Steel and number and location of piles.
2. See Std. Dwg. M-28-1 for parapet & wingpost reinforcement to be placed in Wingwalls.
3. See Dwg. M-44-39 for Elevation View of Wings.

Superstructure Reinforcing Quantities
Substructure Reinforcing Quantities



SECTION A-A
Scale: 3/8" = 1'-0"

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
1-240 OVER HOLLYWOOD ST.

ABUTMENT A - W. B. LANES
STA. 376+01.44

SHELBY COUNTY

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE June '75
DRAWN BY M. Gatlay DATE June '75
SUPERVISED BY D. McCorkle DATE June '75
CHECKED BY D. McCorkle DATE June '75

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-36

MICROFILMED

CONST. No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)6	1975	

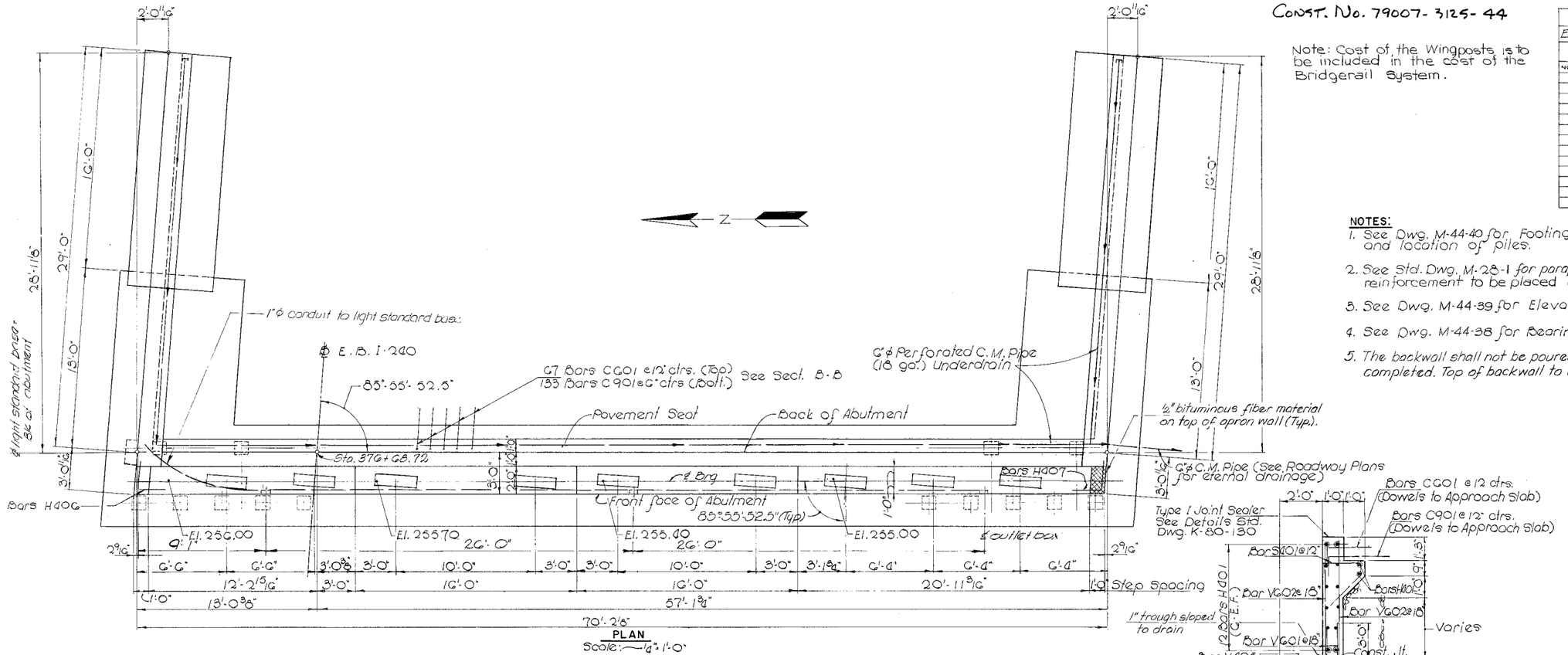
REVISIONS

NO	DATE	BY	BRIEF DESCRIPTION

Note: Cost of the Wingposts is to be included in the cost of the Bridgerail System.

NOTES:

1. See Dwg. M-44-40 for Footing Layout, Bill of Steel and number and location of piles.
2. See Std. Dwg. M-28-1 for parapet & wingpost reinforcement to be placed in wingwall.
3. See Dwg. M-44-39 for Elevation View of Wings.
4. See Dwg. M-44-38 for Bearing Details.
5. The backwall shall not be poured until after post tensioning is completed. Top of backwall to conform to roadway slope & grade.



HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY	F. Hoffman	DATE	June '75
DRAWN BY	M. Garou	DATE	June '75
SUPERVISED BY	D. McCorkle	DATE	June '75
CHECKED BY	D. McCorkle	DATE	June '75

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.

ABUTMENT B - E. B. LANES
STA. 376+01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-37

CONST. NO. 79007-3125-44

Note: Cost of wingposts is to be included in the cost of the Bridgerail System.

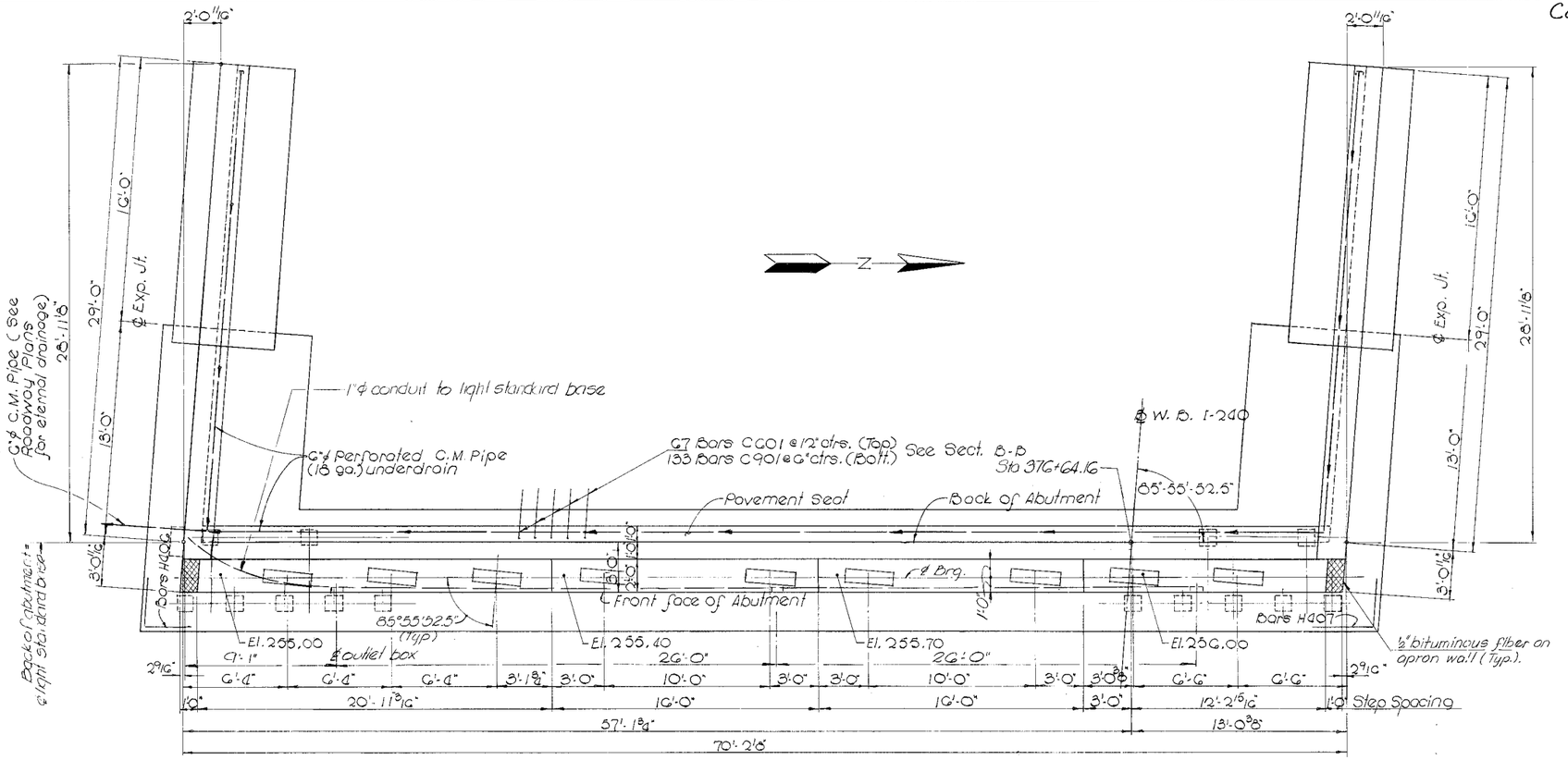
PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)6	1975	

REVISIONS

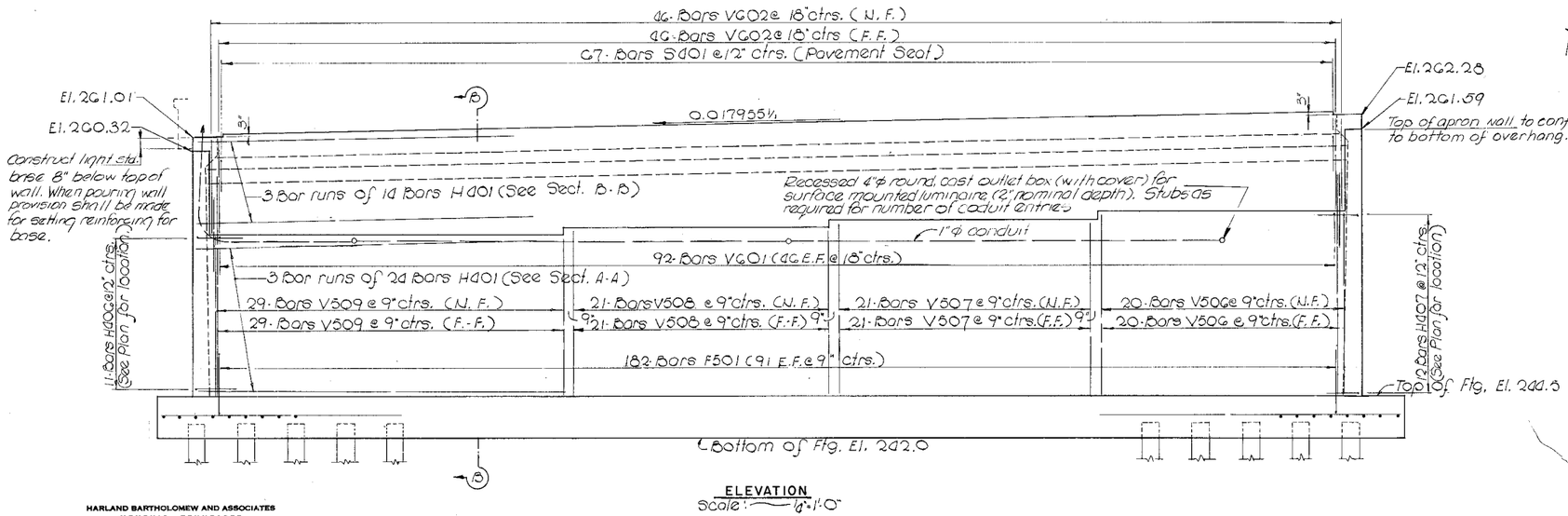
NO	DATE	BY	BRIEF DESCRIPTION

NOTES:

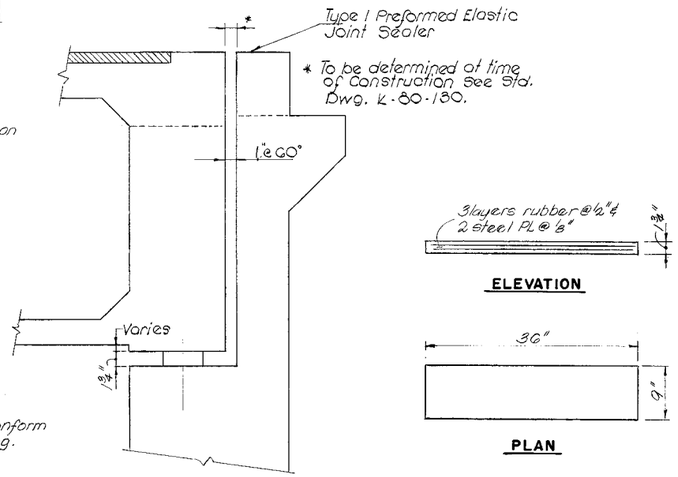
1. See Dwg. M-44-40 for Footing Layout, Bill of Steel and number and location of piles.
2. See Std. Dwg. M-28-1 for parapet & wingpost reinforcement to be placed in wingwall.
3. See Dwg. M-44-39 for Elevation view of wings.
4. See Dwg. M-44-37 for Section B-B



PLAN
Scale: ¼" = 1'-0"



ELEVATION
Scale: ¼" = 1'-0"



ELEVATION
Scale ¾" = 1'0"

E-1 BEARING DETAILS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.
ABUTMENT B – W. B. LANES
STA. 376+01.44

SHELBY COUNTY

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY	F. Hoffman	DATE June 175
DRAWN BY	M. Gray	DATE June 175
SUPERVISED BY	D. McCorkle	DATE June 175
CHECKED BY	D. McCorkle	DATE June 175

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-38

MICROFILM

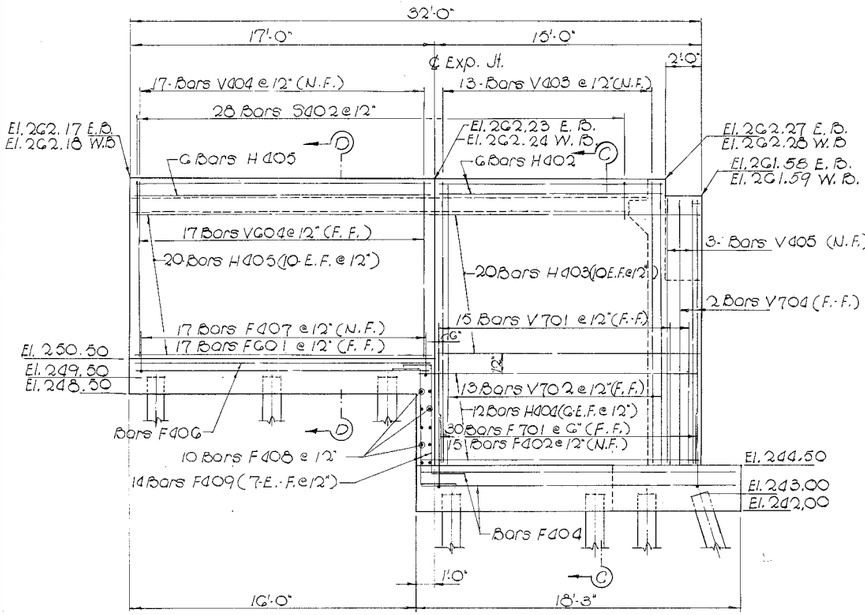
CONST. No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC 1-240-1(132)6	1975	

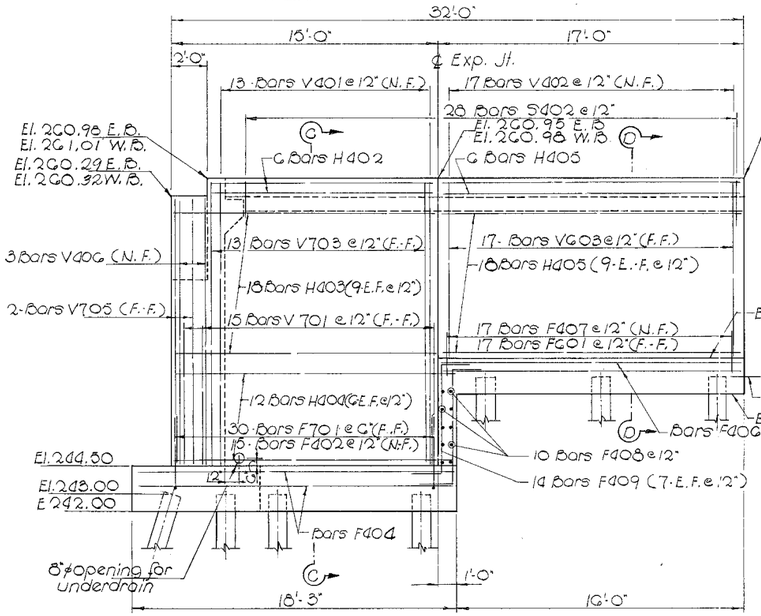
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

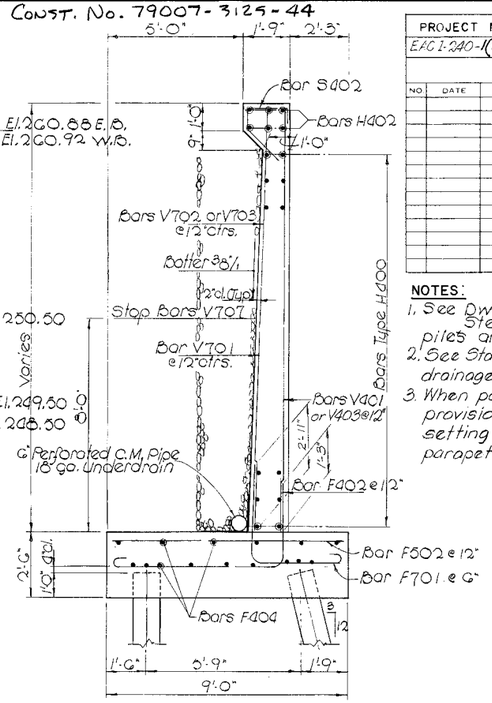
NOTES:
1. See Dwg. M-14-40 for Bill of Steel, Location & numberof piles and footing layout.
2. See Std Dwg. K-85-150 for misc. drainage system details.
3. When pouring abutment wings provision shall be made for setting reinforcing steel for parapet and wingpost.



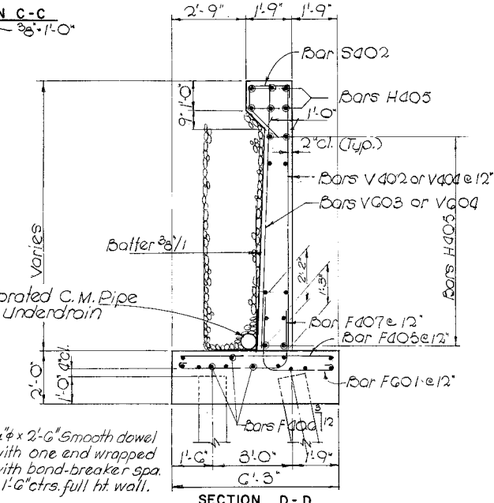
ABUTMENT B – E. B. LANES – NORTH WALL
ABUTMENT B – W. B. LANES – SOUTH WALL
Scale: — 1/4" = 1'-0"



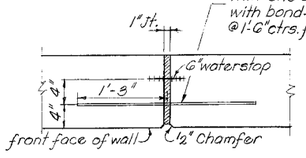
ABUTMENT B – E. B. LANES – SOUTH WALL
ABUTMENT B – W. B. LANES – NORTH WALL
Scale: — 1/4" = 1'-0"



SECTION C-C
Scale: — 3/8" = 1'-0"

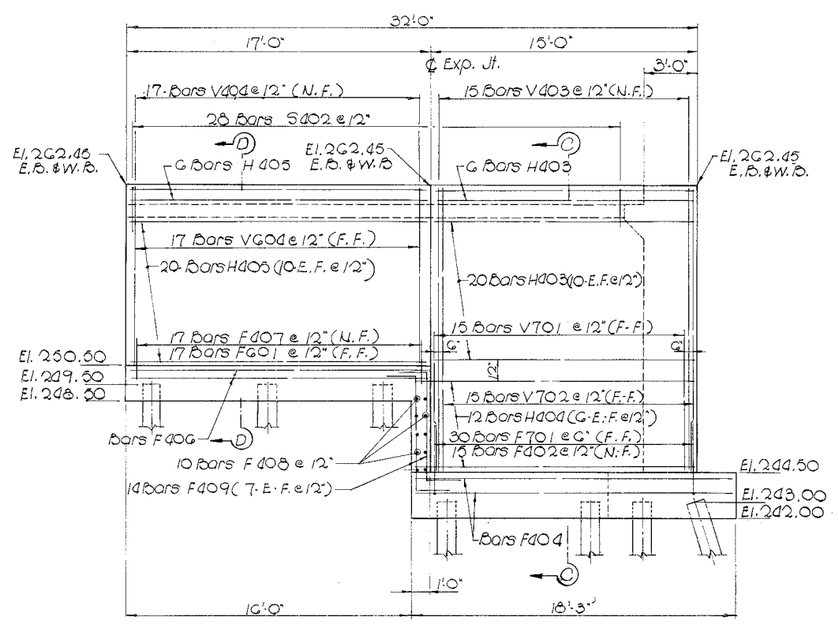


SECTION D-D
Scale 3/8" = 1'-0"

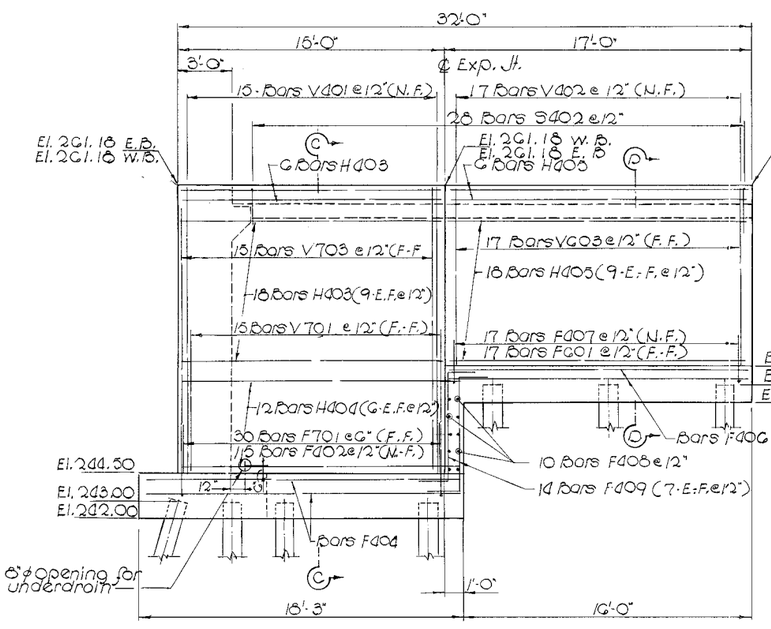


BITUMINOUS JOINT DETAIL
Scale: 1" = 1'-0"

Note: Bituminous fiber and 6" waterstop will not be paid for separately but shall be included in the cost of Class A Concrete for payment.



ABUTMENT A – E. B. LANES – NORTH WALL
ABUTMENT A – W. B. LANES – SOUTH WALL
Scale: — 1/4" = 1'-0"



ABUTMENT A – E. B. LANES – SOUTH WALL
ABUTMENT A – W. B. LANES – NORTH WALL
Scale: — 1/4" = 1'-0"

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE June 175
DRAWN BY M. Gerby DATE June 175
SUPERVISED BY D. McCorkle DATE June 175
CHECKED BY D. McCorkle DATE June 175

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.
ABUTMENT DETAILS
STA. 376+01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-39

MICROFILM

Const. No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(13)6	1975	

REVISIONS

NO	DATE	BY	BRIEF DESCRIPTION

Note:
All piles shall be driven to an ultimate bearing capacity of 90 tons each (56 piles required each abutment)

(Abut. A) E.B. I-240 & (Abut. A) W.B. I-240

(Abut. B) W.B. I-240 & (Abut. B) E.B. I-240

Abuts. "A" E.B. & "B" W.B.

Abuts. "B" E.B. & "A" W.B.

Test Pile each abutment
Load Test required on Abut. A - E.B. Lanes and Abut. B - W.B. Lanes.

Back of Abutment

E.B. I-240 (Abut. B) W.B. I-240 (Abut. A)

E.B. I-240 (Abut. A) W.B. I-240 (Abut. B)

3 Bar runs of 10 Bars F403 (See Sect. A-A on D-D)

38 Bars F401 @ 2'-0" ctrs.

4 Spa. @ 3'-0" = 12'-0"

19 Spa. @ 3'-0" = 57'-0"

18 Spa. @ 3'-0" = 54'-0"

3 Spa. @ 3'-0" = 9'-0"

59'-9 5/16"

14'-10 15/16"

15'-7 15/16"

59'-0 5/16"

74'-8 1/4"

FOOTING PLAN
Scale: 1/4" = 1'-0"

BILL OF STEEL

Mark	No. Required E.B. Lanes Abut. "A"	E.B. Lanes Abut. "B"	W.B. Lanes Abut. "A"	W.B. Lanes Abut. "B"	Length	Shape
H401	114	114	114	114	24'-0"	
H402	—	12	—	12	12'-6"	
H403	50	38	50	38	14'-6"	
H404	24	24	24	24	15'-6"	
H405	50	50	50	50	16'-6"	
H406	17	12	18	11	4'-0"	L
H407	18	11	17	12	4'-0"	
C601	—	67	—	67	3'-9"	
C602	67	—	67	—	4'-3"	
C901	133	133	133	133	5'-4"	
V401	15	13	15	13	16'-1"	
V402	17	17	17	17	10'-1"	
V403	15	13	15	13	17'-5"	
V404	17	17	17	17	11'-9"	
V405	—	3	—	3	16'-7"	
V406	—	3	—	3	15'-4"	
VG01	—	92	—	92	5'-5"	
VG02	—	92	—	92	5'-6"	
VG03	17	17	17	17	10'-1"	
VG04	17	17	17	17	11'-4"	
V501	182	—	182	—	12'-1"	
V502	24	—	24	—	5'-9"	
V503	22	—	22	—	6'-1"	
V504	22	—	22	—	6'-5"	
V505	24	—	24	—	6'-9"	
V506	—	40	—	40	11'-2"	
V507	—	42	—	42	10'-10"	
V508	—	42	—	42	10'-7"	
V509	—	58	—	58	10'-2"	
V701	30	30	30	30	8'-0"	
V702	15	13	15	13	17'-5"	
V703	15	13	15	13	16'-1"	
V704	—	2	—	2	16'-7"	
V705	—	2	—	2	15'-4"	
S401	—	67	—	67	4'-10"	
S402	56	56	56	56	4'-3"	
S403	67	—	67	—	5'-10"	
S404	91	—	91	—	4'-2"	

Mark	No. Required E.B. Lanes Abut. "A"	E.B. Lanes Abut. "B"	W.B. Lanes Abut. "A"	W.B. Lanes Abut. "B"	Length	Shape
F401	38	38	38	38	5'-0"	
F402	30	30	30	30	9'-0"	
F403	30	30	30	30	25'-9"	
F404	30	30	30	30	17'-9"	
F405	34	34	34	34	5'-9"	
F406	26	26	26	26	16'-6"	
F407	34	34	34	34	6'-3"	
F408	20	20	20	20	5'-9"	
F409	28	28	28	28	9'-0"	
F501	182	182	182	182	5'-11"	
F502	24	24	24	24	8'-6"	
FG01	34	34	34	34	6'-1"	
F701	60	60	60	60	8'-0"	
APPROACH SLAB						
A490	50	50	50	50	33'-9"	
A590	134	116	134	116	7'-8"	
AG90	67	67	67	67	24'-0"	
A790	16	16	16	16	34'-6"	
A990	133	133	133	133	24'-0"	

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE July 175
DRAWN BY M. Gilroy DATE July 175
SUPERVISED BY D. McCorkle DATE July 175
CHECKED BY D. McCorkle DATE July 175

Bars S401, 402 & 403

Bars F409

Bar S404

Bars CG01 & 901

Bars F402, 407, G01, 701 & 501

Bars H406

Bars H407

Bars A590

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.

FOOTING PLAN
STA. 376+01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-40

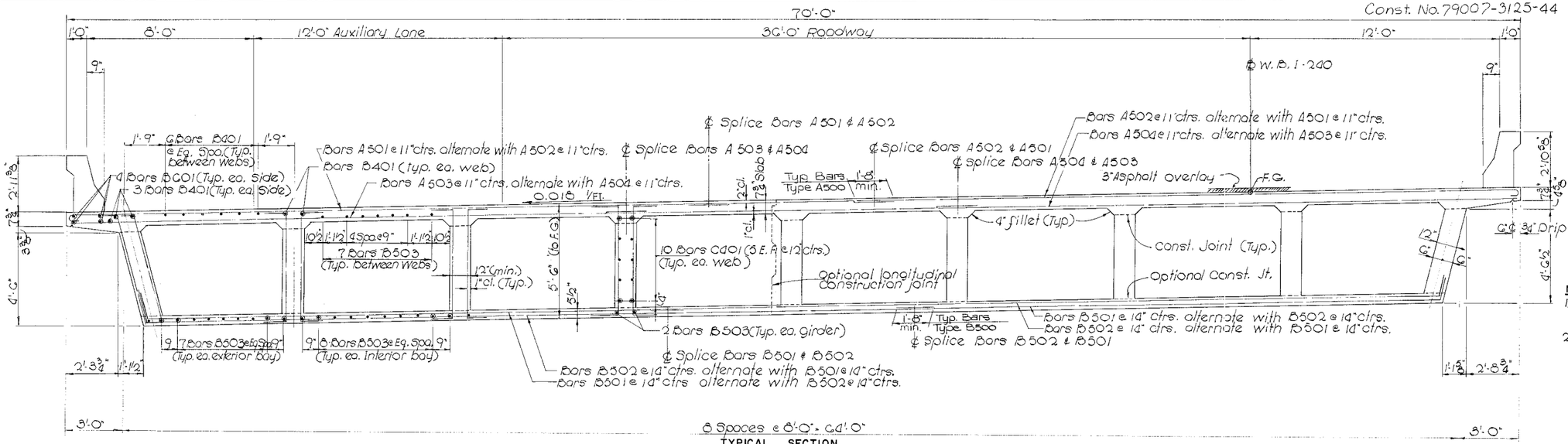
MICROFILM

Const. No. 79007-3125-44

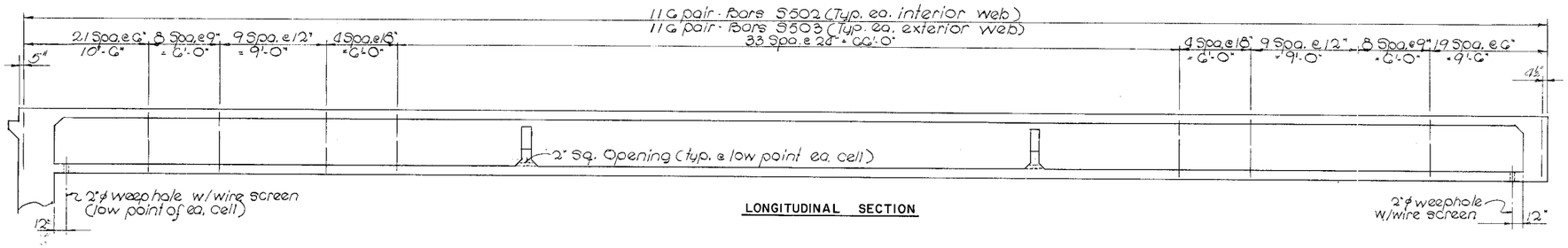
PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(134) &	1975	

REVISIONS

NO	DATE	BY	BRIEF DESCRIPTION



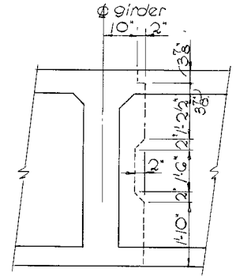
TYPICAL SECTION
Scale: 3/8" = 1'-0"



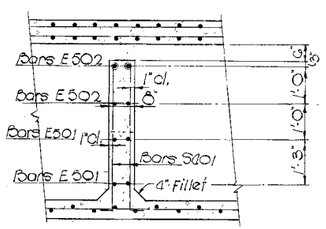
LONGITUDINAL SECTION

CONSTRUCTION SEQUENCE

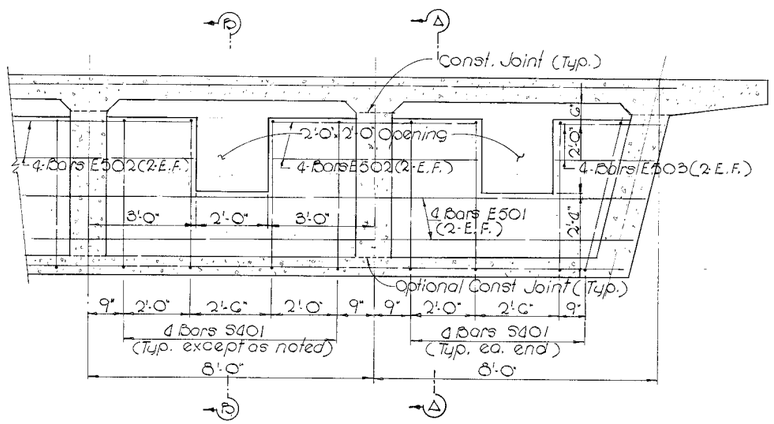
Forms & supports for the entire bottom slab shall be in place prior to the placement of superstructure concrete. Concrete for the top & bottom slab and walls may be placed in any sequence, however, construction joints will be permitted at designated locations only. No top slab concrete may be placed until all walls have been completed.



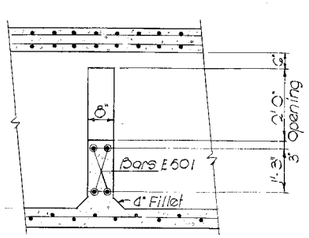
OPTIONAL LONGITUDINAL CONSTRUCTION JOINT
Scale: 1/2" = 1'-0"



SECTION A-A
Scale: 1/2" = 1'-0"



DIAPHRAGM OPENING DETAILS
Scale: 1/2" = 1'-0"



SECTION B-B
Scale: 1/2" = 1'-0"

ESTIMATED QUANTITIES

Item No.	Description	Unit	Quantities W. B. Lanes	Quantities E. B. Lanes
G04-03.01	Class A Concrete (Bridge)	Cu. Yds.	620.4	620.4
G04-03.02	Steel Bar Reinforcement	Lbs.	108,217	108,217

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.

TYPICAL SECTIONS
STA. 376+01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-41

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE June '75
DRAWN BY M. Gorby DATE June '75
SUPERVISED BY D. McCorkle DATE June '75
CHECKED BY D. McCorkle DATE June '75

NOTES:
1. Sections shown are for W. B. Lanes Section for E. B. Lanes are similar.
2. Finished grade is to be located at top of concrete. 3" asphalt overlay is to be feathered out at end of approach slab.

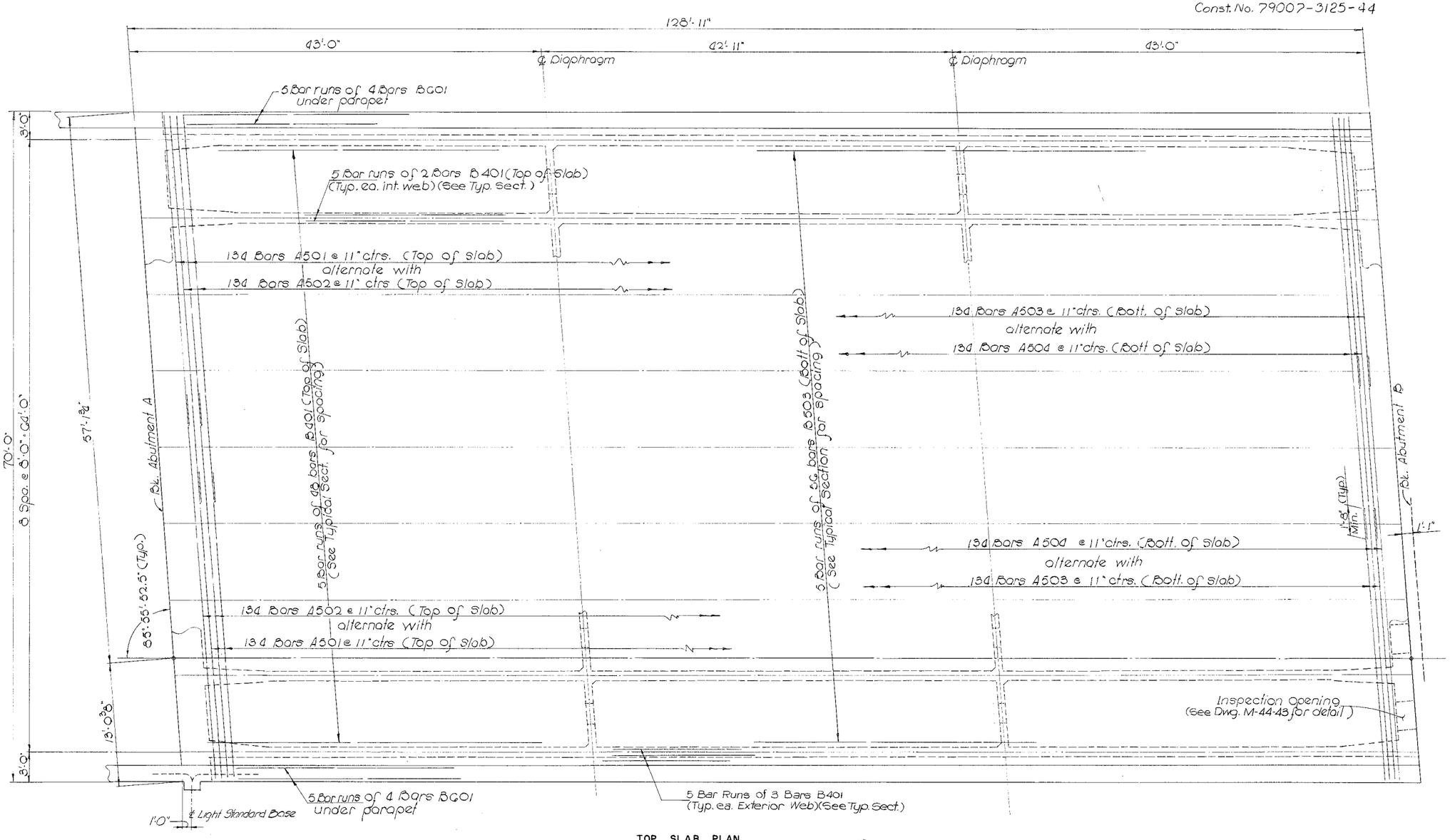
MICROFILMED

Const. No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)6	1975	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

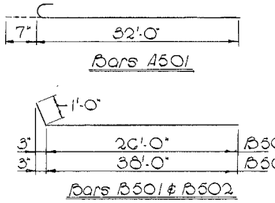


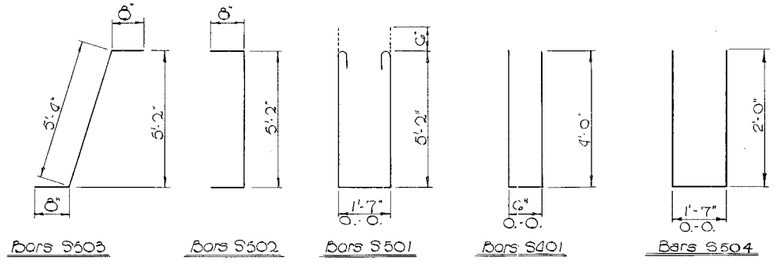
TOP SLAB PLAN
Scale: 3/16" = 1'-0"

BILL OF STEEL – W. B. LANES

Mark	No. Req'd.	Length	Shape
A501	268	32'-7"	C
A502	268	40'-0"	—
A503	268	28'-0"	—
A504	268	44'-0"	—
B401	340	26'-11"	—
B501	212	39'-0"	L
B502	212	27'-0"	L
B503	680	27'-2"	—
BG01	40	27'-8"	—
C401	450	26'-11"	—
E501	16	32'-3"	—
E502	56	5'-8"	—
E503	16	2'-0"	—
H501	44	33'-0"	—
H502	84	4'-8"	—
S401	64	8'-0"	⊔
S501	82	12'-11"	⊓
S502	1624	6'-6"	⊔
S503	464	6'-8"	⌿
S504	82	5'-7"	⊏

Bill of Steel for E.B. Lanes is identical.





NOTES:

1. For Typical Section showing location of reinforcement, See Dwg. M-44-41
2. When pouring top slab provision shall be made for placing parapet reinforcement. See Std. Dwg. M-28.1 for Details.
3. For Estimated Quantities See Dwg. M-44-41
4. For details of Abutments See Dwg. M-44-35 thru M-44-39
5. Minimum Bar Lap for Longitudinal Reinforcing is as follows:
   #4 bars — 1'-3"
   #5 bars — 1'-7"
   #6 bars — 2'-2"

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE May '75
DRAWN BY M. Gotay DATE June '75
SUPERVISED BY D. McCorkle DATE June '75
CHECKED BY D. McCorkle DATE June '75

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.

TOP SLAB – PLAN
STA. 376 + 01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-42

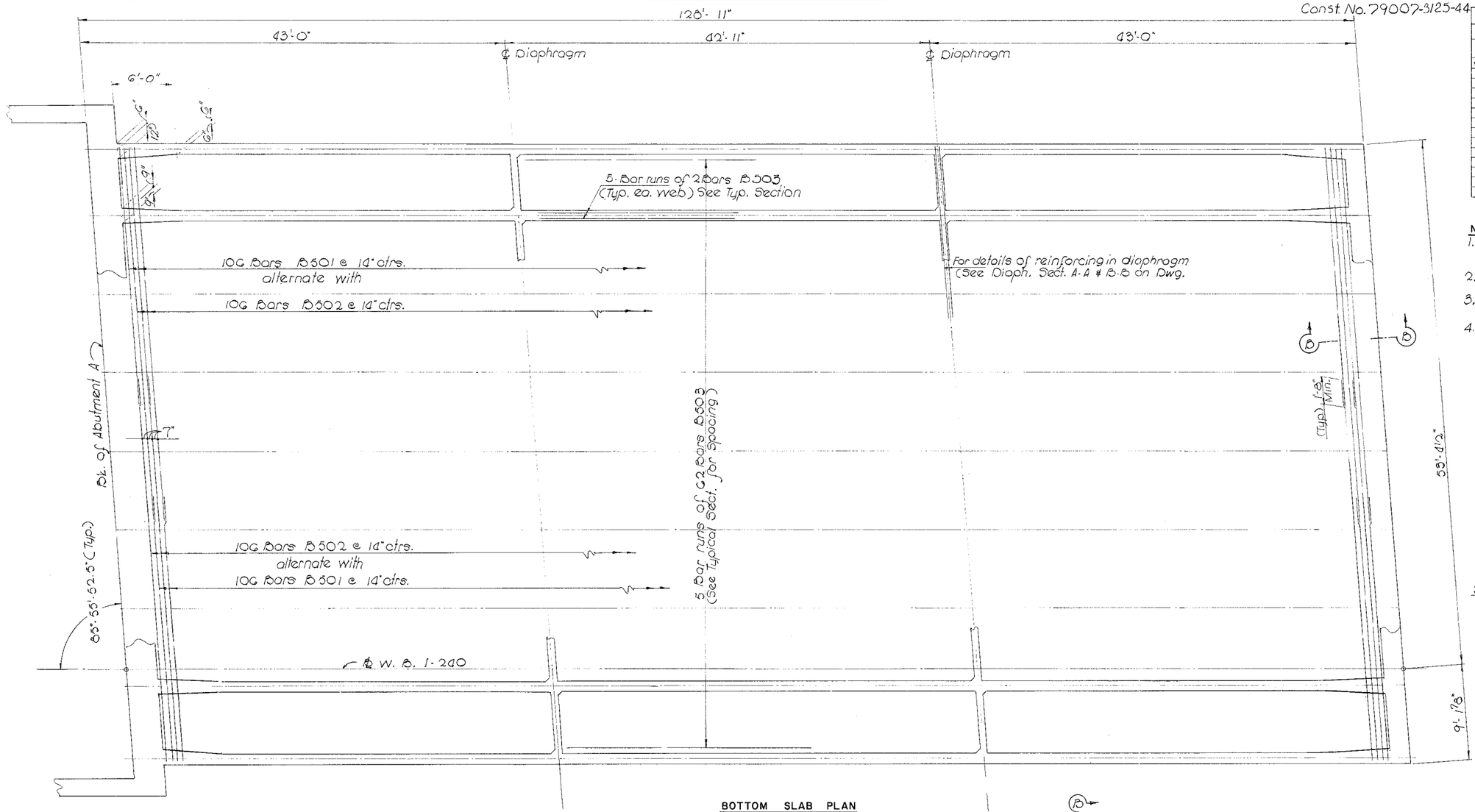
MICROFILMED

Const. No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(32)6	1975	

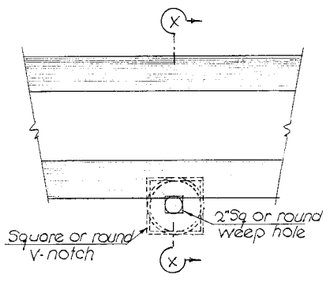
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

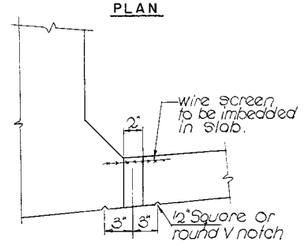


NOTES:

1. See Dwg. M-44-41 for Typical Section and Estimated Quantities
2. See Dwg. M-44-42 for Bill of Steel.
3. For details of abutments see Dwgs M-44-35 thru M-44-39.
4. Minimum bar lap for longitudinal reinforcing is 1'-7"



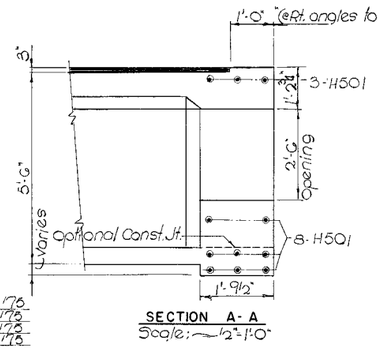
PLAN



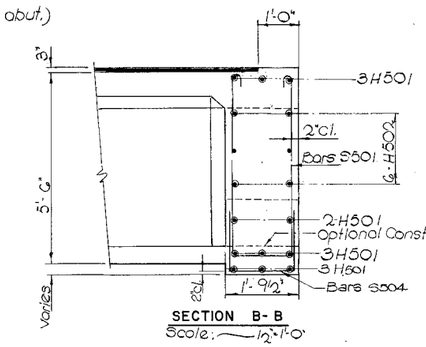
SECTION X-X

WEEP HOLE DETAILS

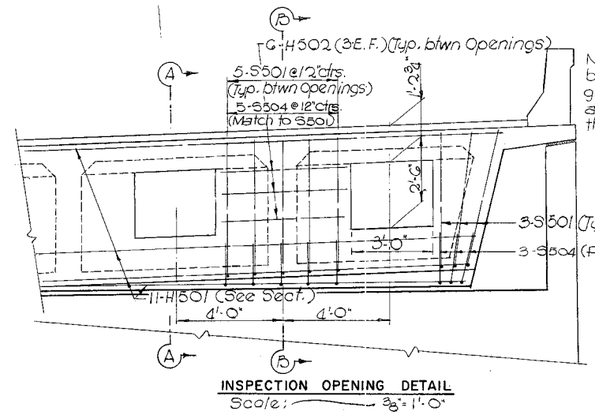
BOTTOM SLAB PLAN
Scale: 3/16"=1'-0"



SECTION A-A
Scale: ½"=1'-0"



SECTION B-B
Scale: ½"=1'-0"



INSPECTION OPENING DETAIL
Scale: ⅜"=1'-0"

Note: Inspection opening is to be closed with expansive grout after post-tensioning and before the backwall of the abutment is poured.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.
BOTTOM SLAB PLAN
STA. 376+01.44

SHELBY COUNTY

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE June 175
DRAWN BY M. Gray DATE June 175
SUPERVISED BY D. McCorkle DATE June 175
CHECKED BY D. McCorkle DATE June 175

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-43

MICROFILMED

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)6	1975	

Construction No. 79007-3125-44

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

1. POST-TENSIONING: See Special Provision No. 560, Special Provision Regarding Post-Tensioned Prestressed Concrete and notes this Sheet.

2. CONCRETE: To be Class A, f'_c = 4000 psi. Stressing operations shall not begin until the concrete has reached a compressive strength of 3500 psi. as indicated by test specimens, See Section 615-09 of the Tennessee Standard Specification.

3. DESIGN: Based on U = 0.25 and K = 0.0002. P/Jack specified at the jacking ends includes friction losses plus provision for 4200 psi. loss in stress at jacking plus 30800 psi. long term loss in stress.

4. TENSIONING FORCE: The maximum required tensioning force at the jack is 20000 kips. per web, which is 77 percent of the specified minimum ultimate tensile strength of the prestressing steel. Tendons shall be jacked to the above value and anchored at an equivalent anchor set of 3/8"

5. STRESSING SEQUENCE: Jacking shall be done from both abutments. Avoid stressing sequence that will cause unsymmetrical forces about a vertical axis.

6. CLEARANCES FOR POST-TENSIONING-UNIT: Horizontal clearance between units = 2½" minimum. Units may be bundled vertically in groups of 3 maximum. Vertical clearance between bundled units = 3" minimum.

7. Bar reinforcement interfering with prestressing tendon alignment shall be adjusted by the Engineer.

8. Form work shall not be removed until all post-tensioning is complete.

9. If ducts are to be placed within limits of the bottom slab, provisions shall be made to tie the ducts to the vertical steel before the bottom slab is poured.

10. Anchorage details are to be determined by the fabricator.

11. In each web every other strand shall be jacked from the opposite end.

12. Losses given in note 3 above are consistant with forces given in note 4 and with cable drape shown. The fabricator may substitute an equivalent System with the following limitations:

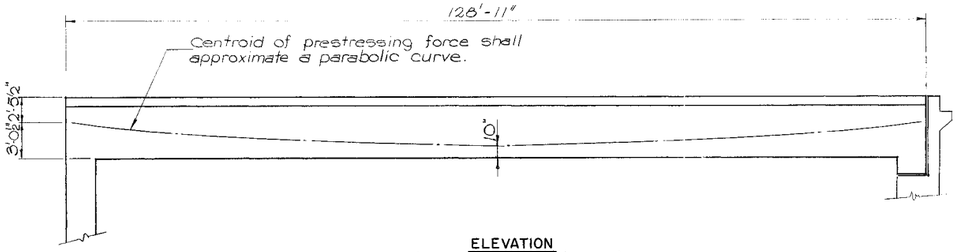
dist. to c.g. force @ ℄ Span	minimum effective prestress force @ ℄ Span after all losses (per web)
10"	1500 kips
12"	1570
14"	1670
16"	1750

13. REINFORCING STEEL: Reinforcing steel required at each end anchorage shall not be paid for separately, but shall be included in the price bid for Post-Tensioned Prestressed Concrete. These details are to be included in the Shop drawings for post tensioning.

14. CAMBER: Dead Load Camber shown on the plans is based on E_c = 1,214,700 psi. The Contractor shall submit calculations of deflections due to prestress load based on tendon arrangement selected and E_c = 1,214,700 psi. These deflections shall be subtracted from the dead load camber shown on these plans and adjusted for the vertical curve to determine screed elevations for pouring.

15. SHOP DRAWINGS: The contractor shall submit five sets of shop drawings, together with three sets of design calculations to the State for approval. No concrete for the superstructure shall be poured until the Contractor has received from the State the approval of shop drawings.

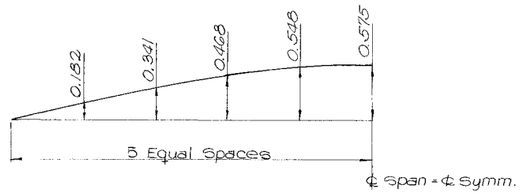
16. OPTIONAL CONSTRUCTION JOINT AT BOTTOM SLAB: If the draped tendons extend into the bottom slab the optional construction joint will not be permitted.



ELEVATION
(Showing cable drape)

SECTION PROPERTIES

A	=	16374 in²
I	=	10490342 in⁴
Zt	=	355,657 in³
Zb	=	287,366 in³
yT	=	29.5 in
yB	=	36.5 in



DEAD LOAD CAMBER DIAGRAM

Note: The curve shows the dead load camber only. Camber shall be increased by the amount of anticipated take-up in the falsework. Camber values are based on E_c = 1,214,700 psi. See Note 15 this Dwg. for adjustments necessary due to prestress forces and vertical curve.

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY F. Hoffman DATE July '75
DRAWN BY M. Gorey DATE July '75
SUPERVISED BY D. McCorkle DATE July '75
CHECKED BY D. McCorkle DATE July '75

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
I-240 OVER HOLLYWOOD ST.
POST-TENSIONING DETAILS
STA. 376+01.44

SHELBY COUNTY

CORRECT _____ ENGINEER OF STRUCTURES

APPROVED _____ DIRECTOR OF HIGHWAYS

M-44-44

MICROFILMED

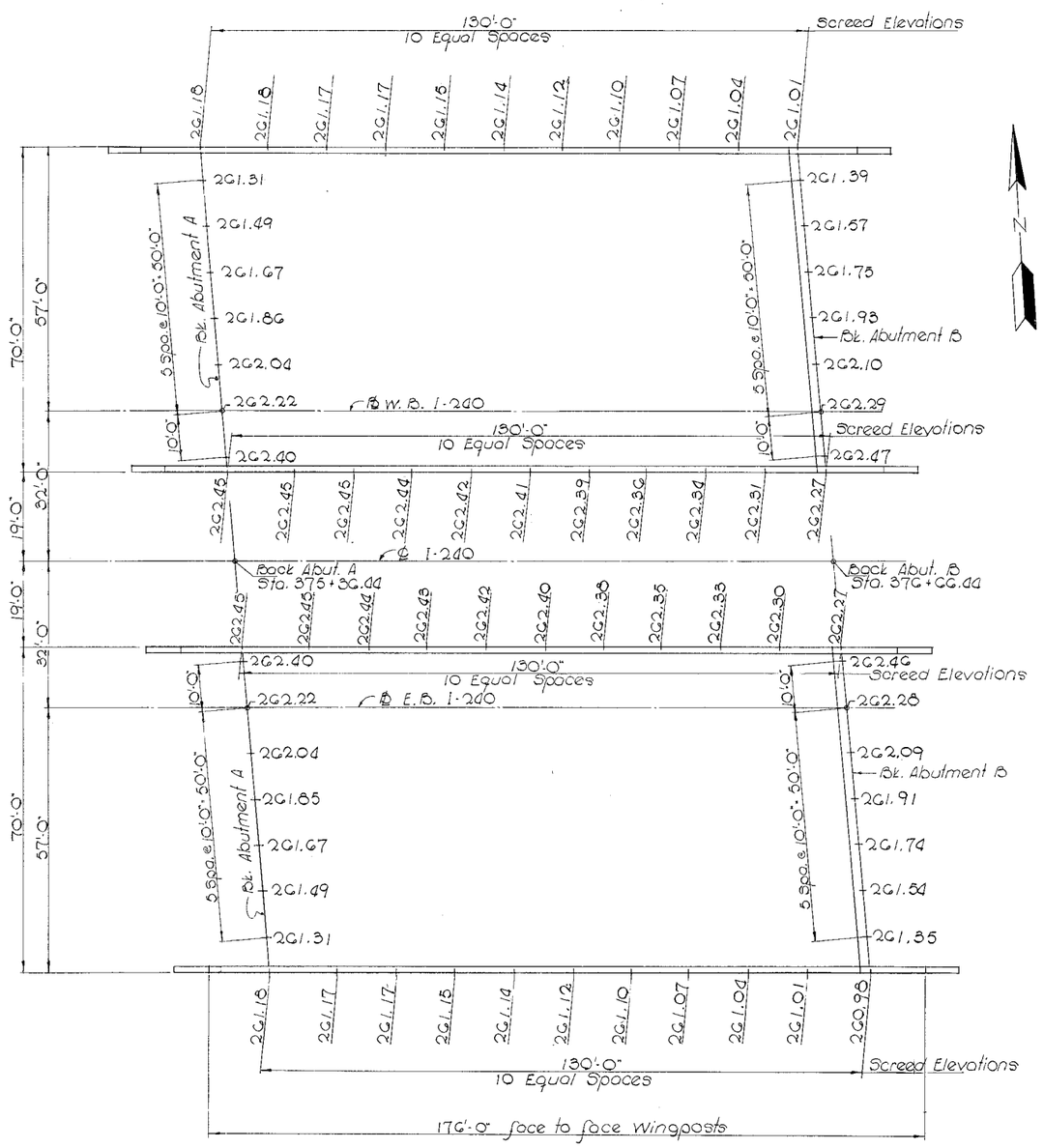
N13565

Construction No. 79007-3125-44

PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)6	1975	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION



NOTE:
Elevations given are at top of concrete and do not include 3" asphalt overlay.

HARLAND BARTHOLOMEW AND ASSOCIATES
MEMPHIS, TENNESSEE

DESIGNED BY	D. McCorkle	DATE	June '75
DRAWN BY	M. Gorgy	DATE	June '75
SUPERVISED BY	O. H. Bryant	DATE	June '75
CHECKED BY	D. McCorkle	DATE	June '75

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGES 34A AND 34B
1-240 OVER HOLLYWOOD ST.

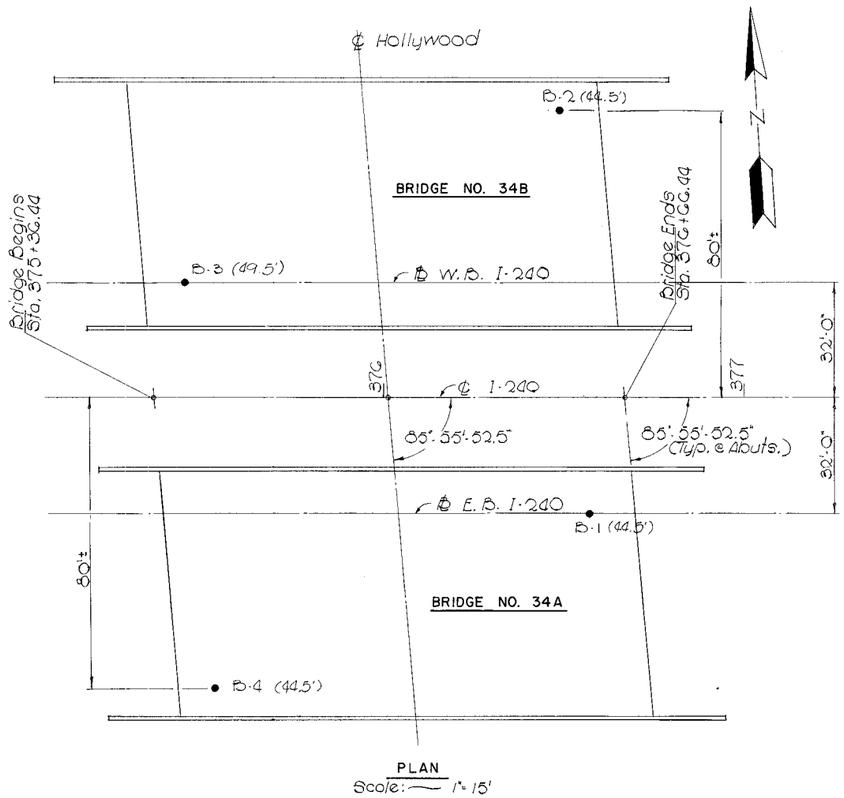
SCREED ELEVATIONS
STA. 376+01.44

SHELBY COUNTY

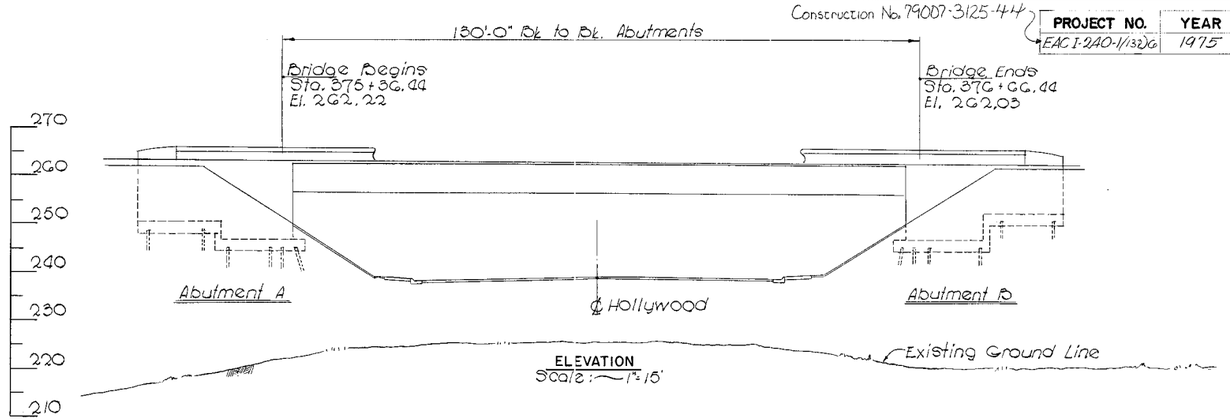
M-44-45

Construction No. 79007-3125-44

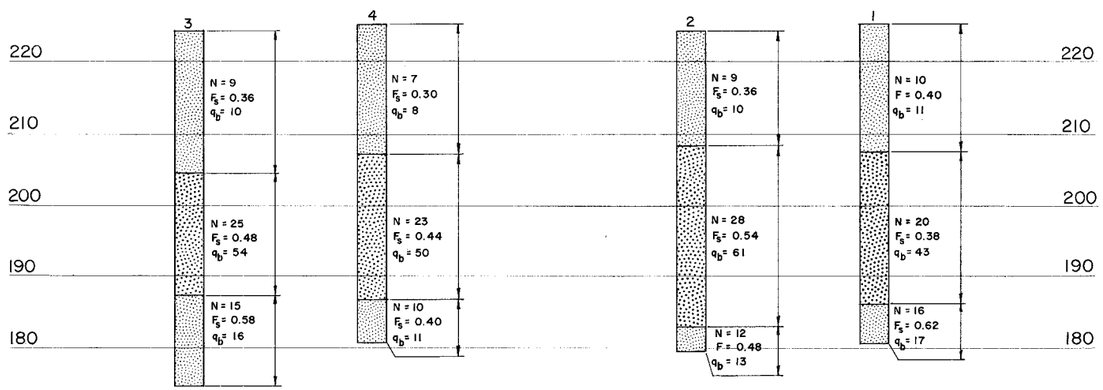
PROJECT NO.	YEAR	SHEET NO.
EAC I-240-1(132)G	1975	



PLAN
Scale: 1" = 15'



ELEVATION
Scale: 1" = 15'



SAND

SILT

44.5 Depth augered
② Boring location

N = "N" Value
F_s = Tons/ft.²
q_b = Tons/ft.²

PILE DATA

Location	① Design Load	No. Reqd.	cut-off Elev.	Tip Elevation	② Pile Length
Abutment A W.B. Lanes	90 Tons	44	243.0	198.0	45.0'
		12	249.5	199.5	50.0'
Abutment A E.B. Lanes	90 Tons	44	243.0	203.0	40.0'
		12	249.5	204.5	45.0'
Abutment B E.B. Lanes	90 Tons	44	243.0	203.0	40.0'
		12	249.5	204.5	45.0'
Abutment B W.B. Lanes	90 Tons	44	243.0	203.0	40.0'
		12	249.5	204.5	45.0'

① Design loads are based on factored loads.
② Pile lengths are subject to change after reviewing results of load tests.

FOUNDATION DATA

E.B. & W.B. I-240 OVER HOLLYWOOD ST.

SHELBY COUNTY

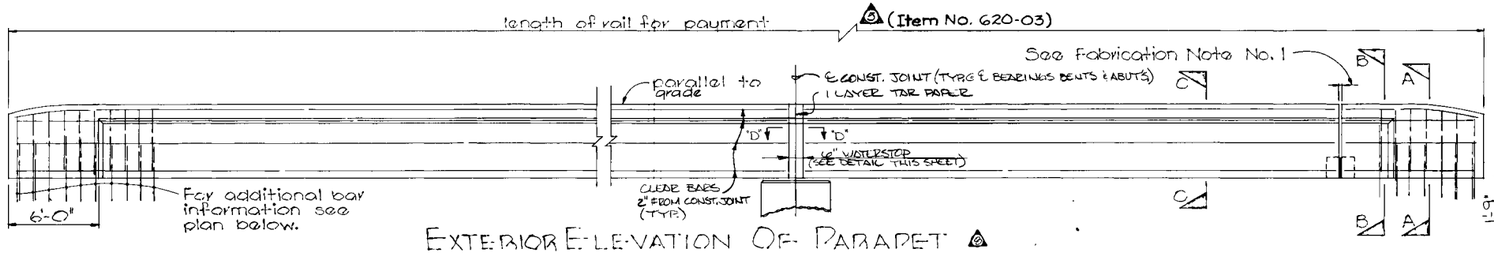
M-44-46

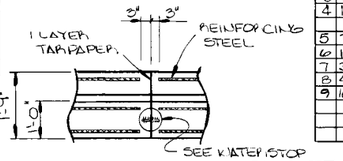
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		1973		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	11-23-73	C.M.H.	General Revisions
2	9-4-74	C.M.H	vertical face to slope face
3	9-19-74	C.M.H	changed parapet height
4	1-28-76	R.M.D.	changed guardrail connection height
5	7-17-81	RMD	Item No. 6 Notes
6	11-23-82	RMD	HEIGHT CHANGE GEN. REV.
7	3/28/85	RMD	ADDED NOTE & FAB. INSERT DET.
8	4/11/85	RMD	ADDED CONSTRUCTION JOINTS
9	10/22/86	RMD	CHANGED ALL BARS TO EPOXY AND ADDED SECTION D-D

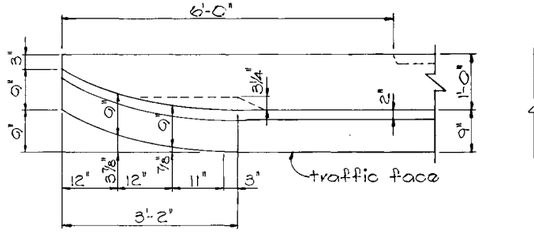
EXTERIOR ELEVATION OF PARAPET

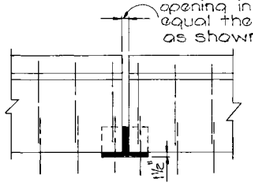




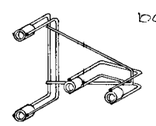
(TYP. @ ℄ BRG. @ BENTS & ABUTS.)

SECTION D-D

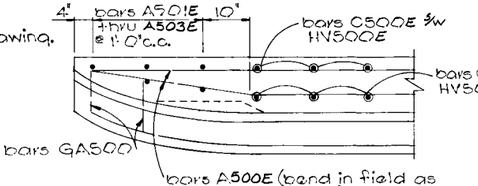




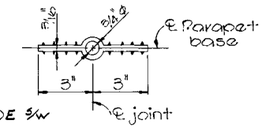
JOINT DETAIL



DETAIL OF FABRICATED INSERT



PLAN



WATERSTOP DETAIL

Dimensions shown are for a 1" joint. Adjust bulb dimensions for a larger joint. Also see design drawings and shop drawings of Roadway Expansion Devices.

GENERAL NOTES

Design: AASHTO Specifications current edition with addenda.

Specifications: Standard Road and Bridge Specs. of the Tennessee Department of Transportation (Current Edition)

Concrete: To be Class 'A', f'c = 3000 psi. See Special Provision Regarding Section 604 – Concrete Structures.

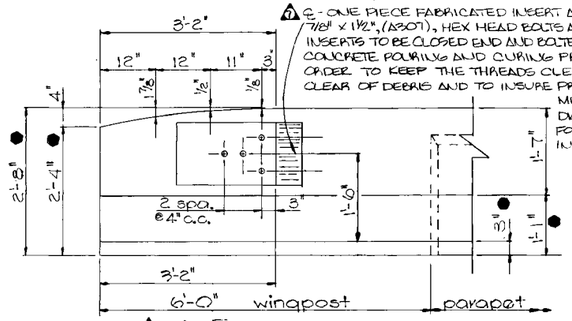
Reinforcing Steel: To be ASTM A615 Grade 60. Standard CRSI hook details apply unless otherwise noted on Bill of Steel. Bending dimensions shown are based on Grade 60. Spacing dimensions are center to center unless other noted on detail drawings. ALL BARS TO BE EPOXY COATED.

Waterstops: See Tennessee Standard Specification Section 918.11.

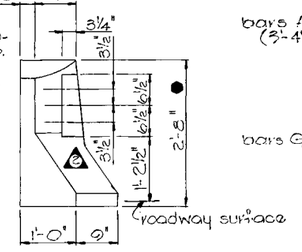
Fabrication:

1. Open joints or filled joints will be allowed in the parapet only when shown on project drawings. Joints shall conform to the joint detail this sheet or as otherwise shown on project drawing.
2. Parapet concrete shall not be cast prior to removal of all superstructure related false work.
3. Alignment and profile of parapet shall conform to roadway profile and geometry.

PLAN OF WINGPOST



℄ ONE PIECE FABRICATED INSERT ASSEMBLY 1/4 - 7/16" x 1½", (A307), HEX HEAD BOLTS AND WASHERS. INSERTS TO BE CLOSED END AND BOLTED TO DURING CONCRETE POURING AND CURING PROCESS IN ORDER TO KEEP THE THREADS CLEAN AND CLEAR OF DEBRIS AND TO INSURE PROPER ALIGNMENT. SEE STD. DWG. S-6A-15 FOR ADDITIONAL INFORMATION.



ELEVATION

- based on no overlay on bridge for actual overlay dimensions. See Bridge Deck Sealant Note on Bridge Layout Sheet.

QUANTITIES FOR WING POST (EACH)

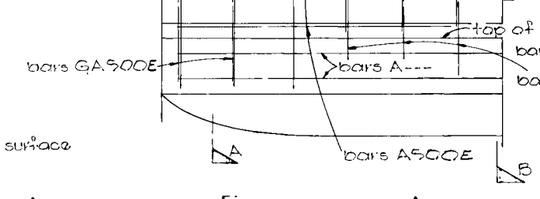
Class "A" Concrete	EPOXY REINF. STEEL
.62 c.y.	110 lbs.

PARAPET QUANTITIES PER L.IN. FT.*

Class "A" Concrete	EPOXY REINF. STEEL
.113 c.y.	21 lbs.

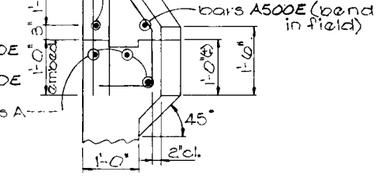
* Note: Quantities based on slab section without overlay.

END ELEVATION



ELEVATION

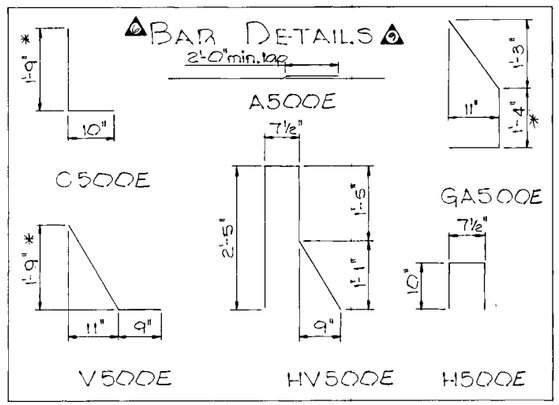
Note: N.F. = Near Face
F.F. = Far Face



SECTION A-A

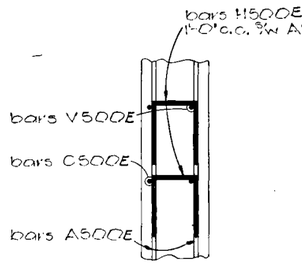
typical at wingpost

BAR DETAILS

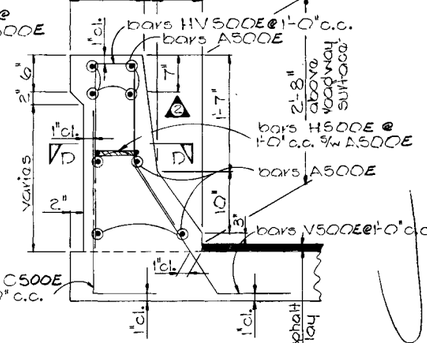


1. Bar dimensions are out to out. First digit of the number indicates size.
2. These bars shall be full length of parapet except that no bar will pass through open joints.

* EACH L.J. NO OVERLAY ON THE BRIDGE, TO BE IN OPENED AS REQUIRED FOR ASPHALT OVERLAY.

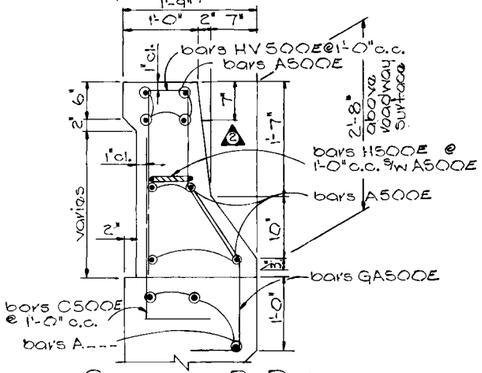


SECTION D-D



SECTION C-C

typical at slab section



SECTION B-B

typical at wing wall

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGE RAILING CONCRETE PARAPET 1973

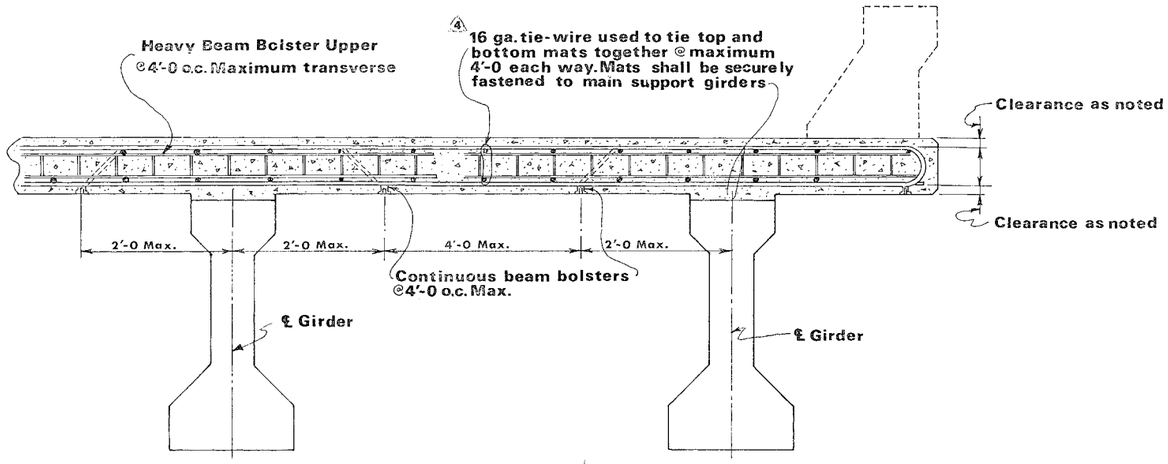
DESIGNED BY C.M.H. DATE May '73
DRAWN BY T. Wilson DATE May '73
SUPERVISED BY C.M.H. & R.M.D. DATE May '73
CHECKED BY C.M.H. DATE May '73

CORRECT _____ ENGINEER OF STRUCTURES

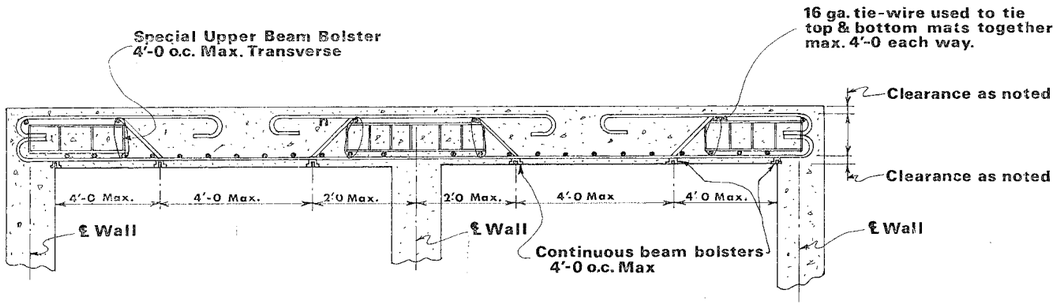
APPROVED _____ DIRECTOR OF HIGHWAYS

M-28-1

Copy 1 of 4



TYPICAL DETAILS FOR GIRDER TYPE BRIDGES



TYPICAL DETAILS FOR BOX TYPE STRUCTURES

④ **TABLE A**

Ba Size	Approx dia. outside deformations (inches)
#3	7/16
#4	9/16
#5	11/16
#6	7/8
#7	1

⑤ **TABLE B**

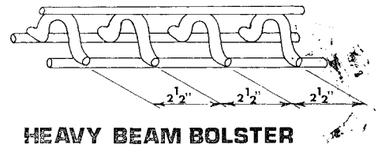
Bar Size	Approx dia. outside deformations (inches)
8	$1\frac{1}{8}$
9	$1\frac{1}{4}$
10	$1\frac{7}{16}$
11	$1\frac{5}{8}$
14	$1\frac{7}{8}$
13	$2\frac{1}{2}$

PROJECT NO.	YEAR	SHEET NO.

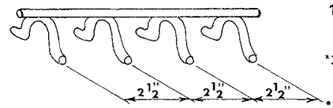
REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	10-13-59		Reinf bar clearance
2	6-16-70		Gen. Revisions
3	9-12-74		Note 3 Changed
4	1-14-75		Revised Note
5	8-27-76		Revised Note #10 & added TABLE A & B, added note 13.

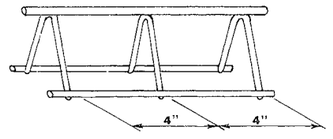
1. Reinforcement in Bridge slabs and top slabs of boxes shall be securely spaced from the forms by metal spacers as indicated this sheet. Other type spacers will not be permitted.
2. All beam bolsters (BB) & heavy beam bolster upper (HBBU) and Special Upper Beam bolster shall be made according to C.R.S.I. Specifications.
*3. Beam bolster (BB) legs in contact with forms and to be at exposed surface of concrete, shall be either "plastic protected" or "stainless steel protected"
4. Reinforcing bars shall be securely fastened together at each intersection using a minimum 16 ga. tie wire, except where spacing is less than one foot in each direction, alternate intersections shall be fastened.
5. Reinforcing bar supports shall be furnished to minus $\frac{1}{16}$" or plus $\frac{1}{8}$" of specified bar.
6. The top and bottom reinforcing mats shall be tied together at maximum of 4'-0 o.c. each way.
7. When any type shear connector protrudes from the top flange of the beam, the reinforcing steel shall be tied to these connectors at maximum 2'-0 o.c. along the beam.
8. Reinforcing steel shall not be used to support concrete buggies, material carts, or bundles of re-bars.
9. Cost of all bar supports and tie wire shall be included in bid price for reinforcing steel.
④ 10. A reinforcing bar may be substituted when a heavy Beam Bolster Upper of a 1" or less height is required. See Table A above.
11. A special Upper Beam Bolster (as detailed this sheet) may be substituted for heavy Beam Bolster Uppers required in heights of $5\frac{1}{4}$" or greater.
12. Steel in top & bottom of slabs of Reinforced Concrete Hollow Box Girders will be supported in accordance with this drawing.
*3a. Plastic protected legs shall be dipped and baked onto the upturned legs per the latest C.R.S.I. specifications.
*3b. Stainless protected legs shall be made from stainless steel with a minimum chromium content of 16% (similar to AISI TYPE 430). Per the latest C.R.S.I. specifications.
⑤ 13. Use table A and/or B for bar sizes to determine beam bolster size to use.



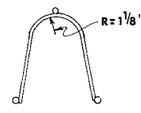
HEAVY BEAM BOLSTER UPPER (HBBU)



BEAM BOLSTER (B B)



SPECIAL UPPER BEAM BOLSTER



END VIEW

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

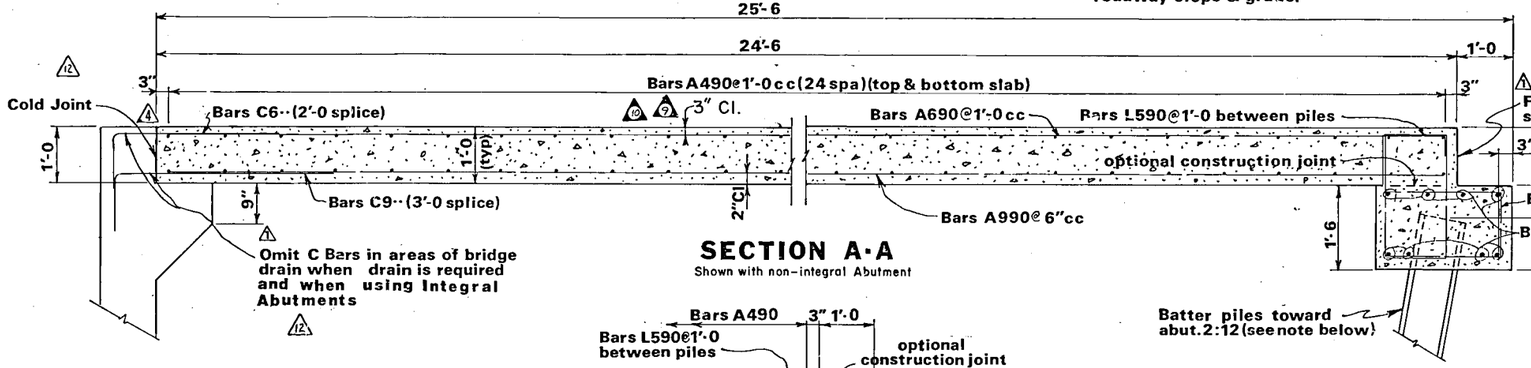
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS

DESIGNED BY _____ DATE _____
DRAWN BY G.P. Mullican DATE 8-29-73
SUPERVISED BY _____ DATE _____
CHECKED BY _____ DATE _____

CORRECT H W Lochridge
ENGINEER OF STRUCTURES
APPROVED James Evans
DIRECTOR OF HIGHWAYS

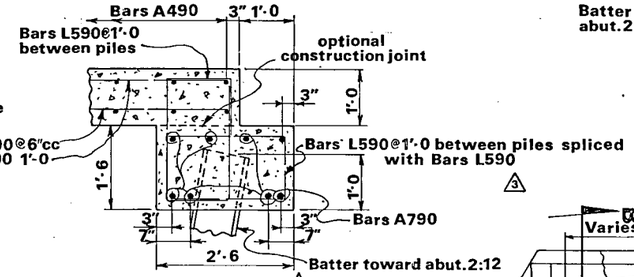
K-80-14

NOTE: Top of slab to conform to roadway slope & grade.



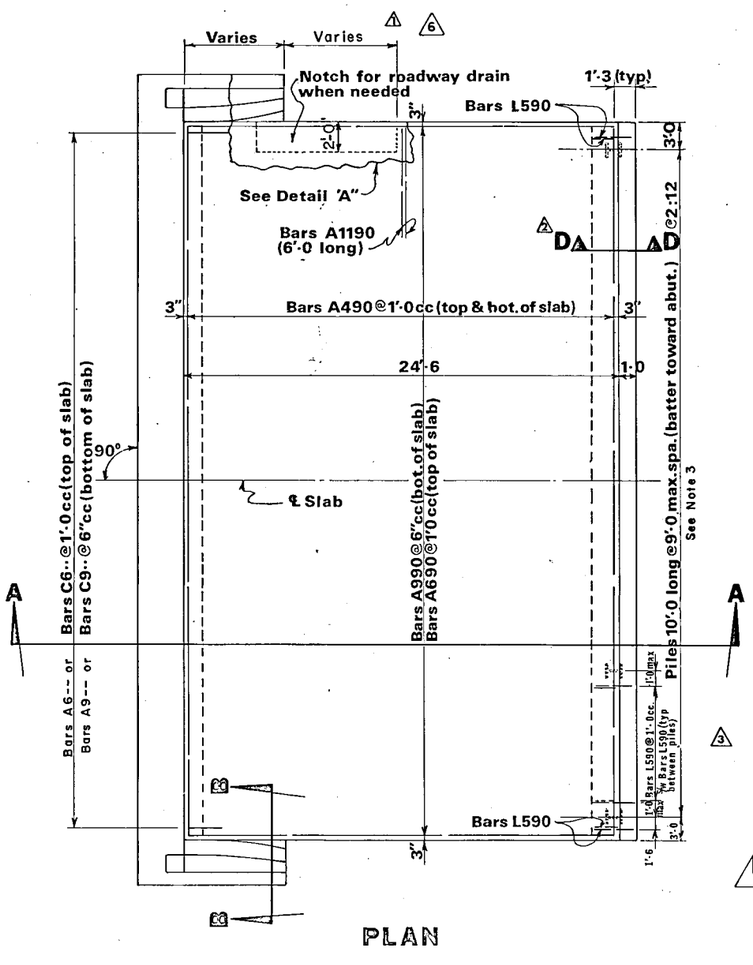
SECTION A-A

Shown with non-integral Abutment

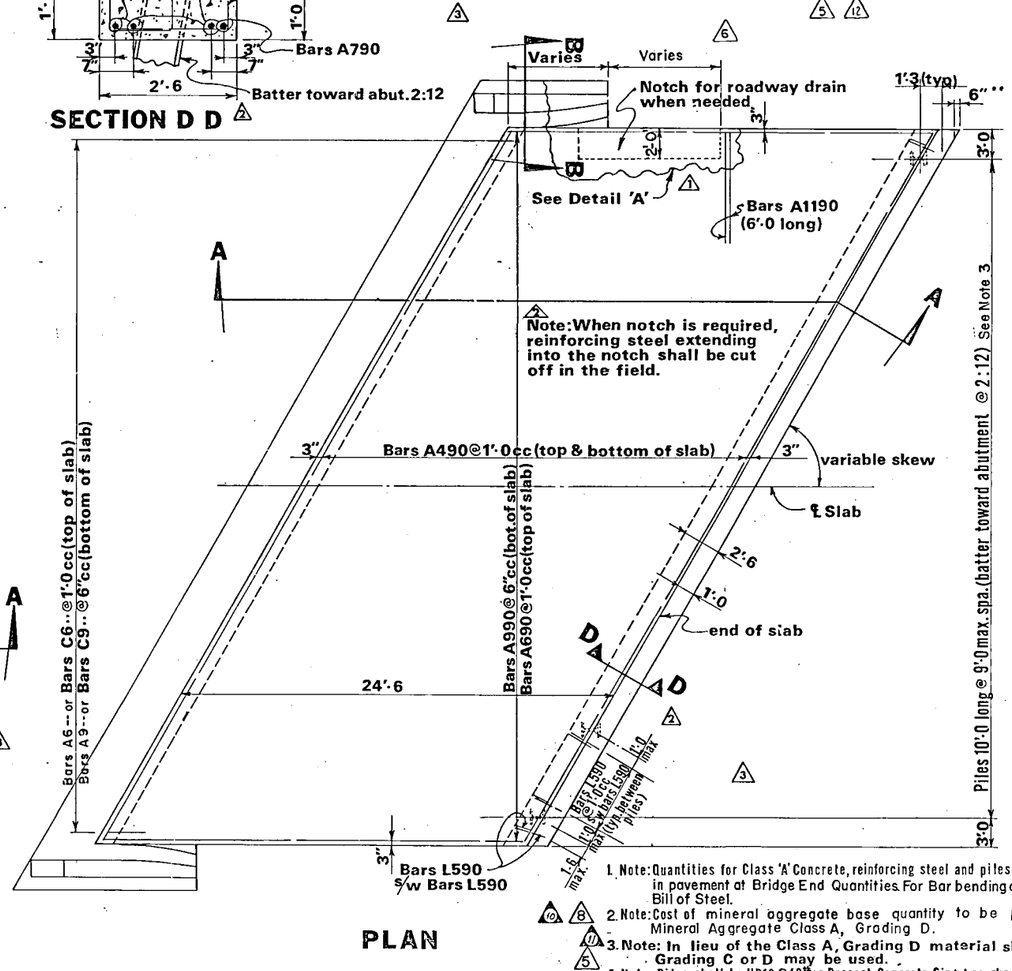


SECTION D D

Note: Location of notch for bridge drain shall be as shown on the Roadway Plans and/or Bridge Plans and shall be constructed in accordance with the fit-up requirements of Standard Drawing D-CB-9 or as directed by the Engineer

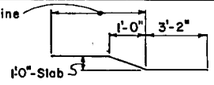


PLAN

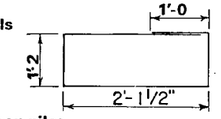


PLAN

3'-6" + backwall + sine



BARS F9--



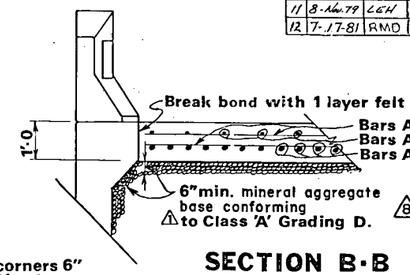
BARS L

Total Length: 7'-5"

PROJECT NO.	YEAR	SHEET NO.

REVISIONS

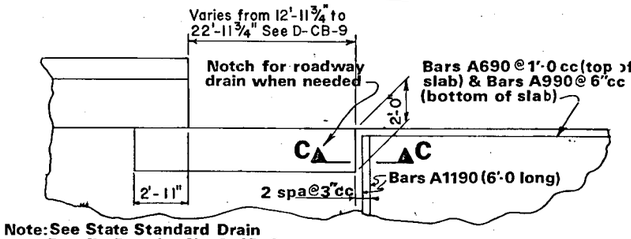
NO.	DATE	BY	BRIEF DESCRIPTION
1	11-16-70	CMH	Compression seal added, aggregate size changed. General notes revised & bridge drain details.
2	12-18-70	CMH	Section D-D & notes added, compression seal note removed & Expansion joint note added
3	8-12-71	RMD	Clarified spacing & no. of L590 bars
4	3 12 74	RMD	Removed V Notch
5	7-18-75	RMD	Added Detail X & Revised Note 3
6	8-18-75	RMD	Revised Roadway Drain
7	3-2-76	CPR	Changed Dwg. No. on Detail 'A'
8	6-17-76	CMH	Revised aggregate designation
9	8-30-76	RMD	Revised minimum clearances
10	5-Dec-77	EPW	Rev. Note 2 & Min. Cl. on top Rebar
11	8-Nov-79	CGH	Change Note 3 to 4, Added New Note 3
12	7-17-81	RMD	deleted Detail X Add SHT PLAN



Note: Slab to be poured directly on mineral aggregate base stone.

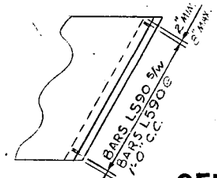
SECTION B-B

"Clip corners 6" for 60° or less

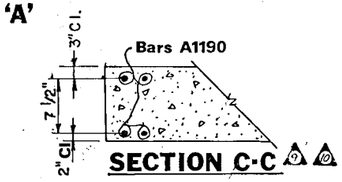


Note: See State Standard Drain Details Drawing No. D CB-9

DETAIL 'A'



PART PLAN (SHOWING L BAR SPA. WITH PILES OMITTED)



SECTION C-C

GENERAL NOTES

CONCRETE: To be Class 'A' (F'c = 3,000 psi)
REINFORCING STEEL: To be ASTM A615. Bending dimensions shown are based on Grade 40. Spacing dimensions are center to center unless otherwise noted.
SPECIFICATIONS: Standard Road & Bridge Specifications of the Tennessee Department of Highways (Current Edition)

1. Note: Quantities for Class 'A' Concrete, reinforcing steel and piles are included in pavement at Bridge End Quantities. For Bar bending dimensions, see Bill of Steel.
2. Note: Cost of mineral aggregate base quantity to be paid as Item 303-01 Mineral Aggregate Class A, Grading D.
3. Note: In lieu of the Class A, Grading D material shown, Class B, Grading C or D may be used.
4. Note: Piles shall be HP10@42# or Precast Concrete Size I as shown in Estimated Quantities. Piles shall have a maximum length of 10'-0 regardless of bearing and shall be spaced at 9'-0 maximum. Piles shall be omitted if beam is supported on rock or rock fill or if the Abutment is integral.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

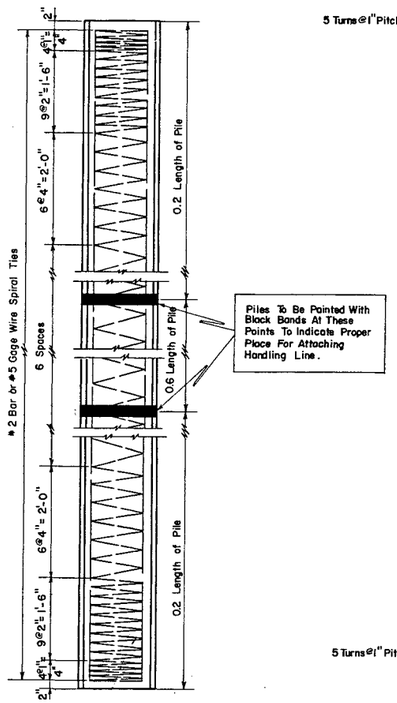
STANDARD DRAWING
REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS

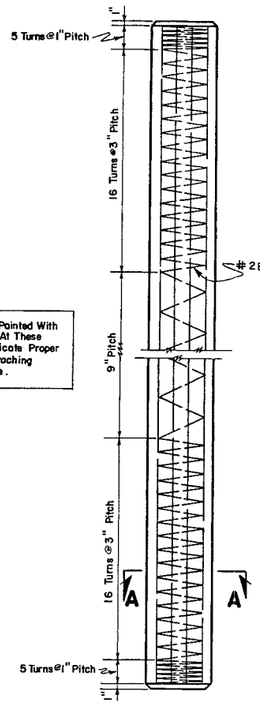
DESIGNED BY C.M. Hiles DATE 8-70
DRAWN BY C.P.M. DATE
SUPERVISED BY C.M. Hiles DATE
CHECKED BY D.W. Fortner DATE 10-8-70

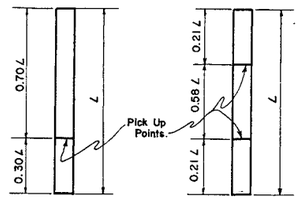
CORRECT _____ ENGINEER OF STRUCTURES
APPROVED _____ DIRECTOR OF HIGHWAYS

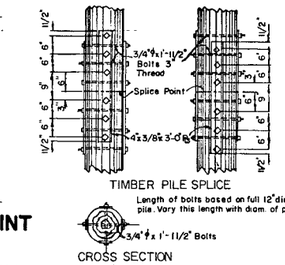
K-86-144

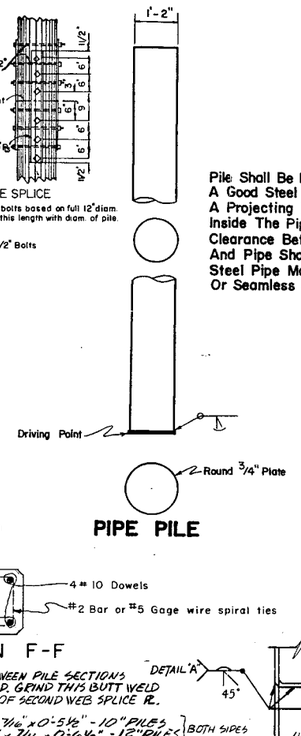
Copy - 1 OF 4 2-5-82

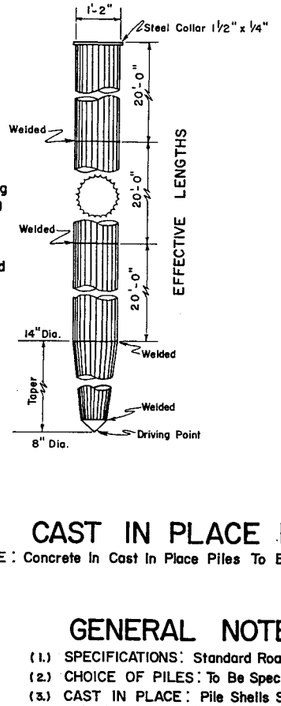


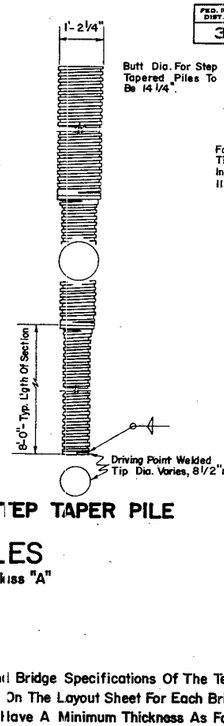


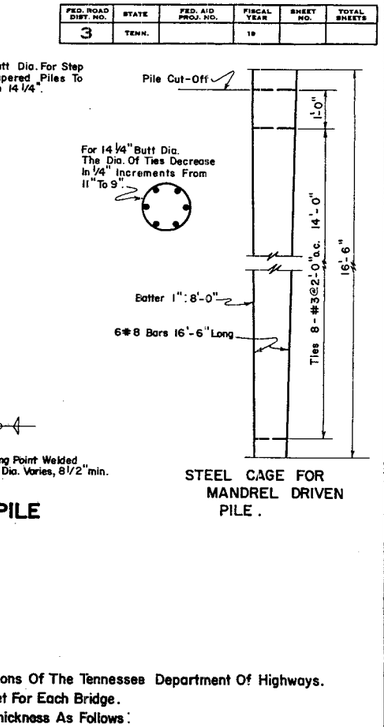


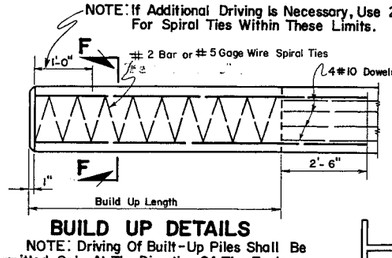












FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19		

PRECAST CONCRETE PILE

For Lengths Up To 40' **For Lengths From 41' To 50'** **For Lengths From 51' To 60'**

NOTE: If It Becomes Necessary To Use Size 2 Piles The Contractor Will Be Allowed An Increase In The Size 1 Bid Of 25 %.

Length Of Of Pile	Longitudinal Reinforcing	Weight Of Steel Per Ft.	Weight Of Pile Per Ft.
Up To 35'	4 #7 Bars	9.6 #	205.3 #
36' To 40'	4 #8 Bars	12.2 #	205.3 #
41' To 45'	4 #9 Bars	15.1 #	265.3 #
46' To 50'	4 # 10 Bars	18.8 #	265.3 #
51' To 55'	8 # 9 Bars	28.9 #	265.3 #
56' To 60'	8 # 10 Bars	36.2 #	265.3 #

NOTE: In Handling The Piles, They Shall Be Supported At The Points Indicated. Piles To Be Picked Up By Pulling On Both Lines Uniformly. End Of Pile Not To Touch Ground Unless Piles Inclined 1:2 Or Steeper.

PRESTRESSED CONCRETE PILE

SECTION A-A ALTERNATE SECTION A-A

* NOTE: End reinforcement required at tip end and driving end for all piles with circular strand patterns.

** NOTE: Subject to the approval of the Engineer of Structures, alternate strand sizes and arrangements of equivalent total force may be substituted.

SINGLE POINT PICK-UP **DOUBLE POINT PICK-UP**

NOTES:
(1.) Maximum Length Single Pick Up Point - 60'-0"
(2.) Maximum Length Double Pick Up Point - 85'-0"
(3.) Piles To Be Marked At These Points To Indicate Proper Place For Attaching Handling Lines.
(4.) For Greater Lengths Three Point Pick-up Is Required.

TIMBER PILE SPLICE

Length of bolts based on full 12" diam. pile. Vary this length with diam. of pile.

Pile Shall Be Driven With A Good Steel Head Having A Projecting Ring Fitting Inside The Pipe. Clearance Between Ring And Pipe Should Be ¼". Steel Pipe May Be Welded Or Seamless Steel.

PIPE PILE

CAST IN PLACE PILES

NOTE: Concrete In Cast In Place Piles To Be Class "A"

STEP TAPER PILE

STEEL CAGE FOR MANDREL DRIVEN PILE.

BUILD UP DETAILS

NOTE: Driving Of Built-Up Piles Shall Be Permitted Only At The Direction Of The Engineer.

STEEL PILES

SECTION F-F

DETAIL OF PILE SPLICE

NOTE: When "H" Is 10' Or More Bracing For Bents Is Required.

HALF BENT HALF ABUTMENT

CASE I

STEEL FOR PRECAST CONCRETE

NOTE: Wrap Pile With American Welded Fabric 2"x 2" No. 10 Wire. Cost of Wire Fabric to be included in Unit Price Bid for Class "A" Concrete

SECTION X-X

HALF BENT HALF ABUTMENT

CASE II

PRECAST CONCRETE FOR STEEL

DETAIL "A"

Welds Typical For All End Joints And Intersections.

TYPICAL DETAILS

When The Substitution Of Steel For Precast Concrete Piles Or Precast Concrete For Steel Piles Is Permitted The Details Will Be As Shown Above. The Substitution Does Not Permit Changing The Number Of Piles In Either Case. Should The Contractor, When Permitted, Elect To Make The Substitution Of Case I, The Cost Of Encasing Blocks At Ground Lines And Bracing If Required Shall Be Included In The Price Per Lin. Ft. Of Piles.

GENERAL NOTES

(1.) SPECIFICATIONS: Standard Road And Bridge Specifications Of The Tennessee Department Of Highways.

(2.) CHOICE OF PILES: To Be Specified On The Layout Sheet For Each Bridge.

(3.) CAST IN PLACE: Pile Shells Shall Have A Minimum Thickness As Follows:
1. Piles Driven Without Mandrel - 7 Gage.
2. Piles Driven With Mandrel Shall Be Of Sufficient Strength And Thickness To Hold Its Original Form And Show No Sign Of Distortion After The Core Has Been Withdrawn.
3. Steel Pipe Shall Be Welded Or Seamless Steel Conforming To ASTM Designation A-252 Grade 2 Welded And Seamless Steel Pipe Piles.
Steel Cage For All Mandrel Driven Piles Will Be Required.

The Contractor Shall Maintain On The Job At All Time Prior To And During The Filling Of The Shells, A Light Suitable For Their Inspection. Improperly Driven, Broken Or Otherwise Defective Shells Shall Be Removed And Replaced Or Otherwise Corrected To The Satisfaction Of The Engineer By Removal And Replacement Or The Driving Of An Additional Pile At No Extra Cost.

(4.) PRESTRESSED CONCRETE PILES: 1. Concrete Shall Have A Minimum 28 Day Strength Of 5000 PSI With A Release Strength Of 3500 PSI For 3/8"⌀ Strands.
2. Spiral Ties Shall Be Tied To Corner Strands At Intervals Adequate To Prevent Excessive Movement During Vibration. They May Be Manufactured From Stock Meeting Any Grade Of Reinforcing Steel Or Hard Drawn Wire.

(5.) PILE POINTS: All Cast In Place Piles Shall Be Equipped With A Steel Driving Point. Driving Points Shall Be Mill Welded To The Pile Shell. Driving Points May Be Either Structural Steel, Forged Steel Or Cast Steel. Steel Piles Shall Have A Square Cut End Only. No Driving Point Is Required Unless Shown On The Bridge Plans.

(6.) SPLICES: Splice Details For Cast In Place Piles Shall Be Made In Accordance With The Manufacturers Recommendations, Subject To The Approval Of The Engineer. Splice Details For Steel And Prestressed Concrete Piles Shall Be In Accordance With The Details Shown On This Sheet.

(7.) DRIVING FORMULA: Piles Shall Be Driven To A Minimum Capacity As Specified On The Layout Sheet As Determined By The Driving Formula as Stipulated In The Specifications.

(8.) MILL TEST REPORTS: Notarized Mill Test Reports Will Be Required For All Steel Piles And Cast In Place Pile Shells.

(9) WELDING SPECIFICATIONS: AWS for Bridges.

(10) STRUCTURAL STEEL: Structural Steel conforming to ASTM A-7 or ASTM A-36-62T will be acceptable.

DETAIL OF PILE DRIVING POINT

NOTE Cost of driving point to be included in the unit price bid for steel piles

Pile	2 ℞s	4 ∠s
10"	6" x 1/2"	3½" x 3½" x 1/2"
12"	7" x 1/2"	4" x 4" x 1/2"
14"	8" x 1/2"	5" x 5" x 1/2"

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

STANDARD PILE DETAILS

VOID

CORRECT Fred Green
BRIDGE ENGINEER

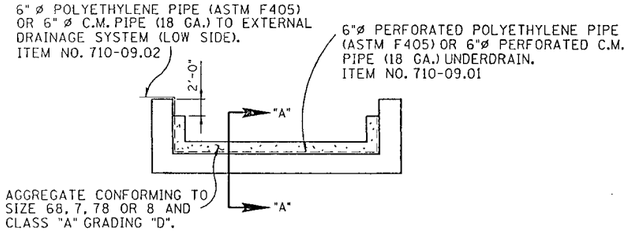
APPROVED C.W. Long
STATE HIGHWAY ENGINEER

H-5-111

DESIGNED BY ______ DATE ______
DRAWN BY J.W. SOUTHERLAND DATE 5-27-60
RETRACED BY JOE B. CANTRELL JR. DATE 2-6-62
CHECKED BY ______ DATE ______

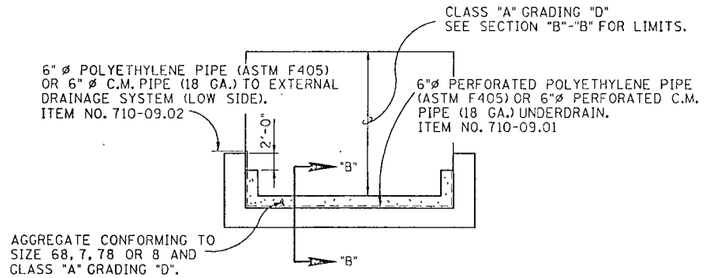
REV. - FEB. 6, 1962
REV. - MAR. 1, 1961 BATTER ON PRESTRESSED PILE
REV. - DEC. 8, 1960
REV. - OCT. 27, 1960
REV. - SEPT. 27, 1960 DELETE PILE SUBSTITUTIONS
REV. - JULY 25, 1960
REV. - DEC. 14, 1964 SPIRAL TIES
REV. - JAN. 22, 1964 COST OF WIRE FABRIC
REV. - FEB. 24, 1966 TIMBER PILE SPLICE, DETAIL OF PILE DRIVING POINT
REV. - NOV. 27, 1973 ADDED ALT. SECTION A-A
REV. - NOV. 12, 1982 DETAIL OF PILE SPLICE

SEE Std-5-1 & 5-2



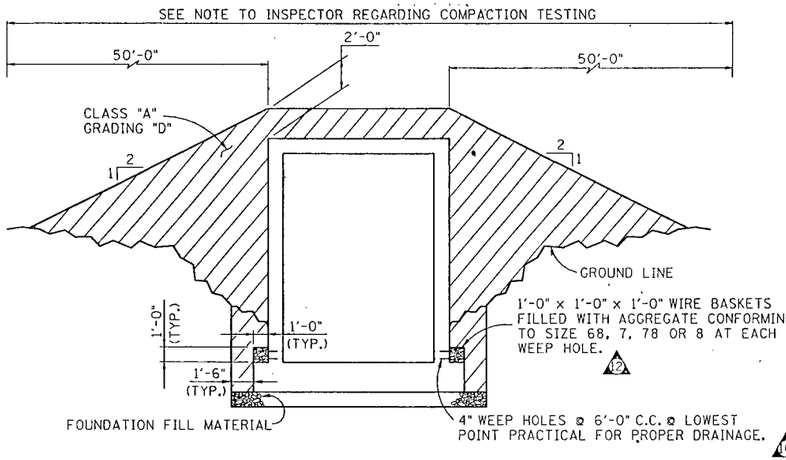
PLAN A ⑧

DIMENSION "H" 10'-0" OR LESS



PLAN B ⑧

DIMENSION "H" GREATER THAN 10'-0".



⑩ ⑨ BOX CULVERT OR BRIDGE

NOTE: CLASS "A" GRADING "D" LIMITS ARE TYPICAL FOR BOX CULVERT OR BRIDGE AND WINGWALLS. CLASS "A" GRADING "D" MATERIALS SHALL BE PAID FOR UNDER ROADWAY ITEM NO. 303-01.01. (SEE ROADWAY PLANS.)

PROJECT NO.	YEAR	SHEET NO.
	1971	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	2-24-71	R.G.	
2	3-18-71	E.R.G.	ADDED NOTE NO.3
3	10-8-71	R.M.D.	EXCAVATION SECTION "B"-"B" CLARIFIED
4	10-10-72	R.M.D.	
5	11-27-72	R.M.D.	
6	9-9-72	C.L.L.	CHANGE NOTE
7	1-9-75	R.M.D.	NOTE CHANGED
8	7-17-86	R.M.D.	ADDED POLYETHYLENE PIPE
9	2-9-87	D.W.F.	GENERAL REVISIONS
10	6-25-87	R.M.D.	REV. PAY LIMIT BOX CULVERT, REMOVED INSERT & ADDED ITEM NO. FOR CLASS "A" GRADING "D"
11	1-7-91	R.M.D.	REV. ITEM NO. 710-09.02 TO 710-09.01 AND REV. ITEM NO. 303-01.01 TO 303-01.02
12	2-8-91	R.M.D.	REV. NOTE 2 TO INCLUDE RETAINING WALLS AND REV. ITEM NO. 710-09.02 TO 710-09.01
13	6-24-91	M.A.H.	ADDED SECTION SHOWING GEOCOMPOSITE DRAINAGE SYSTEM AND NOTE NO.4
14	9-1-91	M.A.H.	CHANGED DWG. NO. FROM K-85-150
15	9-18-91	M.A.H.	REMOVED WATERPROOFING
16	5-11-92	M.A.H.	DELETED ALTERNATE "B" AND NOTES

NOTES

⑩ 1. BACKFILLING: UNLESS OTHERWISE SPECIFIED OR DIRECTED, THE CONTRACTOR SHALL BACKFILL BEHIND ABUTMENTS, RETAINING WALLS OF BOX TYPE BRIDGES AND CULVERTS AS SOON AS THE FOLLOWING CONDITIONS ARE MET:

A. CONCRETE SURFACES AGAINST WHICH BACKFILL WILL BE PLACED HAVE BEEN GIVEN A CLASS 1 FINISH AS SPECIFIED IN SUBSECTION 604.22.

B. REPRESENTATIVE SPECIMENS OF THE CONCRETE IN THE STRUCTURE, SECTION OR UNIT, CURED BY THE METHODS AND IN THE MANNER THAT THE CONCRETE WHICH THE TEST SPECIMENS REPRESENT IS CURED, ATTAIN A COMPRESSIVE STRENGTH OF 3,000 POUNDS PER SQUARE INCH.

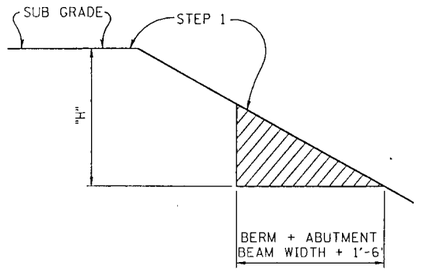
C. THE CONCRETE SHALL HAVE BEEN PLACED A MINIMUM OF 7 DAYS, NOT COUNTING THE DAYS OF TWENTY-FOUR HOURS EACH IN WHICH THE TEMPERATURE FALLS BELOW FOURTY DEGREES FAHRENHEIT, OR 21 CALENDAR DAYS WHICHEVER OCCURS FIRST.

THE PLACEMENT OF BACKFILL AND EMBANKMENT SHALL BE IN ACCORDANCE WITH SUBSECTION 204.11 AND SUBSECTION 205.04, REPECTIVELY, AND AS SPECIFIED ON THE PLANS.

⑩ ⑪ ⑫ 2. CLASS "A" GRADING "D" MATERIAL SHALL BE PAID FOR UNDER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES) OR ITEM 303-01.03 THRU 303-01.08, GRANULAR BACKFILL (RETAINING WALLS).

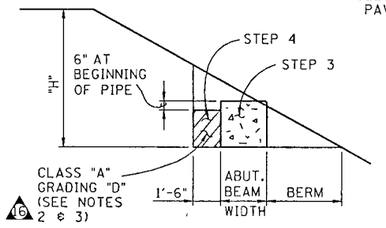
② 3. IN LIEU OF THE CLASS "A" GRADING "D" MATERIAL SHOWN, CLASS "B" GRADING "C" OR "D" MAY BE USED.

⑯ 4. LOCATE PIPE AT LOWEST POINT PRACTICAL FOR PROPER DRAINAGE WITH SLOPE PARALLEL TO ABUTMENT BEAM OR RETAINING WALL (⅛" PER FOOT MINIMUM). INSTALL PIPE AND 1'-0" OF COVER AS SOON AS POSSIBLE AFTER FORMING WALL.



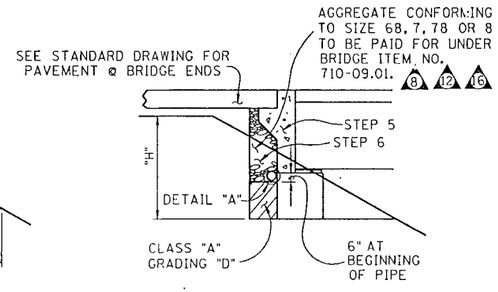
STEP 1: PLACE AND COMPACT END FILL.

STEP 2: EXCAVATE SHADED AREA AS SHOWN. SHALL BE PAID AS DRY EXCAVATION (BRIDGE) OR UNCLASSIFIED EXCAVATION (BRIDGE).



STEP 3: POUR ABUTMENT BEAM.

STEP 4: PLACE BACKFILL MATERIAL BEHIND ABUTMENT BEAM. SEE NOTE 1. ⑩

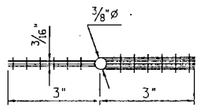


STEP 5: POUR ENDWALL.

STEP 6: PLACE BACKFILL MATERIAL BEHIND ENDWALL. SEE NOTE 1. ⑩

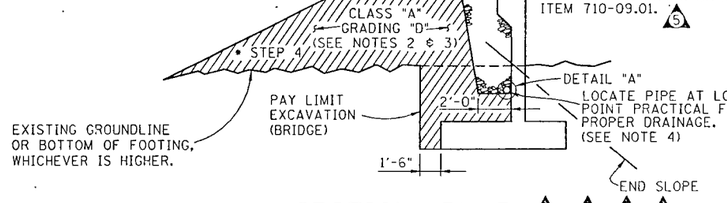
SECTION "A"-"A"

NOTE: THE CONSTRUCTION SEQUENCE SHOWN ABOVE IS APPLICABLE WHERE DIMENSION "H" IS LESS THAN OR EQUAL TO 10'-0".



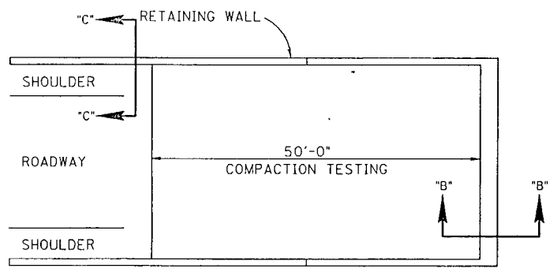
WATERSTOP DETAIL

(FOR LOCATION SEE DESIGN DRAWING)



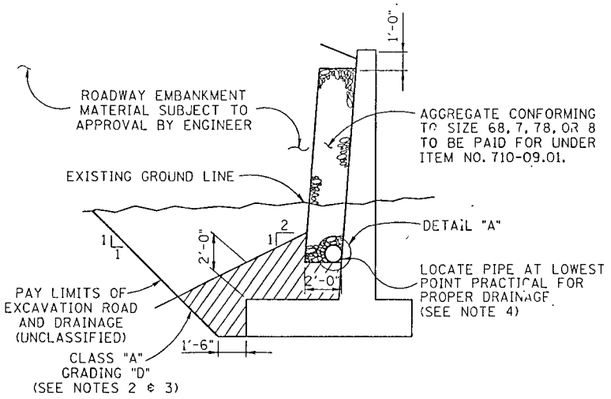
SECTION "B"-"B" ③ ⑨ ⑪ ⑯

(TYPICAL FOR COUNTERFORT OR CANTILEVER CLOSED ABUTMENTS GREATER THAN 10' IN HEIGHT)

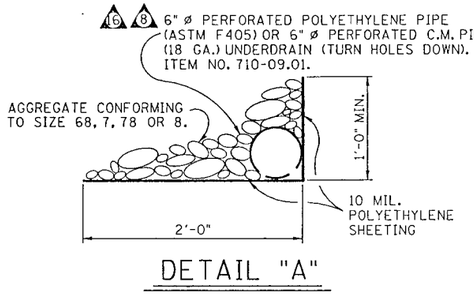


PLAN OF APPROACH ROADWAY AND ABUTMENT

⑩ NOTE TO INSPECTOR: SEE MATERIALS AND TESTS SAMPLING AND TESTING SCHEDULE FOR FREQUENCY OF COMPACTION TESTING OF EMBANKMENT AND BACKFILL MATERIAL. ALSO NOTE 1.



⑯ ⑬ ⑨ RETAINING WALL SECTION "C"-"C"



DETAIL "A"

⑯ MINOR REVISION - FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS 1971

DESIGNED BY R. DISHNER DATE
DRAWN BY KEITH DOUGLAS DATE 1-91
SUPERVISED BY DATE
CHECKED BY R. DISHNER DATE 1-91

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

⑭ STD-10-1

K-85-150 Replaced with Std-10-1