



Hamilton County

Regular Inspection Report

Location: 33-I0075-02.68

Federal ID: 33I00750023

Maintenance Responsibility:

State of Tennessee

Description:

3 Span Bridge

I-75

OVER

CSX Railroad

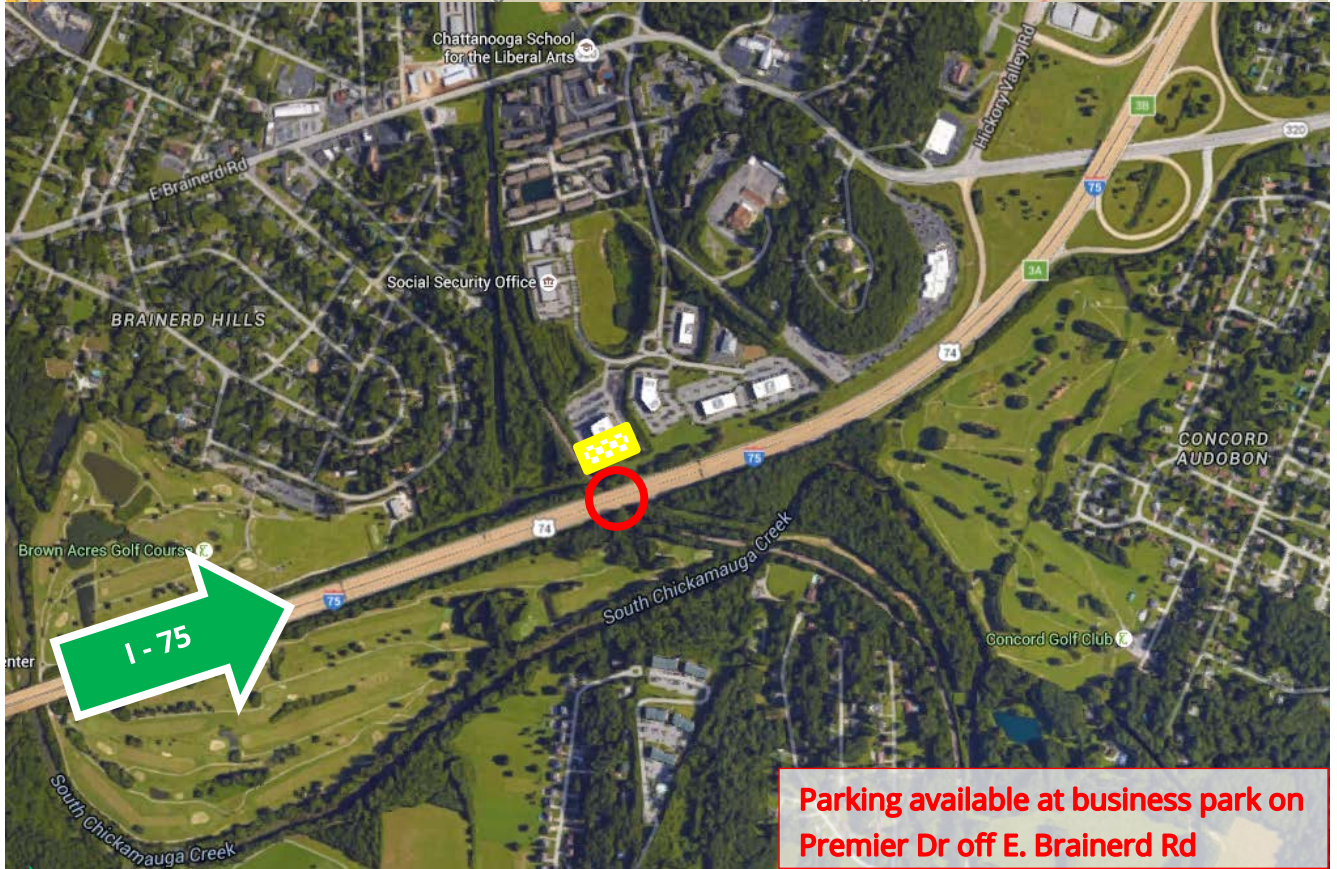
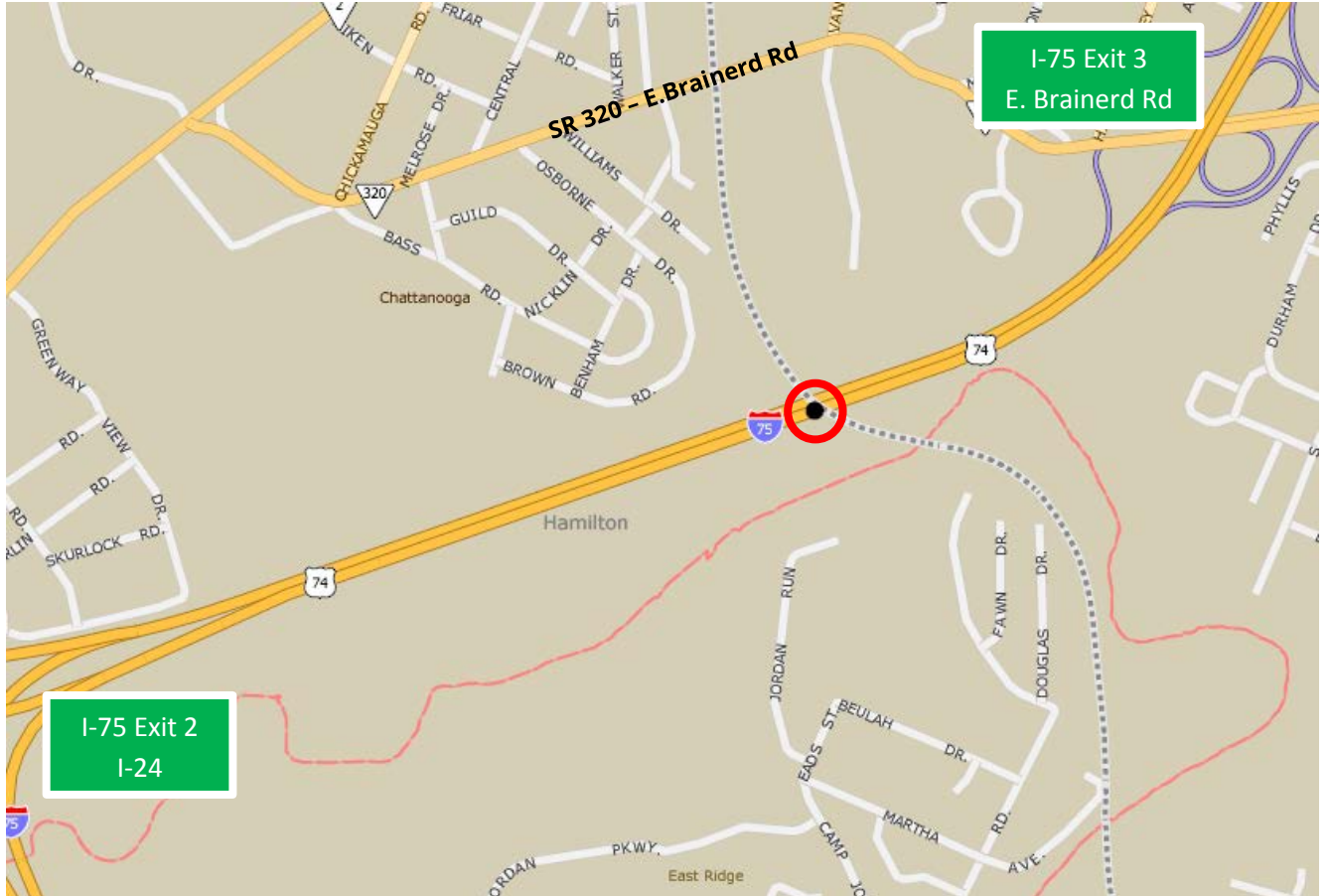
Inspection Date: July 19, 2016



Overall Condition Rating:

GOOD



LOCATION MAP



 Route Direction ON Structure  Recommended Parking Area

BRIDGE MAINTENANCE RECOMMENDATIONS



Tennessee Department
of Transportation

COUNTY: HAMILTON
 LOCATION: 33-I0075-02.68-
 CO. SEQ.: 1 SPEC. CASE: 0
 MILEPOST: 2.68

CROSSING: CSX RAILROAD
 FED. BRIDGE NO.: 33I00750023
 MAINT. DIST.: 33

REPAIR LIST NO.: N
 DATE ADDED: 08/09/2002
 REVISED: 07/25/2016

FACILITY CARRIED:	I75	350029M	NUMBER OF MAIN SPANS:	3
HIGHWAY SYSTEM:	02-INTERSTATE	URBAN	NUMBER OF APPROACH SPANS:	0
BRIDGE WIDTH (CURB TO CURB):	124 FT	4 IN	BRIDGE LENGTH (FT):	140
BRIDGE WIDTH (OUT TO OUT):	129 FT	11 IN	MAXIMUM SPAN LENGTH (FT):	51
APPROACH ROADWAY (W/SHOULDERS):	124 FT	0 IN	SKEW ANGLE (DEGREES):	58
MAINTAINED BY:	STATE HIGHWAY AGENCY			
MAIN SPAN MATERIAL:	PRESTRESSED CONCRETE			
MAIN SPAN DESIGN TYPE:	BOX BEAM OR GIRDERS - MULTIPLE			
APPROACH SPAN MATERIAL:	OTHER OR NOT APPLICABLE			
APPROACH SPAN DESIGN TYPE:	OTHER OR NOT APPLICABLE			
INSPECTION DATE:	07/19/2016		GENERAL CONDITION:	GOOD
EVALUATION DATE:	07/31/2014		STRUCTURALLY DEFICIENT:	NO
PPRM PIN NUMBER:				
H TRUCK RATING @ INV.:	20	TONS	SUFFICIENCY RATING:	77.0

GENERAL COMMENTS:



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 07/25/2016

Bridge Number:
 (Includes Item 5A)

Feature Intersected:

Evaluation Status:

County:

Route:

Special Case:

County Sequence:

Log Mile:

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)
90	LAST INSPECTION DATE	<input type="text" value="07/19/2016"/>	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 SERIOUSLY 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 IT BACK IN LIGHT SERVICE. 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
	EARLIEST DATE OF NEXT REGULAR INSPECTION	<input type="text" value="05/20/2018"/>	
		<input type="text" value="/ /"/>	
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN.	
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN.	
36	TRAFFIC SAFETY FEATURES		
	Br. Rail	1	
	Trans.	0	
	Appr. Rail	0	
	Terminal	0	
	SPEED LIMIT	55	
41	STRC OPEN/CLOSED/POSTED	A	
	A K P		
58	DECK	7	
59	SUPERSTRUCTURE	7	
60	SUBSTRUCTURE	7	
61	CHANL/CHANL PROTECTION	N	
62	CULVERT AND RETAIN WALL	N	
71	WATERWAY ADEQUACY	N	
72	APPROACH RDWY ALIGNMENT	8	
521	OVERALL CONDITION	GOOD	
16	LATITUDE	N 35° .6600'	
17	LONGITUDE	W 85° 11.3620'	
		<input type="text" value="/ /"/>	
	TEAM LEADER SIGNATURE		
	REVIEW DATE		

Photographs

Bridge ID#: 33I00750023

Date: 07/19/2016



BRIDGE # - BRIDGE RAIL - RIGHT - SPAN 1



LOOKING AHEAD - NB

Photographs



LOOKING AHEAD - SB



LOOKING BACK - NB

Photographs



RIGHT SIDEVIEW



LEFT SIDEVIEW

Photographs



SUPER/SUB STRUCTURE - LEFT



SUPER/SUB STRUCTURE - CENTER

Photographs



SUPER/SUB STRUCTURE - RIGHT



BEARINGS - ABUTMENT

Photographs



BEARINGS - BENT



APPROACH 1 - NB

Photographs



APPROACH 1 - SB



WEARING SURFACE - NB

Photographs



WEARING SURFACE - SB



TRAFFIC SAFETY FEATURES

Photographs



APPROACH 2 - NB



APPROACH 2 - SB

Photographs



ABUTMENT 1 - LEFT - UNDERCUTTING



ABUTMENT 2 - LEFT - SEPARATION OF CONCRETE SLOPE

BRIDGE INSPECTION REPORT

Page No. _____

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

Field Report No. 23 Date 7/19/2016
Previous Report No. 22 Date 7/8/2014
Plans: DESIGN

Bridge No. 33100750023
Eleven Digit No.

Bridge Location No. 33 - I0075 - 0268
Co. Route Log Mile

I75 350029M over CSX RAILROAD *
Facility Carried by Structure Crossing Structure Name (If Named)
Year Constructed 1960 ACTUAL County _____ Maintenance District 21
Year Widened 1992 ACTUAL Year Rehabilitated 1992 ACTUAL

FEATURES

Wearing Surface CONCRETE Depth 8.3 (in.)
Flared Width NO Median Width CLOSED
Navigational Control NO Bridge Skew 58° RT
Structure Type (Main Span) PCBB
Structure Type (Appr.Spans) NA
No. Main Spans 3 No. Approach Spans 0
Maximum Span Length 51.0 (**.* ft.)
Total Length 140.0 (**.* ft.)

TEAM LEADER

Tays

INSPECTORS

Haas

WIDTHS (*.* ft.)

Deck Out-to-Out 131.5
Roadway Curb/Curb NA
Roadway Rail/Rail 64.0
Sidewalk Rt. NA Lt. NA
*Approach Roadway 2@48
*(Does Not Include Shoulders)
Approach Shoulder Rt. 12.0
Lt. 6.0

CLEARANCES

Min. Vertical Clearance over Deck 99-99 (ft.-in.)
Min. Vertical Under Clearance 22'-05" (ft.-in.)
Min. Lateral Under Clearance Rt. 13.0 (*.* ft.)
Min. Lateral Under Clearance Lt. NA (*.* ft.)

FRACTURE CRITICAL: NO
(If Yes, Include BIR 3.9)

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

UNDERWATER INSPECTION

To Be Performed By: NR Date _____

Change in Structural Condition: NO Major Repairs Made: NO BRIDGE is: OPEN

COMMENTS:

Supervising Bridge Inspector: Tays

BRIDGE RATING: GOOD

PERFORMANCE EVALUATION

Time of Day Inspected PM Weather Conditions Sunny 90 F
 Vehicles Observed ALL TYPES

LIVE LOAD BEHAVIOR

Substructure	Yes/No	Comments
Horiz./ Vert. Defl.	NO	
Vibration	NO	
Superstructure		
Horiz./ Vert. Defl.	NO	
Vibration	NO	

APPROACH

	Rating	Comments
Alignment	GOOD	
Slab	GOOD	<i>SMALL-LARGE CRACKS, MINOR SPALL, D-CRACKS. #2 LEFT HAS SETTLED</i>
Joints	GOOD	
Pavement	GOOD	
Embankment	GOOD	
Drains	POOR	<i>SBL COMPLETELY BLOCKED. NBL SOME DEBRIS</i>

TRAFFIC SAFETY FEATURES

	Rating	Standard/ SubStandard	Comments
Bridgerailing	GOOD	STANDARD	
Transitions	GOOD	NONSTANDARD	<i>METAL BLOCKS</i>
Guardrail	GOOD	NONSTANDARD	<i>METAL BLOCKS</i>
Guardrail Terminal	GOOD	STANDARD	

SIGNING

	Yes/ No/ Needed	Weight Limit Posted <u>NO</u>
Paddleboards	NO	Gross..... _____ Tons
Vertical Clearance (<14'-6")	NO	2 Axle..... _____ Tons
Narrow Bridge Signs	NO	3 or more Axles.. _____ Tons
One Lane Bridge Signs	NO	

Other Signs or Plaques:

Comments Regarding any
 Problems with Signing:

DECK

	Rating	Comments
Wearing Surface	GOOD	NUMEROUS SMALL-LARGE CRACKS
Deck - Structural Condition	GOOD	HL-SMALL CRACKS.
Curbs	NONE	
Median	GOOD	
Sidewalks	NONE	
Parapet	N/A	
Railing		SEE SAFETY FEATURES
Paint	NA	
Drains	FAIR	FILLING WITH DIRT/DEBRIS IN NBL. SOME DEBRIS
Lighting Standards	NONE	
Utilities	NONE	
Joint Leakage	NA	
Expansion Joints	NONE	

SUPERSTRUCTURE

Bearing Devices	GOOD	Abutments - None - Integral, Bents - Fixed
Girders or Beams	GOOD	HL CRACKS, DELAM, PATCHES, SPALL W/ CABLE EXPOSED. REBAR POPOUTS
Floor Beams	NA	
Stringers	NA	
Diaphragms	GOOD	HL CRACKS
Bracing	NA	
Trusses - General	NA	
Portals	NA	
Bracing	NA	
Paint	NA	
Alignment of Members	GOOD	

TEXTURE COAT

Condition Rating	<u>GOOD</u>	Needs Spot Painting	<u>NO</u>
Overall Appearance	<u>GOOD</u>	Needs Repainting	<u>NO</u>
Staining Rating	<u>GOOD</u>	Comments	
Fading Rating	<u>GOOD</u>		
Scaling Rating	<u>GOOD</u>		

SUBSTRUCTURE

ABUTMENTS

	Rating	Comments
Caps	GOOD	<i>HL cracks</i>
Breastwall	N/A	
Wings	GOOD	
Backwall	GOOD	<i>HL CRACKS W/ EFF.</i>
Plumb	GOOD	
Footing	NA	
Piles	NV	
Embankment	GOOD	
Bearing Surface	GOOD	
Slope Paving	GOOD	
Rip Rap	NA	

PIERS

Caps		
Columns		
Plumb		
Footings		
Piles		
Bearing Surface		

BENTS

Caps	GOOD	<i>DELAM, SPALL</i>
Columns	GOOD	<i>FEW MINOR SPALLS</i>
Plumb	GOOD	
Footings	NV	
Piles	NV	
Bearing Surface	GOOD	

Piles Need Replacement: NO

Piles To Be Replaced:

Inspection Team's Summary
Bridge Location No. 33 - I0075 - 0268
Inspection Date 7/19/2016
Bridge Rating GOOD

TYPE SERVICE: I 75
OVER: CSX RAILROAD *

On Tuesday, July 19, 2016, a Region Two bridge inspection team inspected this structure and found it to be in GOOD condition.

TOP OF DECK

Traffic Safety Features

Bridge Rail:	GOOD	STANDARD	
Transitions:	GOOD	NONSTANDARD	METAL BLOCKS
Approach Rail:	GOOD	NONSTANDARD	METAL BLOCKS
Terminals:	GOOD	STANDARD	

Wearing Surfaces

Approach Pvm:	GOOD		
Deck - Wearing Surface:	GOOD	NUMEROUS SMALL-LARGE CRACKS	

BOTTOM OF DECK

Deck - Structural Condition: GOOD HL-SMALL CRACKS.

SUPERSTRUCTURE

Beams:	GOOD	HL CRACKS, DELAM, PATCHES, SPALL W/ CABLE EXPOSED. REBAR POPOUTS
Bearings:	GOOD	Abutments - None - Integral, Bents - Fixed

SUBSTRUCTURE

Abutments

Caps:	GOOD	HL cracks
Breastwall:	N/A	
Wings:	GOOD	
Backwall	GOOD	HL CRACKS W/ EFF.
Bearing Surface:	GOOD	

Bents

Caps:	GOOD	DELAM, SPALL
Columns:	GOOD	FEW MINOR SPALLS
Bearing Surface:	GOOD	

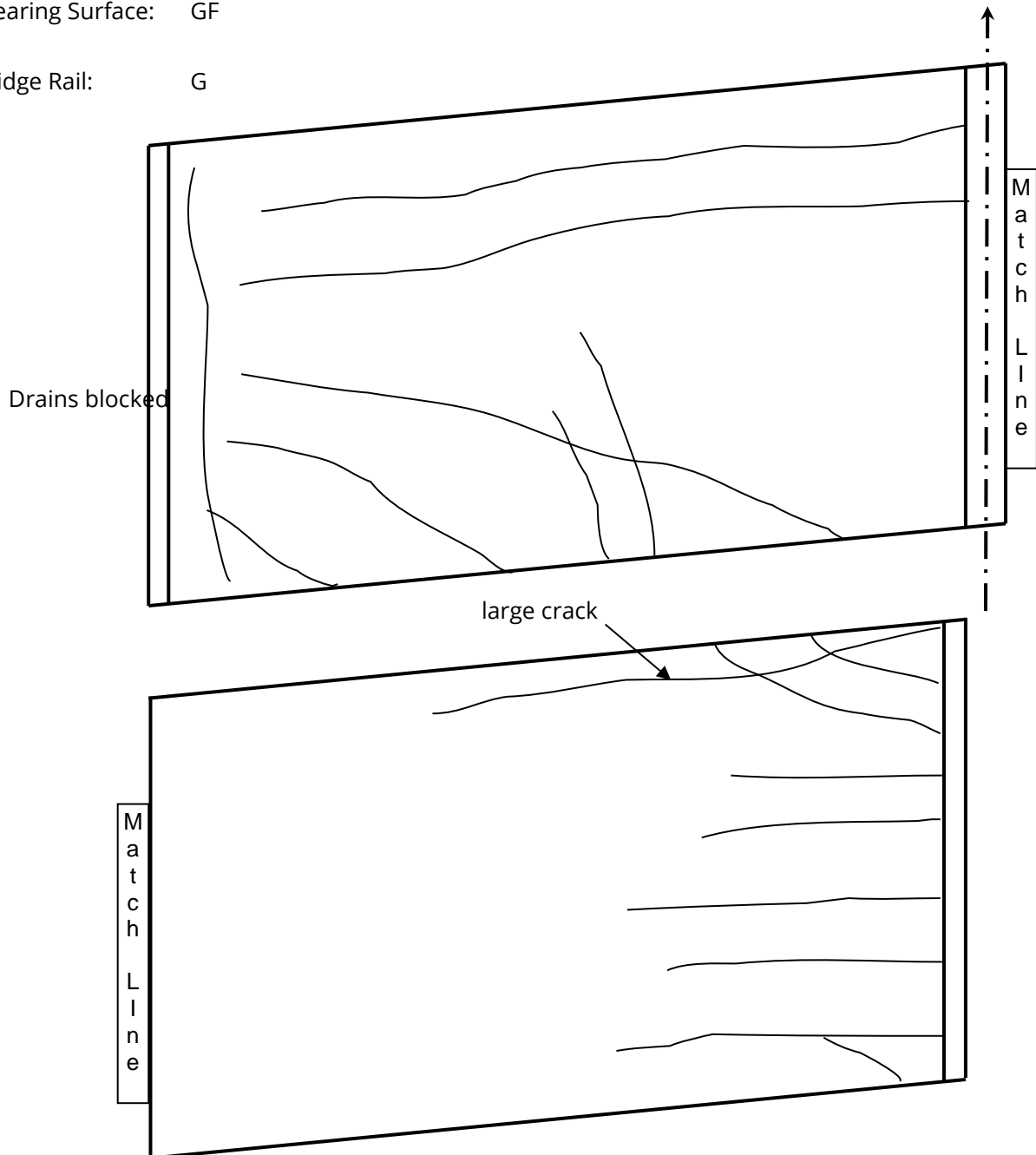
UNDERCLEARANCE

Min Vert Under Clear(ft-in): 22'-05"

SPECIAL NOTES

2016 Changes in RED

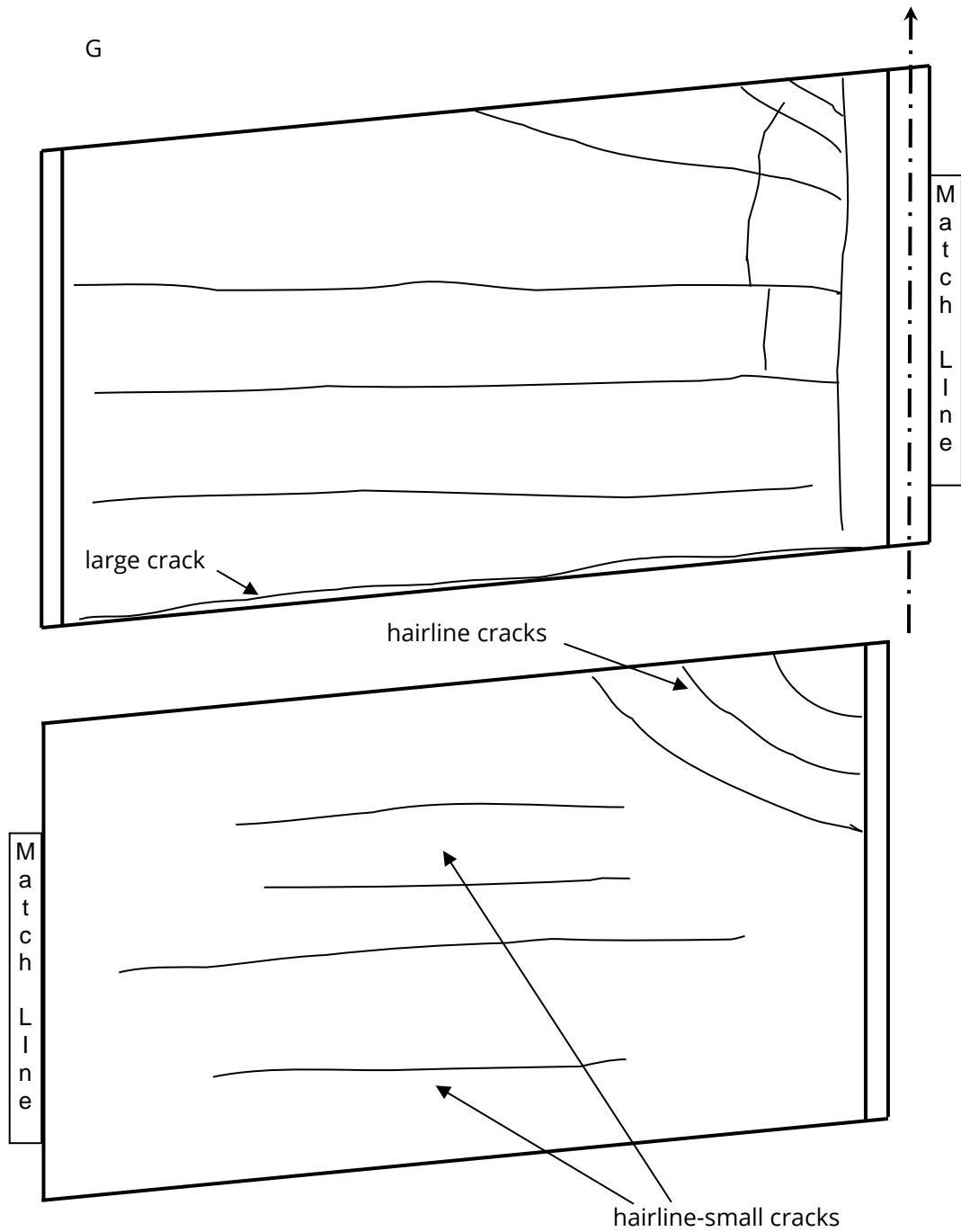
App Pvmt: F
App Rail: G Nonstandard - metal blocks
Wearing Surface: GF
Bridge Rail: G



2016 Changes in RED

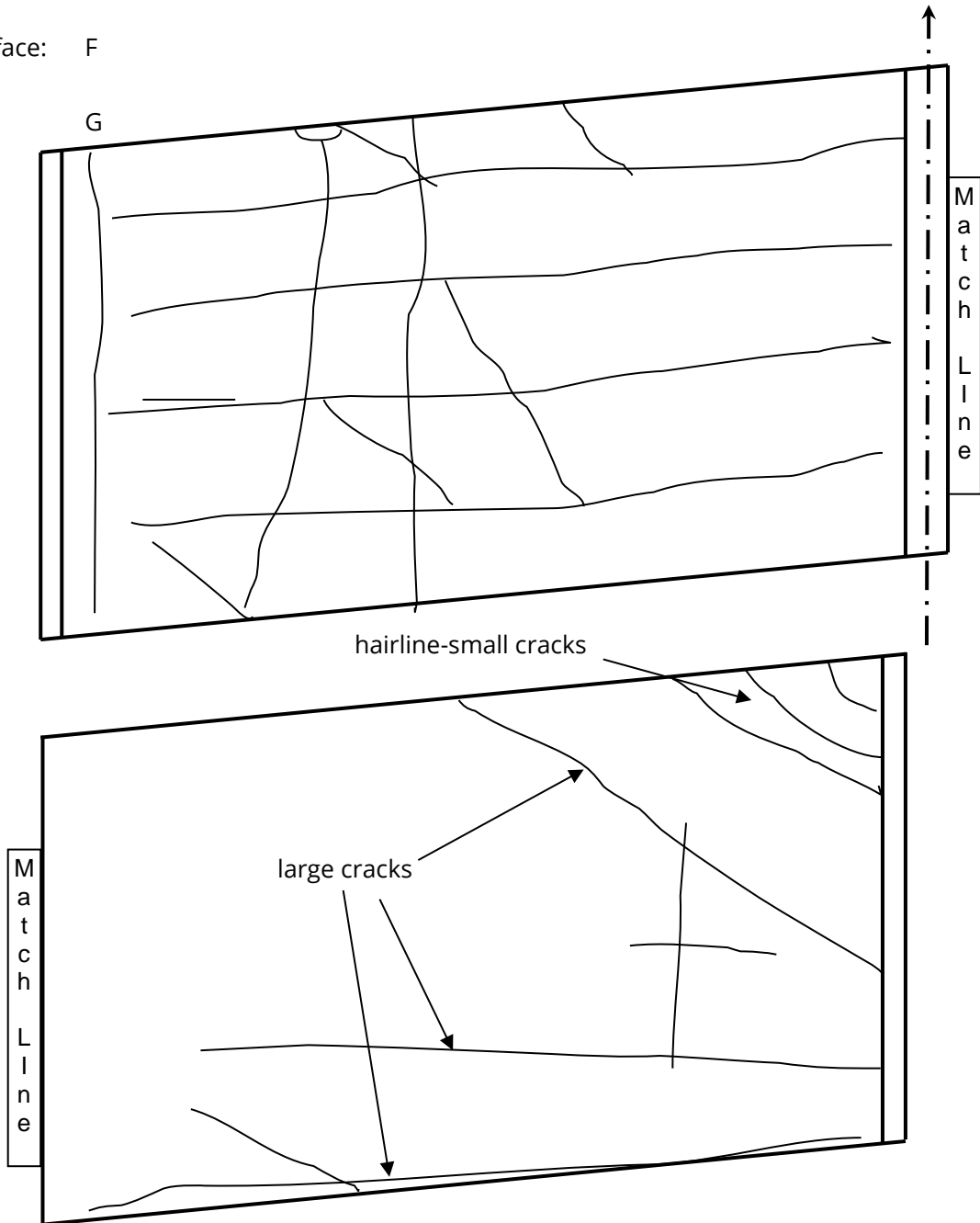
Wearing Surface: F

Bridge Rail: G



2016 Changes in RED

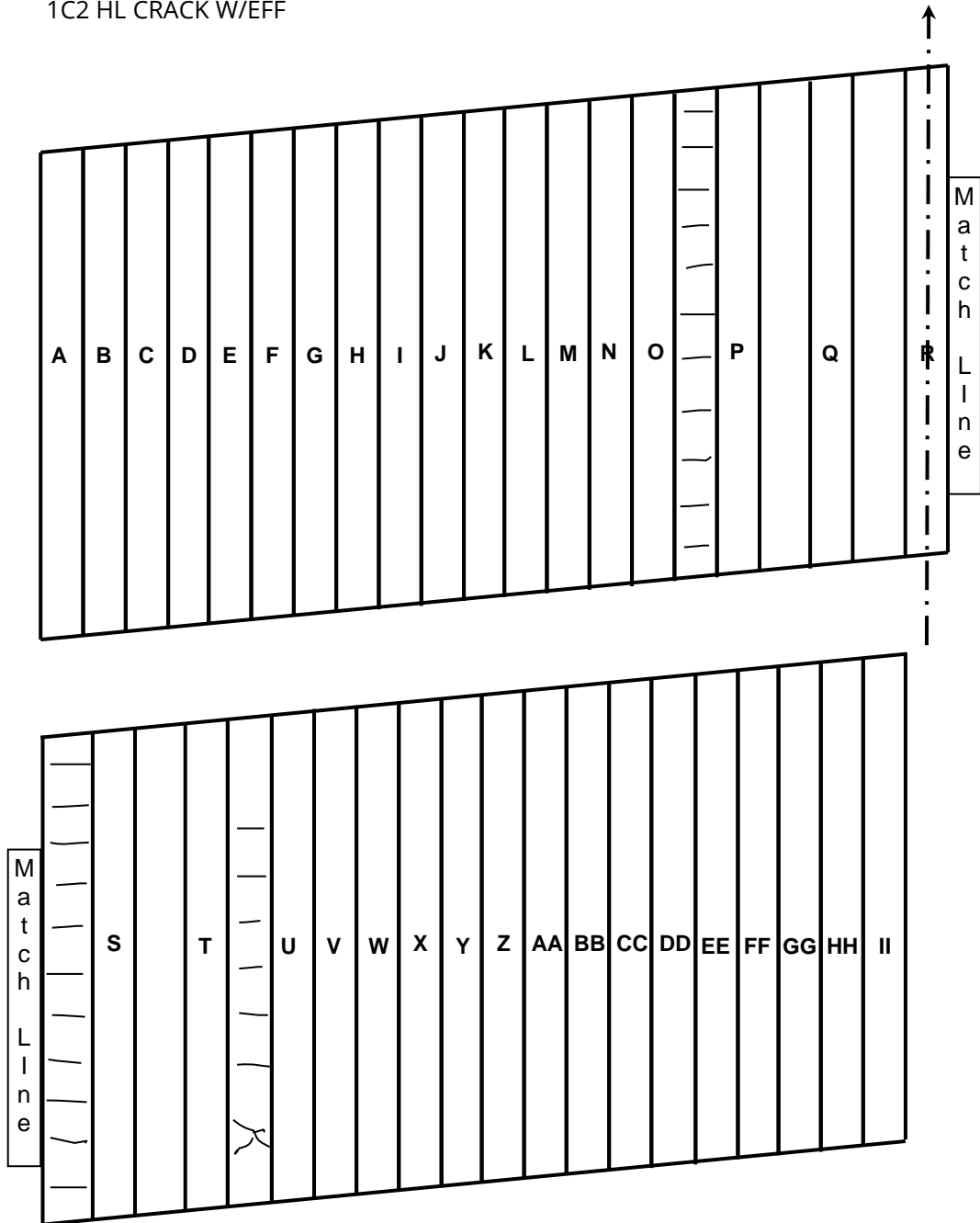
App Pvmt: F
App Rail: G
Wearing Surface: F
Bridge Rail: G



2016 Changes in RED

Beams: G 'A' - HL cracks w/ eff

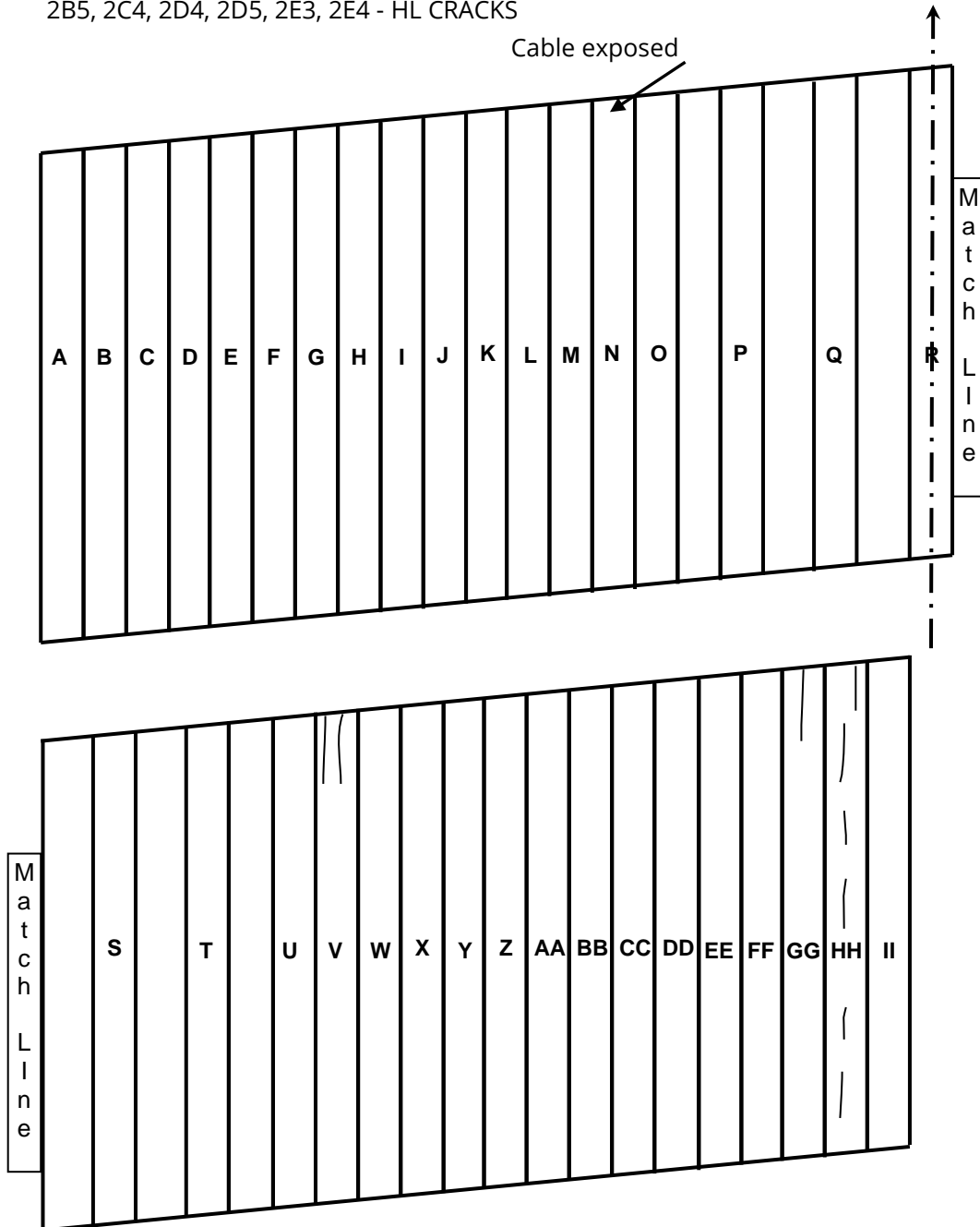
Deck: GF 1C2 HL CRACK W/EFF



2016 Changes in RED

Beams: G 'N' - Rebar spall

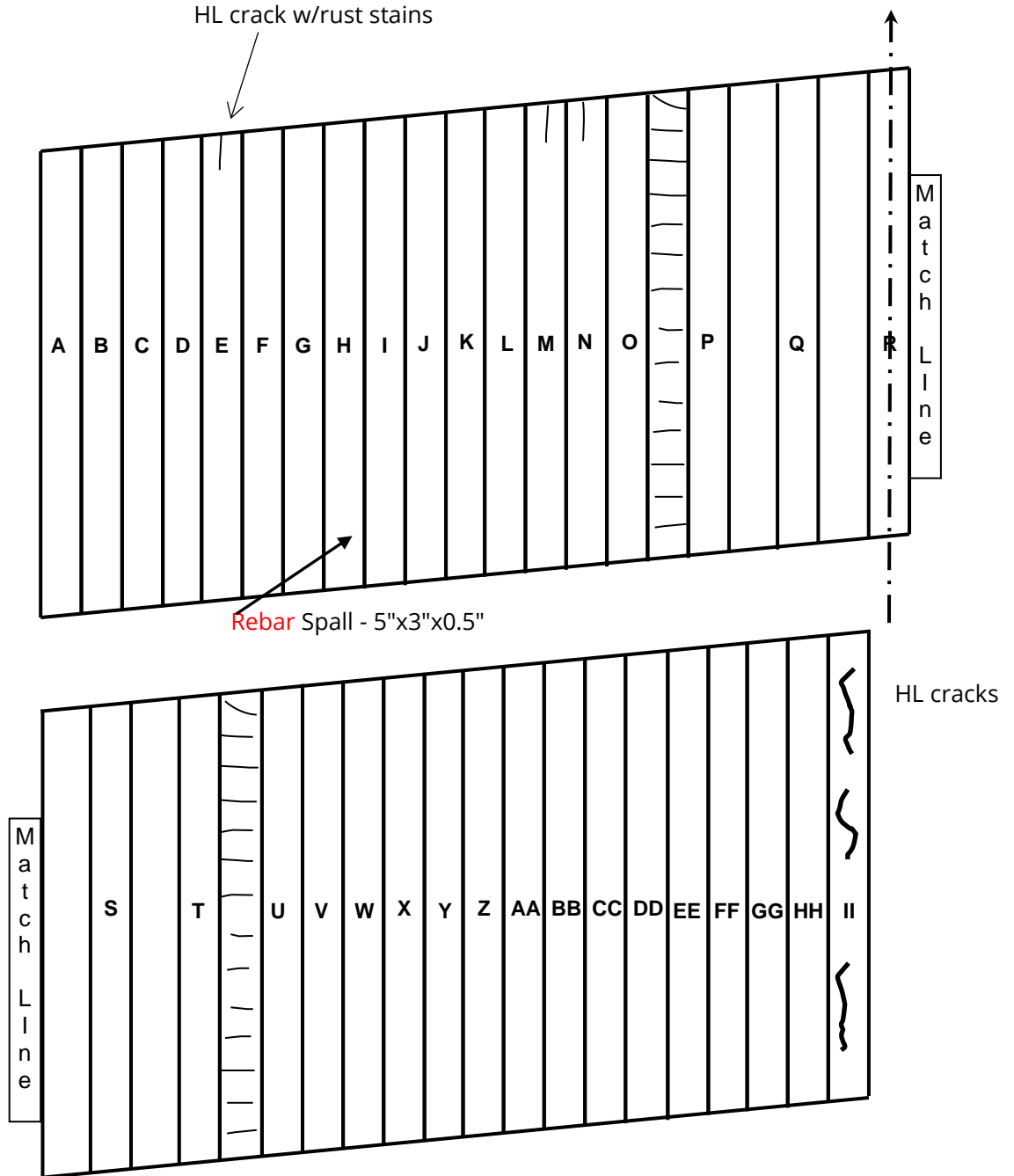
Deck: GF 2B5, 2C4, 2D4, 2D5, 2E3, 2E4 - HL CRACKS



2016 Changes in RED

Beams: G

Deck: GF

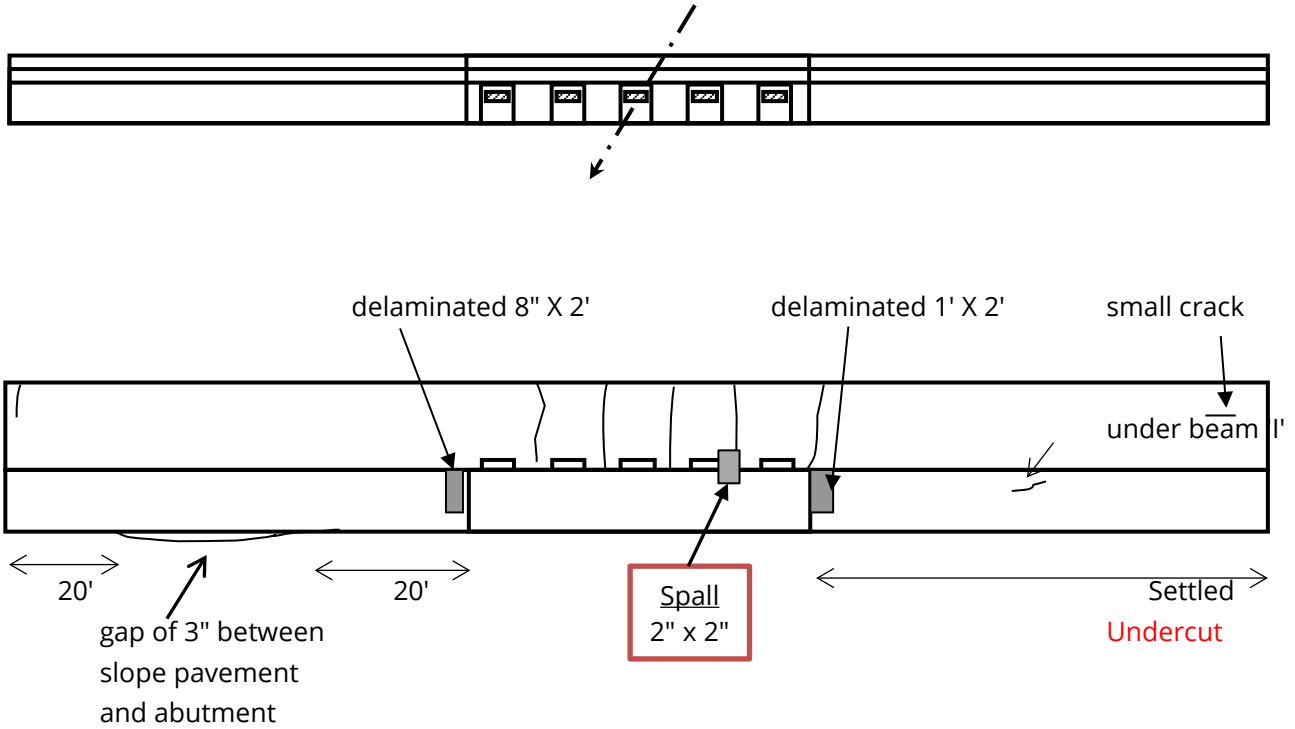


2016 Changes in RED

Bearings: None Integral

Walls: GF

Slope: G

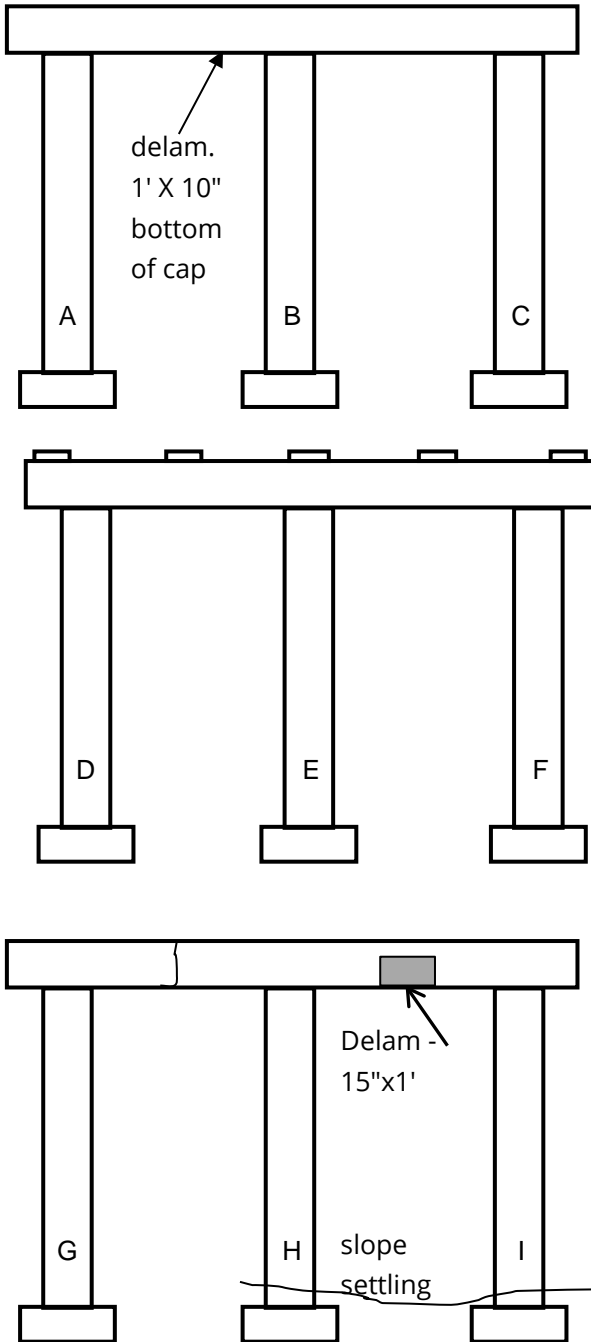


Columns: G Backside of Column 'I' - Wall has separated from column. **2016 Changes in RED**
 Gap between wall and column of 6" at top and 3" at bottom.
 Rebar being pulled is creating spalls in column.

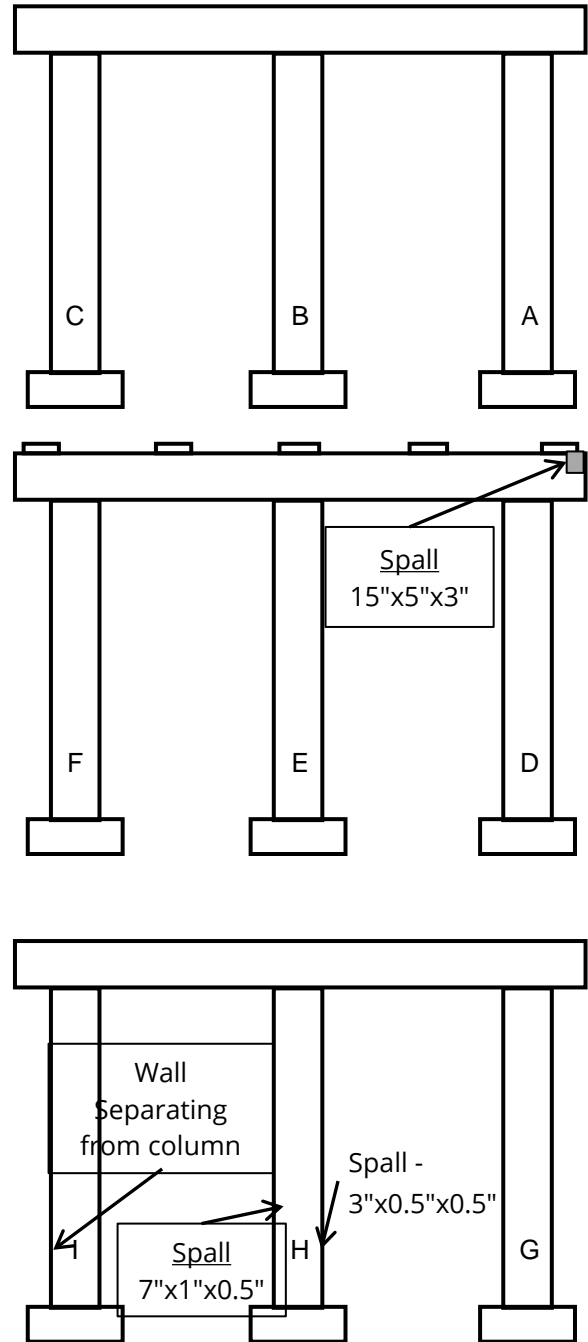
Cap: G

Walls: GF

Looking Ahead



Looking Back



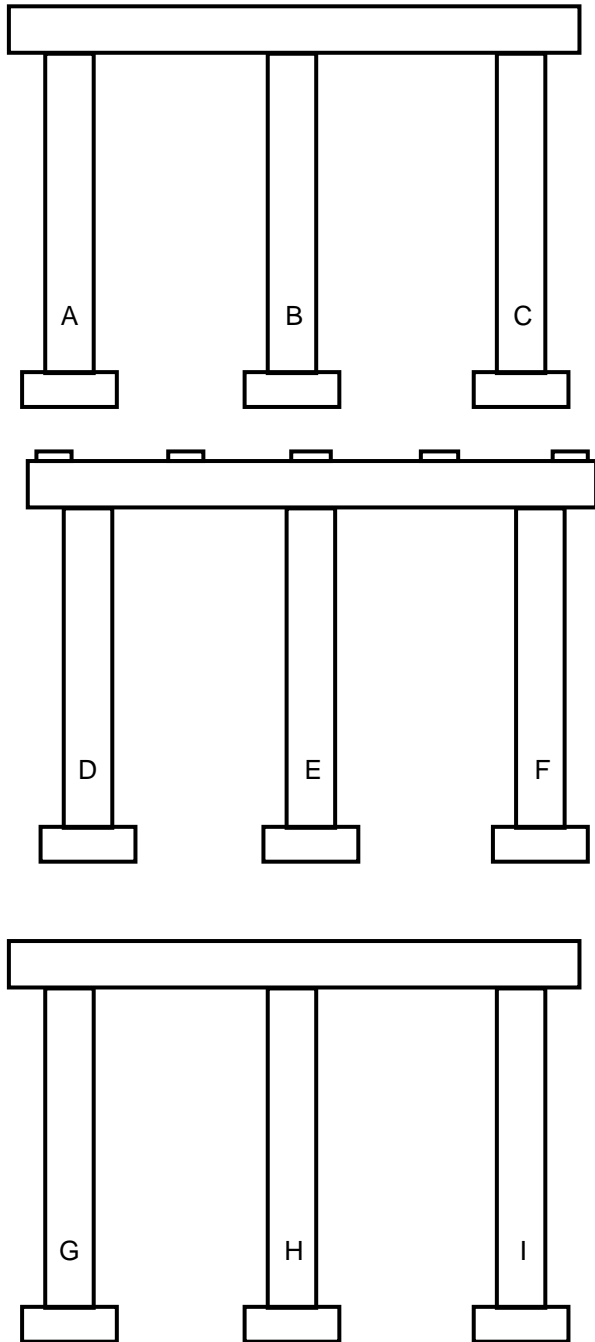
Columns: G

2016 Changes in RED

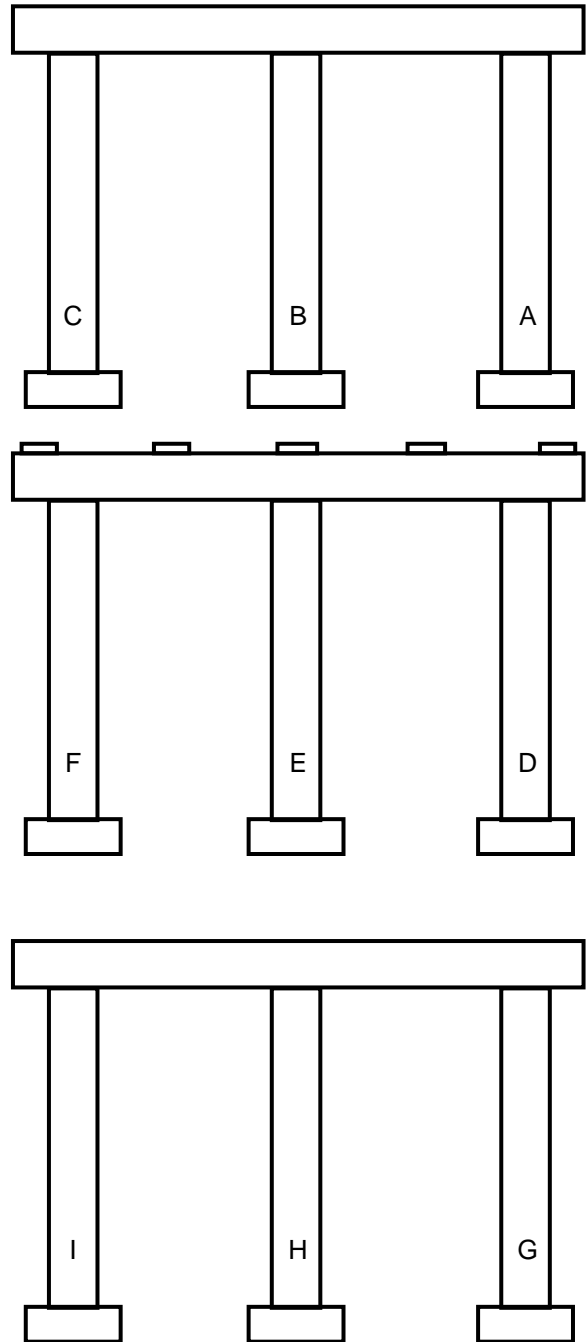
Cap: G

Walls: GF

Looking Ahead



Looking Back

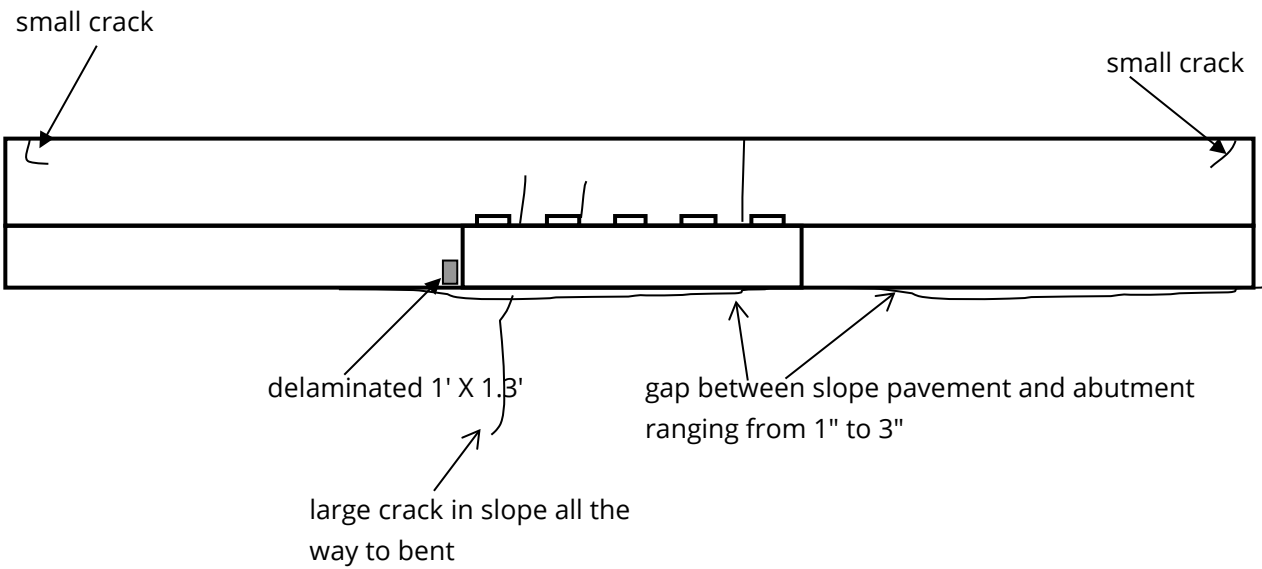
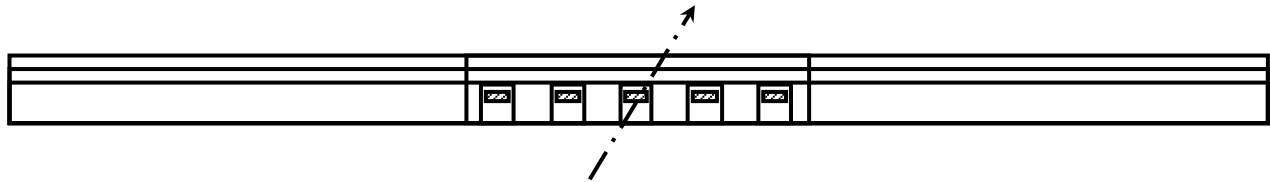


2016 Changes in RED

Bearings: None Integral

Walls: G some patches of honeycomb and scaling, few small cracks

Slope:



Structure Inventory and Appraisal Sheet (English Units)

ELEMENT CONDITION STATE DATA												
Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
0	12/1	Re Concrete Deck	sq.ft	18,200	100%	18,200	0%	0	0%	0	0%	0
0	104/1	Pre Clsd Box Girder	ft	4,900	100%	4,900	0%	0	0%	0	0%	0
0	205/1	Re Conc Column	each	18	100%	18	0%	0	0%	0	0%	0
0	215/1	Re Conc Abutment	ft	300	100%	300	0%	0	0%	0	0%	0
0	234/1	Re Conc Pier Cap	ft	260	100%	260	0%	0	0%	0	0%	0
0	313/1	Fixed Bearing	each	70	100%	70	0%	0	0%	0	0%	0
0	321/1	Re Conc Approach Slab	sq.ft	7,020	100%	7,020	0%	0	0%	0	0%	0
0	331/1	Re Conc Bridge Railing	ft	420	100%	420	0%	0	0%	0	0%	0