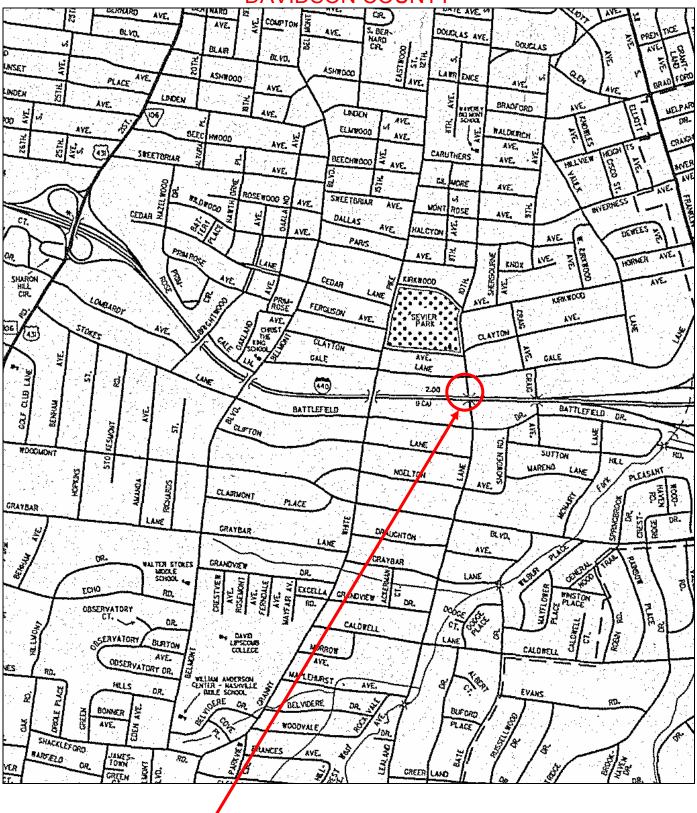
DAVIDSON COUNTY



19104400027 19-10440-4.17 RT 10440 RL/LELAND LANE

BRIDGE	MAINTENANCE	RECOMMENDATIONS
--------	-------------	-----------------

COUNTY: DAVIDSON LOCATION: 19-I0440-04.17-R CO. SEQ.: 1 SPEC. CASE: 0 MILEPOST: 4.11

CROSSING: 1440-RL / LELAND LANE FED. BRIDGE NO.: 19104400027 MAINT. DIST.: 19



REPAIR LIST NO.: N DATE ADDED: REVISED: 03/05/2012

FACILITY CARRIED:			I440	NUMBER OF MAIN SPANS:	1		
HIGHWAY SYSTEM:	02-IN7	TERSTATE	URBAN	NUMBER OF APPROACH SPANS:	0		
BRIDGE WIDTH (CURB TO C	JRB):	54 FT	1 IN	BRIDGE LENGTH (FT):	111		
BRIDGE WIDTH (OUT TO OUT	г):	56 FT	1 IN	MAXIMUM SPAN LENGTH (FT):	109		
APPROACH ROADWAY (W/SHO	JLDERS):	54 FT	1 IN	SKEW ANGLE (DEGREES): 8			
MAINTAINED BY: MAIN SPAN MATERIAL: MAIN SPAN DESIGN TYPE: APPROACH SPAN MATERIAL: APPROACH SPAN DESIGN TYPE:			OTH	STATE HIGHWAY AGENCY PRESTRESSED CONCRETE OR GIRDERS - MULTIPLE HER OR NOT APPLICABLE HER OR NOT APPLICABLE			
INSPECTION DATE:	03/04/2016		G	ENERAL CONDITION:	FAIR		
EVALUATION DATE:	05/08/2014		S	TRUCTURALLY DEFICIENT:	NO		
PPRM PIN NUMBER:							
H TRUCK RATING @ INV.:	20 TONS		SUFFICIENCY RATING: 8				

No.	RECOMMENDATIONS	REPAIR DATE	REPAIRED BY
1.	REPAIR RIGHT SHOULDER "A" END		
2.	REPAIR EXPANSION JOINTS		

SUGGI	ESTED ROU	UTINE	MAIN	NTENANCE	AND	COMMENTS
SEAL	CRACK (S) IN 1	DECK	WEARING	SURF	ACE
SEAL	APPROACI	H SLA	BS			

GENERAL COMMENTS:

REPAIRED EXPANSION JOINTS AT A & B ENDS ALSO EXPANSION APPROACH SLABS A & B ENDS USED 8 - HOURS PSI CONCRETE 6'6" X 42" X 3" & 16' X 2' X 3" 5 - CY. CONCRETE 09/19/2009 D.B. * REPAIRED BREAKOUTS AT LOWER END OF BRIDGE DECK USED THERMACRETE MATERIALS 04/15/2010 M.H. * PATCHED HOLE IN BRIDGE DECK RIGHT LANE AT JOINT 12/07/2010 M.H. & D.B. * PATCHED HOLE IN BRIDGE DECK LEFT LANE LOWER END USDE CRAFCO MATERIALS.. M.H. & D.B. 03/03/2011 # PATCHED HOLE IN BRIDGE DECK 2-RIGHT LANES LOWER END 40' X 4' X 3" USED CRAFCO MATERIALS 12/07/08/2011 M.H. # PATCHED 2-HOLES IN BRIDGE DECK 6' X 1' X 3"& 4' X 1' X 3" USED CRAFCO MATERIALS... 12/08/2011 M.H. # REPAIRED JOINT AT LOWER END OF BRIDGE DECK LEFT LANE 12' X 4' X 4" USED CRAFCO MATERIALS. 12/11/2012 M.H. # REPAIRED 4-SMALL HOLES IN JOINT AT LOWER END OF BRIDGE RIGHT LANE . 12/13/2012 H.H. # REPAIRED SMALL HOLES IN BRIDGE DECK LOWER END OF BRIDGE RIGHT LANES USED CRAFCO MATERIALS. 06/03/2014 M.H.

STATE OF TENNESSEE

Bridge Condition Coding Form

Revised 03/07/2016

	STATE OF TENNESSEE FMENT OF TRANSPORTATION	I	Cuu	1116 1		County:	19
			14000271			Route:	I0440
	ridge Number: cludes Item 5A)	1910	044000271			Special Case:	0
Featu	ire Intersected:	I440-RL/	LELAND LANI	E		County Sequence:	1
T						Log Mile:	4.17
			HAVE BEEN CI			Log Mile.	4.17
	ONLY THOSE VALU				-		
TEM #	DESCRIPTION	V	ALUE			NG GUIDELINES ns 58, 59, 60 and 62)	
90	LAST INSPECTION DATE	0.	3/04/2016	(valu	es for Counig fiel	iis 38, 39, 00 and 02)	
	EARLIEST DATE OF NEXT	0.	1/03/2018				
	REGULAR INSPECTION		/ /	NN	NOT APPLICABI	L E	
10	MINIMUM V.C. OVER	99	FT. 99 I	N	EXCELLENT CO		
10	DECK			<u> </u>	VERY GOOD CO PROBLEMS NOT		
	(ROADWAY + SHOULDER MINIMUM V.C. OVER DE	· · · · · · · · · · · · · · · · · · ·	FT. 99 I	N 70	GOOD CONDITI	ON - SOME MINOR	PROBLEM
520	(EXCLUDES SHOULDERS	~~~		N. 6 S		CONDITION - MIN	
•		UDEC.			DETERIORATIO ELEMENTS.	N OF STRUCTURA	L
36	TRAFFIC SAFETY FEATU Br. Rail Trans. Appr. R		al SPEED LIM			N - ALL PRIMARY	
	1 0 0	1	55	S	STRUCTURAL E	LEMENTS ARE SOU	
						OR SECTION LOSS, LLING OR SCOUR.	
41	STRC OPEN/CLOSED/POS	STED	Α			ON - ADVANCED SE	
	A K P			I	LOSS, DETERIO	RATION, SPALLING	
58	DECK		5		SCOUR.		
						TION - LOSS OF SE N, SPALLING OR S	
59	SUPERSTRUCTURE		6			ECTED PRIMARY OMPONENTS. LOO	~AT
				F	AILURES ARE I	POSSIBLE. FATIGU	E CRACKS
60	SUBSTRUCTURE		7		N STEEL OR SH MAY BE PRESEN	EAR CRACKS IN C IT.	ONCRETE
61	CHANL/CHANL PROTEC	TION	Ν			DITION - ADVANCE N OF PRIMARY ST	
				F	ELEMENTS. FA	FIGUE CRACKS IN	STEEL OR
62	CULVERT AND RETAIN V	VALL	Ν			IN CONCRETE MA	
71	WATERWAY ADEQUACY		N			E SUPPORT. UNLES TORED IT MAY BE	
/1	WATERWAT ADEQUACT		1	Ν	NECESSARY TO	CLOSE THE BRIDO	
72	APPROACH RDWY ALIG	NMENT	8	(CORRECTIVE A	CTION IS TAKEN.	
			-			ALURE CONDITIO	
521	OVERALL CONDITION		FAIR			N OR SECTION LO	
321	OVERALL CONDITION		FAIR	(COMPONENTS (OR OBVIOUS VERT	ICAL OR
				S	STRUCTURAL S	IOVEMENT AFFEC TABILITY. BRIDG	E IS
		NGITUDE				AFFIC BUT CORRE	
	N 36° 6.9520′ W 86°	° 47.2130′		P		RODUCED PURSU	
-				0 F	TAILED CONDIT	ION - OUT OF SERV	VICE AND
		-		Ľ	DE I UND CORRE	ECTIVE ACTION.	y 23 USC §4
1	EAM LEADER SIGNATURE	L .	REVIEW DATE		And I	s production pursua	unt to a publ

And its production pursuant to a public document records request does not waive the provisions of §409

Bridge ID#: 19104400027

Date: 03/04/2016



APPROACH "A" - EBL



VIEW ACROSS TOP OF WEARING SURFACE EBL

Bridge ID#: 19104400027

Date: 03/04/2016



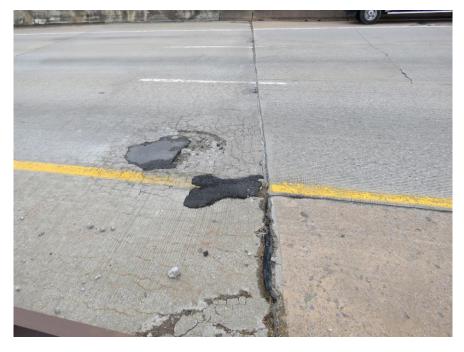
APPROACH "B" - EBL



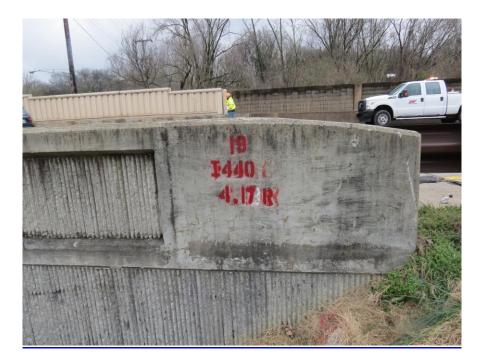
WEARING SURFACE "B" END W/ PATCHES & POTHOLE

Bridge ID#: 19104400027

Date: 03/04/2016



WEARING SURFACE "A" END W/ PATCHES



BRIDGE NO.

Bridge ID#: 19104400027

Date: 03/04/2016



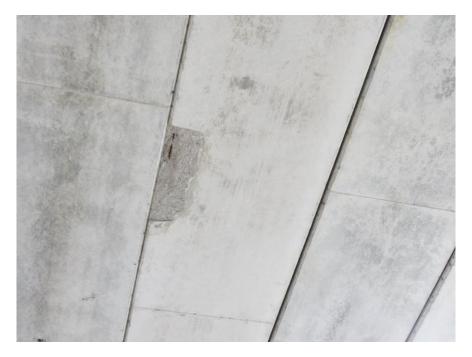
ABUTMENT #1



UNDERSIDE VIEW H.B.B.

Bridge ID#: 19104400027

Date: 03/04/2016



BOX BEAM "H" W/ SPALL & EXP. REBAR



CLEARANCE VIEW RT. SIDE

Bridge ID#: 19104400027

Date: 03/04/2016



VIEW LOOKING SOUTH ON LEALAND AVE.



VIEW LOOKING NORTH ON LEALAND AVE

<u>BRIDGE INSI</u>	BRIDGE INSPECTION REPORT Page No								
Form BIR 3.0 (Rev. 9-22-98)	Field Report No. Previous Report No.	20 Date 3/6/2014							
DT-0069 Bridge No. <u>19I04400027</u> Eleven Digit No. I440 over LELANI	Bridge Location No.	DESIGN 19 - I0440 - 4.17 R Co. Route Log Mile							
Road Name	Crossing	Structure Name (If Named)							
Year Constructed 1985 ACTAUL Year Widened	County Davidson Year Rehabilitated	Maintenance District 31							
	ft.)	INSPECTORS 1. HALIBURTON TL 2. VOGEL 3. BROWN 4. LOVE 5.							
WIDTHS (*.* ft.) Deck Out-to-Out	<u>CLEARANCES</u> Min. Vertical Clearance ov Min. Vertical Under Clearan Min. Lateral Under Clearan Min. Lateral Under Clearan FRACTURE CRITICAL <u>: 1</u> (If Yes, Include BIR 3.9 NBIS Bridge Length (<25 f	Ince 16'10" (ftin.) Ince Rt. 10' (*.* ft.) Ince Lt. (*.* ft.) NO 9)							
UNDERWATER INSPECTION To Be Performed By: N/A Change in Structural Condition: NO	Date Major Repairs Made: NO	BRIDGE is: OPEN							
<u>COMMENTS:</u>									

Form BIR 3.1 (Rev. 9-22-98) DT-0080	I	Bridg	e Lc	ocation No. <u>19</u> Co.		4.17 R Log Mile	_ Date	Page No 2 3/4/2016
PERFORMANCE		UAT	ION					
Time of Day Ins	pected	I 9	:10	AM Weathe	er Conditions	CLDY 45		
Vehicles Observ	ved AL	L TY	PES	6				
LIVE LOAD BE	ΗΔΥΙΟ	R						
Substructure		Yes/l	No			Comments	3	
Horiz./ Ver	t Dofl		-					
Vibration	t. Den.							
Superstructure	-							
Horiz./ Ver		. NC						
Vibration	t. Den.		_					
VIDIATION								
APPROACH	Ratir	ng				Comments	3	
Alignment	GOC	D						
Slab	FAI	R	NUI	MEROUS 1/8" OPE	N LONGIT CRA	ACKS & SURI	FACE SCALE	
Joints	POC	DR	HEA	AVY FILLER LOSS	& BREAKOUTS	S		
Pavement	FAI	R	UNE	EVEN @ 'B' END W	// PATCHES. B.	.O. @ "A" EN	D RT SHOULDE	R
Embankment	GOC	D						
Drains	NA	λ	WA	TER POOLING ON	' 'B' END			
TRAFFIC SAFET	Y FEA	TUR Rati		Standard/ SubStandard		Comments	3	
Bridgerailing		GO	DC	STANDARD				
Transitions		GO	DC	SUBSTANDARD	RUB-RAIL NO	ON-EXISTEN	T @ "A" END LT	
Guardrail	Γ	GO	DC	SUBSTANDARD	INCORRECT	BLOCKOUTS	S	
Guardrail Terr	ninal	GO	DC	STANDARD				
	<u> </u>			•				

SIGNING	Yes/ No/ Needed	Weight Limit Posted	NO
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:

Form BIR 3.2		Page No
(Rev. 9-22-98) DT-0081	Bridge	Location No. <u>19 - 10440 - 4.17 R</u> Date <u>3/4/2016</u> Co. Route Log Mile
DECK	Rating	Comments
Wearing Surface	FAIR	NUMEROUS LONGIT CRACKS 1/16" & 4' X 4' FAILED A/C PATCH 'B' END
Deck - Structural Condition	F	(BTMN/V) SIDE-BY-SIDE BOX BEAMS. OVERHANGS GOOD
Curbs	NA	
Median	NA	
Sidewalks	NA	
Parapet	GOOD	STANDARD-SURFACE SCALE, VERT H.C.'S
Railing	NA	
Paint	NA	
Drains	NA	
Lighting Standards	GOOD	
Utilities	NA	
Joint Leakage	GOOD	
Expansion Joints	POOR	100% LOSS OF FILLER

SUPERSTRUCTURE

Bearing Devices	GOOD	
Girders or Beams	GOOD	BEAM 'H' SPALLS W/ EXP. STEEL 4" DP, BMS 'A' & 'M'- LONGIT & DIAG. CRACKS
Floor Beams	NA	
Stringers	NA	
Diaphragms	NV	
Bracing	NA	
Trusses - General	NA	
Portals	NA	
Bracing	NA	
Paint	NA	
Alignment of Members	GOOD	

TEXTURE COAT

	Ν
Overall Appearance FAIR	Ν
Staining Rating FAIR	С
Fading Rating FAIR	C
Scaling Rating FAIR	

Needs Spot PaintingNONeeds RepaintingYES

Comments

Form BIR 3.3						I	⊃age No
	Bridge Location No.	19 -	10440	-	4.17 R	Date	3/4/2016
DT-0082	_	Co.	Route		Log Mile		

SUBSTRUCTURE

ABUTMENTS	Rating	Comments
Caps	NA	
Breastwall	GOOD	RANDOM H.C.'S UP TO 1/16"
Wings	GOOD	
Backwall	NV	
Plumb	GOOD	
Footing	NV	
Piles	NV	
Embankment	GOOD	
Bearing Surface	GOOD	
Slope Paving	NA	
Rip Rap	GOOD	SHOT ROCK

<u>PIERS</u>

Caps	N/A	
Columns	N/A	
Plumb	N/A	
Footings	N/A	
Piles	N/A	
Bearing Surface	N/A	

BENTS

Caps	N/A	
Columns	N/A	
Plumb	N/A	
Footings	N/A	
Piles	N/A	
Bearing Surface	N/A	

Piles Need Replacement: NO

Piles To Be Replaced:

SUMMARY 19-I440-4.17 RT 3/4/2016

I440 Rt. Lane/Lealand Ave. 1 Span/H.B.B.

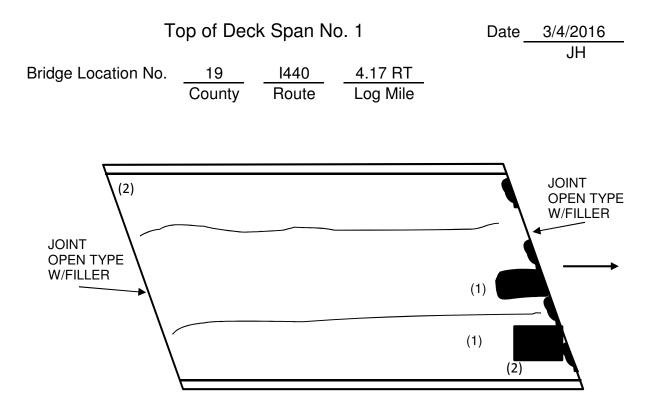
This bridge was inspected and found to be in **fair** condition. Approach alignment and embankment are good. Expansion joints on approach slabs are poor with heavy filler loss. Approach slabs are fair with cracks upto 1/8" open and surface scale. Approach roadway is poor with concrete breakouts and failing a/c patches and concrete breakouts at saw cut joint. Bridge parapet rails are good and standard with light scale and vertical haircracks. Approach guardrail and transitions at 'A' end left are good but substandard.

The concrete wearing surface is fair due to longitudinal and transverse cracks up to 1/16" open and a 4' X 4' failing patch. Expansion joints are poor due to minor breakouts and 100% loss of filler.

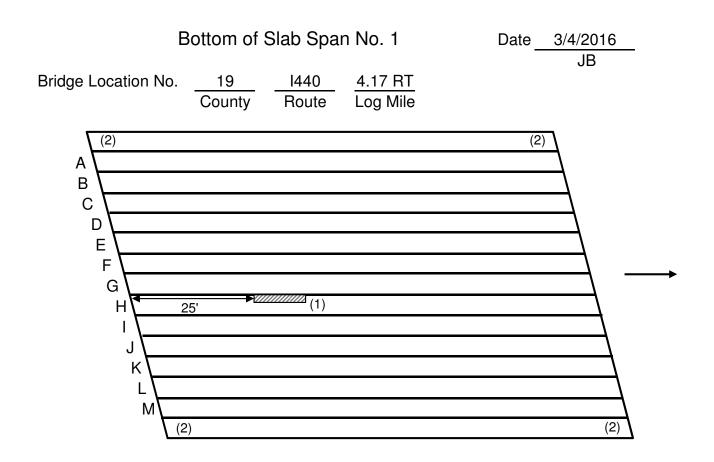
Beam "H" is fair due to 2' x 1'x 4" deep spall with exposed steel.

Abutments are good.

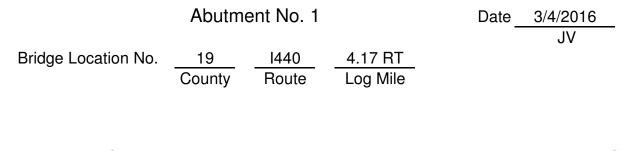
John Haliburton

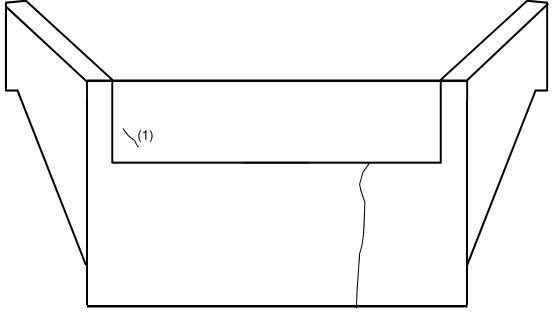


DECK	FAIR	MOD. LONGIT CRACK 1/16" OPEN & (1) PATCHES 4' X 4' AND 6' X 3'.
		CONC. B.O.'S @ SAW CUT JOINT 'B' END, (2) POTHOLE 2' DIA.
PARAPET	GOOD	STANDARD= SURFACE SCALE & H.L. VERT. CRACKS
JOINTS	POOR	MOD. B.O.'S AND HVY DEBRIS W/FILLER LOSS "B" END

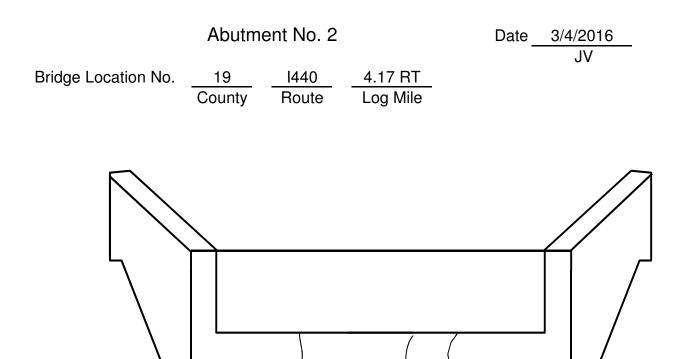


DECK	NV	
BEAMS	GOOD	(1) BEAM 'H' HAS A 1' X 2' SPALL W/ EXPOSED REBAR 4" DP
"A" & "M"	GOOD	(2) LONGIT. CRACK .010" OPEN X FULL LENGTH
"A"	GOOD	DIAG. H.C. @ ABUT #1
OVERHANGS	GOOD	





BACKWALL	GOOD	(1) DIAG. H.C. W/ EFF.
WALL	GOOD	RANDOM VERT H.C.'S
	_	
WINGS	GOOD	
	ND /	
BEARINGS	NV	



(1)

(1)

BACKWALL	GOOD	
WALL	GOOD	(1) VERT. CRACK UP TO 1/16" OPEN FULL HEIGHT,
WINGS	GOOD	
BEARINGS	NV	



Underpass Condition Coding Form

Revised 03/07/2016

	STATE OF TENNESS					u	116	U			C	County	/:	19
DEIARI	IMENT OF TRANSF	ORIAIION										Route	e: 0	C433
Bridge Number:				191044000272							Specia	l Case	e:	0
(Includes Item 5A)				1/1044000272						С	ounty Seq	quence	e:	1
			440-RL / LELAND LANE						Log Mile:				e:	2.70
CODE	ONLY THOS	E VALUES	WF	нсн	HAVE	СНА	NGED)						
	DESCRIPTION					VAL		-	UN	DERP	ASS SAF	ETY I	FEAT	URES
90	LAST INSPECTI EARLIEST DAT NEXT REGULAR INSP	E OF					2016 2018 /]	515		(<mark>PE UNDI</mark> ONE EXIS			
10	MINIMUM V.C. DECK (ROADWAY + SI				16	FT. FT.		IN. IN.			Revised		er Type	
520	MINIMUM V.C. (EXCLUDES SH				16	FT. FT.	10	IN. IN.			DEQUACY ARRIER (IL	N
47	TOTAL HORIZONTAL				59	FT.		IN. IN.			DEQUACY RANSITIC			N
54	UNDERCLEARA MINIMUM VER	TICAL UNDE	RCLI	EARAN	ICE	F 1.		114.			DEQUACY ERMINAL			N
	(EXCLUDES SH		Н	R		FT.		IN.	554		ICAL CLE D ON HE		NCE	
55	MINIMUM LAT UNDERCLEARA SIDE	ANCE ON RIG								POSTI	ING	FT. FT.		IN. IN.
		Circle One:	Η	R		FT.		IN.				_ `		
56	MINIMUM LAT UNDERCLEARA SIDE		Т			FT.		IN.	16		FUDE ' 6.9520'			NGITUDE ° 47.2130′
521	OVERALL CON	DITION			FAIR					BOI	GHT POS TH ROACHE		АТ	YES [] NO [] N/A []
555	COMMENTS													
	-													
	_									PF	RODUCE	D PUR	ISUAN	TTO

TEAM LEADER SIGNATURE his document is cov REVIEW DATE \$409

And its production pursuant to a public document records request does not

waive the provisions of §409

Page 1 of 2 INSPECTIO	N REP	ORT F	OR L	INDER	PASS F	<u> 2007</u>	<u>TE</u>	Page No
Form BIR 3.0A			F	ield Repo	ort No. 2	1	Date	3/4/2016
(Rev. 9-22-98)				ous Repo			Date	3/6/2014
DT-1443								
Bridge No. 19104400027		ι	Jnderp	ass Locat	ion No.	19 -	C433	- 2.70
Eleven Digit No.			•			Co.	Route	Log Mile
I440 RL/LELAND LN or	⁻ 19 -	l440 -	0417	R	over	19 -	C433	- 2.70
Railroad/Walkway	Co.	Route	Log Mi	le		Co.	Route	Log Mile
County Davidson		Structu	re Nam	ne (If Nam	ned)			
Year Constructed 1985 A	CTAUL							
Year Widened		Yea	ar Reha	abilitated				
GEOMETRIC FEATURES UND	ER BRID	DGE ("*.* ft. u	nless oth	erwise no	oted)		
Divided Highway NA	4			Type of	Wearing	Surfac	ce	ASPHALT
Width of Approach Traveled Ro	adwa <u>y</u>	40'	ft.	(Does N	ot Include	e Shou	ulders)	
Width of Median if Divided High	way		ft.					
Approach Shoulder Width		2'	2' ft. Right 2' ft. Left				ft	
*Horizontal Clearance Under Br	idge	60'	ft.					
*Distance Between Pier Protect	ion							
Guardrail and Substructure			ft.	Right			ft. Le	ft
*Width of Sidewalk Under Bridg	e	5'	ft.	Right		ft. Left		
*Minimum Vertical Clearance:	_	16'	ft.	10" in.	(ftin.)			
*Show on Sketch							INSP	ECTORS
TRAFFIC SAFETY FEATURES			Stan	dard/ SubS	tandard			
		Rating		Non Exis				URTON TL
Pier Protection Railing or Pa	rapet	NONEXIST				2		/OGEL
Approach Guardrail Termina	ls		NOI	NEXIST		3.		ROWN
Approach Guardrail			NOI	NEXIST		4		LOVE
Approach Guardrail Termina	I		NOI	NEXIST		5.		
<u>SIGNING</u>	Yes/ N	lo/ Needed				6.		
Paddleboards		NO						
Vertical Clearance (<14'-6")	NO							
Narrow Passage		NO						
One Lane Passage		NO						
Other Undernage Signe Nee	dod							

Other Underpass Signs Needed

Page 2 of 2 Form BIR 3.0A (Continued) (Rev. 9-22-98) DT-1443

Date <u>3/4/2016</u> Underpass Location No. <u>19 - C433 - 2.70</u> Co. Route Log Mile

Page No.

Other Signs or Plaques:

Comments Regarding any Problems with Signing:

BRIDGE FEATURES (*.* ft.)

Bridge Skew 80 ° RT			Numb	er of Lane	es/Tracks on Bridge	3	
Structure Type (Main Span)	HBB				No. Main Spans	1	
Structure Type (Appr.Spans)					No. Appr. Spans		
Maximum Span Length	111'	(ft.)	Total Length	111'	(ft.)		
Width of Bridge Out-to-Out	56'	(ft.)	Right Angle to Centerline of Bridge)				
Width of Bridge Along Skew (fi			(If Unable to Measure at Right Angle to Centerline of Bridge)				

BRIDGE CONDITION: FAIR

Does Potential Exist for Elements from Bridge Falling on Roadway Beneath?	NO
Does Potential Exist Because of Deteriorated Condition or Failure of Major Members?	NO

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

CLEARANCE SKETCH

Bridge Location No. <u>19</u> <u>I440</u> <u>4.17 RT.</u> County Route Log Mile

<u> 19 - I440 - 4.17 RT.</u>

