# Appendix F – Structure Inventory and Appraisal Sheets

Bridge Key: 10843 Agency	D: 090B00028N SR: 45.5 SD/FO: SD
IDENTIFICATION	INSPECTION
State 1: 21 Kentucky Struc Num 8: 090B00028N	Frequency 91: 24 months Inspection Date 90: 2/22/2010 Next Inspection: 02/22/2012
Facility Carried 7: US-150 Location 9: ON WASHINGTON - NELSON CL	FC Frequency 92A: NA FC Inspection Date 93A: NA Next FC Inspection: NA
Rte.(On/Under)5A: Route On Structure Rte. Signing Prefix 5B: 2 U.S. Numbered Hwy	UW Frequency 92B: NA UW Inspection Date 93B: NA Next UW Inspection: NA
Level of Service 5C: 1 Mainline Rte. Number 5D: 00150	SI Frequency 92C: NA SI Date 93C: NA Next SI: NA
Directional Suffix 5E: 0 N/A (NBI) % Responsibility : Unknown	
SHD District 2: District 4 County Code 3: Nelson (090)	Element Frequency: 24 months Element Inspection Date: 02/22/2010 Next Elem. Insp. Due: 02/22/2012
Place Code 4: FIPS 0000 Mile Post 11: 7.656 mi	
Feature Intersected 6: BEECH FORK Latitude 16: 37d 45' 47" Longitude 17: 085d 20' 43" Border Bridge Code 98: Unknown (P) Border Bridge Number 99:	CLASSIFICATION           Defense Highway 100:         0 Not a STRAHNET hwy         Parallel Structure 101:         No    bridge exists           Direction of Traffic 102:         2 2-way traffic         Temporary Structure 103:         Not Applicable (P)           Highway System 104:         0 Not on NHS         NBIS Length 112:         Long Enough           Toll Facility 20:         3 On free road         Functional Class 26:         06 Rural Minor Arterial           Defense Hwy 110:         0         Historical Significance 37:         5 Not eligible for NRHP
STRUCTURE TYPE AND MATERIALS Number of Approach Spans 46: 0 Number of Spans Main Unit 45: 5 Main Span Material/Design 43A/B:	Owner 22: 01 State Highway Agency Custodian 21: 01 State Highway Agency
2 Concrete Continuous 04 Tee Beam	CONDITION <sup>DECK 58:</sup> 6 Satisfactory Super 59: 4 Poor Sub 60: 6 Satisfactory Culvert 62: N N/A (NBI) Channel/Channel Protection 61: 7 Minor Damage
Deck Type 107: 1 Concrete-Cast-in-Place Wearing Surface 108A: 3 Latex Concrete/Similar Membrane 108B: 0 None Deck Protection 108C: None AGE AND SERVICE Year Built 27: 1957 Year Reconstructed 106: 0	LOAD RATING AND POSTING           Inventory Rating Method 65:         2 AS Allowable Stress           Inventory Rating 66:         HS22.2           Design Load 31:         4 M 18 (H 20)           Posting 70:         5 At/Above Legal Loads           Posting status 41:         A Open, no restriction
Type of Service on 42A: 1 Highway	APPRAISAL
Type of Service under 42B: 5 Waterway Lanes on 28A: 2 Lanes Under 28B: 0 Detour Length 19: 8.1 mi ADT 29: 8,290 Truck ADT 109: % Year of ADT 30: 2009	Bridge Rail 36A:         0 Substandard         Approach Rail 36C:         1 Meets Standards           Transition 36B:         1 Meets Standards         Approach Rail Ends 36D:         1 Meets Standards           Str. Evaluation 67:         4         Deck Geometry 68:         4 Tolerable
GEOMETRIC DATA           Length Max Span 48:         89.9 ft         Structure Length 49:         404.9 ft           Curb/Sdwlk Width L 50A:         2.5 ft         Curb/Sidewalk Width R 50B:         2.5 ft           Width Curb to Curb 51:         27.9 ft         Width Out to Out 52:         33.1 ft	Underclearance, Vertical and Horizontal 69: N Not applicable (NBI) Waterway Adequacy 71: 7 Above Minimum Approach Alignment 72: 6 Equal Min Criteria Scour Critical 113: 4 Stable, needs action
Approach Roadway Width 32:         25.9 ft         Median 33:         0 No median           (w/ shoulders)         Deck Area:         13,415.5 sq. ft         Structure Flared 35:         0 No flare           Skew 34:         15.00 °         Structure Flared 35:         0 No flare           Vertical Clearance 10:         99.99 ft         Horiz: Clearance 47:         27.89 ft           Minimum Vertical Clearance Over Bridge 53:         328.1 ft	PROPOSED IMPROVEMENTS           Bridge Cost 94:         \$ 0         Type of Work 75:         Unknown (P)           Roadway Cost 95:         \$ 0         Length of Improvement 76:         0.0 ft           Total Cost 96:         \$ 0         Future ADT 114:         12,352           Year of Cost Estimate 97:         Unknown         Year of Future ADT 115:         2029
Minimum Vertical Underclearance Reference 54A:       N Feature not hwy or RR         Minimum Vertical Underclearance 54B:       0.0 ft         Minimum Lateral Underclearance Reference R 55A:       N Feature not hwy or RR         Minimum Lateral Underclearance R 55:       0.0 ft         Minimum Lateral Underclearance R 55:       0.0 ft         Minimum Lateral Underclearance R 55:       0.0 ft	NAVIGATION DATA           Navigation Control 38:         0         0           Vertical Clearance 39:         0.0 ft         Horizontal Clearance 40:         0.0 ft           Pier Protection 111:         1 Not Required         Lift Bridge Vertical Clearance 116:

		STATE DATA	
ELEIVIEINI	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	% in 5	Qty. St. 5
1	18/1	P Conc Deck/Thin Ovl	(SF)	11,969	0 %	0	100 %	11,969	0 %	0	0 %	0	0 %	0
1	110/1	R/Conc Open Girder	(LF)	1,612	0 %	0	0 %	0	99 %	1,600	1 %	12	0 %	0
1	205/1	R/Conc Column	(EA)	12	100 %	12	0 %	0	0 %	0	0 %	0	0 %	0
1	215/1	R/Conc Abutment	(LF)	75	0 %	0	76 %	57	24 %	18	0 %	0	0 %	0
1	234/1	R/Conc Cap	(LF)	141	100 %	141	0 %	0	0 %	0	0 %	0	0 %	0
1	302/1	Compressn Joint Seal	(LF)	59	100 %	59	0 %	0	0 %	0	0 %	0	0 %	0

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#### Agency ID:090B00028N

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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	% in 5	Qty. St. 5	
1	311/1	Moveable Bearing	(EA)	20	0 %	0	60 %	12	40 %	8	0 %	0	0 %	0	
1	313/1	Fixed Bearing	(EA)	4	100 %	4	0 %	0	0 %	0	0 %	0	0 %	0	
1	331/1	Conc Bridge Railing	(LF)	806	1 %	6	74 %	595	25 %	205	0 %	0	0 %	0	
1	359/1	Soffit Smart Flag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0	
1	361/1	Scour Smart Flag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0	
1	363/1	Section Loss SmFlag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0	
1	503/1	RC Curb	(LF)	806	7 %	56	50 %	400	43 %	350	0 %	0	0 %	0	
1	505/1	RC Sidewalk	(LF)	806	26 %	206	74 %	600	0 %	0	0 %	0	0 %	0	
1	606/1	Drains	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0	
Str Unit	Elm/Env	Description		Element Notes											
1	18/1	Concrete Deck - Protected w/ Thin	< none	ə >											
1	110/1		Resin, steel v areas hardw	oncrete beams have been retofitted with a void filling material, High Strength Steel Sheets, esin, and Coating. There was three (3) twelve (12) inch wide by sixty (60)-ft long high strength teel wire sheets applied on each girder. Girder 2 & 3 span 1 hardwire is debonding in small reas from the bottom and a small area from the inside of Girder 3 span 1. Girder 3 span 3, ardwire is debonding in small areas from the bottom of the girders.											
1	205/1	Reinforced Conc Column or Pile E	< none	9 >											
1	215/1	Reinforced Conc Abutment	Abutm	ents have	minor to	moderate	cracking	with leach	ning and	minor spal	lls.				
1	234/1	Reinforced Conc Cap	< none	9 >											
1	302/1	Compression Joint Seal	< none	9 >											
1	311/1	Moveable Bearing (roller, sliding, e	Rocke	rs at Abutr	nent 1 a	e slightly	expande	d. Bearings	s at abuti	ments have	e minor s	ection los	s.		
1	313/1	Fixed Bearing													
1	331/1	Reinforced Conc Bridge Railing	Concr	ete railing	have mo	derate cra	cking, sc	aling, and	minor sp	alls.					
1	359/1	Soffit of Concrete Deck or Slab	Deck u soffit r	underside I near abutm	nas mino ent 1 an	r cracking d abutmen	with lead	ching. Spa	n 1 and s	span 5 has	hardwire	e placed o	n		
1	361/1	Scour	Moder	ate sour at	piers 2,	3, and 4.									
1	363/1	Section Loss	Minor	section los	s at the	abutment l	bearings								
1	503/1	Reinforced Concrete Curb	Curbs	have mod	erate cra	icking, sca	ling and	minor spal	ls.						
1	505/1	Reinforced Concrete Sidewalk	Sidew	alk has mi	nor cracl	king and se	caling.								
1	606/1	Drains	< none	e >											
	-														

#### BRIDGE NOTES

All of the repairs made to the girders will maintain the weight capacity at the current level before the repairs were made. Crack gauges were installed on this structure where vertical cracks were repaired on the girders. Diaphragms over piers 4 & 5 have hardwire applied to them.

PAST INSPECTIO	N	
Inspection Date:	02/22/2010	Type: 2 Standard (24 months)
Inspector:	TLAWLER	Pontis User Key: TLAWLER - Todd
Scope: NBI: Underwate	Ü Other: r: Fracture Critica	Element: Ü
INSPECTION NO	TES	
- PAST INSPECTIO	N	
Inspection Date:	03/12/2008	Type: 2 Standard (24 months)
Inspector:	EHARDIN	Pontis User Key: EHARDIN - Ernest
Scope: NBI: Underwate	ü Other:	Element: Ü
INSPECTION NO	TES	
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PAST INSPECTIO	Ν	
Inspection Date:	02/01/2006	Type: 2 Standard (24 months)
Inspector:	DKEMPER	Pontis User Key: DKEMPER - David
Scope: NBI: Underwate	Ü     Other:       r:     Fracture Critical	Element:
INSPECTION NOT	ES	
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INSPECTOR WORK CANDIDATES

Bridge Key	r: 13486		Agen	cy IE	): 115B00022N		SR: 40.8	SD/FO: SD
				<u> </u>	·	INCO	ECTION	
	IDENTIFICATI						ECTION	
State 1:	21 Kentucky Struc M	lum 8: 11580	0022N		Frequency 91 24 mon	whs Inspection Date 9	0: 3/3/2010 Nex	t Inspection: 03/03/2012
Facility Carried 7:	US-150 Locatio	on 9: .1 MLE	OF NELSON (	CL	FC Frequency 92A: NA	FC Inspection Da	le 93A: NA Nex	t FC Inspection: NA
Rte.(On/Under)5A;	Route On Structure Rte. Sig	gning Prelix 58:	2 U.S. Numbe Hwy	bere	UW Frequency 92B: NA	UW Inspection Da	ale 93B: NA Next	UW Inspection: NA
Level of Service 50	: 1 Mainline Rte. Nu	mber 5D:	00150		SI Frequency 92C: NA	SI Date 93C:	NA Nex	ISI: NA
Directional Suffix 5 SHD District 2:		ponsibility ; Code 3:	Unknown Washington (1		Element Frequency: 24 mor	ths Element Inspectio	on Date: 03/03/2010 Nex	Elem. Insp. Due: 03/03/2012
Place Code 4:		ost 11:	0.085 mi	,				
				ľ			FICATION	
Feature Intersected	6: CARTWRIGHT CREEK			_ 1	Delense Highway 100: (	Not a STRAHNET hwy	Parailel Structure 101:	No    bridge exists
Latilude 16:	37d 45' 48" Longi	lude 17:	085d 20' 37°		Direction of Traffic 102: 2	2 2-way traffic	Temporary Structure 103	: Not Applicable (P)
Border Bridge Code	a 98: Unknown (P)				Highway System 104; 0	Not on NHS	NBIS Length 112:	Long Enough
Border Bridge Num	ber 99:			_ 1	Toll Facility 20:	3 On free road	Functional Class 26:	06 Rural Minor Arterial
				$\prec$		0	Historical Significance 37	: 5 Not eligible for NRHP
ST	RUCTURE TYPE AND	MATERIA	ALS	Ì	Owner 22: 01 State H	Highway Agency		
Number of Approac	h Spans 46: 0 Number of S	Spans Main Unit	45: 3		Custodian 21: 01 State H	lighway Agency		
Main Span Material	/Design 43A/B:			1				
2 Concrete Continu	ous 04 Tee	Beam			Ueck 58: 5 Fair	Super 59:		60: 6 Satisfactory
					5 Pair			
				1	Culvert 62: N N/A (NBI)	Channe	VChannel Protection 61:	7 Minor Damage
Deck Type 107:	1 Concrete-Cast-in-Place							
Wearing Surface	108A: 3 Latex Concrete/Similar					LOAD RATIN	G AND POSTING	
Membrane 108B:	0 None				Inventory Rating Method 6	5: 2 AS Allowable Si	res Operating Rating Metho	d 63: 2 AS Allowable Stress
Deck Protection 1	08C: None				Inventory Rating 66:	H\$22.2	Operating Rating 64:	H\$22.2
<u>}</u>				_1		4 M 18 (H 20)	Posting 70:	5 At/Above Legal Loads
r	AGE AND SERV	/ICE		J	-		e vonny na.	a ununna rafiai ragos
Year Built 27:	1951 Ye	ar Reconstructed	di106:0	ļ	Posting status 41:	A Open, no restriction		
Type of Service on	42A: 1 Highway			- 1				
Type of Service une	der 42B: 5 Waterway						PRAISAL	
Lanes on 28A: 2	Lanes Under 28B: 0	Detour I	Length 19: 8.7	mi	Bridge Rail 36A	0 Substandard	Approach Rail 36C:	1 Meets Standards
ADT 29: 8,2	290 Truck ADT 109: %	Year of	ADT 30: 200	9	Transition 368:	1 Meets Standards	Approach Rail Ends 36	D: 1 Meets Standards
<u> </u>				≺I	Str. Evaluation 67:	4	Deck Geometry 68:	3 Intolerable - Correct
	GEOMETRIC D				Underclearance, Vertical a		N Not applicable (NBI)	
Length Max Span		Length 49:	225.1 ft		Waterway Adequacy 71	7 Above Minimum	Approach Alignment 72	: 7 Above Min Criteria
Curb/Sdwik Width		walk Width R 50		1	Scour Critical 113:	8 Stable Above Footir	19	
Width Curb to Curb Approach Roadway		to Out 52: Median 3	30.5 ft 3: 0 No media	an I		00000055		
(w/ shoulders)		would 1 3					IMPROVEMENTS	
Deck Area: 6,867	-				Bridge Cost 94:	\$ 861,000	Type of Work 75:	34 Widen w/ Deck Re
Skew 34: 0.00			No flare		Roadway Cost 95:	\$0	Length of Improveme	
Vertical Clearance			7.56 /1		Total Cost 96:	\$ 860,000	Future ADT 114:	12,352
	Clearance Over Bridge 53: Jnderclearance Reference 54A:	328.1 ft N Feature r	not hwy or RR		Year of Cost Estimate 97:	1995	Year of Future ADT 1	15: 2029
			not may or rire					
	Underclearance 54B:	0.0 ft N Easture (	not hutu or DD		Magination Central 39		TION DATA	
	Inderclearance Reference R 55A:		nothwyorRR		Navigation Control 38:	0 0	Homer Of	
	Inderclearance R 55:	0.0 ft			Vertical Clearance 39:	0.0 ft	Horizontal Clearance 40:	
winimum Lateral U	Inderclearance L 56:	0.0 11			Pier Protection 111:	1 Not Required	Lift Bridge Vertical Clear	ance 115:
ELEMENT (	CONDITION STATE D	ATA						
Str Unit Elm/Er		-	Total Oty 9	6 in 1	Qty. St. 1 % in 2 Qty. 5	St. 2 % in 3 Qtv. S	t. 3 % in 4 Qtv. St. 4	% in 5 Oty. St. 5
1 18/1	P Conc Deck/Thin Ovl	(SF)	6,160	0%		160 0 %	0 0% 0	0% 0
1 110/1	R/Conc Open Girder	(LF)	880	0%	0 100 %	875 0 %	4 0% a	0% 0
1 205/1	R/Conc Column	- +	+ +	-	6 0%	0 0%	0 0% 0	0% 0
	-	(EA)		100 %				
1 215/1	R/Conc Abutment	(LF)	110	0 %	0 0%		110 0% 0	0% 0
1 234/1	R/Conc Cap	(LF)	70	100 %	70 0%	0 0 %	0 0% 0	0% 0

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Compressn Joint Seal

(LF)

302/1

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#### Agency ID:115B00022N

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0%

66 100 %

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0%

q

0%

0 0%

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											-			
Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Oty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St.
1	311/1	Moveable Bearing	(EA)	12	33 %	4	67 %	8	0%	0	0%		0%	6
1	313/1	Fixed Bearing	(EA)	4	100 %	4	0%	0	0%	0	0%	0	0%	6
1	331/1	Conc Bridge Railing	(LF)	440	0%	0	0 %	0	100 %	440	0%		0%	6
1	359/1	Soffit Smart Flag	(EA)	1	0%	0	100 %	1	0%	0	0 %	0	0 %	4
1	503/1	RC Curb	(LF)	440	0%	0	100 %	438	0 %	2	0%	0	0 %	(a)
Str Unit	Elm/Env	Description			-		Ele	ment Note						1
1	18/1	Concrete Deck - Protected w/ Thin	Minor	cracking a	nd pothe	les.								
1	110/1	Reinforced Conc Open Girder/Bea	cracki	Sirders have minor to moderate cracking. Repairs have been made to deter any further racking. Hardwire has been added to the bottoms and sides of all beams in each span. Girder 4 at abutment 4 bearing has a large spall exposing rebar which has moderate section loss.							ler 4			
1	205/1	Reinforced Conc Column or Pile E		none >										
1	215/1	Reinforced Conc Abutment	Abutm	ents have	minor to	moderate	cracking	, spalling, :	and scali	ing exposi	ng rebar.			
1	234/1	Reinforced Conc Cap	< non	<del>}</del> >									-	
1	302/1	Compression Joint Seal												
1	311/1	Moveable Bearing (roller, sliding, e	Abutm	ent bearin	gs have	minor to m	oderate	deterioratio	on with m	ninor to mo	derate s	ection loss	i.	
1	313/1	Fixed Bearing												
1	331/1	Reinforced Conc Bridge Railing	Rails I	nave mode	rate dete	arioration.							_	
				ack underside has minor to moderate cracking with leaching. Hardwire has been added to the filt in spans 1 and 3 from the abutments to 30' out, also added to the pier diaphrams.										
1	359/1	Soffit of Concrete Deck or Slab	Deck i soffit i	underside l n spans 1 :	h <mark>as mino</mark> a <b>nd</b> 3 fro	r to moder m the abu	ate craci ments to	king with le	laching, I Iso adde	Hardwire h	as been ar diaphr	added to i	the	

BRIDGE NOTES

PAST INSPECTIO	NC		
nspection Date:	03/03/2010	Type: 2 Standard (24 months)	
nspector:	DKEMPER	Pontis User Key: DKEMPER - Davic	
Scope:			
NBI:	Other:	Element:	
Underwate	er: 🔄 Fracture	Critical: 🛄	
NSPECTION NO	TES		
	<u> </u>		70

PAST INSPECTIO	N	
Inspection Date:	03/17/2008	Type: 1 SIA (Initial Inventory)
Inspector:	JNOBLIN	Pontis User Key: JNOBLIN - Jim Nc
Scope: NBI: Underwate	Other:     Oreacture Critica	Element:
INSPECTION NOT	TES	
PAST INSPECTIO		
Inspection Date:	03/01/2006	Type: 2 Standard (24 months)
Inspector:	DKEMPER	Pontis User Key: DKEMPER - Davic
Scope: NBI: Underwate		Element:
INSPECTION NOT	ſES	

INSPECTOR WORK CANDIDATES