

Routine Inspection Report

Date: 7/21/2020

Br No 1558

WEST MIDDLE RIVER

Cloudy

56 F

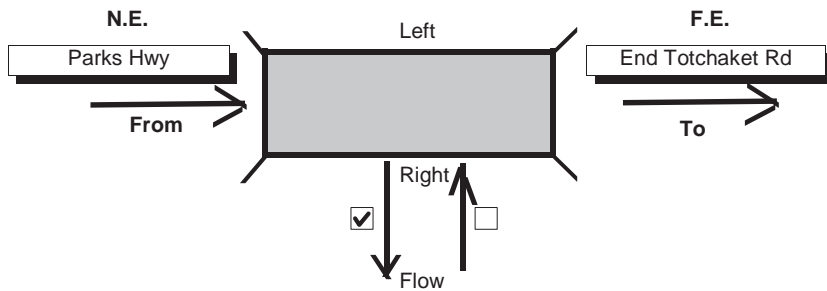
INSPECTOR: Nicholas Murray

ASSISTANT: Jasmine Langmann

Initials

NWM

Initials



Apprh Rdwy Width (ft)	14.00
Est Camber (inch)	0.00
Bridge Length (ft)	80.00
Bridge Width O-O (ft)	14.30
CDS Route	158000
CDS Mile	3.1

Left

Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
3.5 inch steel tube & bullrail		21.00	8.50	None		None	

Right

Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
3.5 inch steel tube & bullrail		22.00	8.50	None		None	

Near End		SIGNS		Far End			
Lt.	Rt.			Lt.	Rt.		
<input type="checkbox"/>	<input type="checkbox"/>	Object Markers	Load Limit Wording or Other Sign	<input type="checkbox"/>	<input type="checkbox"/>	Object Markers	Load Limit Wording or Other Signs
<input type="checkbox"/>		Restricted Width		<input type="checkbox"/>		Restricted Width	
<input type="checkbox"/>		Vertical Clear		<input type="checkbox"/>		Vertical Clear	
<input type="checkbox"/>		Load Limit		<input type="checkbox"/>		Load Limit	
<input checked="" type="checkbox"/>		Name Place		<input type="checkbox"/>		Name Place	

Deck Material Thk(Inches)

Timber 3.00

Location Measured

Edge of Deck

Wear Surface Thk (Inches)

Timber Run Pl 3.00

Wear Location

Edge of Deck

Drive Condition

Unsatisfactory

Locality

Nenana

Route

Totchaket Road

Utilities

Kind	Size	Location	Owner
None			

Bridge No. 1558, WEST MIDDLE RIVER

Work Candidates

Inspected on: 07/21/2020

<i>Priority</i>	<i>Description</i>	<i>Quantity</i>	<i>Work Needed</i>
High	Substructure-Riprap (EA)	1	Stabilize gabion baskets at NE.
High	Deck-Resurface	1	Replace timber running planks to prevent damage to deck.
Medium	Bridge Rail-Replace		Replace timber bull rails.
Low	Misc-Remove Vegetation (EA)	1	Cut brush around and under bridge.

Bridge No. 1558, WEST MIDDLE RIVER

Element Inspection

Inspected on: 07/21/2020

Element	Description	Observations
31	Timber Deck	Deck planks are rough sawn Number 2's or better, treated with CCA preservative.
> 510	Wearing Surfaces	Untreated, rough sawn running planks. Most planks are deteriorated or rotten.
107	Steel Open Girder/Beam	Mud and rocks resting on the bottom flanges. Manufacturer's (Rapid Span) plate on the girder ends. See 2020 FC report for more details.
> 515	Steel Protective Coating	Uniform, protective rust coating. No pack rust observed.
156	Timber Floor Beam	Floorbeams are Number 2's or better, treated with CCA preservative. Approximately 10% of floorbeams have full length splits.
216	Timber Abutment	Both abutment mudsills are undermined up to 12" at front face.
311	Movable Bearing	No anchor bolts on any of the bearings.
330	Metal Bridge Railing	Timber bull rail is rotten and deteriorated. One section of bull rail is broken on the US side.
> 515	Steel Protective Coating	
601	Brush Smart Flag	Brush encroaching on bridge.
604	Bank Protection Smart Flag	Gabions at the NE are leaning toward the river.

Br No 1558	WEST MIDDLE RIVER	Date: 7/21/2020	ID	04 Even 2020 1558
INSPECTOR: Nicholas Murray		ASSISTANT: Jasmine Langmann	Weather Cloudy	Temperature 56 F

HYDRAULICS REPORT

Inspection To Mudline At All Piers and Abuts?	Yes	Apparent HW	Yes	Stream Bottom Material
		AHW Comments	Derbis on top of bottom flanges.	
		Bank Erosion	Yes	Silt
		Erosion Comments	NE gabions are leaning towards river. Both mudsills undermined by up to 12"	Sand
Activities		Drift Comments	Sticks	
Drift	Light			
Riprap Condition	None	Other Hydraulic Comments		

SOUNDINGS	Measured At Surface	Top Rail	Location	Upstream
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Soundings Report		All measurements in feet		04 Even 2020 1558
Horiz Dist from	Substr Unit No.	Vert Dist to Water Surface	Vert Dist to Stream Bottom	Remarks
0.00	1	0.0	7.7	Begin Bridge
5.00	1	0.0	7.7	
5.30	1	0.0	8.9	
8.70	1	0.0	10.3	
11.10	1	0.0	14.3	
24.00	1	0.0	16.5	EOW
30.70	1	0.0	19.6	
40.80	1	0.0	20.3	
51.00	1	0.0	21.1	
61.90	1	0.0	18.2	
64.80	1	0.0	16.5	EOW
71.50	1	0.0	13.9	
76.70	1	0.0	9.3	
77.00	1	0.0	7.8	
81.00	1	0.0	7.8	End Bridge

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 1558

Agency ID: 1558

On/Off System: Off System

SR: 75.9

SD/FO/ND: ND

IDENTIFICATION

State 1: 02 Alaska Struc Number 8: 1558
 Facility Carried 7: TOTCHAKET ROAD Location 9: MILE POINT 3.1
 Rte.(On/Under)5A: Route On Structure Rte Signing Prefix 5B: 5 City Street
 Level of Service 5C: 0 Rte. Number 5D: 00000
 Directional Suffix 5E: 0 N/A % Responsibility:
 SHD District 2: 02 North., Interior County Code 3: Yukon-Koyukuk Census
 Place Code 4: Nenana Mile Post 11: 3.100 mi
 Feature Intersected 6: WEST MIDDLE RIVER
 Latitude 16: 64d 33' 37.0 " Longitude 17: 149d 13' 1.9 "
 Border Bridge Code 98: Unknown (P)
 Border Bridge No. 99: NA

INSPECTION

Frequency 91: 24 months Inspection Date 90: 07/21/2020 Next Inspection: 07/21/2022
 FC Freq. 92A: 24 months FC Insp. Date 93A: 06/22/2020 Next FC Inspection: 06/22/2022
 UW Freq. 92B: NA UW Insp. Date 93B: NA Next UW Inspection: NA
 SI Freq. 92C: NA SI Date 93C: NA Next SI: NA

CLASSIFICATION

Defense Highway 100: 0 Not a STRAHNET hwy Parallel Structure 101: No || bridge exists
 Traffic Direction 102: 3 1-lane Br for 2-way Temporary Structure 103: No
 Highway System 104: 0 Not on NHS NBIS Length 112: Long Enough
 Toll Facility 20: 3 On free road Functional Class 26: 09 Rural Local
 Natl. Network 110: 0 Not on truck network Historical Sig. 37: 5 Not eligible for NRHP
 Owner 22: City or Municipal Highway Agency
 Custodian 21: City or Municipal Highway Agency

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0 Number of Spans Main Unit 45: 1
 Main Span Mat'l and Type 43A/B:
 3 Steel 2 Stringer/Girder
 Appr Span Mat'l and Type 44A/B:
 N/A N/A
 Deck Type 107: 8 Wood or Timber
 Wearing Surface 108A: 7 Wood or Timber
 Membrane 108B: 0 None
 Deck Protection 108C: 0 None

CONDITION

Deck 58: 7 Good Super 59: 7 Good Sub 60: 6 Satisfactory
 Channel/Ch. Protection 61: 5 Eroding Culvert 62: N/A

LOAD RATING AND POSTING

Operating Rating 64: HS 33 Operating Method 63: 1 LFR
 Inventory Rating 66: HS 20 Inventory Method 65: 1 LFR
 Design Load 31: C Other Posting 70: 5 At/Above legal loads
 Posting Status 41: A Open, no restriction

AGE AND SERVICE

Year Built 27: 2013 Year Reconstructed 106:
 Type of Service on 42A: 1 Highway
 Type of Service under 42B: 5 Waterway
 Lanes on 28A: 1 Lanes under 28B: 0 Detour Length 19: 124 mi
 ADT 29: 10 Truck ADT 109: 1% Year of ADT 30: 2018

APPRAISAL

Bridge Rail 36A: 0 Substandard Approach Rail 36C: 0 Substandard
 Transition 36B: 0 Substandard Approach Rail Ends 36D: 0 Substandard
 Str Evaluation 67: 6 Equal Min Criteria Deck Geometry 68: 5 Somewhat Better than Min
 Underclearance, Vertical and Horizontal 69: N/A
 Waterway Adequacy 71: 7 Better than Min Approach Alignment 72: 8 Equal Desirable Crit
 Scour Critical 113: 3 Scour Critical - Within Limits

GEOMETRIC DATA

Length Max Span 48: 77.00 ft Structure Length 49: 80.00 ft
 Curb/Sdwk Width L 50A: 0.0 ft Curb/Sidewalk Width R 50B: 0.0 ft
 Width Curb to Curb 51: 13.3 ft Deck Width Out to Out 52: 14.3 ft
 Approach Roadway Width 32: 14.00 ft Median 33: 0 No median
 (w/ shoulders)
 Deck Area: 1,144.0 sq ft
 Skew 34: 0 Structure Flared 35: 0 No flare
 Route Minimum Vertical Clearance 10: 99.99 ft Route Horizontal Clearance 47: 14.00 ft
 Minimum Vertical Clearance Over Bridge 53: 100.0 ft
 Minimum Vertical Underclearance 54A: N Feature not hwy or RR
 Minimum Vertical Underclearance 54B: 0.0 ft
 Minimum Lateral Underclearance 55A: N Feature not hwy or RR
 Minimum Lateral Underclearance R 55A: 99.9 ft
 Minimum Lateral Underclearance L 56: 0.0 ft

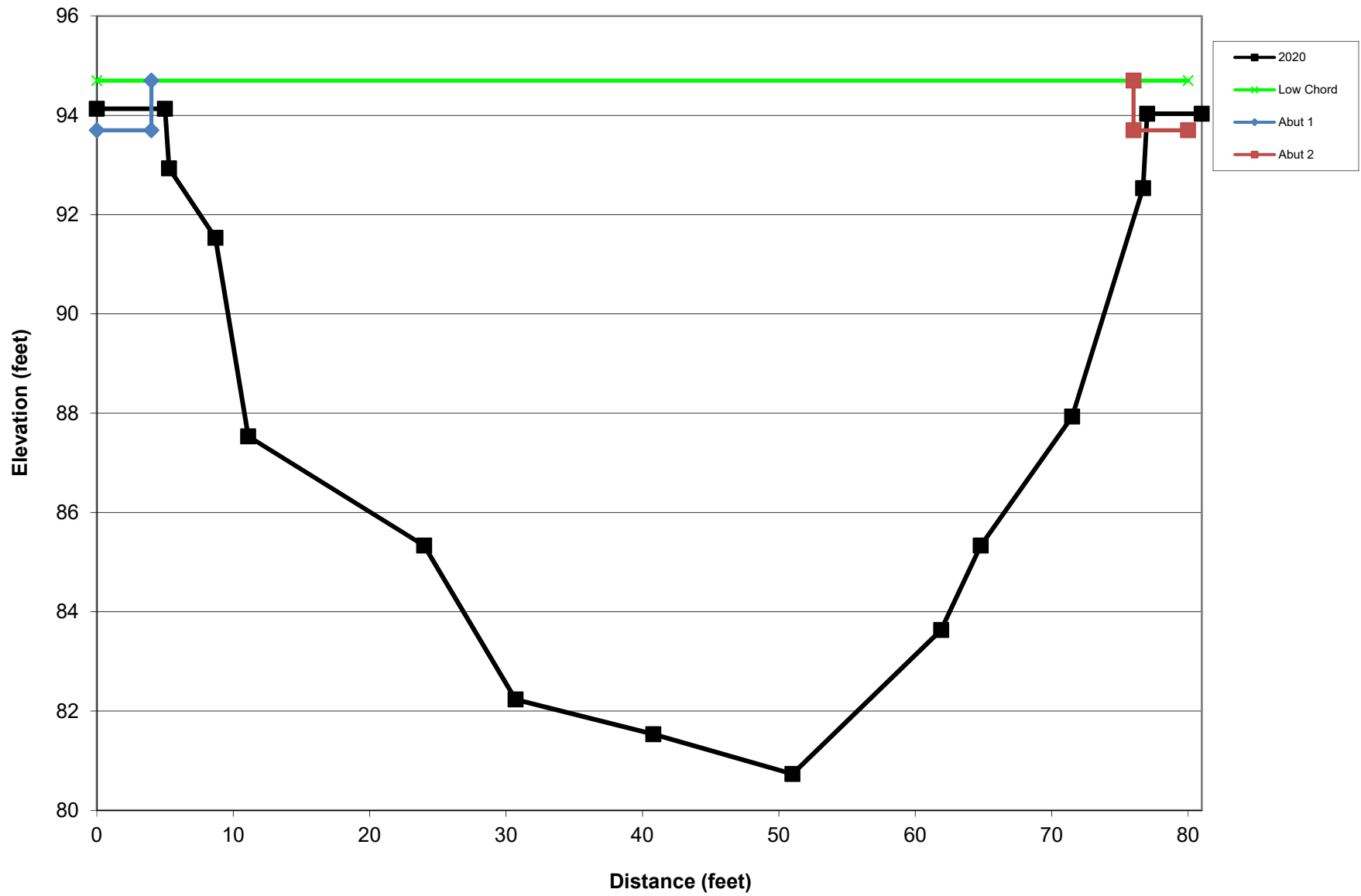
PROPOSED IMPROVEMENTS

Bridge Cost 94: \$ Type of Work 75: Unknown
 Roadway Cost 95: \$ Length of Improvement 76: 0.0 ft
 Total Cost 96: \$ Future ADT 114: 15
 Year of Cost Estimate 97: Year of Future ADT 115: 2035

NAVIGATION DATA

Navigation Control 38: 0 Permit Not Required
 Vertical Clearance 39: 0.0 ft Horizontal Clearance 40: 0.0 ft
 Pier Protection 111: 1 Not required Lift Bridge Vertical Clearance 116: 0.0 ft

BN 1558 - West Middle River Soundings.





Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **1**
 NE Looking at Bridge File **P7210872.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **2**
 FE Looking at Bridge File **P7210869.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **3**
 Looking US File **P7210880.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **4**
 Looking DS File **P7210877.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **5**
DS NE Bank File **P7210878.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **6**
US NE Bank File **P7210879.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **7**
US FE Bank File **P7210881.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **8**
DS FE Bank File **P7210876.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **9**
 Abutment 1 File **P7210884.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **10**
 Abutment 2 File **P7210873.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **11**
 Elevation Looking DS File **P7210885.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **12**
 Deck Typ File **P7210870.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **13**
 Rail Typ File **P7210882.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **14**
 Underside Typ File **P7210874.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **15**
 Deck Exterior Underside Typ File **P7210875.jpg**



Bridge No. **1558** Br. Name **West Middle River** Date **07/21/20**
 Inspector **Nicholas Murray / Jasmine Langmann** Frame **16**
 US NE Curb Damage File **P7210871.jpg**



Bridge No.	1558	Br. Name	West Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	17
Fabrication Plaque				File	P7210883.jpg

Bridge No.	1558	Br. Name	West Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	19
				File	

Bridge No.	1558	Br. Name	West Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	18
				File	

Bridge No.	1558	Br. Name	West Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	20
				File	