Draft Navigation Impact Report

Key No. 22266: SH-52 Snake River Bridge

Bridge Replacement Project

Prepared for the Idaho Transportation Department

Payette County, Idaho & Malheur County, Oregon

September 12, 2023

Executive Summary

The United States Coast Guard (USCG) requires that a Navigation Impact Report (NIR) be completed for all bridge projects over navigable waters of the United States. The SH-52 Bridge crosses the Snake River, which is considered navigable water of the US. The purpose of this report is to satisfy the USCG requirements for permitting a new bridge.

Constructed in 1953, the SH-52 Snake River bridge spans the Snake River between Idaho and Oregon near Payette, Idaho. The bridge is in Payette and Malheur counties and located at river mile 365. The bridge is owned and maintained by the Idaho Transportation Department (ITD). The bridge carries vehicular traffic only. The bridge is a fixed bridge composed of a main 3-span unit made of steel girders. Adjacent to the main span unit is a reinforced concrete approach span on each end. There's two piers within the river channel and two piers along the river bank. The current bridge (built in 1953) is the second bridge at this location. The first bridge was constructed in c.1911 and was a fixed-steel truss bridge with four 160-ft long spans that was located 35-ft downstream of the 1953 bridge. The first bridge was removed to make way for the 2nd bridge in 1953.

The existing bridge does not meet current highway bridge standards and has reached the end of it's functional life. The bridge deck is in fair condition but is deteriorating. ITD plans to replace the bridge in 2026.

The replacement bridge will be a fixed bridge composed of 3-spans and will carry highway traffic only. The bridge style will be a beam-slab system, typical of most modern highway bridges. The bridge will have a typical section that includes 2-12ft lanes, 2-8ft shoulders, and metal tube rails with concrete curbs for a total width of 43.5ft. The length of the bridge will be 721ft. The bridge will be owned and maintained by ITD, and partially funded by FHWA. The expected duration of construction is 2 years.

A. Means of Data Collection

The length of waterway assessed for this report is approximately 3 miles upstream and downstream.

1. The Bureau of United States Geological Survey (USGS) maintains current and historical stream data across the country. The nearest upstream and downstream gauge locations are listed below.
    a. Downstream USGS Streamflow Data for Snake River at Weiser, ID: https://waterdata.usgs.gov/nwis/monthly?site_no=13269000&agency_cd=USGS&por_13269000_46264=1155593,00010,46264,1999-05,2015-10&por_13269000_46267=1155593,00060,46267,1910-10,2022-06&referred_module=sw&format=html_table

    b. Upstream USGS Streamflow Data for Snake River at Nyssa, OR: https://waterdata.usgs.gov/nwis/monthly/?referred_module=sw&site_no=13213100&por_13213100_296383=1155214,00010,296383,1997-08,2015-

10&site_no=13213100&por_13213100_296387=1155214,00060,296387,1974-11,2022-06&site_no=13213100&por_13213100_296386=1155214,00095,296386,2008-10,2010-10&site_no=13213100&por_13213100_296398=1155214,00300,296398,2008-10,2010-10&format=html_table&date_format=YYYY-MM-DD&rdb_compression=file&submitted_form=parameter_selection_list

2. Conducted site visits at the existing bridge site. At the site visit on 8-15-23 and 8-16-23, one recreation fishing vessel was observed.

3. Satellite survey using Google Earth for industrial or commercial use of the river. A satellite survey was conducted with a 3-mile radius from the subject bridge site. Locations of public boat ramps, private boat ramps, commercial boat ramps, river related businesses, boat shops, and marinas were searched in the survey. One public boat ramp was found in the search area, Centennial Park Boat Ramp. Which is the only public boat ramp/launch on the Snake River in Payette County. One public boat ramp was found just outside the search area, the Ontario State Recreation Area is upstream of the subject bridge site. One private launch was found in the search area. Both launches are small and can only be used by small recreational boats. No commercial ramps, river related businesses, boat shops, or marinas were located in the search area. See Appendix B – Satellite Survey for details.

4. Google Search Engine for general research regarding the area and businesses. Searches for boat marinas, boat repair shops, boat rentals, and fishing guides in Payette County returned no results in the search area.

5. Conducted Waterway User Surveys. Local law enforcement marine divisions, local wildlife agency, and local public boat launch owner had the most local knowledge of the area. The survey asked for descriptions of vessels that use the waterway at the subject site. The descriptions included vessel type, overall length, beam width, draft, air draft, frequency of use, and time of year. The survey also asked for photos of said vessels if the user had them available.

Table 1: Waterway User Survey Summary

Waterway User Contact	Summary Notes
Payette County Sheriff's Department **Lieutenant McDonald**	• Most vessels are smaller recreational boats, jet boats, flat bottom, v-hull boats, pontoons, jet skis • 14' to 26' max length of vessel • Vessels no wider than 10' • Air draft 10' to 12' maximum • Peak days see 20 vessels passing under bridge. • Peak season is May to early September. Infrequent use during winter.

	• Not aware of any commercial activities on the river • Payette County Sheriff Office (PCSO) patrols the river and responds to emergency calls. If Oregon jurisdiction receives a call, they request PCSO to respond. • 1 to 2 trainings a year are conducted on the river.
City of Payette (Streets and Parks) – Centennial Park Boat Ramp **Jaime Couch, manager**	• Few boats travelling to go duck hunting (November). Sometimes at night to do some catfishing. • Did not share vessel data
Idaho Department of Fish and Game **Brandon Flack**	• Equal distribution of jet boats and flat bottoms • 30' max length • Air draft 8' to 9' maximum • River use is centered around fishing/hunting (recreation) • Peak season May to July • River activity minimal January to March
Idaho Department of Water Resources **Cass Jones**	• Provided no information
Malheur County Sheriff **Brian Wolfe**	• Vessel usage is fishing boats, flat bottom, jet boats. • Less than 26' in length • 8.5' wide • 8' to 8.5' air draft • Highest usage of river in early spring through summer. Low usage in winter. • Malheur County Sheriff launches from Ontario State Park • No known businesses along the river. All recreational use.
US Army Corps of Engineers **Jake Cordtz**	• No vessel data provided • USACE not performing any maintenance on the water way in the subject area. • No levies
Oregon State Parks Department (Farewell Bend Management Unit) **Travis Bome – Park Manager**	• Manages Ontario State Park boat launch near Ontario, OR • Most vessels are smaller, 8' to 20' long • Largest was about 20' long • Most vessels are used by sportsmen • No longer than 25' • Air draft no more than 12' maximum • Peak season is April through October. Infrequent use in winter. • Boat ramp is open year-round • No photos provided at launch • Not aware of commercial activities on the river

See Appendix D – Outreach Records of Conversation for each user survey and detailed responses to the survey.

6. Contacted United States Army Corps of Engineers (USACE) for specific information requested in this report. The USACE is not planning any navigation projects in the area and are not currently performing any projects in the area.

   See Appendix D – Outreach Records of Conversation for response from USACE contact.

B. Present governing bridge(s) or aerial structure(s) on the waterway

1. **Identify all bridges upstream and downstream of the proposed bridge site and their existing horizontal and vertical clearances to determine the existing minimum horizontal and vertical clearances (including overhead transmission line clearances). Provide in table format. (If all bridges downstream have the same minimum clearance, state instead of the above requested information.)**

Table 2: Present Governing Bridges

Bridge Name	Bridge Type	Location	Reference Plane (feet)	Horizontal Clearance (feet)	Vertical Clearance (feet)	Snake River Waterway Mile
Weiser Snake River Bridge	Fixed	44°14'41.3" N 116°58'53.6" W	MHW 2096.5	135	15.5	351.2
Nagaki Bridge (Side Channel)	Fixed	44°06'04.6" N 116°55'46.0" W	MHW 2142.0	35	5	364.0
SH-52 Snake River Bridge (existing)	**Fixed**	**44°05'44.7" N 116°56'25.9" W**	**EHW 2131.6**	**232**	**12[c, d]**	**365.0**
SH-52 Snake River Bridge (proposed)	***Fixed***	***44°05'44.7" N 116°56'25.9" W***	***OHW 2131.6***	***160***	***17.8***	***365.0***
SH-52 Snake River Temporary Structures	*Fixed (temp)*	*44°05'44.7" N 116°56'25.9" W*	*OHW 2131.6*	*40[f]*	*12[f]*	*365.0*
UPRR Bridge	Fixed	44°02'33.5"N 116°57'21.8"W	[a]	110[e]	[a]	370.0
Ontario US-30 Bridge	Fixed	44.025070 N 116.935325 W	HW 2145.7	93.3	24.2	372.0
Ontario I-84 Twin Bridges	Fixed	44.00722 N 116.94123 W	HW 2146.3	110	17.5[b]	373.0

Notes:
1. Table information obtained from U.S. Coast Guard District 13, unless noted otherwise
2. Elevations may all be based on different vertical datums.
[a] Data unknown
[b] Permitted vertical clearance is 9.9ft per USCG District 13
[c] ITD Bridge Inspection Report states vertical clearance is 13.1ft
[d] Surveyed vertical clearance is 15.1ft
[e] Source: http://bridgehunter.com/or/malheur/bh51812/
[f] Final layout of temporary work structure is to be determined by the Contractor. Duration of temporary structure use is expected to be 2 years.

2. **Does the proposed bridge(s) match (or is greater than) the navigational clearance of existing structures on the waterway?**

   The existing bridge was surveyed as part of this bridge replacement project. The low chord elevation and water marks on the piers were recorded. The ordinary high water (OHW) elevation was found to be approximately 2131.6ft, and confirms the elevation shown on the existing USCG bridge permit (Table 2: Present Governing Bridges). The existing low chord is 2146.7ft at the pier. Therefore, the measured existing navigational vertical clearance is 15.1ft. The existing horizontal clearance is 232.0ft.

   The proposed replacement bridge will provide 17.8ft minimum vertical clearance over a 160ft horizontal clearance. The proposed replacement increases the existing vertical clearance. The total distance from pier to pier will be approximately 282ft and is available for navigation with reduced vertical clearance.

3. **What is the most restrictive horizontal clearance on the waterway? (This may be a fixed bridge downstream/upstream of the proposed structure, a low hanging power line downstream/upstream of the bridge(s), or it may be some other structure that limits horizontal clearance. Sometimes the existing to-be-replaced bridge(s) is the most restrictive structure.)**

   The most horizontally restrictive structure is the Ontario US-30 Bridge located at river mile 372.0 with a horizontal clearance of 93.3’. The bridge is upstream of the subject bridge. The subject bridge has the largest horizontal clearance of the bridges presented in Table 2: Present Governing Bridges.

4. **What is the most restrictive vertical clearance on the waterway? (This may be a fixed bridge downstream/upstream of the proposed structure, a low hanging power line downstream/upstream of the bridge(s), or it may be some other structure which limits vertical clearance. Sometimes the existing to-be-replaced bridge(s) is the most restrictive structure.)**

   The most vertically restrictive structure is the existing to-be-replaced bridge (SH-52) with a surveyed vertical clearance of 15.1ft (12ft permitted).

5. **Will the proposed bridge(s) become the most restrictive/obstructive structure across the waterway?**

   The proposed bridge may no longer be the most restrictive vertical clearance along the waterway. Data for the UPRR Bridge at river mile 370 is unknown.

C. Waterway characteristics

(All domestic bridge navigational clearances should be stated in linear feet in decimal form vs. feet and inches. All international bridge navigational clearances should be stated in linear unit of measure as well as the metric equivalent.)

1. **Various waterway stages: (Datum that is used).**

   OHW 2131.6
   Normal WSE 2126.6
   WSE on 9/2/2022 .....2122.9

   NAVD88 Datum

2. **Natural flow of the waterway including currents, waterway velocity, water direction, and velocity fluctuations (seasonal, daily, hourly, etc.), that might affect navigation.**

   The river flows to the northeast at the location of the bridge and proceeds on a northerly course. The velocity and velocity fluctuations can be characterized by the flow values shown below.

   Average monthly discharge in cubic feet per second (cfs) of the Snake River at USGS gauge 13269000
   Latitude 44°14'44", Longitude 116°58'51"
   in Weiser, Idaho
   River mile 351.2 (14 miles from subject bridge)
   from 1910 to present is:

   January = 15,800
   February = 17,800
   March = 21,600
   April = 26,600
   May = 27,200
   June = 24,500
   July = 11,700
   August = 9,700
   September = 11,400
   October = 13,600
   November = 14,400
   December = 14,900

   Average monthly discharge in cubic feet per second (cfs) of the Snake River at USGS gauge 13213100

Latitude 43°52'34", Longitude 116°58'57"
in Nyssa, Oregon
River mile 385.2 (20 miles from subject bridge)
from 1974 to present is:

January = 12,100
February = 12,900
March = 15,000
April = 17,800
May = 17,000
June = 14,200
July = 8,370
August = 8,110
September = 9,770
October = 11,100
November = 11,000
December = 11,400

3. **Width of the waterway at bridge site:**

   The width of the waterway at the bridge site is approximately 570 feet.

4. **Depth of the waterway and elevation fluctuations at bridge site: [List the depth at each waterway bridge stage (ex. Range of tides, average high-water elevation, etc.)].**

   The deepest point of the riverbed at river mile 365.0 is about elevation 2110ft.
   Therefore, water depths are as follows for these waterway bridge stages:
   OHW 21.6ft
   Normal WSE 16.6ft
   WSE on 9/2/2022 .....13.2ft

5. **Waterway layout and geometry: (For example, is there a dam or lock; does the elevation of the approach impact the required bridge(s) clearance?)**

   Brownlee Dam is located approximately 80 miles downstream from the proposed bridge. The elevation of the approach does not affect the bridge clearance.

6. **Channel and waterway alignment: Location of the channel(s)**

   The channel is approximately perpendicular to the bridge. The deepest part of the channel is located near Pier 2.

7. **Other limiting factors: (For example, bends in the waterway within one-half mile of project site, hindrances to free navigation, fog, hydraulics, etc.)**

   The depth of the water in the vicinity of the bridge is limited in certain areas of the channel for large or deep-hulled boats.

D. Do vessels that engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.), national defense activities (i.e. cruisers, fuel barges, munitions ships, etc.) or channel maintenance (i.e., dredges, dam and levee repair, etc.) operate on the waterway? If yes, describe the vessels and provide the following information:

Yes. The Sheriff's office patrols the river and responds to calls. They also perform training exercises once or twice per year. Shallow river depths in the area limit vessel size to smaller jet boats. The size of the jet boats are no longer than 26' with an air draft no more than 12'. The Payette County Sheriff's office provided photos of the types of boats that would be seen on the river near the project, which can be found in Appendix E. National defense activities or channel maintenance occur in the study area.

E. Has the United States Corps of Engineers (USACE) completed or does it plan to complete a federal navigation project on the waterway? If yes, provide the following information:

No. The USACE was contacted and asked this question during our user survey outreach. USACE has no existing or proposed navigation projects on the waterway per their response to the user survey. The full conversation was recorded in Appendix D.

F. Describe the present and prospective recreational navigation: Will the proposed bridge(s) affect the safe, efficient movement of any segment of the present or prospective recreational fleet operation on the waterway? If yes, provide the following information:

No, the existing recreational uses on the river will not be inhibited by the new bridge given the horizontal clearance exceeds other limiting structures and the vertical clearance is not changing.

Construction of the new bridge will likely require that recreational river traffic be diverted around construction activities to a specified navigable channel that will be determined at a future date.

NOTE: Check with local USACE District Office, Chamber of Commerce or other organizations for proposed marinas, recreational areas, shops, etc.

No marinas, recreation areas, or shops are proposed in the study area. Response provided by USACE.

G. Describe the present and waterway and prospective commercial navigation and the cargoes moved on the waterway: Will the proposed bridge(s) affect the safe, efficient movement of any segment of the present or prospective commercial fleet operating on the waterway? If yes, provide the following information:

No. By means of user surveys, satellite survey, and internet search engine requests, there are no commercial or cargo vessels used on this section of waterway. No known fishing and hunting guide services are provided in the study area per Payette County Sheriff's Office. Google search engine returns no results for guided fishing, hunting, recreation, and sightseeing services.

H. Identify the name and contact information for marine facilities located within a 3-mile radius of the proposed project (public boat ramps, marinas or major docking facilities, boat repair facilities, etc.:

Centennial Park Boat Ramp

Jamie Couch

jcouch@cityofpayette.com

City of Payette

700 Center Avenue

Payette, Idaho 83661

(208) 642-6044

Ontario State Recreation Site

Travis Bome

Travis.bome@oprd.oregon.gov

Oregon State Parks and Recreation Department

(541) 869-2365

I. Will the proposed bridge(s) block access of any vessel presently using local service facilities (i.e., repair shops, parts distributors, fuel stations)? If yes, provide the following information:

No. There are no facilities of this kind within the study area (3 miles upstream and downstream).

J. Are alternate routes bypassing the proposed bridge(s) available for use by vessels unable to pass the proposed bridge(s)? If yes, provide the following information:

No. It's expected the construction of the proposed bridge will require temporary work structures. The minimum required vertical and horizontal navigation clearance for the temporary work structures will be satisfied when determined.

K. Will the bridge(s) prohibit the entry of any vessels to the local harbor of refuge? If yes, describe the harbor and provide the following information:

No. There are no harbors of refuge in this section of waterway. A navigable channel will be maintained throughout the project for access to the upstream boat ramp.

L. Will the proposed bridge(s) be located within one-half mile of a bend in a waterway? If yes, describe the bend and provide the following information:

No. There are no significant bends in the waterway within one-half mile of the proposed bridge.

M. Are there other factors (i.e., dockages, lightering areas, existing bridges, etc.) located within one-half mile of the proposed bridge(s), which would create hazardous passage through the proposed structure? If yes, provide the following information:

No. There are no factors within one-half mile of the bridge that would create hazardous passage through the proposed structure.

N. Do local hydraulic conditions (i.e., wave chop, cross currents, tides, shoals, etc.) increase the hazard of passage through the proposed bridge(s)? If yes, provide the following information:

No. There are no local hydraulic conditions that increase the hazard of passage through the proposed bridge.

O. Do local atmospheric conditions (i.e., strong, prevailing winds, fog, rapidly developing storms, etc.) increase the hazard of passage through the proposed bridge(s)? If yes, provide the following information:

Yes. Seasonal wind and fog can create hazardous conditions, but it is anticipated that the increased horizontal clearance intends to improve or mitigate existing navigation conditions at this location.

P. Have guide clearances been established for the waterway? If yes, provide the following information:

No guide clearances have been established for this section of the Snake River.

Q. Are there other natural or man-made conditions that affect navigation (atmospherics, exclusion zones, etc.)?

There may be occasional debris floating in the river, but it is anticipated that it will not affect the navigability under the bridge.

R. State any other factors considered necessary for the safe, efficient passage of vessels through the proposed bridge(s)? Are clearance gauges needed? Why?

No such factors are known or needed. No clearance gauges are needed based on local knowledge of the bridges and waterways.

S. Include a description of the impacts to navigation caused or which could be reasonably caused by the proposed bridge(s) including but not limited to: proposed construction methodology, proposed or prospective changes to the existing bridge(s) operating schedule (for movable bridges), and any proposed mitigation to all unavoidable impacts to navigation.

During construction there will be a portion of the channel open for navigation. The location will vary depending on the phase of construction. The minimum required vertical and horizontal navigation clearance for the temporary work structures will be satisfied when determined.

T. Is there any proposed or completed mitigation for impacted waterway users? Are there any impacts that cannot be mitigated?

No. There will not be any time that the entire waterway is closed to traffic during or after construction. During construction, waterway traffic will be directed as required to a navigable route under the bridge.

1. **Can vessels and cargoes be partially disassembled/dismantled in order to transit the proposed bridge(s), and if so, is it economically reasonable? The Coast Guard must take into consideration a vessel's ability to adjust its operations without economic loss. Adjustment or mitigations techniques may include using other routes, lowering electronics (GPS, radar, communication antennae, etc.), lowering crane booms, etc.**

   It is not anticipated that this would be required of any vessels.

2. **Are alternative routes available for vessel passage?**

   There are no other waterways for passage in the area.

3. **Can vessels transit at typical lower water stages (mean low water, mean pool level, etc.)?**

   The typical boat traffic under the bridge are jet boats or smaller vessels which can transit at lower water stages and through the shallower channels that surround this project.

Appendix A: USCG Correspondence

From: Jones, Daniel
Sent: Tuesday, October 18, 2022 8:06 AM
To: Monroe, Jeffrey
Cc: Slegers, Michael; McNeese, John A.; Waite, Cameron
Subject: FW: 22266 SH-52, Snake River Bridge (Payette) Replacement
Attachments: encl 14-Prelim Nav Determination-GI Side Channel Bridge (5-8-20).pdf; BPAG COMDTPUB P16591 3D_Sequential Clearance Final(July2016).pdf

Capt Monroe,

Here is the email from Steve with the USCG.

Kind Regards,
Dan

Daniel Jones, P.E. (ID, OR, UT)
Associate
Roadway Section Manager

D 208.387.7101 M 208.899.5300

hdrinc.com/follow-us

From: Fischer, Steven M CIV USCG D13 (USA) <Steven.M.Fischer3@uscg.mil>
Sent: Tuesday, September 27, 2022 4:11 PM
To: Styles Salek <Styles.Salek@itd.idaho.gov>
Cc: Jones, Daniel <Dan.Jones@hdrinc.com>; Shawna King <Shawna.King@itd.idaho.gov>; MALONEY Sean <Sean.MALONEY@odot.oregon.gov>; Darren LaMay <Darren.LaMay@itd.idaho.gov>; Matt Farrar <Matt.Farrar@itd.idaho.gov>; LAUGHLIN Brian <Brian.LAUGHLIN@ODOT.Oregon.gov>; Mcreynolds, Danny G CIV USCG D13 (USA) <Danny.G.McReynolds@uscg.mil>; Smith, Carl F CTR (USA) <Carl.F.Smith@uscg.mil>
Subject: RE: 22266 SH-52, Snake River Bridge (Payette) Replacement

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Styles and Dan,

Thanks for your email. For the subject bridge I have an valid 1950 ACOE permit that was transferred to the USCG in 1967. The bridge is at river mile 365 and has a horizontal navigation clearance of 232ft and vertical navigation clearance of 12ft at EHW El 2131.6 ft.

Attached is a Bridge Permit Application Guide or (BPAG). The first step is to prepare a Navigation Impact Report or NIR as documented in the BPAG and summarized on pages 1-3. Also please see attached for a sample….you can probably use a lot of the same info.

After you submit a NIR the Coast Guard will issue a Preliminary Navigation Clearance Determination or (PNCD) which will provide the minimum navigation clearance requirements for your new bridge. Then you can design a bridge that will meet the requirements of the PNCD.

Who will be the Federal Lead on the Project? What level of NEPA document to you anticipate needing (CE, EA, EIS)? CE I hope!

Thanks

Steve Fischer
Bridge Administrator
U.S. Coast Guard
Thirteenth District

From: Styles Salek <Styles.Salek@itd.idaho.gov>
Sent: Monday, September 12, 2022 1:30 PM
To: Fischer, Steven M CIV USCG D13 (USA) <Steven.M.Fischer3@uscg.mil>
Cc: Jones, Daniel <Dan.Jones@hdrinc.com>; Shawna King <Shawna.King@itd.idaho.gov>; MALONEY Sean <Sean.MALONEY@odot.oregon.gov>; Darren LaMay <Darren.LaMay@itd.idaho.gov>; Matt Farrar <Matt.Farrar@itd.idaho.gov>; LAUGHLIN Brian <Brian.LAUGHLIN@ODOT.Oregon.gov>
Subject: [Non-DoD Source] 22266 SH-52, Snake River Bridge (Payette) Replacement

Good afternoon Steve,
The Idaho Transportation Department (ITD) and our partner, the Oregon Department of Transportation (ODOT), have just begun preliminary design work for the SH-52 bridge replacement project over the Snake River on the Idaho/Oregon border. The bridge is located near the city of Payette, ID, and falls within the navigable reach of the Snake River, see map snips below of project location. We expect the design and permitting work to take place over the next 24 months or so and currently have the bridge scheduled to go to construction in 2026. I am the project manager for this project and was wanting to open up a line of communication between ITD's project team and the US Coast Guard. Please let me know if you are the correct contact for the USCG or if I should be reaching out to someone else.

I understand this project will require a USCG Bridge Permit and it's in the best interest of ITD to coordinate with USCG regularly as we work through the project. I would like to set up a time to introduce the project and the project team to the USCG. Would you be available sometime within the next week or so? If you'd like to propose some times I can check with the rest of the project team and set up an online conference call.

I also wanted to let you know that we have retained the services of a professional engineering firm, HDR Engineering Inc., to help design and develop this project. Please see the attached letter authorizing HDR Project Manager, Dan Jones to be a representative of the Department.

I look forward to working with the USCG. Please give me a call if you have any questions or would like more information prior to meeting with the project team.

Thank you,

Styles Salek, P.E.

Staff Engineer
ITD|District 3
Office: (208) 459-7420
Cell: (208) 559-1275
Styles.Salek@itd.idaho.gov

Appendix B: Satellite Survey

A satellite survey was conducted within a 3-mile radius of the bridge (see Figure 1 below) to find any possible locations of public boat ramps, commercial boat ramps, river related businesses, boat shops, and marinas. The Centennial Park Boat Ramp, which is the only public boat ramp on the Snake River in Payette County, is located 1,000 feet southwest of the SH-52 Bridge. The Ontario State Recreation Area is located just outside of this radius and is the other public boat launch in the vicinity. There is one known small private launch. All the boat launches are small and can only be used by small recreational boats. The river was surveyed between Weiser, Idaho and Nyssa, Oregon and there were no more public or private boat ramps located based on the satellite imagery. There were no commercial ramps, river related businesses, boat shops, or marinas located.

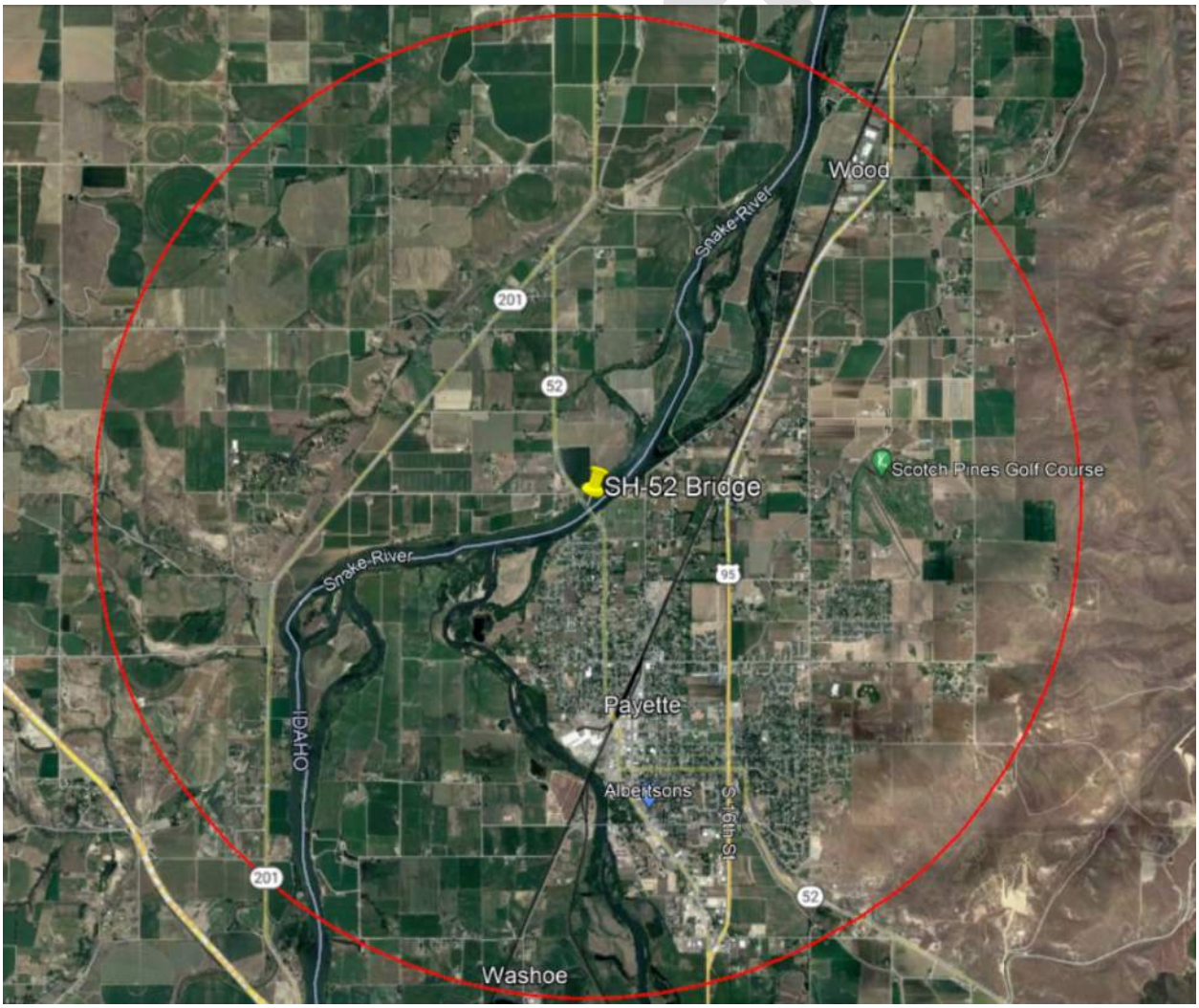


Figure 1

Appendix C: Site Photos

From eastern abutment looking west.

From eastern abutment looking west.

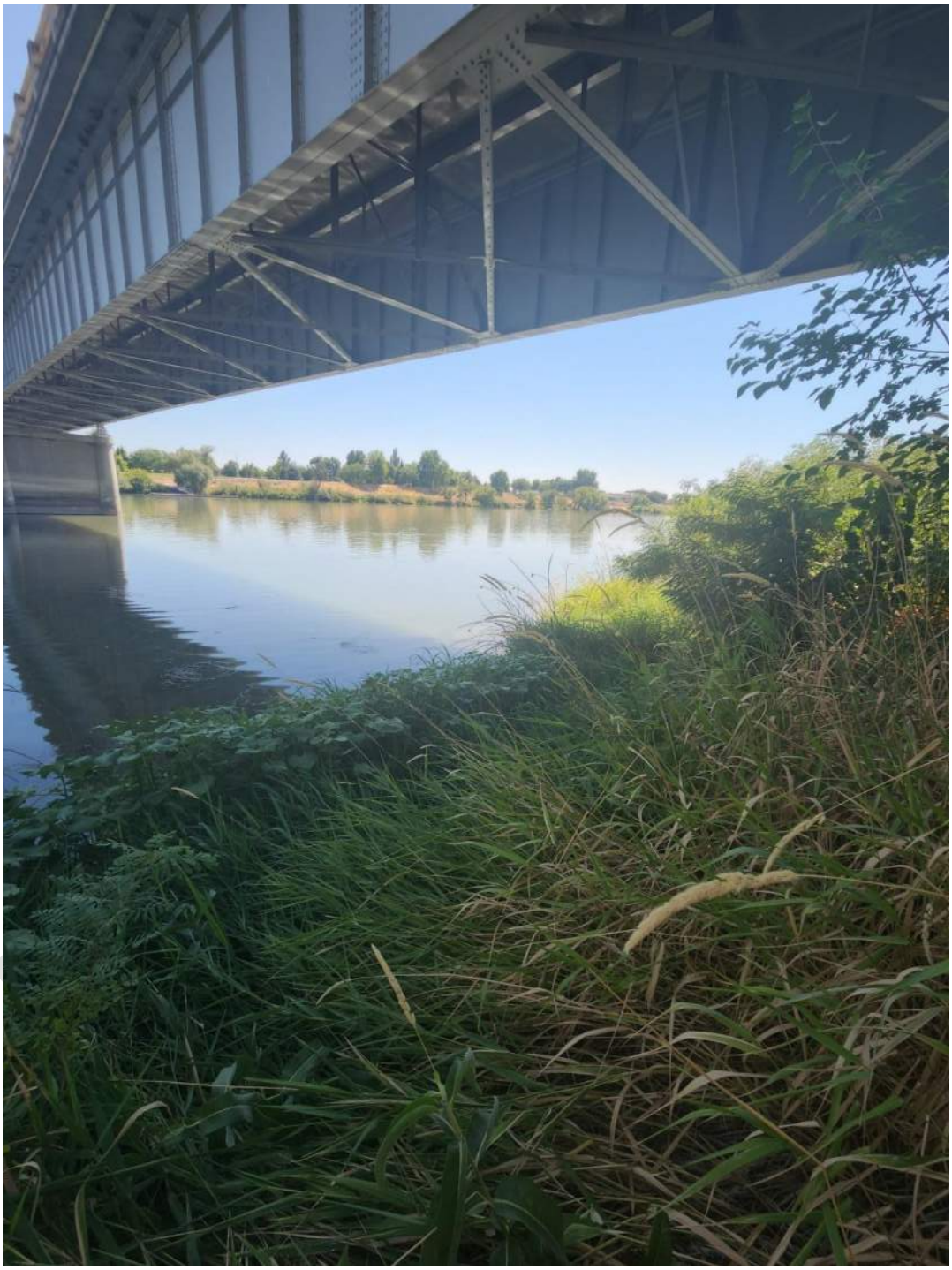
Fishing boat observed near project.

From eastern abutment looking north, downstream.

Fishing boat observed at project location.

Boat ramp with SH-52 bridge in the background, with recreational tubers floating the river.

From western abutment looking east.



From western abutment looking east.

Appendix D: Outreach Records of Conversation

Record of Conversation

Date:	Wednesday, November 02, 2022		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Payette County Sheriff's Department (Lieutenant McDonald) rmcdonald@payettecounty.org	Phone No:	(208) 642-6006 (called in to Teams Meeting)
Call from:	HDR (Dan Jones)	Phone No:	N/A (Teams Meeting)
Subject:	Snake River Vessel Information		

Discussion, Agreement, and/or Action:

- Describe the vessels (boats, barges, etc.) that your department uses at or upstream of the bridge.
    a. Vessel type (jet boats, flat bottom boats, open v-hull boats, etc.)

       Most vessels are smaller, recreational boats, jet boats, flat bottoms, 14 to 26 feet long v-hull boats, pontoon boats, jet skis. Most vessels are used by sportsmen (hunters, fishermen). Channel is about 12' deep at high water in this section of river.

    b. Vessel overall length (in feet)

       14 to 26 feet. The Lieutenant has not seen anything longer than 26 feet on the river.

    c. Vessel beam width (in feet)

       Nothing wider than 10 feet. The range is 2 to 10 feet.

    d. Vessel Draft (distance in feet between waterline and lowest point on the vessel)

       24 to 36 inches is the typical draft with 36 inches being the max.

    e. Vessel air draft (distance in feet between waterline and highest point on the vessel)

       No more than 10 to 12 feet with 12 feet being the max.

    f. Frequency of vessel crossing below SH-52 bridge (occasional, frequent)

       On peak days, up to around 20 vessels passing under the bridge per day. Varies depending on weather.

    g. Time of year (year-round, spring-early fall, etc.)

       Peak season is typically from May to the end of August or early September. There is some infrequent use during the winter for duck hunting. The boat ramp is open year-round.

h. Please provide picture(s) of vessels (in water or trailered)

Lt. to provide the picture of the sheriff's boat. See Appendix C for some other site photos of some river users.

- Do vessels engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.) or channel maintenance (i.e., debris removal, dredges, bridge or dam repair)?

  There was a recent oil spill training performed on the river (to practice for emergencies). Training operations are performed once or twice a year (water rescue and recovery). The Sheriff's office does patrol the river and respond to calls. Additionally, when Oregon jurisdictions receive calls, they typically request the Payette County Sheriff's Office to respond to the calls due to boat accessibility.

General Notes:

- There is another public launch located at Ontario Park about 2 miles upstream and a small private launch.
- All launches are too small to launch big boats.
- The Lieutenant does not know of any commercial activities on the river (guide services, etc.).
- USACE controls diversion dam near 95 so they may do debris cleanup, but not likely in our area.
- IDFG and USACE would be the only people to contact other than Sheriff's office, but it also wouldn't hurt to reach out to Oregon (Malheur County).
- Coordinate with jurisdictions for river safety plan for Geotech investigation planned early next year (march or April). Need to notify and provide river safety plan, river traffic plan, date(s), time(s), and duration(s). PFDs would be required.

Record of Conversation

Date:	Tuesday, November 08, 2022		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Jamie Couch, City of Payette, Streets and Parks jcouch@cityofpayette.com	Phone No:	(208) 642-6044
Call from:	Dan Jones, HDR	Phone No:	(208) 387-7101
Subject:	Centennial Park Boat Ramp Use for Geotech Work and General Information		

Discussion, Agreement, and/or Action:

- Jamie manages the parks and streets in Payette.
- Jamie is ok with the use of the boat ramp for the geotechnical work scheduled in March. That time of year is a good time to do work because the activity is really low. Discussed closing the launch for 1 to 1 ½ days when the barge is launched and another 1 to 1 ½ days when the barge is pulled out. The city is ok with those closures.
- The city can provide barricades to keep the public out
- Jamie provided some suggestions of where to place the barge in the water
- Payette river effects the flow the most in March
- Current is moderately strong in the area
- Jamie OK'd using the dock nearest the bridge to moor the barge
- Styles asked about vandalism of the moored boat
    a) Jamie offered to lock the park gate at night
    b) City ordinance prohibits park use at dark
- Wants a sign near the boat ramp to warn boaters of work zone
- Styles asked for boat ramp detours if needed
    a) Robinson landing in Weiser (approximately 14 river miles downstream; outside of study area)
    b) State Park in Ontario (approximately 4 river miles upstream)
- Jamie says right now (Nov) quite a few boats travelling up/down the river to go duck hunting. Sometimes nighttime to do some catfishing
- Floaters put in at 95 on the Payette and pull out at Centennial Park.

- There's potentially a trailer (abandoned) in the water on the east side of the bridge between the bank and first pier.
- HDR to provide the City with the river traffic control plan and river safety plan once completed.
- Barge is to be illuminated during the night
- Provide City with closure times and permit at least 2 weeks in advance of ramp/park closure.

Record of Conversation

Date:	Tuesday, November 15, 2022		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Brandon Flack, Idaho Department of Fish and Game Brandon.flack@idfg.idaho.gov	Phone No:	(N/A Teams Call)
Call from:	Dan Jones, HDR	Phone No:	N/A (Teams Call)
Subject:	Boat Traffic Information		

Discussion, Agreement, and/or Action:
Info to request

- Describe the vessels (boats, barges, etc.) that your department uses at or upstream of the bridge.
    a. Vessel type (jet boats, flat bottom boats, open v-hull boats, etc.)

        About equal distribution of jet boats and flat bottoms. Fishing boats are mostly jet boats. There is some whitewater use (floaters, kayaks).

    b. Vessel overall length (in feet)

        12-foot to 25-foot average, 30-foot max

    c. Vessel beam width (in feet)

    d. Vessel Draft (distance in feet between waterline and lowest point on the vessel)

    e. Vessel air draft (distance in feet between waterline and highest point on the vessel)

        1-foot to 2-foot minimum, 8-foot to 9-foot max

    f. Frequency of vessel crossing below SH-52 bridge (occasional, frequent)

    g. Time of year (year-round, spring-early fall, etc.)

        Fishing starts right around April and is busiest May to July. This is a heavily used area of the Payette. Waterfowl season starts Mid October and goes to end of January and goose goes until early March depending on type. Usually by the end of January the bulk of river activity for waterfowl hunting is over. During the winter most goose hunting is in fields or ponds.

    h. Please provide picture(s) of vessels (in water or trailered)

- Do vessels engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.) or channel maintenance (i.e., debris removal, dredges, bridge or dam repair)?
- Does Fish and Game have any regulations that we would be under obligation to comply with?

Other Notes

- Suggested to reach out to Idaho Whitewater Association
    - Local knowledge of other key stakeholders indicated floaters do not cross under the subject bridge. The association does not conduct events on this area, as they concentrate their efforts on other whitewater attractions in Idaho. The study area is not a whitewater destination. Floaters float down the Payette River and pull out at the Centennial Boat Ramp upstream of the subject bridge.
- IDFG has recommendations for the construction window (2 months) but understand it cannot always be met, especially for a large project like this.
- IDFG wants to see BMP's during construction.
- Brandon requested that we send the questions to him so that he can research and get the questions answered as best as possible.

Record of Conversation

Date:	Thursday, November 17, 2022		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Cass Jones (Idaho Department of Water Resources - IDWR)	Phone No:	N/A (Teams Call)
Call from:	Dan Jones (HDR)	Phone No:	N/A (Teams Call)
Subject:	Boat Traffic Information		

Discussion, Agreement, and/or Action:

A call was made to IDWR to discuss boat traffic information for the Navigation Impact Report for the project. IDWR indicated that they do not have any information regarding vessels that travel this river and they do not monitor navigational information.

Record of Conversation

Date:	Thursday, November 17, 2022		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Sheriff Brian Wolfe (Malheur County) Brian.wolfe@malheurco.org	Phone No:	N/A (Teams Meeting)
Call from:	Dan Jones (HDR)	Phone No:	N/A (Teams Meeting)
Subject:	Boat Traffic Information		

Discussion, Agreement, and/or Action:
Info to request

- Describe the vessels (boats, barges, etc.) that your department uses at or upstream of the bridge.
    a. Vessel type (jet boats, flat bottom boats, open v-hull boats, etc.)

        Fishing boats, flat bottom boats, jet boats, recreational boats. People use that section to test out their boats due to its depth in comparison to the other areas of the river near the bridge. No water skiing or similar recreation in this area.

    b. Vessel overall length (in feet)

        Less than 26 feet

    c. Vessel beam width (in feet)

        8.5 feet

    d. Vessel Draft (distance in feet between waterline and lowest point on the vessel)

        1.5 to 2 feet

    e. Vessel air draft (distance in feet between waterline and highest point on the vessel)

        8 to 8.5 feet

    f. Frequency of vessel crossing below SH-52 bridge (occasional, frequent)

        Highest usage is in early spring, constant use during the summer, and relatively low use in winter.

    g. Time of year (year-round, spring-early fall, etc.)

        Highest usage is in early spring, constant use during the summer, and relatively low use in winter.

    h. Please provide picture(s) of vessels (in water or trailered)

- Do vessels engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.) or channel maintenance (i.e., debris removal, dredges, bridge or dam repair)?

  Most calls to the sheriff are for grounded boats or missing persons that fell from a vessel. Malheur county launches from Ontario State Park. They only launch at Centennial Park in the case of an emergency.

  Other Notes:

  - There are no businesses along the river. All use is recreational.
  - There are a few private boat launches that are not well marked. They are likely a few miles away from the bridge upstream.
  - We will send river safety plan to Malheur Sheriff for review. The Sheriff's office does not have any concerns as of now.
  - Road traffic has increased in comparison with previous years.

Record of Conversation

Date:	Tuesday, March 07, 2023		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Travis Bome - Oregon State Parks Department (Farewell Bend Management Unit) Travis.bome@oprd.oregon.gov	Phone No:	(541) 869-2365 (called Park Manager Travis Bome)
Call from:	HDR (Dan Jones)	Phone No:	(208) 387-7101
Subject:	Snake River Vessel Information		

Discussion, Agreement, and/or Action:

- Describe the vessels (boats, barges, etc.) that your department uses at or upstream of the bridge.
    a. Vessel type (jet boats, flat bottom boats, open v-hull boats, etc.)

    Most vessels are smaller, recreational boats, jet boats, flat bottoms, 8 to 25 feet long v-hull boats, pontoon boats, occasional kayak (with small motor), and paddle boards. Most vessels are used by sportsmen (hunters, fishermen). Combination of outboard and inboard boats. Largest boat was about 20 feet long. It is seasonal and based on water levels. Malheur County Search and Rescue use this ramp. A lot of 8-foot Jonboat.

    b. Vessel overall length (in feet)

    8 to 20 feet. The Manager has not seen anything longer than 25 feet on the river.

    c. Vessel beam width (in feet)

    Nothing wider than 10-12 feet. The main range is 2 to 10 feet.

    d. Vessel Draft (distance in feet between waterline and lowest point on the vessel)

    24 to 36 inches is the typical draft with 36 inches being the max.

    e. Vessel air draft (distance in feet between waterline and highest point on the vessel)

    No more than 12 feet with 12 feet being the max.

    f. Frequency of vessel launching from the ramp in the park (occasional, frequent)

    On peak days, up to around 30 vessels passing under the bridge per day. Varies depending on weather. On average about 10 to 20 vessels per day.

    g. Time of year (year-round, spring-early fall, etc.)

Peak season is typically from late April to the end of October. There is some infrequent use during the winter for duck hunting (December to January). The boat ramp is open year-round.

h. Please provide picture(s) of vessels (in water or trailered)

Park Manager has no photos of what typically launches from his ramp; however, the description is small recreational type boats that do not get any longer than 25 feet. The Oregon State Parks Department does launch their own boat from this ramp and pictures have been included in Appendix E.

- Do vessels engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.) or channel maintenance (i.e., debris removal, dredges, bridge or dam repair)?

  ODOT uses this ramp occasionally to inspect or check (not sure what they do according to Travis).

  Malheur County Search and Rescue use this ramp for emergency services and for training operations. Frequency is unknown.

  Oregon Stake Parks Department launches from there to help those that are stranded along the banks of the river.

  Not aware of any channel maintenance and operations activities in this area and they do not launch from that ramp.

  No record of commercial outfitters that use the ramp that are registers or permitted through Oregon Stake Parks Department.

General Notes:

- Maintenance is a challenge for this ramp and so at times it is closed due.
- Ramp was closed recently due to vandalism and had to be closed to replace and due maintenance on to end of July 2022 until end of August 2022.
- This ramp is more ADA compatible for those who need that then others around
- Ramp is a single lane about 12 to 14-feet wide
- Concrete pad into the water about 30 feet
- Depth of the water is unknown at the ramp and along the river.
- This ramp is too small to launch big boats.
- The Manager does not know of any commercial activities on the river (guide services, etc.).

Record of Conversation

Date:	Monday, November 28, 2022		
Project:	SH-52 Snake River Bridge	Project No:	Key No. 22266
Call to:	Jake Cordtz (USACE) Jacob.w.cordtz@usace.army.mil	Phone No:	N/A (Teams Meeting)
Call from:	Dan Jones (HDR)	Phone No:	N/A (Teams Meeting)
Subject:	Navigation Impact Report Questions		

Discussion, Agreement, and/or Action:
Info to request

- USACE is not currently performing or planning any navigation projects in this area
- There is no river maintenance performed by USACE in this section of river.
- Jake to check concerning the diversion structure near the HWY 95 crossing of the Payette River
- It appears there are no levies in the area at first glance. Jake to check on this.
- USACE does not know of any proposed marinas, recreational areas, and shops in our bridge vicinity currently. Jake to check on this.

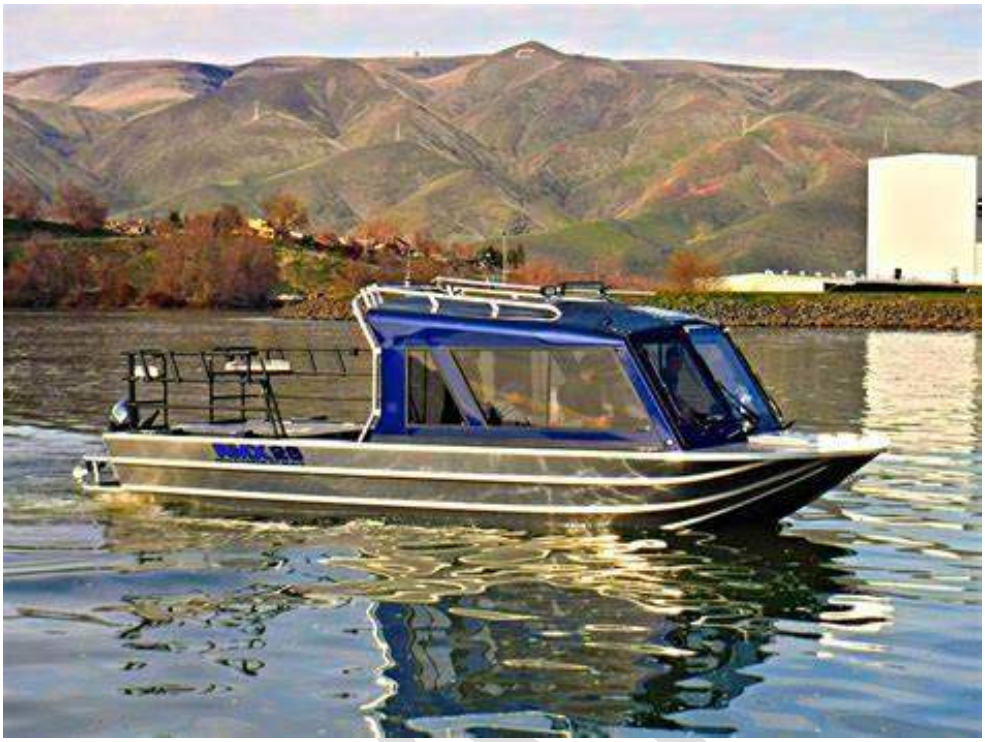
Appendix E: Watercraft Photos

A boat similar to what the Payette County Sheriff's office uses.

16-foot fishing boat

Aluminum jet boat

Flat bottom hunting boat



Another type of jet boat

Medium fishing boat

Small fishing boat

Malheur County Sheriff's Boat

Malheur County Sheriff's Boat

Oregon Department of Rec Boat 1

Oregon Department of Rec Boat 2

Appendix F: High Water Marks

Appendix G: USCG District 13 Bridge Data

BRIDGENAME	WTRWNAME	WTRWMILE	STATE	LOCATION	OWNER	ADDRESS	PHONENUM	TYPE	CFRSECTN	CLSDPRDS	MISLE ID	PERMITDATE	REFPLANE	LIGHTFILENO	PERMITNBR	REMARKS1	REMARKS2	VLFTOPEN	HORCLRNC	VERTCLRNC	REMARKS3
Copperfield Bridge	Snake River	269.6	ID	Copperfield, Baker County, OR and Adams County, ID	Idaho Power Company	Boise, ID		Fixed			SKA026960	4/27/1961			105	File includes permit and plans, permit transfer to USCG, bridge photos, FOF, completion letter, and correspondence.					
Brownlee Bridge	Snake River	286.5	ID	nr Brownlee Dam - Baker Co., OR - Adams Co., ID	Idaho Power Company	Boise, Idaho		Fixed			SKA028650	5/18/1956	HW El. 1,810		NPW 800.6	File includes permit and plans, bridge photos, CG transfer document, FOF, Public Notice, and completion report.			60 ft.	11 ft.	
UP-Snake River Bridge	Snake River	327.9	OR/ID	Baker County, Oregon and Washington County Idaho	Union Pacific Railroad			Fixed			SKA032790	10/8/1956	El. 2077.0 ft.		NPW 800.6	File includes Permit and plans, amended permit, bridge photos, USCG permit transfer, FoF, public notice and public hearing documents, and additional documentation.			190 ft.	10.0 ft.	
Weiser Snake River Bridge	Snake River	351.2	ID	Weiser, Idaho	Idaho Department of Transportation			Fixed			SKA035120	9/22/1950	MHW 2096.5 ft.		NPW 800.6-9	File includes permit and plans, bridge photos, public notice, construction start and completion letters, and misc. correspondence.			135 ft.	15.5 ft.	
Nagaki Bridge	Snake River	364.0	ID	Payette, Idaho				Fixed			SKA036400	8/22/1949	MHW 2142.0 ft.		NPW 800.6-2	File includes permit and plans, Coast Guard transfer document, bridge photos, public notice, completion letter, and correspondence.	Side channel of Snake River crossing to Pool Island.		35 ft.	5 ft.	
Payette Snake River Bridge	Snake River	365.0	ID	Payette, Idaho	Oregon Department of Transportation			Fixed			SKA036500	11/13/1950	EHW El 2131.6 ft.		NPW 800.6-10	File includes permit and plans, Coast Guard transfer document, bridge photo, public notice, and correspondence.			232 ft.	12 ft.	
UPRR Ontario Bridges	Snake River	370.0	OR	Ontario, Oregon	Union Pacific Railroad			Fixed			SKA037000				no permit	File includes bridge photo only.					
Ontario Bridge	Snake River	372.0	OR	Ontario, Oregon	Oregon State Department of Transportation	Transportation Building, Salem, OR 97310		Fixed			SKA037200	10/4/1923	H.W., 2145.7 ft.	missing	6371	File includes original permit and plans (1923), amended permits and plans (ACOE 7/7/1966; 144-75, 12/9/1975; 144-75a, 01/12/1979), 1984 FOF & FONSI, Supplemental FofF, FoF, Public Notices (84-N-10, 78-N-16, 9/26/1978; 75-N-03, 1/24/1975), and historic d	44.025070 N., -116.935325 W. US-30 highway.	N/A	93.3 ft.	24.2 ft.	
Old Oregon Trail Hwy Bridge	Snake River	373.0	OR	Ontario, Oregon	Oregon State Department of Transportation	Transportation Building, Salem, OR 97310		Fixed			SKA037300	2/12/1958	H.W., 2146.3	missing	800.6	2 parallel bridges. File includes permit and plans, bridge photo, CG transfer, completion letter, FoF, and public notice (12/2/1957).	44.00722 N., -116.94123 W. I-84 highway.		110 ft.	17.5 ft.	permit vertical mimimum clearance is 9.9 feet.
Nyssa Bridge	Snake River	389	OR/ID	Nyssa, OR and Canyon County, ID	Oregon State Department of Transportation	ODOT District 14 Access / Utility permits 1390 SE 1st Ave. Ontario, OR 97914	541-823-4016	Fixed			SKA038900		EHW El. 2174.0		C43276	File includes permit and plans, bridge photo, USCG transfer, public notice (06/01/1955). Bridge POC: John Eden (John.W.EDEN@odot.state.or.us)	Highway 26 & 20 across Snake River at Nyssa, OR. CGAA issued Feb 2002.		739 ft.	15-21 ft.	Verticle clearance at main channel ranges from 2.0 to 6.0 feet at extreme high water.
Bridge Island UPRR Bridge	Snake River	389.5	OR	nr Nyssa, OR	UPRR			Fixed			SKA038950	10/21/1950			no permit	file includes bridge photo and locaion maps	Clearances unknown				

Appendix H: ITD Inspection Report

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Elm/Env	Element Description	Total Qty	Units	State 1	State 2	State 3	State 4
12/4	**Reinforced Concrete Deck**	21087	sq.ft	7687	7000	6400	0

INSPECTION RUNS FROM THE OREGON SIDE TO THE IDAHO SIDE

Reinforced concrete deck with a thin chip seal wearing surface.
Chip seal wearing surface is in poor condition and wearing thin with large areas of missing.
There are many defects in the deck, see below for details.

2022: Dropped deck rating to a 4 (poor) and increased inspection frequency to 12 mo. due to continued deterioration. Closely monitor deck underside for areas of distress/potential full depth failures.

Elm/Env	Element Description	Total Qty	Units	State 1	State 2	State 3	State 4
510/4	***Wearing Surfaces***	17914	*sq.ft*	0	0	8957	8957

Top of the concrete deck has a chip seal wearing surface in poor condition and wearing thin with large areas of missing.

Elm/Env	Element Description	Total Qty	Units	State 1	State 2	State 3	State 4
1080/4	***Delamination/Spall/Patched Area***	10000	*sq.ft*	0	5000	5000	0

The deck surface in spans 2, 3, 4, and 5 have numerous open spalls with span 4 being the worst. A high percentage of the deck surface in span 4 is spalled. These spalls are typically shallow with areas of delamination around them. These areas also have water stains which indicate deteriorated concrete. Since 2018 a majority of the open spalls in the deck surface have been covered with a Maxwell product called Gap Mastic 550 (placed on the first week of December 2019). This is not a structural repair, this is just to make the driving surface smoother.

There is a full depth deck repair in span 3 between floor beams 15 & 16. This repair has open spalls with exposed rebar on the surface (most of the spalls have been patched but some still remain unpatched) and map cracking with efflorescence and spots of rust staining on the underside.

Large spall/delamination in the right curb/deck exterior, in span 4, FB26 from rail collision damage. The edge of the deck in this location has a few exposed bars.

Minor areas of spalling in the girder haunches above the top flanges. These areas have water stains which indicate deteriorated concrete.

The underside of the deck at pier 4 behind the girder 1 bearing is spalled with an exposed bar.

The right exterior of the curb/deck at abutment 1 is cracked and spalled with an exposed bar in the curb.

Elm/Env	Element Description	Total Qty	Units	State 1	State 2	State 3	State 4
1120/4	***Efflorescence/Rust Staining***	2500	*sq.ft*	0	2000	500	0

The underside of the deck including the overhangs have numerous transverse cracks with efflorescence/rust staining.
The underside of span 2 has areas of map cracking with efflorescence/rust staining.
The full depth deck repair in span 3 between FBs15-16, right side has heavy map cracking with efflorescence and spots of rust staining on the underside.
The right deck overhang, span 3, at FB12 has an area of rust staining near the deck drain.

Elm/Env	Element Description	Total Qty	Units	State 1	State 2	State 3	State 4
1130/4	***Cracking (RC and Other)***	900	*sq.ft*	0	0	900	0

The underside of deck has numerous areas of heavy map cracking with concrete scaling especially in span 4.

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

107/2	**Steel Open Girder/Beam**	1217	ft	1017	180	20	0

Two built-up steel plate girders with riveted connections. Fracture critical girder system.
Paint on the steel girders is in generally satisfactory condition with oxidizing present, some areas of paint peeling, and some areas of rusting with red lead primer showing.
Steel girders have some areas of rusting with red lead primer showing, a few minor areas of corrosion along the top flange, and a few random areas of minor pack rust.
A few bent vertical stiffeners on the exterior of girder 1 in span 3.

515/2	***Steel Protective Coating***	30710	*sq.ft*	15010	13000	1500	1200

Paint on the steel girders is in generally satisfactory condition with oxidizing present, some areas of paint peeling, and some areas of rusting with red lead primer showing.

1000/2	***Corrosion***	200	*ft*	0	180	20	0

Steel girders have some areas of rusting with red lead primer showing, a few minor areas of corrosion along the top flange, and a few random areas of minor pack rust.
Heavier corrosion on the bottom flange on the exterior of girder 2, at FB8 (span 2), under the deck drain.
Pack rust on the bottom flange on the exterior of girder 2, at FB21 (span 4).

110/2	**Reinforced Concrete Open Girder/Beam**	322	ft	257	60	0	5

Four reinforced concrete girders with concrete diaphragms on the approach spans (spans 1 & 5).
Girders haunch down to the piers.
Large spall with deteriorated concrete, right side of span 1 at pier 1.
Hairline to 0.016-inch vertical cracks and a few small chips throughout.

1080/2	***Delamination/Spall/Patched Area***	15	*ft*	0	10	0	5

The right side of span 1 at pier 1 has a severe spall with exposed rebar. This spall has crumbling concrete and delamination around it. Delamination stemming from the spall on the bottom of the right exterior girder towards the abutment. This spall is compromising the girder bearing area.
A few small chips in the bottom of the approach span concrete girders.

1130/2	***Cracking (RC and Other)***	50	*ft*	0	50	0	0

Hairline to 0.016-inch vertical cracks.

113/2	**Steel Stringer**	1217	ft	1064	153	0	0

Painted steel stringers are in satisfactory condition.
Paint on the steel stringers is in satisfactory condition. Areas of paint missing and minimal effectiveness, especially on the underside of the top flanges.
Minor areas of corrosion, especially along the top flanges.
A few missing/loose bolts at the stringer-FB connections.
Stringer 2 in span 3 had a platform support welded to its bottom flange at FB15-16. No cracking found.

515/2	***Steel Protective Coating***	5383	*sq.ft*	3733	550	550	550

Paint on the steel stringers is in satisfactory condition. Areas of paint missing and minimal effectiveness, especially on the underside of the top flanges.

1000/2	***Corrosion***	150	*ft*	0	150	0	0

Minor areas of corrosion, especially along the top flanges.

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

1020/2	***Connection***	3	*ft*	0	3	0	0

Missing bolt on the stringer 2 to FB0 connection plus loose bolt on the other side, below the pier 1 joint.
Bolt loose on the stringer 2 to FB22 connection (span 4).
Missing bolt on the stringer 2 to FB23 connection (span 4).

152/2	**Steel Floor Beam**	675	ft	675	0	0	0

Steel angle built-up floor beam trusses with riveted connections are in satisfactory condition.
Paint on the steel floor beam trusses is in satisfactory condition. Small areas of paint missing and minimal effectiveness.
Missing bolt on the stringer 2 to floor beam 0 connection plus loose bolt on the other side, below the pier 1 joint.
Bolt loose on the stringer 2 to floor beam 22 connection (span 4).
Missing bolt on the stringer 2 to floor beam 23 connection (span 4).
Floor beams 15 & 16 in span 3 had a platform support field welded to various members. No cracking found.

515/2	***Steel Protective Coating***	3071	*sq.ft*	2171	300	300	300

Paint on the steel floor beam trusses is in satisfactory condition. Small areas of paint missing and minimal effectiveness.

210/3	**Reinforced Concrete Pier Wall**	112	ft	77	35	0	0

Reinforced concrete pier walls have minor to moderate concrete surface scaling, small spall at pier 1, and a few cracks.

1130/3	***Cracking (RC and Other)***	35	*ft*	0	35	0	0

Small spall with hairline random cracks in left pier column at pier 1.
Hairline to 1/16-inch vertical crack in pier 1 just right of centerline.
A few random hairline cracks.

215/2	**Reinforced Concrete Abutment**	62	ft	50	12	0	0

Reinforced concrete abutments have minor to moderate concrete surface scaling and a few random hairline to 1/32-inch vertical cracks.
Erosion on both sides of abutment 1 and on the left side of abutment 2.
Fabric and riprap placed in front of abutment 2.

1130/2	***Cracking (RC and Other)***	12	*ft*	0	12	0	0

A few random hairline to 1/32-inch vertical cracks.

220/4	**Reinforced Concrete Pile Cap/Footing**	44	ft	0	44	0	0

Pier 3 footing exposed around the full perimeter a maximum of 2 feet at the downstream nose. Concrete voids observed in the footing with up to 8 inches of penetration. Refer to 10/2017 underwater inspection report.

6000/4	***Scour***	44	*ft*	0	44	0	0

Pier 3 footing exposed around the full perimeter a maximum of 2 feet at the downstream nose.

234/2	**Reinforced Concrete Pier Cap**	112	ft	47	55	10	0

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Reinforced concrete pier caps have a few moderate width cracks, several areas of delamination and small spalls/exposed rebar (not adequate concrete cover).

The pier 1 backwall (span 2 face) has minor to moderate concrete scaling with a couple exposed bars near girder 2, just above pier seat.

1080/2	***Delamination/Spall/Patched Area***	50	*ft*	0	40	10	0

Pier cap 1:
- Spalling on right exterior.
- Areas of delamination along the span 2 face.
Pier caps 2 & 3:
- Small spalls on left exterior, no exposed steel.
Pier cap 4:
- Span 4 face is delaminated throughout with several small spalls/exposed rebar.
- Moderate scaling on left exterior.

1130/2	***Cracking (RC and Other)***	15	*ft*	0	15	0	0

A few moderate width cracks.

302/4	**Compression Joint Seal**	30	ft	0	0	15	15

Closed joint at pier 4 with rubber compression seal, adhesion failure throughout.
Spalls/exposed rebar in the joint headers on the underside of the joint.

2320/4	***Seal Adhesion***	15	*ft*	0	0	0	15

Seal adhesion failure throughout.

2360/4	***Adjacent Deck or Header***	15	*ft*	0	0	15	0

Spalls/exposed rebar in the joint headers on the underside of the joint.

305/4	**Assembly Joint Without Seal**	30	ft	0	0	0	30

Steel finger joint without a seal over pier 1.
The fingers on the joint are vertically offset from each other by 7/8", span 1 (concrete approach span) being higher than span 2 (steel main span).
Joint open ~1/2" at 84 deg. F at time of inspection.

2360/4	***Adjacent Deck or Header***	30	*ft*	0	0	0	30

The fingers on the joint are vertically offset from each other by 7/8", span 1 (concrete approach span) being higher than span 2 (steel main span). This is causing a significant plow truck hazard when driving from Idaho side to Oregon side.
This offset could be due to a combination of;
- Pin wear at the rocker units, causing the steel girders to "settle" (pin wear up to 3/16")
- The fingers on the span 2 side being installed at a slight (~2 deg.) tilt downward

311/2	**Movable Bearing**	6	each	0	2	4	0

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Pin and rocker bearings at piers 1, 2, & 4.
Paint on bearings is in fair to poor condition.
Corrosion taking place on the rocker and pin assemblies on the bearings at piers 1 & 4, pins have 3/16-inch of visible wear/section loss.

The bearings are tilted as follows at time of inspection:
- Pier 1 left: 8.8 deg. toward S1 at 82 deg. F
- Pier 1 right: 7.4 deg. toward S1 at 82 deg. F
- Pier 2 left: 1.4 deg. toward S3 at 73 deg. F
- Pier 2 right: 1.2 deg. toward S3 at 73 deg. F
- Pier 4 left: 0.8 deg. at 66 deg. F
- Pier 4 right: 2.4 deg. at 66 deg. F

515/2	***Steel Protective Coating***	24	*sq.ft*	0	0	12	12
	Paint on bearings is in fair to poor condition.						
1000/2	***Corrosion***	6	*each*	0	2	4	0
	Corrosion taking place on the rocker and pin assemblies on the bearings at piers 1 & 4. *Pins have 3/16-inch of visible wear/section loss. The wear is occurring in the pin and the pinned connecting plate.* *Rocker unit on the left side of pier 4 has had water ponding inside from horizontal plate supports and no drainage.* *Lesser corrosion on the bearings at pier 2.*						
313/2	**Fixed Bearing**	2	each	0	2	0	0

Fixed pin bearing units at pier 3.
Paint on bearings is in satisfactory condition, minor to moderate corrosion.

515/2	***Steel Protective Coating***	8	*sq.ft*	0	8	0	0
	Paint on bearings is in satisfactory condition.						
1000/2	***Corrosion***	2	*each*	0	2	0	0
	Minor to moderate corrosion.						
330/3	**Metal Bridge Railing**	1378	ft	578	635	150	15

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Twin steel square tubes with reinforced concrete posts make up the bridge rail.
Paint on the steel portion of the rail is in fair to poor condition. Paint is oxidizing and there are areas of paint failure.
Areas of minor corrosion.

Collision damage to the abutment 1 right corner nearly knocking transition end off of bridge.
Collision damage to the right rail in span 4 (~ midspan), leading to large delamination/spalling/exposed rebar in the curb and deck exterior.
2022: New collision damage to the left rail, span 2, about 6 rail posts away from pier 3. This damage spans three rail posts, has knocked one top steel rail loose and has knocked another top steel rail completely off. See photos.

Numerous concrete posts are cracked or spalled off with rebar exposed at various locations.
This posed a serious safety concern with the crash capacity of the rail.
The district went in 8/2019 and made several temporary repairs, welding steel plates to attached the steel rails (both vertically and horizontally) where the concrete posts were severely spalled. This repair is only intended to keep the rail functional until the bridge can be replaced. The bridge is scheduled for replacement in 2026.
2022: There about 11 new locations where this same repair should be implemented (functional repair / non-permanent solution). This is NOT including the recent damage to the left rail, span 2, near pier 3.

515/3	***Steel Protective Coating***	2300	*sq.ft*	0	690	1150	460

Paint on the steel portion of the rail is in fair to poor condition. Paint is oxidizing and there are areas of paint failure.

1000/3	***Corrosion***	600	*ft*	0	600	0	0

Areas of minor corrosion.

1080/3	***Delamination/Spall/Patched Area***	200	*ft*	0	35	150	15

Collision damage to the abutment 1 right corner nearly knocking transition end off of bridge.
Collision damage to the right rail in span 4 (~ midspan), leading to large delamination/spalling/exposed rebar in the curb and deck exterior.
2022: New collision damage to the left rail, span 2, about 6 rail posts away from pier 3. This damage spans three rail posts, has knocked one top steel rail loose and has knocked another top steel rail completely off. See photos.

Numerous concrete posts are cracked or spalled off with rebar exposed at various locations.
This posed a serious safety concern with the crash capacity of the rail.
The district went in 8/2019 and made several temporary repairs, welding steel plates to attached the steel rails (both vertically and horizontally) where the concrete posts were severely spalled. This repair is only intended to keep the rail functional until the bridge can be replaced. The bridge is scheduled for replacement in 2026.
2022: There about 11 new locations where this same repair should be implemented (functional repair / non-permanent solution). This is NOT including the recent damage to the left rail, span 2, near pier 3.

7000/3	***Damage***	30	*ft*	0	0	15	15

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Collision damage to the abutment 1 right corner nearly knocking transition end off of bridge.
Collision damage to the right rail in span 4 (~ midspan), leading to large delamination/spalling/exposed rebar in the curb and deck exterior.
2022: New collision damage to the left rail, span 2, about 6 rail posts away from pier 3. This damage spans three rail posts, has knocked one top steel rail loose and has knocked another top steel rail completely off. See photos.

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Additional Information

BRIDGE IS ON PROGRAM TO BE REPLACED IN 2026

INSPECTION RUNS FROM THE OREGON SIDE TO THE IDAHO SIDE

ROADWAY APPROACHES: Asphalt approaches are in satisfactory condition.

CURBS: Concrete curbs are in satisfactory condition. Deck drains need to be extended down below the steel girders. Several deck drains are either partially or fully clogged with debris.

EMBANKMENT: Riprap around abutment 2. Erosion at the corners of the abutments except for the right side of abutment 2 which has riprap in front.

CHANNEL: Good channel alignment and waterway adequacy. Moderate to swift stream flow next to piers. River controlled by dams upstream. Shorelines are stable and well vegetated. Channel bottom material consists of sand with up to 4 inches of probe rod penetration.

SIGNS: No signs or hazard markers.

GUARDRAIL: Approach W-beam rail on Oregon side with thrie-beam transitions and breakaway end terminals in satisfactory condition.
Approach rail on Idaho side is W-beam rail with low speed transition and breakaway end terminals in satisfactory condition.

UTILITIES: 3 inch pipe attached to right underside. (2) carrier brackets rubbing on utility in Span 2 near P1 due to vertical misalignment. Conduit attached to left deck overhang underside.

NOTES: Send copy of inspection report to Joseph Bond. Joseph.P.Bond@odot.state.or.us

OTHER INSPECTIONS PERFORMED: Fracture critical inspection performed using the UBIT by Scott Litchfield, Amy Bower, and Victor Babiychuk on September 7, 2022.

SCOUR REVIEW: Scour evaluation completed May 1995 by ODOT rated item 113 a 3. Footing exposed at Pier 3. No undermining observed. Founded on sandstone.

INSECTION FREQUENCY: Increasing frequency to 12 mo. due to continued deck deterioration. Closely monitor deck underside for areas of distress/potential full depth failures.

WORK ACCOMPLISHED: Routine roadway maintenance. Open deck spalls with exposed rebar filled in with Gap Mastic 550 by district maintenance.

LOAD RATING: None.

Idaho Transportation Department
Bridge Inspection Report

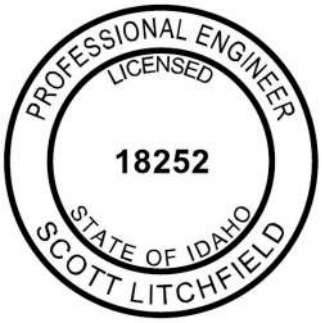
Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Maintenance Recommendations

Recommendation	Priority	Suggested Work Assignment
M 158 - Extend the drain pipes below the exterior steel girders.	Medium	Contractor
M152-rehab the concrete deck.	High	Contractor
Replace compression seal over pier 4.	Low	State Forces
M157 - Repair/rehab bridge rail.	High	Contractor
M155 - Finger joints at pier 1 are uneven causing a potential problem for snow plows.	High	Contractor
M151- Replace/tighten missing/loose stringer to floorbeam rivets/bolts.	Low	Contractor
M151 - Remove all temp platform steel and welds.	Medium	State Forces
Repair Saddle to Properly Attach Utility to Carriers in Span 2 Near Pier 1 Right Side.	Medium	State Forces

Inspector's Signature: _____ 09/08/2022

Inspector Number and Name: 1004 - Scott Litchfield, ITD Bridge Inspector



Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

IDENTIFICATION

(1)State:	16 Idaho
(2)District:	District 3
(3)County:	075 Payette
(4)Place Code:	Not within City/Town
(5)Inventory Route:	131000520
(7)Facility Carried:	SH 52
(11)Milepoint: 0.00000	Agency Milepost: 000.000
(12)Base Hwy Network:	Not on Base Network
(13a)LRS Inventory Route:	
(13b)LRS Sub Route:	
(16)Latitude:	44° 05' 41.7"
(17)Longitude:	116° 56' 22.5"
(98)Border Bridge Code:	41
(99)Border Bridge ID:	04335A455Y02130
Segment Code:	002010
Segment Under Rte:	
Segment Other Rte:	
Drawing Number:	8930
Project Key Number:	1068
Inspection Area:	3
MPO:	N/A

STRUCTURE TYPE AND MATERIALS

(43a/b)Main Span Material/Design:
4 Steel Continuous 2 Stringer/Girder

(44a/b)Approach Span Material/Design:
1 Concrete 02 Stringer/Girder

(45)No. of Spans Main Unit:	3
(46)No. of Approach Spans:	2
(107)Deck Type:	1 Concrete-Cast-in-Place
(108a)Wearing Surface:	6 Bituminous
(108b)Membrane:	0 None
(108c)Deck Protection:	None

Deck Applications

CLASSIFICATION

(112)NBIS Length:	Long Enough
(104)Highway System:	0 Not on NHS
(26)Functional Class:	16 Urban Minor Arterial
(100)Defense Highway:	0 Not a STRAHNET hwy
(101)Parallel Structure:	No || bridge exists
(102)Direction of Traffic:	2 2-way traffic
(103)Temporary Structure:	
(105)Federal Lands Highway:	0 N/A (NBI)
(110)Design Natl Network:	0 Not part of natl netwo
(20)Toll Facility:	3 On free road
(21)Custodian:	State Highway Agency
(22)Owner:	State Highway Agency
(37)Historical Significance:	4 Hist sign not determin

GEOMETRIC DATA

(48)Maximum Span Length:	238.8 ft
(49)Structure Length:	689 ft
Total Length:	689 ft
(50a)Curb/Sidewalk Width Lt:	1.3 ft
(50b)Curb/Sidewalk Width Rt:	1.3 ft
(51)Width Curb to Curb:	26.0 ft
(52)Width Out to Out:	30.6 ft
(32)App Roadway Width:	27 ft
(33)Median:	0 No median
(34)Skew:	0°
(35)Structure Flared:	0 No flare
(10)Vertical Clearance:	99.99 ft
(47)Total Horiz Clearance:	26.0 ft
(53)Min Vert Clr Over Deck:	99.99 ft
(54a)Min Vert Underclr Ref:	N Feature not hwy or RR
(54b)Min Vert Underclr:	0.00 ft
(55a)Min Lat Underclr Ref Rt:	N Feature not hwy or RR
(55b)Min Lat Underclr Rt:	0.0 ft
(56)Min Lat Underclr Lt:	0.0 ft

LRS

Route ID:	02010ASH052
Measure:	0.0000000
Route ID Under Rte:	
Measure Under Rte:	
Route ID 2nd Rte Under:	
Measure 2nd Rte Under:	

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

LOAD RATING

(31)Design Load:	3 MS 13.5 (HS 15)
(64)Operating Rating:	36 tons / HS20.0
(66)Inventory Rating:	21 tons / HS11.7
(70)Posting:	5 At/Above Legal Loads
(41)Posting Status:	A Open, no restriction

CONDITION

(58)Deck:	4 Poor
(59)Superstructure:	6 Satisfactory
(60)Substructure:	5 Fair
(61)Channel/Protection:	6 Bank Slumping
(62)Culvert:	N N/A (NBI)

AGE AND SERVICE

(27)Year Built:	1953
(106)Year Reconstructed:	
(42a)Type of Service On:	1 Highway
(42b)Type of Service Under:	5 Waterway
(28a)Lanes On: 2	(28b)Lanes Under: 0
(29)ADT:	3400
(30)Year of ADT:	2019
(109)Truck ADT:	13%
(19)Detour Length:	9 miles
Speed Limit:	35 MPH

APPRAISAL

(67)Structure Condition:	5 Above Min Tolerable
(68)Deck Geometry:	3 Intolerable - Correct
(69)Undrclear,Vert and Horiz:	N Not applicable (NBI)
(71)Waterway Adequacy:	9 Above Desirable
(72)Approach Alignment:	8 Equal Desirable Crit
(36)Traffic Safety Features:	
(a)Bridge Rail:	0 Substandard
(b)Transition:	1 Meets Standards
(c)Approach Rail:	1 Meets Standards
(d)Approach Rail Ends:	1 Meets Standards
(113)Scour Critical:	3 SC - Unstable

PROPOSED IMPROVEMENTS

(75a)Type of Work:	31 Repl-Load Capacity
(75b)Work Done By:	1 Contract
(76)Length of Improvement:	700 ft
(94)Bridge Improvement Cost:	$6,700,000
(95)Rdwy Improvement Cost:	$670,000
(96)Total Project Cost:	$10,050,000
(97)Year of Cost Estimate:	2020
(114)Future ADT:	5100
(115)Year of Future ADT:	2039
YEAR PROGRAMMED:	2026

NAVIGATION DATA

(38)Navigation Control:	Permit Required
(39)Vertical Clearance:	13.1 ft
(40)Horizontal Clearance:	236.2 ft
(111)Pier Protection:	1 Not Required
(116)Lift Bridge Vert Clr:	

ENVIRONMENTAL

Environmental Concerns: Yes

Swallows

INSPECTION

(90)Inspection Date: 9/8/2022 (91)Inspection Frequency: 12 months

(92)Supplemental Inspections Frequency:

(a)Fracture Critical Detail:	24 months
(b)Underwater Inspection:	60 months
(c)Fatigue Detail (OS) Inspection:	NA
(d)In-Depth Inspection:	NA
(e)Confined Space Inspection:	NA

(93)Date of Inspections:

(a)FC Inspection Date:	9/8/2022
(b)UW Inspection Date:	10/23/2017
(c)Fatigue Detail (OS) Date:	
(d)In-Depth Date:	
(e)Confined Space Date:	

Channel Cross Section Year:

Equipment Needed: UBIT

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

WEARING SURFACE and DEAD LOAD INFORMATION

Asphalt:	0.5 *inches*	**Concrete:**	0.0 *inches*
Granular:	0.0 *inches*	**Timber:**	0.0 *inches*

POSTING INFORMATION

WEIGHT

Load Analysis Date: 12/05/2013

Load Analysis Required: N Analysis Complete

	Load Rating Analysis			Recommended	Actual
	IR (tons)	**OR (tons)**		**Posting(tons)**	**Posting(tons)**
H Truck	21	36			
HS Truck	21	36			
Type3	19	31	**Type3**		
Type 3S2	32	54	**Type 3S2**		
Type 3-3	32	54	**Type 3-3**		
			Axle Limit		

HEIGHT

	Recommended	Actual
Height Posting:		

ACTUAL WIDTH POSTING

Single Lane All Vehicles:	N
Single Lane Trucks/Buses:	N

IDAHO TRANSPORTATION DEPARTMENT
FRACTURE CRITICAL INSPECTION REPORT

FRACTURE CRITICAL BRIDGE
INSPECTION SUMMARY SHEET

Features: SNAKE RIVER; PAYETTE BR.
Bridge Key: 14565
Structure Name: 05210A 0.00
Owner: ID/OR
Route: SH 52
Milepost: 0.00

Inspection Date: 9/7/2022
Drawing #: 8930

Equipment required: UBIT A-62, Mag Particle

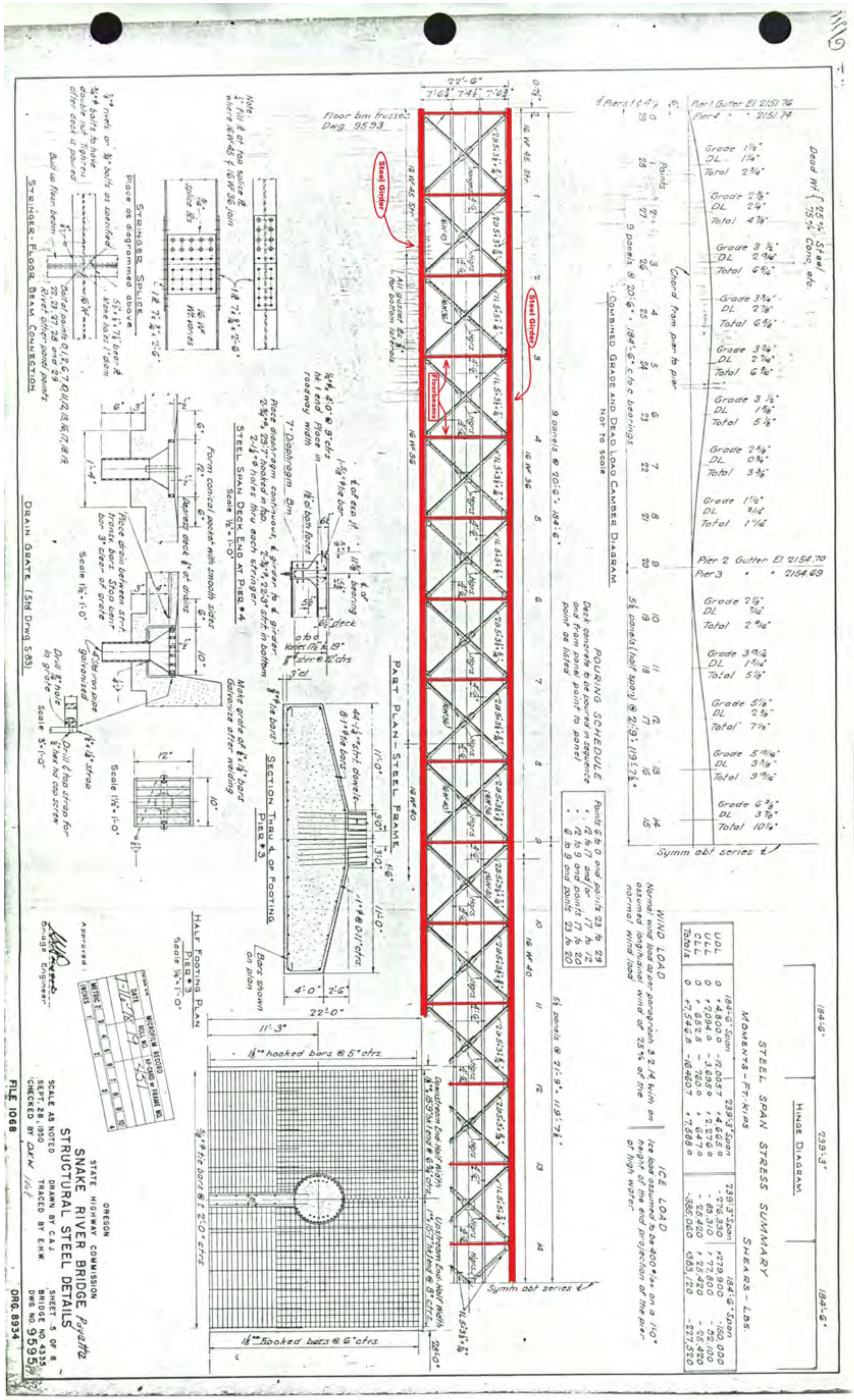
Preparation notes: Arrange traffic control with the District 3 New Plymouth/Weiser Foreman. Arrange for single lane closure required for UBIT (with A-62 full bridge is accessible with one lane closure). Plan on full day inspection, half day UBIT.

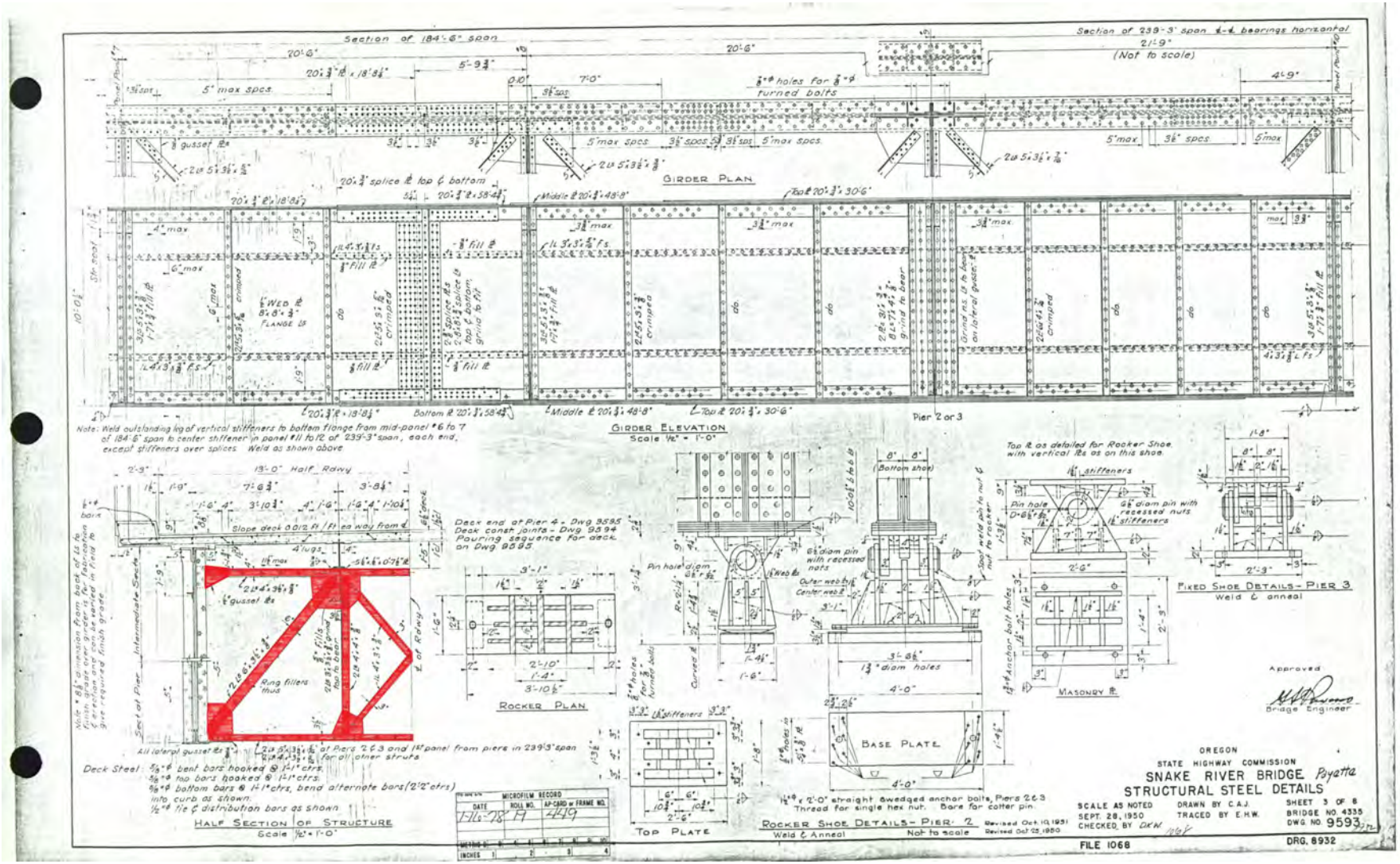
Procedures:

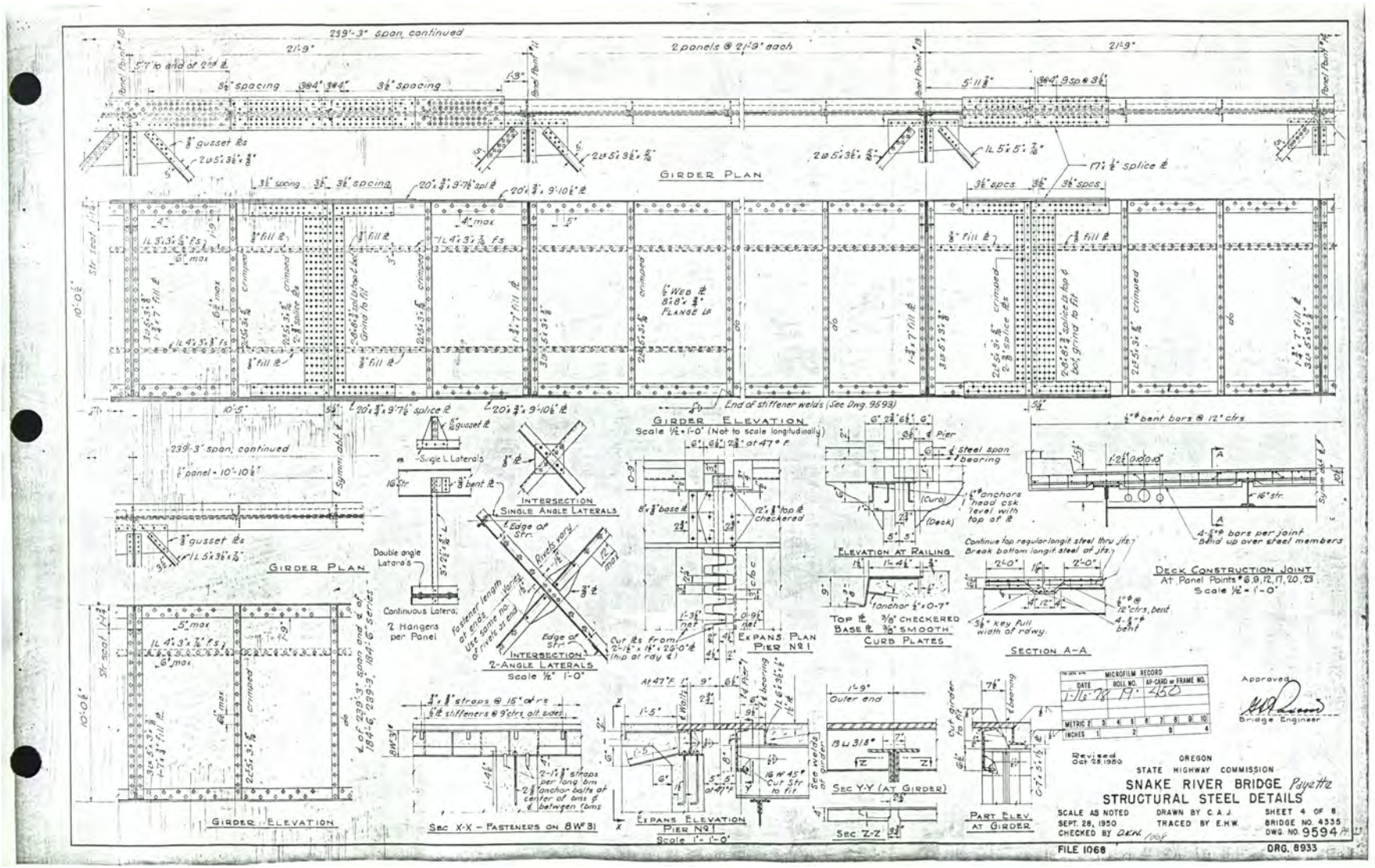
1 Inspect according to general procedures in IMBE 4.2.5.5.
2 Inspect all field welded locations of the platform supports in span 3 that are attached to girder 2 and Floorbeams 15 and 16 (temporary platform was utilized for a deck repair). Attachment connections for platform remain.

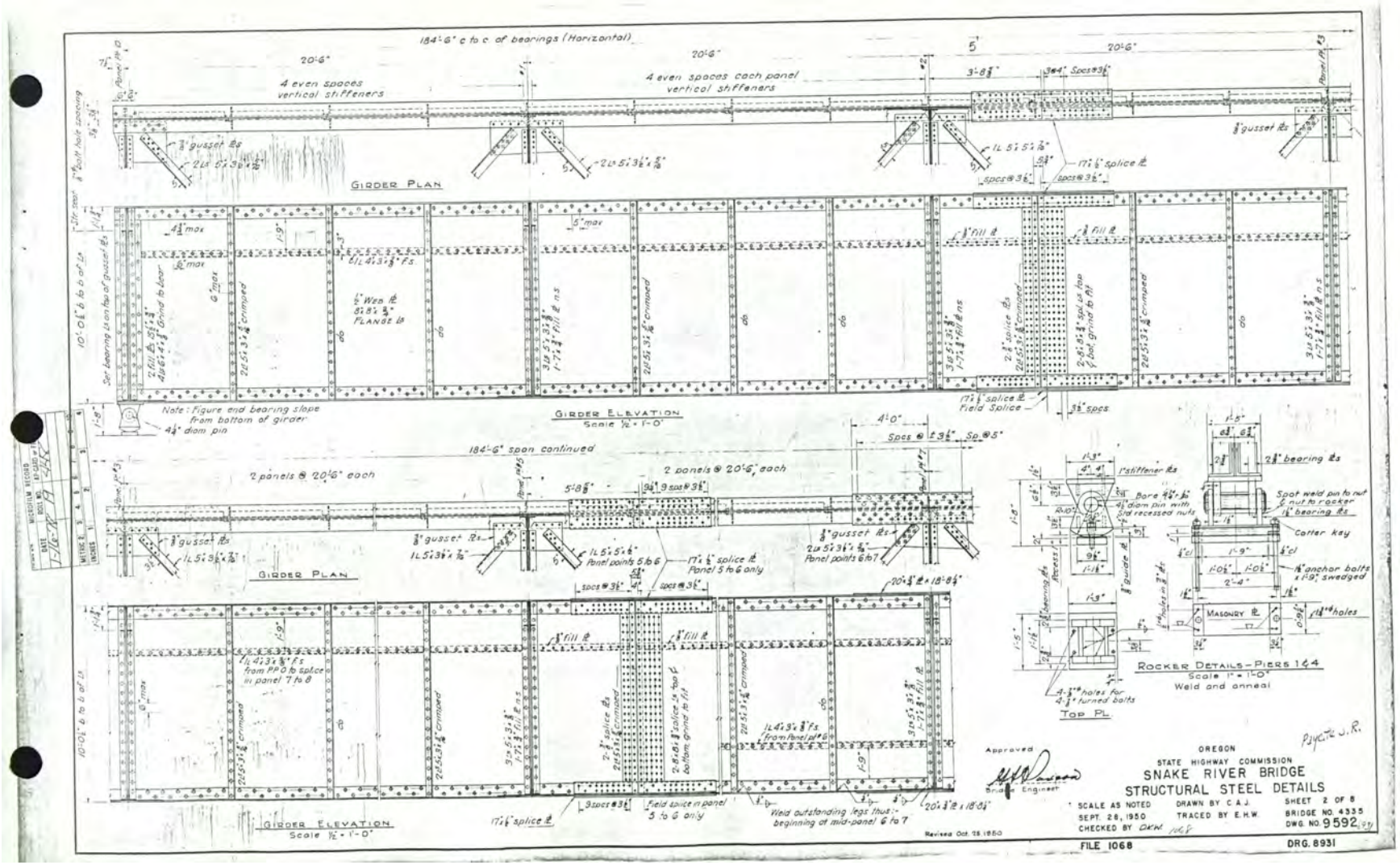
FCM Location	FCM Type	FCM Per Girder or Truss Line
Pier 1	Floorbeam 0	1
Span 2	North (G1) Riveted Steel Girder	1
Span 2	South (G2) Riveted Steel Girder	1
Span 2	Floorbeams 1-8	8
Pier 2	Floorbeam 9	1
Span 3	North (G1) Riveted Steel Girder	1
Span 3	South (G2) Riveted Steel Girder	1
Span 3	Floorbeams 10-19	10
Pier 3	Floorbeam 20	1
Span 4	North (G1) Riveted Steel Girder	1
Span 4	South (G2) Riveted Steel Girder	1
Span 4	Floorbeams 21-28	8
Pier 4	Floorbeam 29	1

Note: FCM = Fracture Critical Member


Steel Girder
Steel Girder
Floorbeam
Floor bm trusses Dwg. 9593
COMBINED GRADE AND DEAD LOAD CAMBER DIAGRAM
NOT TO SCALE
POURING SCHEDULE
PART PLAN - STEEL FRAME
STEEL SPAN DECK END AT PIER #4
SECTION THRU ¢ OF FOOTING PIER #3
HALF FOOTING PLAN PIER #3
STRINGER SPLICE
STRINGER - FLOOR BEAM CONNECTION
DRAIN GRATE (Std Drwg S-83)
HINGE DIAGRAM
STEEL SPAN STRESS SUMMARY
MOMENTS - FT. KIPS
SHEARS - LBS.
WIND LOAD
ICE LOAD
Symm abt series ¢
MICROFILM RECORD
Approved
Bridge Engineer
OREGON
STATE HIGHWAY COMMISSION
SNAKE RIVER BRIDGE Payette
STRUCTURAL STEEL DETAILS
SCALE AS NOTED
SEPT. 28, 1950
CHECKED BY
DRAWN BY C.A.J.
TRACED BY E.H.W.
SHEET 5 OF 8
BRIDGE NO. 4335
DWG. NO. 9595
FILE 1068
DRG. 8934


Section of 184'-6" span
Section of 239'-3" span ℄-℄ bearings horizontal
(Not to scale)
GIRDER PLAN
GIRDER ELEVATION
Scale ½" = 1'-0"
Pier 2 or 3
Note: Weld outstanding leg of vertical stiffeners to bottom flange from mid-panel #6 to 7 of 184'-6" span to center stiffener in panel #11 to 12 of 239'-3" span, each end, except stiffeners over splices. Weld as shown above
HALF SECTION OF STRUCTURE
Scale ½" = 1'-0"
ROCKER PLAN
TOP PLATE
ROCKER SHOE DETAILS - PIER 2
Weld & Anneal
Not to scale
Revised Oct. 10, 1951
Revised Oct. 25, 1950
FIXED SHOE DETAILS - PIER 3
Weld & anneal
MASONRY PL.
BASE PLATE
Deck Steel: ⅝"ϕ bent bars hooked @ 12½" ctrs.
⅝"ϕ top bars hooked @ 12½" ctrs.
⅝"ϕ bottom bars @ 14½" ctrs, bend alternate bars (2½" ctrs) into curb as shown.
½"ϕ tie ℄ distribution bars as shown
Approved
Bridge Engineer
OREGON
STATE HIGHWAY COMMISSION
SNAKE RIVER BRIDGE, Payette
STRUCTURAL STEEL DETAILS
SCALE AS NOTED
SEPT. 28, 1950
CHECKED BY D.K.W.
DRAWN BY C.A.J.
TRACED BY E.H.W.
SHEET 3 OF 8
BRIDGE NO. 4335
DWG. NO. 9593
FILE 1068
DRG. 8932
MICROFILM RECORD
DATE 1-16-78
ROLL NO. 19
AP-CARD or FRAME NO. 449


GIRDER PLAN
GIRDER ELEVATION
Scale ½"=1'-0" (Not to scale longitudinally)
End of stiffener welds (See Dwg. 9593)
GIRDER PLAN
GIRDER ELEVATION
INTERSECTION
SINGLE ANGLE LATERALS
INTERSECTION
2-ANGLE LATERALS
Scale ½" 1'-0"
EXPANS. PLAN
PIER Nº1
EXPANS. ELEVATION
PIER Nº1
Scale 1"=1'-0"
SEC X-X – FASTENERS ON 8WF31
SEC Y-Y (AT GIRDER)
SEC Z-Z
ELEVATION AT RAILING
TOP PL 3/8" CHECKERED
BASE PL 3/8" SMOOTH
CURB PLATES
SECTION A-A
DECK CONSTRUCTION JOINT
At Panel Points #6,9,12,17,20,23
Scale ½"=1'-0"
PART ELEV. AT GIRDER
Revised Oct 28, 1980
OREGON
STATE HIGHWAY COMMISSION
SNAKE RIVER BRIDGE Payette
STRUCTURAL STEEL DETAILS
SCALE AS NOTED
SEPT. 28, 1950
CHECKED BY DKM
DRAWN BY C.A.J.
TRACED BY E.H.W.
SHEET 4 OF 8
BRIDGE NO. 4335
DWG. NO. 9594
MICROFILM RECORD
DATE 1-16-78 ROLL NO. 19 AP-CARD or FRAME NO. 450
Approved
Bridge Engineer
FILE 1068
DRG. 8933


184'-6" c to c of bearings (Horizontal)
20'-6"
4 even spaces vertical stiffeners
4 even spaces each panel vertical stiffeners
GIRDER PLAN
GIRDER ELEVATION
Scale ½" = 1'-0"
Note: Figure end bearing slope from bottom of girder
4½" diam pin
184'-6" span continued
2 panels @ 20'-6" each
GIRDER PLAN
GIRDER ELEVATION
Scale ½" = 1'-0"
Field Splice
Field splice in panel 5 to 6 only
Weld outstanding legs thus:- beginning at mid-panel 6 to 7
ROCKER DETAILS - PIERS 1 & 4
Scale 1" = 1'-0"
Weld and anneal
TOP PL
Approved
Bridge Engineer
OREGON
STATE HIGHWAY COMMISSION
SNAKE RIVER BRIDGE
STRUCTURAL STEEL DETAILS
SCALE AS NOTED
SEPT. 28, 1950
CHECKED BY
DRAWN BY C.A.J.
TRACED BY E.H.W.
SHEET 2 OF 8
BRIDGE NO. 4335
DWG. NO. 9592
Revised Oct. 28, 1950
FILE 1068
DRG. 8931

IDAHO TRANSPORTATION DEPARTMENT

FRACTURE CRITICAL INSPECTION REPORT

Features:	SNAKE RIVER; PAYETTE BR.		Inspection Date: 9/7/2022
Bridge Key:	14565		Hours: 5
Structure Name:	05210A 0.00	Inspector:	Scott Litchfield
Owner:	ID/OR	Co-inspector:	Amy Bower
Route:	SH 52	UBIT Operator:	Victor Babiychuk
Milepost:	0.00		

Span	Girder	Location	FCM Inspected	Inspection Method	Detail Description	Surface Prep	Remarks
Pier 1	1 & 2	FB0	Floorbeam	V	Riveted connection	None	Missing FB to stringer 2 bolt & loose bolt on the other side
2	1		Steel Girder	V	Riveted connections	None	Good condition. Very minor random pack rust in bottom flange splices.
2	2		Steel Girder	V	Riveted connections	None	Good condition. Very minor random pack rust in bottom flange splices.
2	1 & 2	FB1	Floorbeam	V	Riveted connection	None	Good condition
2	1 & 2	FB2	Floorbeam	V	Riveted connection	None	Good condition
2	1 & 2	FB3	Floorbeam	V	Riveted connection	None	Good condition
2	1 & 2	FB4	Floorbeam	V	Riveted connection	None	Good condition
2	1 & 2	FB5	Floorbeam	V	Riveted connection	None	Good condition
2	1 & 2	FB6	Floorbeam	V	Riveted connection	None	Good condition
2	1 & 2	FB7	Floorbeam	V	Riveted connection	None	Good condition. Minor impact damage in bottom FB near girder 2
2	1 & 2	FB8	Floorbeam	V	Riveted connection	None	Good condition
Pier 2	1 & 2	FB9	Floorbeam	V	Riveted connection	None	Good condition
3	1		Steel Girder	V	Riveted connections	None	Good condition. Very minor random pack rust in bottom flange splices.
3	2		Steel Girder	V	Riveted connections	None	Good condition. Very minor random pack rust in bottom flange splices. See comments below *
3	1 &2	FB10	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB11	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB12	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB13	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB14	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB15	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB16	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB17	Floorbeam	V	Riveted connection	None	Good condition
3	1 &2	FB18	Floorbeam	V	Riveted connection	None	Good condition
3	1 & 2	FB19	Floorbeam	V	Riveted connection	None	Good condition
Pier 3	1 & 2	FB20	Floorbeam	V	Riveted connection	None	Good condition. Slight distortion in lateral gusset plate, girder 2, span 3 side
4	1		Steel Girder	V	Riveted connections	None	Good condition. Very minor random pack rust in bottom flange splices.
4	2		Steel Girder	V	Riveted connections	None	Good condition. Very minor random pack rust in bottom flange splices.
4	1 & 2	FB21	Floorbeam	V	Riveted connection	None	Good condition
4	1 & 2	FB22	Floorbeam	V	Riveted connection	None	Loose FB to stringer 1 bolt
4	1 & 2	FB23	Floorbeam	V	Riveted connection	None	Missing FB to stringer 2 bolt
4	1 & 2	FB24	Floorbeam	V	Riveted connection	None	Good condition
4	1 & 2	FB25	Floorbeam	V	Riveted connection	None	Good condition
4	1 & 2	FB26	Floorbeam	V	Riveted connection	None	Good condition
4	1 & 2	FB27	Floorbeam	V	Riveted connection	None	Good condition
4	1 & 2	FB28	Floorbeam	V	Riveted connection	None	Good condition
Pier 4	1 & 2	FB29	Floorbeam	V	Riveted connection	None	Good condition

*Additional Comments

3	2	FB15	Steel Girder	V	Welds	None	Several field welds for a platform support on the girder web, vertical stiffener and stringer flanges between these floorbeams. No cracking found. Field welds for platform supports, stable.
3	2	FB16	Steel Girder	V	Welds	None	Platform supports are heavily corroded and leading to corrosion of the vertical stiffeners where welded together.

INSPECTION METHODS
(V) VISUAL
(DP) DYE PENTRANT
(UT) ULTRASONIC
(MP) MAGNETIC PARTICLE
(OT) OTHER

SURFACE PREPARATIONS
(NO) NONE
(WB) WIRE BRUSH
(GR) GRINDING
(CE) CHEMICAL
(SB) SAND BLASTING
(CH) CHIPPING HAMMER
(OT) OTHER

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

1. Approach from Oregon side

2. Right side elevation

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

3. Looking upstream

4. Looking downstream

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

5. Typical deck topside condition

6. Typical deck topside condition (full depth patch, span 3, FB 15-16)

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

7. Typical deck topside condition

8. Typical deck topside condition (span 4)

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

9. Typical deck underside condition (span 4)

10. Typical deck underside condition (span 4)

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

11. Typical deck underside condition (span 4)

12. Typical deck underside condition (span 4)

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

13. Typical deck underside condition (full depth patch, span 3, FB 15-16)

14. Spall in right deck exterior, span 4, at FB 26 due to rail collision damage (topside)

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

15. Spall in right deck exterior, span 4, at FB 26 due to rail collision damage (underside)

16. Right side of approach span 1 bearing at pier 1

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

17. Left side abutment 1

18. Right side abutment 1

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

19. Left side abutment 2

20. Abutment 2

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

21. Finger joint at pier 1

22. Finger joint at pier 1

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

23. Finger joint from left side

24. Finger joint from right side

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

25. Finger joint vertical offset

26. Finger joint opening

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

27. Typical pin wear at pier 1 (span 2, girder 2 bearing)

28. Girder 1 bearing tilt at pier 1

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

29. Girder 2 bearing tilt at pier 1

30. Rail end block/curb/deck exterior damage, right side abutment 1

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

31. Typical rail post damage (right rail, span 4)

32. New rail damage, left rail, span 2, about 6 rail posts away from pier 3

Idaho Transportation Department
Bridge Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

33. New rail damage, left rail, span 2, about 6 rail posts away from pier 3

IDAHO TRANSPORTATION DEPARTMENT
UNDERWATER INSPECTION REPORT

Bridge Key:	**14565**	**Structure Name:**	**05210A 0.00**
Feature Intersected:	**SNAKE RIVER; PAYETTE BR.**	**Location:**	**ID-OR LINE; PAYETTE**
Facility Carried:	**SH 52**	**Admin Jurisdiction:**	**DISTRICT 3**
Macs Seg:	**002010**	**Milepost:** **000.000**	**District:** **3**
Latitude:	**N 44° 05' 41.7"**	**Longitude:** **W 116° 56' 22.5"**	**Owner:** **STATE HIGHWAY AGENCY**
County:	**075 PAYETTE**		**Year Built:** **1953**

INSPECTION INFORMATION AND PROCEDURES

Proposed UW Insp. Freq: 60 months Previous UW Insp. Freq: 60 months Previous UW Insp. Date: 10/23/2017

Reason for Proposed Change to UW Insp. Freq: Not applicable.

Items to Inspect: Pier 2 and Pier 3.

Foundation Type: Reinforced concrete spread footings on sandstone.

Scour Countermeasures: ☐ Yes ☒ No If Yes, Describe:

Structural Details: Two reinforced concrete pier walls on spread footings.

Plans Available: ☒ General Plan and Elevation ☒ Substructure Unit Details ☐ Repair/Rehabilitation Drawings ☐ No Plans Available

Hydraulic Features & Characteristics: No significant hydraulic features at this bridge.

Inspection Method: ☒ Wet/Dry Suit ☒ Scuba ☐ Surface Supplied Air ☐ Other

Comments: No Comments

Inspection Level: ☒ Level I ☒ Level II ☐ Level III

Comments: Level I inspection over 100 percent of each underwater element. Level II inspection over 10 percent of each underwater element.

Specialized Equip: None required.

Flow control located upstream or immediately downstream of structure? ☐ Yes ☒ No

Contact to flow control agency required to adequately inspect structure? ☐ Yes ☒ No

Flow Controlling Agency: None

Contact:

Phone:

PROFESSIONAL ENGINEER LICENSED 16741 STATE OF IDAHO JORDAN FURLAN

Team Leader (Print & Sign): **Jordan T. Furlan P.E.** **Inspection Date:** **10/10/2022**

IDAHO TRANSPORTATION DEPARTMENT
UNDERWATER INSPECTION REPORT

Bridge Key: 14565 **Feature Intersected:** SNAKE RIVER

Diver 1 (TL): Jordan Furlan Diver 3: Chloe Touze

Diver 2: Dylon Moss Diver 4:

Diving Hazards:

Debris	☒ Yes	☐ No
Swift Current	☒ Yes	☐ No
Black Water	☐ Yes	☒ No
Deep Dive	☐ Yes	☒ No
Constricted Waterway	☐ Yes	☒ No
Soft/Unstable Channel Bottom/Banks	☐ Yes	☒ No
Watercraft/Vessel Movements	☐ Yes	☒ No
Other:	☐ Yes	☒ No

Describe Diving Hazards:

Fast current at Pier 3 and timber debris around both piers.

Boat Required: ☒ Yes ☐ No

Access/Launch Site: Boat ramp in park on Idaho side just upstream of bridge.

Waterline Ref. & Elev: Top of cap at Pier 3 (El. 2141.8 ft)

Distance to Waterline: 21.5 ft Waterline Elevation: 2120.3 ft

Time Spent on Insp: 4 hrs

Air Temp: 45 °F Weather: Sunny

Water Temp: 61 °F Water Visibility: 1 ft

Min. Depth at Substructure Unit(s): 8.2 ft (Pier 2) Max. Depth at Substructure Unit(s): 14.0 ft (Pier 3)

Flow Velocity: 1 ft/sec

Flow Direction: South to North

Inspection Preparation Notes:

None

IDAHO TRANSPORTATION DEPARTMENT
UNDERWATER INSPECTION REPORT

Bridge Key: 14565 **Feature Intersected:** SNAKE RIVER

INSPECTION FINDINGS

GENERAL NOTES (Shoreline Conditions, Channel Conditions, Special Details, Construction Operations, Etc.)

Shorelines are stable and well vegetated. Channel bottom material consisted of sand with up to 4 inches of probe rod penetration. Accumulations of timber debris at both piers. See Figure 1 for details. Top of footing elevation at Pier 3 determined by direct measurement and is different from 1950 design plans.

UNDERWATER ELEMENT CONDITION STATES

		Current Condition State (Gray) /Proposed Condition State (white)									
Elem.	*Description*	*Qty**	*Units*	*1*		*2*		*3*		*4*	
210	Reinforced Concrete Pier Wall	112	LF	112	77	35	35	0	0	0	0
	1130: Cracking (RC and Other)	35	LF	0	0	35	35				
220	Reinforced Concrete Pile Cap/Footing	44	LF	0	0	44	44	0	0	0	0
	6000: Scour	44	LF	0	0	44	44	0	0	0	0

Remarks on Underwater Element Condition States:

210/1130 – (CS 2) Small spall with hairline random cracks in the left pier column at Pier 1. Hairline to 1/16 inch wide vertical crack in Pier 1 just right of centerline. Pier walls have a few random hairline cracks.

220/6000 – (CS 2) Pier 3 footing was exposed around the full perimeter with a maximum of 2.5 feet vertical exposure at the downstream nose and no undermining.

NBI CODING

Item	*Current Condition Code*	*Proposed Condition Code*	*Item*	*Current Condition Code*	*Proposed Condition Code*
60 (Substructure)	5	5	62 (Culvert)	N	N
61 (Channel)	6	6	113 (Scour)	3	3

Remarks on NBI Coding:

Item 113 – Scour evaluation completed May 1995 by ODOT rated item 113 a 3. Footing exposed at Pier 3. No undermining observed. Founded on sandstone.

MAINTENANCE RECOMMENDATIONS

Elem.	*Description*	*Priority*
220	M154 - Repair scour at Pier 3.	High
210	M251 - Remove timber debris at Piers 2 and 3.	Low

***Quantities listed above only represent the portions of the element that were inspected as part of the underwater inspection.**

Idaho Transportation Department
Underwater Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Overall looking southwest.

Upstream looking south.

Idaho Transportation Department
Underwater Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

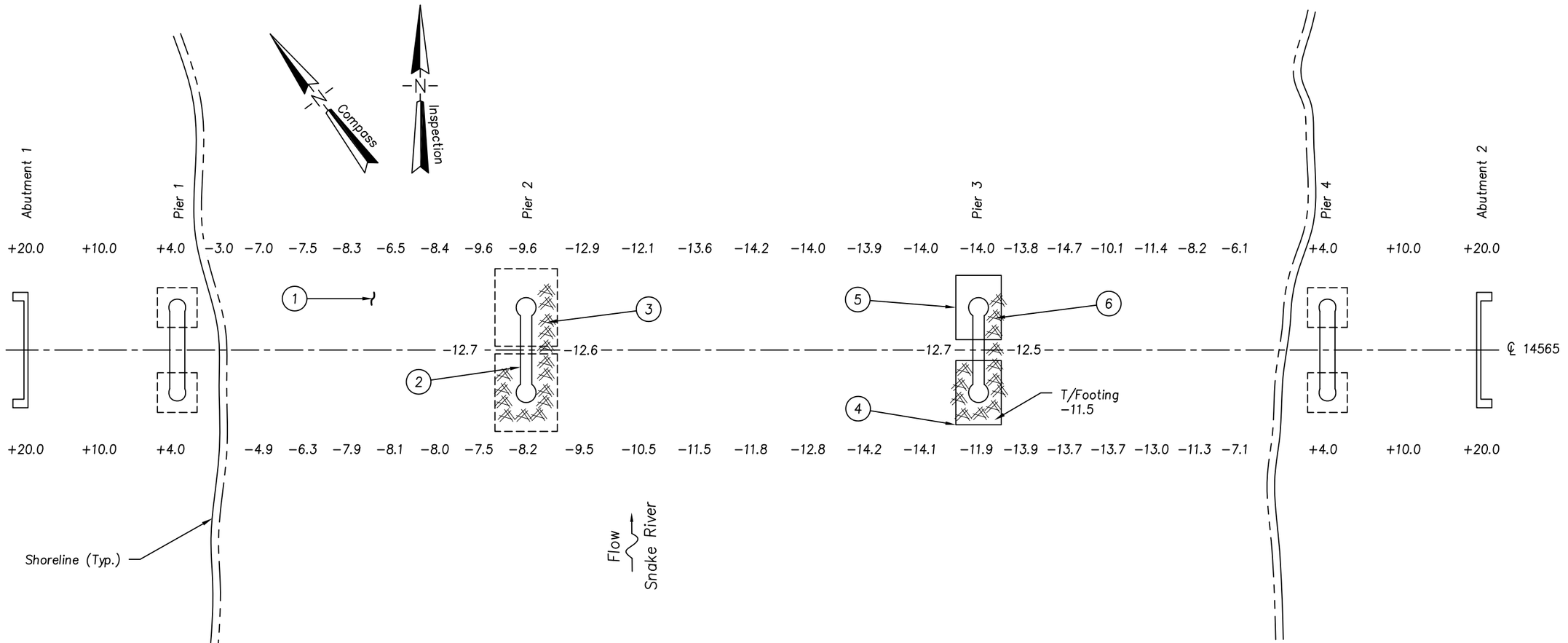
Downstream looking north.

Pier 2 looking southwest.

Idaho Transportation Department
Underwater Inspection Report

Bridge Key:	14565	Structure Name:	05210A 0.00
(6)Features Intersected:	SNAKE RIVER;PAYETTE BR.	(9)Location:	ID-OR LINE;PAYETTE
Facility Carried(Route):	SH 52	Admin Jurisdiction:	0003 District 3
Xref Structure Name:		District:	03

Typical condition of concrete at waterline looking southwest.



INSPECTION PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of sand with up to 4 inches of probe rod penetration.
2. Concrete surfaces of the pier shafts were smooth and sound.
3. Accumulation of timber debris consisting of logs and branches up to 10 inches in diameter was located at the upstream nose of Pier 2 extending along the entire east face and to the upstream quarterpoint on the west face. The debris extended from the channel bottom to 6 feet above the channel bottom and up to 10 feet off the pier.
4. (CS 2) Pier 3 footings were exposed around the full perimeter with a maximum of 2.5 feet vertical exposure at the downstream nose and no undermining.
5. Concrete voids were observed in the exposed seal at Pier 3 with up to 8 inches of penetration.
6. Accumulation of timber debris consisting of logs and branches up to 8 inches in diameter was located at the upstream nose of Pier 3 extending along the entire east face and along the upstream half of the west face. The debris extended from the channel bottom up 4 feet at the upstream nose and up to 10 feet off the upstream nose and 5 feet off the pier faces.

GENERAL NOTES:

1. At the time of inspection on October 10, 2022, the waterline was located approximately 21.5 feet below the top of the pier cap at the downstream nose of Pier 3. Based on a reference elevation of 2141.8 feet, the waterline elevation was 2120.3 feet.
2. Soundings indicate the water depths at the time of inspection and are measured in feet.
3. These figures were developed from field measurements and the design plans dated 1950.
4. Footing elevations for Pier 3 determined by direct measurement and differ from 1950 design plans.

LEGEND

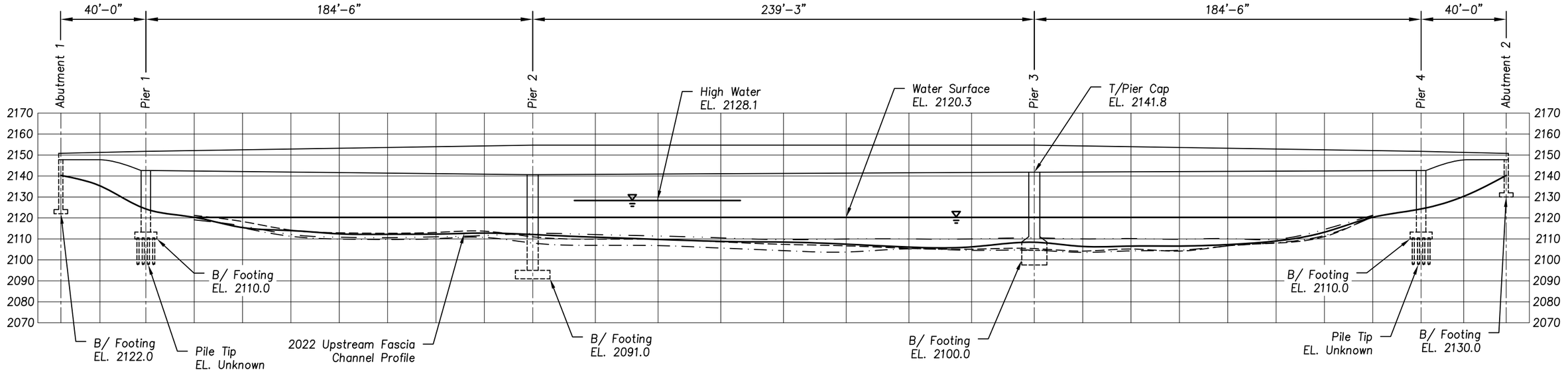
−7.0	Water Depth Sounding
	Timber Debris

IDAHO TRANSPORTATION DEPARTMENT

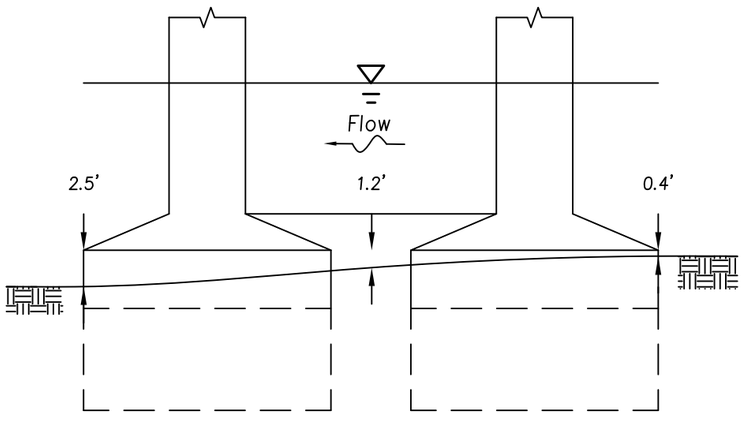
SH 52 OVER BOISE RIVER
NEAR PAYETTE, IDAHO
BRIDGE KEY: 14565

INSPECTION PLAN AND NOTES

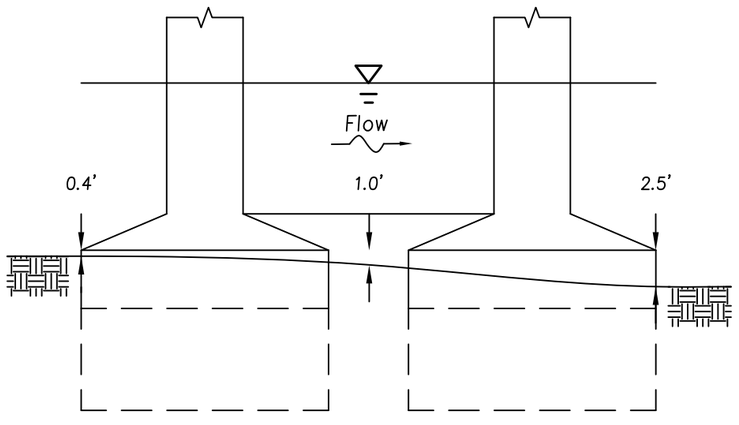
Drawn By: JEC	COLLINS ENGINEERS, INC. 7576 W. Victory Rd. Boise, ID 83709 (208) 254-1266 www.collinsengr.com	Date: OCT., 2022
Checked By: JTF		Scale: N.T.S.
Code: 1407314565		Figure No.: 1



UPSTREAM FASCIA CROSS SECTION



PIER 3 SCOUR SKETCH
Looking East



PIER 3 SCOUR SKETCH
Looking West

NOTE:
For General Notes, see Figure 1.

LEGEND:

- Channel Bottom Profile October, 2022
- Channel Bottom Profile October, 2017
- Channel Bottom Profile October, 2012
- Channel Bottom, Design Plans Dated 1950

IDAHO TRANSPORTATION DEPARTMENT

SH 52 OVER BOISE RIVER
NEAR PAYETTE, IDAHO
BRIDGE KEY: 14565

UPSTREAM FASCIA CROSS SECTION

Drawn By: JEC	COLLINS ENGINEERS INC 7576 W. Victory Rd. Boise, ID 83709 (208) 254-1266 www.collinsengr.com	Date: OCT., 2022
Checked By: JTF		Scale: N.T.S.
Code: 1407314565		Figure No.: 2