

UNION PACIFIC BRIDGE AT MP. 62.92
Intersection of Union Pacific Railroad and the Sulpher Creek Wasteway
Midvale
Yakima County
Washington

HAER No. WA-XX

PHOTOGRAPHS
HISTORIC PHOTOS
COPIES OF ORIGINAL DRAWINGS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

HISTORIC AMERICAN ENGINEERING SURVEY
INDEX TO PHOTOGRAPHS

UNION PACIFIC BRIDGE AT MP. 62.92

HAER No. WA-XX

Intersection of Union Pacific Railroad and the Sulpher Creek Wasteway

Midvale

Yakima County

Washington

Documentation: 11 Photographs (2011)
3 Historic Drawings
3 Historic Photos
6 Data Sheets (2011)

Photographer: Brian Allen, 2011

WA-XX-1	OVERALL VIEW SHOWING RAILROAD BRIDGE AND ADJACENT DUFFY ROAD BRIDGE LOOKING SOUTHWEST.
WA-XX-2	OVERALL VIEW OF NORTHSIDE OF BRIDGE LOOKING SOUTHEAST
WA-XX-3	OVERALL VIEW OF SOUTHSIDE OF BRIDGE LOOKING NORTHWEST
WA-XX-4	VIEW OF SOUTH ELEVATION LOOKING NORTH
WA-XX-5	VIEW OF NORTH ELEVATION LOOKING SOUTH, WITH SCALE. EACH SQUARE EQUALS ONE FOOT
WA-XX-6	VIEW OF RAILROAD BRIDGE AND SULPHUR CREEK WASTEWAY LOOKING NORTHWEST
WA-XX-7	DETAIL VIEW OF DECK TRUSS AND ABUTMENTS LOOKING WEST
WA-XX-8	DETAIL OF SOUTH ELEVATION ABUTMENT AND DECK TRUSS LOOKING NORTH
WA-XX-9	DETAIL OF SOUTH ELEVATION ABUTMENT AND DECK TRUSS LOOKING EAST
WA-XX-10	DETAIL OF BRIDGE DECK LOOKING WEST
WA-XX-11	HISTORIC PHOTOGRAPH OF THE NEWLY FINISHED NORTH COAST RAILROAD BRIDGE OVER THE SULPHUR CREEK WASTEWAY
WA-XX-12	HISTORIC PHOTOGRAPH OF THE RAILROAD BRIDGE WITH A CONCRETE DECK
WA-XX-13	COPY OF DRAWING (FROM BUREAU OF RECLAMATION ARCHIVES, YAKIMA, WA) NORTH COAST RAILROAD COMPANY, 1910 DECK PLATE GIRDER SPAN PLAN
WA-XX-14	COPY OF DRAWING (FROM BUREAU OF RECLAMATION ARCHIVES, YAKIMA, WA) NORTH COAST RAILROAD COMPANY, 1910 DETAILS OF MASONRY

WA-XX-15

COPY OF DRAWING (FROM BUREAU OF RECLAMATION ARCHIVES,
YAKIMA, WA) UNITED STATES DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION, YAKIMA PROJECT-WASHINGTON-ROZA
DIVISION
LINED SECTION-STA.364+83 TO 366+74.5



WA-XX-1



WA-XX-2



WA-XX-3



WA-XX-4



WA-XX-5



WA-XX-6



WA-XX-7



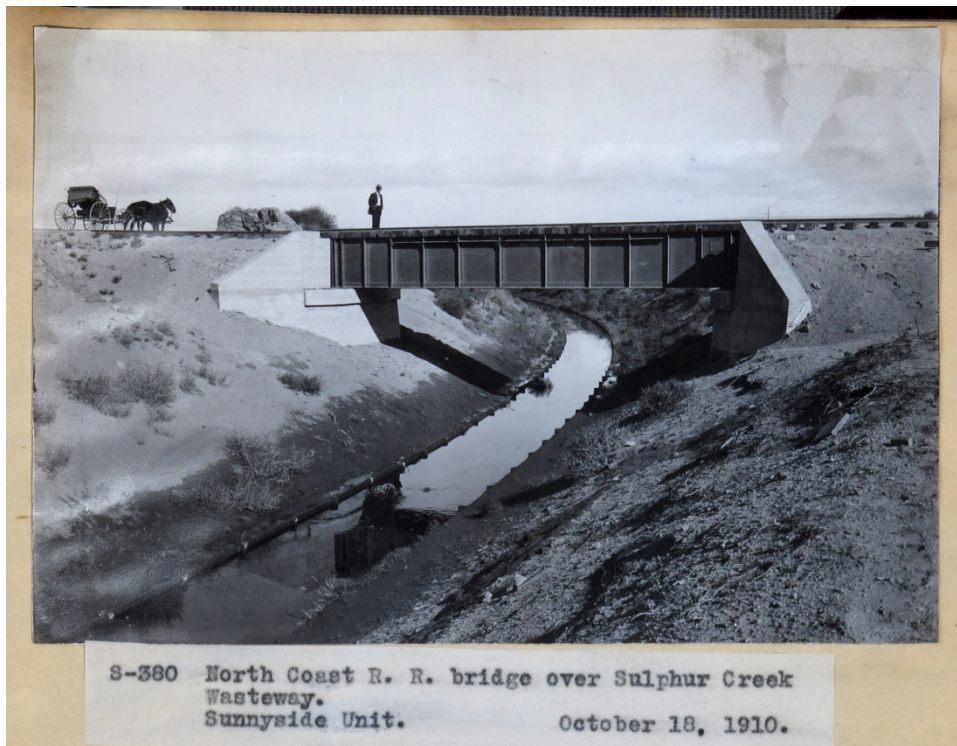
WA-XX-8



WA-XX-9



WA-XX-10



S-380 North Coast R. R. bridge over Sulphur Creek
Wasteway.
Sunnyside Unit. October 18, 1910.

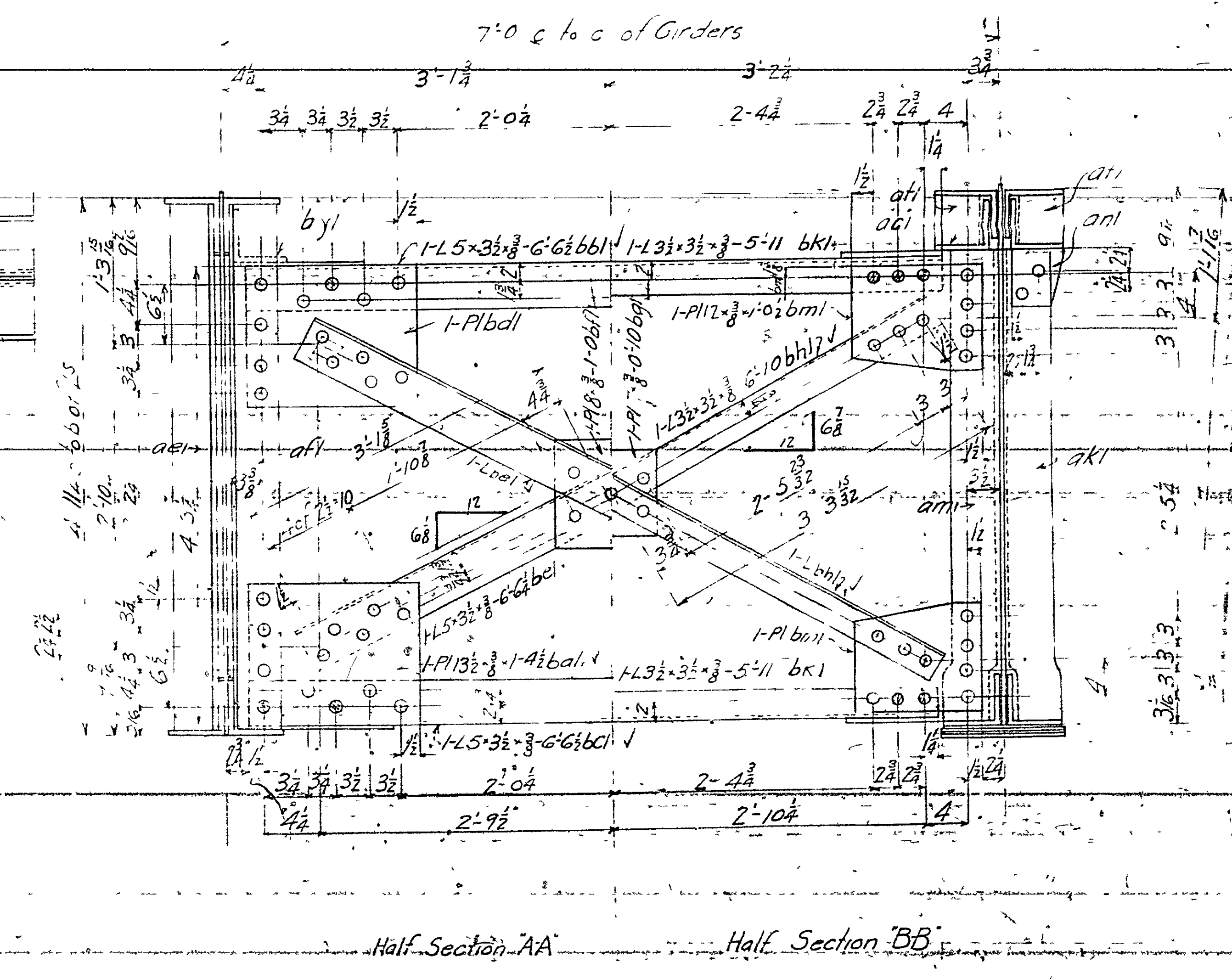
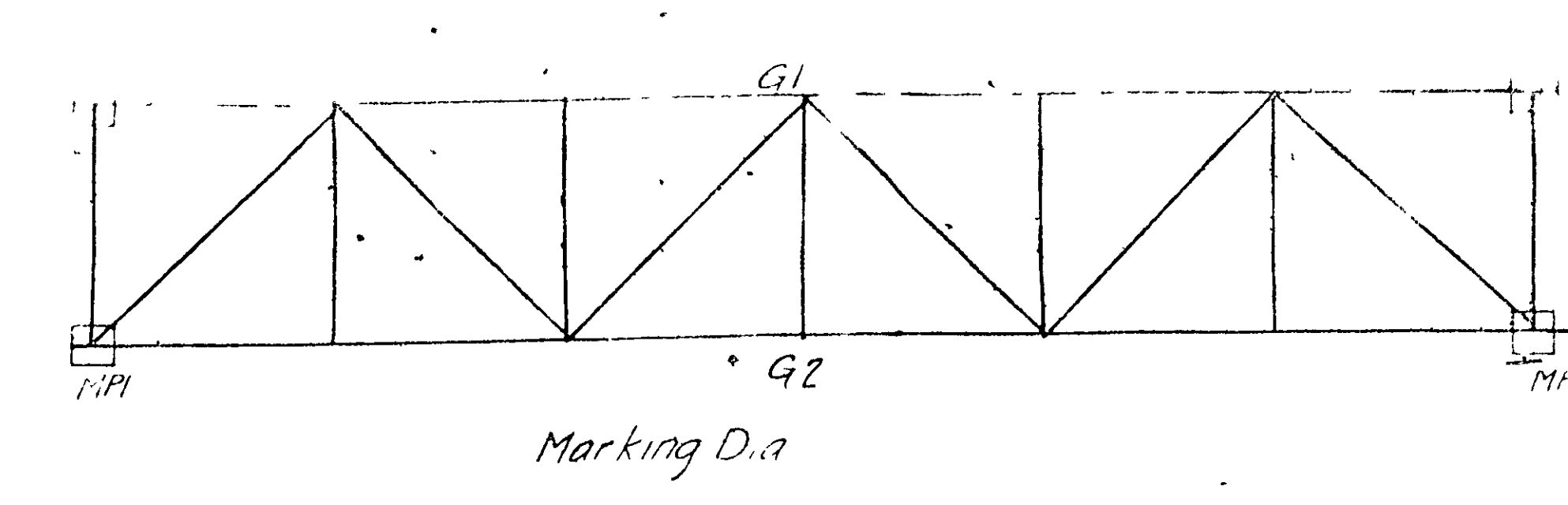
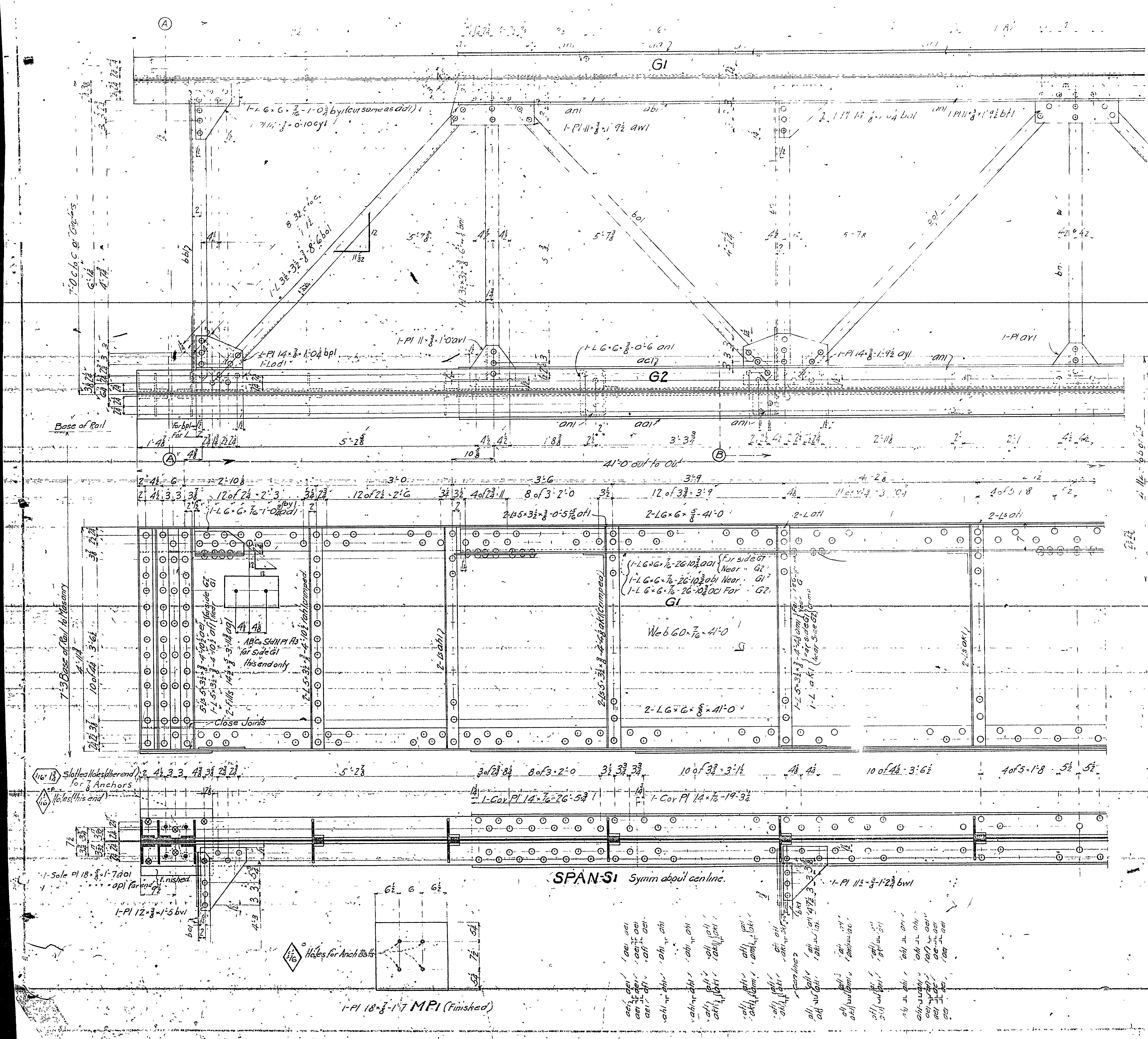
WA-XX-11



On reverse of photo:
Roza Division
March 31, 1939

Looking northerly or upstream at Union Pacific Railroad bridge (approximately station 365 on wasteway No. 5, Roza Division) from the center of county road bridge. Six feet, more or less, clearance to water.

WA-XX-12



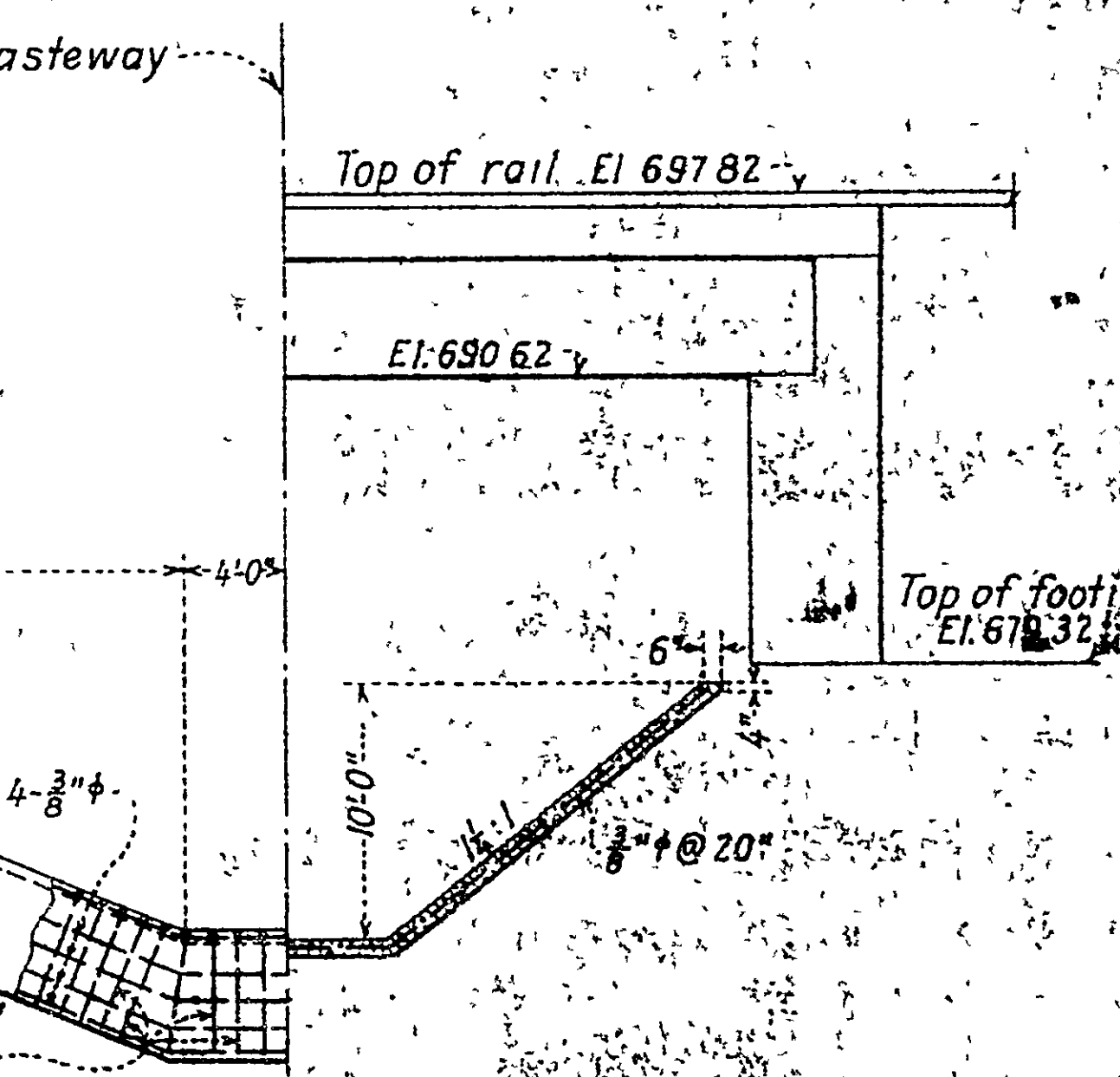
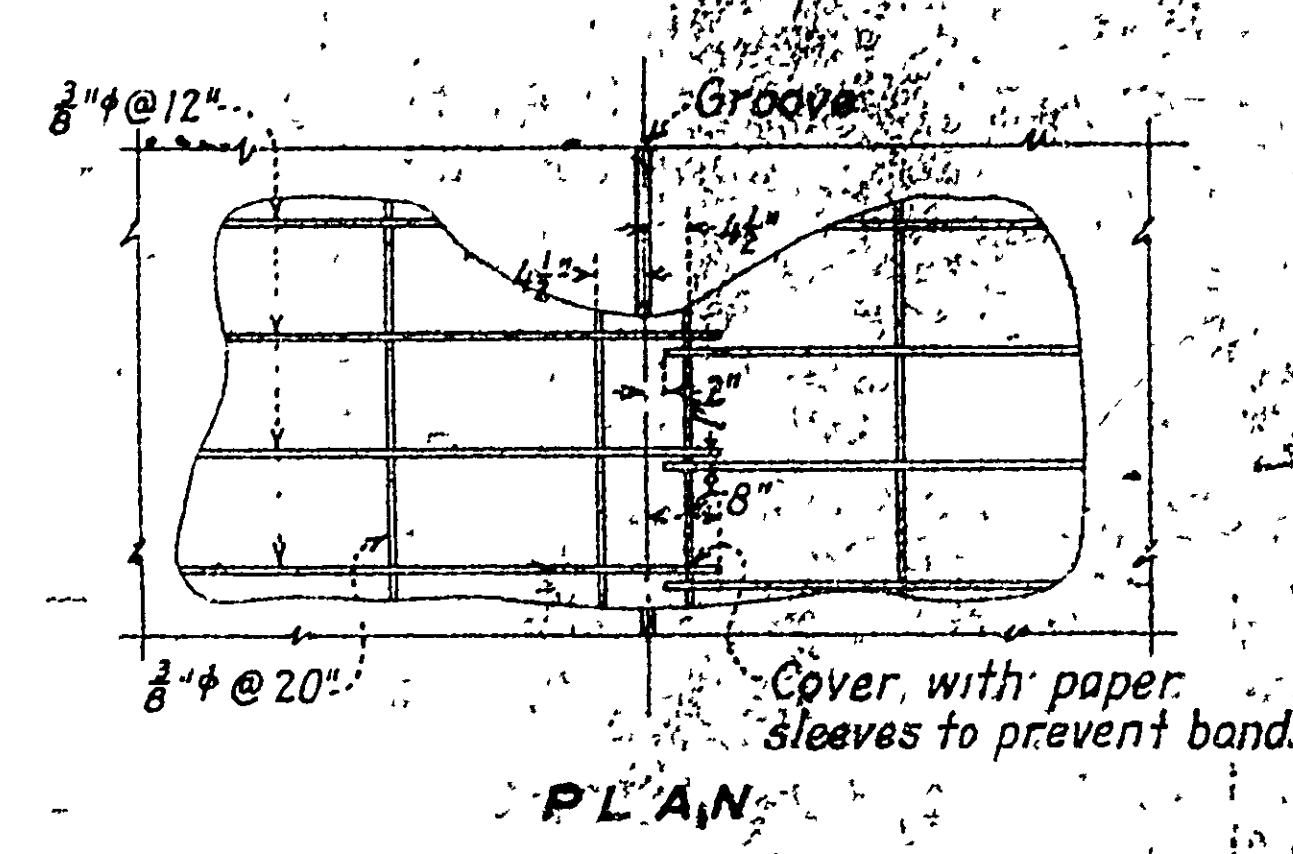
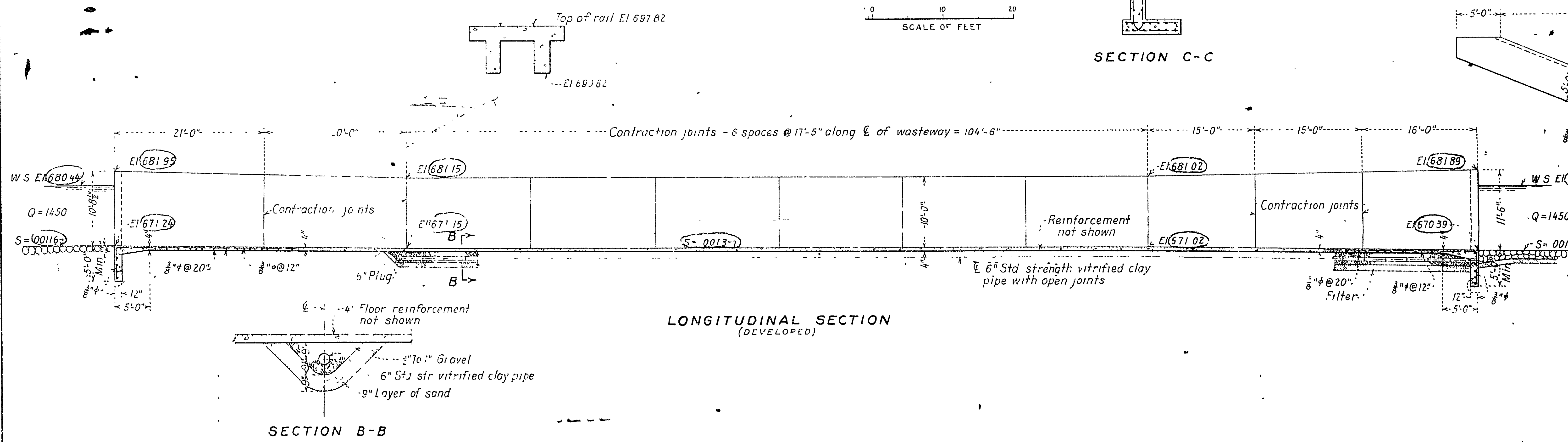
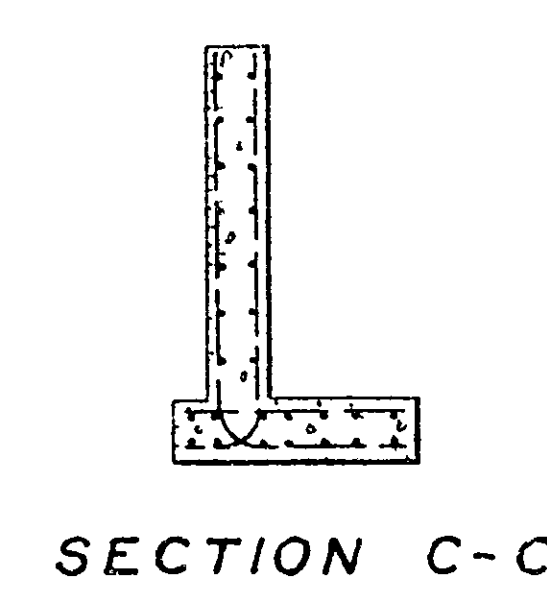
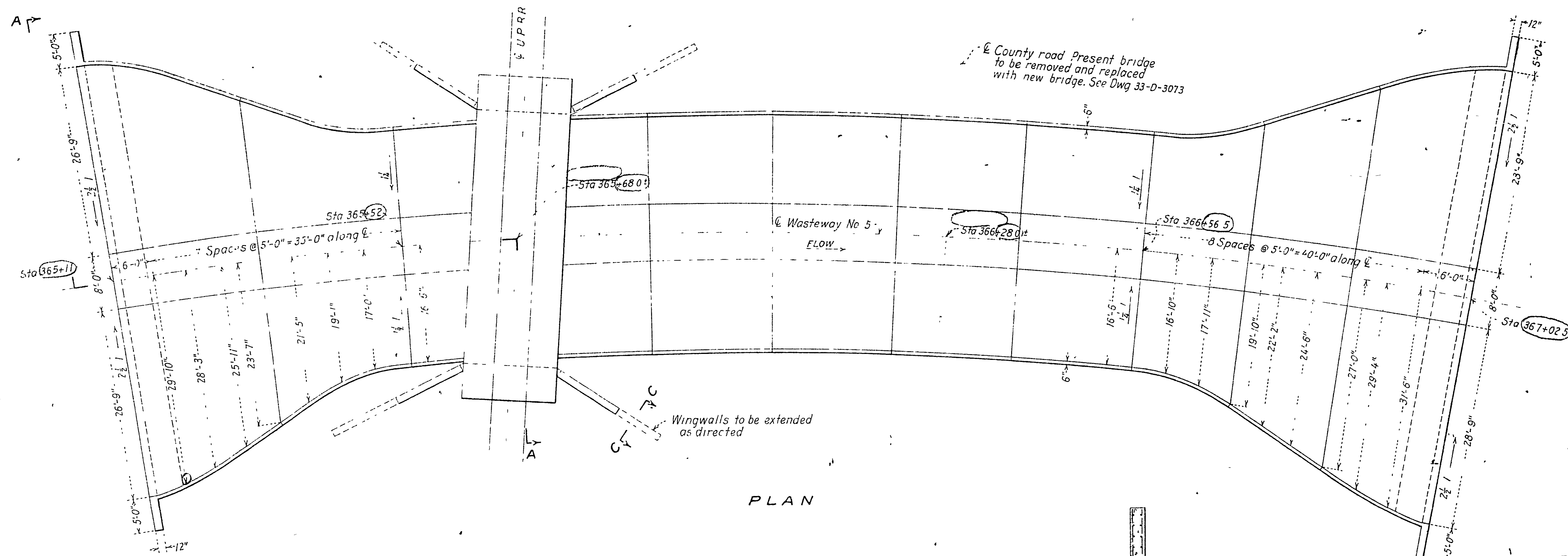
REQUIRED		
1	SPAN	SI
4	MASONRY PLS	MPI

NOTES - MATERIAL M.D. H. Steel
 SPECIFICATIONS N. C. R. R. Co. 1907
 INSPECTION A. B. Co.
 ERECTION By others

BRIDGE NO. 6367 STATION 1115
 YAKIMA DIV. MAIN LINE
The North Coast R. R. Co.
 One ST. Deck, Plate Girders
 Length 41'0" a to a Width 7'0" c to c

AMERICAN BRIDGE CO.
 AMERICAN PLANT

DESIGNED BY J.E.Z. Date 5-22-1907
 CHECKED BY J.E.Z. Date 5-22-1907
 SHOP BILL PAGE NO. 1



NOTES

All reinforcement shall be placed so that the centers of bars in the outer layer will be 2" from the face of the concrete, unless otherwise shown.

Lap all splices 34 bars diameters.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION YAKIMA PROJECT - WASHINGTON ROCK DIVISION	
WASTEWAY No. 5 - STA. 162+78 TO 539+00 LINED SECTION - STA. 364+83 TO 366+74.5	
DRAWN: M.C.C.	SUBMITTED: <i>W.M. Bishop</i>
TRACED: M.L.R.	RECOMMENDED: <i>W.M. Bishop</i>
CHECKED: <i>W.M. Bishop</i>	APPROVED: <i>W.M. Bishop</i>
DENVER, COLORADO, MARCH 4, 1946	

HISTORIC AMERICAN ENGINEERING RECORD

UNION PACIFIC BRIDGE AT MP. 62.92

HAER No. WA-XX

Location

Spanning the Sulphur Creek Wasteway MP 62.92

USGS 1:24000 Quadrangle: Sunnydale, WA (1978)

Universal Transverse Mercator (UTM) Coordinates: 10.731040.5129472

Coordinates: Latitude: 46 degrees 16' 46.13" North
 Longitude: 120 degrees 0' 3.72" West

Present Owner:

Union Pacific Railroad

Present Use:

Vacant/Not in Use

Significance:

The Union Pacific bridge at MP 62.92 in Midvale crosses the Sulphur Creek Wasteway, a part of the Sunnyside Valley Irrigation District which is considered by the Washington SHPO to be eligible for listing in the National Register of Historic Places. The period of significance for the irrigation system is 1907-1958. The bridge was built in 1910, within this period of significance. The bridge was built during a time when improvements were being made to the Sulphur Creek Wasteway.

Historian:

Renée L. Hutter, December 2011

**Project
Information:**

The documentation of the Union Pacific bridge spanning the Sulphur Creek Wasteway was undertaken in October and November of 2011 by Union Pacific Railroad to fulfill stipulation I.A of the Memorandum of Agreement (MOA) between the Surface Transportation Board, the Washington State Historic Preservation Officer, and the Union Pacific Railroad Company.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. **Date of construction:** 1910, ca. 1931
2. **Architect/Engineer:** Not known
3. **Builder/Contractor:** American Bridge Company for the North Coast R.R. Co.
4. **Original plans and construction:** The American Bridge Company of New York, fabricated the bridge in 1910. The plans indicate the bridge was a 41-foot deck plate girder style.
5. **Alterations and additions:** The concrete deck was added after the original construction, presumably 1931 because the current rails reflect this date. In addition a photograph dated 1939 shows the bridge with the concrete deck (WA-XX-13). The canal was lined in 1948 as part of the Roza Division/Yakima Project.

B. Historical Context:

Railroads and Irrigation in Yakima County

Railroads and irrigation were important infrastructure improvements that helped grow Yakima County's primary industry: agriculture. The valley provided rich soil and sunshine; the missing pieces were irrigation construction from the Yakima River and transportation of the agricultural goods to larger cities, such as Tacoma and Seattle and in turn to the Puget Sound for overseas distribution. The Northern Pacific (NP) and the Union Pacific (UP) were the largest railroads that had a presence in the valley from the beginning.

By 1864, the NP was chartered with the goal of creating a northern transcontinental connection from the Great Lakes to the Puget Sound and Pacific Northwest.¹ Construction of this northern transcontinental railroad began in 1870, and by 1873, it had extended its line across Minnesota through North Dakota and from outside Portland, Oregon to Puget Sound. The transcontinental was completed in 1883. By the 1880s Northern Pacific and the Oregon Railway and Navigation Company (OR&N) created a link between Oregon and Washington.²

Many towns in Yakima County were situated along the route of the NP railroad. The first NP station in the county was located in the town of Yakima in 1884. For the next two decades the NP would help establish towns throughout the county of Yakima, including Sunnyside (1893), Granger (1902), and Grandview (1906). The NP was granted public land adjacent to right-of-way in bands of 40 miles wide in states and 80 miles wide in territories in order to build a northern transcontinental railroad.

The Union Pacific (UP) also had a presence in Washington and the Yakima Valley. In 1862, President Abraham Lincoln signed the Pacific Railroad Act which directed two companies, the UP and the Central Pacific (CP), to begin building a transcontinental railroad. CP began building in Sacramento,

¹ Washington State Railroads Historical Society (WSRHS), Washington Railroad History Dates. Available online at: <http://www.wsrhs.org> (2010)

² Union Pacific Railroad (UP), *Union Pacific in Washington*. Available online at: http://www.uprr.com/aboutup/usguide/attachments/state_factsheets/wa.pdf (2009)

California and UP began in Omaha, Nebraska. Four years later the final spike was driven at Promontory Summit, Utah, marking the completion of the transcontinental railroad (UP 2007). In 1896, the OR&N became a subsidiary of UP. UP continued to acquire railroad lines north of its transcontinental main line to connect with the Pacific Northwest. By 1884, the Oregon Short line was completed, which connected the UP mainline in Granger, Wyoming to the Pacific Northwest by way of the Oregon-Washington Railroad Navigation Company. Although the UP had a presence in the Yakima Valley, the NP was the dominant railroad company during 1880s and 1890s.³ During the early 20th century the UP primarily provided passenger service through Yakima County until 1947 and ran electric freight trains until 1985, when UP ceased operating the line.⁴

In addition to building a railroad, NP was interested in irrigating the county. NP could sell the irrigated land for \$40 to \$50 per acre as opposed to \$2.50 per acre for dry land. In 1889, NP president Thomas Oakes hired Walter Granger, an irrigation engineer, to organize and manage the Yakima Canal and Land Company, which was under NP control as the Northern Pacific, Yakima and Kittitas Irrigation Project. The result of this partnership between railroads and irrigation was the 60 mile long Sunnyside Canal which brings water from the Yakima River near the town of Parker, southeast to the town of Prosser and goes through the city of Grandview. The canal was sold in 1900 to the Washington Irrigation Company, then later sold to the United States Reclamation Service in 1905. In 1902, Congress passed the Reclamation Act which started federally funding dam and irrigation construction projects throughout the arid west. The largest project started in 1905 was the Yakima Project which has irrigated the valley since 1910.⁵

Grandview and the vicinity

Grandview is located in the heart of the Yakima Valley in South-Central Washington. The town takes its name from the view of Mount Rainer and Mount Adams.⁶ As early as 1885, President Grover Cleveland conveyed Section 23, Township 9N, Range 23E to the NP. In turn the railroad conveyed the land to the Northern Pacific, Yakima, and Kittitas Irrigation Company (later known as the Washington Irrigation Company). This irrigation company would go on to build seven reservoirs in the mountains, one canal in Kittitas, and two canals in Yakima by 1889.⁷ By 1890 the Sunnyside Division reached the Grandview area.⁸ Sunnyside, in addition with other irrigation projects, brought 12,000 acres of land under cultivation. Grandview farmers planted vineyards, orchards of apples, cherries, peaches, pears, and berries, and crops of potatoes, corn, alfalfa, sugar beets and grains.⁹ Continued settlement and economic growth from food production required development of railroad transportation in the city of Grandview.

³ William Denison Lyman, *History of the Yakima Valley, Washington: comprising Yakima, Kittitas, and Benton counties Volume 1* (S.J. Clarke, Chicago, 1919), :343)

⁴ Trost, 2010:9

⁵ Paula Becker, Yakima County. The *Free Online Encyclopedia of Washington State History*. Available online at: http://www.historylink.org/index.cfm?DisplayPage=output.cfm&file_id=7651, 2006; Teresa Trost, *Cultural Resources Assessment Sunnyside Valley Irrigation District Enclosed Lateral Improvement Projects 2010/2011 in Yakima and Benton Counties, Washington*. (Prepared for the United States Bureau of Reclamation, Columbia-Cascades Area Office, Yakima, Washington, 2010), 9-10.

⁶ City of Grandview, *Our Towns History*. Available online at:

<http://www.grandview.wa.us/WebPage/InformationalPages/ourtownshistory.htm> (2010)

⁷ Interstate Publishing Company, *An Illustrated History of Klickitat, Yakima and Kittitas counties; with an outline of the early history of the state of Washington*. (Interstate Publishing Company, Chicago, 1904) 230)

⁸ Sunnyside Valley Irrigation District (SVID), *About SVID*. Available online at: http://www.svid.org/about_svid.htm (2010)

⁹ Lyman, 1919:805

By 1905, the NP made Grandview the terminus of its Sunnyside Branch line. By 1906, a portion of this the land would be sold to the Granger Land Company (one of its stockholders was F. L. Pitman, the chief engineer of the North Coast Railroad Company), and a plat was filed for the town site in 1906.¹⁰ In this same year, the NP began operations from Granger to Grandview, Washington.¹¹ By 1909, NP had a depot at Grandview.¹²

As early as 1905, the North Coast Railroad began purchasing rights-of-way along several routes through Yakima Valley. During this time the president of the railroad visited Sunnyside and decided to build a four-mile spur from Midvale to Sunnyside. Eventually this would connect to a line running from Granger to Grandview. In July of 1910, the North Coast Railroad Company filed for an easement from the Yakima – Sunnyside Project of the United States Reclamation Service to cross the Sulphur Creek Wasteway.¹³ The bridge was completed by October of that same year (WA-XX-12). The North Coast Railroad was transferred to the Oregon-Washington Railroad and Navigation Company by 1912.¹⁴ According to a historic photo from 1939, the railroad bridge crossing the wasteway was under UP control at this time. The transfer could have happened in 1931 when the rails were changed and presumably the concrete deck was added.

By 1919, the population of Grandview was 1,000.¹⁵ Grandview grew steadily and became a city in 1944 and by 1950 the population was approximately 2,400.¹⁶ In 1970 the Northern Pacific along with three other railroads were merged to create the Burlington Northern railroad, and later with the Atcheson, Topeka and Santa Fe to create the BNSF railroad, which still operates an active line through Grandview.¹⁷

PART II. STRUCTURAL/DESIGN INFORMATION

A. General statement:

1. **Character:** The bridge is of a standard design and was fabricated by the American Bridge Company in the early 20th century. In addition the masonry plans are standard designs created by the railroad for hundreds of crossings through the state of Washington.
2. **Condition of fabric:** Portions of the girder show signs of rust and portions of the concrete masonry indicate spalling and cracking.

- B. Description:** The railroad corridor crosses the Sulphur Creek Wasteway at MP 62.92 on a single span steel deck plate girder bridge. The outer sides of the steel plate girders that form the sides of the bridge consist of a series of rectangular panels formed by bolted flanges. The span is

¹⁰ Grandview Pioneers Association, History of Grandview, Washington. Available online at:

<http://content.statelib.wa.gov/cdm4/document.php?CISOROOT=%2Fgrandview&CISOPTR=970&REC=4> (1927), 2

¹¹ WSHS 2010

¹² Grandview Pioneers Assoc. 1927:7

¹³ Department of the Interior, United States Reclamation Service (USRS). Easement agreement between the North Coast Railroad and USRS). 7 July 1910

¹⁴ Department of the Interior, USRS. Right-of-way agreement between USRS and Yakima County for county road bridge. 2 July 1912.

¹⁵ Lynn L. Larson, *Cultural Resources Assessment of Proposed Washington State Corrections Facilities in Airways Heights, Spokane County and Grandview, Yakima County, Washington*. (Prepared for the Washington State Department of Corrections, 1991), 17

¹⁶ Grandview Pioneers Assoc. 1927:243

¹⁷ Burlington Northern and Santa Fe Railroad (BNSF), *BNSF Railway Historic Photos Now Available Through Index Stock*. Available online at: <http://www.bnsf.com/media/news-releases/2006/may/2006-05-10a.html> (2006)

supported by concrete abutments and wingwalls, and the ends of the girders rest directly on ledges in the abutments.

1. **Materials:** Steel, concrete
2. **Dimensions:** The original plans called for 2, 41'-0" x 7'-3" deck girders; 45, 12'-0" x 0'- $\frac{3}{4}$ " traverse bars; 45, 13'-0" x 0'- $\frac{3}{4}$ " traverse bars; 23, 30'-0" x 0'- $\frac{1}{2}$ " longitudinal bars; 23, 16'-0" x 0'- $\frac{1}{2}$ " longitudinal bars; 45, 10'-0" x 0'- $\frac{1}{2}$ " traverse bars and 19 cubic feet of concrete.
3. **Layout:** The bridge crosses the Sulphur Creek Wasteway in a northwesterly-southeasterly direction.

C. **Site Information:** The Union Pacific Bridge at MP 62.92 spans the Sulphur Creek Wasteway.

PART III. SOURCES OF INFORMATION

A. Primary Sources:

Department of the Interior, United States Reclamation Service (USRS). Easement agreement between the North Coast Railroad and USRS. 7 July 1910

Department of the Interior, USRS. Right-of-way agreement between USRS and Yakima County for county road bridge. 2 July 1912

The North Coast Bridge Company. *Bridge Drawing no. C-36-1, Station 1115*. 1910

B. Secondary Sources

Becker, Paula

2006. Yakima County. *The Free Online Encyclopedia of Washington State History*.

Available online at:

http://www.historylink.org/index.cfm?DisplayPage=output.cfm&file_id=7651

Burlington Northern and Santa Fe Railroad (BNSF)

2006. *BNSF Railway Historic Photos Now Available Through Index Stock*. Available

online at: <http://www.bnsf.com/media/news-releases/2006/may/2006-05-10a.html>

City of Grandview

2010. *Our Towns History*. Available online at:

<http://www.grandview.wa.us/WebPage/InformationalPages/ourtownshistory.htm>

Grandview Pioneers Association

1927. *History of Grandview, Washington*. Available online at:

<http://content.statelib.wa.gov/cdm4/document.php?CISOROOT=%2Fgrandview&CISOPTR=970&REC=4>

Interstate Publishing Company

1904. *An Illustrated History of Klickitat, Yakima and Kittitas counties; with an outline of the early history of the state of Washington*. Interstate Publishing Company, Chicago.

Larson, Lynn L.

1991. *Cultural Resources Assessment of Proposed Washington State Corrections Facilities in Airways Heights, Spokane County and Grandview, Yakima County, Washington*. Prepared for the Washington State Department of Corrections.

Lyman, William Denison

1919. *History of the Yakima Valley, Washington: comprising Yakima, Kittitas, and Benton counties Volume .1* S.J. Clarke, Chicago

Sunnyside Valley Irrigation District (SVID)

2010. *About SVID*. Available online at: http://www.svid.org/about_svid.htm

Trost, Teresa

2010. *Cultural Resources Assessment Sunnyside Valley Irrigation District Enclosed Lateral Improvement Projects 2010/2011 in Yakima and Benton Counties, Washington*. Prepared for the United States Bureau of Reclamation, Columbia-Cascades Area Office, Yakima, Washington.

2009. Sunnyside Irrigation System Lateral 22.56. Historic Property Inventory Report.

Available online at:

<https://fortress.wa.gov/dahp/wisaard/dahpreports/historicpropertyreport.aspx?id=97053&ug=1>

Union Pacific Railroad (UP)

2007. *Chronological History*. Available online at:

<http://www.uprr.com/aboutup/history/uprr-chr.shtml>

2009. *Union Pacific in Washington*. Available online at:

http://www.uprr.com/aboutup/usguide/attachments/state_factsheets/wa.pdf

Washington State Railroads Historical Society (WSRHS)

2010. Washington Railroad History Dates. Available online at: <http://www.wsrhs.org>

C. Likely Sources Not Yet Investigated:

Union Pacific Archives in Omaha, Nebraska