Staci Hill

From: Luke, Brian J CIV USARMY CESPK (USA) <Brian.J.Luke@usace.army.mil>
Sent: Thursday, April 25, 2024 10:47 AM
To: Krull, Kandice (FAA); Jamie Tsandes; Staci Hill; Nelis, Patty; Barron, James; Brian Bangerter
Cc: Tamaran Woodland; Fredrickson, Brady; Yaffa, Christine (FAA); Siobhan Locke; Staples, Kevin; Bailey, Bob; Nelson, Sean; Huffman, Madeline F CIV (USA)
Subject: RE: SLCIA Surplus Canal - FAA Coordination Meeting
Attachments: 408 Permission SL4725 2023-10-04 FOE USACE-to-SHPO.pdf; 2023-09-15 UTSHPO-USACE Jordan Surplus Canal (42SL302) Ineligible (Case No 23-1802).pdf; 42SL302 (update 2023-10-02).pdf; 408 Permission SL4742 2024-04-17 APE USACE-to-SHPO.pdf

Hi All,

USACE has many other 408 permitting actions along the Surplus Canal and have evaluated the entire Jordan Surplus Canal (42SL302) and determined it ineligible for listing on the National Register. Attached are the associated FOE letter, the updated site record, and UT SHPO email concurring with our finding. Also, we are in the process of evaluating 42SL332 Northpoint Canal, 42SL432 Goggin Drain, 42SL985 and 42SL986 refuse scatters, and 42SL306 railroad grade (segment) as ineligible for listing on the NR. These sites are also located in the vicinity of the airport. If they are sites of concern to FAA, let us know and we can keep you updated as that consultation moves forward. Our letter requesting concurrence is included here as well.

Please let me know if you have any questions or would like a discussion with USACE and our Senior Archaeologist.

Thanks,
Brian

Brian J. Luke
Natural Resources Specialist
408 Permission Section
U.S. Army Corps of Engineers
1325 J. Street
Sacramento, CA 95814-2922
(916) 557-6629 office
(916) 557-7724 fax
brian.j.luke@usace.army.mil

From: Krull, Kandice (FAA) <Kandice.Krull@faa.gov>
Sent: Tuesday, April 23, 2024 6:28 PM
To: Jamie Tsandes <jtsandes@bowencollins.com>; Staci Hill <sthill@HNTB.com>; Nelis, Patty <patty.nelis@slcgov.com>; Barron, James <james.barron@slcgov.com>; Brian Bangerter <BBangerter@HNTB.com>
Cc: Luke, Brian J CIV USARMY CESPK (USA) <Brian.J.Luke@usace.army.mil>; Tamaran Woodland <twoodland@slco.org>; Fredrickson, Brady <Brady.Fredrickson@slcgov.com>; Yaffa, Christine (FAA) <Christine.Yaffa@faa.gov>; Siobhan Locke <slocke@langdongroupinc.com>; Staples, Kevin <Kevin.Staples@slcgov.com>; Bailey, Bob <Bob.Bailey@slcgov.com>; Nelson, Sean <Sean.Nelson@slcgov.com>
Subject: [Non-DoD Source] RE: SLCIA Surplus Canal - FAA Coordination Meeting

Good evening everyone,

I apologize for missing the meeting today. I lost track of time while looking for Utah prairie dogs in southern Utah.

I did want to touch on the eligibility of the Surplus Canal within the project area. When I completed the Section 106 finding for the soil borings, I agreed with the determination of eligibility for the overall Jordan Surplus Canal, however, recommended that the segment within the current survey area be considered **non-contributing** to that eligibility since the canal in this area was realigned during the modern era and given the extensive development in the area (i.e., the segment lacks integrity of location, design, setting, feeling, and workmanship).

The SHPO concurred with this determination in a letter dated June 29, 2023. Both my finding and SHPO concurrence are attached.

I haven't completed the Section 106 finding for the overall project yet (I was waiting for an updated project figure) but I wasn't going to change the determination. Therefore, I fully expect a No Adverse Effect finding for the project.

Please let me know if you have any questions. Also, please let me know if there is anything else I missed from the meeting.

Again, I am really sorry for missing the meeting. I was fully intending to participate and planned the numerous airport visits to make sure I had cell coverage. Then I got distracted by prairie dogs.

Kandice

Kandice Krull
Environmental Protection Specialist
FAA - Denver Airports District Office
303-342-1261

From: Jamie Tsandes <jtsandes@bowencollins.com>
Sent: Tuesday, April 23, 2024 4:35 PM
To: Staci Hill <sthill@HNTB.com>; Krull, Kandice (FAA) <Kandice.Krull@faa.gov>; Nelis, Patty <patty.nelis@slcgov.com>; Barron, James <james.barron@slcgov.com>; Brian Bangerter <BBangerter@HNTB.com>
Cc: brian.j.luke@usace.army.mil; Tamaran Woodland <twoodland@slco.org>; Fredrickson, Brady <Brady.Fredrickson@slcgov.com>; Yaffa, Christine (FAA) <Christine.Yaffa@faa.gov>; Siobhan Locke <slocke@langdongroupinc.com>; Staples, Kevin <Kevin.Staples@slcgov.com>; Bailey, Bob <Bob.Bailey@slcgov.com>; Nelson, Sean <Sean.Nelson@slcgov.com>
Subject: RE: SLCIA Surplus Canal - FAA Coordination Meeting

Hi all – regarding the historic eligibility of the Surplus Canal discussion from today's meeting, attached is a quick aerial comparison. The location of the canal in most of the project area has remained in the same location since the 1964 aerial.

Hopefully this helps explain why it is eligible for the National Register.

Let me know if you have any questions.

Thanks,

Jamie

Jamie Tsandes, PLA
Bowen Collins & Associates
801.495.2224 **Office**
www.bowencollins.com
send me a file

-----Original Appointment-----
From: Staci Hill <sthill@HNTB.com>
Sent: Tuesday, April 23, 2024 12:13 PM
To: Staci Hill; Jamie Tsandes; kandice.krull@faa.gov; Nelis, Patty; Barron, James; Brian Bangerter
Cc: brian.j.luke@usace.army.mil; Tamaran Woodland; Fredrickson, Brady; Yaffa, Christine (FAA); Siobhan Locke; Staples, Kevin; Bailey, Bob; Nelson, Sean
Subject: FW: SLCIA Surplus Canal - FAA Coordination Meeting
When: Tuesday, April 23, 2024 2:30 PM-3:30 PM (UTC-07:00) Mountain Time (US & Canada).
Where: Microsoft Teams Meeting; .SLC Small Conference Room - Discover

Jamie, can you join this call with us today?

-----Original Appointment-----
From: Staci Hill <sthill@HNTB.com>
Sent: Friday, June 16, 2023 3:10 PM
To: Staci Hill; kandice.krull@faa.gov; Patty Nelis; james.barron; Brian Bangerter
Cc: brian.j.luke@usace.army.mil; Tamaran Woodland; Fredrickson, Brady; Yaffa, Christine (FAA); Siobhan Locke; Staples, Kevin; Bailey, Bob; Nelson, Sean
Subject: SLCIA Surplus Canal - FAA Coordination Meeting
When: Tuesday, April 23, 2024 2:30 PM-3:30 PM (UTC-07:00) Mountain Time (US & Canada).
Where: Microsoft Teams Meeting; .SLC Small Conference Room - Discover

Agendas will be added to invite as each meeting approaches.

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

April 17, 2024

Operations Division

Subject: Initiating National Historic Preservation Act Section 106 Consultation, Section 408 Permission SL4742, Salt Lake County, Utah.

Christopher Merritt
Utah State Historic Preservation Officer
Utah State Historic Preservation Office
3760 S. Highland Dr.
Millcreek, UT 84106

Dear Mr. Merritt:

The U.S. Army Corps of Engineers, Sacramento District (USACE), is writing to initiate consultation on the issuance of 408 Permission SL4742, pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408) (Section 408) and in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. § 306108). USACE would grant Salt Lake County permission to authorize a series of bank rehabilitation efforts along the Jordan Surplus Canal south and west of the Salt Lake International Airport. At this time, we are establishing the undertaking, defining the area of potential effects (APE), providing a review of existing information concerning historic properties within the APE, and consulting on determinations of eligibility for five sites: 42SL306 Salt Lake, Garfield, and Western Railroad; 42SL332 Northpoint Canal; 42SL432 Goggin Drain; 42SL985 historic refuse scatter; and 42SL986 historic refuse scatter.

The proposed undertaking is intended to address erosion and stability issues along both banks of the Jordan Surplus Canal (JSC; 42SL302) where it has been realigned to accommodate expansion of the Salt Lake International Airport (Enclosure 1: Figures 1-3; Enclosure 2: Figures 3-1 to 3-3). A significant portion of the canal berm has scoured away in this area, leaving the existing canal slopes in contact with or closer to the waterside levee slopes. The county plans to repair and protect the canal and levee embankment against future erosion and scour through removal of existing erosion rills and gullies, placement of geotextile fabric, and placement of riprap (rock) armoring (Enclosure 2).

The portion of the JSC included in the project (the design segment) runs from Canal Centerline Station 359+00 (approximately 40.7712°, -111.996874°) to Station 431+00 (approximately 40.7891°, -112.0010°), which is approximately 1.4 miles in length and located directly west of the Airport. The North Point Canal runs immediately adjacent to the right (east) bank of the Surplus Canal. The Goggin Drain runs immediately adjacent to the left (west) bank of the JSC in the southern half of the design segment (Enclosure 1: Figure 3; Enclosure 2: Figure 3-2).

Excavation, grading, and placement of rock armoring will require the use of heavy equipment such as excavators, bulldozers, graders, etc. Construction will be limited to the banks of the Jordan Surplus Canal, with access via the levee patrol roads on each bank. Staging of equipment and supplies will take place in four proposed locations: two on the left bank of the canal at the south end of the project area and one on either bank of the canal at the north end. The project APE includes both work and staging areas (Enclosure 3), covers approximately 128 acres, and is shown as the “survey area” in Enclosure 1 (Figures 2, 3).

Logan Simpson conducted a cultural resources investigation in advance of the proposed undertaking. Their investigation included a review of the Utah State Historic Preservation Office (SHPO) Sego database on October 6, 2022, an intensive pedestrian survey of the APE on September 23 and October 7, 2022, documentation of new and existing sites within the APE, and preparation of a survey report (Enclosure 1). As part of their work Logan Simpson updated four existing sites (42SL182, 42SL302, 42SL332, and 42SL432), documented two new sites (42SL985 and 42SL986), and recorded a new segment of an existing railroad (42SL306).

42SL182 is a prehistoric lithic scatter that infringes on the western margin of the staging area at the north end of the APE (Enclosure 1: Figure 3). The site has been previously recommended *eligible* for listing on the National Register of Historic Places (NRHP) under Criterion D, Information Potential. Only a small portion of the site appears to be located in the APE, and that portion has been disturbed by construction of the Kern River Pipeline. Logan Simpson suggests that the potential for significant subsurface deposits is low within the current project APE and greater west of the pipeline corridor where there is less ground disturbance (Enclosure 1: 10-11, Photograph 2). Logan Simpson further suggests that the site can be effectively protected by implementing a 30m buffer around the site and limiting all project activities/staging to areas outside that buffer.

42SL302 is the Jordan Surplus Canal. The canal has been determined *ineligible* for listing on the NRHP with SHPO consensus.

42SL332 is the Northpoint Canal, which diverts water from the Jordan River Surplus Canal to the Great Salt Lake and served as a minor irrigation source. Archaeologists have previously documented various segments of the Northpoint Canal and recommended it eligible for listing on the NRHP under Criterion A for its role in the development of agriculture and urbanization in the area (Enclosure 1: Table 3). In their review of the canal and its history, Logan Simpson notes that the North Point Canal played only a minor role in agriculture and is not, in fact, eligible for listing under Criterion A (Enclosure 1: 16-22). They also note that the canal is not associated with persons of historic importance, lacks distinctive elements of design, construction, or engineering merit, and holds no information potential. As a consequence, they suggest it is ineligible for listing on the NRHP under Criteria B-D as well. Finally, Logan Simpson

points out that the canal has been substantially modified and realigned over more than half of its length and no longer has the integrity of design, location, setting, workmanship, feeling, or association needed to sustain a National Register nomination even were it to meet one of the four criteria. USACE concurs with these findings and has determined that the North Point Canal (42SL332) is *ineligible* for listing on the NRHP.

42SL432 is the Goggin Drain. The Goggin Drain diverts water from the Jordan Surplus canal west to the Great Salt Lake, limiting outflows into the wetlands north of the airport and reducing flood risks to structures (mostly hunting clubs) in that area. Archaeologists have previously documented various segments of the Northpoint Canal and recommended it eligible for listing on the NRHP under Criterion A for its association with the growth and development of Salt Lake County and under Criterion C for its method of construction (Enclosure 1: Table 4). Logan Simpson conducted a detailed review of Goggin Drain and found no evidence for a substantive association with community growth or development, nor any indication of engineering or design distinction (Enclosure 1: 22-26). They also found that the drain lacks association with persons of historic importance or information potential. As a consequence, it is ineligible for listing on the NRHP under any criterion (A-D). Much of the drain has also been realigned in the area south and west of the airport, such that it no longer retains integrity of location, design, setting, materials, workmanship, feeling, or association. Based on Logan Simpson's review and recommendations, USACE finds that the Goggin Drain (42SL432) is *ineligible* for inclusion in the NRHP.

42SL985 and 42SL986 are unaffiliated scatters of historic and modern refuse located along the Jordan Surplus Canal (Enclosure 1: 27-30; Figure 3). Neither of the sites is associated with persons or events of historic importance, neither represents a feature of artistic, aesthetic, or engineering merit, and neither possesses information capable of addressing questions important to our understanding of local, state, or national history. Both sites lack integrity of location, design, workmanship, feeling, setting, and association. As a consequence, Logan Simpson recommends that both sites be considered ineligible for listing on the NRHP. USACE agrees with this assessment and has determined that 42SL985 and 42SL986 are *ineligible* for listing on the NHRP under any criterion.

42SL306 is a previously undocumented segment of the Salt Lake, Garfield, and Western Railroad (Enclosure 1: 14-15). Per Logan Simpson, different segments of the railroad have been documented by consultants over the years, and the railroad has been recommended eligible for listing in the NRHP under Criterion A for its association with the economic development of Salt Lake County during the period 1892-1959. The current segment consists of an overgrown railroad grade 30 feet wide, 400 feet long, and 2 feet tall (Enclosure 1: Photograph 4), with no track, rails, features, or artifacts. The segment is truncated to the east by the Wingpointe Golf Course and to the west by the Goggin Drain. Logan Simpson suggests that while the Salt Lake, Garfield, and

Western Railroad is eligible for listing on the NRHP under Criterion A, this segment lacks integrity of design, materials, workmanship, setting, and feeling. While the site does retain integrity of association and location, it does not retain sufficient integrity to convey historic significance.

The Salt Lake, Garfield, and Western Railroad is a business, and businesses are not eligible for listing on the NRHP per se. Features and infrastructure owned by the railroad company may be eligible for listing, but these need to be organized as buildings, structures, sites, or districts and considered case by case. The assertion that the railroad is associated with an historically important event, characterized as the economic development of Salt Lake County, is speculative and, per National Register Bulletin 15, insufficient to support a nomination to the National Register under Criterion A. There is no indication that the economic growth experienced by Salt Lake County is historically exceptional or important, nor that the Salt Lake, Garfield, and Western Railroad played an exceptional, unique or historically important role in that growth. Even had it, however, it is not clear how a segment of rail line such as the one recorded here would communicate either economic significance or the appropriate temporal association and period of significance. The segment also lacks any association with historically important persons, as well as elements of unique design or engineering merit. It also contains no information capable of addressing historically important research issues. Given these points, the segment fails to qualify for listing on the NRHP under Criterion A-D and lacks historical integrity. For these reasons, USACE finds the current railroad segment *ineligible* for listing on the NRHP.

To identify potential historic properties (36 CFR 800.4), USACE is currently reaching out to Native American Tribes with an interest in the project area, notifying them of the project, and requesting information on any areas of cultural concern. The tribes contacted include the Hopi Tribe, the Eastern Shoshone Tribe of the Wind River Reservation, the Northwestern Band of the Shoshone Nation, Shoshone-Bannock Tribes of the Fort Hall Reservation, the Skull Valley Band of the Goshute Indians, and the Confederated Tribes of the Goshute Indian Reservation. The enclosed project description, cultural reports, and APE maps for the proposed project are being provided to all parties.

Per 36 CFR 800.4(a)(1-2) we are now requesting your advice and assistance with our delineation of the undertaking's APE and our review of existing information on historic properties within it. We begin by asking that you provide any feedback you may have regarding the delineation of the APE as outlined. Second, we would ask that you provide any feedback you may have regarding the identification efforts and information on potential historic properties summarized so far, as well as any additional identification measures you feel may be required. Finally, we would ask that you please comment on our determinations that 42SL332 Northpoint Canal, 42SL432 Goggin Drain, 42SL985 and 42SL986 refuse scatters, and 42SL306 railroad grade (segment) are ineligible for listing on the NRHP.

After receiving your feedback and comments from the tribes, USACE will incorporate that information and either consider additional identification efforts or begin consultation on a finding of effect (FOE) for this project. We respectfully ask for your response to this consultation within 30 days. Any comments and questions may be sent to Attn: Dr. Andrew Ugan, Senior Archaeologist, U.S. Army Corps of Engineers, CESPK-ODL-P, 1325 J Street, Sacramento, CA 95814. Use of electronic mail is preferred when possible. You can send your response to Dr. Ugan at cespk-408-cultural@usace.army.mil or reach him by phone at (916) 557-6695. Please refer to 408 Permission SL4742 in communications concerning this project.

Sincerely,

FONG.MICHAEL.RAMIREZ.1455052005

Digitally signed by FONG.MICHAEL.RAMIREZ.1455052005
Date: 2024.04.17 14:35:12 -07'00'

For Chandra Jenkins
Chief, 408 Permissions Section
Section 408 Coordinator

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO, CA 95814-2922

October 4, 2023

Operations Division

Subject: Continuing National Historic Preservation Act Section 106 Consultation, Section 408 Permission SL4725, Salt Lake County, Utah.

Christopher Merritt
Utah State Historic Preservation Officer
Utah State Historic Preservation Office
3760 S. Highland Dr.
Millcreek, UT 84106

Dear Mr. Merritt:

The U.S. Army Corps of Engineers, Sacramento District (USACE), is writing to continue consultation on the issuance of 408 Permission SL4725, pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408) (Section 408) and in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. § 306108). USACE would grant Salt Lake County permission to approve repairs and improvements to 10 outfalls along the Jordan River Surplus Canal. We are now following up on our determination of eligibility (DOE) for the Jordan Surplus Canal itself (42SL302; ineligible for listing on the National Register of Historic Places, NRHP) and consulting on a finding of *No Adverse Effect to Historic Properties* (36 CFR § 800.5[b]) for the undertaking.

Salt Lake County, through their contractor AECOM, plans to conduct improvements to the Surplus Canal levee system required to meet National Flood Insurance Program and USACE regulations. During a periodic inspection, USACE identified several privately owned stormwater outfalls that do not meet current standards. The objective of the project is to remove and replace portions of nine existing private gravity storm water outfalls that penetrate the Surplus Canal levee system and install a positive closure structure at one pressurized storm water outfall in order to meet USACE design requirements.

USACE notified of your office of this undertaking in our letter of August 23, 2023, at which time we provided information regarding the project, its area of potential effects, current inventory efforts, and known or potential historic properties. We also provided an evaluation report reconsidering the eligibility of the Jordan Surplus Canal (42SL302) for listing on the NRHP. That report found 42SL302 ineligible for listing on the NRHP. Following additional consultation, your office concurred with this finding in your email of September 15, 2023, requesting that the site record be updated to reflect the canal's new status. An updated site record was provided to your office via email on October 2, 2023.

The only other historic property within the APE is 42SL300, a Union Pacific Railroad (UPRR) bridge. As noted in our initial letter, construction of the nearby outfall will have no impacts on either the bridge or its associated rail line.

Since our initial letter, USACE has also reached out to Native American tribes with a potential interest in the area. No tribe has responded to our request for information or to express a concern with this project. Based on these results and our tribal consultation efforts, USACE finds that 42SL300 is the only historic property within the APE, that it will not be impacted by the project, and that a finding of *No Adverse Effects to Historic Properties* is appropriate for the undertaking (36 CFR § 800.5[b]). In the event of an inadvertent discovery, USACE would comply with 36 CFR § 800.13(b).

We are now seeking your comments regarding our finding of *No Adverse Effect to Historic Properties* for 408 Permission SL4725. We would also ask that you provide a letter of concurrence on our eligibility determination for 42SL302 to file with our records. We respectfully request your response within 30 days. Please provide comments to Dr. Andrew Ugan by email at cespk-408-cultural@usace.army.mil. Dr. Ugan can also be reached by telephone at (916) 557-6695 or by postal service (not preferred) at Attn: Andrew Ugan, Senior Archaeologist, U.S. Army Corps of Engineers, CESPK-ODL-P, 1325 J Street, CA 95814. Please refer to 408 Permission SL4725 in communications concerning this project.

Sincerely,

Chandra Jenkins

Chandra Jenkins
Chief, 408 Permission Section
Section 408 Coordinator

From:	Ryan McGrath
To:	Ugan, Andrew S CIV USARMY CESPK (USA)
Subject:	[Non-DoD Source] Re: Continuing Consultation regarding the National Register Eligibility of the Jordan Surplus Canal (42SL302), Case Number 23-1832 -- Uniqueness of Design
Date:	Friday, September 15, 2023 2:34:10 PM

Good Afternoon Drew,

The team discussing the Jordan Surplus Canal met yesterday. We had a lengthy discussion and reviewed all of the documents you supplied. We have decided to concur with your eligibility recommendation and list the canal as not eligible. Your documentation, research, and reasoning have been extensive, and we thank you for all the hard work. In light of our decision, we would like to ask two things of you:

1) Can you send me an updated site form with the new eligibility?

2) If you have any additional photos or documentation of the canal, can you please send them to me?

These tasks will ensure the canal is adequately documented and recognized as we change eligibility.

Also, the Utah SHPO has a blog, would you be interested in writing a post and providing pictures about the canal and its history?

Let me know if you have any questions

On Thu, Sep 14, 2023 at 9:16 AM Ugan, Andrew S CIV USARMY CESPK (USA) <Andrew.S.Ugan@usace.army.mil> wrote:

> Morning Ryan,
>
> Just following up further on eligibility considerations for the Jordan Surplus Canal. In your recent letter you noted that some site records had recommended the site eligible under Criterion C for its unique construction. I had suggested in my evaluation that there is nothing unique about its design and that the canal was ineligible under Criterion C. I had been a bit more explicit in my in-person discussions with Chris on March 8, 2023 and in concerns I had raised with Salt Lake County when reviewing some of my first Jordan Surplus Canal projects.
>
> In an email to Salt Lake County I had offered the following observation:
>
> > "The application of Criterion C appears incorrect. The presence of design characteristic distinctive to a time period seems to be a misreading of the NR guidance and is not the appropriate measure. Parts of the canal remain completely earthen and still look as they would if they were dug by hand, with a horse drawn dredge, or with a mechanical shovel typical of when it was first constructed. (Possibly the contrast being drawn is with areas that have cement lining, rock rip-rap/armoring, or similar.) However, none of those methods are unique to the late 1800's or early 1900's (or any recent time period). The canal is a large, earthen ditch and there appears to be nothing about its form or construction that distinguishes it

> from any other ditch, large or small, dug anywhere or at any time in the last several hundred years or more. One could take photos of this and many other ditches/canals from across the US or elsewhere, put them side by side, and find nothing that would sort them temporally or geographically. Nothing here speaks to artistic or engineering value either. Put another way, just because parts of canal remain simple, earthen channels does not mean that excavated earthen channels represent an historically significant aspect of design or construction. It's a vernacular form. The argument being offered more rightfully speaks to aspects of integrity."

Since receiving your letter I also followed up with Seth Campbell, one of our engineers here at USACE. He reviewed the Operations & Maintenance Manuals and design drawings and offered the following:

> "Following up on this, the Jordan River/Surplus Canal levees aren't unique in any engineering or design-related aspect. At the time, the levees were constructed to standards used elsewhere in the nation (for example, 2H:1V landside slope and 3H:1V waterside slope, which are seen in nearly all the California USACE levees), using standard construction techniques, and using standard construction equipment that was locally available at the time."

His comment is directed towards the levees but applies equally well to the construction of the channel, which you can see being accomplished with excavators in the photos included in my evaluation summary.

Anyway, just wanted to add these two points to the evaluation record as we continue considering the NR eligibility of the Surplus Canal. Seth also offered to provide citations in support of his comment if you feel they are necessary. Just let me know.

Cheers,

Drew

Andrew Ugan

Senior Archaeologist, 408 Program

USACE - Sacramento District (CESPK)

1325 J St.

Sacramento, CA 95814

Office: (916) 557-6695

Cell : (530) 908-2774

UTAH ARCHAEOLOGY SITE FORM — PART A – Administrative Data

1. **Smithsonian Trinomial**: 42SL302
2. **Temporary Site No.** :
3. **Site Name:** Jordan Surplus Canal
4. **Date Recorded**: 09 / 05 / 2023
5. **Type of Recording:** ☐First Recording ☐Full Re-record ☑Update
6. **Project Name**: SLC Jordan Surplus Canal Outfalls CRS
7. **State Report Number**: U23LI0636
8. **Land Status**: Salt Lake City/Private
9. **USGS 7.5' Quad Map Name and Date**: Salt Lake City North (1978) and Salt Lake City South (1979)
10. **Township**: 1S **Range**: 1W **Section**: 9, 10, 14, **(¼)**: **County**: Salt Lake
11. **Meridian**: ☑Salt Lake ☐Uintah
12. **UTMs:** Zone 12 0 419127 E 4512376 N NAD 83
13. **Site Dimensions**: Length: 15,000 m Width: 70 m Area: 1,050,000 m^2 ☐GIS ☑Estimate
14. **Site Class**[a]: ☐Prehistoric ☐Ethnohistoric ☑Historic
15. **Site Type**:

Prehistoric/Ethnohistoric		Historic	
☐Long-Term Residential	☐Task Specific	☐Domestic	☐Transportation/Communication
☐Temporary Camp	☐Specialty Site	☐Agriculture/Subsistence	☐Defense
☐Unknown		☐Industry/Processing/Extraction	☐Unknown
☐Other		☑Other[b] flood control	

16. **Site Characteristics**[a]: ☐Artifact Scatter ☐Rock Art/Inscription ☐Lithic Source/Quarry ☐Rock Shelter/Cave ☐Architectural Feature(s) ☐Non-Architectural Feature(s) ☑Linear
17. **Impacting Agents**[a]: ☐None ☐Erosion ☐Livestock Concentration ☐Recreation ☐Road/Trail ☐Vandalism/Looting ☑Other portions realigned in the 1980s
18. **Site Condition:** ☑Stable ☐Deteriorating ☐Imminently Threatened ☐Destroyed
19. **Description** (as needed):

20. **Recorded By**: T. Hart 21. **Organization**: Logan Simpson
22. **Material Collected:** ☑No ☐Yes (describe in Site Description) **Repository**:

NRHP Evaluation

23. **Is the Site Significant**: ☑No ☐Yes, under criterion[a]: ☐A (event) ☐B (person) ☐C (design/construction) ☐D (important information)
24. **Does it Retain Integrity**: ☑No ☐Yes, aspects present[a]: ☐Location ☐Design ☐Setting ☐Materials ☐Workmanship ☐Feeling ☐Association
25. **NRHP Status**: ☑Not eligible ☐Eligible ☐Listed
26. **Justification** (include discussion of historic context, significance, and integrity):

See Additional Part A comments. This site form updates the National Register eligibility from eligible to not eligible, as determined by the United States Army Corps of Engineers (Ugan 2023, attached).

[a] Check all that apply
[b] See manual for additional categories

27. **Site Description** (interpretation, context, size, artifact and feature assemblage, dating, previous work and curation, etc.):

See previous descriptions plus attached historic context (Ugan 2023).

Site 42SL302 is the historic and in-use Jordan Surplus Canal. Many different segments of the canal have been documented by a variety of consultants over the years. The site was first documented by Baseline Data in 1999, who recommended the site along the Union Pacific Railroad north of 500 South as Eligible for listing on the NRHP under Criteria A and C. The canal was deemed to be associated with a major historic event, the irrigation and settlement of the Salt Lake Valley in the second half of the 19th century, and the methods of canal construction embody distinctive features of the period (Gorely 1999). SWCA documented additional segments twice in 2001 and twice in 2002. Additional segments were documented in 2007 by Sagebrush Consultants, in 2008 by SWCA, in 2009 by William Self Associates, in 2016 and 2018 by Environmental Planning Group (EPG), twice in 2019 by AECOM and Commonwealth Heritage Group, and in 2020 by Transcon. Logan Simpson also revisited several previously documented portions of the site in 2022 and 2023 and found them to remain as previously described. No additional artifacts or features were identified along these segments and no new or worsening impacts to site condition and integrity were noted.

28. **Environmental Context** (topography, vegetation, ground visibility, depositional context):

29. **Notes Regarding Access** (as needed):

30. **Additional Part A Comments**:

References Cited:

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1999 42SL302 Site Form. Prepared by Baseline Data, Inc. On file at the Utah Division of State History.

Ugan, Andrew
2023 National Register of Historic Places Eligibility Determination, Jordan and Salt Lake Surplus Canal (42-SL-302). United States Army Corps of Engineers, Sacramento.

[a] Check all that apply
[b] See manual for additional categories

Smithsonian Trinomial: 42SL302

Temporary Site No. :

Additional Part A Comments:

Site 42SL302 was previously determined eligible for inclusion in the NRHP under Criteria A and C with SHPO concurrence. The USACE recently prepared a determination of eligibility report for the Jordan Surplus Canal that includes a historic context and a re-evaluation of NRHP eligibility using the four criteria of significance and seven aspects of integrity (Ugan 2023). The re-evaluation determined that the Jordan Surplus Canal is not eligible for listing in the NRHP under any criteria, and SHPO concurred with this determination.

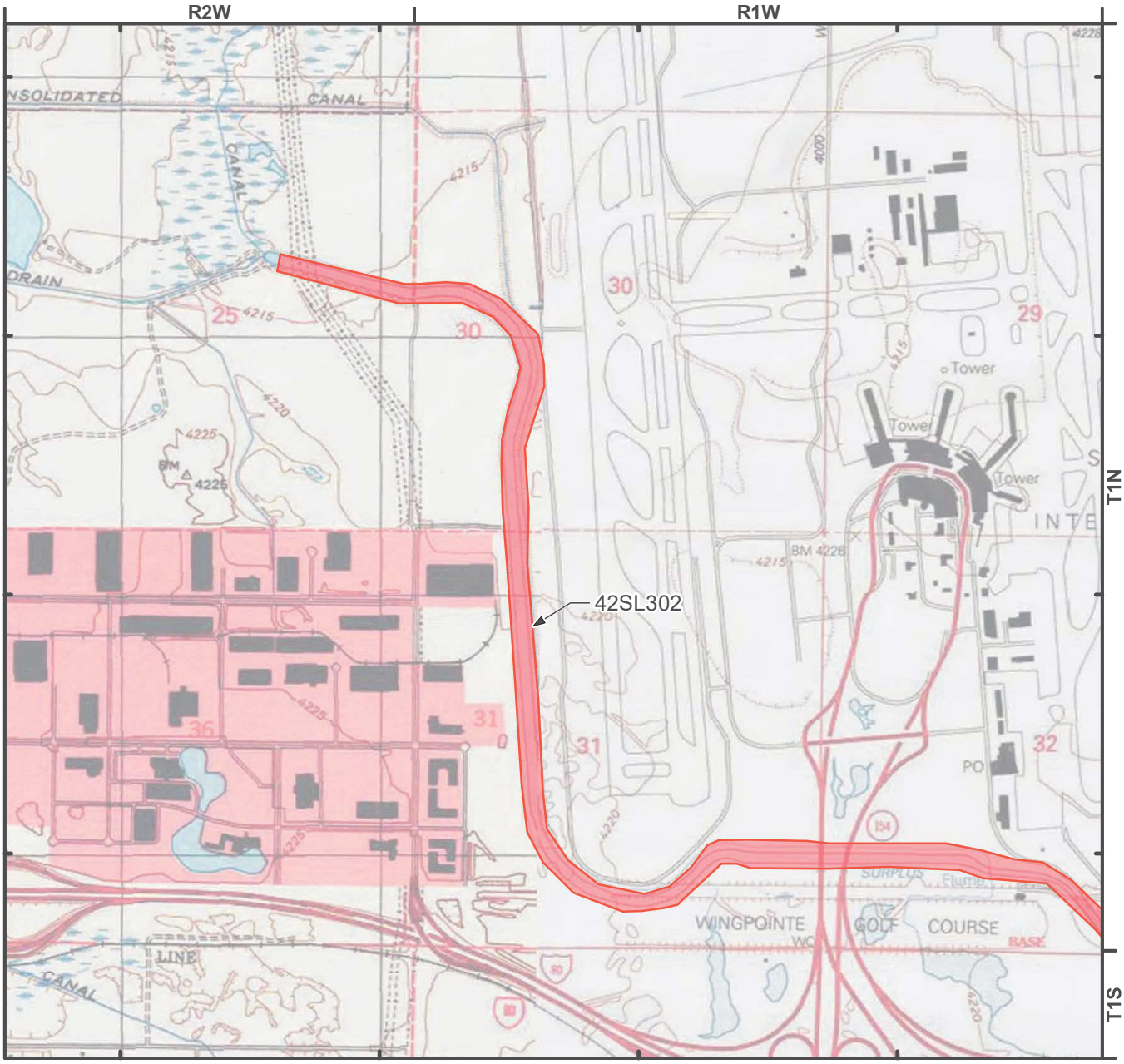
The period of significance as determined by USACE (Ugan 2023) has three phases: 1885–1910 for its initial construction and use as a flood control feature; 1911–1959 following rehabilitation and expansion of the feature in response to a large flood in 1909; and 1960–1973 when it became part of the federally authorized Jordan River Project. There are no physical remnants of the first period of significance, portions of the canal are relatively intact from the second period of significance, but most of the canal dates to the third period of significance or later.

The Jordan Surplus Canal was originally constructed for flood control, drainage, and sewage disposal and was never directly associated with irrigation, farming, or settlement or development of Salt Lake Valley. While the canal likely helped reduce the severity of flooding, it did not stop flooding as evidenced by repeated flooding events in 1910; and after its expansion and rehabilitation in 1917, 1922, 1945, 1952; and again in 1983 after it was improved as part of the Jordan River Project. It is not historically significant as a flood control feature. Development and settlement of the surrounding setting started right after the canal's construction in 1890, but the canal did not directly contribute to this development considering that substantial areas around the canal and river remained undeveloped into the 1950s. Other factors that more directly influenced development and settlement, such as population growth and infrastructure such as roads, railroads, and electrical transmission. The Surplus Canal cannot be directly tied to settlement and development of Salt Lake Valley. The canal is not significant under Criterion A.

The canal is not associated with persons of historical importance; therefore, it is not significant under Criterion B. The canal is a simple earthen construction, much like canals across Utah and the United States, and does not represent a historically significant aspect of design, engineering, or construction and is therefore not significant under Criterion C. The canal lacks information potential and is not significant under Criterion D.

The canal is not significant under any criteria and thus does not convey historical significance through the seven aspects of integrity. As a whole, the canal does not retain integrity of location because portions of it near the airport were re-aligned. The original canal features, such as dams and diversion structures, have been replaced with modern materials and features thus impacting integrity of materials. The original setting of the canal was rural in nature, but is now overtaken by urbanization and development along its entire length; therefore, it no longer retains integrity of setting. The canal does not retain integrity of design from its first two periods of significance due to expansion, modernization of features, re-alignment, and the addition of levees beginning in 1959. The earthen canal with its modern features does not convey any integrity of workmanship. The canal no longer retains sufficient materials or setting to convey integrity of feeling. The canal is not directly tied to an important historic event or person and therefore does not retain integrity of association. The Jordan Surplus Canal is not historically significant under any criteria, nor does it retain sufficient integrity to demonstrate historical significance. The Jordan Surplus Canal is not eligible for listing in the NRHP.

[a] Check all that apply
[b] See manual for additional categories



Source: USGS 7.5' Quadrangle(s):
Salt Lake City North, UT (1978)
Saltair, UT (1975)

Key

42SL302

SLC Jordan Surplus Canal Outfalls
U23LI0636
Date: 9/28/2023
Author: Zach Scribner
NAD 1983 UTM Zone 12N

LOGANSIMPSON

Map 1 of 3

N

Miles
0 0.25 0.5

Meters
0 250 500

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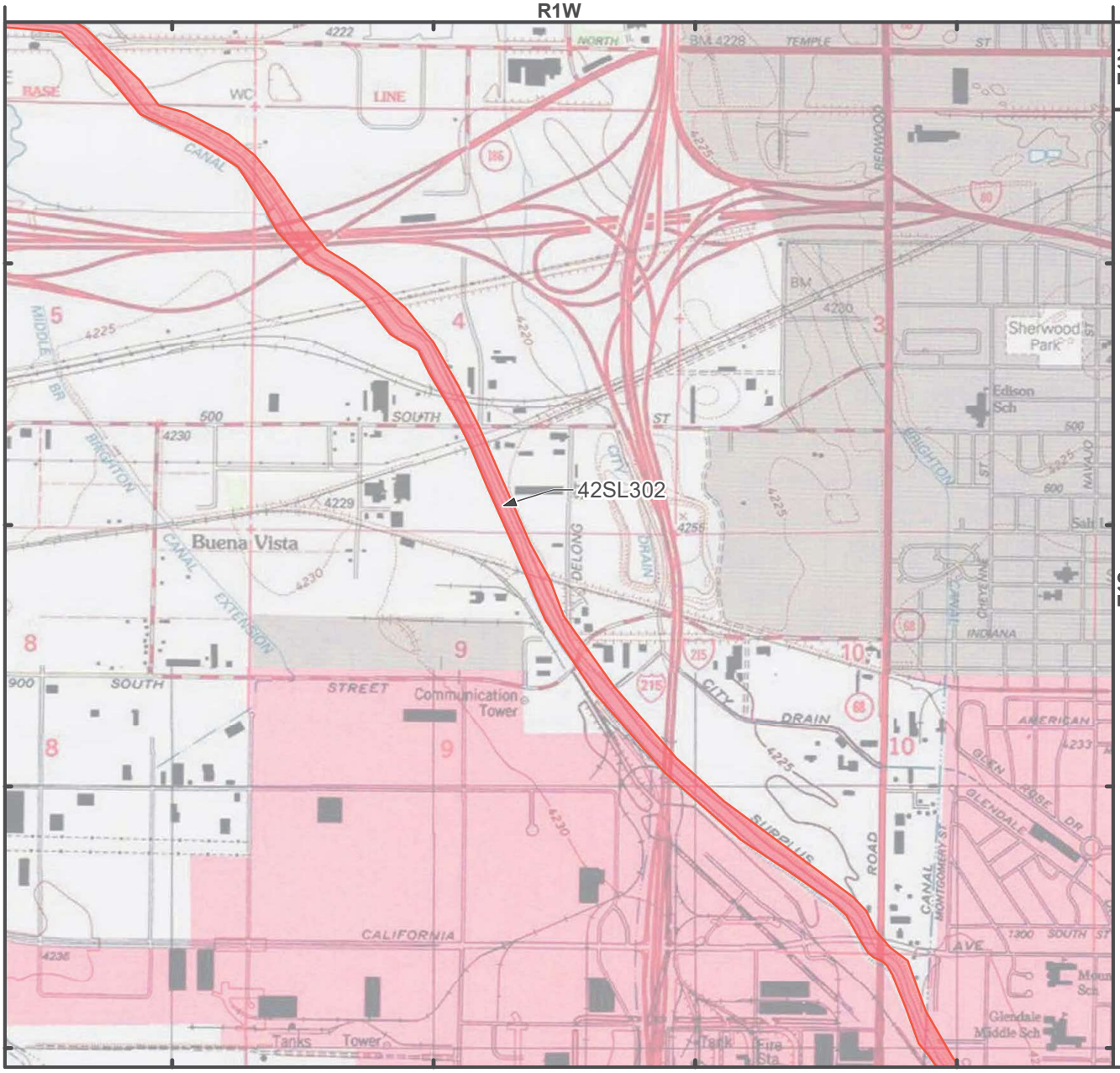


Source: USGS 7.5' Quadrangle(s):
Salt Lake City North, UT (1978)
Salt Lake City South, UT (1979)

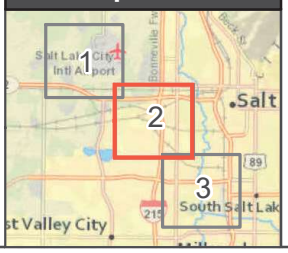
Key

42SL302

SLC Jordan Surplus Canal Outfalls
U23LI0636
Date: 9/28/2023
Author: Zach Scribner
NAD 1983 UTM Zone 12N

LOGANSIMPSON

Map 2 of 3



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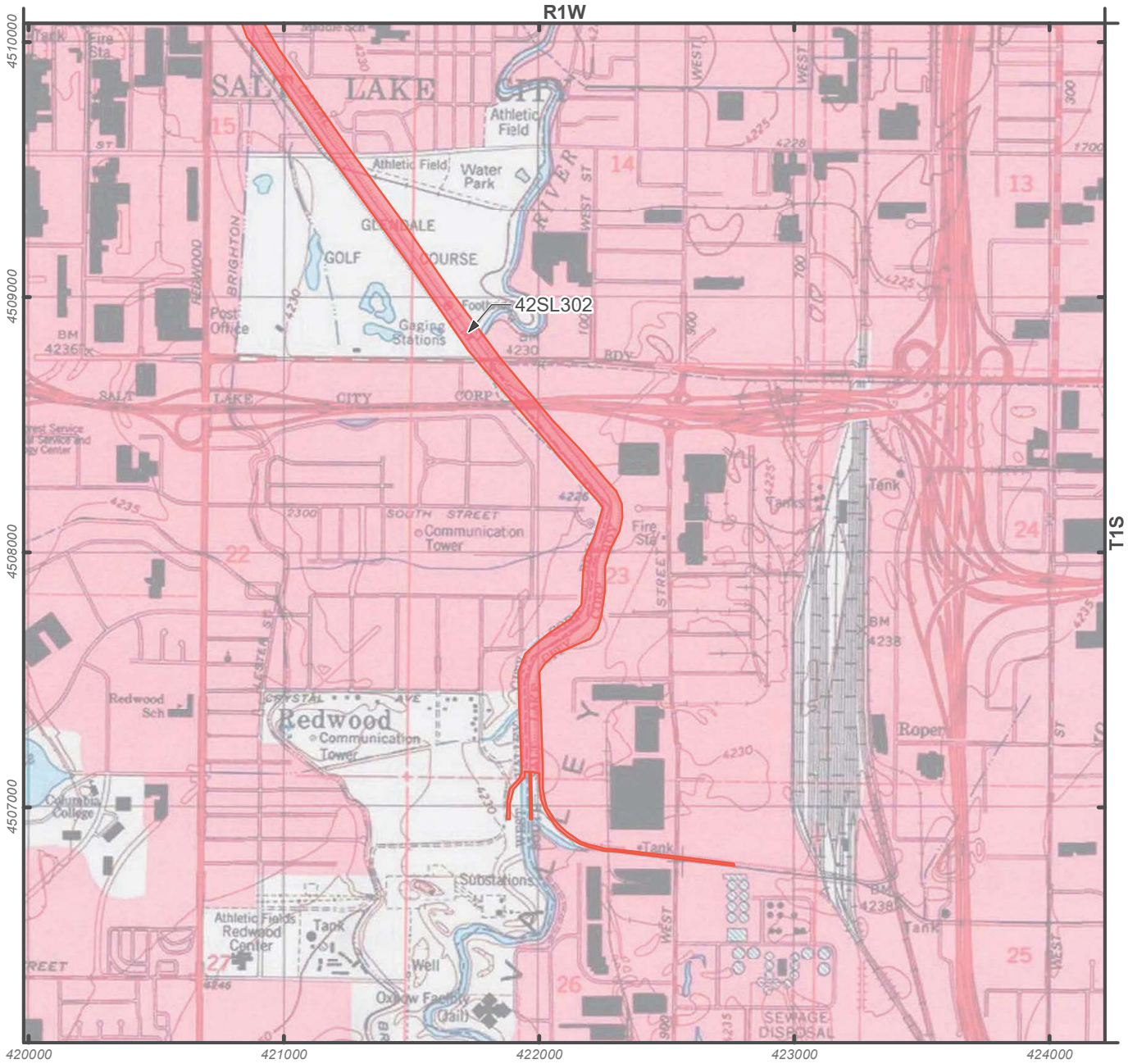


Source: USGS 7.5' Quadrangle(s):
Salt Lake City South, UT (1979)

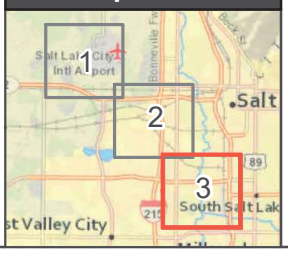
Key

42SL302

SLC Jordan Surplus Canal Outfalls
U23LI0636
Date: 9/28/2023
Author: Zach Scribner
NAD 1983 UTM Zone 12N

LOGAN SIMPSON

Map 3 of 3



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Meters
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National Register of Historic Places Eligibility Determination, Jordan and Salt Lake Surplus Canal (42-SL-302)

By:
Andrew Ugan, Ph.D.
US Army Corps of Engineers

October 2, 2023

408 Section
U.S. Army Corps of Engineers, Sacramento District
1325 J Street, Sacramento, California, 95814

Historic Context

The Jordan and Salt Lake Surplus Canal Company was incorporated on March 9, 1885, under George Nebeker (Lounsbury 1965; The Salt Lake Herald 1885 March 8: 12). This company built the initial Jordan and Salt Lake Surplus Canal (hereafter, Surplus Canal) in 1885. The canal extended from the Jordan River near 12th St in Salt Lake City, Utah (now 2100 S) northwest to the Cohn Ranch property in Township 1 North, Range 2 West, Section 25 (Salt Lake Herald 1896 Nov. 18:8). This was an area south of the Great Salt Lake and just east of the current Salt Lake International airport. The canal's primary purpose was to carry surplus flood waters and to drain a large area of land which was being covered with seepage water (Mead 1904: 47; The Salt Lake Herald 1885 March 8: 12; The Salt Lake Herald 1885 March 9: 4).

In 1896 the Salt Lake City Engineer described the early canal as having had a bottom width of 40 feet with a depth of 4.5 feet below the Jordan River high water (Salt Lake Herald 1896 Nov. 18:8). It was estimated to provide a capacity of 500 cubic feet per second based on a constant cross section, but reductions in width, bridges, and obstructions were thought to have resulted in a final capacity 30% lower. Crossing was originally limited to a single bridge, and overflows from the canal reportedly damaged or degraded roads nearby (Salt Lake Evening Democrat 1885 June 29:4). Cohn would threaten to sue for flooding caused on his land.

On May 21, 1886, Jordan and Salt Lake Surplus Water Canal Company entered into an agreement to complete the Surplus Canal from Cohn's Ranch to the Great Salt Lake. The company had run into financial difficulties early on, however (Salt Lake Evening Democrat 1885 June 29:4; Salt Lake Herald 1885 July 26: 4), and never completed this final portion of the canal. The company sought assistance from outside sources, including both Salt Lake City and County (e.g., Salt Lake Herald 1885 Apr 1: 4). On December 3, 1886, the Surplus Canal was deeded to Salt Lake City and Salt Lake County, with the caveat that the current owners were required to keep the canal open and in good repair for a period of 10 years (Salt Lake Herald 1889 Dec 15: 3).

There were early plans by Salt Lake City to use the Surplus Canal for sewage disposal, but the cost of pumping waste to the canal initially proved prohibitive (Salt Lake Herald 1888 Aug 25:1). Within a few years, however, an initial sewage system was built. The city began pumping sewage into the Surplus Canal (Salt Lake Herald 1890 May 25:3; Salt Lake Herald 1892 Aug 13:8; Salt Lake Herald 1893 Mar 04:5), much to the consternation of nearby landowners. The Surplus Canal and Jordan River would continue to receive sewage from Salt Lake City until completion of the five-mile Outlet

Canal from the gravity sewer to the Great Salt Lake on November 10, 1911 (Cater 2014; SLCDocs 2000).

While the Surplus canal was not constructed as a source of irrigation water, the North Point Consolidated Irrigation Company (North Point) did have an agreement to pull water from the Surplus Canal for this purpose. However, the Surplus Canal would also carry irrigation run-off delivered by nearby canal systems in addition to sewage. This run-off was so laden with alkali salts that it rendered the water downstream unsuitable for irrigation, leading to a lengthy legal dispute between North Point, the City and County of Salt Lake (who managed the Surplus Canal), and the various other canal companies polluting the water with their irrigation run-off. This case would eventually be resolved in favor of North Point in 1898 after an appeal to the Utah Supreme Court (Salt Lake Herald 1898 Feb 06:8, June 07:6). However, even as late as 1904 no substantial irrigated agriculture was taking place. Although the North Point Canal connected with the Surplus Canal and served a large area of level lands lying between Salt Lake City and the lake (Figure 1), the Surplus and North Point Canals remained minor irrigation works. Very little of the land was improved, as it remained too strongly alkaline to be farmed successfully using the methods of the time (Mead 1904: 47).

Heavy flooding in early 1896 inundated low-lying areas of Salt Lake City along the Jordan River, leading the city council to instruct the city engineer to examine extending the Surplus Canal to the Great Salt Lake to help prevent future flooding (Salt Lake Herald 1896 June 17:8). Following the recommendations of the engineer, the city would approve a project extending the canal from Williams Lake to the Great Salt Lake and improve the channel by increasing its width to 60 feet at bottom (Salt Lake Herald 1896 Dec 2:8). Salt Lake County would pay half. These improvements were later postponed due to Salt Lake County concerns over the need for additional works on the existing canal to support flows, plus ongoing legal conflicts with North Point Consolidated Irrigation Co. regarding their claims to the right to manage flows through the canal (Salt Lake Herald 1897 Jan 6: 3). As a consequence, the Surplus Canal would operate with minimal maintenance for another decade.

In 1909, heavy flooding once again struck Salt Lake City (Salt Lake Herald 1909 June 10: 1; 1909 June 11:1-2). By that year, the Surplus Canal was estimated to be carrying 25% or less of its original design flows (Figure 2, Figure 3, Figure 4), and its repair became a critical concern. This time action came swiftly, and by 1910 the city and county had hired a dredger to start expanding the canal (The Herald-Republican 1910 Feb 23:2;).

When work began, the Surplus Canal was described as little more than a depression in the ground in places. Dredging started under a contract to use the Utah Sand, Dredging, & Construction Co. dredger (Figure 5), which was later replaced by a dredger purchased and owned by Salt Lake City (Figure 6). The city dredge was built by the Marion Steam Shovel Company, which also provided equipment for the Utah Copper Company, and launched Thursday, Oct. 20th (The Salt Lake Tribune 1910 Oct 21: 14). By the time work was complete, the canal would be at least 60 feet wide at the base and at least six feet deep over most of its length (The Salt Lake Tribune 1911 Feb 23:3; 1911 Mar 05:1,14).

Concerns over flooding continued even after the Surplus Canal was expanded, as did work on the canal (Figure 7; Figure 8), and Salt Lake City and County would reach out to the federal government for assistance. Congress responded by authorizing a preliminary examination of flood control needs on June 28, 1938, followed by a study under the direction of the U.S. Army Corps of Engineers (USACE, 1939). This study culminated in congressional authorization for the Jordan River Project on July 24, 1946, with execution of the project beginning in 1959 (USACE 1961).

Working with Salt Lake County, the U.S. Army Corps of Engineers project would replace the control structures of the Jordan River and Surplus Canal where they bifurcated at 2100 South, improve the channel of the Jordan River and levees from 2100 S to Mill Creek, improve the channel and levees of the Surplus Canal from 2100 S to the Goggin Drain, and provide for structural changes to bridges and other utilities (USACE 1961; Figure 9; Figure 10; Figure 11). Per the Design Memorandum (USACE 1957):

> The Surplus Canal channel will be improved by means of widening, deepening, and minor realignment for a total distance of 35, 300 feet from its beginning near 21st South Street downstream to Goggin Drain. The reach of channel between the head of Surplus Canal and North Temple Street (highway No. U.S. 40) is designed to accommodate a flow of 3,300 cubic feet per second. The reach of channel between North Temple Street and the end of the improvement at Goggin Drain is designed to carry a flow of 2,000 cubic feet per second. The improved channel will have a trapezoidal section with a bottom width of 60 feet and 85 feet and 1-on-2 side slopes. Excavated materials, which will amount to about 635,000 cubic yards, will be placed in parallel levees on each side of the canal and located to provide a 20-foot berm between the toe of the levee and the canal bank. Levees to be constructed of selected and compacted material

> will be provided on both banks of the canal between the head of the canal and North Temple Street, and for an additional 1140 feet below North Temple Street on the east (right) bank. Semi-compacted levees will have side slopes of 1-on-3 riverside, 1-on-2 landside, and a crown width of 12 feet. Excavated material will be deposited and shaped to form continuous uncompacted levees on both banks of the Surplus Canal between the termination of the compacted levees and the end of the channel improvement at Goggin Drain. The uncompacted levees will have a minimum crown width of 10 feet and slopes of approximately 1-on-3 on both sides.

Most of this work was executed under contract with Thorn Construction Company between September 1959 and October 1960. The Salt Lake County Department of Civil Works would subsequently replace the Jordan River diversion structure again in 1998 (USACE 1961, design update).

National Register Evaluation

A number of previous studies have considered whether the Jordan and Salt Lake Surplus Canal is eligible for listing on the National Register of Historic Places (National Register, NRHP). Some evaluations have found the canal or segments of it eligible for listing on the National Register, while others suggests that certain segments of the canal are ineligible (Charles and Hart 2023). In some cases, recommendations characterize the same levee segments differently. To address this problem, the following sections reconsider the eligibility of the entire resource.

Prior Evaluations

Previous discussions of the Surplus Canal's significance are mostly limited to brief statements summarized in updates to the canal's site record, with little or no consideration of historic context or period of significance. These assessments focus on the role of the canal in 1) local agricultural development, 2) local flood control attempts in the late 19th and early 20th Century, 3) growth and development of Salt Lake City (National Register Criterion A), and 4) retention of characteristics representative of methods of design distinctive to the period in which it was built (National Register Criterion C):

- "The site is associated with the settlement and irrigation of the Salt Lake Valley during the latter half of the 19th Century, a major historic event. It is also a

distinctive feature of the period as were its methods of construction." (Gorely, Dale/Baseline Data/1999 Site form)

- "The irrigation canal system throughout Salt Lake County is responsible for the growth of several towns within Salt Lake County. Therefore, it is historically associated with the development and the economic welfare of Salt Lake County. As a result, the site is recommended eligible to the NRHP under Criterion A." (Baxter, J. / SWCA / 2001 Site record)
- "The site is associated with the historically important event of large-scale irrigation projects which undoubtedly helped to shape the pattern of settlement and land use within the western Salt Lake Valley. As such, the site is considered eligible for the NRHP under Criterion A." (Huffman, G. and M. Ellis/SWCA/ 2001 Site Record)
- "In addition, the segment of the Surplus Canal recorded for the current project retains integrity of location, setting, design, materials, workmanship, feeling, and association (Criterion C). Therefore, we recommend that 42SL302 is eligible for inclusion in the NRHP" (Pagano, Sandy 2007 Site Record)
- "Segment B of the canal retains its original alignment and therefore can be associated with the major canal building that occurred in the Salt Lake Valley in the late 19th century. This period of canal building contributed substantially to the development of agriculture and community identity during that period. Segment B also retains integrity of design. setting. materials. workmanship. feeling. and association. Since a substantial majority of the site retains integrity SWCA recommends that Site 42SL0302 retain its status as eligible for listing on the NRHP under Criterion A." (Nelson, Ellen 2008 SWCA Site Record)
- "Previous recommendations noted the importance of the canal to the growth and development of Salt Lake City and in flood-control efforts in the late nineteenth and early twentieth centuries (Honker 1999). The segment of the canal recorded in the current project retains integrity of location, setting, design, materials, workmanship, feeling, and association. Therefore, we recommend 42SL302 as eligible for inclusion in the NRHP under Criteria A and C." (Rawson, Paul 2009/William Self Assoc/Site Record)
- "In addition to its contribution to growth and development of the Salt Lake Valley, the Surplus Canal also contributed to flood control efforts in the late nineteenth and early twentieth centuries." (Yentsch, A., Env. Planning Group, 2016 site record).
- "The Surplus Canal has been determined eligible for the NRHP under Criteria A and C, based on the significant role it played in the growth and development of

Salt Lake City, as well as retaining characteristics representing methods of construction and design distinctive to the period in which it was built (Yentsch 2016; Baxter 2001; Brown 2002; Huffman and Ellis 2001; Nelson 2008)." Cited by Yentsch 2018, Env. Planning Group, site record)

- "Based on the 2020 Transcon recording, site 42SL302 in its entirety is significant in the broad patterns of history in the region as it provided irrigation water for economic development and growth in Salt Lake City and was an integral part of early twentieth-century flood control (Criteria A); the methods of constructing the canal embody distinctive features of the period in some portions of the canal (Criterion C); …." (Flynn, Sean, Transcon, 2020 site record)

Period of Significance

Based on the historic context provided here, the Surplus Canal has three periods of significance. The first is 1885-1910, which represents the canal's initial construction and use. The second period spans 1911-1959, following rehabilitation and expansion of the canal by Salt Lake County and Salt Lake City in response to the flood of 1909. The final period of significance extends from 1960-1973, when the canal became part of the federally authorized Jordan River Project. No portion of the canal as it existed between 1885 and 1910 remains.

Level of Significance

All evaluations have examined the National Register eligibility of the Surplus Canal for its local significance. Nothing suggests that it is eligible for listing on the NRHP at either the State or National levels.

National Register Criteria

Per National Register Bulletin 15 (U.S. Park Service, 1997), for a site to be listed on the National Register it must be historically significant. Significance is related to a site's historic context and its ability to fulfill at least one of four criteria:

A. *Association with events that have made a significant contribution to the broad patterns of our history.*
B. *Association with the lives of persons significant in our past.*
C. *Embodiment of the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.*
D. *Ability to yield information important in prehistory or history.*

Criterion A

The Surplus Canal is primarily associated with flood control and secondarily with drainage, the stated purposes for which it was originally built. Contrary to a number of statements quoted above, it was never directly associated with irrigation and farming. While the North Point Consolidated Irrigation Company did draw water from the Surplus Canal for that purpose, neither the Surplus Canal nor the North Point Consolidated Canal ever played a major role in providing water to farmers in the area (Mead 1904).

The Surplus Canal was directly associated with only one notable flood—the flood of 1909 that led to its rehabilitation, expansion, and extension out to the Great Salt Lake. Prior to that time, it served to provide drainage and sewage disposal as described in the historic context. Other major floods occurred in 1917, 1922, 1945, 1952, after the initial expansion of the Surplus Canal (USACE 1969), and again in 1983, more than two decades following improvements done as part of the Jordan River Project. Continued flooding concerns raised in part by these later floods led Salt Lake City and County to adopt an extensive upgrade to their storm-sewer system (USACE 1969: 9), and to construct the Little Dell Dam and Reservoir in cooperation with the Army Corps of engineers between 1989 and 1998 (USACE 2000: Table 3).

Although all of these floods were destructive, none appear to be historically important, either locally, at a state level, or nationally. Damage was sometimes extensive, but injuries were few and no deaths appear to have been documented (USACE 1969; National Weather Service 2023). In each instance damage was repaired and occupation of the river and stream floodplains continued or expanded. In the case of the later floods, the Surplus Canal reduced the severity of flooding, but did not prevent it. Moreover, the Surplus Canal represents only one part of the flood control system, diminishing the significance of its individual contribution to flood control. Other elements include channel improvements and levees along the Jordan River and its tributaries, the city and county stormwater sewer system, and now the Little Dell Dam and Reservoir.

Arguments about the importance of the Surplus Canal based on its relationship to economic development and urbanization in Salt Lake City and County confound association with causality. Areas along the Jordan River were already developed by 1890, shortly after the Surplus Canal was first built and long before it was expanded. Most of this development occurred north and east of the river (Plate 1 – Salt Lake

County in 1890). By 1934, more than two decades after the canal's expansion, substantial areas south and west of the river remained undeveloped (Plate 2 – Map of Salt Lake City and Vicinity) and remained so even into 1950 (Figure 7). The Surplus Canal was neither required for development to occur, nor did it cause development to take place once built. The canal certainly reduced the risk of flooding and affected the calculus of constructing nearer the floodplain, but the decision to ultimately do so depended on multiple other factors. Increased urbanization and economic development are better considered in light of population growth, the development of rail and road systems, water and waste treatment, electrical transmission and distribution networks, telecom, or a host of other basic infrastructure, all of which themselves expanded (changed) over time. Furthermore, the Surplus Canal fails to convey the historic importance of the urbanization and economic development themes.

Criterion B

The Surplus Canal does not appear to be associated with any individual of historic importance. George Nebeker was not a historically important figure of his time, nor was he associated with the canal beyond its initial construction. Subsequent construction was undertaken by firms contracted for the purpose.

Criterion C

The Surplus Canal is ineligible for listing on the National Register under Criterion C. It is a simple, excavated feature lacking in architectural, engineering, and artistic distinction. The associated levees are rudimentary, compacted earth structures reinforced in places with rock armoring. It is indistinguishable in form from numerous other such canals found throughout Utah, the rest of the United State, or many other parts of the world, whether they serve for irrigation or flood diversion. Although parts of the canal look much as they did when built in 1910 or 1959, the fact that they remain simple, earthen channels does not mean that simple, earthen channels represent an historically significant aspect of design or construction.

Criterion D

The Surplus Canal lacks any information potential which would make it eligible for listing on the National Register under Criterion D.

Integrity

Integrity is the ability of a property to convey its historic significance (U.S. Park Service 1997: 44). This ability is central to determining a property's National Register eligibility. Potential properties need to convey their historic significance, convey a sense of time and place, convey the aspect of history with which they are associated, convey their

association with an important historic event or person, convey information important to our understanding of the past, convey architectural values, and convey their historic character. There also needs to be enough information, context, and direct associations to that context for anyone to reasonably understand the historic significance being ascribed. Integrity is typically considered with regards to seven criteria: location, materials, setting, design, workmanship, feeling, and association (U.S. Park Service 1997: Chapter VIII).

Location. *The place where a historic property was constructed or a historic event occurred.*

The Surplus Canal is located in broadly the same place in which it was originally constructed, though portions near the Salt Lake City Airport have been realigned.

Materials. *Materials are the physical elements that were combined or deposited at a particular time and in a particular pattern or configuration*.

The materials of the canal have changed through time. The original dams and diversion structures were wooden facilities and have since been replaced by modern features of poured or cast concrete, concrete pipe, and steel (Figure 3). The canal itself remain earthen.

Setting. *The physical environment of a property*.

The setting of the Surplus Canal has changed completely, with commercial and industrial development overtaking the entire canal alignment. The setting no longer resembles the largely rural environment that characterized the canal when first built, when first expanded, or when integrated into the Jordan River Project (see Figures 2-16).

Design. *The combination of elements that create the form, plan, space, structure, and style of a property*.

The Surplus Canal no longer retains integrity of design from either of its two earliest periods of significance. The channel was redesigned and levees added along its entire length as part of the Jordan River Project beginning in 1959. The diversion structures on the Surplus Canal and Jordan River were both replaced at that time, and the diversion structure at the Jordan River was replaced yet again in 1998. The Surplus Canal therefore only represents the period 1960-1973, though no aspect of the canal's design conveys its association with that time period specifically.

Workmanship. *The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory*.

As a simple, excavated structure the Surplus Canal lacks a distinctive style of workmanship and cannot convey any historic significance on this basis.

Feeling. *A property's expression of the aesthetic or historic sense of a particular time period*.

As a simple, excavated structure the Surplus Canal has no unique features that tie it to a particular time or place and cannot convey any historic significance on this basis, either.

Association. *A direct link between an important historic event or person and a historic property.*

Since the Surplus Canal was completely redesigned in 1959, the only flood event with which it has a link is that of 1983. The flood of 1983 occurred too recently to be considered within the canal's period of significance.

Summary of National Register Eligibility

The Jordan River Surplus Canal is not associated with a person or event of historic importance, lacks distinction of engineering or architectural design, and holds no information potential. The structure further lacks integrity of setting, design, workmanship, and feeling, and its integrity of design and association are compromised. *As a consequence, the Surplus Canal is not eligible for listing on the National Register of Historic Places under any National Register criterion*.

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Figures and Maps

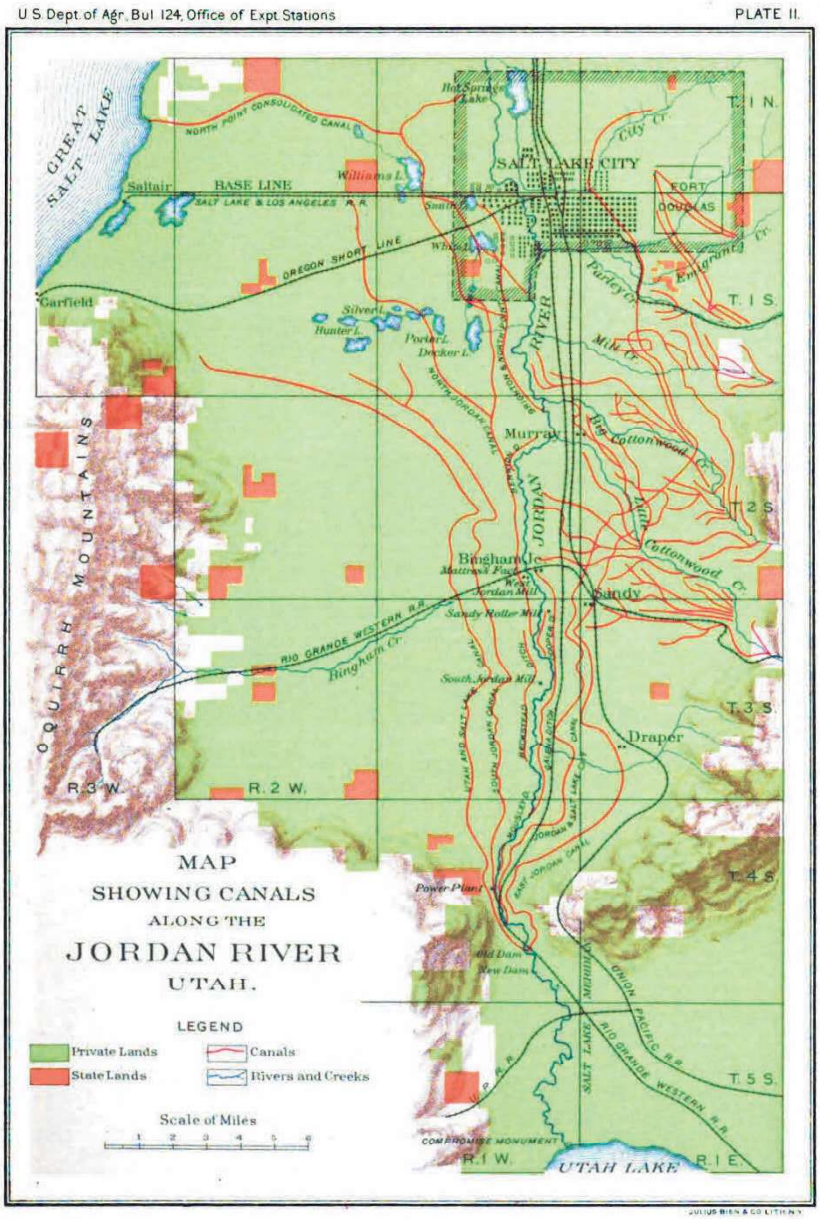


Figure 1. Map of irrigation canals along the Jordan River (Mead 1904: Plate 2)

Figure 2. Surplus Canal where it splits from the Jordan River near 12th St/2100 S (1910-01-20; Utah State Historical Society, City Engineers Photo 01530.

Figure 3. Dam at the head of the Surplus Canal at its junction with the Jordan River (1910-01-20; Utah State Historical Society, City Engineers Photo 01531).

Figure 4. Jordan Surplus Canal prior to rehabilitation (1910-01-20; Utah State Historical Society, City Engineers Photo 01540)

Figure 5. Dredge working on the Jordan Surplus Canal in 1910. Believed to be the Utah Sand, Dredging, & Construction Co. dredger that first started work (Utah State Historical Society, City Engineers Photo 01537).

Figure 6. Dredging of the Surplus Canal. Believed to be the City Dredger (Utah State Historical Society, Photo 24676, dated 1913-06-13). While the photo is dated June of 1913, the snow seen in the photo clearly indicates the photo was taken in winter and was most likely taken during the 1910-1911 construction season.

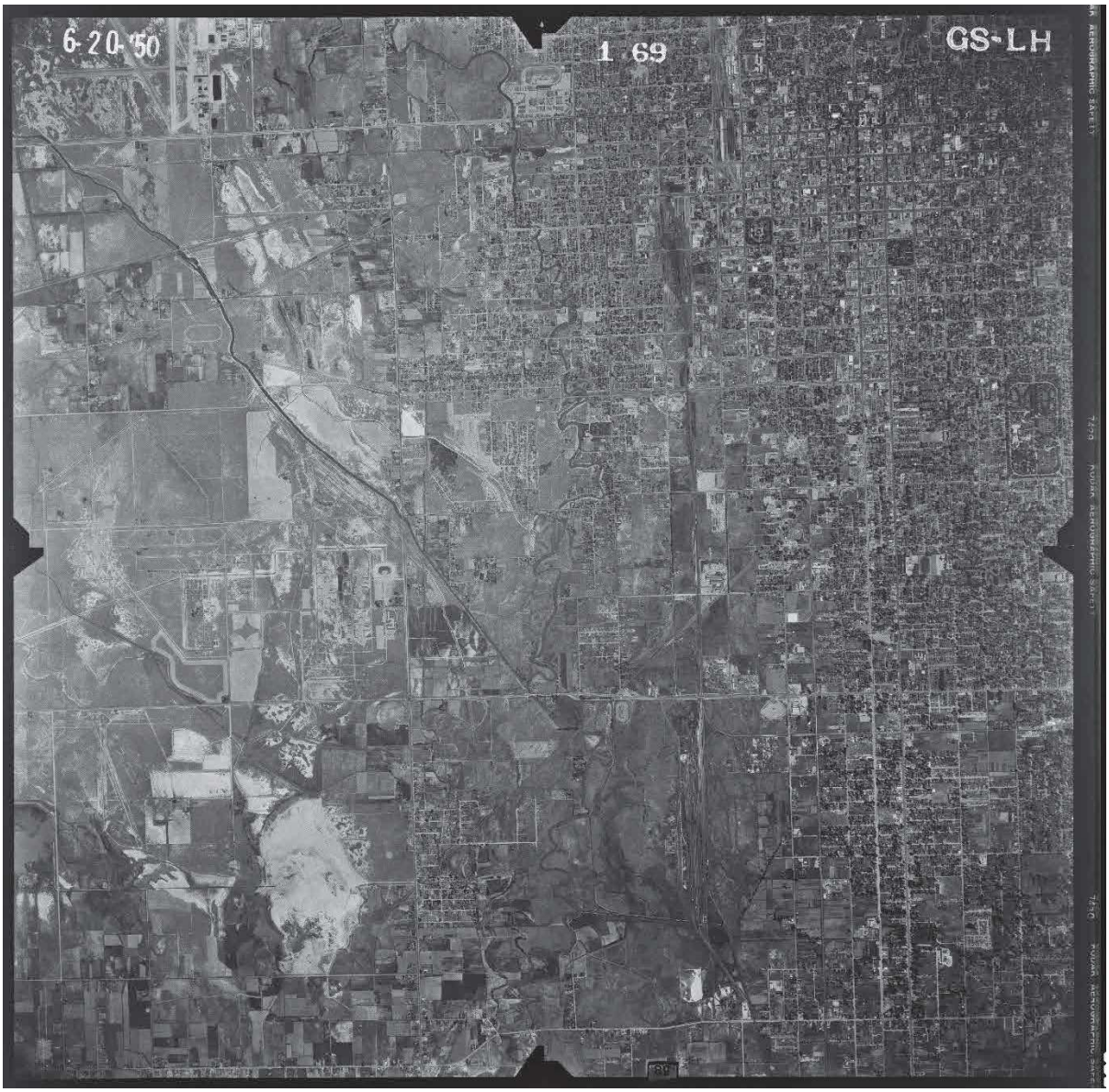


Figure 7. Historic aerial of the Jordan River Surplus Canal, 1950-06-20. The western Salt Lake Valley around the canal remains largely undeveloped at this time. (USGS single frame, 1LH0000010069)

Figure 8. Construction of a new diversion structure for the Jordan River Surplus Canal, 1952-01-14 (Utah State Historical Society Photo 10547).

Figure 9. Construction on the Jordan River Surplus Canal as part of the USACE Jordan River Project. Note the lack of urbanization. (1959-11-20; Utah State Historical Society Photo 54678-1).

Figure 10. Construction on the Jordan River Surplus Canal as part of the USACE Jordan River Project (1959-11-20; Utah State Historical Society Photo 54678-2).

Figure 11. Construction on the Jordan River Surplus Canal as part of the USACE Jordan River Project. The Surplus Canal is clearly visible at back. (1959-11-20; Utah State Historical Society Photo 54678-3)

Figure 12. Birdseye view of the Jordan River Surplus Canal in 2022, showing the dramatic increase in urbanization even since the Jordan River Project was initiated in 1959 (Image: Google Earth).

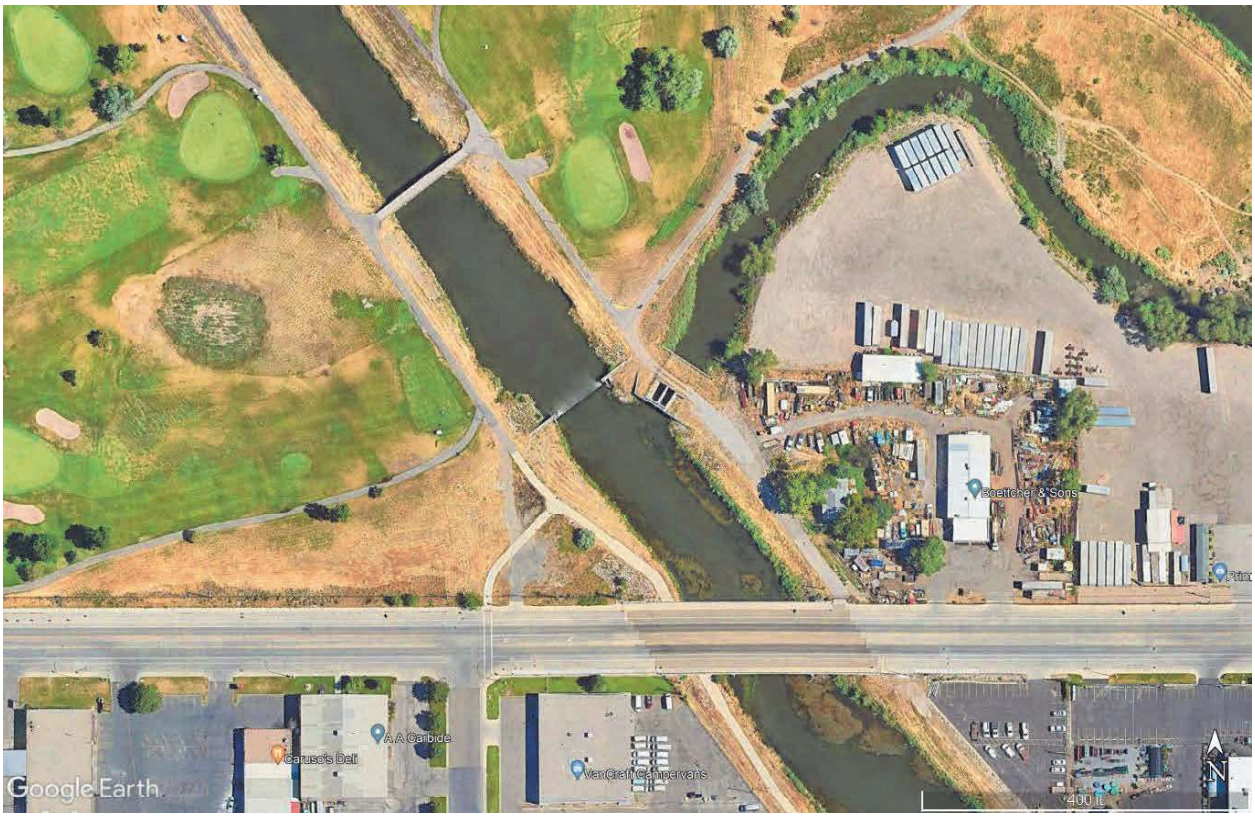


Figure 13. Satellite view of the headgate/diversion from the Surplus Canal to the Jordan River (2022-06-14). The Jordan River is now the minor channel flowing to the right. (Image: Google Earth).

Figure 14. Surplus Canal at Redwood Road and California Avenue looking north. Note changes compared to Figure 15. (Image: Google Earth, Oct 2022)

Figure 15. Bridge over the Surplus Canal at Redwood Road, 1910-01-24 (Utah State Historical Society, City Engineers Photo 01534).

Figure 16. Surplus Canal at 500 S, looking south. The region has become substantially urbanize and no longer reflects any period of canal construction. (Image: Google Earth, June 2019)

Plate 1. Map of Salt Lake County in 1890

UNION PACIFIC
OVERLAND

THE GREAT SALT LAKE.

T1N R2W.

T1N R1W.

T1N R1E.

T1N R2E.

T1S R2W.

T1S R1W.

T1S R1E.

T1S R2E.

T1S R3W.

WASATCH

MOUNTAINS.

T2S. R3W.

T2S. R2W.

T2S. R1W.

T2S. R1E.

T2S. R2E.

T2S. R3E.

OQUIRRH MOUNTAINS.

T3S.R3W.

T3S. R2W.

T3S. R1W.

T3S. R1E.

T3S R2E.

T4S R1E.

T4S.R3W.

T4S.R2W.

T4S. R1W.

TRAVERSE MOUNTAINS.

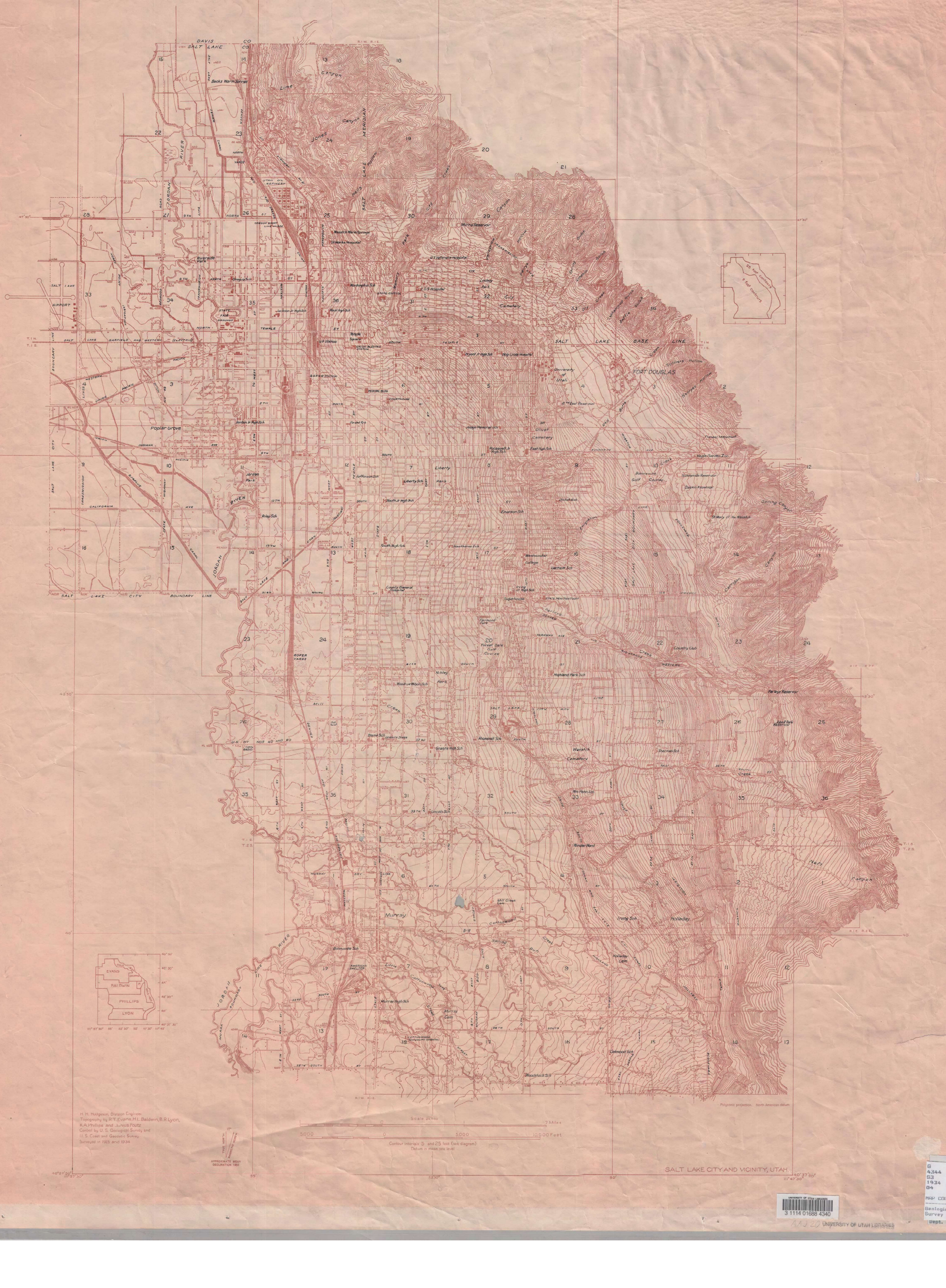
Plate 2. Map of Salt Lake City and Vicinity, 1934.

DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

Advance sheet.
Subject to correction.

UTAH

SALT LAKE CITY AND VICINITY
(SALT LAKE COUNTY)



H. H. Hudgeson, Division Engineer
Topography by R.T. Evans, H.L. Baldwin, B.R. Lyon,
K.A. Phillips and Junius Foutz
Control by U. S. Geological Survey and
U. S. Coast and Geodetic Survey
Surveyed in 1925 and 1934

SALT LAKE CITY AND VICINITY, UTAH.