SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

***Instructions for applicants*:** [help]

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [help]

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. BACKGROUND [help]

1. Name of proposed project, if applicable: [help] Main Canal Lining 11.0 & 12.0 Siphon Removal

2. Name of applicant: [help] Kennewick Irrigation District (KID)

3. Address and phone number of applicant and contact person: [help]

Daniel Tissell, P.E.
Engineering Manager
2015 S. Ely Street
Kennewick, WA 99337

509-586-6012 ext. 116

4. Date checklist prepared: [help] September 21, 2023

5. Agency requesting checklist: [help] Kennewick Irrigation District

6. Proposed timing or schedule (including phasing, if applicable): [help]

This work is planned to be completed during the 2023-2024 irrigation offseason (October 2023 to April 2024).

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]

Yes, other canal lining projects and siphon removals are planned in the District.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]

A previous SEPA has been completed for the adjacent KID canal lining project, this SEPA and the related MDNS are KID file number TD 2020-04. A SEPA review was completed for a borrow pit location the MDNS is KID file number TD 2022-03. In addition, an Archaeological Survey Report was completed for the Kennewick Irrigation District Title Transfer Project. The report found no cultural resources identified within the Main Canal Division II Canal Right-of-Way in which this project is located. An excerpt from this report has been attached as Appendix B.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]

No known applications for governmental approval are pending for this proposal.

10. List any government approvals or permits that will be needed for your proposal, if known. [help]

None known, but any needed permits or approvals will be obtained prior to work commencing on the proposed project.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]

The siphon removal project is planned to occur in the vicinity of the Main Canal Milepost 8.9 to 12.8 canal lining project (KID MDNS TD 2020-04) and consists of the removal of two existing 7.5-foot x 7.5-foot box inverted siphons at mile posts MC 11.0 and 12.0. Upon removal of the inverted siphons grading will occur to install an open channel canal within the disturbed area of the removed siphon. A concrete access ramp will be installed within the new canal which will primarily provide KID vehicular access for maintenance and safe stormwater discharge into the canal. In addition, this structure will provide a safe exit point from the canal for trapped animals.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]

The project is located along a section of the Main Canal Division II within the Benton County, Washington, and will begin approximately 7,900 feet to the east of where the canal is crossed by Webber Canyon Rd and continue to 5,100 feet to the west of where the canal is crossed by 506 PR SE. The project is located in Sections 34 and 35, of Township 9 North, Range 27 East, Willamette Meridian. A map has been included to show the location of the proposed project (Appendices A).

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth

a. General description of the site [help]
(circle one): Flat, rolling, hilly, steep slopes, mountainous,
other _____

b. What is the steepest slope on the site (approximate percent slope)? [help]

The project site is generally flat with a localized depression through the siphon.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]

According to the US Department of Agriculture, Natural Resources Conservation Service the soil in the site are classified as Warden Silt Loam (WdAB, WdE3, WdF), and Finley stony fine sandy loam (FfE).

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]

None known.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]

The design for this project is not currently complete. The project will remove existing inverted siphons and replace them with open channels canal. The project area is approximately 2 acres and will require approximately 6,200 cubic yards of import material. KID has secured a borrow pit along PR 506 for any additional material needed.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]

Yes. Grading of the site could result in minor occurrences of rill erosion on bare dirt surfaces during construction if precipitation occurs. In addition, wind erosion can occur during construction, but will be kept to a minimum through the use of erosion control best management practices.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]

No impervious surfaces will be constructed at the site after project construction beyond the canal lining and concrete canal structures. The new lining in the canal is designed to greatly reduce seepage from water that is conveyed in the canal. The lining will cover approximately 30% of the site.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]

Appropriate best management practices will be employed to reduce erosion at the project site, as warranted.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]

Fugitive dust would be expected to be present as a result of the grading activities that will occur as part of the proposed project. Diesel emissions would result from construction machinery.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]

Appropriate best management practices will be employed to reduce and control emissions into the air at the project site, as warranted.

3. **Water**

a. Surface Water: [help]

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]

There are no surface water bodies in the immediate vicinity of the site, beyond man-made irrigation ponds. The canal will eventually drain into the Columbia River.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]

No siphon removal work will occur within 200 feet of the ponds (see Appendices A).

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help]

No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]

No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help]

Very minor amounts of sediments and fuel/lubricants from heavy machinery could discharge into the dewatered canal. These sediments and wastes could be transported by irrigation water once irrigation season commences in spring. Best Management Practices will be used to contain all waste materials.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]

No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]

None

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]

Any potential water runoff (including stormwater) at the site will likely flow across the site and be impounded against the canal embankment or flow into the canal. During the part of the season when the canal is dry, this water will likely remain in the canal until it evaporates or seeps into the ground during construction. Upon completion of construction, the lining will prevent seepage. Remaining water

will mix with irrigation water during the irrigation season and be consumed by irrigation customers. On-site erosion control will be used to contain water runoff on the downhill side of the canal.

2) Could waste materials enter ground or surface waters? If so, generally describe. [help]

Minor waste materials could possibly enter ground waters as water infiltrates into the subsurface. Waste materials entering the canal will be collected at the end of the canal lining project, preventing entrance to surface waters.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

Yes, the drainage patterns will change. Currently, inverted siphons allow uphill drainage to cross the canal. Once the drainage crosses the siphon it continues as overland flow onto downhill properties (See pictures in appendix C). The removal of the siphons will prevent drainage from crossing the canal. Additional berms will be installed as necessary within the canal right-of-way to contain the storm water near the original siphon location and protect the canal embankment until it reaches the elevation necessary to safely enter the canal.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

As needed, best management practices will be used to reduce sedimentation and waste spills into the canal during project construction. Runoff, including from stormwater, will be accepted into the canal.

4. **Plants** [help]

a. Check the types of vegetation found on the site: [help]

____deciduous tree: alder, maple, aspen, other
____evergreen tree: fir, cedar, pine, other
__X_shrubs
__X_grass
____pasture
_____crop or grain
_____ Orchards, vineyards or other permanent crops.
__X_ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
__X_water plants: water lily, eelgrass, milfoil, other
____other types of vegetation

b. What kind and amount of vegetation will be removed or altered? [help]

Some sagebrush will be removed, as well as, some cheatgrass and other grasses, shrubs and herbaceous weeds located in the canal right-of-way.

c. List threatened and endangered species known to be on or near the site. [help]

None Known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]

No landscaping is planned. Rock will be installed on the canal maintenance roads, rip-rap may be installed to protect the canal embankment, and hydroseeding occur on other the disturbed areas.

e. List all noxious weeds and invasive species known to be on or near the site.

None Known.

5. **Animals**

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include: [help]

birds: hawk, heron, eagle, songbirds, other: Herron
mammals: deer, bear, elk, beaver, other: Townsend's Ground Squirrel
fish: bass, salmon, trout, herring, shellfish, other _____

b. List any threatened and endangered species known to be on or near the site. [help]

No threatened or endangered species are known to occur on or near the site, but ferruginous hawks, and Townsend's ground squirrels could find suitable habitat in the open spaces nearby on the project location.

c. Is the site part of a migration route? If so, explain. [help]

The site is located within the greater Pacific Flyway, a major west coast bird migration route.

d. Proposed measures to preserve or enhance wildlife, if any: [help]

Concrete access ramps will be installed in the canal. Wildlife may use these ramps to access the canal for water or exit the canal if trapped.

e. List any invasive animal species known to be on or near the site.

None Known.

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]

The site does not require energy.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]

None.

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]

None known.

1) Describe any known or possible contamination at the site from present or past uses.

None known.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None known.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None will be stored, used, or produced.

4) Describe special emergency services that might be required.

None.

5) Proposed measures to reduce or control environmental health hazards, if any:

None proposed.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]

Some traffic noise occurs, as well as, noises associated with rural residential, farmland and construction areas.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [help]

During project construction, generated noise would be related to construction activities, such as, heavy machinery noises. Such noise would occur during work day hours, from approximately 7AM to 5PM. Post construction, there would be no additional noise other that what is currently occurring.

3) Proposed measures to reduce or control noise impacts, if any: [help]

Work would occur during normal daytime working hours weekdays and occasional Saturdays, eliminating noise at night that may disturb area residents.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]

The site is an inverted siphon and adjacent maintenance road. Adjacent properties include rural residential, farmland, and undeveloped. The removal of the 11.0 siphon will remove southerly access for one property bisected by the canal. Access could be restored by a private bridge crossing of the canal, permitted by KID.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]

No. Some areas adjacent to the site are used for agriculture.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

The project will not affect farm or forest business operations.

c. Describe any structures on the site. [help]

The existing concrete inverted siphons are located on the site.

d. Will any structures be demolished? If so, what? [help]

Existing concrete inverted siphons located at the Main Canal mile post 11.0 and 12.0 will be removed as a part of this project.

e. What is the current zoning classification of the site? [help]

The site is zoned GMA AG matching the surrounding land zoning.

f. What is the current comprehensive plan designation of the site? [help]

The site is designated GMA AG matching the surrounding land.

g. If applicable, what is the current shoreline master program designation of the site? [help]

Not applicable

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]

A portion of the site may be within the Geologically Hazardous Areas classified by Benton County for Combined Erosion Hazard & Steep Slope 15%.

i. Approximately how many people would reside or work in the completed project? [help]

None

j. Approximately how many people would the completed project displace? [help]

None

k. Proposed measures to avoid or reduce displacement impacts, if any: [help]

None proposed

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]

The proposed project will consist of replacing existing inverted siphons with open canals and will be compatible with existing and projected land uses and plans.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]

None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]

None

c. Proposed measures to reduce or control housing impacts, if any: [help]

None

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]

A new canal embankment will be installed where the siphon was located. The canal embankment will be approximately 5-6 feet taller than the adjacent existing embankment. Any structures will be located within the reconstructed canal section.

b. What views in the immediate vicinity would be altered or obstructed? [help]

None. There is no development directly uphill of the canal at these locations.

c. Proposed measures to reduce or control aesthetic impacts, if any: [help]

Not applicable

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]

Some light may be produced by lighting provided if work at dawn/dusk is required to complete the project. Some glare from the windows/mirrors on the equipment may be present during the daytime hours.

b. Could light or glare from the finished project be a safety hazard or interfere with views? [help]

No

c. What existing off-site sources of light or glare may affect your proposal? [help]

None

d. Proposed measures to reduce or control light and glare impacts, if any: [help]

None proposed.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]

Some unauthorized recreational use of the existing canal road occurs at the site. This mostly consists of walkers, horseback riders and all-terrain vehicles.

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]

The project would eliminate access points to the uphill side of the canal restricting unauthorized recreation from crossing the canal.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]

None proposed

13. **Historic and cultural preservation**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]

The Kennewick Irrigation District Main Canal has been determined eligible for listing.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]

None known.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]

Consultation with the Dept. of Archaeology and Historic Preservation Searchable Database.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Stop in the location that evidence is uncovered and notify the proper authorities.

14. **Transportation**

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]

Webber Canyon Rd and 506 PR SE provide access to the site.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

The site is not served by public transit. The nearest transit stop is approximately 3 miles away.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

None

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

No

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]

No

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]

None

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

h. Proposed measures to reduce or control transportation impacts, if any: [help]

None

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]

No

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]

None proposed

16. **Utilities**

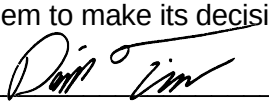
a. Circle utilities currently available at the site: [help]
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]

None

C. SIGNATURE [HELP]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

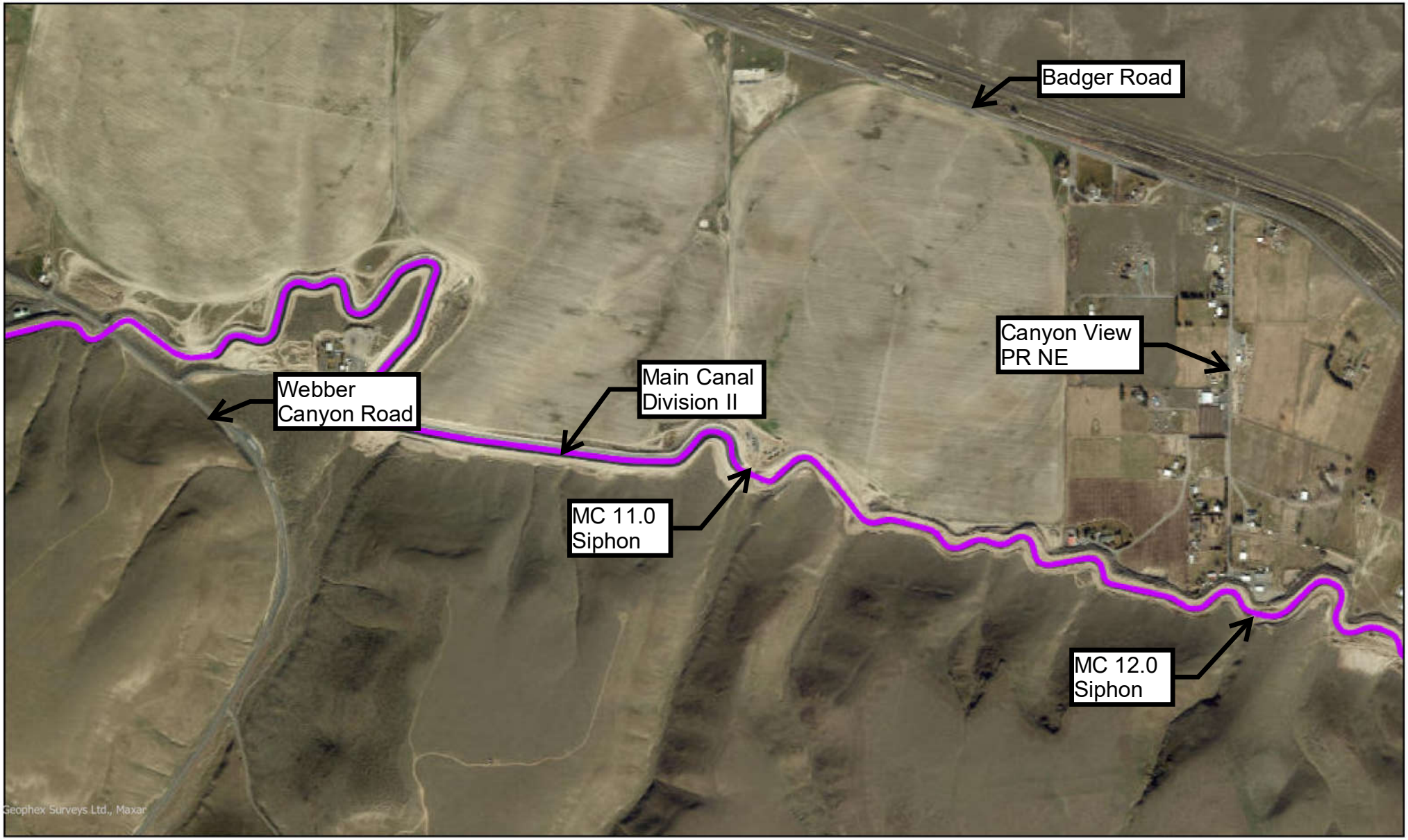
Name of signee Daniel Tissell, P.E.

Position and Agency/Organization Engineering Manager

Date Submitted: 9/21/2023

Appendix A

Project Map



Appendix B

Archaeological Survey Report for the Kennewick Irrigation District Title Transfer Project, Benton County, Washington

Submitted to:

Kennewick Irrigation District

Prepared by:

James J. Sharpe and David Harvey, Northwest Cultural Resources Services

September 2021

NORTHWEST CULTURAL RESOURCES SERVICES

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Figure 8. Overview of KID Main Canal Division I at Turnout 2.2, Division I, Aspect: East

In total, approximately 45.27 ha (111.87 ac) of the 47.65 ha (117.76 ac) waterway (95%) were surveyed for CRs. Aside from contemporary items and debris, no other CRs were identified during the survey (Table 22).

Table 22. Division I - Cultural Resources Identified

KID Survey Location	Survey Date	Cultural Resources Identified
Division I	January 26, 2021	None
Division I	January 28, 2021	None

7.1.2 Division II

The Kennewick Main Canal Division II was surveyed on January 30 and February 4, 2021. Field conditions were generally overcast, with high temperatures reaching approximately 7°C (45°F). Both the "A" and "B" roads were surveyed starting at the western end of Division II, heading east toward the start of Division III. Both sides of the canal consisted of gravel access/maintenance roads bordered by shrub steppe desert or agricultural land. Modern debris and trash (e.g., modern food and beverage containers/wrappers) were observed throughout the Project APE.

A segment of Division II, immediately east of the Webber Canyon Road crossing was inaccessible due to construction near the canal. Construction activities continued east until they overlapped an area previously surveyed for archaeological resources (Harvey et al 2020a). Neither section was surveyed due to 1) safety concerns within the construction area and 2) the previously surveyed area has already been examined for CRs. Additionally, a portion of the "B" road, 1.3 miles west of Webber Canyon Road was

not surveyed as the canal was inaccessible due to the steep grade of the road. Figures 9 and 10 show typical landscapes throughout Division II.

Figure 9. Overview of KID Main Canal Division I, Aspect: West

Appendix C

MC 11.0 Siphon

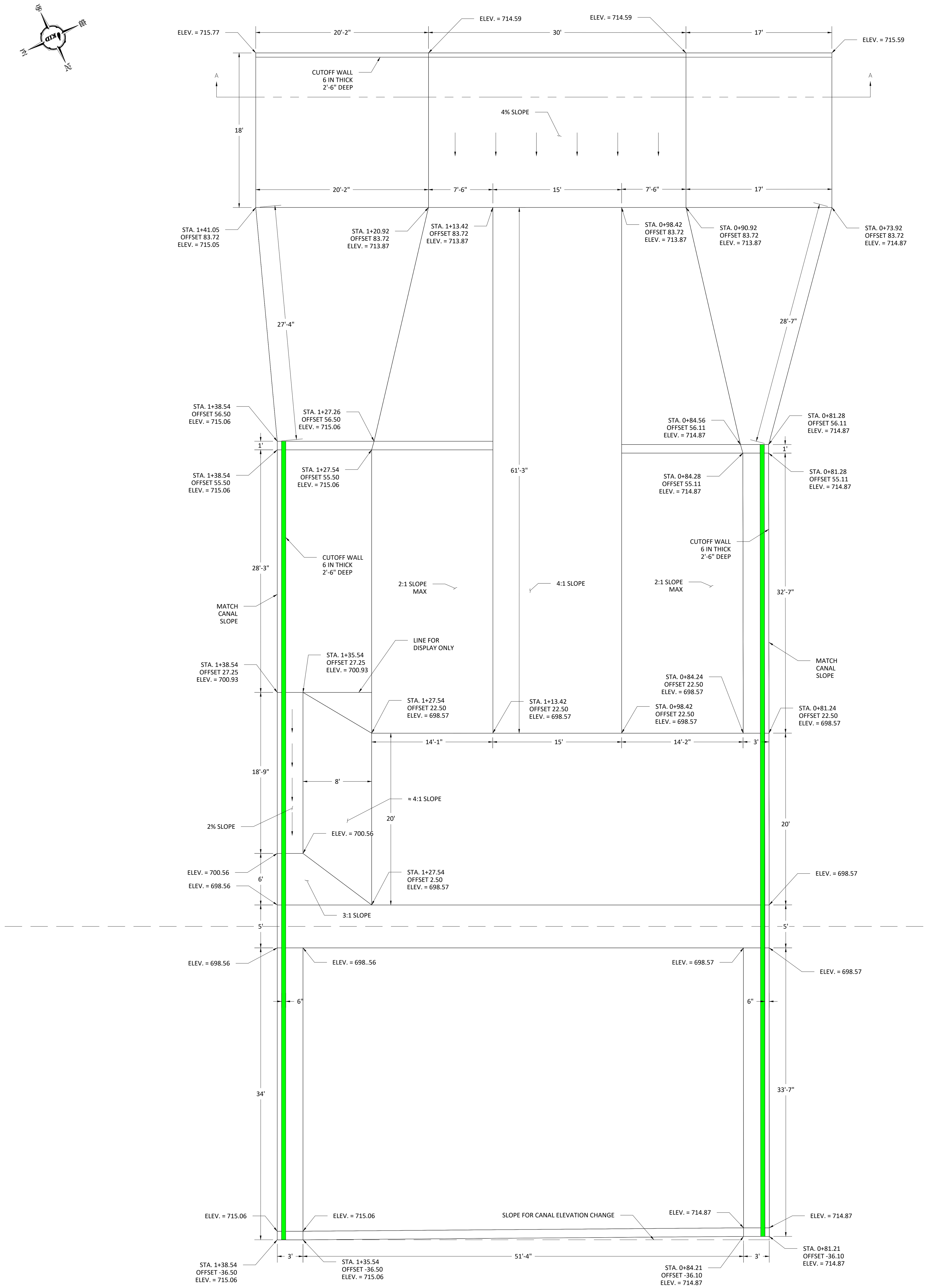
Looking South at Siphon

Looking North at Siphon

MC 12.0 Siphon

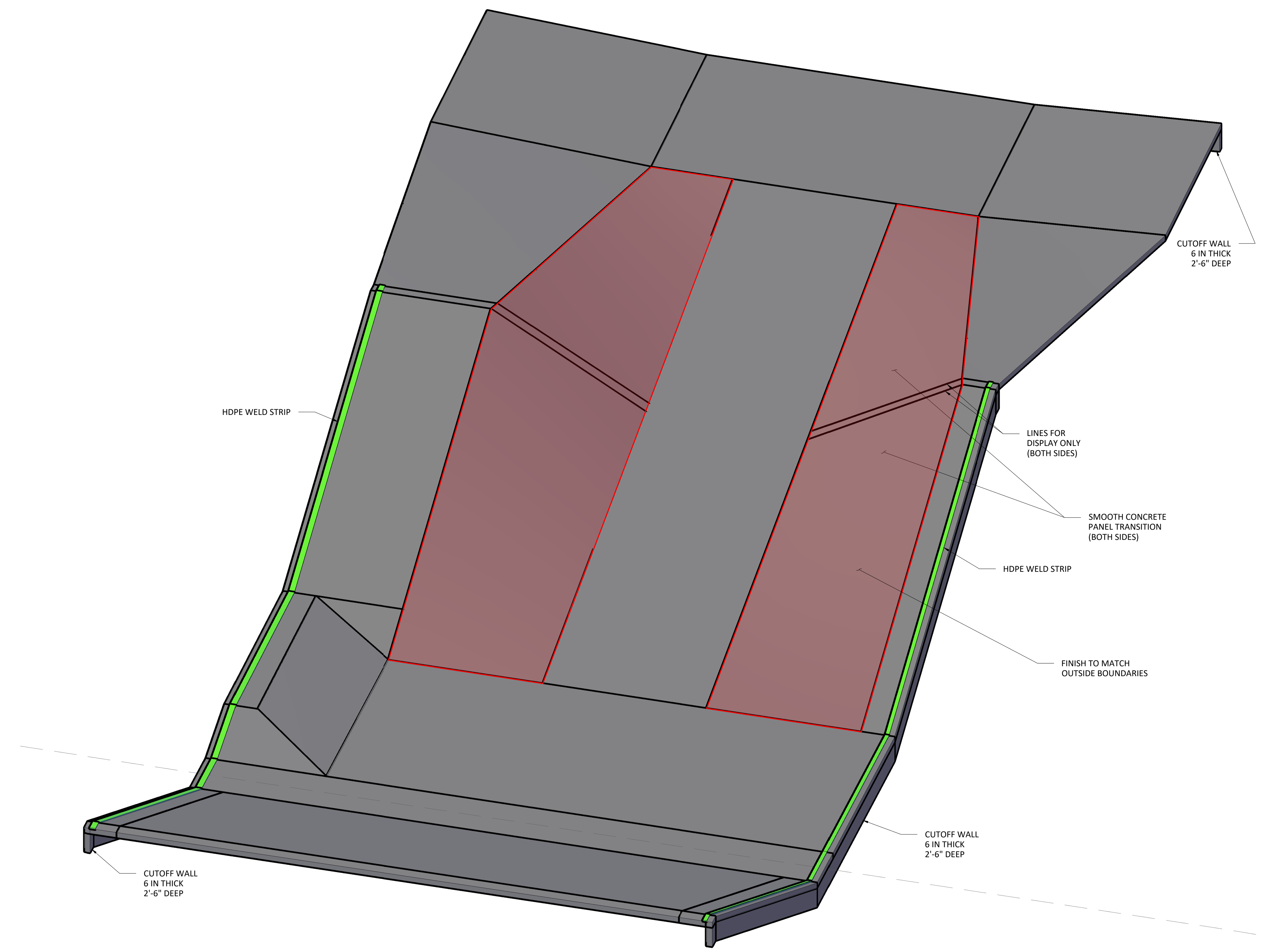
Looking South at Siphon

Looking North at Siphon



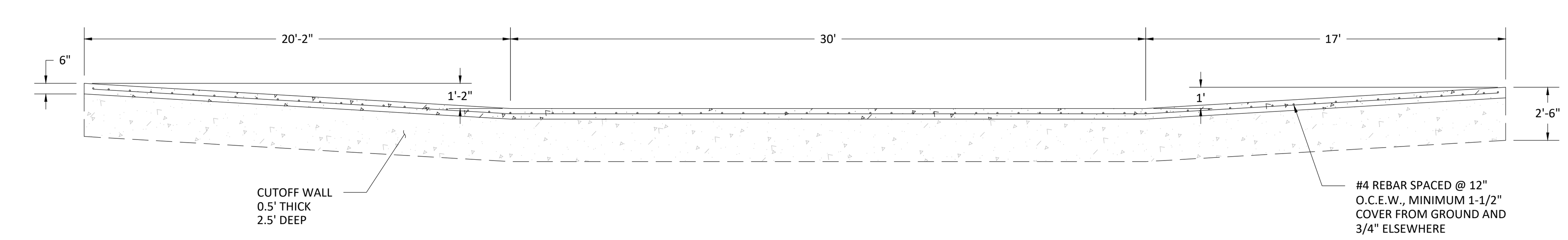
CONCRETE TRANSITION

SCALE: 1" = 8'



ISOMETRIC VIEW

SCALE: 1" = 8'



SECTION A-A

SCALE: 1" = 6'

NOTES:

1. CONTROL HUBS TO BE SET AT ROAD ELEVATION AND CANAL BOTTOM BY ENGINEERING.
2. #4 REBAR @ 12" O.C.E.W. CENTERED IN CONCRETE.
3. SONOLASTIC NP1 OR SIKAFLEX 1A ON ALL JOINTS.
4. LIGHT BROOM FINISH THROUGHOUT EXCEPT WHERE LINER MEETS CONCRETE, USE SMOOTH FINISH.

MATERIAL ESTIMATES:

1. CONCRETE - 182.6 CY
2. #4 REBAR - 8,190 LF (410 - 20' STICKS)
3. EMBEDMENT STRIP - 126 LF

PRELIMINARY

DRAWING REVISIONS

REV A	08/21/2023
REV B	09/11/2023
REV C	10/02/2023

PRINT DATE: 9/11/2023

KENNEWICK IRRIGATION DISTRICT
2015 S ELY ST.
KENNEWICK, WA 99337
(509) 586-9111
WWW.KID.ORG

DESIGN BY: RVG

DRAWN BY: RVG

CHECKED BY: XXX

KENNEWICK IRRIGATION DISTRICT

MC 11.0 ACCESS RAMP

CONCRETE DESIGN

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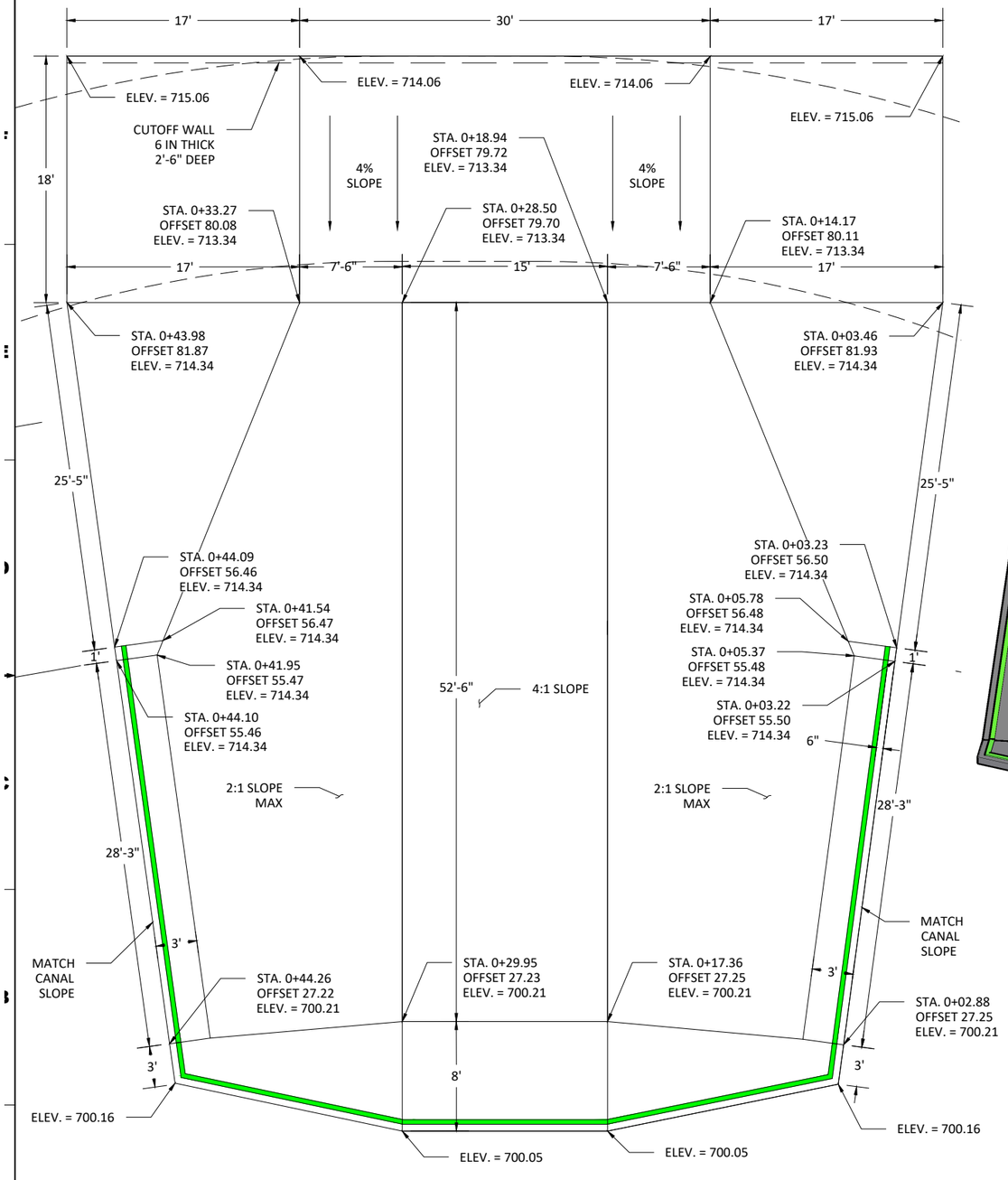
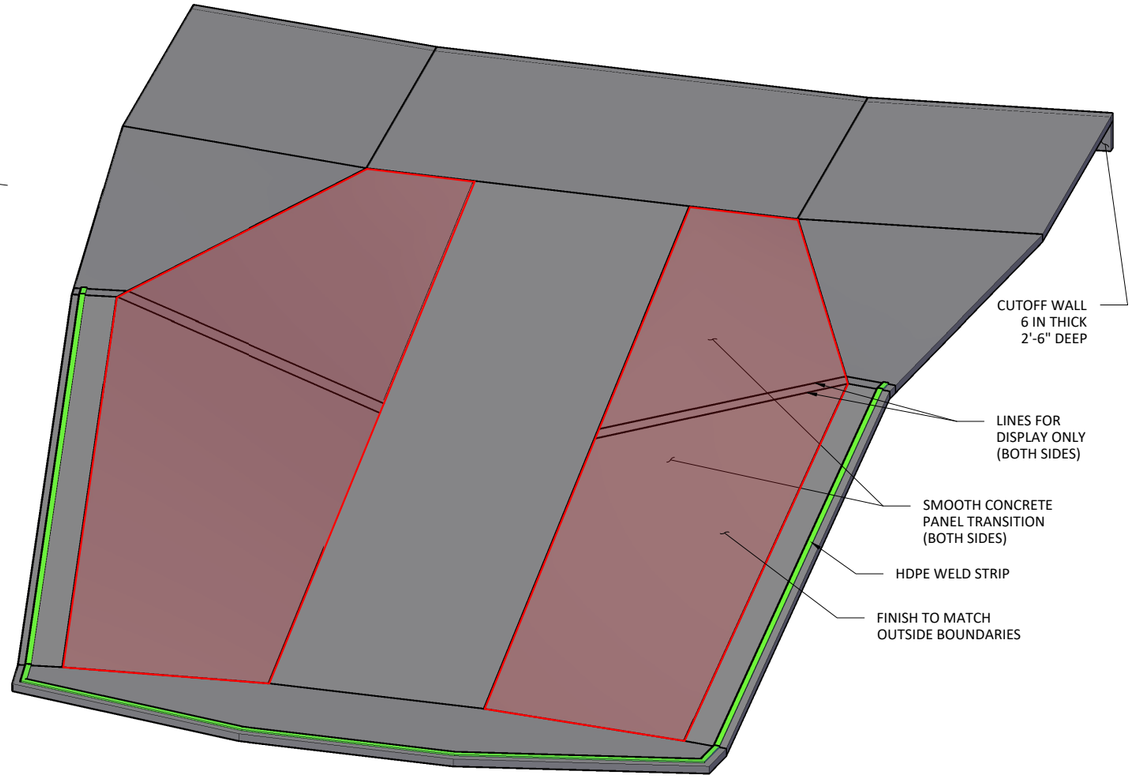
R:\PROJECTS_CAPITAL PROJECTS\WATERSMART 2018-2021\MC 8.9 TO 14.0\CONCRETE\TRANSITIONS\MC 11.0 CONCRETE TRANSITION\MC 11.0 CONCRETE TRANSITION REV B.DWG



CONCRETE TRANSITION

SCALE: 1" = 10'



ISOMETRIC VIEW

SCALE: 1" = 10'

NOTES:

1. CONTROL HUBS TO BE SET AT ROAD ELEVATION AND CANAL BOTTOM BY ENGINEERING.
2. #4 REBAR @ 12" O.C.E.W. CENTERED IN CONCRETE.
3. SONOLASTIC NP1 OR SIKAFLEX 1A ON ALL JOINTS.
4. LIGHT BROOM FINISH THROUGHOUT EXCEPT WHERE LINER MEETS CONCRETE, USE SMOOTH FINISH.

MATERIAL ESTIMATES:

1. CONCRETE - 87 CY
2. #4 REBAR - 8,190 LF (410 - 20' STICKS)
3. EMBEDMENT STRIP - 126 LF

DRAWING REVISIONS

REV A 3/28/2023

KENNEWICK IRRIGATION DISTRICT
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KENNEWICK IRRIGATION DISTRICT EST. 1917

DANIEL PAUL TISSERAT STATE OF WASHINGTON 54332 REGISTERED PROFESSIONAL ENGINEER

PRELIMINARY

DWG DATE	3/28/2023
DWG SCALE	1:10
DESIGN BY	DPT
DRAWN BY	DPT
CHECKED BY	JRM

KENNEWICK IRRIGATION DISTRICT
MC 12.0 ACCESS RAMP
CONCRETE DEISGN

SHEET 1 OF 1

PROJECT