Meeting Procedures

Outline of Meeting Procedures:

- The Chair will call the meeting to order, read the opening meeting statement, and then introduce the item.
- The typical order is for consent items, old business, and then any new business.
- Please respect the right of other participants to see, hear, and fully participate in the proceedings. In this regard, anyone who becomes disruptive, or refuses to follow the outlined procedures, is subject to removal from the meeting.

Role of Staff:

- Staff will review the staff report, address the approval criteria, and give a recommendation on the application.
- The Staff recommendation is based on conformance to the general plan and meeting the ordinance approval criteria.

Role of the Applicant:

- The applicant will outline the nature of the request and present supporting evidence.
- The applicant will address any questions the Planning Commission may have.

Role of the Planning Commission:

- To judge applications based upon the ordinance criteria, not emotions.
- The Planning Commission's decision is based upon making findings consistent with the ordinance criteria.

Public Comment:

- The meeting will then be open for either public hearing or comment. Persons in support of and in opposition to the application or item for discussion will provide input and comments.
- The commission may impose time limits for comment to facilitate the business of the Planning Commission.

Planning Commission Action:

- The Chair will then close the agenda item from any further public comments. Staff is asked if they have further comments or recommendations.
- A Planning Commissioner makes a motion and second, then the Planning Commission deliberates the issue. The Planning Commission may ask questions for further clarification.
- The Chair then calls for a vote and announces the decision.

Commenting at Public Meetings and Public Hearings

Address the Decision Makers:

- When commenting please step to the podium and state your name and address.
- Please speak into the microphone as the proceedings are being recorded and will be transcribed to written minutes.
- All comments must be directed toward the matter at hand.
- All questions must be directed to the Planning Commission.
- The Planning Commission is grateful and appreciative when comments are pertinent, well organized, and directed specifically to the matter at hand.

Speak to the Point:

- Do your homework. Obtain the criteria upon which the Planning Commission will base their decision. Know the facts. Don't rely on hearsay and rumor.
- The application is available for review in the Planning Division office.
- Speak to the criteria outlined in the ordinances.
- Don't repeat information that has already been given. If you agree with previous comments, then state that you agree with that comment.
- Support your arguments with relevant facts and figures.
- Data should never be distorted to suit your argument; credibility and accuracy are important assets.
- State your position and your recommendations.

Handouts:

- Written statements should be accurate and either typed or neatly handwritten with enough copies (10) for the Planning Commission, Staff, and the recorder of the minutes.
- Handouts and pictures presented as part of the record will be left with the Planning Commission.

Remember Your Objective:

- Keep your emotions under control, be polite, and be respectful.
- It does not do your cause any good to anger, alienate, or antagonize the group you are standing in front of.

OGDEN VALLEY PLANNING COMMISSION

MEETING AGENDA

April 23, 2024
Pre-meeting 4:30/Regular Meeting 5:00

- ***Pledge of Allegiance***
- ***Roll Call:***

1. **Minutes:** March 26, 2024

2. **Consent Items:**

   2.1 CUP 2024-01 Request for approval of a conditional use permit for Reuse Pump Station located at 4350 N 4450 E. Eden, UT 84310
   Planner Technician: Marta Borchert

   2.2 CUP 2024-02 a request for approval of a conditional use permit for a Public Utility Substation for a chlorination shed to treat the Cole Canyon Water.
   Planner: Felix Lleverino

4. **Public Comment for Items not on the Agenda:**
5. **Remarks from Planning Commissioners:**
6. **Planning Director Report:**
7. **Remarks from Legal Counsel**

Adjourn to Work session

WS1: Discussion regarding Cowboy Partners form-based rezone application in New Town.

https://webercountyutah.zoom.us/j/84172303535

Minutes of the Regular Meeting of the Ogden Valley Planning Commission for March 26, 2024, 5:00 p.m. To join the meeting, please navigate to the following weblink at https://webercountyutah.zoom.us/j/84970613744, the time of the meeting, commencing at 5:00 p.m.

Ogden Valley Planning Commissioners Present: Dayson Johnson (Chair), Jeff Burton (Vice Chair), Jeff Barber, Dayson Johnson, Joe Paustenbaugh, Mark Schweppe, Trevor Shuman and Janet Wampler (via Zoom).
Absent/Excused:

Staff Present: Rick Grover, Planning Director; Charlie Ewert, Planner; Felix Lleverino, Planner; Tammy Aydelotte, Planner; Bill Cobabe, Planner; Courtlan Erickson, Legal Counsel; Marta Borchert, Office Specialist.

- **Pledge of Allegiance**
- **Roll Call**

Chair Johnson conducted roll call and indicated all Commissioners were present, with Commissioner Wampler participating via electronic means.

1. Discussion: Vice Chair, Commissioner Jeff Burton was voted in as Vice Chair August 2, 2022.

Legal Counsel Erickson reported that during the February 27, 2024 meeting, the Commission voted to allow Commissioner Burton to continue as Vice Chair so long as he is eligible according to the Commissions Rules of Order and Procedure, which indicate a member of the Commission can only serve in a leadership position for two years. He noted staff found that Vice Chair Burton was voted in as the Vice Chair in August of 2022, so the two-year term limit technically permits him to serve until August of 2024. He noted Planning Director Grover has indicated It would be his recommendation that Vice Chair Burton continue to act as Vice Chair until that time. He concluded that it is an option to clarify the Rules of Order and Procedure to address mid-term leadership appointments.

2. Minutes: February 27, 2024.

Chair Johnson asked if there are any corrections to be made to the minutes as presented. Commissioner Wampler offered a few typographical and content corrections to the minutes. Chair Johnson declared the minutes approved as amended.

Chair Johnson then called for any conflicts of interest to be declared. No declarations were made.

Petitions, Applications, and Public Hearings:
3. Legislative Items:
3.1 ZMA 2023-02: Public hearing for a request for approval of a development agreement between Craig Oberg and Weber County, for property located at approximately 5931 North Fork Road, Liberty, UT, allowing for the creation of a conservation easement and the reconfiguration of existing lots. Planner: Bill Cobabe

Planner Cobabe explained the properties in question are oddly-configured and required certain adjustments to make them usable. However, the current zoning regulations would not allow for the restructuring of these lots to create new lots without the abandonment of certain rights that are currently associated with the property. In recognition of those rights, County staff offered the idea of entering into a development agreement that would allow the lots to be restructured in a way that makes more sense for current and future use and development of these properties. Further, the property owner wishes to ensure that a certain portion of the property is retained in a conservation easement, ensuring that the land will not be developed further. Mr. Cobabe presented a map to orient the Commission to the property to which the development agreement applies; he also identified several changes that have been made to the original plat map over the years and indicated there is some desire to amend the development agreement to clear up the different parcels and ensure that the associated property/development rights are preserved. He summarized the changes to proposed changes to the development agreement and concluded staff recommends that the Planning Commission approve ZDA 2023-02, based on the following findings:

1. The development agreement amendment meets the requirements outlined in the land use code.

2. The development agreement amendment outlines the mutually agreeable terms as desired by the County and the applicant.

Chair Johnson invited input from the applicant.

Craig Oberg expressed his gratitude to Planning staff for their assistance with this matter; the land subject to the development agreement has been in his wife's family for generations and her mother's wishes were to include the two acres near the river bottom in a family trust as a legacy to her husband who has passed. The family would like to place the other parcels of property into a conservation easement to preserve that area as well as the river bottom to prevent development of the area.

Vice Chair Burton inquired as to ownership of the properties in question. Mr. Oberg indicated that there are two family trusts that will own the three parcels of land; the largest parcel will be in the name of the Shaw Family Trust and the other two will be in another family trust. Vice Chair Burton asked if the proposal is to grant an easement to the Ogden Valley Land Trust for all three parcels, to which Mr. Oberg answered yes. He noted he has been talking with other family members who own parcels in the area, and he believes they are feeling encouraged to contribute additional acreage to the land trust. Vice Chair Burton asked if that means they will retain ownership of their land, but their land will also be subject to the easement held by the Ogden Valley Land Trust, to which Mr. Oberg answered yes.

Commissioner Shuman moved to open the public hearing. Commissioner Wampler seconded the motion, all voted aye.

Scott Murray stated his currently the Chair of the Ogden Valley Land Trust and he is very interested in this item and preserving open space in the Valley; his concern was that decisions were going to be made by the Ogden Valley Planning Commission and the County Commission without a full understanding of what a conservation easement does and what role the Ogden Valley Land Trust will play. He stated that the Land Trust has certain obligations to maintain conservation easements according to national standards and this is more than just an administrative matter. The Land Trust is excited about this opportunity but wants to be sure that all parties have a clear understanding of the limitations and parameters of an easement.

Commissioner Barber inquired as to the makeup of the Ogden Valley Land Trust and their purpose. Mr. Murray provided a high-level overview of the incorporation of the Land Trust and the rules they must abide by; if the Trust becomes unable to maintain easements that are granted to them, they must be transferred to another Land Trust organization that will enforce standards and regulations. The Ogden Valley Land Trust has an obligation to annually inspect easement properties to verify that the terms of the easement have not been violated. Commissioner Barber asked if the Ogden Valley Land Trust owns any land or if they just maintain easements on various parcels of land. Mr. Murray stated the Trust has owned land in the past, but prefers not to own land due to liabilities associated with land ownership. Ownership is typically retained by the previous owner, and they reap the benefits of a conservation easement located on their property given that a conservation easement typically increases a land's value. Commissioner Barber asked if a property owner can 'unwind' an action to create a conservation easement on their property, to which Mr. Murray answered no. Easements are placed on a property in perpetuity and it is important that the landowner carefully consider the implications of such an easement before proceeding with this type of action.

Commissioner Paustenbaugh asked if there are any problems associated with the subject properties being held in family trusts. Mr. Murray stated that he is concerned about the size of the property being subject to the easement; it is very small, but it will take the same amount of time to annually inspect the easement area. The Ogden Valley Land Trust typically requires landowners to provide a financial contribution to the Trust to help to cover administrative costs of maintaining the easement.

Chair Johnson invited a response from Mr. Oberg. Mr. Oberg stated that his family initiated the investigation of a conservation easement a few years ago and he understands that the land must be subdivided before the specified area can be subject to a conservation easement. He stated that after the subdivision was approved by the County, his family had planned to meet with the Ogden Valley Land Trust to request the easement. He is aware of the conditions of a conservation easement and meeting with the Ogden Valley Land Trust is one of the steps he will follow as the matter progresses. He acknowledged that the parcel is small, but it is a vital wildlife transfer area and contains a portion of the North Fork River, which would be protected by the easement.

There were no other persons appearing to be heard.

Commissioner Shuman moved to close the public hearing. Commissioner Wampler seconded the motion, all voted aye.

Vice Chair Burton asked what will happen if the Ogden Valley Land Trust does not want to accept an easement on the parcel; he wondered if it would be appropriate to condition the County's action on the Ogden Valley Land Trust's acceptance of the easement. Legal Counsel Erickson stated that paragraph 3.1 of the proposed development agreement states that the "County agrees to allow reduced lot development standards as long as the Property Owner dedicates a conservation easement to an appropriate third party and no additional development lots are created. All lots dedicated for conservation shall be noted as such on the plat." He noted the Commission can ask staff to shore up that section of the agreement to identify the third party and to identify exactly what must be preserved. Vice Chair Burton asked if conservation easements are ever dedicated to the general public. Mr. Erickson stated he is not an expert on conservation easements, but he expects an easement to the general public would be challenging because there would be no clear enforcement body to monitor the easement. Vice Chair Burton asked if the property could be dedicated to the County for management of a conservation easement. Mr. Erickson indicated he is not sure that is allowed under the conservation easement law. He noted that the County needs to have an understanding of the third party that will manage the easement.

Commissioner Shuman moved to forward a positive recommendation to the County Commission regarding application ZMA 2023-02, development agreement between Craig Oberg and Weber County, for property located at approximately 5931 North Fork Road, Liberty, UT, allowing for the creation of a conservation easement and the reconfiguration of existing lots, based on the findings and subject to the conditions listed in the staff report. Commissioner Burton seconded the motion.

Mr. Erickson asked if the Commission is comfortable with any wording adjustments to the development agreement as long as those changes preserve the basic intent that has been described tonight. He noted that ultimately the agreement will be presented to the County Commission for approval, but he asked for the Planning Commission's support of language adjustments. The Commission indicated comfort with Mr. Erickson's suggestion.

Chair Johnson called for a vote on the motion. Commissioners Barber, Burton, Johnson, Paustenbaugh, Schweppe, Shuman, and Wampler voted aye. (Motion carried on a vote of 7-0).

4. Public comments for items not on the agenda.

There were no public comments.

5. Remarks from Planning Commissioners.

Commissioner Wampler stated that she visited the Ogden Valley Planning Commission webpage on the County's website and found that the roster for this body is not correct; she asked that staff update the roster with newly appointed members of the Commission as well as recently elected leadership of the Commission.

6. Planning Director Report:

Planning Director Grover did not make a report.

7. Remarks from Legal Counsel:

There were no remarks from Legal Counsel.

Meeting Adjourned: The meeting adjourned at 5:37 p.m.
Respectfully Submitted,
Cassie Brown
Weber County Planning Commission

Staff Report to the Ogden Valley Planning Commission

Weber County Planning Division

Synopsis

Application Information

Application Request:	Request for approval of a conditional use permit for Reuse Pump Station located at 4350 N 4450 E. Eden, UT 84310.
Application Type:	Administrative
File Number:	CUP 2024-01
Applicant:	Rob Thomas-Authorized Representative
Agenda Date:	Tuesday, March 23, 2024
Approximate Address:	4350 N E 4450 E., Eden UT 84310
Project Area:	21.24 Acres
Zoning:	FV-3
Existing Land Use:	Sewer Improvement
Proposed Land Use:	Sewer Improvement
Parcel ID:	22-006-0014 22-006-0015 22-006-0016
Township, Range, Section:	Township 7 North, Range 1 East, Section 16

Adjacent Land Use

North:	Vacant	**South:**	Vacant RE-20
East:	Residential	**West:**	Vacant

Staff Information

Report Presenter:	Marta Borchert mborchert@webercountyutah.gov 801-399-8761
Report Reviewer	**FL**

Applicable Ordinances

- Weber County Land Use Code Title 104 Chapter 14 (FV-3 Zone)
- Weber County Land Use Code Title 108 Chapter 4 (Conditional Uses)
- Weber County Land Use Code Title 108 Chapter 10 (Public Utility Substations)
- Weber County Land Use Code Title 108 Chapter 2 (Ogden Valley Architectural, Landscape, and Screening Standards)
- Weber County Land Use Code Title 108 Chapter 1 (Design Review)

Background and Summary

The applicant is requesting approval of a conditional use permit for the installation of a Reuse Pump Station a "public utility substation" Located at The proposed pump station will move treated effluent from the treatment plant through a new pipeline to a new reuse pond. The FV-3 Zone allows a "public utility substation" as a conditional use. The proposal has demonstrated that the operation will comply with the applicable regulations, with reasonable conditions imposed.

The application is being processed as an administrative review due to the approval procedures in Uniform Land Use Code of Weber County, Utah (LUC) §108-1-2 which requires the planning commission to review and approve applications for conditional use permits and design reviews.

Analysis

General Plan: As a conditional use, this operation is allowed in the FV-3 Zone. With the establishment of appropriate conditions as determined by the Planning Commission, this operation will not negatively impact any of the goals and policies of the General Plan.

Zoning: The subject property is located within the Forest Residential (FR-3) Zone. The purpose of the FR-3 Zone can be further described in LUC §104-17-1 as follows:

The purpose of the Forest Valley Zone, FV-3 is to provide area for residential development in a forest setting at a low density, as well as to protect as much as possible the naturalistic environment of the development.

The following setbacks apply for this public utility substation within the FV-3 zone:

-Front: 10 feet

-Side: 20 feet

-Rear: 20 feet

Conditional Use Review: A review process has been outlined in LUC §108-4-3 to ensure compliance with the applicable ordinances and to mitigate anticipated detrimental effects. Thus far, the applicant has received approval from the County Engineering Division, for the proposal.

The following is an analysis of the proposal reviewed against the conditional use standards:

(1) Standards relating to safety for persons and property. The proposal is not anticipated or expected to negatively impact this property, surrounding properties, or persons.

(2) Standards relating to infrastructure, amenities, and services: The proposal is part of the infrastructure related to adjacent development, and is not anticipated or expected to negatively impact any existing infrastructure, amenities, or services in the area.

(3) Standards relating to the environment. The proposal is not anticipated or expected to negatively impact the environment.

(4) Standards relating to the current qualities and characteristics of the surrounding area and compliance with the intent of the general plan. The property on which the conditional use permit is sought will support future residential development. The proposal complies with and supports the intent of the general plan.

Design Review: The FV-3 zone and the proposed conditional use mandate a design review as outlined in LUC §108-1 to ensure that the general design, layout and appearance of the building remains orderly and harmonious with the surrounding neighborhood. The submitted plans are, including exterior finishes, similar to existing infrastructure within this development. As part of this review, the Planning Commission shall consider the applicable matters based on the proposed conditional use and impose conditions to mitigate deficiencies where the plan is found deficient. The matters for consideration related to this project are as follows:

Considerations relating to traffic safety and traffic congestion*.* The proposal includes a site plan that identifies the location of the proposed reuse pond and associated buildings. The access road leading to the site is far removed from public roads, therefore traffic congestion and traffic safety issues will not occur. As a means of preventing service vehicles from creating a congestion issue, the planning staff have added a condition that no parking is permitted within the public ROW's.

All vehicles going to and from the site will be relegated to the designated route of Wolf Creek Drive and Fairways Drive.

Considerations relating to landscaping*.* The applicant has indicated that the landscaping of this site will be consistent with the overall landscaping plan will be consistent with the surroundings.

Considerations relating to buildings and site layout*.* The existing buildings meet the site development standards of the FV-3 Zone.

Considerations relating to utility easements, drainage, and other engineering questions. The A preliminary review from the County Engineering Dapartment in complete. The County Engineering Department may have further requirements that will need to be addressed before the planning division will issue a conditional use permit.

Staff Recommendation

Staff recommends approval of this conditional use application subject to the applicant meeting the conditions of approval in this staff report and any other conditions required by the Planning Commission. This recommendation is subject to all review agency requirements and is based on the following condition:

1. Wolf Creek Water and Sewer Improvement District service vehicles and hauling vehicles shall not park within the public ROW
2. Dust control measures shalll be taken.
3. Trucks hauling material shall obey the speed limit
4. Dirt tracked onto the public street shall be cleared immediately and kept clear of dirt gravel and rocks.
5. All requirements from the County Engineering Department will be satisfied before the issuance of the conditional use permit.
6. Construction activity is limited to weekdays from 7:00 am to 5:00 pm.

This recommendation is based on the following findings:

- The proposed use is allowed in the FR-3 Zone and meets the appropriate site development standards.
- The criteria for issuance of a conditional use permit have been met because mitigation of potential detrimental effects can be accomplished.

Exhibits

A. Project Narrative
B. Site Plan
C. Photos of Reuse pond and pump station

Map 1

Exhibit A - Project Narrative

WCWSID Reuse pond and pump station

Project narrative: It is proposed to construct a reservoir with a volume of approximately 45 acre-feet and install a packaged pump station at the toe of the dam as a conditional use under Weber County Ordinance 104-2-3(h) - Utility Stations. The proposed reservoir will store reuse water from the Wolf Creek Water and Sewer Improvement District (WCWSID) treatment plant, and the pump station will move water from that reservoir to the Wolf Creek Golf Course for irrigation.

Reasonably anticipated detrimental effects of a proposed conditional use can be substantially mitigated by the proposal or by the imposition of reasonable conditions to achieve compliance with applicable standards. Examples of potential negative impacts are odor, vibration, light, dust, smoke, or noise: Note that the proposed pump station will be placed approximately concurrently with the construction of the mentioned reservoir. The pump station placement will have negligible impacts relative to the construction of the reservoir and the two components will be considered a single and complete project. The statements below refer to the construction of the pump station and reservoir installation .

Possible detrimental effects include:

Construction traffic during an anticipated construction period less than 6 months.

Construction activities associated with the pump station will be typical of what might be experienced during construction of a new accessory building on a residential lot: Underground electricity, water pipelines, a new concrete pad on which to place the pump station, site grading and a new access road (the road providing access to the proposed pump station will be constructed as part of the reservoir project and a small turnout/parking area for the proposed pump station will be constructed as part of the reservoir maintenance/access road). Construction of the earthen reservoir will require large equipment that will utilize material on site to build the pond. Adherence to standard County requirements for site construction (SWPPP, dust control, etc.) will be required of the contractor to mitigate impacts due to construction activities.

Long-term operation impacts:

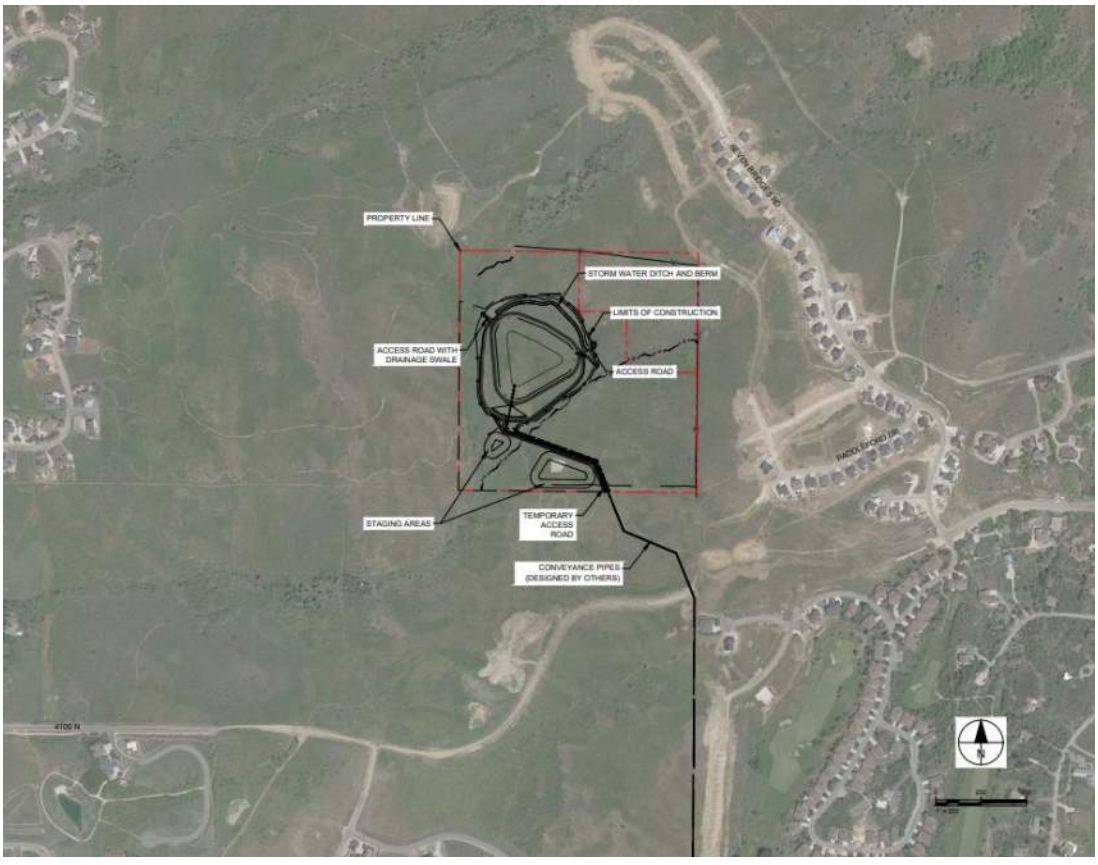
It is anticipated that operation and maintenance of the proposed pump station and reservoir will have negligible impact on the traffic pattern of the surrounding area. The proposed pump station would generate one daily trip by operators. The pumps will be enclosed to reduced sound impacts, have no lighting and access will be made on a maintained gravel roadway around the associated reservoir.

Since the project deals with movement of treated effluent (post plant: clean water), there will be no odor impact.

That the proposed use will comply with the regulations and conditions specified in the Zoning Ordinance and other applicable agency standards for such use: The proposed use will be on property zoned AV-3. Property north, east, and west of the parcel on which this pump station and pond will be located is zoned RE-15. Property south of the parcel on which this pump station and pond will be located is zoned RE-20. The pump station and pond will be well away from property lines. Applicant commits to comply with the regulations and conditions specified in the Zoning Ordinance and other applicable agency standards for such use in the AV-3 zone.

R:\2319 - Wolf Creek Water and Sewer\2302 - Reuse Pipeline\DOCUMENTS\CUP\WCWSID Reuse pond and pump station application narrative.docx

Exhibit B – Site Plan



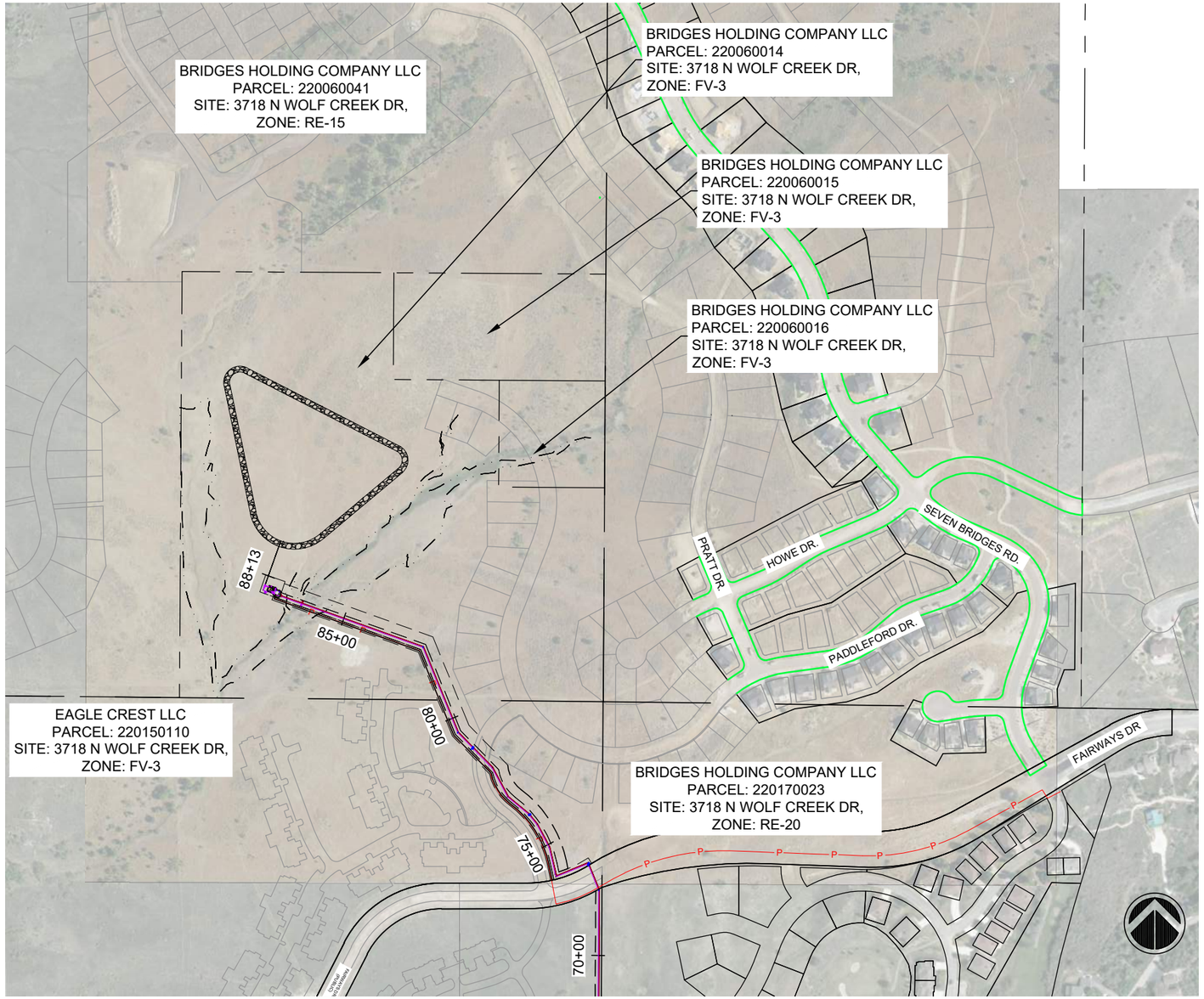
REUSE PROJECT

SCHEDULE C UPPER PUMP STATION
VICINITY MAP

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT - WEBER, UTAH

JANUARY 2024

LOCATION MAP



SHEET INDEX:

ENGINEER:
GARDNER ENGINEERING
DAN WHITE
1580 S 2100 W
WEST HAVEN, UTAH 84401
801-476-0202

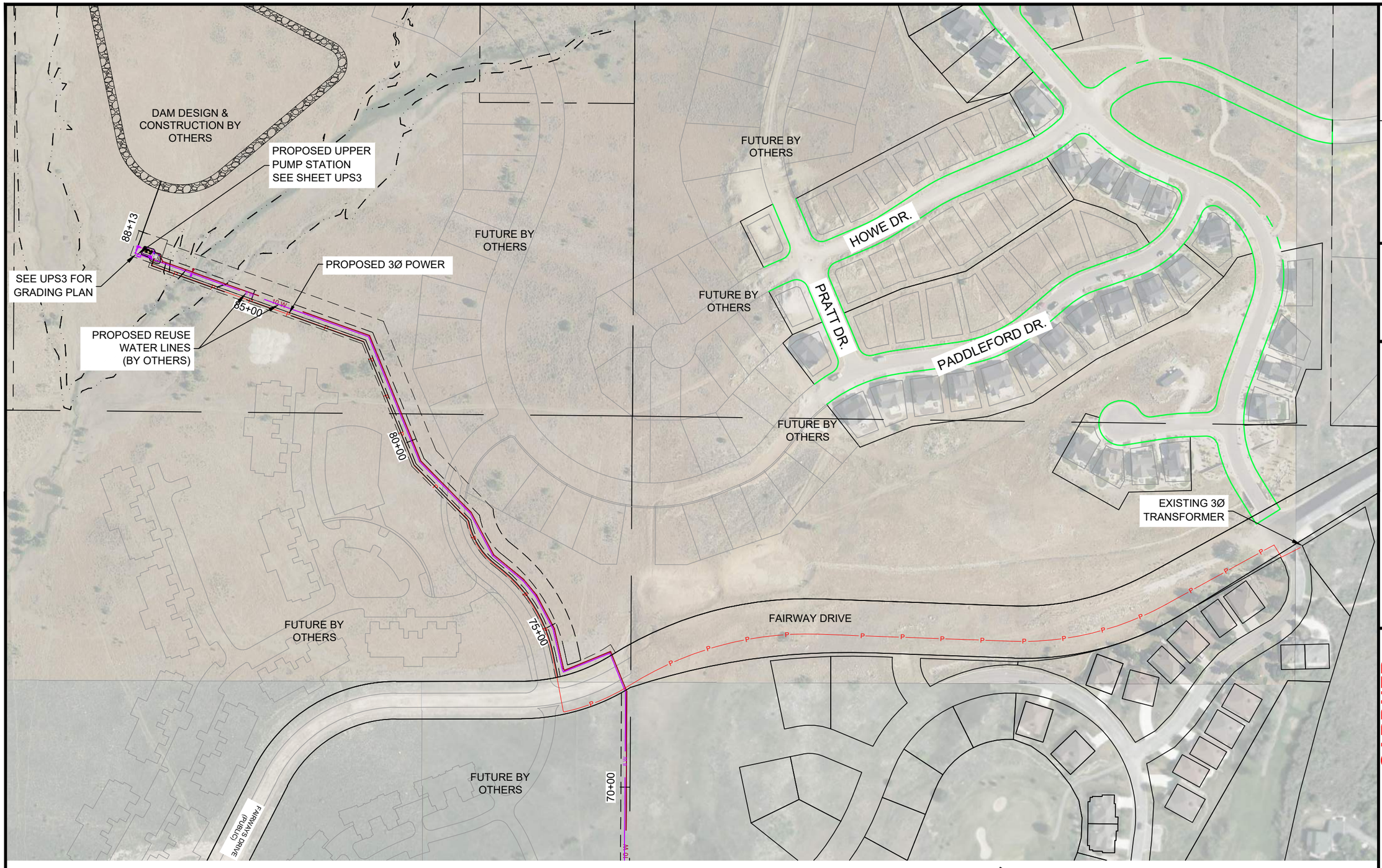
PREPARED FOR:

WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT

REUSE PROJECT
PRELIMINARY SUBMITTAL

UPS1

R:\2319 - WOLF CREEK WATER AND SEWER\2302 - REUSE PIPELINE\DESIGN\DWG\UPS - REUSE PLAN SET 2023_11_27.DWG



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Revisions		Date: 1-9-24
Date	Description	Scale: 1” = 200’
		Designed: DW
		Drafted: PCA
		Checked: DW

WOLF CREEK WATER AND SEWER I.D.

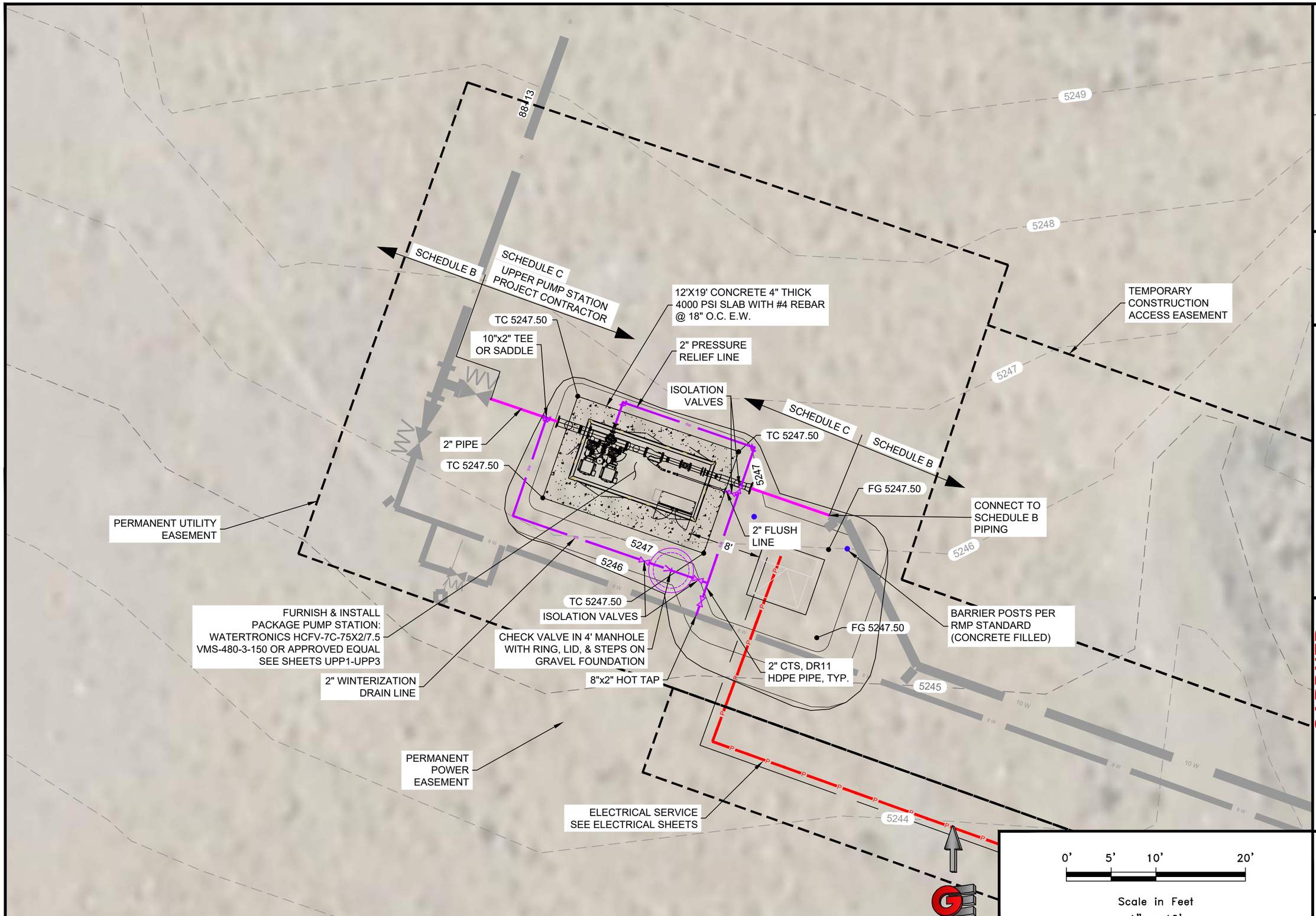
REUSE PROJECT

UPPER PUMP STATION

OVERVIEW

GARDNER ENGINEERING
CIVIL ■ LAND PLANNING
MUNICIPAL ■ LAND SURVEYING
1580 W 2100S, WEST HAVEN, UT 84401
P 801.476.0202 F 801.476.0066

UPS2



Revisions

Date	Description

Date: 1-9-24
Scale: 1" = 10'
Designed: DW
Drafted: PCA
Checked: DW

WOLF CREEK WATER AND SEWER I.D.

REUSE PROJECT

UPPER PUMP STATION

SITE PLAN

GARDNER ENGINEERING
CIVIL ■ LAND PLANNING
MUNICIPAL ■ LAND SURVEYING
1580 W 2100 S, WEST HAVEN, UT 84401
P 801.476.0202 F 801.476.0066

UPS3

R:\2319 - WOLF CREEK WATER AND SEWER\2302 - REUSE PIPELINE\DESIGN\DWG\UPS - REUSE PLAN SET 2023_11_27.DWG

PUMP STATION SPECIFICATIONS:
NAME: WOLF CREEK GC
STATION MODEL:
HCFV-7C-75X2/7.5VMS-480-3-1000-150
STATION TOTAL PERFORMANCE:
1000 GPM @ 150 PSI
FLOODED

PUMP HORSEPOWER:
SUSTAIN PUMP: 7.5HP
PUMP NO.1-2: 75 HP
CHECK VALVE SIZE
SUSTAIN: 2"
PUMP NO.1-2: 5"
ISOLATION VALVE SIZES:
SUSTAIN PUMP: 5"
PUMP NO.1-2: 5"

DISCHARGE ISOLATION VALVE: 6"
RELIEF VALVE SIZE: 3"
PUMP STATION DISCONNECT: 400 AMP

POWER REQUIREMENTS:
480V, 60 HZ, 3 PH, 198 FLA

EXHAUST FAN REQ'D FOR BUILDING:
2550 CFM

	INITIAL	DATE
INTAKE/SUCTION CONNECTION: ... *10" FL*	DW	1/9/24
DISCHARGE CONNECTION: ..... *10" FL*	DW	1/9/24
NOMINAL PIPE SIZE: ..... *N/A*		
ACTUAL O.D.: ..... *N/A*		
TYPE:		
DROP PIPE COVER: ..... 60"	DW	1/9/24
PLEASE VERIFY ALL INFO WITH YOUR INITIALS AND DATE		

Pump station shall be provided with the following options per Watertronics quote Wolf Creek GC HC BoosterUT_230804Q1 (See quote for full station purchase specs)

230-0000004 Filter
VAF-V1000 - 8" Flange, 1200 GPM, 300 Micron

900-0000001 Composite Station Enclosure
120 x 96 Inches

910-0000008 Ship Loose Disconnect
400A Fused NEMA 3R

PLEASE USE THE SPACE BELOW FOR ANY ADDITIONAL COMMENTS:

Purchasing/installing contractor shall be entirely responsible for electrical and hydraulic connections, a fully and properly functioning pump station and providing 1 full year of communications, which contract(s) shall be assumable, transferable and renewable by the Owner, at the Owner's discretion.

- [x] APPROVED AS SUBMITTED
- [ ] APPROVED AS NOTED
- [ ] REVISE AND RESUBMIT

REVIEWED BY: Dan White
NAME: APPROVED
DATE: 01/09/2024

DIMENSIONS AND SIZES OF EXISTING STRUCTURES, AND/OR COMPONENTS MUST BE VERIFIED TO WATERTRONICS BEFORE STATION CONSTRUCTION BEGINS.

UNLESS SPECIFIED BY THE CUSTOMER, PUMP HOUSE/CONCRETE SLAB DIMENSIONS ARE RECOMMENDED MINIMUMS FOR NEC AND SERVICE CLEARANCE, AND ARE FOR ILLUSTRATION PURPOSES ONLY. PROJECT MANAGER SHALL BE CONSULTED ON FINAL DESIGN.

THE PUMP STATION PROPOSED HEREIN IS DESIGNED TO BE PLACED IN A PUMP HOUSE FOR PROTECTION FROM THE ENVIRONMENT. IF A PUMP HOUSE IS NOT USED, WATERTRONICS MUST BE NOTIFIED AT TIME OF QUOTATION SO SPECIAL PROVISIONS CAN BE MADE.

WATERTRONICS
PHONE: 1-262-367-5000
FAX: 1-262-367-5551

SHEET 1 OF 3 SHEETS

DRAWING NO.		
	PRHC11102 R1	8/4/2023 1/9/2024

Date: 1-9-24
Scale: #######
Designed: DW
Drafted: PCA
Checked: DW

Revisions

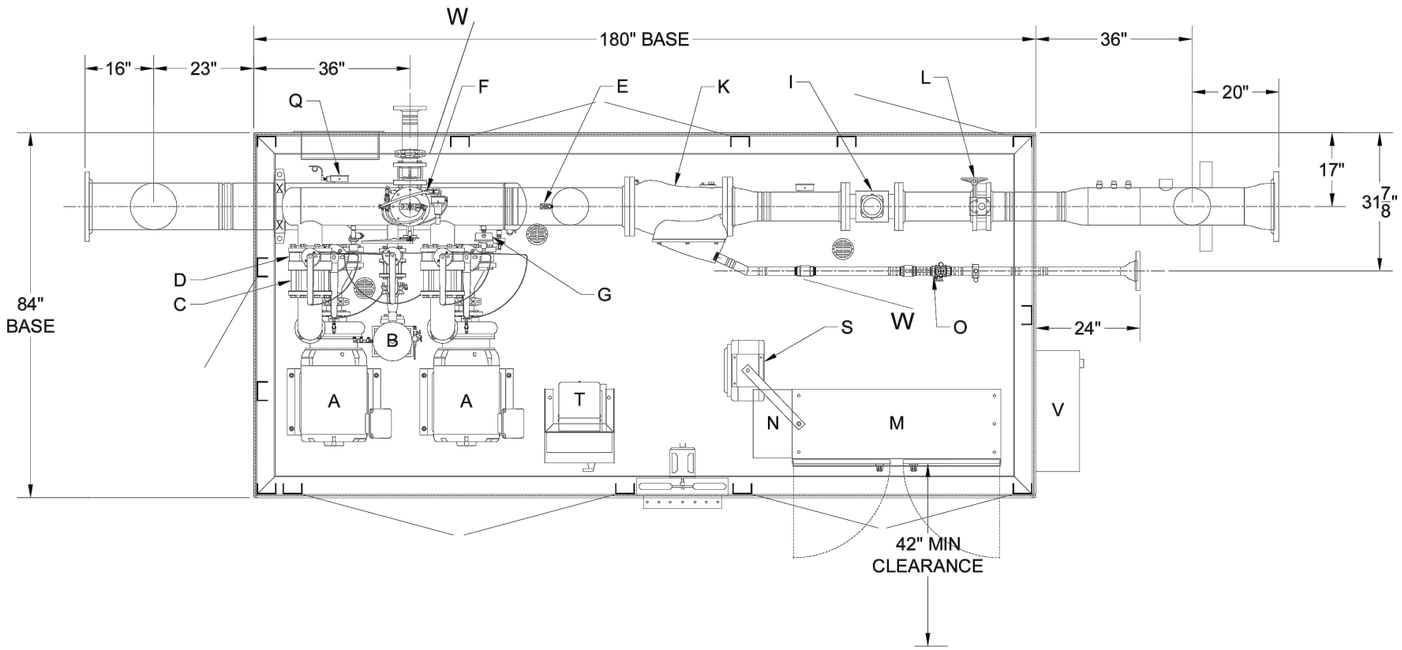
Date	Description

WOLF CREEK WATER AND SEWER I.D.
REUSE PROJECT
UPPER PUMP STATION
PUMP STATION DETAILS

GARDNER ENGINEERING
CIVIL ■ LAND PLANNING
MUNICIPAL ■ LAND SURVEYING
1580W 2100S, WEST HAVEN, UT 84401
P 801.476.0202 F 801.476.0066

UPP1

R:\2310 - WOLF CREEK WATER AND SEWER\2302 - REUSE PIPELINE\DESIGN\DWG\UPS - REUSE PLAN SET 2023_11_27.DWG



STATION COMPONENTS:

A 75HP PUMP AND MOTOR W/ WINDING HEATERS
B 7.5HP SUSTAIN PUMP AND MOTOR
C CHECK VALVE
D PUMP ISOLATION VALVE W/ EBV
E DRAIN
F 3" PRESSURE RELIEF VALVE
G DISCHARGE PRESSURE TRANSDUCER W/ GAUGE
H PAINTED STEEL BASE (SANDSTONE)
I 6" ELECTROMAGNETIC FLOW METER
J N/A
K 8" WYE STRAINER W/ SOLENOID AUTOFLUSH
L 6" STATION ISOLATION VALVE
M CONTROL CABINET
N HEAT EXCHANGER (AC WITHOUT ENCLOSURE)
O INLINE CHECK VALVE
P 6" X 10" FL DISCHARGE DROP PIPE
Q INTAKE PRESSURE TRANDUCER W/ GAUGE
R 10" X 10" FL INTAKE DROP PIPE
S 5KW STATION HEATER
T 3KVA TRANSFORMER & LOAD CENTER
U COMPOSITE STATION ENCLOSURE (OPTIONAL)
V 400AMP EXTERNAL DISCONNECT (OPTIONAL)
W Check Valves

CONCEPT DRAWING ADDITIONAL INFORMATION

WATERVISION CLOUD
HINGED WINDOW KIT

CONCEPT DRAWING ONLY
NOT TO BE USED FOR CONSTRUCTION

PLAN VIEW

[2022616]

NO.	DATE	BY	DESCRIPTION	CHK DATE	CHK BY
7					
6					
5					
4					
3					
2					
1	1/9/2024	---	ADD CHECK VALVE TO PRV AND WYE FLUSH	---	---

DRAWN BY: MTM DATE: 8/4/2023
CHECKED BY: CG DATE: 8/4/2023

TITLE:
WOLF CREEK GC
HCFV-7C-75X2/7.5VMS-480-3-1000-150

WATERTRONICS

SCALE: NTS | SHEET 2 OF 3 SHEETS
JOB NO.: --- | DRAWING NO. PRHC11102

Revisions

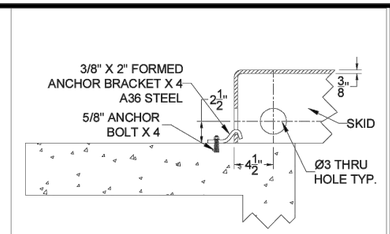
Date	Description

Date: 1-9-24
Scale: #######
Designed: DW
Drafted: PCA
Checked: DW

WOLF CREEK WATER AND SEWER I.D.
REUSE PROJECT
UPPER PUMP STATION
PUMP STATION DETAILS

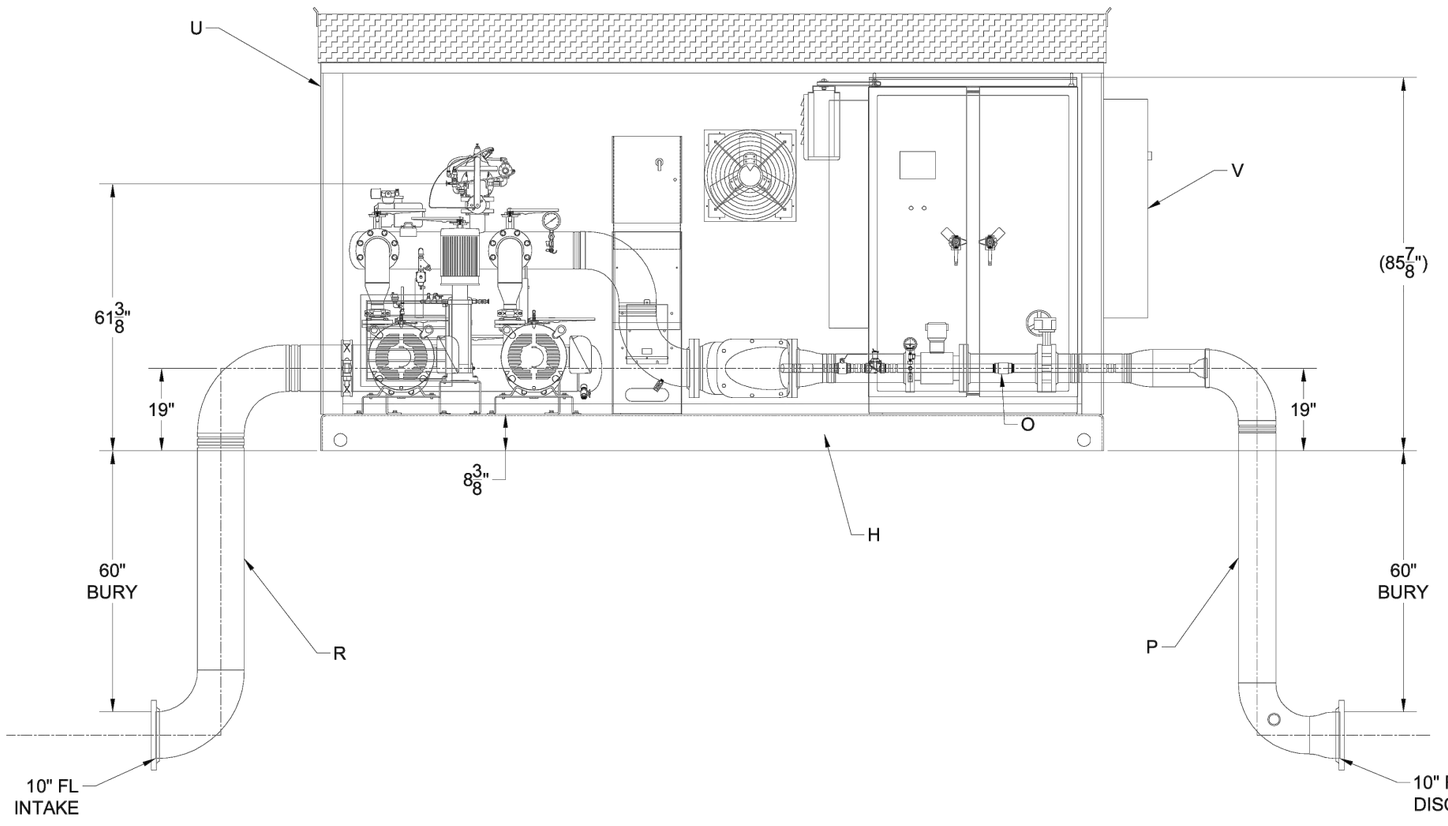
GARDNER ENGINEERING
CIVIL ■ LAND PLANNING
MUNICIPAL ■ LAND SURVEYING
1580 W 2100S, WEST HAVEN, UT 84401
P 801.476.0202 F 801.476.0066

UPP2



LIFTING HOLE/ ANCHOR DETAIL

(HOLES AT ALL CORNERS - 8 TOTAL
ANCHORS AT 4 OPPOSITE CORNERS)



ELEVATION VIEW

NO.	DATE	BY	DESCRIPTION	CHK DATE	CHK BY
7					
6					
5					
4					
3					
2					
1	1/9/2024	MTM	ADD CHECK VALVE TO PRV AND WYE FLUSH	---	---

DRAWN BY: MTM DATE: 8/4/2023

CHECKED BY: CG DATE: 8/4/2023

TITLE:

WOLF CREEK GC

HCFV-7C-75X2/7.5VMS-480-3-1000-150

WATERTRONICS

SCALE: NTS

SHEET 3 OF 3 SHEETS

JOB NO.: ---

DRAWING NO. PRHC11102

Revisions

Date	Description

Date: 1-9-24
Scale: #######
Designed: DW
Drafted: PCA
Checked: DW

WOLF CREEK WATER AND SEWER I.D.
REUSE PROJECT
UPPER PUMP STATION
PUMP STATION DETAILS

GARDNER ENGINEERING
CIVIL ■ LAND PLANNING
MUNICIPAL ■ LAND SURVEYING
1380 W 2100S, WEST HAVEN, UT 84401
P 801.476.0202 F 801.476.0066

UPP3

R:\2310 - WOLF CREEK WATER AND SEWER\2302 - REUSE PIPELINE\DESIGN\DWG\UPS - REUSE PLAN SET 2023_11_27.DWG

Staff Report to the Ogden Valley Planning Commission

Weber County Planning Division

Synopsis

Application Information

Application Request:	File Number CUP 2024-02 - A request for approval of a conditional use permit for a Public Utility Substation for a chlorination shed to treat the Cole Canyon Water.
Agenda Date:	Tuesday, April 23, 2024
Applicant:	Rob Birch, Representative

Property Information

Approximate Address:	4150 E 5950 N, Liberty, UT, 84310
Project Area:	160 acres
Zoning:	Forest (F-40)
Existing Land Use:	Recreation
Proposed Land Use:	Public Utility Substation
Parcel ID:	16-001-0004
Township, Range, Section:	T7N, R1W, Section 1

Adjacent Land Use

North:	Forest	**South:**	Forest
East:	Residential	**West:**	Forest

Staff Information

Report Presenter:	Felix Lleverino flleverino@co.weber.ut.us 801-399-8767
Report Reviewer:	BC

Applicable Ordinances

- Weber County Land Use Code Title 101 Chapter 1 General Provisions, Section 7 Definitions
- Weber County Land Use Code Title 104 Chapter 9 (F-40 Zone)
- Weber County Land Use Code Title 108 Chapter 1 (Design Review)
- Weber County Land Use Code Title 108 Chapter 4 (Conditional Uses)
- Weber County Land Use Code Title 108 Chapter 8 (Parking and Loading Space, Vehicle Traffic and Access Regulation)

Summary and Background

The applicant is requesting approval of a conditional use permit for a Public Utility Substation. The Cole Canyon Water Company will place a 150 sq. ft. tuff shed on the north side of the access road to the North Gate of the North Fork Campground. A written agreement between the Weber County Corporation and the Cole Canyon Water Company is completed and approved by the County Commission allowing for access to and construction of the facility. This agreement is attached as Exhibit B. The construction plans and the architectural drawings are included as exhibits in this report.

Analysis

General Plan: As a conditional use, this operation is allowed in the F-40 Zone. With the establishment of appropriate conditions as determined by the Planning Commission, this operation will not negatively impact any of the goals and policies of the General Plan.

Zoning: The subject property is located within the Forest (F-40) Zone. The purpose of the F-40 Zone can be further described in LUC §104-9-1 as follows:

a) *The intent of the forest zones is to protect and preserve the natural environment of those areas of the county that are characterized by mountainous, forest or naturalistic land, and to permit development compatible to the preservation of these areas.*

b) *The objectives in establishing the forest zones are:*

1. *To promote the use of the land for forest, fish and wildlife and to facilitate the conservation of the natural resources, vegetation and attractions;*
2. *To reduce the hazards of flood and fire;*
3. *To prevent sanitation and pollution problems and protect the watershed;*
4. *To provide areas for private and public recreation and recreation resorts; and*
5. *To provide areas for homes, summer homes, and summer camp sites.*

A Public Utility Substation is defined by LUC §101-2-22-U as follows:

*"**Utility.** The term "utility" means utility facilities, lines, and rights of way related to the provision, distribution, collection, transmission, transfer, storage, generation or disposal of culinary water, secondary water, irrigation water, storm water, sanitary sewer, solid waste, oil, gas, power, information, telecommunication, television or telephone cable, electromagnetic waves, and electricity. See also "quasi-public."*

Conditional Use Review: A review process has been outlined in LUC §108-4-3 to ensure compliance with the applicable ordinances and to mitigate anticipated detrimental effects.

The following is an analysis of the proposal reviewed against the conditional use standards:

1) Standards relating to safety for persons and property.

   The proposal is not anticipated or expected to negatively impact this property, surrounding properties, or persons. The structure housing the chlorination injection equipment will remain locked at all times and will be inspected and maintained by the Cole Canyon Water Company. A chlorine warning sign will be placed on the entry door The Chlorination injection equipment will be assembled under current building codes, ANSI/NSF, AWWA, and Division of Drinking Water, and inspected for quality workmanship by the Weber County Building Inspections Department.

2) Standards relating to infrastructure, amenities, and services.

   The proposal is not anticipated or expected to negatively impact any existing infrastructure, amenities, or services in the area.

3) Standards relating to the environment.

   The proposal will not negatively impact the environment.

4) Standards relating to the current qualities and characteristics of the surrounding area and compliance with the intent of the general plan.

   The proposal is not anticipated to substantially impact the surrounding area. With the establishment of appropriate conditions as determined by the Planning Commission, this operation is not anticipated to negatively impact the surrounding areas or be at odds with any of the goals and policies of the General Plan.

5) Standards relating to performance

   The Cole Canyon Water Company is responsible for maintence, inspections, and licencing.

6) Standards generally

   The owner is responsible for keeping the operation free of nuisances such as noise, light, and traffic issues. The planning staff's conditions of approval will serve to mitigate potential issues.

7) Voluntary contributions providing satisfactory compliance with applicable standards

   If the planning commission identifies issues not covered in this report, the applicant has the opportunity to volunteer solutions.

Parking and Loading Space, Vehicle Traffic and Access Regulations: This structure is located in close proximity to a public parking area and a paking area intended for large service vehicle staging. Periodic Cole Canyon service vehicles will park in an area that will not restrict the flow of traffic.

Design Review: In addition to the conditional use review, a design review is required for a Public Utility Substation. The following design review standards were considered and an analysis of the project against the design review standards is in the italicized text below each standard.

Sec 108-1-4 Considerations in the review of applications

(a) Considerations relating to traffic safety and traffic congestion.

Graded parking areas and asphalt paved access are well established in this area. Traffic safety concerns are not anticipated with this proposal.

(b) Considerations relating to outdoor advertising.

Buisiness signage will not be used for this proposal. Site signage is limited to a warning sign.

(c) Considerations relating to landscaping.

The existing established vegetation covering this property is largely natural with a mix of wild grasses and wild shrubs and trees. No further landscaping is required to meet the minimum 20 percent site landscaping.

(d) Considerations relating to buildings and site layout.

The new structure will be built in an area that is backed by trees. The Cole Canyon Water Company will work with the Weber County Facilities manager to select the colors used for the exterior. The Planning Division will require that natural non-reflective earthtones are used.

(e) Considerations relating to utility easements, drainage, and other engineering questions.

The engineering division has reviewed the project and does not have any concerns with drainage or other engineering questions.

(f) Considerations relating to prior development concept plan approval associated with any rezoning agreement planned commercial or manufacturing rezoning, or planned residential unit development approval.

There are no prior development approvals or rezoning development agreements that apply to the subject property.

Staff Recommendation

Staff recommends approval of this conditional use permit application subject to the applicant meeting the following conditions of approval in addition to any conditions of the various reviewing agencies or the Ogden Valley Planning Commission.

Planning conditions of approval:

1) Public drinking water system requirements are satisfied
2) The site, structure, and mechanical equipment shall be kept and maintained for safety and good visual appearance
3) Service vehicle parking is maintained and accessible year-round
4) Thoroughfare parking is not permitted.

This recommendation is based on the following findings:

1) The proposed use is allowed in the F-40 Zone and meets the appropriate site development standards.
2) The criteria for issuance of a conditional use permit have been met because mitigation of potential detrimental effects can be accomplished.

Exhibits

A. Site plan
B. Narrative
C. Agreement
D. Plans

Map 1

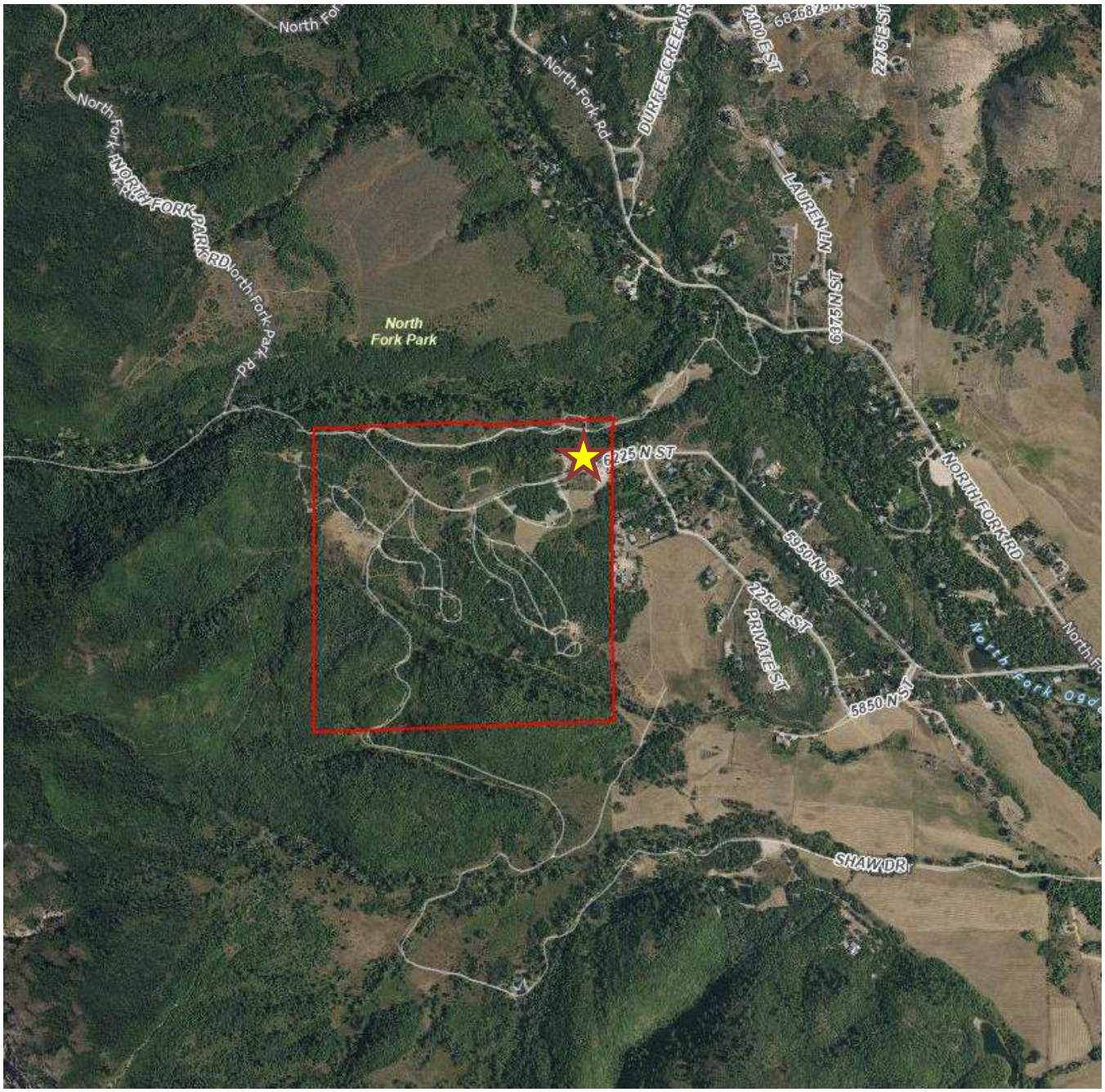
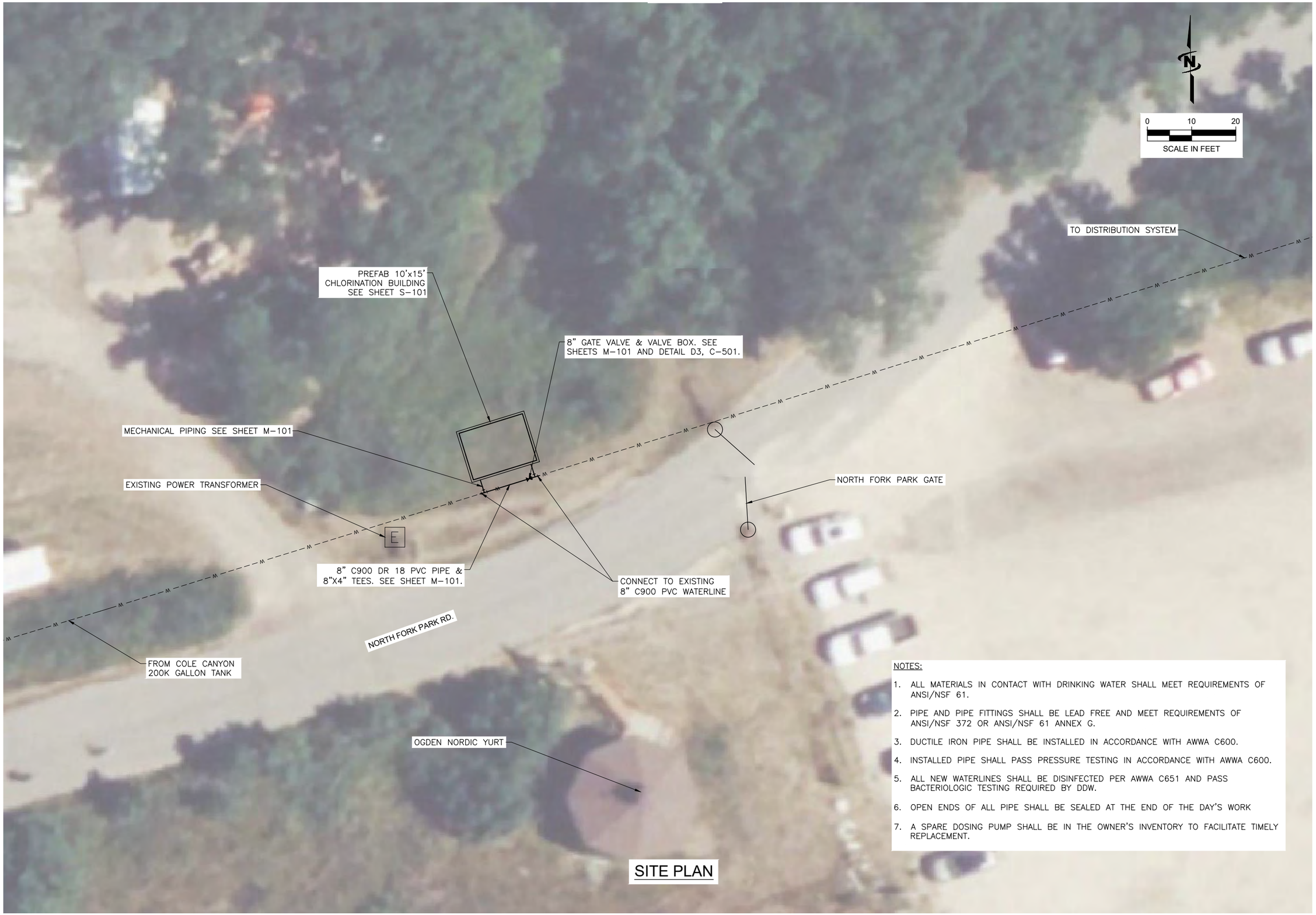


Exhibit A



SITE PLAN

NOTES:

1. ALL MATERIALS IN CONTACT WITH DRINKING WATER SHALL MEET REQUIREMENTS OF ANSI/NSF 61.
2. PIPE AND PIPE FITTINGS SHALL BE LEAD FREE AND MEET REQUIREMENTS OF ANSI/NSF 372 OR ANSI/NSF 61 ANNEX G.
3. DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600.
4. INSTALLED PIPE SHALL PASS PRESSURE TESTING IN ACCORDANCE WITH AWWA C600.
5. ALL NEW WATERLINES SHALL BE DISINFECTED PER AWWA C651 AND PASS BACTERIOLOGIC TESTING REQUIRED BY DDW.
6. OPEN ENDS OF ALL PIPE SHALL BE SEALED AT THE END OF THE DAY'S WORK
7. A SPARE DOSING PUMP SHALL BE IN THE OWNER'S INVENTORY TO FACILITATE TIMELY REPLACEMENT.

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
466 North 900 West
Kaysville, Utah 84037
Phone: 801.547.0393
Fax: 801.547.0397
www.jub.com

CONSTRUCTION

SET

NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

SITE PLAN

FILE : 55-22-095_C-101X
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 10/23/2023

SHEET NUMBER:
C-101

Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:6/23/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_C-101X.DWG

Project Name: Cole Canyon -Conditional Use Permits

Address: 4150 E 5950 N
Project Type: Conditional Use Permits
Project Sub Type: Conditional Use Permits
Created By: Rob Birch
Created On: 3/19/2024
Project Status: Accepted
Status Date: 3/20/2024
File Number: CUP 2024-02
Project Manager:

Application
Project Description:
Cole Canyon Water Company Filtration and Chlorination Injection Project. Housed in a Tuff Shed.
Property Address:
4150 E 5950 N
Property Owner:
Todd
661-319
tferrario@co.weber.ut.us
Representative:
Rob Birch
208-351
rbirch@hoganconstruction.com
Accessory Dwelling Unit:
False
Current Zoning:

Subdivision Name:
North Fork Park
Number of Lots:
0
Lot Number:
160010004
Lot Size:

Frontage:

Culinary Water Authority:
Not Applicable
Secondary Water Provider:
Not Applicable
Sanitary Sewer Authority:
Not Applicable
Nearest Hydrant Address:

Signed By:
Rob Birch

Exhibit C

AGREEMENT
between
WEBER COUNTY
and
COLE CANYON WATER COMPNAY
for access and installation of a chlorinator and associated structure

This agreement ("Agreement") is between **WEBER COUNTY**, a body corporate and politic of the State of Utah on behalf of the Weber County Culture, Parks, and Recreation Department ("County") and **COLE CANYON WATER COMPANY** ("Cole Canyon"). County and Cole Canyon may be referred to jointly as the "parties."

RECITALS

WHEREAS, County owns and operates the North Fork Park (the "Park") located in Weber County's upper valley; and

WHEREAS, Cole Canyon has petitioned the County for access through a portion of County's Park for the purpose of installing a chlorinator and associated structure; and

WHEREAS, County has agreed to allow Cole Canyon temporary and limited access to construct or cause to be constructed a chlorinator and associated structure at a location specified in this agreement and subject to the term and conditions contained in this Agreement; and

THEREFORE, in exchange for valuable consideration, including the mutual covenants contained in this Agreement, the Parties covenant and agree as follows:

1. SCOPE OF AGREEMENT

Cole Canyon shall be permitted to access the County's Park for the purpose of installing a chlorinator and associated structure as described in the engineering plans attached to this Agreement as **Exhibit A** and at the location specified in the engineering plans attached to this Agreement as **Exhibit A**.

Cole Canyon shall be responsible for restoration of any and all of the land disturbed by the installation of said chlorinator and associated structure. Any disturbance must be returned to an original or better than original condition. County, in County's sole discretion, shall determine whether any disturbances have been reasonably restored to their original or better than original condition. In the event that County determines Cole Canyon has failed to restore any disturbance to the original or better than original condition, County shall notify Cole Canyon and Cole Canyon shall be responsible for the restoration or the costs of County's endeavors to restore the disturbance to the original or better than original condition.

Cole Canyon shall notify County in advance and as soon reasonably possible of any construction work or disturbances of any kind that could interrupt the regular or daily use of the Park by any users or County personnel. County shall work with Cole Canyon to temporarily divert traffic, personnel, or users of the Park away from Cole Canyon's construction activities as necessary.

2. EFFECTIVE DATE/TERM

This Agreement shall be effective as of the 01day of August, 2023 and will continue for a period of 1 year following the effective date ("Term"). County reserves the right to review this Agreement on a regular basis regarding performance and cost analysis and may negotiate price and service elements during the term of this Agreement.

3. TERMINATION

a. Termination for Default. County may terminate this Agreement for an "Event of Default as defined, upon written notice from County to Cole Canyon.
b. Termination by Cole Canyon for Default. Cole Canyon may terminate this Agreement foran Event of Default upon written notice from Cole Canyon to County.
c. Event of Default. As used in this Agreement, the term "Event of Default" means a party hereto fails to perform any of its material obligations and such failure continues for a period of 30 (thirty) days after written notice to such defaulting party or any material representation or warranty of a party contained in this Agreement proves to be untrue or incorrect in any material respect when made.
d. Force Majeure. Neither party shall be liable for any excess costs if the failure to perform arises from causes beyond the control and without the fault or negligence of that party,e.g., acts of God, fires, floods, strikes, or unusually severe weather. If such condition continuesfor a period in excess of 60 days, Cole Canyon or County shall have the right to terminate this Agreement without liability or penalty effective upon written notice to the other party.
e. No Limitation of Rights. The rights and remedies of the parties hereto are in addition to any other rights and remedies provided by law or under this Agreement. The parties agree that thewaiver of any breach of this Agreement by either party shall in no event constitute a waiver as to any future breach.
f. Termination for Convenience. County reserves the right to terminate this Agreement, in whole or in part, at any time during the Term or any Additional Terms whenever County determines, in its sole discretion that it is in the County's interest to do so. If County elects to exercise this right, County shall provide written notice to Cole Canyon at least 30 (thirty) days prior to the date of termination for convenience. Upon such termination, Cole Canyon shall be paid for all services up to the date of termination. Cole Canyon agrees that the County's termination forconvenience will not be deemed a termination for default nor will it entitle Cole Canyon to anyrights or remedies provided by law

or this Agreement for breach of contract by the County orany other claim or cause of action.

4. INDEPENDENT CONTRACTOR AND TAXES

The relationship of County and Cole Canyon under this Agreement shall be that of an independent contractor status. Each party shall have the entire responsibility to discharge all of the obligations of an independent contractor under federal, state and local law, including but not limited to, those obligations relating to employee supervision, benefits and wages; taxes; unemployment compensation and insurance; social security; worker's compensation; disability pensions and tax withholdings, including the filing of all returns and reports and the payment of all taxes, assessments and contributions and other sums required of an independent contractor. Nothing contained in this Agreement shall be construed to create the relationship between County and Cole Canyon of employer and employee, partners or joint venturers.

5. INSURANCE

Cole Canyon shall, at its sole cost and expense, secure and maintain during the term of this Agreement, including all renewal or additional terms, the following minimum insurance coverage:

A. Workers' compensation and employer's liability insurance as required by the State of Utah.
B. Commercial general liability insurance in the minimum amount of $1,000,0000 per occurrence with a $2,000,000 general policy aggregate.
C. Professional liability insurance in the minimum of amount of $1,000,000 per occurrence with a $2,000,000 annual policy aggregate limit.
D. Commercial automobile liability insurance that provides coverage in the minimum amount of $100,000 per occurrence per person/ $300,000 per accident / $50,000 property damage OR single combined limit of $500,000.

6. AGENT

No agent, employee or servant of Cole Canyon or County is or shall be deemed to be an employee, agent or servant of the other party. None of the benefits provided by each party to its employees, including but not limited to workers' compensation insurance, health insurance and unemployment insurance, are available to the employees, agents, or servants of the other party. Cole Canyon and County shall each be solely and entirely responsible for its acts and for the acts of its agents, employees, and servants during the performance of this Agreement. Cole Canyon and County shall each make all commercially reasonable efforts to inform all persons with whom they are involved in connection with this Agreement that both are independent contractors.

7. SEVERABILITY

In the event that any condition, covenant or other provision hereof is held to be invalid or void, the same shall be deemed severable from the remainder of this Agreement and shall in no way affect any other covenant or condition herein contained. If such condition, covenant, or other provision shall be deemed invalid due to its scope or breadth, such provision shall be deemed valid to the extent of the scope or breadth permitted by law.

8. COMPLIANCE WITH LAWS

Each party agrees to comply with all federal, state and local laws, rules and regulations in the performance of its duties and obligations under this Agreement. Any violation by Cole Canyon of applicable law, rule or regulation, shall constitute an event of default under this Agreement. Cole Canyon is responsible, at its sole expense, to acquire, maintain and renew during the term of this Agreement, all necessary permits and licenses required for its lawful performance of its duties and obligations under this Agreement.

9. NON-ASSIGNMENT

Neither party shall assign, transfer, or contract for the furnishing of services to be performed under this Agreement without the prior written approval of the other.

10. GOVERNING LAW

It is understood and agreed by the Parties hereto that this Agreement shall be governed by the laws of the State of Utah and the ordinances of Weber County, both as to interpretation and performance. All actions, including but not limited to court proceedings, administrative proceedings, arbitration and mediation proceedings, shall be commenced, maintained, adjudicated and resolved within the jurisdiction of the State of Utah.

11. STANDARD OF PERFORMANCE/PROFESSIONALISM

Cole Canyon acknowledges the standard of performance and professionalism required in the performance of its services under this Agreement. Cole Canyon agrees to perform the services under this Agreement with the level of professionalism expected in its industry/profession in the community. Further, Cole Canyon, while performing its obligations under this Agreement, will conduct itself in such a manner that will promote the best interests of the County.

12. INDEMNIFICATION

Cole Canyon agrees to indemnify and hold harmless the County, its officers, agents, and employees from and against any and all actual or threatened claims, losses, damages, injuries,

and liabilities of, to, or by third Parties, including Cole Canyon, its subcontractors, or the employees of either, including claims for personal injury, death, or damage to personal property or profits and liens of workmen and material men (suppliers), however allegedly caused, resulting directly or indirectly from, or arising out of, Cole Canyon's breach of this Agreement or any acts or omissions of or by Cole Canyon, its agents, representatives, officers, employees, or subcontractors in connection with the performance of this Agreement. Cole Canyon agrees that its duty to indemnify the County under this Agreement includes all attorney's fees, litigation and court costs, expert witness fees, and any sums expended by or assessed against the County for the defense of any claim or to satisfy any settlement, arbitration award, or verdict paid or incurred on behalf of the County.

13. GOVERNMENTAL IMMUNITY

County is a body corporate and politic of the State of Utah, subject to the Governmental Immunity Act of Utah (the "Act"), Utah Code Ann. §§ 63G-7-101 to -904. The Parties agree that County shall only be liable within the parameters of the Governmental Immunity Act. Nothing contained in this Agreement shall be construed in any way, to modify the limits of liability set forth in that Act or the basis for liability as established in the Act.

14. COUNTERPARTS

This Agreement may be executed in several counterparts and all so executed shall constitute one agreement binding on all the Parties, notwithstanding that each of the Parties are not signatory to the original or the same counterpart. Further, executed copies of this Agreement delivered by facsimile shall be deemed an original signed copy of this Agreement.

15. ENTIRE AGREEMENT

County and Cole Canyon acknowledge and agree that this Agreement constitutes the entire integrated understanding between County and Cole Canyon, and that there are no other terms, conditions, representations or understanding, whether written or oral, concerning the rights and obligations of the Parties to this Agreement except as set forth in this Agreement. This Agreement may not be enlarged, modified or altered, except in writing, signed by the Parties.

16. INTERPRETATION

County and Cole Canyon agree that where possible, each provision of this Agreement shall be interpreted in such a manner as to be consistent and valid under applicable law; but if any provision of this Agreement shall be invalid, prohibited or unenforceable under applicable law, such provision shall be ineffective to the extent of such invalidity or prohibition, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

In witness whereof, the Parties execute this Agreement.

BOARD OF COUNTY COMMISIONERS
OF WEBER COUNTY

By _____
Gage Froerer, Chair

Commissioner Froerer voted Aye

Commissioner Harvey voted Aye

Commissioner Bolos voted Aye

ATTEST

_____
FOR - Ricky Hatch, CPA
Weber County Clerk/Auditor

COLE CANYON

By: _____

Title: Board Member

Date: 8-23-2023

COLE CANYON WATER COMPANY
SYSTEM FILTRATION AND CHLORINATION PROJECT

NEAR 2300 NORTH FORK PARK RD
LIBERTY, UT 84310

PWS ID: UTAH29092

Sheet List Table	
Sheet Number	Sheet Title
G-001	COVER SHEET
G-002	VICINITY MAP AND PROJECT LOCATION MAP
G-003	GENERAL NOTES AND ABBREVIATIONS
G-004	LINE AND SYMBOL LEGENDS AND SHEET AND DETAIL KEY
C-101	SITE PLAN
C-501	CIVIL DETAILS
M-101	PIPING PLAN AND SECTION
M-501	MECHANICAL DETAILS
S-001	GENERAL STRUCTURAL NOTES
S-002	GENERAL STRUCTURAL NOTES

Sheet List Table	
Sheet Number	Sheet Title
S-101	STRUCTURAL PLANS
S-201	STRUCTURAL ELEVATIONS
S-501	TYPICAL FOUNDATION DETAILS
S-502	TYPICAL FOUNDATION DETAILS
E-001	ELECTRICAL LEGEND
E-002	ELECTRICAL TABLES
E-101	ELECTRICAL SITE PLAN
E-102	ELECTRICAL PLANS
E-501	ELECTRICAL DETAILS, SHT. 1
E-701	ONE-LINE DIAGRAMS

CONSTRUCTION PLANS

PROJECT NO. 55-22-095

OCTOBER 2023

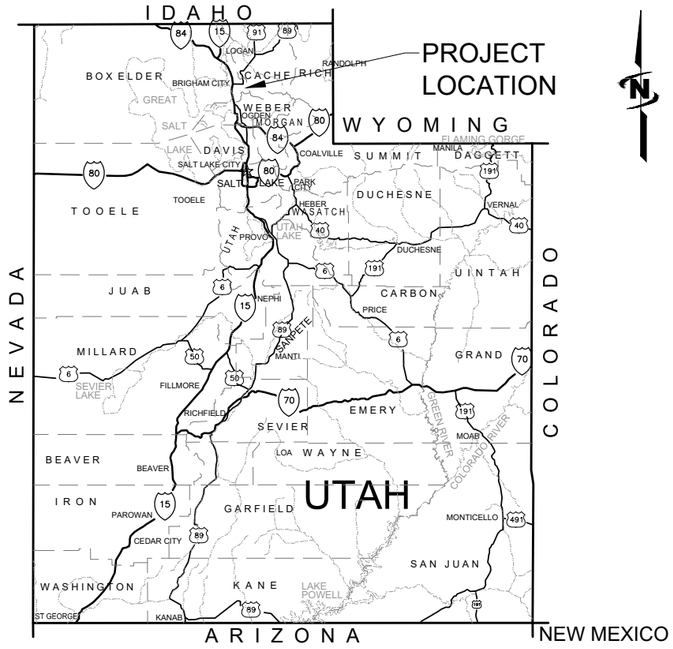
J-U-B ENGINEERS, INC.

LAST UPDATED: 10/23/2023

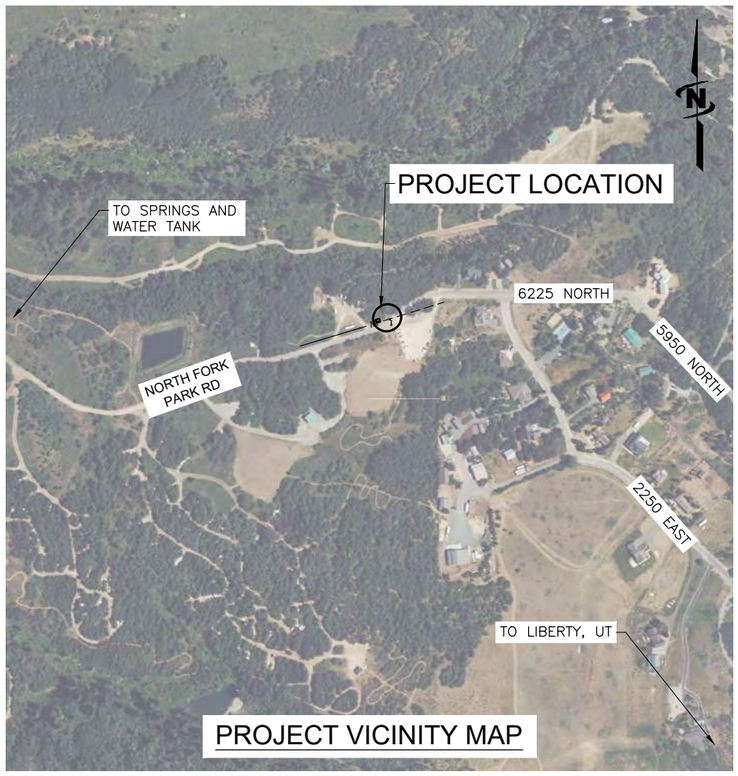
SHEET NUMBER:

G-001

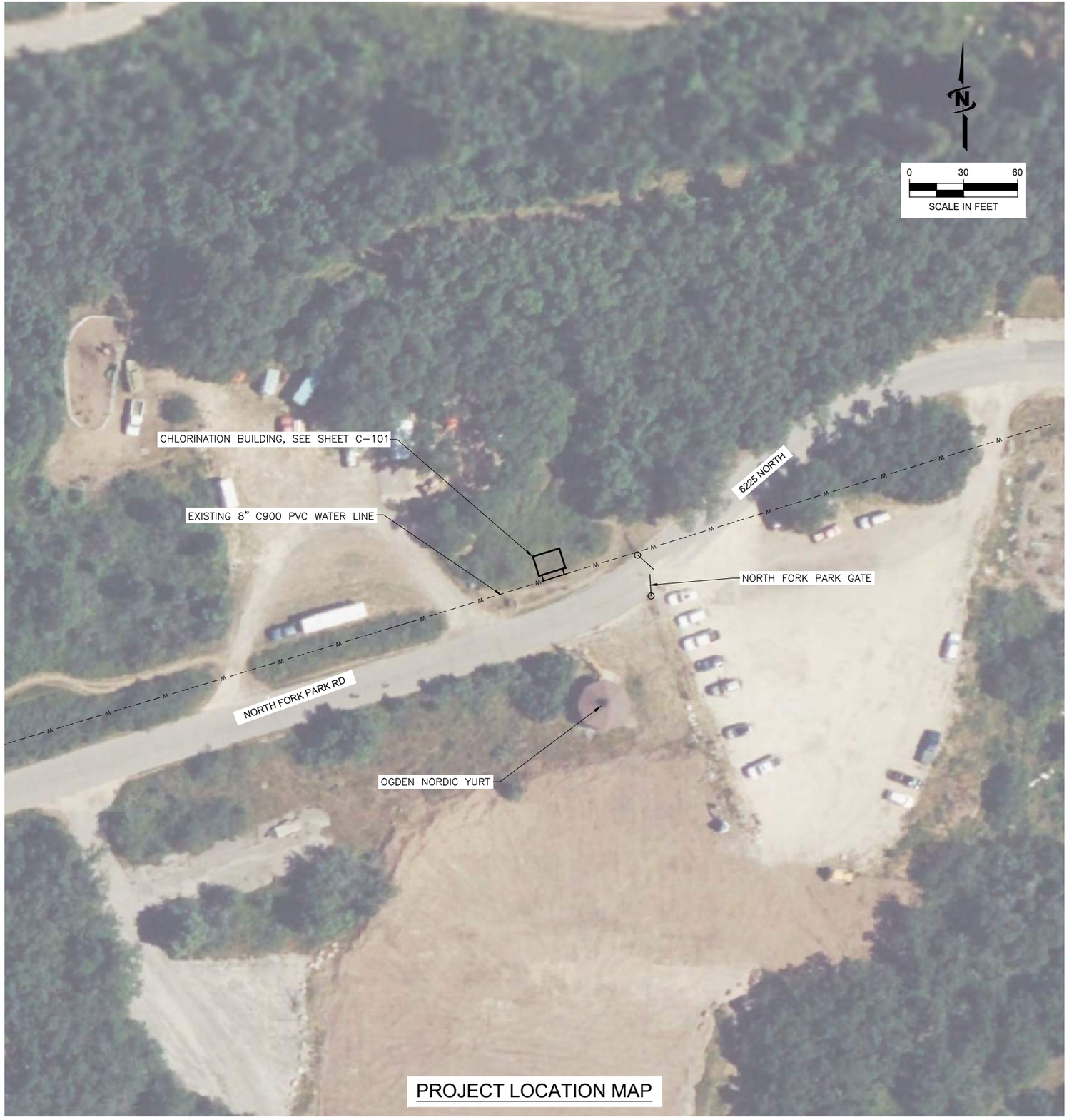
Plot Date:10/23/2023 \\UB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_G-001X.DWG



STATE OF UTAH



PROJECT VICINITY MAP



PROJECT LOCATION MAP

J-U-B ENGINEERS, INC.
466 North 900 West
Kaysville, Utah 84037
Phone: 801.547.0393
Fax: 801.547.0397
www.jub.com

CONSTRUCTION

SET

NO.	DESCRIPTION	BY	APPR.	DATE
REVISION				

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

VICINITY MAP AND PROJECT LOCATION MAP

FILE : 55-22-095_G-001X
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
G-002

Plot Date= 10/23/2023 3:13 PM Plotted By: Caitlin Arnold
Date Created=7/10/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_G-001X.DWG

GENERAL PROJECT NOTES

1. GENERAL:

A. THE GENERAL NOTES AND SPECIFICATIONS SUPPLEMENT THE PROJECT WRITTEN TECHNICAL SPECIFICATIONS AND THE PROJECT DRAWINGS.
B. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION BRACING, TEMPORARY SHORING, AND OTHER SITE SAFETY CONTROLS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS, TO ENSURE THE STABILITY AND SAFETY OF ALL CONSTRUCTION UNTIL IT IS COMPLETED.
C. DETAILS ON THESE PLANS ARE INTENDED TO DEPICT THE GENERAL CONSTRUCTION DETAILS AND METHODS FOR THIS PROJECT. DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR IN NATURE TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ENGINEER FOR CLARIFICATION OR INSTRUCTION.
D. PRIOR TO IMPLEMENTING ANY CHANGES TO THESE PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR THEIR WRITTEN APPROVAL. CHANGES IMPLEMENTED WITHOUT THE ENGINEERS WRITTEN APPROVAL SHALL RELIEVE THE ENGINEER OF ANY CLAIM OR LIABILITY RESULTING FROM THAT PORTION OF THE PROJECT CHANGED OR AFFECTED BY THE CHANGE.

2. CONTRACTOR RESPONSIBILITY FOR COORDINATION:

A. IT IS THE CONTRACTORS PRIME RESPONSIBILITY TO COORDINATE THE WORK SHOWN ON ALL OF THE PROJECT DRAWINGS, GENERAL, SPECIAL, AND TECHNICAL SPECIFICATIONS.
B. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONSTRUCTION MATERIAL TYPES, DIMENSIONS, ELEVATIONS, AND CONDITIONS.
C. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CAREFULLY STUDY AND COORDINATE THE CONSTRUCTION REQUIREMENTS SHOWN ON THESE DRAWINGS. WHEN CONFLICTS OR DISCREPANCIES ARE FOUND IN THESE DRAWINGS, THE CONTRACTOR SHALL REPORT THEM IMMEDIATELY TO THE PROJECT ENGINEER FOR DIRECTION AND/OR CLARIFICATION.
D. ANY CONSTRUCTION WORK DONE BY THE CONTRACTOR BEFORE OBTAINING SUCH CLARIFICATION FROM THE PROJECT ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST. FURTHERMORE; ANY WORK REQUIRED TO CORRECT, REPLACE AND/OR RESTORE THE WORK AS DIRECTED BY THE ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST.

3. PROJECT NOTES:

A. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO IMMEDIATE PROJECT AREA TO FULLEST EXTENT POSSIBLE.
B. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
C. THE ENGINEER MAY PROVIDE VERTICAL AND HORIZONTAL CONTROLS ON THE PROJECT SITE. ANY ADDITIONAL CONSTRUCTION STAKING REQUIRED TO COMPLETE THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
D. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES AND BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND EXISTING IMPROVEMENTS AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.

4. EARTHWORK:

A. STRIP AND REMOVE EXISTING VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS FROM THE EXCAVATION LIMITS.
B. IN THE EVENT THAT GROUNDWATER IS PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING DURING THE CONSTRUCTION PERIOD.
C. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF BOTH EXCAVATION SIDES AND BOTTOM. ALL EXCAVATIONS SHOULD BE SLOPED OR SHORED IN THE INTEREST OF SAFETY FOLLOWING LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS.
D. THE CONTRACTOR SHALL EXCAVATE THE SITE TO THE LIMITS AND ELEVATIONS SHOWN ON THE PLANS.

5. EXISTING UTILITIES:

A. THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY.
B. DEPTHS AND ELEVATIONS OF UTILITIES ARE UNKNOWN UNLESS OTHERWISE SHOWN.
C. UNDERGROUND UTILITY LOCATION AND VERIFICATION IS TO BE AN ONGOING PROCESS.
D. CONTRACTOR IS RESPONSIBLE TO:
   i. VERIFY EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK IN THAT AREA
   ii. FIELD VERIFY UTILITY LOCATION, DEPTHS, AND ELEVATIONS WHERE CONFLICTING UTILITIES MAY BE PRESENT A MINIMUM OF 500 FEET AHEAD OF TRENCHING OPERATIONS
   iii. BRING ANY DISCREPANCIES AND/OR CONFLICTS TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
   iv. NOTIFY APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES.
   v. MAINTAIN SERVICE OF EXISTING UTILITIES.
   vi. RESTORE ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

6. INSPECTION AND TESTING:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS TESTING INCLUDING BUT NOT LIMITED TO CONCRETE, ASPHALT, AND COMPACTION. ALL TESTS SHALL MEET MINIMUM ENGINEER REQUIREMENTS. SEE THE CONTRACT DOCUMENTS AND DRAWINGS FOR FREQUENCY OF TESTING. RESULTS ARE TO BE DELIVERED TO SPECIAL INSPECTOR, OWNER AND ENGINEER.
B. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ENGINEER AND SPECIAL INSPECTOR FOR INSPECTIONS OF WORK AT APPROPRIATE INTERVALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR ADDITIONAL INSPECTIONS THAT ARE THE RESULT OF HIS WORKMANSHIP.

7. PERMITTING AND COORDINATION:

A. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND BUSINESS LICENSES PRIOR TO CONSTRUCTION.
B. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR STORM WATER POLLUTION PREVENTION AS A RESULT OF CONSTRUCTION ACTIVITIES. WHEN CALLED FOR IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR APPROVAL BY THE ENGINEER AND FOR SUBMITTAL TO LOCAL AUTHORITIES FOR REVIEW AND APPROVAL. IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE, CONTRACTOR SHALL FILE A "NOTICE OF INTENT" FOR PERMIT COVERAGE UNDER THE STATE'S UPDES STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTR300000) AND PAY ALL ASSOCIATED FEES. THE NOI MAY BE FILED ELECTRONICALLY AT THE FOLLOWING WEBSITE: HTTP://WWW.WATERQUALITY.UTAH.GOV/UPDES/STORMWATERCON.HTM AND FOLLOWING THE DIRECTIONS GIVEN UNDER THE HEADING "ONLINE APPLICATION PROCESS AND SEARCH FOR EXISTING PERMITS". THE CGP DOES NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH OTHER REGULATIONS OR CONTRACT REQUIREMENTS REGARDING STORM WATER POLLUTION PREVENTION INCLUDING BUT NOT LIMITED TO: PROTECTION OF SURFACE WATERS, PREVENTION OF SOIL RUNOFF INTO DRAINS, DUST CONTROL, PREVENTION OF TRACKING SOILS TO ADJACENT STREETS, FUEL CONTAINMENT, SPILL CONTROL, ETC.
C. ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THE REQUIREMENTS OF THAT AGENCY AND, IN PARTICULAR, REQUIREMENTS OF ANY RIGHT-OF-WAY SPECIAL USE PERMIT, OR OTHER PERMIT. ALL WORK SHALL MEET CURRENT OSHA REQUIREMENTS.
D. WHERE WORK IS PERFORMED ON EASEMENTS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ELIMINATE ANY ADVERSE EFFECTS ON THE ADJACENT PROPERTY AND/OR TO RESTORE IT TO ITS ORIGINAL CONDITION.

8. MISCELLANEOUS:

A. CONTRACTOR IS RESPONSIBLE FOR DUST ABATEMENT AND ANY LIABILITY ISSUES RELATED TO DUST AT ANY LOCATION WHICH MAY BE CAUSED BY THIS PROJECT.
B. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION OF PEDESTRIANS IN AND AROUND THIS WORK. REFERENCE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD LATEST EDITION FOR WORK ZONE TRAFFIC CONTROL).
C. THE CONTRACTOR SHALL PRESERVE EXISTING CITY, COUNTY, STATE, AND FEDERAL LAND MONUMENTS WHENEVER POSSIBLE. IF A MONUMENT MUST BE MOVED, THE ENGINEER SHALL BE CONTACTED 2 WEEKS PRIOR TO REMOVAL TO ARRANGE FOR RELOCATION.
D. SHOULD CONSTRUCTION BE HALTED BECAUSE OF INCLEMENT WEATHER CONDITIONS, THE CONTRACTOR WILL COMPLETELY CLEAN UP ALL AREAS AND MAINTAIN THE SURFACE IN GOOD CONDITION DURING THE SHUT-DOWN PERIOD.

9. PROJECT CONTACT LIST:

J-U-B ENGINEERS, INC.	BRANDON NIELSEN, P.E.	(801) 547-0393
AMIAD	KEVIN EVANS	(801) 419-9007
	KEVINE@AMIAD.COM	
AMIAD	DAN INMAN	(303) 506-1418
	DAN.INMAN@AMIAD.COM	

ABBREVIATIONS

ABBREV.	TERM
ALUM	ALUMINUM
ASSY	ASSEMBLY
∠	ANGLE
@	AT (MEASUREMENTS)
BC	BEGINNING OF CURVE
BLDG	BUILDING
B.M.	BENCH MARK
BP	ALIGNMENT BEGINNING
BREAK	GRADE BREAK
BSC	BITUMINOUS SURFACE COURSE
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
BVP	PROFILE START
B.W.	BOTH WAYS
C	CHANNEL (STRUCTURAL)
CJ	CONTROL JOINT
℄	CENTER LINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUOUS
CPLG	COUPLING
CTR	CENTER
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DEG OR °	DEGREE
DIA OR ⌀	DIAMETER
DI	DUCTILE IRON
DIST	DISTRIBUTION
DWG	DRAWING
EA	EACH
EC	END OF CURVE
ELB	ELBOW
ELEV OR EL.	ELEVATION
EOA	EDGE OF ASPHALT
EP	ALIGNMENT END
EVP	PROFILE END
E.W.	EACH WAY
EXIST	EXISTING
EVC	END VERTICAL CURVE
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FLG	FLANGE
FT OR '	FEET
FTG	FOOTING
GALV	GALVANIZED
GB	GRADE BREAK
HORIZ	HORIZONTAL

ABBREVIATIONS

ABBREV.	TERM
HP	HIGH POINT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN. OR "	INCH
INV.	INVERT
K	CURVE COEFFICIENT
L	LEFT
LB	LINE BEGINNING
LB OR #	POUND
LC	LEVEL CROWN
LE	LINE END
LF	LINEAL FEET
LN	LINEAL
LP	LOW POINT
MAN	MANUAL
MAX	MAXIMUM
MIN	MINIMUM
NO. OR #	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	POLYETHYLENE
PI	TANGENT-TANGENT INTERSECT
PL OR ℄	PLATE OR PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL-CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS OR RIGHT
RC	REVERSE CROWN
REQ'D	REQUIRED
REV	REVISION
R/W	RIGHT-OF-WAY
S	SLOPE
SPEC	SPECIFICATION
STA	STATION
STD	STANDARD
STL	STEEL
ST STL	STAINLESS STEEL
TBC	TOP BACK OF CURB
TFC	TOP FACE OF CONCRETE
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PIPE
TOW	TOP OF WALL
TYP	TYPICAL
W/	WITH
W/O	WITHOUT
W/REQ'D	WHERE REQUIRED

811 Know what's below. Call before you dig.

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

J-U-B ENGINEERS, INC.
J-U-B ENGINEERS, INC.
466 North 900 West
Kaysville, Utah 84037
Phone: 801.547.0393
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CONSTRUCTION SET

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

GENERAL NOTES AND ABBREVIATIONS

FILE : 55-22-095_G-001X
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
G-003

Plot Date:10/23/2023 3:13 PM Plotted By: Caitlin Arnold
Date Created7/10/2020 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_G-001X.DWG

SYMBOL LEGEND

DESCRIPTION	EXIST.	PROP.
SANITARY SEWER		
CLEANOUT		
SS MANHOLE		
SS VALVE		
SS METER		
SEWER STUB		
STORM DRAIN		
CATCH BASIN		
DRY WELL		
SD MANHOLE		
FLARE END		
GREASE TRAP		
COMMUNICATION		
TELE. MANHOLE		
TELE. PEDESTAL		
TELE. POLE		
TV PEDESTAL		
GUY WIRE		
DOMESTIC WATER		
FIRE HYDRANT		
SPIGOT		
WATER MANHOLE		
WATER METER		
WATER VALVE		
YARD HYDRANT		
ELECTRIC		
ELEC. MANHOLE		
ELEC. METER		
ELEC. TRANS.		
JUNCTION BOX		
GUY WIRE		
POWER STUB		
POWER POLE		
STREET LIGHT		
STREET LIGHT WITH ARM		
TRAFFIC SIGNAL POLE		

DESCRIPTION	EXIST.	PROP.
IRRIGATION		
IRRIGATION VALVE		
IRRIGATION VALVE BOX		
SPRINKLER		
IRRIGATION GATE		
NATURAL GAS		
GAS METER		
GAS VALVE		
GAS MANHOLE		
UTILITIES		
MANHOLE (GENERIC)		
PRESSURE CLEAN OUT AT GRADE		
THRUST BLOCK		
VAULT		
VALVE (GENERIC)		
UTILITY POLE		
SITE		
BOLLARD		
BOULDER		
DRINKING FOUNTAIN		
FLAGPOLE		
GATE		
MAIL BOX		
PARKING METER		
POST		
SIGN		
SPOT ELEVATION		
TREE (SHRUB)		
TREE		
TEST HOLE		
WELL		
WELL (MONITORING)		
SURVEY		
CAP		
CTRL PT		
NAIL		
BOLT		
REBAR		

LINE LEGEND

DESCRIPTION	EXIST.	PROP.
STORM DRAIN	——— SD ———	SD
DRAIN LINE	——— DL ———	DL
SANITARY SEWER	——— SS ———	SS
WATER	——— W ———	W
IRRIGATION	——— IRR ———	IRR
NATURAL GAS	——— G ———	G
OVERHEAD POWER	——— OHP ———	OHP
UNDERGROUND POWER	——— UP ———	UP
OVERHEAD TELEPHONE	——— OHT ———	OHT
UNDERGROUND TELEPHONE	——— UT ———	UT
FIBER OPTIC	——— F/O ———	F/O
CABLE TELEVISION	——— CTV ———	CTV
FENCE	——— X ———	X
DITCH		
MAJOR CONTOUR	— — 2520 — —	2520
MINOR CONTOUR		
TOP OF BANK	——— TOB ———	TOB
TOE OF SLOPE	——— TOE ———	TOE
PROPERTY LINE	——— P/L ———	P/L
PROPERTY LINE (OPTIONAL)		
RIGHT OF WAY	——— R/W ———	R/W
TEMPORARY EASEMENT	——— T/E ———	T/E
PERMANENT EASEMENT	——— P/E ———	P/E
ROAD SHOULDER		
ROAD CENTERLINE		
ROAD ASPHALT		
ROAD GRAVEL	——— EG ———	EG
ROAD DIRT		
CURB AND GUTTER		

SHEET NUMBERING

EXAMPLE:

SHEET NUMBER: C1-101

C 1 - 1 01

- DISCIPLINE DESIGNATOR
- COMPONENT CODE (OPTIONAL)
- SHEET TYPE DESIGNATOR
- SHEET SEQUENCE NUMBER

DISCIPLINE DESIGNATORS

DISCIPLINE	DESIGNATOR	DESCRIPTION
GENERAL	G	ALL GENERAL
	GI	GENERAL INFORMATION
	GC	GENERAL CONTRACTUAL
	GR	GENERAL RESOURCE
SURVEY/MAPPING	V	ALL SURVEY
GEOTECHNICAL	B	ALL GEOTECHNICAL
CIVIL	C	ALL CIVIL
LANDSCAPE	L	ALL LANDSCAPE
STRUCTURAL	S	ALL STRUCTURAL
ARCHITECTURAL	A	ALL ARCHITECTURE
EQUIPMENT	Q	ALL EQUIPMENT
MECHANICAL	M	ALL MECHANICAL
ELECTRICAL	E	ALL ELECTRICAL
PLUMBING	P	ALL PLUMBING
PROCESS	D	ALL PROCESS
RESOURCE	R	ALL RESOURCE

SHEET TYPE DESIGNATORS

DESIGNATOR	SHEET TYPE
0	GENERAL (SYMBOLS, LEGENDS, NOTES, ETC.)
1	PLANS (HORIZONTAL VIEWS)
2	ELEVATIONS, PROFILES, COMBINED PLAN & PROFILES
3	SECTIONS (SECTIONAL VIEWS)
4	LARGE-SCALE VIEWS (PLANS, ELEVATIONS, ETC.)
5	DETAILS OR COMBINED DETAILS AND SECTIONS
6	USER DEFINED
7	USER DEFINED
8	USER DEFINED
9	3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOS)

SECTION AND DETAIL IDENTIFIERS

	SECTION IDENTIFICATION	DETAIL IDENTIFICATION
CALLOUT	SECTION IDENTIFIER: A; SHEET NUMBER WHERE SECTION DRAWING IS LOCATED: C-301	DETAIL IDENTIFIER: 1; SHEET NUMBER WHERE DETAIL DRAWING IS LOCATED: C-501
LABEL	A SECTION SCALE:	1 DETAIL SCALE:
ALTERNATE	A1 SECTION SCALE:	A1 DETAIL SCALE:

NOTE:
A DASH MAY BE PLACED IN THE LOWER PORTION OF THE IDENTIFIER IF THE DETAIL DRAWING OR SECTION VIEW IS LOCATED ON THE SAME SHEET.

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CONSTRUCTION

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SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

LINE AND SYMBOL LEGENDS AND SHEET AND DETAIL KEY

FILE : 55-22-095_G-001X
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN
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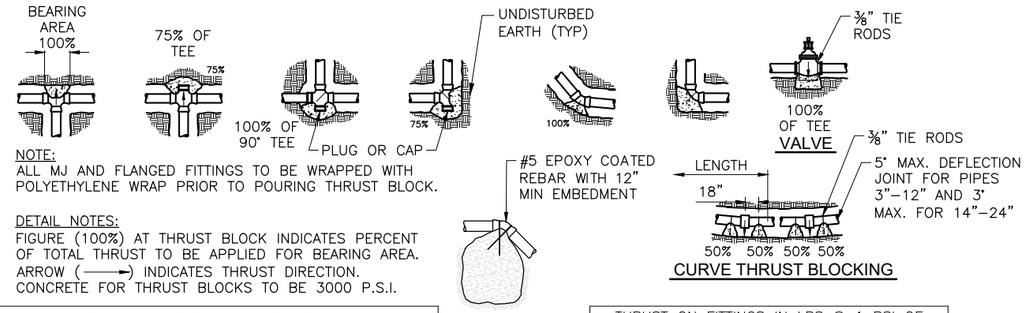
G-004

Plot Date=10/23/2023 3:13 PM Plotted By: Caitlin Arnold
Date Created=7/10/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CADD\SHEET\55-22-095_G-001X.DWG



NOTE:
ALL MJ AND FLANGED FITTINGS TO BE WRAPPED WITH POLYETHYLENE WRAP PRIOR TO POURING THRUST BLOCK.

DETAIL NOTES:
FIGURE (100%) AT THRUST BLOCK INDICATES PERCENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
ARROW (⟶) INDICATES THRUST DIRECTION.
CONCRETE FOR THRUST BLOCKS TO BE 3000 P.S.I.

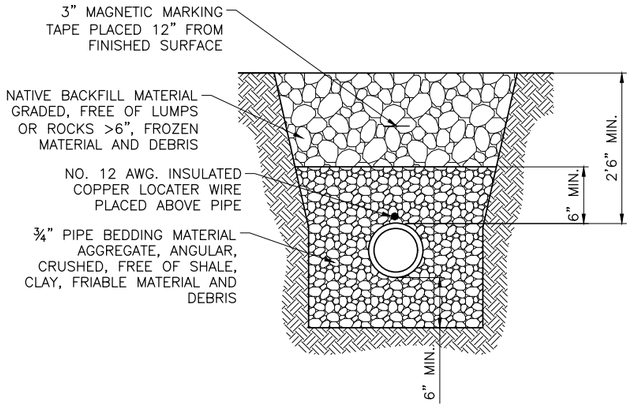
GRAVITY THRUST BLOCK SIZES			
PIPE SIZE	GRAVITY BLOCK SIZE (CY)		
	11.25° BEND	22.5° BEND	45° BEND
4"	0.2	0.5	0.9
6"	0.5	0.9	1.8
8"	0.8	1.6	3.2
10"	1.2	2.4	4.8
12"	1.7	3.4	6.7
14"	2.3	4.6	9.0
DESIGN PRESSURE = 200 PSI SOIL BEARING CAPACITY = 2000 LB/SF WEIGHT OF CONCRETE TO RESIST 100% OF TOTAL THRUST			

THRUST ON FITTINGS IN LBS @ 1 PSI OF WATER PRESSURE*				
PIPE SIZE	DEAD END OR TEE	90° ELBOW	45° ELBOW	22½° ELBOW
4"	25	35	20	10
6"	51	72	39	20
8"	88	123	64	34
10"	142	201	110	56
12"	202	284	155	80
14"	273	385	210	107
16"	354	498	272	142
18"	351	494	269	137
20"	565	795	433	220
24"	810	1142	622	318
*(SF=1.5)				

TABLE NOTES:
1. IN USING THE CURVE THRUST BLOCKING TABLE, USE THE MAXIMUM INTERNAL PRESSURE ANTICIPATED (i.e. HYDROSTATIC TEST PRESSURE, POSSIBLE SURGE PRESSURE DUE TO PUMP SHUT–OFF, ETC.)
2. SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL IN THE ABSENCE OF A SOILS REPORT, AND AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 P.S.F.

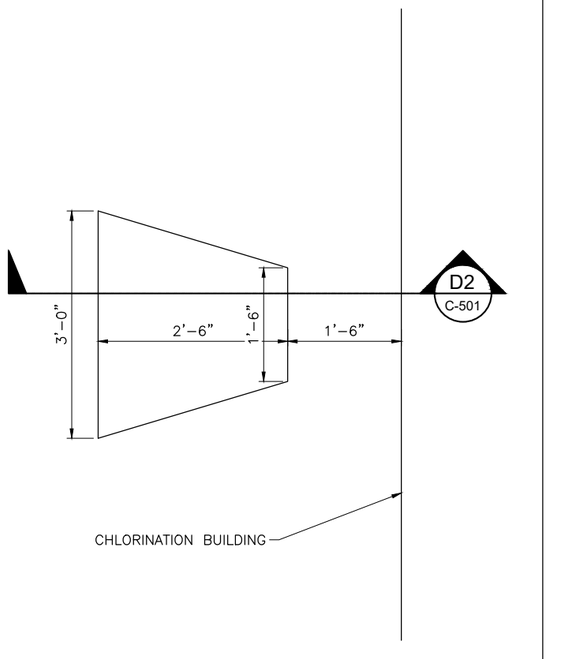
EXAMPLE:
8–INCH 90° ELBOW, PRESSURE = 200 lb./SQ. IN.
FROM TABLE: THRUST = 94 x 200 = 18,800 lb.
ASSUME BEARING STRENGTH OF SOIL = 2000 lb./SQ. FT.
$\frac{18800}{2000}$ = 9.4 SQ. FT. = AREA OF BEARING REQUIRED FOR THRUST BLOCK.

B1 THRUST BLOCK DETAIL
SCALE:N.T.S.

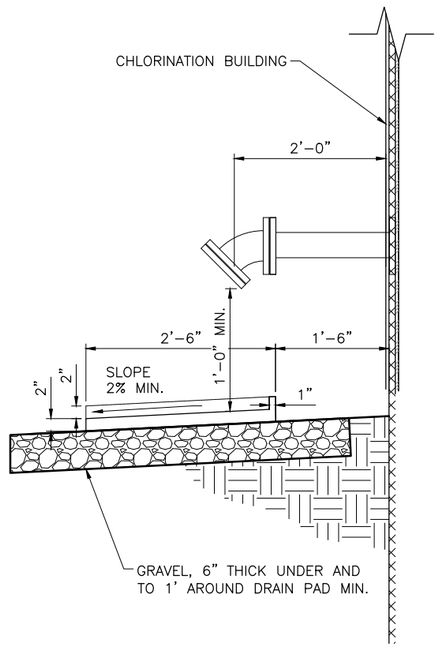


NOTES:
1. TRENCH WIDTH SHALL BE O.D. + 12".
2. BACKFILL TO BE COMPACTED TO 95% MODIFIED PROCTOR PER ASTM D1557 IN ROADWAYS AND 93% IN LANDSCAPED AREAS.

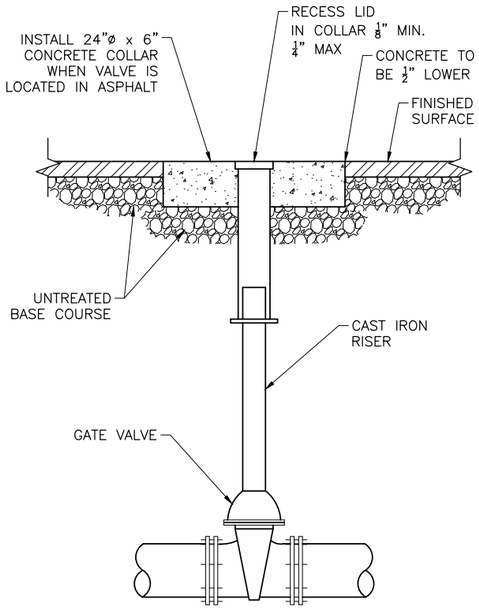
B3 TYPICAL TRENCH SECTION
SCALE:NOT TO SCALE



D1 DRAIN CONCRETE PAD DETAIL
SCALE: 1" = 1'-0"

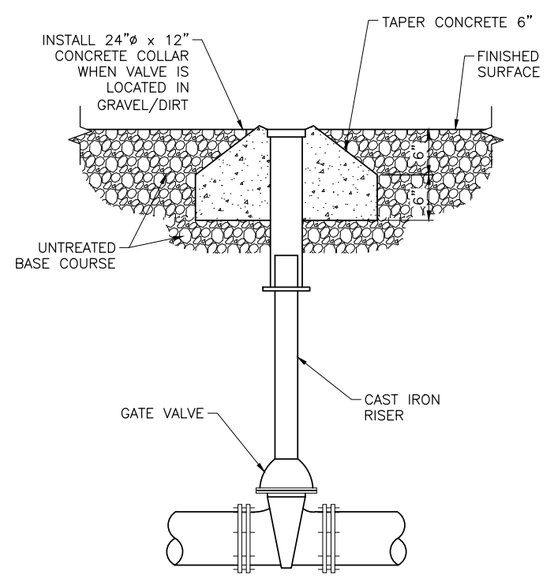


D2 DRAIN CONCRETE PAD SECTION
SCALE: 1" = 1'-0"



NOTES:
1. LID FOR CULINARY WATER TO BE D&L SUPPLY M–8044, OR EQUAL, STAMPED "WATER".

VALVE IN ASPHALT



NOTES:
1. LID FOR CULINARY WATER TO BE D&L SUPPLY M–8044, OR EQUAL, STAMPED "WATER".

VALVE IN GRAVEL/DIRT

D3 VALVE DETAIL
SCALE: 1" = 10'

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CONSTRUCTION

SET

NO.	DESCRIPTION	BY	APP.	DATE
	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

CIVIL DETAILS

FILE : 55-22-095_C-501X
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
C-501

Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:6/16/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_C-501X.DWG

MATERIAL NOTES

(1) SAMPLING TAP, PRESSURE GAUGE, AIR VENT & ISOLATION VALVE. SEE DETAIL B1, SHEET M-501

(2) 8" GATE VALVE (FLxMJ)

(3) 3" 90° D.I. BEND (FL)

(4) 8"x8"x4" D.I. TEE (FLxFLxMJ)

(5) 4" C900 DR 18 PVC PIPE

(6) EXISTING 8" PVC WATERLINE

(7) 8" C900 DR 18 PVC PIPE

(8) AMIAD 4" OPAL 2"x(3)x4" 40 MICRON FILTER SYSTEM WITH POD ISOLATION B-FLY VALVES, AND CONTROL PANEL, SEE E-102 FOR PANEL LOCATION

(9) 55 GAL POLYETHYLENE SODIUM HYPOCHLORITE DRUM – 12.5% FREE CHLORINE, NSF 60 CERTIFIED. PROVIDE WITH EPDM RUBBER GASKET TO SEAL FEED HOSE, RECEIVING BASIN, AND INVERTED "J" AIR VENT WITH #14 SCREEN. OWNER TO PROVIDE MEANS TO MEASURE AND RECORD LEVEL.

(10) BLUE-WHITE FLEXFLO PERISTALTIC FLOW-PACED METERING PUMP, MODEL M14-6T, FLOW RANGE 0.0001-1.35 GALLONS PER HOUR. SUPPLY WITH WALL MOUNT BRACKET (PART NO. KIT-PSM), SUCTION TUBING (PART NO. C-334-6), DISCHARGE TUBING (PART NO. C-335-6), AND NECESSARY ACCESSORIES. CONNECT SIGNAL FROM FLOW METER TO DOSING PUMP.

(11) BLUE-WHITE PVDF INJECTION QUILL (PART NO. A-01NK-6A)

(12) EYE WASH WALL STATION- HONEYWELL EYE SALINE 32000462000.

(13) 4" FLANGE COUPLING ADAPTER

(14) 4" AWWA C151 PC 350 D.I. PIPE (FL)

(15) 4"x3" D.I. CONCENTRIC REDUCER (FL)

(16) 3" SIEMENS SITRANS MAG 5100 W FLOW METER WITH EBONITE LINING AND MAG 5000 TRANSMITTER (115 VAC). MOUNT TRANSMITTER ON WALL. CONNECT 4-20 mA OUTPUT TO DOSING PUMP. MINIMUM OF 15" STRAIGHT PIPE UPSTREAM AND MINIMUM OF 9" STRAIGHT PIPE DOWNSTREAM OF FLOW METER. SEE E-102 FOR TRANSMITTER LOCATION.

(17) 3" AWWA C151 PC 350 D.I. PIPE (FL)

(18) 4" GATE VALVE (FLxMJ)

(19) 4" 90° D.I. BEND (FL)

(20) ELECTRIC HEATER, SEE ELECTRICAL SHEETS

(21) 8" FLANGE COUPLING ADAPTER

(22) 4" FLANGE WITH #4 SCREEN AND ¾" EXPANDED STAINLESS STEEL SCREEN BETWEEN FLANGES. PLACE #4 SCREEN UPSTREAM OF ¾" SCREEN. SEE DETAIL D2, C-501 FOR AIR GAP REQUIREMENTS.

(23) PIPE SUPPORT, SEE DETAIL B3, SHEET M-501. SUPPORTS UNDER FILTER SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

(24) 4" AWWA C151 PC 350 DI PIPE (FLxPE)

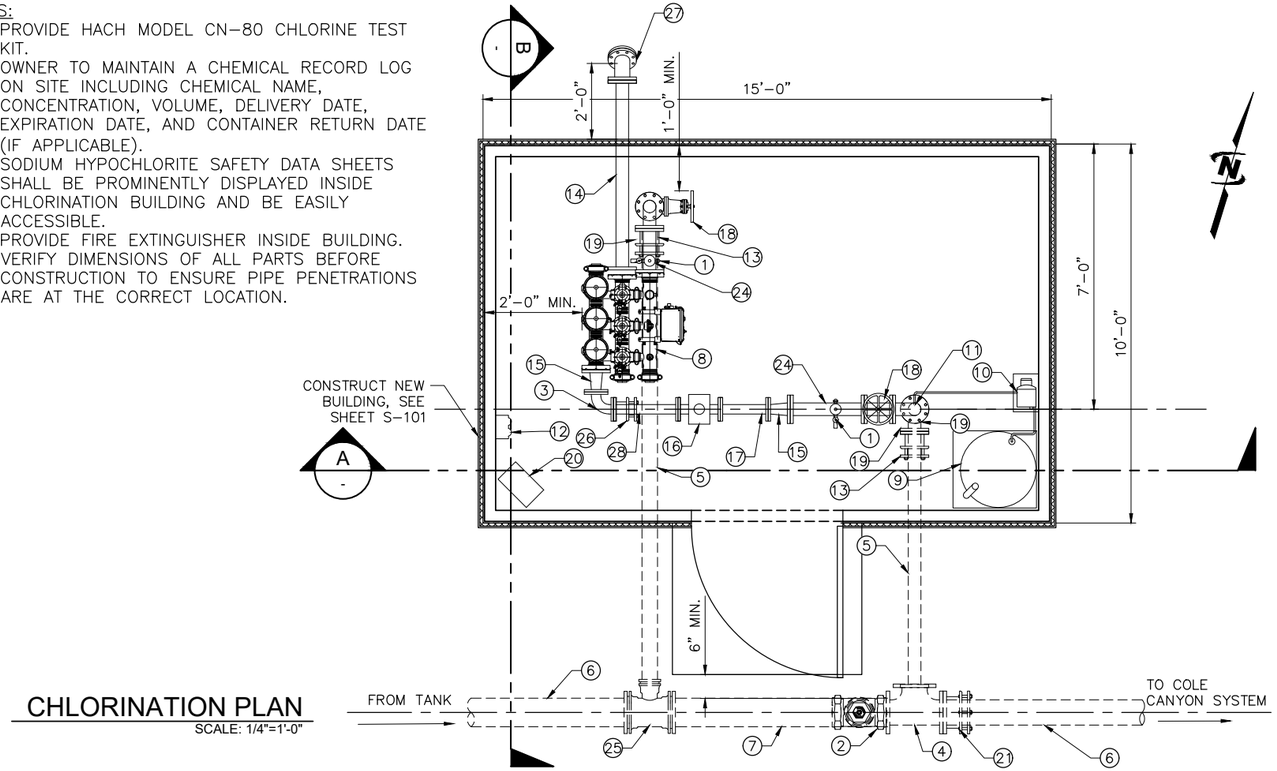
(25) 8"x8"x4" DI TEE (MJxMJxMJ)

(26) 3" FLANGE COUPLING ADAPTER

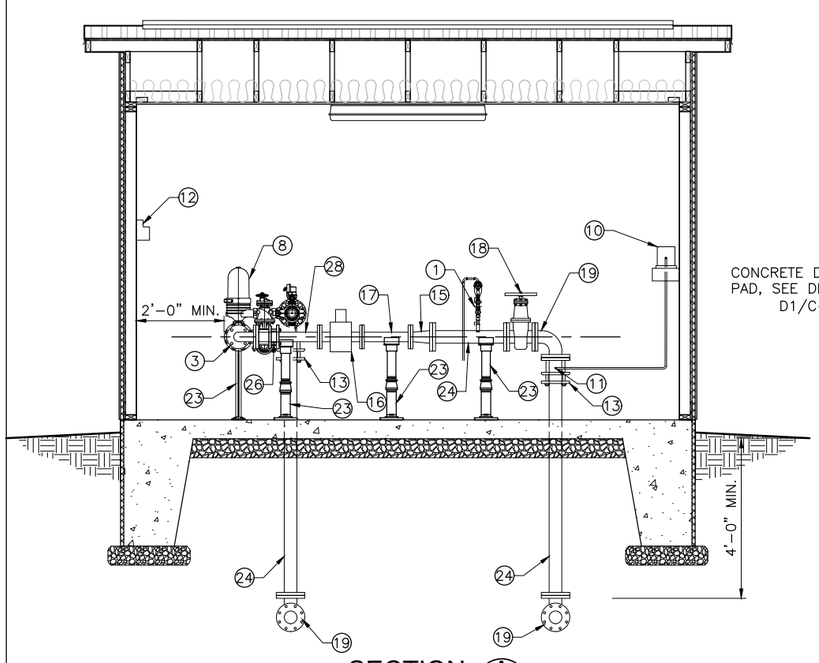
(27) 4" 45° D.I. BEND (FL)

(28) 3" AWWA C151 PC 350 D.I. PIPE (FLxPE)

NOTES:
1. PROVIDE HACH MODEL CN-80 CHLORINE TEST KIT.
2. OWNER TO MAINTAIN A CHEMICAL RECORD LOG ON SITE INCLUDING CHEMICAL NAME, CONCENTRATION, VOLUME, DELIVERY DATE, EXPIRATION DATE, AND CONTAINER RETURN DATE (IF APPLICABLE).
3. SODIUM HYPOCHLORITE SAFETY DATA SHEETS SHALL BE PROMINENTLY DISPLAYED INSIDE CHLORINATION BUILDING AND BE EASILY ACCESSIBLE.
4. PROVIDE FIRE EXTINGUISHER INSIDE BUILDING.
5. VERIFY DIMENSIONS OF ALL PARTS BEFORE CONSTRUCTION TO ENSURE PIPE PENETRATIONS ARE AT THE CORRECT LOCATION.

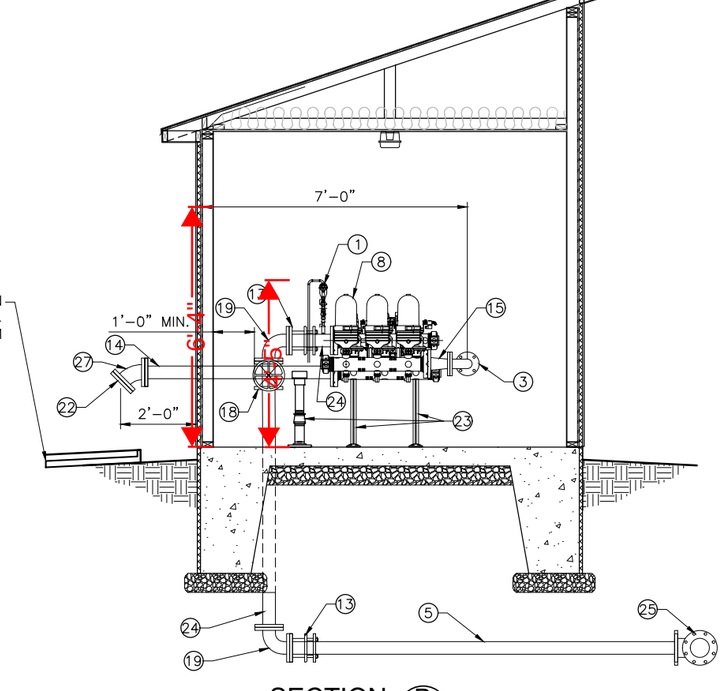


CHLORINATION PLAN
SCALE: 1/4"=1'-0"



SECTION A
SCALE: 1/4"=1'-0"

CONCRETE DRAIN PAD, SEE DETAIL D1/C-501



SECTION B
SCALE: 1/4"=1'-0"

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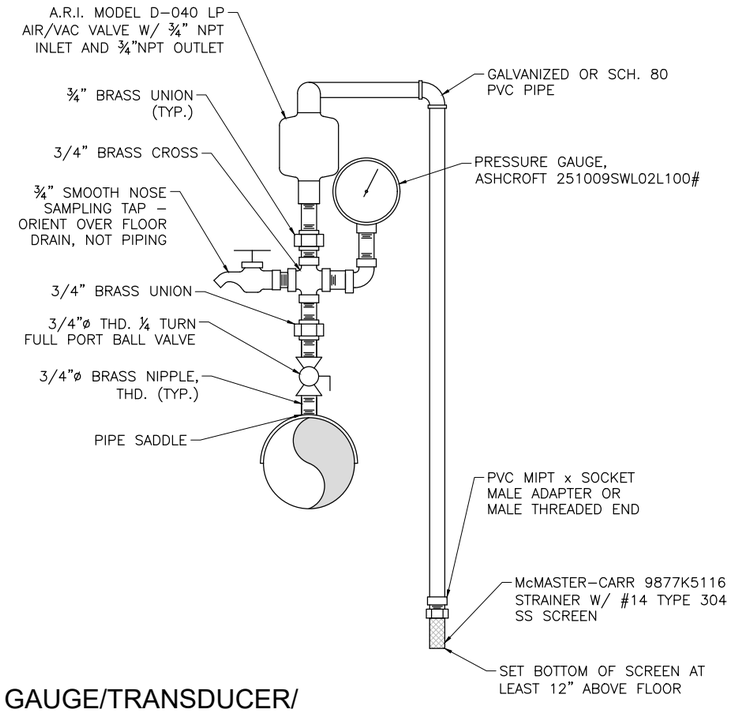
SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

PIPING PLAN AND SECTION

FILE: 55-22-095_M-101X
JUB PROJ. #: 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
M-101

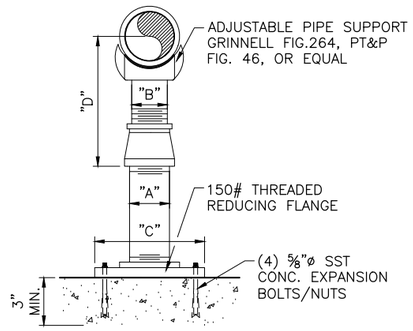
Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:7/17/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_M-101X.DWG



B1 PRESSURE GAUGE/TRANSDUCER/ SMOOTH NOSE SAMPLE TAP DETAIL
SCALE:N.T.S.

ADJUSTABLE PIPE SUPPORT					
APPROXIMATE DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D MINIMUM	D MAXIMUM
3	2½	1½	9	8¼	13¼
4	3	2½	9	9¼	14
5	3	2½	9	10	14¾
6	3	2½	9	10½	15¼
8	3	2½	9	11¾	16½
10	3	2½	9	13½	18¼
12	3	2½	9	15	19¾
14	4	3	11	16¼	20¾
16	4	3	11	17¾	22¼
18	6	3½	13½	19½	24
20	6	3½	13½	21	25½
22	6	4	13½	21 5/16	25 13/16
24	6	4	13½	23¾	28¼

NOTE:
PIPE SUPPORTS TO BE HOT DIP GALVANIZED AFTER FABRICATION.



B3 PIPE SUPPORT DETAIL
SCALE:N.T.S.

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	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

MECHANICAL DETAILS

FILE : 55-22-095_M-501X
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: BRN
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
M-501

Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:4/17/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_M-501X.DWG

GENERAL STRUCTURAL NOTES AND SPECIFICATIONS

1. GENERAL

   A. These General Structural Notes and Specifications supplement the project written technical specifications and the project structural drawings.
   B. Where conflicts or discrepancies exist between the project drawings, the contract documents, and/or technical specifications, the more stringent requirement shall apply, unless specifically approved in writing by the Engineer.
   C. The Contractor is responsible for all construction bracing, temporary shoring, and other site safety controls required during construction in accordance with all applicable local, state and federal regulations, to insure the stability and safety of all construction until it is completed and self-supporting.
   D. The Contractor is responsible for all water, both above and below ground, runoff and other environmental controls required during construction to insure the site is maintained in compliance with all applicable local, state and federal regulations.
   E. Details on these plans are intended to depict the general construction details and methods for this structure. Connection details and conditions not specifically shown that are similar in nature to those that are specified shall be assumed one and the same. If questions regarding the application of details are encountered, the Contractor shall notify the Engineer for clarification or instruction.
   F. Prior to implementing any changes to these plans, the Engineer shall be notified in writing for their written approval. Changes implemented without the Engineer's written approval shall relieve the Engineer of any claim or liability resulting from that portion of the structure changed or affected by the change.

2. CONTRACTOR RESPONSIBILITY FOR COORDINATION

   A. It is the Contractor's prime responsibility to coordinate the work shown on all of the project drawings, general, special and technical specifications.
   B. The Contractor is responsible to verify all existing construction material types dimensions, elevations and conditions.
   C. The Contractor shall verify and coordinate the dimensions among all drawings and in the field prior to proceeding with any work or fabrication, any discrepancy shall be immediately reported to the Engineer.
   D. It is the Contractor's responsibility to carefully study and coordinate the construction requirements shown on all the drawings of the various disciplines. When conflicts or discrepancies are found between these plan sets and/or within these drawings, the Contractor shall report them immediately to the project Engineer for direction and/or clarification. Any construction work done by the Contractor before obtaining such clarification from the project Engineer shall be at the Contractor's own risk and cost. Furthermore; any work required to correct, replace and/or restore the work as directed by the Engineer shall be at the contractors own risk and cost.

3. CODES

   A. Unless otherwise noted, all referenced building codes and standards refer to their current editions, including any local, state, or federal amendments or changes, as adopted in the locality of the Project on the date these drawings are signed and sealed by the Project Engineer.
   B. GENERAL:
      B.1. International Code Council, ICC, International Building Code, IBC.
      B.2. Minimum Design Loads for Buildings and Other Structures, ASCE 7.
   C. CONCRETE:
      C.1. American Concrete Institute, ACI 301, Specifications for Structural Concrete.
      C.2. American Concrete Institute, ACI 318, Building Code Requirements for Structural Concrete.
   D. WOOD:
      D.1. American Wood Council, AWC, National Design Specification for Wood Construction, NDS.

4. DESIGN CRITERIA

A.	Occupancy or Use; IBC Table 1607.1:	Chlorination Shed
B.	Occupancy Category;	U
C.	Risk Category; ASCE 7 Table 1.5-2:	II
D.	Dead Load:	
D.1.	Roof:	20 psf
E.	Live Load:	
E.1.	Floor:	40 psf
E.2.	Roof:	20 psf
F.	Snow Load:	
F.1.	Ground Snow Load	P_g = 79.0 psf
F.2.	Sloped Roof Snow Load	P_s = 60.8 psf
F.3.	Flat Roof Snow Load	P_f = 60.8 psf
F.4.	Importance Factor	I_s = 1.0
F.5.	Snow Exposure Factor	C_e = 1.0
F.6.	Thermal Factor:	C_t = 1.1
G.	Wind Load:	
G.1.	Basin Design Wind Speed:	V = 103 mph
G.2.	Site Wind Exposure:	B
H.	Ice Load:	
H.1.	Ice Importance Factor - Thickness:	I_i = 1.00
H.2.	Ice Importance Factor - Wind:	I_w = 1.00
H.3.	Ice Thickness:	0.25 in.
H.4.	Concurrent Temperature:	15 °F
I.	Rain Load:	
I.1.	15-Minute Precipitation Intensity:	5.17 in./hr
I.2.	60-Minute Precipitation Intensity	2.16 in./hr
J.	Seismic Load:	
J.1.	Seismic Importance Factor:	I_e = 1.00
J.2.	Soil Site Class:	D
J.3.	Seismic Design Category:	D
J.4.	Mapped Spectral Response Acceleration Parameters:	
J.4.1.	Short Period:	S_S = 1.146
J.4.2.	1-second:	S_1 = 0.418
J.5.	Design Spectral Response Acceleration Parameters:	
J.5.1.	Short Period:	S_{DS} = 0.917
J.5.2.	1-second:	S_{D1} = 0.65
J.6.	Long-period Transition Period:	T_L = 8
J.7.	Basic Seismic Force Resisting System(s):	
J.7.1.	Light-frame Wood Walls Sheathed with Wood Structural Panels	
J.7.1.1.	Response Modification Coefficient:	R = 6.5
J.7.1.2.	System Overstrength Factor:	Ω_0 = 3.0
J.7.1.3.	Deflection Amplification Factor:	C_d = 4.0
K.	Mechanical Loads:	
K.1.	Refer to mechanical plans for special mechanical equipment loads.	

5. SPECIAL INSPECTIONS. Special Inspections per IBC Chapter 17 are not required for the project as per the exceptions listed in Section 1704.2.

6. SUBMITTALS

   A. Submit required copies, one (1) electronic .pdf file or three (3) minimum hardcopy, of product or material design information to the Engineer for review for the following items:
      A.1. Concrete mix designs and admixtures.
      A.2. Epoxy anchors.
   B. Submit required copies of shop drawings, one (1) electronic .pdf file or three (3) minimum hardcopy, to the Engineer for review prior to fabrication of the following items:
      B.1. Reinforcing steel for all concrete.
   C. The following items to be designed by others are considered "Deferred Submittals". Deferred submittals shall be accompanied by design drawings, shop drawings and structural calculations, stamped and signed by a Professional Structural Engineer currently registered in the State of Utah.
      C.1. Pre-engineered and shop fabricated building.

7. FOUNDATIONS

   B. All footings to be placed on firm undisturbed, inorganic material. Proof roll sub-grade prior to placing concrete where the material has been disturbed by the excavating equipment.
   C. All footings outside or at the perimeter of the structure, or in other unheated areas shall be set to a depth of at least 36" below finish grade, unless otherwise noted on the plans.
   D. Allowable bearing pressure for all footings Qa = 1,500 psf
   E. Local areas of soft and/or unacceptable material encountered at bottom of footing elevations indicated on the plans must be over-excavated and brought up to design grade with compacted "structural fill" or "lean concrete fill".
   F. All structural fill and/or backfill shall be granular, free draining, material; Unified Soils Classification GW, GP, GM or SW; maximum aggregate size of 3-in. and no more than 5% passing a number 200 sieve. Material shall be placed in lifts no greater than 8-in. in depth and compacted to 95% of maximum density as determined per ASTM D1557.
   G. The Engineer shall be notified in writing if any ground water, clay type soils, debris or unconsolidated materials are encountered during excavations for foundations.

8. CONCRETE

   A. GENERAL. Concrete shall be proportioned to provide an average compressive strength, f'c, as prescribed in ACI 318 and shall satisfy the durability criteria of ACI 318.
   B. PROJECT CONCRETE MIX TYPES: Concrete shall be proportioned and furnished for the various project uses as indicated on the plans and as follows:
      B.1. f'c = 4,000 psi, Absolute water-cement ratio by weight = 0.45, Air Content = 6% (+/- 1.5%). For all structural concrete and exterior slabs on grade.
   C. CONCRETE MIX COMPONENTS.
      C.1. A water-reducing admixture conforming to ASTM C494, used in strict conformance with the manufacturer's instructions, shall be incorporated in all concrete mix designs. At Contractor's option, a high-range water-reducing (HRWR) admixture conforming to ASTM C494, Type F or G, may be used provided the total slump is less than 10".
      C.2. Higher water-cement ratios than shown above may be used if substantiated in accordance with ACI 318.
      C.3. Fly-ash conforming to ASTM C618 Type F or C, may replace up to 20% of the cement content, provided that the mix strength is substantiated by test data.
      C.4. Cement: ASTM C150 TYPE I OR II; ASTM C595 Type IP, IL, or IT; ASTM C1157 Type GU.
      C.5. Water: Clean & Potable.
      C.6. Air entraining agent: ASTM C260. Except where noted non-air entrained.
      C.7. Aggregate: 0.75-inch Maximum aggregate per ASTM C33. Unless noted otherwise.
      C.8. Mix Proportioning: ACI 211.1 and 350R.
   D. CONCRETE ACCESSORIES:
      D.1. REINFORCING STEEL: Reinforcing steel shall conform to ASTM A615 Grade 60; #3 bars may be Grade 40.
      D.2. JOINTING MATERIALS: All jointing materials including expansion joints and sealants, shall be resistant to chemical attack for the design life of the facility. Sealants shall conform to ASTM C 920 and Federal Specification TT-S-00277E.
   E. CONCRETE PROPORTIONS. Concrete mix proportioning shall be in accordance with ACI 211.1; Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
   F. CONCRETE MIX VERIFICATION: Concrete mix designs shall be verified by standard 28-day cylinder tests per ASTM C39.
   G. EVALUATION AND ACCEPTANCE OF CONCRETE. Concrete shall be tested in accordance with the requirements of ACI 318.
   H. MIXING & PLACING CONCRETE. Concrete shall be prepared, mixed, placed and consolidated in accordance with ACI 318 and as follows:
      H.1. ACI 304; Guide for Measuring, Mixing, Transporting, and Placing Concrete.
      H.2. ACI 309; Guide for Consolidation of Concrete.
   I. CONCRETE CURING. Concrete shall be maintained above 50-degrees F and in a moist condition for at least 7 days after placement, except when cured in accordance with ACI 318.
      I.1. Curing of concrete shall be per the recommendations given in ACI 308; Guide to Curing Concrete.
   J. COLD WEATHER REQUIREMENTS. Adequate equipment shall be provided for heating concrete materials and protecting concrete during freezing or near-freezing weather. The recommended procedures listed in ACI 306; Cold Weather Concreting shall be followed.
      J.1. Cold weather is defined as a period when, for more than 3 consecutive days, the following conditions exist:
         J.1.1. The average daily air temperature is less than 40-degrees F and
         J.1.2. The air temperature is not greater than 50-degrees F for more than one-half of any 24-hour period.
   K. HOT WEATHER REQUIREMENTS. During hot weather, proper attention shall be given to ingredients, production methods, handling, placing, protection, and curing to prevent excessive concrete temperatures or water evaporation that could impair required strength or serviceability of the ember or structure. The recommended procedures listed in ACI 305; Hot Weather Concreting shall be followed.
      K.1. Hot weather is any combination of the following conditions that tends to impair the quality of freshly mixed or hardened concrete by accelerating the rate of moisture loss and rate of cement hydration, or otherwise causing detrimental results:
         K.1.1. High ambient temperature.
         K.1.2. High concrete temperature.
         K.1.3. Low relative humidity.
         K.1.4. Wind speed.
         K.1.5. Solar radiation.

9. FORMWORK AND FINISHING

   A. Forms shall result in a final structure that conforms to shapes, lines, and dimensions of the members as required by the design drawings and specifications.
      A.1. Design of formwork shall be in accordance with ACI 318.
      A.2. Formwork shall be in accordance with ACI 347; Guide to Formwork for Concrete.
   B. Tolerances for finished concrete surfaces shall meet the following requirements, class of surface is per Table 3.4:
      B.1. Footings: Class C
      B.2. Foundation walls: Class B
   C. Chamfer all exposed corners and fillet entrant angles ¾" unless otherwise noted on the drawings.
   D. REMOVAL OF FORMS.
      D.1. Concrete forms shall not be removed until the retained concrete has reached the following minimum percentage of the required 28 day compressive strength:
         D.1.1. Footings and base slabs on grade: 50% of f'c.
         D.1.2. Foundation walls and columns: 67% of f'c.
      D.2. Where concrete cylinder tests are not available for strength verification the following guide may be used when permitted by the Project Engineer:
         D.2.1. Footings and base slabs on grade: 12 hours.
         D.2.2. Foundation walls and columns: 24 hours.
   E. EMBEDMENTS IN CONCRETE.
      E.1. Conduits, pipes, and sleeves of any material not harmful to concrete and within limitations of ACI 318 shall be permitted to be embedded in concrete with approval of the Project Engineer, provided they are not considered to replace structurally the displaced concrete, except as provided in ACI 318.
      E.2. Conduits and pipes of aluminum shall not be embedded in structural concrete unless effectively coated or covered to prevent aluminum-concrete reaction or electrolytic action between aluminum and steel.
   F. CONSTRUCTION JOINTS.
      F.1. Construction joints shall only be placed where indicated on the project drawings or as approved by the Project Engineer.
      F.2. Construction joints shall be constructed in accordance with ACI 318 Sawed contraction joints. Conform to ACI 301.
   G. CONCRETE FINISHING. All concrete surfaces shall be finished in accordance with ACI 301.
   H. Formed Concrete Surfaces. After removal of forms, give each formed surface one or more of the following finishes:
      H.1. Concrete Structures:
         H.1.1. Concrete footings and foundations not exposed to view. Provide an As-cast finish.
         H.1.2. Foundation wall and other surfaces below grade and not exposed to view. Provide a Rough-form finish.
         H.1.3. Interior, exterior and top surfaces exposed to view to 6" below grade. Provide a Smooth-form finish.
      H.2. Unformed Concrete Surfaces. Unformed concrete surfaces including the top surface of all concrete floor slabs shall be finished in accordance with ACI 301 and ACI 302.
         H.2.1. For the top surfaces of walls, provide a "Scratched finish".
         H.2.2. Interior floor surfaces shall receive a Troweled finish.
      H.3. Provide a Nonslip finish for exterior surfaces and where indicated on the plans.
      H.4. Sawed contraction joints. Conform to ACI 301.

10. DETAILS OF REINFORCEMENT

   A. Placement of all reinforcing steel within concrete structures shall be in conformance with ACI 318.
   B. Reinforcing steel hooks, bends, ties, splices and other reinforcement details shall be in accordance with ACI 315; Details and Detailing of Concrete Reinforcement.
   C. Spacing limits for reinforcement shall be in conformance with ACI 318.
   D. Concrete protection for reinforcement. Unless noted elsewhere on the drawings, all reinforcing steel shall have the following concrete cover:
      D.1. For concrete structures; per ACI 318:
         D.1.1. Concrete cast against earth: 3.00 inch
         D.1.2. Concrete exposed to earth, liquid or weather;
            D.1.2.1. No. 5 or smaller bars: 1.50-inch
            D.1.2.2. No. 6 or larger bars: 2.00-inch
   E. Concrete blocks or plastic-coated bar chairs shall be provided for support of all slab reinforcing steel, sufficient in number to prevent settlement or sagging, but in no case shall such support be continuous. Metal clips or supports shall not be placed in contact with the forms or the sub-grade.
   F. Dowels and anchor bolts shall be wired or otherwise held in correct position prior to placing concrete. Care shall be taken to insure that dowels and anchor bolts remain plum after concrete is poured and vibrated. In no case shall dowels or anchor bolts be stabbed into freshly poured concrete.
   G. If the Contractor fails to properly tie reinforcing and anchors before concrete is cast in place, the Contractor shall remove all substandard work and reconstruct the concrete work at his own expense. However, if the Project Engineer determines the concrete work to be adequate to remain in place, the substandard work shall be paid out at a 50% pay deduction for all associated concrete work.
   H. Provide dowels in footings and at construction joints to match vertical reinforcing bar size and spacing, unless otherwise noted on the drawings.
   I. All bar bends, hooks, splices and other reinforcing steel details shall conform to the requirements of ACI 315.
   J. Unless otherwise noted on the plans all bars shall be spliced with a Class B lap splice.
   K. At all corners and wall intersections provide bent bars to match the horizontal reinforcing steel and in accordance with the typical corner reinforcing details.

11. MECHANICAL OPENINGS

   A. Mechanical openings are not shown on the structural drawings; refer to mechanical plans for size and locations.
   B. Openings through concrete greater than 6-inch square or 8-inch round shall be reinforced with a minimum of 1-#5 bar, each of four sides, extending 24" past the opening edge.

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466 North 900 West
Kaysville, UT 84037
Phone: 801.547.0393
www.jub.com

CONSTRUCTION SET

REGISTERED PROFESSIONAL ENGINEER
No. 9024586-2202
ERICK LARS CHRISTIANSEN
7/11/2023
STATE OF UTAH

NO.	DESCRIPTION	BY	APP'D	DATE
	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

STRUCTURAL
GENERAL STRUCTURAL NOTES

FILE : 55-22-095_S-001
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: ELC
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
S-001

Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:7/11/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_S-001.DWG

GENERAL STRUCTURAL NOTES AND SPECIFICATIONS CONTINUED

12. PRE–ENGINEERED/FABRICATED BUILDING

A. The pre–engineered/fabricated building indicated on the drawings shall be a wood framed structure designed by a Professional Engineer experienced in structural design registered in the State of Utah per these notes and the specifications.
B. Design the building and all appurtenances according to local design standards for Liberty, Utah. Submit calculated loads to ENGINEER for approval.
C. Shop drawings and design calculations signed and stamped by the Design Engineer shall be submitted to the Engineer for review prior to fabrication.
D. All necessary bridging, blocking, pre–notched or beveled plates, hangers, etc. shall be detailed or specified on the shop drawings and furnished by the manufacturer.
E. Manufacturer shall verify all setbacks, dimensions, overhangs, vertical controls and dimensions prior to fabrication.
F. Alteration of the layout shown on the plans may require supporting structural and foundation changes, therefore, prior approval by the Engineer is required for any proposed layout change.
G. Building shall not be field modified without written authorization from the manufacturer's Engineer of Record.
H. Building shall be handled, erected, and braced as directed by the manufacturer.
I. Pre–engineered/fabricated building shall include the following:
   I.1. Door centered on the side with a longer dimension.
   I.2. Ventilation shall be provided through wall louvers near the ceiling.

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CONSTRUCTION

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No. 9024395-2202
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7/11/2023
STATE OF UTAH

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SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

STRUCTURAL
GENERAL STRUCTURAL NOTES

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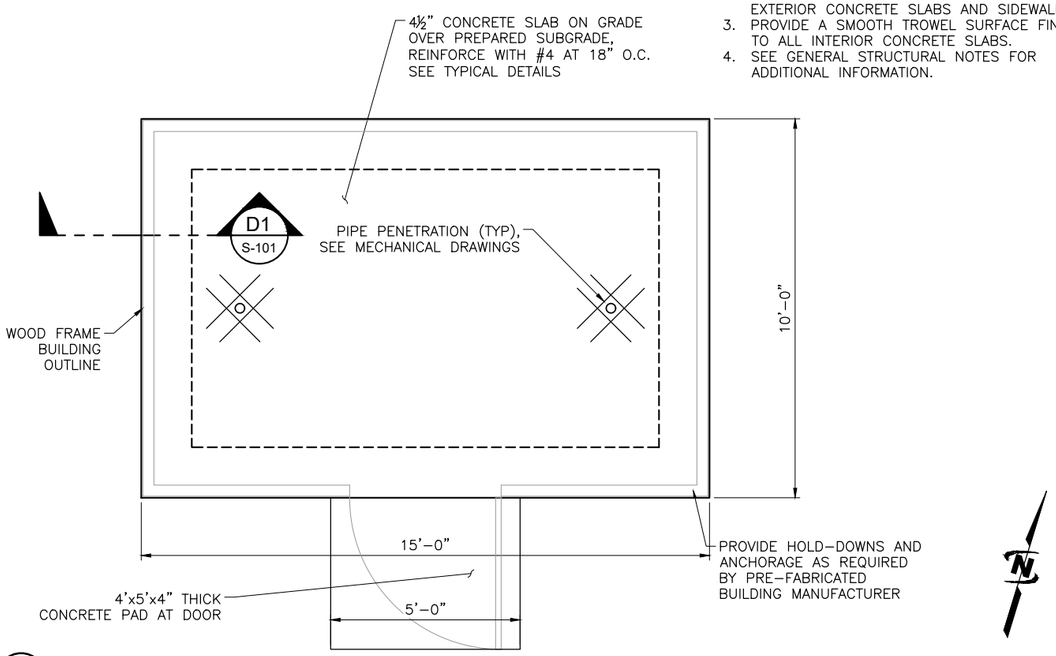
JUB PROJ. # : 55-22-095
DRAWN BY: CRA
DESIGN BY: ELC
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

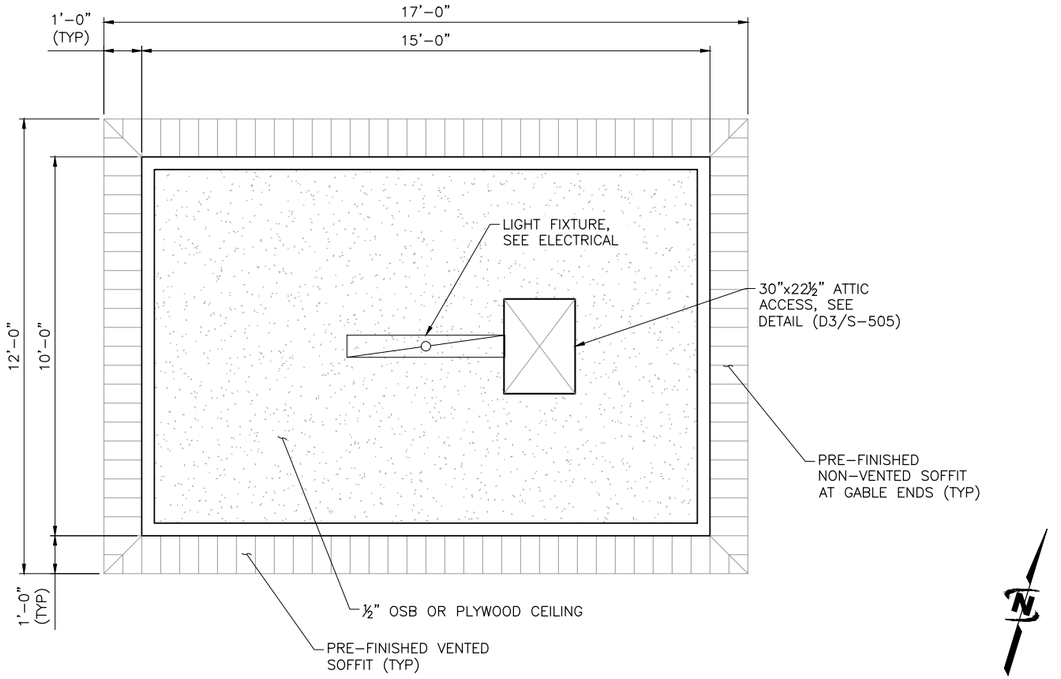
SHEET NUMBER:
S-002

Plot Date=10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created=7/11/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_S-001.DWG

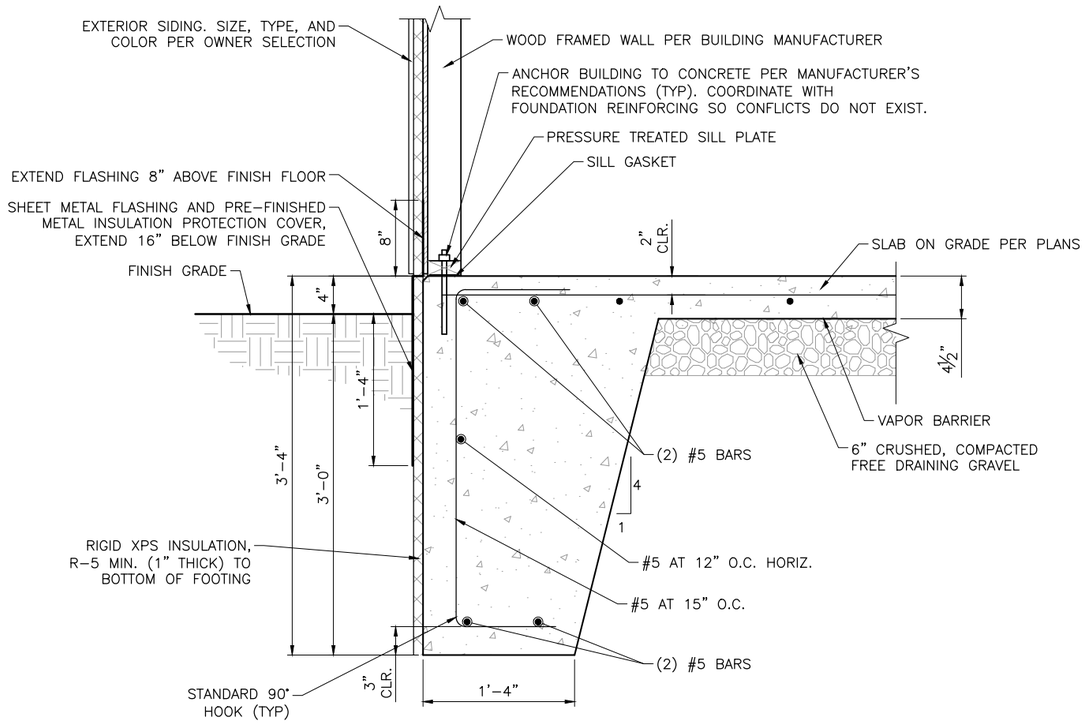
NOTES:
1. COORDINATE PLACEMENT OF FLOOR DRAINS AND OTHER FLOOR PENETRATIONS WITH PIPING AND EQUIPMENT. SEE MECHANICAL PLANS.
2. PROVIDE A BROOM SURFACE FINISH TO ALL EXTERIOR CONCRETE SLABS AND SIDEWALKS.
3. PROVIDE A SMOOTH TROWEL SURFACE FINISH TO ALL INTERIOR CONCRETE SLABS.
4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.



B1 FOUNDATION PLAN
SCALE: 1/2" = 1'-0"

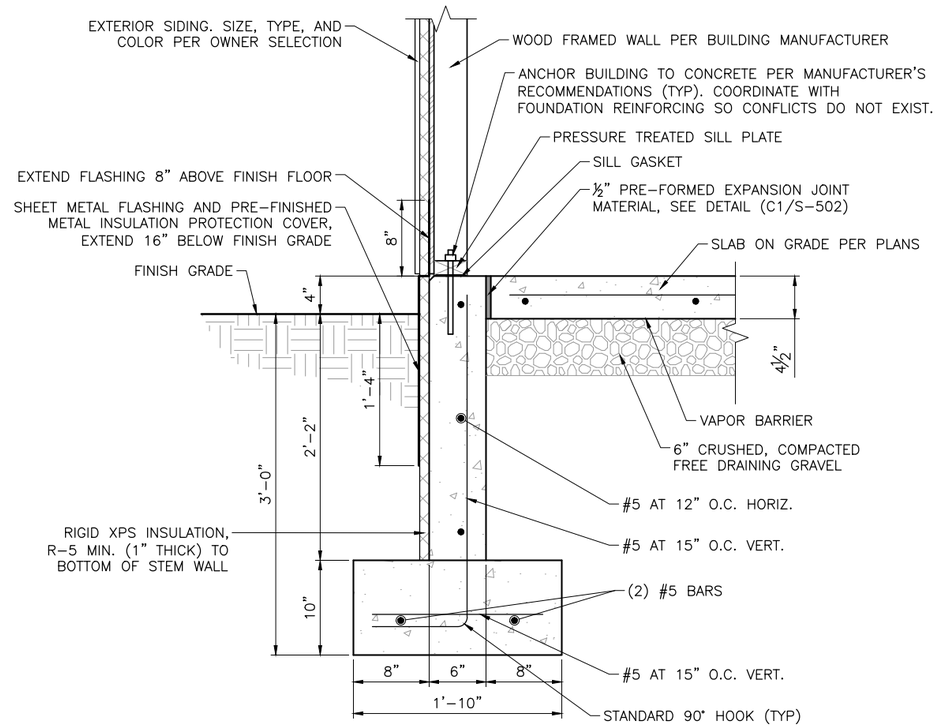


B3 REFLECTED CEILING PLAN
SCALE: 1/2" = 1'-0"



D1 FOOTING DETAIL
SCALE:NOT TO SCALE

OPTION A



OPTION B

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CONSTRUCTION

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No. 9024366-2202
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7/11/2023
STATE OF UTAH

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SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

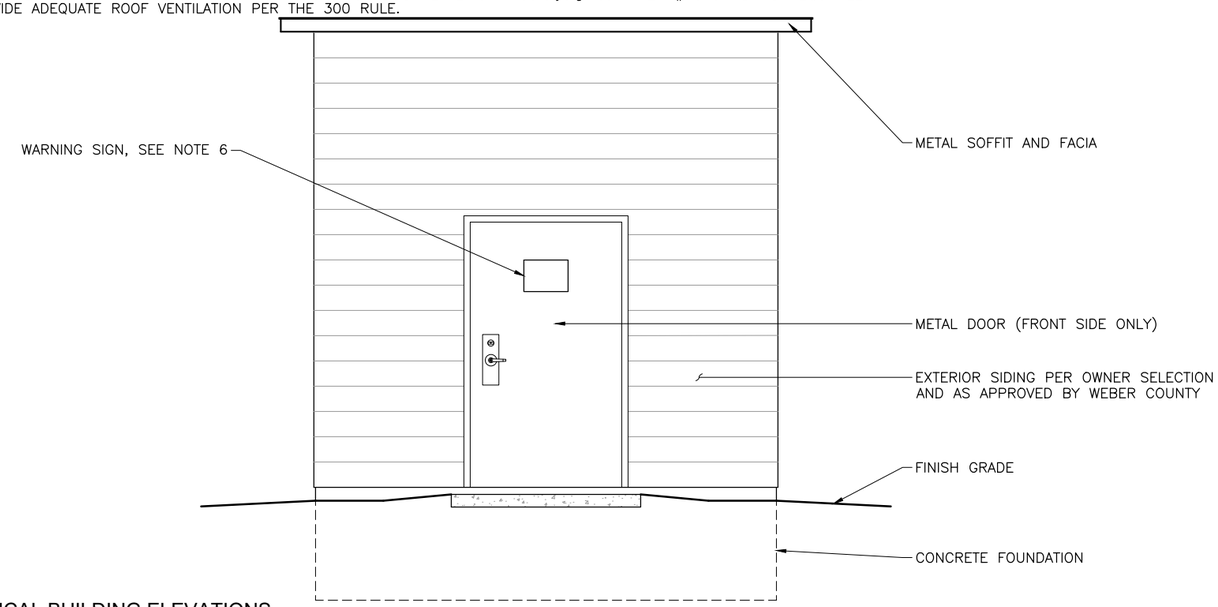
STRUCTURAL PLANS

FILE: 55-22-095_S-101
JUB PROJ. # : 55-22-095
DRAWN BY: CRA/ELC
DESIGN BY: ELC
CHECKED BY: BRN
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

SHEET NUMBER:
S-101

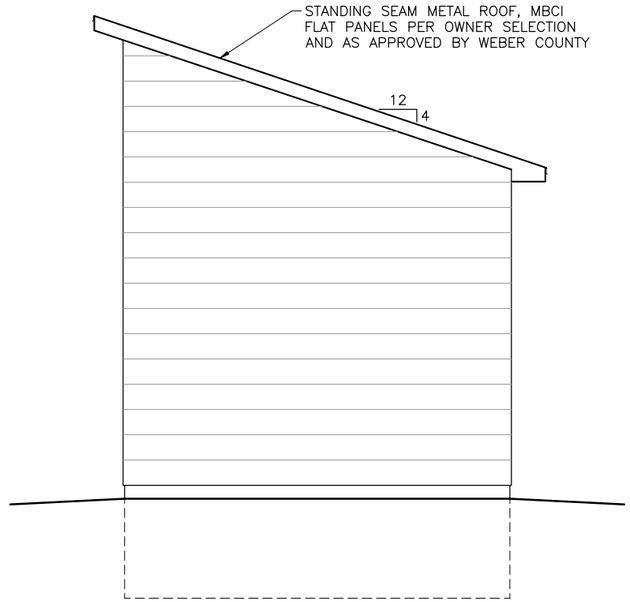
Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:7/10/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEETS\55-22-095_S-101.DWG

NOTES:
1. CONTRACTOR TO PROVIDE PRE-ENGINEERED AND FABRICATED WOOD FRAME BUILDING MEETING THE DESIGN CRITERIA AS SPECIFIED IN THE PROJECT DRAWINGS AND SPECIFICATIONS. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE BUILDING STAMPED BY A LICENSED PROFESSIONAL ENGINEER WITH EXPERIENCE IN THE DESIGN OF STRUCTURES FOR REVIEW PRIOR TO FABRICATION.
2. ALL COLORS AND TEXTURES FOR BUILDING SHALL BE VERIFIED AND APPROVED WITH OWNER. PROVIDE SAMPLES TO VERIFY COLOR.
3. PROVIDE A BROOM SURFACE FINISH TO ALL EXTERIOR CONCRETE SLABS AND SIDEWALKS.
4. EPOXY PAINT OR PROVIDE PRE-FINISHED PROTECTIVE COATINGS TO ALL EXTERIOR METAL SURFACES TO PREVENT CORROSION.
5. CONTRACTOR SHALL FURNISH AND INSTALL TRIMS, FLASHING, AND FINISH PIECES TO PRESENT A FINISHED APPEARANCE.
6. PLACE ALUMINUM 14"x10" CHLORINE WARNING SIGN ON DOOR EXTERIOR. Safetysign.com ITEM #F8461-BK OR EQUIVALENT.
7. PROVIDE ADEQUATE ROOF VENTILATION PER THE 300 RULE.

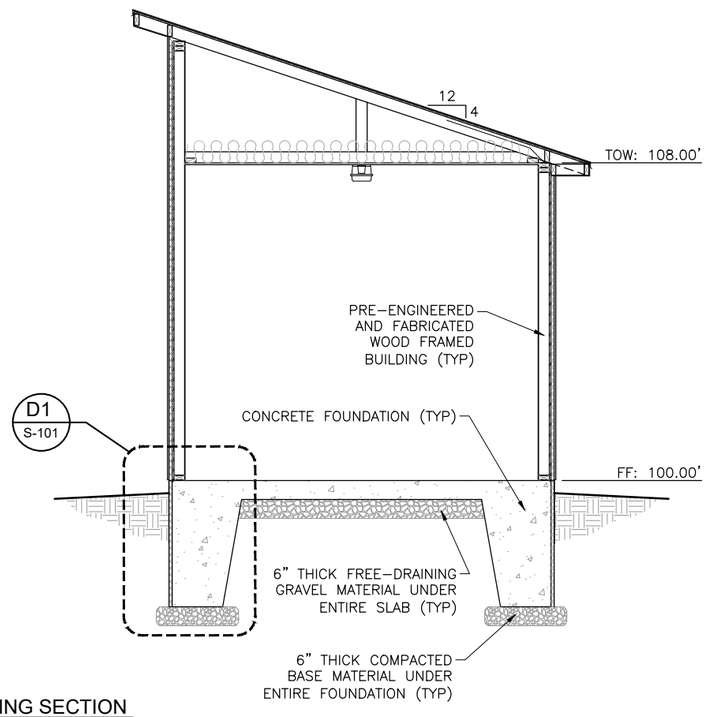


B1 TYPICAL BUILDING ELEVATIONS
SCALE: 1/2" = 1'-0"

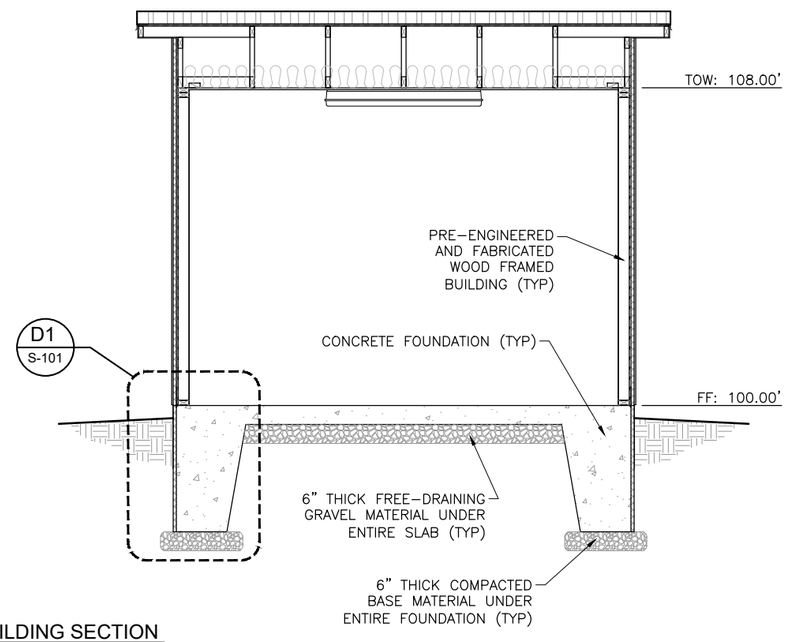
SOUTH ELEVATION



EAST ELEVATION



D1 TYPICAL BUILDING SECTION
SCALE: 1/2" = 1'-0"



D3 TYPICAL BUILDING SECTION
SCALE: 1/2" = 1'-0"

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CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
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7/11/2023
STATE OF UTAH

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SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

STRUCTURAL ELEVATIONS

FILE : 55-22-095_S-101
JUB PROJ. # : 55-22-095
DRAWN BY: CRA/ELC
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ONE INCH
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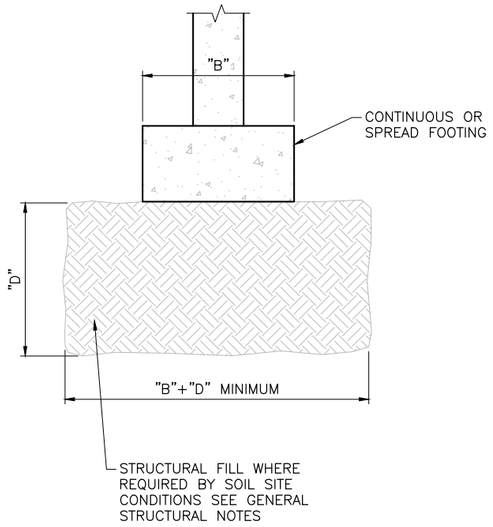
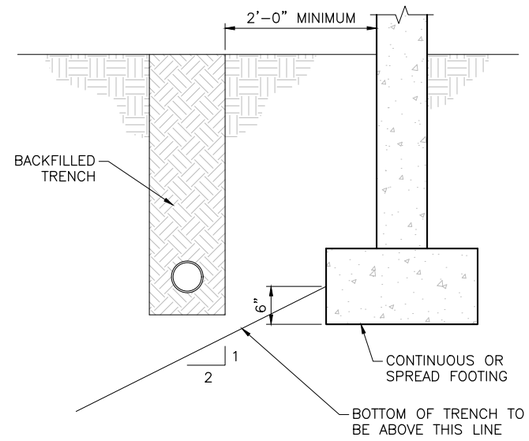
LAST UPDATED: 10/23/2023

SHEET NUMBER:
S-201

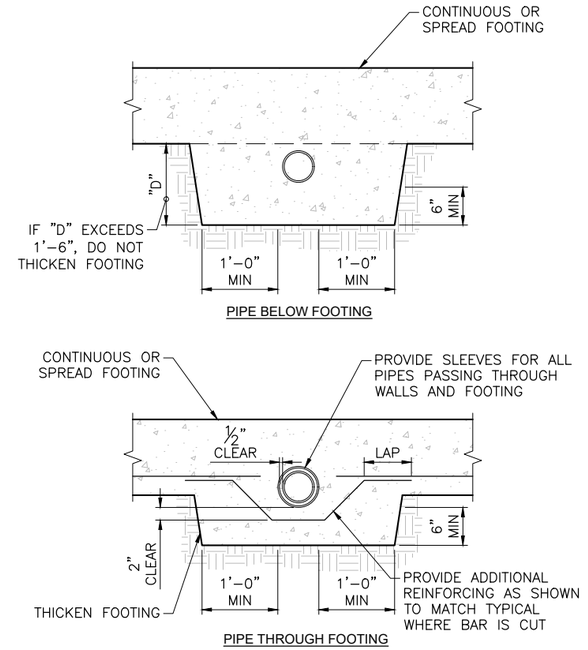
Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:7/10/2023 \\JUB.COM\CENTRAL\CLIENTS\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_S-101.DWG



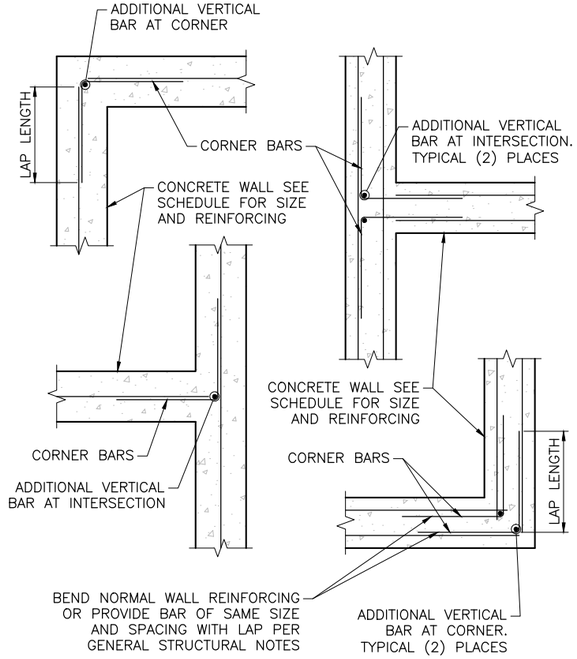
B1 STRUCTURAL FILL DETAIL
SCALE:NOT TO SCALE



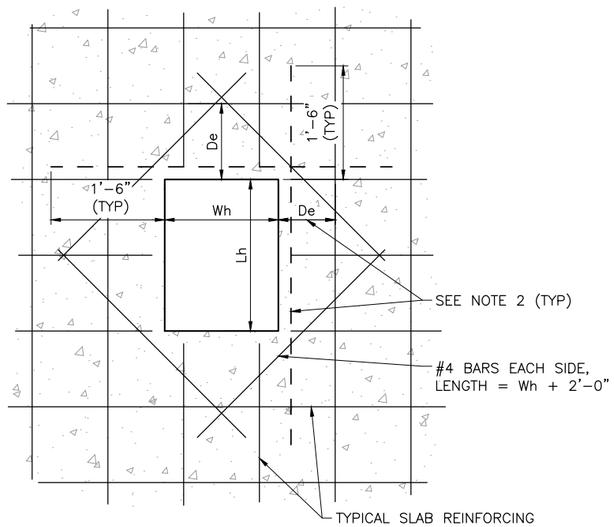
B2 PIPE PARALLEL TO FOOTING DETAIL
SCALE:NOT TO SCALE



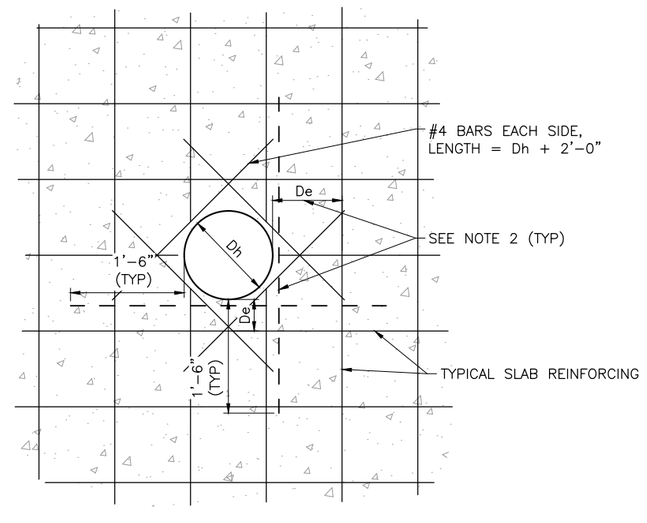
B3 PIPE PERPENDICULAR TO FOOTING DETAIL
SCALE:NOT TO SCALE



D1 CORNER REINFORCEMENT DETAIL FOR CONCRETE WALLS
SCALE:NOT TO SCALE



D2 SLAB ON GRADE PENETRATION DETAIL
SCALE:NOT TO SCALE



NOTES:
1. WHERE POSSIBLE, CENTER SLAB PENETRATIONS BETWEEN TYPICAL REINFORCING.
2. WHERE De IS GREATER THAN 9", PROVIDE ADDITIONAL BAR(S) WITHIN 2" CLEAR OF PENETRATION EDGE. EXTEND 18" PAST EDGE OF PENETRATION EACH SIDE.
3. WHERE PENETRATION FITS BETWEEN TYPICAL SLAB REINFORCING AND BAR SPACING IS 12" OR LESS, NO ADDITIONAL REINFORCING IS REQUIRED.

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CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
No. 9054566-2202
ERICK LARS CHRISTIANSEN
7/11/2023
STATE OF UTAH

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	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

TYPICAL FOUNDATION DETAILS

FILE : 55-22-095_S-101
JUB PROJ. # : 55-22-095
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DESIGN BY: ELC
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ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/23/2023

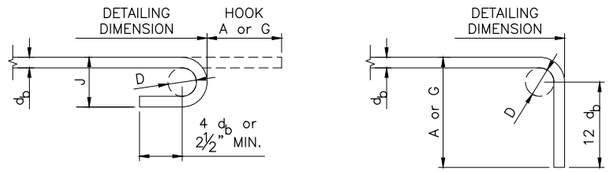
SHEET NUMBER:
S-501

Plot Date:10/23/2023 3:15 PM Plotted By: Caitlin Arnold
Date Created:7/10/2023 \\UB.COM\CENTRAL\CLIENT\SUT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_S-101.DWG

TYPICAL LAP SPLICE LENGTHS IN INCHES, PER ACI 318									
BAR SIZE	LAP CLASS	f'c=3,000 psi		f'c=4,000 psi		f'c=4,500 psi		f'c=5,000 psi	
		CAT. 1	CAT. 2	CAT.1	CAT. 2	CAT. 1	CAT. 2	CAT. 1	CAT. 2
#4	A	22	33	19	28	18	27	17	25
	B	28	43	25	37	24	35	22	33
#5	A	27	41	24	36	23	34	21	32
	B	36	53	31	46	30	44	28	41
#6	A	33	49	28	43	27	41	25	38
	B	43	64	37	55	36	53	33	50
#7	A	48	72	42	62	40	59	37	56
	B	62	93	54	81	51	77	48	72
#8	A	55	82	47	71	45	68	42	64
	B	71	106	61	92	58	88	55	83
#9	A	62	92	53	80	51	76	48	72
	B	80	120	69	104	66	99	62	93

NOTES:
1. FOR GRADE 60 REINFORCING STEEL BARS.
2. ALL LAP SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE.
3. CATEGORY 1: CLEAR COVER $\geq d_b$ AND CLEAR SPACING $\geq d_b$, AND STIRRUPS OR TIES THROUGHOUT L_d ARE PROVIDED.
   CATEGORY 1: CLEAR COVER $\geq d_b$ AND CLEAR SPACING $\geq 2d_b$.
   CATEGORY 2: CLEAR COVER $< d_b$ OR CLEAR SPACING $< 2d_b$.
4. FOR TOP BARS, MULTIPLY LAP LENGTH LISTED BY 1.30. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
5. FOR EPOXY COATED BARS, LAP LENGTHS SHALL BE MULTIPLIED BY 1.20.

B1 TYPICAL REBAR LAP SPLICE SCHEDULE
SCALE:NOT TO SCALE



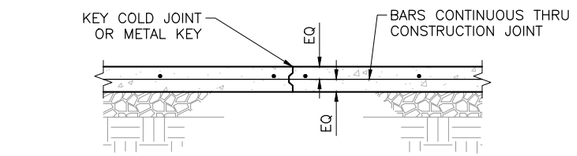
180° HOOKS

90° HOOKS

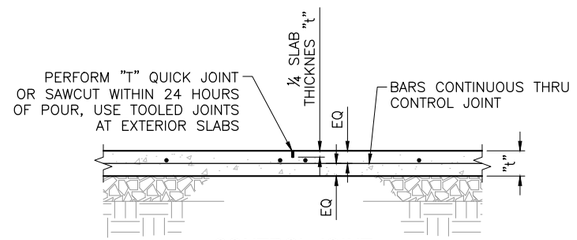
TYPICAL HOOK DIMENSIONS				
BAR SIZE	D	180° HOOKS		90° HOOKS
		A or G	J	A or G
#3	2¼"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	1'–0"
#7	5¼"	10"	7"	1'–2"
#8	6"	11"	8"	1'–4"
#9	9½"	1'–3"	11¾"	1'–7"
#10	10¾"	1'–5"	1'–1¼"	1'–10"
#11	12"	1'–7"	1'–2¾"	2'–0"

NOTES:
d_b = NOMINAL BAR DIAMETER.
D = FINISHED INSIDE BEND DIAMETER.
MINIMUM D = 6 d_b FOR #3 TO #8 BARS.
MINIMUM D = 8 d_b FOR #9 TO #11 BARS.
MINIMUM D = 10 d_b FOR #14 AND #18 BARS.

B2 TYPICAL REBAR HOOK DETAILS
SCALE:NOT TO SCALE

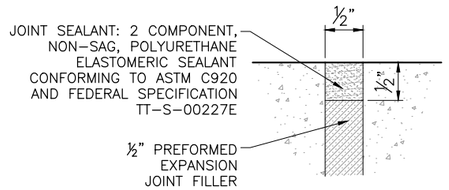


CONSTRUCTION JOINT



CONTROL JOINT

B3 SLAB ON GRADE JOINT DETAIL
SCALE:NOT TO SCALE



C1 EXPANSION JOINT SEALANT DETAIL
SCALE:NOT TO SCALE

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SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

TYPICAL FOUNDATION DETAILS

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ONE INCH
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LAST UPDATED: 10/23/2023

SHEET NUMBER:
S-502

Plot Date:10/23/2023 3:16 PM Plotted By: Caitlin Arnold
Date Created:7/10/2023 \\JUB.COM\CENTRAL\CLIENT\UT\COLECANYON\PROJECTS\55-22-095_SYSTEMFILTERATIONANDDISINFECTION\DESIGN\CAD\SHEET\55-22-095_S-101.DWG

GENERAL DRAWING SYMBOLS AND REFERENCES

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

①	REFERENCE NOTE
1	DEMOLITION NOTE
NO.	REVISION NOTE
1	IDENTIFICATION NOTE
NO	PHOTO REFERENCE
XX–XX / HPE	HPE DETAIL BUBBLE
XX / XX	EQUIPMENT REFERENCE
WIRE	WIRE SIZE REFERENCE
PHOTO XXX XXXX	PHOTO REFERENCE
A	SECTION/ELEVATION REFERENCE
XXX–XXX	EQUIPMENT ID TAG

PLAN SYMBOLS

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

EQUIPMENT	
	CIRCUIT DISTRIBUTION PANELBOARD SURFACE MOUNTED
	CIRCUIT DISTRIBUTION PANELBOARD RECESSED
	POWER DISTRIBUTION PANELBOARD SURFACE OR FLOOR MOUNTED DOORS DESIGNATE FRONT OF PANEL MDP DESIGNATES MAIN DISTRIBUTION PANEL
	CONTROL PANEL ENCLOSURE
	LIGHTING CONTROL PANEL
	DISCONNECT
HVAC EQUIPMENT	
	UNIT HEATER, WALL MOUNTED
	UNIT HEATER, CEILING MOUNTED
	CONDENSING UNIT, PAD MOUNTED, SIDE DISCHARGE
	CONDENSING UNIT, PAD MOUNTED, UP FLOW
	ROOFTOP MOUNTED EQUIPMENT

MOTOR AND EQUIPMENT

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

HP	MOTOR (HP SHOWN)
F	FRACTIONAL HORSEPOWER MOTOR
	MOTOR STARTER, INDIVIDUAL, NOT LOCATED IN A MOTOR CONTROL CENTER (MCC) OR SIMILAR GROUP ASSEMBLY
	COMBINATION MOTOR STARTER ASSEMBLY, NOT LOCATED IN AN MCC OR SIMILAR ASSEMBLY
	MAGNETIC CONTACTOR ASSEMBLY, NOT LOCATED IN AN MCC OR SIMILAR ASSEMBLY
XXXA	DISCONNECT, NON–FUSED, 3 POLE, 100A RATED
F	FUSED DISCONNECT SWITCH
	FIELD CONNECTION OR ELECTRICAL TERMINATION AT A FIELD DEVICE
XXXXX	EQUIPMENT DESIGNATION

POWER ONE–LINE SYMBOLS

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

	ANTENNA
	EQUIPMENT GROUND CONNECTION
	TRANSFER SWITCH ATS: AUTOMATIC TRANSFER SWITCH MTS: MANUAL TRANSFER SWITCH
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER
F	FUSED DISCONNECT SWITCH
	NON–FUSED DISCONNECT SWITCH
	COMBINATION STARTER
	MAGNETIC CONTROLLER
HP	MOTOR (HP SHOWN)
	GENERATOR
WIRE	CONDUCTOR WITH CALLOUT REFERENCE (SEE CONDUIT/CONDUCTOR SCHEDULE)
	POWER FACTOR CAPACITOR
	CIRCUIT BREAKER
	POWER FEED
	CONNECTION POINT
	LUG
	DELTA WYE
M	UTILITY METERING SOCKET WITH CIRCUIT BREAKER
M	EXISTING UTILITY METERING SOCKET
M	UTILITY METERING SOCKET
M	FUTURE UTILITY METERING SOCKET
	UTILITY METERING CURRENT TRANSFORMER
	MOTOR STARTER
	SURGE PROTECTOR
	TRANSFORMER
	FUSED SWITCH
	FUSE IN HOLDER
PNL	EXISTING POWER DISTRIBUTION PANEL
PNL	POWER DISTRIBUTION PANEL
PNL	FUTURE POWER DISTRIBUTION PANEL

GROUNDING SYMBOLS

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

	GROUND ROD (3/4" x 10' COPPER COATED STEEL)
	GROUND ROD (3/4" x 10' COPPER COATED STEEL) IN WELL
	BOLTED GROUND CONNECTION (ABOVE GROUND)
	WELDED GROUND CONNECTION (BELOW GRADE)
	GROUND CONDUCTOR (#2/0 BARE COPPER)

LIGHT SWITCHES

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

$	SINGLE POLE SWITCH
$$	GANGED SWITCHES IN COMMON BOX WITH COMMON COVER PLATE
$ᵃ	SWITCH SUPERSCRIPT MODIFIER, LOWER CASE LETTER INDICATES CIRCUIT CONTROLLER –– a,b,c ETC. MAY BE COMBINED WITH CIRCUIT NUMBER. EXAMPLE: 1a, 3b
$₃	SWITCH SUBSCRIPT MODIFIER, UPPER CASE LETTER OR NUMBER: 2 = DOUBLE POLE 3 = THREE WAY 4 = FOUR WAY OC = MOTION OCCUPANCY SWITCH K = KEY OPERATED M = HORSEPOWER RATED MANUAL STARTER MC = MOMENTARY CONTACT, THREE POSITION MS = MANUAL (STARTER) OR SWITCH D = DIMMER S = SURFACE F = FLUSH

CONDUIT AND RACEWAYS

THIS IS A STANDARD LEGEND NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

	RACEWAY OR WIRING SYSTEM IN OR UNDER FLOOR OR CONCEALED IN WALL OR BEHIND STRUCTURE OR EQUIPMENT OR CONDUIT ROUTED BELOW GRADE IN CONCRETE ENCASEMENT
	FLEX CONDUIT
	RACEWAY OR WIRING SYSTEM ABOVE FLOOR LEVEL BELOW CEILING, EXPOSED
	HOMERUN: DESIGNATIONS INDICATE A ONE–LINE DIAGRAM OR PANELBOARD SCHEDULE REFERENCE
J	JUNCTION BOX
	RACEWAY OR WIRING SYSTEM TURNED TOWARD THE VIEWER (UP ON PLAN DRAWINGS)
	RACEWAY OR WIRING SYSTEM TURNED AWAY FROM THE VIEWER (DOWN ON PLAN DRAWINGS)
	RACEWAY OR WIRING SYSTEM CHANGE IN ELEVATION OR DISTANCE FROM VIEWER
	CONDUIT STUB AND CAP

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POWER SYSTEMS, CONTROL & INSTRUMENTATION SYSTEMS
HEGERHORST POWER ENGINEERING INCORPORATED (801) 642–2051
708 EAST 50 SOUTH FAX (801) 642–2154
AMERICAN FORK, UT 84003

HPE PROJECT:23.043
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

GENERAL NOTES:

1. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH–IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO ENSURE NEC CODE CLEARANCE REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
2. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED BEFORE BEGINNING ROUGH–IN.
3. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH–IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC.
4. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THROUGH ELECTRICAL ROOMS OR SPACES; OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN THE OTHER AREAS.
5. ALL PENETRATIONS OF FLOORS, WALLS AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL.
6. FOR PACKAGE EQUIPMENT PROVIDED ON THE PROJECT, SOME CONDUITS AND WIRES ARE SHOWN ON THE DRAWINGS, BUT IT IS EXPECTED THAT SOME ADDITIONAL CONDUITS AND WIRES MAY BE REQUIRED BY EQUIPMENT MANUFACTURERS TO COMPLETE INSTALLATION. IT IS INCUMBENT UPON THE GENERAL CONTRACTOR TO COORDINATE THIS REQUIREMENT WITH HIS SUBCONTRACTORS TO MAKE SURE THAT EQUIPMENT SUPPLIER PROVIDED ALL NECESSARY ELECTRICAL INFORMATION TO ELECTRICAL SUBCONTRACTOR FOR INCLUSION WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS.
7. IF OTHER THAN FIRST NAMED EQUIPMENT IS USED, IT SHALL BE CAREFULLY CHECKED FOR ELECTRICAL REQUIREMENTS AND CONTROL REQUIREMENTS OF ALTERNATE EQUIPMENT. SHOULD CHANGES OR ADDITIONS OCCUR IN ELECTRICAL WORK, OR THE WORK OF OTHER CONTRACTORS BE REVISED BY THE ALTERNATE EQUIPMENT, THE COST OF ALL CHANGES SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.

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www.jub.com

CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
No. 86–171214–2202
KEITH B. HEGERHORST
02/02/22
STATE OF UTAH

SET

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

ELECTRICAL LEGEND

FILE : E-001
JUB PROJ. # : 55-22-095
DRAWN BY: KBH
DESIGN BY: KBH
CHECKED BY: KBH
ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/24/2023

SHEET NUMBER:
E-001

Date Created:7/6/2023 \\PESERVER-PC\HPE_PROJECTS\23.043 - COLE CANYON FILTRATION\DRAWINGS\E-001.DWG

CONDUIT/CONDUCTOR SCHEDULE *

THHN, THWN, THWN-2

AMP RATING	DRAWING ID TAG.	CONDUCTOR QTY.	CONDUCTOR SIZE	MIN. CONDUIT SIZE	EXCEPTIONS
20** 20+	212	2	#12	3/4"	
	312	3		3/4"	
	412	4		3/4"	
30** 30+	20	2	#10	3/4"	
	30	3		3/4"	
	40	4		3/4"	
40** 50+	28	2	#8	3/4"	
	38	3		3/4"	
	48	4		3/4"	
55** 65+	26	2	#6	3/4"	
	36	3		3/4"	
	46	4		3/4"	1"(C9)
70** 85+	24	2	#4	3/4"	1"(C2,C9)
	34	3		1"	3/4"(C4),1-1/4"(C9)
	44	4		1"	1-1/4"(C9)
95** 115+	22	2	#2	1"	
	32	3		1"	1-1/4"(C9)
	42	4		1-1/4"	
110** 130+	21	2	#1	1-1/4"	1"(C3,C4)
	31	3		1-1/4"	1"(C3)
	41	4		1-1/4"	1-1/2"(C2,C9,C10)
150	210	2	1/0	1-1/4"	
	310	3		1-1/4"	1-1/2"(C3,C9)
	410	4		1-1/2"	2"(C9)
175	220	2	2/0	1-1/4"	1-1/2"(C3,C4,C9)
	320	3		1-1/2"	
	420	4		2"	
200	230	2	3/0	1-1/2"	1-1/4(C4)
	330	3		1-1/2"	2"(C3,C9)
	430	4		2"	
230	240	2	4/0	1-1/2"	2"(C3)
	340	3		2"	
	440	4		2"	2-1/2"(C9)
255	225	2	250 KCMIL	2"	1-1/2"(C4)
	325	3		2"	2-1/2"(C1,C8)
	425	4		2-1/2"	2"(C4)
310	235	2	350 KCMIL	2"	2-1/2"(C9)
	335	3		2-1/2"	2"(C4)
	435	4		3"	2-1/2"(C1,C4)
380	250	2	500 KCMIL	2-1/2"	2"(C4)
	350	3		3"	2-1/2"(C1,C4)
	450	4		3"	3-1/2"(C9)
475	275	2	750 KCMIL	3"	
	375	3		3-1/2"	3"(C1,C7,C8)
	475	4		4"	3-1/2"(C1,C4,C8)

* CONDUCTOR QUANTITY DOES NOT INCLUDE GROUNDING CONDUCTOR. SEE EQUIPMENT GROUNDING CONDUCTORS FOR WIRE SIZE.

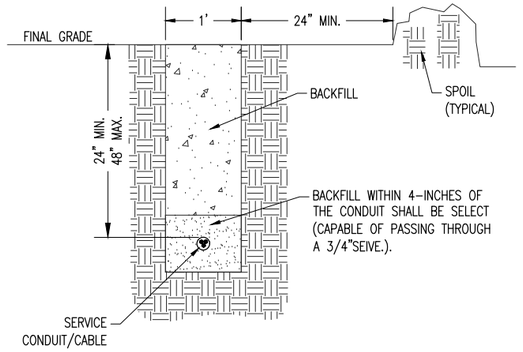
WHERE:
- C1 = ELECTRICAL METALLIC TUBING
- C2 = ELECTRICAL NON-METALLIC TUBING
- C3 = FLEXIBLE STEEL CONDUIT
- C4 = INTERMEDIATE METALLIC CONDUIT
- C7 = LIQUIDTIGHT FLEXIBLE METAL CONDUIT
- C8 = RIGID METALLIC CONDUIT
- C9 = PVC SCHEDULE 80 CONDUIT
- C10 = PVC SCHEDULE 40 CONDUIT
- "**" = RATED AMPACITY AT 60°C
- "+" = RATED AMPACITY AT 75°C
- USE 60°C CONDUCTOR RATING WHEN TERMINATION RATINGS ARE NOT PUBLISHED.

GROUNDING ELECTRODE CONDUCTOR SERVICE ENTRANCE OR SEPARATELY DERIVED SYSTEM

COPPER CONDUCTOR	WIRE SIZE
#2 OR SMALLER	#8
1 OR 1/0	#6
2/0 OR 3/0	#4
>3/0 THRU 350 KCMIL	#2
>350 KCMIL THRU 600 KCMIL	1/0
>600 KCMIL THRU 1100 KCMIL	2/0
>1100 KCMIL	3/0

EQUIPMENT GROUNDING CONDUCTORS

FUSE OR CB SIZE	SIZE (COPPER)
15	14
20	12
30	10
40	10
60	10
100	8
200	6
300	4
400	3
500	2
600	1
800	1/0
1000	2/0
1200	3/0
1600	4/0
2000	250
2500	350



1 RMP SERVICE TRENCH
SCALE: 1" = 1'-0"

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AMERICAN FORK, UT 84003

HPE PROJECT: 23.043
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

GENERAL NOTES:

1. NOT USED

SHEET KEYNOTES:

1. NOT USED

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CONSTRUCTION SET

REGISTERED PROFESSIONAL ENGINEER
No. 86-171214-2202
KEITH B. HEGERHORST
02/02/22
STATE OF UTAH

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

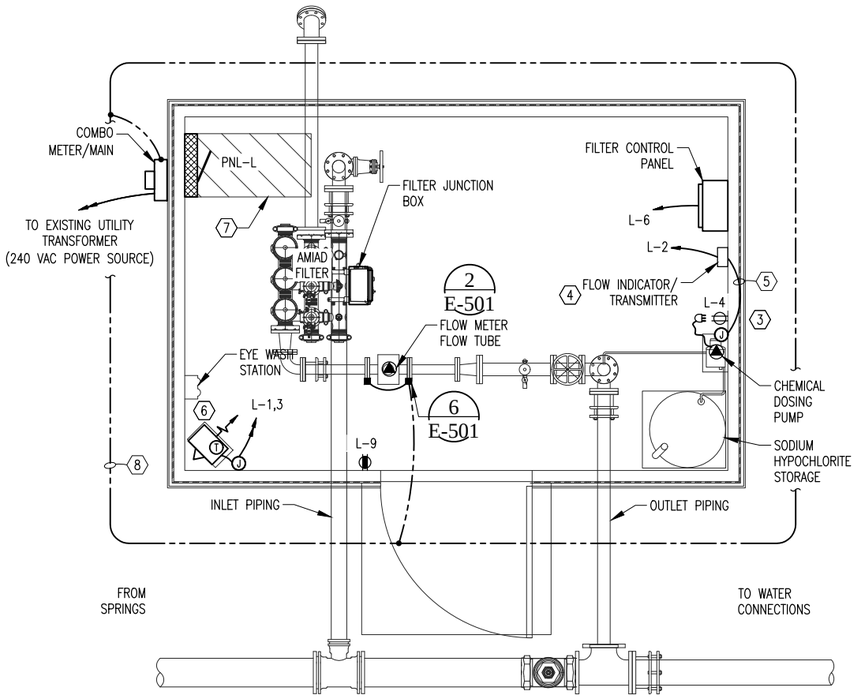
SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

ELECTRICAL TABLES

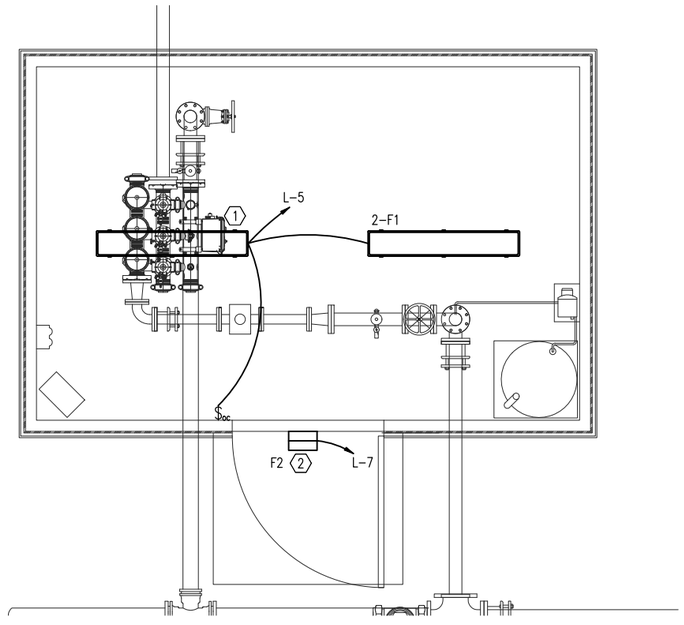
FILE: E-002
JUB PROJ. #: 55-22-095
DRAWN BY: KBH
DESIGN BY: KBH
CHECKED BY: KBH
ONE INCH
AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/24/2023

SHEET NUMBER:
E-002

Date Created:7/6/2023 M:\23\043 - COLE CANYON FILTRATION\DRAWINGS\E-002.DWG



ELECTRICAL PLAN



LIGHTING PLAN

0 2' 4' 6'

1/2"=1'-0"

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AMERICAN FORK, UT 84003

HPE PROJECT:23.043
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

GENERAL NOTES:

1. REFER TO PANLEBOARD SCHEDULE OR POWER ONE-LINE DIAGRAM FOR THE CIRCUIT ID. THEN, THE WIRE AND CONDUIT REQUIREMENTS ARE LISTED IN THE CONDUIT/CONDUCTOR TABLE ON E-002.
2. INSTALL INTERIOR RECEPTACLES AT +36-IN ABOVE THE ROOM FLOOR. INSTALL EXTERIOR RECEPTACLES AT +18-IN ABOVE FINISHED SURFACE AND PROVIDE IN-SERVICE W/P COVER.

SHEET KEYNOTES:

1. PROVIDE A 90-MINUTE BATTERY POWER SUPPLY IN THIS FIXTURE.
2. INSTALL FIXTURE 6-IN ABOVE CENTER OF DOOR.
3. INSTALL OUTLET FOR CHEMICAL PUMP 6-IN ABOVE TOP OF PUMP.
4. INSTALL FLOW INDICATOR/TRANSMITTER +60" ABOVE FINISHED FLOOR.
5. DOSING PACING SIGNAL: INSTALL A J-BOX NEAR THE DOSING PUMP AND INSTALL A 3/4"C WITH #18 TSP TO THE FLOW INDICATOR/TRANSMITTER.
6. LOCATE HEATER SUCH THAT AN OPERATOR CAN REACH THE BUILT-IN THERMOSTAT.
7. MAINTAIN NEC WORKING CLEARANCE TO PANELBOARD.
8. AWG NO. 2 BC BURIED 18-IN DEEP AND 24-IN FROM BUILDING CONCRETE PAD.

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CONSTRUCTION

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KEITH B. HEGERHORST
02/02/22
STATE OF UTAH

SET

NO.	DESCRIPTION	BY	APP'D	DATE
	REVISION			

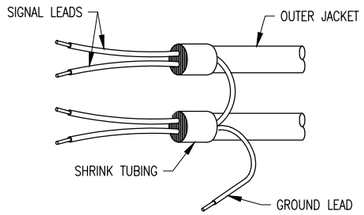
SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

ELECTRICAL PLANS

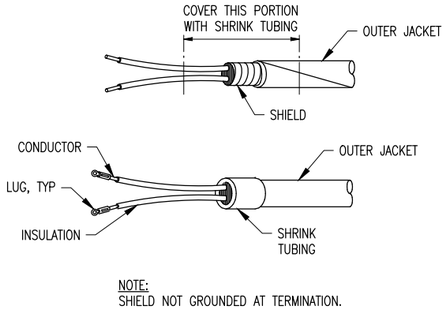
FILE : E-102
JUB PROJ. # : 55-22-095
DRAWN BY: KBH
DESIGN BY: KBH
CHECKED BY: KBH
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/24/2023

SHEET NUMBER:
E-102

Date Created:7/6/2023 M:\23.043 - COLE CANYON FILTRATION\DRAWINGS\E-102.DWG

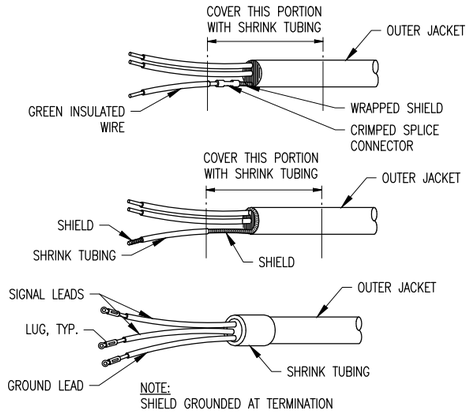


UNACCEPTABLE METHOD OF GROUNDING CONTROL CABLE SHIELD NTS



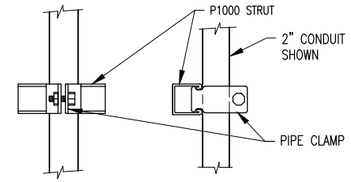
NOTE:
SHIELD NOT GROUNDED AT TERMINATION.

TERMINATION OF SHIELDED CONTROL CABLE NTS



NOTE:
SHIELD GROUNDED AT TERMINATION

TERMINATION OF SHIELDED CONTROL CABLE NTS



FRONT VIEW SIDE VIEW

CONDUIT PIPE CLAMPS*			
SIZE	EMT	RGS	EMT/GRS
1/2"	P1426	P1111	–
3/4"	P1427	P1112	P1212
1"	P1428	P1113	P1213
1-1/4"	P1429	P1114	P1214
1-1/2"	P1430	P1115	P1215
2"	P1431	P1117	P1217
2-1/2"	P1118	P1118	–
3"	P1119	P1119	–
3-1/2"	P1120	P1120	–
4"	P1121	P1121	–

* = SUPPLIED WITH SLOTTED HEAD SCREW AND NUT

1 TYPICAL CONDUIT CLAMP
SCALE:3" = 1'-0"

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AMERICAN FORK, UT 84003

HPE PROJECT:23.043
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

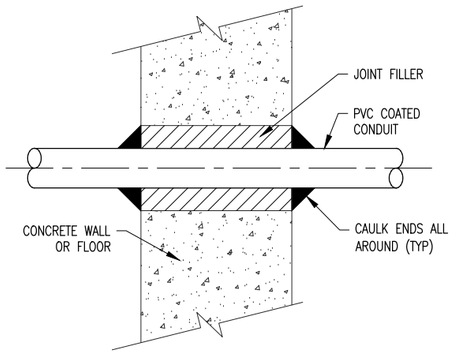
GENERAL NOTES:

1. NOT USED

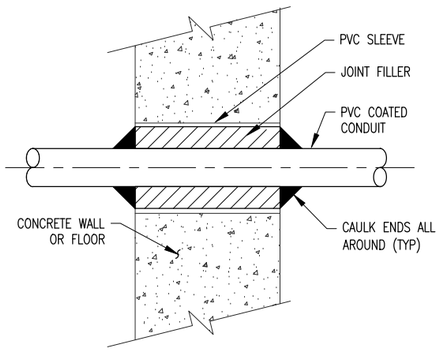
SHEET KEYNOTES:

1. NOT USED

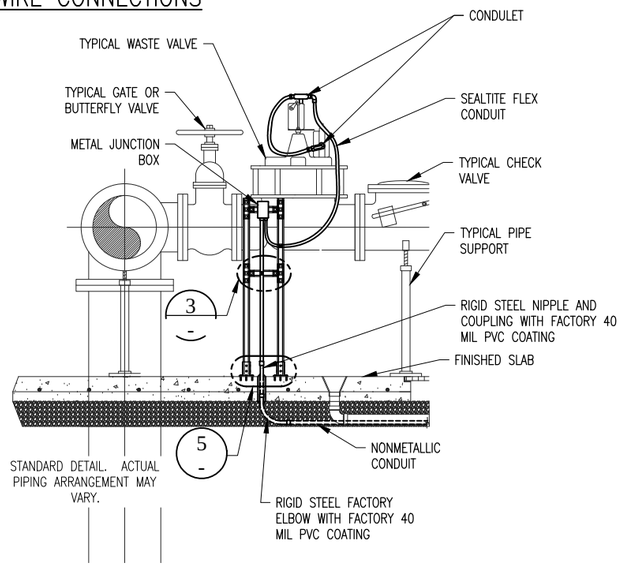
SIGNAL WIRE CONNECTIONS



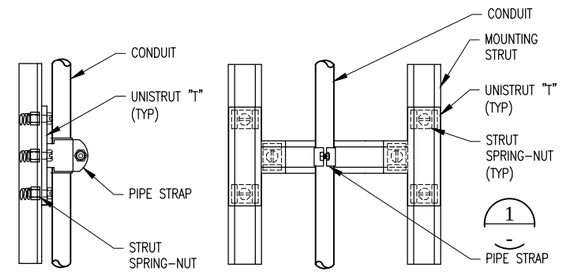
CONDUIT INSTALLATION THROUGH EXISTING CONCRETE



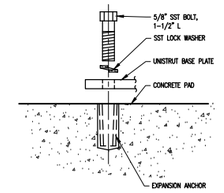
CONDUIT INSTALLATION THROUGH NEW CONCRETE



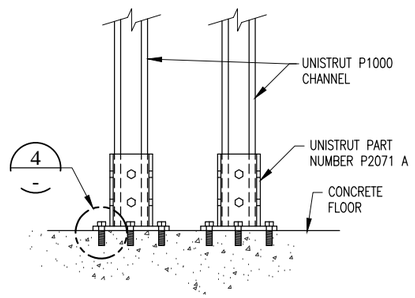
2 CONDUIT INSTALLATION
SCALE:3/4" = 1'-0"



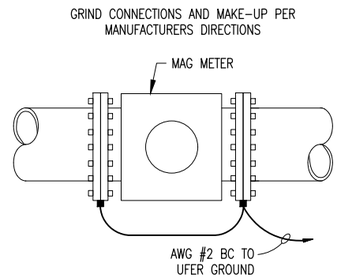
3 CONDUIT SUPPORT BRACE
SCALE:3" = 1'-0"



4 BASE ANCHOR
SCALE:3" = 1'-0"



5 SUPPORT BASE INSTALLATION
SCALE:3" = 1'-0"



6 MAG METER GROUNDING
SCALE:1 1/2" = 1'-0"

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CONSTRUCTION SET

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KEITH B. HEGERHORST
02/02/22
STATE OF UTAH

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

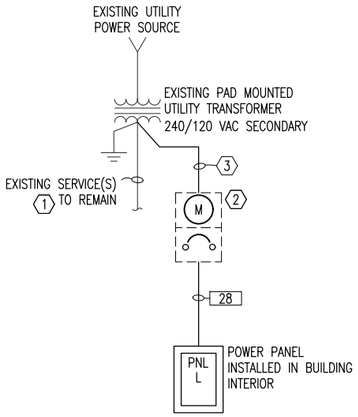
SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

ELECTRICAL DETAILS, SHT. 1

FILE: E-501
JUB PROJ. #: 55-22-095
DRAWN BY: KBH
DESIGN BY: KBH
CHECKED BY: KBH
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/24/2023

SHEET NUMBER:
E-501

Date Created:7/6/2023 M:\23.043 - COLE CANYON FILTRATION\DRAWINGS\E-501.DWG



POWER ONE-LINE DIAGRAM

ELECTRICAL UTILITY INSTALLATION

UTILITY INFORMATION

UTILITY COMPANY:	ROCKY MOUNTAIN POWER
UTILITY COMPANY CONTACT:	
CONTACT INFORMATION:	PHONE:
WORK ORDER NUMBER:	

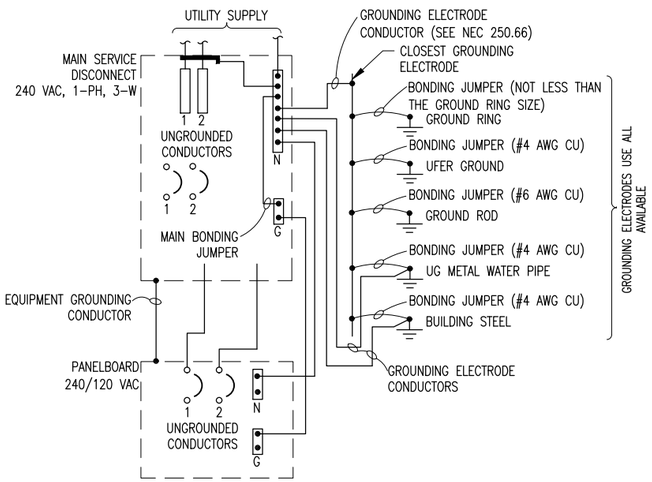
SERVICE PRIMARY	SUPPLIED BY:	INSTALLED BY:
PRIMARY TRENCHING/BACKFILL	EXISTING	-
PRIMARY CONDUIT	EXISTING	
PRIMARY CONDUCTOR	EXISTING	

SERVICE TRANSFORMER	SUPPLIED BY:	INSTALLED BY:
TRANSFORMER PAD	EXISTING	-
TRANSFORMER	EXISTING	EXISTING

SERVICE SECONDARY	SUPPLIED BY:	INSTALLED BY:
SECONDARY TRENCHING/BACKFILL	-	CONTRACTOR
SECONDARY CONDUIT	CONTRACTOR	CONTRACTOR
SECONDARY CONDUCTOR	UTILITY COMPANY	UTILITY COMPANY

METERING EQUIPMENT	SUPPLIED BY:	INSTALLED BY:
METER	UTILITY COMPANY	UTILITY COMPANY
METER SOCKET	CONTRACTOR	CONTRACTOR
COMBO METER/MAIN	CONTRACTOR	CONTRACTOR
CURRENT TRANSFORMER ENCL. MAIN SERVICE DISCONNECT		
CT ENCL. TO METER SOCKET WIRING	-	-
CT ENCL. TO METER SOCKET CONDUIT	-	-

MAIN SERVICE DISCONNECT	SUPPLIED BY:	INSTALLED BY:
CIRCUIT BREAKER	CONTRACTOR	CONTRACTOR
FUSED DISCONNECT SWITCH	-	-



GROUNDING DIAGRAM

PANELBOARD L

LOCATION: DOSING BUILDING | MFGR: SQUARE D | 100 AMPS | VOLTS: 240/120
DIMENSIONS: 20"W x 5.75"D x 26"H | TYPE: NQ | X M.L.O. | PHASE: 1
MOUNTING: SURFACE | NEMA: 1 | 10,000 A.I.C. | WIRES: 3
FEED: BOTTOM | | X SPD | FED FROM: SERVICE DISCONNECT

BRKR A	P	DESCRIPTION	WIRE SIZE	CONT. WATTS	N-CONT. WATTS	NO	PHASE LOADS A CONT.	A N-CONT.	PHASE LOADS B CONT.	B N-CONT.	NO	N-CONT. WATTS	CONT. WATTS	WIRE SIZE	DESCRIPTION	BRKR A	P
20	2	UNIT HEATER	212	1,650		1	1,700	0			2		50	212	FLOW METER	20	1
-	-	-	-	1,650		3			1,650	180	4	180		212	DOSING PUMP	20	1
20	1	LTS, INTERIOR	212	72		5	252	0			6		180	212	AMIAD FILTER CP	15	1
20	1	LTS, EXTERIOR	212	18		7			18	0	8				SPARE	20	1
20	1	RECEPT, INTERIOR	212	180		9	180	0			10				SPARE	20	1
	1	AVAILABLE SPACE				11			0	0	12				AVAILABLE SPACE		1
	1	AVAILABLE SPACE				13	0	0			14				AVAILABLE SPACE		1
	1	AVAILABLE SPACE				15			0	0	16				AVAILABLE SPACE		1
	1	AVAILABLE SPACE				17	0	0			18				AVAILABLE SPACE		1
		TOTAL WATTS:		3,570	0		2,132	0	1,668	180		180	230				
		CONTINUOUS LOAD:		3,800													
		CONTINUOUS LOAD * 125%:		4,750													
		NON-CONTINUOUS LOAD:		180													
		DESIGN WATTS:		4,930													
		MIN. RATING (AMPS):		21													

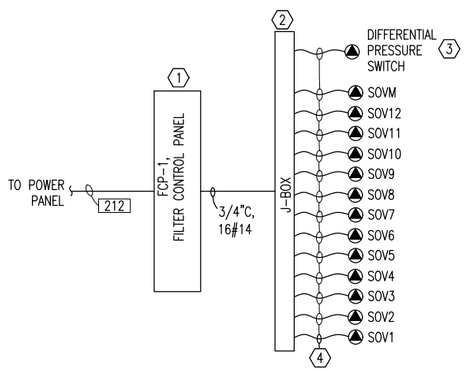
FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER NAME	MANUFACTURER CATALOG NO.	FIX VA	LAMP	LUMENS	KELVIN	MOUNTING	NOTES:
F1	4' LED ENCLOSED INDUSTRIAL, FIBERGLASS HOUSING, DAMP LOCATION, MVOLT	METALUX	4VT2-LDS-6-DR-UNV-L840-CD-1-U	53	LED	6,000	4,000	SURFACE	
F2	LED WALL MOUNTED FULL CUTOFF MINI AREA WALL PACK FOR WET LOCATIONS, PHOTOCELL	LUMARK	AXCS1A-PC	14	LED	1,806	4,000	WALL	

NOTES: 1)

WIRING DIAGRAM NOTES:

1. FILTER CONTROL PANEL SUPPLIED BY FILTER MANUFACTURER INSTALLED BY CONTRACTOR.
2. J-BOX PROVIDED BY FILTER MANUFACTURER WITH THE FILTER.
3. DIFFERENTIAL PRESSURE SWITCH PROVIDED BY FILTER MANUFACTURER. WIRE TO J-BOX AS REQUIRED.
4. WIRING ON FILTER PROVIDED/INSTALLED BY FILTER SUPPLIER.



FILTER CONNECTION DIAGRAM

H.P.E. INC. ELECTRICAL ENGINEERS
POWER SYSTEMS, CONTROL & INSTRUMENTATION SYSTEMS
HEGERHORST POWER ENGINEERING INCORPORATED (801) 642-2051
708 EAST 50 SOUTH FAX (801) 642-2154
AMERICAN FORK, UT 84003

HPE PROJECT:23.043
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

GENERAL NOTES:

1. NOT USED.

SHEET KEYNOTES:

1. EXISTING SERVICE(S) TO REMAIN. MAINTAIN CIRCUIT INTEGRITY.
2. NEW COMBO METER/MAIN, WITH 40A/2P CIRCUIT BREAKER. INSTALL ON EXTERIOR OF CHEMICAL BUILDING. LABEL AS "MAIN SERVICE DISCONNECT" AND AS REQUIRED BY NEC 110.24.
3. 3" CONDUIT WITH PULL TAPE. INSTALL CONDUIT FROM 2-3 FT NEAR TRANSFORMER TO COMBO METER/MAIN AS REQUIRED. CONDUCTOR PROVIDED AND INSTALLED BY UTILITY COMPANY. RMP WILL MAKE THE CONNECTION AT THE TRANSFORMER.

J-U-B ENGINEERS, INC.
466 North 900 West
Kaysville, Utah 84037
Phone: 801.547.0393
Fax: 801.547.0397
www.jub.com

CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
No. 86-171214-2202
KEITH B. HEGERHORST
02/02/22
STATE OF UTAH

SET

NO.	DESCRIPTION	BY	APPR.	DATE

SYSTEM FILTRATION AND CHLORINATION PROJECT
COLE CANYON WATER COMPANY

ONE-LINE DIAGRAMS

FILE : E-701
JUB PROJ. # : 55-22-095
DRAWN BY: KBH
DESIGN BY: KBH
CHECKED BY: KBH
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 10/24/2023

SHEET NUMBER:
E-701

Date Created:7/19/2023, M:\55\043 - COLE CANYON FILTRATION\DRAWINGS\E-701.DWG

801-399-8791
2380 Washington Blvd. Ste 240, Ogden, UT. 84401
www.webercountyutah.gov/planning/

WEBER COUNTY
PLANNING DIVISION

MEMO

Date: April 19, 2024

To: Ogden Valley Planning Commission

From: Charlie Ewert

Re: Zoning Map Amendment Application – Naylor Family Investments (Cowboy Partners)

In the planning commission's April 23rd meeting you will be discussing a rezone of property from the AV-3 (agricultural) zone to the FB (form-based) zone. The property is located on both sides of Highway 158 just north of Eden's four-way stop.

Staff has yet to conduct a formal analysis of the application, but this memo is intended to help the planning commission address the proposal using information found in the general plan as well as information from the Form-Based Zone.

Here is a graphic depiction of the property overlaying an aerial image:

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Here is a graphic depiction of the area's current zoning map:

You can see from this image that the proposed property is directly between an existing CV-2 (commercial) zone and the recently adopted Eden Crossing FB (form-based) zone.

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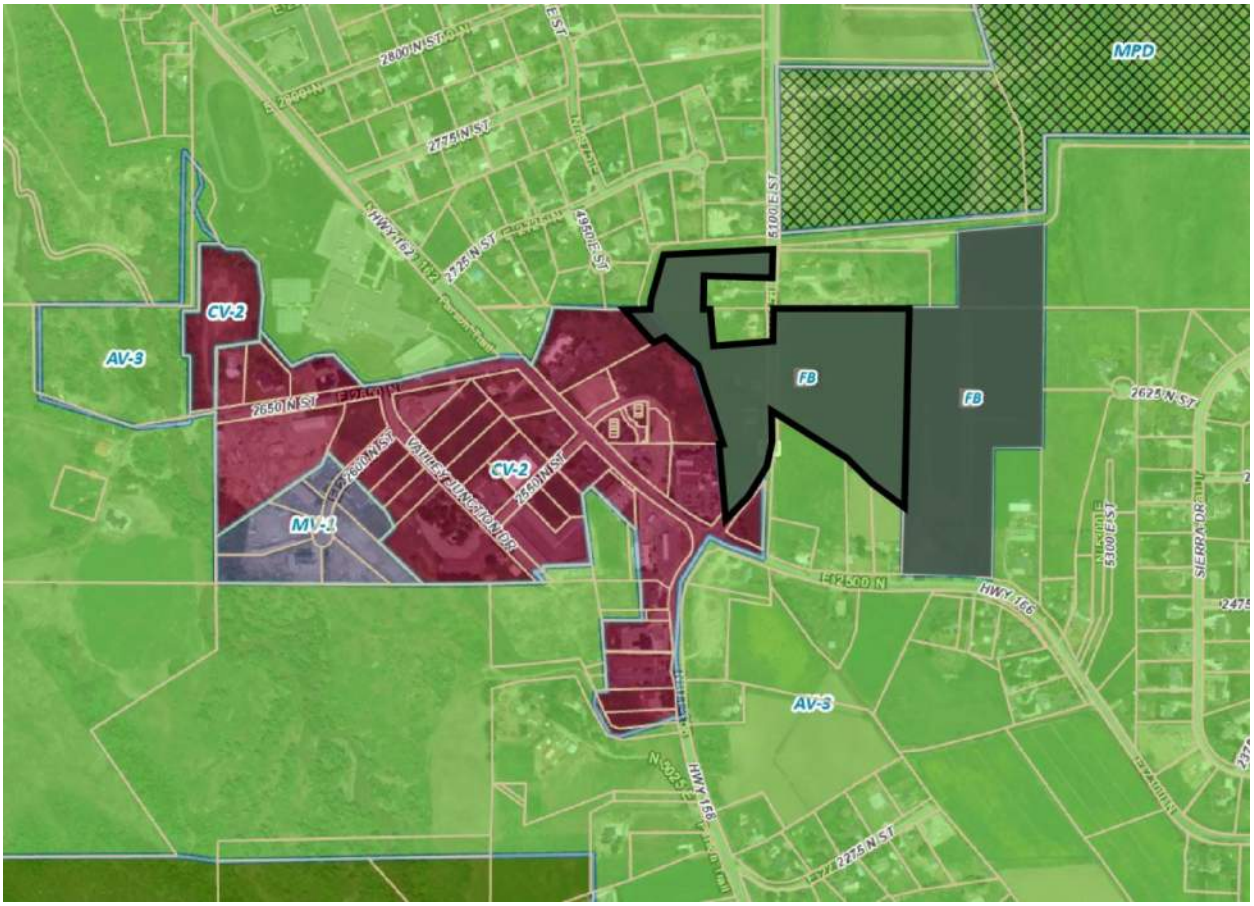
The applicant is requesting the property be rezoned to the FB (form-based) zone. Here is a graphic depiction of how the zone map would look if approved:



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PLANNING DIVISION

As you know, the form-based zone has a street regulating plan that those within the zone must follow. The following image provides the proposed zoning map with the street regulating plan applicable to just the areas that are or are proposed to become part of the FB (form-based) zone.

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The following image provides the entire street regulating plan for the FB zone in the New-Town Eden area, with the proposed FB zone boundary shaded, and the subject property boundaries in black.

This property is primarily affected by Vehicle Oriented Commercial (VOC), Multifamily Residential (MFR), and Small Lot Residential (SLR) street types. There is a little Open Space (OS) as well. The purpose of these street-types are as follows:

Vehicle-oriented commercial street.

A vehicle-oriented commercial street or Alley has street-front buildings that are intended to serve the traveling public, such as a large grocery store, drive-through or drive-up window service of varying kinds, and gas station. Street-front buildings that are not vehicle oriented are also allowed as described for a Mixed-Use Commercial Street. Multi-family residential uses are allowed only if located above first-floor street-level commercial space.

Multi-family residential street.

A multi-family residential street has street-front buildings that are used for multi- family dwellings, and are set back from the street enough to provide a stoop or door yard between the facade and the street's sidewalk. Where possible, given terrain, first-floor building space intended for residential uses shall be offset by half a story from the plane of the street's sidewalk. First-floor street-level commercial area is permitted, but not required. Commercial uses are not permitted above the first-floor street-level unless the first-floor street level is also occupied by a commercial space.

Small-lot residential street.

A small-lot residential street has street-front buildings that may be set back more than multi-family residential street facades, but are less likely to have a noticeable front yard area.

General open space street.

A general open space street has very limited buildings adjacent to the street, and only those that are incidental and accessory to the open space.

Regarding the actual placement/location of a street or street-type, the form-based zone Section 104-22-8 states the following:

> *The plans illustrate the intended street layout of the area and the designated street types. The plan is intended to be a guide for the placement of streets and mid-Block Alleys, and is not designed to survey-level accuracy. A street's placement shall be within 200 feet of the location depicted on these maps.*

From this, the planning commission can expect to see a proposal with streets that deviate, generally, up to 200 feet from the street's location shown on the street regulating plan.

The applicant's proposal follows (attached) this memo.

The general plan supports the proposal in the same manner it supported the Eden Crossing rezone with one exception. The Eden Crossing rezone was not immediately adjacent to existing commercial area. As can be seen from the proposed rezone map, this property is immediately adjacent. Copied and pasted from the Eden Crossing staff report, those general plan considerations are as follows:

[…] it is important to not only review this rezone proposal in accordance with the overall context of the purpose of the plan, but also within the context of the details of the plan. The following provides an analysis of relevant parts of the general plan as it relates to this rezone. It can be observed herein that this proposed rezone both complements and contradicts various provisions in the plan. There is no requirement for a proposal to meet the absolute details of the general plan. This stands especially true when it's a plan that contains as many diverging interests as the Ogden Valley General Plan. If the County decides to approve an application that in some part runs contrary to the details of the plan, the County should do so with full understanding of

the outcome(s) and have solid reasoning as to how the approval supports the overall intended effect(s) of the plan.

Pros:

> ***Gateways and Viewsheds Goal 3:*** *A goal of Weber County is to protect key viewsheds throughout the Valley.*
>
> ***Gateways and Viewsheds Principle 3.1****: Protect viewsheds throughout the Valley including views of the mountains and Pineview Reservoir.*
>
> ***Gateways and Viewsheds Principle 3.2:*** *Avoid visually prominent structures, hillside cuts, and vegetation removal that alter the visual quality of the Valley's viewsheds. Ensure that all development minimizes site disturbance and lot coverage and requires effective site restoration, revegetation, and weed control.*

Development within the FB zone is required to follow the adopted transferable development rights regulations. While we do not know at this time the properties from where the applicant's density will come, we do know that they can only come from areas within the valley floor area. Thus, it can be found that this project could help remove potential development from visually prominent areas and move them into the growth center of Eden.

> ***Clean Air and Water Goal 1:*** *A goal of Weber County is to protect the Valley's air and water quality. (See Residential Development Goal 3)*
>
> ***Clean Air and Water Principle 1.1:*** *Promote energy-efficient & sustainable development practices to improve and protect air and water quality.*
>
> ***Gateways and Viewsheds Implementation 1.1.1:*** *incorporate air and water quality protection considerations in the development review and approval process.*

Clustering development into smaller areas, such as centrally located growth centers is a sustainable development practice. Sprawling development requires greater vehicle miles traveled, which leads to greater emissions, which contributes to less healthy local air quality. Additionally, the applicant's development will require a sewer system. Given the transferred density, this will likely result in the reduction of individual septic systems on which sprawling development patterns rely.

> ***Land Use Goal 1:*** *A goal of Weber County is to reduce the overall amount and impact of future land development in the Ogden Valley planning area.*
>
> ***Land Use Principle 1.1****: in general, additional density should not be authorized in the Ogden Valley planning area above that allowed by current zoning. Minimal density bonuses (the exact amount to be determined by ordinance, master plan, development agreement, etc.) should only be allowed when they are granted to incentivize significant contribution to the advancement of the goals and principles found in this plan.*
>
> ***Land Use Implementation 1.1.1:*** *Weber County will support the transfer of existing development rights (TDRs) as the primary means to increase densities in suitable project areas while proportionately decreasing density in other areas.*

> *incentives – such as reduced road cross sections and other cost-saving measures for master-planned developments – should be proposed to reduce development intensities and as the primary means to incentivize the purchase and transfer of development rights. Bonus density should be used sparingly, and only in the event minimal bonuses can be leveraged for significant and meaningful advancement of the goals and principles of this plan. Development rights include residential (e.g. townhouses, single family detached units, etc.) and non-residential development rights (e.g. hotel units, accessory dwelling units, retirement center units, etc.).*

The applicant is not requesting bonus density at this time and is only pursuing the right to transfer development rights as anticipated by Implementation 1.1.1. At this time the only transferable development rights available are residential development rights.

> ***Land Use Principle 1.4:*** *Employ mechanisms such as TDRs to reallocate existing authorized development units from less suitable to more suitable locations.*
>
> ***Land Use Implementation 1.4.3:*** *Foster the creation of a TDR market by exploring ways for developers to benefit from purchasing TDRs. […]*

This implementation strategy provides an important clue to the puzzle regarding how we should help ensure the default provisions of the AV-3 zone do not ruin the valley's current character. The County should be finding ways to support a TDR open market and ways to help developers benefit from it. This cannot be initiated in the Ogden Valley unless sufficient area is zoned to the FB zone so that TDRs can start trading. The more opportunities the County creates for trades to occur, the higher the likelihood a free market will be established.

> ***Land Use Principle 1.5:*** *Encourage new development to locate in areas where water and sewer service could be provided by a sewer system. Encourage residential cluster developments with smaller building lots and larger areas of open space for most subdivisions.*

Directing growth into areas with sewer is imperative to the preservation of the current character of the Ogden Valley, as the proliferation of individual septic systems has been affecting ground water quality for some time now. Clustering transferred growth into sewered areas will help avoid sprawled growth in areas without, thereby either avoiding further harm to groundwater sources or expensive sewer line expansions that accommodate the sprawl.

> ***Rural Residential Development and Housing Vision:*** *The Ogden Valley community desires a variety of housing types to meet the needs of a diverse population of various income levels, ages and stages of life. Neighborhoods should have convenient access to community amenities and be designed in a manner that protects the valley's character. Residential development should be centered around villages and town centers and designed to provide open spaces and efficient uses of the land.*

The general plan has a "Rural Residential Development and Housing" chapter. The above paragraph is the vision for housing in the Ogden Valley. The application of all other provisions for housing within the plan should be run through the filter of this vision.

If applied literally and in totality, residential uses in the Ogden Valley should *only* be allowed when it is centered around the villages and town centers. However, because other provisions of this plan encourages voluntary TDR, PDR, and similar measures, we know this part of the vision is not intended to be applied literally, however, the strong encouragement should be noted in the County's decision making. The applicant's proposal does well to provide residential density adjacent to the New Town Eden village center and, if other landowners in the area follow suit, will result in housing centered around villages.

> ***Residential Development Goal 1:*** *A goal of Weber County is to provide housing choices in neighborhoods that will allow residents with a variety of incomes and at different stages of life to live in Ogden Valley.*

> ***Residential Development Principle 1.1:*** *Encourage residential development projects to incorporate a mix of housing sizes, types, and prices.*

A common misunderstanding about the FB zone is that its purpose is only to create commercial village areas. This is not accurate. Its purpose is to create village areas that are surrounded by residential development of various types.

Planning Commissioners and members of the public alike have expressed concerns about using the FB zone too far from village centers out of fear of creating village sprawl. However, the FB zone is designed to do exactly what is specified in the vision of the Rural Residential Development and Housing.

The applicant's proposal will provide a variety of housing options and sizes for current and future residents. The FB zone's existing workforce housing requirement will help provide for various levels of affordability as well.

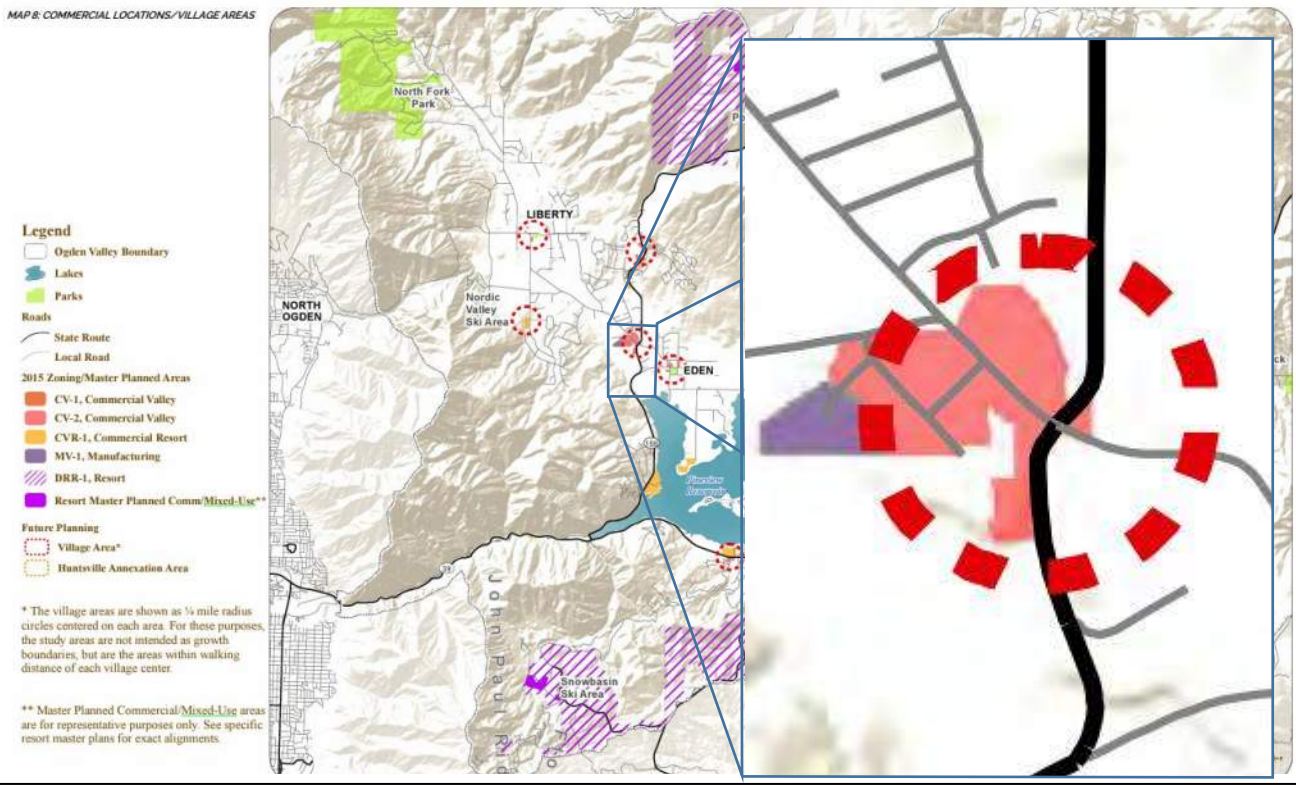
If adopted, the proposed street regulating plan will allow multifamily stacked housing, townhomes, and single-family residential on various sizes of small lots. While market forces are unlikely to provide for affordable housing without government intervention, the reduced lot sizes will help provide housing that is more affordable than their 3-acre lot counterparts.

> ***Commercial Development Vision:*** *The Ogden Valley community desires sustainable and thriving local businesses in Ogden Valley. Ogden Valley capitalizes on recreational tourism to support its economic base. New commercial development should be focused in and near existing commercial areas and resorts. New commercial development should be designed to be compatible with the rural character of Ogden Valley.*

The Commercial Development chapter provides the above vision. All other commercial provisions within the plan should be interpreted through the filter of this vision. Figure 10 provides the general plan's map of commercial locations and village areas. This map illustrates with a red dashed line the center of a village area. The red-dashed line is not the boundary of the proposed village area, as seems to be commonly misunderstood. Both the text of the plan and this map explain otherwise. Each circle is a ¼ mile radius, representing typical desirable walking distances, and is intended to be centered on the village center, although some appear to be off center on the map. The village center of the New Town Eden area is intended to be the

intersection of HWY 158 and 2500 N. Street. Figure 11 illustrates this circle in relation to the applicant's property.

Figure 10: Ogden Valley General Plan Map 8, Commercial Locations and Villages



Commercial Development Goal 1: *A goal of Weber County is to ensure that the location of retail and commercial development is consistent with Ogden Valley's rural character.*

> ***Commercial Development Principle 1.1:*** *Limit all new commercial development in the Ogden Valley planning area to Huntsville, the resort areas, and the village areas, as shown on Map 8. Avoid scattered and strip commercial and retail development patterns in the Valley.*

The above goal and principle further illustrate how the plan tries to balance rural areas versus village areas, and is further evidence of the overall intent of the plan.

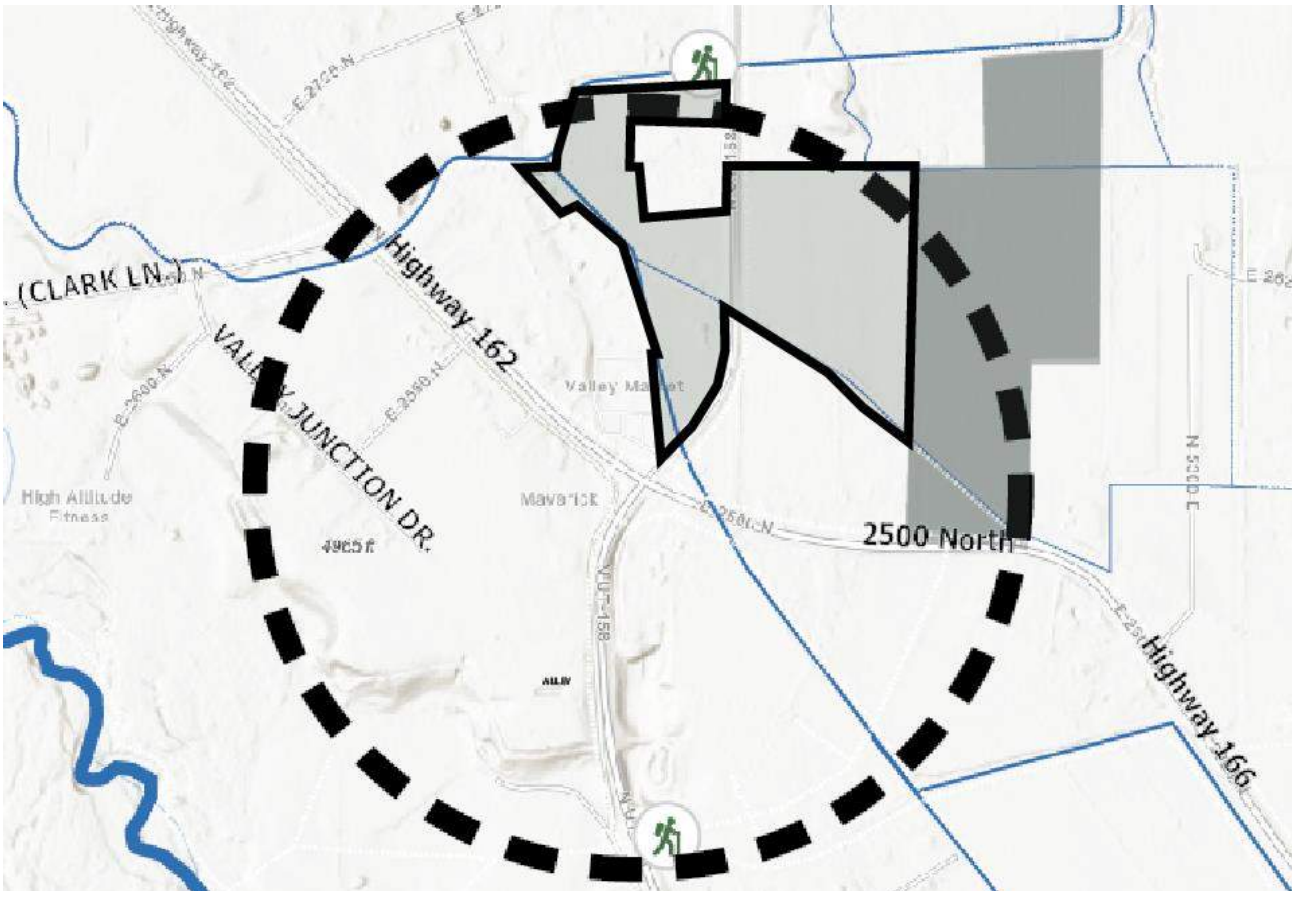
> ***Commercial Development Implementation 1.1.1:*** *Prepare small area plans for each area designated as a village on Map 8 to describe their form and function (possible examples: highway oriented, mixed-use, resort, small neighborhood commercial, etc.). Small area plans should identify defining attributes and appropriate design standards, identify future potential adjacent expansion areas, and plan for multimodal and active transportation to and within each area, as may be appropriate. The village areas are shown as ¼ mile radius circles centered on each area on Map 8. For these purposes, the study areas are not*

intended as growth boundaries, but are the areas within walking distance of each village center.

Breaking this implementation strategy into parts, the Planning Commission can find the following:

Prepare small area plans for each area designated as a village on Map 8 to describe their form and function (possible examples: highway oriented, mixed-use, resort, small neighborhood commercial, etc.).

Figure 11: Quarter-Mile Radius Walking Distance (Black Circle) of New Town Eden Village Center in Relation to Applicant's Property



The preparation of small area plans was accomplished for Old Town, New Town, and Nordic Valley areas through the FB code's street regulating plans. In order to realize these plans, all areas depicted in one of the street regulating plans should be rezoned to the FB zone (in time). The FB zone uses the plan-recommended highway oriented (FB zone calls this vehicle oriented), mixed-use (FB zone calls this mixed-use commercial). The small neighborhood commercial can also be accomplished through the mixed use commercial FB zone designation.

Small area plans should identify defining attributes and appropriate design standards…

The FB zone provides for the design standards of all three area to which a street regulating plan has been adopted (Old Town, New Town, and Nordic Valley). Each provide their own unique design theme.

> *…identify future potential adjacent expansion areas…*

The FB zone not only provides for the existing commercial zones in each area, it goes further to identify where and how those commercial areas might expand. Further, in compliance with this provision, the street regulating plans go beyond the limits of commercial expansion to provide for the aforementioned new residential uses "…centered around villages and town centers…"

> *… and plan for multimodal and active transportation to and within each area, as may be appropriate.*

The FB zone requires new development to provide for multiple transportation modes, including vehicle, bicycle, and pedestrian. At a later time when demand warrants it, amendments to the street standards should be expected to provide for transit facilities as well.

> ***Commercial Development Implementation 1.1.2:*** *Require new commercial or mixed-use development to locate on property currently zoned for commercial uses. Avoid rezoning new property to commercial or manufacturing until such time that the community supports it. Future commercial or mixed-use rezoning should only be considered adjacent to existing commercial or mixed-use zoning in a manner that creates village clusters and avoids strip commercial along highway corridors.*

The proposed rezone fails to meet this implementation strategy of the plan, at least in part of not in full. The nearest commercially zoned property is about 700 feet away from the subject property. In an ideal world this FB rezone proposal would be in an area already zoned commercial as recommended by this implementation strategy. It would be hard to define the proposal as "strip commercial," as advised against by this strategy, the proposal is a little removed from property currently zoned for commercial uses.

> ***Commercial Development Principle 1.2:*** *Focus on creating vibrant village areas. Encourage public spaces and plazas within villages that can accommodate cultural and social events and that can function as community gathering areas. Promote and extend the walkable, interconnected pattern in the Valley and extend non-motorized trails and pathways to commercial village areas.*

This rezone is likely to lead to the creation of a vibrant village area to which other landowners in the area can connect. Creating gather public gather spaces in village areas requires the initiation of the village.

> ***Utilities and Public Services Goal 2:*** *A goal of Weber County is to encourage alternatives to septic drainfield systems.*

> ***Utilities and Public Services Principle 2.1:*** *New developments in the village areas (reference Commercial Development Implementation 1.1.1) and the resort*

areas should connect to existing sewer facilities or provide limited-capacity sewage treatment facilities for identified service areas. The facilities should be designed to be expandable to accommodate additional development in the village or resort areas. New residential developments not proximate to existing sewer service areas should employ clustering and provide limited capacity advanced sewage treatment facilities.

The proposed rezone will lend to the advent of sewer to the New Town Eden area. One of the reasons commercial development is lagging in the Eden area is lack of sewer availability. The cost to extend sewer to the area is too high to rest on any one landowner. The cost of a commercial-use septic system and the reservation of valuable land for a drainfield is likewise fairly cost prohibitive. This applicant has sufficient land and only one land owner as well as a number of other developments in the area, rendering an economy of scale that makes the extension of sewer to this area feasible. If sewer is extended to the area by the applicant, all of the various fragmented landowners in New Town Eden are far less cost-burdened to extend sewer to their own properties. In other words this applicant has the ability to stimulate other commercial and mixed use development in the New Town Eden Area. This, in turn, will help foster a more realistic TDR market which will result in a more realistic ability to start moving development rights from the areas of the valley less desirable for development.

To: Charlie Ewert, AICP
Principal Planner
Weber County Planning Division

Date: March 15, 2024

Re: Project Narrative for New Town Eden

Dear Mr. Ewert –

Cowboy Partners, on behalf of Liberty Valley Associates, LLC, submits this Zoning Map Amendment for the mixed-use commercial, retail and residential community to be built on a 17-acre site in the New Town Eden Village Center. The site straddles Highway 158 with a portion of the site extending near the intersection of Highways 158 and 166.

The project envisions a village scale, density, and design; with a mix of uses appropriate for the New Town Eden Village Center and responsive to the Form-Based Zone for the village center. Closest to the future roundabout at the intersection of Highways 158 and 166 will be a commercial area meant for 1-3 stories buildings with retail/restaurant uses at the ground level with the potential for office or residential on the upper levels.

Green space open to the public is planned immediately north of the retail village, transitioning to lower scaled residential village development of one- and two-story homes. On the east side of Highway 158 is planned a residential community, situated around a village green, and consisting of single-family homes, rowhouses, and some apartment flats in garden-style buildings of 1-3 stories.

The site is in the service area of Eden Water Works and would prefer to be connected to its system. We are aware that the company has put a moratorium on new service; in the event that service through EWW is not possible, the project will form or participate in a new water company. A sewer line has been placed through our site for eventual connection to the treatment plant of Wolf Creek Water and Sewer Improvement District. Our intent is to annex into WCWSID for sewer service, through we recognize that first the District must complete permitting, finance and construction of its treatment plant expansion before it has capacity for new connections, and that those connections will require annexation approval and payment of impact fees related to the cost of connection and expansion.

Cowboy Partners, through its entity Liberty Village Associates, LLC, will be the developer, owner and operator of the communities through its sister property management company, Cowboy Properties. The residential homes will include market rate and workforce housing offerings. We look forward to working with the County and the Ogden Valley community to realize the vision of the Form Based Zone and the New Town Eden Village Center.

Regards,

Chris Zarek
Cowboy Partners

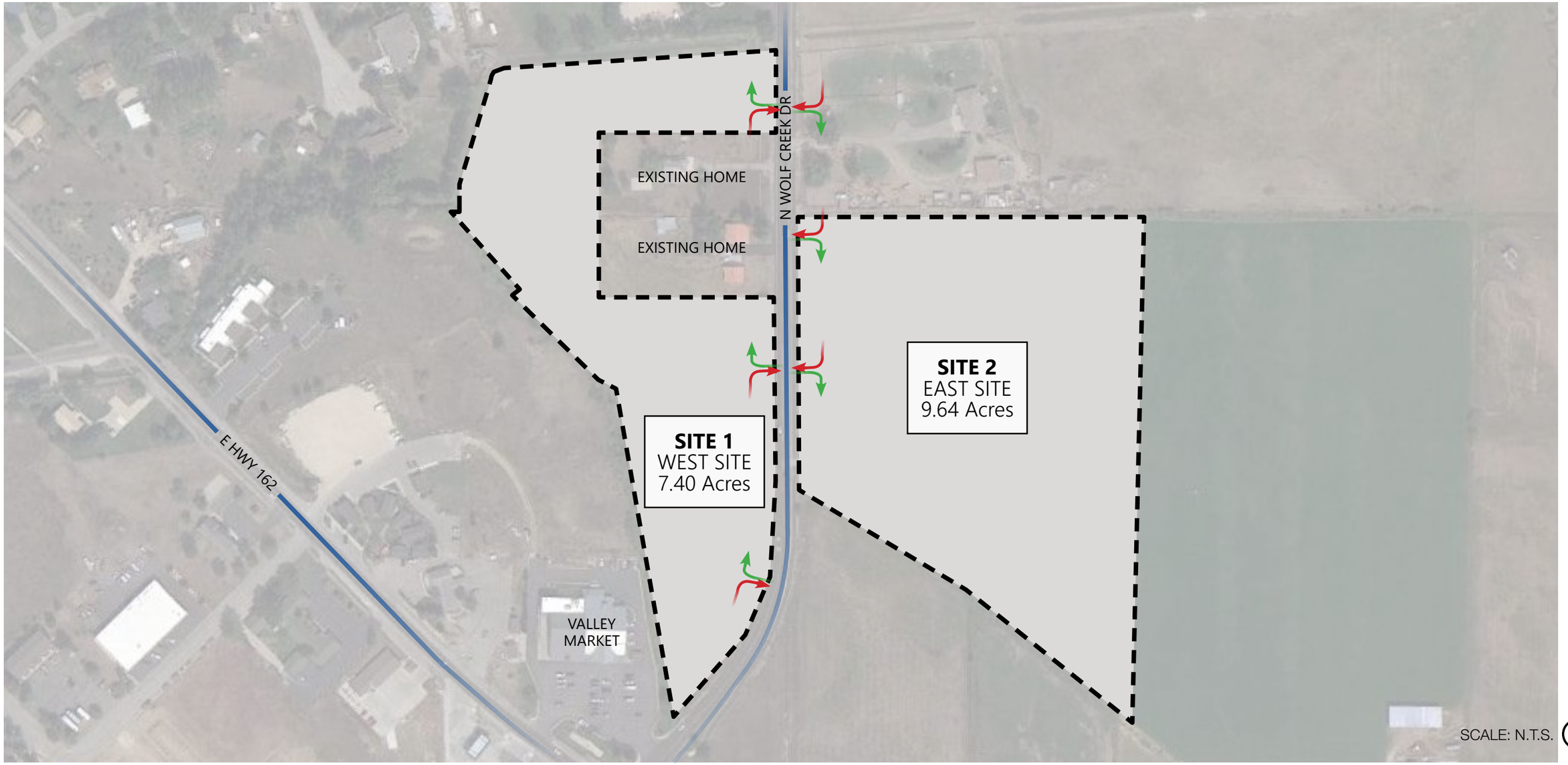
New Town Eden Rezone Presentation

Eden, Utah

March 15, 2024

COWBOY PARTNERS

SITE CONTEXT
Zoning



PROJECT APPROACH

Proposed Street Regulation Plan

OVERLAY ZONING	
GOVERNMENT AND INSTITUTIONAL	
VEHICLE-ORIENTED COMMERCIAL	
MIXED-USE COMMERCIAL	(MUC)
MULTI-FAMILY RESIDENTIAL	(MFR)
SMALL LOT RESIDENTIAL	(SLR)
MEDIUM LOT RESIDENTIAL	(MLR)
LARGE LOT RESIDENTIAL	(LLR)
RURAL RESIDENTIAL	(RR)
ESTATE LOT RESIDENTIAL	(ELR)
OPEN SPACE	

Eden Area Street Regulating Plan from Zoning with site location

Project Site

Trailhead

N

SCALE: N.T.S.

PROJECT APPROACH

Street Regulation Plan w/ Lot Uses

OVERLAY ZONING	
GOVERNMENT AND INSTITUTIONAL	
VEHICLE-ORIENTED COMMERCIAL	
MIXED-USE COMMERCIAL	(MUC)
MULTI-FAMILY RESIDENTIAL	(MFR)
SMALL LOT RESIDENTIAL	(SLR)
MEDIUM LOT RESIDENTIAL	(MLR)
LARGE LOT RESIDENTIAL	(LLR)
RURAL RESIDENTIAL	(RR)
ESTATE LOT RESIDENTIAL	(ELR)
OPEN SPACE	

Eden Area Street Regulating Plan from Zoning with site location

Project Site

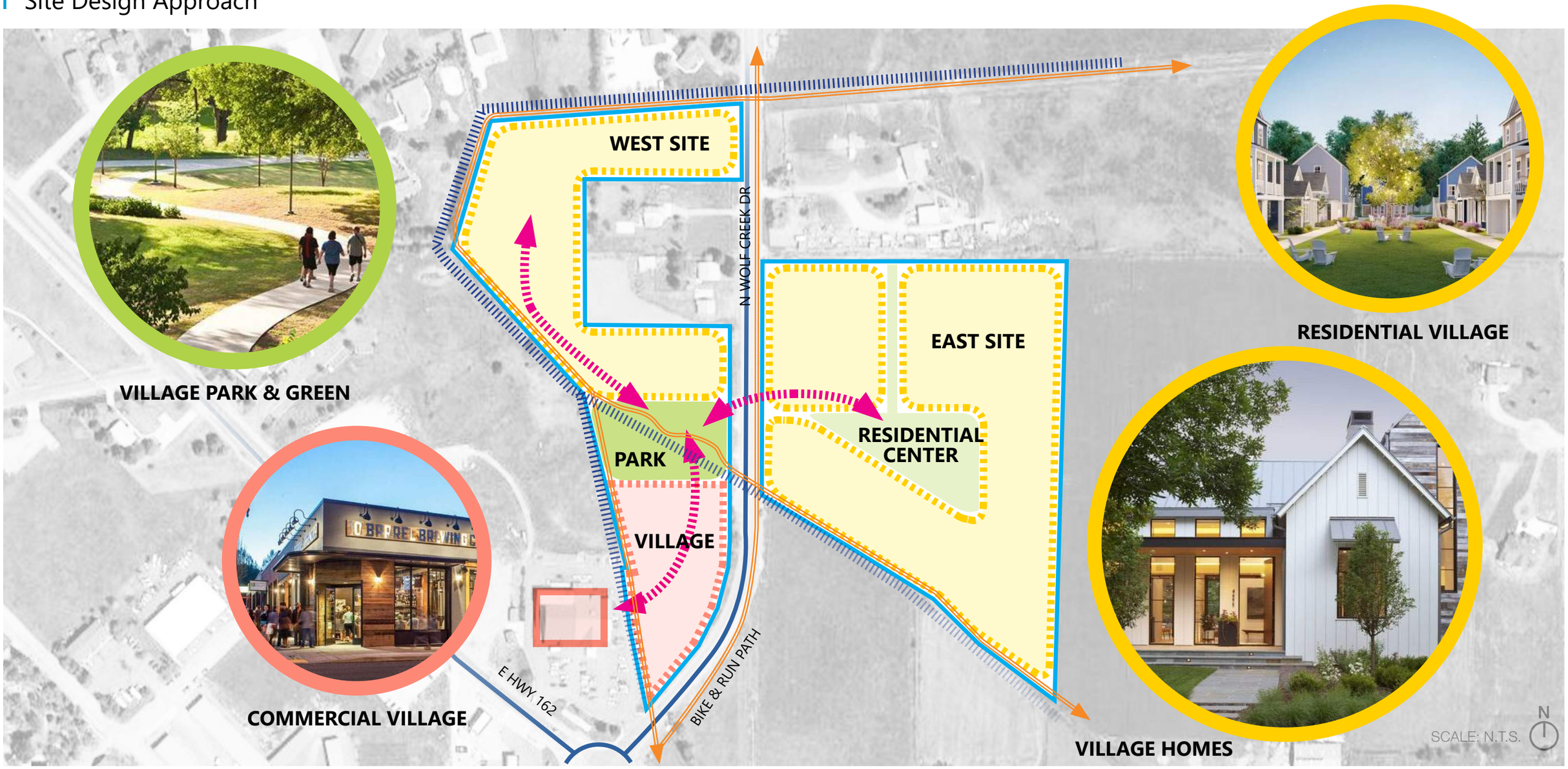
Trailhead

N

SCALE: N.T.S.

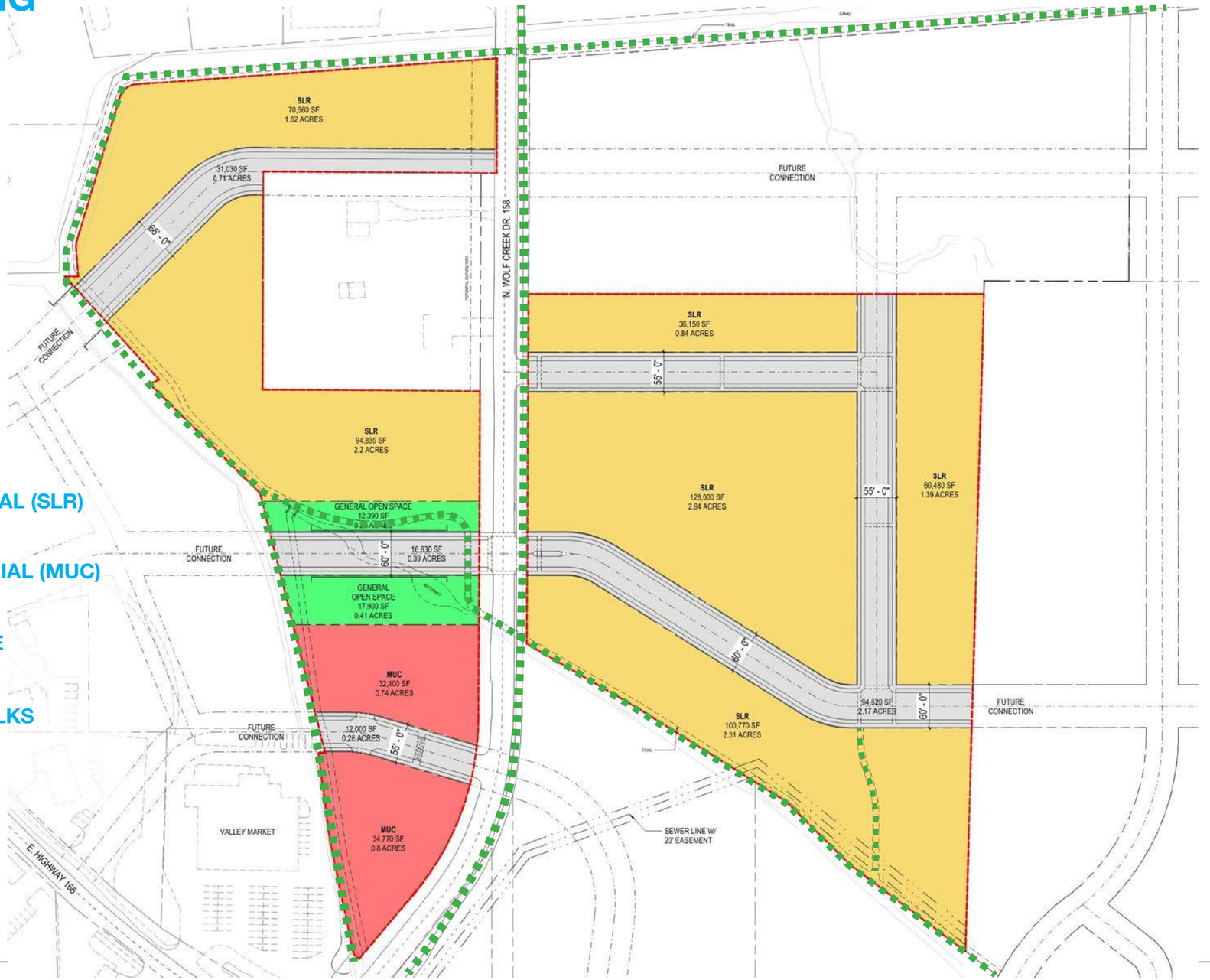
PROJECT CONCEPT

Site Design Approach



PROJECT ZONING

Site Use / Plot Plan



SMALL LOT RESIDENTIAL (SLR)

MIXED-USE COMMERCIAL (MUC)

GENERAL OPEN SPACE

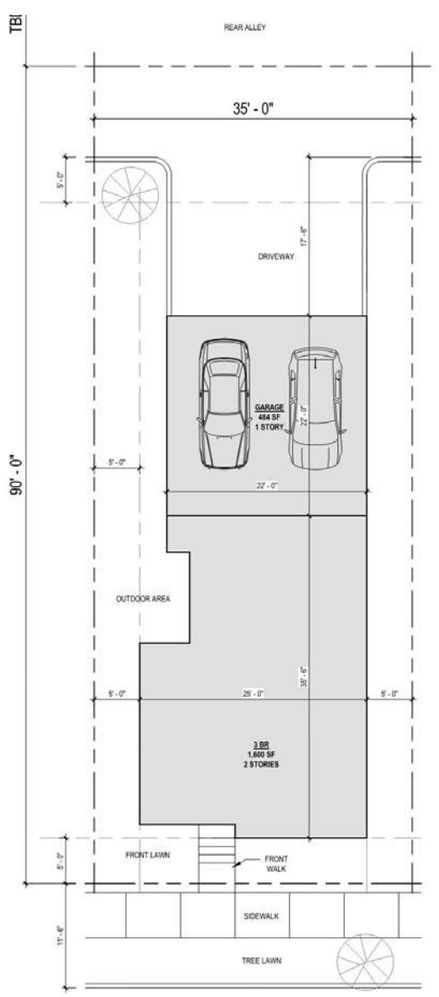
ROADWAYS & SIDEWALKS

PEDESTRIAN TRAIL

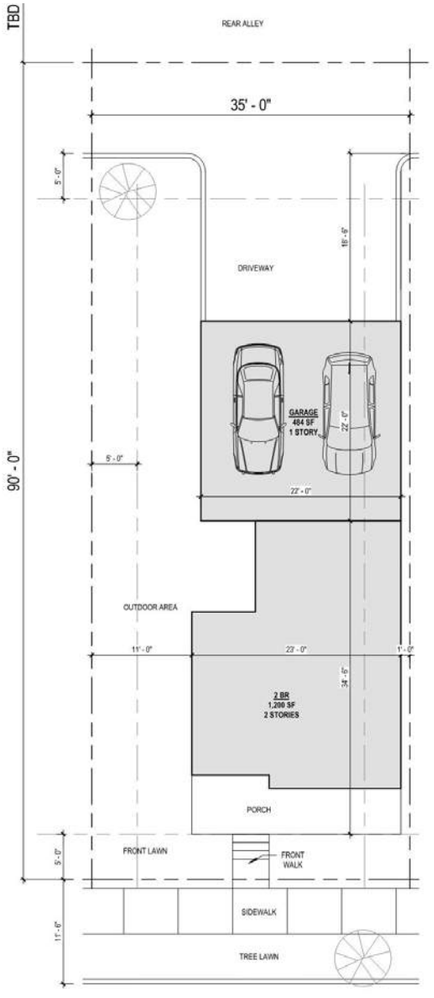
SCALE: N.T.S.

PROJECT VISION

Single Lot Residential (SLR) - Prototype Plan



Single Family Home Option A
(Small Side Yards)



Single Family Home Option B
(Larger Side Yard)

Single Family Precedent Images


THANK YOU
COWBOY PARTNERS