Chairman
JAN YOUNG

City Attorney
ERIC JOHNSON

Administrative Director
NICK TATTON

City Recorder
JACI ADAMS

185 East Main - P.O. BOX 893 - PRICE, UT 84501
PHONE (435) 636-3184 - Fax (435) 637-2905
www.pricecityutah.com

PRICE CITY
PLANNING AND ZONING COMMISSION

Commission

JUDY BEACCO
DAVID BLACK
KYLE HEFFERNAN
RICHARD ROOT
RENEE SWINBURNE
TODD THORNE
JAN YOUNG
ERROLL HOLT, ALT.
CHRIS WOOD, ALT.

PLANNING AND ZONING AGENDA
11/25/2024 5:00:00 PM

THE PRICE CITY PLANNING AND ZONING COMMISSION WILL HOLD THEIR REGULARLY SCHEDULED MEETING ON THE ABOVE DATE AT 5:00 PM IN THE PRICE CITY HALL COUNCIL CHAMBERS (ROOM 104). THE PLANNING AND ZONING COMMISSION CHAIRMAN RESERVES THE RIGHT TO MODIFY THE SEQUENCE OF AGENDA ITEMS IN ORDER TO FACILITATE SPECIAL NEEDS.

1. PLEDGE OF ALLEGIANCE
2. ROLL CALL
3. SAFETY SECONDS – Commissioner Thorne
4. MINUTES
   a. MINUTES for 11-12-2024

5. PUBLIC COMMENT ON AGENDA ITEMS
6. GENERAL BUSINESS/DISCUSSION
   a. PUBLIC HEARING. Public hearing to receive input on a proposed zone change at 1430 E 300 S from R1-8 to C-1.

   b. RESOLUTION NO. 2024-003PZ. Consideration and possible approval of a Resolution of the Price City Planning and Zoning Commission Recommending an Amendment to a Portion of the Land Use Development and Management Code, 2008 Edition, as Adopted by Price City, Utah by Ordinance 2008-02, or any Amendments Thereto, by Changing the Zone of Parcel ID#01-2561-0000 at Approx 1430 E 300 S from a Residential 1-8 (R1-8) Zone to a Commercial 1 (C-1) Zone Within the Corporate Limits of Price, Utah.

7. CONDITIONAL USE PERMIT
   a. STORAGE, CARETAKER, OFFICE, FUTURE CAR WASH LAND USE. Consideration and possible approval of a Conditional Use Permit for a storage, caretaker, office, future car wash land use located at 1430 E 300 S within the Commercial 1 (C-1) zoning district, Bear River Storage, Jesse Menlove.

8. UNFINISHED BUSINESS

Note: In compliance with the Americans with Disabilities Act, individuals needing special accommodations during this meeting should contact the City Recorders Office at 185 E. Main Price, Utah, telephone 435-636-3183 at least 24 hours prior to the meeting.

PRICE CITY PLANNING AND ZONING REGULAR MEETING
MINUTES OF NOVEMBER 12, 2024

PRESENT:
Commissioners:
David Black
Kyle Heffernan
Richard Root
Chris Wood
Jan Young

Jaci Adams, City Recorder
Nick Tatton, Community/Human Resources Director

EXCUSED: Commissioner Beacco, Commissioner Holt, Commissioner Swinburne, Commissioner Thorne

STAFF/OTHERS: See Public Meeting Sign-In Sheet

1. PLEDGE OF ALLEGIANCE
Chair Young called the meeting to order at 5:00 p.m. Chair Young led the Pledge of Allegiance.

2. ROLL CALL
Roll was called with the above Commissioners and staff present.

3. SAFETY SECONDS
Commissioner Wood reminded everyone to use the zipper merge technique when driving. Be courteous, yield right of way and signal.

4. MINUTES for 09-09-2024
Jaci Adams, City Recorder stated that the incorrect set of minutes was attached to the agenda packet. A hard copy of the correct one, 10-21-2024 Planning and Zoning minutes was handed out to the Planning and Zoning Commission. They could either table the agenda item to the next meeting and approve the 10-21-2024 then or read over them and approve them at the 11-12-2024 Planning and Zoning meeting.

MOTION. Commissioner Root moved to approve the 10-21-2024 Planning and Zoning minutes. Commissioner Black seconded and motion carried.

5. PUBLIC COMMENT ON AGENDA ITEMS
Les Schultz, Price City resident had concerns with the possibility of new development near his residence on 600 West.

6. GENERAL BUSINESS/DISCUSSION
Chair Young reminded everyone to RSVP for the upcoming Planning and Zoning Commission Retreat November 26, 2024.

DRAFT

7. CONDITIONAL USE PERMIT

a. MULTIPLE RESIDENTIAL LAND USE. Consideration and possible approval of a multiple residential 14 units townhome land use, called Rosie Ridge Townhomes, located at 135 N 600 W, within the Residential 2-7 (R2-7) zone district, Kairos Real Estate, Dustin Carr.

The Commissioners thoroughly discussed the multiple residential land use and specifically addressed issues that mitigates potential negative impacts of the land use. Discussion was held regarding the first-time home buyer program, landscaping the property, additional parking spaces, HOA approved, price point range for buyers and development will not be on railroad property.

Chair Young reviewed the Code sections and read aloud the below conditions for final approval for the land uses identified by the applicant.

1. Site Plan Elements:

a. All construction and site work to be compliant with approved plans and any subsequent direction from Price City officials finding that development compliant with approved plans mitigates the potential for development misunderstandings and ensures quality development completion.

b. Installation and (re)installation of any public infrastructure damaged or impacted during construction finding that quality public infrastructure mitigates the potential for costly repairs. Restoration of any public infrastructure fronting or servicing the property that may be damaged during construction.

c. Garbage, rubbish and debris to be controlled in an enclosed dumpster location with a hard surface and a service frequency that prevents accumulations of garbage, rubbish and debris or wind scatter of garbage, rubbish and debris finding that controlled garbage, rubbish and debris improves the community aesthetic consistent with the Price City General Plan. All garbage, rubbish and debris during construction to be controlled and removed from the site.

d. Utility connections to be completed as identified on the plans submitted and as directed by the respective providers finding that planned and coordinated utility connections mitigate the potential for misunderstandings.

i. Water access from 500 W, not looped to 600 W.

ii. Relocation of existing sewer line to not conflict with development.

iii. Relocation of existing electrical pole and infrastructure to not conflict with development.

iv. Electrical Specific: Comply with all electric utility connection direction from Price City Electric Department based on the load sheet submitted.

DRAFT

e. Storm water management infrastructure to be installed per the submitted plans and in compliance with any direction from Price City or other officials in regard to control and released of storm water runoff from the site. Storm water to be controlled and released to pre-development flows to a bona-fide storm water conveyance with capacity to control a 100-year storm event for a 1-hour duration. Storm water control infrastructure on-site to be regularly maintained to prevent clogging or other storm water control impediments. Must also control storm water flowing from north to south down the alleyway onto and potentially through the subject property.

f. All exterior areas to be lighted during resident and employee use during any dark hours finding that properly lighted areas mitigate the potential for personal injury accidents. All exterior lighting to be high efficiency LED fixtures.

g. Sight obscuring fencing installed on the property boundaries in a height of six (6) feet finding that land use separations from neighboring properties mitigate the potential for accidents, injuries and conflicts.

h. Primary ingress/egress to the development from 600 West Street including access for emergency services, garbage collection/removal services. Access via 500 W Street ingress only and signed as a 'one way street'. Signage, red striped, and fire lane restriction to be placed and enforced by owner on 500 W ingress. Signage to be MUTCD compliant. Signage to also indicate 'not a through street' at both the 600 W access and the 500 W connector street.

i. Site landscaping to be not less than five percent (5%) of the site per Code requirements. Water wise landscaping requested.

j. Not less than twenty-eight (28) off street parking spaces, as identified on the submitted site plan finding that off street parking mitigates the potential for accidents. Code requirement for minimum parking is two (2) spaces per unit minimum.

k. 600 West Street, stub road from 500 West Street and all related public infrastructure, such as roadway, curb, gutter, sidewalk to be installed and extended to connect to and match current existing infrastructure in the area finding that fully installed public infrastructure mitigates accident risk.

l. Alleyway between 500 W and 600 W to remain open access to the public and dedicated to public needs. Alleyway to be recorded into the records of the Carbon County Recorder as a public way. Alleyway to meet minimum city standards.

2. Plans, Permits, Documents and Other:

a. Final electrical load sheet completed and supplied to Price City. Compliance with requirements of the Price City electrical department in regard to electrical utility infrastructure (re)locations, service points, code compliant electrical service upgrades, transmission and distribution pole (re)locations, procurement of valid estimates by owner/developer required.

DRAFT

i. Installation of public street lights as directed by the Price City Electric Department.

b. Completion of a public infrastructure development agreement with the Price City Public Works Department and submit the required financial surety finding that property agreed and secured public infrastructure protects the financial interest of the community.

c. Obtain a building permit and all construction completed under the auspices of a building permit and inspection finding that properly permitted and inspected construction protects the health, safety and welfare of the community. Contact the Carbon County Building Department. Compliance with all direction and instruction provided by the Building Inspector(s).

d. Storm water control and management plan, all development and construction in compliance with the approved and accepted plan. Must control, retain and release, to pre-development flow rates, a 100-year storm event for a minimum of a 1-hour duration. Storm water control shall not negatively impact existing private properties, existing public infrastructure or slope stabilization of west Main Street corridor.

e. Completion and submission of a geotechnical study and all development and construction in compliance with the approved and accepted study.

f. Payment of all fees due prior to commencement of construction including building permit fees, utility extension and connection fees, street opening, demolition permit, local business license.

g. Hold a minimum of one (1) meeting with property owners neighboring the subject property to inform and update them regarding the project, time-lines, construction elements, etc. Provide to Price City a copy of the meeting notice provided to the neighbors, a copy of the attendance roster, a copy of the agenda and minutes of the meeting identifying discussion points and mitigation of incremental project impacts, if any. Completed prior to the commencement of any construction activity.

h. Provide copy/written documentation of railroad approval of site setback along the railroad right of way prior to commencement of any construction activity.

3. Restrictions:

a. Dust control on site and maintained during construction. No fugitive dust to impact surrounding properties.

b. No track out of mud or dirt onto 600 West Street or 500 West Street during construction. Use of track mats required.

c. No authorized on-street parking along public streets.

d. No land uses other than the applied for 14-unit multiple family townhomes.

e. No parking in fire lanes, must install signage and curb painting.

f. No nuisance noises, odors or other disturbances to emanate from the subject property (during construction or residential occupancy).

g. No Home Occupied Businesses permitted within development finding that the development has limited parking and access.

DRAFT

h. No individual sale of units finding that land subdivision and utility connections do not facilitate individual unit real estate sales.
i. No conditions at the property or structure that violate the Price City Property Maintenance Code. Removal and mitigation of any existing Property Maintenance Code violations present on the property.

ACCEPTANCE: The applicant acknowledged that he is aware of the conditions of approval, understands the conditions of approval and intends to comply with the conditions of approval.

MOTION. Commissioner Root moved to approve a multiple residential 14 units townhome land use, called Rosie Ridge Townhomes, located at 135 N 600 W, within the Residential 2-7 (R2-7) zone district. Commissioner Black seconded and motion carried.

8. UNFINISHED BUSINESS
Nick Tatton, Administrative Director reminded everyone about the annual Price City Planning and Zoning Commission Training Retreat November 26, 2024.

Chair Young asked for a motion to close the regular Planning and Zoning meeting.

MOTION. Commissioner Heffernan moved to close the regular Planning and Zoning meeting. Commissioner Wood seconded and motion carried.

The regular Planning and Zoning meeting was adjourned at 5:42 p.m.

APPROVED: _____ ATTEST: _____
Chair, Jan Young City Recorder, Jaci Adams

DRAFT

NOTICE OF PUBLIC HEARING

The Price City Planning and Zoning Commission will hold a public hearing to receive input on a proposed zone change for parcel ID #01-2561-0000 located at 1430 E 300 S. The zone change request will change the zoning for the parcel from Residential 1-8 (R1-8) to Commercial 1 (C-1). A public hearing will be held on Monday, November 25th, 2024 at 5:00pm in the Price City Council Chambers located at 185 East Main Street.

The Price City Council will hold a public hearing to receive input on a proposed zone change for parcel ID #01-2561-0000 located at 1430 E 300 S. The zone change request will change the zoning for the proposed subdivision from Residential 1-8 (R1-8) to Commercial 1 (C-1). A public hearing will be held on Tuesday, November 26th, 2024, at 5:00pm in the Price City Council Chambers located at 185 East Main Street.

Published in the Emery Telcom News on November 13, 20, 2024.

Fee:_____

CONDITIONAL USE PERMIT APPLICATION

Send all completed and properly signed forms (including attachments as necessary) along with applicable fees to: Price City Community Development Department, P.O. Box 893, 185 East Main, Price, UT 84501. For questions call (435) 636-3184.

Please check one.

☐ **New Business** *(Complete boxes 1 through 13 on page 1, and all subsequent pages)*

☑ **New Construction/Development** *(Check all applicable boxes below and complete entire application)*

Plan Phase:

☐ Concept
☐ Preliminary
☑ Final

PLEASE TYPE OR PRINT LEGIBLY.

Applicant Information		
1. Applicant's Name: Jesse Reynolds		2. Title: Manager
3. Applicant's Mailing Address: 4243 W Nike Dr		4. Suite/Apt. No.: Suite C
5. City: West Jordan	6. State: UT	7. Zip Code: 84088
8. County: Salt Lake	9. Telephone: (801) 915-9245	
Project Information		
10. Name of Project (Business): Bear River Storage		
11. Address of Proposed Project: 1430 E 300 S, Price, UT		
12. Zone District *(see attached zoning map)*:		

Nature of Proposed Work *(Check all applicable items in boxes 13 through 16)*

13.	14	15.	16.
☐ Sign	☑ Zone Change	☐ Excavation	☐ Industrial
☑ Commercial	☐ Storm Drainage	☐ Fill Work	☐ Annexation
☐ Residential	☐ Street Work	☐ Building	☐ Flood Plain
	☐ Road Dedication	☐ Subdivision	☐ Recreation
	☐ Water	☐ Apartments	☐ Street Opening
	☐ Sewer	☐ Electrical	☐ Demolition

17. Quarter Section(s):	18. Section(s):	19. Township(s):	20. Range(s) & Base:
NorthWest	22	14 South	10 East, Salt Lake Base

21. Estimated Cost of Project:	22. Electrical Load Sheet:	23. Project Plans:
a) Site Work $ 1,200,000.00 b) Buildings $ 4,000,000.00 c) Other $ _____ Total $ _____	*(Attach preliminary and final to application)*	☑ Plans Included ☐ Attachments (Number) ____

24. Brief Description of Project: This is a new self-storage unit facility. The The facility consists of an office/residence and six self-storage buildings. Two of the self-storage buildings will be climate controlled. The gross square footage of the storage units is 58,225.

25. Justification (Explain why this project is needed): As the city of price continues to grow, residents continue to need more space. Self-storage units will help the community with their storage needs.

26. Names and Addresses of Adjoining Property Owners, Lessees, Etc.:

NAME	ADDRESS (City, ST, Zip)	TELEPHONE
Parcel 01-2558-0000 Name EZ WASH OF PRICE LLC Add1 1460 W 720 N Add2 City PRICE State UT Zip 845010000	Name MUNOZ JESUS & CANDALARIA Add1 353 S HWY 55 Add2 City PRICE State UT Zip 845010000	Name ROCHA PEDRO L TR Add1 399 S HWY 55 Add2 City PRICE State UT Zip 845010000 ( ) Name HOUSING AUTHORITY OF CARBON CO Add1 251 S 1600 E APT 2647 Add2 City PRICE State UT Zip 845013776

27. Estimated Starting Date:	28. Estimated Completion Date:	29. Has P.R.W.I.D. Sewer Survey Been Submitted?
01 / 01 / 2025	01 / 01 / 2026	☑ Yes ☐ No

Signature of Property Owner — Date: 10/7/2024

Please Print Name: Riley Sorensen — Title: Owner

Office Use Only

Recommendation of Planning and Zoning Administrator (Community Director):

☐ Approve
☐ Decline

Comments:

Signature:_____ Date:_____

Requires:

☐ Building Permit
☐ Conditional Use Permit
☐ Code Amendment
☐ Board of Adjustments Variance
☐ Flood Plain Development Permit
☐ Other:_____

SITE PLAN

Please provide a drawing of your proposed site in the space below. Include building floor plan, profiles, cross-sections, dimensions, setbacks, and signs. Also indicate exits, restrooms, and fire extinguisher placement. Use an attached sheet of paper, if necessary.

RESOLUTION NO. _____

A RESOLUTION OF THE PRICE CITY PLANNING AND ZONING COMMISSION RECOMMENDING AN AMENDMENT TO A PORTION OF THE LAND USE DEVELOPMENT AND MANAGEMENT CODE, 2008 EDITION, AS ADOPTED BY PRICE CITY, UTAH BY ORDINANCE 2008-02, OR ANY AMENDMENTS THERETO, BY CHANGING THE ZONE OF PARCEL ID #01-2561-0000 AT APPROXIMATLEY1430 E 300 S FROM A RESIDENTIAL 1 – 8 (R1-8) ZONE TO A COMMERCIAL 1 (C-1) ZONE WITHIN THE CORPORATE LIMITS OF PRICE, UTAH.

WHEREAS, the Price City Planning and Zoning Commission (Commission) received an application for consideration of a zone change request; and,

WHEREAS, the application for zone change request was received in accordance with established Price City policy and procedures, and,

WHEREAS, the zone change request is to change the zoning designation of a parcel of property from Residential 1-8 (R1-8) to Commercial 1 (C-1); and,

WHEREAS, the subject property of the zone change request is adjacent to additional C-1 zoned properties and is situated at the boundary between the existing R1-8 zoning district and the existing C-1-1 zone district; and,

WHEREAS, the Commission has reviewed the application for consideration of zone change described herein, held a public hearing and, via Price City staff, mandated notification of all property owners within three-hundred feet (300') of the subject property by certified mail; and,

WHEREAS, the Commission has determined the zone change application to be complete, accurately represents the need of the community and supports the goals contained within the Price City General Plan;

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE PRICE CITY PLANNING AND ZONING COMMISSION AS FOLLOWS:

Section 1. THAT the Commission recommends that the Price City Council rezone, from R1-8 to C-1 the subject property, Parcel ID #01-2561-0000n at 1430 E 300 S within Price City, more particularly described as: BEG SE COR SE4NW4 SEC 22, T14S, R10E, SLB&M; S 89°28'10" W 524 FT; N 11°43'50" W 440 FT TO S'LY R/W OF 300 S; S 79°25'43" E 44.37 FT ALONG R/W TO PT OF CURVATURE OF 400 FT RAD CRV LEFT; E'LY 164.88 FT ALONG ARC OF SD CRV & R/W (CHORD BEARS N 88°45'45" E 163.72 FT); N 76°57'14" E 266.84 FT ALONG SD R/W; S 00°26'05" E 305.22 FT ALONG A FENCE TO A FENCE CORNER; N 89°45'54" E 11.80 FT ALONG A FENCE; S 00°31'59" E 17.64 FT; N 89°28'01" E 129.72 FT; S 00°47'09" E 160 FT TO BEG. 4.81 AC

Section 2. THAT the Commission recommends that the Price City Council amend the official zone map and Land Use and Management Code of Price City by Ordinance to reflect the above-described change to the zone map.

PASSED AND ADOPTED THIS _____ DAY OF _____ , 2024 BY THE PRICE CITY PLANNING AND ZONING COMMISSION.

_____
Jan Young, Chair

ATTEST:

_____
Jaci Adams, City Recorder

PRICE MUNICIPAL CORPORATION
185 EAST MAIN ● P.O. BOX 893 ● PRICE, UT 84501
PHONE (435) 637-5010 ● FAX (435) 637-2905

CHAIR
JAN YOUNG

COMMISSIONERS
KYLE HEFFERNAN
JUDY BEACCO
TODD THORNE
RICHARD ROOT
DAVE BLACK
RENEE SWINBURNE
CHRIS WOOD: ALTERNATE
ERROLL HOLT: ALTERNATE

DATE: **SEPTEMBER 20TH, 2024**

TO: **PRICE CITY PLANNING AND ZONING COMMISSION**

FROM: **NICK TATTON**

RE: **SITE PLAN, STORAGE UNITS, CARETAKER RESIDENCE, FUTURE CAR WASH, 1430 W 300 S**

Please find attached a Conditional Use Permit (CUP) submitted by Jesse Reynolds from Menlove Construction for site plan approval for a storage units, caretaker residence and future car wash at 1430 E 300 S, within the Commercial 1 (C-1) zoning district. The general land use evaluation criteria are listed in Section 11.1 of the Price City Land Use Management and Development Code (Code), the specific land use evaluation criteria are in Section 11.1.m of the Code. The land uses are storage, a conditional use based on Section 11.3.9.11 of the Code; professional offices, a permitted use based on Section 11.3.5.1 of the Code; office residence, a conditional use based on Section 11.3.2.1.3.1 of the Code and automatic car wash, a conditional use based on Section 11.3.5.5 of the Code.

It is recommended that the site plan be authorized. It is further recommended that the planning commission thoroughly discuss the land use with the applicant, specifically time frames for development and construction of all phases of the project.

RECOMMNEDED MOTION(S):

Move to provide final approval of a site plan for the land uses of storage, a conditional use based on Section 11.3.9.11 of the Code; professional offices, a permitted use based on Section 11.3.5.1 of the Code; office residence, a conditional use based on Section 11.3.2.1.3.1 of the Code and automatic car wash, a conditional use based on Section 11.3.5.5 of the Code, within the Commercial 1 (C-1) zoning district, based upon he general land use evaluation criteria is listed in Section 11.1 of the Price City Land Use Management and Development Code (Code), the specific land use evaluation criteria in Section 11.1.m of the Code, and subject to the following conditions of approval:

1. Site Plan Elements:
    a. All construction and site work to be compliant with approved plans and any subsequent direction from Price City officials finding that development compliant with approved plans mitigates the potential for development misunderstandings and ensures quality development completion.
    b. Installation and (re)installation of any public infrastructure damaged or impacted on 300 South Street during construction finding that quality public infrastructure mitigates the potential for costly repairs.

c. Garbage, rubbish and debris to be controlled in an enclosed dumpster location with a hard surface and a service frequency that prevents accumulations of garbage, rubbish and debris or wind scatter of garbage, rubbish and debris finding that controlled garbage, rubbish and debris improves the community aesthetic consistent with the Price City General Plan. All garbage, rubbish and debris during construction to be controlled and removed from the site.
d. Utility connections to be completed as identified on the plans submitted and as directed by the respective providers finding that planned and coordinated utility connections mitigate the potential for misunderstandings.
    i. Electrical Specific: Electric Service as instructed by the Price City Electrical Department based on the load sheet submitted.
e. Storm water management infrastructure to be installed per the submitted plans and in compliance with any direction from Price City or other officials in regard to control and released of storm water runoff from the site. Storm water to be controlled and released to pre-development flows to a bona-fide storm water conveyance with capacity to control a 100-year storm event for a 1-hour duration. Storm water control infrastructure on-site to be regularly maintained to prevent clogging or other storm water control impediments.
f. All exterior areas to be lighted during during any dark hours wherein access to the facility is available finding that properly lighted areas mitigate the potential for personal injury accidents. All exterior lighting to be high efficiency LED fixtures. Lighting to be angled away from, shielded or other mitigations for light transference from neighboring residential land uses.
g. Sight obscuring fencing installed surrounding the site, in a height of six (6) feet; three (3) feet from property boundaries back thirty (30) feet finding that land use separations from neighboring properties mitigate the potential for accidents, injuries and conflicts.
h. All vehicle site ingress/egress to be from 300 S Street only. Emergency access gate to be placed in the southeast corner of the site – for emergency use and access only. Acknowledgement letter from neighboring property (Housing Authority of Carbon County) regarding understanding of possible emergency access point and intent to ensure that access to the emergency access point remains open and unincumbered.
i. Site landscaping to be not less than five percent (5%) of the site per Code requirements. Water wise landscaping requested.
j. Business signage to be reviewed and approved by the Price City Planning Department prior to installation finding that properly reviewed and approved commercial signage promotes increased commercial activity and signage consistency in the community.
k. Private fire hydrants to be serviced, tested and reported to the Price City Fire Chief annually.
l. Not less than four (4) off street parking spaces adjacent to the office and caretaker residence, as identified on the submitted site plan finding that off street parking mitigates the potential for accidents.
    i. No long term or overnight parking of vehicles in the storage area. No outside storage of vehicles or equipment.

2. Plans, Permits and Documents:
    a. Final electrical load sheet completed and supplied to Price City. Compliance with requirements of the Price City electrical department in regard to electrical utility infrastructure (re)locations, service points, code compliant electrical service upgrades, transmission and distribution pole (re)locations, procurement of valid estimates by owner/developer required.
    b. Completion of a public infrastructure development agreement, as needed or required, with the Price City Public Works Department and submit the required financial surety

finding that property agreed and secured public infrastructure protects the financial interest of the community.

c. Obtain a building permit and all construction completed under the auspices of a building permit and inspection finding that properly permitted and inspected construction protects the health, safety and welfare of the community. Contact the Carbon County Building Department.
d. Storm water control and management plan, all development and construction in compliance with the approved and accepted plan. Must control, retain and release, to pre-development flow rates, a 100-year storm event for a minimum of a 1-hour duration.
e. Completion and submission of a geotechnical study and all development and construction in compliance with the approved and accepted study.
f. Obtain a Price City Business License prior to any commercial activity for any business element operating from the site.
g. Completion of a Price River Water Improvement (PRWID) waste water survey and submission to PRWID with copy to Price City. Compliance with all waste water protection reequipment stemming from the survey including sampling manholes and grease traps.
h. Payment of all fees due prior to commencement of construction including building permit fees, utility extension and connection fees, street opening, demolition permit, local business license.

3. Restrictions:
    a. Dust control on site and maintained during construction. No fugitive dust to impact surrounding properties.
    b. No track out of mud or dirt onto 300 S Street during construction. Use of track mats required.
    c. Construction Access – from east via 300 S only.
    d. No authorized on-street parking along public streets. Applies to construction and operation.
    e. No land uses other than the applied for storage, caretaker residence, future car wash.
    f. No parking in fire lanes, must install signage and curb painting.
    g. No nuisance noises, odors or other disturbances to emanate from the subject property (during construction or residential occupancy).
    h. No businesses permitted within development other than those identified herein finding that the development has limited parking and access. No operation of businesses from storage units.
    i. No outdoor storage permitted on site.
    j. No conditions at the property or structure that violate the Price City Property Maintenance Code. Removal and mitigation of any existing Property Maintenance Code violations present on the property.
4. Move to acknowledge that the applicant is aware of the conditions of approval, understands the conditions of approval and intends to comply with the conditions of approval.

Fee:_____

CONDITIONAL USE PERMIT APPLICATION

Send all completed and properly signed forms (including attachments as necessary) along with applicable fees to: Price City Community Development Department, P.O. Box 893, 185 East Main, Price, UT 84501. For questions call (435) 636-3184.

Please check one.

☐ **New Business** *(Complete boxes 1 through 13 on page 1, and all subsequent pages)*

☑ **New Construction/Development** *(Check all applicable boxes below and complete entire application)*

Plan Phase:

☐ Concept
☐ Preliminary
☑ Final

PLEASE TYPE OR PRINT LEGIBLY.

Applicant Information		
1. Applicant's Name: Jesse Reynolds		2. Title: Manager
3. Applicant's Mailing Address: 4243 W Nike Dr		4. Suite/Apt. No.: Suite C
5. City: West Jordan	6. State: UT	7. Zip Code: 84088
8. County: Salt Lake	9. Telephone: (801) 915-9245	
Project Information		
10. Name of Project (Business): Bear River Storage		
11. Address of Proposed Project: E 300 S Main Street, Price, UT		
12. Zone District *(see attached zoning map)*:		

Nature of Proposed Work *(Check all applicable items in boxes 13 through 16)*			
13. ☐ Sign ☑ Commercial ☐ Residential	14. ☐ Zone Change ☑ Storm Drainage ☐ Street Work ☐ Road Dedication ☑ Water ☑ Sewer	15. ☑ Excavation ☐ Fill Work ☑ Building ☐ Subdivision ☐ Apartments ☑ Electrical	16. ☐ Industrial ☐ Annexation ☐ Flood Plain ☐ Recreation ☐ Street Opening ☐ Demolition
17. Quarter Section(s): NorthWest	18. Section(s): 22	19. Township(s): 14 South	20. Range(s) & Base: 10 East, Salt Lake Base

21. Estimated Cost of Project:	22. Electrical Load Sheet:	23. Project Plans:
a) Site Work $ 1,200,000.00 b) Buildings $ 4,000,000.00 c) Other $_____ Total $_____	*(Attach preliminary and final to application)*	☑ Plans Included ☐ Attachments (Number) ____

24. Brief Description of Project: This is a new self-storage unit facility. The The facility consists of an office/residence and six self-storage buildings. Two of the self-storage buildings will be climate controlled. The gross square footage of the storage units is 58,225.

25. Justification (Explain why this project is needed): As the city of price continues to grow, residents continue to need more space. Self-storage units will help the community with their storage needs.

26. Names and Addresses of Adjoining Property Owners, Lessees, Etc.:

NAME	ADDRESS (City, ST, Zip)	TELEPHONE
Parcel 01-2558-0000 Name EZ WASH OF PRICE LLC Add1 1460 W 720 N Add2 City PRICE State UT Zip 845010000	Name MUNOZ JESUS & CANDALARIA Add1 353 S HWY 55 Add2 City PRICE State UT Zip 845010000	Name ROCHA PEDRO L TR Add1 399 S HWY 55 Add2 City PRICE State UT Zip 845010000 ( ) Name HOUSING AUTHORITY OF CARBON CO Add1 251 S 1600 E APT 2647 Add2 City PRICE State UT Zip 845013776

27. Estimated Starting Date:	28. Estimated Completion Date:	29. Has P.R.W.I.D. Sewer Survey Been Submitted?
09 / 01 / 2024	09 / 01 / 2024	☐ Yes ☑ No

Signature of Property Owner — Date: 4/19/2024

Riley Sorensen — Owner

Please Print Name — Title

Office Use Only

Recommendation of Planning and Zoning Administrator (Community Director):

☐ Approve
☐ Decline

Comments:

Signature:_____ Date:_____

Requires:

☐ Building Permit
☐ Conditional Use Permit
☐ Code Amendment
☐ Board of Adjustments Variance
☐ Flood Plain Development Permit
☐ Other:_____

SITE PLAN

Please provide a drawing of your proposed site in the space below. Include building floor plan, profiles, cross-sections, dimensions, setbacks, and signs. Also indicate exits, restrooms, and fire extinguisher placement. Use an attached sheet of paper, if necessary.

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BEAR RIVER STORAGE

REVISION				
SYM.	DESCRIPTION	DATE	APPROVAL	CAD
A	BUILDING PERMIT SET	1/12/24	TMN	TMN
B	UPDATED ADDRESS	9/24/24	BARNETT	TGN

STRUCTURAL ENGINEER

BARNETT STRUCTURES

TROY NIELSEN
TATE NIELSEN, EIT
LYNN BARNETT, PE

1199 SOUTH MAIN, SUITE 104
CENTERVILLE, UTAH 84014
801-294-2950 (OFFICE)

CIVIL ENGINEER

McNEIL ENGINEERING

McNEIL ENGINEERING
DANIEL CANNING, PE
801-255-7700

8610 S. SANDY PARKWAY
SUITE 200
SANDY, UTAH 84070

OFFICE ARCHITECT

VDG

VINCENT DESIGN GROUP, INC.

BRENT VINCENT, RA
401 E. 1700 S.
SALT LAKE CITY, UTAH 84115
801-484-2046

MEP

TBD

GENERAL CONTRACTOR

MENLOVE CONSTRUCTION, INC

MENLOVE CONSTRUCTION

KEN MENLOVE, P.E.
JESSE REYNOLDS

801-280-3000 OFF.

4243 WEST NIKE DR. #C
WEST JORDAN, UTAH

PROJECT NUMBER

2306

PROJECT ADDRESS

1430 E. 300 S.
PRICE, UTAH
84501

OWNER / DEVELOPER

BEAR RIVER STORAGE
C/O:
MENLOVE CONSTRUCTION, INC.
4243 W. NIKE DRIVE SUITE C
WEST JORDAN, UTAH 84088
ATT:KEN MENLOVE , P.E.
ENGINEER:
KEN MENLOVE, P.E.
4243 W. NIKE DRIVE SUITE C.
WEST JORDAN,UTAH 84088

BARNETT STRUCTURES, LC. — UPDATE BY: TMN

ADDRESS MAIL	OFFICE/SHIPPING	TELEPHONE
PO BOX 1248 CENTERVILLE, UT 84014	1199 SOUTH MAIN SUIT 104. CENTERVILLE, UT 84014	OFFICE (801) 294-2950 FAX (801) 294-2939

QTY.	DISTRIBUTION FILE	DATE: 1/12/24
2	STAMPED FOR CITY (BUILDING PERMIT APPROVAL)	
1	MENLOVE CONSTRUCTION	
1	BARNETT STRUCTURES	

DRAWING NO.	REV.	DRAWING NAME
DL	B	DRAWING LIST
ELE	B	ELEVATIONS
SL	B	STORAGE LAYOUT / CODE ANALYSIS / DESIGN CRITERIA
SP	B	SITE PLAN
HCA	B	HANDICAPPED ACCESSIBLE PLAN
A1 THRU I1	B	FOUNDATION / MASONRY PLAN
A2 THRU H1	B	PRIMARY PARTITION PLAN
A3 THRU I3	B	ROOF FRAMING PLAN
A4 THRU I4	B	ROOF SHEET PLAN
A5 THRU I5	B	DOOR & FILLER PANEL PLAN
MD1	B	DETAILS (25 SHEETS)

STATE OF UTAH — 14264-2201 — LYNN ERIC BARNETT — 01/12/20

BARNETT STRUCTURES, L.C.

DRAWN BY	TATE NIELSEN
ENGINEER	TATE NIELSEN
CHECKED	TROY NIELSEN
ENGINEER	LYNN BARNETT

ADDRESS: P.O. BOX 1248
1199 S. MAIN
CENTERVILLE, UT
84014

PHONE: (801) 294-2950
FAX: (801) 294-2939

DO NOT SCALE DRAWING

BEAR RIVER STORAGE
1430 E. 300 S.
PRICE, UT. 84501

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DRAWING LIST

SCALE	SIZE	SHEET	PROJECT #	DRAWING	REV.
N/A	D	1 OF 1	2306	DL	B

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APPLICABLE CODES

	Year		Year
International Building Code	2021	National Electrical Code	2020
International Mechanical Code	2021	Uniform Code for Building Conservation	N/A
International Fuel Gas Code	2021		
International Plumbing Code	2021	ANSI Guidelines	ICC A117.1-17
International Fire Code	2021		
International Energy Conservation Code	2021	IEBC	2021

DEFERRED SUBMITTAL LIST:

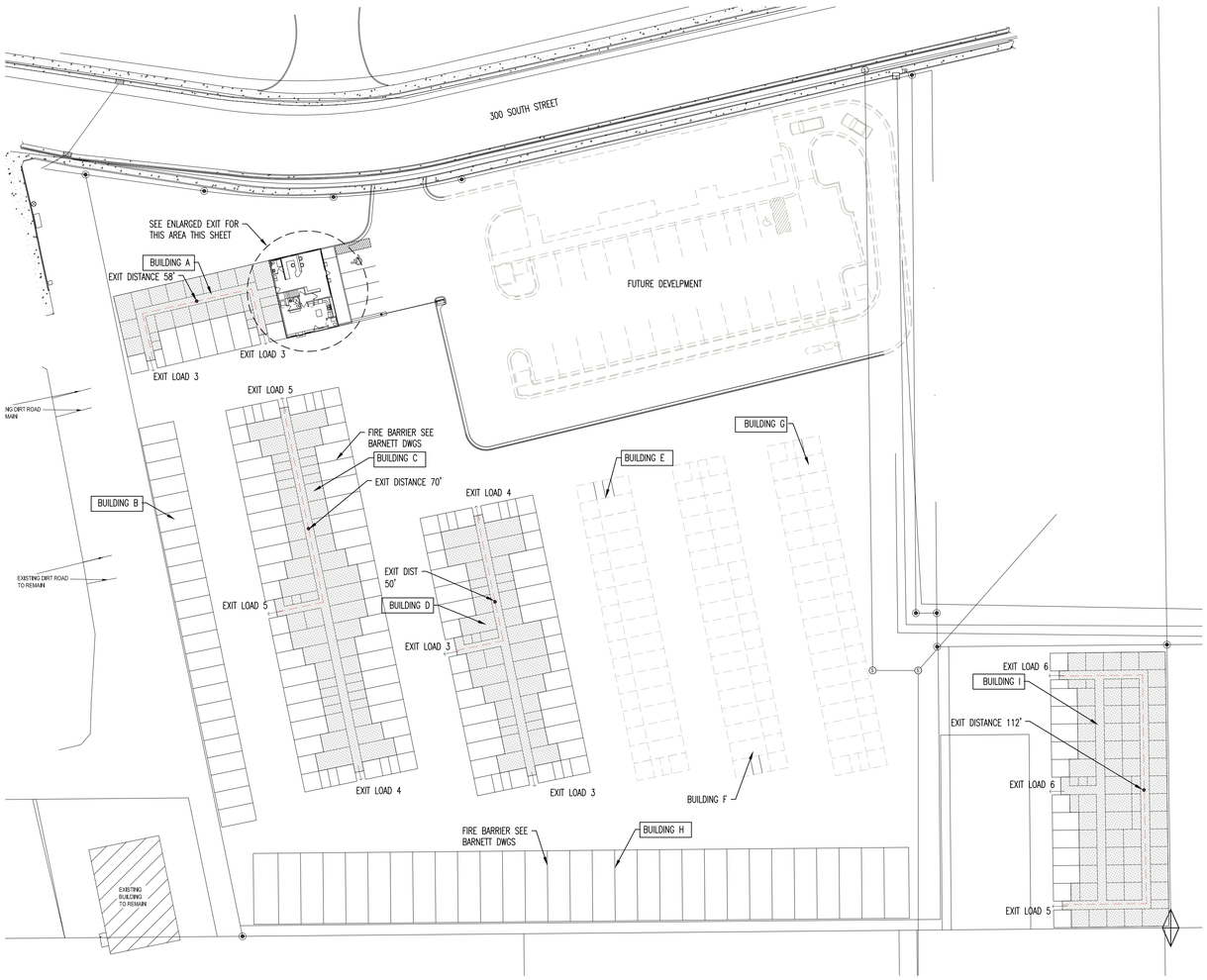
1. FIRE SPRINKLER DRAWINGS FOR THE RESIDENCE PORTION OF THE BUILDING DRAWINGS ARE TO BE SUBMITTED TO FIRE MARSHAL FOR REVIEW AND APPROVAL PRIOR TO COMMENCING OF INSTALLATION.
2. TRUSS DRAWINGS FOR ROOF ARE TO BE SUBMITTED TO ARCHITECT/ STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION. DRAWINGS TO BE STAMPED BY STRUCTURAL ENGINEER LICENSED IN THE STATE OF UTAH PRIOR TO SUBMITTAL.

SQUARE FOOTAGE CALCS:

BLDG	S-1	B	R3	TOTAL SF	OCCUPIED SF
A	4,050	606	1,886	6,542	R3=1886, B=606, S1=2670
B	4,600	0	0	4,600	0
C	14,300	0	0	14,300	S1= 6600
D	10,400	0	0	10,400	S1= 4900
E	FUTURE	0	0	FUTURE	0
F	FUTURE	0	0	FUTURE	0
G	FUTURE	0	0	FUTURE	0
H	14,300	0	0	14300	0
I	10,075	0	0	10,075	S1= 8225
TOTAL	56,225 SF	606 SF	1886 SF	58,717 SF	R3=1886, B=606, S1=22395

INDEX OF ARCHITECTURAL DRAWINGS

SHEET#	SHEET NAME
T-1.00	TITLE SHEET AND CODE ANALYSIS
T-1.10	ANSI 117.1-17 REFERENCE DETAILS AND MOUNTING HIEGHTS
A-1.00	FLOOR PLANS AND SCHEDULES
A-2.00	OFFICE RESIDENCE ELEVATIONS
A-2.10	OVERALL ELEVATIONS
A-3.00	BUILDING SECTIONS
A-4.00	ROOF PLAN CEILING PLANS AND DETAILS
A-5.00	DOOR AND WINDOW DETAILS
S-1.00	OFFICE AND RESIDENCE STRUCTURAL PLANS
S-2.00	OFFICE AND RESIDENCE STRUCTURAL DETAILS
S-3.00	STRUCTURAL NOTES



CODE ANALYSIS:

BUILDING TYPES

OFFICE RESIDENCE - VB
STORAGE BUILDINGS - 11B

OCCUPANCIES:

OFFICE RESIDENCE LIVE WORK
STORAGE: S-1

OCCUPIED SF.

OFFICE RESIDENCE: 606 (B) 1,886 (R2) LIVE WORK
STORAGE: 27203 (S1)

** 1 HOUR SEPARATION REQUIRED BETWEEN R2 AND S1

ANALYSIS BY BUILDING:

OFFICE RESIDENCE:
LIVE WORK:
1. <3000 SF OK
2. B<50% OK
3. B ON MAIN OK
4. B< 5 EMPLOYEES OK
5. R2 < 2 UNITS OK

USE LIVE WORK

- SPRINKLER - NFPA13 (B), NFPAR13(R3)
- SEPARATION - LIVE WORK --- NOT REQUIRED
- ALLOWABLE SF - (B) 9000 - OK
  (R2) 16000 - OK

ALLOWABLE HT. 60' - OK
STORIES ALLOWED 2 - OK

OCCUPANTS: $\frac{606}{150}$ = 4 OCC.
$\frac{1886}{200}$ = 10 OCC.

EXITS: (B) REQ 1 - 2 SHOWN - OK
(R) REQ 1 + ACCESSIBLE WINDOWS - OK

MAX EXIT DIST.
(R) 125' PER 1006.3.2 - OK
(B) 300' PER 1017.2 - OK

PLUMBING:
(B) OCC. - SHARE WITH S-1 - SEE BELOW

(R) OCC.
- WC - 1 PER DWELLING UNIT - OK
- LAV - 1 PER 10 - OK
- BATHTUB - 1 - OK
- KITCHEN SINK - 1 - OK

STORAGE BUILDINGS:

GROSS SF: 56,225 SF IN MULTIPLE BUILDINGS
LARGEST BUILDING - 14,300 SF
OCC. SF: 22,395 SF

ALLOWABLE SF:
At = 17,500 SF - OK FOR NON-SPRINKLED BUILDINGS
STORIES - 2 OK
HEIGHT - 40' -OK

2 HOURS WALL CONSTRUCTION REQUIRED ON PROPERTY LINES WHERE SEPARATION IS LESS THAN 5' - 1 HOUR FROM 5-10' AND NON RATED FROM 10 AND GREATER

FIRE BARRIER REQUIRED AT 12,000 SF MAX S-1

EXIT DISTANCE - 200' - MAX EXIT BUILDING I - 112' OK
EXITS REQ. - ALL HAVE (2+) - OK

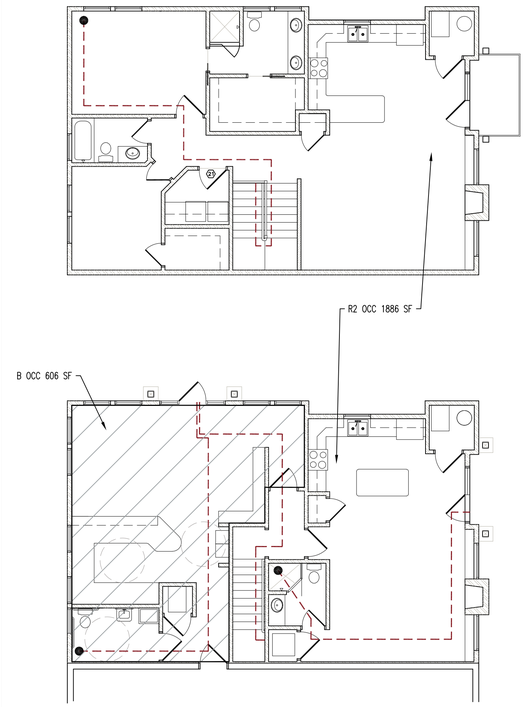
OCCUPANCY CALCULATIONS:
BUILDING A - $\frac{2670}{500}$ = 5.3
BUILDING B - 0 = 0.0
BUILDING C - $\frac{6600}{500}$ = 13.2
BUILDING D - $\frac{4900}{500}$ = 9.8
BUILDING E - FUTURE
BUILDING F - FUTURE
BUILDING G - FUTURE
BUILDING H - 0 - 0.0
BUILDING I - $\frac{8225}{500}$ = 16.5

TOTAL OCC - 44.8 USE 49 FOR OVERALL OCC (S1)

PLUMBING CALCS
OFFICE - 2 OCC
STORAGE - 49 OCC

TOTAL OCC = 51

REQUIRED:
WC - $\frac{2}{25}$ + $\frac{49}{100}$ = 0.57 = 1
LAV - $\frac{2}{10}$ + $\frac{49}{100}$ = 0.54 = 1
MOP SINK - 1
DF - 1



EXIT PLAN RES/OFFICE

SCALE: 1/8" = 1'-0"

NORTH

VDG VINCENT DESIGN GROUP, INC.
ARCHITECTS AND PLANNERS
401 EAST 1700 SOUTH, SALT LAKE CITY, UTAH - (801-484-2046

STATE OF UTAH
BRENT HURD VINCENT
13591240-0301
LICENSED ARCHITECT
12-21-23

NEW OFFICE RESIDENCE FOR:

BEAR RIVER STORAGE
PRICE OFFICE

1430 EAST 300 SOUTH
PRICE, UT

FLOOR PLANS, DOOR & FINISH SCHEDULES & DETAILS

ARCH. PROJECT NO:	23-172
DATE:	12/21/23
DRAWN BY:	BRENT
CHECKED BY:	
DESIGNED BY:	

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DATE	REVISION

SHEET TITLE

T-1.00

ARCHITECTURAL 1 of 6

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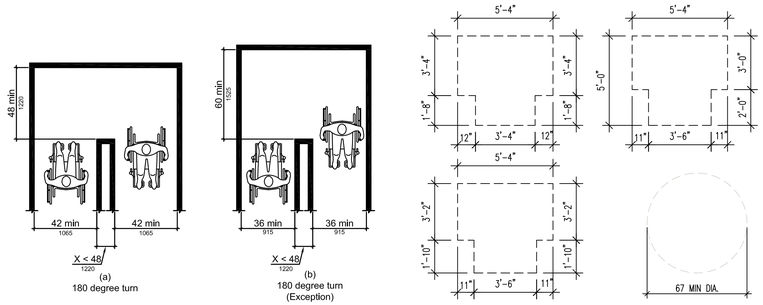
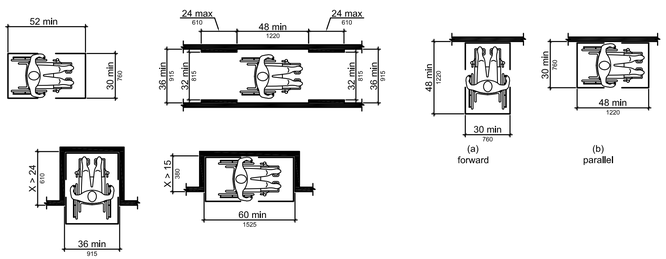


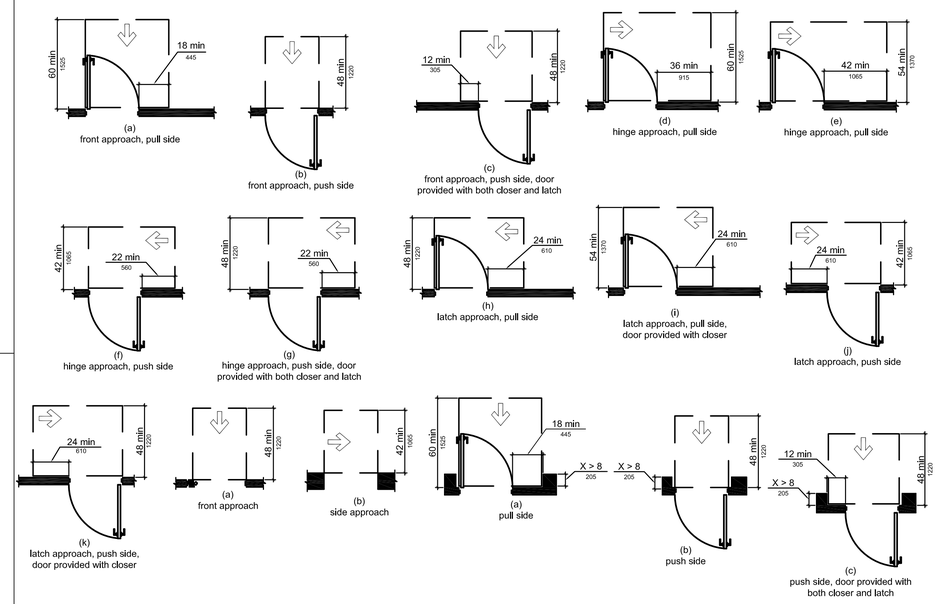
TURNING SPACE

SCALE: N.T.S



MINIMUM CLEAR FLOOR SPACE

SCALE: N.T.S.



DOOR AND OPENING CLEARANCES

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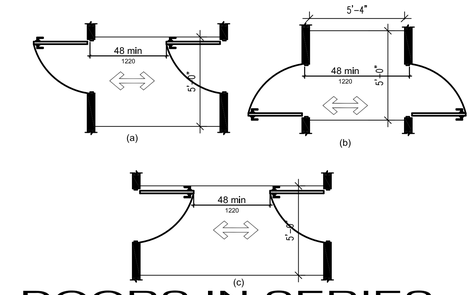
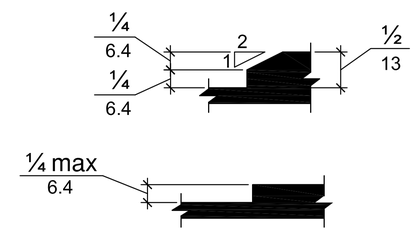


DOORS IN SERIES

SCALE: N.T.S



CHANGES IN ELEV/ THRESHOLDS

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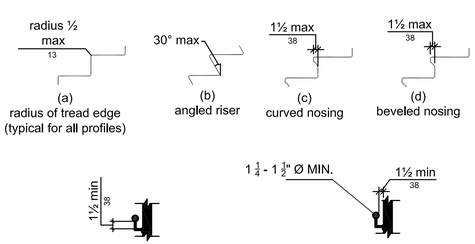
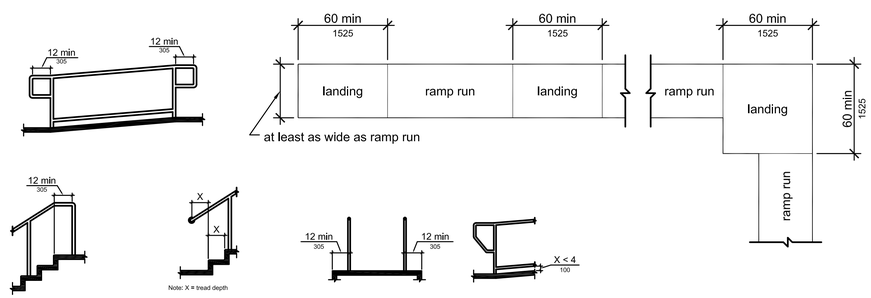


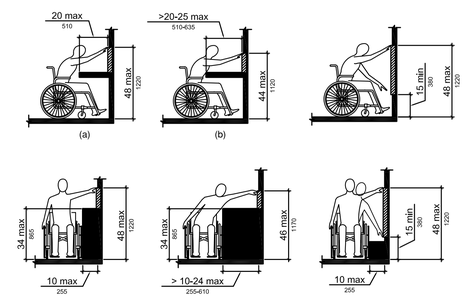
STAIR AND RAILING DETAILS

SCALE: N.T.S.



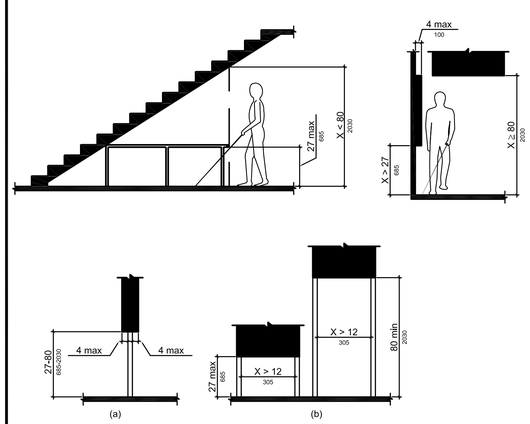
RAMP AND RAILING DETAILS

SCALE: N.T.S.



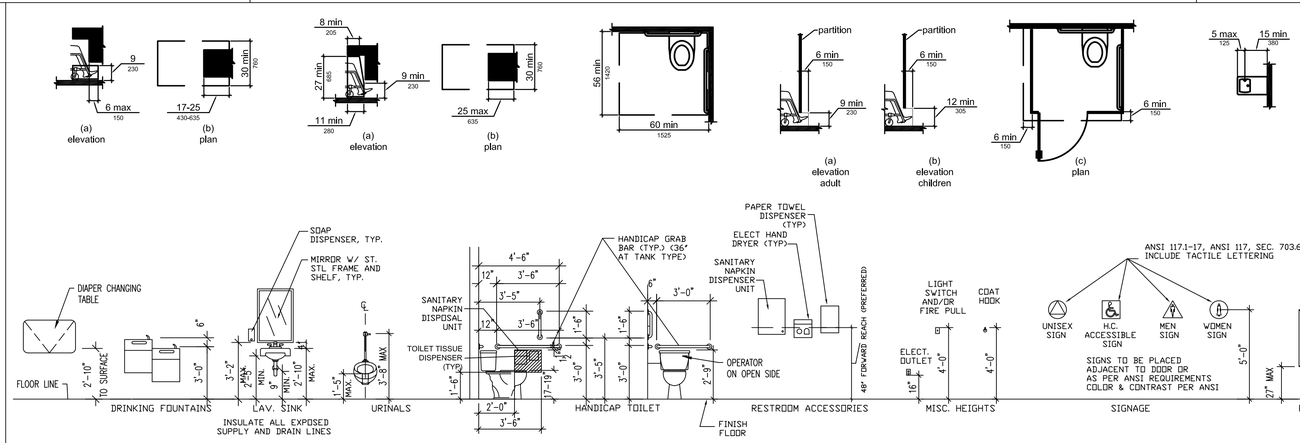
REACH DETAILS

SCALE: N.T.S.



OBSTRUCTION DETAILS

SCALE: N.T.S.



NOTES:

1. THE CONTRACTOR TO PROVIDE BLOCKING/BACKING FOR ALL ACCESSORIES. BLOCKING AT GRAB BARS TO MAINTAIN AND LOAD OF 250 LB./FT/ LOAD.
2. DRINKING FOUNTAINS, TOILETS, AND URINALS ARE TO BE MOUNTED AS PER MANUFACTURERS RECOMMENDATIONS FOR STANDARD UNITS UNLESS THEY ARE DESIGNATED TO BE FOR HANDICAPPED USE. H.C. ACCESSIBLE UNITS TO BE MOUNTED AS SHOWN AND MEET AL ANSI REQUIREMENTS.
3. ALL WALL HUNG HARDWARE IN TRAVEL LANES IS TO HAVE MAXIMUM EXTENSION OF 4" INTO ROOM PER ANSI

NOTE: TACTILE EXIT SIGNS SHALL BE LOCATED AT AL ENTRANCES TO STAIRWAYS, AND AT ALL EXTERIOR EXIT DOORS.

RESTROOM AND MOUNTING DETAILS

SCALE: N.T.S.

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VDG VINCENT DESIGN GROUP, INC.
ARCHITECTS AND PLANNERS
401 EAST 1700 SOUTH, SALT LAKE CITY, UTAH - (801-484-2046

STATE OF UTAH
BRENT HURD VINCENT
13591240-0301
LICENSED ARCHITECT
12-21-23

NEW OFFICE RESIDENCE FOR:
BEAR RIVER STORAGE
PRICE OFFICE
1430 EAST 300 SOUTH
PRICE, UT
ANSI 117.1 –17 DETAILS AND MOUNTING HEIGHTS

ARCH. PROJECT NO:	23–172
DATE:	12/21/23
DRAWN BY:	BRENT
CHECKED BY:	
DESIGNED BY:	

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DATE	REVISION

SHEET TITLE

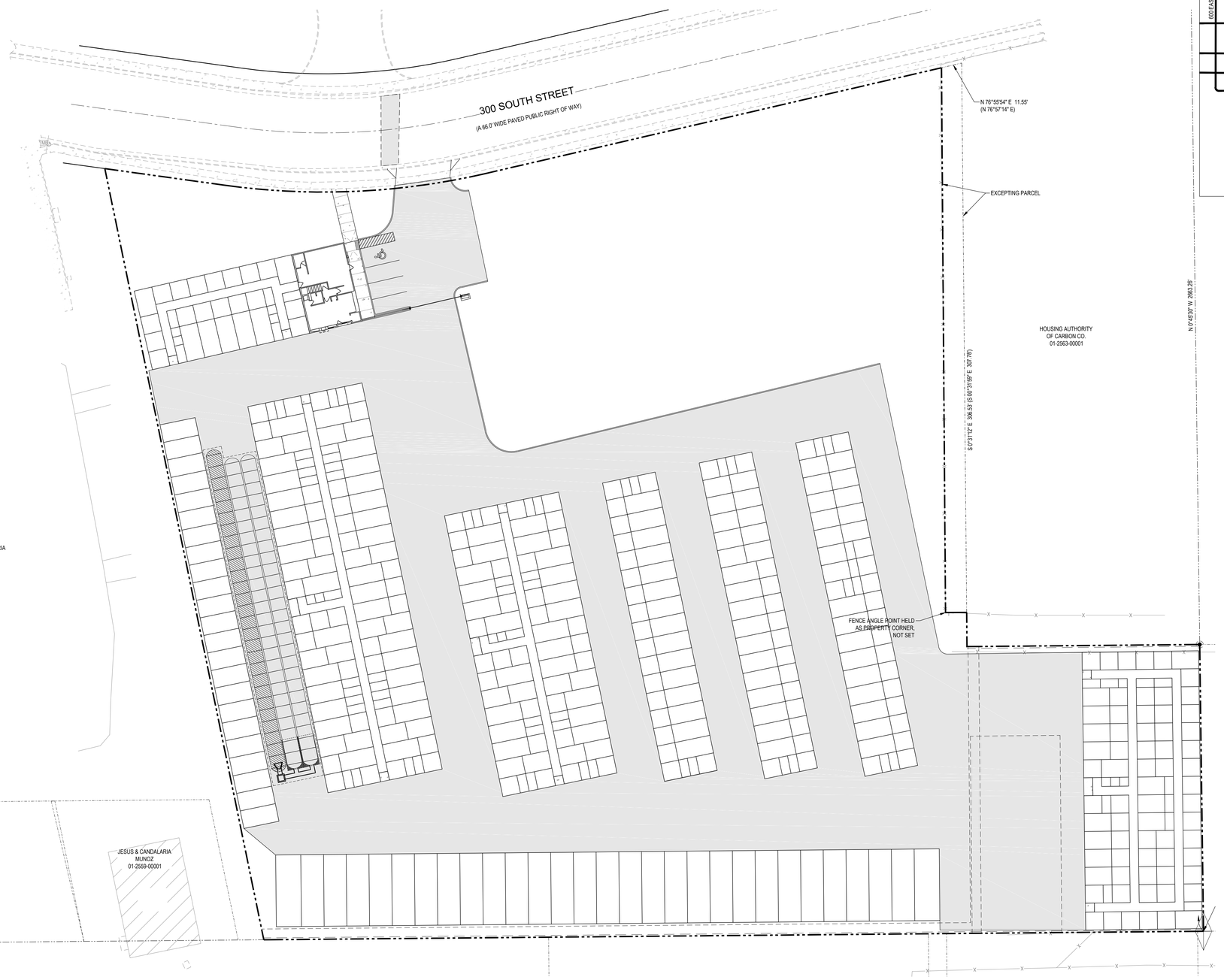
T-1.10

ARCHITECTURAL 1 of 6

PRICE STORAGE

CONSTRUCTION PLANS

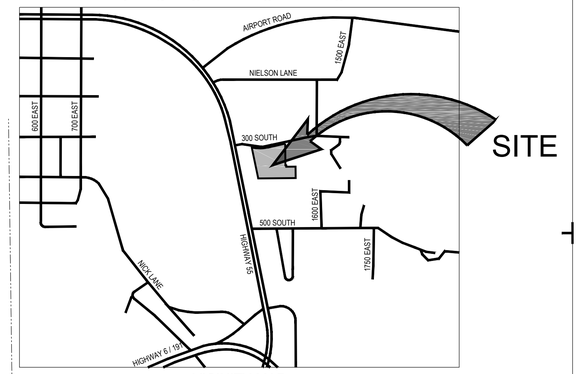
300 SOUTH MAIN STREET
PRICE, UTAH



NORTH

SCALE: 1" = 30'

0 15' 30' 60' 90'



VICINITY MAP
SCALE: N.T.S.

N 0°45'30" W 2662.36'

DRAWING INDEX

SHEET	DESCRIPTION
C0.00	CIVIL COVER SHEET
C0.01	GENERAL NOTES, LEGEND AND ABBREVIATIONS
C1.01	CIVIL SITE PLAN
C2.01	GRADING AND DRAINAGE PLAN
C2.10	EROSION CONTROL PLAN
C4.01	SITE UTILITY PLAN
C5.01	CIVIL DETAILS
C5.02	CIVIL DETAILS
C5.03	CIVIL DETAILS

ALL WORK AND MATERIALS FOR WATER MUST CONFORM TO PRICE CITY PUBLIC WORKS STANDARDS AND SPECIFICATIONS

ALL WORK AND MATERIALS FOR SEWER MUST CONFORM TO PRICE CITY PUBLIC WORKS STANDARDS AND SPECIFICATIONS

ALL WORK AND MATERIALS MUST CONFORM TO PRICE CITY STANDARDS AND SPECIFICATIONS

DEVELOPER & OWNER
MENLOVE CONSTRUCTION, INC.
JESSE REYNOLDS
4243 NIKE DRIVE #C
WEST JORDAN, UT 84088
801-280-3000
801-282-6887
menlovec@gmail.com

McNEIL ENGINEERING™
Economic and Sustainable Designs, Professionals You Know and Trust
8610 South Sandy Parkway, Suite 200 Sandy, Utah 84070 801.255.7700 mcneilengineering.com
Civil Engineering • Consulting & Landscape Architecture
Structural Engineering • Land Surveying & HDS

S:\2023Files\23116\Civil\Prod Dwg\23116 PLN.dwg Daniel Dec 14, 2023 - 11:34am

GENERAL NOTES

1.1 COMPLIANCE
1. ALL WORK TO CONFORM TO GOVERNING MUNICIPALITY'S STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS AND THE MOST RECENT, ADOPTED EDITIONS OF THE FOLLOWING: INTERNATIONAL BUILDING CODE (IBC), THE INTERNATIONAL PLUMBING CODE, STATE DRINKING WATER REGULATIONS, APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS, ADA ACCESSIBILITY GUIDELINES.
3. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS. ANY REVISIONS MUST HAVE PRIOR WRITTEN APPROVAL.

1.2 PERMITTING AND INSPECTIONS
1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED THOROUGHLY REVIEWED PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
2. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING ARCHITECT/ENGINEER OR INSPECTING AUTHORITY 48 HOURS IN ADVANCE OF COVERING UP ANY PHASE OF CONSTRUCTION REQUIRING OBSERVATION.
3. ANY WORK IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE PERMITS FROM THE APPROPRIATE, CITY, COUNTY OR STATE AGENCY CONTROLLING THE ROAD AND WITH APPROPRIATE INSPECTIONS.

1.3 COORDINATION & VERIFICATION
1. ALL DIMENSIONS, GRADES & UTILITY DESIGNS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS, IF NOT VERIFIED AND NOTIFICATION OF CONFLICTS HAVE NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.
2. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND BRING UP ANY QUESTIONS BEFOREHAND. NO ALLOWANCE WILL BE MADE FOR DISCREPANCIES OR OMISSIONS THAT CAN BE EASILY OBSERVED.
3. CONTRACTOR TO COORDINATE WITH ALL OTHER DISCIPLINES, INCLUDING BUT NOT LIMITED TO: LANDSCAPE PLANS, SITE ELECTRICAL SITE LIGHTING PLANS AND ELECTRICAL SERVICE TO THE BUILDING(S), MECHANICAL PLANS FOR LOCATION OF SERVICES TO THE BUILDING(S), INCLUDING FIRE PROTECTION, ARCHITECTURAL SITE PLAN FOR DIMENSIONS, ACCESSIBLE ROUTES, ETC., NOT SHOWN ON CIVIL PLANS.
4. CONTRACTOR IS TO COORDINATE LOCATION OF NEW TELEPHONE SERVICE, GAS SERVICE, CABLE, ETC. TO BUILDING WITH THE APPROPRIATE UTILITY COMPANY. FOR TELEPHONE, CONTRACTOR TO FURNISH CONDUIT, PLYWOOD BACKBOARD, AND GROUND WIRE, AS REQUIRED.

1.4 SAFETY AND PROTECTION
1. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION,
2. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE PROJECT AND SHALL MEET ALL OSHA REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO LOCAL AND FEDERAL CODES GOVERNING SHORING AND BRACING OF EXCAVATIONS AND TRENCHES, AND FOR THE PROTECTION OF WORKERS AND PUBLIC.
4. CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT ALL EXISTING PUBLIC AND PRIVATE PROPERTY, ROADWAYS, AND UTILITY IMPROVEMENTS. DAMAGE TO EXISTING IMPROVEMENTS CAUSED BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE TO THE SATISFACTION OF THE OWNER OF SAID IMPROVEMENTS.
5. CONTRACTOR IS REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE APPROVED PROJECT LIMITS. THIS INCLUDES, BUT IS NOT LIMITED TO, VEHICLE AND EQUIPMENT STAGING, MATERIAL STORAGE AND LIMITS OF TRENCH EXCAVATION.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN PERMISSION AND/OR EASEMENTS FROM THE APPROPRIATE GOVERNMENT AGENCY AND/OR INDIVIDUAL PROPERTY OWNER(S) FOR WORK OR STAGING OUTSIDE OF THE PROJECT LIMITS.
7. CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS, FLASHERS, OTHER EQUIPMENT AND FLAG PERSONS NECESSARY TO INSURE THE SAFETY OF WORKERS AND VISITORS. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
8. CONTRACTOR SHALL COMPLY WITH LOCAL NOISE ORDINANCE STANDARDS.
9. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL ACCORDING TO GOVERNING AGENCY STANDARDS.
10. CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK IN CONNECTION WITH CONSTRUCTION. SUBMIT A STORM WATER POLLUTION PREVENTION PLAN, IF REQUIRED.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION.
13. NATURAL VEGETATION AND SOIL COVER SHALL NOT BE DISTURBED PRIOR TO ACTUAL CONSTRUCTION OF A REQUIRED FACILITY OR IMPROVEMENT. MASS CLEARING OF THE SITE IN ANTICIPATION OF CONSTRUCTION SHALL BE AVOIDED. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO ONE APPROACH TO THE SITE. THE APPROACH SHALL BE DESIGNATED BY THE OWNER OR GOVERNING AGENCY.
14. THE CONTRACTOR SHALL TAKE REASONABLE MEASURE TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE AND ALL SUCH IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED OR RECONSTRUCTED TO THE ENGINEER/OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.

1.5 MATERIALS
1. SITE CONCRETE SHALL BE A MINIMUM 6.5 BAG MIX, 4000 P.S.I. @ 28 DAYS, 4" MAXIMUM SLUMP WITH 5 + OR - 1% AIR ENTRAINMENT, UNLESS SPECIFIED OTHERWISE. -SEE SPECIFICATION
   A. SLABS-ON-GRADE WILL BE TYPICALLY SCORED (1/4 THE DEPTH) AT INTERVALS NOT TO EXCED THEIR WIDTH OR 12 TIMES THEIR DEPTH, WHICHEVER IS LESS. SCORING WILL BE PLACED TO PREVENT RANDOM CRACKING. FULL DEPTH EXPANSION JOINTS WILL BE PLACED AGAINST ANY OBJECT DEEMED TO BE FIXED, CHANGES IN DIRECTION AND AT EQUAL INTERVALS NOT TO EXCEED 50 FEET.
   B. CONCRETE WATERWAYS, CURBWALLS, MOWSTRIPS, CURB AND GUTTER, ETC. WILL TYPICALLY BE SCORED (1/4 THE DEPTH AT INTERVALS NOT TO EXCEED 10 FEET AND HAVE FULL DEPTH EXPANSION JOINTS AT EQUAL SPACING NOT TO EXCEED 50 FEET.
   C. UNLESS OTHERWISE NOTED, ALL SLABS-ON-GRADE WILL HAVE A MINIMUM 8" TURNED-DOWN EDGE TO HELP CONTROL FROST HEAVE.
   D. UNLESS OTHERWISE NOTED, ALL ON-GRADE CONCRETE WILL BE PLACED ON A MINIMUM 4" GRAVEL BASE OVER A WELL COMPACTED (90%) SUBGRADE.
   E. ALL EXPOSED SURFACES WILL HAVE A TEXTURED FINISH, RUBBED OR BROOMED. ANY "PLASTERING" OF NEW CONCRETE WILL BE DONE WHILE IT IS STILL "GREEN".
   F. ALL JOINTS (CONTROL, CONSTRUCTION OR EXPANSION JOINTS, ETC.) WILL BE SEALED WITH A ONE PART POLYURETHANE SEALANT (SEE SPECIFICATION).
2. ASPHALTIC CONCRETE PAVEMENT SHALL BE A MINIMUM 3" OVER 8" OF COMPACTED (95%) ROAD BASE OVER PROPERLY PREPARED AND COMPACTED (90%) SUBGRADE, UNLESS NOTED OTHERWISE. -SEE SPECIFICATIONS, AND DETAIL 'D1' SHEET C5.01
   A. ASPHALT COMPACTION SHALL BE A MINIMUM 96% (MARSHALL DESIGN).
   B. SURFACE COARSE SHALL BE ½ " MINUS. MIX DESIGN TO BE SUBMITTED FOR APPROVAL AT LEAST TWO WEEKS PRIOR TO ANTICIPATED PAVING SCHEDULE.
   C. AC PAVEMENT TO BE A ½" ABOVE LIP OF ALL GUTTER AFTER COMPACTION.
   D. THICKNESSES OVER 3" WILL BE LAID IN TWO LIFTS WITH THE FIRST LIFT BEING AN APPROVED 3/4" MINUS DESIGN.

1.6 GRADING / SOILS
1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT, WHICH BY REFERENCE ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS, OR IN THE SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY BETWEEN THE SOILS REPORT AND THESE PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT.
3. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM TEST D-1557, EXCEPT UNDER BUILDING FOUNDATIONS WHERE IT SHALL BE 98% MIN. OF MAXIMUM DENSITY. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM.
4. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED REGISTERED SOILS ENGINEER, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITH THE BUILDING PAD AREA AND AREAS TO BE PAVED, HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
5. SITE CLEARING SHALL INCLUDE THE LOCATING AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
6. ALL EXISTING VALVES, MANHOLES, ETC. SHALL BE RAISED OR LOWERED TO GRADE AS REQUIRED.

GENERAL NOTES: CONTINUED

1.7 UTILITIES
1. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES EITHER DIRECT OR THROUGH BLUE STAKE TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION.
2. CONTRACTOR TO VERIFY BY POTHOLING BOTH THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLING ANY NEW LINES. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
3. CONTRACTOR MUST START AT LOW END OF ALL NEW GRAVITY UTILITY LINES. MECHANICAL SUB-CONTRACTOR MUST BE PROVIDED CIVIL SITE DRAWINGS FOR COORDINATION AND TO CHECK THE FLOW FROM THE LOWEST POINT IN BUILDING TO THE FIELD VERIFIED CONNECTION AT THE EXISTING MAIN. NO EXTRA COMPENSATION IS TO BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO FAILURE TO COMPLY WITH THESE REQUIREMENTS.
4. CONTRACTOR IS TO VERIFY LOCATION, DEPTH, SIZE, TYPE, AND OUTSIDE DIAMETERS OF UTILITIES IN THE FIELD BY POTHOLING A MINIMUM OF 300 FEET AHEAD, PIPELINE CONSTRUCTION TO AVOID CONFLICTS WITH DESIGNED PIPELINE GRADE AND ALIGNMENT. EXISTING UTILITY INFORMATION SHOWN ON PLANS OR OBTAINED FROM UTILITY COMPANIES OR BLUE STAKED MUST BE ASSUMED AS APPROXIMATE, REQUIRING FIELD VERIFICATION.
5. CULINARY WATER AND FIRE SERVICE LINES TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS AND SPECIFICATIONS.
6. SANITARY SEWER MAINS AND LATERALS TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY SEWER DISTRICT STANDARDS AND SPECIFICATIONS.
7. STORM SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH THE GOVERNING MUNICIPALITY STANDARDS AND SPECIFICATIONS.
8. ALL STORM DRAIN AND IRRIGATION CONDUITS SHALL BE INSTALLED WITH WATER TIGHT JOINTS AND CONNECTIONS.
9. ALL STORM DRAIN PIPE PENETRATIONS INTO BOXES SHALL BE CONSTRUCTED WITH WATER TIGHT SEALS ON THE OUTSIDE AND GROUTED SMOOTH WITH A NON-SHRINK GROUT ON THE INSIDE. CONDUITS SHALL BE CUT OFF FLUSH WITH THE INSIDE OF THE BOX.
10. NO CHANGE IN THE DESIGN OF UTILITIES AS SHOWN WILL BE MADE BY THE CONTRACTOR WITHOUT THE WRITTEN APPROVAL OF THE GOVERNING MUNICIPALITY, OR OTHER AUTHORITY HAVING JURISDICTION OVER THAT UTILITY.
11. ALL STORM DRAIN CONDUITS AND BOXES SHALL BE CLEAN AND FREE OF ROCKS, DIRT, AND CONSTRUCTION DEBRIS PRIOR TO FINAL INSPECTION.

1.8 SURVEY CONTROL
1. CONTRACTOR MUST PROVIDE A REGISTERED LAND SURVEYOR OR PERSONS UNDER THE SUPERVISION OF A REGISTERED LAND SURVEYOR TO SET STAKES FOR THE ALIGNMENT AND GRADE OF EACH MAIN AND/OR FACILITY AS SHOWN ON THE PLANS. THE STAKES SHALL BE MARKED WITH THE HORIZONTAL LOCATION (STATION) AND VERTICAL LOCATION (GRADE) WITH CUTS AND/OR FILLS TO THE APPROVED GRADE OF THE MAIN AND OR FACILITY AS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL PROTECT ALL STAKES AND MARKERS FOR VERIFICATION PURPOSES.
3. CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING, MAINTAINING, OR RESTORING ALL MONUMENTS AND REFERENCE MARKS WITHIN THE PROJECT SITE.

1.9 AMERICAN DISABILITIES ACT
1. PEDESTRIAN / ADA ROUTES SHALL MEET THE FOLLOWING SPECIFICATIONS:
   *ROUTES SHALL HAVE A 2.08% (1:48) MAXIMUM CROSS SLOPE.
   *ROUTES SHALL HAVE A 5.00% (1:20) MAXIMUM RUNNING SLOPE.
   *RAMPS SHALL HAVE A 8.33% (1:12) MAXIMUM RUNNING SLOPE.
2. ADA PARKING STALLS AND ADJACENT ROUTES SHALL HAVE A 2.08% (1:48) MAXIMUM SURFACE SLOPE IN ANY DIRECTION.
3. THE CONTRACTOR SHALL ADHERE TO THE ABOVE SPECIFICATIONS. IN THE EVENT OF A DISCREPANCY IN THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO ANY CONSTRUCTION.

LEGEND

NEW	EXISTING	
		MONUMENT LINE
		CENTER LINE
		SUBJECT PROPERTY LINE
		ADJACENT PROPERTY LINE
		EASEMENT LINE
		DITCH FLOWLINE
X	X	FENCE LINE
ATMS	atms	ATMS CABLE
TV	tv	CABLE TV LINE
C	c	COMMUNICATIONS LINE
FO	fo	FIBER-OPTIC CABLE
F	f	FIRE LINE
IRR	irr	IRRIGATION LINE
G	g	NATURAL GAS LINE
OHC	ohc	OVERHEAD COMMUNICATIONS
OHP	ohp	OVERHEAD POWER LINE
OHT	oht	OVERHEAD TELEPHONE LINE
OHTV	ohtv	OVERHEAD TELEVISION LINE
P	p	POWER LINE
P/C	p/c	POWER/COMMUNICATIONS LINE
P/T	p/t	POWER/TELEPHONE LINE
P/T/C	p/t/c	POWER/TELE/COMM LINE
RD	rd	ROOF DRAIN LINE
SW	sw	SECONDARY WATER LINE
S	s	SANITARY SEWER LINE
ST	st	STEAM LINE
SD	sd	STORM DRAIN LINE
T	t	TELEPHONE LINE
T/C	t/c	TELEPHONE/COMM LINE
UD	ud	UNDERDRAIN
UGC	ugc	UNDERGROUND COMMUNICATIONS
UGP	ugp	UNDERGROUND POWER LINE
UGT	ugt	UNDERGROUND TELEPHONE LINE
UGTV	ugtv	UNDERGROUND TELEVISION
W	w	WATER LINE
72	4572	CONTOUR LINE
		CURB & GUTTER (STD)
		CURB & GUTTER (OUTFALL)

NEW	EXISTING	
		SECTION CORNER (FOUND)
		SECTION CORNER (NOT FOUND)
		STREET MONUMENT
		BRASS CAP MONUMENT
		POWER POLE
		UTILITY POLE
GUY	GUY	GUY ANCHOR
TRANS	TRANS	POWER TRANSFORMER
		TRAFFIC SIGNAL CABINET
		LIGHT POLE
TR	TR	TELEPHONE RISER
T	T	TELEPHONE MANHOLE
		TRAFFIC SIGNAL BOX
W	W	WATER MANHOLE
		WATER VALVE
WM	WM	WATER METER
		FIRE HYDRANT
S	S	SANITARY SEWER MANHOLE
SSCO	SSCO	SANITARY SEWER CLEANOUT
SD	SD	STORM DRAIN MANHOLE
		STORM DRAIN CURB INLET
		STORM DRAIN CATCH BASIN
SD	SD	STORM DRAIN CLEANOUT
		STORM DRAIN COMBO BOX
MB	MB	MAILBOX
		SIGN
		FLOW DIRECTION
44.00 TOC	44.00 EX TOC	SPOT ELEVATION
		CONIFEROUS TREE
		DECIDUOUS TREE

ABBREVIATIONS

AC	ACRE	DIP	DUCTILE IRON PIPE	GM	GAS METER	PCC	POINT OF COMPOUND CURVE	T	TOWNSHIP
ADA	AMERICANS WITH DISABILITIES ACT	DTREE	DECIDUOUS TREE	GMH	GAS MANHOLE	PI	POINT OF INTERSECTION	TBC	TOP BACK OF CURB
ATMS	ADVANCED TRAFFIC MGMT. SYSTEM	DYL	DOUBLE YELLOW LINE	GUY	GUY WIRE	PM	PARKING METER	TELE	TELEPHONE
B&C	BAR & CAP	E	EAST	GV	GAS VALVE	PP	POWER POLE	TFC	TOP FACE OF CURB
BC	BUILDING CORNER	EB	ELECTRIC BOX	HDPE	HIGH DENSITY POLYETHYLENE	PRC	POINT OF REVERSE CURVE	TFG	TOP FINISH GRADE
BFG	BOTTOM FINISH GRADE	EGL	ENERGY GRADE LINE	HG	HEADGATE	PRK	PARKING STRIPE	TL	TREE LINE
BLUE	BLUE STAKED ELECTRIC	ELEV	ELEVATION	HGL	HYDRAULIC GRADE LINE	POC	POINT OF CONNECTION	TMH	TELEPHONE MANHOLE
BLUFO	BLUE STAKED FIBER OPTIC	EM	ELECTRIC METER	HP	HIGH POINT	PT	POINT OF TANGENCY	TOA	TOP OF ASPHALT
BLUG	BLUE STAKED NATURAL GAS	EMH	ELECTRIC MANHOLE	HW	HEADWALL or HIGH WATER	PWR	POWER	TOC	TOP OF CONCRETE
BLUIRR	BLUE STAKED IRRIGATION	EOA	EDGE OF ASPHALT	HWY	HIGHWAY	PVC	POLYVINYL CHLORIDE PIPE	TOF	TOP OF FOOTING
BLUSD	BLUE STAKED STORM DRAIN	EOC	EDGE OF CONCRETE	ICO	IRRIGATION CLEANOUT	R	RANGE	TOG	TOP OF GRATE
BLUSS	BLUE STAKED SANITARY SEWER	EOG	EDGE OF GRAVEL	ICV	IRRIGATION CONTROL VALVE	RCP	REINFORCED CONCRETE PIPE	TOE	TOE OF SLOPE
BLUT	BLUE STAKED TELEPHONE	EOL	EDGE OF LAWN	IE	INVERT ELEVATION	RD	ROOF DRAIN	TOP	TOP OF SLOPE or TOP OF PIPE
BLUW	BLUE STAKED WATER	EX or EXIST	EXISTING	IRR	IRRIGATION	REV	REVISION	TOW	TOP OF WALL
BM	BENCHMARK	F	FIRE	LF	LINEAR FEET	ROW	RIGHT-OF-WAY	TR	TELEPHONE RISER
BOF	BOTTOM OF FOOTING	FC	FOUNDATION CORNER	LIP	LIP OF GUTTER	RR	RAILROAD	TV	TELEVISION
BOB	BOTTOM OF BOX	FD	FOUND or FOUNDATION DRAIN	LP	LOW POINT or LIGHT POLE	S	SOUTH	TW	FINISH GRADE AT TOP OF WALL
BOL	BOLLARD	FDC	FIRE DEPT. CONNECTION	MAX	MAXIMUM	SAD	SEE ARCHITECTURAL DRAWINGS	TRANS	TRANSFORMER
BOT	BOTTOM	FDMN	FOUND MONUMENT	MIN	MINIMUM	SD	STORM DRAIN	TSP	TRAFFIC SIGNAL POLE
BOV	BLOW-OFF VALVE	FDSC	FOUND SECTION CORNER	MON	MONUMENT	SDCB	STORM DRAIN CATCH BASIN	TSB	TRAFFIC SIGNAL BOX
BOW	BACK OF WALK	FFE	FINISHED FLOOR ELEVATION	MP	METAL PIPE	SDCO	STORM DRAIN CLEOUNOUT BOX	UD	UNDERDRAIN
BW	FINISH GRADE AT BOTTOM OF WALL	FG	FINISHED GRADE	MW	MONITORING WELL	SDMH	STORM DRAIN MANHOLE	UGC	UNDERGROUND COMMUNICATIONS
℄	CENTERLINE	FH	FIRE HYDRANT	N	NORTH	SEC	SECTION	UGP	UNDERGROUND POWER
CATV	CABLE TELEVISION	FL	FLOW LINE	NG	NATURAL GROUND	SPECS	SPECIFICATIONS	UGT	UNDERGROUND TELEPHONE
CBR	CONCRETE BARRIER	FNC	FENCE	NGRET	NG AT RETAINING WALL	SLB&M	SALT LAKE BASE & MERIDIAN	UGTV	UNDERGROUND TELEVISION
CC	CURB CUT	FNCCL	CHAIN LINK FENCE	NR	NAIL & RIBBON	SQ	SQUARE	U.N.O.	UNLESS NOTED OTHERWISE
COL	COLUMN	FNCIRN	IRON FENCE	NW	NAIL & WASHER	SQFT	SQUARE FEET	UP	UTILITY POLE
COMM	COMMUNICATIONS	FNCVYL	VINYL FENCE	NTS	NOT TO SCALE	SQYD	SQUARE YARD	VCP	VITRIFIED CLAY PIPE
CONC	CONCRETE	FNCWD	WOOD FENCE	OG	ORIGINAL GROUND	SS	SANITARY SEWER	VP	VERTICAL PIPE
CONST	CONSTRUCTION	FNCWR	WIRE FENCE	OH	OVERHANG	SSCO	SANITARY SEWER CLEANOUT	W	WEST or WATER
CMP	CORRUGATED METAL PIPE	FO	FIBER OPTIC	OHC	OVERHEAD COMMUNICATIONS	SSMH	SANITARY SEWER MANHOLE	WM	WATER METER
CP	CONTROL POINT	FOW	FRONT OF WALK	OHP	OVERHEAD POWER	ST	STEAM	WMH	WATER MANHOLE
CTREE	CONIFEROUS TREE	FT	FEET	OHT	OVERHEAD TELEPHONE	STA	STATION	WS	WATER SURFACE
CUFT	CUBIC FOOT	G	NATURAL GAS	OHTV	OVERHEAD TELEVISION	STD	STANDARD	WTR	WATER
CUYD	CUBIC YARD	GAR	GARAGE	ℙ	PROPERTY LINE	STM	STORM	WV	WATER VALVE
DEL	DELINEATOR	GB	GRADE BREAK	PB	POWER BOX	SYL	SOLID YELLOW LINE	WW	WATERWAY
DIA or Ø	DIAMETER	GL	GROUND LIGHT	PC	POINT OF CURVATURE	SWL	SOLID WHITE LINE		

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PROFESSIONAL ENGINEER
12-14-23
No. 14988925-2202
DANIEL J. CANNING
STATE OF UTAH

PRICE STORAGE
300 SOUTH MAIN STREET
PRICE, UTAH
LOCATED IN THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 14 SOUTH, RANGE 10 EAST, S.L.B.&M

REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

GENERAL NOTES, LEGEND AND ABBREVIATIONS

C0.01

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NORTH

SCALE: 1" = 30'

0 15' 30' 60' 90'

DESCRIPTION	AREA	%
HARDSCAPE	83,431 SQFT	40%
LANDSCAPE	47,235 SQFT	23%
BUILDINGS	79,123 SQFT	38%
TOTAL	209,789 SQFT	100%

GENERAL NOTES:

ALL DIMENSIONS ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.

SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL INFORMATION.

SEE LANDSCAPE PLANS FOR IRRIGATION AND PLANTING.

ALL WORK TO COMPLY WITH GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.

ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.

KEYED NOTES:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. STANDARD DUTY ASPHALT PAVEMENT WITH GRANULAR BASE PER DETAIL 'D1', SHEET C5.02.
2. ASPHALT T-PATCH, PER APWA PLAN NO. 255..
3. CONCRETE SIDEWALK, PER APWA PLAN NO. 231.
4. CONCRETE FLARE DRIVE APPROACH, PER APWA PLAN NO. 221.1
5. CONCRETE CURB WALL. SEE DETAIL 'C2', SHEET C5.02.
6. ADA RAMP WITH DETECTABLE WARNING SURFACE. SEE APWA PLAN NO. 236.3, FOR RAMP DETAIL AND APWA PLAN NO. 238 FOR DETECTABLE WARNING SURFACE DETAIL.
7. ADA PARKING SIGN. SEE DETAIL 'D4', SHEET C5.02.
8. NEW PROPOSED OFFICE / LEASING BUILDING.
9. NEW PROPOSED STORAGE UNIT BUILDING.
10. PAINTED ADA SYMBOL. SEE DETAIL 'D3', SHEET C5.02.
11. 4" WIDE SOLID YELLOW PARKING STALL STRIPE LINES.
12. 4" WIDE SOLID YELLOW PEDESTRIAN STRIPE LINES.
13. NEW ENTRY GATE WITH ENTRY KIOSK.

ACCESSIBLE ROUTE WITH MAXIMUM 1:48 CROSS-SLOPE AND MAXIMUM 1:20 RUNNING-SLOPE.

NOTICE!

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND RESTORATION OF ALL BURIED OR ABOVE GROUND UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS.

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REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

CIVIL SITE PLAN

C1.01

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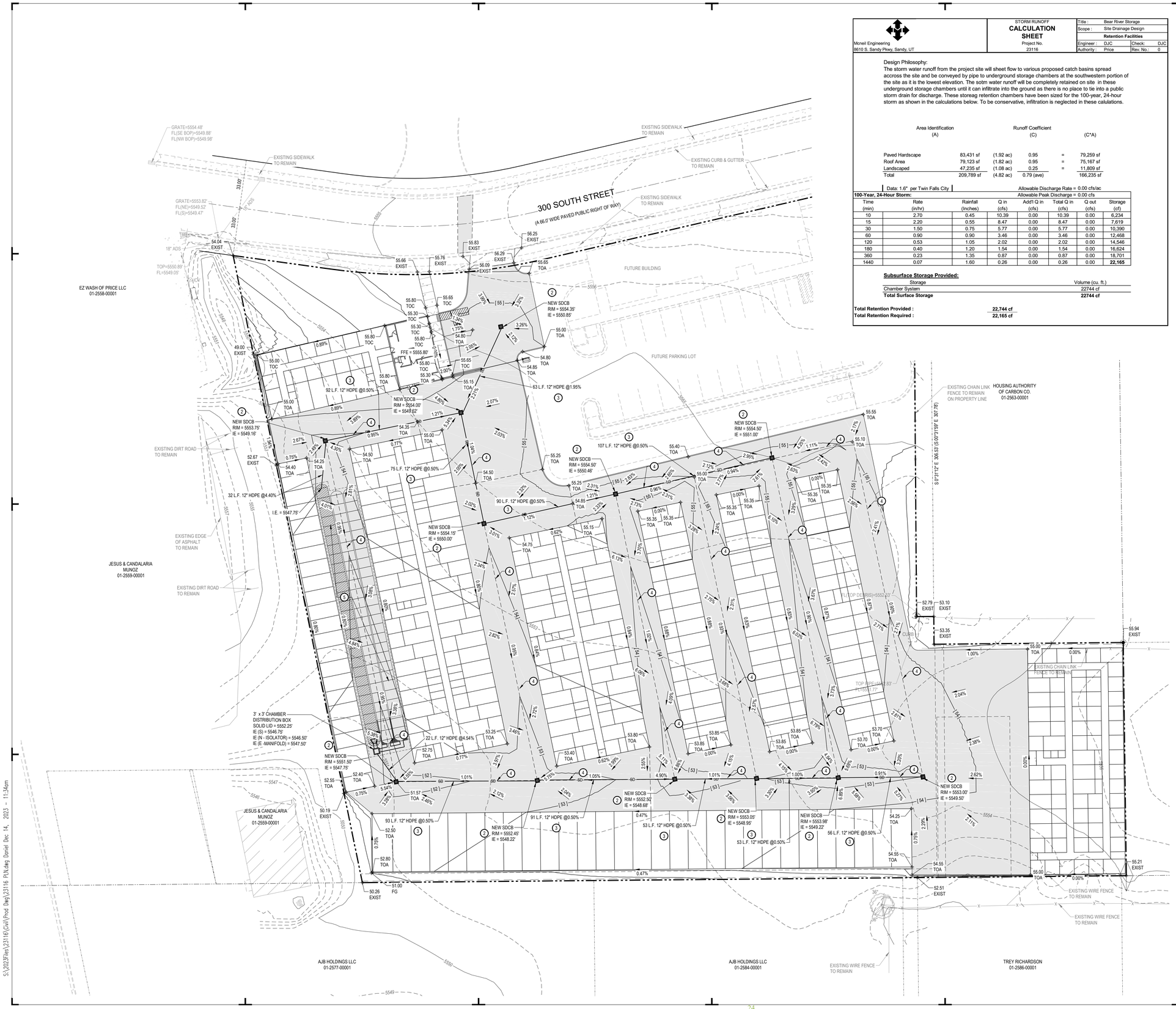

Mcneil Engineering 8610 S. Sandy Pkwy, Sandy, UT	STORM RUNOFF **CALCULATION SHEET** Project No. 23116	Title : Bear River Storage Scope : Site Drainage Design **Retention Facilities** Engineer : DJC Check: DJC Authority : Price Rev. No.: 0

Design Philosophy:
The storm water runoff from the project site will sheet flow to various proposed catch basins spread accross the site and be conveyed by pipe to underground storage chambers at the southwestern portion of the site as it is the lowest elevation. The sotm water runoff will be completely retained on site in these underground storage chambers until it can infiltrate into the ground as there is no place to tie into a public storm drain for discharge. These storeag retention chambers have been sized for the 100-year, 24-hour storm as shown in the calculations below. To be conservative, infiltration is neglected in these calulations.

	Area Identification (A)		Runoff Coefficient (C)		(C*A)
Paved Hardscape	83,431 sf	(1.92 ac)	0.95	=	79,259 sf
Roof Area	79,123 sf	(1.82 ac)	0.95	=	75,167 sf
Landscaped	47,235 sf	(1.08 ac)	0.25	=	11,809 sf
Total	209,789 sf	(4.82 ac)	0.79 (ave)		166,235 sf

Data: 1.6" per Twin Falls City — Allowable Discharge Rate = 0.00 cfs/ac

100-Year, 24-Hour Storm: Allowable Peak Discharge = 0.00 cfs

Time (min)	Rate (in/hr)	Rainfall (Inches)	Q in (cfs)	Add'l Q in (cfs)	Total Q in (cfs)	Q out (cfs)	Storage (cf)
10	2.70	0.45	10.39	0.00	10.39	0.00	6,234
15	2.20	0.55	8.47	0.00	8.47	0.00	7,619
30	1.50	0.75	5.77	0.00	5.77	0.00	10,390
60	0.90	0.90	3.46	0.00	3.46	0.00	12,468
120	0.53	1.05	2.02	0.00	2.02	0.00	14,546
180	0.40	1.20	1.54	0.00	1.54	0.00	16,624
360	0.23	1.35	0.87	0.00	0.87	0.00	18,701
1440	0.07	1.60	0.26	0.00	0.26	0.00	**22,165**

Subsurface Storage Provided:

Storage	Volume (cu. ft.)
Chamber System	22744 cf
Total Surface Storage	**22744 cf**

Total Retention Provided : **22,744 cf**
Total Retention Required : **22,165 cf**

NORTH

SCALE: 1" = 20'

0 10' 20' 40' 60'

GENERAL NOTES:

SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT (IF AVAILABLE). THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM TEST D-1557 EXCEPT UNDER BUILDING FOUNDATION WHERE IT SHALL BE 98% MIN. OF MAXIMUM DENSITY. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED REGISTERED SOILS ENGINEER, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED, HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS & SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.

THE CONTRACTOR IS TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THIS PROJECT. SPECIFIC DETAILS SHOWN ON SHEET C2.10 SHALL BE USED IN COMBINATION WITH OTHER ACCEPTED LOCAL PRACTICES.

EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.

ALL ELEVATIONS SHOWN AT TOP AND BOTTOM OF WALL(S), IF ANY, ARE ELEVATIONS AT FINISH GRADE, UNLESS OTHERWISE NOTED.

KEYED NOTES:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. GRADE SITE TO ELEVATIONS AND CONTOURS SHOWN ON PLAN.
2. 2' x 2' STORM DRAIN CATCH BASIN WITH HEAVY DUTY BICYCLE SAFE GRATE PER 'C4' SHEET C5.02.
3. 12" DIAMETER HDPE STORM DRAIN LINE. SEE APWA PLANS NO. 381 & 382 FOR TRENCHING DETAIL.
4. SWALE IN ASPHALT PAVEMENT.
5. STORMTECH MC-7200 CHAMBERS OR EQUIVALENT SYSTEM APPROVED PRIOR TO BIDDING. SYSTEM TO OUTLET CONTROL STRUCTURE AS SHOWN ON PLANS ALL PROVIDED BY THE CONTRACTOR. STORMTECH CHAMBER HAS DETENTION CAPACITY OF 22,744 C.F. TOTAL REQUIRED STORAGE = 22,165 C.F. SEE DETAIL, SHEET C5.02. SHOP DRAWINGS PROVIDED BY MANUFACTURER PRIOR TO BIDDING AND CONSTRUCTION.

COMMON GRADING ABBREVIATIONS:

SEE SHEET C0.01 FOR ADDITIONAL ABBREVIATIONS

- BFE	BASEMENT FLOOR ELEVATION
- BW	FINISH GRADE AT BOTTOM OF WALL
- EX or EXIST	EXISTING
- EOA	EDGE OF ASPHALT
- EOC	EDGE OF CONCRETE
- FFE	FINISH FLOOR ELEVATION
- FG	FINISH GRADE
- FL	FLOW LINE
- GB	GRADE BREAK
- HP	HIGH POINT
- LP	LOW POINT
- NG	NATURAL GROUND
- SDCB	STORM DRAIN CATCH BASIN
- SDCO	STORM DRAIN CLEANOUT BOX
- SDDB	STORM DRAIN DRAIN BASIN
- SDMH	STORM DRAIN MANHOLE
- TBC	TOP BACK OF CURB
- TOA	TOP OF ASPHALT
- TOC	TOP OF CONCRETE
- TOG	TOP OF GRATE
- TOW	TOP OF WALL
- TW	FINISH GRADE AT TOP OF WALL
- WW	WATERWAY

Blue Stakes of UTAH811 BlueStakes.org

NOTICE!

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND RESTORATION OF ALL BURIED OR ABOVE GROUND UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS.

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PROFESSIONAL ENGINEER 12-14-23 No. 11088925-2202 DANIEL J. CANNING STATE OF UTAH

PRICE STORAGE

300 SOUTH MAIN STREET
PRICE, UTAH

LOCATED IN THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 14 SOUTH, RANGE 10 EAST, S.L.B.&M

REV	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

GRADING AND DRAINAGE PLAN

C2.01

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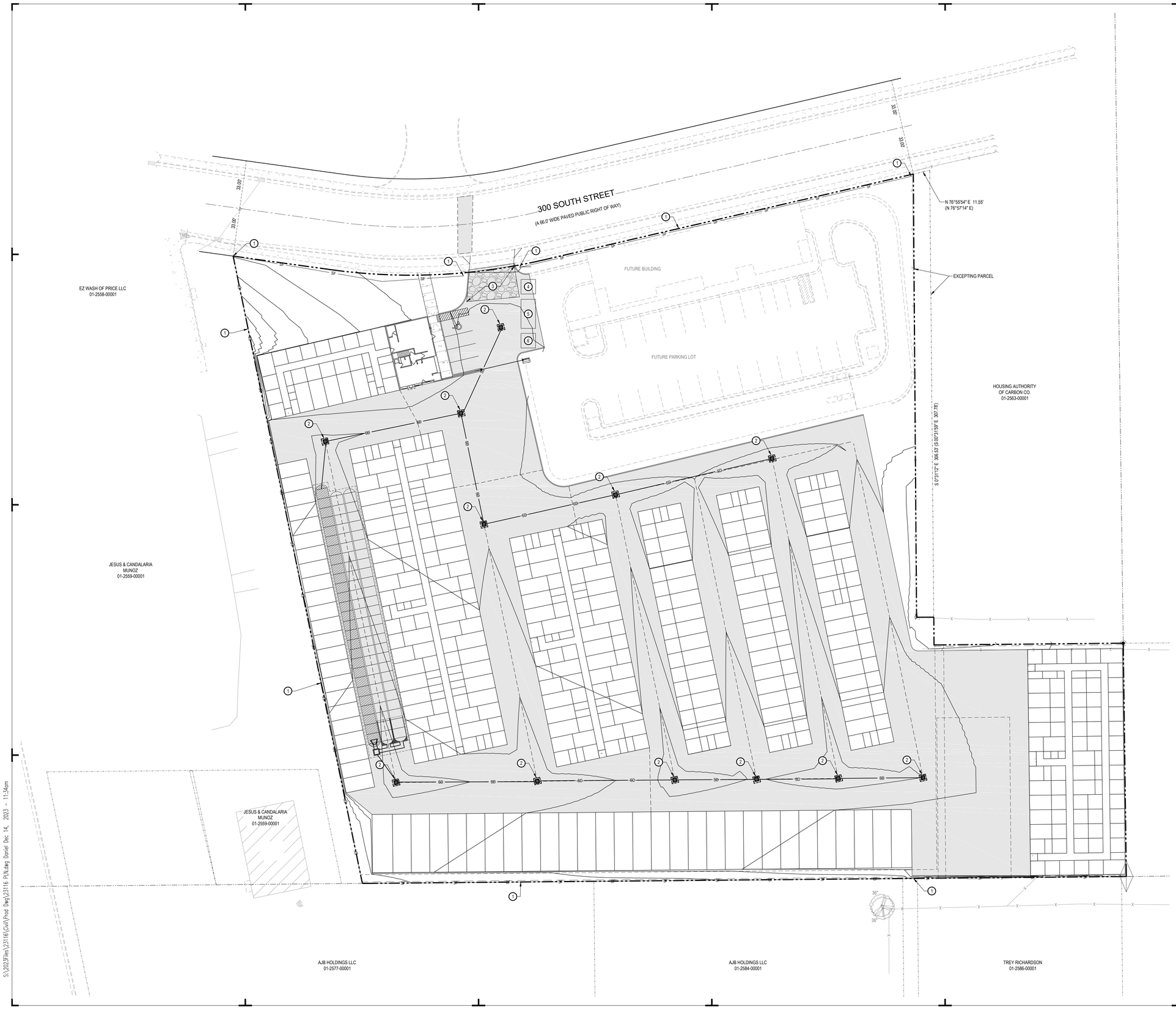

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NORTH

SCALE: 1" = 20'

0 10' 20' 40' 60'

GENERAL NOTES:

THE CONTRACTOR IS TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THIS PROJECT. SPECIFIC DETAILS REFERRED TO ON THIS SHEET SHALL BE USED IN COMBINATION WITH OTHER ACCEPTED LOCAL PRACTICES.

ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LOCAL AGENCY'S EROSION CONTROL STANDARDS AND SPECIFICATIONS AND ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE AGENCY HAVING JURISDICTION. ALSO INSPECTORS WILL HAVE THE RIGHT TO CHANGE THE FACILITIES AS NEEDED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATIONS OF ALL EXISTING UTILITIES. IF CONFLICTS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.

THE CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL.

WHEN GRADING OPERATIONS HAVE BEEN COMPLETED AND THE DISTURBED GROUND SHALL BE LEFT "OPEN" FOR 30 DAYS OR MORE THE AREA SHALL BE FURROWED PARALLEL TO THE CONTOURS OF THE AREA.

THE CONTRACTOR SHALL MODIFY EROSION CONTROL MEASURES TO ACCOMMODATE PROJECT PLANNING.

MAINTENANCE:

THE OWNERS REPRESENTATIVE SHALL MAKE ROUTINE CHECKS ON ALL EROSION CONTROL MEASURES TO DETERMINE IF REPAIRS OR SEDIMENT REMOVAL IS NECESSARY. DUE TO CONDITIONS THAT MAY ARISE IN THE FIELD, ADDITIONAL CONTROL MAY BE DETERMINED TO BE NECESSARY.

SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT THE LEAST DAILY DURING PROLONGED RAINFALL.

CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCES, END RUNS, AND UNDERCUTTING BENEATH SILT FENCING.

NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF SILT FENCING SHALL BE ACCOMPLISHED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

KEYED NOTES:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. SILT FENCE AS SHOWN ON PLAN. SEE DETAIL 'C3', SHEET C5.03.
2. INLET PROTECTION AROUND EXISTING OR NEW STORM DRAIN CATCH BASINS OR CURB INLETS. SEE DETAIL 'A1', SHEET C5.03.
3. TEMPORARY CONSTRUCTION ENTRANCE. SEE DETAIL 'C1', SHEET C5.03. LOCATION SHOWN IS SUGGESTIVE. CONTRACTOR TO RELOCATE AS NEEDED.
4. CONCRETE WASHOUT AREA. CREATE A MIN. 10'X10' AREA WITH A 1' HIGH BERM. LINE AREA WITH PLASTIC. DISCARD WASTE IN DUMPSTER WHEN FULL AND LEGALLY DISPOSE OF. SEE DETAIL 'A3', SHEET C5.03. LOCATION SHOWN IS SUGGESTIVE. CONTRACTOR TO RELOCATE AS NEEDED.
5. CONSTRUCTION DUMPSTER, CHECK LEVEL DAILY, LEGALLY DISPOSE OF WASTE AS NEEDED. LOCATION SHOWN IS SUGGESTIVE. CONTRACTOR TO RELOCATE AS NEEDED.
6. PORTABLE CONSTRUCTION TOILET. TOILET TO BE PROPERLY SECURED TO PREVENT TIPPING. BUILD 6" BERM AROUND TOILET TO CONTAIN ANY SPILLS OR LEAKAGE. CHECK LEVEL DAILY. LEGALLY DISPOSE OF WASTE AS NEEDED. SEE DETAIL 'C5', SHEET C5.03. LOCATION SHOWN IS SUGGESTIVE. CONTRACTOR TO RELOCATE AS NEEDED.

NOTICE!

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PROFESSIONAL ENGINEER
12-14-23
No. 14988925-2202
DANIEL J. CANNING
STATE OF UTAH

PRICE STORAGE

300 SOUTH MAIN STREET
PRICE, UTAH

LOCATED IN THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 14 SOUTH, RANGE 10 EAST, S.L.B.&M

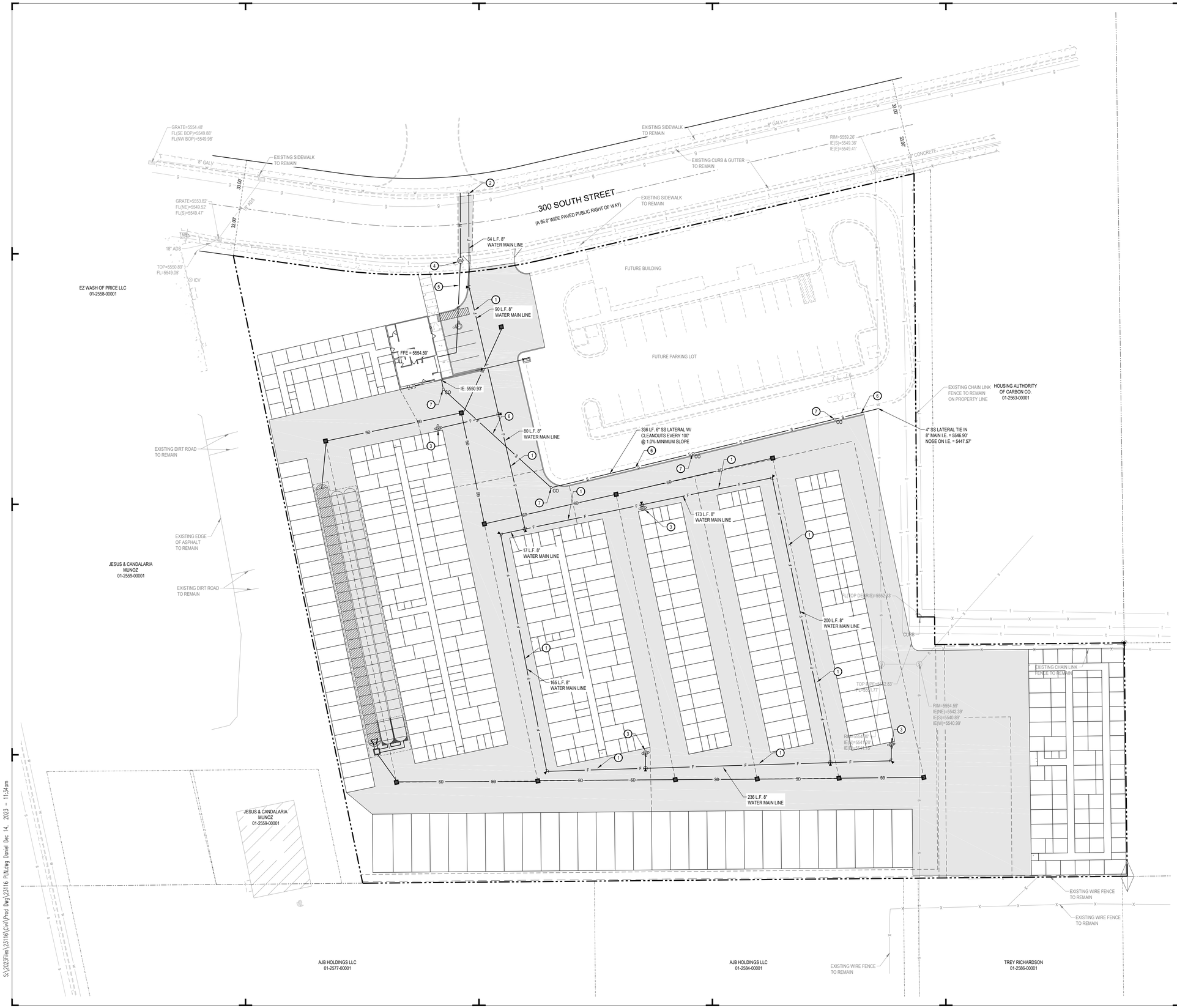
REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

EROSION CONTROL PLAN

C2.10



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NORTH

SCALE: 1" = 20'

0 10' 20' 40' 60'

GENERAL NOTES:

CONTRACTOR IS TO COORDINATE ALL SITE UTILITIES WITH PLUMBING DRAWINGS.

ALL NEW WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.

ALL NEW SANITARY SEWER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.

CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTING ANY SEWER LINES.

FOUR FEET OF COVER IS REQUIRED OVER ALL SEWER LINES.

MAINTAIN A MINIMUM OF 48 INCHES OF COVER ON ALL WATER LINES.

CONTRACTOR IS TO COORDINATE LOCATION AND DESIGN OF NEW COMMUNICATION / DATA FACILITIES TO BUILDING WITH UTILITY PROVIDER.

CONTRACTOR IS TO COORDINATE LOCATION AND DESIGN OF NEW NATURAL GAS FACILITIES TO BUILDING WITH DOMINION ENERGY AND MECHANICAL PLANS.

LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR IS TO VERIFY CONNECTION POINTS WITH EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES AND UTILITY STRUCTURE THAT ARE TO REMAIN.

UTILITY PROVIDERS:
- WATER: WATER PROVIDER
- SEWER: SEWER DISTRICT
- NATURAL GAS: INTERMOUNTAIN GAS
- ELECTRICAL POWER: POWER PROVIDER
- TELEPHONE: CENTURY LINK

KEYED NOTES:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. 8" BLUE PVC C-900 DR-18 WATER LINE, INCLUDING ALL FITTINGS AND THRUST BLOCKING. SEE DETAIL 'C4', SHEET C5.03 FOR TRENCHING AND APWA PLAN NO. 561 FOR THRUST BLOCKING.
2. CONNECT NEW 8" PVC C-900 DR-18 WATER LINE TO EXISTING WATER MAIN, CONNECTION TO BE PER PRICE CITY PUBLIC WORKS STANDARDS AND SPECIFICATIONS.
3. FIRE HYDRANT ASSEMBLY COMPLETE, PER APWA PLANS NO. 511. WITH PROTECTION BOLLARDS IN FRONT OF HYDRANT, BOLLARDS TO BE PER DETAIL 'C1', SHEET C5.02.
4. 1" WATER SERVICE METER SET, PER APWA PLANS NO. 522 & 505.
5. 1" WATER SERVICE LINE, PER APWA PLAN NO. 541.
6. 6" PVC SDR-35 SANITARY SEWER LATERAL, INCLUDING ALL FITTINGS. CLEANOUTS AT 100-FOOT MAXIMUM SPACING. SEE APWA PLANS NO. 381 & 382 FOR TRENCHING. SEE APWA PLAN NO. 431 FOR CLEANOUTS.
7. SANITARY SEWER CLEANOUT.

NOTICE!

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REVISIONS

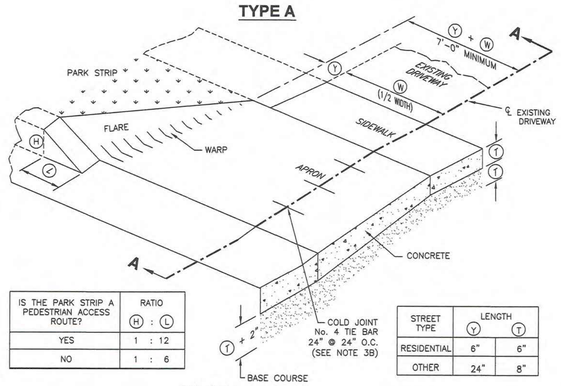
REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

SITE UTILITY PLAN

C4.01

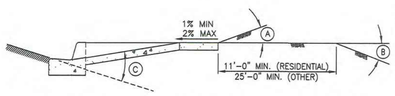
TYPE A



IS THE PARK STRIP A PEDESTRIAN ACCESS ROUTE?	RATIO (H) : (L)
YES	1 : 12
NO	1 : 6

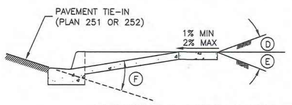
STREET TYPE	LENGTH (Y)	LENGTH (T)
RESIDENTIAL	6"	6"
OTHER	24"	8"

OBLIQUE



STREET TYPE	BREAK OVER ANGLE (MAXIMUM) (A)	(B)	(C)
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

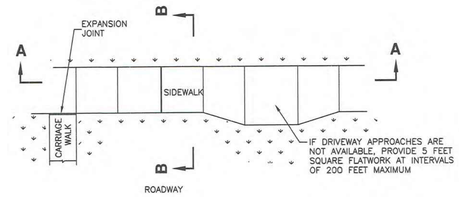
SECTION A-A - APPROACH REQUIRING SERVICE TRUCK ACCESS



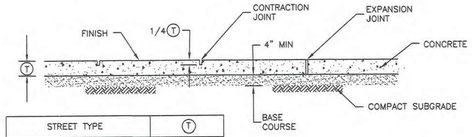
STREET TYPE	BREAK OVER ANGLE (MAXIMUM) (D)	(E)	(F)
RESIDENTIAL	16%	12%	16%
OTHER	6%	8%	10%

SECTION A-A - TYPICAL DRIVEWAY APPROACH

APWA Utah Chapter — *Flare driveway approach* — Plan **221.1** December 2009



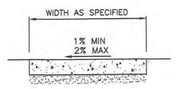
PLAN



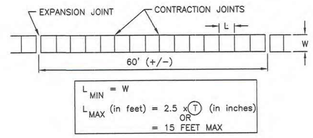
STREET TYPE	(T)
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	
REPLACING EXISTING SIDEWALK	MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS

SECTION A-A



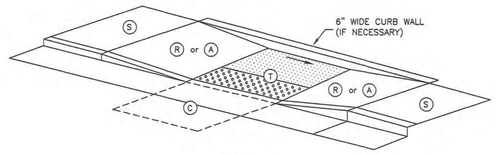
SECTION B-B



SIDEWALK JOINT DETAIL

APWA Utah Chapter — *Sidewalk* — Plan **231** March 2009

TURNING SPACE AT STREET LEVEL

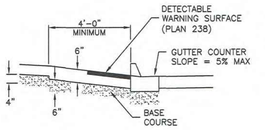


EXAMPLE 5

ELEMENT	DIMENSION
(R) (A)	4 FEET WIDE MINIMUM
(C) (T)	4 FEET SQUARE MINIMUM

WHERE TURNING SPACE IS CONSTRAINED ON 2 SIDES, PROVIDE 5 FEET IN THE DIRECTION OF THE CROSSWALK

TABLE OF DIMENSIONS



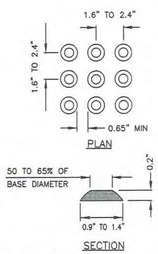
MATERIALS

		RUNNING SLOPE (%) MAXIMUM	CROSS SLOPE (%) MAXIMUM
TURNING SPACE	(T)	STREET GRADE	2
CURB RAMP	(R)	8.33	2
CLEAR SPACE	(C)	5	STREET GRADE
SIDEWALK	(S)	STREET GRADE	2
APPROACHE	(A)	8.33	2

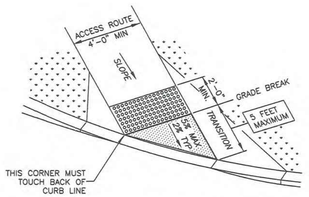
(a) RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. RUNNING SLOPE OF FLARE IS PARALLEL TO BACK OF CURB
(b) CROSS SLOPE IS PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAVEL

SLOPE TABLE

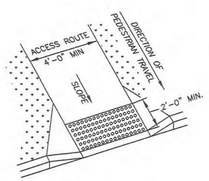
APWA Utah Chapter — *Mid-block curb cut assembly* — Plan **236.3** September 2011



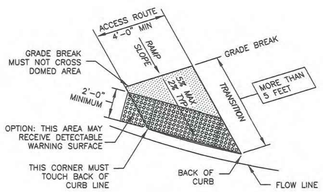
TRUNCATED DOME DETAIL



TRANSITION 1

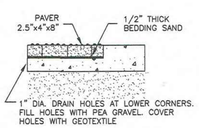


PERPENDICULAR ASSEMBLY

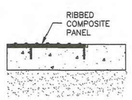


TRANSITION 2

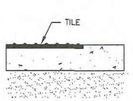
NON-PERPENDICULAR ASSEMBLY



STYLE P

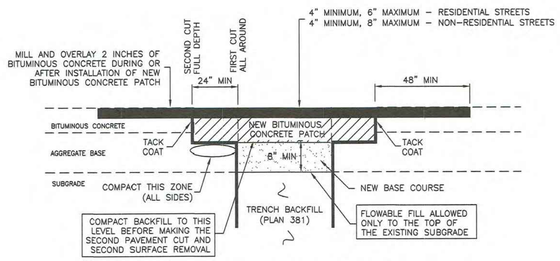


STYLE R

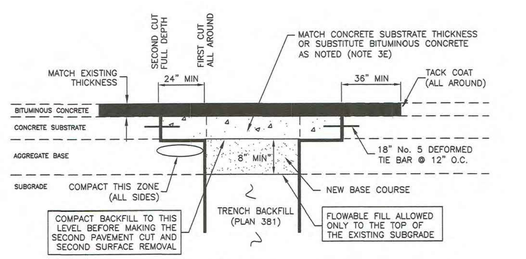


STYLE T

APWA Utah Chapter — *Detectable warning surface* — Plan **238** July 2011



BITUMINOUS CONCRETE RESTORATION



COMPOSITE RESTORATION

APWA Utah Chapter — *Bituminous pavement T-patch* — Plan **255** November 2015

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Structural Engineering • Land Surveying & HDS

PROFESSIONAL ENGINEER 12-14-23 No. 11088925-2202 DANIEL J. CANNING STATE OF UTAH

PRICE STORAGE

300 SOUTH MAIN STREET
PRICE, UTAH

LOCATED IN THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 14 SOUTH, RANGE 10 EAST, S.L.B.&M

REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

CIVIL DETAILS

C5.01

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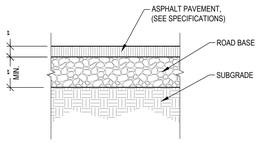
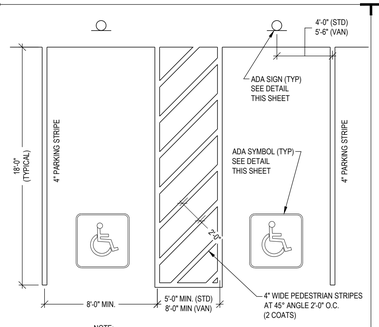


	(STANDARD DUTY) PARKING AREAS	(HEAVY DUTY) ROADWAY AREAS
ASPHALT	3"	4"
BASE COURSE	8"	8"

NOTE:
REFER TO SOILS REPORT FOR PROJECT SECTION SOILS REPORT OVERIDES.

ASPHALTIC PAVEMENT SECTION (D1)

SCALE: N.T.S.



NOTE:
CROSS SLOPES WITHIN ADA PARKING STALLS AND ACCESSIBLE ROUTES NOT TO EXCEED 1:48 SLOPE.

ADA PARKING DETAIL (D2)

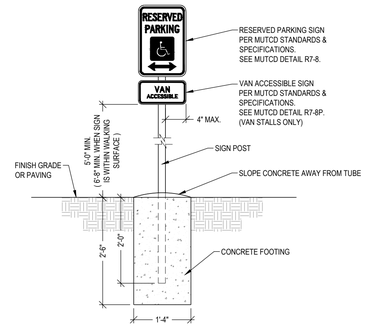
SCALE: N.T.S.

PAINTED EMBLEM ON ASPHALT PAVING TYP. AT ALL ADA PARKING STALLS PER CITY REQUIREMENTS. (2 COATS)

NOTE:
SEE SPECIFICATIONS FOR PAINT TYPE AND COLOR. (2 COATS)

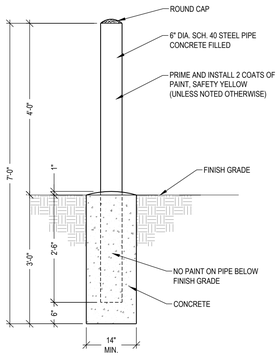
PAINTED ADA SYMBOL (D3)

SCALE: N.T.S.



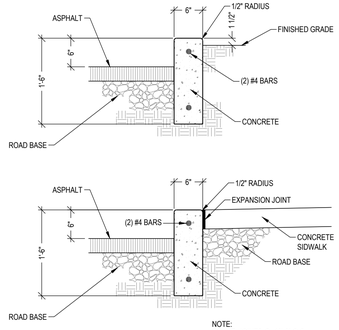
ADA PARKING SIGN (D4)

SCALE: N.T.S.



BOLLARD DETAIL (C1)

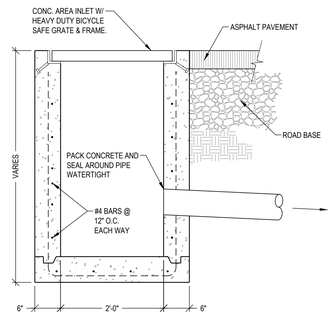
SCALE: N.T.S.



NOTE:
CONST. JOINTS @ 10'-0" O.C.
EXPANSION JOINTS @ 50'-0" O.C.

CURB WALL DETAIL (C2)

SCALE: N.T.S.



AREA INLET (C4)

SCALE: N.T.S.

ADS

User Inputs

Chamber Model:	MC-7200
Outlet Control Structure:	No
Project Name:	Bear River Storage Price
Engineer:	N/A
Project Location:	Utah
Measurement Type:	Imperial
Required Storage Volume:	22165 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	9 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(30 ft. x 220 ft.)

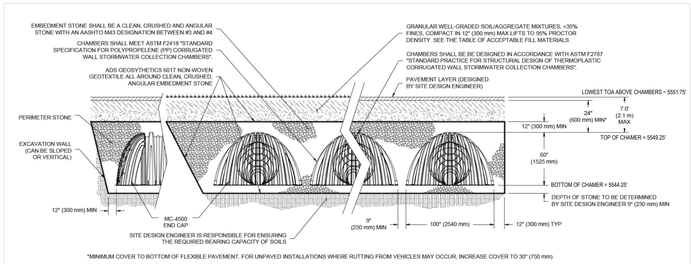
Results

System Volume and Bed Size

Installed Storage Volume:	22744.27 cubic ft.
Storage Volume Per Chamber:	175.90 cubic ft.
Number Of Chambers Required:	79
Number Of End Caps Required:	6
Chamber Rows:	3
Maximum Length:	189.57 ft.
Maximum Width:	28.50 ft.
Approx. Bed Size Required:	5283.12 square ft.

System Components

Amount Of Stone Required:	798 cubic yards
Volume Of Excavation (Not Including Fill):	1321 cubic yards
Total Non-woven Geotextile Required:	1802 square yards
Woven Geotextile Required (excluding Isolator Row):	43 square yards
Woven Geotextile Required (Isolator Row):	429 square yards
Total Woven Geotextile Required:	471 square yards
Impervious Liner Required:	0 square yards



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm).

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DANIEL J. CANNING
STATE OF UTAH

PRICE STORAGE

300 SOUTH MAIN STREET
PRICE, UTAH

LOCATED IN THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 14 SOUTH, RANGE 10 EAST, S.L.B.&M

REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

CIVIL DETAILS

C5.02

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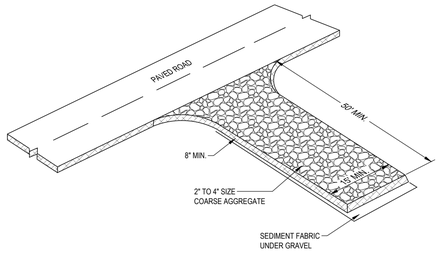


DESCRIPTION:
A STABILIZED PAD OF CRUSHED STONE LOCATED WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES THE SITE FROM OR TO PAVED SURFACE.

APPLICATIONS:
AT ANY POINT OF INGRESS OR EGRESS AT A CONSTRUCTION SITE WHERE ADJACENT TRAVELED WAY IS PAVED. GENERALLY APPLIES TO SITES OVER 2 ACRES UNLESS SPECIAL CONDITIONS EXIST.

INSTALLATION/APPLICATION CRITERIA:
- CLEAR GRUB AREA AND GRADE TO PROVIDE MAXIMUM SLOPE OF 2%.
- COMPACT SUB GRADE AND PLACE FILTER FABRIC IF DESIRED (RECOMMENDED FOR ENTRANCES TO REMAIN FOR MORE THAN 3 MONTHS.
- PLACE COARSE AGGREGATE, 1 TO 2-1/2 INCHES IN SIZE, TO A MINIMUM DEPTH OF 8 INCHES.

LIMITATIONS:
- REQUIRES PERIODIC TOP DRESSING WITH ADDITIONAL STONES.
- SHOULD BE USED IN CONJUNCTION WITH STREET SWEEPING ON ADJACENT PUBLIC RIGHT-OF-WAY.

MAINTENANCE:
- INSPECT DAILY FOR LOSS OF GRAVEL OR SEDIMENT BUILDUP.
- INSPECT ADJACENT ROADWAY FOR SEDIMENT DEPOSIT AND CLEAN BY SWEEPING OR SHOVELING.
- REPAIR ENTRANCE AND REPLACE GRAVEL AS REQUIRED TO MAINTAIN CONTROL IN GOOD WORKING CONDITION.
- EXPAND STABILIZED AREA AS REQUIRED TO ACCOMMODATE TRAFFIC AND PREVENT EROSION AT DRIVEWAYS.

OBJECTIVES
- ☒ HOUSEKEEPING PRACTICES
- ☐ CONTAIN WASTE
- ☐ MINIMIZE DISTURBED AREA
- ☐ STABILIZE DISTURBED AREA
- ☐ PROTECT SLOPES/CHANNELS
- ☒ CONTROL SITE PERIMETER
- ☐ CONTROL INTERNAL EROSION

TARGETED POLLUTANTS
- ■ SEDIMENT
- ☐ NUTRIENTS
- ☐ TOXIC MATERIALS
- ☐ OIL & GREASE
- ☐ FLOATABLE MATERIALS
- ☐ OTHER WASTE

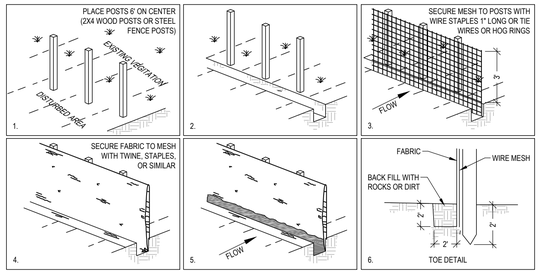
- ■ HIGH IMPACT
- ☒ MEDIUM IMPACT
- ☐ LOW OR UNKNOWN IMPACT

IMPLEMENTATION REQUIREMENTS
- ■ CAPITAL COSTS
- ☒ O & M COSTS
- ☒ MAINTENANCE
- ☐ TRAINING

■ HIGH ☒ MEDIUM ☐ LOW

STABILIZED CONSTRUCTION ENTRANCE (C1)

SCALE: N.T.S.



DESCRIPTION:
A TEMPORARY SEDIMENT BARRIER CONSISTING OF ENTRENCHED FILTER FABRIC STRETCHED ACROSS AND SECURED TO SUPPORTING POSTS.

APPLICATIONS:
- PERIMETER CONTROL: PLACE BARRIER AT DOWNGRADE LIMITS OF DISTURBANCE.
- SEDIMENT BARRIER: PLACE BARRIER AT TOE OF SLOPE OR SOIL STOCKPILE.
- PROTECTION OF EXISTING WATERWAYS: PLACE BARRIER AT TOP OF STREAM BANK
- INLET PROTECTION: PLACE FENCE SURROUNDING CATCH BASINS

INSTALLATION/APPLICATION CRITERIA:
- PLACE POSTS 8 FEET APART ON CENTER ALONG CONTOUR (OR USE PRE-ASSEMBLED UNIT) AND DRIVE 2 FEET MINIMUM INTO GROUND. EXCAVATE AN ANCHOR TRENCH IMMEDIATELY UPGRADIENT OF POSTS
- SECURE WIRE MESH (14 GAGE MIN. WITH 6 INCH OPENINGS) TO UPSLOPE SIDE OF POSTS. ATTACH WITH HEAVY DUTY 1 INCH LONG WIRE STAPLES, TIE WIRES OR HOG RINGS.
- CUT FABRIC TO REQUIRED WIDTH, UNROLL ALONG LENGTH OF BARRIER AND DRAPE OVER BARRIER. SECURE FABRIC TO MESH WITH TWINE, STAPLES, OR SIMILAR, WITH TRAILING EDGE EXTENDING INTO ANCHOR TRENCH.
- BACKFILL OVER FILTER FABRIC TO ANCHOR.

LIMITATIONS:
- RECOMMENDED MAXIMUM DRAINAGE AREA OF 0.5 ACRE PER 100 FEET OF FENCE.
- RECOMMENDED MAXIMUM UPGRADIENT SLOPE LENGTH OF 150 FEET.
- RECOMMENDED MAXIMUM UPHILL GRADE OF 2:1 (50%).
- RECOMMENDED MAXIMUM FLOW RATE OF 0.5 CFS.
- PONDING SHOULD NOT BE ALLOWED BEHIND FENCE.

MAINTENANCE:
- INSPECT IMMEDIATELY AFTER ANY RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- LOOK FOR RUNOFF BYPASSING ENDS OF BARRIERS OR UNDERCUTTING BARRIERS.
- REPAIR OR REPLACE DAMAGED AREAS OF THE BARRIER AND REMOVE ACCUMULATED SEDIMENT.
- REANCHOR FENCE AS NECESSARY TO PREVENT SHORTCUTTING.
- REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/2 THE HEIGHT OF THE FENCE.

OBJECTIVES
- ☐ HOUSEKEEPING PRACTICES
- ☐ CONTAIN WASTE
- ☐ MINIMIZE DISTURBED AREA
- ☐ STABILIZE DISTURBED AREA
- ☐ PROTECT SLOPES/CHANNELS
- ☒ CONTROL SITE PERIMETER
- ☒ CONTROL INTERNAL EROSION

TARGETED POLLUTANTS
- ■ SEDIMENT
- ☐ NUTRIENTS
- ☐ TOXIC MATERIALS
- ☐ OIL & GREASE
- ☐ FLOATABLE MATERIALS
- ☐ OTHER WASTE

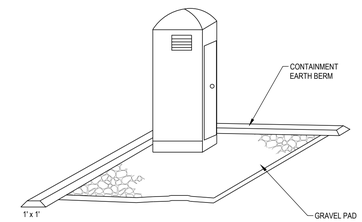
- ■ HIGH IMPACT
- ☒ MEDIUM IMPACT
- ☐ LOW OR UNKNOWN IMPACT

IMPLEMENTATION REQUIREMENTS
- ☒ CAPITAL COSTS
- ☒ O & M COSTS
- ☒ MAINTENANCE
- ☐ TRAINING

■ HIGH ☒ MEDIUM ☐ LOW

SILT FENCE (C3)

SCALE: N.T.S.



DESCRIPTION:
TEMPORARY ON-SITE SANITARY FACILITIES FOR CONSTRUCTION PERSONNEL.

APPLICATIONS:
- ALL SITES WITH NO PERMANENT SANITARY FACILITIES OR WHERE PERMANENT FACILITY IS TO FAR FROM ACTIVITIES.

INSTALLATION/APPLICATION CRITERIA:
- LOCATE PORTABLE TOILETS IN CONVENIENT LOCATIONS THROUGHOUT THE SITE.
- PREPARE LEVEL, GRAVEL SURFACE AND PROVIDE CLEAR ACCESS TO THE TOILETS FOR SERVICING AND FOR ON-SITE PERSONNEL.
- CONSTRUCT EARTH BERM PERIMETER (SEE EARTH BERM BARRIER INFORMATION SHEET), CONTROL FOR SPILL/PROTECTION LEAK.

LIMITATIONS:
- NO LIMITATIONS

MAINTENANCE:
- PORTABLE TOILETS SHOULD BE MAINTAINED IN GOOD WORKING ORDER BY LICENSED SERVICE WITH DAILY OBSERVATION FOR LEAK DETECTION.
- REGULAR WASTE COLLECTION SHOULD BE ARRANGED WITH LICENSED SERVICE.
- ALL WASTE SHOULD BE DEPOSITED IN SANITARY SEWER SYSTEM FOR TREATMENT WITH APPROPRIATE AGENCY APPROVAL.

OBJECTIVES
- ☒ HOUSEKEEPING PRACTICES
- ☒ CONTAIN WASTE
- ☐ MINIMIZE DISTURBED AREA
- ☐ STABILIZE DISTURBED AREA
- ☐ PROTECT SLOPES/CHANNELS
- ☐ CONTROL SITE PERIMETER
- ☐ CONTROL INTERNAL EROSION

TARGETED POLLUTANTS
- ☐ SEDIMENT
- ☐ NUTRIENTS
- ☐ TOXIC MATERIALS
- ☐ OIL & GREASE
- ☐ FLOATABLE MATERIALS
- ■ OTHER WASTE

- ■ HIGH IMPACT
- ☒ MEDIUM IMPACT
- ☐ LOW OR UNKNOWN IMPACT

IMPLEMENTATION REQUIREMENTS
- ☒ CAPITAL COSTS
- ☒ O & M COSTS
- ☒ MAINTENANCE
- ☐ TRAINING

■ HIGH ☒ MEDIUM ☐ LOW

PORTABLE TOILETS (C5)

SCALE: N.T.S.

FILTERSOCK SPECIFICATION:

FILTREXX FILTERSOCK INSTALLATION AND MAINTENANCE

1.0 DESCRIPTION:
THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING AND DISPERSING (IF NEEDED) A WATER PERMEABLE COMPOST FILTER SOCK (FILTREXX FILTERSOCK) TO CONTAIN SOIL EROSION AND SEDIMENT BY REMOVING SOIL PARTICLES FROM WATER MOVING OFF SITE INTO ADJACENT WATERWAYS OR STORM WATER DRAINAGE SYSTEMS. FILTERSOCKS WILL BE USED AS A FORM OF INLET PROTECTION FOR OPERATIONAL STORM DRAINAGE SYSTEMS.

2.0 COMPOST PRODUCTS USED TO FILL FILTREXX FILTERSOCKS
1. COMPOST: COMPOST USED FOR FILTREXX FILTERSOCKS SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THE COMPOST SHALL BE PRODUCED USING AN AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS, INCLUDING TIME AND TEMPERATURE DATA INDICATING EFFECTIVE WEED SEED, PATHOGEN AND INSECT LARVAE KILL. THE COMPOST SHALL BE FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. NON-COMPOSTED PRODUCTS WILL NOT BE ACCEPTED. TEST METHODS FOR THE ITEMS BELOW SHOULD FOLLOW USCC TMECC GUIDELINES FOR LABORATORY PROCEDURES:
   - A. PH - 5.0-8.0 IN ACCORDANCE WITH TMECC 04.11-A, "ELECTROMETRIC PH DETERMINATIONS FOR COMPOST"
   - B. PARTICLE SIZE - 99% PASSING A 1" SIEVE, 90% PASSING A 1/2" SIEVE AND A MINIMUM OF 70% GREATER THAN THE 3/8" SIEVE. A TOTAL OF 98 % SHALL NOT EXCEED 3 INCHES IN LENGTH, IN ACCORDANCE WITH TMECC 02.02-B, "SAMPLE SIEVING FOR AGGREGATE SIZE CLASSIFICATION"
   - C. MOISTURE CONTENT OF LESS THAN 60% IN ACCORDANCE WITH STANDARDIZED TEST METHODS FOR MOISTURE DETERMINATION.
   - D. MATERIAL SHALL BE RELATIVELY FREE (<1% BY DRY WEIGHT) OF INERT OR FOREIGN MAN MADE MATERIALS.
   - E. A SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEING USED AND MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

3.0 CONSTRUCTION AND INSTALLATION OF FILTREXX FILTERSOCKS:
1. FILTREXX FILTERSOCKS WILL BE USED AS A FORM OF INLET PROTECTION ON CONSTRUCTION SITES WHICH REQUIRE PROTECTION AGAINST SEDIMENT LADEN WATER AFTER STORM DRAINS BECOME OPERATIONAL.
2. FILTREXX FILTERSOCKS WILL BE PLACED AT LOCATIONS INDICATED ON PLANS AS DIRECTED BY THE ENGINEER. FILTERSOCKS SHOULD BE INSTALLED IN A PATTERN THAT ALLOWS COMPLETE PROTECTION OF THE INLET AREA.
3. INSTALLATION OF FILTREXX FILTERSOCKS WILL ENSURE A MINIMAL OVERLAP OF AT LEAST ONE FOOT ON EITHER SIDE OF THE OPENING BEING PROTECTED. THE FILTERSOCKS WILL BE ANCHORED TO THE SOIL BEHIND THE CURB USING STAPLES, STAKES OR OTHER DEVICES CAPABLE OF HOLDING THE FILTERSOCK IN PLACE.
4. STANDARD SIZES OF FILTERSOCKS FOR INLET PROTECTION WILL BE 8" DIAMETER PRODUCTS. IN SEVERE FLOW SITUATIONS, LARGER FILTERSOCKS MAY BE RECOMMENDED BY THE ENGINEER.
5. FILTERSOCKS SHALL BE CONSTRUCTED OF A WOVEN MATERIAL AND FILLED WITH A COMPOST PRODUCT THAT PASSES THE CRITERIA LISTED IN SECTION 2.
6. IF THE FILTERSOCKS BECOME CLOGGED WITH DEBRIS AND SEDIMENT, THEY SHALL BE MAINTAINED SO AS TO ASSURE A PROPER DRAINAGE AND WATER FLOW INTO THE STORM DRAIN. IN SEVERE STORM EVENTS, OVERFLOW OF THE FILTERSOCK MAY BE ACCEPTABLE IN ORDER TO KEEP THE AREA FROM FLOODING.
7. THE FILTERSOCKS SHALL BE POSITIONED SO AS TO PROVIDE COMPLETE PHYSICAL BARRIER TO THE DRAIN ITSELF, ALLOWING SEDIMENT TO COLLECT ON THE OUTSIDE OF THE FILTERSOCKS. SEE BELOW SCHEMATIC FOR FILTREXX FILTERSOCK INSTALLATION.
8. FOR AREAS WHERE FILTERSOCKS ARE TO BE LEFT AS A PERMANENT PART OF THE LANDSCAPE, FILTERSOCKS MAY BE SEEDED DURING TIME OF MANUFACTURE TO CREATE A LIVING SOCK. FOR SEEDING OPTIONS, THE ENGINEER MAY SIMPLY REPLACE ALL LANGUAGE ABOVE WITH "LIVING FILTREXX FILTERSOCKS"

4.0 MAINTENANCE:
1. THE CONTRACTOR SHALL MAINTAIN FILTREXX FILTERSOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES AND IT SHALL BE ROUTINELY INSPECTED.
2. WHERE THE FILTERSOCK REQUIRES REPAIR, IT WILL BE ROUTINELY REPAIRED.
3. THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTERSOCK WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE FILTERSOCK, OR AS DIRECTED BY THE ENGINEER.
4. THE FILTREXX FILTERSOCK WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER. THE NETTING MATERIAL WILL BE DISPOSED OF IN NORMAL TRASH CONTAINERS OR REMOVED BY THE CONTRACTOR.
5. REGULAR MAINTENANCE INCLUDES LIFTING THE FILTREXX FILTERSOCKS AND CLEANING UNDER THEM AS SEDIMENT COLLECTS.

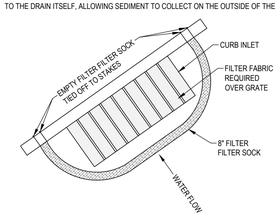
5.0 METHOD OF MEASUREMENT:
BID ITEMS SHALL SHOW MEASUREMENT AS 'FILTREXX FILTERSOCK' PER LINEAR FOOT, INSTALLED OR PER INLET, AS SPECIFIED BY THE ENGINEER.

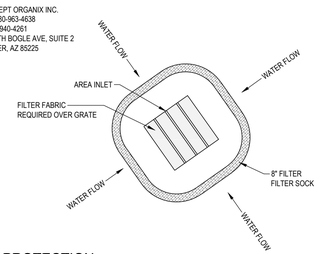
6.0 PERFORMANCE:
1. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A WORKING EROSION CONTROL SYSTEM AND MAY, WITH APPROVAL OF THE ENGINEER, WORK OUTSIDE THE MINIMUM CONSTRUCTION REQUIREMENTS AS NEEDED.
2. WHERE THE FILTERSOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
3. CONTRACTOR IS REQUIRED TO BE A CERTIFIED FILTREXX INSTALLER AS DETERMINED BY FILTREXX INTERNATIONAL, LLC (440-926-8041 OR VISIT WEBSITE AT FILTREXX.COM). CERTIFICATION SHALL BE CONSIDERED CURRENT IF APPROPRIATE IDENTIFICATION IS SHOWN DURING TIME OF BID OR AT TIME OF APPLICATION.

7.0 APPLICATION GUIDELINES:
1. FILTREXX FILTERSOCKS SHALL EITHER BE MADE ON SITE OR DELIVERED TO THE JOBSITE USING A 3 MIL TUBULAR HDPE KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS AS OUTLINED IN 2.0.
2. FILTREXX FILTERSOCKS NETTING MATERIALS ARE AVAILABLE ONLY FROM FILTREXX INTERNATIONAL, LLC AND ARE THE ONLY CERTIFIED MESH MATERIALS ACCEPTED IN CREATING FILTREXX PRODUCTS ON SITE OR AS DELIVERED TO THE JOB SITE. STANDARD FILTREXX COLOR CODING SYSTEMS INCLUDE YELLOW AND BLACK STRIPED MESH NETTING WITH 3/8" MESH OPENINGS FOR INLET PROTECTION. OTHER COLORS ARE ONLY ACCEPTABLE AS APPROVED BY BOTH THE ENGINEER AND FILTREXX INTERNATIONAL, LLC.
3. CONTRACTOR IS REQUIRED TO BE A CERTIFIED FILTREXX INSTALLER AS DETERMINED BY FILTREXX INTERNATIONAL, LLC (440-926-8041 OR VISIT WEBSITE AT FILTREXX.COM). CERTIFICATION SHALL BE CONSIDERED CURRENT IF APPROPRIATE IDENTIFICATION IS SHOWN DURING TIME OF BID OR AT TIME OF APPLICATION.

8.0 AVAILABLE VENDORS FILTREXX FILTERSOCKS MAY BE PURCHASED FROM THE FOLLOWING CERTIFIED FILTREXX INSTALLERS:

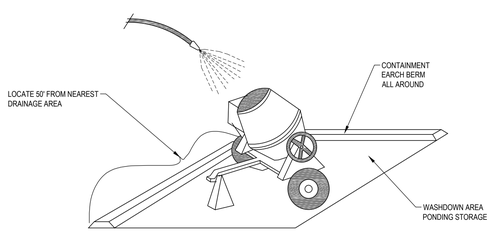
WINDSWEPT ORGANIX INC.
WORK: 480-963-4638
FAX: 408-940-4261
850 SOUTH BOGLE AVE, SUITE 2
CHANDLER, AZ 85225





SEDIMENT BARRIER / FILTER SOCK PROTECTION (A1)

SCALE: N.T.S. © REPLENISH



DESCRIPTION:
PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFF-SITE, PERFORMING ON-SITE WASHOUT IN A DESIGNATED AREA, AND TRAINING EMPLOYEES AND SUBCONTRACTORS.

APPLICATIONS:
- THIS TECHNIQUE IS APPLICABLE TO ALL TYPES OF SITES.

INSTALLATION/APPLICATION CRITERIA:
- STORE DRY AND WET MATERIALS UNDER COVER, AWAY FROM DRAINAGE AREAS.
- AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE.
- PERFORM WASHOUT OF CONCRETE TRUCKS OFF-SITE OR IN DESIGNATED AREAS ONLY.
- DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
- DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED AREAS.
- WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE, AVOID CREATING RUNOFF BY DRAINING THE WATER WITHIN A BERMED OR LEVEL AREA (SEE EARTH BERM BARRIER INFORMATION SHEET.)
- TRAIN EMPLOYEES AND SUBCONTRACTORS IN PROPER CONCRETE WASTE MANAGEMENT.

LIMITATIONS:
- OFF-SITE WASHOUT OF CONCRETE WASTES MAY NOT ALWAYS BE POSSIBLE.

MAINTENANCE:
- INSPECT SUBCONTRACTORS T ENSURE THAT CONCRETE WASTES ARE BEING PROPERLY MANAGED.
- IF USING A TEMPORARY PIT, DISPOSE HARDENED CONCRETE ON A REGULAR BASIS.

OBJECTIVES
- ☐ HOUSEKEEPING PRACTICES
- ☒ CONTAIN WASTE
- ☐ MINIMIZE DISTURBED AREA
- ☐ STABILIZE DISTURBED AREA
- ☐ PROTECT SLOPES/CHANNELS
- ☐ CONTROL SITE PERIMETER
- ☐ CONTROL INTERNAL EROSION

TARGETED POLLUTANTS
- ☐ SEDIMENT
- ☐ NUTRIENTS
- ☐ TOXIC MATERIALS
- ☐ OIL & GREASE
- ☐ FLOATABLE MATERIALS
- ☒ OTHER WASTE

- ■ HIGH IMPACT
- ☒ MEDIUM IMPACT
- ☐ LOW OR UNKNOWN IMPACT

IMPLEMENTATION REQUIREMENTS
- ☐ CAPITAL COSTS
- ☐ O & M COSTS
- ☒ MAINTENANCE
- ☒ TRAINING

■ HIGH ☒ MEDIUM ☐ LOW

CONCRETE WASTE MANAGEMENT (A3)

SCALE: N.T.S.

McNEIL ENGINEERING™
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Structural Engineering • Land Surveying & HDS

PROFESSIONAL ENGINEER
12-14-23
No. 11088925-2202
DANIEL J. CANNING
STATE OF UTAH

PRICE STORAGE

300 SOUTH MAIN STREET
PRICE, UTAH

LOCATED IN THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 14 SOUTH, RANGE 10 EAST, S.L.B.&M

REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23116
DRAWN BY:	TJO
CHECKED BY:	DJC
DATE:	04-13-23

CIVIL DETAILS

C5.03

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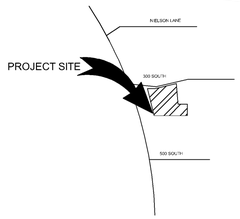
VICINITY MAP



PLANT LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE)

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
CONIFERS						
	JS'M	4	Juniperus scopulorum `Moonglow` Moonglow Juniper Te2, 18x8; AV 20; sun; z3; Utah Lake water tolerant	B & B		6`
DECIDUOUS TREES						
	M'AD	3	Malus x 'Adirondack' Adirondack Crabapple Low to moderate; 18'x10'; Z4, Utah Lake water tolerant	B & B	2"Cal	
	UX'F	1	Ulmus x `Frontier` Frontier Elm Td3; 35x25; AV 490; sun; z4; Utah Lake water tolerant	B & B	2"Cal	

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
DECIDUOUS SHRUBS				
	CM'F	1	Chamaebatiaria millefolium Fernbush Sd0; 4x3; AV 7; sun to part sun; z4; Utah Lake water tolerant	5 gal
	CS'C	3	Cornus sericea `Cardinal` Cardinal Red-twig Dogwood moderate; 8x6; sun to part shade; z3	5 gal
GRASSES				
	M'GB	6	Miscanthus sinensis `Gold Bar` Gold Bar Maiden Grass Tw2; 5x3; AV 9; sun; z5, Utah Lake water tolerant	1 gal
	MR'U	37	Muhlenbergia reverchonii `PUND01S` TM Undaunted Ruby Muhly Tw1; 3x3; AV 7; sun; z5; Utah Lake water tolerant	1 gal
ROSES				
	RN'W	6	Rosa x `Noaschnee` TM Flower Carpet White Groundcover Rose moderate; 2x3; sun; z5; Utah Lake water tolerant	5 gal

SITE MATERIALS LEGEND

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SYMBOL	1 LANDSCAPE DESCRIPTION	QTY
1-01	SODDED LAWN AREA LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH DROUGHT TOLERANT KENTUCKY BLUE GRASS OR APPROVED EQUAL. SEE SOD LANDSCAPE NOTES FOR FURTHER INFORMATION. SHEET LP-101.	1,064 sf
1-14	1" MINUS TAN CRUSHED ROCK SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	832 sf
1-19	2-4" GREY CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 4" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	2,768 sf

SYMBOL	2 HARDSCAPE DESCRIPTION	QTY
2-05	5" DEEP STEEL EDGING - INSTALL PER MANUFACTURER SPECIFICATION.	167 lf

ISSUE DATE	PROJECT NUMBER
9/23/2024	UT24066

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

PLAN INFORMATION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

0' 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'

PROJECT INFORMATION

BEAR RIVER STORAGE
1430 E 300 S
PRICE, UTAH 84501

DEVELOPER / PROPERTY OWNER / CLIENT

MENLOVE CONSTRUCTION
ATT: JESSE REYNOLDS
801-915-9245

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LANDSCAPE ARCHITECT / PLANNER

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LEHI, UTAH 84043 (801) 753-5644
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LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128121-5301
9/23/2024
ELECTRONIC SEAL
STATE OF UTAH

DRAWING INFO

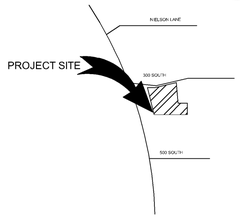
PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 9/23/2024

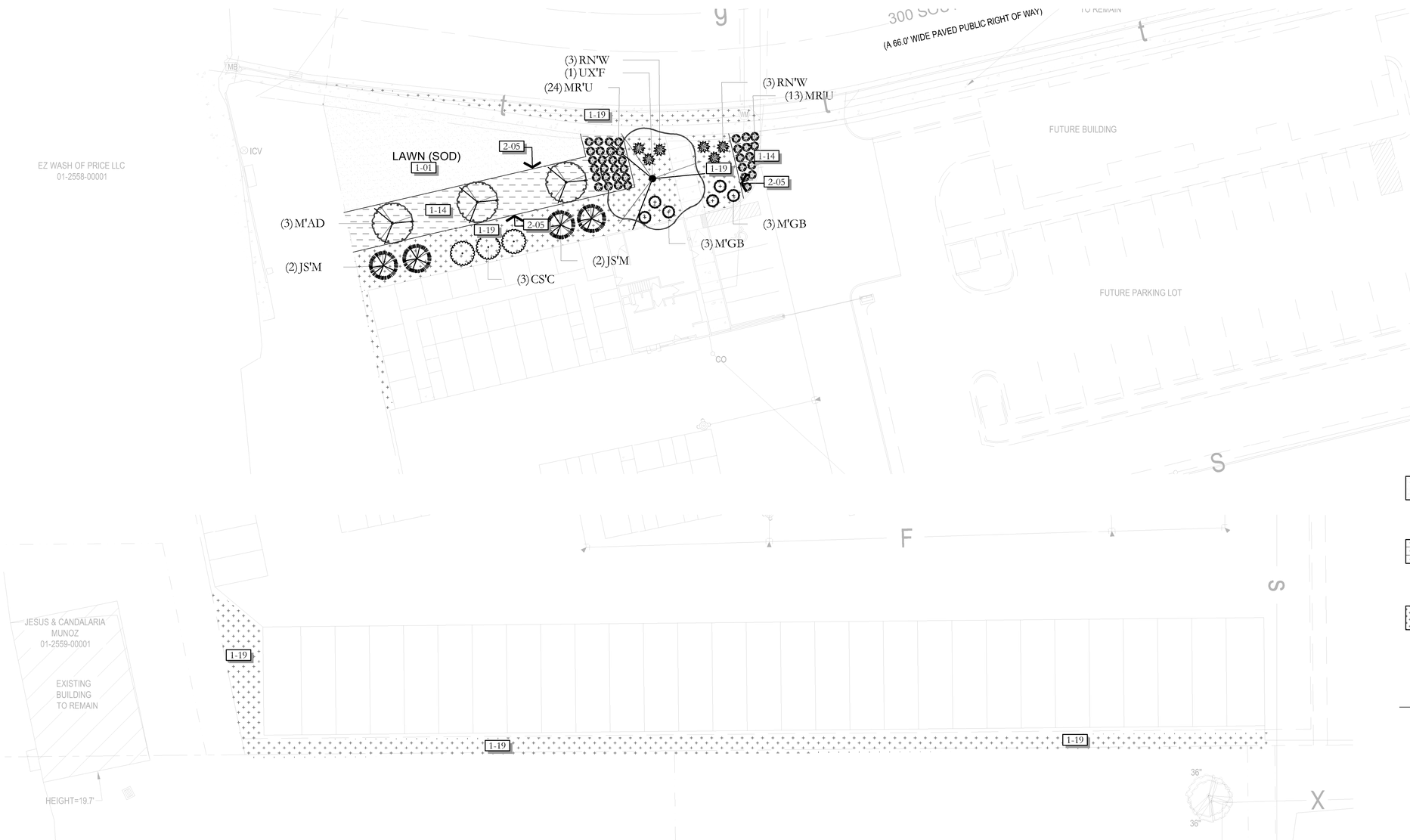
COLOR ILLUSTRATION

CITY PERMIT SET

LP-COLOR

VICINITY MAP





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DRAWING INFO

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LANDSCAPE OVERALL PLAN

CITY PERMIT SET

LP-100

LANDSCAPE PLAN SPECIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. THIS SECTION INCLUDES LANDSCAPE PROCEDURES FOR THE PROJECT INCLUDING ALL LABOR, MATERIALS, AND INSTALLATION NECESSARY, BUT NOT LIMITED TO, THE FOLLOWING:

1. SITE CONDITIONS
2. GUARANTEES
3. MAINTENANCE
4. SOIL AMENDMENTS
5. FINE GRADING
6. LANDSCAPE EDGING
7. FURNISH AND INSTALLING PLANT
8. TURF PLANTING
9. WEED BARRIER

1.2 SITE CONDITIONS

A. EXAMINATION: BEFORE SUBMITTING A BID, EACH CONTRACTOR SHALL CAREFULLY EXAMINE THE CONTRACT DOCUMENTS; SHALL VISIT THE SITE OF THE WORK; SHALL FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS; AND SHALL INCLUDE IN THE BID THE COST OF ALL ITEMS REQUIRED BY THE CONTRACT DOCUMENTS ARE AT A VARIANCE WITH THE APPLICABLE LAWS, BUILDING CODES, RULES, REGULATIONS, OR CONTAIN OBVIOUS ERRONEOUS OR UNCOORDINATED INFORMATION, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE PROJECT REPRESENTATIVE AND THE NECESSARY CHANGES SHALL BE ACCOMPLISHED BY ADDENDUM.

B. PROTECTION: CONTRACTOR TO CONDUCT THE WORK IN SUCH A MANNER TO PROTECT ALL EXISTING UNDERGROUND UTILITIES OR STRUCTURES. CONTRACTOR TO REPAIR OR REPLACE ANY DAMAGED UTILITY OR STRUCTURE USING IDENTICAL MATERIALS TO MATCH EXISTING AT NO EXPENSE TO THE OWNER.

C. IRRIGATION SYSTEM: DO NOT BEGIN PLANTING UNTIL THE IRRIGATION SYSTEM IS COMPLETELY INSTALLED, IS ADJUSTED FOR FULL COVERAGE AND IS COMPLETELY OPERATIONAL.

1.3 PERMITS

A. BLUE STAKE/ DIG LINE: WHEN DIGGING IS REQUIRED, "BLUE STAKE" OR "DIG LINE" THE WORK SITE AND IDENTIFY THE APPROXIMATE LOCATION OF ALL KNOWN UNDERGROUND UTILITIES OR STRUCTURES.

1.4 PLANT DELIVERY, QUALITY, AND AVAILABILITY

A. UNAUTHORIZED SUBSTITUTIONS WILL NOT BE ACCEPTED. IF PROOF IS SUBMITTED THAT SPECIFIC PLANTS OR PLANT SIZES ARE UNOBTAINABLE, WRITTEN SUBSTITUTION REQUESTS WILL BE CONSIDERED FOR THE NEAREST EQUIVALENT PLANT OR SIZE. ALL SUBSTITUTION REQUESTS MUST BE MADE IN WRITING AND PREFERABLY BEFORE THE BID DUE DATE.

1.5 FINAL INSPECTION

A. ALL PLANTS WILL BE INSPECTED AT THE TIME OF FINAL INSPECTION PRIOR TO RECEIVING A LANDSCAPE SUBSTANTIAL COMPLETION FOR CONFORMANCE TO SPECIFIED PLANTING PROCEDURES, AND FOR GENERAL APPEARANCE AND VITALITY. ANY PLANT NOT APPROVED BY THE PROJECT REPRESENTATIVE WILL BE REJECTED AND REPLACED IMMEDIATELY.

1.6 LANDSCAPE SUBSTANTIAL COMPLETION

A. A SUBSTANTIAL COMPLETION CERTIFICATE WILL ONLY BE ISSUED BY THE PROJECT REPRESENTATIVE FOR "LANDSCAPE AND IRRIGATION" IN THEIR ENTIRETY. SUBSTANTIAL COMPLETION WILL NOT BE PROPORTIONED TO BE DESIGNATED AREAS OF A PROJECT.

1.7 MAINTENANCE

A. PLANT MATERIAL: THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL PLANTED MATERIALS IN A HEALTHY AND GROWING CONDITION FOR 30 DAYS AFTER RECEIVING A LANDSCAPE SUBSTANTIAL COMPLETION AT WHICH TIME THE GUARANTEE PERIOD COMMENCES. THIS MAINTENANCE IS TO INCLUDE MOWING, WEEDING, CULTIVATING, FERTILIZING, MONITORING WATER SCHEDULES, PROTECTING AGAINST INSECTS AND DISEASES, RE-GUYING AND STAKING, AND ALL OTHER OPERATIONS OF CARE NECESSARY FOR THE PROMOTION OF ROOT GROWTH AND PLANT LIFE SO THAT ALL PLANTS ARE IN A CONDITION SATISFACTORY AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR FAILURE TO MONITOR WATERING OPERATIONS AND SHALL REPLACE ANY AND ALL PLANT MATERIAL THAT IS LOST DUE TO IMPROPER APPLICATION OF WATER.

1.8 GUARANTEE

A. GUARANTEE: A GUARANTEE PERIOD OF ONE YEAR SHALL BEGIN FROM END OF MAINTENANCE PERIOD AND FINAL ACCEPTANCE FOR TREES, SHRUBS, AND GROUND COVERS. ALL PLANTS SHALL GROW AND BE HEALTHY FOR THE GUARANTEE PERIOD AND TREES SHALL LIVE AND GROW IN ACCEPTABLE UPRIGHT POSITION. ANY PLANT NOT ALIVE, IN POOR HEALTH, OR IN POOR CONDITION AT THE END OF THE GUARANTEE PERIOD WILL BE REPLACED IMMEDIATELY. ANY PLANT WILL ONLY NEED TO BE REPLACED ONCE DURING THE GUARANTEE PERIOD. CONTRACTOR TO PROVIDE DOCUMENTATION SHOWING WHERE EACH PLANT TO BE REPLACED IS LOCATED. ANY OUTSIDE FACTORS, SUCH AS VANDALISM OR LACK OF MAINTENANCE ON THE PART OF THE OWNER, SHALL NOT BE PART OF THE GUARANTEE

PART II - PRODUCTS

2.1 LANDSCAPE MATERIALS

A. TREE STAKING: ALL TREES SHALL BE STAKED FOR ONE YEAR WARRANTY PERIOD. ALL TREES NOT PLUMB SHALL BE REPLACED. STAKED TREES SHALL USE VINYL TREE TIES AND TREE STAKES TWO (2) INCH BY TWO (2) BY EIGHT (8) FOOT COMMON PINE STAKES USED AS SHOWN ON THE DETAILS.

B. TREE WRAP: TREE WRAP IS NOT TO BE USED.

C. MULCH/ROCK: SEE PLANS. ALL PLANTER BEDS TO RECEIVE A MINIMUM 3" LAYER FOR TREES, SHRUBS, AND PERENNIALS AND 1" FOR GROUNDCOVERS.

D. WEED BARRIER: DEWITT 5 OZ. WEED BARRIER FABRIC. MANUFACTURED BY DEWITT COMPANY, DEWITTCOMPANY.COM OR APPROVED EQUAL.

E. TREE, SHRUB, AND GRASS BACKFILL MIXTURE; BACKFILL MIXTURE TO BE 75% NATIVE SOIL AND 25% TOPSOIL, THOROUGHLY MIXED TOGETHER PRIOR TO PLACEMENT.

F. TOPSOIL: REQUIRED FOR TURF AREAS, PLANTER BEDS AND BACKFILL MIXTURE. ACCEPTABLE TOPSOIL SHALL MEET THE FOLLOWING STANDARDS:

a. PH: 5.5-7.5

b. EC (ELECTRICAL CONDUCTIVITY): < 2.0 MMHOS PER CENTIMETER

c. SAR (SODIUM ABSORPTION RATION): < 3.0

d. % OM (PERCENT ORGANIC MATTER): >1%

e. TEXTURE (PARTICLE SIZE PER USDA SOIL CLASSIFICATION): SAND <70%; CLAY < 30%; SILT < 70%, STONE FRAGMENTS (GRAVEL OR ANY SOIL PARTICLE GREATER THAN TWO (2) MM IN SIZE) < 5% BY VOLUME.

G. TURF SOD: ALL SOD SHALL BE 18 MONTH OLD AS SPECIFIED ON PLANS (OR APPROVED EQUAL) THAT HAS BEEN CUT FRESH THE MORNING OF INSTALLATION. ONLY SOD THAT HAS BEEN GROWN ON A COMMERCIAL SOD FARM SHALL BE USED. ONLY USE SOD FROM A SINGLE SOURCE.

H. LANDSCAPE CURB EDGING: SIX (6) INCHES BY FOUR (4) INCHES EXTRUDED CONCRETE CURB MADE UP OF THE FOLLOWING MATERIALS:

a. WASHED MORTAR SAND FREE OF ORGANIC MATERIAL.

b. PORTLAND CEMENT (SEE CONCRETE SPEC. BELOW FOR TYPE)

c. REINFORCED FIBER - SPECIFICALLY PRODUCED FOR COMPATIBILITY WITH AGGRESSIVE ALKALINE ENVIRONMENT OF PORTLAND CEMENT-BASED COMPOSITES.

d. ONLY POTABLE WATER FOR MIXING.

I. LANDSCAPE METAL EDGING: 5.5" STEEL EDGING WITH 15" DOWELS INTO THE GROUND FOR STABILIZATION.

PART III - EXECUTION

3.1 GRADING

A. TOPSOIL PREPARATION: GRADE PLANTING AREAS ACCORDING TO THE GRADING PLAN. ELIMINATE UNEVEN AREAS AND LOW SPOTS. PROVIDE FOR PROPER GRADING AND DRAINAGE.

B. TOPSOIL PLACEMENT: SLOPE SURFACED AWAY FROM BUILDING AT TWO (2) PERCENT SLOPE WITH NO POCKETS OF STANDING WATER. ESTABLISH FINISH GRADES OF ONE (1) INCHES FOR PLANTERS BELOW GRADE OF ADJACENT PAVED SURFACED. PROVIDE NEAT, SMOOTH, AND UNIFORM FINISH GRADES. REMOVE SURPLUS SUB-SOIL AND TOPSOIL FROM THE SITE.

C. COMPACTION: COMPACTION UNDER HARD SURFACE AREAS (ASPHALT PATHS AND CONCRETE SURFACES) SHALL BE NINETY-FIVE (95) PERCENT. COMPACTION UNDER PLANTING AREAS SHALL BE BETWEEN EIGHTY-FIVE (85) AND NINETY (90) PERCENT.

3.2 TURF GRADING

A. THE SURFACE ON WHICH THE SOD IS TO BE LAID SHALL BE FIRM AND FREE FROM FOOTPRINTS, DEPRESSIONS, OR UNDULATIONS OF ANY KIND. THE SURFACE SHALL BE FREE OF ALL MATERIALS LARGER THAN 1/2" IN DIAMETER.

B. THE FINISH GRADE OF THE TOPSOIL ADJACENT TO ALL SIDEWALKS, MOW-STRIPS, ETC. PRIOR TO THE LAYING OF SOD, SHALL BE SET SUCH THAT THE CROWN OF THE GRASS SHALL BE AT THE SAME LEVEL AS THE ADJACENT CONCRETE OR HARD SURFACE. NO EXCEPTIONS.

3.3 PLANTING OPERATIONS

A. REVIEW THE EXACT LOCATIONS OF ALL TREES AND SHRUBS WITH THE PROJECT REPRESENTATIVE FOR APPROVAL PRIOR TO THE DIGGING OF ANY HOLES. PREPARE ALL HOLES ACCORDING TO THE DETAILS ON THE DRAWINGS.

B. WATER PLANTS IMMEDIATELY UPON ARRIVAL AT THE SITE. MAINTAIN IN MOIST CONDITION UNTIL PLANTED.

C. BEFORE PLANTING, LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. DO NOT PLACE PLANTS ON OR NEAR UTILITY LINES.

D. THE TREE PLANTING HOLE SHOULD BE THE SAME DEPTH AS THE ROOT BALL, AND TWO TIMES THE DIAMETER OF THE ROOT BALL.

E. TREES MUST BE PLACED ON UNDISTURBED SOIL AT THE BOTTOM OF THE PLANTING HOLE.

F. THE TREE HOLE DEPTH SHALL BE DETERMINED SO THAT THE TREE MAY BE SET SLIGHTLY HIGH OF FINISH GRADE, 1" TO 2" ABOVE THE BASE OF THE TRUNK FLARE, USING THE TOP OF THE ROOT BALL AS A GUIDE.

G. PLANT IMMEDIATELY AFTER REMOVAL OF CONTAINER FOR CONTAINER PLANTS.

H. SET TREE ON SOIL AND REMOVE ALL BURLAP, WIRE BASKETS, TWINE, WRAPPINGS, ETC. BEFORE BEGINNING AND BACKFILLING OPERATIONS. DO NOT USE PLANTING STOCK IF THE BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.

I. APPLY VITAMIN B-1 ROOT STIMULATOR AT THE RATE OF ONE (1) TABLESPOON PER GALLON.

J. UPON COMPLETION OF BACKFILLING OPERATION, THOROUGHLY WATER TREE TO COMPLETELY SETTLE THE SOIL AND FILL ANY VOIDS THAT MAY HAVE OCCURRED. USE A WATERING HOSE, NOT THE AREA IRRIGATION SYSTEM. IF ADDITIONAL PREPARED TOPSOIL MIXTURE NEEDS TO BE ADDED, IT SHOULD BE A COURSER MIX AS REQUIRED TO ESTABLISH FINISH GRADE AS INDICATED ON THE DRAWINGS.

K. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES. ALL CUTS, SCARS, AND BRUISES SHALL BE PROPERLY TREATED ACCORDING TO THE DIRECTION OF THE PROJECT REPRESENTATIVE. PROPER PRUNING TECHNIQUES SHALL BE USED. DO NOT LEAVE STUBS AND DO NOT CUT THE LEADER BRANCH. IMPROPER PRUNING SHALL BE CAUSE FOR REJECTION OF THE PLANT MATERIAL.

L. PREPARE A WATERING CIRCLE OF 2' DIAMETER AROUND THE TRUNK. FOR CONIFERS, EXTEND THE WATERING WELL TO THE DRIP LINE OF THE TREE CANOPY. PLACE MULCH AROUND THE PLANTED TREES.

4. TURF - SOD LAYING

A. TOP SOIL AMENDMENTS: PRIOR TO LAYING SOD, COMMERCIAL FERTILIZER SHALL BE APPLIED AND INCORPORATED INTO THE UPPER FOUR (4) INCHES OF THE TOPSOIL AT A RATE OF FOUR POUNDS OF NITROGEN PER ONE THOUSAND (1,000) SQUARE FEET. ADJUST FERTILIZATION MIXTURE AND RATE OF APPLICATION AS NEEDED TO MEET RECOMMENDATIONS GIVEN BY TOPSOIL ANALYSIS. INCLUDE OTHER AMENDMENTS AS REQUIRED.

B. FERTILIZATION: THREE WEEKS AFTER SOD PLACEMENT FERTILIZE THE TURF AT A RATE OF ½ POUND OF NITROGEN PER 1000 SQUARE FEET. USE FERTILIZER SPECIFIED ABOVE. ADJUST FERTILIZATION MIXTURE AND RATES TO MEET RECOMMENDATIONS GIVEN BY TOPSOIL ANALYSIS.

C. SOD AVAILABILITY AND CONDITION: SOD IS TO BE DELIVERED TO THE SITE IN GOOD CONDITION. IT IS TO BE INSPECTED UPON ARRIVAL AND INSTALLED WITHIN 24 HOURS. SOD IS TO BE MOIST AND COOL TO ENSURE THAT DECOMPOSITION HAS NOT BEGUN AND IS TO BE FREE OF PESTS, DISEASES, OR BLEMISHES. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FURNISHING AND LAYING ALL SOD REQUIRED ON THE PLANS. HE SHALL FURNISH NEW SOD AS SPECIFIED ABOVE AND LAY IT SO AS TOO COMPLETELY SATISFY THE INTENT AND MEANING OF THE PLANS AND SPECIFICATION AT NO EXTRA COST TO THE OWNER. IN THE CASE OF ANY DISCREPANCY IN THE AMOUNT OF SOD TO BE REMOVED OR AMOUNT TO BE USED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPORT SUCH TO THE PROJECT REPRESENTATIVE PRIOR TO COMMENCING THE WORK.

D. SOD LAYING: THE SURFACE UPON WHICH THE NEW SOD TO BE LAID WILL BE PREPARED AS SPECIFIED IN THE DETAIL AND BE LIGHTLY WATERED BEFORE LAYING. AREAS WHERE SOD IS TO BE LAID SHALL BE CUT TRIMMED, OR SHAPED TO RECEIVE FULL WIDTH SOD (MINIMUM TWELVE (12) INCHES). NO PARTIAL STRIP OR PIECES WILL BE ACCEPTED.

E. SOD SHALL BE TAMPED LIGHTLY AS EACH PIECE IS SET TO ENSURE THAT GOOD CONTACT IS MADE BETWEEN EDGES AND ALSO THE GROUND. IF VOIDS OR HOLES ARE DISCOVERED, THE SOD PIECE(S) IS (ARE) TO BE RAISED AND TOPSOIL IS TO BE USED TO FILL IN THE AREAS UNTIL LEVEL. SOD LAID ON ANY SLOPED AREAS SHALL BE ANCHORED WITH WOODEN DOWELS OR OTHER MATERIALS WHICH ARE ACCEPTED BY THE GRASS SOD INDUSTRY.

F. SOD SHALL BE ROLLED WITH A ROLLER THAT IS AT LEAST 50% FULL IMMEDIATELY AFTER INSTALLATION TO ENSURE THE FULL CONTACT WITH SOIL IS MADE.

G. APPLY WATER DIRECTLY AFTER LAYING SOD. RAINFALL IS NOT ACCEPTABLE.

H. WATERING OF THE SOD SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR BY WHATEVER MEANS NECESSARY TO ESTABLISH THE SOD IN AN ACCEPTABLE MANNER TO THE END OF THE MAINTENANCE PERIOD. IF AN IRRIGATION SYSTEM IS IN PLACE ON THE SITE, BUT FOR WHATEVER REASON, WATER IS NOT AVAILABLE IN THE SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO WATER THE SOD BY WHATEVER MEANS, UNTIL THE SOD IS ACCEPTED BY THE PROJECT REPRESENTATIVE.

I. PROTECTION OF THE NEWLY LAID SOD SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ACCEPTABLE VISUAL BARRIERS, TO INCLUDE BARRICADES SET APPROPRIATE DISTANCES WITH STRINGS OR TAPES BETWEEN BARRIERS, AS AN INDICATION OF NEW WORK. THE CONTRACTOR IS TO RESTORE ANY DAMAGED AREAS CAUSED BY OTHERS (INCLUDING VEHICULAR TRAFFIC), EROSION, ETC., UNTIL SUCH TIME AS THE LAWN IS ACCEPTED BY THE OWNER.

J. ALL SOD THAT HAS NOT BEEN LAID WITHIN 24 HOURS SHALL BE DEEMED UNACCEPTABLE AND WILL BE REMOVED FROM THE SITE.

3.5 WEED BARRIER

A. FOR THE HEALTH OF THE SOIL AND THE MICROORGANISMS, WEED BARRIER IS NOT RECOMMENDED. IF USE IS REQUIRED OR REQUESTED, DO NOT PLACE IN ANNUAL OR GRASS AREAS.

B. CUT WEED BARRIER BACK TO THE EDGE OF THE PLANT ROOTBALL.

C. OVERLAP ROWS OF FABRIC MIN. 6"

D. STABLE FABRIC EDGES AND OVERLAPS TO GROUND.

END OF SECTION

GENERAL LANDSCAPE NOTES

GRADING AND DRAINAGE REQUIREMENTS

- AS PER CODE, ALL GRADING IS TO SLOPE AWAY FROM ANY STRUCTURE. SURFACE OF THE GROUND WITHIN 10' FEET OF THE FOUNDATION SHOULD DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6"
- AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
- A MINIMUM OF 6" OF FOUNDATION WILL BE LEFT EXPOSED AT ALL CONDITIONS
- LANDSCAPE CONTRACTOR TO MAINTAIN OR IMPROVE FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY EXCAVATOR, INCLUDING BUT NOT LIMITED TO ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY DAMAGED OR IMPROPER WATERFLOW OF ALL SWALES, BERMS, OR GRADE
- DEVICES FOR CHANNELING ROOF RUN-OFF SHOULD BE INSTALLED FOR COLLECTION AND DISCHARGE OF RAINWATER AT A MINIMUM OF 10' FROM THE FOUNDATION, OR BEYOND THE LIMITS OF FOUNDATION WALL BACKFILL, WHICHEVER DISTANCE IS GREATER

GENERAL LANDSCAPE NOTES

- LANDSCAPE CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
- DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
- ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO ANSI STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS, AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
- SELECTED PLANTS WILL BE ACCORDING TO THE PLANT LEGEND. IF SUBSTITUTIONS ARE NECESSARY, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO LAYING SOD.
- SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL. IF A MATCHING SOIL IS NOT LOCATABLE, A 6" DEPTH OF SANDY LOAM TOPSOIL (MIXED PRIOR TO SPREADING WITH 1% ORGANIC MATTER) CAN BE INCORPORATED INTO THE EXISTING SOIL USING THE FOLLOWING DIRECTIONS: SCARIFY TOP 6" OF EXISTING SUBSOIL AND INCORPORATE 3" OF NEW COMPOST ENRICHED TOPSOIL. SPREAD REMAINING TOPSOIL TO REACH FINISHED GRADE.
- EDGING, AS INDICATED ON PLAN, IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS. ANY TREES LOCATED IN LAWN MUST HAVE A 4-6' TREE RING OF THE SAME EDGING.

LAWN/GRASS AREA

- SOD
  - O ALL LAWN AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED HYDROSEEDING. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD ALL LAWN AREAS SHALL BE IRRIGATED WITH 100% COVERAGE BY POP UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR FOOT(4') DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.
- SEED
  - O **SOIL:** TEST SOIL FOR ADEQUATE FERTILITY. ANY WEEDS CURRENTLY ON THE SITE SHALL BE REMOVED BY EITHER MECHANICAL MEANS SUCH AS HAND PULLING OR SPRAYING WITH AN HERBICIDE SUCH AS GLYPHOSATE MIXED WITH A SURFACTANT. HERBICIDES SHOULD BE APPLIED BY A CERTIFIED PESTICIDE APPLICATOR . COMPACTED SOIL SHALL BE SCARIFIED TO A DEPTH OF 18 INCHES BEFORE ADDING 6" OF WEED FREE TOPSOIL WITH HIGH ORGANIC MATTER. FINE LEVEL ALL AREAS PRIOR TO HYDROSEEDING AND SET THE GRADE FOR POSITIVE DRAINAGE. TOPSOIL SHOULD BE SOFT AT TIME OF APPLICATION. FERTILIZER IS TO BE ADDED WHEN HYDROSEEDING. REFER TO SOIL TEST RESULTS AND HYDROSEEDING CONTRACTOR FOR APPLICATION RATES.
  - O **SEED**: USE SEED MIXES AS SPECIFIED BY LANDSCAPE ARCHITECT OF PURE LIVE SEED (PLS) ON A BASIS/ACRE. THE OPTIMUM TIME TO PANT IS IN NOVEMBER BEFORE THE FIRST SNOW. DO NOT SOW OVER HEAVY SNOWPACK. SEED WILL LAY DORMANT AND BE READY TO GERMINATE ONCE THE GROUND THAWS AND WARMS IN LATE WINTER. IF SEEDING IN LATE FALL IS NOT POSSIBLE, SEED BEFORE APRIL 1. CONTACT SUMMIT SEED. DARRELL@SUMMITSEEDING.COM 435-709-8003.
  - O **APPLICATION**: HYDROSEEDING SHALL CONSIST OF SEED, TACKIFIER, WOOD FIBER MULCH AND FERTILIZER IN A WATER BASED SLURRY. TANK MOUNTED TRUCK SHALL HAVE CONTINUOUS AGITATION. THE PUMP ON THE TRUCK WILL FORCE THE SLURRY THROUGH A TOP-MOUNTED DISCHARGE NOZZLE (TOWER). USE 2000 POUNDS WOOD FIBER MULCH AND 50-100 POUNDS OF TACKIFIER PER ACRE.
  - O **IRRIGATION**: ALL AREAS MUST BE KEPT MOIST WITHOUT PUDDLES OR RUNOFF USING FREQUENT DAYTIME WATER CYCLES. ADJUST AND MONITOR SPRINKLERS AND CLOCK TO ACHIEVE PROPER IRRIGATION.
- IF PERMANENT IRRIGATION IS NOT PLANNED, TEMPORARY IRRIGATION IS REQUIRED AT THE FOLLOWING SCHEDULE: FOR 8 WEEKS SOIL SHALL REMAIN DAMP DURING ESTABLISHMENT PERIOD WITHOUT PUDDLING ON SOIL SURFACE. APPLY WATER APPROXIMATELY THREE TIMES A DAY FOR 5-7 MINUTES FOR EACH IRRIGATION EVENT DEPENDING ON TEMPERATURE AND TIME OF YEAR. A SPARSE DENSITY IS EXPECTED. CONTINUE TEMPORARY IRRIGATION FOR ONE YEAR EVENTUALLY REDUCING WATER APPLICATION TO ONCE A WEEK, THEN ONCE EVERY TWO WEEKS TO FINALLY ONCE A MONTH. MONITOR PROGRESS OF ESTABLISHMENT AND ADJUST SPRINKLERS ACCORDINGLY. THE GOAL IS TO CREATE A HEALTHY STAND OF GRASSES WITH LITTLE TO NO IRRIGATION.
  - O **WEED CONTROL AND MAINTENANCE:** MANDATORY WEED CONTROL IS REQUIRED TO REDUCE COMPETITION AND WEED SEED PRODUCTION. WEEDS MUST BE KEPT UNDER CONTROL BY MECHANICALLY PULLING OR CHEMICALLY SPRAYING AS DIRECTED BY THE APPLICATOR. APPLY A BROADLEAF HERBICIDE BIANNUALLY AND ESTABLISH A CONSISTENT REGIMEN OF MOWING AND FERTILIZING TO PREVENT WEEDS FROM PRODUCING SEED. MOW ONCE IN THE SPRING AND ONCE IN THE FALL BEFORE FERTILIZATION. FERTILIZER OPTION IS SUSTAIN 4-6-4 DEPENDING ON SOIL FERTILITY. DO NOT MOW SHORTER THAN 4 INCHES. BAG ALL CUTTINGS TO REMOVE WEED SEED FROM PROPERTY. KEEP WEEDS CUT DOWN AND DO NOT LET THEM GO TO SEED. WEED SEED PRODUCTION IS THE GAUGE FOR WHEN TO MOW, WHICH GENERALLY OCCURS IN APRIL OR MAY AS WELL AS EARLY FALL DEPENDING ON TEMPERATURE AND MOISTURE. THIS PROCEDURE WILL BE REQUIRED UNTIL A HEALTHY STAND OF GRASSES IS EVIDENT AND COMPETING WELL WITH WEEDS. EXPECT FROM 1 TO 3 YEARS.
  - O **PROGANICS BIOTIC SOIL MEDIA**: WHERE CONDITIONS MAY PROHIBIT ADDING TOPSOIL, PROGANICS BIOTIC SOIL MEDIA SHOULD BE APPLIED BY HYDROSEEDER AT 3500LBS/ACRE WITH SEED AND FERTILIZER PRIOR TO THE APPLICATION OF WOOD MULCH (2000LBS/ACRE) COMBINED WITH TACKIFIER (50-100 LBS/ACRE.)
  - O **ADDING FORBS**: SHRUBS AND PERENNIALS, BY SEED OR CONTAINER, CAN BE ADDED ONCE WEEDS ARE UNDER CONTROL AND HERBICIDE IS NO LONGER NEEDED. USUALLY 1-2 YEARS AFTER HYDROSEEDING.

MULCH

- ORGANIC
  - O PLANTING AREAS TO BE FREE OF WEEDS AND RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF ORGANIC MULCH TOP DRESSING. KEEP MULCH AWAY FROM TOP OF ROOT BALL OF ALL PLANT MATERIAL.
  - O IF REQUIRED BY CITY, INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL MULCH AREAS. KEEP WEED BARRIER 1 FOOT AWAY FROM EDGE OF ROOT BALL OF ALL PLANT MATERIAL. IF WEED BARRIER IS NOT REQUIRED OR INSTALLED, AT OWNER'S APPROVAL, USE TREFLAN 10 AS A PRE-EMERGENT. APPLY ACCORDING TO LABEL DIRECTIONS BY CERTIFIED PESTICIDE APPLICATOR AFTER PLANTING AND AFTER APPLYING MULCH.
  - O IF USING TREFLAN 10 WITHOUT WEED BARRIER, THIS AREA WILL ALSO NEED AN YEARLY MANAGEMENT PROGRAM. SUBMIT PROGRAM TO OWNER.
  - O ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL (ORGANIC MULCH). NO MULCH SHALL BE PLACED WITHIN 12" OF TREE TRUNK AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS. DO NOT COVER LOW BRANCHES OF SHRUBS WITH ROCK.
- INORGANIC
  - O ROCK MULCH PLANTING AREAS TO BE FREE OF WEEDS AND RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. WHERE PLANTING IS SPARSE (GREATER THAN 3' DISTANCE BETWEEN PLANTS OR 3+' BETWEEN GROUPINGS), ADDITIONAL TOPSOIL IS NOT NECESSARY EXCEPT FOR BACKFILLING PLANTING HOLE. PREPARE A HOLE TWICE THE WIDTH OF THE CONTAINER WATER IN PLANT, BACKFILL WITH A 4-1 RATIO OF SOIL TO COMPOST. TAMP LIGHTLY AND WATER AGAIN. KEEP ROCK 12" AWAY FROM TRUNK OF TREES AND 6" AWAY FROM BASE OF SHRUBS AND PERENNIALS. DO NOT COVER LOW BRANCHES OF SHRUBS WITH ROCK.
  - O IF REQUIRED BY CITY, INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL ROCK AREAS. KEEP WEED BARRIER 1 FOOT AWAY FROM EDGE OF ROOT BALL OF ALL PLANT MATERIAL. IF WEED BARRIER IS NOT REQUIRED OR INSTALLED, AT OWNER'S APPROVAL, USE TREFLAN 10 AS A PRE-EMERGENT. APPLY ACCORDING TO LABEL DIRECTIONS BY CERTIFIED PESTICIDE APPLICATOR AFTER PLANTING AND AFTER APPLYING MULCH.
  - O IF USING TREFLAN 10 WITHOUT WEED BARRIER, THIS AREA WILL ALSO NEED AN YEARLY MANAGEMENT PROGRAM. SUBMIT PROGRAM TO OWNER. UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE.

GENERAL IRRIGATION NOTES

- A NEW UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED BY CONTRACTOR IN ALL LANDSCAPED AREAS. LAWN AREAS TO RECEIVE AT LEAST 100% HEAD TO HEAD COVERAGE AND PLANTER AREAS TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB. POINT SOURCE DRIP OR IN-LINE DRIP TUBING TO BE SECURED AT CENTER OF ROOT BALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN.

INSTALLER RESPONSIBILITIES AND LIABILITIES

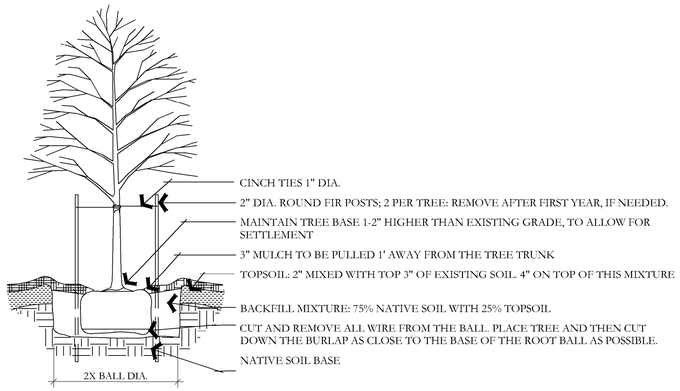
- THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS REQUIRED TO USE TRADE KNOWLEDGE FOR IMPLEMENTATION. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND MATERIALS.

PLANT LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SCALE TAKE PRECEDENCE)

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
CONIFERS						
	JS'M	4	Juniperus scopulorum `Moonglow` Moonglow Juniper Te2, 18x8; AV 20; sun; z3; Utah Lake water tolerant	B & B		6`
DECIDUOUS TREES						
	M'AD	3	Malus x 'Adirondack' Adirondack Crabapple Low to moderate; 18'x10'; Z4, Utah Lake water tolerant	B & B	2"Cal	
	UX'F	1	Ulmus x `Frontier` Frontier Elm Td3; 35x25; AV 490; sun; z4; Utah Lake water tolerant	B & B	2"Cal	

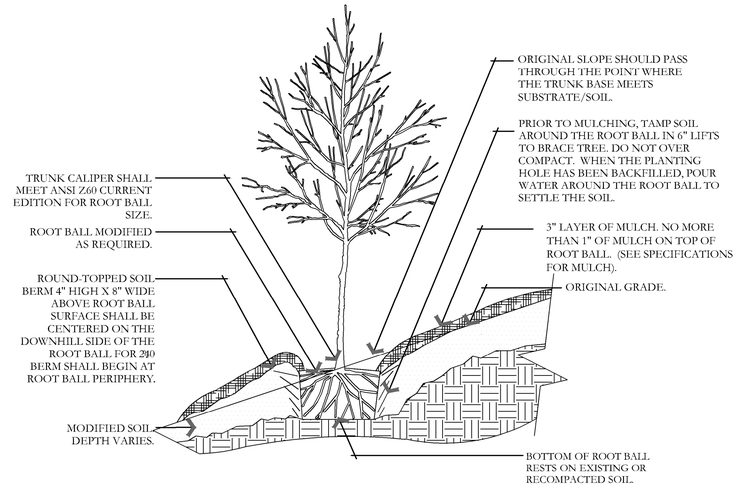
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
DECIDUOUS SHRUBS				
	CM'F	1	Chamaebatiaria millefolium Fernbush Sd0; 4x3; AV 7; sun to part sun; z4; Utah Lake water tolerant	5 gal
	CS'C	3	Cornus sericea `Cardinal`



A DECIDUOUS TREE PLANTING

NOT TO SCALE

PKJ DESIGN GROUP



B TREE ON SLOPE 5% (20:1) TO 50% (2:1)

NOT TO SCALE

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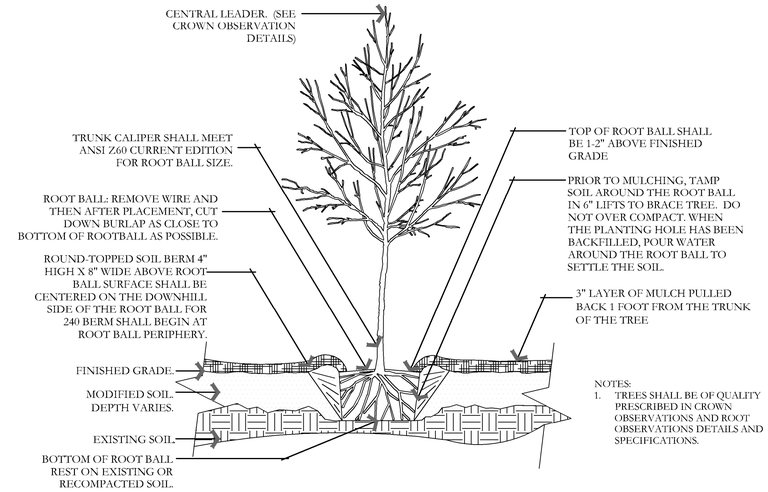
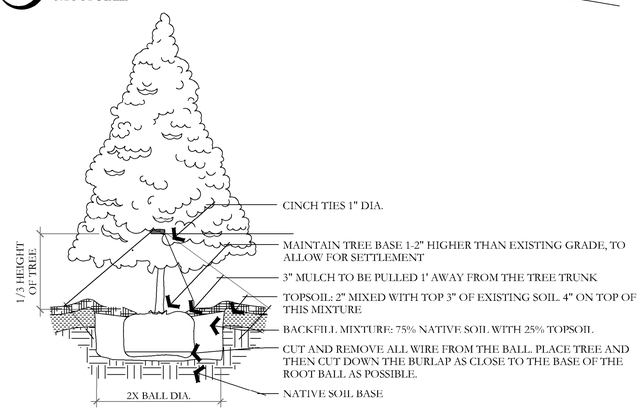


NOTES:
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.

C TREE W/ BERM (EXISTING SOIL MODIFIED)

NOT TO SCALE

PKJ DESIGN GROUP



D EVERGREEN TREE PLANTING

NOT TO SCALE

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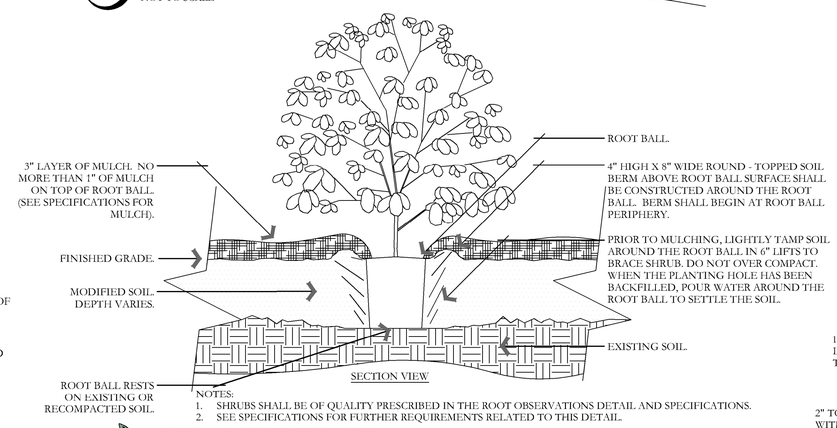
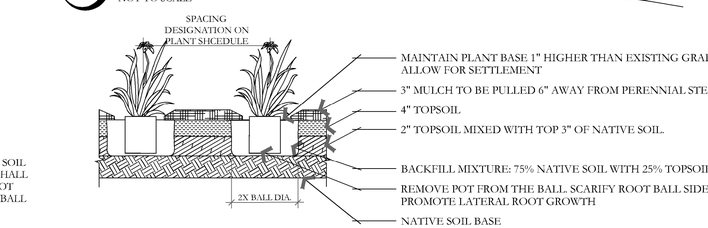


NOTES:
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

E SHRUB - MODIFIED SOIL

NOT TO SCALE

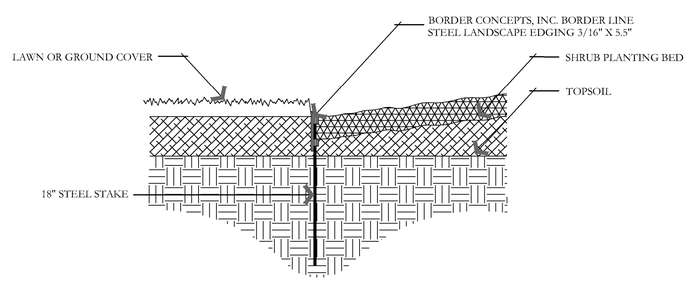
PKJ DESIGN GROUP



F PERENNIAL PLANTING

NOT TO SCALE

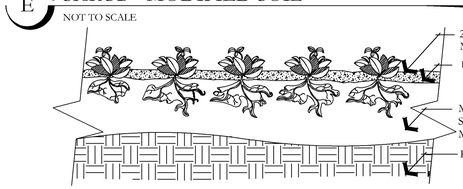
PKJ DESIGN GROUP



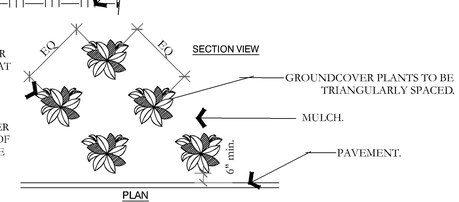
G METAL EDGING DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



NOTES:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION. THAT GROW.
2- SMALL ROOTS AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.



H PERENNIAL/GROUNDCOVER PLANTING

NOT TO SCALE

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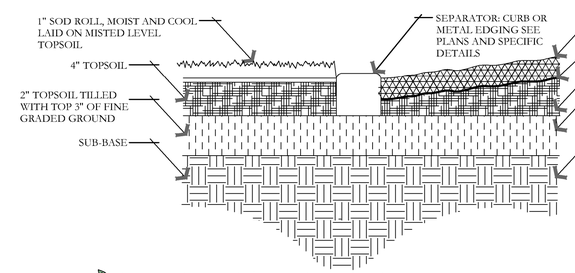

I SOD LAYING/MULCH DETAIL

NOT TO SCALE

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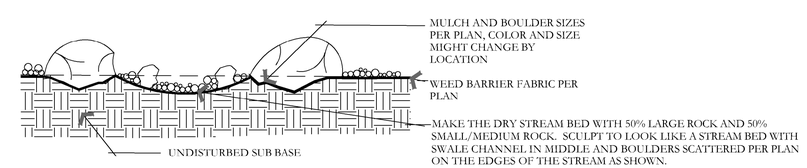

J BOULDER AND DRY STREAM BED DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
9/23/2024	UT24066						PM: JTA

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF UTAH
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1-800-662-4111
www.bluestakes.org

BEAR RIVER STORAGE

1430 E 300 S
PRICE, UTAH 84501

MENLOVE CONSTRUCTION
ATT: JESSE REYNOLDS
801-915-9245

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Landscape Architecture Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
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www.pkjdesigngroup.com

LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8128127-5301 9/23/2024 STATE OF UTAH

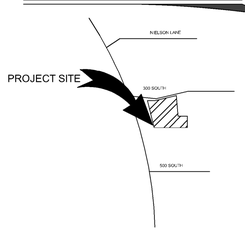
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	9/23/2024

LANDSCAPE DETAILS

CITY PERMIT SET

LP-501

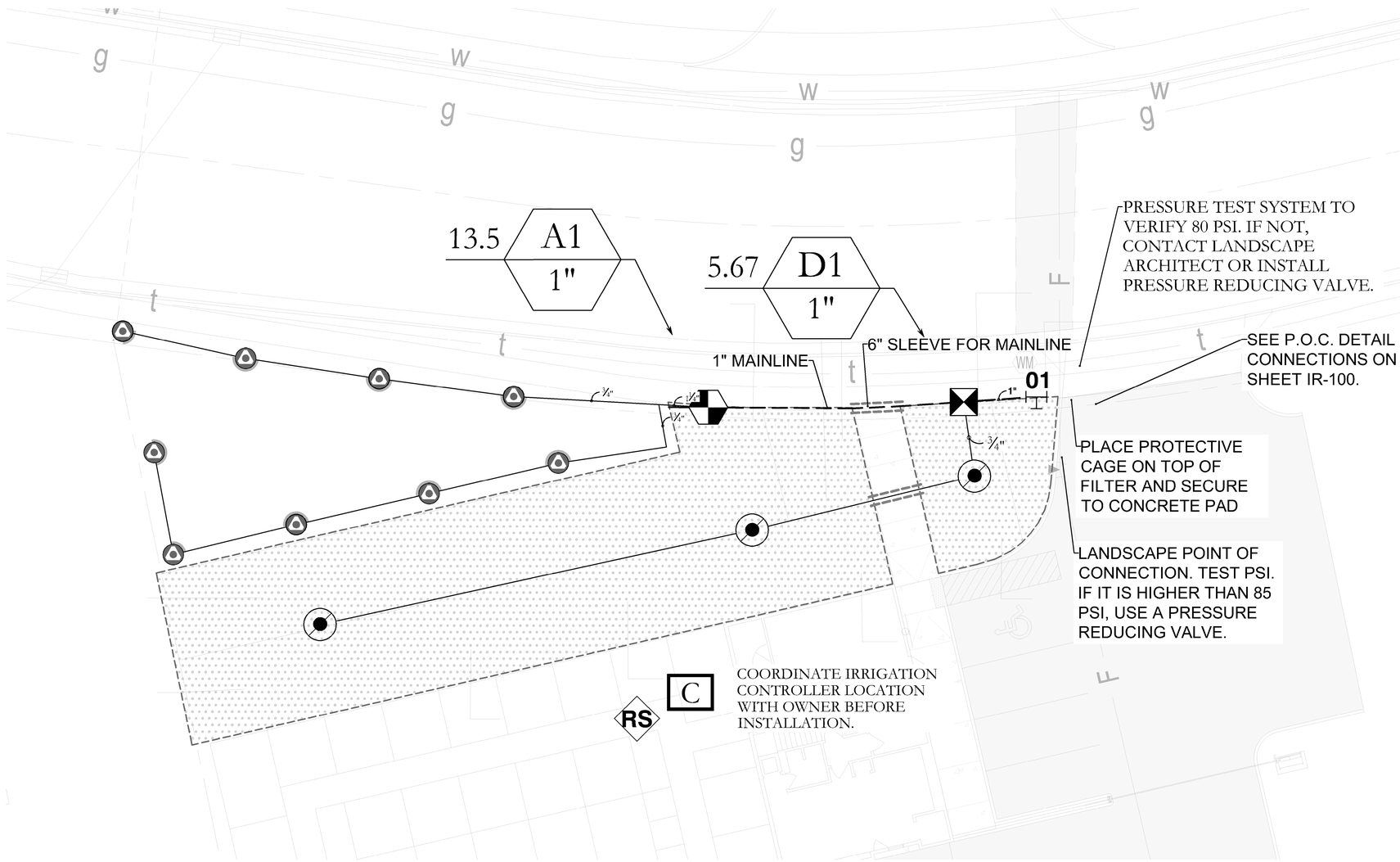
VICINITY MAP



P.O.C. CONFIGURATION

(NOTE: PRESSURE TEST SYSTEM TO VERIFY 80 PSI. IF NOT, CONTACT LANDSCAPE ARCHITECT OR INSTALL PRESSURE REDUCING VALVE.)

- POC — SOURCE DATA
- SHUTOFF VALVE
- F — AMIAD SCREEN FILTER
- M — MASTER VALVE
- FS — 1" FLOW SENSOR
- QUICK COUPLER



ISSUE DATE	PROJECT NUMBER
9/23/2024	UT24066

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PLAN INFORMATION

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N

0' 5' 10' 20' 40'
GRAPHIC SCALE: 1" = 10'

PROJECT INFORMATION

BEAR RIVER STORAGE
1430 E 300 S
PRICE, UTAH 84501

DEVELOPER / PROPERTY OWNER / CLIENT

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LANDSCAPE ARCHITECT / PLANNER

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LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8129127-5301
9/23/2024
UNIFORM BUSINESS CODE
STATE OF UTAH

DRAWING INFO

PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	9/23/2024

IRRIGATION OVERALL PLAN

CITY PERMIT SET

IR-100

IRRIGATION PLAN SPECIFICATIONS

IRRIGATION SPECIFICATIONS

PART I - GENERAL

1.1 SUMMARY

Work to be done includes all labor, materials, equipment and services required to complete the Project irrigation system as indicated on the Construction Drawings, and as specified herein. Includes but is not limited to: Furnishing and installing underground and above ground sprinkler system complete with any accessories necessary for proper function and operation of the system. All plant material on the Project shall be irrigated. Remove and dispose of any existing sprinkler system components which are disturbed during the construction process and are not to be saved. Restoration of any altered or damaged existing landscape to original state and condition.

1.2 SYSTEM DESCRIPTION

A. Design of irrigation components: Locations of irrigation components on Construction Drawings may be approximate. Piping, sleeving and/or other components shown on Construction drawings may be shown schematically for graphic clarity and demonstration of component groupings and separations. All irrigation components shall be placed in landscaped areas, with the exception of pope and wire in sleeving under hardscapes. Actual routing of pipe, wire or other components may be altered due to site conditions not accounted for in the design process.

B. Construction requirements: Actual placement may vary as required to achieve a minimum of 100% coverage without overspray onto hardscape, buildings or other features.

C. Layout of Irrigation Components: During layout and staking, consult with Owner Approved Representative (hereafter referred to as OAR) to verify proper placement of irrigation components, and to provide Contractor recommendations for changes where revisions may be advisable. Small or minor adjustments to system layout are permissible to avoid existing field obstructions such as utility boxes or street light poles. Contractor shall place remote control valves in groups as practical to economize on quantity of manifold isolation valves. Quick coupler valves shall be placed with manifold groups and protected by manifold isolation valves. Quick coupler valves are shown on Construction Documents in approximate locations.

1.3 DEFINITIONS

A. Water Supply: Secondary water piping and components, furnished and installed by others to provide irrigation water to this Project, including but not limited to filter, saddles, nipples, spools, shut off valves, corporation stop valves, water meters, pressure regulation valves, and piping upstream of (or prior to) the Point of Connection.

B. Point of Connection: Location where the Contractor shall tie into the water supply. May require filter, saddle, nipples, spools, isolation valves or Stop and Waste valve for landscape irrigation needs and use.

C. Main Line Piping: Pressurized piping downstream of the Point of Connection to provide water to remote control valves and quick couplers. Normally under constant pressure.

D. Lateral Line Piping: Circuit piping downstream of remote control valves to provide water to sprinkler heads, drip systems or bubblers.

1.4 REFERENCES

A. The following standards will apply to the work of this Section:

a. ASTM-American Society for Testing and Materials

b. IA - The Irrigation Association: Main BMP Document, Landscape Irrigation Scheduling and Water Management Document.

1.5 SUBMITTALS

A. At least thirty (30) days prior to ordering of any materials, the Contractor shall provide manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system. Submittals shall be in three ring binders or other similar bound form. Provide five copies of submittals to OAR for distribution. Place cover or index sheet indicating order in submittal document. No material shall be ordered, delivered or any work preceded in the field until the required submittals have need reviewed in its entirety and stamped approved. Delivered material shall match the approved samples.

B. Operation and Maintenance Manual:

a. At least thirty (30) days prior to final inspection, the Contractor shall provide Operation and Maintenance manual to OAR, containing:

i. Manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system.

ii. Parts list for each operating element of the system

iii. Manufacturer printed literature on operation and maintenance of operating elements of the system.

iv. Section listing instructions for overall system operation and maintenance. Include directions for Spring Start-up and Winterization.

b. Project Record Copy

i. Maintain at project site one copy of all project documents clearly marked "Project Record Copy". Mark any deviation in material installation on Construction drawings. Maintain and update drawing at least weekly. Project Record Copy to be available to OAR on demand.

ii. Completed Project As-Built Drawings

1. Prior to final inspection, prepare and submit to OAR accurate as-built drawings
2. Show detail and dimension changes made during installation. Show significant details and dimensions that were not shown in original Contract Documents.
3. Field dimension locations of sleeving, points of connection, main line piping, wiring runs not contained in main line pipe trenches, valves and valve boxes, quick coupler valves.
4. Dimensions are to be taken from permanent constructed surfaces, features, or finished edges located at or above finished grade.
5. Controller Map: upon completion of system, place in each controller a color coded copy of the area that controller services: indicating zone number, type of plant material and location on project that zone services. Laminate map with heat shrink clear plastic.

1.6 QUALITY ASSURANCE

A. Acceptance: Do not install work in this section prior to acceptance by OAR.

B. Regulatory Requirements: All work and materials shall be according to any and all rules, regulations or codes, whether they are State or Local laws and ordinances. Contract documents, drawings or specifications may not be construed or interpreted to permit work or materials not conforming to the above codes.

C. Adequate Water Supply: Water supply to this Project exists, installed by others. Connections to these supply lines shall be by this Contractor. Verify that proper connection is available to supply line and is of adequate size. Verify that secondary connection components may be installed if necessary. Perform static pressure test prior to commencement of work. Notify OAR in writing of problems encountered prior to proceeding.

D. Workmanship and Materials:

a. It is the intent of this specification that all material herein specified and shown on the construction documents shall be of the highest quality available and meeting the requirements specified.

b. All work shall be performed in accordance with the best standards of practice relating to the trade.

E. Contractor Qualifications:

a. Contractor shall provide document or resume including at least the following items:

i. That Contractor has been installing sprinklers on commercial projects for five previous consecutive years.

ii. Contractor is licensed to perform Landscape and Irrigation construction in the State of this Project.

iii. Contractor is bondable for the work to be performed.

iv. References of five projects of similar size and scope completed within the last five years. Three of the projects listed shall be local.

v. Listing of suppliers where materials will be obtained for use on this Project.

vi. Project site Foreman or Supervisor has at least five consecutive years of commercial irrigation installation experience. This person shall be a current Certified Irrigation Contractor in good standing as set forth by the Irrigation Association. This person shall be on Project site at least 75% of each working day.

vii. Evidence that Contractor currently employs workers in sufficient quantities to complete Project within time limits that are established by the Contract.

viii. All General laborers or workers on the Project shall be previously trained and familiar with sprinkler installation and have a minimum of one-year experience. Those workers performing tasks related to PVC pipe shall have certificates designated below.

1.7 DELIVERY-STORAGE-HANDLING

A. During delivery, installation and storage of materials for Project, all materials shall be protected from contamination, damage, vandalism, and prolonged exposure to sunlight. All material stored at Project site shall be neatly organized in a compact arrangement and storage shall not disrupt Project Owner or other trades on Project site. All material to be installed shall be handled by Contractor with care to avoid breakage or damage. Damaged materials attributed to Contractor shall be replaced with new at Contractor's expense.

1.8 SEQUENCING

A. Perform site survey, research utility records, contact utility location services. The Contractor shall familiarize himself with all hazards and utilities prior to work commencement. Install sleeving prior to installation of concrete, paving or other permanent site elements. Irrigation system Point of Connection components, backflow prevention and pressure regulation devices shall be installed and operational prior to all downstream components. All main lines shall be thoroughly flushed of all debris prior to installation of any sprinkler heads.

1.9 WARRANTY

A. Contractor shall provide one year Warranty. Warranty shall cover all materials, workmanship and labor. Warranty shall include filling and or repairing depressions or replacing turf or other plantings due to settlement of irrigation trenches or irrigation system elements. Valve boxes, sprinklers or other components settled from original finish grade shall be restored to proper grade. Irrigation system shall have been adjusted to provide proper, adequate coverage of irrigated areas.

1.10 OWNER'S INSTRUCTION

A. After system is installed, inspected, and approved, instruct Owner's Representatives in complete operation and maintenance procedures. Coordinate instruction with references to previously submitted Operation and Maintenance Manual.

1.11 MAINTENANCE

A. Furnish the following items to Owner's Representative:

a. Two quick coupler keys with hose swivels.

b. One of each type or size of quick coupler valve and remote control valve. Five percent of total quantities used of each sprinkler and sprinkler nozzle.

B. Provide the following services:

a. Winterize entire irrigation system installed under this contract. Winterize by 'blow-out' method using compressed air. Compressor shall be capable of minimum of 175 CFM. This operation shall occur at the end of first growing season after need for plant irrigation but prior to freezing. Compressor shall be capable of evacuating system of all water pressure regulation devices. Compressor shall be regulated to not more than 60 PSI. Start up system the following spring after danger of freezing has passed. Contractor shall train Owner's Representative in proper start-up and winterization procedure.

PART 2 - PRODUCTS

2.1 GENERAL NOTES

A. Contractor shall provide materials to be used on this Project. Contractor shall not remove any material purchased for this Project from the Project Site, nor mix Project materials with other Contractor owned materials. Owner retains right to purchase and provide project material.

2.2 POINT OF CONNECTION

A. The Contractor shall connect onto existing irrigation or water main line as needed for Point(s) of Connection. Contractor shall install new main line as indicated.

2.3 CONNECTION ASSEMBLY

A. Secondary water shall be used on this Project. Install filter and RPZ as needed.

2.4 CONTROL SYSTEM

A. Power supply to the irrigation controller shall be provided for by this Contract.

B. Controller shall be as specified in the drawings. Controller shall be surge protected.

a. Installation of wall-mount/ground pedestal timer controllers: Irrigation contractor shall be responsible for this task. Power configuration for wall-mount/ground pedestal timer controllers shall be 120 VAC unless otherwise noted.

b. Locate Controller(s) in general location shown on Construction drawings. Coordinate power supply and breaker allocation with electrical contractor. Contractor shall be responsible for all power connections to Controllers, whether they are wall mount or pedestal mount. Contractor shall coordinate with electrical or other Project trades as needed to facilitate installation of power to controllers.

C. Wires connecting the remote control valves to the irrigation controller are single conductors, type PE. Wire construction shall incorporate a solid copper conductor and polyethylene (PE) insulation with a minimum thickness of 0.045 inches. The wires shall be UL listed for direct burial in irrigation systems and be rated at a minimum of 30 VAC. Paige Electric Co., LP specification number P7079D.

a. A minimum of 24" of additional wire shall be left at each valve, each splice box and at each controller.

b. Common wire shall be white in color, 12 gauge. Control wire shall be red in color, 14 gauge. Spare/extra wire (3 ft.) shall be looped within each valve box of the grouping it is to service.

D. RCV wire splicing connectors shall be 3M brand DBY or DBR. Wire splicing between controller and valves shall be avoided if at all possible. Any wire splices shall be contained within a valve box. Splices within a valve box that contains no control valves shall be stamped 'WIRE SPLICE' or 'WS' on box lid.

2.5 SLEEVING

A. Contractor shall be responsible to protect existing underground utilities and components. Sleeving minimum size shall be 2". Sleeving 2" through 4" in size shall be S/40 PVC solvent weld. Sleeving 6" and larger shall be CL 200 PVC gasketed. Sleeve diameter shall be at least two times the diameter of the pipe within the sleeve. Sleeves shall be extended 6" minimum beyond walk or edge of pavement. Wire or cable shall not be installed in the same sleeve as piping, but shall be installed in separate sleeves. Sleeve ends on sleeve sizes 4" and larger shall be capped with integral corresponding sized PVC slip cap, pressure fit, until used, to prevent contamination. Sleeves shall be installed at appropriate depths for main line pipe or lateral pipe.

2.6 MAIN LINE PIPE

A. All main line pipe 4" and larger shall be Class 200 gasketed bell end. All main line pipe 3" in size and smaller shall be Schedule 40 PVC solvent weld bell end.

a. Maximum flows allowed through main line pipe shall be:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

b. Main line pipe shall be buried with 24" cover

2.7 MAIN LINE FITTINGS

A. All main line fittings 3" and larger shall be gasketed ductile iron material. All ductile iron fittings having change of direction shall have proper concrete thrust block installed. All main line fittings smaller than 3" in size shall be Schedule 80 PVC.

2.8 ISOLATION VALVES

A. Isolation valves 3" and larger shall be Waterous brand model 2500 cast iron gate valve, resilient wedge, push on type, with 2" square operating nut. Place sleeve of 6" or larger pipe over top of valve vertically and then extend to grade. Place 10" round valve box over sleeve at grade.

B. Isolation valves 2-1/2" and smaller shall be Apollo brand 70 series brass ball valves, contained in a Carson Standard size valve box. Valves shall be installed with S/80 PVC TOE Nipples on both sides of the valve. Valve shall be placed so that the handle is vertical toward the top of the valve box in the 'off' position.

2.9 MANIFOLDS

A. Action Manifold fittings shall be used to create unions on both sides of each control valve, allowing the valve to be removed from the box without cutting piping. Valves shall be located in boxes with ample space surrounding them to allow access for maintenance and repair. Where practical, group remote control valves in close proximity, and protect each grouping with a manifold isolation valve as shown in details. Manifold Main Line (or Sub-Main Line) and all manifold components and isolation valves shall be at least as large as the largest diameter lateral served by the respective manifold.

2.10 REMOTE CONTROL VALVES

A. Remote control valves shall be as specified on the drawings. Remote control valves shall be located separately and individually in separate control boxes.

2.11 MANUAL CONTROL VALVES

A. Quick coupler valve shall be attached to the manifold sub-main line using a Lasco G17S212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 10" round valve box. Top of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and operation of key. Base of quick coupler valve and top of quick coupler swing joint shall be encased in ¾" gravel. Contractor shall not place quick coupler valves further than 200 feet apart, to allow for spot watering or supplemental irrigation of new plant material. Quick coupler valve at POC shall not be eliminated or relocated.

2.12 LATERAL LINE PIPE

A. All lateral piping shall be Schedule 40 PVC, solvent weld, and bell end. Lateral pipe shall be buried with 12-18" of cover typically. Lateral pipe shall be ¾", 1", 1 ¼", 1 ½" or 2" in size as indicated on Construction Drawings.

2.13 LATERAL LINE FITTINGS

A. All lateral line fittings shall be S/40 PVC

2.14 SPRAY SPRINKLERS

A. Spray head sprinklers shall be as specified on the drawings. Nozzles shall be as specified on the drawings.

2.15 VALVE BOXES

A. Rainbird valve boxes shall be used on this project. Sizes are as directed in these Specifications, detail sheets or plan sheets. Valve boxes shall be centered over the control valve or element they cover. Valve box shall be sized large enough to allow ample room for services access, removal or replacement of valve or element. Valve box shall be set to flush to finish grade of topsoil or barked areas. Contractor shall provide extensions or stack additional valve boxes as necessary to bring valve box pit to proper grade.

2.16 IMPORT BACKFILL

A. All main line pipe, lateral line pipe and other irrigation elements shall be bedded and backfilled with clean soil, free of rocks 1" and larger. Contractor shall furnish and install additional backfill material as necessary due to rocky conditions. Trenches and other elements shall be compacted and/or water settled to eliminate settling. Debris from trenching operations un-usable for fill shall be removed from project and disposed of properly by Contractor.

2.17 OTHER PRODUCTS

A. Substitution of equivalent products is subject to the OAR's approval and must be designated as accepted in writing.

a. The Contractor shall provide materials to make the system complete and operational.

PART 3 - EXECUTION

3.1 PREPARATION

A. Contractor shall repair or replace work damaged by irrigation system installation. If damaged work is new, repair or replacement shall be performed by the original installer of that work. The existing landscape of this Project shall remain in place. Contractor shall protect and work around existing plant material. Coordination of trench and valve locations shall be laid out for the OAR prior to any excavation occurring. Plant material deemed damaged by the OAR shall be replaced with new plant material at Contractor's expense. Contractor shall not cut existing tree roots larger than 2" to install this Project. Route pipe, wire and irrigation elements around tree canopy drip line to minimize damage to tree roots. Contractor shall have no part of existing system used by other portions of site landscape without water for more than 24 hours at a time.

3.2 TRENCHING AND BACKFILLING

A. Pulling of pipe shall not be permitted on this project. Over excavate trenches both in width and depth. Ensure base of trench is rock or debris free to protect pipe and wire. Grade trench base to ensure flat, even support of piping. Backfill with clean soil or import material. Contractor shall backfill no less than 2" around entire pipe with clean, rock free fill. Main line piping and fittings shall not be backfilled until OAR has inspected and pipe has passed pressure testing. Perform balance of backfill operation to eliminate any settling.

3.3 SLEEVING

A. Sleeve all piping and wiring that pass under paving or hardscape features. Wiring shall be placed in separate sleeving from piping. Sleeves shall be positioned relative to structures or obstructions to allow for pipe or wire within to be removed if necessary.

3.4 GRADES AND DRAINAGE

A. Place irrigation pipe and other elements at uniform grades. Winterization shall be by evacuation with compressed air. Automatic drains shall not be installed on this Project. Manual drains shall only be installed at POC where designated on Construction Drawings.

3.5 PVC PIPE

A. Install pipe to allow for expansion and contraction as recommended by pipe manufacturer.

B. Install main line pipes with 18" of cover, lateral line pipes with 12" of cover.

C. Drawings show diagrammatic or conceptual location of piping - Contractor shall install piping to minimize change of direction, avoid placement under large trees or large shrubs, avoid placement under hardscape features.

D. Plastic pipe shall be cut squarely. Burrs shall be removed. Spigot ends of pipes 3" and larger shall be beveled.

E. Pipe shall not be glued unless ambient temperature is at least 50 degress F. Pipe shall not be glued in rainy conditions unless properly tented. All solvent weld joints shall be assembled using IPS 711 glue and P70 primer according to manufacturer's specification, no exceptions. All workers performing glue operations shall provide evidence of certification. Glued main line pipe shall cure a minimum of 24 hours prior to being energized. Lateral lines shall cure a minimum of 2 hours prior to being energized and shall not remain under constant pressure unless cured for 24 hours.

F. Appropriate thrust blocking shall be performed on fittings 3" and larger. All threaded joints shall be wrapped with Teflon tape or paste unless directed by product manufacturer or sealing by o-ring.

3.6 CONTROLLERS

A. All grounding for pedestal controllers shall be as directed by controller manufacturer and ASIC guidelines, not to exceed a resistance reading of 5 OHMs.

B. Locate controllers in protected, inconspicuous places, when possible. Coordinate location of pedestal controllers with Landscape Architect to minimize visibility.

C. Coordinate location of wall mount controllers with building or electrical Contractor to facilitate electrical service and future maintenance needs. Wall mount shall be securely fastened to surface. If exterior mounted, wall mount controllers shall have electrical service wire and field control wire in separate, appropriate sized weatherproof electrical conduit, PVC pipe shall not be used.

D. Wiring under hardscape surfaces shall be placed continuously in conduit. Contractor shall be responsible to coordinate sleeving needs for conduit or sweeps elbows from exterior to interior of building.

E. Pedestal controllers shall be placed upon VIT-Strong Box Quick Pad as per manufacturer's recommendations. Controllers shall be oriented such that Owner's Representative maintenance personnel may access easily and perform field system tests efficiently.

F. Place Standard valve box at base of controller or nearby to allow for three to five feet of slack field control wire to be placed at each controller. This Contractor shall provide conduit access if needed for Electrical Contractor. Electrical supply and installation, as well as hook-up to controller shall be by this Contractor.

G. Electrical contractor is in charge of providing 1.5" conduit from controller to outside landscape area. Provide power and room for controller. Provide ethernet to hardwire power into the controller.

3.7 VALVES

A. Isolation valves, remote control valves, and quick coupler valves shall be installed according to manufacturer recommendation and Contract Specifications and Details.

B. Valve boxes shall be set over valves so that all parts of the valve can be reached for service.

C. Valve box and lid shall be set to be flush with finished grade. Only one remote control valve may be installed in a valve box. Place a minimum of 4" of ¾" washed gravel beneath valve box for drainage. Bottom of remote control valve shall be a minimum of 2" above gravel.

3.8 SPRINKLER HEADS

A. No sprinkler shall be located closer than 6" to walls, fences, or buildings.

B. Heads adjacent to walks, curbs, or paths shall be located at grade and 2" away from hardscape.

C. Control valves shall be opened. Then fully flush lateral line pipe and swing joints prior to installation of sprinklers.

D. Spray heads shall be installed and flushed again prior to installation of nozzles.

E. Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction.

3.9 FIELD QUALITY CONTROL

A. Main line pipes shall not be backfilled or accepted until the system has been tested for 2 hours at 100 psi.

B. Main line pressure test shall include all pipe and components from the point of connection to the upstream side of remote control valves. Test shall include all manifold components under constant pressure. Piping may be tested in sections that can be isolated.

C. Contractor shall provide pressurized water pump to increase or boost pressure where existing static pressure is less than 100 psi.

D. Schedule testing with OAR 48 hours in advance for approval.

E. Leaks or defects shall promptly be repaired or rectified at the Contractors expense and retested until able to pass testing.

F. Grounding resistance at pedestal controller shall also be tested and shall not exceed 5 OHMs.

3.10 ADJUSTMENT

A. Sprinkler heads shall be adjusted to proper height when installed. Changes in grade or adjustment of head height after installation shall be considered a part of the original contract and at Contractor's expense.

B. Adjust all sprinkler heads for arc, radius, proper trim and distribution to cover all landscaped areas that are to be irrigated.

C. Adjust sprinklers so they do not water buildings, structures, or other hardscape features.

D. Adjust run times of station to meet needs of plant material the station services.

3.11 CLEANING

A. Contractor shall be responsible for cleanliness of jobsite. Work areas shall be swept cleanly and picked up daily.

B. Open trenches or hazards shall be protected with yellow caution tape.

C. Contractor is responsible for removal and disposal of offsite trash and debris generated as a result of this Project.

D. OAR shall perform periodic as well as a final cleanliness inspection.

E. Contractor shall leave Project in at least a 'broom clean' condition.

END OF SECTION

IRRIGATION NOTES

1. BEFORE WORK IS TO COMMENCE, BLUE STAKES/DIG LINE IS TO BE CALLED AND NOTIFIED. IF ANY DAMAGE TO UTILITIES HAPPEN DURING CONSTRUCTION, THE CONTRACTOR SHALL REPAIR IT AT THEIR EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS IN ACCORDANCE WITH CITY AND/OR COUNTY CODES AND COMPLY WITH SPECIFICATIONS AND DRAWINGS.
3. INVESTIGATE TO MAKE SURE THAT THE IRRIGATION SYSTEM IS, IN FACT, BEING CONNECTED TO A SECONDARY SYSTEM. IF IT IS NOT CONNECTED TO SECONDARY, CONTACT THE OWNER AND LANDSCAPE ARCHITECT TO COORDINATE A CULINARY SYSTEM AND REQUIRED COMPONENTS. A FUNCTIONING AMIAD FILTER IS TO BE USED AT THE POINT OF CONNECTION.
4. VERIFY THAT THE POINT OF CONNECTION IS IN THE CORRECT LOCATION BEFORE INSTALLATION. ALL CONNECTIONS ON THIS PROJECT ARE TO SECONDARY WATER AND SHOULD BE NOTED AS SUCH; THEREFORE, ALL PARTS MUST MEET WATER STANDARDS THAT PERTAIN TO SECONDARY WATER.USE PURPLE VALVE BOXES FOR SECONDARY WATER SYSTEMS.
5. ON OCCASION AND FOR GRAPHIC PURPOSES ONLY, THE IRRIGATION SYSTEM MIGHT BE SHOWN IN HARDSCAPE AREAS. THIS IRRIGATION IS TO BE PLACED IN LANDSCAPED AREAS ON THE PROPERTY SITE.
6. CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS. THIS INCLUDES PIPE TO BE SCHEDULE 40 PVC OR BETTER. NO POLY PIPE IS TO BE USED. FITTINGS UP TO 1-1/2" MUST BE SCHEDULE 40 OR BETTER. FITTINGS LARGER THAN 1-1/2" SHALL BE SCHEDULE 80 OR BETTER. CONTRACTOR IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION.
7. MAIN LINES SHALL BE A MINIMUM OF 24" DEEP AND LATERAL LINES A MINIMUM OF 12" DEEP. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
8. NO IRRIGATION MAIN LINE MAY BE LOCATED WITHIN 5 FEET OF ANY STRUCTURE.
9. TO AVOID PIPE DAMAGE, ADJUST LOCATION OF PIPE TO NOT BE DIRECTLY UNDER PLANT MATERIALS. VALVE BOXES ARE PREFERRED TO BE IN PLANTER BEDS INSTEAD OF THE LAWN. SYSTEM IS TO BE WINTERIZED IN THE LATE FALL.
10. PLAN INDICATES 100% OR BETTER HEAD TO HEAD COVERAGE. SHOULD CONTRACTOR FIND DISCREPANCIES DUE TO NECESSARY FIELD ADJUSTMENTS, CONTACT LANDSCAPE ARCHITECT FOR IRRIGATION CORRECTION.
11. DRIP IRRIGATION TO BE INSTALLED PER DETAILS. CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS. TUBING SHOULD REST TOWARD OUTER EDGE OF ROOTBALL AND NOT AGAINST TRUNK OF PLANT.
12. A QUICK COUPLER SHALL BE INSTALLED AT POINT OF CONNECTION TO ALLOW BLOW OUT OF SYSTEM BY AIR COMPRESSOR AT END OF EACH SEASON.
13. INSTALL SLEEVES FOR ALL PIPES AND WIRE CONDUIT THAT ARE PLACED UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE BEING PLACED INTERNALLY. WIRE CONDUIT SHALL BE INSTALLED IN CLASS 200 PIPE. AT ANY DIRECTIONAL CHANGE THAT OCCURS, A JUNCTION BOX IS TO PLACED.
14. CONDUITS CAN NOT BE SHARED BY WATER AND ELECTRICAL LINES. ALL WIRE TO BE PUT IN PVC CONDUIT. ALL WIRE CONNECTIONS TO BE PLACED IN A VALVE BOX. ALL WIRE CONNECTIONS TO USE WATERPROOF WIRE CONNECTORS WITH AT LEAST 3' OF EXTRA WIRE. PROVIDE PLENTY OF EXTRA WIRE AT EVERY DIRECTIONAL CHANGE. INSULATED 14 GAUGE COPPER TO BE USED FOR ALL CONTROL WIRES AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
15. CONTRACTOR TO INSTALL LIGHTNING ARRESTOR AND GROUNDING RODS ON SITE PER MANUFACTURER'S RECOMMENDATIONS, SEE DETAILS.
16. CONTRACTOR TO SEPARATE SYSTEM (CONTROLLER, VALVES, AND DIFFERENT COLORED WIRE) FROM CITY MAINTAINED PROPERTY AND HOA/OWNER MAINTAINED PROPERTY.
17. DUCT TAPE ALL SLEEVES TO PREVENT SOIL OR OTHER DEBRIS ENTERING PIPE. IDENTIFY ALL SLEEVES BY WOOD OR PVC STAKES AND SPRAY PAINT WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
18. TO PREVENT EROSION AND LOW POINT DRAINAGE CONTRACTOR SHALL INSTALL CHECK VALVES
19. LOCATE SPRAY HEADS NO CLOSER THAN 6" FROM WALLS, FENCES OR BUILDINGS AND 2" AWAY FROM WALKS, PATHS OR CURBS.
20. PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING. CONTACT LANDSCAPE ARCHITECT/OWNER AT THIS TIME FOR COMPLIANCE.
21. CONTRACTOR TO CONSULT WITH OWNER ON EXACT LOCATION OF CONTROLLER. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR AND OWNER FOR THE POWER SUPPLY. INSTALL ALL PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH THE CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
22. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

I	3/4"	8 GPM
II	1"	12 GPM
III	1-1/2'	30 GPM
IV	2"	53 GPM
V	2-1/2"	75 GPM
VI	3"	110 GPM
VII	4"	180 GPM

WATERING SCHEDULE

90 Day Establishment Period Irrigation Schedule

Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH	15 MIN.	15 MIN.	15 MIN.	15 MIN.	15 MIN.	15 MIN.	15 MIN.	Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.		2 HOURS			2 HOURS			precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	2 GAL/HR.		2 HOURS						

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Shrubs to be watered so soil is moist 6" below root ball. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress.

Regular Irrigation Schedule: Begin Spring Watering May 15 (Turf irrigation event once every 5-7 days; Shrubs 2-4 times/month)

Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.						Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	No Water								

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event.
Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions

Regular Irrigation Schedule: Begin Summer Watering June 15 (Turf irrigation event once every 2-3 days; Shrubs 1 time/week)

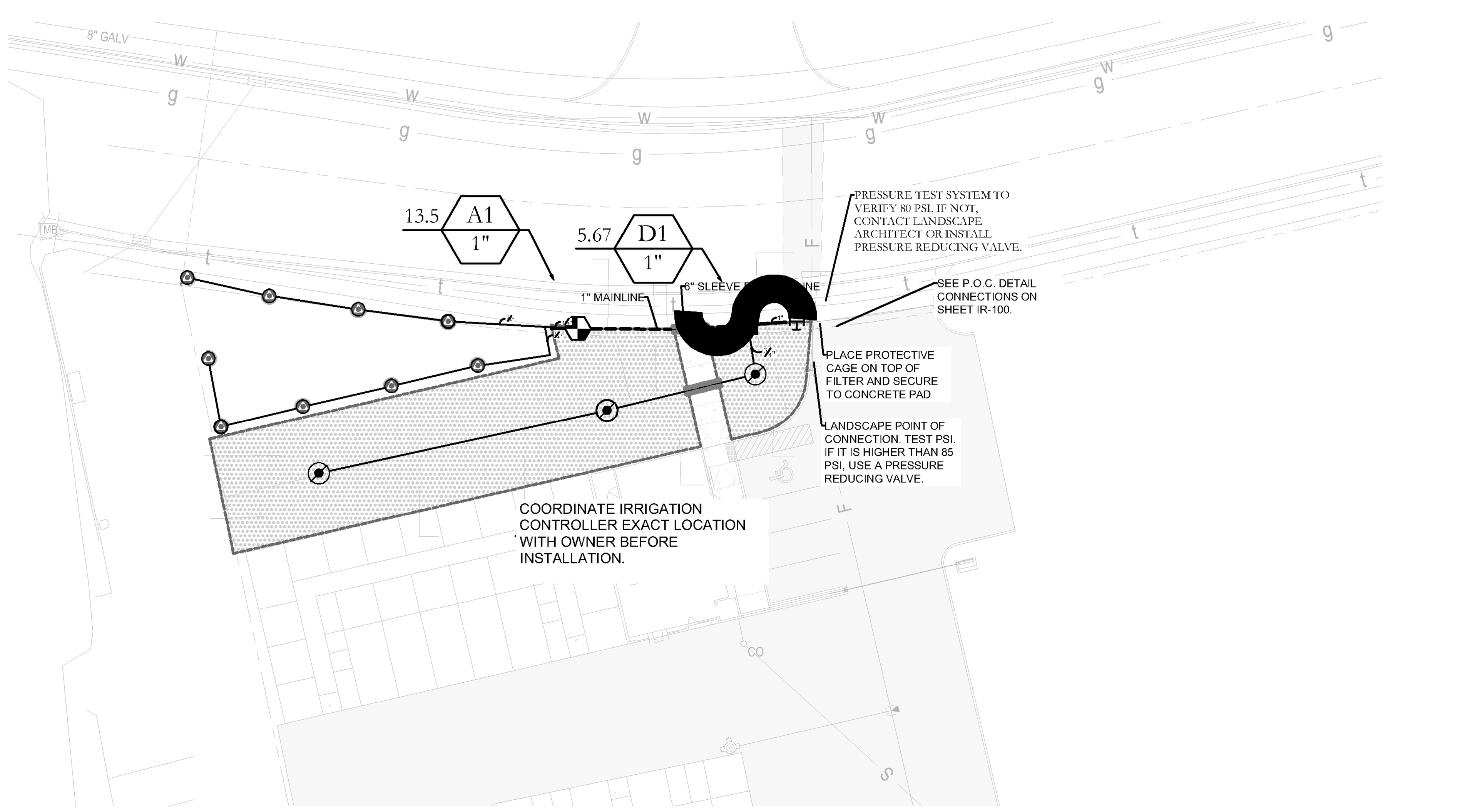
Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.		60 MIN.		60 MIN.		Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	2 GAL/HR.			1 HOUR					

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event.
Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions
Reference Utah DNR weekly watering guide: https://conservewater.utah.gov/weekly-lawn-watering-guide/

Regular Irrigation Schedule: Begin Fall Watering September 1-End Fall Watering October 15 (Turf irrigation event once every 5-7 days; Shrubs 2-4 time/month)

Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H20	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.						Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	No Water								

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event.
Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions



1" MAINLINE ROUTING ,CONTROLLER AND P.O.C. LOCATION OVERVIEW

ISSUE DATE: 9/23/2024

PROJECT NUMBER: UT24066

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

PLAN INFORMATION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

0' 15' 30' 60' 120'

GRAPHIC SCALE: 1" = 30'

PROJECT INFORMATION

BEAR RIVER STORAGE
1430 E 300 S
PRICE, UTAH 84501

DEVELOPER / PROPERTY OWNER / CLIENT

MENLOVE CONSTRUCTION
ATT: JESSE REYNOLDS
801-915-9245

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Landscape Architecture Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
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LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128121-5301
9/23/2024
ELECTRONIC SEAL
STATE OF UTAH

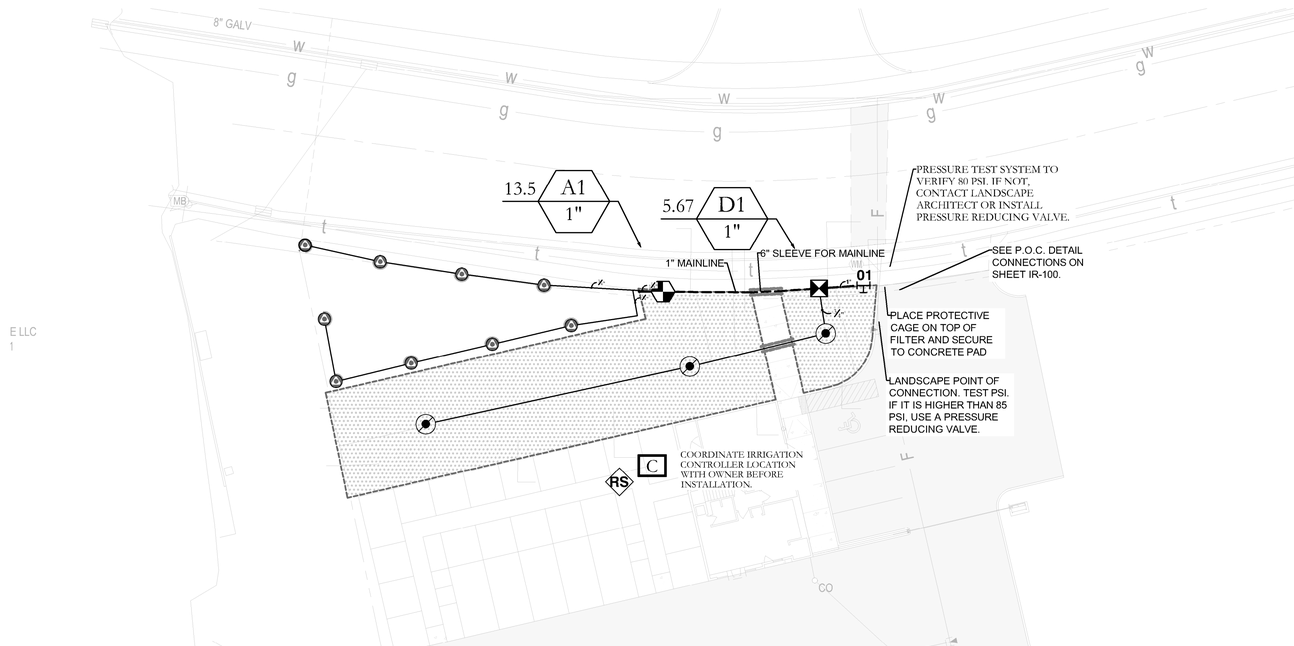
DRAWING INFO

PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 9/23/2024

IRRIGATION COVER

CITY PERMIT SET

IR-101



IRRIGATION LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.) IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
24 ADJ 24 F	Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	9	45

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-100-IVMQ (2) 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	1
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	3
	Area to Receive Drip Emitters Rain Bird PC (2) Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange. Emitter Notes:	4,416 s.f.
	PC-05 emitters (1 assigned to each flat plant)	
	PC-05 emitters (1 assigned to each 4"pot plant)	
	PC-05 emitters (1 assigned to each 1 gal plant)	43
	PC-05 emitters (1 assigned to each 2 gal plant)	
	PC-05 emitters (2 assigned to each 3 gal plant)	
	PC-05 emitters (2 assigned to each 5 gal plant)	18
	PC-05 emitters (3 assigned to each 15 gal plant)	
	PC-05 emitters (3 assigned to each 20 gal. plant)	
	PC-05 emitters (3 assigned to each B & B, 1.25"Cal plant)	
	PC-05 emitters (3 assigned to each B & B, 2"Cal plant)	12
	PC-05 emitters (3 assigned to each B & B, 4-6` plant)	
	PC-05 emitters (3 assigned to each B & B, 5`-6` plant)	
	PC-05 emitters (3 assigned to each B & B, 6` plant)	12
	PC-05 emitters (3 assigned to each B & B, 7`-9` plant)	
	PC-05 emitters (3 assigned to each B & B, 8`-10` plant)	
	PC-05 emitters (4 assigned to each B & B, Multi-trunked plant)	
	PC-05 emitters (4 assigned to each Bulb plant)	
	PC-05 emitters (4 assigned to each Plug plant)	

IRRIGATION LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.) IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
FS	Rain Bird FS-200-B 2in. Flow Sensor, Brass Model. Suggested Operating Range 10 GPM to 100 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	1	
F	Amiad 2-T-S-SCAN-Steel Screen 200mm Amiad 2in. T-Super Scanaway Manual Plastic Filter, NPT thread, Steel Screen Element. Clogging Indicator Kit. Engineered-plastic material, maximum working pressure 145psi.	1	
XX	Point of Connection 1"	1	
	Irrigation Lateral Line: PVC Schedule 40 3/4"	335.2 l.f.	
	Irrigation Lateral Line: PVC Schedule 40 1 1/4"	8.4 l.f.	
	Irrigation Mainline: PVC Schedule 40	6.8 l.f.	
	Irrigation Mainline: PVC Schedule 40 1"	56.1 l.f.	
	Pipe Sleeve: PVC Class 200 SDR 21 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	18.0 l.f.	
	Valve Callout: Valve Number		
	Valve Flow		
	Valve Size		

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB-IVM 1" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	1
	Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Shut Off Valve	1
M	Rain Bird EFB-CP-PRS-D 1-1/2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
C	Rain Bird ESPLXIVM 60 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVM 60-Station, Indoor/Outdoor, Plastic Wall-Mount Cabinet. System Requirements: Rain Bird LXIVM-XXX Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
RS	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1

ISSUE DATE	PROJECT NUMBER
9/23/2024	UT24066

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0' 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'

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PRICE, UTAH 84501

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LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
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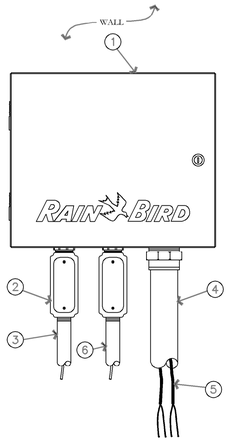
9/23/2024
ELECTRONIC SEAL
STATE OF UTAH

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	9/23/2024

IRRIGATION PLAN

CITY PERMIT SET

IR-102



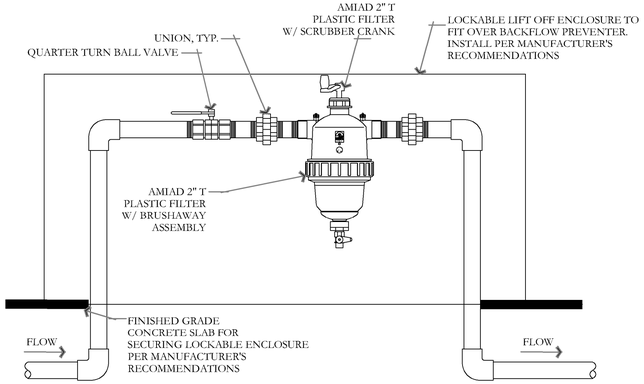
1. TWO-WIRE CONTROLLER: RAIN BIRD ESP-LXIVM/PRO IN LXMM METAL CABINET WITH OUTSIDE WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1-INCH CONDUIT AND FITTINGS FOR POWER SUPPLY WIRE
4. 2-INCH CONDUIT AND FITTINGS FOR TWO-WIRE CABLE
5. MAXICABLE TWO-WIRE PATH TO FIELD DEVICES, USE A DIFFERENT CABLE JACKET COLOR FOR EACH PATH.
6. 1-INCH CONDUIT AND FITTINGS FOR GROUND WIRE. ONLY FOR OUTDOOR INSTALLATIONS.

NOTES:
1. ESP-LXIVM CONTROLLER IS AVAILABLE IN TWO MODELS: THE LXIVM WITH 60 STATIONS AND THE LMIVM-PRO WITH 240 STATIONS. REFER TO THE CHART BELOW FOR DIFFERENCES BETWEEN THE TWO MODELS.
2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS. IF CONTROLLER IS MOUNTED INDOORS, USE POWER SUPPLY GROUND.

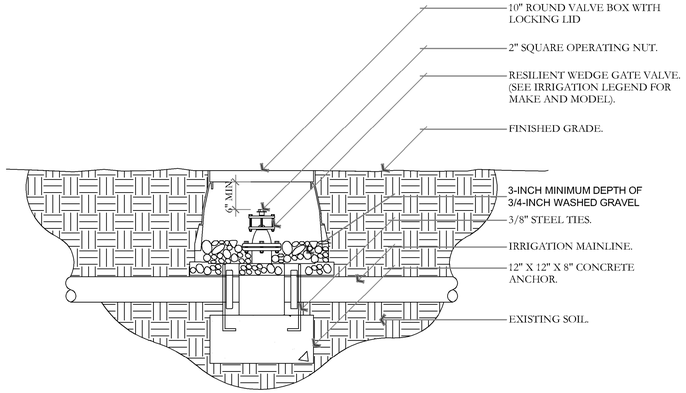
KEY SPECIFICATIONS

FEATURE ▶ / MODEL ▼	MAX PROGRAMS	STATIONS	MAX SIMUL STATIONS	MASTER VALVES	FLOW SENSORS	WEATHER SENSORS
LX-IVM	10	60	8	5	5	4
LX-IVM PRO	40	240	16	10	10	8

A ESP-LXIVM/PRO TWO-WIRE CONTROLLER IN METAL CABINET
NOT TO SCALE
PKJ DESIGN GROUP

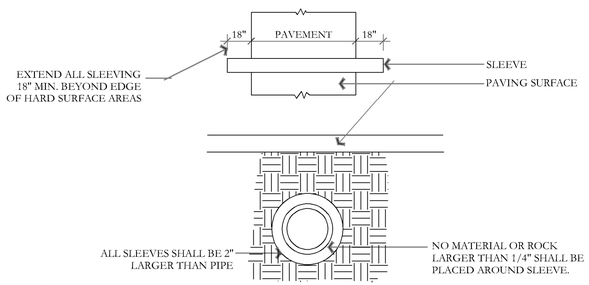


B 2" PLASTIC FILTER W/ BRUSHAWAY ASSEMBLY
NOT TO SCALE
PKJ DESIGN GROUP

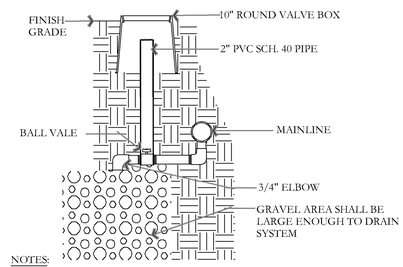


NOTES:
1. INSTALL GATE VALVE PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
2. VALVE BOX SHALL BE WRAPPED WITH MINIMUM 3 MIL. THICK PLASTIC AND SECURE IT TO VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
3. VALVE BOX SHALL BE LOCATED IN PLANTING AREA.

C GATE VALVE AND ANCHOR DETAIL
NOT TO SCALE
PKJ DESIGN GROUP

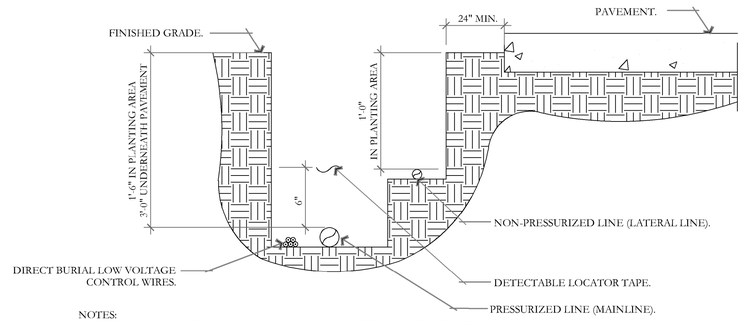


D TYPICAL SLEEVING DETAIL
NOT TO SCALE
PKJ DESIGN GROUP



NOTES:
1. ALL FITTINGS TO BE SCH. 80 PVC
2. PROVIDE OWNER WITH KEY

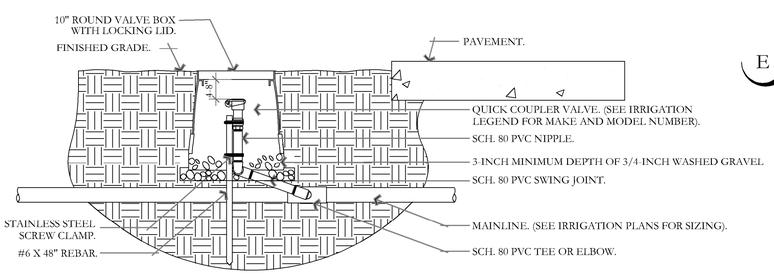
F MANUAL DRAIN DETAIL
NOT TO SCALE
PKJ DESIGN GROUP



NOTES:
1. SEE IRRIGATION LEGEND FOR MAINLINE AND LATERAL LINE PIPE SIZE AND TYPE.
2. DIRECT BURIAL CONTROL WIRES SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT IF REQUIRED.
3. 2-WIRE IRRIGATION WIRE SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT.
4. DETECTABLE LOCATOR TAPE SHALL BE LOCATED SIX INCHES (6") ABOVE THE ENTIRE MAINLINE RUN.

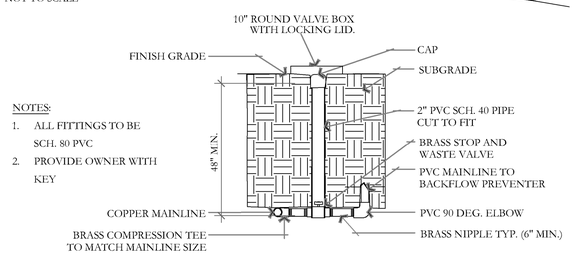
E IRRIGATION TRENCHING DETAIL
NOT TO SCALE
PKJ DESIGN GROUP

1. NORMALLY CLOSED MASTER VALVE(S)
2. 36-INCH LENGTH OF COILED WIRE TO SATELLITE CONTROLLER SPARE STATION
3. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
5. VALVE BOX WITH COVER - RAINBIRD JUMBO BOX
6. FINISH GRADE
7. RAIN BIRD FS SERIES FLOW SENSOR(S). SEE COVER SHEET FOR SIZE
8. 36-INCH LENGTH OF COILED MAXI-CABLE TO FLOW SENSING
9. PVC PIPE UNION
10. BRASS BALL VALVE



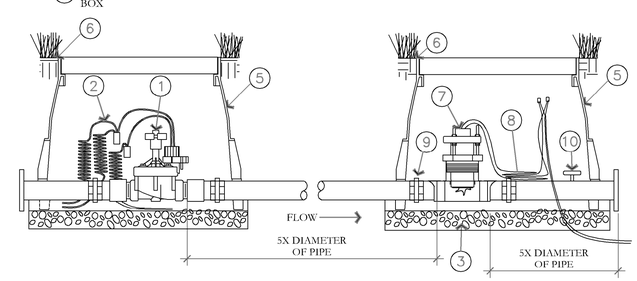
NOTES:
1. ALL THREADED CONNECTIONS SHALL BE INSTALLED USING TEFLON TAPE.
2. VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
3. ALL QUICK COUPLERS SHALL BE INSTALLED A MINIMUM OF 18" OFF OF THE MAINLINE.
4. VALVE BOXES SHALL BE LOCATED IN PLANTING AREAS.

G QUICK COUPLER DETAIL
NOT TO SCALE
PKJ DESIGN GROUP



NOTES:
1. ALL FITTINGS TO BE SCH. 80 PVC
2. PROVIDE OWNER WITH KEY

H STOP AND WASTE VALVE ASSEMBLY DETAIL
NOT TO SCALE
PKJ DESIGN GROUP



I MASTER VALVE AND FLOW SENSOR DETAIL
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ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
9/23/2024	UT24066						PM: JTA

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
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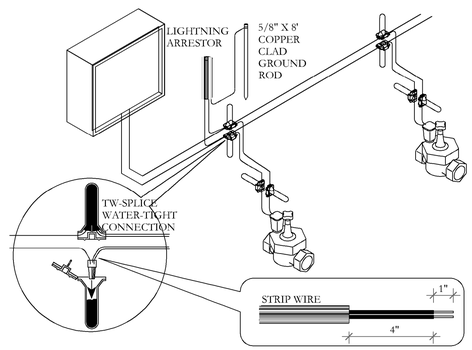
LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8128121-5301 9/23/2024 ELECTRONIC SEAL STATE OF UTAH

CHECKED: JMA
DRAWN: ACP
PLOT DATE: 9/23/2024

IRRIGATION DETAILS
CITY PERMIT SET

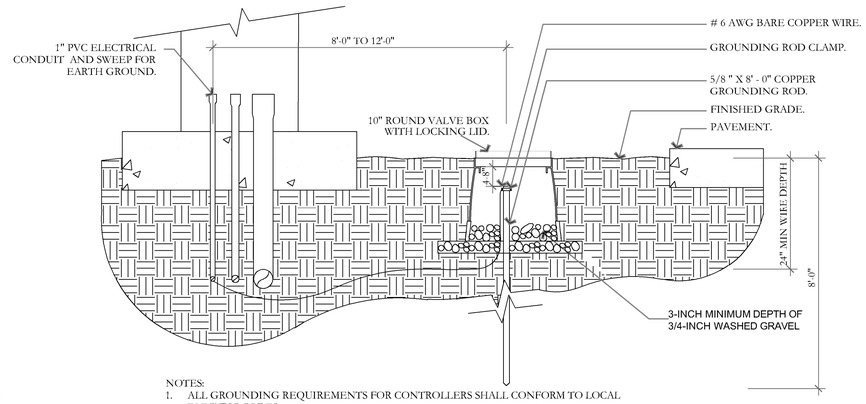
IR-501



J 2-WIRE CONNECTION DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



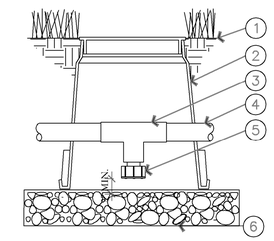
NOTES:

1. ALL GROUNDING REQUIREMENTS FOR CONTROLLERS SHALL CONFORM TO LOCAL ELECTRIC CODES.
2. GROUNDING ROD SHALL NOT BE LOCATED IN THE SAME TRENCH AS THE IRRIGATION MAINLINES OR LATERAL LINES.
3. VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
4. INSTALL GROUNDING ROD PER THE CONTROLLER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

K GROUNDING ROD DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

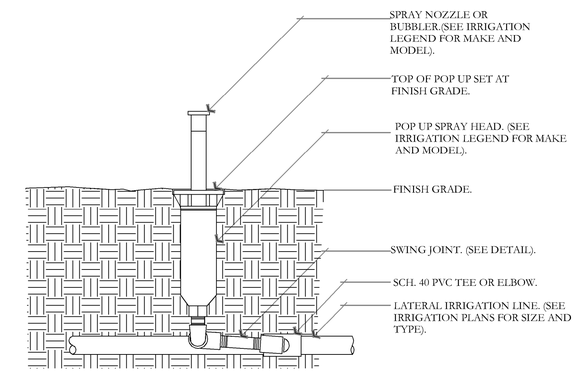


1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER: RAIN BIRD VB-6RND
3. PVC SCH 40 TEE
4. PVC LATERAL PIPE
5. FILTERED DRAIN VALVE: RAIN BIRD 16A-FDV-075
6. 6-INCH MINIMUM DEPTH OF 3/4" WASHED GRAVEL

L MANUAL LINE DRAIN VALVE DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



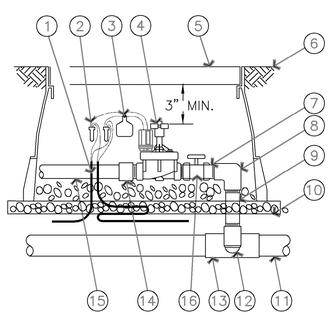
NOTE:

1. 4" POP UPS SHALL BE USED IN TURF AREAS.
2. CONTRACTOR SHALL SETTLE SOIL AROUND THE POP UP AFTER INSTALLATION.
3. ALL POP UP SPRAY HEADS SHALL HAVE CHECK VALVES.
4. ALL SCH. 40 PVC TO SCH. 80 PVC CONNECTIONS SHALL BE MADE USING TEFLON TAPE.

O POP UP-SPRAY HEAD DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

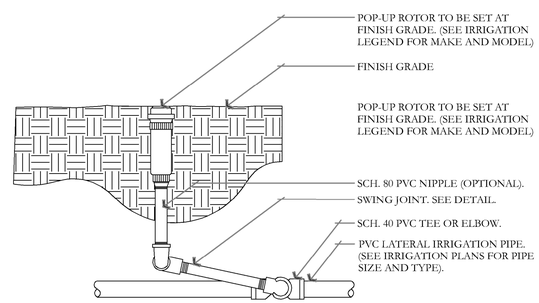


1. 36-INCH LENGTH OF 2-WIRE CABLE
2. WATERPROOF CONNECTION RAIN BIRD WC20 (TWO REQUIRED)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PEB/PESB/PESB-R WITH IVM-SOL
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL `
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
11. PVC MAINLINE PIPE SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
12. PVC SCH 40 TEE OR ELL
13. PVC SCH 40 MALE ADAPTER
14. PVC LATERAL PIPE
15. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
16. BRASS BALL VALVE

M ELECTRIC REMOTE-CONTROL VALVE PEB OR PESB SERIES WITH IVM-SOL

NOT TO SCALE

PKJ DESIGN GROUP



NOTES:

1. ALL THREADED CONNECTION POINTS BETWEEN SCH. 40 PVC AND SCH. 80 PVC FITTING SHALL BE INSTALLED USING TEFLON TAPE.
2. CONTRACTOR SHALL COMPACT SOIL AROUND ROTOR AND RISER PRIOR TO PLANTING, PLUGGING, SEEDING, OR LAYING OF SOD.

N ROTOR HEAD DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
9/23/2024	UT24066	BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER, INC 1-800-662-4111 www.bluestakes.org	BEAR RIVER STORAGE 1430 E 300 S PRICE, UTAH 84501	MENLOVE CONSTRUCTION ATT: JESSE REYNOLDS 801-915-9245	PKJ DESIGN GROUP Landscape Architecture Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8128127-5301 9/23/2024 ELECTRONIC SEAL STATE OF UTAH	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 9/23/2024

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
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IRRIGATION DETAILS

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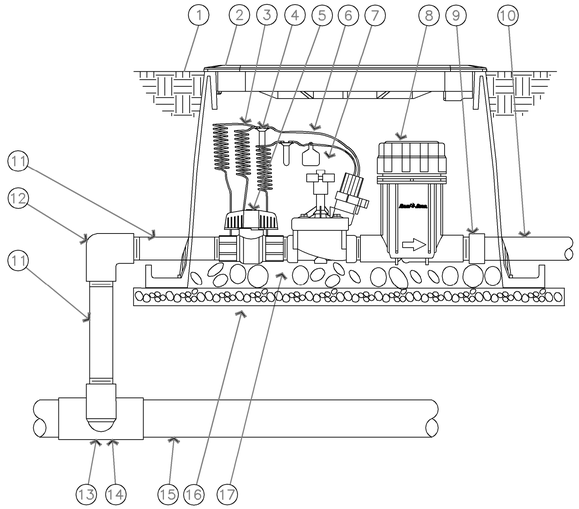
IR-502



1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER: RAIN BIRD VB-STD
3. 30-INCH LINEAR LENGTH OF WIRE, COILED
4. WATERPROOF CONNECTION: RAIN BIRD DB SERIES
5. 1-INCH BALL VALVE (INCLUDED IN XCZ-PRB-100-COM KIT)
6. ID TAG
7. REMOTE CONTROL VALVE: RAIN BIRD PESB (INCLUCED IN XCZ-PRB-100-COM KIT)
8. PRESSURE REGULATING AND FLOW INDICATING BASKET FILTER: RAIN BIRD XCZ-100-FLOW
9. PVC SCH 40 FEMALE ADAPTOR
10. LATERAL PIPE
11. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
12. PVC SCH 40 ELL
13. PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
14. PVC SCH 40 TEE OR ELL
15. MAINLINE PIPE
16. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
17. PVC SCH 80 NIPPLE, CLOSE (INCLUDED IN XCZ-PRB-100-COM KIT)

P DRIP CONTROL ZONE KIT DETAIL

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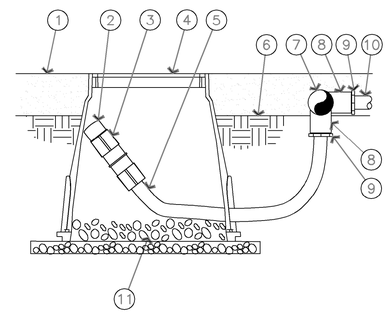

1. MULCH
2. FLUSH CAP FOR EASY FIT COMPRESSION FITTINGS: POTABLE:RAIN BIRD MDCFCAP
3. EASY FIT COUPLING: RAIN BIRD MDCFCOUP
4. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
5. ½" POLYETHYLENE TUBING: RAIN BIRD XF BLANK TUBING
6. FINISH GRADE
7. PVC EXHAUST HEADER
8. PVC SCH 40 TEE OR EL
9. BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
10. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFCV DRIPLINE
11. 3-INCH MINIMUM DEPTH OF 3/4 " WASHED GRAVEL

NOTE:
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

Q ON-SURFACE DRIPLINE FLUSH POINT DETAIL

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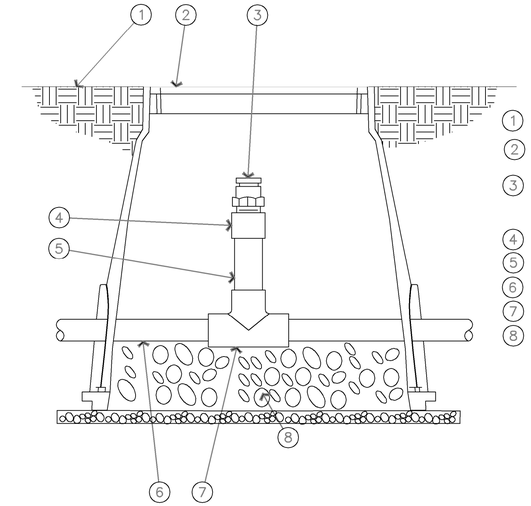

1. FINISH GRADE
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
4. PVC SCH 40 FEMALE ADAPTER
5. PVC SCH 80 RISER
6. PVC HEADER PIPE
7. PVC SCH 40 TEE
8. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL

R AIR RELIEF VALVE DETAIL

NOT TO SCALE

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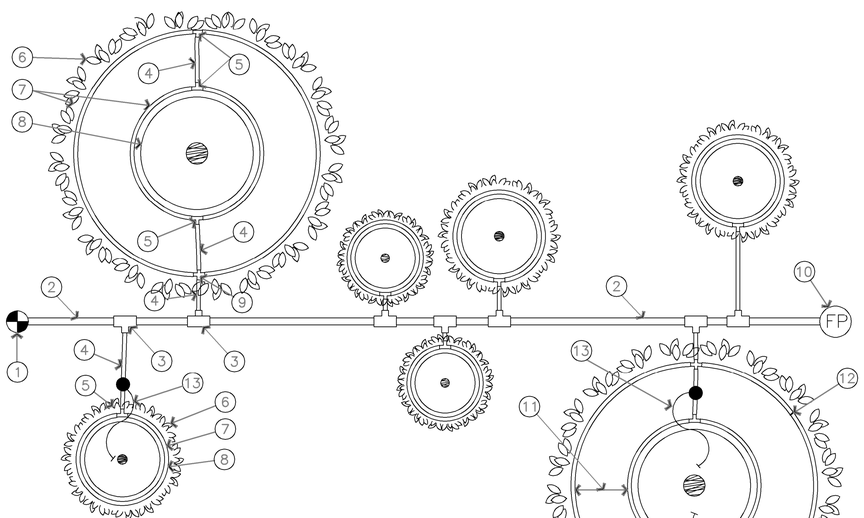

1. RAIN BIRD CONTROL ZONE KIT (SIZED TO ACCOMIDATE LATERAL FLOW DEMAND)
2. PVC DRIP LATERAL PIPE
3. PVC SCH 40 TEE OR EL (TYPICAL)
4. ½" POLYETHYLENE TUBING: RAIN BIRD XF SERIES- S FOR COPPER SHEILD (TYPICAL)
5. BARB X BARB INSERT TEE: RAIN BIRD XFF-TEE (TYPICAL)
6. PROJECTED CANOPY LINE OF TREE OR SHRUB (TYPICAL)
7. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFCV SERIES PLACE AS SHOWN (LENGTH AS REQUIRED, TYPICAL)
8. ROOT BALL (TYPICAL)
9. BARB X BARB INSERT CROSS: RAIN BIRD XFD-CROSS (TYPICAL)
10. DRIPLINE FLUSH POINT (SEE RAIN BIRD DETAIL: "XFCV DRIPLINE FLUSH POINT WITH BALL VALVE")
11. SPACING PER SPECIFICATION
12. TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (QUANTITY AS REQUIRED, SEE NOTES 2-3 BELOW)
13. POINT SOURCE EMITTERS FOR ESTABLISHMENT PERIOD. REMOVE AFTER ESTABLISHMENT PERIOD.

NOTES:
1. INSTALL MULTIPLE RINGS AS REQUIRED TO PROVIDE IRRIGATION COVERAGE FROM ROOT BALL TO PROJECTED TREE CANOPY. REFER TO RAIN BIRD DESIGN GUIDELINES AND SPECIFICATIONS FOR RECOMMENDED SPACING BETWEEN RINGS.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

S ON-SURFACE DRIPLINE TREE/SHRUB DETAIL

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811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
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BEAR RIVER STORAGE
1430 E 300 S
PRICE, UTAH 84501

MENLOVE CONSTRUCTION
ATT: JESSE REYNOLDS
801-915-9245

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LICENSED LANDSCAPE ARCHITECT
JESSE AINSWORTH
8128121-5301
9/23/2024
ELECTRONIC SEAL
STATE OF UTAH

PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 9/23/2024

IRRIGATION DETAILS

CITY PERMIT SET

IR-503

KEYED ELEVATIONAL NOTES:

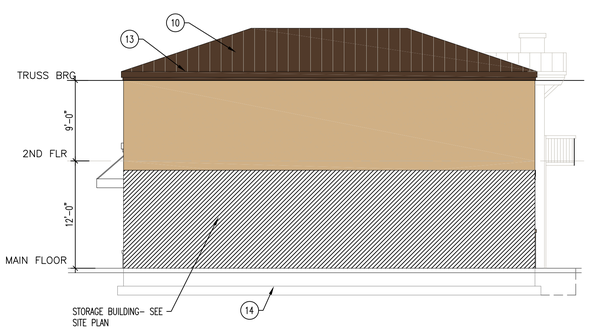
1. PAINTED METAL PAN STAIR. SEE DETAILS
2. POWDER COATED METAL LANDING & STAIR WITH WIRE 4x4 WWM GUARDRAIL– SEE SECTION
3. NATURAL THIN STONE OR SYNTHETIC STONE VENEER. PLACE OVER (2) LAYERS 30# FELT OVER TYVEK WEATHER BARRIER OR TAPED "ZIP SYSTEM" BOARD SHEATHING PANELS
4. EIFS MDPB TYPE OVER TYVEK STUCCO WRAP OR TAPED "ZIP SYSTEM" BOARD SHEATHING PANELS
5. PAINTED CEMENT BOARD SHIP LAP SIDING OVER TYVEK OR TAPED "ZIP SYSTEM" BOARD SHEATHING PANELS.
6. POWDER COATED METAL AWNINGS – SEE STRUCTURAL DETAILS 5/S–2.00
7. NEW VINYL WINDOWS
8. NEW ALUMINUM STOREFRONT SYSTEM.
9. ARCHED CANOPY – SEE STRUCTURAL DETAILS
10. 22 ga. PREFINISHED STANDING SEAM METAL ROOFING OVER ICE AND WATER SHIELD
11. PAINTED 1" CEMENT BOARD TRIM AT WINDOW HEAD (1"x 8"), SILL (1"x 6"), JAMBS (1"x4") & AT INSIDE CORNERS (1"x 6")
12. EIFS ACCENT BANDS (SEE WALL SECTION) & 1" POPOUT TRIMS AT WINDOW HEADS (1"x12") & SILLS (1"x 6").
13. PREFINISHED FASCIA AND SOFFIT MATERIAL – SEE WALL SECTIONS
14. CONCRETE FOOTING AND FOUNDATION. SEE STRUCTURAL PLANS
15. WOOD TIMBERS. SEE PLANS

ELEVATIONAL SQUARE FOOTAGES:

TOTAL AREA	1215 SF	
SYNTHETIC STONE	87 SF	7.2%
THIN BRICK	193 SF	15.9%
EIFS	439 SF	36.1%
WINDOWS	230 SF	18.9%
OTHER	266 SF	21.9%

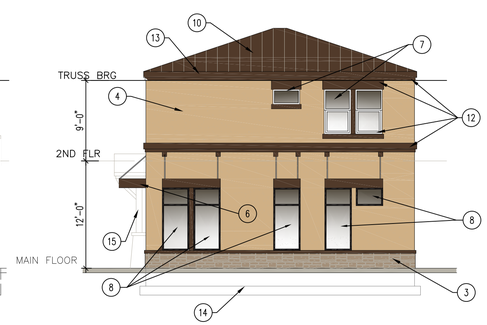
EAST ELEVATION

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



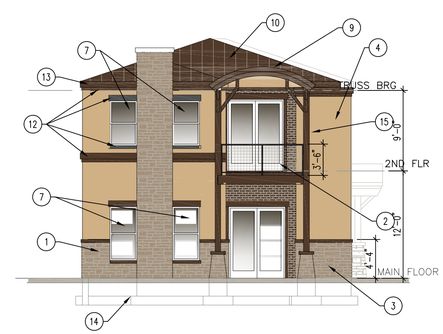
WEST ELEVATION

SCALE: 1/8" = 1'-0"



NORTH ELEVATION

SCALE: 1/8" = 1'-0"



ELEVATIONAL SQUARE FOOTAGES:

TOTAL AREA	737 SF	
SYNTHETIC STONE	165 SF	22.4%
THIN BRICK	32 SF	4.3%
EIFS	208 SF	28.2%
WINDOWS	156 SF	21.2%
OTHER	176 SF	23.9%

SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

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VDG VINCENT DESIGN GROUP, INC.
ARCHITECTS AND PLANNERS
401 EAST 1700 SOUTH, SALT LAKE CITY, UTAH - (801-484-2046

STATE OF UTAH
BRENT HURD VINCENT
335912-0301
LICENSED ARCHITECT

NEW OFFICE RESIDENCE FOR:

BEAR RIVER STORAGE
PRICE OFFICE

1430 EAST 300 SOUTH
PRICE, UT

ELEVATIONS

ARCH. PROJECT NO:	23–172
DATE:	12/21/23
DRAWN BY:	BRENT
CHECKED BY:	
DESIGNED BY:	

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DATE	REVISION

SHEET TITLE

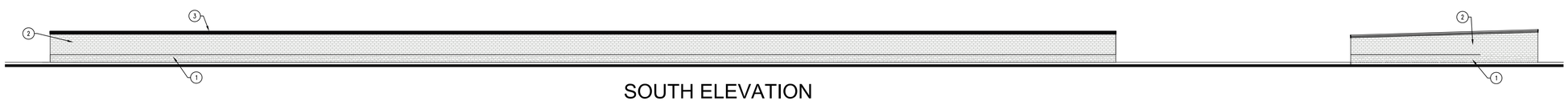
A-2.00

ARCHITECTURAL 2 of 6

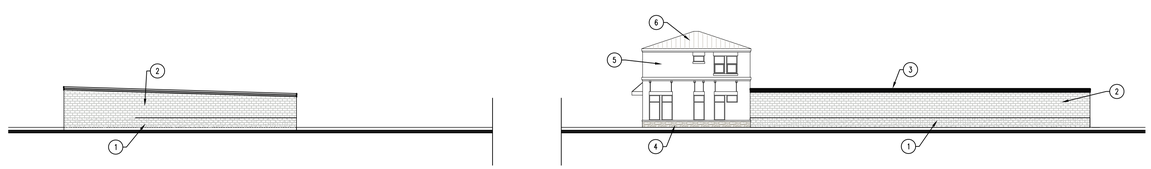
KEYED COLOR NOTES:

1. 8" SPLIT FACED CMU – COLOR SUNROCK TAN
2. 8" CMU SMOTTH FINISH – COLOR SUNROCK BROWN
3. MBCI FLASHING AND TRIM – COAL BLACK
4. SYNTHETIC STONE – COLOR HARRISTONE CHIEF JOSEPH – NATURAL GROUT
5. EIFS – SEE OFFICE ELEVATIONS
6. ROOFING – MBCI BURNT UMBER

EAST ELEVATION



SOUTH ELEVATION



NORTH ELEVATION

WEST ELEVATION

SCALE: 1" = 20'-0"

0 10' 20' 40' 80'

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STATE OF UTAH
BRENT HURD VINCENT
435912-4001
LICENSED ARCHITECT
12/21/23

NEW OFFICE RESIDENCE FOR:

BEAR RIVER STORAGE
PRICE OFFICE

1430 EAST 300 SOUTH
PRICE, UT

OVERALL ELEVATIONS

ARCH. PROJECT NO:	23-172
DATE:	12/21/23
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DESIGNED BY:	

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DATE	REVISION

SHEET TITLE

A-2.10

ARCHITECTURAL 3 of 6

SITE ELECTRICAL PLAN

SCALE: 1"=30'-0"

ELECTRICAL KEYED NOTES:

1. TRANSFORMER PAD/VAULT PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. INSTALLATION MUST BE AS PER CURRENT POWER COMPANY STANDARDS. FIELD VERIFY LOCATION WITH POWER COMPANY PRIOR TO ROUGH-IN. PROVIDE BOLLARDS AROUND TRANSFORMERS PER ROCKY MOUNTAIN POWER REQUIREMENTS.
2. MDP.
3. CT METER.
4. COMMUNICATIONS ENCLOSURE.
5. CATV ENCLOSURE.
6. SEE POWER ONE-LINE DIAGRAM FOR CONDUIT AND CONDUCTOR REQUIREMENTS.
7. VERIFY SERVICE TERMINATION POINT WITH PRICE CITY POWER. REFER TO ROCKY MOUNTAIN POWER DESIGN DOCUMENTS FOR FURTHER INFORMATION.
8. SEE COMMUNICATIONS RISER DIAGRAM FOR CONDUIT REQUIREMENTS.
9. FIELD VERIFY SERVICE TERMINATION POINT WITH COMMUNICATIONS UTILITY COMPANY PRIOR TO ROUGH-IN.
10. ALL EXTERIOR LIGHTING CONTROLLED VIA TIME CLOCK.
11. JUNCTION BOX FOR ACCESS CONTROL PEDESTAL. VERIFY EXACT CONNECTION REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
12. JUNCTION BOX FOR GATE POWER. VERIFY EXACT CONNECTION REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
13. BUILDING DISCONNECT. SEE POWER ONE-LINE DIAGRAM FOR FURTHER INFORMATION.

ROYAL ENGINEERING
MECHANICAL
PROVO, UTAH 84605
FAX: 801.375.2676
ELECTRICAL
1637 S. EAST BAY BLVD.
PHONE: 801.375.2228

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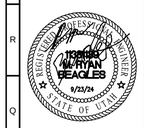

REVISIONS:

bear river storage

1430 E 300 S, PRICE, UT, 84501

DRAWING TITLE: SITE ELECTRICAL PLAN

DRAWN BY:	CHECKED BY:
SC	RB

DATE PLOTTED: 02/02/2024

PROJECT #: J24009.00

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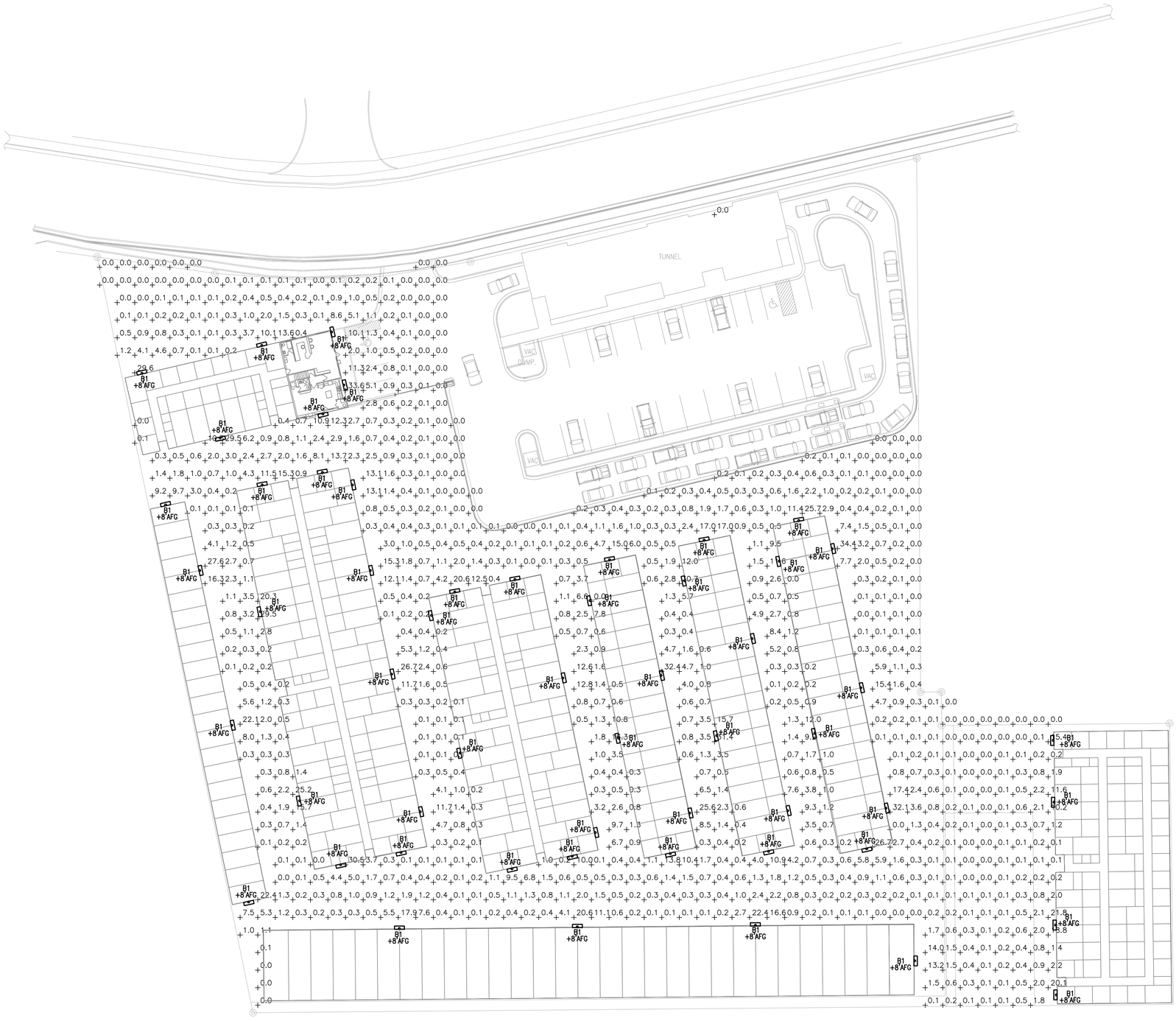

SITE PHOTOMETRIC PLAN

SCALE: 1"=30'-0"

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bear river storage

1430 E 300 S, PRICE, UT, 84501

DRAWING TITLE:
SITE PHOTO-METRIC PLAN

DRAWN BY:	CHECKED BY:
SC	RB

DATE PLOTTED: 02/02/2024

PROJECT #: J24009.00

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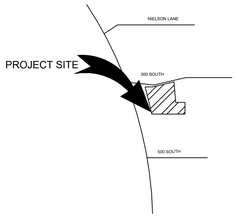
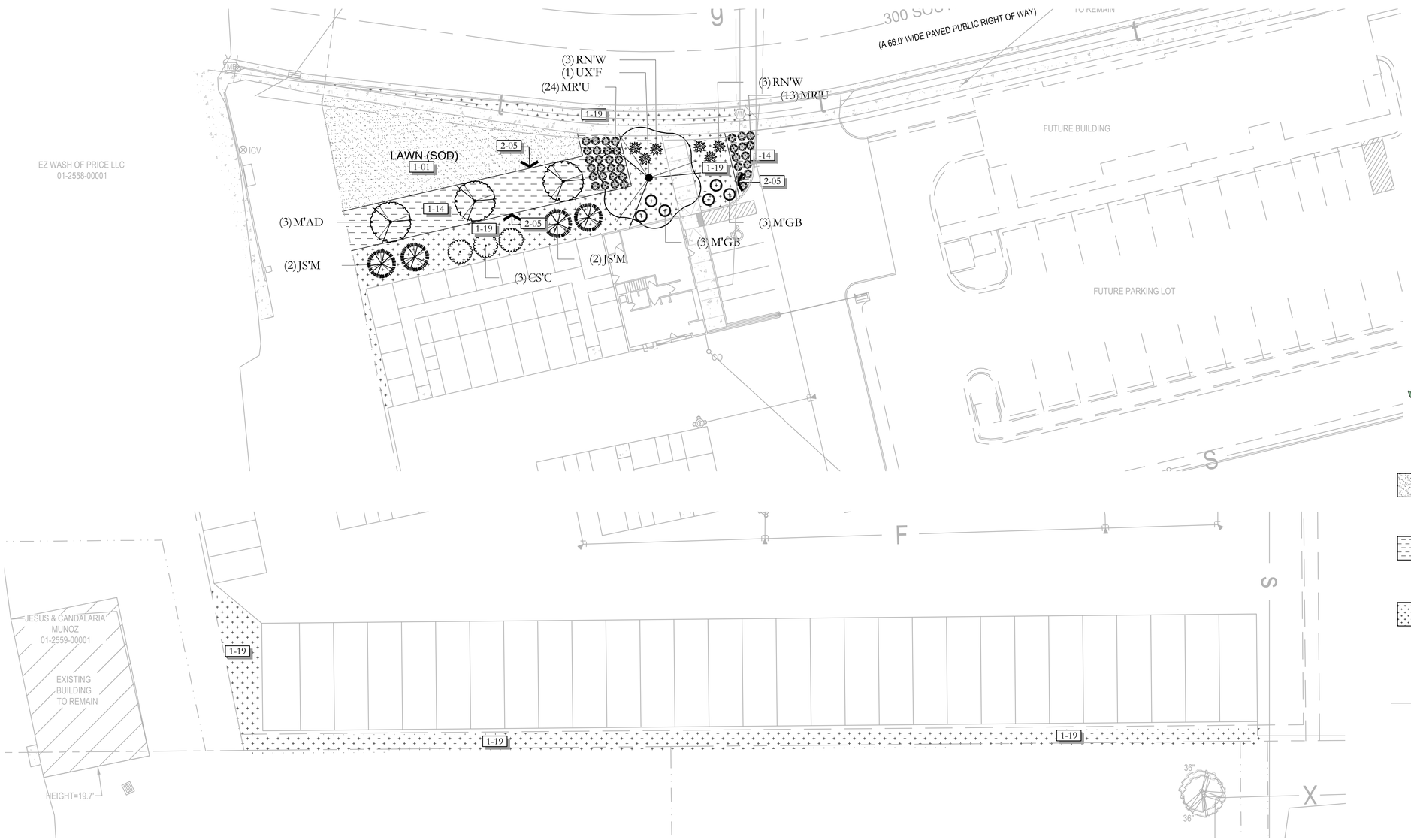
VICINITY MAP





PLANT LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.)

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
CONIFERS						
	JS'M	4	Juniperus scopulorum `Moonglow` Moonglow Juniper Te2, 18x8; AV 20; sun; z3; Utah Lake water tolerant	B & B		6`
DECIDUOUS TREES						
	M'AD	3	Malus x 'Adirondack' Adirondack Crabapple Low to moderate; 18'x10'; Z4, Utah Lake water tolerant	B & B	2"Cal	
	UX'F	1	Ulmus x `Frontier` Frontier Elm Td3; 35x25; AV 490; sun; z4; Utah Lake water tolerant	B & B	2"Cal	

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
DECIDUOUS SHRUBS				
	CM'F	1	Chamaebatiaria millefolium Fernbush Sd0; 4x3; AV 7; sun to part sun; z4; Utah Lake water tolerant	5 gal
	CS'C	3	Cornus sericea `Cardinal` Cardinal Red-twig Dogwood moderate; 8x6; sun to part shade; z3	5 gal
GRASSES				
	M'GB	6	Miscanthus sinensis `Gold Bar` Gold Bar Maiden Grass Tw2; 5x3; AV 9; sun; z5, Utah Lake water tolerant	1 gal
	MR'U	37	Muhlenbergia reverchonii `PUND01S` TM Undaunted Ruby Muhly Tw1; 3x3; AV 7; sun; z5; Utah Lake water tolerant	1 gal
ROSES				
	RN'W	6	Rosa x `Noaschnee` TM Flower Carpet White Groundcover Rose moderate; 2x3; sun; z5; Utah Lake water tolerant	5 gal

SITE MATERIALS LEGEND

(NOTE: SITE MATERIALS QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.)

SYMBOL	1 LANDSCAPE DESCRIPTION	QTY
1-01	SODDED LAWN AREA LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH DROUGHT TOLERANT KENTUCKY BLUE GRASS OR APPROVED EQUAL. SEE SOD LANDSCAPE NOTES FOR FURTHER INFORMATION. SHEET LP-101.	1,064 sf
1-14	1" MINUS TAN CRUSHED ROCK SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	832 sf
1-19	2-4" GREY CRUSHED ROCK. SUBMIT SAMPLES FOR LANDSCAPE ARCHITECT AND OWNER APPROVAL. PROVIDE 4" DEPTH OF ROCK MULCH TOP DRESSING. SEE INORGANIC MULCH LANDSCAPE NOTES FOR ADDITIONAL INFORMATION. SHEET LP-101.	2,768 sf

SYMBOL	2 HARDSCAPE DESCRIPTION	QTY
2-05	5" DEEP STEEL EDGING - INSTALL PER MANUFACTURER SPECIFICATION.	167 lf

ISSUE DATE	PROJECT NUMBER
4/29/2024	UT24066

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
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PLAN INFORMATION

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
1-800-662-4111
www.bluestakes.org

N

0' 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'

PROJECT INFORMATION

BEAR RIVER STORAGE
300 S. MAIN ST.
PRICE, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

MENLOVE CONSTRUCTION
ATT: JESSE REYNOLDS
801-915-9245

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LANDSCAPE ARCHITECT / PLANNER

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LANDSCAPE OVERALL PLAN

CITY PERMIT SET

LP-100

LANDSCAPE PLAN SPECIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. THIS SECTION INCLUDES LANDSCAPE PROCEDURES FOR THE PROJECT INCLUDING ALL LABOR, MATERIALS, AND INSTALLATION NECESSARY, BUT NOT LIMITED TO, THE FOLLOWING:

1. SITE CONDITIONS
2. GUARANTEES
3. MAINTENANCE
4. SOIL AMENDMENTS
5. FINE GRADING
6. LANDSCAPE EDGING
7. FURNISH AND INSTALLING PLANT
8. TURF PLANTING
9. WEED BARRIER

1.2 SITE CONDITIONS

A. EXAMINATION: BEFORE SUBMITTING A BID, EACH CONTRACTOR SHALL CAREFULLY EXAMINE THE CONTRACT DOCUMENTS; SHALL VISIT THE SITE OF THE WORK; SHALL FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS; AND SHALL INCLUDE IN THE BID THE COST OF ALL ITEMS REQUIRED BY THE CONTRACT DOCUMENTS ARE AT A VARIANCE WITH THE APPLICABLE LAWS, BUILDING CODES, RULES, REGULATIONS, OR CONTAIN OBVIOUS ERRONEOUS OR UNCOORDINATED INFORMATION, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE PROJECT REPRESENTATIVE AND THE NECESSARY CHANGES SHALL BE ACCOMPLISHED BY ADDENDUM.

B. PROTECTION: CONTRACTOR TO CONDUCT THE WORK IN SUCH A MANNER TO PROTECT ALL EXISTING UNDERGROUND UTILITIES OR STRUCTURES. CONTRACTOR TO REPAIR OR REPLACE ANY DAMAGED UTILITY OR STRUCTURE USING IDENTICAL MATERIALS TO MATCH EXISTING AT NO EXPENSE TO THE OWNER.

C. IRRIGATION SYSTEM: DO NOT BEGIN PLANTING UNTIL THE IRRIGATION SYSTEM IS COMPLETELY INSTALLED, IS ADJUSTED FOR FULL COVERAGE AND IS COMPLETELY OPERATIONAL.

1.3 PERMITS

A. BLUE STAKE/ DIG LINE: WHEN DIGGING IS REQUIRED, "BLUE STAKE" OR "DIG LINE" THE WORK SITE AND IDENTIFY THE APPROXIMATE LOCATION OF ALL KNOWN UNDERGROUND UTILITIES OR STRUCTURES.

1.4 PLANT DELIVERY, QUALITY, AND AVAILABILITY

A. UNAUTHORIZED SUBSTITUTIONS WILL NOT BE ACCEPTED. IF PROOF IS SUBMITTED THAT SPECIFIC PLANTS OR PLANT SIZES ARE UNOBTAINABLE, WRITTEN SUBSTITUTION REQUESTS WILL BE CONSIDERED FOR THE NEAREST EQUIVALENT PLANT OR SIZE. ALL SUBSTITUTION REQUESTS MUST BE MADE IN WRITING AND PREFERABLY BEFORE THE BID DUE DATE.

1.5 FINAL INSPECTION

A. ALL PLANTS WILL BE INSPECTED AT THE TIME OF FINAL INSPECTION PRIOR TO RECEIVING A LANDSCAPE SUBSTANTIAL COMPLETION FOR CONFORMANCE TO SPECIFIED PLANTING PROCEDURES, AND FOR GENERAL APPEARANCE AND VITALITY. ANY PLANT NOT APPROVED BY THE PROJECT REPRESENTATIVE WILL BE REJECTED AND REPLACED IMMEDIATELY.

1.6 LANDSCAPE SUBSTANTIAL COMPLETION

A. A SUBSTANTIAL COMPLETION CERTIFICATE WILL ONLY BE ISSUED BY THE PROJECT REPRESENTATIVE FOR "LANDSCAPE AND IRRIGATION" IN THEIR ENTIRETY. SUBSTANTIAL COMPLETION WILL NOT BE PROPORTIONED TO BE DESIGNATED AREAS OF A PROJECT.

1.7 MAINTENANCE

A. PLANT MATERIAL: THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL PLANTED MATERIALS IN A HEALTHY AND GROWING CONDITION FOR 30 DAYS AFTER RECEIVING A LANDSCAPE SUBSTANTIAL COMPLETION AT WHICH TIME THE GUARANTEE PERIOD COMMENCES. THIS MAINTENANCE IS TO INCLUDE MOWING, WEEDING, CULTIVATING, FERTILIZING, MONITORING WATER SCHEDULES, CONTROLLING INSECTS AND DISEASES, RE-GUYING AND STAKING, AND ALL OTHER OPERATIONS OF CARE NECESSARY FOR THE PROMOTION OF ROOT GROWTH AND PLANT LIFE SO THAT ALL PLANTS ARE IN A CONDITION SATISFACTORY AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR FAILURE TO MONITOR WATERING OPERATIONS AND SHALL REPLACE ANY AND ALL PLANT MATERIAL THAT IS LOST DUE TO IMPROPER APPLICATION OF WATER.

1.8 GUARANTEE

A. GUARANTEE: A GUARANTEE PERIOD OF ONE YEAR SHALL BEGIN FROM END OF MAINTENANCE PERIOD AND FINAL ACCEPTANCE FOR TREES, SHRUBS, AND GROUND COVERS. ALL PLANTS SHALL GROW AND BE HEALTHY FOR THE GUARANTEE PERIOD AND TREES SHALL LIVE AND GROW IN ACCEPTABLE UPRIGHT POSITION. ANY PLANT NOT ALIVE, IN POOR HEALTH, OR IN POOR CONDITION AT THE END OF THE GUARANTEE PERIOD WILL BE REPLACED IMMEDIATELY. ANY PLANT WILL ONLY NEED TO BE REPLACED ONCE DURING THE GUARANTEE PERIOD. CONTRACTOR TO PROVIDE DOCUMENTATION SHOWING WHERE EACH PLANT TO BE REPLACED IS LOCATED. ANY OUTSIDE FACTORS, SUCH AS VANDALISM OR LACK OF MAINTENANCE ON THE PART OF THE OWNER, SHALL NOT BE PART OF THE GUARANTEE

PART II - PRODUCTS

2.1 LANDSCAPE MATERIALS

A. TREE STAKING: ALL TREES SHALL BE STAKED FOR ONE YEAR WARRANTY PERIOD. ALL TREES NOT PLUMB SHALL BE REPLACED. STAKED TREES SHALL USE VINYL TREE TIES AND TREE STAKES TWO (2) INCH BY TWO (2) BY EIGHT (8) FOOT COMMON PINE STAKES USED AS SHOWN ON THE DETAILS

B. TREE WRAP: TREE WRAP IS NOT TO BE USED.

C. MULCH/ROCK: SEE PLANS. ALL PLANTER BEDS TO RECEIVE A MINIMUM 3" LAYER FOR TREES, SHRUBS, AND PERENNIALS AND 1" FOR GROUNDCOVERS.

D. WEED BARRIER: DEWITT 5 OZ. WEED BARRIER FABRIC MANUFACTURED BY DEWITT COMPANY, DEWITTCOMPANY.COM OR APPROVED EQUAL.

E. TREE, SHRUB, AND GRASS BACKFILL MIXTURE; BACKFILL MIXTURE TO BE 75% NATIVE SOIL AND 25% TOPSOIL, THOROUGHLY MIXED TOGETHER PRIOR TO PLACEMENT.

F. TOPSOIL: REQUIRED FOR TURF AREAS, PLANTER BEDS AND BACKFILL MIXTURE. ACCEPTABLE TOPSOIL SHALL MEET THE FOLLOWING STANDARDS:

a. PH: 5.5-7.5
b. EC (ELECTRICAL CONDUCTIVITY): < 2.0 MMHOS PER CENTIMETER
c. SAR (SODIUM ABSORPTION RATION): < 3.0
d. % OM (PERCENT ORGANIC MATTER): >1%
e. TEXTURE (PARTICLE SIZE PER USDA SOIL CLASSIFICATION): SAND <70%; CLAY < 30%; SILT < 70%, STONE FRAGMENTS (GRAVEL OR ANY SOIL PARTICLE GREATER THAN TWO (2) MM IN SIZE) < 5% BY VOLUME.

G. TURF SOD: ALL SOD SHALL BE 18 MONTH OLD AS SPECIFIED ON PLANS (OR APPROVED EQUAL) THAT HAS BEEN CUT FRESH THE MORNING OF INSTALLATION. ONLY SOD THAT HAS BEEN GROWN ON A COMMERCIAL SOD FARM SHALL BE USED. ONLY USE SOD FROM A SINGLE SOURCE.

H. LANDSCAPE CURB EDGING: SIX (6) INCHES BY FOUR (4) INCHES EXTRUDED CONCRETE CURB MADE UP OF THE FOLLOWING MATERIALS:

a. WASHED MORTAR SAND FREE OF ORGANIC MATERIAL.
b. PORTLAND CEMENT (SEE CONCRETE SPEC. BELOW FOR TYPE)
c. REINFORCED FIBER - SPECIFICALLY PRODUCED FOR COMPATIBILITY WITH AGGRESSIVE ALKALINE ENVIRONMENT OF PORTLAND CEMENT-BASED COMPOSITES.
d. ONLY POTABLE WATER FOR MIXING.

I. LANDSCAPE METAL EDGING: 5.5" STEEL EDGING WITH 15" DOWELS INTO THE GROUND FOR STABILIZATION.

PART III - EXECUTION

3.1 GRADING

A. TOPSOIL PREPARATION: GRADE PLANTING AREAS ACCORDING TO THE GRADING PLAN. ELIMINATE UNEVEN AREAS AND LOW SPOTS. PROVIDE FOR PROPER GRADING AND DRAINAGE.

B. TOPSOIL PLACEMENT: SLOPE SURFACED AWAY FROM BUILDING AT TWO (2) PERCENT SLOPE WITH NO POCKETS OF STANDING WATER. ESTABLISH FINISH GRADES OF ONE (1) INCHES FOR PLANTERS BELOW GRADE OF ADJACENT PAVED SURFACED. PROVIDE NEAT, SMOOTH, AND UNIFORM FINISH GRADES. REMOVE SURPLUS SUB-SOIL AND TOPSOIL FROM THE SITE.

C. COMPACTION: COMPACTION UNDER HARD SURFACE AREAS (ASPHALT PATHS AND CONCRETE SURFACES) SHALL BE NINETY-FIVE (95) PERCENT. COMPACTION UNDER PLANTING AREAS SHALL BE BETWEEN EIGHTY-FIVE (85) AND NINETY (90) PERCENT.

3.2 TURF GRADING

A. THE SURFACE ON WHICH THE SOD IS TO BE LAID SHALL BE FIRM AND FREE FROM FOOTPRINTS, DEPRESSIONS, OR UNDULATIONS OF ANY KIND. THE SURFACE SHALL BE FREE OF ALL MATERIALS LARGER THAN 1/2" IN DIAMETER.

B. THE FINISH GRADE OF THE TOPSOIL ADJACENT TO ALL SIDEWALKS, MOW-STRIPS, ETC. PRIOR TO THE LAYING OF SOD, SHALL BE SET SUCH THAT THE CROWN OF THE GRASS SHALL BE AT THE SAME LEVEL AS THE ADJACENT CONCRETE OR HARD SURFACE. NO EXCEPTIONS.

3.3 PLANTING OPERATIONS

A. REVIEW THE EXACT LOCATIONS OF ALL TREES AND SHRUBS WITH THE PROJECT REPRESENTATIVE FOR APPROVAL PRIOR TO THE DIGGING OF ANY HOLES. PREPARE ALL HOLES ACCORDING TO THE DETAILS ON THE DRAWINGS.

B. WATER PLANTS IMMEDIATELY UPON ARRIVAL AT THE SITE. MAINTAIN IN MOIST CONDITION UNTIL PLANTED.

C. BEFORE PLANTING, LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. DO NOT PLACE PLANTS ON OR NEAR UTILITY LINES.

D. THE TREE PLANTING HOLE SHOULD BE THE SAME DEPTH AS THE ROOT BALL, AND TWO TIMES THE DIAMETER OF THE ROOT BALL.

E. TREES MUST BE PLACED ON UNDISTURBED SOIL AT THE BOTTOM OF THE PLANTING HOLE.

F. THE TREE HOLE DEPTH SHALL BE DETERMINED SO THAT THE TREE MAY BE SET SLIGHTLY HIGH OF FINISH GRADE, 1" TO 2" ABOVE THE BASE OF THE TRUNK FLARE, USING THE TOP OF THE ROOT BALL AS A GUIDE.

G. PLANT IMMEDIATELY AFTER REMOVAL OF CONTAINER FOR CONTAINER PLANTS.

H. SET TREE ON SOIL AND REMOVE ALL BURLAP, WIRE BASKETS, TWINE, WRAPPINGS, ETC. BEFORE BEGINNING AND BACKFILLING OPERATIONS. DO NOT USE PLANTING STOCK IF THE BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.

I. APPLY VITAMIN B-1 ROOT STIMULATOR AT THE RATE OF ONE (1) TABLESPOON PER GALLON.

J. UPON COMPLETION OF BACKFILLING OPERATION, THOROUGHLY WATER TREE TO COMPLETELY SETTLE THE SOIL AND FILL ANY VOIDS THAT MAY HAVE OCCURRED. USE A WATERING HOSE, NOT THE AREA IRRIGATION SYSTEM. IF ADDITIONAL PREPARED TOPSOIL MIXTURE NEEDS TO BE ADDED. IT SHOULD BE A COURSER MIX AS REQUIRED TO ESTABLISH FINISH GRADE AS INDICATED ON THE DRAWINGS.

K. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES. ALL CUTS, SCARS, AND BRUISES SHALL BE PROPERLY TREATED ACCORDING TO THE DIRECTION OF THE PROJECT REPRESENTATIVE. PROPER PRUNING TECHNIQUES SHALL BE USED. DO NOT LEAVE STUBS AND DO NOT CUT THE LEADER BRANCH. IMPROPER PRUNING SHALL BE CAUSE FOR REJECTION OF THE PLANT MATERIAL.

L. PREPARE A WATERING CIRCLE OF 2' DIAMETER AROUND THE TRUNK. FOR CONIFERS, EXTEND THE WATERING WELL TO THE DRIP LINE OF THE TREE CANOPY. PLACE MULCH AROUND THE PLANTED TREES.

4. TURF - SOD LAYING

A. TOP SOIL AMENDMENTS: PRIOR TO LAYING SOD, COMMERCIAL FERTILIZER SHALL BE APPLIED AND INCORPORATED INTO THE UPPER FOUR (4) INCHES OF THE TOPSOIL AT A RATE OF FOUR POUNDS OF NITROGEN PER ONE THOUSAND (1,000) SQUARE FEET. ADJUST FERTILIZATION MIXTURE AND RATE OF APPLICATION AS NEEDED TO MEET RECOMMENDATIONS GIVEN BY TOPSOIL ANALYSIS. INCLUDE OTHER AMENDMENTS AS REQUIRED.

B. FERTILIZATION: THREE WEEKS AFTER SOD PLACEMENT FERTILIZE THE TURF AT A RATE OF ½ POUND OF NITROGEN PER 1000 SQUARE FEET. USE FERTILIZER SPECIFIED ABOVE. ADJUST FERTILIZATION MIXTURE AND RATES TO MEET RECOMMENDATIONS GIVEN BY TOPSOIL ANALYSIS.

C. SOD AVAILABILITY AND CONDITION: SOD IS TO BE DELIVERED TO THE SITE IN GOOD CONDITION. IT IS TO BE INSPECTED UPON ARRIVAL AND INSTALLED WITHIN 24 HOURS. SOD IS TO BE MOIST AND COOL TO ENSURE THAT DECOMPOSITION HAS NOT BEGUN AND IS TO BE FREE OF PESTS, DISEASES, OR BLEMISHES. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FURNISHING AND LAYING ALL SOD REQUIRED ON THE PLANS. HE SHALL FURNISH NEW SOD AS SPECIFIED ABOVE AND LAY IT SO AS TOO COMPLETELY SATISFY THE INTENT AND MEANING OF THE PLANS AND SPECIFICATION AT NO EXTRA COST TO THE OWNER. IN THE CASE OF ANY DISCREPANCY IN THE AMOUNT OF SOD TO BE REMOVED OR AMOUNT TO BE USED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPORT SUCH TO THE PROJECT REPRESENTATIVE PRIOR TO COMMENCING THE WORK.

D. SOD LAYING: THE SURFACE UPON WHICH THE NEW SOD TO BE LAID WILL BE PREPARED AS SPECIFIED IN THE DETAIL AND BE LIGHTLY WATERED BEFORE LAYING. AREAS WHERE SOD IS TO BE LAID SHALL BE CUT TRIMMED, OR SHAPED TO RECEIVE FULL WIDTH SOD (MINIMUM TWELVE (12) INCHES). NO PARTIAL STRIP OR PIECES WILL BE ACCEPTED.

E. SOD SHALL BE TAMPED LIGHTLY AS EACH PIECE IS SET TO ENSURE THAT GOOD CONTACT IS MADE BETWEEN EDGES AND ALSO THE GROUND. IF VOIDS OR HOLES ARE DISCOVERED, THE SOD PIECE(S) IS (ARE) TO BE RAISED AND TOPSOIL IS TO BE USED TO FILL IN THE AREAS UNTIL LEVEL. SOD LAID ON ANY SLOPED AREAS SHALL BE ANCHORED WITH WOODEN DOWELS OR OTHER MATERIALS WHICH ARE ACCEPTED BY THE GRASS SOD INDUSTRY.

F. SOD SHALL BE ROLLED WITH A ROLLER THAT IS AT LEAST 50% FULL IMMEDIATELY AFTER INSTALLATION TO ENSURE THE FULL CONTACT WITH SOIL IS MADE.

G. APPLY WATER DIRECTLY AFTER LAYING SOD. RAINFALL IS NOT ACCEPTABLE.

H. WATERING OF THE SOD SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR BY WHATEVER MEANS NECESSARY TO ESTABLISH THE SOD IN AN ACCEPTABLE MANNER TO THE END OF THE MAINTENANCE PERIOD. IF AN IRRIGATION SYSTEM IS IN PLACE ON THE SITE, BUT FOR WHATEVER REASON, WATER IS NOT AVAILABLE IN THE SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO WATER THE SOD BY WHATEVER MEANS, UNTIL THE SOD IS ACCEPTED BY THE PROJECT REPRESENTATIVE.

I. PROTECTION OF THE NEWLY LAID SOD SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ACCEPTABLE VISUAL BARRIERS, TO INCLUDE BARRICADES SET APPROPRIATE DISTANCES WITH STRINGS OR TAPES BETWEEN BARRIERS, AS AN INDICATION OF NEW WORK. THE CONTRACTOR IS TO RESTORE ANY DAMAGED AREAS CAUSED BY OTHERS (INCLUDING VEHICULAR TRAFFIC), EROSION, ETC, UNTIL SUCH TIME AS THE LAWN IS ACCEPTED BY THE OWNER.

J. ALL SOD THAT HAS NOT BEEN LAID WITHIN 24 HOURS SHALL BE DEEMED UNACCEPTABLE AND WILL BE REMOVED FROM THE SITE.

3.5 WEED BARRIER

A. FOR THE HEALTH OF THE SOIL AND THE MICROORGANISMS, WEED BARRIER IS NOT RECOMMENDED. IF USE IS REQUIRED OR REQUESTED, DO NOT PLACE IN ANNUAL OR GRASS AREAS.

B. CUT WEED BARRIER BACK TO THE EDGE OF THE PLANT ROOTBALL.

C. OVERLAP ROWS OF FABRIC MIN. 6"

D. STABLE FABRIC EDGES AND OVERLAPS TO GROUND.

END OF SECTION

GENERAL LANDSCAPE NOTES

GRADING AND DRAINAGE REQUIREMENTS

- AS PER CODE, ALL GRADING IS TO SLOPE AWAY FROM ANY STRUCTURE. SURFACE OF THE GROUND WITHIN 10' FEET OF THE FOUNDATION SHOULD DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6"
- AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
- A MINIMUM OF 6" OF FOUNDATION WILL BE LEFT EXPOSED AT ALL CONDITIONS
- LANDSCAPE CONTRACTOR TO MAINTAIN OR IMPROVE FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY EXCAVATOR, INCLUDING BUT NOT LIMITED TO ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY DAMAGED OR IMPROPER WATERFLOW OF ALL SWALES, BERMS, OR GRADE
- DEVICES FOR CHANNELING ROOF RUN-OFF SHOULD BE INSTALLED FOR COLLECTION AND DISCHARGE OF RAINWATER AT A MINIMUM OF 10' FROM THE FOUNDATION, OR BEYOND THE LIMITS OF FOUNDATION WALL BACKFILL; WHICHEVER DISTANCE IS GREATER

GENERAL LANDSCAPE NOTES

- LANDSCAPE CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
- DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
- ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO ANSI STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS, AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
- SELECTED PLANTS WILL BE ACCORDING TO THE PLANT LEGEND. IF SUBSTITUTIONS ARE NECESSARY, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO LAYING SOD.
- SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL. IF A MATCHING SOIL IS NOT LOCATABLE, A 6" DEPTH OF SANDY LOAM TOPSOIL (MIXED PRIOR TO SPREADING WITH 1% ORGANIC MATTER) CAN BE INCORPORATED INTO THE EXISTING SOIL USING THE FOLLOWING DIRECTIONS: SCARIFY TOP 6" OF EXISTING SUBSOIL AND INCORPORATE 3" OF NEW COMPOST ENRICHED TOPSOIL. SPREAD REMAINING TOPSOIL TO REACH FINISHED GRADE.
- EDGING, AS INDICATED ON PLAN, IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS. ANY TREES LOCATED IN LAWN MUST HAVE A 4-6' TREE RING OF THE SAME EDGING.

LAWN/GRASS AREA

- SOD
  - ALL LAWN AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED HYDROSEEDING. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD ALL. LAWN AREAS SHALL BE IRRIGATED WITH 100% COVERAGE BY POP-UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR FOOT(4') DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.
- SEED
  - **SOIL:** TEST SOIL FOR ADEQUATE FERTILITY. ANY WEEDS CURRENTLY ON THE SITE SHALL BE REMOVED BY EITHER MECHANICAL MEANS SUCH AS HAND PULLING OR SPRAYING WITH AN HERBICIDE SUCH AS GLYPHOSATE MIXED WITH A SURFACTANT. HERBICIDES SHOULD BE APPLIED BY A CERTIFIED PESTICIDE APPLICATOR . COMPACTED SOIL SHALL BE SCARIFIED TO A DEPTH OF 18 INCHES BEFORE ADDING 6" OF WEED FREE TOPSOIL WITH HIGH ORGANIC MATTER. FINE LEVEL ALL AREAS PRIOR TO HYDROSEEDING AND SET THE GRADE FOR POSITIVE DRAINAGE. TOPSOIL SHOULD BE SOFT AT TIME OF APPLICATION. FERTILIZER IS TO BE ADDED WHEN HYDROSEEDING. REFER TO SOIL TEST RESULTS AND HYDROSEEDING CONTRACTOR FOR APPLICATION RATES.
  - **SEED**: USE SEED MIXES AS SPECIFIED BY LANDSCAPE ARCHITECT OF PURE LIVE SEED (PLS) ON A BASIS/ACRE. THE OPTIMUM TIME TO PANT IS IN NOVEMBER BEFORE THE FIRST SNOW. DO NOT SOW OVER HEAVY SNOWPACK. SEED WILL LAY DORMANT AND BE READY TO GERMINATE ONCE THE GROUND THAWS AND WARMS IN LATE WINTER. IF SEEDING IN LATE FALL IS NOT POSSIBLE, SEED BEFORE APRIL 1. CONTACT SUMMIT SEED. DARRELL@SUMMITSEEDING.COM 435-709-8603.
  - **APPLICATION**: HYDROSEEDING SHALL CONSIST OF SEED, TACKIFIER, WOOD FIBER MULCH AND FERTILIZER IN A WATER BASED SLURRY. TANK MOUNTED TRUCK SHALL HAVE CONTINUOUS AGITATION. THE PUMP ON THE TRUCK WILL FORCE THE SLURRY THROUGH A TOP-MOUNTED DISCHARGE NOZZLE (TOWER). USE 2000 POUNDS WOOD FIBER MULCH AND 50-100 POUNDS OF TACKIFIER PER ACRE.
  - **IRRIGATION**: ALL AREAS MUST BE KEPT MOIST WITHOUT PUDDLES OR RUNOFF USING FREQUENT DAYTIME WATER CYCLES. ADJUST AND MONITOR SPRINKLERS AND CLOCK TO ACHIEVE PROPER IRRIGATION.
- IF PERMANENT IRRIGATION IS NOT PLANNED, TEMPORARY IRRIGATION IS REQUIRED AT THE FOLLOWING SCHEDULE: FOR 8 WEEKS SOIL SHALL REMAIN DAMP DURING ESTABLISHMENT PERIOD WITHOUT PUDDLING ON SOIL SURFACE. APPLY WATER APPROXIMATELY THREE TIMES A DAY FOR 5-7 MINUTES FOR EACH IRRIGATION EVENT DEPENDING ON TEMPERATURE AND TIME OF YEAR. A SPARSE DENSITY IS EXPECTED. CONTINUE TEMPORARY IRRIGATION FOR ONE YEAR EVENTUALLY REDUCING WATER APPLICATION TO ONCE A WEEK, THEN ONCE EVERY TWO WEEKS TO FINALLY ONCE A MONTH. MONITOR PROGRESS OF ESTABLISHMENT AND ADJUST SPRINKLERS ACCORDINGLY. THE GOAL IS TO CREATE A HEALTHY STAND OF GRASSES WITH LITTLE TO NO IRRIGATION.
  - **WEED CONTROL AND MAINTENANCE:** MANDATORY WEED CONTROL IS REQUIRED TO REDUCE COMPETITION AND WEED SEED PRODUCTION. WEEDS MUST BE KEPT UNDER CONTROL BY MECHANICALLY PULLING OR CHEMICALLY SPRAYING AS DIRECTED BY THE APPLICATOR. APPLY A BROADLEAF HERBICIDE BIANNUALLY AND ESTABLISH A CONSISTENT REGIMEN OF MOWING AND FERTILIZING TO PREVENT WEEDS FROM PRODUCING SEED. MOW ONCE IN THE SPRING AND ONCE IN THE FALL BEFORE FERTILIZATION. FERTILIZER OPTION IS SUSTAIN 4-6-4 DEPENDING ON SOIL FERTILITY. DO NOT MOW SHORTER THAN 4 INCHES. BAG ALL CUTTINGS TO REMOVE WEED SEED FROM PROPERTY. KEEP WEEDS CUT DOWN AND DO NOT LET THEM GO TO SEED. WEED SEED PRODUCTION IS THE GAUGE FOR WHEN TO MOW, WHICH GENERALLY OCCURS IN APRIL OR MAY AS WELL AS EARLY FALL DEPENDING ON TEMPERATURE AND MOISTURE. THIS PROCEDURE WILL BE REQUIRED UNTIL A HEALTHY STAND OF GRASSES IS EVIDENT AND COMPETING WELL WITH WEEDS. EXPECT FROM 1 TO 3 YEARS.
  - **PROGANICS BIOTIC SOIL MEDIA**: WHERE CONDITIONS MAY PROHIBIT ADDING TOPSOIL, PROGANICS BIOTIC SOIL MEDIA SHOULD BE APPLIED BY HYDROSEEDER AT 3500LBS/ACRE WITH SEED AND FERTILIZER PRIOR TO THE APPLICATION OF WOOD MULCH(2000LBS/ACRE) COMBINED WITH TACKIFIER (50-100 LBS/ACRE.)
  - **ADDING FORBS**: SHRUBS AND PERENNIALS, BY SEED OR CONTAINER, CAN BE ADDED ONCE WEEDS ARE UNDER CONTROL AND HERBICIDE IS NO LONGER NEEDED. USUALLY 1-2 YEARS AFTER HYDROSEEDING.

MULCH

- ORGANIC
  - PLANTING AREAS TO BE FREE OF WEEDS AND RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF ORGANIC MULCH TOP DRESSING. KEEP MULCH AWAY FROM TOP OF ROOT BALL OF ALL PLANT MATERIAL.
  - IF REQUIRED BY CITY, INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL MULCH AREAS. KEEP WEED BARRIER 1 FOOT AWAY FROM EDGE OF ROOT BALL OF ALL PLANT MATERIAL. IF WEED BARRIER IS NOT REQUIRED OR INSTALLED, AT OWNER'S APPROVAL, USE TREFLAN 10 AS A PRE-EMERGENT. APPLY ACCORDING TO LABEL DIRECTIONS BY CERTIFIED PESTICIDE APPLICATOR AFTER PLANTING AND AFTER APPLYING MULCH.
  - IF USING TREFLAN 10 WITHOUT WEED BARRIER, THIS AREA WILL ALSO NEED AN YEARLY MANAGEMENT PROGRAM. SUBMIT PROGRAM TO OWNER.
  - ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL (ORGANIC MULCH). NO MULCH SHALL BE PLACED WITHIN 12" OF TREE TRUNK AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS. DO NOT COVER LOW BRANCHES OF SHRUBS WITH ROCK.
- INORGANIC
  - ROCK MULCH PLANTING AREAS TO BE FREE OF WEEDS AND RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. WHERE PLANTING IS SPARSE (GREATER THAN 4' DISTANCE BETWEEN PLANTS OR 2' BETWEEN GROUPINGS), ADDITIONAL TOPSOIL IS NOT NECESSARY EXCEPT FOR BACKFILLING PLANTING HOLE. PREPARE A HOLE TWICE THE WIDTH OF THE CONTAINER, WATER IN PLANT, BACKFILL WITH A 4:1 RATIO OF SOIL TO COMPOST. TAMP LIGHTLY AND WATER AGAIN. KEEP ROCK 12" AWAY FROM TRUNK OF TREES AND 6" AWAY FROM BASE OF SHRUBS AND PERENNIALS. DO NOT COVER LOW BRANCHES OF SHRUBS WITH ROCK.
  - IF REQUIRED BY CITY, INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL ROCK AREAS. KEEP WEED BARRIER 1 FOOT AWAY FROM EDGE OF ROOT BALL OF ALL PLANT MATERIAL. IF WEED BARRIER IS NOT REQUIRED OR INSTALLED, AT OWNER'S APPROVAL, USE TREFLAN 10 AS A PRE-EMERGENT. APPLY ACCORDING TO LABEL DIRECTIONS BY CERTIFIED PESTICIDE APPLICATOR AFTER PLANTING AND AFTER APPLYING MULCH.
  - IF USING TREFLAN 10 WITHOUT WEED BARRIER, THIS AREA WILL ALSO NEED AN YEARLY MANAGEMENT PROGRAM. SUBMIT PROGRAM TO OWNER. UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE.

GENERAL IRRIGATION NOTES

- A NEW UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED BY CONTRACTOR IN ALL LANDSCAPED AREAS. LAWN AREAS TO RECEIVE AT LEAST 100% HEAD TO HEAD COVERAGE AND PLANTER AREAS TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB. POINT SOURCE DRIP OR IN-LINE DRIP TUBING TO BE SECURED AT CENTER OF ROOT BALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN.

INSTALLER RESPONSIBILITIES AND LIABILITIES

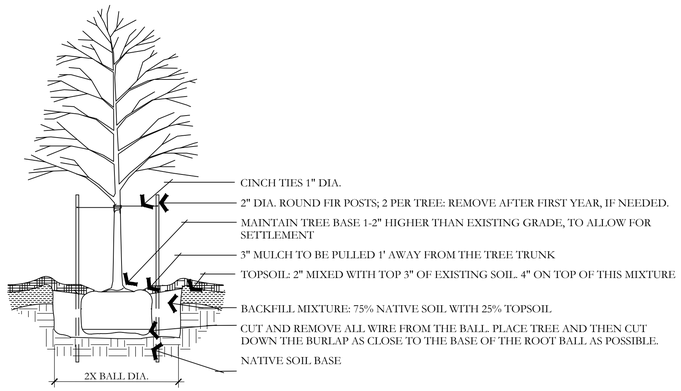
- THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS REQUIRED TO USE TRADE KNOWLEDGE FOR IMPLEMENTATION. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND MATERIALS.

PLANT LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.)

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
CONIFERS						
	JS'M	4	Juniperus scopulorum `Moonglow` Moonglow Juniper Te2, 18x8; AV 20; sun; z3; Utah Lake water tolerant	B & B		6`
DECIDUOUS TREES						
	M'AD	3	Malus x 'Adirondack' Adirondack Crabapple Low to moderate; 18'x10'; Z4, Utah Lake water tolerant	B & B	2"Cal	
	UX'F	1	Ulmus x `Frontier` Frontier Elm Td3; 35x25; AV 490; sun; z4; Utah Lake water tolerant	B & B	2"Cal	

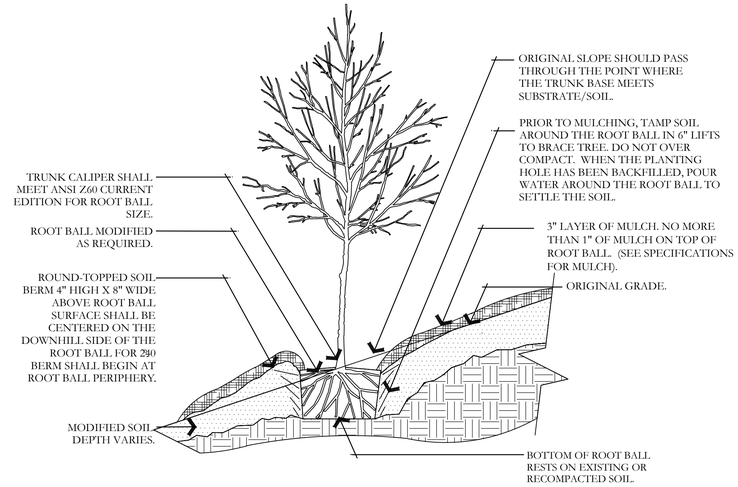
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
DECIDUOUS SHRUBS				
	CM'F	1	Chamaebatiaria millefolium Fernbush Sd0; 4x3; AV 7; sun to part sun; z4; Utah Lake water tolerant	5 gal
	CS'C	3	Cornus sericea `Cardinal` Cardinal Red-twig Dogwood moderate; 8x6; sun to part shade; z3	5 gal
**GRAS



A DECIDUOUS TREE PLANTING

NOT TO SCALE

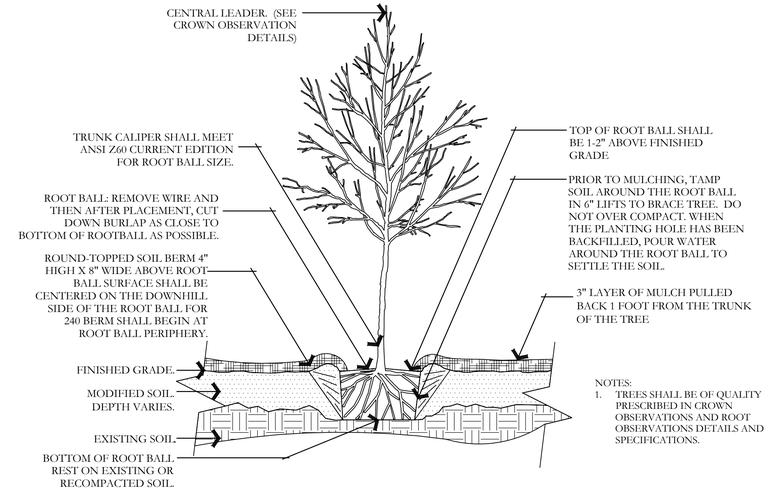
PKJ DESIGN GROUP



B TREE ON SLOPE 5% (20:1) TO 50% (2:1)

NOT TO SCALE

PKJ DESIGN GROUP

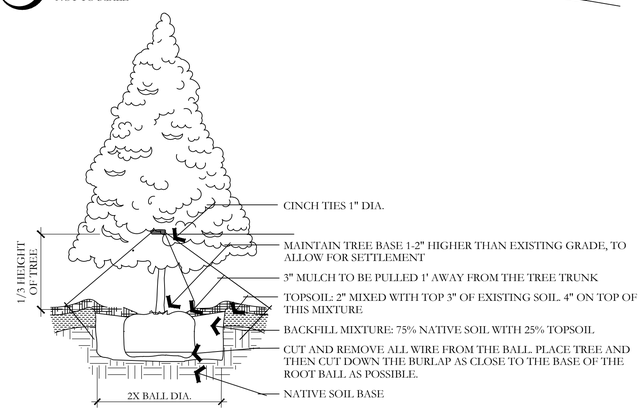


NOTES:
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.

C TREE W/ BERM (EXISTING SOIL MODIFIED)

NOT TO SCALE

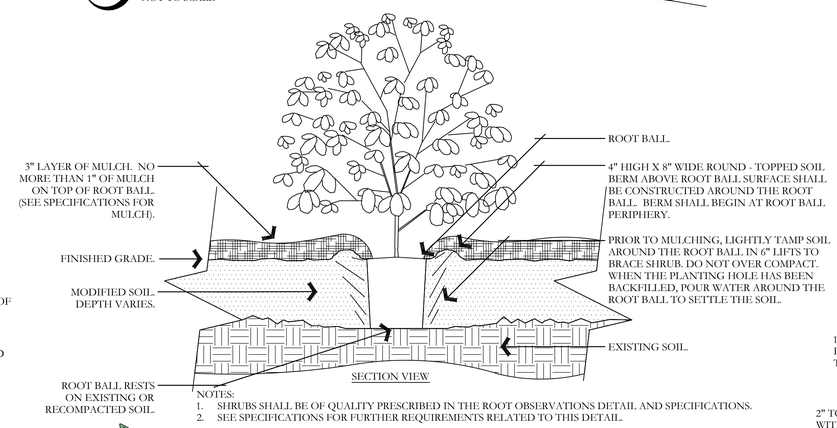
PKJ DESIGN GROUP



D EVERGREEN TREE PLANTING

NOT TO SCALE

PKJ DESIGN GROUP

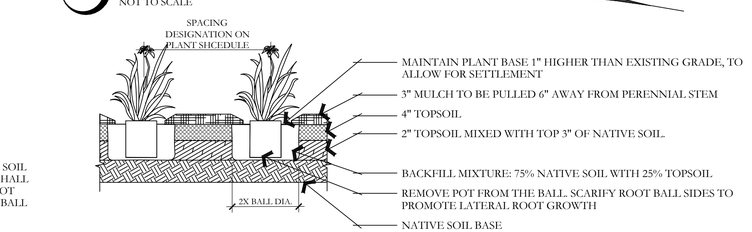


NOTES:
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

E SHRUB - MODIFIED SOIL

NOT TO SCALE

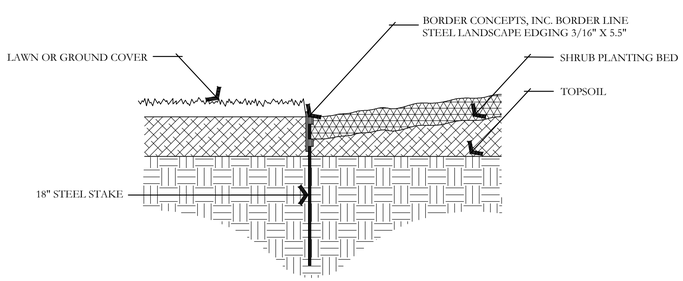
PKJ DESIGN GROUP



F PERENNIAL PLANTING

NOT TO SCALE

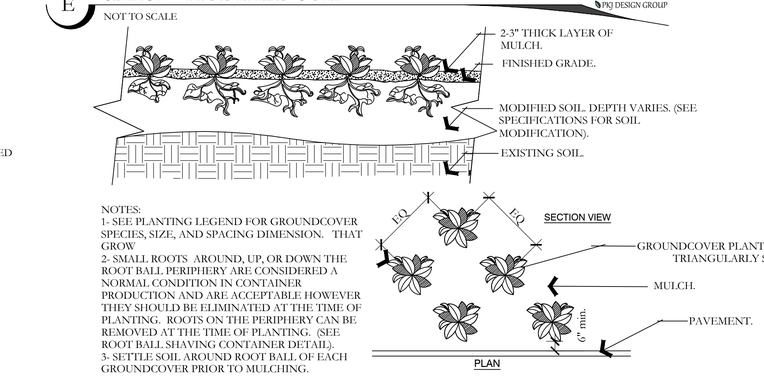
PKJ DESIGN GROUP



G METAL EDGING DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

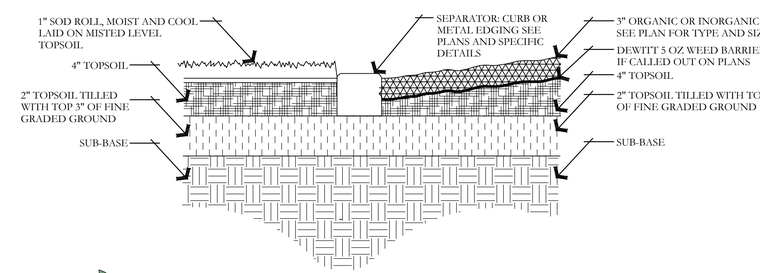


NOTES:
1- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION. THAT GROW
2- SMALL ROOTS AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.

H PERENNIAL/GROUNDCOVER PLANTING

NOT TO SCALE

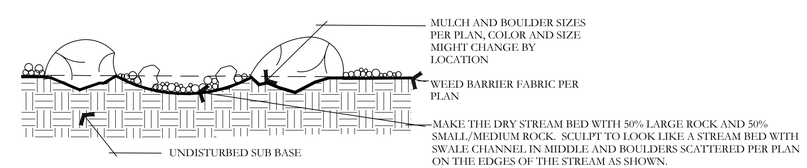
PKJ DESIGN GROUP



I SOD LAYING/MULCH DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



J BOULDER AND DRY STREAM BED DETAIL

NOT TO SCALE

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ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
4/29/2024	UT24066						PM: JTA
							DRAWN: ACP
							CHECKED: JMA
							PLOT DATE: 4/29/2024

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

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PRICE, UTAH

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801-915-9245

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PKJ DESIGN GROUP
Landscape Architecture Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

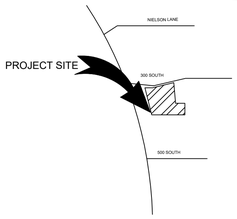
LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8128121-5301
4/29/2024
STATE OF UTAH

LANDSCAPE DETAILS

CITY PERMIT SET

LP-501

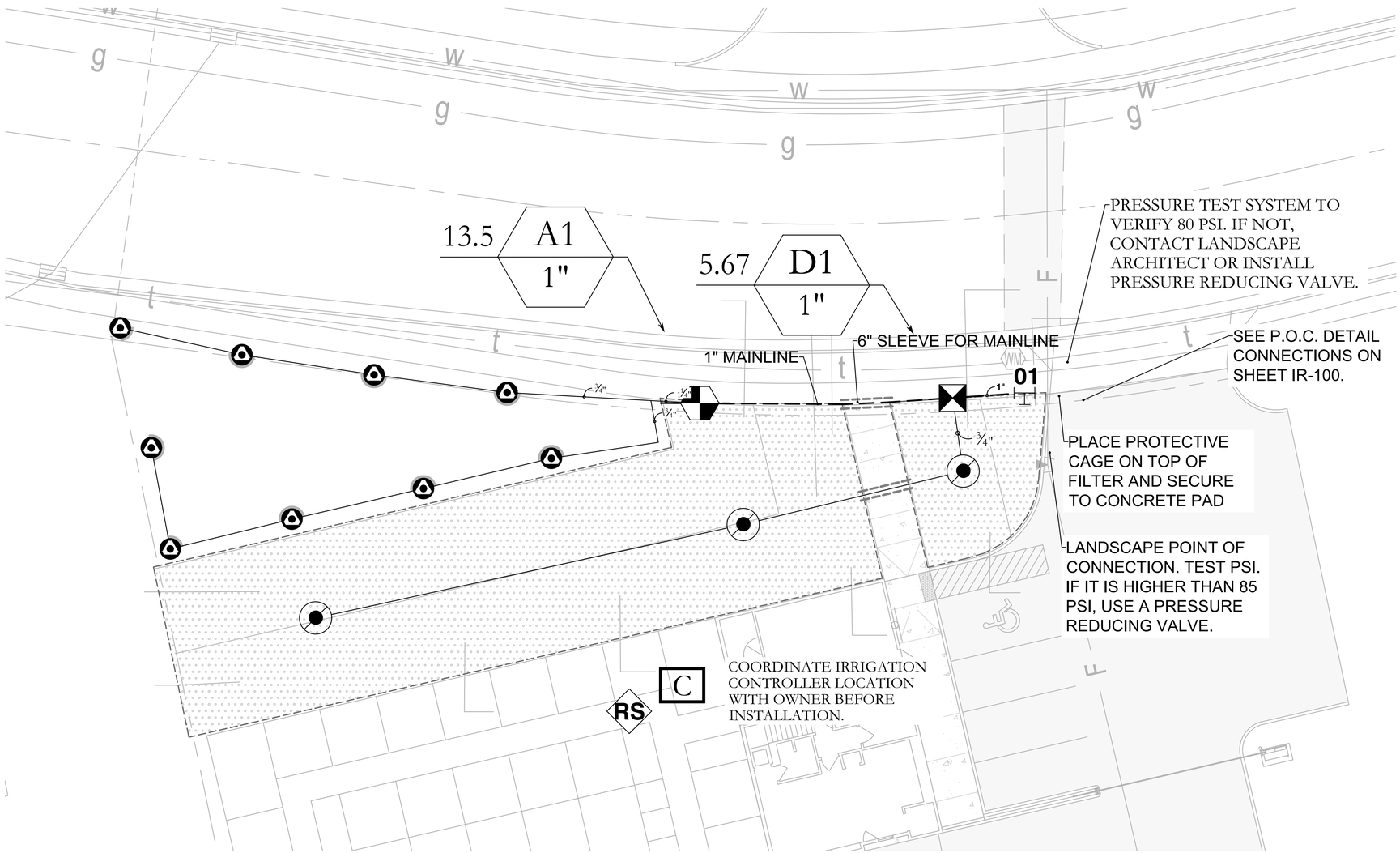
VICINITY MAP



P.O.C. CONFIGURATION

(NOTE: PRESSURE TEST SYSTEM TO VERIFY 80 PSI. IF NOT, CONTACT LANDSCAPE ARCHITECT OR INSTALL PRESSURE REDUCING VALVE.)

- POC — SOURCE DATA
- SHUTOFF VALVE
- F — AMIAD SCREEN FILTER
- M — MASTER VALVE
- FS — 1" FLOW SENSOR
- QUICK COUPLER



ISSUE DATE	PROJECT NUMBER
4/29/2024	UT24066

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
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PLAN INFORMATION

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N

0' 5' 10' 20' 40'
GRAPHIC SCALE: 1" = 10'

PROJECT INFORMATION

BEAR RIVER STORAGE
300 S. MAIN ST.
PRICE, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

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LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP
Landscape Architecture / Planning & Visualization
3450 N. TRIUMPH BLVD. SUITE 102
LEHI, UTAH 84043 (801) 753-5644
www.pkjdesigngroup.com

LICENSE STAMP

LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8/28/21 - 5301
4/29/2024
ELECTRONIC SEAL
STATE OF UTAH

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	4/29/2024

IRRIGATION OVERALL PLAN

CITY PERMIT SET

IR-100

IRRIGATION PLAN SPECIFICATIONS

IRRIGATION SPECIFICATIONS

PART I - GENERAL

1.1 SUMMARY

Work to be done includes all labor, materials, equipment and services required to complete the Project irrigation system as indicated on the Construction Drawings, and as specified herein. Includes but is not limited to: Furnishing and installing underground and above ground sprinkler system complete with any accessories necessary for proper function and operation of the system. All plant material on the Project shall be irrigated. Remove and dispose of any existing sprinkler system components which are disturbed during the construction process and are not to be saved. Restoration of any altered or damaged existing landscape to original state and condition.

1.2 SYSTEM DESCRIPTION

A. Design of irrigation components: Locations of irrigation components on Construction Drawings may be approximate. Piping, sleeving and/or other components shown on Construction drawings may be shown schematically for graphic clarity and demonstration of component groupings and separations. All irrigation components shall be placed in landscaped areas, with the exception of pope and wire in sleeving under hardscapes. Actual routing of pipe, wire or other components may be altered due to site conditions not accounted for in the design process.

B. Construction requirements: Actual placement may vary as required to achieve a minimum of 100% coverage without overspray onto hardscape, buildings or other features.

C. Layout of Irrigation Components: During layout and staking, consult with Owner Approved Representative (hereafter referred to as OAR) to verify proper placement of irrigation components, and to provide Contractor recommendations for changes where revisions may be advisable. Small or minor adjustments to system layout are permissible to avoid existing field obstructions such as utility boxes or street light poles. Contractor shall place remote control valves in groups as practical to economize on quantity of manifold isolation valves. Quick coupler valves shall be placed with manifold groups and protected by manifold isolation valves. Quick coupler valves are shown on Construction Documents in approximate locations.

1.3 DEFINITIONS

A. Water Supply: Secondary water piping and components, furnished and installed by others to provide irrigation water to this Project, including but not limited to filter, saddles, nipples, spools, shut off valves, corporation stop valves, water meters, pressure regulation valves, and piping upstream of (or prior to) the Point of Connection.

B. Point of Connection: Location where the Contractor shall tie into the water supply. May require filter, saddle, nipples, spools, isolation valves or Stop and Waste valve for landscape irrigation needs and use.

C. Main Line Piping: Pressurized piping downstream of the Point of Connection to provide water to remote control valves and quick couplers. Normally under constant pressure.

D. Lateral Line Piping: Circuit piping downstream of remote control valves to provide water to sprinkler heads, drip systems or bubblers.

1.4 REFERENCES

A. The following standards will apply to the work of this Section:

a. ASTM-American Society for Testing and Materials

b. IA - The Irrigation Association: Main BMP Document, Landscape Irrigation Scheduling and Water Management Document.

1.5 SUBMITTALS

A. At least thirty (30) days prior to ordering of any materials, the Contractor shall provide manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system. Submittals shall be in three ring binders or other similar bound form. Provide five copies of submittals to OAR for distribution. Place cover or index sheet indicating order in submittal document. No material shall be ordered, delivered or any work preceded in the field until the required submittals have need reviewed in its entirety and stamped approved. Delivered material shall match the approved samples.

B. Operation and Maintenance Manual:

a. At least thirty (30) days prior to final inspection, the Contractor shall provide Operation and Maintenance manual to OAR, containing:

i. Manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system.

ii. Parts list for each operating element of the system

iii. Manufacturer printed literature on operation and maintenance of operating elements of the system.

iv. Section listing instructions for overall system operation and maintenance. Include directions for Spring Start-up and Winterization.

b. Project Record Copy

i. Maintain at project site one copy of all project documents clearly marked "Project Record Copy". Mark any deviation in material installation on Construction drawings. Maintain and update drawing at least weekly. Project Record Copy to be available to OAR on demand.

ii. Completed Project As-Built Drawings

1. Prior to final inspection, prepare and submit to OAR accurate as-built drawings
2. Show detail and dimension changes made during installation. Show significant details and dimensions that were not shown in original Contract Documents.
3. Field dimension locations of sleeving, points of connection, main line piping, wiring runs not contained in main line pipe trenches, valves and valve boxes, quick coupler valves.
4. Dimensions are to be taken from permanent constructed surfaces, features, or finished edges located at or above finished grade.
5. Controller Map: upon completion of system, place in each controller a color coded copy of the area that controller services: indicating zone number, type of plant material and location on project that zone services. Laminate map with heat shrink clear plastic.

1.6 QUALITY ASSURANCE

A. Acceptance: Do not install work in this section prior to acceptance by OAR.

B. Regulatory Requirements: All work and materials shall be according to any and all rules, regulations or codes, whether they are State or Local laws and ordinances. Contract documents, drawings or specifications may not be construed or interpreted to permit work or materials not conforming to the above codes.

C. Adequate Water Supply: Water supply to this Project exists, installed by others. Connections to these supply lines shall be by this Contractor. Verify that proper connection is available to supply line and is of adequate size. Verify that secondary connection components may be installed if necessary. Perform static pressure test prior to commencement of work. Notify OAR in writing of problems encountered prior to proceeding.

D. Workmanship and Materials:

a. It is the intent of this specification that all material herein specified and shown on the construction documents shall be of the highest quality available and meeting the requirements specified.

b. All work shall be performed in accordance with the best standards of practice relating to the trade.

E. Contractor Qualifications:

a. Contractor shall provide document or resume including at least the following items:

i. That Contractor has been installing sprinklers on commercial projects for five previous consecutive years.

ii. Contractor is licensed to perform Landscape and Irrigation construction in the State of this Project.

iii. Contractor is bondable for the work to be performed.

iv. References of five projects of similar size and scope completed within the last five years. Three of the projects listed shall be local.

v. Listing of suppliers where materials will be obtained for use on this Project.

vi. Project site Foreman or Supervisor has at least five consecutive years of commercial irrigation installation experience. This person shall be a current Certified Irrigation Contractor in good standing as set forth by the Irrigation Association. This person shall be on Project site at least 75% of each working day.

vii. Evidence that Contractor currently employs workers in sufficient quantities to complete Project within time limits that are established by the Contract.

viii. All General laborers or workers on the Project shall be previously trained and familiar with sprinkler installation and have a minimum of one-year experience. Those workers performing tasks related to PVC pipe shall have certificates designated below.

1.7 DELIVERY-STORAGE-HANDLING

A. During delivery, installation and storage of materials for Project, all materials shall be protected from contamination, damage, vandalism, and prolonged exposure to sunlight. All material stored at Project site shall be neatly organized in a compact arrangement and storage shall not disrupt Project Owner or other trades on Project site. All material to be installed shall be handled by Contractor with care to avoid breakage or damage. Damaged materials attributed to Contractor shall be replaced with new at Contractor's expense.

1.8 SEQUENCING

A. Perform site survey, research utility records, contact utility location services. The Contractor shall familiarize himself with all hazards and utilities prior to work commencement. Install sleeving prior to installation of concrete, paving or other permanent site elements. Irrigation system Point of Connection components, backflow prevention and pressure regulation devices shall be installed and operational prior to all downstream components. All main lines shall be thoroughly flushed of all debris prior to installation of any sprinkler heads.

1.9 WARRANTY

A. Contractor shall provide one year Warranty. Warranty shall cover all materials, workmanship and labor. Warranty shall include filling and or repairing depressions or replacing turf or other plantings due to settlement of irrigation trenches or irrigation system elements. Valve boxes, sprinklers or other components settled from original finish grade shall be restored to proper grade. Irrigation system shall have been adjusted to provide proper, adequate coverage of irrigated areas.

1.10 OWNER'S INSTRUCTION

A. After system is installed, inspected, and approved, instruct Owner's Representatives in complete operation and maintenance procedures. Coordinate instruction with references to previously submitted Operation and Maintenance Manual.

1.11 MAINTENANCE

A. Furnish the following items to Owner's Representative:

a. Two quick coupler keys with hose swivels.

b. One of each type or size of quick coupler valve and remote control valve. Five percent of total quantities used of each sprinkler and sprinkler nozzle.

B. Provide the following services:

a. Winterize entire irrigation system installed under this contract. Winterize by 'blow-out' method using compressed air. Compressor shall be capable of minimum of 175 CFM. This operation shall occur at the end of first growing season after need for plant irrigation but prior to freezing. Compressor shall be capable of evacuating system of all water pressure regulation devices. Compressor shall be regulated to not more than 60 PSI. Start up system the following spring after danger of freezing has passed. Contractor shall train Owner's Representative in proper start-up and winterization procedure.

PART 2 - PRODUCTS

2.1 GENERAL NOTES

A. Contractor shall provide materials to be used on this Project. Contractor shall not remove any material purchased for this Project from the Project Site, nor mix Project materials with other Contractor owned materials. Owner retains right to purchase and provide project material.

2.2 POINT OF CONNECTION

A. The Contractor shall connect onto existing irrigation or water main line as needed for Point(s) of Connection. Contractor shall install new main line as indicated.

2.3 CONNECTION ASSEMBLY

A. Secondary water shall be used on this Project. Install filter and RPZ as needed.

2.4 CONTROL SYSTEM

A. Power supply to the irrigation controller shall be provided for by this Contract.

B. Controller shall be as specified in the drawings. Controller shall be surge protected.

a. Installation of wall-mount/ground pedestal timer controllers: Irrigation contractor shall be responsible for this task. Power configuration for wall-mount/ground pedestal timer controllers shall be 120 VAC unless otherwise noted.

b. Locate Controller(s) in general location shown on Construction drawings. Coordinate power supply and breaker allocation with electrical contractor. Contractor shall be responsible for all power connections to Controllers, whether they are wall mount or pedestal mount. Contractor shall coordinate with electrical or other Project trades as needed to facilitate installation of power to controllers.

C. Wires connecting the remote control valves to the irrigation controller are single conductors, type PE. Wire construction shall incorporate a solid copper conductor and polyethylene (PE) insulation with a minimum thickness of 0.045 inches. The wires shall be UL listed for direct burial in irrigation systems and be rated at a minimum of 30 VAC. Paige Electric Co., LP specification number P7079D.

a. A minimum of 24" of additional wire shall be left at each valve, each splice box and at each controller.

b. Common wire shall be white in color, 12 gauge. Control wire shall be red in color, 14 gauge. Spare/extra wire (3 ft.) shall be looped within each valve box of the grouping it is to service.

D. RCV wire splicing connectors shall be 3M brand DBY or DBR. Wire splicing between controller and valves shall be avoided if at all possible. Any wire splices shall be contained within a valve box. Splices within a valve box that contains no control valves shall be stamped 'WIRE SPLICE' or 'WS' on box lid.

2.5 SLEEVING

A. Contractor shall be responsible to protect existing underground utilities and components. Sleeving minimum size shall be 2". Sleeving 2" through 4" in size shall be S/40 PVC solvent weld. Sleeving 6" and larger shall be CL 200 PVC gasketed. Sleeve diameter shall be at least two times the diameter of the pipe within the sleeve. Sleeves shall be extended 6" minimum beyond walk or edge of pavement. Wire or cable shall not be installed in the same sleeve as piping, but shall be installed in separate sleeves. Sleeve ends on sleeve sizes 4" and larger shall be capped with integral corresponding sized PVC slip cap, pressure fit, until used, to prevent contamination. Sleeves shall be installed at appropriate depths for main line pipe or lateral pipe.

2.6 MAIN LINE PIPE

A. All main line pipe 4" and larger shall be Class 200 gasketed bell end. All main line pipe 3" in size and smaller shall be Schedule 40 PVC solvent weld bell end.

a. Maximum flows allowed through main line pipe shall be:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM
4"	180 GPM

b. Main line pipe shall be buried with 24" cover

2.7 MAIN LINE FITTINGS

A. All main line fittings 3" and larger shall be gasketed ductile iron material. All ductile iron fittings having change of direction shall have proper concrete thrust block installed. All main line fittings smaller than 3" in size shall be Schedule 80 PVC.

2.8 ISOLATION VALVES

A. Isolation valves 3" and larger shall be Waterous brand model 2500 east iron gate valve, resilient wedge, push on type, with 2" square operating nut. Place sleeve of 6" or larger pipe over top of valve vertically and then extend to grade. Place 10" round valve box over sleeve at grade.

B. Isolation valves 2-1/2" and smaller shall be Apollo brand 70 series brass ball valves, contained in a Carson Standard size valve box. Valves shall be installed with S/80 PVC TOE Nipples on both sides of the valve. Valve shall be placed so that the handle is vertical toward the top of the valve box in the 'off' position.

2.9 MANIFOLDS

A. Action Manifold fittings shall be used to create unions on both sides of each control valve, allowing the valve to be removed from the box without cutting piping. Valves shall be located in boxes with ample space surrounding them to allow access for maintenance and repair. Where practical, group remote control valves in close proximity, and protect each grouping with a manifold isolation valve as shown in details. Manifold Main Line (or Sub-Main Line) and all manifold components and isolation valves shall be at least as large as the largest diameter lateral served by the respective manifold.

2.10 REMOTE CONTROL VALVES

A. Remote control valves shall be as specified on the drawings. Remote control valves shall be located separately and individually in separate control boxes.

2.11 MANUAL CONTROL VALVES

A. Quick coupler valve shall be attached to the manifold sub-main line using a Lasco G17S212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 10" round valve box. Top of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and operation of key. Base of quick coupler valve and top of quick coupler swing joint shall be encased in ¾" gravel. Contractor shall not place quick coupler valves further than 200 feet apart, to allow for spot watering or supplemental irrigation of new plant material. Quick coupler valve at POC shall not be eliminated or relocated.

2.12 LATERAL LINE PIPE

A. All lateral piping shall be Schedule 40 PVC, solvent weld, and bell end. Lateral pipe shall be buried with 12-18" of cover typically. Lateral pipe shall be ¾", 1", 1 ¼", 1 ½" or 2" in size as indicated on Construction Drawings.

2.13 LATERAL LINE FITTINGS

A. All lateral line fittings shall be S/40 PVC

2.14 SPRAY SPRINKLERS

A. Spray head sprinklers shall be as specified on the drawings. Nozzles shall be as specified on the drawings.

2.15 VALVE BOXES

A. Rainbird valve boxes shall be used on this project. Sizes are as directed in these Specifications, detail sheets or plan sheets. Valve boxes shall be centered over the control valve or element they cover. Valve box shall be sized large enough to allow ample room for services access, removal or replacement of valve or element. Valve box shall be set to flush to finish grade of topsoil or barked areas. Contractor shall provide extensions or stack additional valve boxes as necessary to bring valve box pit to proper grade.

2.16 IMPORT BACKFILL

A. All main line pipe, lateral line pipe and other irrigation elements shall be bedded and backfilled with clean soil, free of rocks 1" and larger. Contractor shall furnish and install additional backfill material as necessary due to rocky conditions. Trenches and other elements shall be compacted and/or water settled to eliminate settling. Debris from trenching operations un-usable for fill shall be removed from project and disposed of properly by Contractor.

2.17 OTHER PRODUCTS

A. Substitution of equivalent products is subject to the OAR's approval and must be designated as accepted in writing.

a. The Contractor shall provide materials to make the system complete and operational.

PART 3 - EXECUTION

3.1 PREPARATION

A. Contractor shall repair or replace work damaged by irrigation system installation. If damaged work is new, repair or replacement shall be performed by the original installer of that work. The existing landscape of this Project shall remain in place. Contractor shall protect and work around existing plant material. Coordination of trench and valve locations shall be laid out for the OAR prior to any excavation occurring. Plant material deemed damaged by the OAR shall be replaced with new plant material at Contractor's expense. Contractor shall not cut existing tree roots larger than 2" to install this Project. Route pipe, wire and irrigation elements around tree canopy drip line to minimize damage to tree roots. Contractor shall have no part of existing system used by other portions of site landscape without water for more than 24 hours at a time.

3.2 TRENCHING AND BACKFILLING

A. Pulling of pipe shall not be permitted on this project. Over excavate trenches both in width and depth. Ensure base of trench is rock or debris free to protect pipe and wire. Grade trench base to ensure flat, even support of piping. Backfill with clean soil or import material. Contractor shall backfill no less than 2" around entire pipe with clean, rock free fill. Main line piping and fittings shall not be backfilled until OAR has inspected and pipe has passed pressure testing. Perform balance of backfill operation to eliminate any settling.

3.3 SLEEVING

A. Sleeve all piping and wiring that pass under paving or hardscape features. Wiring shall be placed in separate sleeving from piping. Sleeves shall be positioned relative to structures or obstructions to allow for pipe or wire within to be removed if necessary.

3.4 GRADES AND DRAINAGE

A. Place irrigation pipe and other elements at uniform grades. Winterization shall be by evacuation with compressed air. Automatic drains shall not be installed on this Project. Manual drains shall only be installed at POC where designated on Construction Drawings.

3.5 PVC PIPE

A. Install pipe to allow for expansion and contraction as recommended by pipe manufacturer.

B. Install main line pipes with 18" of cover, lateral line pipes with 12" of cover.

C. Drawings show diagrammatic or conceptual location of piping - Contractor shall install piping to minimize change of direction, avoid placement under large trees or large shrubs, avoid placement under hardscape features.

D. Plastic pipe shall be cut squarely. Burrs shall be removed. Spigot ends of pipes 3" and larger shall be beveled.

E. Pipe shall not be glued unless ambient temperature is at least 50 degress F. Pipe shall not be glued in rainy conditions unless properly tented. All solvent weld joints shall be assembled using IPS 711 glue and P70 primer according to manufacturer's specification, no exceptions. All workers performing glue operations shall provide evidence of certification. Glued main line pipe shall cure a minimum of 24 hours prior to being energized. Lateral lines shall cure a minimum of 2 hours prior to being energized and shall not remain under constant pressure unless cured for 24 hours.

F. Appropriate thrust blocking shall be performed on fittings 3" and larger. All threaded joints shall be wrapped with Teflon tape or paste unless directed by product manufacturer or sealing by o-ring.

3.6 CONTROLLERS

A. All grounding for pedestal controllers shall be as directed by controller manufacturer and ASIC guidelines, not to exceed a resistance reading of 5 OHMs.

B. Locate controllers in protected, inconspicuous places, when possible. Coordinate location of pedestal controllers with Landscape Architect to minimize visibility.

C. Coordinate location of wall mount controllers with building or electrical Contractor to facilitate electrical service and future maintenance needs. Wall mount shall be securely fastened to surface. If exterior mounted, wall mount controllers shall have electrical service wire and field control wire in separate, appropriate sized weatherproof electrical conduit, PVC pipe shall not be used.

D. Wiring under hardscape surfaces shall be placed continuously in conduit. Contractor shall be responsible to coordinate sleeving needs for conduit or sweeps elbows from exterior to interior of building.

E. Pedestal controllers shall be placed upon VIT-Strong Box Quick Pad as per manufacturer's recommendations. Controllers shall be oriented such that Owner's Representative maintenance personnel may access easily and perform field system tests efficiently.

F. Place Standard valve box at base of controller or nearby to allow for three to five feet of slack field control wire to be placed at each controller. This Contractor shall provide conduit access if needed for Electrical Contractor. Electrical supply and installation, as well as hook-up to controller shall be by this Contractor.

G. Electrical contractor is in charge of providing 1.5" conduit from controller to outside landscape area. Provide power and room for controller. Provide ethernet to hardwire power into the controller.

3.7 VALVES

A. Isolation valves, remote control valves, and quick coupler valves shall be installed according to manufacturer recommendation and Contract Specifications and Details.

B. Valve boxes shall be set over valves so that all parts of the valve can be reached for service.

C. Valve box and lid shall be set to be flush with finished grade. Only one remote control valve may be installed in a valve box. Place a minimum of 4" of ¾" washed gravel beneath valve box for drainage. Bottom of remote control valve shall be a minimum of 2" above gravel.

3.8 SPRINKLER HEADS

A. No sprinkler shall be located closer than 6" to walls, fences, or buildings.

B. Heads adjacent to walks, curbs, or paths shall be located at grade and 2" away from hardscape.

C. Control valves shall be opened. Then fully flush lateral line pipe and swing joints prior to installation of sprinklers.

D. Spray heads shall be installed and flushed again prior to installation of nozzles.

E. Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction.

3.9 FIELD QUALITY CONTROL

A. Main line pipes shall not be backfilled or accepted until the system has been tested for 2 hours at 100 psi.

B. Main line pressure test shall include all pipe and components from the point of connection to the upstream side of remote control valves. Test shall include all manifold components under constant pressure. Piping may be tested in sections that can be isolated.

C. Contractor shall provide pressurized water pump to increase or boost pressure where existing static pressure is less than 100 psi.

D. Schedule testing with OAR 48 hours in advance for approval.

E. Leaks or defects shall promptly be repaired or rectified at the Contractors expense and retested until able to pass testing.

F. Grounding resistance at pedestal controller shall also be tested and shall not exceed 5 OHMs.

3.10 ADJUSTMENT

A. Sprinkler heads shall be adjusted to proper height when installed. Changes in grade or adjustment of head height after installation shall be considered a part of the original contract and at Contractor's expense.

B. Adjust all sprinkler heads for are, radius, proper trim and distribution to cover all landscaped areas that are to be irrigated.

C. Adjust sprinklers so they do not water buildings, structures, or other hardscape features.

D. Adjust run times of station to meet needs of plant material the station services.

3.11 CLEANING

A. Contractor shall be responsible for cleanliness of jobsite. Work areas shall be swept cleanly and picked up daily.

B. Open trenches or hazards shall be protected with yellow caution tape.

C. Contractor is responsible for removal and disposal of offsite trash and debris generated as a result of this Project.

D. OAR shall perform periodic as well as a final cleanliness inspection.

E. Contractor shall leave Project in at least a 'broom clean' condition.

END OF SECTION

IRRIGATION NOTES

1. BEFORE WORK IS TO COMMENCE, BLUE STAKES/DIG LINE IS TO BE CALLED AND NOTIFIED. IF ANY DAMAGE TO UTILITIES HAPPEN DURING CONSTRUCTION, THE CONTRACTOR SHALL REPAIR IT AT THEIR EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS IN ACCORDANCE WITH CITY AND/OR COUNTY CODES AND COMPLY WITH SPECIFICATIONS AND DRAWINGS.
3. INVESTIGATE TO MAKE SURE THAT THE IRRIGATION SYSTEM IS, IN FACT, BEING CONNECTED TO A SECONDARY SYSTEM. IF IT IS NOT CONNECTED TO SECONDARY, CONTACT THE OWNER AND LANDSCAPE ARCHITECT TO COORDINATE A CULINARY SYSTEM AND REQUIRED COMPONENTS. A FUNCTIONING AMIAD FILTER IS TO BE USED AT THE POINT OF CONNECTION.
4. VERIFY THAT THE POINT OF CONNECTION IS IN THE CORRECT LOCATION BEFORE INSTALLATION. ALL CONNECTIONS ON THIS PROJECT ARE TO SECONDARY WATER AND SHOULD BE NOTED AS SUCH; THEREFORE, ALL PARTS MUST MEET WATER STANDARDS THAT PERTAIN TO SECONDARY WATER.USE PURPLE VALVE BOXES FOR SECONDARY WATER SYSTEMS.
5. ON OCCASION AND FOR GRAPHIC PURPOSES ONLY, THE IRRIGATION SYSTEM MIGHT BE SHOWN IN HARDSCAPE AREAS. THIS IRRIGATION IS TO BE PLACED IN LANDSCAPED AREAS ON THE PROPERTY SITE.
6. CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS. THIS INCLUDES PIPE TO BE SCHEDULE 40 PVC OR BETTER. NO POLY PIPE IS TO BE USED. FITTINGS UP TO 1-1/2" MUST BE SCHEDULE 40 OR BETTER. FITTINGS LARGER THAN 1-1/2" SHALL BE SCHEDULE 80 OR BETTER. CONTRACTOR IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION.
7. MAIN LINES SHALL BE A MINIMUM OF 24" DEEP AND LATERAL LINES A MINIMUM OF 12" DEEP. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
8. NO IRRIGATION MAIN LINE MAY BE LOCATED WITHIN 5 FEET OF ANY STRUCTURE.
9. TO AVOID PIPE DAMAGE, ADJUST LOCATION OF PIPE TO NOT BE DIRECTLY UNDER PLANT MATERIALS. VALVE BOXES ARE PREFERRED TO BE IN PLANTER BEDS INSTEAD OF THE LAWN. SYSTEM IS TO BE WINTERIZED IN THE LATE FALL.
10. PLAN INDICATES 100% OR BETTER HEAD TO HEAD COVERAGE. SHOULD CONTRACTOR FIND DISCREPANCIES DUE TO NECESSARY FIELD ADJUSTMENTS, CONTACT LANDSCAPE ARCHITECT FOR IRRIGATION CORRECTION.
11. DRIP IRRIGATION TO BE INSTALLED PER DETAILS. CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS. TUBING SHOULD REST TOWARD OUTER EDGE OF ROOTBALL AND NOT AGAINST TRUNK OF PLANT.
12. A QUICK COUPLER SHALL BE INSTALLED AT POINT OF CONNECTION TO ALLOW BLOW OUT OF SYSTEM BY AIR COMPRESSOR AT END OF EACH SEASON.
13. INSTALL SLEEVES FOR ALL PIPES AND WIRE CONDUIT THAT ARE PLACED UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE BEING PLACED INTERNALLY. WIRE CONDUIT SHALL BE INSTALLED IN CLASS 200 PIPE. AT ANY DIRECTIONAL CHANGE THAT OCCURS, A JUNCTION BOX IS TO PLACED.
14. CONDUITS CAN NOT BE SHARED BY WATER AND ELECTRICAL LINES. ALL WIRE TO BE PUT IN PVC CONDUIT. ALL WIRE CONNECTIONS TO BE PLACED IN A VALVE BOX. ALL WIRE CONNECTIONS TO USE WATERPROOF WIRE CONNECTORS WITH AT LEAST 3" OF EXTRA WIRE. PROVIDE PLENTY OF EXTRA WIRE AT EVERY DIRECTIONAL CHANGE. INSULATED 14 GAUGE COPPER TO BE USED FOR ALL CONTROL WIRES AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
15. CONTRACTOR TO INSTALL LIGHTNING ARRESTOR AND GROUNDING RODS ON SITE PER MANUFACTURER'S RECOMMENDATIONS, SEE DETAILS.
16. CONTRACTOR TO SEPARATE SYSTEM (CONTROLLER, VALVES, AND DIFFERENT COLORED WIRE) FROM CITY MAINTAINED PROPERTY AND HOA/OWNER MAINTAINED PROPERTY.
17. DUCT TAPE ALL SLEEVES TO PREVENT SOIL OR OTHER DEBRIS ENTERING PIPE. IDENTIFY ALL SLEEVES BY WOOD OR PVC STAKES AND SPRAY PAINT WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
18. TO PREVENT EROSION AND LOW POINT DRAINAGE CONTRACTOR SHALL INSTALL CHECK VALVES
19. LOCATE SPRAY HEADS NO CLOSER THAN 6" FROM WALLS, FENCES OR BUILDINGS AND 2" AWAY FROM WALKS, PATHS OR CURBS.
20. PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING. CONTACT LANDSCAPE ARCHITECT/OWNER AT THIS TIME FOR COMPLIANCE.
21. CONTRACTOR TO CONSULT WITH OWNER ON EXACT LOCATION OF CONTROLLER. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR AND OWNER FOR THE POWER SUPPLY. INSTALL ALL PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH THE CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
22. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

I	3/4"	8 GPM
II	1"	12 GPM
III	1-1/2"	30 GPM
IV	2"	53 GPM
V	2-1/2"	75 GPM
VI	3"	110 GPM
VII	4"	180 GPM

WATERING SCHEDULE

90 Day Establishment Period Irrigation Schedule

Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H2O	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH	15 MIN.	15 MIN.	15 MIN.	15 MIN.	15 MIN.	15 MIN.	15 MIN.	Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.		2 HOURS			2 HOURS			precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	2 GAL/HR.		2 HOURS						

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Shrubs to be watered so soil is moist 6" below root ball. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress.

Regular Irrigation Schedule: Begin Spring Watering May 15 (Turf irrigation event once every 5-7 days; Shrubs 2-4 times/month)

Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H2O	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.						Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	No Water								

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions

Regular Irrigation Schedule: Begin Summer Watering June 15 (Turf irrigation event once every 2-3 days; Shrubs 1 time/week)

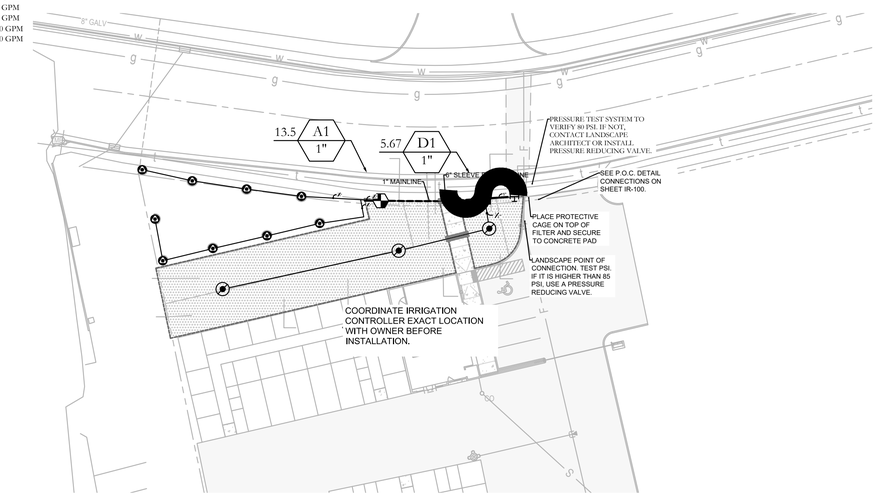
Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H2O	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.		60 MIN.		60 MIN.		Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	2 GAL/HR.			1 HOUR					

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions
Reference Utah DNR weekly watering guide: https://conservewater.utah.gov/weekly-lawn-watering-guide/

Regular Irrigation Schedule: Begin Fall Watering September 1-End Fall Watering October 15 (Turf irrigation event once every 5-7 days; Shrubs 2-4 time/month)

Hi/Low Water Use Zones	TYPE	IR HEAD	AMT. H2O	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Hi Water Use	TURF	MP ROTATOR	.5 INCH		60 MIN.						Participate in a water check to determine
Medium to Low Water Use	SHRUBS	DRIP	2 GAL/HR.			2 HOURS					precipitation rate of sprinkler system.
Xeric Water Use	SHRUBS	DRIP	No Water								

Note: Begin irrigation 4:00 am. Use cycle and soak method in clay soils-divide into 3 waterings for each turf irrigation event. Do not overwater shrubs, allow to dry between waterings especially in clay soils. Watch for water stress. Days of watering may vary based on local restrictions



1" MAINLINE ROUTING ,CONTROLLER AND P.O.C. LOCATION OVERVIEW

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
4/29/2024	UT24066						PM: JTA

NO.	REVISION	DATE
1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC
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N

0' 15' 30' 60' 120'
GRAPHIC SCALE: 1" = 30'

BEAR RIVER STORAGE
300 S. MAIN ST.
PRICE, UTAH

MENLOVE CONSTRUCTION
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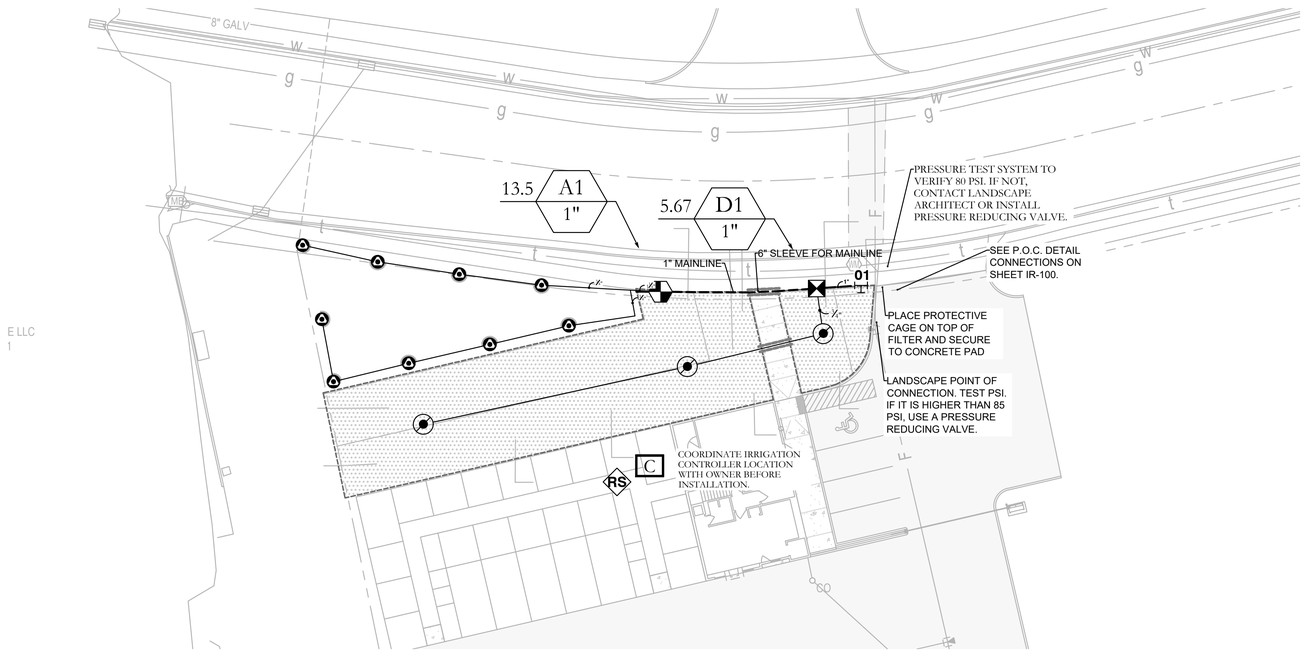
LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8129121-5301 4/29/2024 ELECTRONIC SEAL STATE OF UTAH

DRAWN: ACP
CHECKED: JMA
PLOT DATE: 4/29/2024

IRRIGATION COVER

CITY PERMIT SET

IR-101



IRRIGATION LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.) IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
24 ADJ 24 F	Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	9	45

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-100-IVMQ (2) 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	1
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	3
	Area to Receive Drip Emitters Rain Bird PC (2) Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange. Emitter Notes: PC-05 emitters (1 assigned to each flat plant) PC-05 emitters (1 assigned to each 4"pot plant) PC-05 emitters (1 assigned to each 1 gal plant) PC-05 emitters (1 assigned to each 2 gal plant) PC-05 emitters (2 assigned to each 3 gal plant) PC-05 emitters (2 assigned to each 5 gal plant) PC-05 emitters (3 assigned to each 15 gal plant) PC-05 emitters (3 assigned to each 20 gal. plant) PC-05 emitters (3 assigned to each B & B, 1.25"Cal plant) PC-05 emitters (3 assigned to each B & B, 2"Cal plant) PC-05 emitters (3 assigned to each B & B, 4-6` plant) PC-05 emitters (3 assigned to each B & B, 5`-6` plant) PC-05 emitters (3 assigned to each B & B, 6` plant) PC-05 emitters (3 assigned to each B & B, 7`-9` plant) PC-05 emitters (3 assigned to each B & B, 8`-10` plant) PC-05 emitters (4 assigned to each B & B, Multi-trunked plant) PC-05 emitters (4 assigned to each Bulb plant) PC-05 emitters (4 assigned to each Plug plant)	4,416 s.f. 43 18 12 12

IRRIGATION LEGEND

(NOTE: PLANT QUANTITIES ARE PROVIDED FOR CONVENIENCE ONLY. IN CASE OF DISCREPANCY, THE DRAWING SHALL TAKE PRECEDENCE.) IF YOU NEED HELP WITH A WATER AUDIT CONSULTATION, OR A PLANT MAINTENANCE SCHEDULE, CONTACT PKJ@PKJDESIGNGROUP.COM)

FS	Rain Bird FS-200-B 2in. Flow Sensor, Brass Model. Suggested Operating Range 10 GPM to 100 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	1
F	Amiad 2-T-S-SCAN-Steel Screen 200mm Amiad 2in. T-Super Scanaway Manual Plastic Filter, NPT thread, Steel Screen Element. Clogging Indicator Kit. Engineered-plastic material, maximum working pressure 145psi.	1
XX	Point of Connection 1"	1
	Irrigation Lateral Line: PVC Schedule 40 3/4"	335.2 l.f.
	Irrigation Lateral Line: PVC Schedule 40 1 1/4"	8.4 l.f.
	Irrigation Mainline: PVC Schedule 40	6.8 l.f.
	Irrigation Mainline: PVC Schedule 40 1"	56.1 l.f.
	Pipe Sleeve: PVC Class 200 SDR 21 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	18.0 l.f.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
	Rain Bird PESB-IVM 1" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	1	
	Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	1	
	Shut Off Valve	1	
M	Rain Bird EFB-CP-PRS-D 1-1/2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1	
C	Rain Bird ESPLXIVM 60 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVM 60-Station, Indoor/Outdoor, Plastic Wall-Mount Cabinet. System Requirements: Rain Bird LXIVM-XXX Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1	
RS	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1	

ISSUE DATE	PROJECT NUMBER
4/29/2024	UT24066

NO.	REVISION	DATE
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PLAN INFORMATION

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PROJECT INFORMATION

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300 S. MAIN ST.
PRICE, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

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LANDSCAPE ARCHITECT / PLANNER

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LICENSED LANDSCAPE ARCHITECT
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4/29/2024
ELECTRONIC SEAL
STATE OF UTAH

DRAWING INFO

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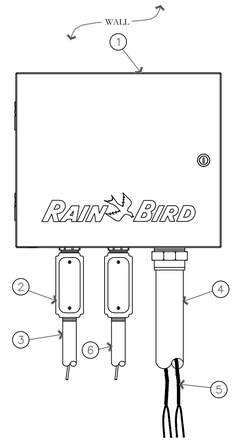
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	4/29/2024

IRRIGATION PLAN

CITY PERMIT SET

IR-102



1. TWO-WIRE CONTROLLER: RAIN BIRD ESP-LXIVM/PRO IN LXMM METAL CABINET WITH OUTSIDE WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1-INCH CONDUIT AND FITTINGS FOR POWER SUPPLY WIRE
4. 2-INCH CONDUIT AND FITTINGS FOR TWO-WIRE CABLE
5. MAXICABLE TWO-WIRE PATH TO FIELD DEVICES, USE A DIFFERENT CABLE JACKET COLOR FOR EACH PATH.
6. 1-INCH CONDUIT AND FITTINGS FOR GROUND WIRE. ONLY FOR OUTDOOR INSTALLATIONS.

NOTES:
1. ESP-LXIVM CONTROLLER IS AVAILABLE IN TWO MODELS. THE LXIVM WITH 60 STATIONS AND THE LMIVM-PRO WITH 240 STATIONS. REFER TO THE CHART BELOW FOR DIFFERENCES BETWEEN THE TWO MODELS.
2. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
3. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS. IF CONTROLLER IS MOUNTED INDOORS, USE POWER SUPPLY GROUND.

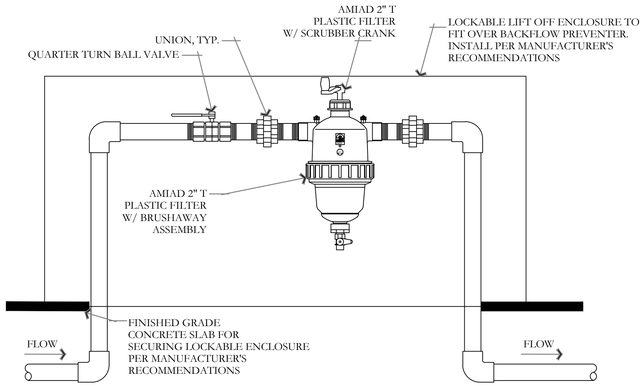
KEY SPECIFICATIONS

FEATURE ▶ / MODEL ▼	MAX PROGRAMS	STATIONS	MAX SIMUL STATIONS	MASTER VALVES	FLOW SENSORS	WEATHER SENSORS
LX-IVM	10	60	8	5	5	4
LX-IVM PRO	40	240	16	10	10	8

A ESP-LXIVM/PRO TWO-WIRE CONTROLLER IN METAL CABINET

NOT TO SCALE

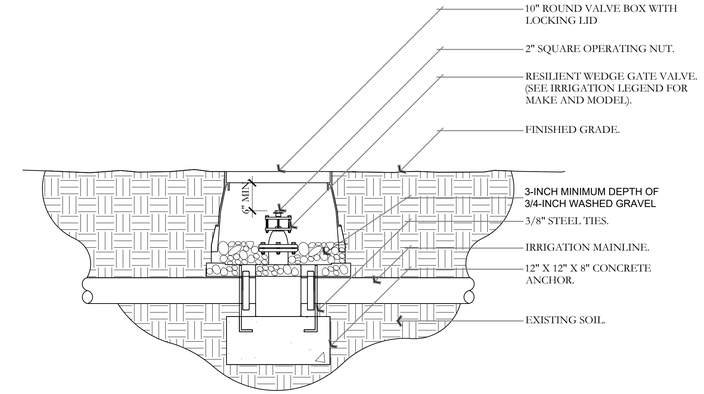
PKJ DESIGN GROUP



B 2" PLASTIC FILTER W/ BRUSHAWAY ASSEMBLY

NOT TO SCALE

PKJ DESIGN GROUP

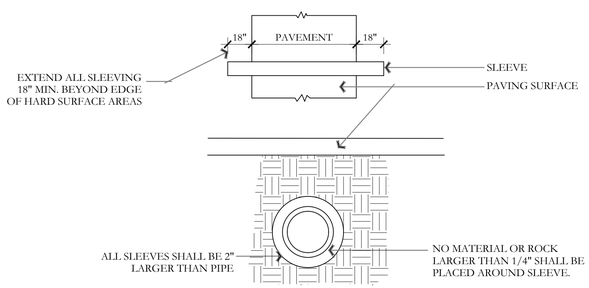


NOTES:
1. INSTALL GATE VALVE PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
2. VALVE BOX SHALL BE WRAPPED WITH MINIMUM 3 MIL. THICK PLASTIC AND SECURE IT TO VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
3. VALVE BOX SHALL BE LOCATED IN PLANTING AREA.

C GATE VALVE AND ANCHOR DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



D TYPICAL SLEEVING DETAIL

NOT TO SCALE

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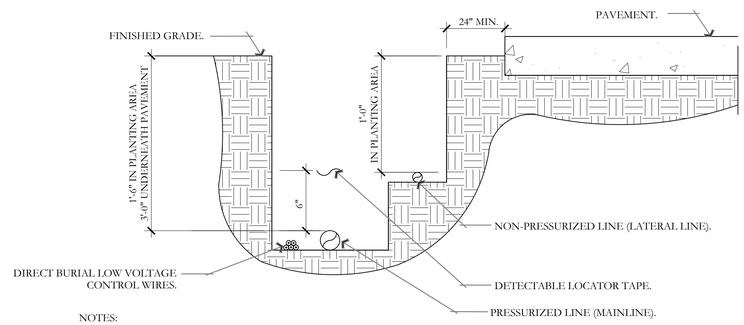
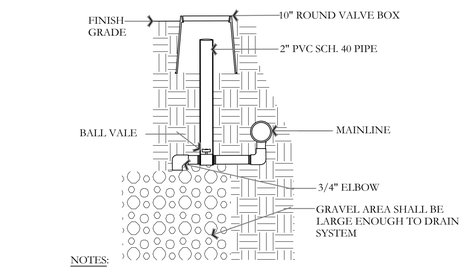


NOTES:
1. SEE IRRIGATION LEGEND FOR MAINLINE AND LATERAL LINE PIPE SIZE AND TYPE.
2. DIRECT BURIAL CONTROL WIRES SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT IF REQUIRED.
3. 2-WIRE IRRIGATION WIRE SHALL BE INSTALLED IN SCH. 40 PVC ELECTRICAL CONDUIT.
4. DETECTABLE LOCATOR TAPE SHALL BE LOCATED SIX INCHES (6") ABOVE THE ENTIRE MAINLINE RUN.

E IRRIGATION TRENCHING DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

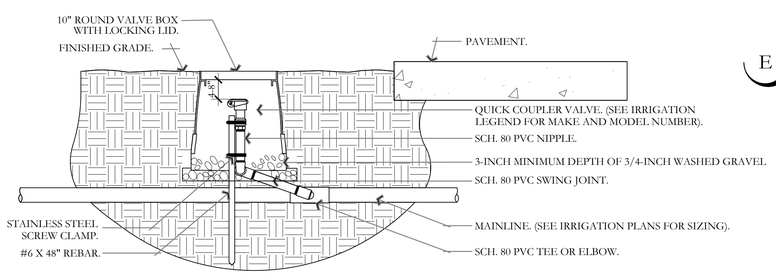


NOTES:
1. ALL FITTINGS TO BE SCH. 80 PVC
2. PROVIDE OWNER WITH KEY

F MANUAL DRAIN DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

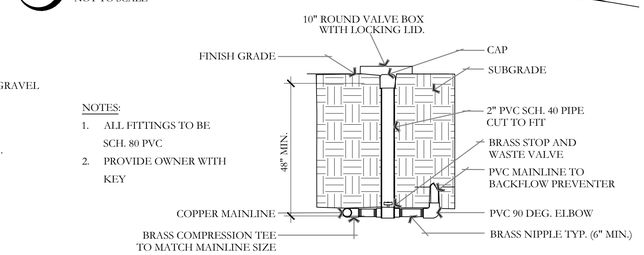


NOTES:
1. ALL THREADED CONNECTIONS SHALL BE INSTALLED USING TEFLON TAPE.
2. VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
3. ALL QUICK COUPLERS SHALL BE INSTALLED A MINIMUM OF 18" OFF OF THE MAINLINE.
4. VALVE BOXES SHALL BE LOCATED IN PLANTING AREAS.

G QUICK COUPLER DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



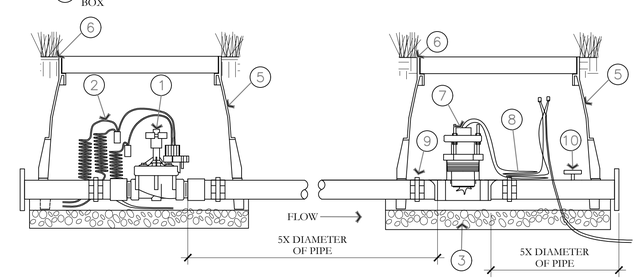
NOTES:
1. ALL FITTINGS TO BE SCH. 80 PVC
2. PROVIDE OWNER WITH KEY

H STOP AND WASTE VALVE ASSEMBLY DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

1. NORMALLY CLOSED MASTER VALVE(S)
2. 36-INCH LENGTH OF COILED WIRE TO SATELLITE CONTROLLER SPARE STATION
3. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
5. VALVE BOX WITH COVER - RAINBIRD JUMBO BOX
6. FINISH GRADE
7. RAIN BIRD FS SERIES FLOW SENSOR(S). SEE COVER SHEET FOR SIZE
8. 36-INCH LENGTH OF COILED MAXI-CABLE TO FLOW SENSING
9. PVC PIPE UNION
10. BRASS BALL VALVE



I MASTER VALVE AND FLOW SENSOR DETAIL

NOT TO SCALE

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ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
4/29/2024	UT24066						PM: JTA

NO.	REVISION	DATE
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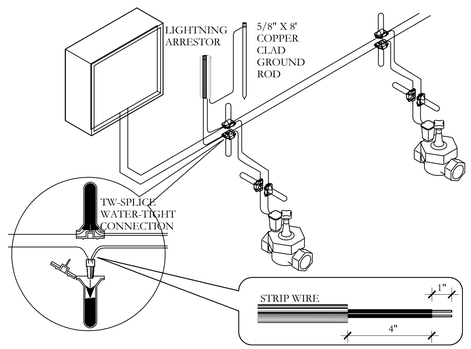
LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 812871-5301 4/29/2024 ELECTRONIC SEAL STATE OF UTAH

DRAWING INFO	
PM:	JTA
DRAWN:	ACP
CHECKED:	JMA
PLOT DATE:	4/29/2024

IRRIGATION DETAILS

CITY PERMIT SET

IR-501



J 2-WIRE CONNECTION DETAIL

NOT TO SCALE

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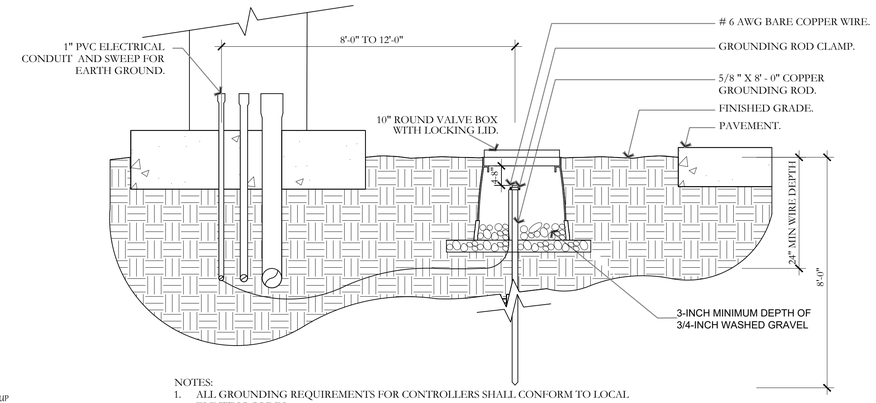


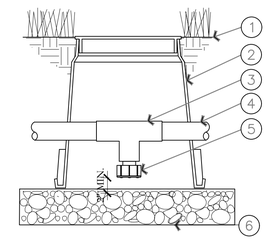
NOTES:

1. ALL GROUNDING REQUIREMENTS FOR CONTROLLERS SHALL CONFORM TO LOCAL ELECTRIC CODES.
2. GROUNDING ROD SHALL NOT BE LOCATED IN THE SAME TRENCH AS THE IRRIGATION MAINLINES OR LATERAL LINES.
3. VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
4. INSTALL GROUNDING ROD PER THE CONTROLLER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

K GROUNDING ROD DETAIL

NOT TO SCALE

PKJ DESIGN GROUP

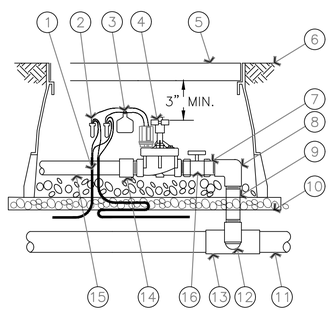


1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER: RAIN BIRD VB-6RND
3. PVC SCH 40 TEE
4. PVC LATERAL PIPE
5. FILTERED DRAIN VALVE: RAIN BIRD 16A-FDV-075
6. 6-INCH MINIMUM DEPTH OF 3/4" WASHED GRAVEL

L MANUAL LINE DRAIN VALVE DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



1. 36-INCH LENGTH OF 2-WIRE CABLE
2. WATERPROOF CONNECTION RAIN BIRD WC20 (TWO REQUIRED)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD PEB/PESB/PESB-R WITH IVM-SOL
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL `
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
11. PVC MAINLINE PIPE SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
12. PVC SCH 40 TEE OR ELL
13. PVC SCH 40 MALE ADAPTER
14. PVC LATERAL PIPE
15. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
16. BRASS BALL VALVE

M ELECTRIC REMOTE-CONTROL VALVE PEB OR PESB SERIES WITH IVM-SOL

NOT TO SCALE

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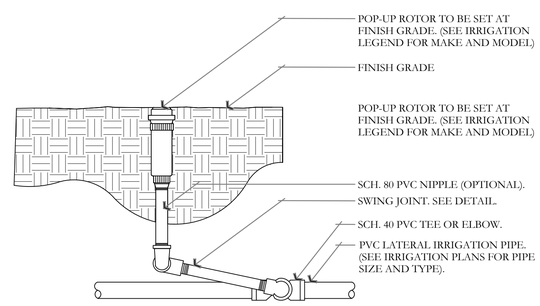

NOTES:

1. ALL THREADED CONNECTION POINTS BETWEEN SCH. 40 PVC AND SCH. 80 PVC FITTING SHALL BE INSTALLED USING TEFLON TAPE.
2. CONTRACTOR SHALL COMPACT SOIL AROUND ROTOR AND RISER PRIOR TO PLANTING, PLUGGING, SEEDING, OR LAYING OF SOD.

N ROTOR HEAD DETAIL

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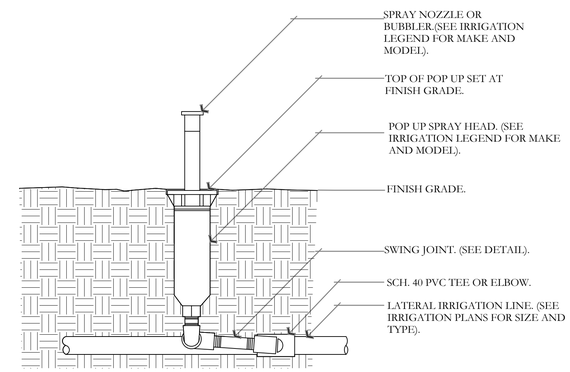

NOTE:

1. 4" POP UPS SHALL BE USED IN TURF AREAS.
2. CONTRACTOR SHALL SETTLE SOIL AROUND THE POP UP AFTER INSTALLATION.
3. ALL POP UP SPRAY HEADS SHALL HAVE CHECK VALVES.
4. ALL SCH. 40 PVC TO SCH. 80 PVC CONNECTIONS SHALL BE MADE USING TEFLON TAPE.

O POP UP-SPRAY HEAD DETAIL

NOT TO SCALE

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ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
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LICENSED LANDSCAPE ARCHITECT JEREMY AINSWORTH 8128127-5301 4/29/2024 ELECTRONIC SEAL STATE OF UTAH

DRAWN: ACP
CHECKED: JMA
PLOT DATE: 4/29/2024

IRRIGATION DETAILS

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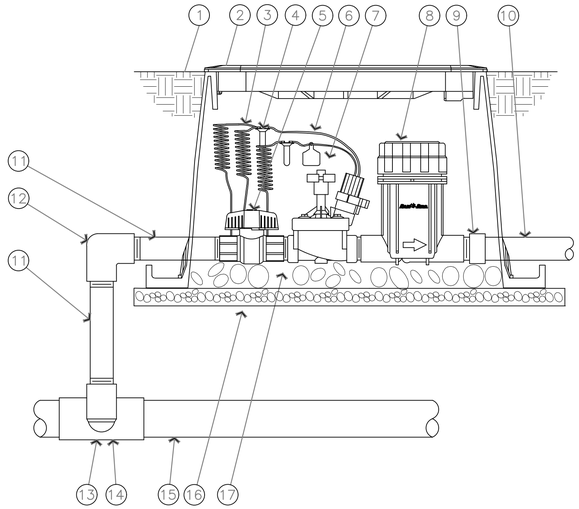
IR-502



1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER: RAIN BIRD VB-STD
3. 30-INCH LINEAR LENGTH OF WIRE, COILED
4. WATERPROOF CONNECTION: RAIN BIRD DB SERIES
5. 1-INCH BALL VALVE (INCLUDED IN XCZ-PRB-100-COM KIT)
6. ID TAG
7. REMOTE CONTROL VALVE: RAIN BIRD PESB (INCLUCED IN XCZ-PRB-100-COM KIT)
8. PRESSURE REGULATING AND FLOW INDICATING BASKET FILTER: RAIN BIRD XCZ-100-FLOW
9. PVC SCH 40 FEMALE ADAPTOR
10. LATERAL PIPE
11. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
12. PVC SCH 40 ELL
13. PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
14. PVC SCH 40 TEE OR ELL
15. MAINLINE PIPE
16. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
17. PVC SCH 80 NIPPLE, CLOSE (INCLUDED IN XCZ-PRB-100-COM KIT)

P DRIP CONTROL ZONE KIT DETAIL

NOT TO SCALE

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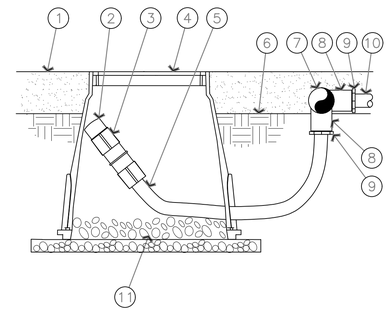

1. MULCH
2. FLUSH CAP FOR EASY FIT COMPRESSION FITTINGS: POTABLE:RAIN BIRD MDCFCAP
3. EASY FIT COUPLING: RAIN BIRD MDCFCOUP
4. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
5. ½" POLYETHYLENE TUBING: RAIN BIRD XF BLANK TUBING
6. FINISH GRADE
7. PVC EXHAUST HEADER
8. PVC SCH 40 TEE OR EL
9. BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
10. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFCV DRIPLINE
11. 3-INCH MINIMUM DEPTH OF 3/4 " WASHED GRAVEL

NOTE:
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

Q ON-SURFACE DRIPLINE FLUSH POINT DETAIL

NOT TO SCALE

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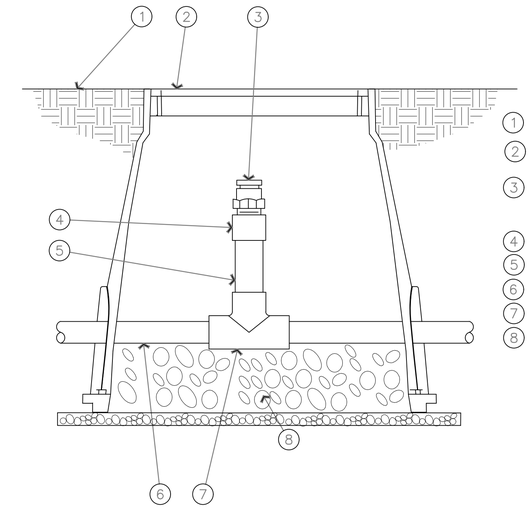
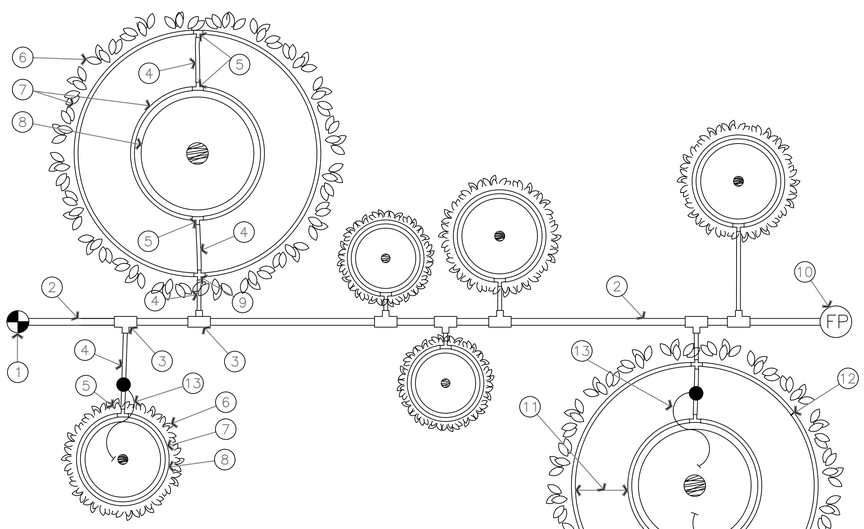


1. FINISH GRADE
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. ½" AIR RELIEF VALVE: RAIN BIRD ARV050 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
4. PVC SCH 40 FEMALE ADAPTER
5. PVC SCH 80 RISER
6. PVC HEADER PIPE
7. PVC SCH 40 TEE
8. 3" MINIMUM DEPTH OF 3/4" WASHED GRAVEL

R AIR RELIEF VALVE DETAIL

NOT TO SCALE

PKJ DESIGN GROUP



1. RAIN BIRD CONTROL ZONE KIT (SIZED TO ACCOMIDATE LATERAL FLOW DEMAND)
2. PVC DRIP LATERAL PIPE
3. PVC SCH 40 TEE OR EL (TYPICAL)
4. ½" POLYETHYLENE TUBING: RAIN BIRD XF SERIES- S FOR COPPER SHEILD (TYPICAL)
5. BARB X BARB INSERT TEE: RAIN BIRD XFF-TEE (TYPICAL)
6. PROJECTED CANOPY LINE OF TREE OR SHRUB (TYPICAL)
7. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFCV SERIES PLACE AS SHOWN (LENGTH AS REQUIRED, TYPICAL)
8. ROOT BALL (TYPICAL)
9. BARB X BARB INSERT CROSS: RAIN BIRD XFD-CROSS (TYPICAL)
10. DRIPLINE FLUSH POINT (SEE RAIN BIRD DETAIL: "XFCV DRIPLINE FLUSH POINT WITH BALL VALVE")
11. SPACING PER SPECIFICATION
12. TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (QUANTITY AS REQUIRED, SEE NOTES 2-3 BELOW)
13. POINT SOURCE EMITTERS FOR ESTABLISHMENT PERIOD. REMOVE AFTER ESTABLISHMENT PERIOD.

NOTES:
1. INSTALL MULTIPLE RINGS AS REQUIRED TO PROVIDE IRRIGATION COVERAGE FROM ROOT BALL TO PROJECTED TREE CANOPY. REFER TO RAIN BIRD DESIGN GUIDELINES AND SPECIFICATIONS FOR RECOMMENDED SPACING BETWEEN RINGS.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

S ON-SURFACE DRIPLINE TREE/SHRUB DETAIL

NOT TO SCALE

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ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
4/29/2024	UT24066						

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LEHI, UTAH 84043 (801) 753-5644
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LICENSED LANDSCAPE ARCHITECT
JEREMY AINSWORTH
8129121-5301
4/29/2024
ELECTRONIC SEAL
STATE OF UTAH

PM: JTA
DRAWN: ACP
CHECKED: JMA
PLOT DATE: 4/29/2024

IRRIGATION DETAILS

CITY PERMIT SET

IR-503

ACKNOWLEDGEMENT AGREEMENT FOR CONDITIONS OF LAND USE AS REQUIRED BY THE PRICE CITY PLANNING AND ZONING DEPARTMENT AND AS AGREED TO BY THE LAND USE APPLICANT FOR A SITE PLAN FOR THE LAND USE OF STORAGE UNITS, CARETAKER RESIDENCE AND FUTURE CAR WASH AT 1430 E 300 S WITHIN THE COMMERICAL 1 (C-1) ZONING DISTRICT.

Purpose: the purpose of this agreement is to establish the terms and conditions of an agreement between Price City and JESSE REYNOLDS, BEAR RIVER STORAGE, regarding the conditions of land use associated with Price City Land Use Management and Development Code (Code) as it is associated with A SITE PLAN APPROVAL FOR STORAGE UNITS, CARETAKER RESIDENCE AND FUTURE CAR WASH.

Parties: this agreement is made by and between Price City (City), 185 East Main Street, Price, Utah 84501 and JESSE REYNOLDS, BEAR RIVER STORAGE (Applicant), for the property located **1430 E 300 S.**

Term: the term of this agreement commences on November 25th, 2024 and will perpetually run with the land unless terminated based on a change of use or other performance or compliance factors as outlined in the Price City Land Use Management and Development Code (Code). This contract is further subject to compliance with all Code requirements and other state, federal or local permitting.

The parties identified above hereby agree to the following:

Applicant Shall:
Site Plan Elements:

- All construction and site work to be compliant with approved plans and any subsequent direction from Price City officials finding that development compliant with approved plans mitigates the potential for development misunderstandings and ensures quality development completion.
- Installation and (re)installation of any public infrastructure damaged or impacted on 300 South Street during construction finding that quality public infrastructure mitigates the potential for costly repairs.
- Garbage, rubbish and debris to be controlled in an enclosed dumpster location with a hard surface and a service frequency that prevents accumulations of garbage, rubbish and debris or wind scatter of garbage, rubbish and debris finding that controlled garbage, rubbish and debris improves the community aesthetic consistent with the Price City General Plan. All garbage, rubbish and debris during construction to be controlled and removed from the site.
- Utility connections to be completed as identified on the plans submitted and as directed by the respective providers finding that planned and coordinated utility connections mitigate the potential for misunderstandings. Electrical Specific: Electric Service as indicated and required by the Price City Electrical Department based on the load sheet submitted.
- Storm water management infrastructure to be installed per the submitted plans and in compliance with any direction from Price City or other officials in regard to control and released of storm water runoff from the site. Storm water to be controlled and released to pre-development flows to a bona-fide storm water conveyance with capacity to control a 100-year storm event for a 1-hour duration. Storm water control infrastructure on-site to be regularly maintained to prevent clogging or other storm water control impediments.
- All exterior areas to be lighted during any dark hours wherein access to the facility is available finding that properly lighted areas mitigate the potential for personal injury accidents. All exterior lighting to be high efficiency LED fixtures. Lighting to be angled away from, shielded or other mitigations for light transference from neighboring residential land uses.
- Sight obscuring fencing installed surrounding the site, in a height of six (6) feet; three (3) feet from property boundaries back thirty (30) feet finding that land use separations from neighboring properties mitigate the potential for accidents, injuries and conflicts.
- All vehicle site ingress/egress to be from 300 S Street only. Emergency access gate to be placed in the southeast corner of the site – for emergency use and access only. Acknowledgement letter from neighboring

property (Housing Authority of Carbon County) regarding understanding of possible emergency access point and intent to ensure that access to the emergency access point remains open and unincumbered.

- Site landscaping to be not less than five percent (5%) of the site per Code requirements. Water wise landscaping requested.
- Business signage to be reviewed and approved by the Price City Planning Department prior to installation finding that properly reviewed and approved commercial signage promotes increased commercial activity and signage consistency in the community.
- Private fire hydrants to be serviced, tested and reported to the Price City Fire Chief annually.
- Not less than four (4) off street parking spaces adjacent to the office and caretaker residence, as identified on the submitted site plan finding that off street parking mitigates the potential for accidents.
- No long term or overnight parking of vehicles in the storage area. No outside storage of vehicles or equipment.

Plans, Permits and Documents:

- Final electrical load sheet completed and supplied to Price City. Compliance with requirements of the Price City electrical department in regard to electrical utility infrastructure (re)locations, service points, code compliant electrical service upgrades, transmission and distribution pole (re)locations, procurement of valid estimates by owner/developer required.
- Completion of a public infrastructure development agreement, as needed or required, with the Price City Public Works Department and submit the required financial surety finding that property agreed and secured public infrastructure protects the financial interest of the community.
- Obtain a building permit and all construction completed under the auspices of a building permit and inspection finding that properly permitted and inspected construction protects the health, safety and welfare of the community. Contact the Carbon County Building Department.
- Storm water control and management plan, all development and construction in compliance with the approved and accepted plan. Must control, retain and release, to pre-development flow rates, a 100-year storm event for a minimum of a 1-hour duration.
- Completion and submission of a geotechnical study and all development and construction in compliance with the approved and accepted study.
- Obtain a Price City Business License prior to any commercial activity for any business element operating from the site.
- Completion of a Price River Water Improvement (PRWID) waste water survey and submission to PRWID with copy to Price City. Compliance with all waste water protection reequipment stemming from the survey including sampling manholes and grease traps.
- Payment of all fees due prior to commencement of construction including building permit fees, utility extension and connection fees, street opening, demolition permit, local business license.

Restrictions:

- Dust control on site and maintained during construction. No fugitive dust to impact surrounding properties.
- No track out of mud or dirt onto 300 S Street during construction. Use of track mats required.
- Construction Access – from east via 300 S only.
- No authorized on-street parking along public streets. Applies to construction and operation.
- No land uses other than the applied for storage, caretaker residence, future car wash.
- No parking in fire lanes, must install signage and curb painting.
- No nuisance noises, odors or other disturbances to emanate from the subject property (during construction or residential occupancy).
- No businesses permitted within development other than those identified herein finding that the development has limited parking and access. No operation of businesses from storage units.
- No outdoor storage permitted on site.
- No conditions at the property or structure that violate the Price City Property Maintenance Code. Removal and mitigation of any existing Property Maintenance Code violations present on the property.

Price City Shall:

- Authorize the land use contemplated herein and under the terms and conditions set forth as indicated in the Code.

SIGNED THIS _____ DAY OF _____, 20____.

Price City

_____

By Jan Young, Chair

ATTEST:

_____

Jaci Adams, City Recorder

Applicant:

_____

JESSE REYNOLDS, BEAR RIVER STORAGE

CONDITIONAL USE PERMIT

THIS PERMIT IS HEREBY APPROVED FOR:

A LAND USE OF: SITE PLAN FOR DEVELOPMENT OF STORAGE UNITS, CARETAKER RESIDENCE, FUTURE CAR WASH LOCATED AT 1430 E 300 S WITHIN THE C-1 ZONING DISTRICT.

CONSISTENT WITH THE TERMS, CONDITIONS AND REQUIREMENTS SET FORTH BY THE PRICE CITY PLANNING AND ZONING COMMISSION, THE PRICE CITY COUNCIL AND THE PRICE CITY LAND USE MANAGEMENT AND DEVELOPMENT CODE.

Price Utah

SIGNATURE DATE