



# Staff Report to the Ogden Valley Planning Commission

Weber County Planning Division

## Synopsis

### Application Information

<b>Application Request:</b>	Consideration and action on a conditional use permit application for 50 self storage units located at approximately 601 South 7800 East, Huntsville, UT.
<b>Type of Decision:</b>	Administrative
<b>Agenda Date:</b>	Tuesday, October 24, 2017
<b>Applicant:</b>	Kerry Wangsgard
<b>Authorized Agent:</b>	Chris Cave, Reeve and Associates Inc
<b>File Number:</b>	CUP# 2017-06

### Property Information

<b>Approximate Address:</b>	601 S 7800 E, Huntsville, UT
<b>Project Area:</b>	2.15 acres
<b>Zoning:</b>	Commercial Valley (CV-2) Zone
<b>Existing Land Use:</b>	Self storage units
<b>Proposed Land Use:</b>	Additional self storage units
<b>Parcel ID:</b>	24-018-0007
<b>Township, Range, Section:</b>	Township 6 North, Range 2 East, Section 18

### Adjacent Land Use

<b>North:</b>	Vacant Commercial	<b>South:</b>	Residential
<b>East:</b>	Agriculture	<b>West:</b>	Vacant Commercial

### Staff Information

<b>Report Presenter:</b>	<b>Steve Burton</b> sburton@co.weber.ut.us 801-399-8766
<b>Report Reviewer:</b>	RK

## Applicable Ordinances

- Title 101, Chapter 1, General Provisions, Definitions
- Title 104, Chapter 21 Commercial Valley Zone (CV-2)
- Title 108, Chapter 1 Design Review
- Title 108, Chapter 2 Ogden Valley Architectural, Landscape and Screening Design Standards
- Title 108, Chapter 4 Conditional Uses
- Title 108, Chapter 7, Supplementary and Qualifying Regulations, Fencing Requirements
- Title 108, Chapter 8 Parking and Loading Space, Vehicle Traffic and Access Regulations

## Development History

- The applicant submitted the conditional use permit application on April 4, 2017.
- On August 22, 2017 the application was tabled by the Ogden Valley Planning Commission. The decision to table the item was based on the request of the applicant to have the item tabled until the next available meeting.
- On September 26, 2017 the Ogden Valley Planning Commission tabled the item to allow the applicant to submit a revised plan to the Planning Division clarifying fencing, screening, and hard surface driving materials, as well as berming on the site plan. The Commission recommended placing berms and trees along the west side of the project to protect the view corridor. The Commission requested that the applicant provide storm drainage calculations, a signage plan, a lighting plan as well as provide drawings showing architectural relief on all buildings as outlined in the land use code. The Commission also requested a revised landscaping plan. The Commission stated that the item will be considered at the Ogden Valley Planning Commission meeting that will be held on October 24, 2017 at 5:00 PM. A revised plan has been submitted and the staff report addresses each of the items the Planning Commission requested.

## Summary and Background

The applicant is requesting approval of a conditional use permit to construct 50 self-storage units located at approximately 601 South 7800 East, Huntsville. The applicant is proposing 3 storage unit buildings; Building A will include 11 16'x40' units; Building B will include 12 16'x45' units and 8 14'x20' units; Building C will include 9 16'x35' units and 10 14'x20' units. The site will also include 2 existing self-storage buildings. The existing site gains access from 7800 E through the adjacent parcel to the west that is also owned by the applicant. The applicant has provided a site plan (Exhibit B) and a landscaping plan (Exhibit C) as part of the application.

Conditional use permits should be approved as long as any harmful impact is mitigated. The Uniform Land Use Code of Weber County, Utah (LUC) already specifies certain standards necessary for mitigation of harmful impact to which the proposal must adhere. The proposed application, in compliance with the recommended conditions, appears to meet these standards. The following is staff's evaluation of the request.

## Analysis

**General Plan:** The proposal conforms to the Ogden Valley General Plan by directing new commercial development to Huntsville (pg. 25 Ogden Valley General Plan, Commercial Development Goal 1).

**Zoning:** The subject property is located within the Commercial Valley (CV-2) Zone. The purpose of the CV-2 Zone can be further described in LUC §104-21-1 as follows:

*The purpose of the CV-1 and CV-2 zones is to provide suitable areas for the location of the various types of commercial activity needed to serve the people and commerce of the Ogden Valley in unincorporated Weber County. It is also to separate, into two commercial zones, uses based upon the type of activity which are compatible and complementary, as well as the intensity of land utilization and accessory use needs.*

*The CV-2 Zone (General Commercial) has been established for the purpose of providing a broad range of commercial services and goods to serve a larger region of the county like the Ogden Valley. Areas with CV-2 zoning have a principal patronage which originates throughout the Ogden Valley or is due to recreation in the Ogden Valley. CV-2 areas are to be a commercial hub or node of activity. These areas, as outlined in the General Plan, are to be near the traditional town centers of the Ogden Valley and not to be strung out along the highways. Uses in the CV-2 Zone may provide goods and services not typically found amongst commercial areas within resorts including automobile sales and service, sporting goods, service stations, hotels, and professional offices.*

The CV-2 Zone has specific standards identified in the LUC §104-21-2 that shall be met as part of the development process. The applicable standards are as follows:

- Minimum yard setbacks:
  - Front: 20'
  - Side: 10' where a building is adjacent to a residential or agricultural zone boundary
  - Rear: 10' where a building is adjacent to a residential or agricultural zone boundary
- Minimum lot area: None
- Minimum lot width: None
- Building height:
  - Maximum: 35'

Building A will be located 20' from the front property line and 12' from the side property line adjacent to an agricultural zone; Building B will be located along the side property line that abuts the CV-2 zone. The end of 'Building B' will be 14' from the side property line that is adjacent to the agricultural zone; Building C will be located 30' from the rear and side property lines that are adjacent to the agricultural zones. The proposed buildings, according to the site plan, are in compliance with the site development standards of the CV-2 Zone.

**Conditional Use Review:** A review process has been outlined in LUC §108-4-3 to ensure compliance with the applicable ordinances and to mitigate anticipated detrimental effects. Prior to commencing work, the applicant will need to receive approval from the applicable agencies for the proposal. A condition has been made part of the Planning Division's recommendations to ensure that this standard is met.

**Design Review:** The CV-2 zone and the proposed conditional use mandate a design review as outlined in LUC §108-1 to ensure that the general design, layout and appearance of the building remains orderly and harmonious with the surrounding neighborhood. As part of this review, the Planning Commission shall consider the applicable matters based on

the proposed conditional use and impose conditions to mitigate deficiencies where the plan is found deficient. The matters for consideration are as follows:

- *Considerations relating to traffic safety and traffic congestion.* As part of this consideration, the applicant has provided a detailed site plan (see Exhibit B). A condition of approval has been added to the Planning Division's recommendation to ensure the requirements of the Utah Department of Transportation are met prior to the issuance of a land use permit for the construction of the new buildings.

The applicant is proposing a 19,151 square foot driving/unloading area for the new buildings. The driving area will consist of concrete base material. The existing site includes concrete driving areas for parking at the previously existing storage units. A 9' wide concrete strip will be located along the frontage of each of the proposed buildings, providing the hard surface parking requirement outlined in LUC §108-8-7.

- *Considerations relating to landscaping.* The applicant's site plan and landscaping plan show that the project area will meet the 20 % landscaping requirement outlined in LUC Title 108 Chapter 2. The proposed landscaping includes existing pasture grass (to be protected during construction). The applicant will be required to submit a landscape maintenance plan to ensure that the existing field grass is maintained in good condition so as to provide a neat and orderly appearance, free from weeds, as stated in LUC §108-2-5(i). The applicant has proposed additional landscaping in front of Building A, as requested by the Planning Commission during the September 26, 2017 meeting, including a 3' berm, 20 coniferous trees, and 34 shrubs. The applicant plans to irrigate the new trees and shrubs through a pressurized irrigation system, as shown on the irrigation plan.
- *Considerations relating to buildings and site layout.* The proposed buildings meet the site development standards of the CV-2 Zone. The site plan shows that the new buildings will consist of light beige CMU walls, off white metal doors, tan metal roof, and green aluminum roof trim, conforming to the architectural standards outlined in LUC §108-2-4(1). The proposed parking area for the existing buildings will be screened from the adjacent AV-3 zone as required by LUC §108-2-7(b). The screening along the south property line includes a 6' vinyl fence that will be muted tan and non reflective. Some existing plants as shown on the landscaping plan will also be used for screening. The applicant has provided elevations (as shown on the site plan) showing a change in roof height every 32' to ensure that monotonous horizontal lines greater than 50 ft are avoided.

With the revised site plan, the applicant is proposing to construct each building by phase. The applicant will be required to install the screening, fencing, landscaping and irrigation plan, as shown on the revised site/landscaping plan prior to issuance of a certificate of occupancy for Phase 1. LUC §108-1-7 states that occupancy shall not occur until all improvements have either been installed or guaranteed.

A 15' wide code access gate will be located along the front access of the facility to allow 24/7 access to customers. The applicant has also proposed a black wrought iron fence along the front and north side property lines. The gate and wrought iron fence shall not exceed 6' in height, as stated in LUC §108-7-3.

The applicant has provided a lighting plan, as shown on the revised site plan, including solar, low voltage lighting at the entrance gate. The proposed lighting will be required to comply with the Ogden Valley Outdoor Lighting Standards, LUC Title 108 Chapter 16.

The applicant has also provided a signage plan, as shown on the revised site plan, including the existing entrance sign to remain. The sign is considered non-conforming and existed prior to the adoption of the current sign code. In the future, should the site improvements exceed what is being proposed with this application, the non-conforming sign shall be brought into compliance with the Ogden Valley Sign standards, as outlined in LUC Title 110 Chapter 2.

- *Considerations relating to utility easements, drainage, and other engineering questions.* The applicant has provided storm runoff calculations, as requested by the Planning Commission during the meeting on September 26, 2017. The applicant will need to adhere to all conditions of the Engineering Division including but not limited to storm water and surface water drainage, retention facilities, and site clean-up of the property. A condition has been made part of the Planning Division's recommendations to ensure that this standard is met.
- *Considerations relating to prior development concept plan approval associated with any rezoning agreement, planned commercial or manufacturing rezoning, or planned residential unit development approval.* The proposed site does not have any type of development agreement associated with the property; therefore considerations pertaining to this portion of the code are not applicable at this time.

Review Agencies: A condition has been made part of the Planning Division's recommendations to ensure that all conditions of the review agencies will be met.

## Summary of Planning Commission Considerations

In order for a conditional use to be approved it must meet the requirements of applicable ordinances listed in this staff report, which include the requirements listed in LUC §108-4-4, under "Decision Requirements", which states:

*a) A conditional use shall be approved if reasonable conditions are proposed, or can be imposed, to substantially mitigate the reasonably anticipated detrimental effects of the proposed use in accordance with the standards of this chapter, or relevant standards or requirements of any other chapter of this Land Use Code. When considering any of the standards, the land use authority shall consider the reasonably anticipated detrimental effects of the proposed use in the context of current conditions and, to the extent supported by law, the policy recommendations of the applicable general plan.*

*b) If the reasonably anticipated detrimental effects of a proposed conditional use cannot be substantially mitigated by the proposal or the imposition of reasonable conditions to achieve compliance with applicable standards, the conditional use may be denied.*

The Planning Commission will need to determine if the request for 50 self storage units has met the requirements of the applicable Uniform Land Use Code of Weber County. The Planning Commission may impose additional conditions in order to ensure full compliance with the required standards. In making a decision, the Planning Commission should consider the following questions:

- Does the submittal meet the Uniform Land Use Code of Weber County? If no, then what conditions could be added in order to comply?
- Have the "Decision Requirements" and other applicable ordinances been met?

## Staff Recommendation

The Planning Division recommends approval of file# CUP 2017-06, a conditional use permit application for 50 self storage units located at approximately 601 South 7800 East, Huntsville, UT, on parcel 24-018-0007. This recommendation for approval is subject to all review agency requirements and with the following conditions:

1. All State, Federal, and County standards, including UDOT's standards, must be met prior to issuance of a certificate of occupancy for all phases.
2. The applicant will be required to install the screening, fencing, landscaping and irrigation plan, as shown on the revised site/landscaping plan prior to issuance of a certificate of occupancy for Phase 1.
3. The applicant will be required to submit a landscape maintenance plan to ensure that the existing field grass is maintained in good condition so as to provide a neat and orderly appearance, free from weeds, as stated in LUC §108-2-5(i).
4. The proposed fencing must not exceed 6 ft in height, as outlined in LUC §108-7-3.
5. Prior to the issuance of a conditional use permit, the existing outdoor storage of boats, trailers, and any other outdoor storage must be removed from the parcel used to access the property.
6. The applicant must obtain an approved building permit for the project prior to commencement of the project.
7. The proposed lighting will be required to have light shielding and be in compliance with LUC Title 108 Chapter 16.

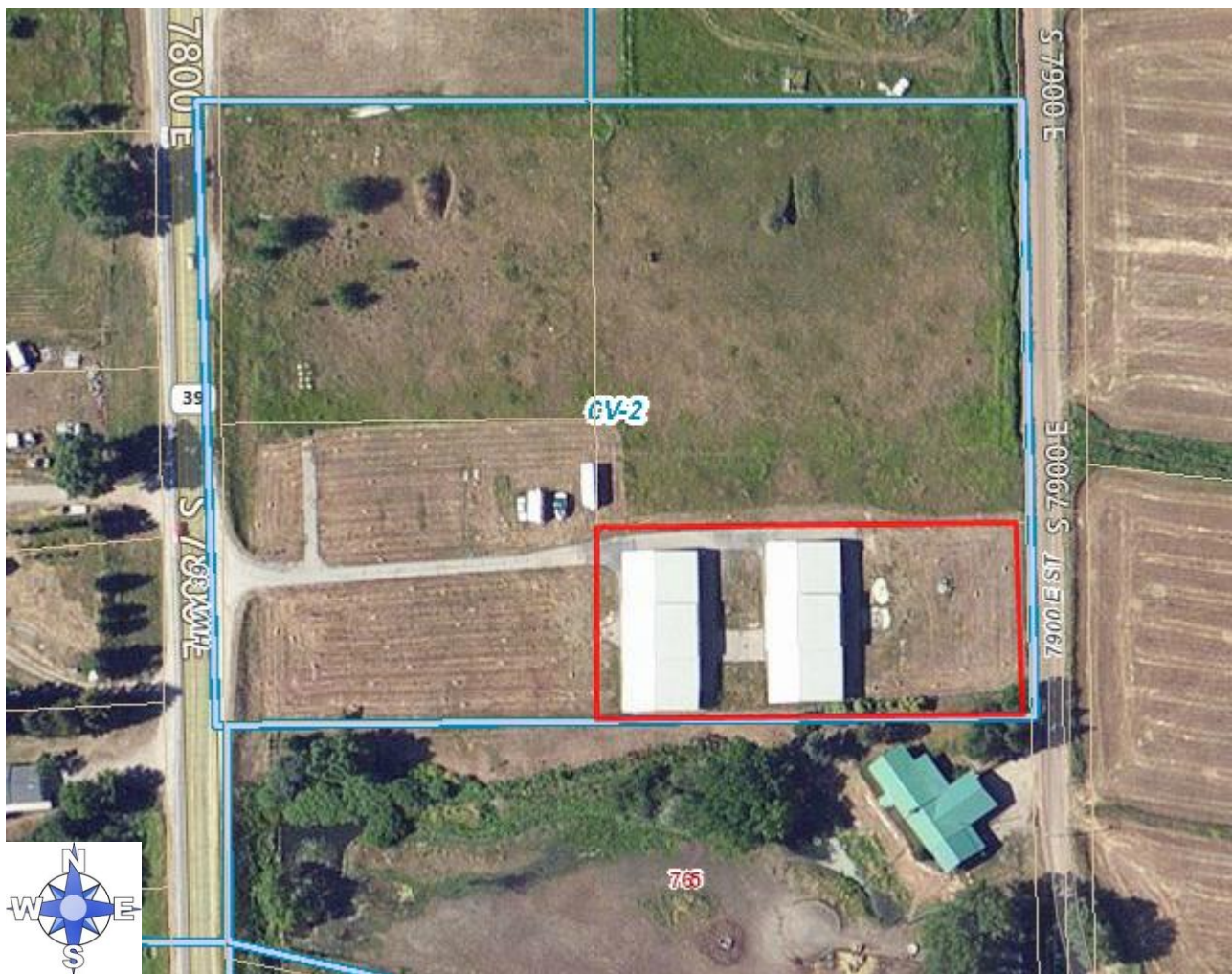
This recommendation is based on the following findings:

1. The proposed use conforms to the Ogden Valley General Plan.
2. The proposed use, if conditions are imposed, will not be detrimental to public health, safety, or welfare.
3. The proposed use, if conditions are imposed, will comply with applicable County ordinances.
4. The proposed use will not deteriorate the environment of the general area so as to negatively impact surrounding properties and uses.

## Exhibits

- A. Application
- B. Site and Building Plan
- C. Landscaping Plan
- D. Storm Runoff Calculations
- E. Image of Existing Sign

## Map 1



## Weber County Conditional Use Permit Application

Application submittals will be accepted by appointment only. (801) 399-8791. 2380 Washington Blvd. Suite 240, Ogden, UT 84401

Date Submitted / Completed	Fees (Office Use)	Receipt Number (Office Use)	File Number (Office Use)
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### Property Owner Contact Information

Name of Property Owner(s) Kerry Wangsgard		Mailing Address of Property Owner(s) 1322 E. 2400 N. North Ogden, Ut. 84414	
Phone 801-388-3114	Fax		
Email Address		Preferred Method of Written Correspondence <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Mail	

### Authorized Representative Contact Information

Name of Person Authorized to Represent the Property Owner(s) Nate Reeve, Reeve & Associates Inc.		Mailing Address of Authorized Person 5160 S. 1500 W. Riverdale, Ut. 84405	
Phone 801-621-3100	Fax		
Email Address nreeve@reeve-assoc.com		Preferred Method of Written Correspondence <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax <input type="checkbox"/> Mail	

### Property Information

Project Name Wangsgard Property	Total Acreage 2.12	Current Zoning CV-2
Approximate Address 601 S. 7800 E. Huntsville, Ut.	Land Serial Number(s) 24-018-0006, 24-018-0007, 24-018-0008	

Proposed Use Storage Units
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Project Narrative  The proposed project will be a 50 unit storage facility with 20% openspace with landscape and will have access from 7800 E. (Hwy 39)
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**Basis for Issuance of Conditional Use Permit**

That the proposed use of the particular location is necessary or desirable to provide a service or facility which will contribute to the general well being of the community:

The proposed location is next to an existing facility already used for storage adjacent to 7800 E. (Hwy 39) and is generally well away from existing residential homes and adjacent to other commercial uses.

That such use will not, under the circumstances of the particular case and the conditions imposed, be detrimental to the health, safety and general welfare of persons nor injurious to property or improvements in the community, but will be compatible with and complimentary to the existing surrounding uses, buildings and structures when considering traffic generation, parking, building design and location, landscaping and signs:

Construction of the project will follow county guidelines mitigating any harm to the community. Use of the facilities will be accessed from 7800 E., an approved access. Minimal impact to traffic and safety issues are foreseen. Buildings will be colors that are complimentary to the surrounding area.

That the proposed use will comply with the regulations and conditions specified in this Ordinance for such use:

The project provides additional storage buildings next to existing storage structures. The site will be enclosed with a 6' vinyl fence and landscape buffers that will provide security and a site barrier. Land use ordinance Sec. 101-21-5 allows storage units.

That the proposed use conforms to the goals, policies and governing principles and land use of the General Plan for Weber County:

The project conforms to the goals, policies and governing principles and land use of the General Plan for Weber County.



That the proposed use will not lead to the deterioration of the environment or ecology of the general area, nor will produce conditions or emit pollutants of such a type or of such a quantity so as to detrimentally effect, to any appreciable degree, public and private properties including the operation of existing uses thereon, in the immediate vicinity of the community or area as a whole:

SWPP pland and BMP's will be implemented on site during construction. It is anticipated that no detioration of the enviroment of the area or emit pollutants in the area during construction or during operation of the project.

### Property Owner Affidavit

I (We), \_\_\_\_\_, depose and say that I (we) am (are) the owner(s) of the property identified in this application and that the statements herein contained, the information provided in the attached plans and other exhibits are in all respects true and correct to the best of my (our) knowledge.

\_\_\_\_\_  
(Property Owner)

\_\_\_\_\_  
(Property Owner)

Subscribed and sworn to me this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_,

\_\_\_\_\_  
(Notary)

### Authorized Representative Affidavit

I (We), \_\_\_\_\_, the owner(s) of the real property described in the attached application, do authorized as my (our) representative(s), \_\_\_\_\_, to represent me (us) regarding the attached application and to appear on my (our) behalf before any administrative or legislative body in the County considering this application and to act in all respects as our agent in matters pertaining to the attached application.

\_\_\_\_\_  
(Property Owner)

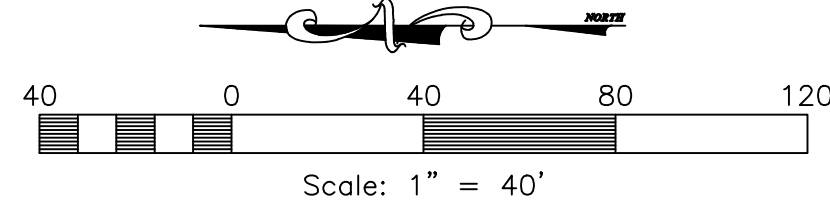
\_\_\_\_\_  
(Property Owner)

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_, personally appeared before me \_\_\_\_\_, the signer(s) of the Representative Authorization Affidavit who duly acknowledged to me that they executed the same.

\_\_\_\_\_  
(Notary)



**VICINITY MAP**  
SCALE: NONE



**NOTES:**

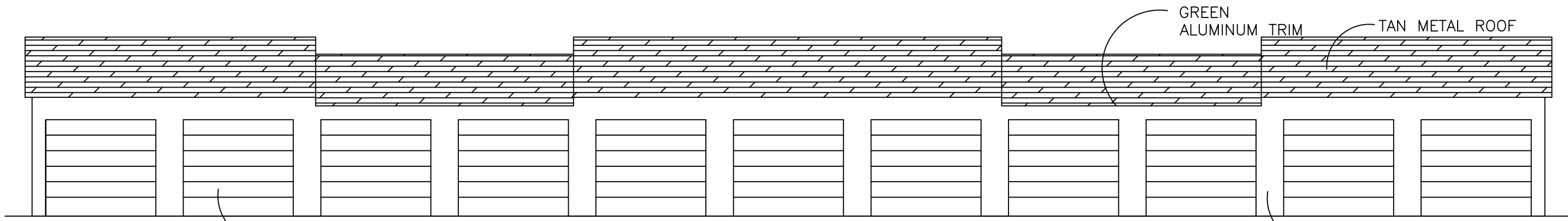
1. THE FRONT OF PROPOSED BUILDING A IS TO BE TEXTURED CONCRETE, PAINTED WITH VARIOUS SHADES OF BEIGE TO CREATE VARIATION RELIEF FOR VIEW OF THE BUILDING
2. THE SITE WILL HAVE A SOLAR, LOW VOLTAGE LIGHT (ZERO FOOT CANDLE) AT PROPERTY LINE.

**SITE INFORMATION**

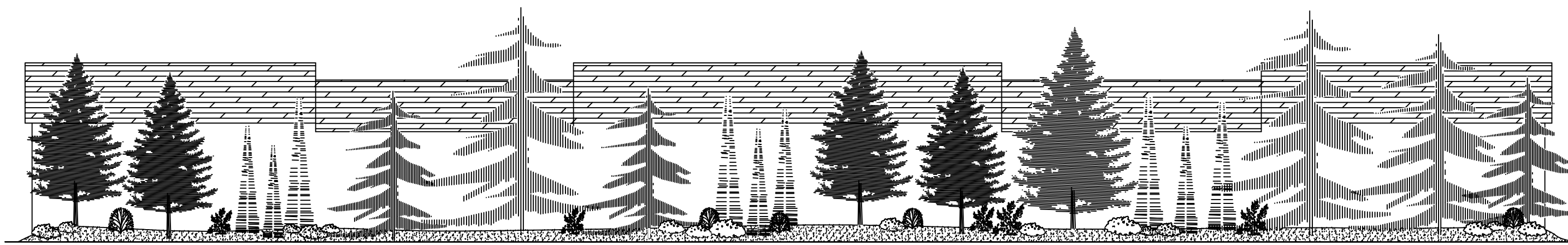
TOTAL AREA.....	98,142 s.f.
14X20 UNITS.....	18 UNITS
16X45 UNITS.....	12 UNITS
16X40 UNITS.....	11 UNITS
16X35 UNITS.....	9 UNITS
EXISTING PASTURE GRASS/LANDSCAPE AREA.....	22,386 s.f. (22.8%)
GRAVEL AREA.....	19,151 s.f.
HARDSCAPE AREA.....	17,118 s.f.

**LEGEND**

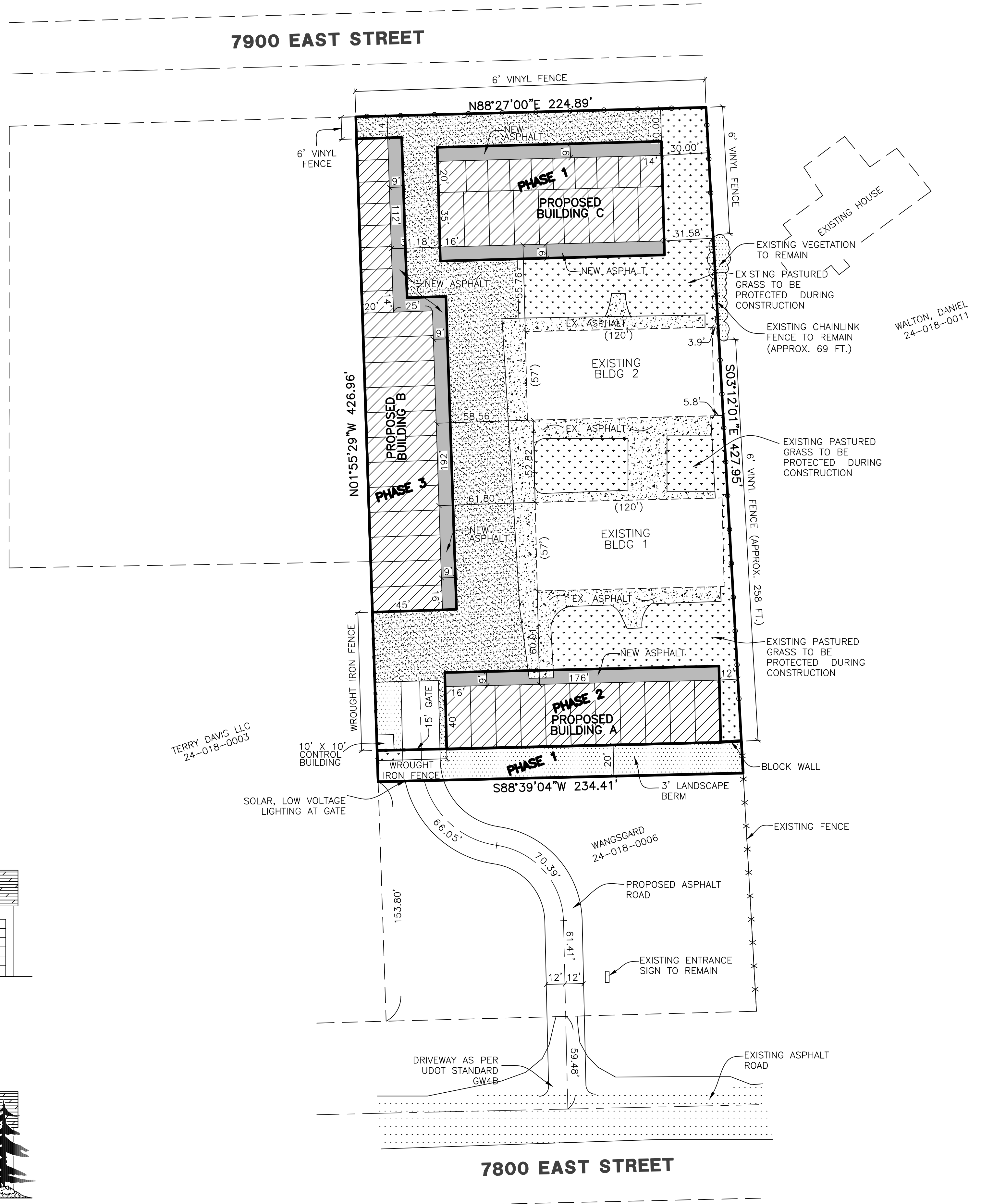
- = LANDSCAPE
- = DRIVABLE LANDSCAPE AREA
- = RECYCLED CONCRETE BASE MATERIAL
- = EXISTING ASPHALT TO REMAIN
- = NEW ASPHALT
- = BOUNDARY LINE
- = ADJOINING PROPERTY
- = EXISTING CHAINLINK FENCE
- = PROPOSED 6' VINYL FENCE (MUTED BROWN/NON-REFLECTIVE)
- = PROPOSED BLACK WROUGHT IRON FENCE
- = PROPOSED BUILDING
- = EXISTING BUILDING



**TYPICAL INTERIOR BUILDING ELEVATION**  
SCALE: NONE



**EXTERIOR BUILDING A ELEVATION**  
(FACING 7800 EAST STREET)  
SCALE: NONE



TERRY DAVIS LLC  
24-018-0003

WALTON, DANIEL  
24-018-0011

**Reeve & Associates, Inc.**  
920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403  
TEL: (801) 821-3100 FAX: (801) 821-8666 WWW.REEVE-ASSOC.COM  
LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS  
ARCHITECTS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

DATE	DESCRIPTION
9-17-15	E.R. LAYOUT UPDATES
1-20-17	C.C. LAYOUT UPDATES
2-09-17	C.C. COUNTY REVIEW
6-23-17	E.R. ADD FRONTAGE
8-03-17	C.C. ASPHALT SURFACE
8-07-17	E.R. ASPHALT SURFACE
10-13-17	E.R. LAYOUT UPDATES

**Wangsgard Property**  
PART OF THE SE 1/4 OF SECTION 18, T.6N., R. 2E., S.1.B. & M., U.S. SURVEY  
HUNTSVILLE, WEBER COUNTY, UTAH

**CUP Site Plan**

Revised: 10-17-17

**Project Info.**

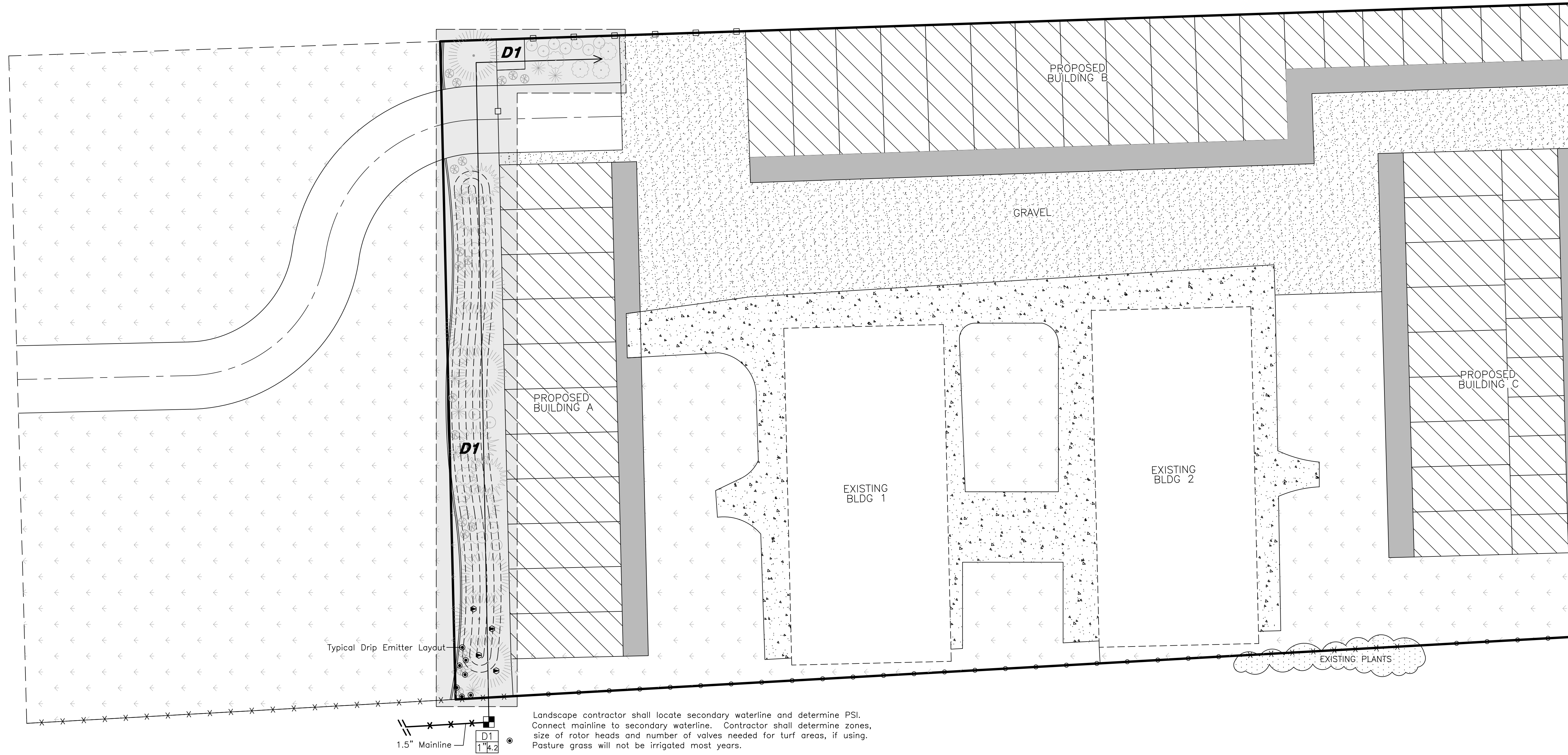
Engineer:	N. Reeve
Designer:	C. Cave
Begin Date:	Sept. 17, 2013
Name:	WANGSGARD PROPERTY
Number:	6260-01

Sheet	1
1	Sheets

**Wangsgard Property**  
Huntsville City, Weber County, Utah

**DEVELOPER:**  
Kerry Wangsgard  
1322 E 2400 N  
North Ogden, UT 84414  
(801) 388-3114

7800 East



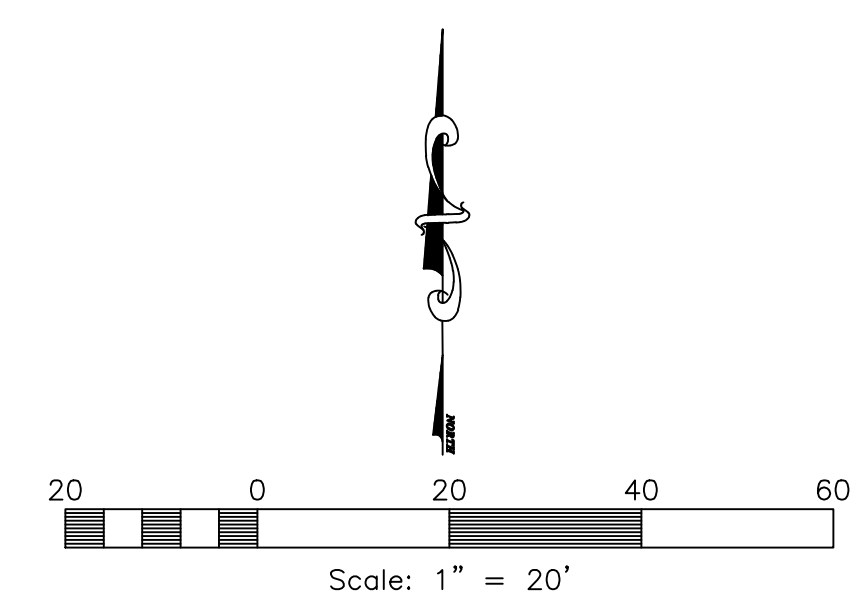
Mainline and valves shall be within landscape area. Shown outside for graphic purposes only.

See Irrigation Schedule for lateral line sizing, typical for all irrigated beds.

See Irrigation Schedule for drip emitter placement, typical for all drip beds.

Sleeve under all paved areas, typ.

Landscape contractor shall locate secondary waterline and determine PSI. Connect mainline to secondary waterline. Contractor shall determine zones, size of rotor heads and number of valves needed for turf areas, if using. Pasture grass will not be irrigated most years.



# Wangsgard Property

Huntsville City, Weber County, Utah

**DEVELOPER:**  
 Kerry Wangsgard  
 1322 E 2400 N  
 North Ogden, UT 84414  
 (801) 388-3114

Revised: 10-16-17

**Reeve & Associates, Inc.**  
 920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403  
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-associ.com  
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS  
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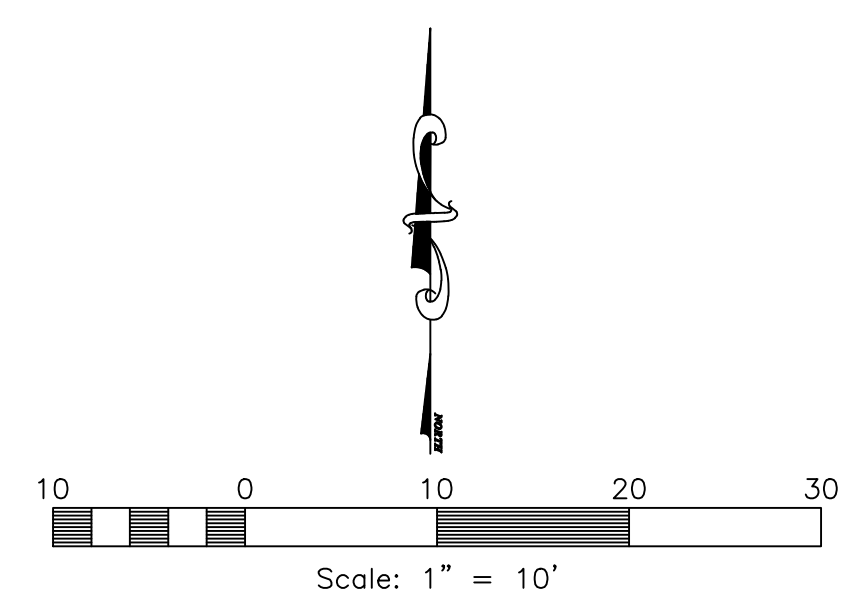
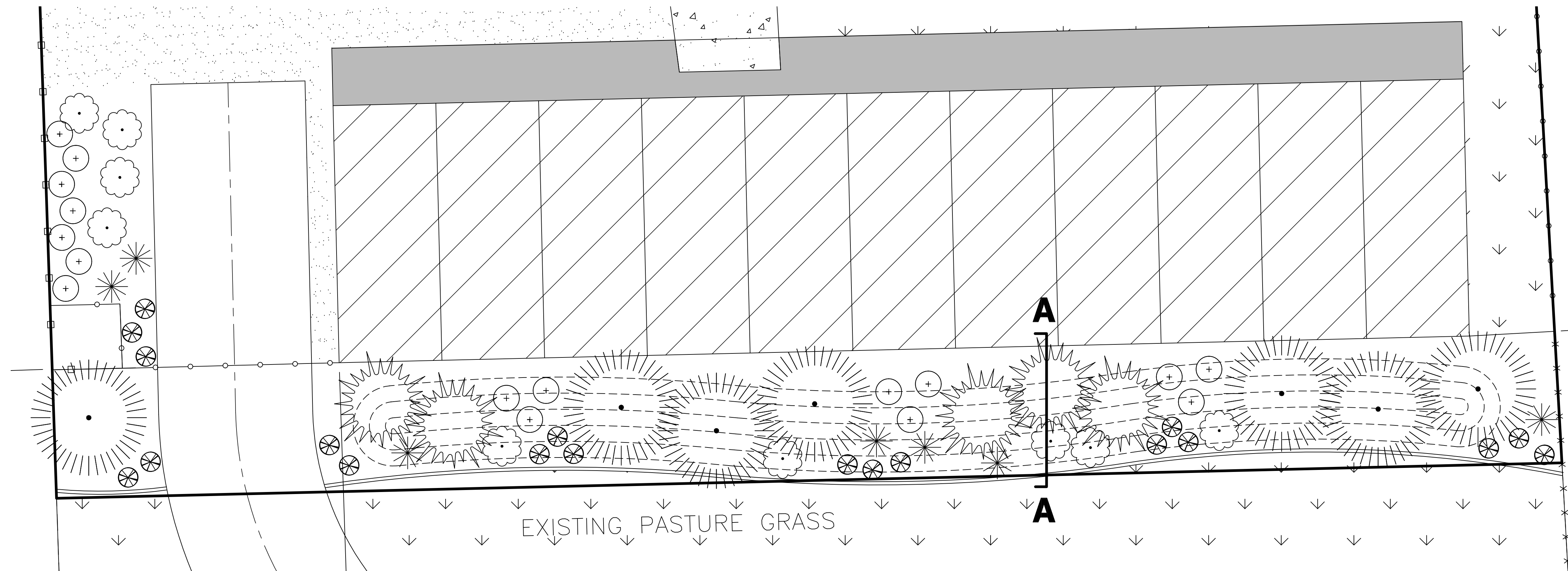
DATE	DESCRIPTION
9-17-15	E.R. LAYOUT UPDATES
1-20-17	C.C. LAYOUT UPDATES
2-09-17	C.C. LAYOUT UPDATES
10-16-17	D.R. LAYOUT UPDATES

**Wangsgard Property**  
 PART OF THE SE 1/4 OF SECTION 18, T.6N., R. 2E., S.L.B & M., U.S. SURVEY  
 HUNTSVILLE, WEBER COUNTY, UTAH

**Irrigation Plan**

**Project Info.**  
 Engineer: N. Reeve  
 Designer: D. REYNOLDS  
 Begin Date: Sept. 17, 2013  
 Name: WANGSGARD PROPERTY  
 Number: 6260-01

Sheet **4**  
**L3** Sheets



**Planting Detail**

**Plant Table**

**TREES**

Quantity	Symbol	Scientific Name	Common Name	Planting Size
16	(+)	Juniperus 'Spartan'	Spartan Juniper	6" cal.
5	(*)	Picea pungens 'Bacheri'	Baker's Dwarf Spruce	6" B&B
7	(*)	Pinus nigra	Austrian Pine	8' B&B

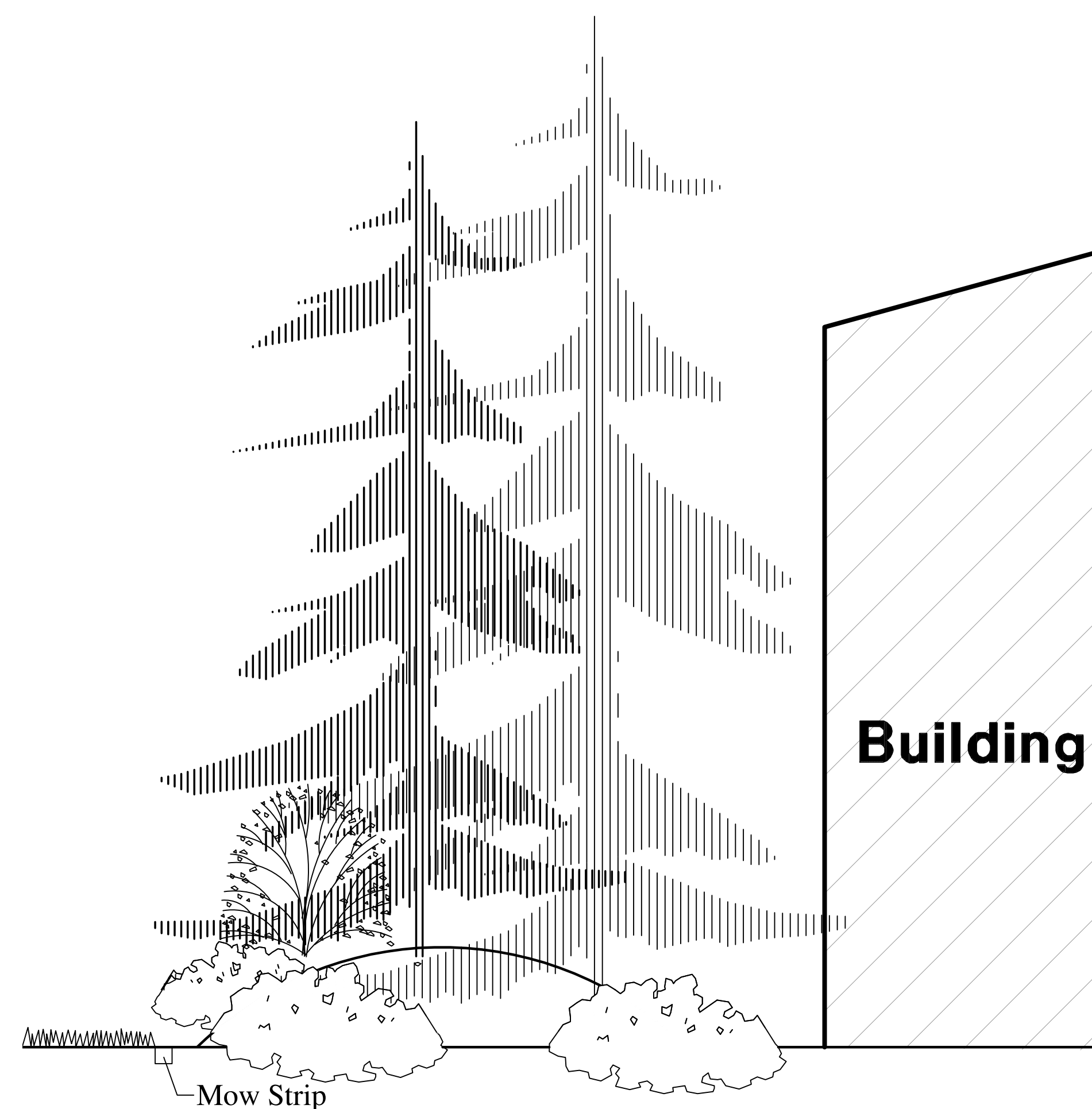
**SHRUBS**

Quantity	Symbol	Scientific Name	Common Name	Planting Size
7	(*)	Perovskia atriplicifolia	Russian Sage	2 gal.
18	(*)	Potentilla frut. 'Gold Drop' or equal	Gold Drop Potentilla or equal	5 gal.
9	(*)	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	5 gal.

(v) Pasture grass to remain. Protect during construction. Repair/replace as needed.

NOTE: All beds shall have a 3" layer of Shredded Bark Mulch.

NOTE: Landscape shall be maintained in good condition as to provide a neat, orderly appearance, free from weeds.



**Berm Section Detail  
Section A-A**  
Not to Scale

**Building**

**DEVELOPER:**

Kerry Wangsgard  
1322 E 2400 N  
North Ogden, UT 84414  
(801) 388-3114

**Wangsgard Property**

Huntsville City, Weber County, Utah

**Reeve & Associates, Inc.**  
920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403  
TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-associ.com  
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DATE	DESCRIPTION
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10-16-17	D.R. LAYOUT UPDATES

**Wangsgard Property**  
PART OF THE SE 1/4 OF SECTION 18, T.6N., R. 2E., S.L.B & M., U.S. SURVEY  
HUNTSVILLE, WEBER COUNTY, UTAH

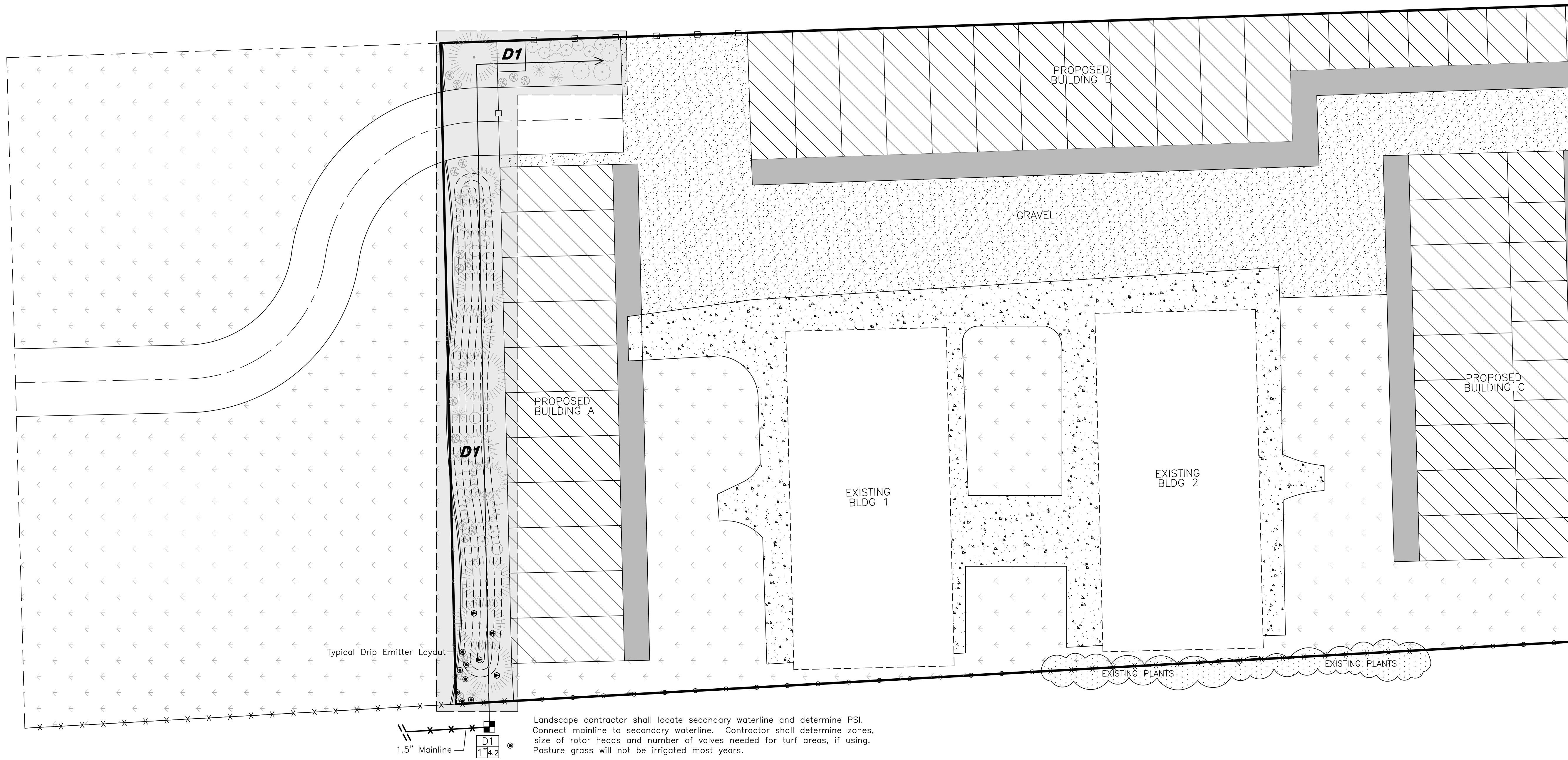
**Landscape Plan**

**Project Info.**  
Engineer: N. Reeve  
Designer: D. REYNOLDS  
Begin Date: Sept. 17, 2013  
Name: WANGSGARD PROPERTY  
Number: 6260-01

Revised: 10-16-17

Sheet **4**  
**L2** Sheets

7800 East



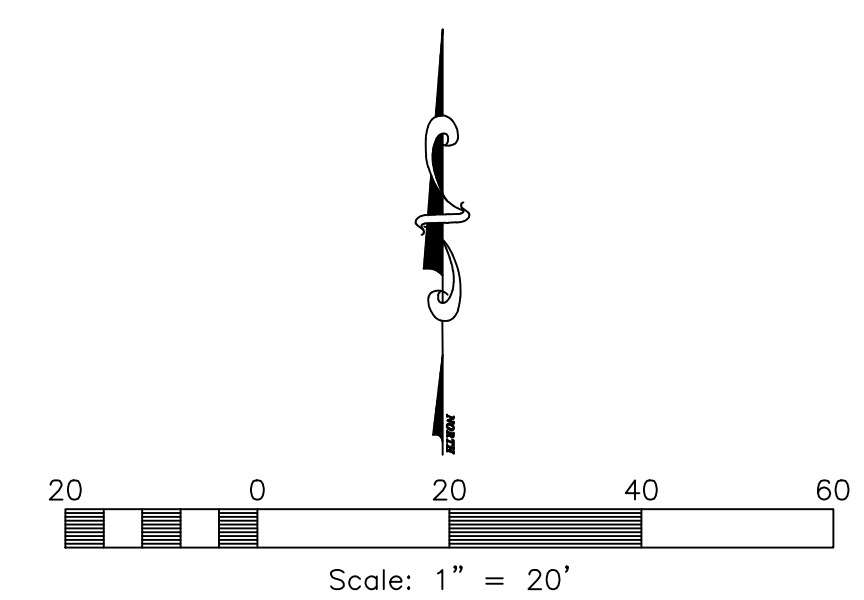
Mainline and valves shall be within landscape area. Shown outside for graphic purposes only.

See Irrigation Schedule for lateral line sizing, typical for all irrigated beds.

See Irrigation Schedule for drip emitter placement, typical for all drip beds.

Sleeve under all paved areas, typ.

Landscape contractor shall locate secondary waterline and determine PSI. Connect mainline to secondary waterline. Contractor shall determine zones, size of rotor heads and number of valves needed for turf areas, if using. Pasture grass will not be irrigated most years.



# Wangsgard Property

Huntsville City, Weber County, Utah

**DEVELOPER:**  
 Kerry Wangsgard  
 1322 E 2400 N  
 North Ogden, UT 84414  
 (801) 388-3114

Revised: 10-16-17

**Reeve & Associates, Inc.**  
 920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403  
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-associ.com  
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS  
 WATER ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

DATE	DESCRIPTION
9-17-15	E.R. LAYOUT UPDATES
1-20-17	C.C. LAYOUT UPDATES
2-09-17	C.C. LAYOUT UPDATES
10-16-17	D.R. LAYOUT UPDATES

**Wangsgard Property**  
 PART OF THE SE 1/4 OF SECTION 18, T.6N., R. 2E., S.L.B & M., U.S. SURVEY  
 HUNTSVILLE, WEBER COUNTY, UTAH

**Irrigation Plan**

**Project Info.**  
 Engineer: N. Reeve  
 Designer: D. REYNOLDS  
 Begin Date: Sept. 17, 2013  
 Name: WANGSGARD PROPERTY  
 Number: 6260-01

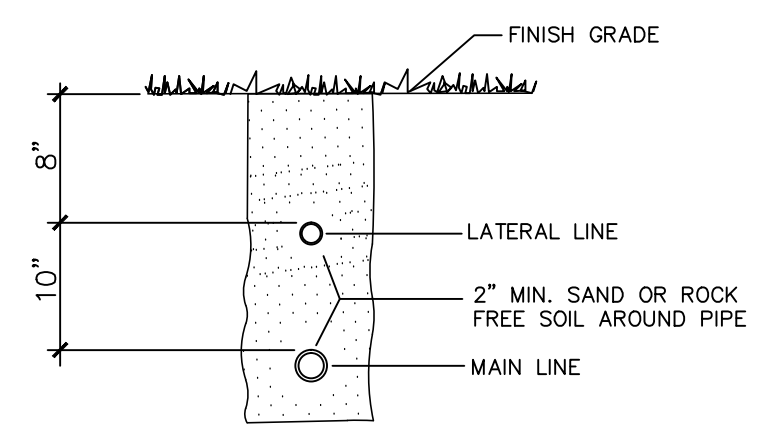
Sheet **4**  
**L3** Sheets

# IRRIGATION SCHEDULE

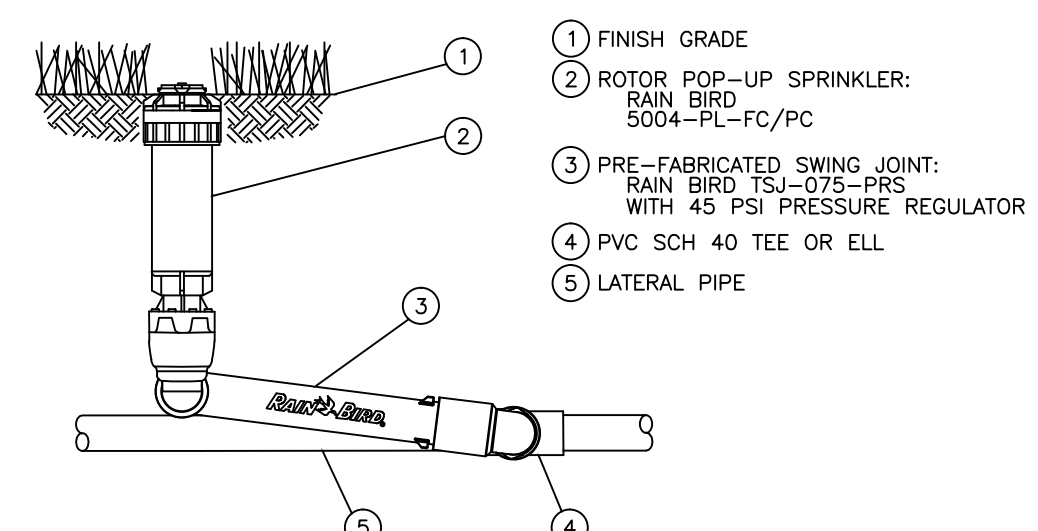
SYMBOL	MANUFACTURER	CATALOG NUMBER	DESCRIPTION
	RAINBIRD	5004-PL-SAM-MPR	BODY AND RAIN CURTAIN ROTOR NOZZLE UNIT USE APPROPRIATE RADIUS' PER TURF AREA
	RAINBIRD	RWS-B-C-1401	ROOT WATERING SERIES, 0.25 GPM, 2 EMITTERS/TREE
	RAINBIRD	XB-T-20-PC	XERIBUG THREADED DRIP EMITTERS, 2 GAL/HOUR 1 EMITTER/1 GAL. PLANT, 2 EMITTERS/5 GAL. PLANT.
	RAINBIRD	XCZ-100-PRB-COM	COMMERCIAL CONTROL ZONE KIT DRIP VALVE
	VALVE NO & CONTROLLER		VALVE ID BOX
			1-1/2" MAINLINE - SCHEDULE 40 PVC
			DRIP LATERAL LINE - POLY PIPE MAY BE USED
	RAINBIRD	ESP(8 OR 12)LXME:120 VAC ESPLXMSM (4,8,12) STATION MODULE	INDOOR/OUTDOOR MOUNT BASE CONTROLLER. ADD SPECIFIED MODULE. LANDSCAPE CONTRACTOR SHALL DETERMINE SIZE OF CONTROLLER.
			SLEEVEING - SCHEDULE 40 PVC, 2 SIZES GREATER THAN INTERIOR PIPE SLEEVEING USED WHENEVER IRRIGATION IS PLACED UNDER PAVED AREAS.
			GATE VALVE - SIZE PER PIPE - PLACE SLEEVE OVER VALVE
	WILKENS	MODEL 375 OR EQUAL	BACKFLOW PREVENTION, SIZE AS PER CITY/COUNTY REGULATIONS.
	RAINBIRD	MODEL 44LRC	1" QUICK COUPLING VALVE
			IRRIGATION ZONES

NOTE: USE STRONG BOX SBBC 30 AL ALUMINUM BOX TO ENCLOSE BACKFLOW PREVENTER.  
NOTE: USE WR2-RC WIRELESS RAIN/FREEZE SENSOR.

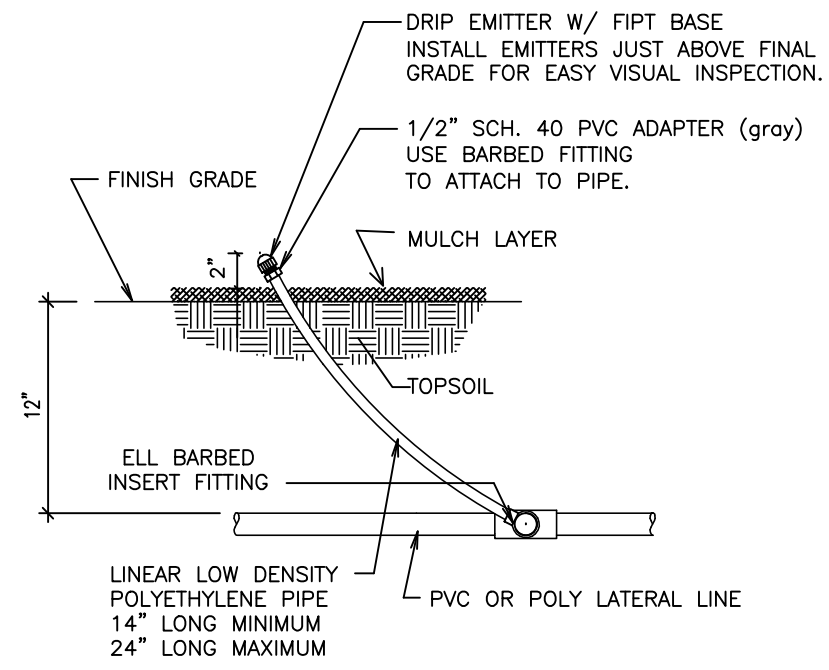
NOTE: LANDSCAPE CONTRACTOR SHALL LOCATE SECONDARY WATERLINE AND DETERMINE PSI. CONNECT MAINLINE TO SECONDARY WATERLINE. CONTRACTOR SHALL DETERMINE ZONES, SIZE OF ROTOR HEADS AND NUMBER OF VALVES NEEDED FOR TURF AREAS, IF USING. PASTURE GRASS WILL NOT BE IRRIGATED MOST YEARS.



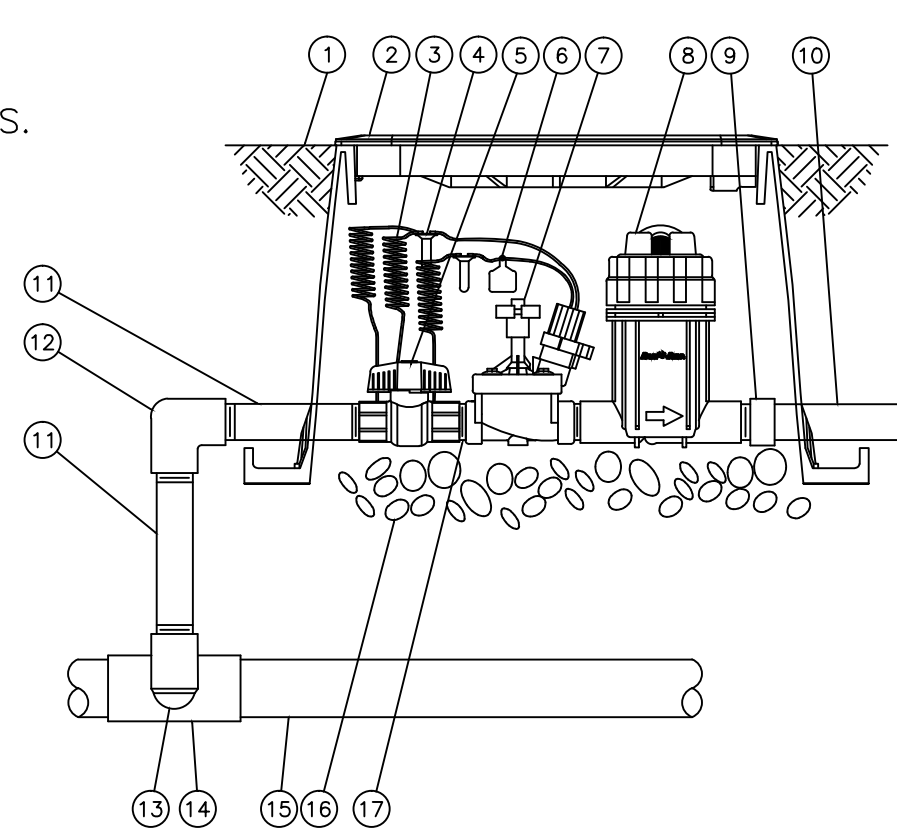
TRENCH SECTION  
N.T.S.



ROTOR POP-UP HEAD  
N.T.S. 5004 PLUS

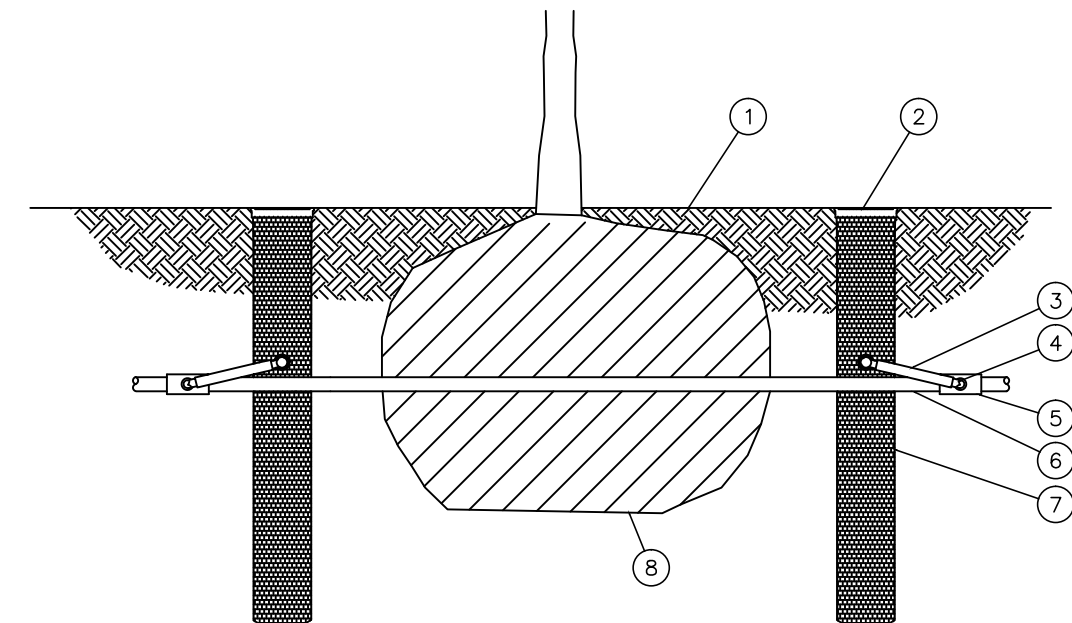


DRIP EMITTER  
N.T.S.



CONTROL ZONE KIT DRIP VALVE  
N.T.S. XCZ-PRB100-COM

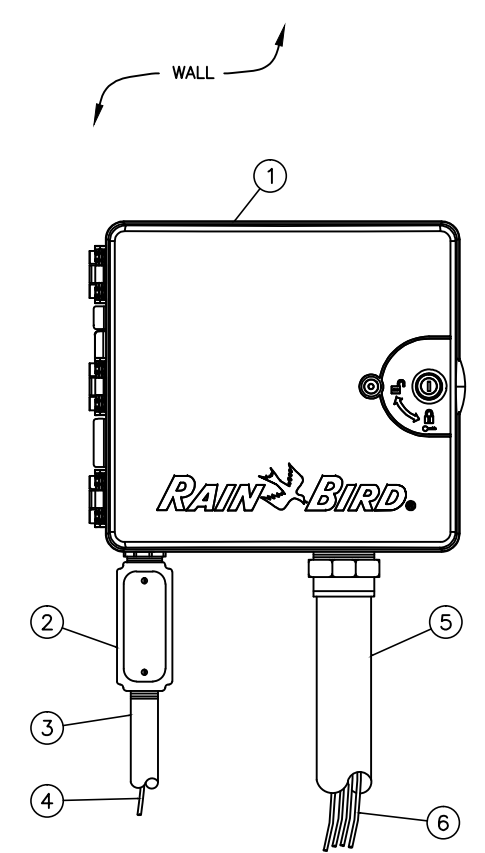
- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER: RAIN BIRD VB-STD
- 3 30-INCH LINEAR LENGTH OF WIRE, COILED
- 4 WATERPROOF CONNECTION: RAIN BIRD DB SERIES
- 5 1-INCH BALL VALVE (INCLUDED IN XCZ-PRB-100-COM KIT)
- 6 ID TAG
- 7 REMOTE CONTROL VALVE: RAIN BIRD PESB (INCLUDED IN XCZ-PRB-100-COM KIT)
- 8 PRESSURE REGULATING QUICK CHECK BASKET FILTER: RAIN BIRD PRB-QKCHK-100 (INCLUDED IN XCZ-PRB-100-COM KIT)
- 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)



RWS ROOT WATERING SYSTEM  
N.T.S. INSTALLATION FOR TREES

- 1 FINISH GRADE/TOP OF MULCH
- 2 ROOT WATERING SERIES: RAIN BIRD RWS SERIES (1 OF 2 SHOWN, MORE POSSIBLE)
- 3 SWING ASSEMBLY (INCLUDED) (1 OF 2 SHOWN, MORE POSSIBLE)
- 4 1/2-INCH MALE NPT INLET (INCLUDED) (1 OF 2 SHOWN, MORE POSSIBLE)
- 5 PVC SCH 40 TEE OR ELL (1 OF 2 SHOWN, MORE POSSIBLE)
- 6 PVC OR POLYETHYLENE LATERAL PIPE
- 7 OPTIONAL RWS SAND SOCK (RWS-SOCK) FOR SANDY SOILS (1 OF 2 SHOWN, MORE POSSIBLE)
- 8 PLANT ROOT BALL

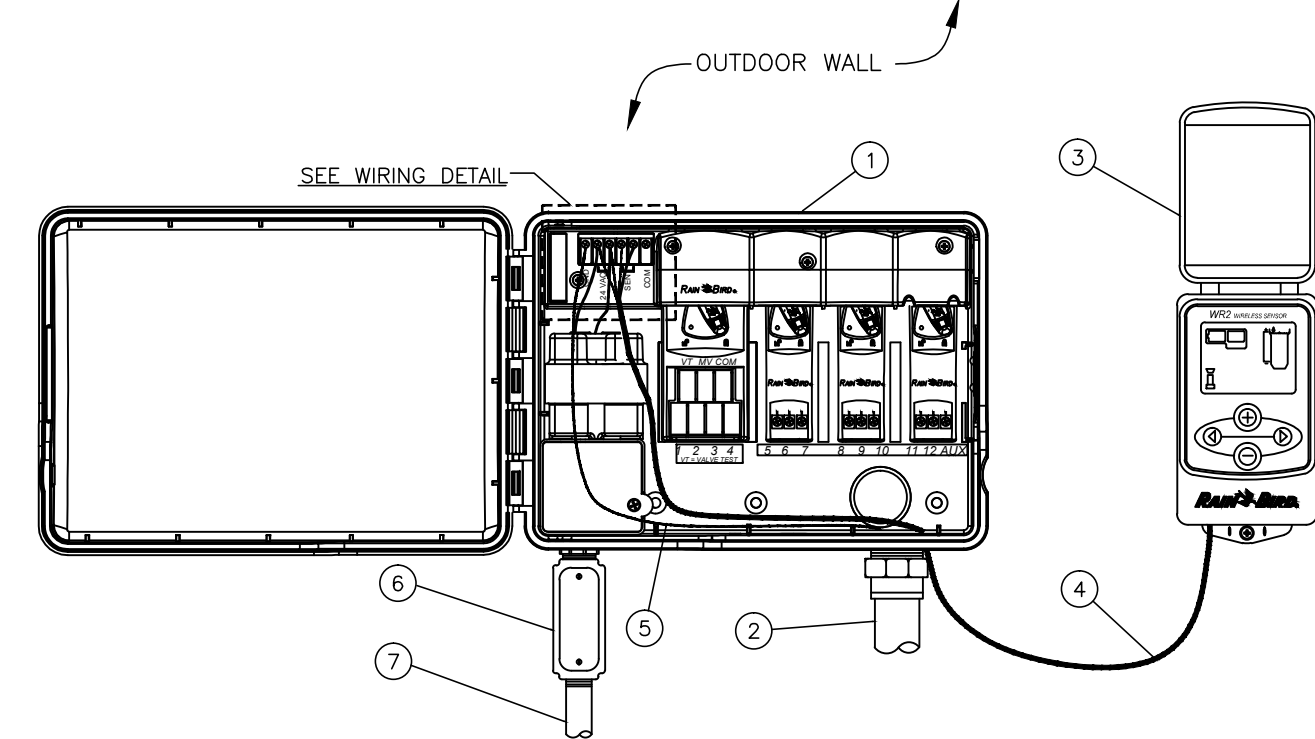
NOTES:  
1. POSITION 2-3 UNITS (OR MORE) EVENLY SPACED AROUND PLANT. FOR NEW TREES PLACE NEAR ROOT BALL. FOR EXISTING TREES PLACE HALF THE DISTANCE BETWEEN CANOPY EDGE AND TREE TRUNK.  
2. INSTALL PRODUCT WITH TOP EVEN WITH GROUND SURFACE.  
3. RWS SERIES AVAILABLE IN THE FOLLOWING MODELS:  
RWS (NO BUBBLER/EMITTER INCLUDED) RWS-B-C-1401 (0.25 GPM, CHECK VALVE)  
RWS-B-1401 (0.25 GPM) RWS-B-X-1401 (0.25 GPM, 18" SWING ASSEMBLY)  
RWS-B-C-1402 (0.5 GPM, CHECK VALVE) RWS-B-1402 (0.5 GPM)  
RWS-B-C-1404 (1.0 GPM, CHECK VALVE) RWS-B-C-1408 (2.0 GPM, CHECK VALVE)  
4. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.  
5. ONCE RWS HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.



ESP-LXME CONTROLLER  
N.T.S. IN PLASTIC CABINET FOR OUTSIDE MOUNT

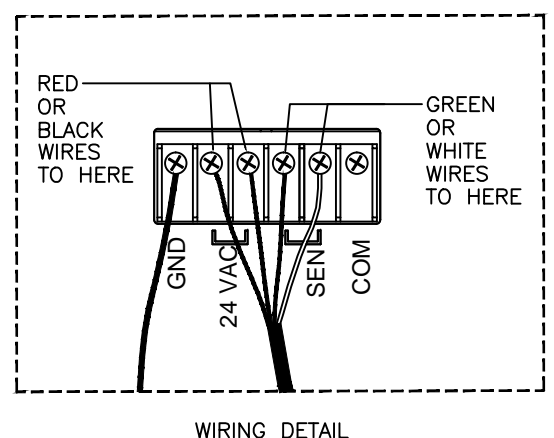
- 1 IRRIGATION CONTROLLER: RAIN BIRD ESP-LXME CONTROLLER IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
- 2 JUNCTION BOX
- 3 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
- 4 POWER SUPPLY WIRE
- 5 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
- 6 WIRES TO REMOTE CONTROL VALVES

NOTES:  
1. ESP-LXME CONTROLLER IS AVAILABLE IN 8- OR 12-STATION BASE MODELS. ADDITIONAL MODULES IN 4-, 8- AND 12-STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.  
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.  
3. 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.

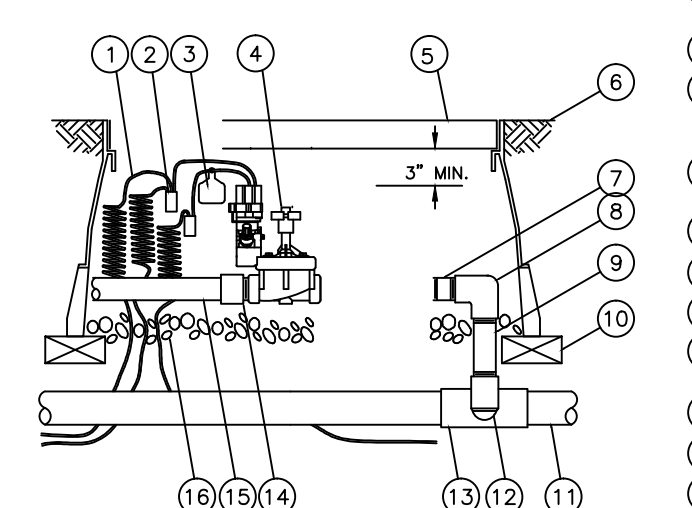


WIRELESS RAIN SENSOR-OUTDOOR  
N.T.S. WR2 SERIES CONTROLLER INTERFACE

NOTES:  
1. FOR BEST PERFORMANCE, THE CONTROLLER INTERFACE SHOULD BE INSTALLED AT LEAST FIVE FEET ABOVE THE GROUND.  
2. IT IS RECOMMENDED THAT THE CONTROLLER INTERFACE BE INSTALLED AWAY FROM SOURCES OF ELECTRICAL INTERFERENCE (SUCH AS TRANSFORMERS, GENERATORS, PUMPS, FANS, ELECTRICAL METER BOXES) AND METAL OBJECTS TO MAXIMIZE COMMUNICATION RANGE.



- 1 RAIN BIRD CONTROLLER: RAIN BIRD ESP-4M OUTDOOR WALL MOUNT
- 2 1-INCH PVC SCH 40 CONDUIT AND FITTINGS FOR VALVE WIRES
- 3 RAIN BIRD WR2 WIRELESS SENSOR CONTROLLER INTERFACE
- 4 CABLE HARNESS FOR CONTROLLER INTERFACE (30" MAXIMUM)
- 5 GROUND WIRE TO GROUNDING GRID
- 6 JUNCTION BOX
- 7 1/2-INCH PVC SCH 40 CONDUIT TO POWER SUPPLY



ELECTRIC REMOTE CONTROL VALVE  
N.T.S. PEB OR PEB SERIES

- 1 30-INCH LINEAR LENGTH OF WIRE, COILED
- 2 WATERPROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
- 3 ID TAG: RAIN BIRD VID SERIES
- 4 REMOTE CONTROL VALVE: RAIN BIRD PESB-PRS-D WITH NP-HAN
- 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 BRICK (1 OF 4)
- 11 PVC MAINLINE PIPE
- 12 SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
- 13 PVC SCH 40 TEE OR ELL
- 14 PVC SCH 40 MALE ADAPTER
- 15 PVC LATERAL PIPE
- 16 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

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**Wangsgard Property**  
PART OF THE SE 1/4 OF SECTION 18, T.6N., R. 2E., S.L.B & M., U.S. SURVEY HUNTSVILLE, WEBER COUNTY, UTAH

**Irrigation Details**

Project Info:
Engineer: N. Reeve
Designer: D. REYNOLDS
Begin Date: Sept. 17, 2013
Name: WANGSGARD PROPERTY
Number: 6260-01

**DEVELOPER:**  
Kerry Wangsgard  
1322 E 2400 N  
North Ogden, UT 84414  
(801) 388-3114

# Wangsgard Property

Huntsville City, Weber County, Utah



# Storm Runoff Calculations

## Wangsgard Property

10/16/2017 KHH

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Hunstville, Utah area taken from the NOAA Atlas 14 database, using a 100 year storm for (detention/retention), and a 10 year storm for pipe conveyance. Storm water runoff has been calculated for a fully developed site and limited to a release rate of 0.2 cfs/acre.

The calculations are as follows:

### 1. Drainage Area:

Total Area =	2.25	acre	or	98,140	ft <sup>2</sup>
Runoff Coefficients					
	Paved Area			20,670	C = 0.9
	Landscaped Area			37,950	C = 0.2
	Roof			39,520	C = 0.9
Weighted Runoff Coefficient					C = 0.63

### 2. Rainfall Intensities:

10-yr intensity for a 15 minute TOC - Pipe Capacity	1.70	in/hr
-----------------------------------------------------	------	-------

### 3. Peak Run-off:

Runoff Coefficient	C =	0.63
Rainfall Intensity	i =	4.54 IN./HR.
Acreage	A =	2.25 ACRES
<b>Q</b>	<b>Q =</b>	<b>6.44 cfs</b>

### 4. Volume of Run-off for 100-year Storm

#### Event:

C =	0.63					
I =	See Below in/hr					
A =	98140.00 ft <sup>2</sup>					
Q(out)						
=	0.45 ft <sup>3</sup> /s (0.2 cfs per acre)					
time (min)	time (sec)	i (in./hr.)	Q (cfs)	Vol. in (cf)	Vol. out (cf)	Difference (cf)
0	0	0.00	0.00	0.00	0.00	0.00
15	900	4.54	6.49	5841.56	405.54	5436.02
30	1800	3.06	4.37	7874.53	811.07	7063.45
60	3600	1.89	2.70	9727.36	1622.15	8105.21
120	7200	1.11	1.59	11425.79	3244.30	8181.49
180	10800	0.76	1.09	11796.35	4866.45	6929.90
360	21600	0.43	0.62	13340.38	9732.89	3607.48
720	43200	0.27	0.39	16675.47	19465.79	-2790.32
1440	86400	0.16	0.23	19516.48	38931.57	-19415.09

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