



## EAGLE MOUNTAIN PLANNING COMMISSION MEETING

**February 12, 2019, 6:00 PM**

Eagle Mountain City Council Chambers

1650 East Stagecoach Run Eagle Mountain UT 84005

### **6:00 P.M. - EAGLE MOUNTAIN CITY PLANNING COMMISSION POLICY SESSION**

**1. PLEDGE OF ALLEGIANCE**

**2. DECLARATION OF CONFLICTS OF INTEREST**

**3. APPROVAL OF MEETING MINUTES**

- 3.A. January 22, 2019 Meeting Minutes  
Regular Planning Commission Meeting  
[PC Minutes 1-22-19](#)

**4. ACTION AND ADVISORY ITEMS**

- 4.A. Eagle Village  
An amended preliminary plat containing 69 single family units on approximately 14.17 acres for an overall project density of 4.87 DU/AC  
[Eagle Village - Preliminary Plat](#)  
[Eagle Village - Color Landscaping Plans](#)  
[Eagle Village - Proposed Landscaping Plans](#)  
[Eagle Village - Parks and Open Space Worksheet](#)
- 4.B. Ames Construction Extractive Overlay Zone  
A proposal to have the Extractive Industries Overlay Zone added to 160 acres of land in the southern most boundary of the City. (parcel #59-031-0001).  
[Doc. 5.pdf](#)  
[Doc 1.pdf](#)  
[Doc. 2.pdf](#)  
[Doc. 3.pdf](#)

**THE PUBLIC IS INVITED TO PARTICIPATE IN PUBLIC MEETINGS FOR ALL AGENDAS.**

In accordance with the Americans with Disabilities Act, Eagle Mountain City will make reasonable accommodation for participation in the City Council Meetings and Work Sessions. Please call the City Recorder's Office at least 3 working days prior to the meeting at 801-789-6610. This meeting may be held telephonically to allow a member of the City Council to participate. This agenda is subject to change with a minimum 24-hour notice.

5. **DISCUSSION ITEMS**

5.A. Eagle Heights Village Concept Plan

A conceptual plan for 316 twin home units on 50 Acres for a project density of ~6.32 DU/AC. Eagle Heights Village is located south of Eagle Mountain Boulevard and east of Lake Mountain road (Parcel 59:018:0037)

Proposed Elevation "Cedar"

Proposed Elevation "Cottonwood - 3 Bedroom"

Proposed Elevation "Cottonwood - 3 Bedroom Alternative"

Proposed Elevation "Cottonwood - 4 Bedroom"

Eagle Heights Village, Proposed Park Plan

Proposed Elevation "Frontier"

Proposed Elevation "Oak A"

Traffic Impact Study Letter

6. **NEXT SCHEDULED MEETING**

February 26, 2019

7. **ADJOURNMENT**

CERTIFICATE OF POSTING

The undersigned, duly appointed City Recorder, does hereby certify that the above agenda notice was posted on this **(Enter Date of Posting Here)** on the Eagle Mountain City bulletin boards, the Eagle Mountain City website [www.emcity.org](http://www.emcity.org), posted to the Utah State public notice website <http://www.utah.gov/pmn/index.html>, and was emailed to at least one newspaper of general circulation within the jurisdiction of the public body.

Fionnuala B. Kofoed, MMC, City Recorder



**EAGLE MOUNTAIN CITY  
PLANNING COMMISSION MEETING  
FEBRUARY 12, 2019**

|                   |                                  |
|-------------------|----------------------------------|
| <b>TITLE:</b>     | January 22, 2019 Meeting Minutes |
| <b>ITEM TYPE:</b> | Minutes                          |
| <b>APPLICANT:</b> | City Staff                       |

**ACTION ITEM:**

Yes

**PUBLIC HEARING:**

No

**REQUIRED FINDINGS:**

**BACKGROUND:**

**ITEMS FOR CONSIDERATION:**

**RECOMMENDATION:**

**PREPARED BY:**

Lianne Pengra,  
Recorder's Office

**Attachments:**

[PC Minutes 1-22-19](#)



## EAGLE MOUNTAIN Planning Commission Meeting

**January 22, 2019, 6:00 p.m.**

Eagle Mountain City Hall Council Chambers  
1650 East Stagecoach Run, Eagle Mountain, Utah 84005

### **6:00 P.M. - Eagle Mountain City Planning Commission Policy Session**

COMMISSION MEMBERS PRESENT: Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson.  
Matthew Everett arrived at 6:05 p.m.

OFFICIALS PRESENT: Councilmembers Melissa Clark and Donna Burnham

CITY STAFF PRESENT: Steve Mumford, Community Development Director; Michael Hadley, Planning Manager; Tayler Jensen, Planner; Fionnuala Kofoed, City Recorder; Chris Trusty, City Engineer

Commissioner Wood opened the meeting at 6:00 p.m.

1. Pledge of Allegiance

Commissioner Wood led the Pledge of Allegiance.

2. Declaration of Conflicts of Interest

None

3. Approval of Meeting Minutes

A. December 11, 2018

Commissioner Wright requested the Fieldstone Homes representative's name be corrected to "Dylan" on page seven.

**MOTION:** *Jared Gray moved to approve the December 11, 2018, meeting minutes, with the correction to "Dylan" on page seven. DeLin Anderson seconded the motion. Those voting aye: Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.*

B. January 8, 2019

**MOTION:** *Brett Wright moved to approve the January 8, 2019, meeting minutes. DeLin Anderson seconded the motion. Those voting aye: Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.*

4. Action and Advisory Items

A. Arrival Amended Master Development Plan, Public Hearing; Action Item



Planner Tayler Jensen explained this item was not noticed in time to present at the last Planning Commission meeting, when the associated preliminary plat was presented.

Commissioner Gray expressed concern regarding the reduction in trails. Mr. Jensen explained the developer adjusted the trails according to residents' feedback. Commissioner Wright said topography issues prevented the trail's installation as originally planned.

Commissioner Gray stated if horse trails are in the plan, he would like horse hitching posts included.

Mr. Jensen clarified with the Commissioners that a site originally planned for a water tank was no longer needed, so the land was added to the adjacent lot.

*Commissioner Everett opened the public hearing at 6:06 p.m. As there were no comments, he closed the hearing.*

Mr. Jensen said the master development agreement, which includes the updated park plan, will be presented to City Council.

**MOTION:**      ***Rich Wood moved to recommend approval of the Arrival master development plan to the City Council with the following condition:***

***1. Add a hitching post at each entry to the park.***

***Jared Gray seconded the motion. Those voting aye: Matthew Everett, Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.***

**B. Skyline Ridge Phase 2 Plats 5 & 6, Preliminary Plat, Public Hearing; Action Item**

Planning Manager Michael Hadley said the item contains the final two plats in the Skyline Ridge development. Plat 5 consists of 20 lots and Plat 6 consists of 23 lots, for a total of 43 lots with an overall density of 2.98 dwelling units per acre. The plats were redesigned to reduce the amount of blasting required. There are four more lots in the presented item than in the previously approved plan.

Mr. Hadley stated the developer will pay the same fee for parks that they have paid for previous plats within the project. That amount is \$1,795.36 per lot to the park escrow. He noted there are areas within the plan with steep slopes; lots 514, 515, 603, 604, and 610 have slopes above 15%, and lots 605 through 609 have slopes above 20%. City Municipal Code states lots are buildable on slopes up to 25%.

Mr. Hadley explained while the cul-de-sac is longer than allowed in Municipal Code, this was done at staff's request to facilitate more buildable area in the lots. He said the Fire Chief has stated he will approve the extended cul-de-sac, and the Municipal Code allows the Fire Chief to grant an exception for the proposed distance.

Mr. Hadley said the project includes a proposed retaining wall of between eight and twelve feet in height. The City requires retaining walls to be tiered, with heights not above six feet, and also requires a fence at the top of the retaining wall, with a drainage swale to direct runoff away from the slope face.

City Engineer Chris Trusty clarified the top of the wall will have a drainage swale for larger runoff, and weep holes will be located throughout the retaining wall. The retaining walls will be constructed with natural rock. He stated the six-foot height limitation is a City preference, but is not noted in the City's Municipal Code. Commissioner Gray stated three or four feet would be safer, and asked if staff felt six feet was an appropriate height. Mr. Trusty said the City's goal is safety, which is why the fence is required at the top of the wall.

Commissioner Gray asked for clarification on the lot slopes. Mr. Hadley said the lots noted in the presentation have slopes between 15% and 25%, but none are over 25%.

Commissioner Wood clarified with staff that the lots will require retaining walls in order to build structures.

Commissioner Anderson asked when the retaining walls will be constructed. Mr. Trusty said the walls are part of the grading plan, and constructing the wall is the responsibility of the developer. The City will not issue certificates of occupancy until the walls are in place. Commissioner Wood asked why the retaining wall is not required before the homes are constructed. He expressed concerns regarding excavation close to structures.

Commissioner Wright asked why staff would recommend approval of the plat, as the four additional lots are creating the longer cul-de-sac, which does not meet Municipal Code. Mr. Hadley clarified that staff does not have an opinion on the additional lots. He said Plat 4 was redesigned which removed 5 lots; those lots were moved to Plat 5. This was to add access to open space, based on resident feedback.

Shawn Herring, the applicant's engineer, explained the cul-de-sac was extended to avoid any blasting in Phase 5. Phase 4 has additional lots due to additional amenities and open space to include trailheads with parking. He said he has worked with staff in order to avoid blasting and to create more buildable lots. The lots are now 120- to 140-foot deep, versus the original 100-foot-deep lots. Mr. Herring confirmed with Commissioners no blasting is planned in the project, and stated the new plan contains more roadways and utility work than what was included in the previously approved plan.

Mr. Hadley clarified that the project only has four additional lots. The original preliminary plat was a single plat that encompassed Plats 4, 5, and 6. The proposed plan has two separate plats: Plats 5 and 6. The previously approved plat contained 98 lots; the proposed plan has 102 lots.

Discussion ensued regarding lot sizes in the project. The lots range from 0.17 acres to over 0.33 acres.

Commissioner Wright asked if the Fire Chief approves of the cul-de-sac length. Mr. Hadley stated the Fire Chief will sign off on the length at a future step in the process, but he has expressed his approval for the proposed length.

Commissioner Gray expressed concerns regarding snow removal along the extended cul-de-sac. Mr. Herring stated snow can be moved to the parking stalls at the trailhead site. He

said another option is to include a snow loading area along the road. A twenty-foot pad can be added that could be utilized for parking during non-snow conditions.

Commissioner Gray asked how tall the retaining walls will be. Mr. Herring stated the highest walls will be eighteen feet tall with three six-foot tiers, but most will be twelve feet tall with two six-foot tiers. Commissioner Gray asked if the applicant would be willing to have three four-foot tiers in lieu of two six-foot tiers, as six-foot walls could pose a safety hazard. Mr. Herring stated his preference of limiting the tiers to five feet. He explained the retaining walls will be in place before home construction begins. Commissioner Gray said he would like a condition of approval stating no more than three tiers will be allowed, and the tiers will be equal in height, with no tier taller than five feet.

*Commissioner Everett opened the public hearing at 6:40 p.m. As there were no comments, he closed the public hearing.*

Discussion ensued regarding the physical appearance of natural rock retaining walls.

Commissioner Wood stated the additional lots are reasonable, as the new design will not require blasting. He stated the lot sizes included in the plan are the size Planning Commission has requested in the past. Commissioner Gray expressed concerns that the approval grants additional lots in order to offset costs for the developer, and the additional density creates an extended cul-de-sac that does not meet Municipal Code. Commissioner Wright stated the tradeoff of higher density for no blasting is one he is comfortable with.

Commissioner Gray asked if the half-acre lots will have animal rights. Mr. Hadley stated the project would need to apply for the Equine Overlay Zone in order to have animal rights on lots smaller than one acre.

Commissioner Anderson asked if the natural rocks on the project site would be utilized for the retaining wall structure. He stated the rocks in that area do not withstand the elements over time, and could possibly degrade. Mr. Trusty stated the integrity of the rock will be included in the geotechnical report. He explained the homeowners would be responsible for future repairs to the retaining walls.

**MOTION:** *Rich Wood moved to recommend approval of the Skyline Ridge Phase 2 Plats 5 & 6 preliminary plat to the City Council with the following conditions:*

- 1. An updated slope stability report is provided for both plats;*
- 2. Maximum height of retaining wall is 5 feet with a maximum of 4 tiers, with all tiers to be evenly divided in height. All retaining walls should be inspected by a licensed geotechnical engineer throughout the construction period and who will provide a letter at the completion of the project stating that the walls have been constructed per their recommendations and conform to typical construction requirements, including the stability and makeup of the materials. Retaining walls shall not be located any closer than 10 ft. from a home;*
- 3. No blasting may be used in this project;*
- 4. A fence and drainage swale shall be constructed on the top of any retaining wall area;*

5. *Homes shall be designed with the hillside to reduce necessary cutting/grading and retaining wall heights;*
  6. *Lots that average 25% or greater shall be removed;*
  7. *All retaining walls, drainage, and required fence along the top of the retaining walls shall be completed before home construction in either of the phases; and*
  8. *Two more parking stalls shall be added in Track B park for snow removal.*
- Brett Wright seconded the motion. Those voting aye: Matthew Everett, Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.**

C. The Landing Phase 4 Preliminary Plat, Public Hearing; Action Item:

Mr. Hadley stated Phase 4 is the final phase in The Landing, and has 31 lots over 6.55 acres, with a density of 4.74 dwelling units per acre. The previous preliminary plat contained open space and a stub road which went to the Colonial Park development. The Landing was approved before construction in the Colonial Park development. That development has since been completed, and the stub road in The Landing would connect to a private road in Colonial Park; staff asked the applicant to remove the stub road. The updated plan removes the open space, the stub road, and adds two lots.

Commissioner Wright asked why the open space was removed, and what the park requirements are for the project. Mr. Hadley stated the open space areas are not owned by the applicant, and the applicant prefers to pay the fee in lieu for open space. He explained Walden Park is near the project and the funds can go towards that park.

Commissioner Wright asked for clarification regarding the alleyway. Mr. Hadley explained a previous phase contains an alleyway that is located to the south of Phase 4. The Municipal Code requires developments to utilize connected alleyways, but Planning Commission and City Council can grant a waiver to that requirement. The applicant prefers to not use the alleyway for rear-loading garages.

Commissioner Gray stated he would prefer to not allow the additional lots, and instead increase the frontages of the existing lots. Commissioner Wood agreed with that opinion.

Andrew Flamm with West Lake Investments LLC said he has attempted to communicate with the landowner of the property previously planned for open space, but has not received a response. Commissioner Gray asked who would be required to maintain the open space. Mr. Hadley stated any issues with weeds or maintenance would be addressed through code enforcement.

Commissioner Wood stated he does not support adding two lots to the development. Mr. Flamm said the presented plan meets all requirements of the Municipal Code. Commissioner Everett asked if the applicant would be willing to remove one of the additional lots. Mr. Flamm said he would be open to discussing that option. Commissioner Gray stated removing one lot would increase lot frontages by 6.1 feet along the north side of the project. Mr. Hadley clarified the presented plan is consistent with existing development in the area.

Commissioner Wright stated removing one lot along the north side of the road would create lot sizes more similar to those on the south side of the road. Mr. Flamm stated buyers prefer smaller lots that require less upkeep. Commissioner Wood stated the City has many first-time homebuyer lots, and the City needs larger lots for more variety. Commissioner Gray stated removing one lot would not require a redesign of the project.

Commissioner Everett asked if the condition of approval requiring the developer to work with the landowner of the strip of land to the north to add that land to the lots on the north side would hinder the development process, as the landowner has not been willing to work with the developer. Mr. Hadley stated the City would continue with the approval process if that landowner is unwilling to work with Mr. Flamm. Community Development Director Steve Mumford explained the Planning Commission can word the condition of approval with flexibility to allow the project to continue if the landowner is not willing to sell or dedicate the property.

Discussion ensued regarding legal options, to include a land swap, the City has regarding the lot previously designated as open space.

*Commissioner Everett opened the public hearing at 7:28 p.m.*

Jeff Ruth expressed concerns regarding the removal of an unofficial trail children currently utilize to walk to school. He said leaving the road stub will alleviate traffic in the area.

Commissioner Gray clarified the stub road cannot be included as it would connect to a private road. He stated a sidewalk will be installed with future development.

*Commissioner Everett closed the public hearing at 7:34 p.m.*

Commissioner Everett stated if one lot is removed from the proposal, lot variation would be created between lots 405 and 413. He said he wanted to ensure the condition regarding the open space does not give either landowner leverage over the other.

Discussion ensued regarding land disposal options.

- MOTION:**      ***Rich Wood moved to recommend approval of The Landing Phase 4 preliminary plat to the City Council with the following conditions:***
- 1. The applicant makes reasonable attempts to work with the landowner to resolve the strip of land to the north and add it to the lots on the north side;***
  - 2. The applicant makes reasonable attempts to work with the landowner to dedicate the eastern piece of land in the northeast corner to the City to be added to Walden Park;***
  - 3. The applicant removes one lot and distributes the land to the lots on the north side of the project; and***
  - 4. The applicant is allowed to front-load garages and not require the homes to utilize the alleyway for rear-loading garages.***
- Jared Gray seconded the motion. Those voting aye: Matthew Everett, Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.***

Councilmember Wood stated for the record that the Planning Commission recommends City Council consider options that may include a land swap to resolve the land dispute to the north of The Landing.

**D. Sign Code (17.80.120) Development Code Amendment, Public Hearing; Action Item:**

Mr. Jensen stated the amendment changes illustrations in the Municipal Code at the request of the Neighborhood Improvement Division, and creates standards for school monument signs. The Alpine School District submitted a comment requesting a maximum size of 45 square feet for electronic message boards, instead of 32 square feet.

Commissioner Wood asked if the size of signs allowed should be limited based on the school type. Mr. Mumford said State Code exempts schools from landscape and aesthetic requirements.

Commissioner Gray asked if the signs will be required to meet the dark sky ordinance. Mr. Jensen said the signs will be required to dim based on ambient lighting, but do not require hoods.

Commissioner Wright asked what restrictions are in place for school signs without the proposed amendment. Mr. Jensen said it can be difficult, as schools can state they are exempted from sign design restrictions. Mr. Mumford said a representative from Alpine School District has committed to working with the City to meet Municipal Code on school signs.

*Commissioner Everett opened the public hearing at 7:58 p.m. As there were no comments, he closed the public hearing.*

**MOTION:**        ***Jared Gray moved to recommend approval of the Signs (17.80.120) Development Code amendment, Signs Code 17.80.120, to the City Council with the following condition:***

***1. Section 5(i) is changed to “Electronic message boards or reader boards shall not exceed 45 square feet.”***

***Rich Wood seconded the motion. Those voting aye: Matthew Everett, Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.***

**E. Commercial (17.35.040) and Off-Street Parking (17.55.120) Development Code Amendments Public Hearing; Action Items:**

Mr. Jensen stated the staff-proposed amendment adds the Meeting/Reception Room use to the Commercial code, as that use is currently not permitted. The amendment also adds the requirement of one parking stall per 250 square feet of gross floor area. Mr. Jensen explained that if the amendment is approved, the Meeting/Reception Room use will be a conditional use and will require Planning Commission approval.

*Commissioner Everett opened the public hearing at 8:02 p.m. As there were no comments, he closed the public hearing.*

**MOTION:**        *Jared Gray moved to recommend approval of the Commercial (17.35.040) and Off-Street Parking (17.55.120) Development Code Amendments to the City Council. Brett Wright seconded the motion. Those voting aye: Matthew Everett, Rich Wood, Brett Wright, Jared Gray, and DeLin Anderson. The motion passed with a unanimous vote.*

5. Next scheduled meeting: February 12, 2019

Commissioner Wood asked staff to update the Planning Commission on recommended Municipal Code changes the Planning Commission made in November.

6. Adjournment

**MOTION:**        *Jared Gray moved to adjourn the meeting at 8:03 p.m. Jared Gray seconded the motion. Those voting aye: Matthew Everett, Rich Wood, Brett Wright, and Jared Gray. The motion passed with a unanimous vote.*



**EAGLE MOUNTAIN CITY  
PLANNING COMMISSION MEETING  
FEBRUARY 12, 2019**

|                   |                              |
|-------------------|------------------------------|
| <b>TITLE:</b>     | Eagle Village                |
| <b>ITEM TYPE:</b> | Amended Preliminary Plat     |
| <b>APPLICANT:</b> | Scott Dunn (Patterson Homes) |

**ACTION ITEM:**

Yes

**PUBLIC HEARING:**

Yes

**REQUIRED FINDINGS:**

**PREPARED BY:**

Taylor Jensen, Planning

**BACKGROUND:**

The existing preliminary plat for the project (Eagle Village Condos) approved in 2004 permits up to 138 units with an overall project density of 8.5 DU/AC. This new proposal (Eagle Village) represents a reduction in density (4.92 DU/AC) and units (69 lots).

It should also be noted that since the Planning Commission last reviewed the Eagle Village concept plan that a large number of changes have been made as the applicant's have worked closely with staff to improve the project.

**ITEMS FOR CONSIDERATION:**

The following items should be considered when making a recommendation to the Eagle Mountain City Council:

Lot frontage: Per 17.25.130 E of the EMMC, "Every lot within a subdivision in a Tier II residential development shall have a minimum lot frontage of 20 feet on a cul-de-sac or circle. All other lots shall have a minimum lot frontage of 55 feet along a public street. A minimum of 20 percent of all lots within a project shall have a minimum lot frontage of 60 feet along a public street. Lots with 60 feet of frontage or more should be distributed throughout a development and not clustered together."

This proposal contains 17 lots that exceed 60 feet of frontage along a public right-of-way, which is 24% of all lots, thus complying with the above code, however, 11 lots (lots 141-142, 215-216, 201-204, & 151-153) have frontages of only 50 feet. Lots 141, 142, 215, and 216 border a 48.5 foot wide public parcel and would easily be able to meet code, however, a storm drain runs through the public parcel and it has been excluded from being included in the lots at staff's request. Lots 151-153 & 201-204, back onto open space (15 foot wide strip of improved open space, then unimproved open space) A 40 foot storm drain easement is also present south of lot 204 which has been left out of lot space at staff request.

It is better for the City to maintain ownership of the property containing the storm drain lines rather than having an easement through private property. You (the Commission) should decide whether that, and the open space behind the



lots, provides sufficient justification to approve some of the lots with 50-foot frontages. We recommend that lot 151 be removed, as a large portion of the lot is encumbered by utility easements, making a large portion of the lot unbuildable.

Connectivity. This proposal has a connectivity score of 2. The minimum connectivity score is 1.6, thus this project complies with the connectivity index. The maximum block length for a Tier II development is 800 feet and may be increased to 1,100 feet with the addition of mid-block pedestrian connections. The loop road that consists of Sparrow Lane, Pheasant Road, and Robin Lane is approximately 1,090 feet in length from intersection to intersection, however, pedestrian connections are provided on the west and east sides of Pheasant road, connecting into the larger pedestrian trail network along Pony Express Parkway and within the city park to the east of the project, thus staff feels this loop road also complies with city code. These roads will also eventually be extended to the south, providing additional connections. The loop road of Sparrow Lane, Canary Drive, and Lark Road, is approximately 900 feet in length from intersection to intersection and does not contain a pedestrian connection, thus it does not comply with the connectivity code. It is up to the Planning Commission and City Council to determine if a pedestrian connection should be included in this location. If a connection is required it is the opinion of staff that the best location would be between lots 115, 116 & lots 106, 107 as it leads to the park. The location of Bountiful Lane (an existing roadway), however, dictates much of the layout of the property, and may provide justification for approving an exception to this requirement.

Parks and Open Space: Code requires 1,000 SF of improved park space per unit, thus this 69 lot development is required 1.58 acres of improved park space, and at least 158 amenity points, or a fee-in-lieu of \$3,750 per unit plus the appraised value of 1,000 SF for each unit that is buying down open space. The applicant has been working with City Staff on a plan to provide less improved open space within the development, but for that open space to be located adjacent to City owned open space, and for the developer to improve existing unimproved City owned open space creating a larger park that is more central to more neighborhoods as supported by 16.35.105 A.2 which states:

" Developers are encouraged, whenever possible, to consolidate improved open space into larger parks that may be used by more than one neighborhood, or improve existing nearby parks. Collocation with schools or other institutions is also encouraged. If the neighborhood is within 1,320 feet of an existing park, the developer may be required to improve the existing park rather than create additional park space within the development..."

Per this plan that has been worked on with the City the applicant will be providing .878 acres of improved park space within the development, and improving 1.028 acres of City owned open space, thus improving a total of

1.906 Acres of open space. It is the opinion of staff that this provides a better park and meets the intent of the code.

Of the required 158 amenity points, at least 66% (106 amenity points) must come from something other than trails or parking. The applicant is proposing 192 total amenity points, of which 107 points are for items other than trails and parking, thus the applicant is meeting minimum amenity point requirements.

Collector Road Fencing: Collector road fencing shall be provided for all lots that back onto Pony Express Parkway. The fence shall meet city Collector and Arterial road fencing standards, or alternative standards as approved by the City Council. If the applicants wants an alternative fence or wall, they should proposed that to the City Council along with this plat.

**RECOMMENDATION:**

I move that the Eagle Mountain Planning Commission Recommend approval of the Eagle Village amended preliminary plat to the City Council with the following conditions:

1. Lot 151 shall be removed

If you (the Planning Commission) feel that it is needed for connectivity issues:

2. A pedestrian connection is added between lots 115, 116 and lots 106, 107

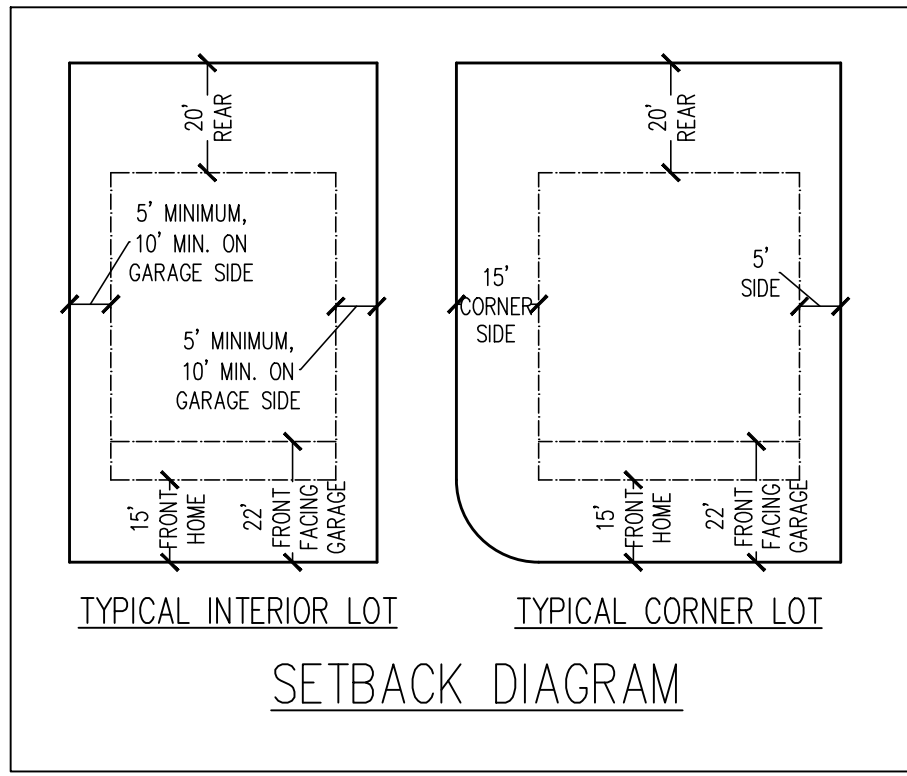
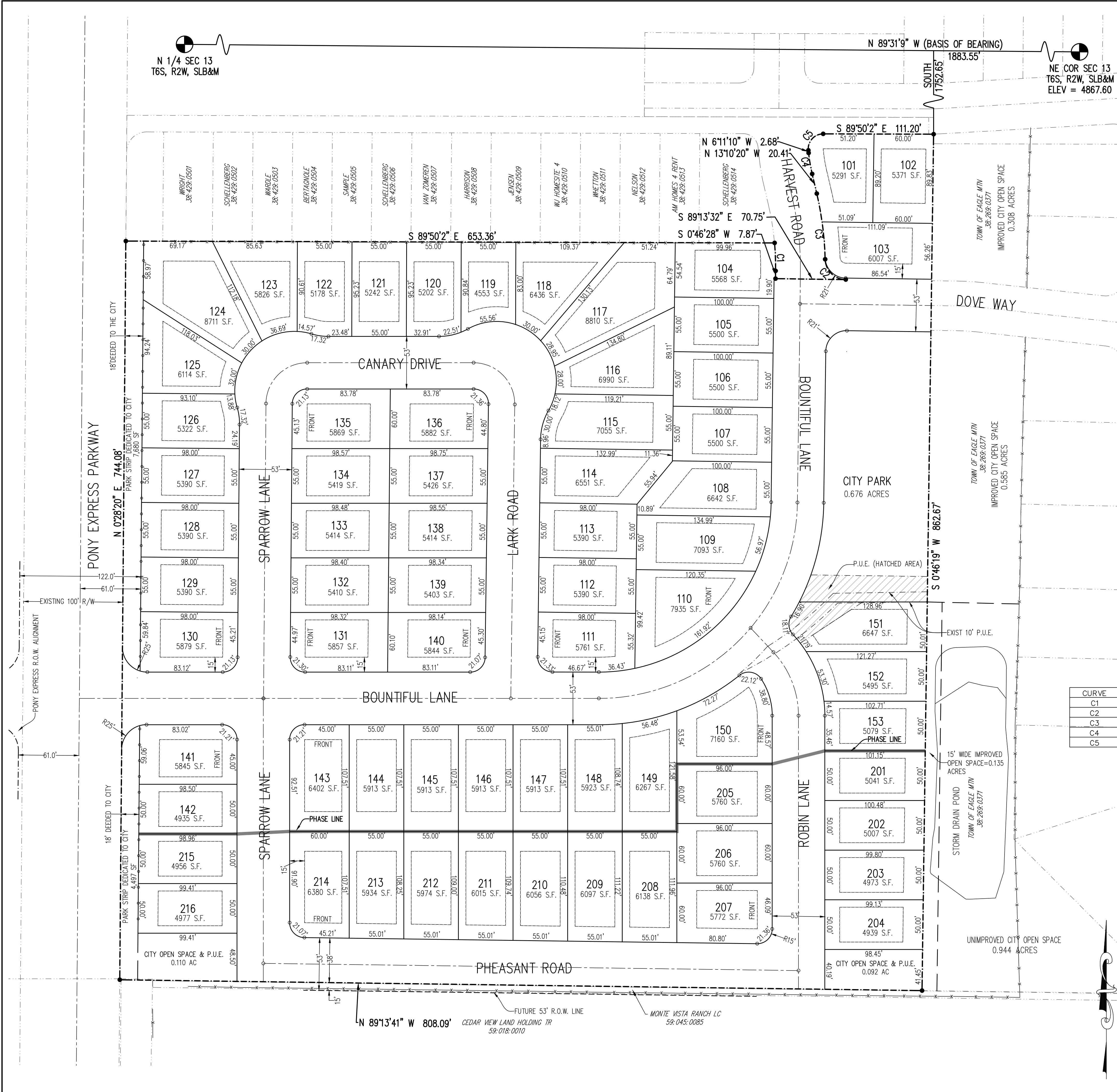
**Attachments:**

[Eagle Village - Preliminary Plat](#)

[Eagle Village - Color Landscaping Plans](#)

[Eagle Village - Proposed Landscaping Plans](#)

[Eagle Village - Parks and Open Space Worksheet](#)



GENERAL NOTES

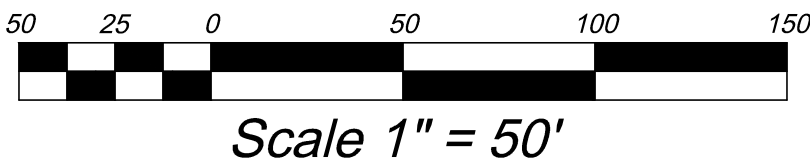
- SEE SHEET 3 FOR EXISTING CONTOURS.
- THERE ARE NO AREAS IN THIS SUBDIVISION WITH A NATURAL GRADE THAT EXCEEDS 15% IN RELATION TO THE PROPOSED LOT LAYOUT. THEREFORE, A SLOPE ANALYSIS PLAN HAS NOT BEEN PROVIDED FOR THIS SITE.
- BUILDING SETBACKS ARE SHOWN ON THIS PLAN AND INCLUDE 15' FRONT, 22' DRIVEWAY, 20' REAR, 15' CORNER LOT, AND SIDE TOTAL OF 15' WITH 5' MIN. ON ONE SIDE.
- ALL ROADS WILL BE PUBLIC AND MEET CITY STANDARDS.
- A FIRE FLOW ANALYSIS IS REQUIRED AFTER INSTALLATION OF FIRE HYDRANTS AND PRIOR TO BUILDING PERMITS.
- ALL OUTDOOR LIGHTING MUST BE FULL CUT-OFF, DARK SKY COMPLIANT IN ACCORDANCE WITH CITY CODE.
- HOMES CONSTRUCTED WITHIN THIS SUBDIVISION MUST COMPLY WITH CITY CODE ARCHITECTURAL DESIGN REVIEW.
- CITY WILL OWN AND MAINTAIN THE PROPOSED OPEN SPACE AREAS SHOWN ON THIS PRELIMINARY PLAN.
- NO TURNAROUNDS WILL BE NEEDED WITH THE CURRENT PROPOSED PHASING.
- EXISTING ZONE = NONE.
- THERE ARE NO IRRIGATION DITCHES OR STRUCTURES, CANALS, WELLS, STREAMS, SIGNIFICANT ROCK OUTCROPPINGS, WETLANDS, FLOOD PLAINS, OR OTHER NATURAL FEATURES ON SITE.
- PUBLIC UTILITY EASEMENTS ARE 10' FRONT, AND 5' REAR AND SIDES ON EACH LOT.
- BOUNTIFUL LANE IS AN EXISTING 50' R/W PUBLIC ROADWAY THROUGH THIS SITE AND WILL BE INCREASED TO A 53' R/W. ASPHALT AND CURBS ARE ALREADY CONSTRUCTED.
- THERE ARE NO EXISTING OR PROPOSED NEIGHBORHOOD OR COMMUNITY CENTERS, WATERWAYS, WETLANDS, COMMERCIAL USES, IRRIGATION STRUCTURES, PARKING LOTS, LOADING AREAS, SCHOOLS, OR CHURCHES ON OR ADJACENT TO THIS DEVELOPMENT PARCEL.
- THE PARK IS TO BE FULLY LANDSCAPED IN CONFORMANCE WITH CITY CODE AND DEEDED TO THE CITY.
- STORM DRAINAGE FOR THIS SUBDIVISION DUMPS STORM WATER INTO THE EXISTING DRAINAGE FACILITY ON THE EAST. SOME OF THE WEST & SOUTH AREAS OF THE SUBDIVISION FLOW DIRECTLY INTO THE EXISTING STORM DRAIN PIPING. SEE SEPARATE SUBMITTALS FOR CALCULATIONS.
- ALL CONSTRUCTION TO COMPLY WITH EAGLE MOUNTAIN STANDARDS & SPECIFICATIONS.
- SEE PREVIOUS PRELIMINARY TRAFFIC ANALYSIS COMPLETED BY CITY ENGINEER & SOWBY & BERG CONSULTANTS.
- CONTRACTOR TO REBUILD BOUNTIFUL LANE AFTER INSTALLATION OF SERVICE LATERALS BY EITHER ROTOMILLING OR A COMPLETE 1" OVERLAY AT DEVELOPER'S OPTION.
- LOTS BORDERING EAST OPEN SPACE OR PARKWAY OPEN SPACE ARE 50' WIDE CLUSTER HOMES.
- STREET LIGHTS EVERY 250'-350' MAXIMUM ON OPPOSITE SIDES OF THE ROAD.
- PREVIOUS PLAN IN 2003 WAS APPROVED FOR 137 TOWNHOMES UNITS. THIS CLUSTER DEVELOPMENT IS MUCH LESS (50%) DENSE.

CURVE TABLE

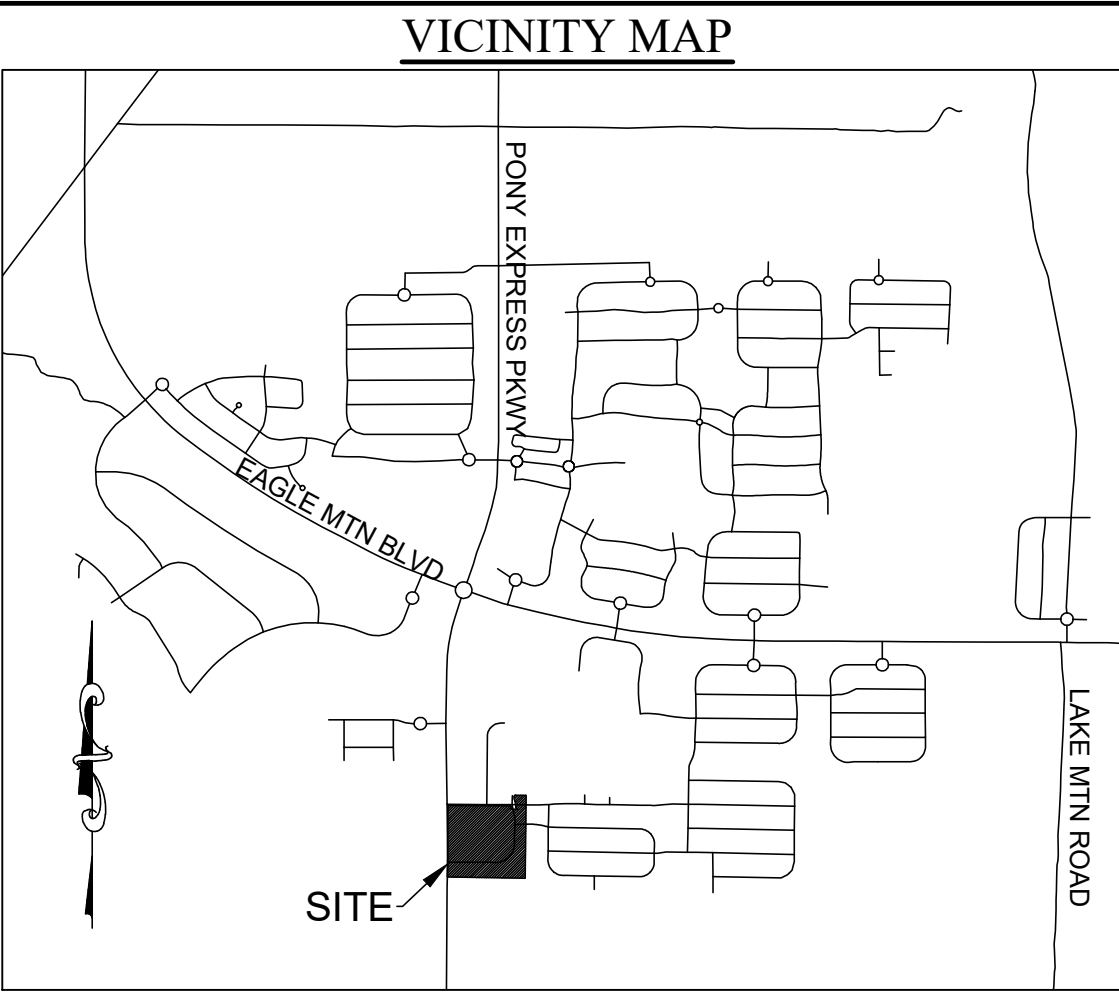
| CURVE | RADIUS | LENGTH | DELTA     | CHORD | BEARING       |
|-------|--------|--------|-----------|-------|---------------|
| C1    | 275.00 | 28.12  | 5°51'32"  | 28.11 | S 2°9'18" E   |
| C2    | 21.00  | 32.19  | 87°49'32" | 29.13 | N 45°18'46" W |
| C3    | 325.00 | 66.78  | 11°46'20" | 66.66 | N 71°7'10" W  |
| C4    | 175.00 | 21.34  | 6°59'10"  | 21.32 | N 9°40'45" W  |
| C5    | 15.00  | 25.22  | 96°21'8"  | 22.36 | N 41°59'24" E |

OPEN SPACE TABULATIONS

- # OF LOTS NORTH OF BOUNTIFUL LANE: 40  
# OF LOTS SOUTH OF BOUNTIFUL LANE: 29  
TOTAL # OF LOTS: 69
- 7 COTTAGE LOTS 50' WIDE ADJACENT TO CITY PARK
- 16 LOTS 60' WIDE OR MORE = 23%
- OPEN SPACE REQUIRED = 1000 SF X 69 LOTS = 1.584 AC
- OPEN SPACE PROVIDED WITHIN SUBDIVISION = 0.878 AC
- ADDITIONAL NEEDED = 0.706 AC
- DEVELOPER WILL FULLY IMPROVE 1.028 AC OF CITY-OWNED PARK AREA ON EAST (0.322 ACRES MORE THAN REQUIRED)
- LENGTH OF 8' TRAILS WITHIN SUBDIVISION = 1,200 L.F.
- LENGTH OF 8' TRAILS ALONG PONY EXPRESS PARKWAY = 730 L.F.



LAND SURVEYOR: AZTEC ENGINEERING INC.  
491 N. 450 W.  
OREM, UT. 84057  
(801) 224-7308



COMBINED LEGAL DESCRIPTION

Beginning at a point located North 89°31'09" West along section line 1883.55 feet and South 1752.65 feet from the Northeast Corner of Section 13, Township 6 South, Range 2 West, Salt Lake Base and Meridian; thence South 0°46'19" West 862.67 feet; thence North 89°13'41" West 808.09 feet; thence North 0°28'20" East 744.08 feet; thence South 89°50'02" East 653.36 feet; thence along the arc of a 275.00 foot radius curve to the right 28.12 feet through a central angle of 5°51'32" (chord bears South 2°09'18" East 28.11 feet); thence South 0°46'28" West 7.87 feet; thence South 89°13'32" East 70.75 feet; thence along the arc of a 21.00 foot radius curve to the right 32.19 feet through a central angle of 87°49'32" (chord bears North 45°18'46" West 29.13 feet); thence along the arc of a 325.00 foot radius curve to the left 66.78 feet through a central angle of 11°46'20" (chord bears North 71°7'10" West 66.66 feet); thence North 13°10'20" West 20.41 feet; thence along the arc of a 175.00 foot radius curve to the right 21.34 feet through a central angle of 6°59'10" (chord bears North 9°40'45" West 21.32 feet); thence North 6°11'10" West 2.68 feet; thence along the arc of a 15.00 foot radius curve to the right 25.22 feet through a central angle of 96°21'08" (chord bears North 41°59'24" East 22.36 feet); thence South 89°50'02" East 111.20 feet to the point of beginning. Area = 14.170 Acres

PLAT CALCULATIONS

|                                                                |                     |
|----------------------------------------------------------------|---------------------|
| TOTAL ACREAGE:                                                 | 14.17 ACRES         |
| BUILDABLE ACREAGE:                                             | 14.17 ACRES         |
| TOTAL ACREAGE IN LOTS:                                         | 9.277 ACRES         |
| TOTAL RIGHT-OF-WAY AREA:                                       | 4.015 ACRES         |
| TOTAL OPEN SPACE*:                                             | 0.878 ACRES         |
| TOTAL DEVELOPED OPEN SPACE*:                                   | 0.878 ACRES         |
| AVERAGE LOT SIZE:                                              | 5,857 SF/0.13 ACRES |
| LARGEST LOT SIZE:                                              | 8,810 SF/0.20 ACRES |
| SMALLEST LOT SIZE:                                             | 4,935 SF/0.11 ACRES |
| OVERALL DENSITY:                                               | 4.9 LOTS/ACRE       |
| TOTAL # OF LOTS:                                               | 69 LOTS             |
| *SEE OPEN SPACE TABS BELOW FOR ADDITIONAL OPEN SPACE PROVIDED. |                     |

SHEET INDEX

- PRELIMINARY PLAT
- UTILITY PLAN
- GRADING, DRAINAGE & EROSION PLAN

**BENCH MARK**

NORTHEAST CORNER, SECTION 13, TOWNSHIP 6 SOUTH, RANGE 2 WEST, SALT LAKE BASE AND MERIDIAN  
ELEVATION = 4867.60

**Developer/Property Owner:**  
Patterson Construction  
11009 N. 6400 W., Highland, Utah 84003  
Phone: (801) 756-7303

**EXCEL ENGINEERING**  
David W. Brown, P.E. License #230933  
12 West 100 North, Suite 201, American Fork, UT 84003  
P: (801) 756-4504; F: (801) 756-4511

**REVISIONS**

| Rev. | Date | Description |
|------|------|-------------|
|      |      |             |
|      |      |             |
|      |      |             |
|      |      |             |
|      |      |             |

**EAGLE VILLAGE - PHASE A**

EAGLE MOUNTAIN PONY EXPRESS & BOUNTIFUL LANE UTAH

Drawn by: G.J.Y.  
Designed by: G.J.Y.  
Checked by: D.W.P.

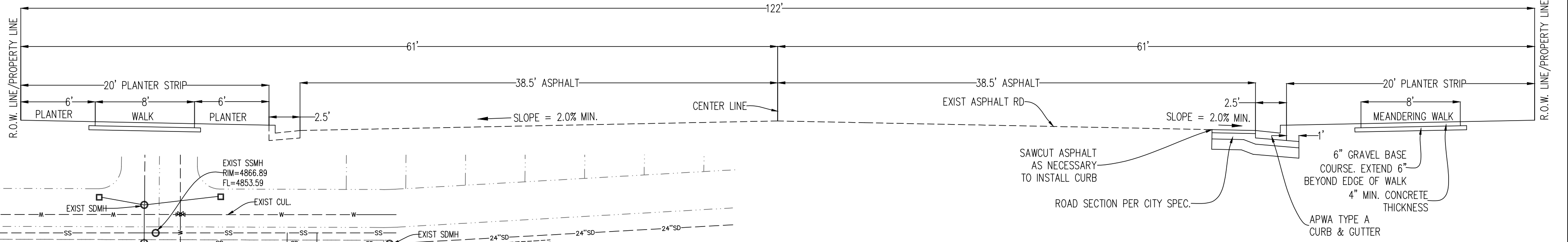
**PRELIMINARY PLAT**  
LOCATED IN THE NORTHEAST QUARTER OF SECTION 13, TOWNSHIP 6 SOUTH, RANGE 2 WEST, SLB&M

Scale: 1"=50'  
Date: 01/23/19  
1 OF 3



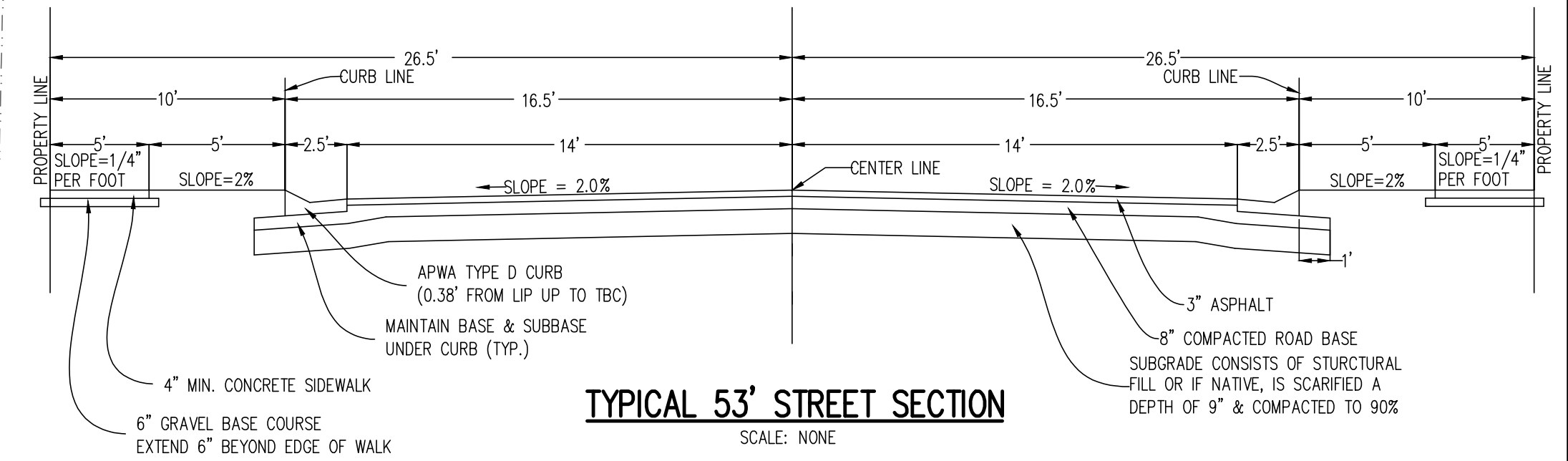


SIMTEK FENCE DETAIL ALONG PONY EXPRESS PARKWAY



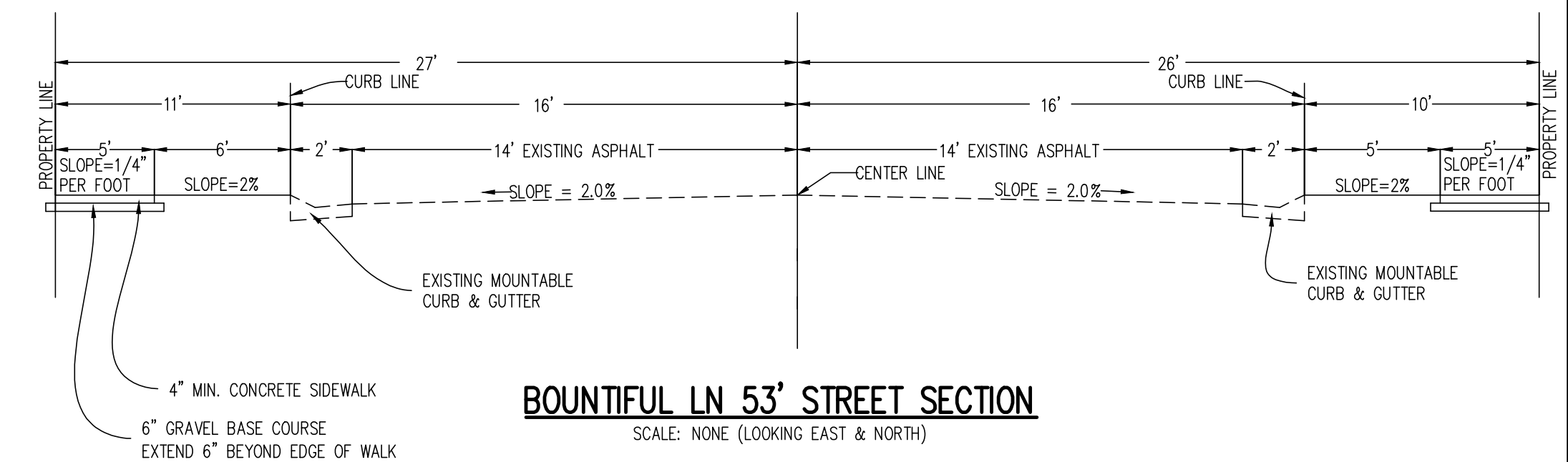
PONY EXPRESS PARKWAY STREET SECTION

SCALE: NONE



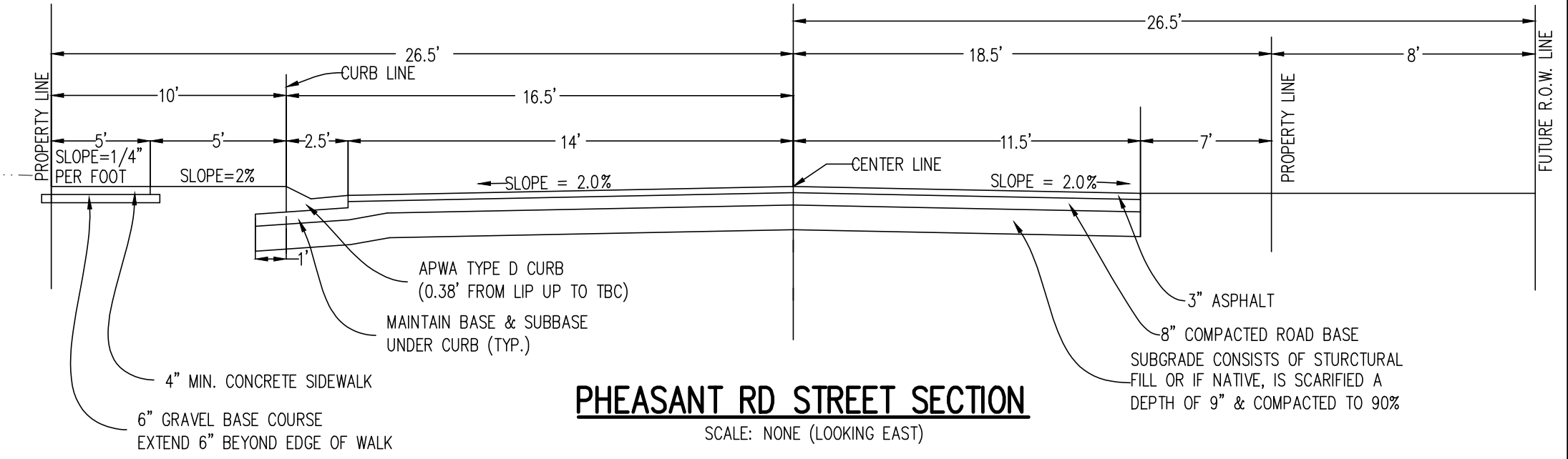
TYPICAL 53' STREET SECTION

SCALE: NONE



BOUNTIFUL LN 53' STREET SECTION

SCALE: NONE (LOOKING EAST & NORTH)



PHEASANT RD STREET SECTION

SCALE: NONE (LOOKING EAST)

GENERAL NOTES

1. A FIRE FLOW ANALYSIS IS REQUIRED AFTER INSTALLATION OF FIRE HYDRANTS AND PRIOR TO BUILDING PERMITS.
2. ALL OUTDOOR LIGHTING MUST BE FULL CUT-OFF, DARK SKY COMPLIANT IN ACCORDANCE WITH CITY CODE.
3. NO TURNAROUNDS WILL BE NEEDED WITH THE CURRENT PROPOSED PHASING.
4. PUBLIC UTILITY EASEMENTS ARE 10' FRONT, AND 5' REAR AND SIDES ON EACH LOT.
5. BOUNTIFUL LANE IS AN EXISTING 50' R/W PUBLIC ROADWAY THROUGH THIS SITE AND WILL BE INCREASED TO A 53' R/W. ASPHALT AND CURBS ARE ALREADY CONSTRUCTED.
6. STORM DRAINAGE FOR THIS SUBDIVISION DUMPS STORM WATER INTO THE EXISTING DRAINAGE FACILITY ON THE EAST. SOME OF THE WEST & SOUTH AREAS OF THE SUBDIVISION FLOW DIRECTLY INTO THE EXISTING STORM DRAIN PIPING. SEE SEPARATE SUBMITTALS FOR CALCULATIONS.
7. UTILITY PIPE SIZES = STORM DRAIN 15", WATER 8", SEWER 8" UNLESS OTHERWISE NOTED.
8. ALL CONSTRUCTION TO COMPLY WITH EAGLE MOUNTAIN STANDARDS & SPECIFICATIONS.
9. STRUCTURAL BACKFILL MATERIAL REQUIRED IN ALL UTILITY TRENCHES AND IN THE TRENCH CREATED TO EXCAVATE THE EXISTING STORM DRAIN PIPE.
10. ALL WATER LINE HOT TAPS TO BE AT LEAST 24" FROM ANY FITTING OR VALVE. INDIVIDUAL WATER LATERAL HOT TAPS TO BE AT LEAST 36" APART FROM EACH OTHER.
11. CONTRACTOR TO REBUILD BOUNTIFUL LANE AFTER INSTALLATION OF SERVICE LATERALS BY EITHER ROTOMILLING OR A COMPLETE 1" OVERLAY AT DEVELOPER'S OPTION.

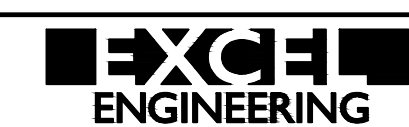


Scale 1" = 50'

| REVISIONS |      |             |
|-----------|------|-------------|
| Rev.      | Date | Description |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |
|           |      |             |

Developer/Property Owner:

Patterson Construction  
11009 N. 6400 W., Highland, Utah 84003  
Phone: (801) 756-7303



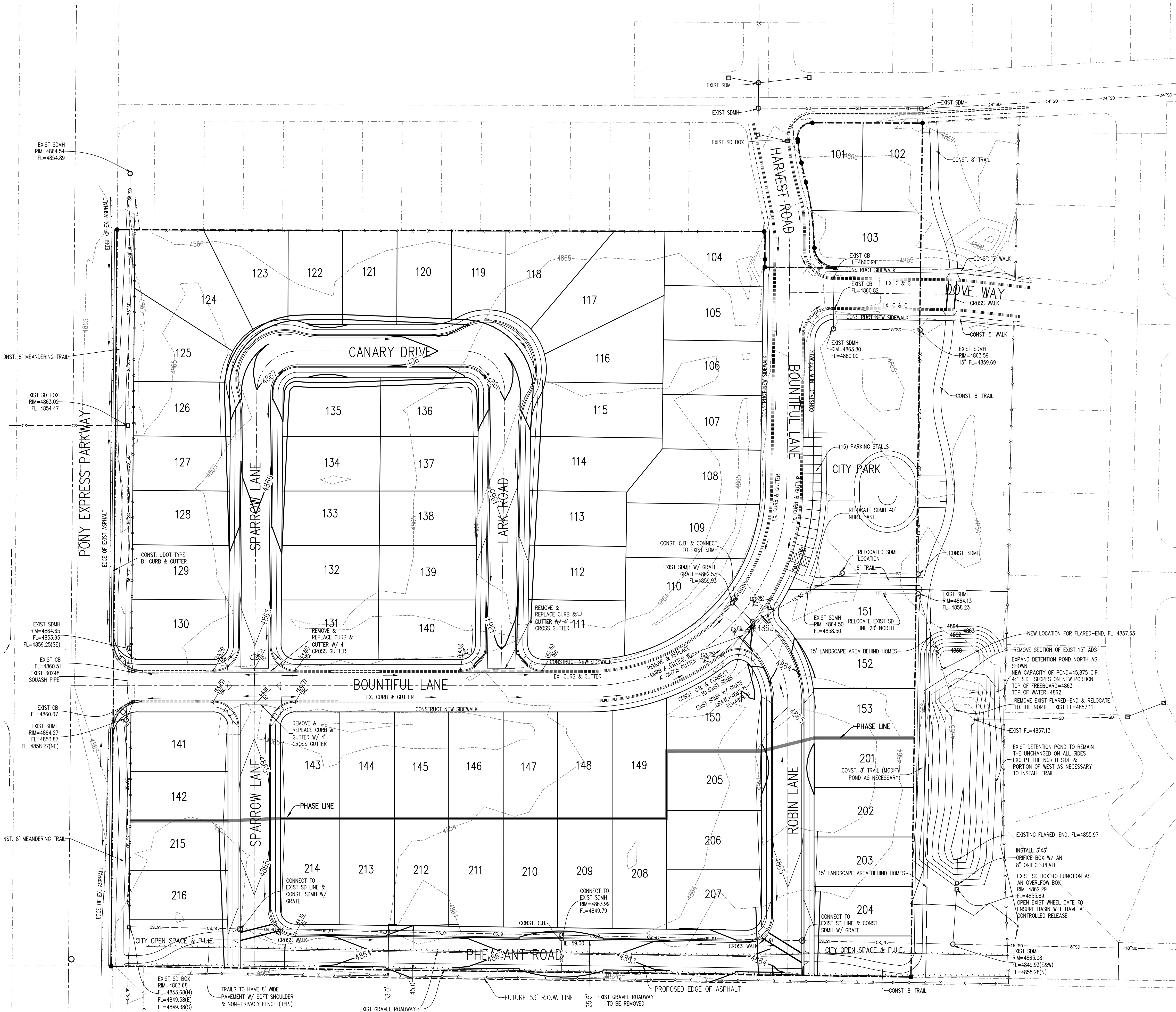
David W. Peterson, P.E., License #270393  
12 West 100 North, Suite 201, American Fork, UT 84003  
P: (801) 756-4504; F: (801) 756-4511

**EAGLE VILLAGE - PHASE A**  
EAGLE MOUNTAIN PONY EXPRESS & BOUNTIFUL LANE UTAH

|                        |                   |
|------------------------|-------------------|
| Drawn by:<br>G.J.Y.    | Scale:<br>1"=50'  |
| Designed by:<br>G.J.Y. | Date:<br>01/23/19 |
| Checked by:<br>D.W.P.  | 2 OF 3            |

UTILITY PLAN

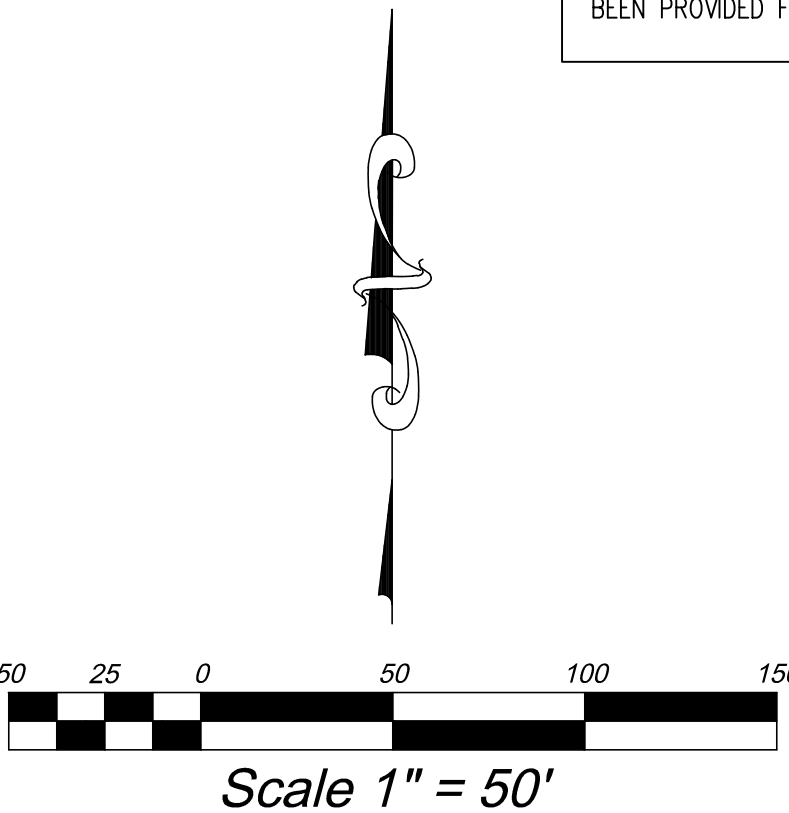




- GRADING NOTES:**
1. DETENTION WAS SIZED FOR 100-YEAR EVENT. SEE SEPARATE STORM DRAIN REPORT FOR CALCULATIONS.
  2. THERE ARE NO FLOOD HAZARDS IN THIS PROJECT.
  3. EACH LOT IS TO BE GRADED UP AT 2% FROM THE STREET TO THE PROPOSED HOUSE. WATER FROM THE REAR OF THE HOME SHALL BE GRADED AROUND THE HOUSE AND OUT TO THE STREET TO PREVENT PONDING AND FLOODING. HOMES LOCATED WHERE THE REAR LOT AREA IS SIGNIFICANTLY LOWER THAN THE STREET MAY HAVE THE REAR YARD AREA DRAIN TO THE REAR CORNER OF THEIR LOT PROVIDED THE STORM RUNOFF IS RETAINED ON ITS OWN LOT; HOWEVER, THE ROOF AND FRONT YARD AREA SHALL DRAIN TO THE STREET.
  4. MAXIMUM SLOPES ACROSS STREETS AND AT INTERSECTIONS NEED TO MEET CITY STANDARDS. PRELIMINARY CONTOURS & ELEVATIONS SHOWN MEET CITY STANDARDS.
  5. MASTER DRAINAGE PLANS TO BE APPROVED AND FOLLOWED BY BUILDERS.
  6. SOILS REPORTS ARE REQUIRED FOR EACH LOT AND MUST BE PROVIDED PRIOR TO FOOTING FORMS.
  7. NO RETAINING WALLS TO BE CONSTRUCTED IN THIS SUBDIVISION.
  8. BOUNTIFUL LANE IS AN EXISTING 50' R/W PUBLIC ROADWAY THROUGH THIS SITE AND WILL BE INCREASED TO A 53' R/W. ASPHALT AND CURBS ARE ALREADY CONSTRUCTED.
  9. SLOPES ON ALL LOTS IN THIS PARCEL < 3%.
  10. ALL NEW STREETS TO BE MAXIMUM 10% GRADE, MINIMUM 0.7% GRADE, AND MAXIMUM 4% THROUGH INTERSECTIONS.
  11. STORM DRAINAGE FOR THIS SUBDIVISION DUMPS STORM WATER INTO THE EXISTING DRAINAGE FACILITY ON THE EAST. SOME OF THE WEST & SOUTH AREAS OF THE SUBDIVISION FLOW DIRECTLY INTO THE EXISTING STORM DRAIN PIPING. SEE SEPARATE SUBMITTALS FOR CALCULATIONS.
  12. ALL CONSTRUCTION TO COMPLY WITH EAGLE MOUNTAIN STANDARDS & SPECIFICATIONS.

- EROSION CONTROL NOTES:**
1. EACH PHASE OF CONSTRUCTION WILL ADHERE TO THE FOLLOWING EROSION CONTROL PRACTICES
  2. CONSTRUCT A SILT FENCE AROUND PERIMETER OF DOWNSTREAM PORTIONS OF EACH PHASE.
  3. INSTALL A CONSTRUCTION ENTRANCE FOR EACH PHASE.
  4. CONSTRUCT STORM DRAIN FACILITIES AND INSTALL INLET PROTECTION AFTER INSTALLATION.
  5. IMPLEMENT DUST CONTROL MEASURES FOR EACH PHASE.
  6. CONTRACTOR IS TO REMOVE INLET PROTECTION FROM CATCH BASINS AND CLEAN-OUT ALL CATCH BASINS BEFORE LEAVING THE SITE.

**AVERAGE SLOPE OF LOTS:**  
THE AVERAGE SLOPE ACROSS THE LOTS GOING FROM WEST TO EAST IS UNDER 1%. THERE ARE NO AREAS IN THIS SUBDIVISION WITH A NATURAL GRADE THAT EXCEEDS 15% IN RELATION TO THE PROPOSED LOT LAYOUT. THEREFORE, A SLOPE ANALYSIS PLAN HAS NOT BEEN PROVIDED FOR THIS SITE.



**Developer/Property Owner:**  
Patterson Construction  
11009 N. 6400 W., Highland, Utah 84003  
Phone: (801) 756-7303

**ENGINEERING**  
David W. Peterson, P.E., License #270393  
12 West 100 North, Suite 201, American Fork, UT 84003  
P: (801) 756-4504; F: (801) 756-4511

| REVISIONS                                    |                                                 |                   |
|----------------------------------------------|-------------------------------------------------|-------------------|
| Rev.                                         | Date                                            | Description       |
|                                              |                                                 |                   |
|                                              |                                                 |                   |
|                                              |                                                 |                   |
|                                              |                                                 |                   |
|                                              |                                                 |                   |
|                                              |                                                 |                   |
|                                              |                                                 |                   |
| <b>EAGLE VILLAGE - PHASE A</b>               |                                                 |                   |
| EAGLE MOUNTAIN PONY EXPRESS & BOUNTIFUL LANE |                                                 | UTAH              |
| Drawn by:<br>G.J.Y.                          | <b>GRADING, DRAINAGE &amp;<br/>EROSION PLAN</b> | Scale:<br>1"=50'  |
| Designed by:<br>G.J.Y.                       |                                                 | Date:<br>01/23/19 |
| Checked by:<br>D.W.P.                        |                                                 | 3 OF 3            |





| TREE LEGEND (TOTAL PLANT COUNT) |                                              |                                               |      |            |           |               |
|---------------------------------|----------------------------------------------|-----------------------------------------------|------|------------|-----------|---------------|
| SYMBOL                          | BOTANICAL NAME                               | COMMON NAME                                   | QTY. | SIZE       | HYDROZONE | SPECIAL NOTES |
| RPP                             | ROBINIA PSUEDOACACIA 'PURPLE ROBE'           | PURPLE ROBE LOCUST                            | 4    | 2" CAL.    | MODERATE  |               |
| PA                              | PLATANUS ACERFOLIA                           | LONDON PLANETREE                              | 6    | 2" CAL.    | MODERATE  |               |
| M'S                             | MALUS X 'SPRING SNOW' CRABAPPLE              | SPRING SNOW CRABAPPLE                         | 11   | 2" CAL.    | LOW       |               |
| PO                              | PICEA OMORIKA                                | SERBIAN SPRUCE                                | 8    | 6'-8" TALL | LOW       |               |
| GTS                             | GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE'   | SKYLINE HONEY LOCUST                          | 3    | 2" CAL.    | LOW       |               |
| PCC                             | PYRUS CALLERYANA 'CHANTICLEER' (GLEN'S FORM) | PYRUS CALLERYANA 'GLEN'S FORM' FLOWERING PEAR | 14   | 2" CAL.    | LOW       |               |
| AC                              | ACER X FREEMANII 'ARMSTRONG'                 | ARMSTRONG MAPLE                               | 13   | 2" CAL.    | LOW       |               |

| SHRUBS AND GRASSES LEGEND (TOTAL PLANT COUNT) |                               |                        |      |       |          |                |
|-----------------------------------------------|-------------------------------|------------------------|------|-------|----------|----------------|
| SYMBOL                                        | BOTANICAL NAME                | COMMON NAME            | QTY. | SIZE  | DROUGHT  | MATURE SIZE WH |
| CAB                                           | CORNUS ALBA 'BAILHALO'        | IVORY HALO DOGWOOD     | 37   | 5 GAL | MODERATE |                |
| RNW                                           | ROSA X 'NEARLY WILD'          | NEARLY WILD ROSE       | 88   | 5 GAL | HIGH     |                |
| MA'C                                          | MAHONIA AQUIFOLIUM 'COMPACTA' | COMPACT OREGON GRAPE   | 51   | 5 GAL | LOW      |                |
| CA'F                                          | CALAMAGROSTIS A. 'FOERSTER'   | FOERSTER FEATHER GRASS | 75   | 1 GAL | HIGH     |                |

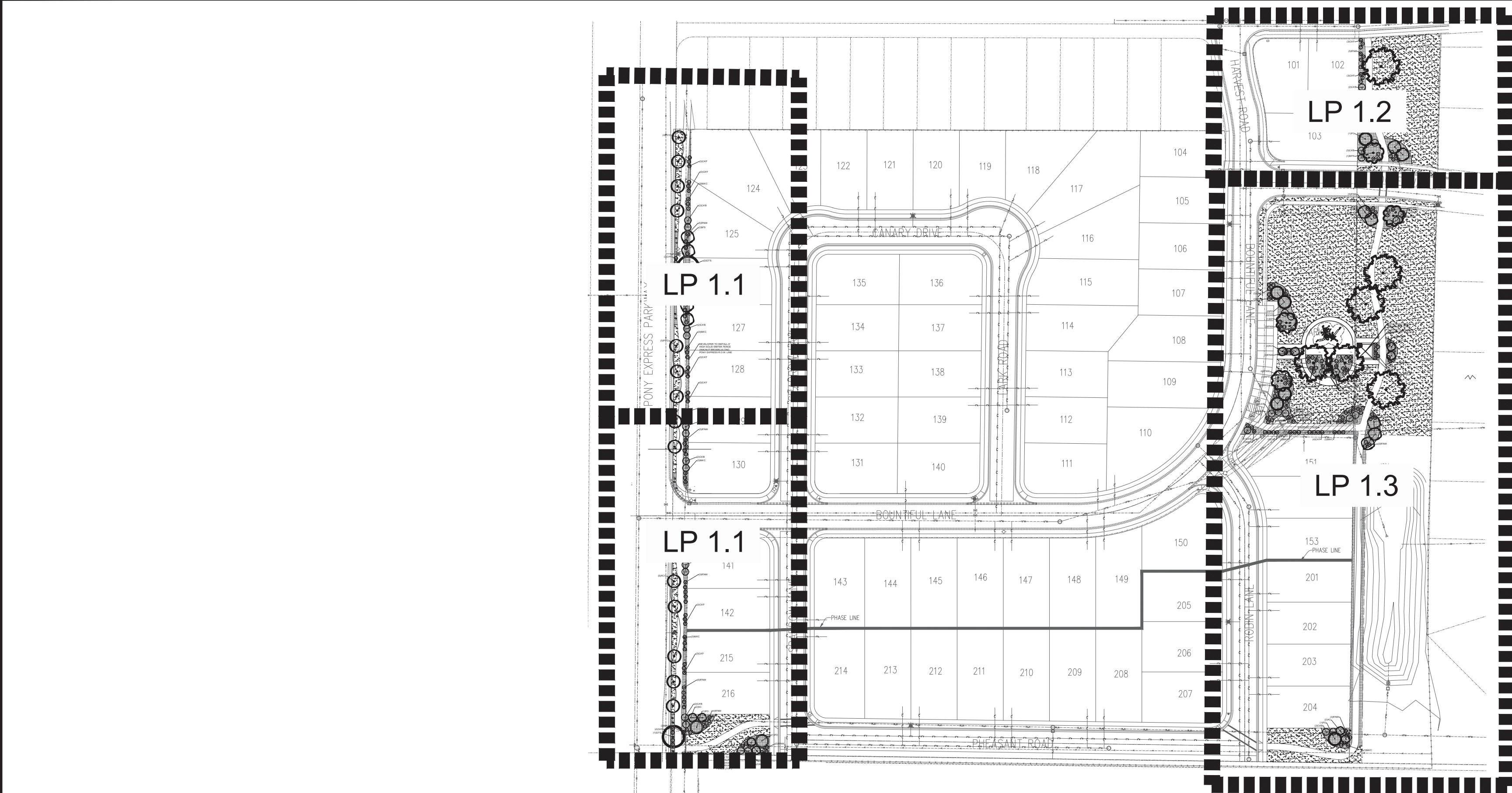
| SITE MATERIALS |                                                                                                          |                              |                                             |
|----------------|----------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------|
| SYMBOL         | SITE MATERIAL                                                                                            | QUANTITY                     | SPECIAL NOTES                               |
|                | 1\"-2\" BROWN COLOR ROCK<br>DEPTH DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS. | 18,624 SQ.FT. (172.4 CU.YD.) | LOCATED IN ALL PLANTER BED AREAS 3"         |
|                | LAWN (SOD) AREA                                                                                          | 56,951 SQ.FT.                | DROUGHT TOLERANT VARIETY<br>*SEE NOTE BELOW |
|                | 2\"-3\" SANDSTONE BOULDER                                                                                | 33                           |                                             |

- LANDSCAPE GENERAL NOTES**
- INSTALLER RESPONSIBILITIES AND LIABILITIES
- THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. THE INSTALLER IS REQUIRED TO REFER TO THEIR INDIVIDUAL TRADE - SCOPE OF WORK. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
  - THE INSTALLER OF ALL LANDSCAPING AND IRRIGATION SYSTEMS ARE LIABLE AND RESPONSIBLE FOR ALL JURISDICTIONAL AND CODE REQUIREMENTS, TIME EXECUTIONS, AND INSTALLED PRODUCTS AND MATERIALS.
- GRADING AND DRAINAGE REQUIREMENTS
- ALL GRADING IS TO SLOPE AWAY FROM THE STRUCTURE PER CODE.
  - FINISHED GRADE IS NOT PERMITTED BY CODE TO DRAIN ON NEIGHBORING PROPERTIES
  - 6" MIN. FOUNDATION LEFT EXPOSED AT ALL CONDITIONS
  - LANDSCAPER TO MAINTAIN OR IMPROVE EXISTING FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY THE EXCAVATOR'S FINAL GRADE ACTIVITIES INCLUDING ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
  - IF ANY SWALE, BERM, OR GRADE HAS BEEN DAMAGED OR IS INCORRECT TO ENSURE CORRECT WATER FLOW THE TRADE CONTRACTOR IS RESPONSIBLE TO FIX STATED ISSUE.
  - ROOF RUN-OFF DEVICES SHOULD BE INSTALLED TO COLLECT AND DISCHARGE ALL ROOF RUNOFF A MINIMUM OF 10 FEET FROM FOUNDATION ELEMENTS OR BEYOND THE LIMITS OF BACKFILL AROUND THE FOUNDATION WALLS, WHICHEVER DISTANCE IS GREATER.
  - THE GROUND SURFACE WITHIN 10 FEET OF THE FOUNDATIONS SHOULD BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6 INCHES.
- LANDSCAPING REQUIREMENTS
- ALL LANDSCAPING IS TO BE INSTALLED PER ALL GOVERNING JURISDICTIONS I.E. INTERNATIONAL BUILDING CODE, CITY CODES.
  - NON-COMPLIANCE TO ALL GOVERNING JURISDICTION REQUIREMENTS AND REGULATION ARE THE RESPONSIBILITY OF THE LANDSCAPING INSTALLER.
  - ALL PLANTED LANDSCAPING IS TO BE INSTALLED ACCORDING TO THE NURSERY CARE AND INSTALLATION INSTRUCTIONS WHERE PURCHASED AND BASED ON INDIVIDUAL SOIL CONDITIONS AND SITE CONDITIONS.

- LANDSCAPE NOTES**
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
  - PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
  - NEW LAWN AREAS TO BE SODDED WITH DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
  - SANDY LOAM TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 6" TOPSOIL (WITH 2" HUMUS MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS AND 4" IN ALL NEW LAWN AREAS. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ACCOMMODATE NEW TOPSOIL AND/OR PLANTER BED MULCH TO REACH FINISHED GRADE.
  - 4"x6" EXTRUDED CONCRETE MOW CURB TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS PER PLAN. ANY TREES LOCATED IN LAWN MUST HAVE A 4" CONCRETE TREE RING.
  - DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN.
  - ROCK MULCH TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 4" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS. ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL. PULL BARK MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
  - CONTRACTOR TO PROVIDE NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED IN ALL LANDSCAPE AREAS. ALL LAWN AREA TO RECEIVE 100% HEAD TO HEAD COVERAGE WITH SPRAY AND ROTARY SPRINKLER HEADS. ALL PLANTER AREAS NEED TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB ON PROJECT. SEE IRRIGATION PLAN.

|                          |  |                           |  |                                                                                                                      |  |                                                                     |  |                                                                                                                                         |  |                                                                                                                                                          |  |                                                                         |  |                                                 |  |
|--------------------------|--|---------------------------|--|----------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------|--|-------------------------------------------------|--|
| ISSUE DATE<br>01-28-2019 |  | PROJECT NUMBER<br>UT18062 |  | PLAN INFORMATION<br>BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC.<br>1-800-662-4111<br>www.bluestakes.org |  | PROJECT INFORMATION<br><b>EAGLE VILLAGE</b><br>EAGLE MOUNTAIN, UTAH |  | DEVELOPER / PROPERTY OWNER / CLIENT<br>Developer / Property Owner:<br>PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003 |  | LANDSCAPE ARCHITECT / PLANNER<br>PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  | LICENSE STAMP<br>Professional Engineer<br>JTA<br>KBA<br>TM<br>1/30/2019 |  |                                                 |  |
| NO. REVISION DATE        |  | 1 XXXX XX-XX-XX           |  | 2                                                                                                                    |  | 3                                                                   |  | 4                                                                                                                                       |  | 5                                                                                                                                                        |  | 6                                                                       |  | 7                                               |  |
| 0'                       |  | 20'                       |  | 40'                                                                                                                  |  | 80'                                                                 |  | 160'                                                                                                                                    |  | GRAPHIC SCALE: 1" = 40'                                                                                                                                  |  | COLOR PLAN                                                              |  | PRELIMINARY PLANS NOT FOR CONSTRUCTION LP-COLOR |  |





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. Soil Amendments
2. Fine Grading
3. Cultivation
4. Landscape Edging
5. Turf Planting
6. Furnish and Installing Plant
7. Maintenance
8. Mowing
9. Weeding

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: See Plans. All planter beds to receive a minimum 4" 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 50% native soil and 50% 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 Edging: Headers and 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.

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 three 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 coarser 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.

3.4 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 3/4 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: The Contractor shall satisfy himself as to the existing conditions prior to any construction. The Contractor shall be fully responsible for furnishing and lay 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 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 above. 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 insure that good contact is made between edges and also the ground. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.

F. Apply water directly after laying sod. Rainfall is not acceptable.

G. 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.

H. 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.

I. 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. Cut a slit or x at each plant location no larger than necessary to install plant.

B. Overlap rows of fabric min. 6"

C. Stable fabric edges and overlaps to ground.

END OF SECTION

PARKS & OPEN SPACE WORKSHEET

|                                    | REQUIRED   | PROVIDED    | OVERAGE                  |
|------------------------------------|------------|-------------|--------------------------|
| REQUIRED IMPROVED OPEN SPACE ACRES | 1.58 ACRES | 1.595 ACRES | .015 ACRES               |
| REQUIRED AMENITY POINTS            | 158 POINTS | 192 POINTS  | EXTRA TRAILS AND PARKING |

SITE MATERIALS

| SYMBOL                                            | POINTS AVAILABLE | PROPOSED QUANTITIES  | PROPOSED POINTS |
|---------------------------------------------------|------------------|----------------------|-----------------|
| BENCH / PICNIC TABLE (W/SHADE STRUCTURE OR TREES) | 2                | 4                    | 8               |
| BICYCLE RACK (4+BIKES)                            | 2                | 3                    | 6               |
| TREES(5)                                          | 2                | 7 (37 TREES)         | 14.8            |
| SHADE STRUCTURE (PER 100 SQ FT)                   | 4                | 4 (400 SQ FT)        | 16              |
| TRAILS (PER 100 LINEAR FEET)                      | 6                | 11.4 (1,141 LN. FT.) | 68.4            |
| PARKING (5 STALLS)                                | 6                | 14                   | 16.8            |
| PLAYGROUND EQUIPMENT (PER \$1000)                 | 2                | 31 (\$31,000)        | 62              |
| TOTAL POINTS = 192                                |                  |                      |                 |

TREE LEGEND (TOTAL PLANT COUNT)

| SYMBOL | BOTANICAL NAME                               | COMMON NAME                                   | QTY. | SIZE       | HYDROZONE | SPECIAL NOTES |
|--------|----------------------------------------------|-----------------------------------------------|------|------------|-----------|---------------|
| RPP    | ROBINIA PSUEDOACACIA 'PURPLE ROBE'           | PURPLE ROBE LOCUST                            | 4    | 2" CAL.    | MODERATE  |               |
| PA     | PLATANUS ACERFOLIA                           | LONDON PLANETREE                              | 6    | 2" CAL.    | MODERATE  |               |
| M'S    | MALUS X 'SPRING SNOW' CRABAPPLE              | SPRING SNOW CRABAPPLE                         | 11   | 2" CAL.    | LOW       |               |
| PO     | PICEA OMORICA                                | SERBIAN SPRUCE                                | 8    | 6'-8" TALL | LOW       |               |
| GT'S   | GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE'   | SKYLINE HONEY LOCUST                          | 3    | 2" CAL.    | LOW       |               |
| P'C'C  | PYRUS CALLERYANA 'CHANTICLEER' (GLEN'S FORM) | PYRUS CALLERYANA 'GLEN'S FORM' FLOWERING PEAR | 14   | 2" CAL.    | LOW       |               |
| AC     | ACER X FREEMANII 'ARMSTRONG'                 | ARMSTRONG MAPLE                               | 13   | 2" CAL.    | LOW       |               |

SHRUBS AND GRASSES LEGEND (TOTAL PLANT COUNT)

| SYMBOL | BOTANICAL NAME                | COMMON NAME            | QTY. | SIZE  | DROUGHT  | MATURE SIZE WH |
|--------|-------------------------------|------------------------|------|-------|----------|----------------|
| CAB    | CORNUS ALBA 'BAILHALO'        | IVORY HALO DOGWOOD     | 37   | 5 GAL | MODERATE |                |
| R'N'W  | ROSA X 'NEARLY WILD'          | NEARLY WILD ROSE       | 88   | 5 GAL | HIGH     |                |
| MA'C   | MAHONIA AQUIFOLIUM 'COMPACTA' | COMPACT OREGON GRAPE   | 51   | 5 GAL | LOW      |                |
| CA'F   | CALAMAGROSTIS A. 'FOERSTER'   | FOERSTER FEATHER GRASS | 75   | 1 GAL | HIGH     |                |

SITE MATERIALS

| SYMBOL | SITE MATERIAL           | QUANTITY                   | SPECIAL NOTES                                                                                                    |
|--------|-------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------|
|        | 1"-2" BROWN COLOR ROCK  | 18,370 SQ.FT. (170 CU YD.) | LOCATED IN ALL PLANTER BED AREAS 3" DEPTH DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS. |
|        | LAWN (SOD) AREA         | 59,032 SQ.FT.              | DROUGHT TOLERANT VARIETY *SEE NOTE BELOW                                                                         |
|        | 2'-3' SANDSTONE BOULDER | 33                         |                                                                                                                  |

LANDSCAPE GENERAL NOTES

INSTALLER RESPONSIBILITIES AND LIABILITIES  
1. THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. THE INSTALLER IS REQUIRED TO REFER TO THEIR INDIVIDUAL TRADE - SCOPE OF WORK. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.  
2. THE INSTALLER OF ALL LANDSCAPING AND IRRIGATION SYSTEMS ARE LIABLE AND RESPONSIBLE FOR ALL JURISDICTIONAL AND CODE REQUIREMENTS, TIME EXECUTIONS, AND INSTALLED PRODUCTS AND MATERIALS.

GRADING AND DRAINAGE REQUIREMENTS

1. ALL GRADING IS TO SLOPE AWAY FROM THE STRUCTURE PER CODE.
2. FINISHED GRADE IS NOT PERMITTED BY CODE TO DRAIN ON NEIGHBORING PROPERTIES
3. 6" MIN. FOUNDATION LEFT EXPOSED AT ALL CONDITIONS
4. LANDSCAPER TO MAINTAIN OR IMPROVE EXISTING FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY THE EXCAVATOR'S FINAL GRADE ACTIVITIES INCLUDING ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
5. IF ANY SWALE, BERM, OR GRADE HAS BEEN DAMAGED OR IS INCORRECT TO ENSURE CORRECT WATER FLOW THE TRADE CONTRACTOR IS RESPONSIBLE TO FIX STATED ISSUE.
6. ROOF RUN-OFF DEVICES SHOULD BE INSTALLED TO COLLECT AND DISCHARGE ALL ROOF RUNOFF A MINIMUM OF 10 FEET FROM FOUNDATION ELEMENTS OR BEYOND THE LIMITS OF BACKFILL AROUND THE FOUNDATION WALLS, WHICHEVER DISTANCE IS GREATER.
7. THE GROUND SURFACE WITHIN 10 FEET OF THE FOUNDATIONS SHOULD BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6 INCHES.

LANDSCAPING REQUIREMENTS

1. ALL LANDSCAPING IS TO BE INSTALLED PER ALL GOVERNING JURISDICTIONS I.E. INTERNATIONAL BUILDING CODE, CITY CODES.
2. NON-COMPLIANCE TO ALL GOVERNING JURISDICTION REQUIREMENTS AND REGULATION ARE THE RESPONSIBILITY OF THE LANDSCAPING INSTALLER.
3. ALL PLANTED LANDSCAPING IS TO BE INSTALLED ACCORDING TO THE NURSERY CARE AND INSTALLATION INSTRUCTIONS WHERE PURCHASED AND BASED ON INDIVIDUAL SOIL CONDITIONS AND SITE CONDITIONS.

LANDSCAPE NOTES

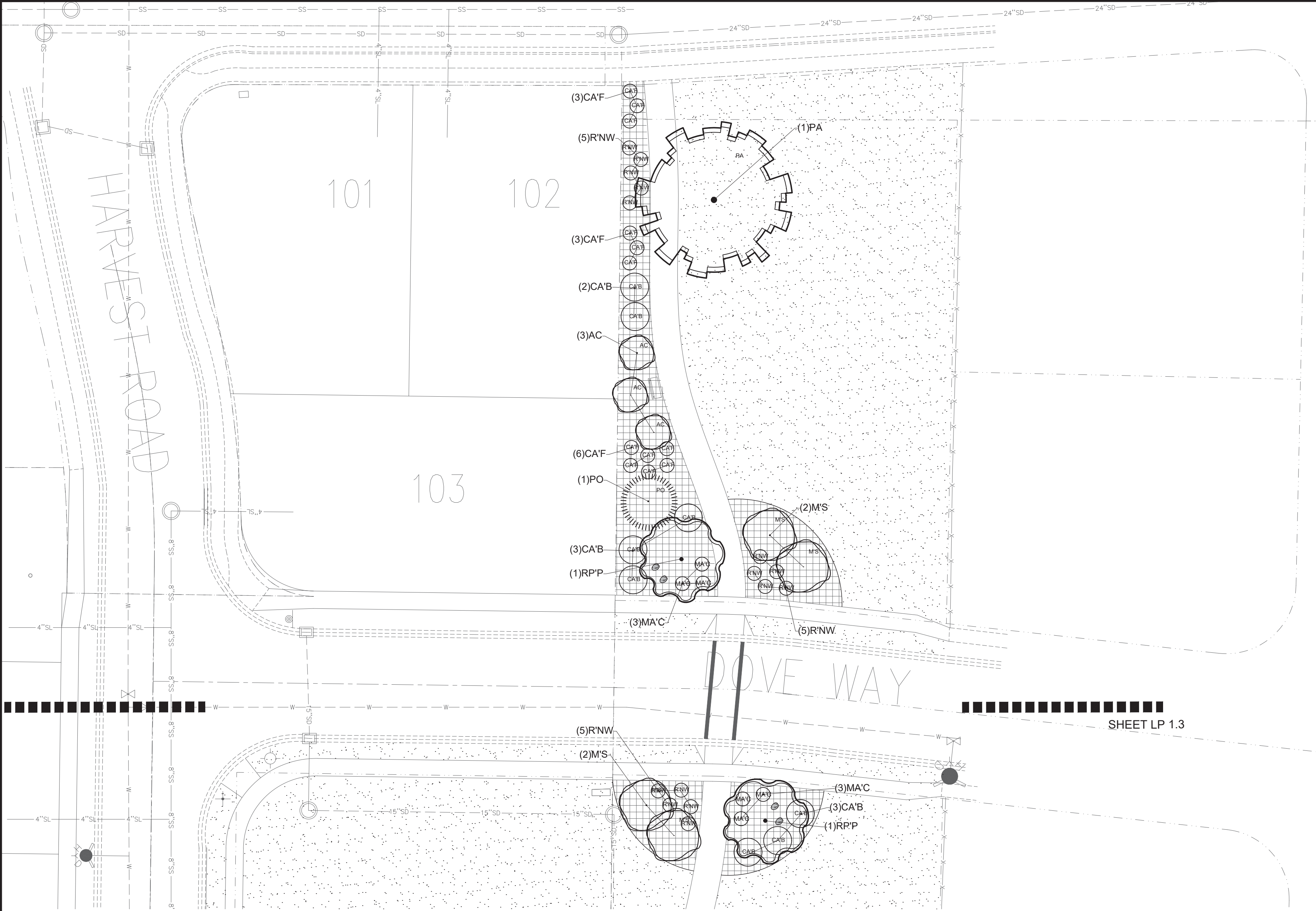
1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
2. PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
3. NEW LAWN AREAS TO BE SODDED WITH DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
4. SANDY LOAM TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 6" TOPSOIL (WITH 2" HUMUS MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS AND 4" IN ALL NEW LAWN AREAS. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ACCOMMODATE NEW TOPSOIL AND/OR PLANTER BED MULCH TO REACH FINISHED GRADE.
5. 4"x6" EXTRUDED CONCRETE MOW CURB TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS PER PLAN.
6. DeWitt 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN.
7. ROCK MULCH TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 4" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL. PULL BARK MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
8. CONTRACTOR TO PROVIDE NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED IN ALL LANDSCAPE AREAS. ALL LAWN AREA TO RECEIVE 100% HEAD TO HEAD COVERAGE WITH SPRAY AND ROTARY SPRINKLER HEADS. ALL PLANTER AREAS NEED TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB ON PROJECT. SEE IRRIGATION PLAN.

| ISSUE DATE |  |  | PROJECT NUMBER |  |  | PLAN INFORMATION |  |  | PROJECT INFORMATION |  |  | DEVELOPER / PROPERTY OWNER / CLIENT |  |  | LANDSCAPE ARCHITECT / PLANNER                                                                         |  |  | LICENSE STAMP                                                                                                           |  |  |
|------------|--|--|----------------|--|--|------------------|--|--|---------------------|--|--|-------------------------------------|--|--|-------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------|--|--|
| 02-07-2019 |  |  | UT18062        |  |  |                  |  |  |                     |  |  | Developer / Property Owner:         |  |  | PATTERSON CONSRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003                                      |  |  | PKJ DESIGN GROUP                                                                                                        |  |  |
| NO.        |  |  | REVISION       |  |  | DATE             |  |  |                     |  |  | Client / Engineer:                  |  |  | DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |  |  | PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD. SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  |  |
| 1          |  |  | XXXX           |  |  | XX-XX-XX         |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | PM: JTA                                                                                                                 |  |  |
| 2          |  |  |                |  |  |                  |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | DRAWN: KBA                                                                                                              |  |  |
| 3          |  |  |                |  |  |                  |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | CHECKED: TM                                                                                                             |  |  |
| 4          |  |  |                |  |  |                  |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | PLOT DATE: 2/7/2019                                                                                                     |  |  |
| 5          |  |  |                |  |  |                  |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | LANDSCAPE PLAN                                                                                                          |  |  |
| 6          |  |  |                |  |  |                  |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | PRELIMINARY PLANS NOT FOR CONSTRUCTION                                                                                  |  |  |
| 7          |  |  |                |  |  |                  |  |  |                     |  |  |                                     |  |  |                                                                                                       |  |  | LP-1.0                                                                                                                  |  |  |









TREE LEGEND (TOTAL PLANT COUNT)

| SYMBOL | BOTANICAL NAME                               | COMMON NAME                                   | QTY. | SIZE       | HYDROZONE | SPECIAL NOTES |
|--------|----------------------------------------------|-----------------------------------------------|------|------------|-----------|---------------|
| RPP    | ROBINIA PSUEDOACACIA 'PURPLE ROBE'           | PURPLE ROBE LOCUST                            | 4    | 2" CAL.    | MODERATE  |               |
| PA     | PLATANUS ACERFOLIA                           | LONDON PLANETREE                              | 6    | 2" CAL.    | MODERATE  |               |
| M'S    | MALUS X 'SPRING SNOW' CRABAPPLE              | SPRING SNOW CRABAPPLE                         | 11   | 2" CAL.    | LOW       |               |
| PO     | PICEA OMORIKA                                | SERBIAN SPRUCE                                | 8    | 6'-8" TALL | LOW       |               |
| GT'S   | GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE'   | SKYLINE HONEY LOCUST                          | 3    | 2" CAL.    | LOW       |               |
| PC'C   | PYRUS CALLERYANA 'CHANTICLEER' (GLEN'S FORM) | PYRUS CALLERYANA 'GLEN'S FORM' FLOWERING PEAR | 14   | 2" CAL.    | LOW       |               |
| AC     | ACER X FREEMANII 'ARMSTRONG'                 | ARMSTRONG MAPLE                               | 13   | 2" CAL.    | LOW       |               |

SHRUBS AND GRASSES LEGEND (TOTAL PLANT COUNT)

| SYMBOL | BOTANICAL NAME                | COMMON NAME            | QTY. | SIZE  | DROUGHT  | MATURE SIZE WH |
|--------|-------------------------------|------------------------|------|-------|----------|----------------|
| CA'B   | CORNUS ALBA 'BAILHALO'        | IVORY HALO DOGWOOD     | 37   | 5 GAL | MODERATE |                |
| R'NW   | ROSA X 'NEARLY WILD'          | NEARLY WILD ROSE       | 88   | 5 GAL | HIGH     |                |
| MA'C   | MAHONIA AQUIFOLIUM 'COMPACTA' | COMPACT OREGON GRAPE   | 51   | 5 GAL | LOW      |                |
| CA'F   | CALAMAGROSTIS A. 'FOERSTER'   | FOERSTER FEATHER GRASS | 75   | 1 GAL | HIGH     |                |

SITE MATERIALS

| SYMBOL | SITE MATERIAL           | QUANTITY                   | SPECIAL NOTES                                                                                                    |
|--------|-------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------|
|        | 1'-2" BROWN COLOR ROCK  | 18,370 SQ.FT. (170 CU.YD.) | LOCATED IN ALL PLANTER BED AREAS 3" DEPTH DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS. |
|        | LAWN (SOD) AREA         | 59,032 SQ.FT.              | DROUGHT TOLERANT VARIETY *SEE NOTE BELOW                                                                         |
|        | 2'-3' SANDSTONE BOULDER | 33                         |                                                                                                                  |

LANDSCAPE GENERAL NOTES

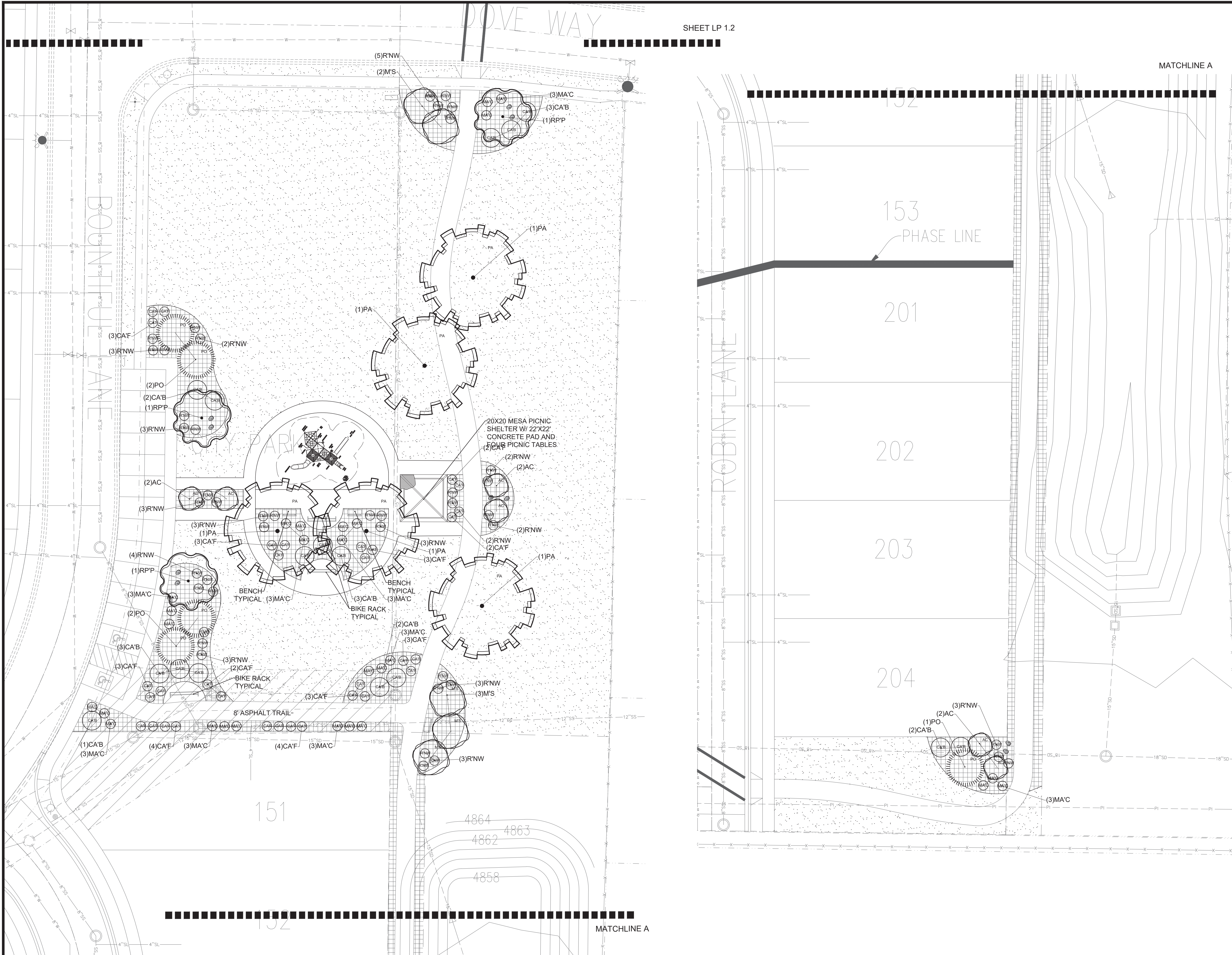
- INSTALLER RESPONSIBILITIES AND LIABILITIES
- THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. THE INSTALLER IS REQUIRED TO REFER TO THEIR INDIVIDUAL TRADE - SCOPE OF WORK. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
  - THE INSTALLER OF ALL LANDSCAPING AND IRRIGATION SYSTEMS ARE LIABLE AND RESPONSIBLE FOR ALL JURISDICTIONAL AND CODE REQUIREMENTS, TIME EXECUTIONS, AND INSTALLED PRODUCTS AND MATERIALS.
- GRADING AND DRAINAGE REQUIREMENTS
- ALL GRADING IS TO SLOPE AWAY FROM THE STRUCTURE PER CODE.
  - FINISHED GRADE IS NOT PERMITTED BY CODE TO DRAIN ON NEIGHBORING PROPERTIES
  - 6" MIN. FOUNDATION LEFT EXPOSED AT ALL CONDITIONS
  - LANDSCAPER TO MAINTAIN OR IMPROVE EXISTING FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY THE EXCAVATOR'S FINAL GRADE ACTIVITIES INCLUDING ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
  - IF ANY SWALE, BERM, OR GRADE HAS BEEN DAMAGED OR IS INCORRECT TO ENSURE CORRECT WATER FLOW THE TRADE CONTRACTOR IS RESPONSIBLE TO FIX STATED ISSUE.
  - ROOF RUN-OFF DEVICES SHOULD BE INSTALLED TO COLLECT AND DISCHARGE ALL ROOF RUNOFF A MINIMUM OF 10 FEET FROM FOUNDATION ELEMENTS OR BEYOND THE LIMITS OF BACKFILL AROUND THE FOUNDATION WALLS; WHICHEVER DISTANCE IS GREATER.
  - THE GROUND SURFACE WITHIN 10 FEET OF THE FOUNDATIONS SHOULD BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6 INCHES.
- LANDSCAPING REQUIREMENTS
- ALL LANDSCAPING IS TO BE INSTALLED PER ALL GOVERNING JURISDICTIONS I.E. INTERNATIONAL BUILDING CODE, CITY CODES.
  - NON-COMPLIANCE TO ALL GOVERNING JURISDICTION REQUIREMENTS AND REGULATION ARE THE RESPONSIBILITY OF THE LANDSCAPING INSTALLER.
  - ALL PLANTED LANDSCAPING IS TO BE INSTALLED ACCORDING TO THE NURSERY CARE AND INSTALLATION INSTRUCTIONS WHERE PURCHASED AND BASED ON INDIVIDUAL SOIL CONDITIONS AND SITE CONDITIONS.

LANDSCAPE NOTES

- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
- PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
- NEW LAWN AREAS TO BE SODDED WITH DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
- SANDY LOAM TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 6" TOPSOIL (WITH 2" HUMUS MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS AND 4" IN ALL NEW LAWN AREAS. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ACCOMMODATE NEW TOPSOIL AND/OR PLANTER BED MULCH TO REACH FINISHED GRADE.
- 4"x6" EXTRUDED CONCRETE MOW CURB TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS PER PLAN. ANY TREES LOCATED IN LAWN MUST HAVE A 4' CONCRETE TREE RING.
- DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN.
- ROCK MULCH TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 4" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL. PULL BARK MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
- CONTRACTOR TO PROVIDE NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED IN ALL LANDSCAPE AREAS. ALL LAWN AREA TO RECEIVE 100% HEAD TO HEAD COVERAGE WITH SPRAY AND ROTARY SPRINKLER HEADS. ALL PLANTER AREAS NEED TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB ON PROJECT. SEE IRRIGATION PLAN.

|                          |  |                           |  |                                                                                                                     |  |                                                                                                       |  |                                                                                                          |  |                                                                                                                                                          |  |                                                                   |  |
|--------------------------|--|---------------------------|--|---------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------|--|
| ISSUE DATE<br>02-07-2019 |  | PROJECT NUMBER<br>UT18062 |  | PLAN INFORMATION<br>BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC<br>1-800-662-4111<br>www.bluestakes.org |  | PROJECT INFORMATION<br>EAGLE VILLAGE<br>EAGLE MOUNTAIN, UTAH                                          |  | DEVELOPER / PROPERTY OWNER / CLIENT<br>PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003 |  | LANDSCAPE ARCHITECT / PLANNER<br>PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  | LICENSE STAMP<br>PRELIMINARY PLANS NOT FOR CONSTRUCTION<br>LP-1.2 |  |
| NO. REVISION DATE        |  | DATE                      |  | GRAPHIC SCALE: 1" = 20'                                                                                             |  | DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |  | PKJ DESIGN GROUP                                                                                         |  | PM: JTA<br>DRAWN: KBA<br>CHECKED: TM<br>PLOT DATE: 2/7/2019                                                                                              |  |                                                                   |  |





TREE LEGEND (TOTAL PLANT COUNT)

| SYMBOL | BOTANICAL NAME                               | COMMON NAME                                   | QTY. | SIZE       | HYDROZONE | SPECIAL NOTES |
|--------|----------------------------------------------|-----------------------------------------------|------|------------|-----------|---------------|
| RPP    | ROBINIA PSUEDOACACIA 'PURPLE ROBE'           | PURPLE ROBE LOCUST                            | 4    | 2" CAL.    | MODERATE  |               |
| PA     | PLATANUS ACERFOLIA                           | LONDON PLANETREE                              | 6    | 2" CAL.    | MODERATE  |               |
| M'S    | MALUS X 'SPRING SNOW' CRABAPPLE              | SPRING SNOW CRABAPPLE                         | 11   | 2" CAL.    | LOW       |               |
| PO     | PICEA OMORICA                                | SERBIAN SPRUCE                                | 8    | 6'-8" TALL | LOW       |               |
| GT'S   | GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE'   | SKYLINE HONEY LOCUST                          | 3    | 2" CAL.    | LOW       |               |
| PCC    | PYRUS CALLERYANA 'CHANTICLEER' (GLEN'S FORM) | PYRUS CALLERYANA 'GLEN'S FORM' FLOWERING PEAR | 14   | 2" CAL.    | LOW       |               |
| AC     | ACER X FREEMANII 'ARMSTRONG'                 | ARMSTRONG MAPLE                               | 13   | 2" CAL.    | LOW       |               |

SHRUBS AND GRASSES LEGEND (TOTAL PLANT COUNT)

| SYMBOL | BOTANICAL NAME                | COMMON NAME            | QTY. | SIZE  | DROUGHT  | MATURE SIZE WH |
|--------|-------------------------------|------------------------|------|-------|----------|----------------|
| CA'B   | CORNUS ALBA 'BAILHALO'        | IVORY HALO DOGWOOD     | 37   | 5 GAL | MODERATE |                |
| R'NW   | ROSA X 'NEARLY WILD'          | NEARLY WILD ROSE       | 88   | 5 GAL | HIGH     |                |
| MA'C   | MAHONIA AQUIFOLIUM 'COMPACTA' | COMPACT OREGON GRAPE   | 51   | 5 GAL | LOW      |                |
| CA'F   | CALAMAGROSTIS A. 'FOERSTER'   | FOERSTER FEATHER GRASS | 75   | 1 GAL | HIGH     |                |

SITE MATERIALS

| SYMBOL | SITE MATERIAL           | QUANTITY                   | SPECIAL NOTES                                                                                                    |
|--------|-------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------|
|        | 1"-2" BROWN COLOR ROCK  | 18,370 SQ.FT. (170 CU.YD.) | LOCATED IN ALL PLANTER BED AREAS 3" DEPTH DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS. |
|        | LAWN (SOD) AREA         | 59,032 SQ.FT.              | DROUGHT TOLERANT VARIETY *SEE NOTE BELOW                                                                         |
|        | 2'-3' SANDSTONE BOULDER | 33                         |                                                                                                                  |

LANDSCAPE GENERAL NOTES

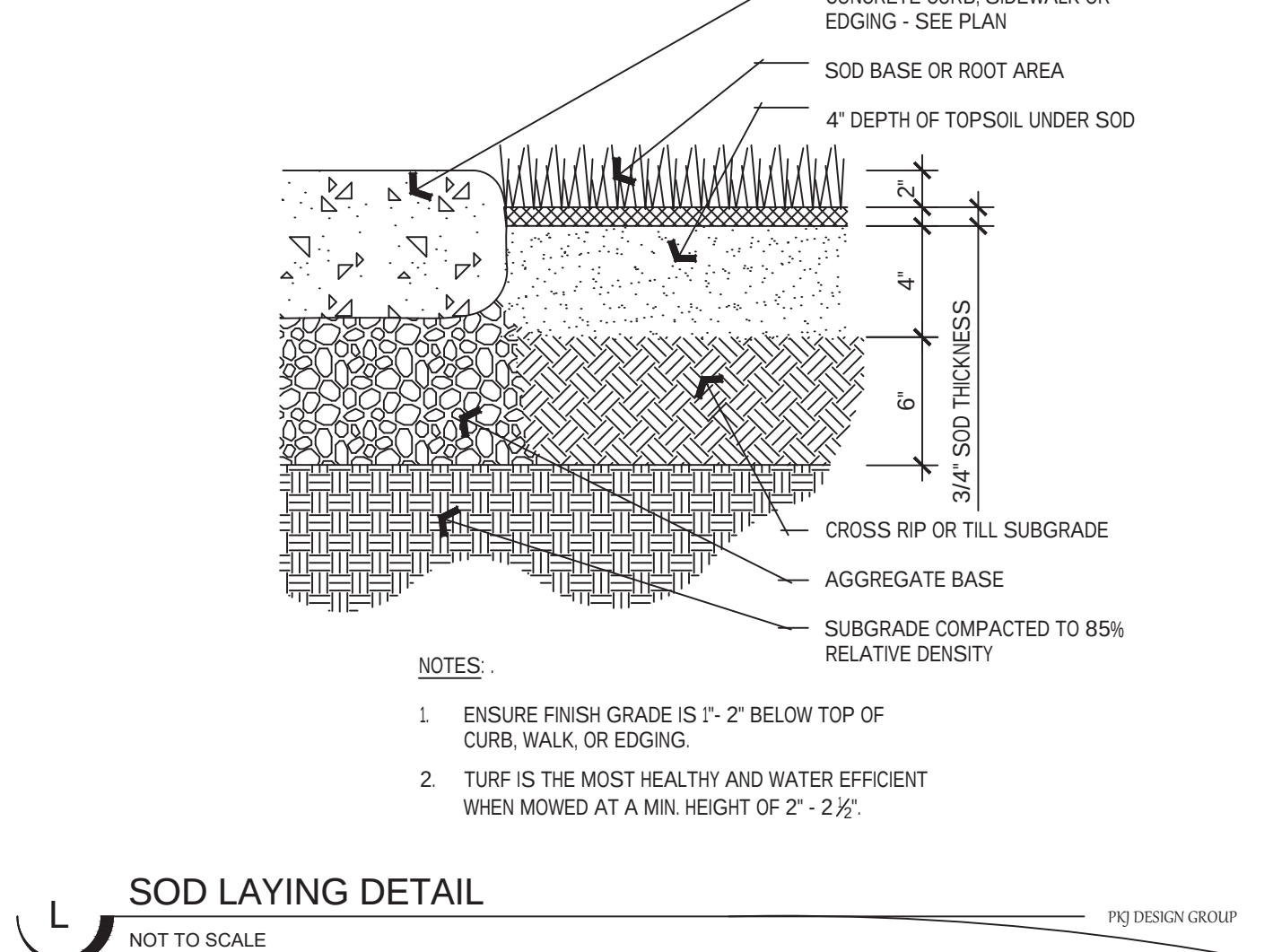
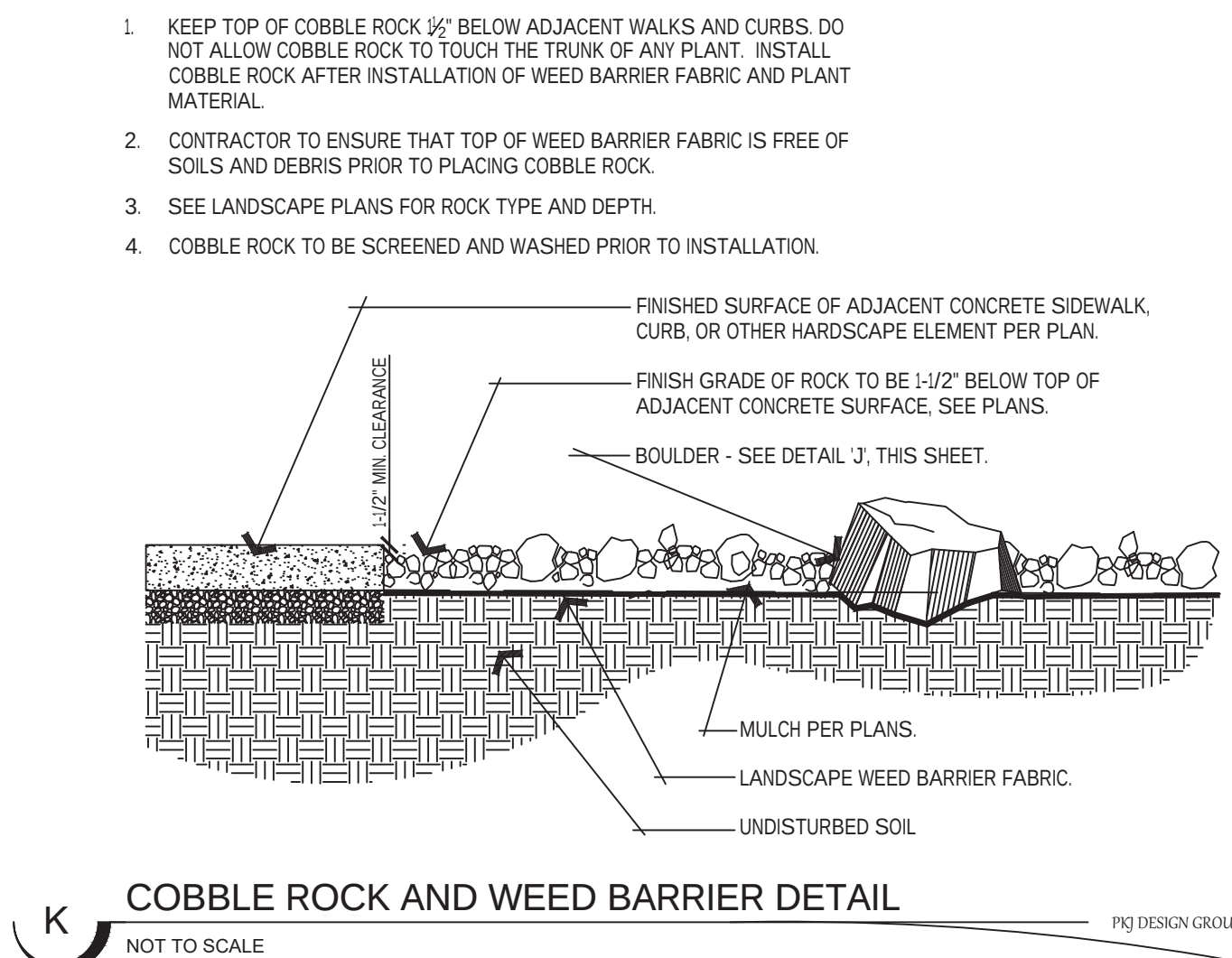
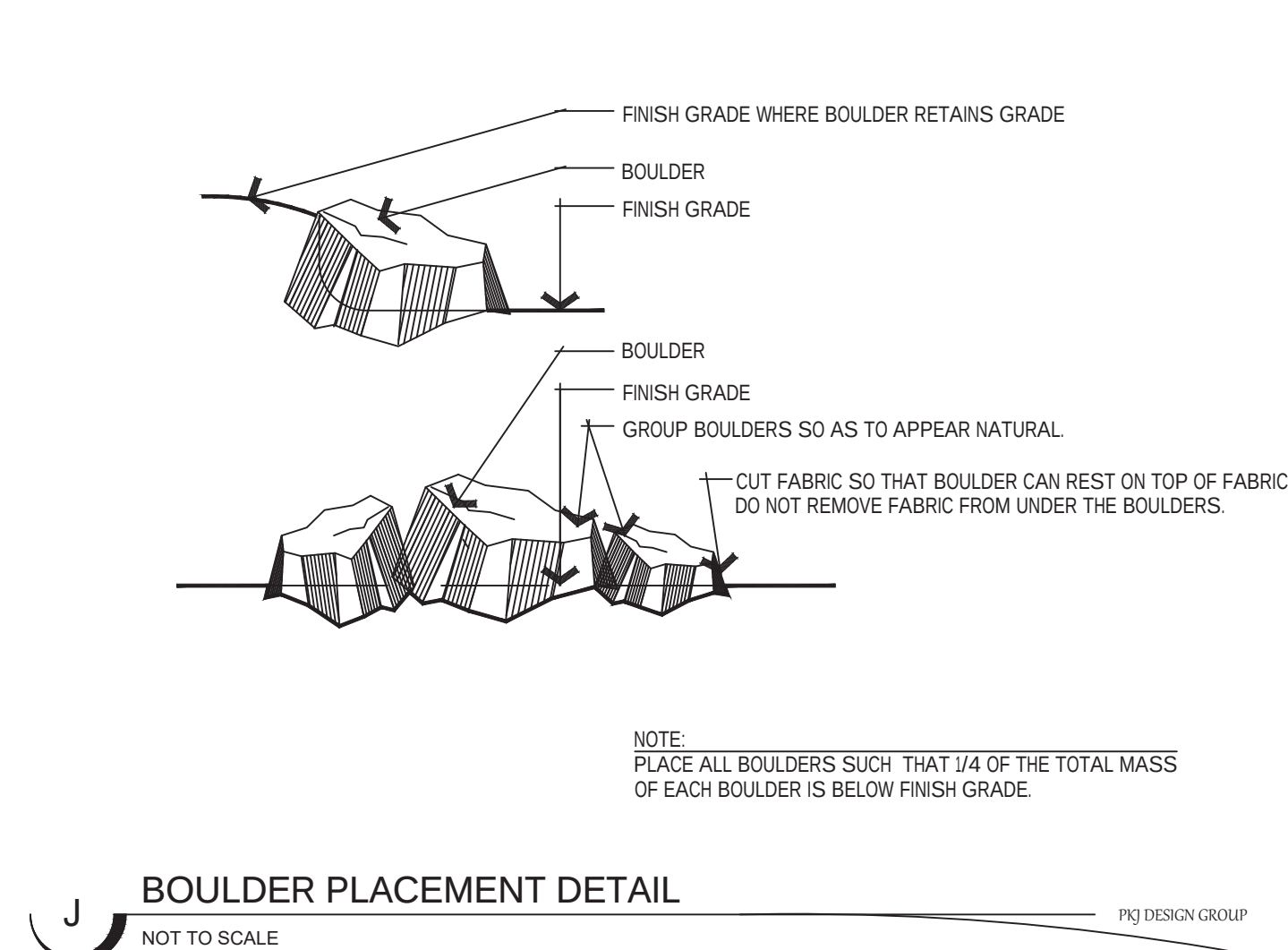
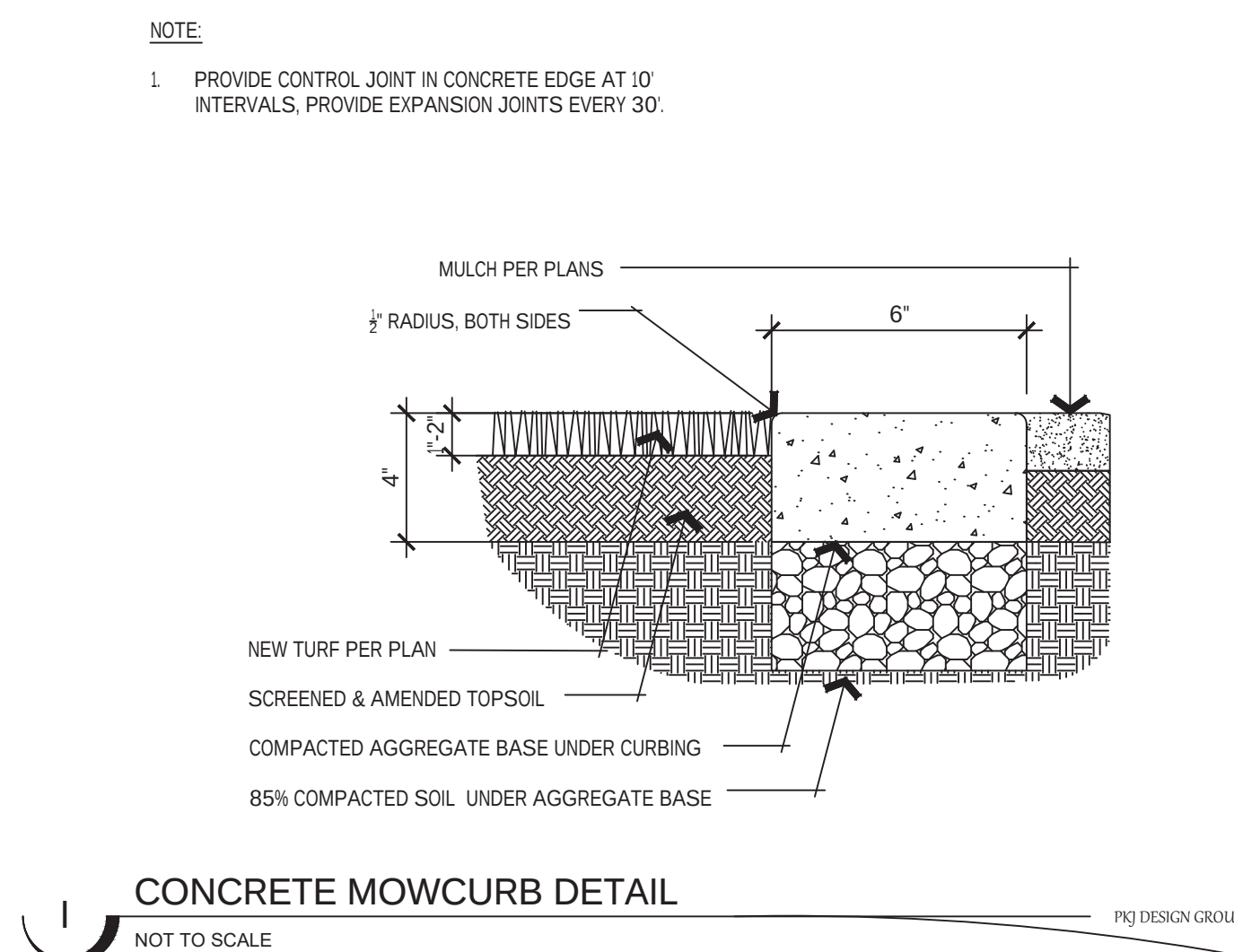
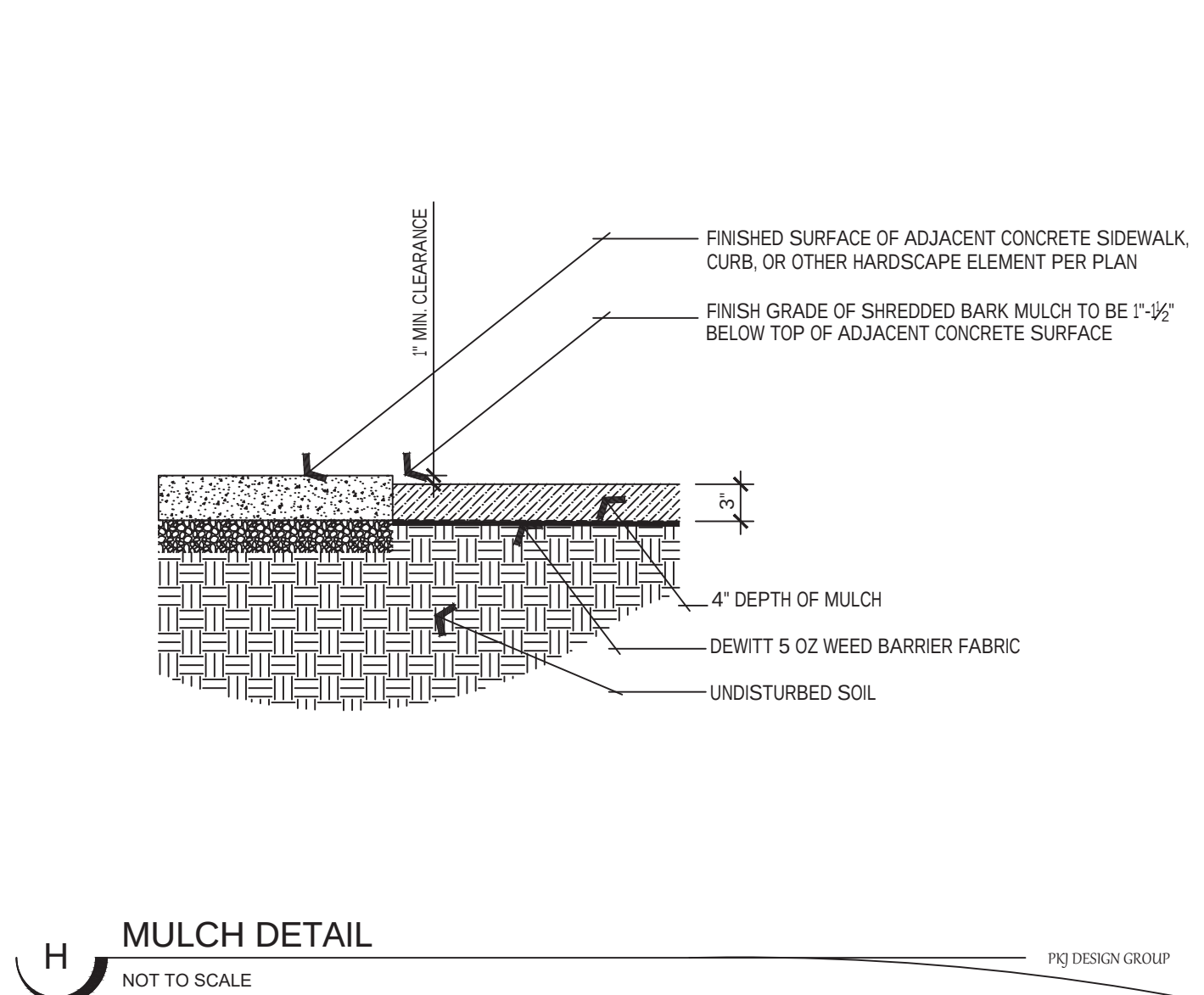
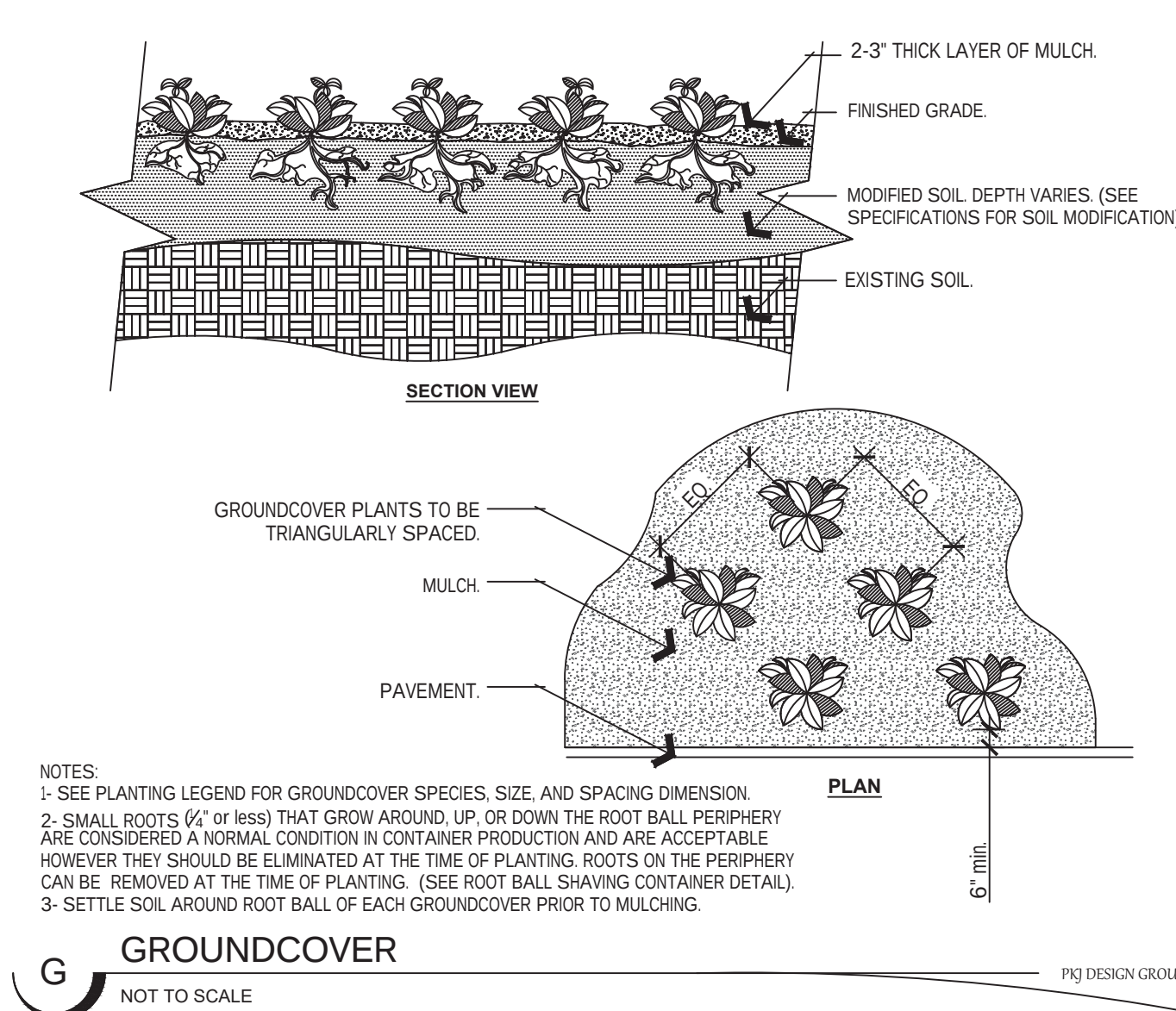
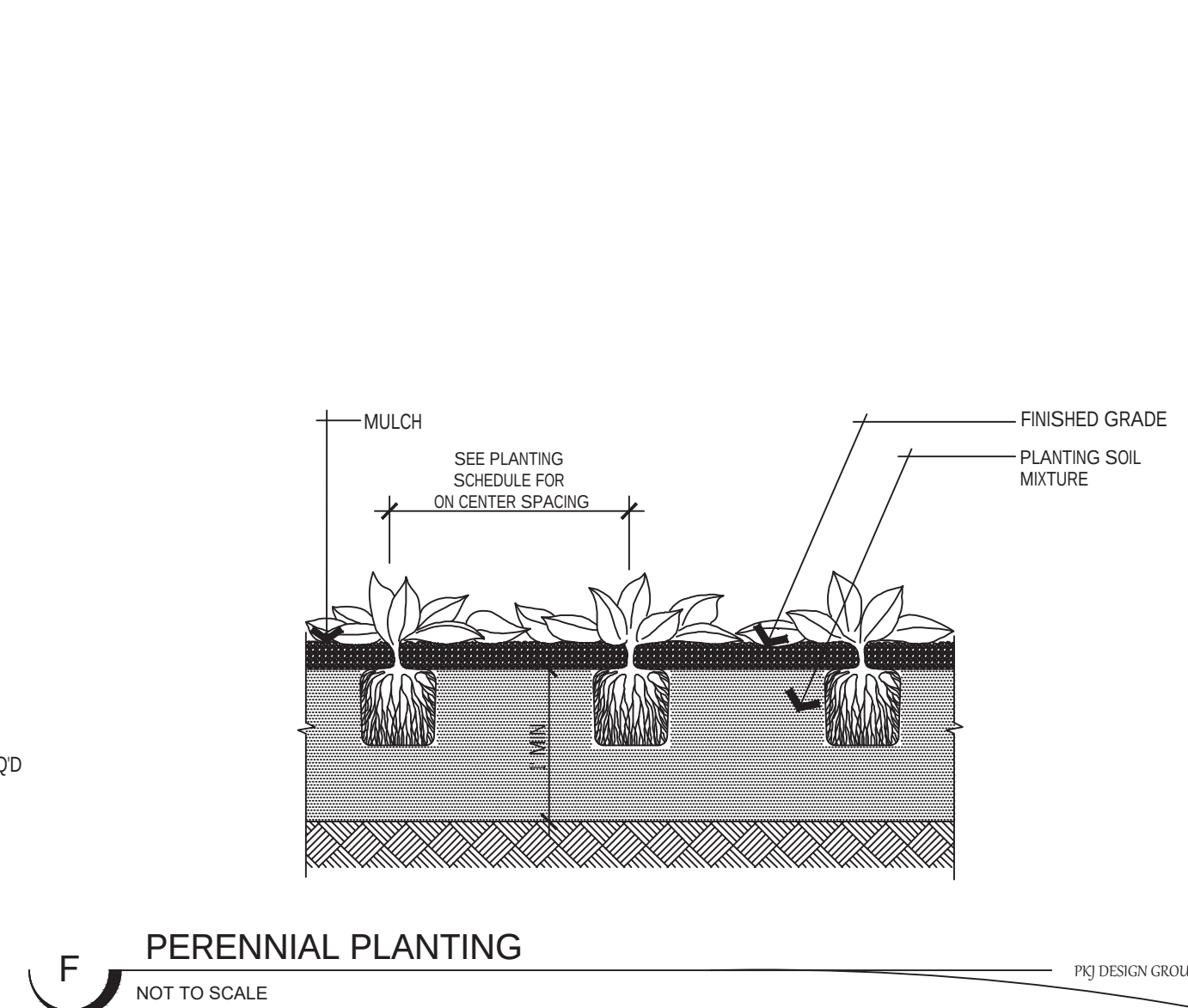
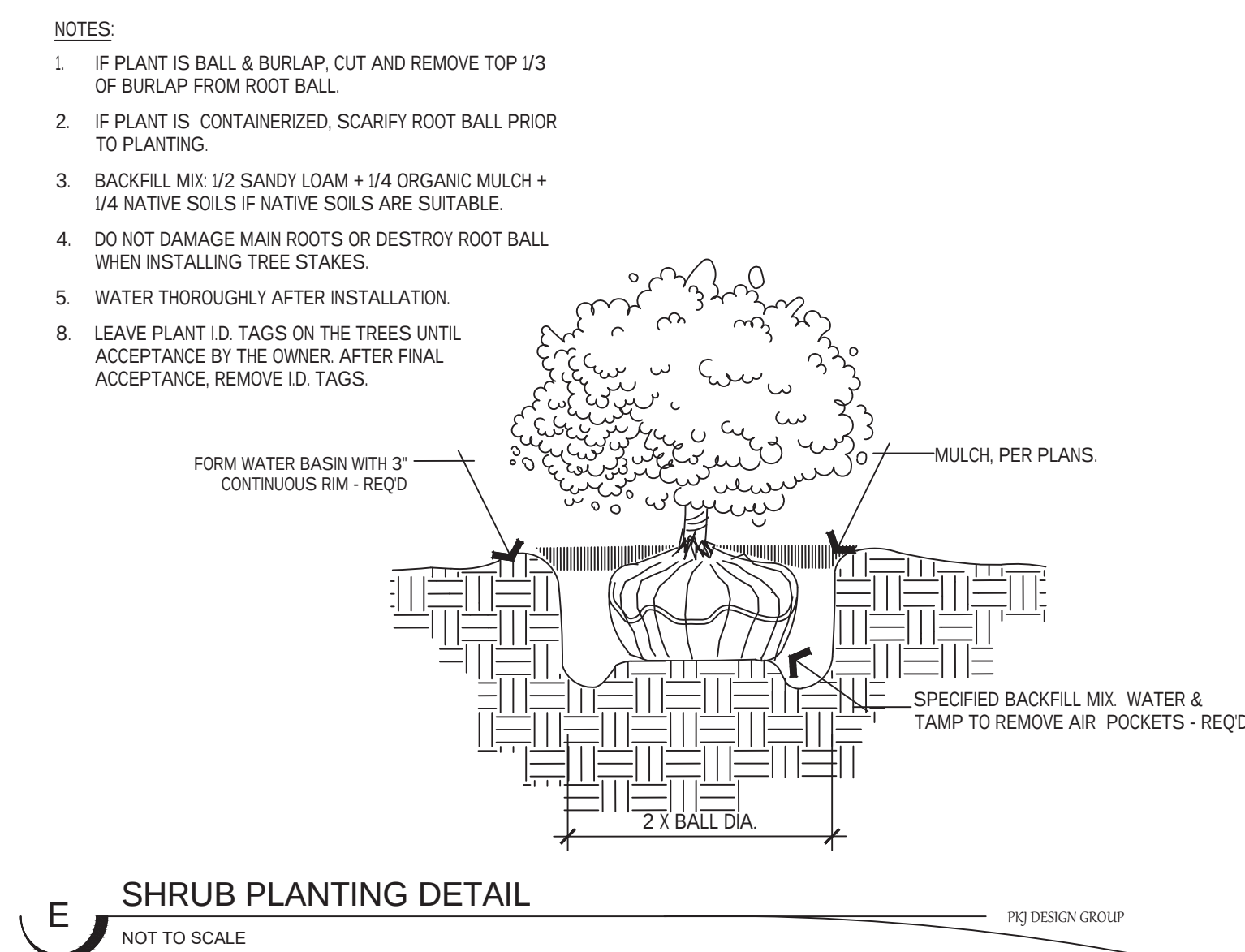
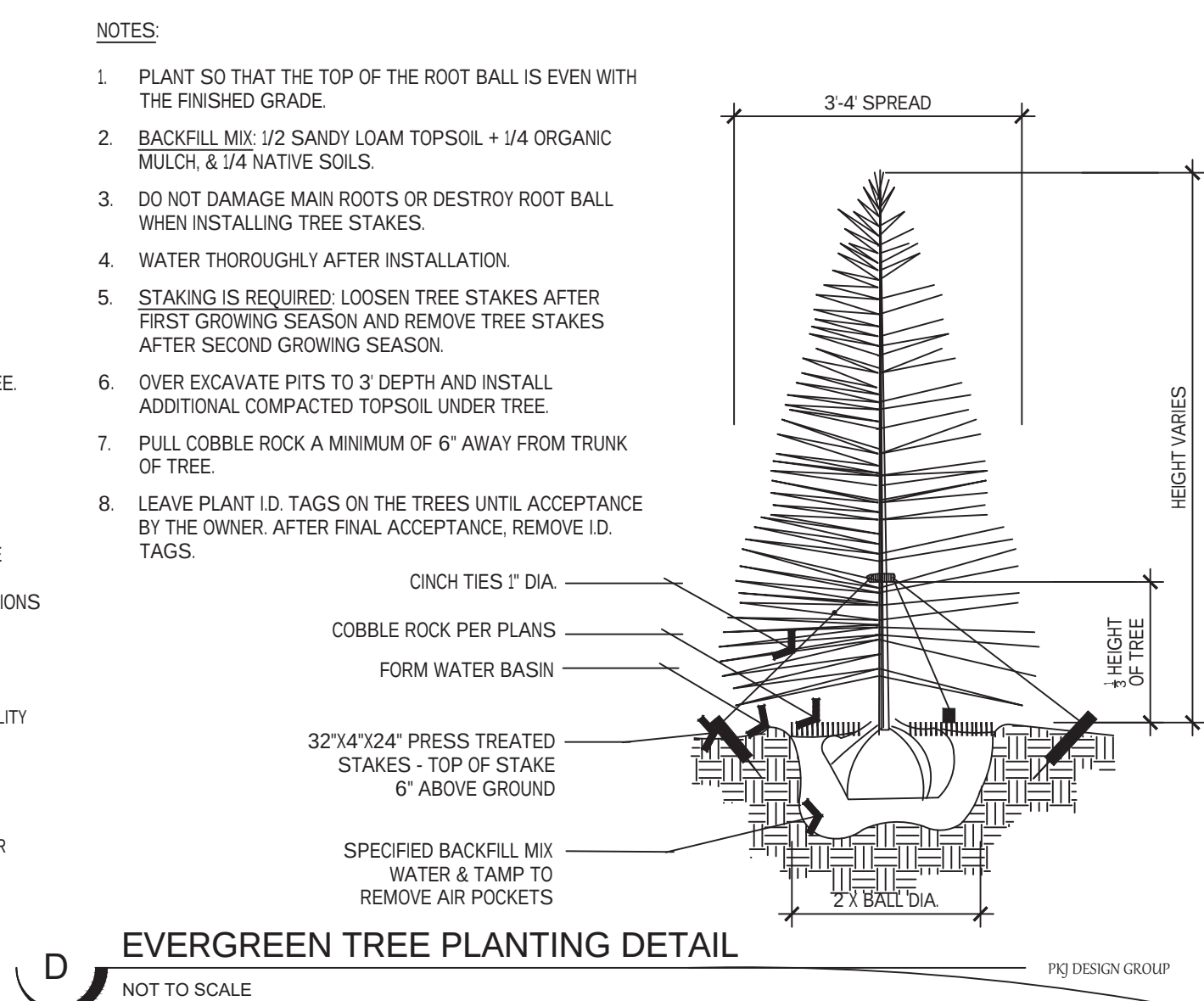
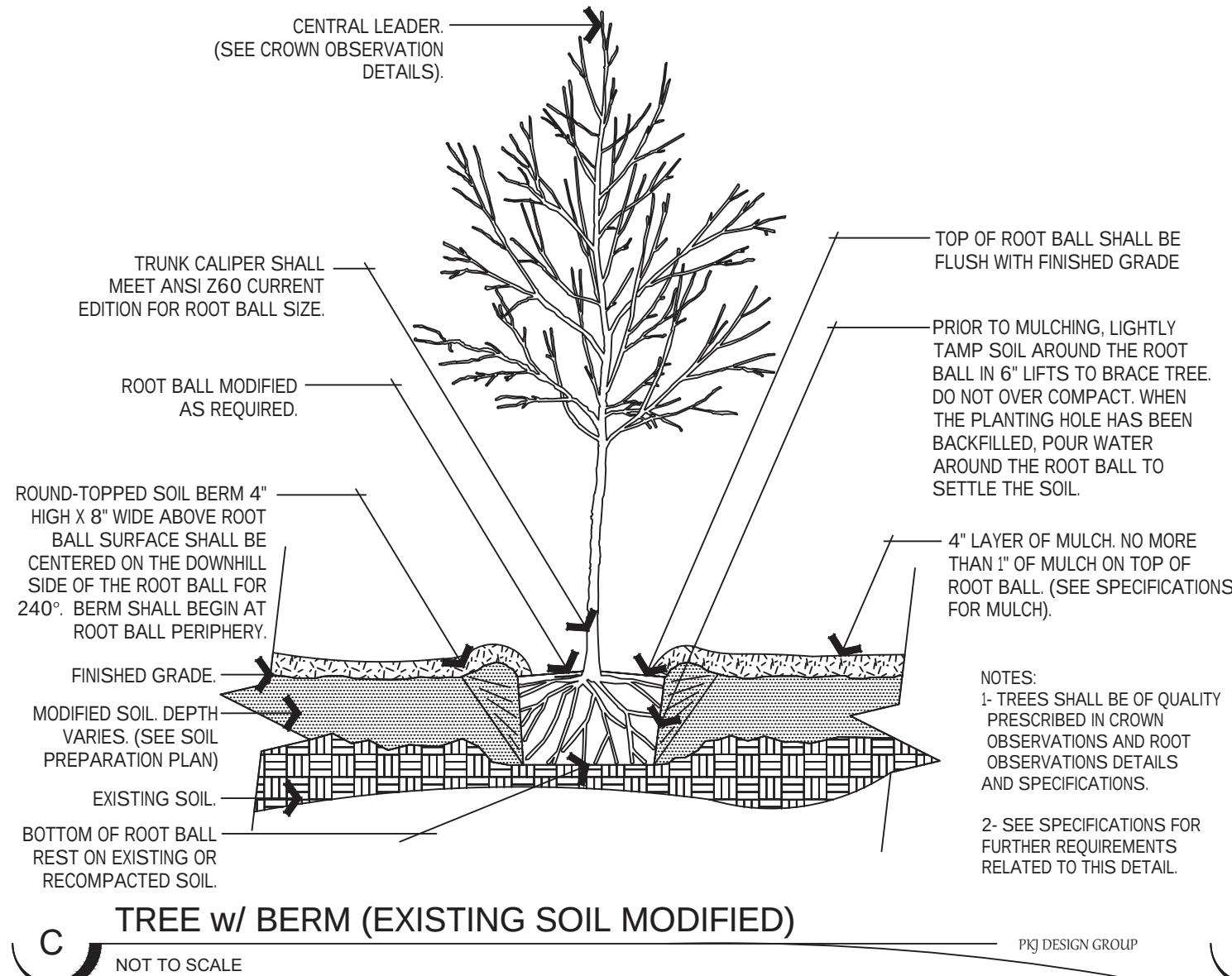
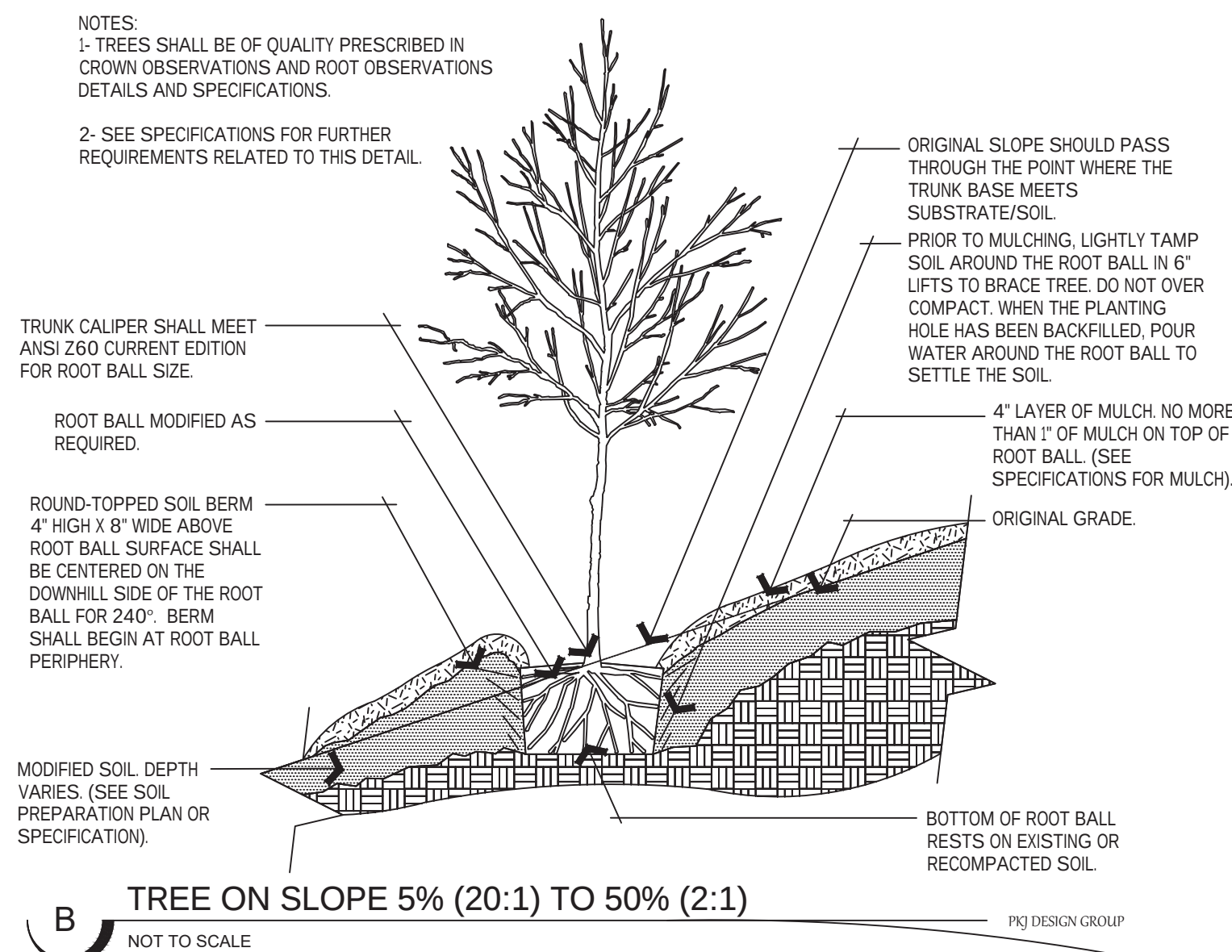
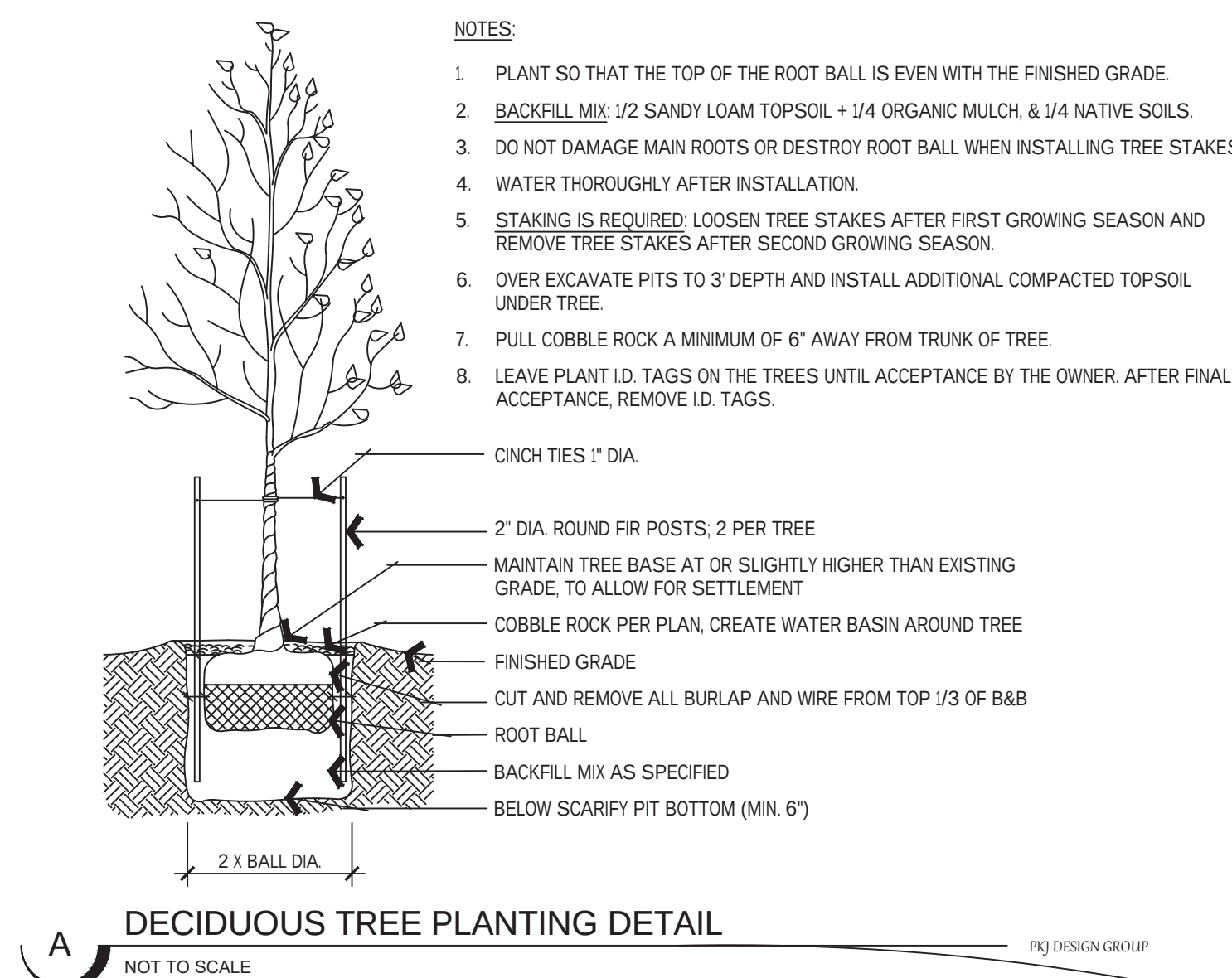
- INSTALLER RESPONSIBILITIES AND LIABILITIES
- THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. THE INSTALLER IS REQUIRED TO REFER TO THEIR INDIVIDUAL TRADE - SCOPE OF WORK. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
  - THE INSTALLER OF ALL LANDSCAPING AND IRRIGATION SYSTEMS ARE LIABLE AND RESPONSIBLE FOR ALL JURISDICTIONAL AND CODE REQUIREMENTS, TIME EXECUTIONS, AND INSTALLED PRODUCTS AND MATERIALS.
- GRADING AND DRAINAGE REQUIREMENTS
- ALL GRADING IS TO SLOPE AWAY FROM THE STRUCTURE PER CODE.
  - FINISHED GRADE IS NOT PERMITTED BY CODE TO DRAIN ON NEIGHBORING PROPERTIES
  - 6" MIN. FOUNDATION LEFT EXPOSED AT ALL CONDITIONS
  - LANDSCAPER TO MAINTAIN OR IMPROVE EXISTING FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY THE EXCAVATOR'S FINAL GRADE ACTIVITIES INCLUDING ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
  - IF ANY SWALE, BERM, OR GRADE HAS BEEN DAMAGED OR IS INCORRECT TO ENSURE CORRECT WATER FLOW THE TRADE CONTRACTOR IS RESPONSIBLE TO FIX STATED ISSUE.
  - ROOF RUN-OFF DEVICES SHOULD BE INSTALLED TO COLLECT AND DISCHARGE ALL ROOF RUNOFF A MINIMUM OF 10 FEET FROM FOUNDATION ELEMENTS OR BEYOND THE LIMITS OF BACKFILL AROUND THE FOUNDATION WALLS; WHICHEVER DISTANCE IS GREATER.
  - THE GROUND SURFACE WITHIN 10 FEET OF THE FOUNDATIONS SHOULD BE SLOPED TO DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6 INCHES.
- LANDSCAPING REQUIREMENTS
- ALL LANDSCAPING IS TO BE INSTALLED PER ALL GOVERNING JURISDICTIONS I.E. INTERNATIONAL BUILDING CODE, CITY CODES.
  - NON-COMPLIANCE TO ALL GOVERNING JURISDICTION REQUIREMENTS AND REGULATION ARE THE RESPONSIBILITY OF THE LANDSCAPING INSTALLER.
  - ALL PLANTED LANDSCAPING IS TO BE INSTALLED ACCORDING TO THE NURSERY CARE AND INSTALLATION INSTRUCTIONS WHERE PURCHASED AND BASED ON INDIVIDUAL SOIL CONDITIONS AND SITE CONDITIONS.

LANDSCAPE NOTES

- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
- PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. IF SUBSTITUTIONS ARE WANTED, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PLANTING.
- NEW LAWN AREAS TO BE SODDED WITH DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
- SANDY LOAM TOPSOIL TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 6" TOPSOIL (WITH 2" HUMUS MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS AND 4" IN ALL NEW LAWN AREAS. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ACCOMMODATE NEW TOPSOIL AND/OR PLANTER BED MULCH TO REACH FINISHED GRADE.
- 4"x6" EXTRUDED CONCRETE MOW CURB TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS PER PLAN. ANY TREES LOCATED IN LAWN MUST HAVE A 4" CONCRETE TREE RING.
- DeWitt 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN.
- ROCK MULCH TO BE IMPLEMENTED AT THE FOLLOWING DEPTHS: 4" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL. PULL BARK MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES.
- CONTRACTOR TO PROVIDE NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED IN ALL LANDSCAPE AREAS. ALL LAWN AREA TO RECEIVE 100% HEAD TO HEAD COVERAGE WITH SPRAY AND ROTARY SPRINKLER HEADS. ALL PLANTER AREAS NEED TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB ON PROJECT. SEE IRRIGATION PLAN.

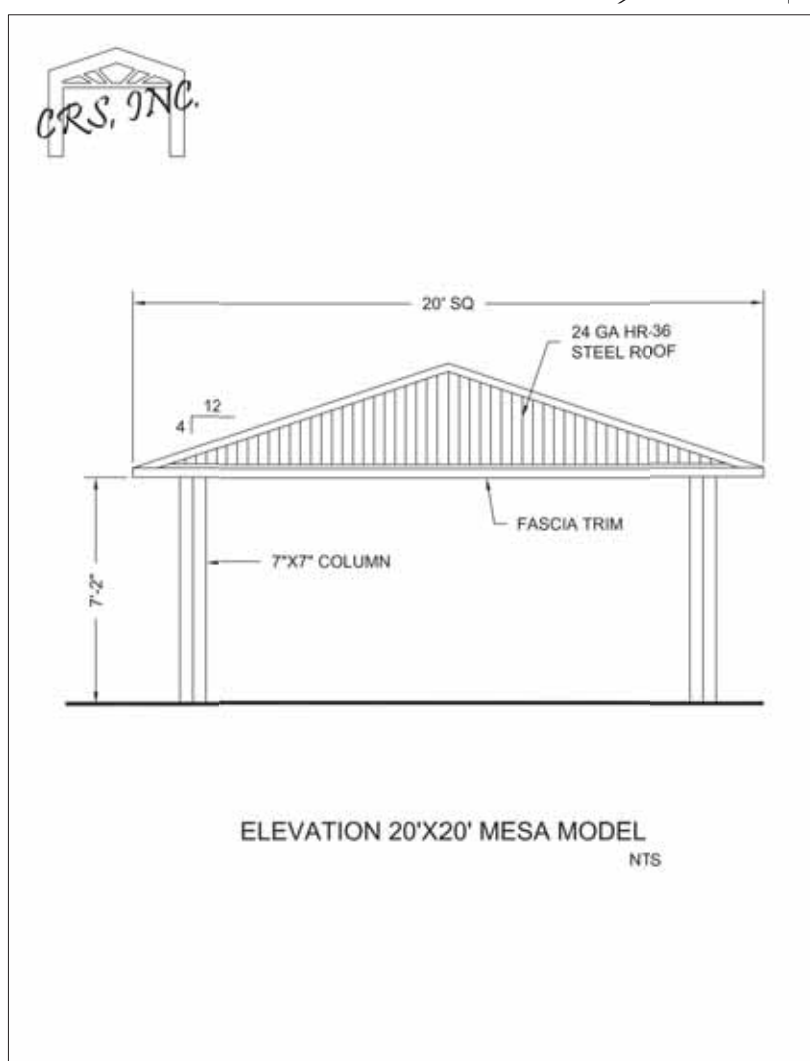
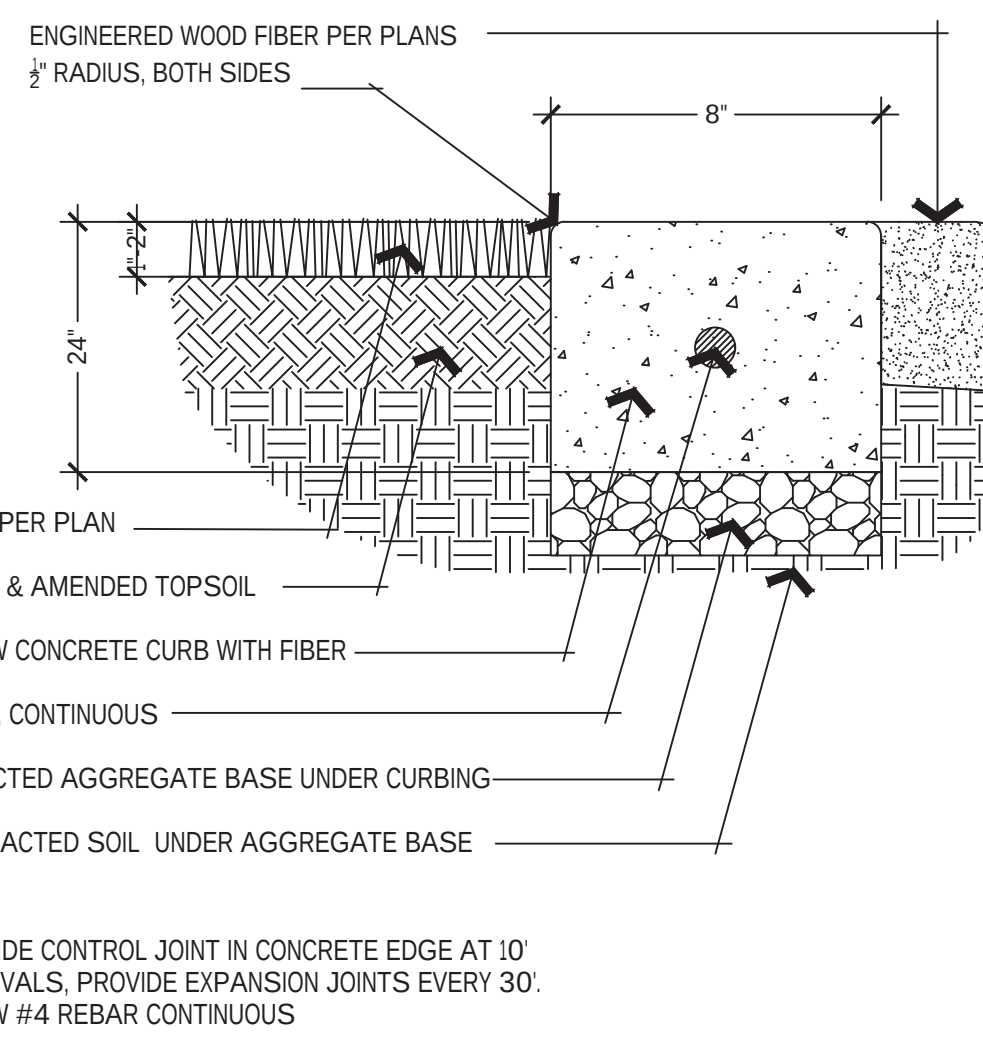
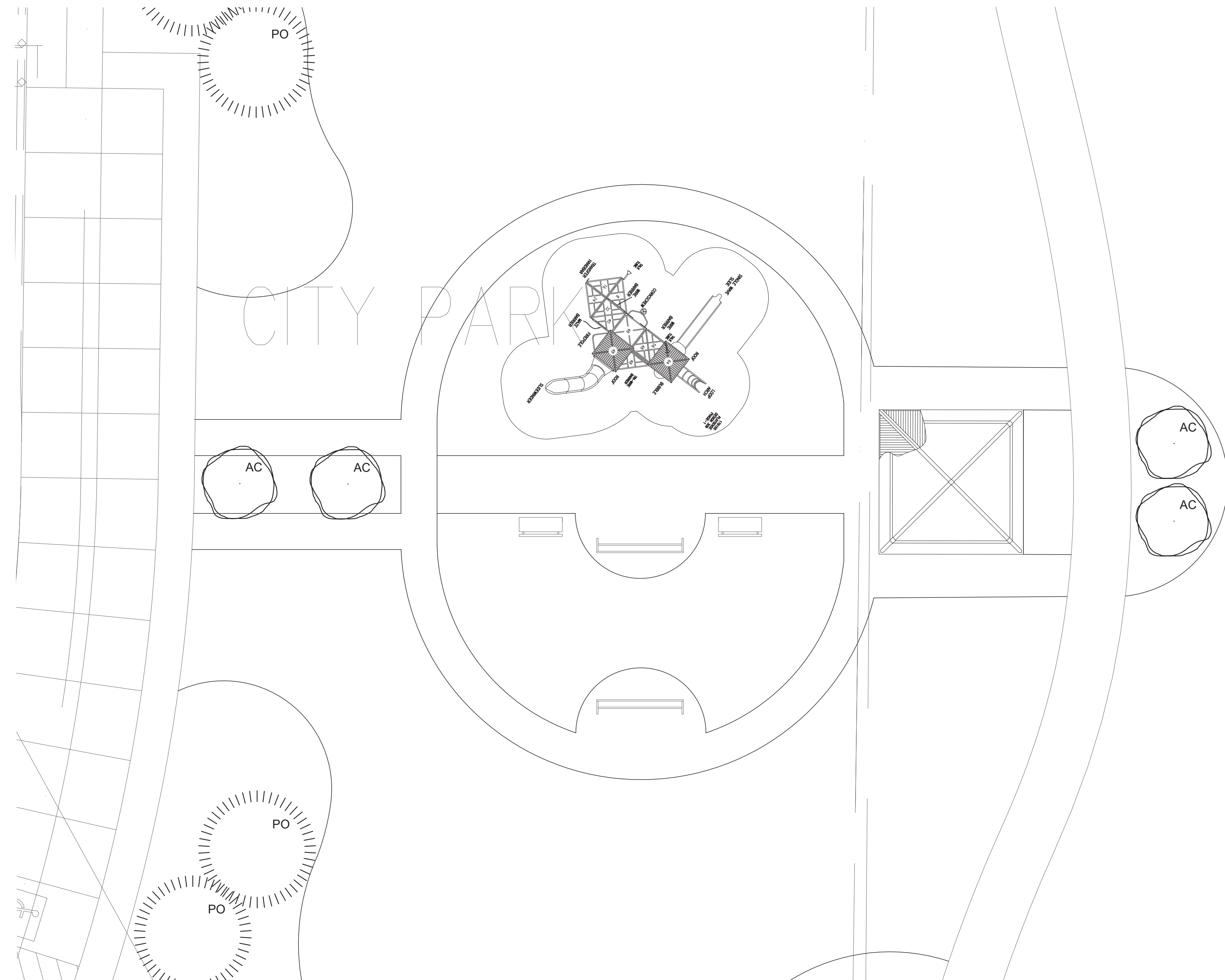
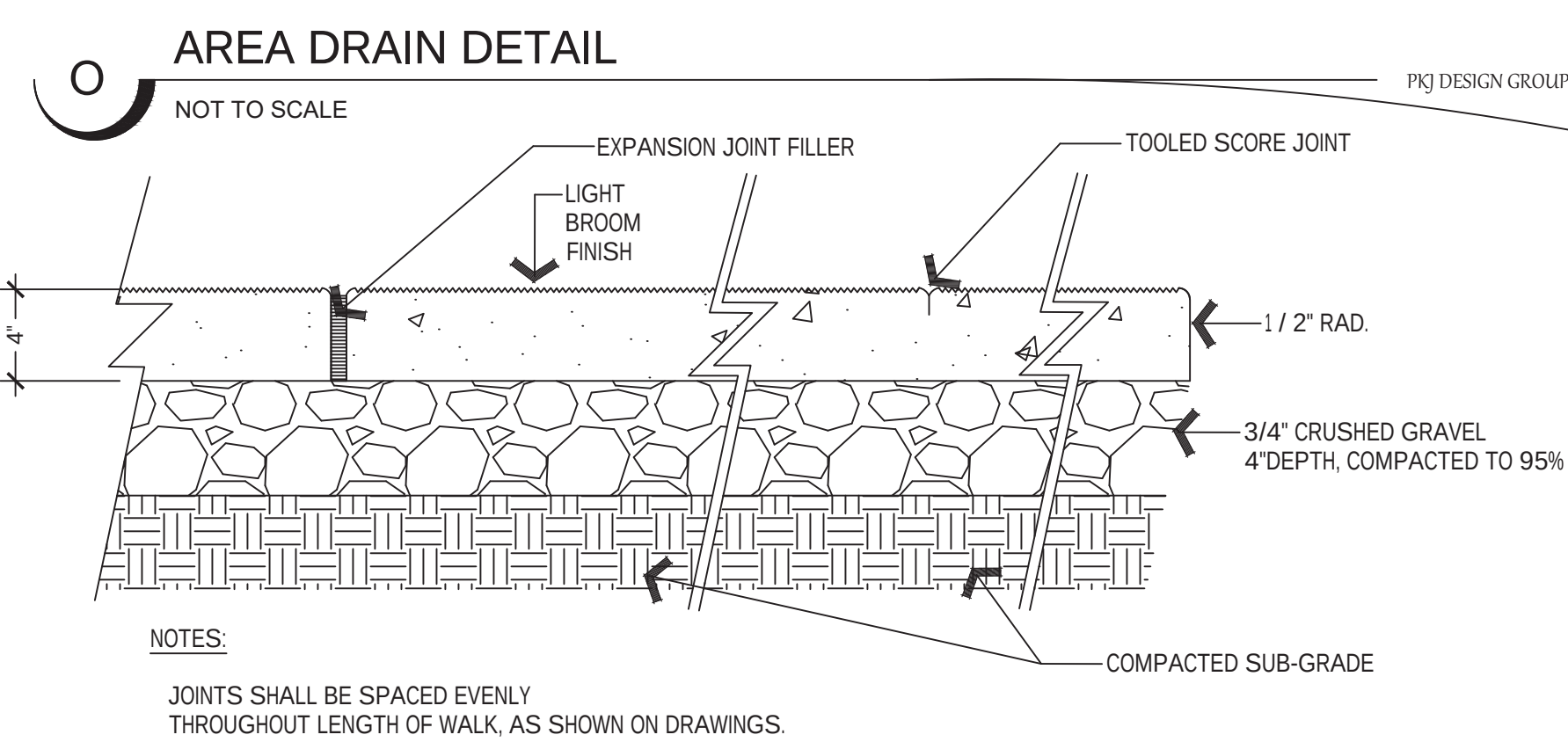
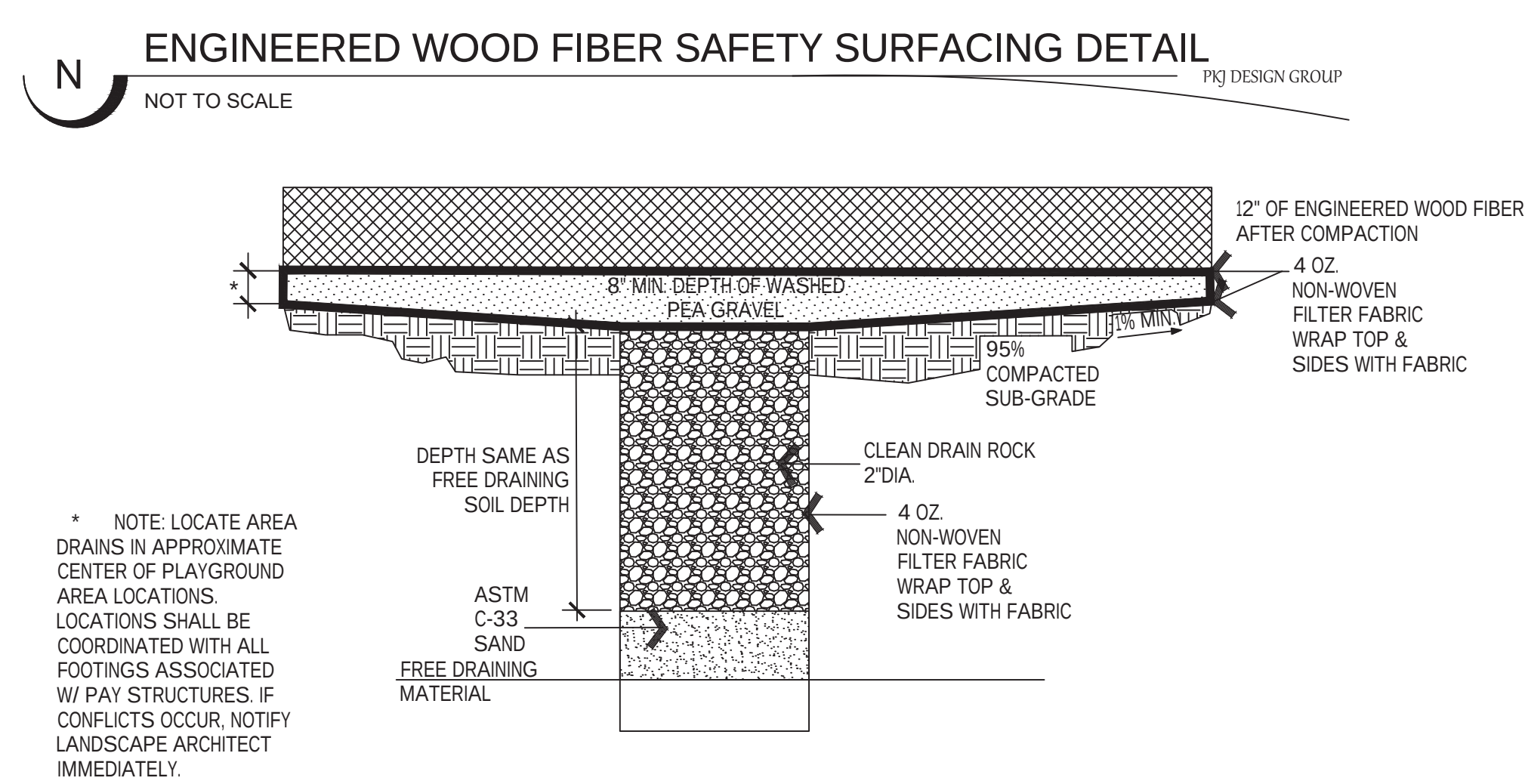
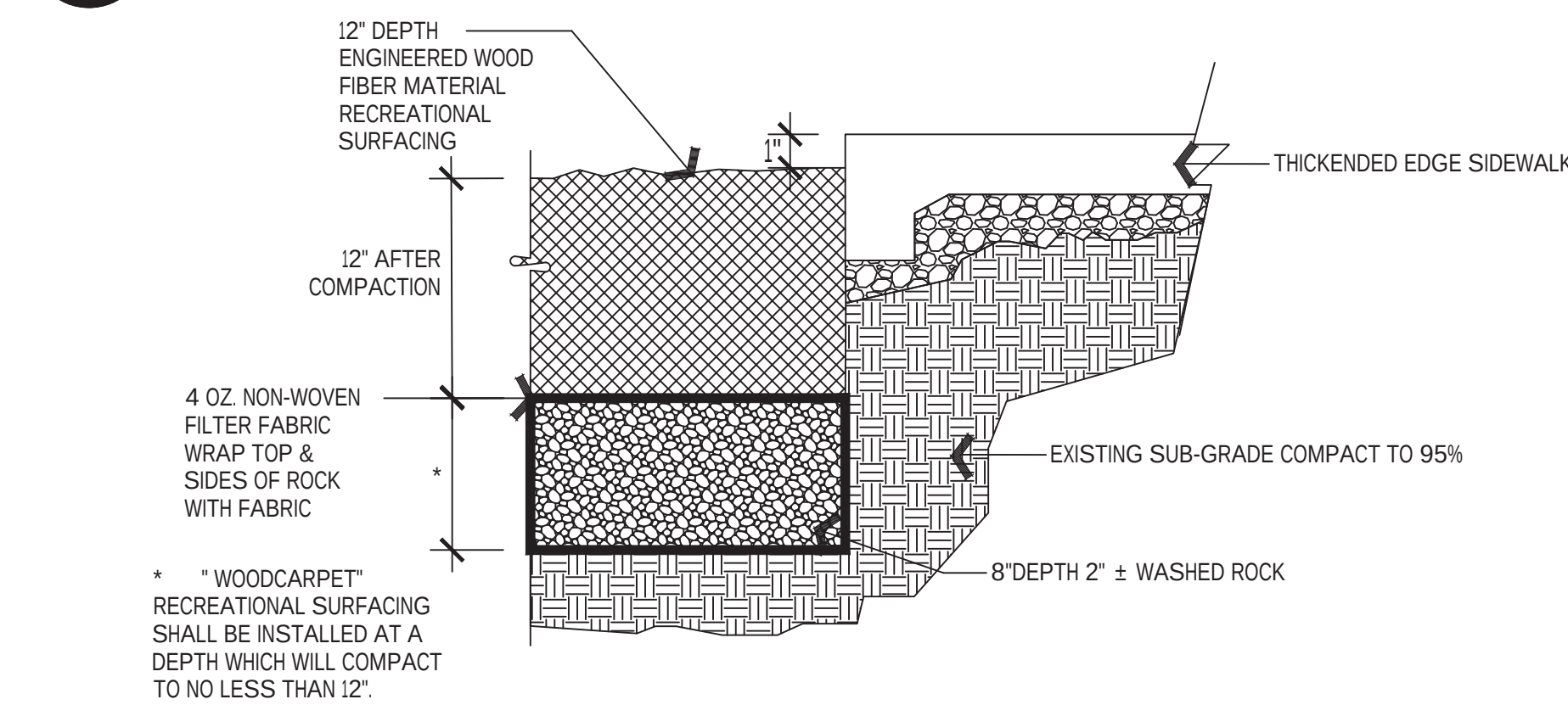
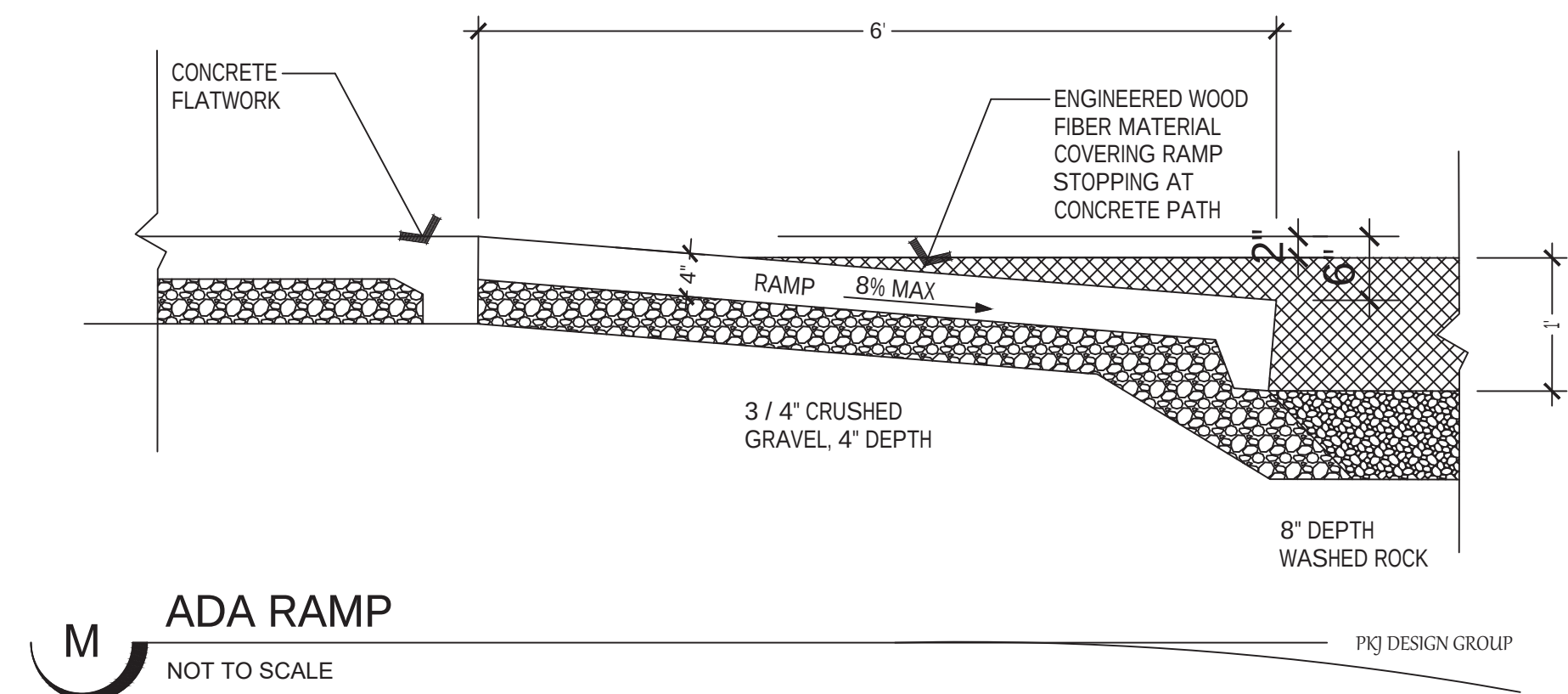
|                                                                    |  |                                               |  |                                                                                                                      |  |                                                              |  |                                                                                                                                         |  |                                                                                                                                                          |  |                                                                                                                                                |  |
|--------------------------------------------------------------------|--|-----------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|
| ISSUE DATE<br>02-07-2019                                           |  | PROJECT NUMBER<br>UT18062                     |  | PLAN INFORMATION<br>BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC.<br>1-800-662-4111<br>www.bluestakes.org |  | PROJECT INFORMATION<br>EAGLE VILLAGE<br>EAGLE MOUNTAIN, UTAH |  | DEVELOPER / PROPERTY OWNER / CLIENT<br>Developer / Property Owner:<br>PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003 |  | LANDSCAPE ARCHITECT / PLANNER<br>PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  | LICENSE STAMP<br>PM: JTA<br>DRAWN: KBA<br>CHECKED: TM<br>PLOT DATE: 2/7/2019<br>COLOR PLAN<br>PRELIMINARY PLANS NOT FOR CONSTRUCTION<br>LP-1.3 |  |
| NO. REVISION DATE<br>1 XXXX XX-XX-XX<br>2<br>3<br>4<br>5<br>6<br>7 |  | GRAPHIC SCALE: 1" = 20'<br>0' 10' 20' 40' 80' |  | 811 BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC.<br>1-800-662-4111<br>www.bluestakes.org                 |  | EAGLE VILLAGE<br>EAGLE MOUNTAIN, UTAH                        |  | DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504                                   |  | PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com                                  |  |                                                                                                                                                |  |





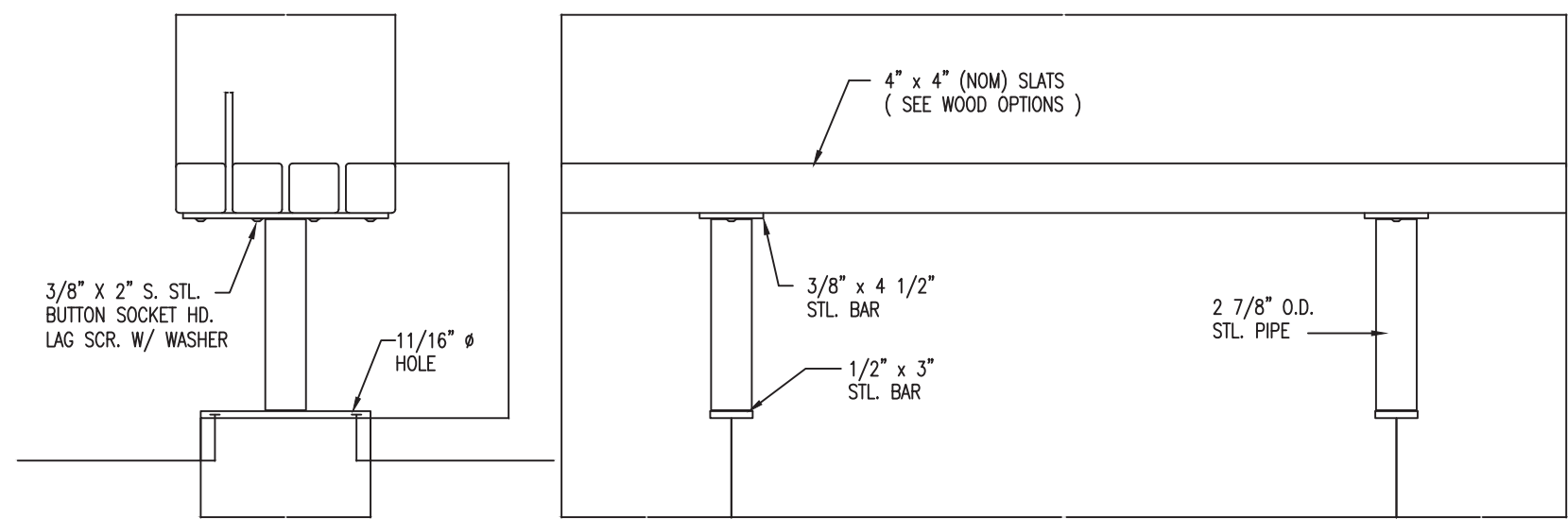
| ISSUE DATE |          |          | PROJECT NUMBER                                    |  |  | PLAN INFORMATION                                                                                                                       |  |  | PROJECT INFORMATION                                      |  |  | DEVELOPER / PROPERTY OWNER / CLIENT                                                                   |  |  | LANDSCAPE ARCHITECT / PLANNER                                     |  |  | LICENSE STAMP                                                                                                                                                                                     |  |  |                                                                                                                                                                                                                                  |  |  |
|------------|----------|----------|---------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 02-07-2019 |          |          | UT18062                                           |  |  | <div><div>811</div><div>BLUE STAKES OF UTAH<br/>UTILITY NOTIFICATION CENTER, INC<br/>1-800-662-4111<br/>www.bluestakes.org</div></div> |  |  | <div>EAGLE VILLAGE</div> <div>EAGLE MOUNTAIN, UTAH</div> |  |  | Developer / Property Owner:                                                                           |  |  | PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003 |  |  | <div><div><div></div><div>PKJ DESIGN GROUP</div></div><div>PKJ DESIGN GROUP L.L.C.<br/>3450 N. TRIUMPH BLVD. SUITE 102<br/>LEHI, UTAH 84043 (801) 960-2698<br/>www.pkjdesigngroup.com</div></div> |  |  | <div><div><div></div><div>STATE OF UTAH</div></div><div>PM: JTA<br/>DRAWN: KBA<br/>CHECKED: TM<br/>PLOT DATE: 2/7/2019</div></div> <div>LANDSCAPE PLAN</div> <div>PRELIMINARY PLANS NOT FOR CONSTRUCTION</div> <div>LP-2.5</div> |  |  |
| NO.        | REVISION | DATE     | Client / Engineer:                                |  |  |                                                                                                                                        |  |  |                                                          |  |  | DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 1          | XXXX     | XX-XX-XX | <div><div>EXCEL</div><div>ENGINEERING</div></div> |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 2          |          |          |                                                   |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 3          |          |          |                                                   |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 4          |          |          |                                                   |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 5          |          |          |                                                   |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 6          |          |          |                                                   |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |
| 7          |          |          |                                                   |  |  |                                                                                                                                        |  |  |                                                          |  |  |                                                                                                       |  |  |                                                                   |  |  |                                                                                                                                                                                                   |  |  |                                                                                                                                                                                                                                  |  |  |



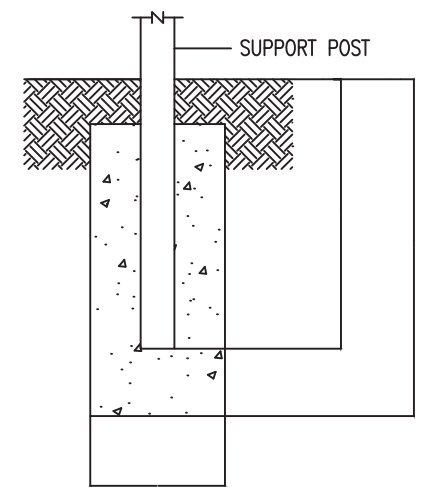


| ISSUE DATE |          |          | PROJECT NUMBER                                                                                                                |  |  | PLAN INFORMATION                                         |  |  | PROJECT INFORMATION                                                                                                                            |  |  | DEVELOPER / PROPERTY OWNER / CLIENT                                                            |  |  | LANDSCAPE ARCHITECT / PLANNER                                                                                    |  |  | LICENSE STAMP                                                         |  |  |
|------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------|--|--|
| 02-07-2019 |          |          | UT18062                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                |  |  | PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003                              |  |  | PKJ DESIGN GROUP<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  |  | LANDSCAPE PLAN<br>PRELIMINARY PLANS NOT<br>FOR CONSTRUCTION<br>LP-2.6 |  |  |
| NO.        | REVISION | DATE     | <div>811</div> <div>BLUE STAKES OF UTAH<br/>UTILITY NOTIFICATION CENTER, INC.<br/>1-800-662-4111<br/>www.bluestakes.org</div> |  |  | <div>EAGLE VILLAGE</div> <div>EAGLE MOUNTAIN, UTAH</div> |  |  | <div>EXCE ENGINEERING</div> <div>DAVID W. PETERSON, P.E.<br/>12 West 100 North, SUITE # 201<br/>AMERICAN FORK, UTAH 84003 (801) 756-4504</div> |  |  | <div>PM: JTA</div> <div>DRAWN: KBA</div> <div>CHECKED: TM</div> <div>PLOT DATE: 2/7/2019</div> |  |  | <div>STATE OF UTAH</div> <div>LANDSCAPE ARCHITECT</div> <div>8/20/01-5/30/19</div> <div>02/07/2019</div>         |  |  |                                                                       |  |  |
| 1          | XXXX     | XX-XX-XX |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |
| 2          |          |          |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |
| 3          |          |          |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |
| 4          |          |          |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |
| 5          |          |          |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |
| 6          |          |          |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |
| 7          |          |          |                                                                                                                               |  |  |                                                          |  |  |                                                                                                                                                |  |  |                                                                                                |  |  |                                                                                                                  |  |  |                                                                       |  |  |

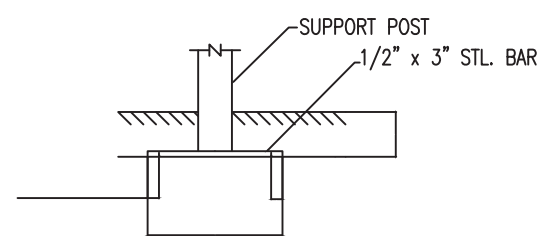




S-2 SURFACE



S-1 EMBEDMENT



S-4 SUB FLOOR

LENGTH OPTIONS

- ☐ 6' BENCH  
☐ 8' BENCH

NOTES

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.  
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED FOR S-2 & S-4 OPTIONS.

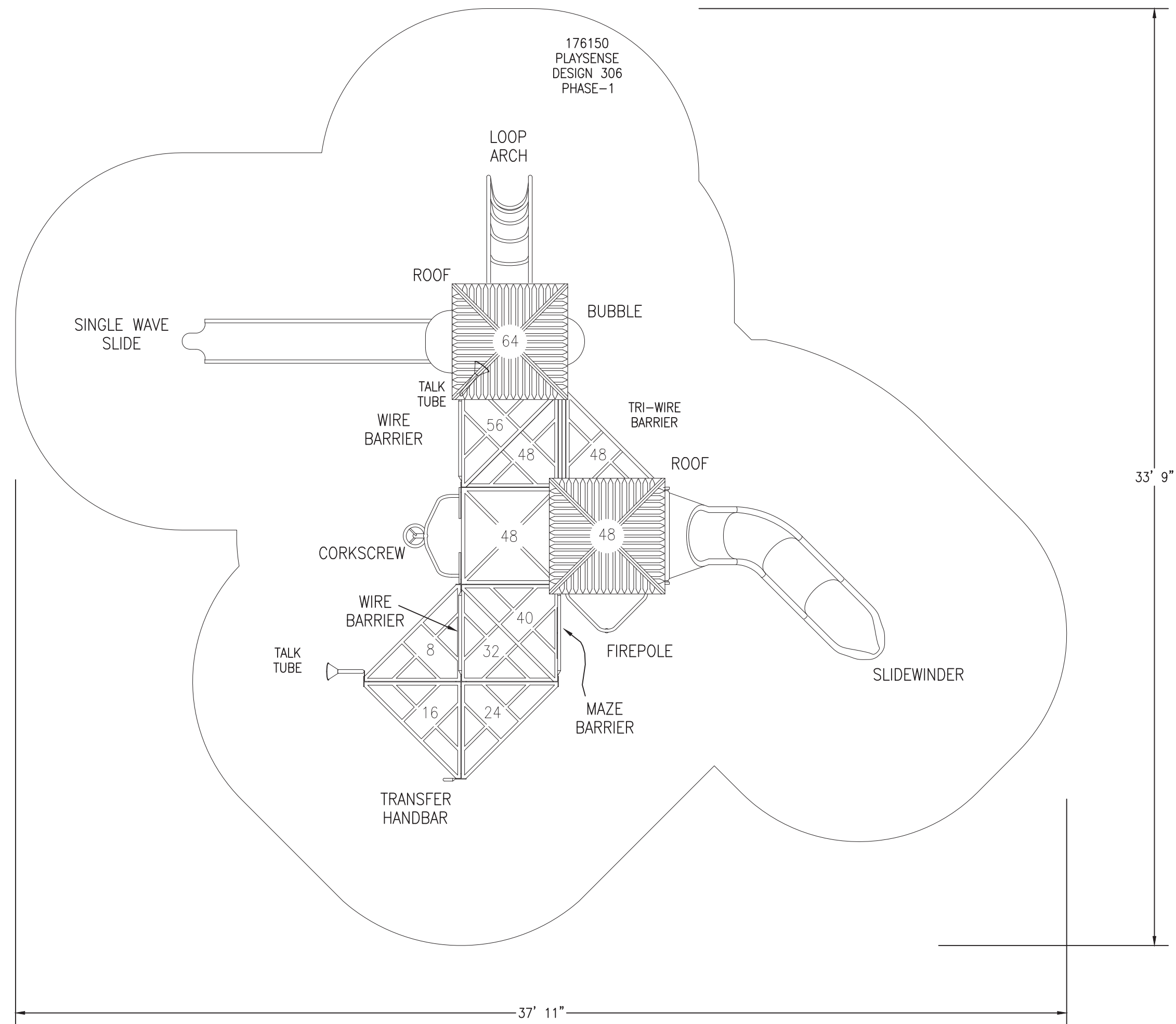
WOOD OPTIONS

C' & BTR. DOUGLAS FIR KD S4S EE

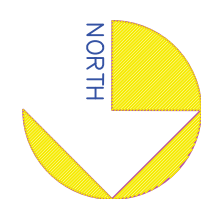
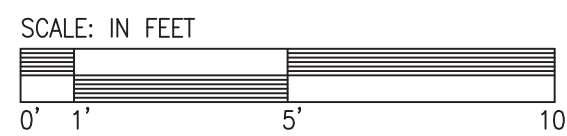
☐ IPE S4S EE

OTHER ☐

PlaySense®  
(5-12 years)  
Max Fall Height: 64 inches  
TOTAL SQUARE FOOTAGE  
788 SQ.FT.



|                                                  |   |          |   |
|--------------------------------------------------|---|----------|---|
| TOTAL ELEVATED PLAY COMPONENTS                   | 7 |          |   |
| TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP     | 0 | REQUIRED | 0 |
| TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER | 7 | REQUIRED | 4 |
| TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN   | 0 | REQUIRED | 2 |
| TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS | 0 | REQUIRED | 2 |



Design  
1026

Landscape  
Structures

SYSTEM TYPE:  
Playsense

DRAWING #:  
1026



DESIGNED BY:

COPYRIGHT: 7/31/18  
LANDSCAPE STRUCTURES, INC.  
601 7th STREET SOUTH - P.O. BOX 198  
SEASIDE, MINNESOTA 55205  
PH: 1-800-328-0035 FAX: 1-763-972-6891

Date Previous Drawing # Initials

| ISSUE DATE |          | PROJECT NUMBER | PLAN INFORMATION                                                                                                                                                                     | PROJECT INFORMATION                                  | DEVELOPER / PROPERTY OWNER / CLIENT                                                                                                                                                                               | LANDSCAPE ARCHITECT / PLANNER                                                                                                                                                                                    | LICENSE STAMP                                                                         | PM: |
|------------|----------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| 02-07-2019 |          | UT18062        |  BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC.<br>1-800-662-4111<br>www.bluestakes.org | <h1>EAGLE VILLAGE</h1> <h2>EAGLE MOUNTAIN, UTAH</h2> | Developer / Property Owner:<br><br>PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003                                                                                                              | <br>PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  | JTA |
| NO.        | REVISION | DATE           |                                                                                                                                                                                      |                                                      | Client / Engineer:<br> DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |                                                                                                                                                                                                                  |                                                                                       | KBA |
| 1          | XXXX     | XX-XX-XX       |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       | TM  |
| 2          |          |                |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       |     |
| 3          |          |                |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       |     |
| 4          |          |                |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       |     |
| 5          |          |                |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       |     |
| 6          |          |                |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       |     |
| 7          |          |                |                                                                                                                                                                                      |                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |                                                                                       |     |

LANDSCAPE PLAN

PRELIMINARY PLANS NOT  
FOR CONSTRUCTION

LP-2.7



# EAGLE VILLAGE

## EAGLE MOUNTAIN, UTAH

### IRRIGATION SPECIFICATIONS

#### IRRIGATION SPECIFICATIONS

##### PART 1 - 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. Removal and disposal of any existing sprinkler system components are not to be saved, which are disturbed during the construction process. 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 pipe 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: Culinary water piping and components, furnished and installed by others to provide irrigation water to this Project, including but not limited to 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 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, 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 been 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 of this section prior to acceptance by OAR of area to receive such work.
- 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 displace 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 settles 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 evacuation system of all water pressure regulation device. 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

###### 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 indicate.

###### 2.3 CONNECTION ASSEMBLY

A. Culinary water shall be used on this Project.

###### 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 controllers: Irrigation contractor shall be responsible for this task. Power configuration for wall-mount 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 P70790.

- 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 wire 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 5/40 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:

- i. 22 GPM - 1 1/2" pipe
- ii. 30 GPM - 1 1/2" pipe
- iii. 50 GPM - 2" pipe
- iv. 75 GPM 2 1/2" pipe
- v. 100 GPM - 3" pipe
- vi. 200 GPM - 4" pipe
- vii. 400 GPM - 6" pipe
- b. Main line pipe shall be buried with 18" 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 5/80 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 G175212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 30" 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 1/2" 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 1/2", 1", 1 1/2", 1 3/4" or 2" in size as indicated on Construction Drawings.

###### 2.13 LATERAL LINE FITTINGS

A. All lateral line fittings shall be 5/40 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. Carson 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 unusable 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

###### 3.1 PREPARATION

A. Contractor shall repair or replace work damaged by irrigation system installation. If damaged work is new, replacement or the original installer of that work shall perform repairs. 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 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 without water for more than 24 hours at a time.

###### 3.2 TRENCHING AND BACKFILL

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 base grade 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 degrees 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 weathproof

electrical conduit, PVC pipe shall not be used.

D. Wire 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.

###### 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 Carson 1419124 box. Place a minimum of 4" of 1/2" 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 and 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.

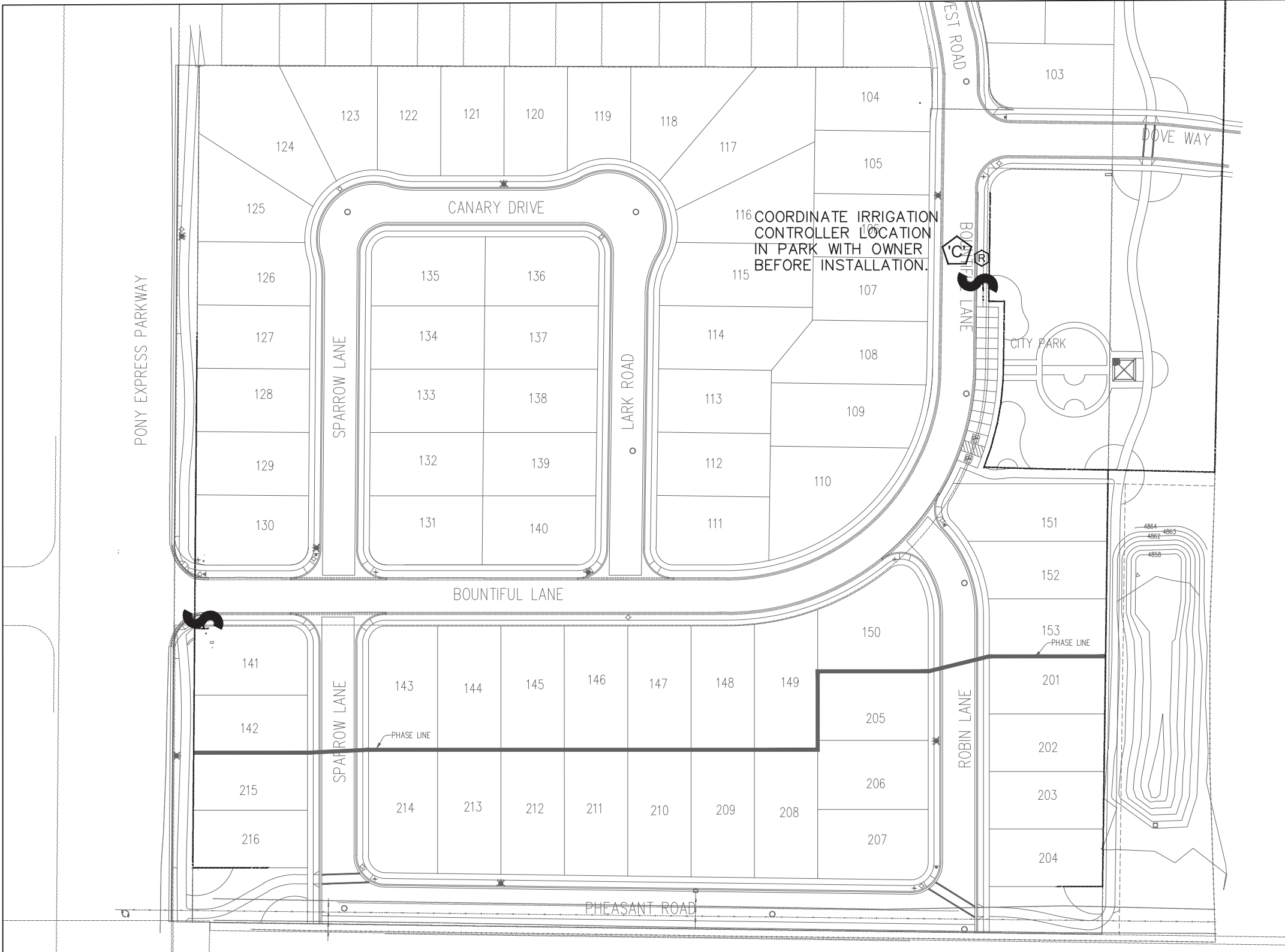
C. Adjust sprinklers so they do not water buildings, structures, or other hardscape features.

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 picker up daily.
- B. Open trenches or hazards shall be protected with yellow caution tape.
- C. Contractor is responsible for removal and disposal of 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



## 2" MAINLINE ROUTING ,CONTROLLER AND (2) P.O.C. LOCATIONS OVERVIEW

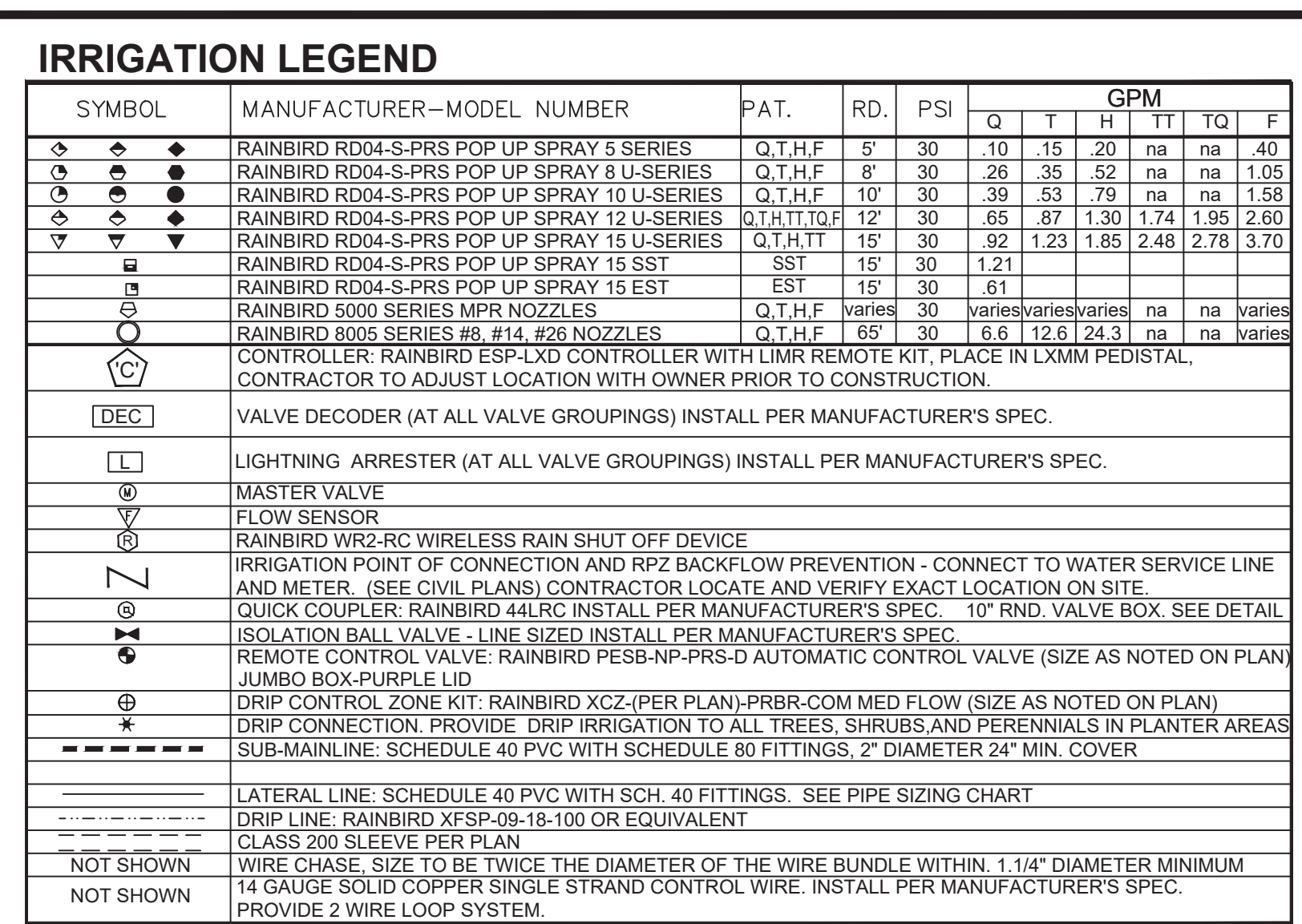
| ISSUE DATE |          |          | PROJECT NUMBER |  |  | PLAN INFORMATION                                                                                                                                                                                                                      |  |  | PROJECT INFORMATION                                      |  |  | DEVELOPER / PROPERTY OWNER / CLIENT                                                                                                                                                                                                                                                                                                                         |  |  | LANDSCAPE ARCHITECT / PLANNER                                                                                                                                                                                                                              |  |  | LICENSE STAMP                                                                                                                                                             |  |  |
|------------|----------|----------|----------------|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| 02-07-2019 |          |          | UT18062        |  |  | <div><div>811</div><div>BLUE STAKES OF UTAH<br/>UTILITY NOTIFICATION CENTER, INC.<br/>1-800-662-4111<br/>www.bluestakes.org</div><div></div></div> |  |  | <div>EAGLE VILLAGE</div> <div>EAGLE MOUNTAIN, UTAH</div> |  |  | <div>Developer / Property Owner:</div> <div>PATTERSON CONSTRUCTION<br/>11038 HIGHLAND BLVD, HIGHLAND, UT 84003</div> <div>Client / Engineer:</div> <div> DAVID W. PETERSON, P.E.<br/>12 West 100 North, SUITE # 201<br/>AMERICAN FORK, UTAH 84003 (801) 756-4504</div> |  |  | <div><div>PKJ DESIGN GROUP<br/>PKJ DESIGN GROUP L.L.C.<br/>3450 N. TRIUMPH BLVD. SUITE 102<br/>LEHI, UTAH 84043 (801) 960-2698<br/>www.pkjdesigngroup.com</div></div> |  |  | <div><div>PM: JTA<br/>DRAWN: KBA<br/>CHECKED: TM<br/>PLOT DATE: 2/7/2019</div></div> |  |  |
| NO.        | REVISION | DATE     |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 1          | XXXX     | XX-XX-XX |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 2          |          |          |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 3          |          |          |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 4          |          |          |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 5          |          |          |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 6          |          |          |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |
| 7          |          |          |                |  |  |                                                                                                                                                                                                                                       |  |  |                                                          |  |  |                                                                                                                                                                                                                                                                                                                                                             |  |  |                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                           |  |  |

IRRIGATION PLAN

PRELIMINARY PLANS NOT FOR CONSTRUCTION

IR-1.0





| 90 Day Establishment Period Irrigation Schedule (April, May, June) |        |        |        |        |        |        |        |        |                    |
|--------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
|                                                                    | Type   | Sun    | Mon    | Tues   | Wed    | Thurs  | Fri    | Sat    | Operating Pressure |
| Turf                                                               | Turf   | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 30 psi             |
| Shrubs                                                             | Shrubs | 25 min | 0      | 25 min | 0      | 25 min | 0      | 25 min | 40 psi             |

Note: Begin irrigation 4:00 am, only 1 cycle per day.

|        | Seasonal Differential |        |        |        |        |        |         |  |
|--------|-----------------------|--------|--------|--------|--------|--------|---------|--|
|        | April                 | May    | June   | July   | August | Sept.  | October |  |
| Turf   | 10 min                | 10 min | 15 min | 15 min | 15 min | 10 min | 10 min  |  |
| Shrubs | 30 min                | 30 min | 45 min | 45 min | 45 min | 30 min | 30 min  |  |

1. ALL PIPE TO BE SCHEDULE 40 PVC PIPE OR BETTER. NO POLY PIPE SHALL BE INCLUDED. FITTINGS MUST BE SCHEDULE 40 OR BETTER ON LATERAL LINES AND SCHEDULE 80 OR BETTER ON MAIN LINE. SIZE PER PLAN.
2. MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
3. CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
5. MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE. PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL INSTALL A QUICK COUPLER AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
7. CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION PURPOSES.
8. INSTALL DIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
9. CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRES SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTION CHANGES. COORDINATE WITH ALL TRADES.
10. WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3" OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL, AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOMER" RUN TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
11. ALL SLEEVES INSTALLED SHALL BE DUCT TAPE TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
12. IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
13. SPACE ALL SPRAY HEADS 2' AWAY FROM ANY HARDSCAPE.
14. CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
15. IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
16. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
17. IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
18. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
19. CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE HE-VAN NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
20. POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
21. DESIGN AND INSTALL THE BACKFLOW PREVENTOR IN THE PROPER PLACE TO ENSURE THAT NO WATER IS CONTAMINATING THE SYSTEM.

BELOW:



The diagram shows a circular valve ID tag with four fields. The top field is labeled 'A1' and is connected to the text 'CONTROLLER NUMBER, VALVE NUMBER'. The left field is labeled '1.0' and is connected to the text 'VALVE SIZE'. The right field is labeled '18' and is connected to the text 'GALLONS PER MINUTE'. The bottom field is labeled '55' and is connected to the text 'PSI AT LAST HEAD IN ZONE'.

CONTROLLER NUMBER,  
VALVE NUMBER

VALVE SIZE

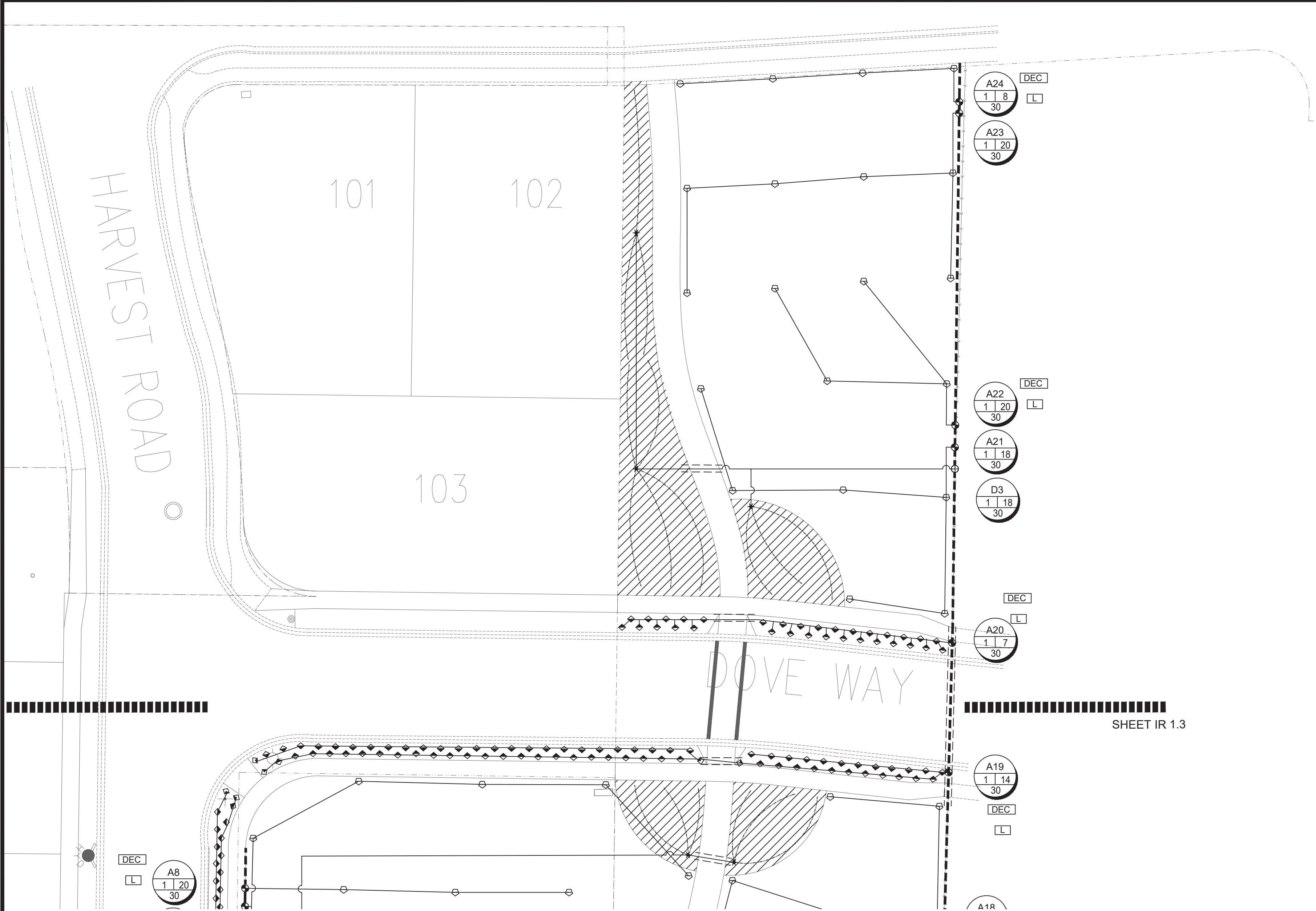
GALLONS PER MINUTE

PSI AT LAST  
HEAD IN ZONE

NOTE:

1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER  
THE VALVES APPEAR ON THE DRAWING





SHEET IR 1.3

IRRIGATION LEGEND

| SYMBOL | MANUFACTURER—MODEL NUMBER                                                                                                                                                    | PAT.    | RD.    | PSI   | GPM    |        |        |        |      |        |  |  |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|-------|--------|--------|--------|--------|------|--------|--|--|
|        |                                                                                                                                                                              |         |        |       | Q      | T      | H      | TT     | TQ   | F      |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES                                                                                                                                    | Q.T.H.F | 5'     | 30    | .10    | .15    | .20    | na     | na   | .40    |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES                                                                                                                                  | Q.T.H.F | 8'     | 30    | .26    | .35    | .52    | na     | na   | 1.05   |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES                                                                                                                                 | Q.T.H.F | 10'    | 30    | .39    | .53    | .79    | na     | na   | 1.58   |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES                                                                                                                                 | Q.T.H.F | 12'    | 30    | .65    | .87    | 1.30   | 1.74   | 1.95 | 2.60   |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES                                                                                                                                 | Q.T.H.F | 15'    | 30    | .92    | 1.23   | 1.85   | 2.48   | 2.79 | 3.70   |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST                                                                                                                                      | SST     | 15'    | 30    | 1.21   |        |        |        |      |        |  |  |
|        | RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST                                                                                                                                      | EST     | 15'    | 30    | .61    |        |        |        |      |        |  |  |
|        | RAINBIRD 5000 SERIES MPR NOZZLES                                                                                                                                             | Q.T.H.F | varies | 30    | varies | varies | varies | na     | na   | varies |  |  |
|        | RAINBIRD 800S SERIES #14, #28 NOZZLES                                                                                                                                        | Q.T.H.F | 6.6'   | 12.6' | 24.3'  | na     | na     | varies |      |        |  |  |
|        | CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LMR REMOTE KIT, PLACE IN LXMM PEDISTAL, CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.                         |         |        |       |        |        |        |        |      |        |  |  |
|        | VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.                                                                                                      |         |        |       |        |        |        |        |      |        |  |  |
|        | LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.                                                                                                 |         |        |       |        |        |        |        |      |        |  |  |
|        | MASTER VALVE                                                                                                                                                                 |         |        |       |        |        |        |        |      |        |  |  |
|        | FLOW SENSOR                                                                                                                                                                  |         |        |       |        |        |        |        |      |        |  |  |
|        | RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE                                                                                                                                |         |        |       |        |        |        |        |      |        |  |  |
|        | IRRIGATION POINT OF CONNECTION AND RPZ BACKFLOW PREVENTION - CONNECT TO WATER SERVICE LINE AND METER. (SEE CIVIL PLANS) CONTRACTOR LOCATE AND VERIFY EXACT LOCATION ON SITE. |         |        |       |        |        |        |        |      |        |  |  |
|        | QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC. 10" RND. VALVE BOX. SEE DETAIL.                                                                               |         |        |       |        |        |        |        |      |        |  |  |
|        | ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.                                                                                                           |         |        |       |        |        |        |        |      |        |  |  |
|        | REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)                                                                                 |         |        |       |        |        |        |        |      |        |  |  |
|        | JUMBO BOX-PURPLE LID                                                                                                                                                         |         |        |       |        |        |        |        |      |        |  |  |
|        | DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)                                                                                     |         |        |       |        |        |        |        |      |        |  |  |
|        | DRIP CONNECTION: PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS, AND PERENNIALS IN PLANTER AREAS                                                                               |         |        |       |        |        |        |        |      |        |  |  |
|        | SUB-MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 2" DIAMETER 24" MIN. COVER                                                                                          |         |        |       |        |        |        |        |      |        |  |  |
|        | LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART                                                                                                   |         |        |       |        |        |        |        |      |        |  |  |
|        | DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT                                                                                                                             |         |        |       |        |        |        |        |      |        |  |  |
|        | CLASS 200 SLEEVE PER PLAN                                                                                                                                                    |         |        |       |        |        |        |        |      |        |  |  |
|        | WIRE CHASE, SIZE TO BE TWICE THE DIAMETER OF THE WIRE BUNDLE WITHIN 1.1/4" DIAMETER MINIMUM                                                                                  |         |        |       |        |        |        |        |      |        |  |  |
|        | 14 GAUGE SOLID COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC.                                                                                           |         |        |       |        |        |        |        |      |        |  |  |
|        | PROVIDE 2 WIRE LOOP SYSTEM.                                                                                                                                                  |         |        |       |        |        |        |        |      |        |  |  |

DRIP ZONE

|  | TYPE                                                  | PART NUMBER                | EMITTER FLOW                        | EMITTER SPACING | ROW SPACING | ROW SPACING |
|--|-------------------------------------------------------|----------------------------|-------------------------------------|-----------------|-------------|-------------|
|  | XFS DRIPLINE                                          | XFSP-09-18                 | 9 GPH                               | 18"             | 18"         | 18-21 IN.   |
|  | TOTAL DRIP ZONE FLOW                                  | 20 GPM                     | TIME TO APPLY 1/4" OF WATER         | 23              |             |             |
|  | MAX. LATERAL LENGTH OF TUBING                         | 350 FT                     | REQUIRED NUMBER OF STAKES           | 500             |             |             |
|  | TOTAL LENGTH OF ZONE DRIPLINE                         | 2,000 FT (varies per plan) | NUMBER OF FLUSH POINTS              | 2               |             |             |
|  | APPLICATION RATE                                      | 64 IN. / HR                | SUGGESTED HEADER & FOOTER PIPE SIZE | CLASS 200 1.25" |             |             |
|  | *NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN |                            |                                     |                 |             |             |

90 Day Establishment Period Irrigation Schedule (April, May, June)

|        | Type   | Sun    | Mon    | Tues   | Wed    | Thurs  | Fri    | Sat    | Operating Pressure |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
| Turf   | Turf   | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 30 psi             |
| Shrubs | Shrubs | 25 min | 0      | 25 min | 0      | 25 min | 0      | 25 min | 40 psi             |

Note: Begin irrigation 4:00 am, only 1 cycle per day.

Regular Irrigation Schedule (see Seasonal Differential Chart)

|        | Type   | Sun    | Mon    | Tues   | Wed    | Thurs  | Fri    | Sat    | Operating Pressure |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
| Turf   | Turf   | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 30 psi             |
| Shrubs | Shrubs | 45 min | 0      | 45 min | 0      | 45 min | 0      | 45 min | 40 psi             |

Note: Begin irrigation 4:00 am, only 1 cycle per day.

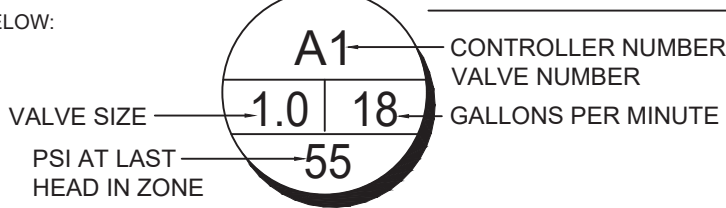
Seasonal Differential

|        | April  | May    | June   | July   | August | Sept.  | October |
|--------|--------|--------|--------|--------|--------|--------|---------|
| Turf   | 10 min | 10 min | 15 min | 15 min | 15 min | 10 min | 10 min  |
| Shrubs | 30 min | 30 min | 45 min | 45 min | 45 min | 30 min | 30 min  |

IRRIGATION NOTES

- ALL PIPE TO BE SCHEDULE 40 PVC PIPE OR BETTER. NO POLY PIPE SHALL BE INCLUDED. FITTINGS MUST BE SCHEDULE 40 OR BETTER ON LATERAL LINES AND SCHEDULE 80 OR BETTER ON MAIN LINE. SIZE PER PLAN.
- MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
- CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
- MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL INSTALL A QUICK COUPLER AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
- CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION PURPOSES.
- INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
- CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES. COORDINATE WITH ALL TRADES.
- WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
- ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
- IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
- SPACE ALL SPRAY HEADS 2' AWAY FROM ANY HARDSCAPE.
- CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
- IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
- IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
- ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
- CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE HE-VAN NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
- POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
- DESIGN AND INSTALL THE BACKFLOW PREVENTOR IN THE PROPER PLACE TO ENSURE THAT NO WATER IS CONTAMINATING THE SYSTEM.

VALVE ID TAG



- NOTE:  
1. VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

ISSUE DATE

02-07-2019

PROJECT NUMBER

UT18062

PLAN INFORMATION

811

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

PROJECT INFORMATION

EAGLE VILLAGE  
EAGLE MOUNTAIN, UTAH

DEVELOPER / PROPERTY OWNER / CLIENT

Developer / Property Owner:  
  
PATTERSON CONSTRUCTION  
11038 HIGHLAND BLVD, HIGHLAND, UT 84003

Client / Engineer:

DAVID W. PETERSON, P.E.  
12 West 100 North, SUITE # 201  
AMERICAN FORK, UTAH 84003 (801) 756-4504

LANDSCAPE ARCHITECT / PLANNER

PKJ DESIGN GROUP L.L.C.  
3450 N. TRIUMPH BLVD, SUITE 102  
LEHI, UTAH 84043 (801) 960-2698  
www.pkjdesigngroup.com

LICENSE STAMP

PM: JTA  
DRAWN: KBA  
CHECKED: TM  
PLOT DATE: 9/4/2018

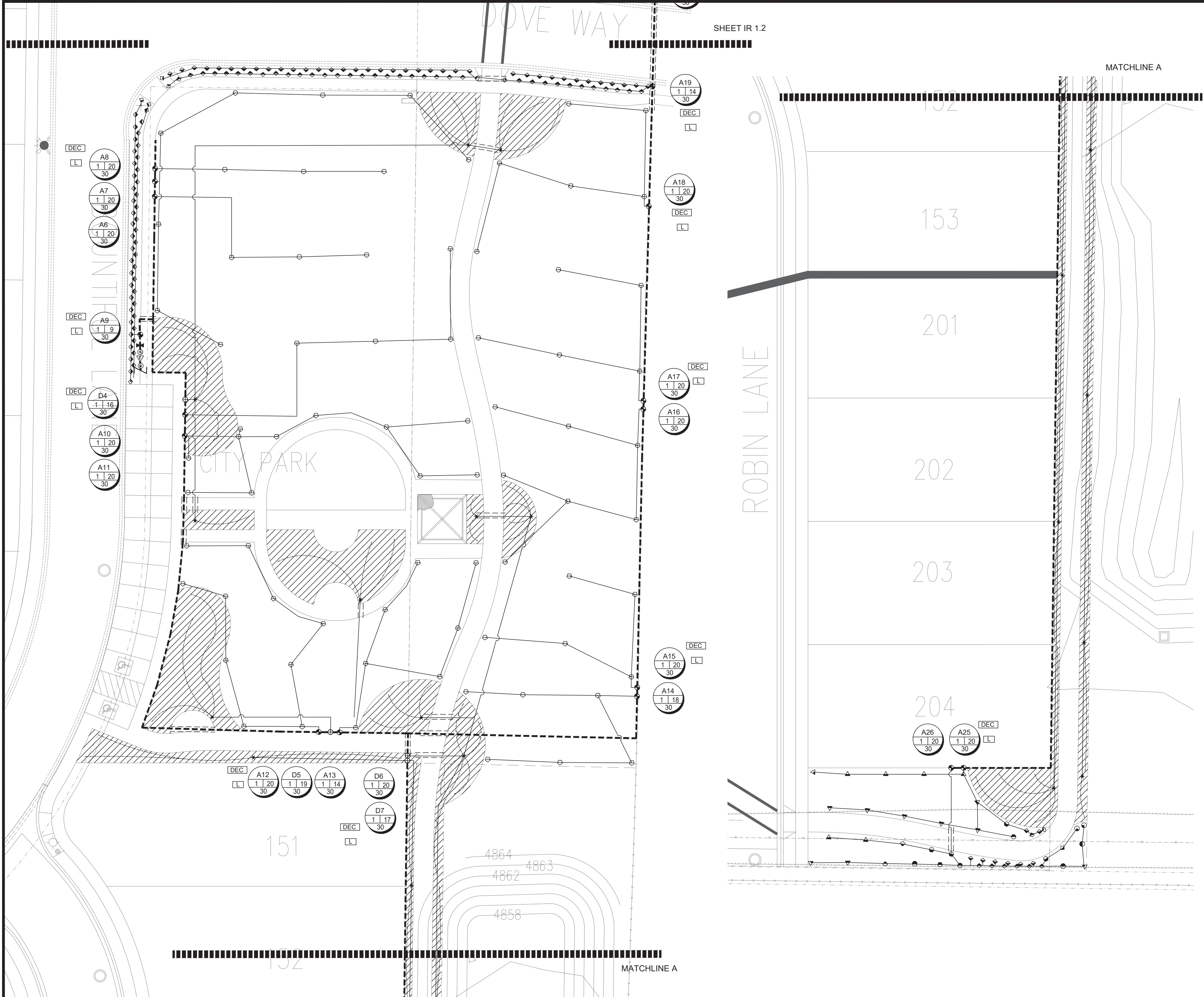
IRRIGATION PLAN

PRELIMINARY PLANS NOT FOR CONSTRUCTION

IR-1.2

28





| 90 Day Establishment Period Irrigation Schedule (April, May, June) |        |        |        |        |        |        |        |        |                    |
|--------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
|                                                                    | Type   | Sun    | Mon    | Tues   | Wed    | Thurs  | Fri    | Sat    | Operating Pressure |
| Turf                                                               |        | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 30 psi             |
| Shrubs                                                             | Shrubs | 25 min | 0      | 25 min | 0      | 25 min | 0      | 25 min | 40 psi             |

Note: Begin irrigation 4:00 am, only 1 cycle per day.

| Regular Irrigation Schedule (see Seasonal Differential Chart) |        |        |        |        |        |        |        |        |                    |
|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
|                                                               | Type   | Sun    | Mon    | Tues   | Wed    | Thurs  | Fri    | Sat    | Operating Pressure |
| Turf                                                          |        | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 15 min | 30 psi             |
| Shrubs                                                        | Shrubs | 45 min | 45 min | 45 min | 45 min | 45 min | 45 min | 45 min | 40 psi             |

Note: Begin irrigation 4:00 am, only 1 cycle per day.

| Seasonal Differential |        |        |        |        |        |        |         |
|-----------------------|--------|--------|--------|--------|--------|--------|---------|
|                       | April  | May    | June   | July   | August | Sept.  | October |
| Turf                  | 10 min | 10 min | 15 min | 15 min | 15 min | 10 min | 10 min  |
| Shrubs                | 30 min | 30 min | 45 min | 45 min | 45 min | 30 min | 30 min  |

IRRIGATION NOTES

- ALL PIPE TO BE SCHEDULE 40 PVC PIPE OR BETTER. NO POLY PIPE SHALL BE INCLUDED. FITTINGS MUST BE SCHEDULE 40 OR BETTER ON LATERAL LINES AND SCHEDULE 80 OR BETTER ON MAIN LINE. SIZE PER PLAN.
- MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
- CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
- MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. DO NOT LOCATE VALVE BOXES IN LAWN AREAS UNLESS DIRECTED TO BY LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL INSTALL A QUICK COUPLER AT POINT OF CONNECTION IN ORDER TO BLOW OUT THE SYSTEM WITH AN AIR COMPRESSOR EACH FALL.
- CONTRACTOR SHALL USE ONLY COMMERCIAL GRADE IRRIGATION PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS AND QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION PURPOSES.
- INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
- CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES. COORDINATE WITH ALL TRADES.
- WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
- ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
- IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
- SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
- CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
- IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
- IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
- ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS.
- CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS. USE HE-VAN NOZZLES AS NECESSARY TO PROVIDE PROPER COVERAGE AND TO KEEP WATER OFF OF BUILDINGS AND HARDSCAPES.
- POWER TO CONTROLLER TO BE PROVIDED BY OWNER. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR SHALL INSTALL A RAIN SENSOR WITH CONTROLLER UNLESS OTHERWISE DIRECTED BY OWNER OR LANDSCAPE ARCHITECT.
- DESIGN AND INSTALL THE BACKFLOW PREVENTOR IN THE PROPER PLACE TO ENSURE THAT NO WATER IS CONTAMINATING THE SYSTEM.
- 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:

|        |         |
|--------|---------|
| 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 |

VALVE ID TAG

CONTROLLER NUMBER, VALVE NUMBER, GALLONS PER MINUTE

VALVE SIZE — 1.0 | 18 —

PSI AT LAST HEAD IN ZONE — 55

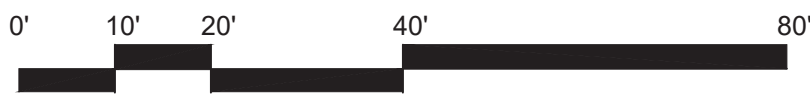
- NOTE:
- VALVE ID TAGS ARE LOCATED NEAR VALVES IN THE ORDER THE VALVES APPEAR ON THE DRAWING

IRRIGATION LEGEND

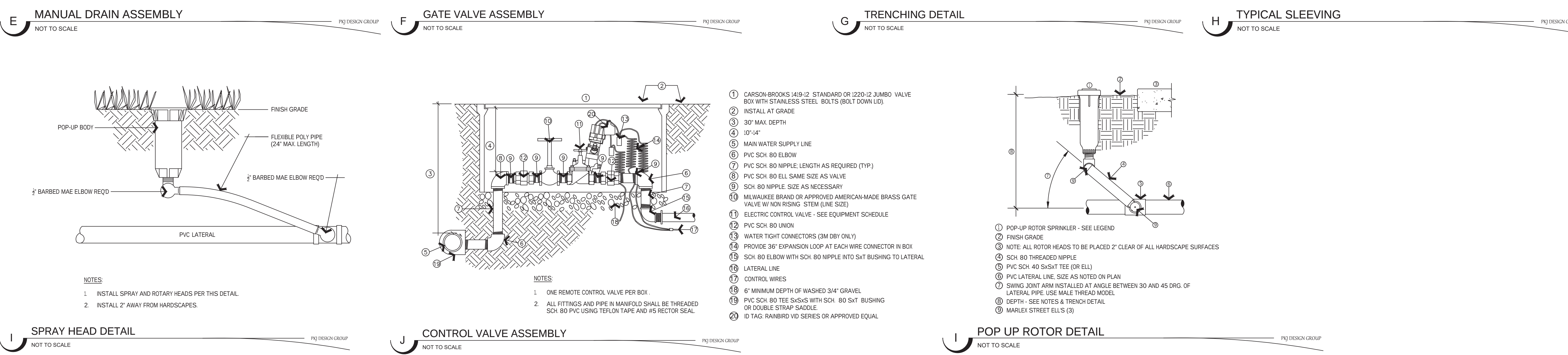
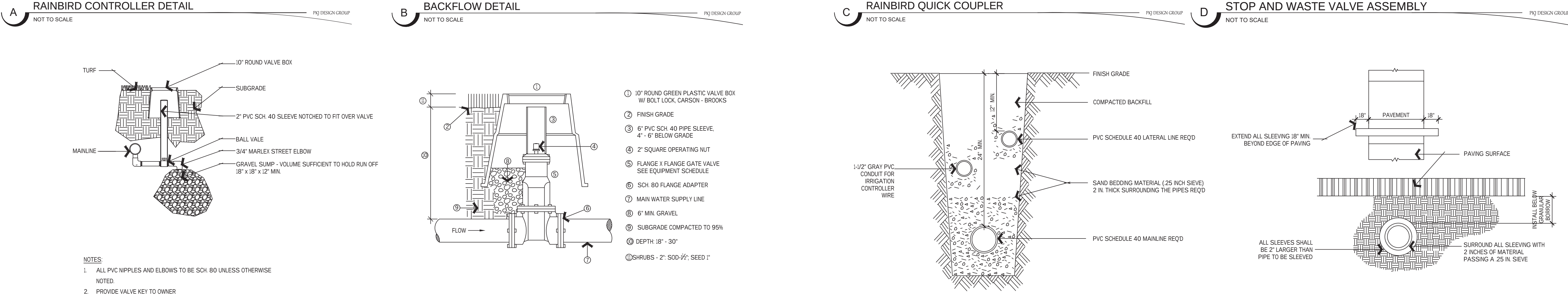
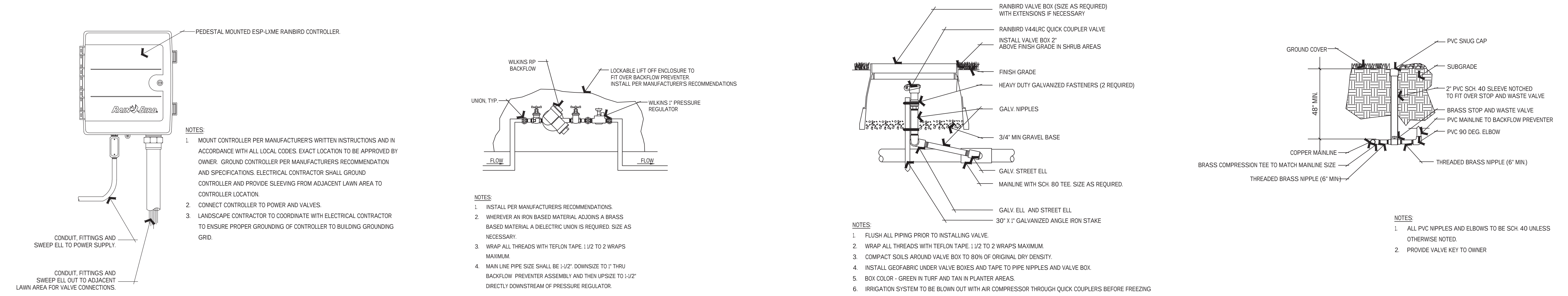
| SYMBOL | MANUFACTURER—MODEL                                                                                                                                                           | NUMBER      | PAT.   | RD. | PSI    | Q      | T      | H    | TT   | TQ     | F |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|-----|--------|--------|--------|------|------|--------|---|
| ◆ ◆    | RAINBIRD RD04-S-PRS POP UP SPRAY 5 SERIES                                                                                                                                    | Q.T.H.F     | 5'     | 30  | 10     | 15     | 20     | na   | na   | 4.0    |   |
| ● ●    | RAINBIRD RD04-S-PRS POP UP SPRAY 8 U-SERIES                                                                                                                                  | Q.T.H.F     | 8'     | 30  | 26     | 35     | 52     | na   | na   | 1.05   |   |
| ● ●    | RAINBIRD RD04-S-PRS POP UP SPRAY 10 U-SERIES                                                                                                                                 | Q.T.H.F     | 10'    | 30  | 39     | 53     | 79     | na   | na   | 1.58   |   |
| ● ●    | RAINBIRD RD04-S-PRS POP UP SPRAY 12 U-SERIES                                                                                                                                 | Q.T.H.TT.QF | 12'    | 30  | 65     | 87     | 130    | 1.74 | 1.95 | 2.60   |   |
| ▽ ▽    | RAINBIRD RD04-S-PRS POP UP SPRAY 15 U-SERIES                                                                                                                                 | Q.T.H.TT    | 15'    | 30  | 92     | 123    | 1.85   | 2.48 | 2.78 | 3.70   |   |
| ▽ ▽    | RAINBIRD RD04-S-PRS POP UP SPRAY 15 SST                                                                                                                                      | SST         | 15'    | 30  | 121    |        |        |      |      |        |   |
| ■      | RAINBIRD RD04-S-PRS POP UP SPRAY 15 EST                                                                                                                                      | EST         | 15'    | 30  | 61     |        |        |      |      |        |   |
| ■      | RAINBIRD 5000 SERIES MPR NOZZLES                                                                                                                                             | Q.T.H.F     | varies | 30  | varies | varies | varies | na   | na   | varies |   |
| ■      | RAINBIRD 8006 SERIES #8, #14, #26 NOZZLES                                                                                                                                    | Q.T.H.F     | 65'    | 30  | 6.6    | 12.6   | 24.3   | na   | na   | varies |   |
| ○      | CONTROLLER: RAINBIRD ESP-LXD CONTROLLER WITH LHM REMOTE KIT. PLACE IN LXMM PEDISTAL. CONTRACTOR TO ADJUST LOCATION WITH OWNER PRIOR TO CONSTRUCTION.                         |             |        |     |        |        |        |      |      |        |   |
| DEC    | VALVE DECODER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.                                                                                                      |             |        |     |        |        |        |      |      |        |   |
| L      | LIGHTNING ARRESTER (AT ALL VALVE GROUPINGS) INSTALL PER MANUFACTURER'S SPEC.                                                                                                 |             |        |     |        |        |        |      |      |        |   |
| ⊙      | MASTER VALVE                                                                                                                                                                 |             |        |     |        |        |        |      |      |        |   |
| ▽      | FLOW SENSOR                                                                                                                                                                  |             |        |     |        |        |        |      |      |        |   |
| ⊕      | RAINBIRD WR2-RC WIRELESS RAIN SHUT OFF DEVICE                                                                                                                                |             |        |     |        |        |        |      |      |        |   |
| ⊕      | IRRIGATION POINT OF CONNECTION AND RPZ BACKFLOW PREVENTION - CONNECT TO WATER SERVICE LINE AND METER. (SEE CIVIL PLANS) CONTRACTOR LOCATE AND VERIFY EXACT LOCATION ON SITE. |             |        |     |        |        |        |      |      |        |   |
| ⊕      | QUICK COUPLER: RAINBIRD 44LRC INSTALL PER MANUFACTURER'S SPEC. 10" RND. VALVE BOX. SEE DETAIL.                                                                               |             |        |     |        |        |        |      |      |        |   |
| ⊕      | ISOLATION BALL VALVE - LINE SIZED INSTALL PER MANUFACTURER'S SPEC.                                                                                                           |             |        |     |        |        |        |      |      |        |   |
| ⊕      | REMOTE CONTROL VALVE: RAINBIRD PESB-NP-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN)                                                                                 |             |        |     |        |        |        |      |      |        |   |
| ⊕      | JUMBO BOX-PURPLE LID                                                                                                                                                         |             |        |     |        |        |        |      |      |        |   |
| ⊕      | DRIP CONTROL ZONE KIT: RAINBIRD XCZ-(PER PLAN)-PRBR-COM MED FLOW (SIZE AS NOTED ON PLAN)                                                                                     |             |        |     |        |        |        |      |      |        |   |
| ⊕      | DRIP CONNECTION: PROVIDE DRIP IRRIGATION TO ALL TREES, SHRUBS AND PERENNIALS IN PLANTER AREAS                                                                                |             |        |     |        |        |        |      |      |        |   |
| ---    | SUB-MAINLINE: SCHEDULE 40 PVC WITH SCHEDULE 80 FITTINGS, 2" DIAMETER 24" MIN. COVER                                                                                          |             |        |     |        |        |        |      |      |        |   |
| ---    | LATERAL LINE: SCHEDULE 40 PVC WITH SCH. 40 FITTINGS. SEE PIPE SIZING CHART                                                                                                   |             |        |     |        |        |        |      |      |        |   |
| ---    | DRIP LINE: RAINBIRD XFSP-09-18-100 OR EQUIVALENT                                                                                                                             |             |        |     |        |        |        |      |      |        |   |
| ---    | CLASS 200 SLEEVE PER PLAN                                                                                                                                                    |             |        |     |        |        |        |      |      |        |   |
| ---    | WIRE CHASE. SIZE TO BE TWICE THE DIAMETER OF THE WIRE BUNDLE WITHIN. 1.1/4" DIAMETER MINIMUM                                                                                 |             |        |     |        |        |        |      |      |        |   |
| ---    | 14 GAUGE SOLID COPPER SINGLE STRAND CONTROL WIRE. INSTALL PER MANUFACTURER'S SPEC.                                                                                           |             |        |     |        |        |        |      |      |        |   |
| ---    | PROVIDE 2 WIRE LOOP SYSTEM.                                                                                                                                                  |             |        |     |        |        |        |      |      |        |   |
| ---    | NOT SHOWN                                                                                                                                                                    |             |        |     |        |        |        |      |      |        |   |
| ---    | NOT SHOWN                                                                                                                                                                    |             |        |     |        |        |        |      |      |        |   |

DRIP ZONE

|  | TYPE                                                  | PART NUMBER | EMITTER FLOW               | EMITTER SPACING                     | ROW SPACING | ROW SPACING     |
|--|-------------------------------------------------------|-------------|----------------------------|-------------------------------------|-------------|-----------------|
|  | XFSP DRIPLINE                                         | XFSP-09-18  | 9 GPH                      | 18"                                 | 18"         | 18-21 IN.       |
|  | TOTAL DRIP ZONE FLOW                                  |             | 20 GPM                     | TIME TO APPLY 1/4" OF WATER         |             | 23              |
|  | MAX. LATERAL LENGTH OF TUBING                         |             | 350 FT                     | REQUIRED NUMBER OF STAKES           |             | 500             |
|  | TOTAL LENGTH OF ZONE DRIPLINE                         |             | 2,000 FT (varies per plan) | NUMBER OF FLUSH POINTS              |             | 2               |
|  | APPLICATION RATE                                      |             | .64 IN. / HR               | SUGGESTED HEADER & FOOTER PIPE SIZE |             | CLASS 200 1.25" |
|  | *NUMBERS MAY CHANGE DUE TO SIZE OF DRIP ZONE PER PLAN |             |                            |                                     |             |                 |

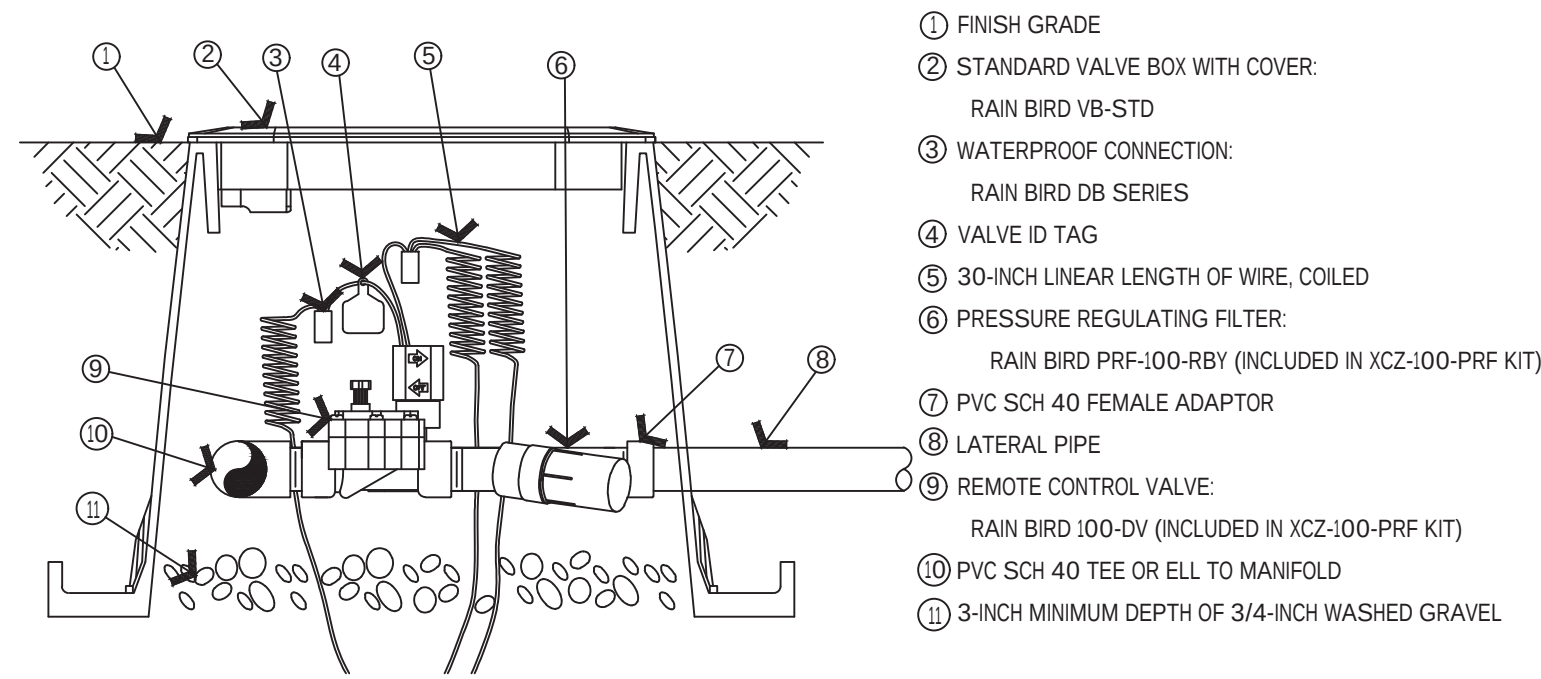
| ISSUE DATE                                                                                                                                                                                                                                                                                                                                        |          |          | PROJECT NUMBER |          |      | PLAN INFORMATION                                                                                                                                                                        |      |          | PROJECT INFORMATION                                                                                                                        |  |  | DEVELOPER / PROPERTY OWNER / CLIENT                                                                  |  |  | LANDSCAPE ARCHITECT / PLANNER                                                                                                                                                                                    |  |  | LICENSE STAMP                                                                                                         |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------------|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|--------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------|--|--|---|--|--|---|--|--|----------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------|--|--|
| 02-07-2019                                                                                                                                                                                                                                                                                                                                        |          |          | UT18062        |          |      | <br>BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC.<br>1-800-662-4111<br>www.bluestakes.org |      |          | <br><b>EAGLE VILLAGE</b><br><b>EAGLE MOUNTAIN, UTAH</b> |  |  | Developer / Property Owner:<br><br>PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003 |  |  | <br>PKJ DESIGN GROUP L.L.C.<br>3450 N. TRIUMPH BLVD. SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  |  | <br>JTA<br>KBA<br>TM<br>9/4/2018 |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| <table><tr><th>NO.</th><th>REVISION</th><th>DATE</th></tr><tr><td>1</td><td>XXXX</td><td>XX-XX-XX</td></tr><tr><td>2</td><td></td><td></td></tr><tr><td>3</td><td></td><td></td></tr><tr><td>4</td><td></td><td></td></tr><tr><td>5</td><td></td><td></td></tr><tr><td>6</td><td></td><td></td></tr><tr><td>7</td><td></td><td></td></tr></table> |          |          | NO.            | REVISION | DATE | 1                                                                                                                                                                                       | XXXX | XX-XX-XX | 2                                                                                                                                          |  |  | 3                                                                                                    |  |  | 4                                                                                                                                                                                                                |  |  | 5                                                                                                                     |  |  | 6 |  |  | 7 |  |  | <br>GRAPHIC SCALE: 1" = 20' |  |  | <br>DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |  |  | <b>IRRIGATION PLAN</b><br><b>PRELIMINARY PLANS NOT FOR CONSTRUCTION</b><br><b>IR-1.3</b> |  |  |
| NO.                                                                                                                                                                                                                                                                                                                                               | REVISION | DATE     |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 1                                                                                                                                                                                                                                                                                                                                                 | XXXX     | XX-XX-XX |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                 |          |          |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 3                                                                                                                                                                                                                                                                                                                                                 |          |          |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                 |          |          |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 5                                                                                                                                                                                                                                                                                                                                                 |          |          |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 6                                                                                                                                                                                                                                                                                                                                                 |          |          |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |
| 7                                                                                                                                                                                                                                                                                                                                                 |          |          |                |          |      |                                                                                                                                                                                         |      |          |                                                                                                                                            |  |  |                                                                                                      |  |  |                                                                                                                                                                                                                  |  |  |                                                                                                                       |  |  |   |  |  |   |  |  |                                                                                                                |  |  |                                                                                                                                                                                                |  |  |                                                                                          |  |  |



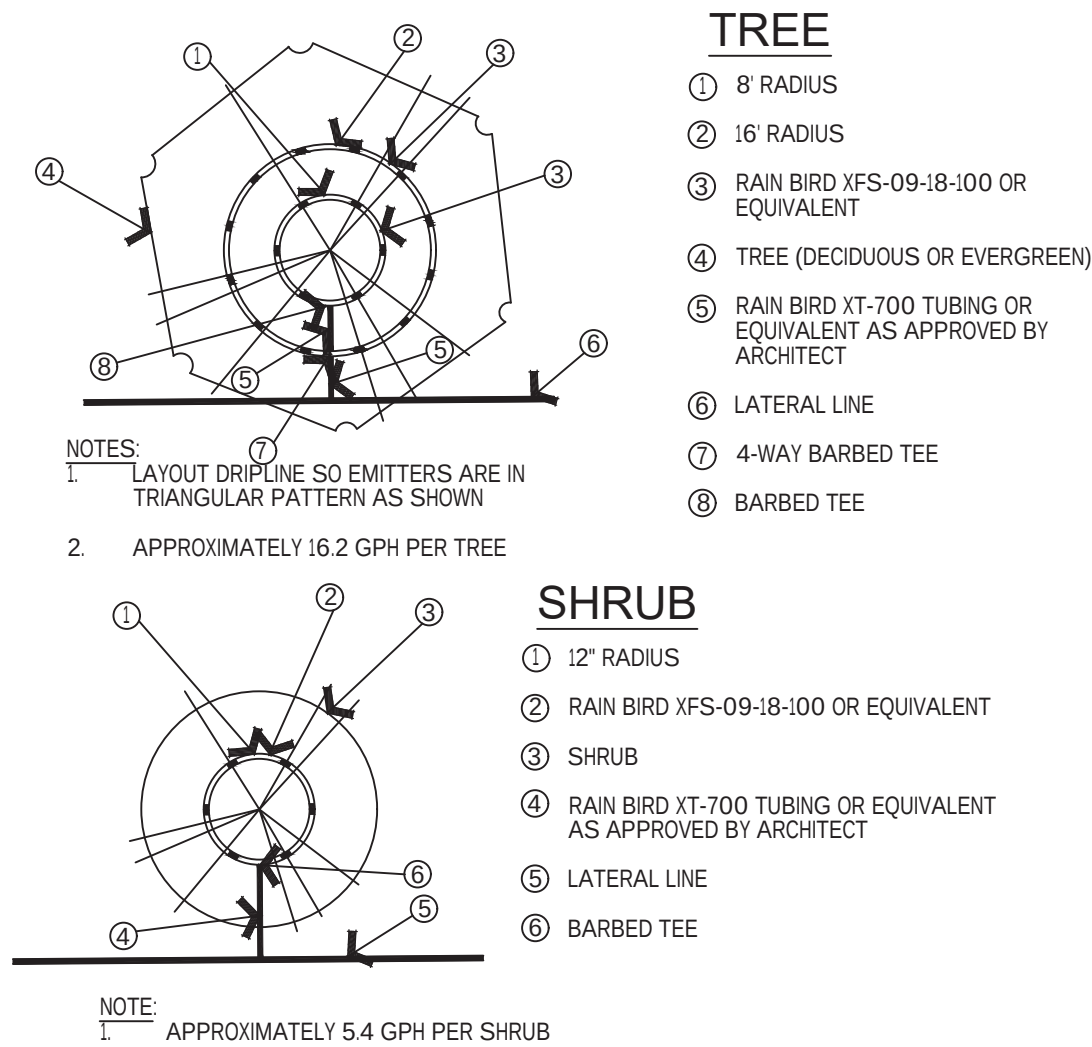


| ISSUE DATE |          |          | PROJECT NUMBER                                                                                                                  |  |  | PLAN INFORMATION                                                                                                                                                                                   |  |  | PROJECT INFORMATION                                                                                  |  |  | DEVELOPER / PROPERTY OWNER / CLIENT                                                                                                                                                                          |  |  | LANDSCAPE ARCHITECT / PLANNER                                                                                                                                                                                                                                              |  |  | LICENSE STAMP |  |  |
|------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---------------|--|--|
| 02-07-2019 |          |          | UT18062                                                                                                                         |  |  | <div><div><div>811</div><div>BLUE STAKES OF UTAH<br/>UTILITY NOTIFICATION CENTER, INC<br/>1-800-662-4111<br/>www.bluestakes.org</div></div><div>EAGLE VILLAGE<br/>EAGLE MOUNTAIN, UTAH</div></div> |  |  | Developer / Property Owner:<br><br>PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003 |  |  | <div><div><div><div></div><div>PKJ DESIGN GROUP</div></div><div>PKJ DESIGN GROUP L.L.C.<br/>3450 N. TRIUMPH BLVD. SUITE 102<br/>LEHI, UTAH 84043 (801) 960-2698<br/>www.pkjdesigngroup.com</div></div></div> |  |  | <div><div><div><div></div><div>PM: JTA</div></div><div><div>DRAWN: KBA</div></div><div><div>CHECKED: TM</div></div><div><div>PLOT DATE: 2/7/2019</div></div></div></div> <div>IRRIGATION DETAILS</div> <div>PRELIMINARY PLANS NOT FOR CONSTRUCTION</div> <div>IR-2.5</div> |  |  |               |  |  |
| NO.        | REVISION | DATE     | Client / Engineer:<br><br>DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 1          | XXXX     | XX-XX-XX |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 2          |          |          |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 3          |          |          |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 4          |          |          |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 5          |          |          |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 6          |          |          |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |
| 7          |          |          |                                                                                                                                 |  |  |                                                                                                                                                                                                    |  |  |                                                                                                      |  |  |                                                                                                                                                                                                              |  |  |                                                                                                                                                                                                                                                                            |  |  |               |  |  |

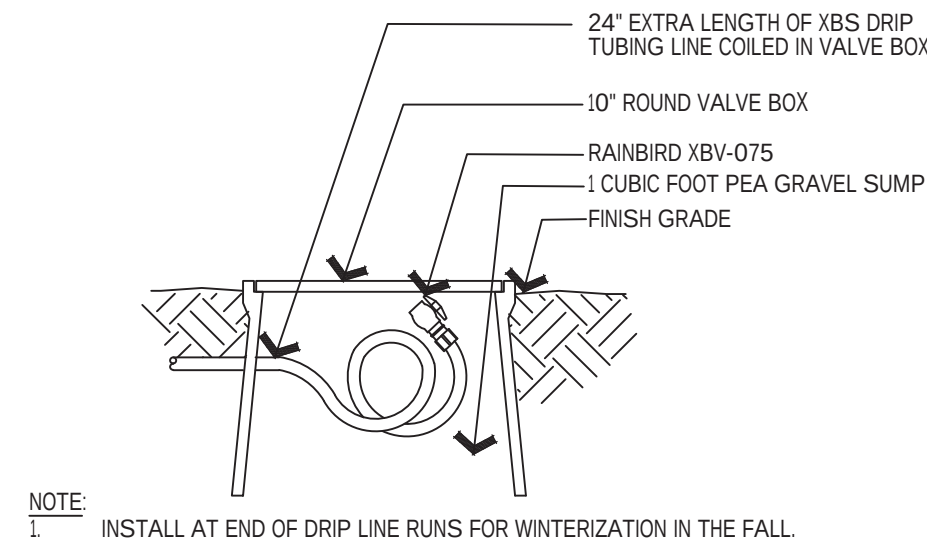




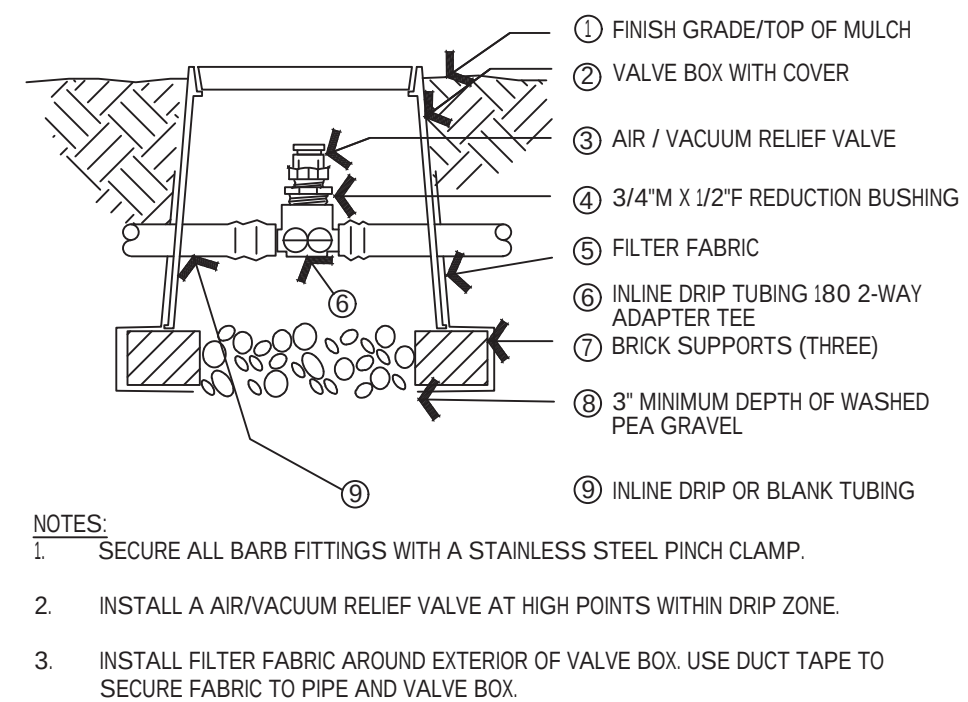
**L DRIP CONTROL VALVE ASSEMBLY**  
NOT TO SCALE



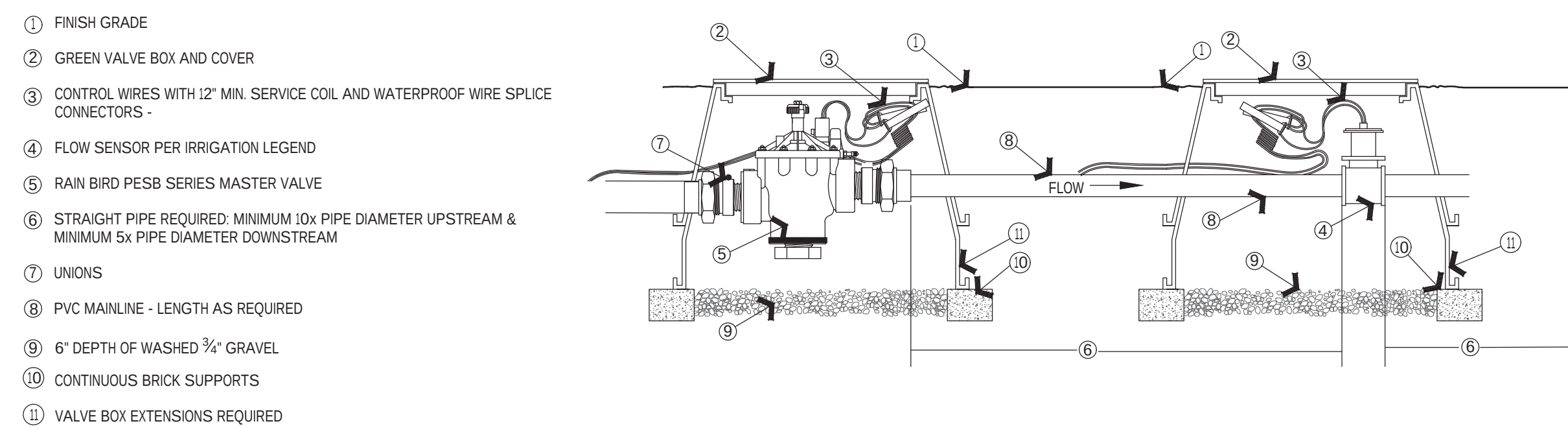
**M DRIP IRRIGATION - IN LINE EMITTERS**  
NOT TO SCALE



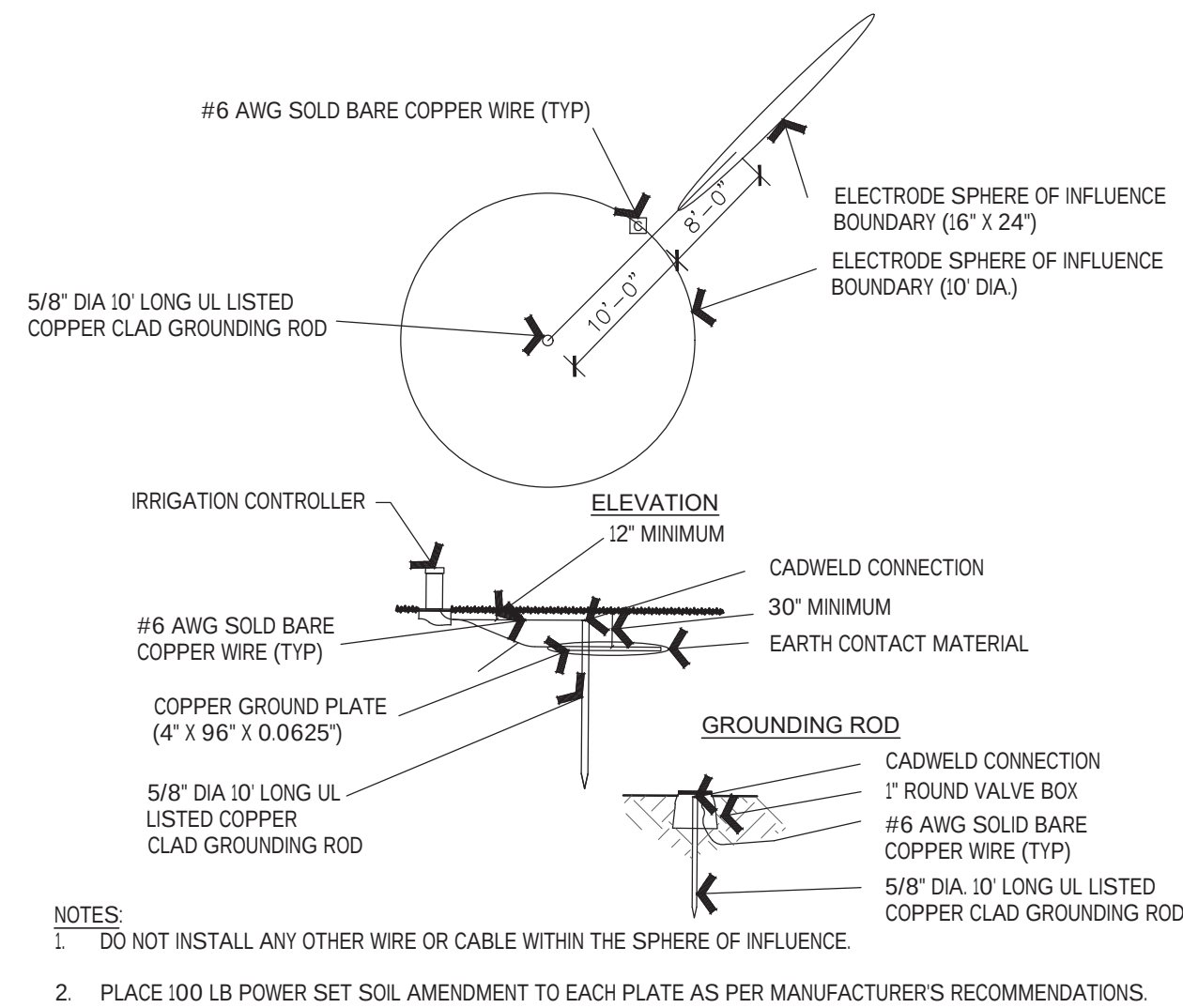
**N FLUSH CAP BOX**  
NOT TO SCALE



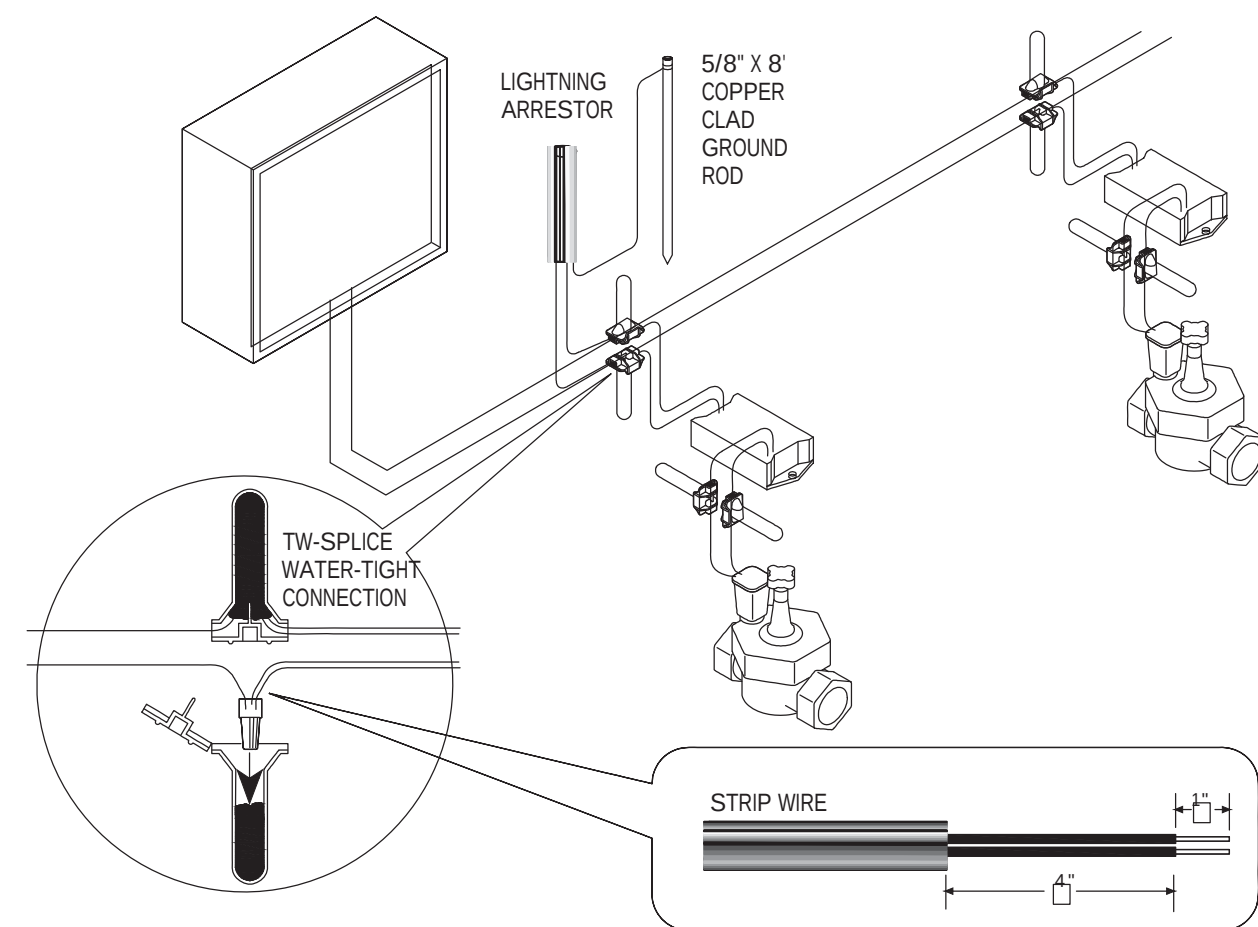
**O DRIP AIR/VACUUM RELIEF VALVE ASSEMBLY**  
NOT TO SCALE



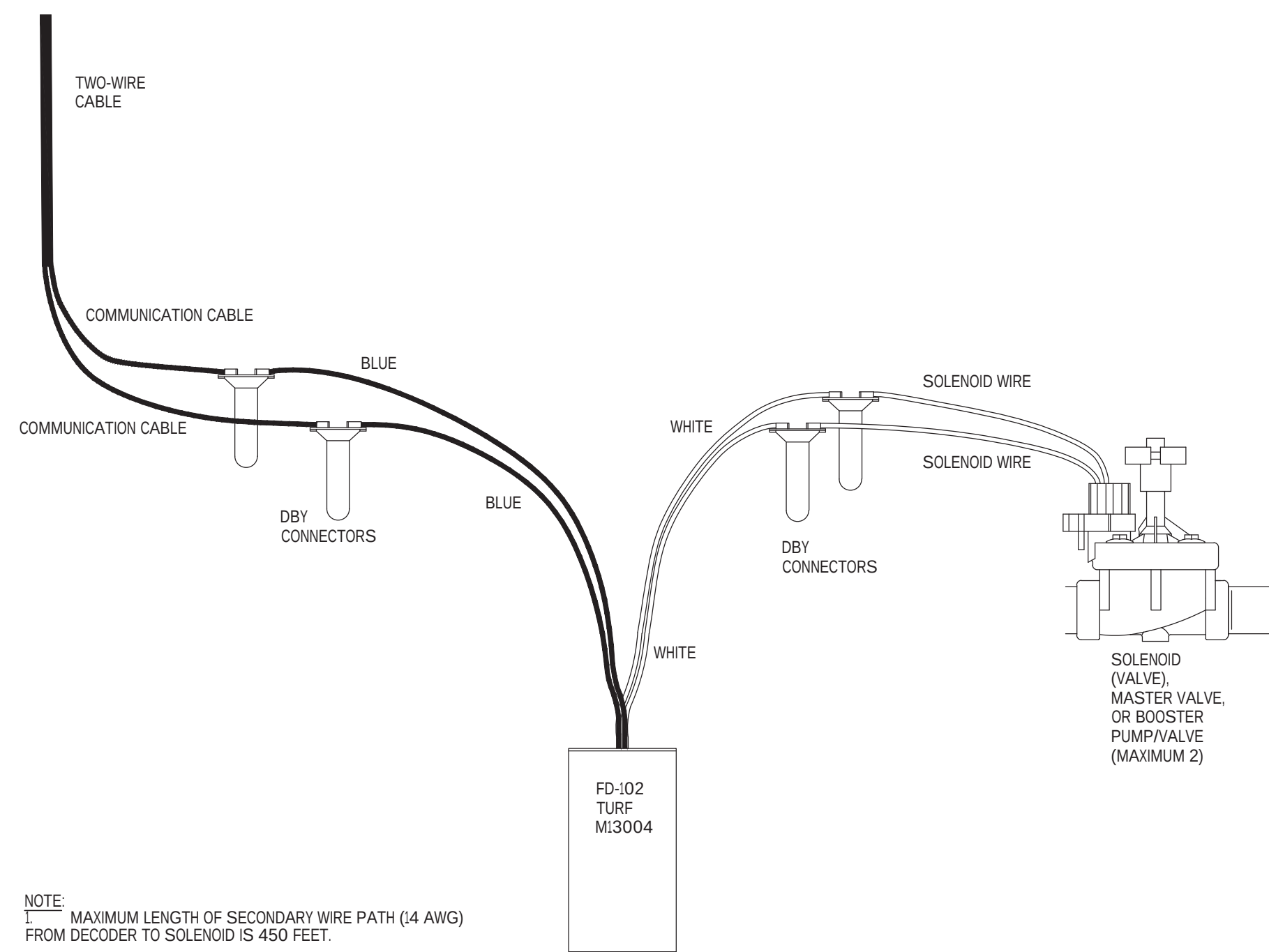
**P MASTER VALVE & FLOW SENSOR**  
NOT TO SCALE



**Q GROUNDING DETAIL**  
NOT TO SCALE



**R 2-WIRE CONNECTION**  
NOT TO SCALE



**S DECODER WIRING**  
NOT TO SCALE

| ISSUE DATE        |  |  | PROJECT NUMBER                                                                                       |  |  | PLAN INFORMATION                      |  |  | PROJECT INFORMATION |  |  | DEVELOPER / PROPERTY OWNER / CLIENT                                                                   |  |  | LANDSCAPE ARCHITECT / PLANNER                                                                                    |  |  | LICENSE STAMP                                               |  |  |
|-------------------|--|--|------------------------------------------------------------------------------------------------------|--|--|---------------------------------------|--|--|---------------------|--|--|-------------------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------|--|--|
| 02-07-2019        |  |  | UT18062                                                                                              |  |  |                                       |  |  |                     |  |  | Developer / Property Owner:                                                                           |  |  | PATTERSON CONSTRUCTION<br>11038 HIGHLAND BLVD, HIGHLAND, UT 84003                                                |  |  | PM: JTA<br>DRAWN: KBA<br>CHECKED: TM<br>PLOT DATE: 2/7/2019 |  |  |
| NO. REVISION DATE |  |  | 811 BLUE STAKES OF UTAH<br>UTILITY NOTIFICATION CENTER, INC.<br>1-800-662-4111<br>www.bluestakes.org |  |  | EAGLE VILLAGE<br>EAGLE MOUNTAIN, UTAH |  |  | Client / Engineer:  |  |  | DAVID W. PETERSON, P.E.<br>12 West 100 North, SUITE # 201<br>AMERICAN FORK, UTAH 84003 (801) 756-4504 |  |  | PKJ DESIGN GROUP<br>3450 N. TRIUMPH BLVD, SUITE 102<br>LEHI, UTAH 84043 (801) 960-2698<br>www.pkjdesigngroup.com |  |  | IR-2.6                                                      |  |  |
| 1 XXXX XX-XX-XX   |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |
| 2                 |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |
| 3                 |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |
| 4                 |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |
| 5                 |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |
| 6                 |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |
| 7                 |  |  |                                                                                                      |  |  |                                       |  |  |                     |  |  |                                                                                                       |  |  |                                                                                                                  |  |  |                                                             |  |  |





# PARKS & OPEN SPACE WORKSHEET

Directions: Submit a completed worksheet with your preliminary plat or site plan application. Proposed amenities and park designs are subject to approval by the Planning Commission and City Council.

| Required Improved Open Space |           |                                                |                                          |
|------------------------------|-----------|------------------------------------------------|------------------------------------------|
| Residential Lots / Units     |           | Required Open Space (Square Feet) <sup>a</sup> | Required Open Space (Acres) <sup>b</sup> |
| 69                           | x 1,000 = | 69,000 sq ft                                   | / 43,560 = 1.58 Acres                    |

| Park Fee-In-Lieu (if applicable)               |                   |
|------------------------------------------------|-------------------|
| Required Open Space (Square Feet) <sup>a</sup> | Total Fee-In-Lieu |
| sq ft x \$5.75 =                               | \$                |

| Required Amenity Points                  |                         |
|------------------------------------------|-------------------------|
| Required Open Space (Acres) <sup>b</sup> | Required Amenity Points |
| 1.58 Acres x 100 =                       | 158 Points              |

| Park & Improved Open Space Elements / Amenities                                                 |                  |                     |                 |
|-------------------------------------------------------------------------------------------------|------------------|---------------------|-----------------|
| Park Feature / Improvement                                                                      | Points Available | Proposed Quantities | Proposed Points |
| Bench / Picnic Table (w/ shade structure or trees)                                              | 2                | 4                   | 8               |
| Bicycle Rack (4+ bikes)                                                                         | 2                | 3                   | 6               |
| Trees (5) (A majority must be shade trees)                                                      | 2                | 7                   | 14.8            |
| Shade Structure                                                                                 | 4                |                     |                 |
| Drinking Fountain                                                                               | 5                |                     |                 |
| Asphalt or Concrete Trails – 8 ft wide, excluding sidewalks along streets (per 100 linear feet) | 6                | 1,141 lf.           | 68.4            |
| Parking* (5 stalls)                                                                             | 6                | 14                  | 16.8            |
| Swings (4+ swings)                                                                              | 7                |                     |                 |
| Concrete Basketball Court (1/2)                                                                 | 20               |                     |                 |
| Pavilion w/ tables, garbage receptacles, barbeques (per 100 square feet)                        | 4                | 400 sq ft           | 16              |
| Playground Equipment* per \$1,000                                                               | 2                | 31                  | 62              |
| Splash Pad* per \$1,000                                                                         | 2                |                     |                 |
| Tennis Court (6,600 sq ft or 55'x120')                                                          | 100              |                     |                 |
| Sports Court (6,600 sq ft or 55'x120')                                                          | 100              |                     |                 |
| Restroom (600+ sq ft)                                                                           | 100              |                     |                 |
| Restroom (1200+ sq ft)                                                                          | 200              |                     |                 |
| Public Art                                                                                      | Varies           |                     |                 |
| Other:                                                                                          | Varies           |                     |                 |
| Other:                                                                                          | Varies           |                     |                 |
| <b>TOTAL</b>                                                                                    |                  |                     | <b>192</b>      |

\* Public art should reflect the neighborhood or community identity or culture. Creativity is encouraged in playground equipment and splash pads, and may be awarded more points than standard equipment. Costs for playground equipment and splash pads reflect equipment costs only. Parking must be adjacent to improved open space, and must be in addition to any required parking for the development.





**EAGLE MOUNTAIN CITY  
PLANNING COMMISSION MEETING  
FEBRUARY 12, 2019**

|                   |                                           |
|-------------------|-------------------------------------------|
| <b>TITLE:</b>     | Ames Construction Extractive Overlay Zone |
| <b>ITEM TYPE:</b> | Rezone                                    |
| <b>APPLICANT:</b> | Ames Construction                         |

**ACTION ITEM:**

Yes

**PUBLIC HEARING:**

Yes

**REQUIRED FINDINGS:**

**PREPARED BY:**

Michael Hadley,  
Planning

**BACKGROUND:**

The applicant is proposing to add the Extractive Industries Overlay zone to approximately 160 Acres of property located on the City's southern SE boundary between Eagle Mountain City and unincorporated Utah County. The applicant will be required to apply for a Small Mine Permit from the State and be subject to all requirements and regulations of said permit. The parcel in question is proposed to provide materials necessary for the construction of the Facebook development. Ames construction will also use it for projects they have. The pit will not be open to the public and the only way the material would be used for anything other than the stated projects is if a very large commercial project came to the City.

Rezone Criteria for Approval: Rezone proposals are evaluated using the following criteria:

- Compliance with General Plan
- Compatibility Determination
- City Services
- Traffic Generation
- Property Values

Compliance with Future Land Use Plan (General Plan): The Eagle Mountain General Plan designates the future land use of the property as Foothills Residential and Parks and Open Space.

Compatibility Determination: It should be noted that the extractive industries overlay zone does not alter the underlying zoning of the property.

The zoning of property adjacent to this project includes:

- North: Property to the north is owned by BLM.
- East: The property to the east is zoned Agriculture and is owned by the BLM.
- West: The property to the west is currently zoned agriculture.
- South: The property to the south is outside City limits.

City Services: The proposal to add the extractive industries overlay zone to the property is not anticipated to place a burden on City Services.



Traffic Generation: It is not anticipated that this project will generate any traffic, and in fact it is expected to mitigate truck traffic during the construction of the Facebook site. It should allow traffic from the gravel pit/mine to reach the Facebook building site without using any City ROW, without this operation, all the materials needed for the Facebook site (over 1,000,000 tons) would need to be transported from other mines to the project site over city roads.

Property Values: It is not expected that the rezone will reduce neighboring property values as the BLM owned land will remain open space, and the proposed mining operation will leave a final grade appropriate for residential development.

SITLA is the property owner and supports the rezone request. According to SITLA "aggregate extraction is a good use of the land and prepares the land for future development". It provides money to the Schools Trust to be used for education.

#### **ITEMS FOR CONSIDERATION:**

The following items should be consideration by the Planning Commission.

1. Right to Process and Remove Sand and Gravel. The developer must comply with all provisions of Eagle Mountain Municipal Code Chapter 17.54 (Extractive Industries Overlay Zone) with respect to any Operations on the Property.
2. A maximum of 10 acres of land may be processed at time. Reclamation of the property must be complete to move onto the next acres to mined. All of the operations should comply with the requirements of the State of Utah Department of Natural Resources Small Mining Operations for a 10 acre site.
3. All required blasting will need to obtain a permit and follow the requirements in accordance with City Code 8.25 Explosives.
4. Hours of Operation the pit operations and trucks entering or leaving the Property may only occur between the hours of 7:00 a.m. and 9:00 p.m. Only maintenance of equipment within the pit may occur at any time.
5. Trucks leaving the Property with material from the Property shall only be allowed on the roads shown on an approved route map. Developer is solely responsible for securing legal access to all private Roads not already under the City right-of-ways or easements.
6. Dust control for the property and the approved access roads should meet the site-specific Utah Department of Environmental Quality Fugitive Dust Control Plan. The approved roads will be treated with magnesium chloride and sufficient water to control visible dust being created by trucks or other vehicles on the approved roads. The applicant should apply sufficient water or other dust suppression to all excavation, processing operations and all stockpiles of materials on the site to control visible dust being created on the property as a result of the operations.



**RECOMMENDATION:**

Recommend approval to the City Council.

Conditions of Approval:

1. Developer must comply with all provisions of Eagle Mountain Municipal Code Chapter 17.54.
2. A maximum of 10 acres of land may be processed at time.
3. All required blasting will need to obtain a permit and follow the requirements in accordance with City Code 8.25 Explosives.
4. Hours of Operation the pit operations and trucks entering or leaving the Property may only occur between the hours of 7:00 a.m. and 9:00 p.m.
5. A truck routes map be submitted and approved by the City Engineer.
6. Dust control for the property and the approved access roads should meet the site-specific Utah Department of Environmental Quality Fugitive Dust Control Plan.
7. Any conditions the Planning Commission considers based on findings of fact.

**Attachments:**

[Doc. 5.pdf](#)

[Doc 1.pdf](#)

[Doc. 2.pdf](#)

[Doc. 3.pdf](#)

[Doc. 4.pdf](#)





The Surface and Minerals are Owner by the State of Utah School & Institutional Trust Lands.

Prior to incorporation into Eagle Mountain Incorporated City Limits the land Use designation was Mining & Grazing.

**Public Notice Fee:** Ames will pay the necessary fee for the City Staff to prepare and mail required notices.

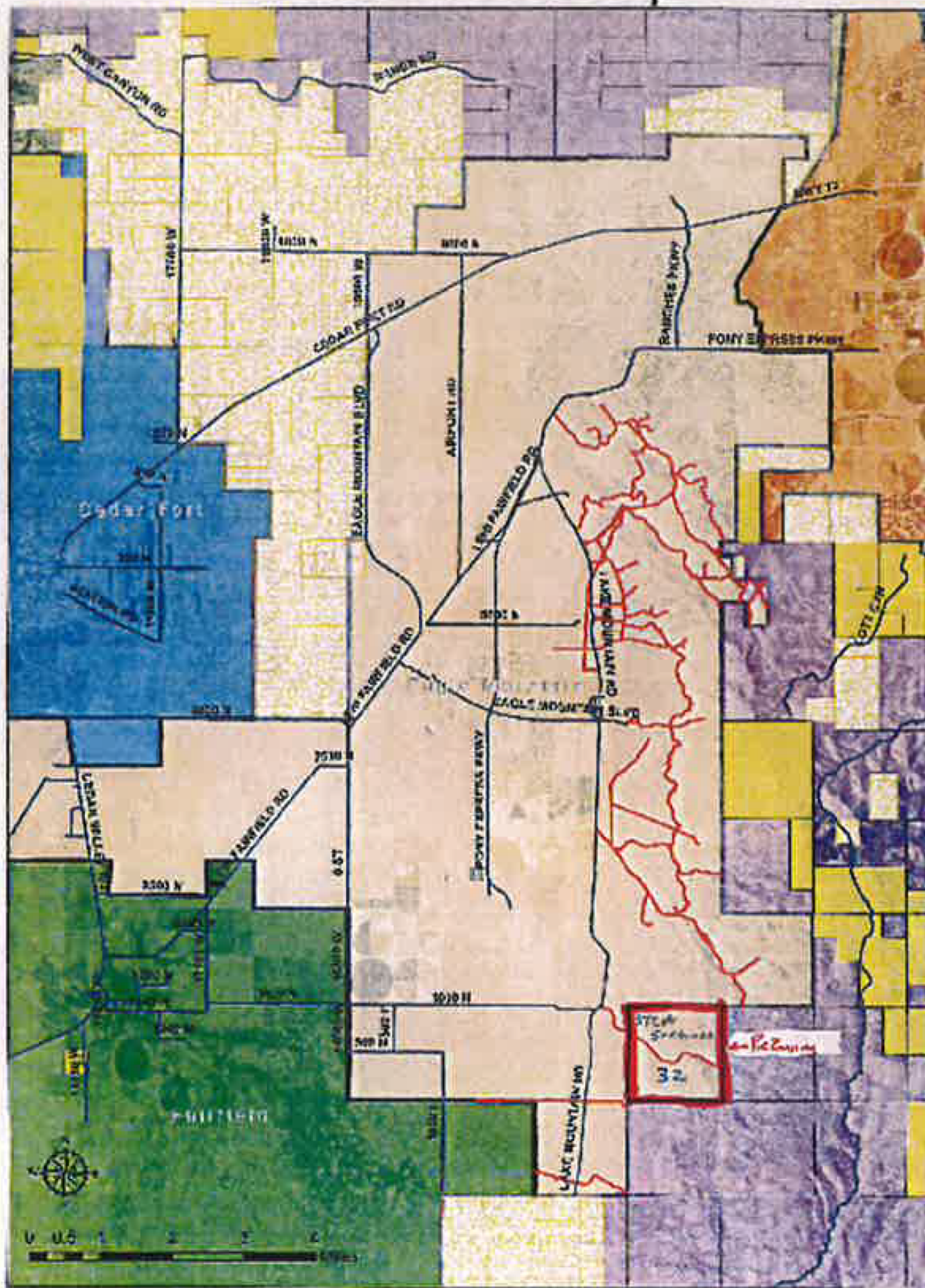


## Existing Conditions:



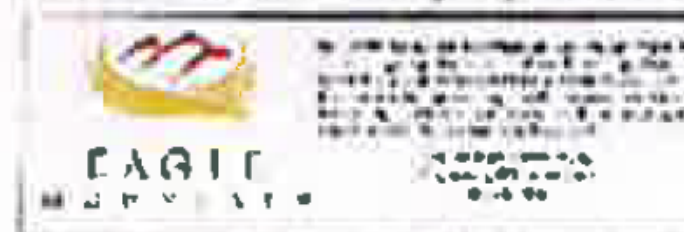


# Eagle Mountain and Surrounding Land Ownership



- Eagle Mountain City
- Simla Land
- Private Land
- Cedar Fort
- Poudre
- BLM
- Roads
- Wild Rivers

Discharging a firearm within Eagle Mountain City limits is prohibited. Please visit [http://www.blm.gov/efo/foia/foia\\_request\\_target\\_shooting.html](http://www.blm.gov/efo/foia/foia_request_target_shooting.html) for information on obtaining an order to hunt.











**EAGLE MOUNTAIN CITY**  
**PLANNING COMMISSION MEETING**  
**FEBRUARY 12, 2019**

|                   |                                     |
|-------------------|-------------------------------------|
| <b>TITLE:</b>     | Eagle Heights Village Concept Plan  |
| <b>ITEM TYPE:</b> | Concept Plan                        |
| <b>APPLICANT:</b> | Kirt Peterson (Horizon Development) |

**ACTION ITEM:**

No

**PUBLIC HEARING:**

No

**REQUIRED FINDINGS:**

**BACKGROUND:**

Parcel (59:018:0037) is currently zoned residential. Per 17.25 of the Eagle Mountain Municipal Code (EMMC) multifamily (Tier III and Tier IV) development is a conditional use. Duplex units are a Tier III (conditional use), requiring preliminary plat, site plan, and conditional use permit approvals. Due to the project density (~6.32 DU/AC) a Master Development Plan may also be required.

The applicant will be presenting their preferred layout, and is seeking Planning Commission feedback on code related issues including: proposed elevations, open space amenities, proposed open space buy downs, and connectivity.

Staff concerns that have been discussed with the applicant previously include: concern over lack of a large grass play field and the consolidation of open space, trails/walking routes providing safe routes to schools, and the buying down of open space and pool requirements.

**ITEMS FOR CONSIDERATION:**

**RECOMMENDATION:**

**PREPARED BY:**

Tayler Jensen, Planning

**Attachments:**

Proposed Elevation "Cedar"

Proposed Elevation "Cottonwood - 3 Bedroom"

Proposed Elevation "Cottonwood - 3 Bedroom Alternative"

Proposed Elevation "Cottonwood - 4 Bedroom"

Eagle Heights Village, Proposed Park Plan

Proposed Elevation "Frontier"

Proposed Elevation "Oak A"

Traffic Impact Study Letter















PARK AMENITIES

PARK #1

COMMUNITY CENTER  
GAZEBO  
PLAYGROUND  
SPORT COURT  
PARKING  
SHADE TREES  
GRASS PLAY AREA  
SITE SECURITY CAMERAS

PARK #2

GARDEN BOXES  
BENCH

PARK #3

PLAYGROUND  
BENCH  
SHADE TREES  
LAWN PLAY AREA

PARK #4

PLAYGROUND  
BENCH  
SHADE TREES  
LAWN PLAY AREA

PARK #5

PLAYGROUND  
BENCH  
SHADE TREES  
LAWN PLAY AREA

PARK #6

PLAYGROUND  
BENCH  
SHADE TREES  
LAWN PLAY AREA

PARK #7

GARDEN BOXES  
BENCH

PARK #8

COMMUNITY CENTER  
GAZEBO  
PARKING  
SHADE TREES  
GRASS PLAY AREA  
SITE SECURITY CAMERAS

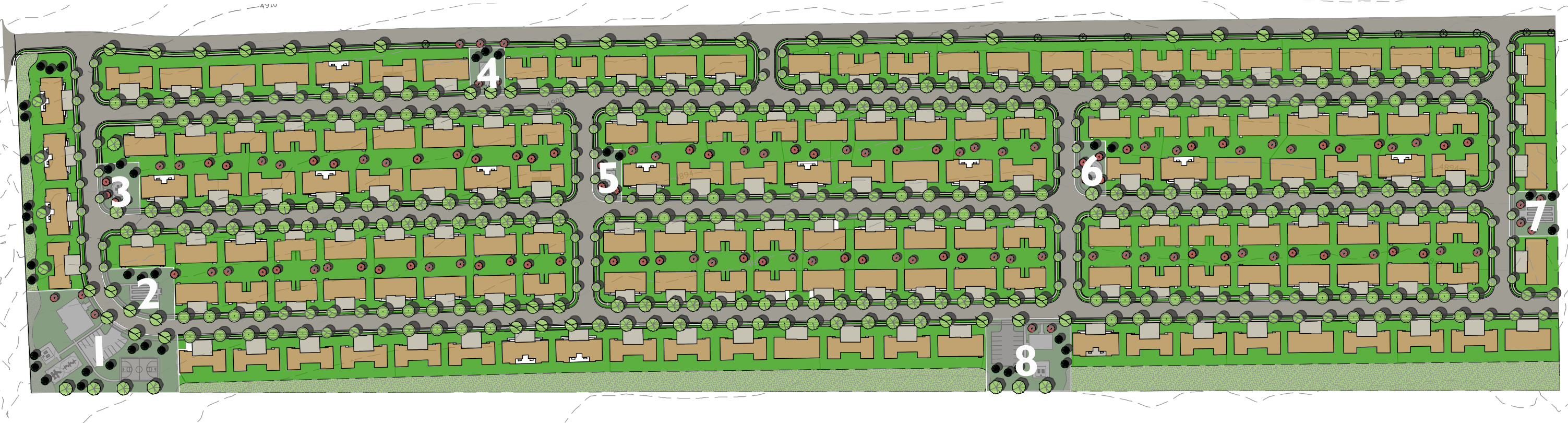
STB

DESIGN

LANDSCAPE ARCHITECTURE  
& LAND PLANNING  
699 E. WEST TEMPLE, 201D  
SALT LAKE CITY, UTAH 84102  
PH/MO/TXT 801.554.6146  
SCOTT@STBDESIGNLLC.COM

EAGLE  
HEIGHTS  
VILLAGE

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH



NORTH  
DATE: 01.16.2019

OVERALL PARKS  
MASTER PLAN



**EAGLE  
HEIGHTS  
VILLAGE**

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH

 NORTH  
SCALE: 1"=20'-0"  
DATE: 01.16.2019

**L101**

**PARK | AMENITIES**

**COMMUNITY CENTER - 3,500 S.F.**

Exercise Room, Full Kitchen, 2 Bathrooms,  
Multi-Use Room

**GAZEBO - 1,100 S.F. Area**

2 Picnic Tables, Built-In BBQ, Drinking Fountain,  
Trash Receptacles, Concrete Surface

**PLAYGROUND**

Playground - Playworld #350-1716 or equal

Swings - 4

Poured in Place Rubber Landing Surface

**SPORT COURT**

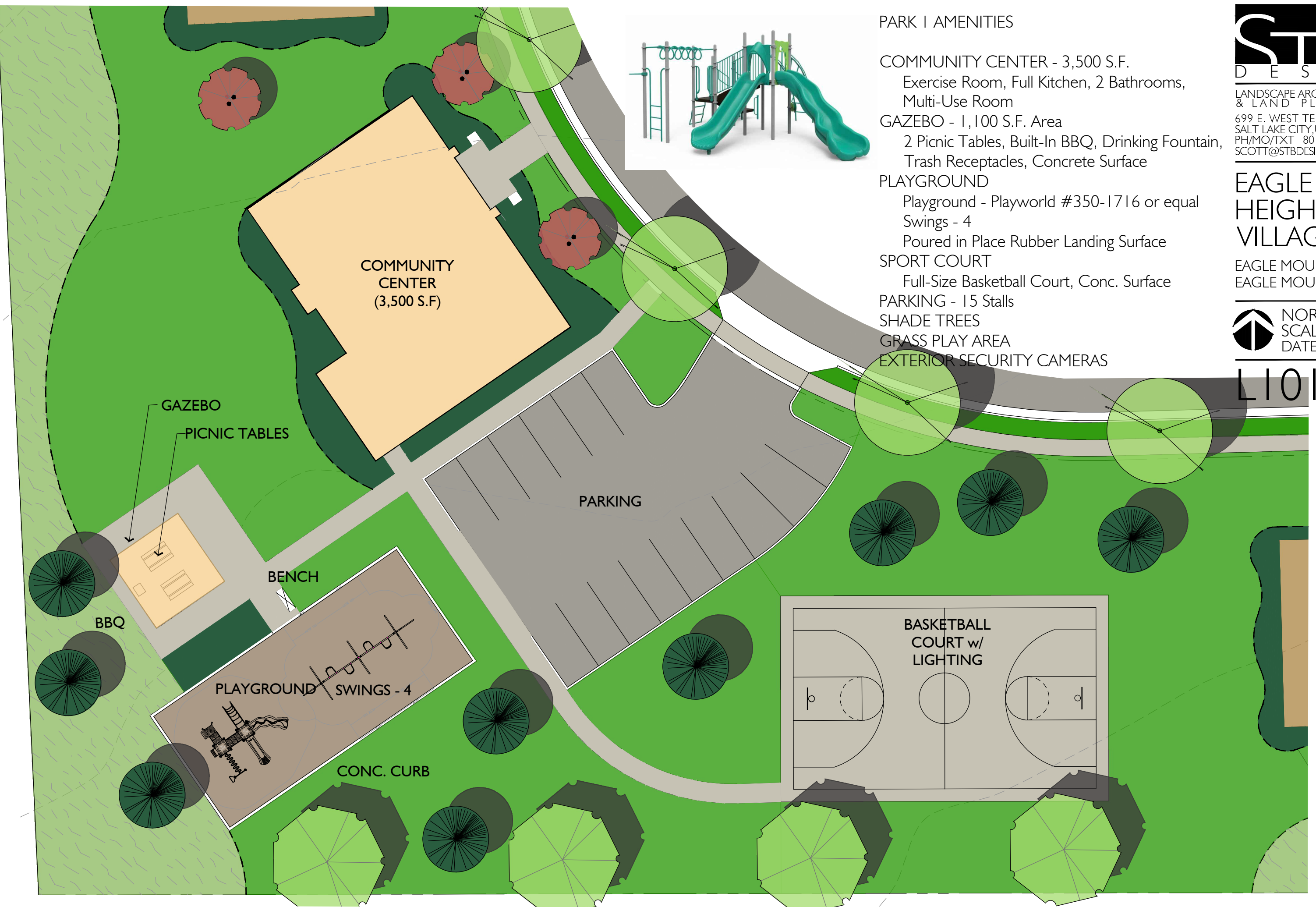
Full-Size Basketball Court, Conc. Surface

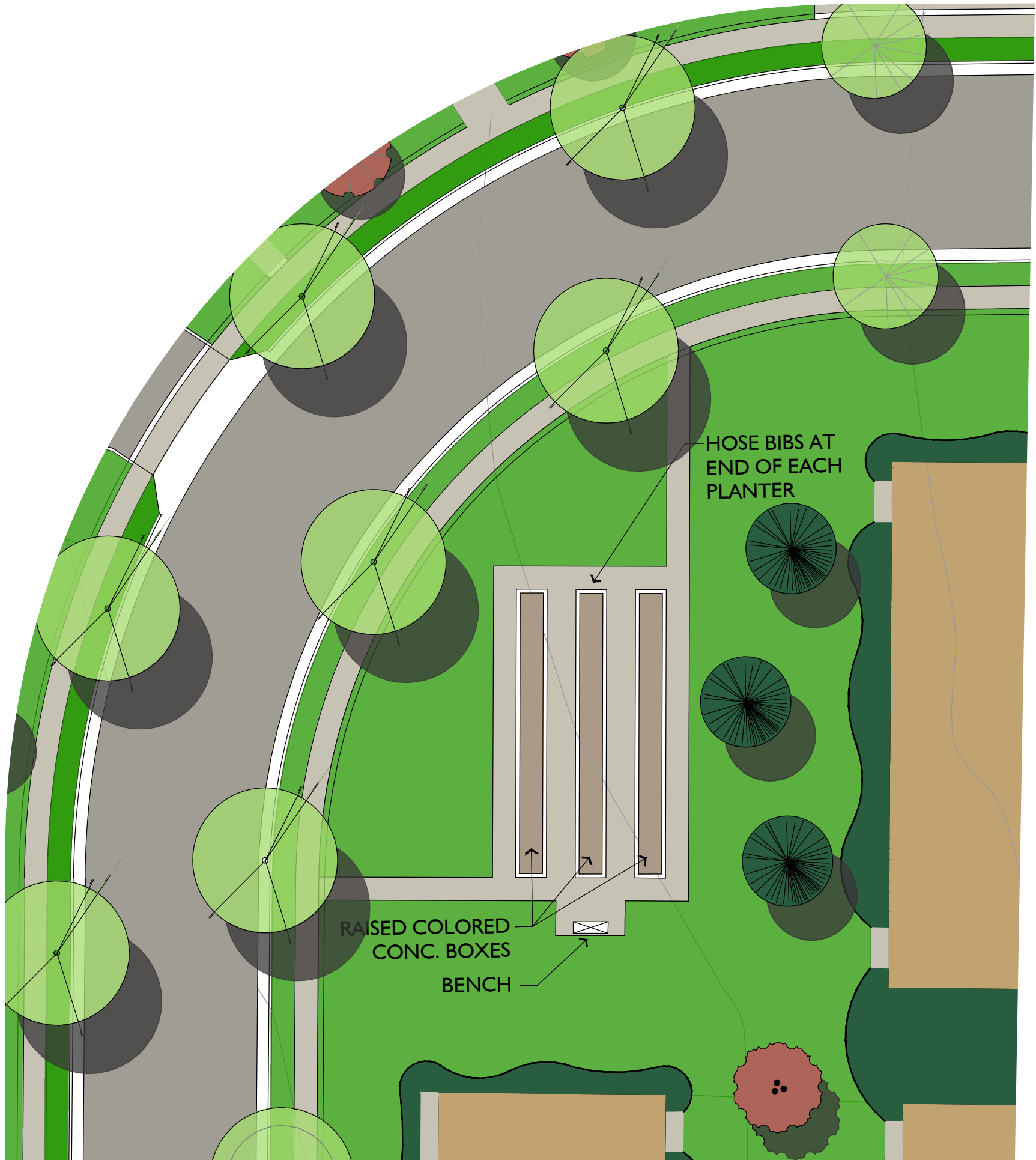
**PARKING - 15 Stalls**

**SHADE TREES**

**GRASS PLAY AREA**

**EXTERIOR SECURITY CAMERAS**





PARK 2 AMENITIES

- GARDEN BOXES
  - Raised Colored Concrete Boxes
- SITTING AREA
- SHADE TREES
- GRASS AREA

**EAGLE  
HEIGHTS  
VILLAGE**  
EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH





LANDSCAPE ARCHITECTURE  
& LAND PLANNING  
699 E. WEST TEMPLE, 201D  
SALT LAKE CITY, UTAH 84102  
PH/MO/TXT 801. 554 . 6146  
SCOTT@STBDESIGNLLC.COM

## EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH



### PARK 3 AMENITIES

#### PLAYGROUND

Play Equipment - Playworld, Tunnel Junction, #PSD-1102 or equal

Poured in Place Rubber Landing Surface

#### SITTING AREA

#### SHADE TREES

#### GRASS AND PLAY AREA

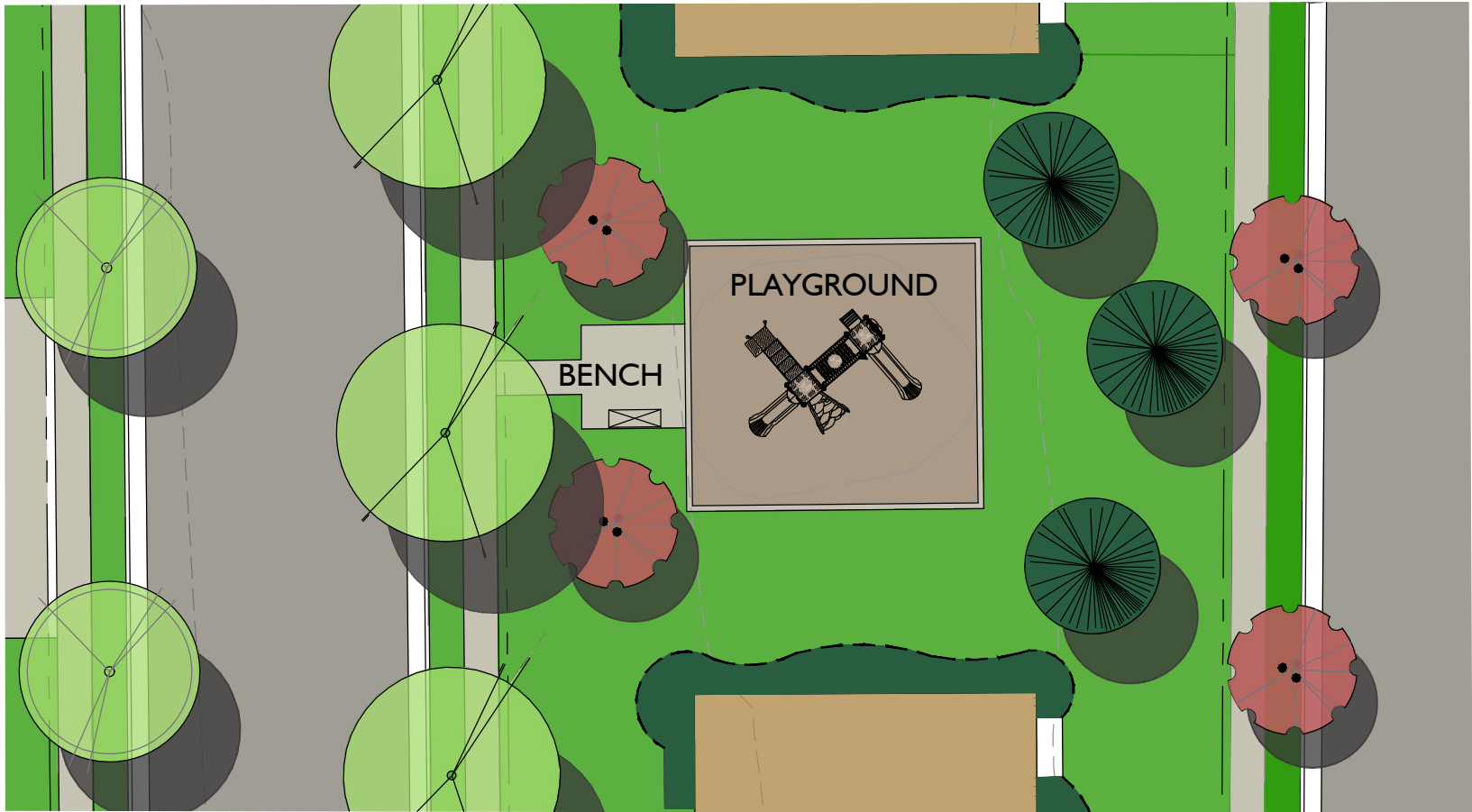
NORTH  
SCALE: 1"=20'-0"  
DATE: 01.16.2019

## PARK 3

## L103

PARK 4 AMENITIES

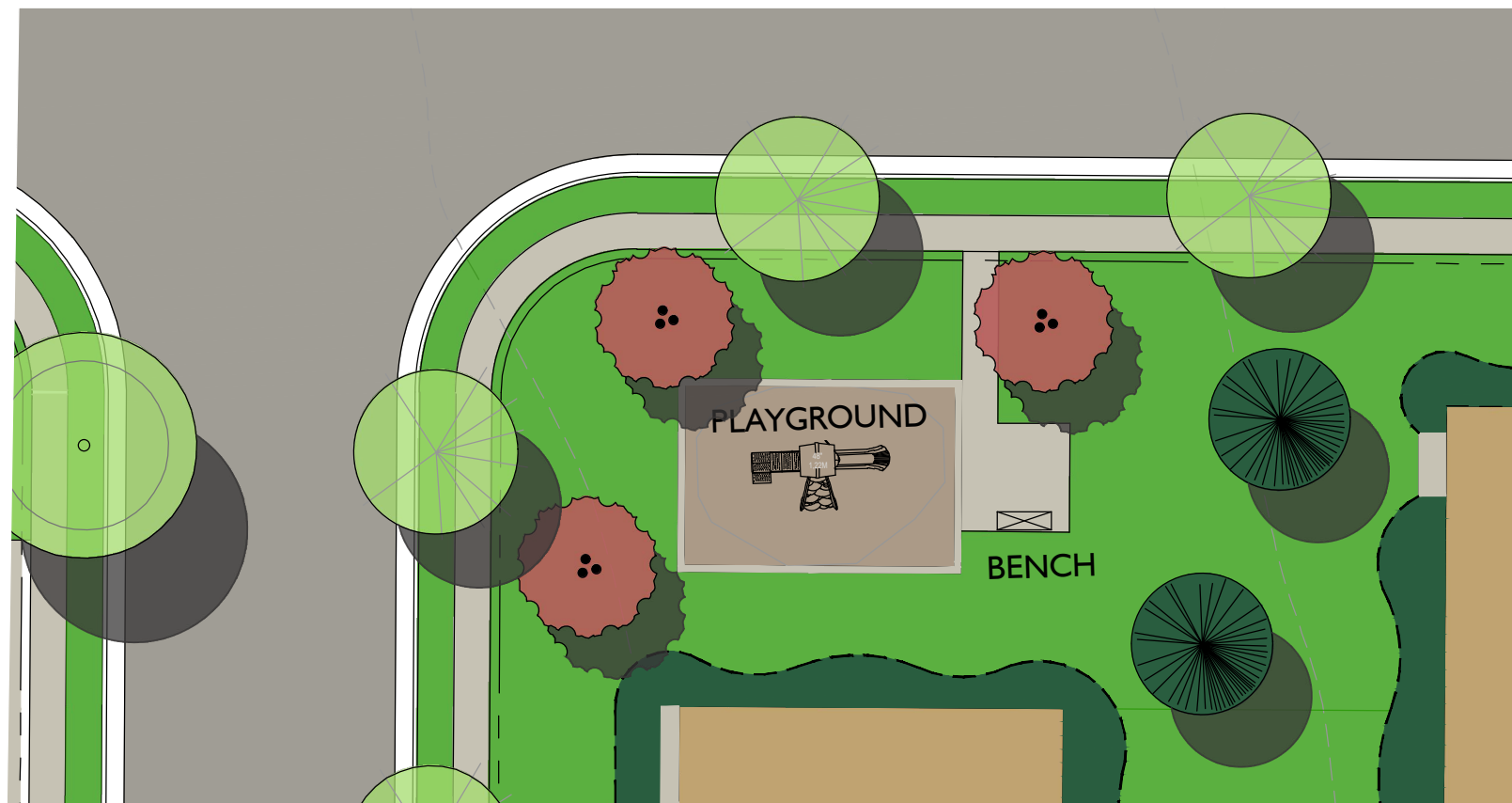
- PLAYGROUND
- Play Equipment, Playworld, #350-1814 or equal
- Poured in Place Rubber Landing Surface
- SITTING AREA
- SHADE TREES
- GRASS AND PLAY AREA





## EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH



### PARK 5 AMENITIES

#### PLAYGROUND

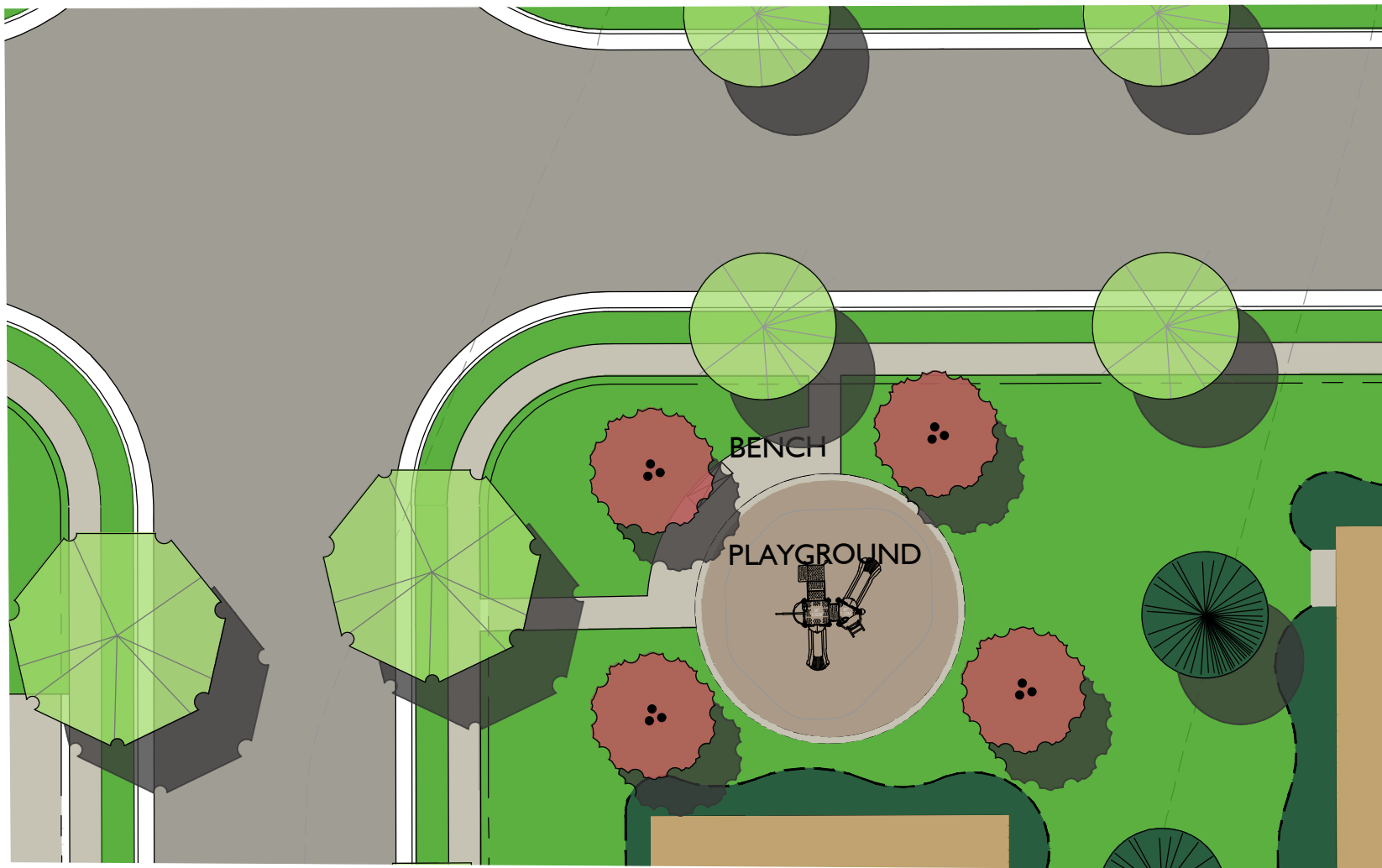
Play Equipment, Playworld, Mighty Fun Mountain,  
#PSD-1101 or equal  
Poured in Place Rubber Landing Surface

#### SITTING AREA

#### SHADE TREES

#### GRASS AND PLAY AREA





## EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH



### PARK 6 AMENITIES

#### PLAYGROUND

Play Equipment, Playworld, #350-1738 or equal

Poured in Place Rubber Landing Surface

#### SITTING AREA

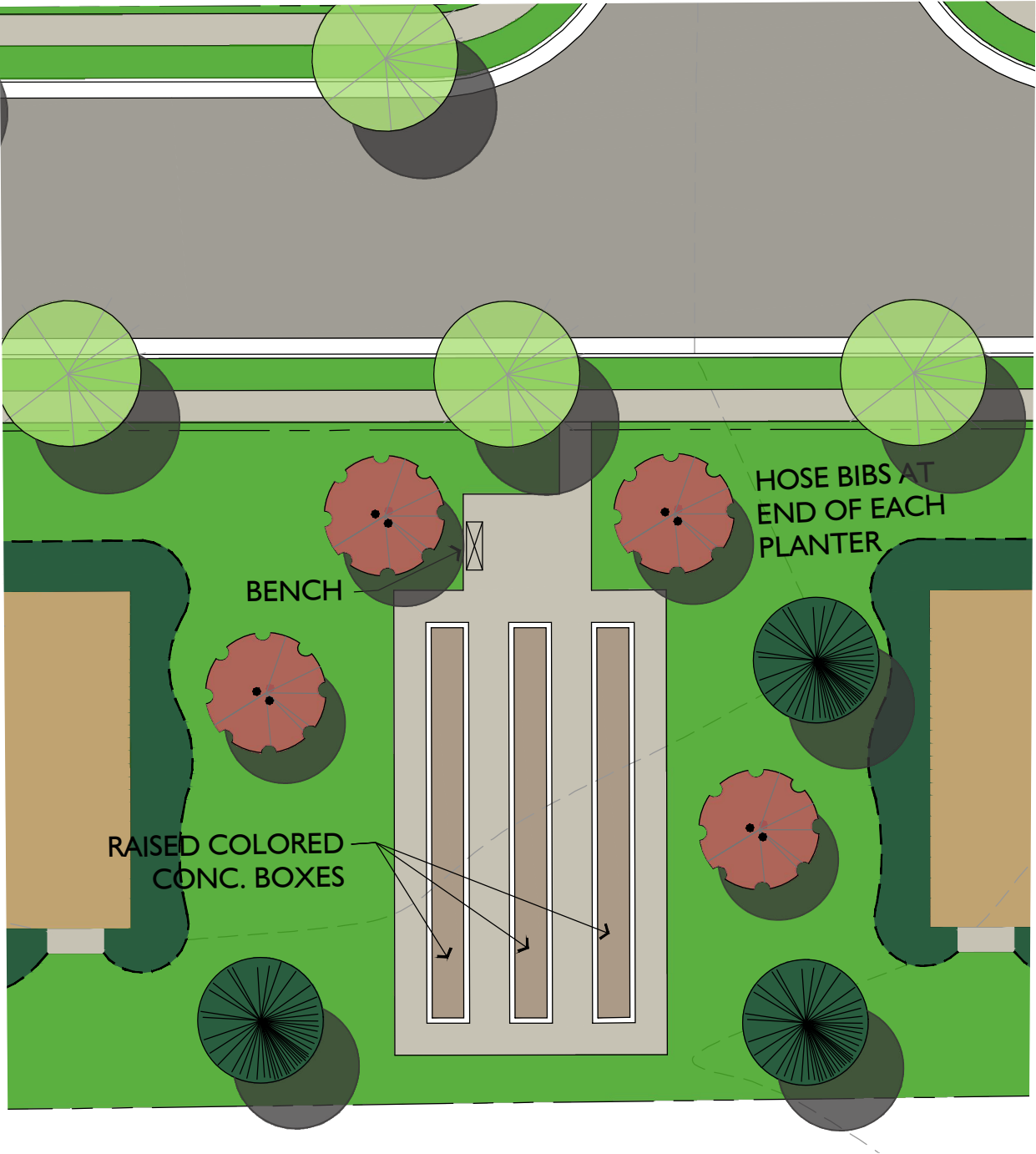
#### SHADE TREES

#### GRASS AND PLAY AREA



# EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH



## PARK 7 AMENITIES

- GARDEN BOXES
  - Raised Colored Concrete Boxes
- SITTING AREA
- SHADE TREES
- GRASS AREA



# EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.  
EAGLE MOUNTAIN, UTAH

## PARK 8 AMENITIES

- COMMUNITY CENTER - 1,440 S.F.  
Full Kitchen, 2 Bathrooms,  
Multi-Use Room
- GAZEBO - 1,100 S.F. Area  
2 Picnic Tables, Built-In BBQ,  
Drinking Fountain, Trash  
Receptacles, Concrete Surface
- PARKING - 15 Stalls
- SHADE TREES
- GRASS PLAY AREA
- EXTERIOR SECURITY CAMERAS











September 26, 2018

Robert Squires  
Horizon Development  
1466 N Highway 89  
Farmington, UT 84025

Re: Traffic Impact Statement Memo

Dear Mr. Squires:

The purpose of this Traffic Impact Statement is to provide Eagle Mountain City pertinent information about your development as required by their Conditional Use Permit. This statement memo discusses the general development information and assumptions, a description of the type of traffic generated, estimated average daily trips generated by the proposed project, and anticipated distribution of the trips on city street systems.

#### **General Development Information & Assumptions**

1. The proposed development will be located on a parcel of land on the south side of Eagle Mountain Blvd near the intersection of Lake Mountain Road in Eagle Mountain, Utah. The principle access to the development will be off Eagle Mountain Blvd which is currently a divided two-lane street.
2. Information provided by Horizon Development indicates that the development will occur in four phases, each phase consisting of 80 units. A single building will consist of two units with 320 units, or 160 buildings.

#### **Type of Traffic Generated**

Each building in this proposed development is a single-story duplex. This type of development primarily generates work-based trips with AM and PM peaks. Where AM peak period traffic is leaving the development and PM peak period traffic is entering the development. Most of the vehicles for this development will be passenger cars as compared to heavy vehicles.

#### **Expected Peak Hour Trips Generated**

Based on the 9<sup>th</sup> version of the Trip Generation Manual produced by the Institute of Transportation Engineers this development has a defined land use as a Low-Rise Residential Condominium/Townhouse (Land Use: 231) (pages 424 – 425). Studies indicate that the weekday AM and PM average peak hour rates are 0.54 (trips per unit) and 0.64 (trips per unit), respectfully. The total AM trips generated from this development would be approximately 173 trips (0.54 trips per unit X 320 units). The total PM trips generated from this development would be approximately 205 trips (0.64 trips per unit X 320 units). Assuming Eagle Mountain Blvd's [35 mph posted speed] capacity is around 1800 vehicles per hour per lane this project would contribute 9.6% of the overall capacity in the AM peak and 11.4% of the overall capacity in the PM peak.

### Distribution of Trips

From this project's access at the intersection of Lake Mountain Rd and Eagle Mountain Blvd there is one functional outlet to the West at Pony Express Parkway. Outlets to the North, South, and East require navigation on small dirt roads or terminate prematurely. As a result, traffic distribution from this development is expected to travel along Eagle Mountain Blvd towards the intersection of Pony Express Parkway and Eagle Mountain Blvd. At the intersection, it is anticipated to place 95% of the peak traffic onto Pony Express Blvd (see orange route in figure) and 5% will continue on Eagle Mountain Blvd which eventually connects to SR-73 (see blue route in the figure). The split AM (exiting) and PM (entering) peak trips are shown in Figure 1.

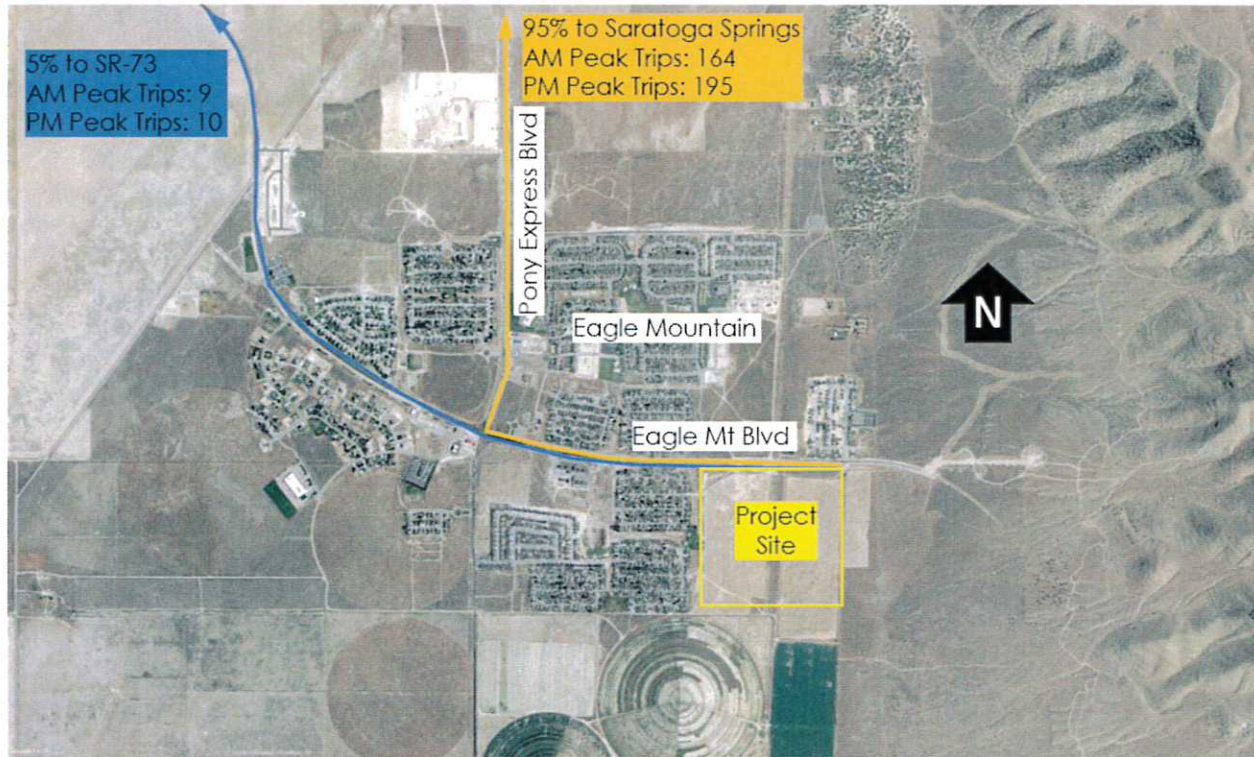


Figure 1: Expected distribution of trips based on route availability and commuting pattern.

### Summary

Based on calculations discussed above, this proposed development at the PM peak contributes to the current hourly capacity of Eagle Mountain Blvd by 11.4%. This contributing figure is in line with expected development along Eagle Mountain Blvd and will not exceed a change of more than 25% in the anticipated background traffic. Should a more advanced study be required, CRS would be happy to provide assistance. If you have any questions regarding this traffic impact statement memo, feel free to contact me at 801-746-6255.

Sincerely,

**CRS Engineers**

Scott Shea, PE  
Transportation Manager