

WASHINGTON CITY  
PLANNING COMMISSION MEETING  
STAFF REVIEW

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**AGENDA ITEM:** 4a

**HEARING DATE:** December 7, 2022

**ACTION REQUESTED:** Z-24-02 - A request to revise the current design standards of the approximately 11.22 acres zoned PUD-R located at 500 West 115 North.

**APPLICANT:** Turner Rockworth Apartments LLC

**OWNER:** Turner Rockworth Apartments LLC

**ENGINEER:** Rick Meyer - Bush & Gudgell

**REVIEWED BY:** Eldon Gibb - City Planner

**RECOMMENDATION:** Recommend approval with conditions onto City Council

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**Background**

The applicant is requesting approval to update the design standards of approximately 11.22 acres for the PUD-R Multiple Family Development located at approximately 500 West and 115 North. On May 25, 2022 City Council approved the zone change for this property (Z-22-06). Since this approval, the applicant has encountered a few delays such as flood mapping, market changes and increased interest rates. With this, the applicant has revised the site layout and is asking for approval of the new design and layout at this time.

The density is not changing. The density will remain the same at 180 units covering an area of 11.22 acres. This is a density of 16 units per acre and is broken down as such: 54 one bedroom units, 96 two bedroom units and 30 three bedroom units. The layout of the buildings are more efficient as the building count has been reduced by 3 buildings with the new total being 7 buildings. This reduction puts more distance between the buildings providing more open space in the development.

The surrounding zoning is Open Space (I-15 corridor) to the north, R-1-6 to the east, R-3 and C-2 to the south and west. Required parking for this development is 389 parking spaces. Parking has increased by 43 spaces and includes a total of 419 parking spaces which is 30 over the required amount. Parking is broken down as such: 47 garage stalls, 99 covered stalls and

273 open stalls.

Amenities for the development include a pool and clubhouse area, dog park, pickleball and basketball court, playground and grass area along with direct access to the city trail system. There will also be a 6 foot block wall around the entire development as shown on the plan. The proposed building height is 36' 8".

Staff is supportive of this project at this location with the exterior finishes, building layout and overall design of the project being adequate.

### **Recommendation**

Staff recommends that the Planning Commission recommend approval of Z-24-02, for the proposed PUD-R Multiple Family Development design standards zone change, onto the City Council based on the following findings and conditions:

### **Findings**

1. That the requested zoning conforms to the intent of the land use designation of the General Plan.
2. The utilities that will be necessary for this type of development will be readily accessible to the site.

### **Conditions**

1. The project shall conform to the standards of the PUD - Residential (Multiple Family Development) Zone.
2. A traffic study shall be submitted for review and approval prior to submitting building permit applications. The study will address the city's Master Transportation Plan.
3. A final drainage study and grading and drainage plan shall be submitted for review and approval prior to site development. Development of the site shall comply with the recommendations of the geotechnical study and drainage study, and improvements for drainage and detention shall be approved by the Public Works Department.
4. The elevations of the buildings shall be as portrayed in this submittal.
5. Detailed landscape and irrigation plans shall be submitted for review and approval prior to building permit applications and shall conform to the city's water conservation ordinance and approved zoning plan. The developer shall install the landscaping and irrigation infrastructure prior to the occupancy of any unit.
6. Block walls (six feet in height min./max.) will be required along the exterior boundaries of the



development. Details for the required perimeter block walls shall be submitted for review and approval with the site development plans.

7. All structure and site improvements shall meet the requirements of City-adopted building and fire codes.

8. A Post Construction Maintenance Agreement needs to be recorded prior to any plat recordations.

9. The proposed amenities will be completed before one-third (1/3) build out of the development. Roughly, before the 60th unit is completed.

10. Details for dumpster screening methods shall be submitted for review and approval with the building permit applications.

11. All outdoor lighting will be directed inward to the development.

12. The applicant shall work with staff in the trail placement.

13. The stoplight at Telegraph and 500 West will be designed and installed when warranted.



Washington City,

We respectfully request the City grants an amendment to our current entitlements updating the site with in the PD Zoning for the Turner Rock Apartment Site located at approximately 440 W 100 N in Washington, Utah (containing 5 parcels, W-3-A, W-200-A-2, W-4-B, W-9-C, W-9-A-2-C, which were recently consolidated into one). Over the past year we have received civil site plan approval and submitted all buildings for permit review. Many obstacles have precluded us from moving as quickly as we would have liked, including FEMA flood mapping, which held up the initial civil review, and market changes, including drastic increases in interest rates. Our site plan approval was granted September 21<sup>st</sup>, 2023, with our current entitlement set to expire on November 25<sup>th</sup>, 2023. We have applied for an extension of the current entitlements but concurrently would like to explore the options of an alternative site plan, with more efficient building layouts. This site plan would allow for more open space, less buildings but the same number of units. Overall, it will help us to achieve potential alternative financing options and keep construction cost down. We still intend to work diligently to commence construction on the project. We hope the City will grant the PD Zone change so that we are able to keep pushing forward with this new development.

Best,

Tom Henriod

Turner Rock Apartments and Rockworth Companies

Managing Partner



**PROJECT FLOW CARD**

**Z-24-02 Zone Change/PUD-R Millcreek Apartments**

Planning	Reviewed. OK to move forward.	
Hillside	NA	
Public Works	Reviewed, no concerns	
Engineer	Reviewed, no concerns	
Fire Dept.	Reviewed, no concerns	
Parks/Trails	Reviewed, no concerns	
Building Dept.	Reviewed, no concerns	
Washington Power	Reviewed, no concerns	
Dixie Power	NA	
Economic Dev.	Reviewed. No concerns. Residential rooftops in this area help support and stimulate planned commercial development for the nearby general planned business development. RH	

Additional Comments:

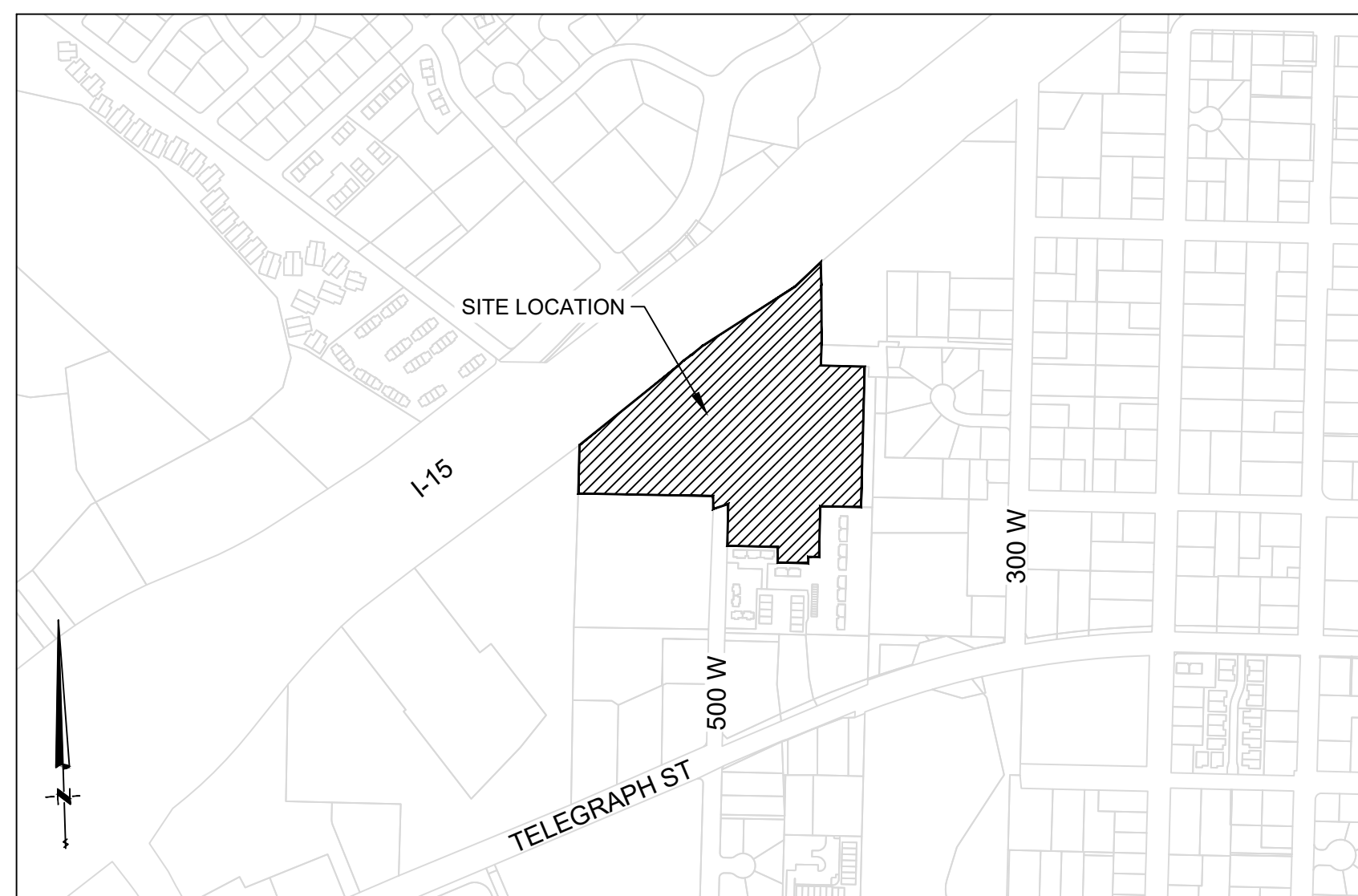
B&G PROJECT NUMBER 221006

# ROCKWORTH APARTMENTS

## PD ZONE CHANGE LOCATED IN WASHINGTON, UTAH

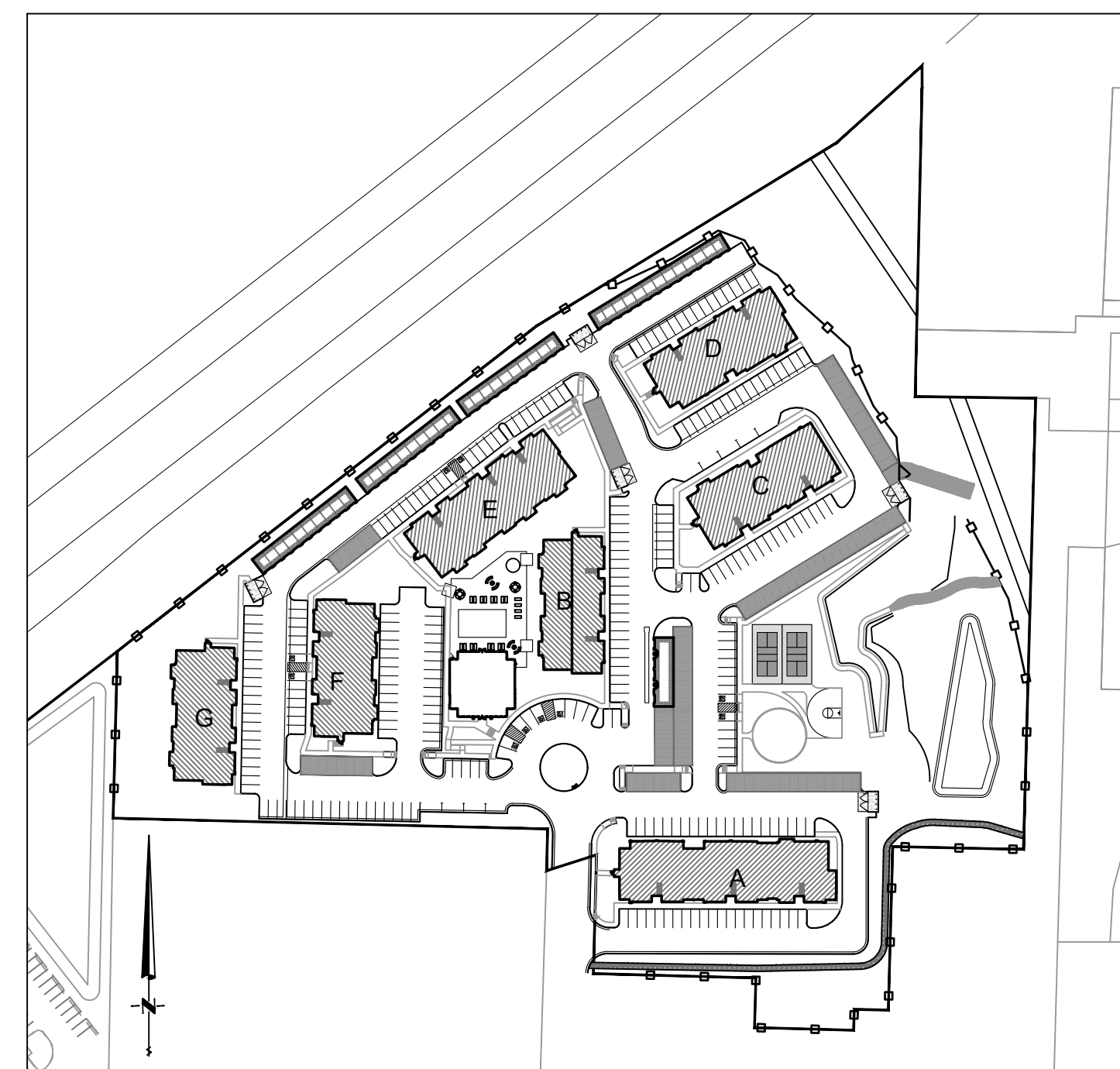
SECTION 15, T 42 S, R 15 W, SLB&M  
PARCEL # W-3-A-1

VICINITY MAP



SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SITE PLAN
3	GRADING PLAN
4	UTILITY PLAN
5	DETAILS

PROJECT MAP



### GENERAL NOTES

- 1) CONTRACTOR IS RESPONSIBLE TO VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK IN ANY ZONE.
- 2) ALL WORK AND MATERIALS SHALL COMPLY WITH WASHINGTON CITY STANDARD SPECIFICATIONS.
- 3) PROJECTS SHALL INSTALL AN INFORMATIONAL SIGN ON SITE BEFORE CONSTRUCTION BEGINS. THIS SIGN WILL HAVE A MINIMUM SIZE, PLACEMENT LOCATION AND CONTENT INFORMATION WITH THE COMPANY NAME, PHONE CONTACT AND GRADING PERMIT NUMBER.
- 4) PROJECTS SHALL SUBMIT A DUST CONTROL PLAN WITH DETAILS ON EQUIPMENT, SCHEDULING AND REPORTING OF DUST CONTROL ACTIVITIES.
- 5) A MANDATORY PRE-CONSTRUCTION MEETING WILL BE REQUIRED ON ALL PROJECTS PRIOR TO ANY GRUBBING, GRADING OR CONSTRUCTION ACTIVITIES. THE PERMIT HOLDER WILL BE REQUIRED TO NOTIFY ALL DEVELOPMENT SERVICE INSPECTORS.
- 6) FOLLOW APPENDIX 'J' STANDARDS FOUND IN THE IBC.
- 7) ALL OBJECTS SHALL BE KEPT OUT OF THE SIGHT DISTANCE CORRIDORS THAT MAY OBSTRUCT THE DRIVER'S VIEW.

### DUST CONTROL

THESE DUST CONTROL MEASURES MUST BE OBSERVED AT ALL TIMES:

#### EARTH MOVING ACTIVITIES:

- 1) APPLY WATER BY MEANS OF TRUCKS, HOSES AND/OR SPRINKLERS AT SUFFICIENT FREQUENCY AND QUANTITY, PRIOR TO CONDUCTING, DURING AND AFTER EARTH-MOVING ACTIVITIES.
- 2) PRE-APPLY WATER TO THE DEPTH OF THE PROPOSED CUTS OR EQUIPMENT PENETRATION.
- 3) APPLY WATER AS NECESSARY AND PRIOR TO EXPECTED WIND EVENTS.
- 4) OPERATE HAUL VEHICLES APPROPRIATELY IN ORDER TO MINIMIZE FUGITIVE DUST AND APPLY WATER AS NECESSARY DURING LOADING OPERATIONS.

#### DISTURBED SURFACE AREAS OR INACTIVE CONSTRUCTION SITES:

- 1) WHEN ACTIVE CONSTRUCTION OPERATIONS HAVE CEASED, APPLY WATER AT SUFFICIENT FREQUENCY AND QUANTITY TO DEVELOP A SURFACE CRUST AND PRIOR TO EXPECTED WIND EVENTS.
- 2) INSTALL FENCE BARRIER AND/OR "NO TRESPASSING" SIGNS TO PREVENT ACCESS TO DISTURBED SURFACE AREAS.



### OWNER / DEVELOPER

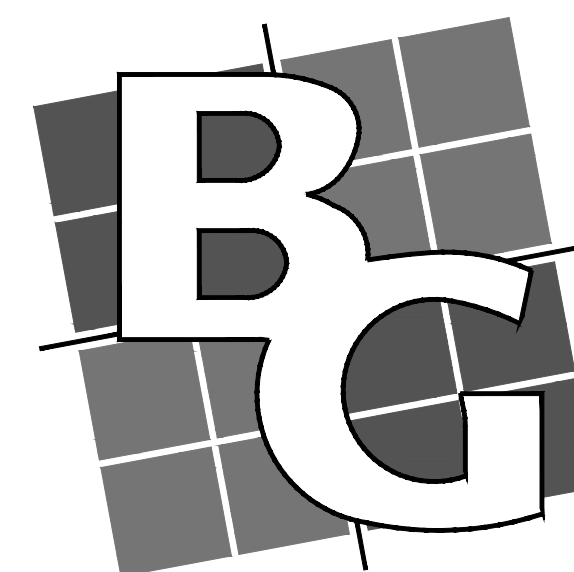
ROCKWORTH COMPANIES  
4655 S 2300 E #205  
HOLLADAY, UT 84117

SERRA NEMELKA  
(385)-313-4462

### ENGINEERING CONTACT

BUSH AND GUDGELL, INC.  
205 EAST TABERNACLE #4  
ST GEORGE, UT 84770

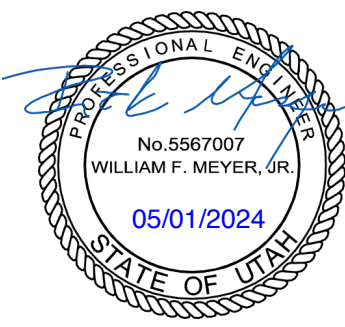
RICK MEYER - PROJECT MANAGER  
(435)-673-2337



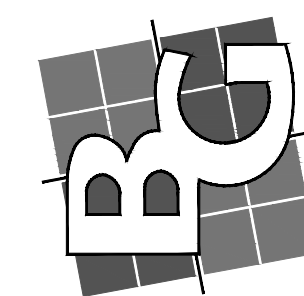
MAY 2024

**BUSH & GUDGELL, INC.**  
Engineers - Planners - Surveyors

205 East Tabernacle #4  
St. George, Utah 84770  
Phone (435) 673-2337



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www.bushandgudgell.com



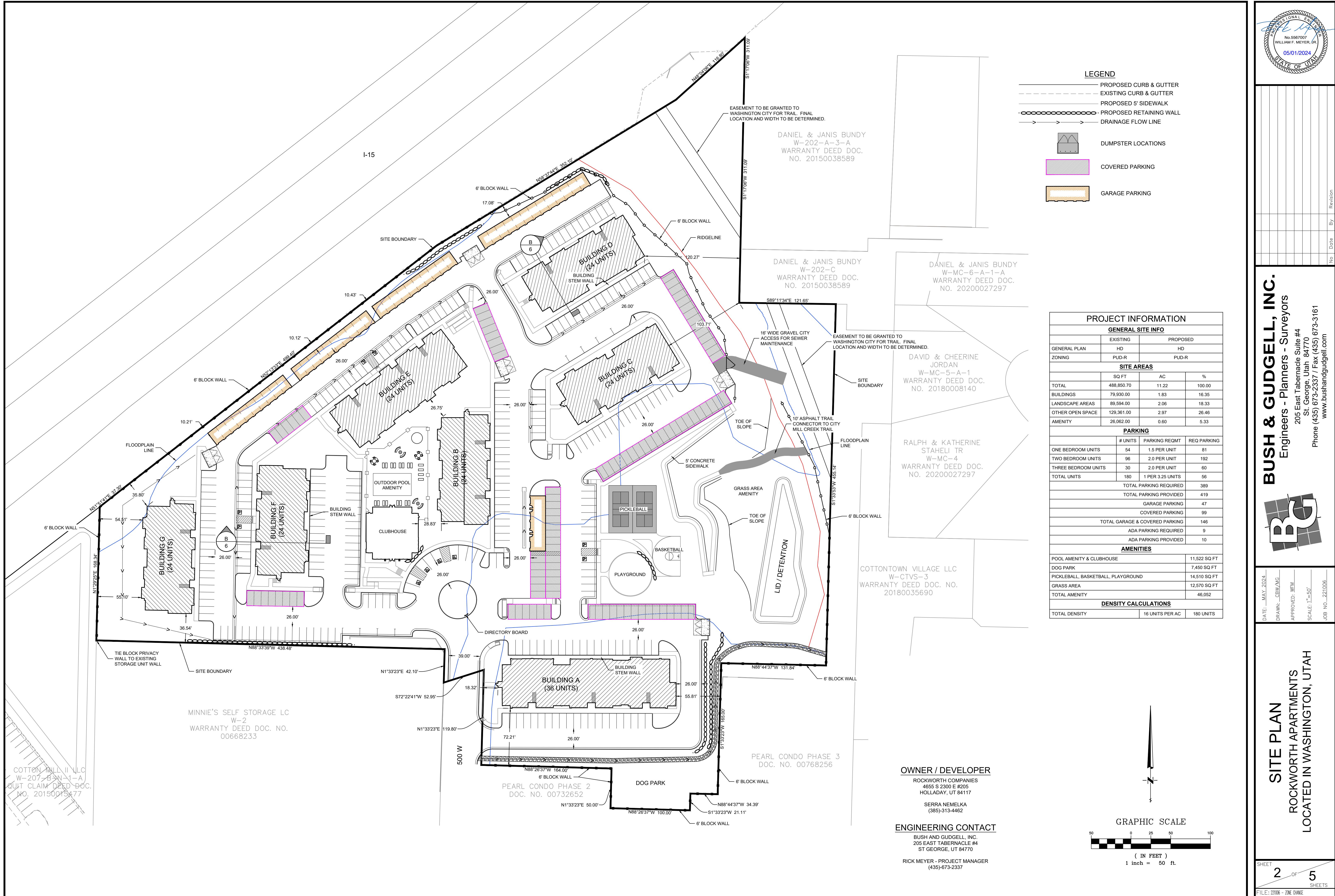
DATE: MAY 2024  
DRAWN: CBW/AG  
APPROVED: WFM  
SCALE: NOTED  
JOB NO.: 221006

**COVER SHEET**  
ROCKWORTH APARTMENTS  
LOCATED IN WASHINGTON, UTAH

SHEET  
1 OF 5  
SHEETS

FILE: 221006 - ZONE CHANGE

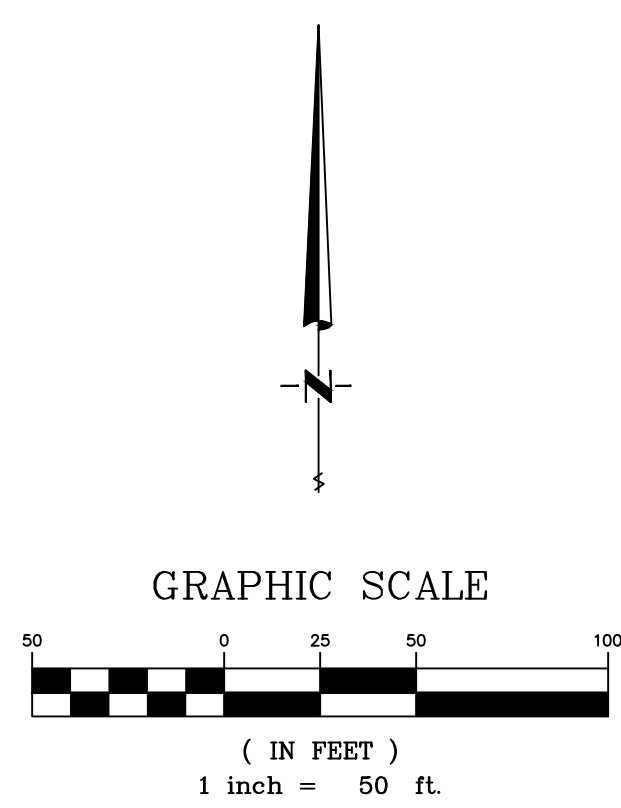




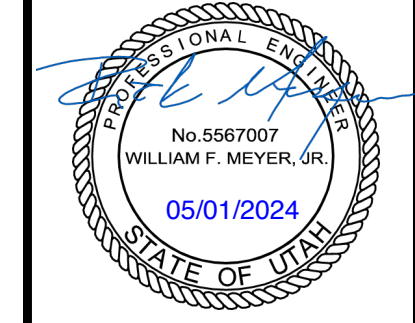
**LEGEND**

- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- PROPOSED 5' SIDEWALK
- PROPOSED RETAINING WALL
- DRAINAGE FLOW LINE
- DUMPSTER LOCATIONS
- COVERED PARKING
- GARAGE PARKING

PROJECT INFORMATION			
GENERAL SITE INFO			
	EXISTING	PROPOSED	
GENERAL PLAN	HD	HD	
ZONING	PUD-R	PUD-R	
SITE AREAS			
	SQ FT	AC	%
TOTAL	488,850.70	11.22	100.00
BUILDINGS	79,930.00	1.83	16.35
LANDSCAPE AREAS	89,594.00	2.06	18.33
OTHER OPEN SPACE	129,361.00	2.97	26.46
AMENITY	26,062.00	0.60	5.33
PARKING			
	# UNITS	PARKING REQMNT	REQ PARKING
ONE BEDROOM UNITS	54	1.5 PER UNIT	81
TWO BEDROOM UNITS	96	2.0 PER UNIT	192
THREE BEDROOM UNITS	30	2.0 PER UNIT	60
TOTAL UNITS	180	1 PER 3.25 UNITS	56
TOTAL PARKING REQUIRED			389
TOTAL PARKING PROVIDED			419
GARAGE PARKING			47
COVERED PARKING			99
TOTAL GARAGE & COVERED PARKING			146
ADA PARKING REQUIRED			9
ADA PARKING PROVIDED			10
AMENITIES			
POOL AMENITY & CLUBHOUSE			11,522 SQ FT
DOG PARK			7,450 SQ FT
PICKLEBALL, BASKETBALL, PLAYGROUND			14,510 SQ FT
GRASS AREA			12,570 SQ FT
TOTAL AMENITY			46,052
DENSITY CALCULATIONS			
TOTAL DENSITY		16 UNITS PER AC	180 UNITS



**OWNER / DEVELOPER**  
ROCKWORTH COMPANIES  
4655 S 2300 E #205  
HOLLADAY, UT 84117  
  
SERRA NEMELKA  
(385)-313-4462  
  
**ENGINEERING CONTACT**  
BUSH AND GUDGELL, INC.  
205 EAST TABERNACLE #4  
ST GEORGE, UT 84770  
  
RICK MEYER - PROJECT MANAGER  
(435)-673-2337

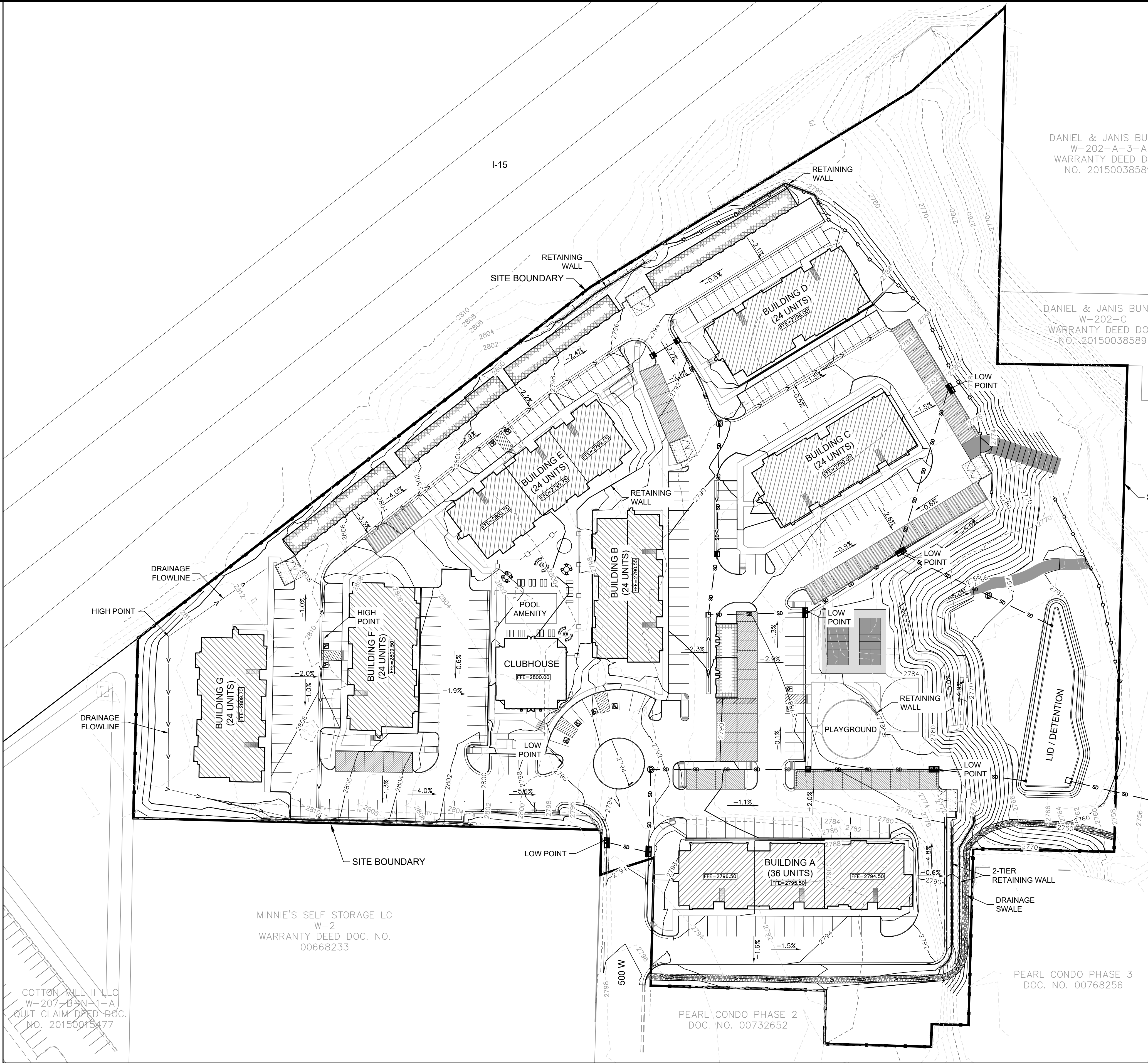


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www.bushandgudgell.com

DATE: MAY 2024  
DRAWN: CBW/AG  
APPROVED: WFM  
SCALE: 1"=50'  
JOB NO.: 221006

**SITE PLAN**  
ROCKWORTH APARTMENTS  
LOCATED IN WASHINGTON, UTAH





DANIEL & JANIS BUNDY  
W-202-A-3-A  
WARRANTY DEED DOC.  
NO. 20150038589

DANIEL & JANIS BUNDY  
W-202-C  
WARRANTY DEED DOC.  
NO. 20150038589

DANIEL & JANIS BUNDY  
W-MC-6-A-1-A  
WARRANTY DEED DOC.  
NO. 20200027297

DAVID & CHEERINE  
JORDAN  
W-MC-5-A-1  
WARRANTY DEED DOC.  
NO. 20180008140

RALPH & KATHERINE  
STAHELI TR  
W-MC-4  
WARRANTY DEED DOC.  
NO. 20200027297

COTTONTOWN VILLAGE LLC  
W-CTVS-3  
WARRANTY DEED DOC. NO.  
20180035690

MINNIE'S SELF STORAGE LC  
W-2  
WARRANTY DEED DOC. NO.  
00668233

COTTON HILL II LLC  
W-207-B-N-1-A  
QUIT CLAIM DEED DOC.  
NO. 20150015477

PEARL CONDO PHASE 2  
DOC. NO. 00732652

PEARL CONDO PHASE 3  
DOC. NO. 00768256

- LEGEND**
- |              |                              |     |                         |
|--------------|------------------------------|-----|-------------------------|
| --- 2800 --- | EXISTING GROUND CONTOUR      | --- | LOT LINE                |
| --- 2800 --- | FINISH FLOOR ELEVATION       | --- | CURB & GUTTER           |
| FFE= 00.0    | PROPOSED STORM DRAIN MANHOLE | --- | EXISTING CURB & GUTTER  |
| ■            | PROPOSED CATCH BASIN         | --- | PROPOSED RETAINING WALL |

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RICK MEYER - PROJECT MANAGER  
(435)-673-2337

APPROXIMATELY 17,210 CU.YD. OF CUT 44,780 CU.YD. OF FILL AND 27,570 CU.YD. OF IMPORT MATERIAL IS REQUIRED (FOR GRADING PERMIT ONLY) THE CONTRACTOR SHOULD VERIFY THE QUANTITIES FOR COMPLETION OF WORK. QUANTITIES ARE BASED ON FINISH GRADE OF ROADS & PADS.

ALL IMPORTED STRUCTURAL FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO DELIVERY TO THE SITE. ALL IMPORTED STRUCTURAL FILL SHALL BE PLACED IN 8-INCH LOOSE HORIZONTAL LIFTS AND COMPACTED TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY (ASTM D-1557).

ALL EXCAVATION, GRADING AND FILL OPERATIONS WITHIN THE BUILDING AREA SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER TO VERIFY SUB-SOIL CONDITIONS AND DETERMINE ADEQUACY OF SITE PREPARATION, SUITABILITY OF FILL MATERIALS AND COMPLIANCE WITH COMPACTION REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE SUITABLE EQUIPMENT TO CONTROL DUST AND AIR POLLUTION CAUSED BY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ALSO PROVIDE SUITABLE MUD AND DIRT CONTAINMENT TO MAINTAIN THE WORK SITE, ACCESS, ROADWAYS AND ADJACENT PROPERTIES IN A CLEAN CONDITION.

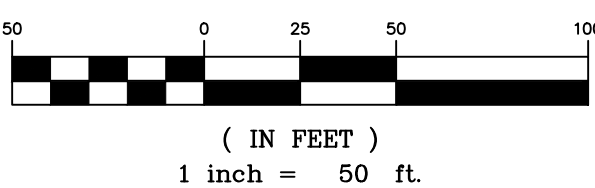
ALL EXCAVATION AND GRADING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON CITY AND APPENDIX K OF THE UNIFORM BUILDING CODE, 1994 EDITION, AND THE SPECIFICATIONS AND REQUIREMENTS INCLUDED IN THE GEOTECHNICAL STUDY.

GEOTECHNICAL ENGINEER TO PROVIDE GRADING COMPLETION REPORT TO CONFIRM WORK HAS BEEN PERFORMED IN CONFORMANCE WITH THEIR RECOMMENDATIONS.

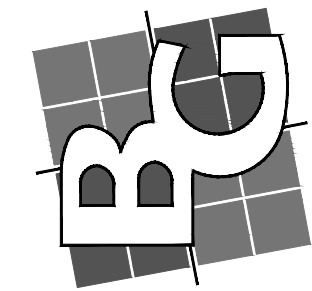
OWNER IS RESPONSIBLE FOR ALL ON-SITE DRAINAGE AND DETENTION.



**GRAPHIC SCALE**



**BUSH & GUDGELL, INC.**  
Engineers - Planners - Surveyors



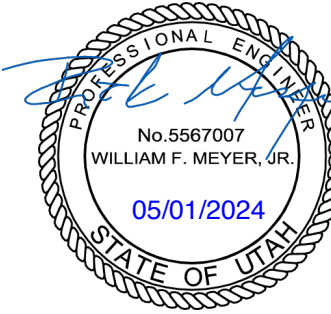
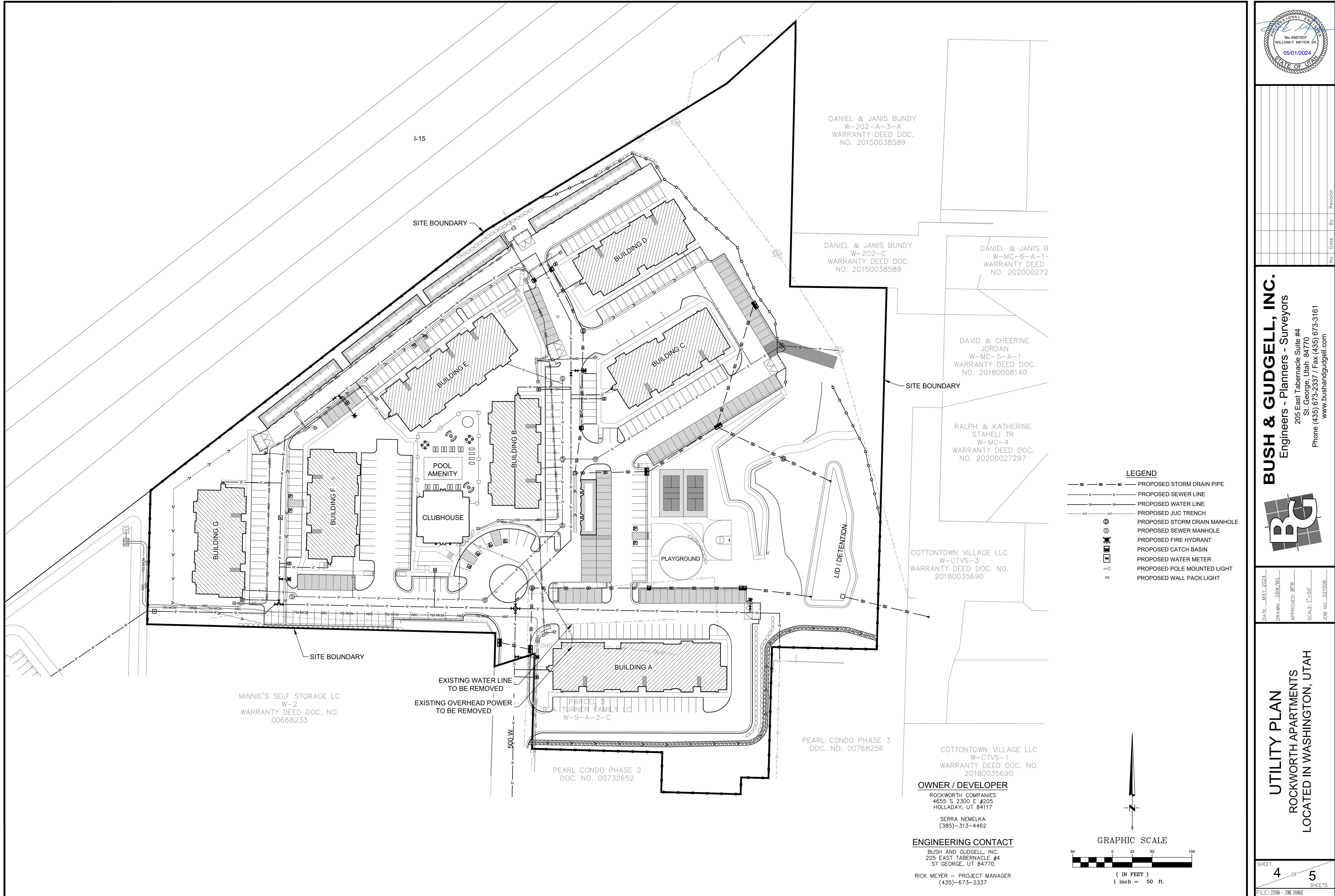
DATE: MAY 2024  
DRAWN: CEW/MG  
APPROVED: WFM  
SCALE: 1"=50'  
JOB NO. 221006

**GRADING PLAN**  
ROCKWORTH APARTMENTS  
LOCATED IN WASHINGTON, UTAH

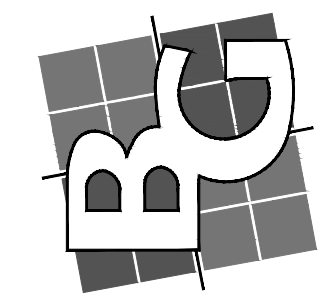
SHEET  
3 OF 5  
SHEETS

FILE: 221006 - ZONE CHANG





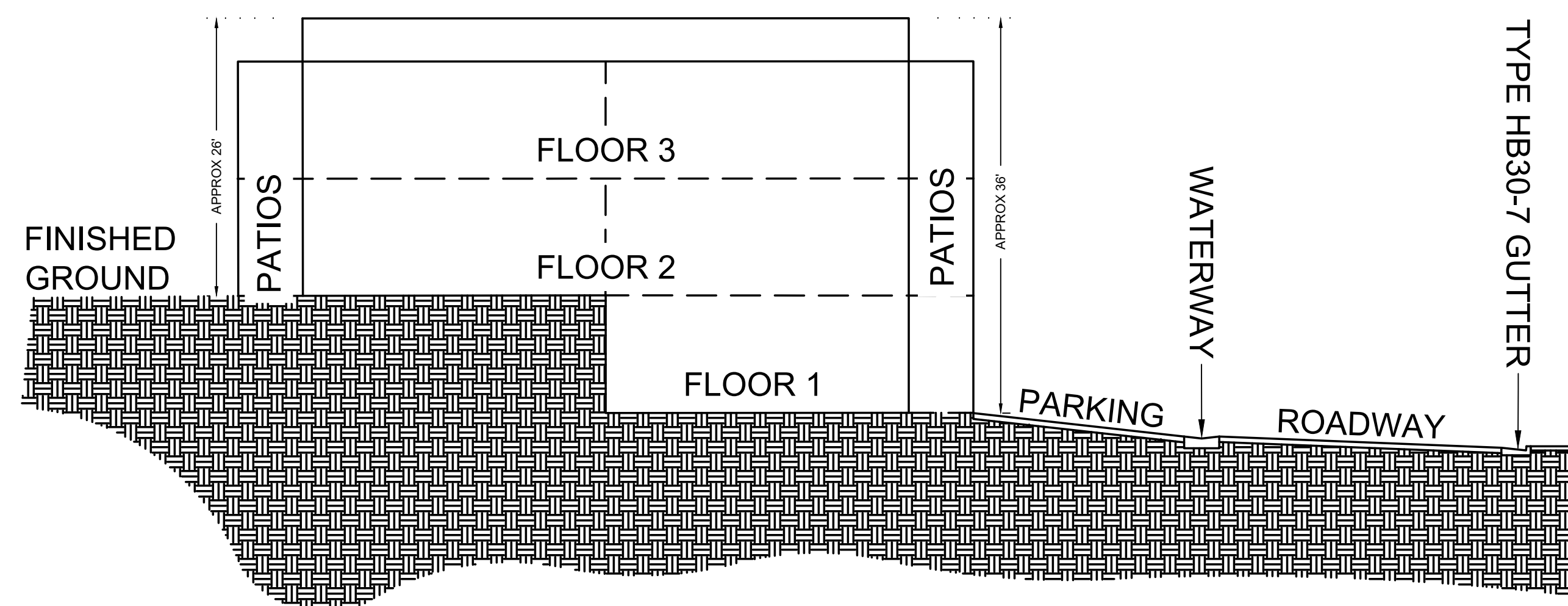
**BUSH & GUDGELL, INC.**  
 Engineers - Planners - Surveyors  
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 Phone (435) 673-2337 / Fax (435) 673-3161  
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DATE: MAY 2024  
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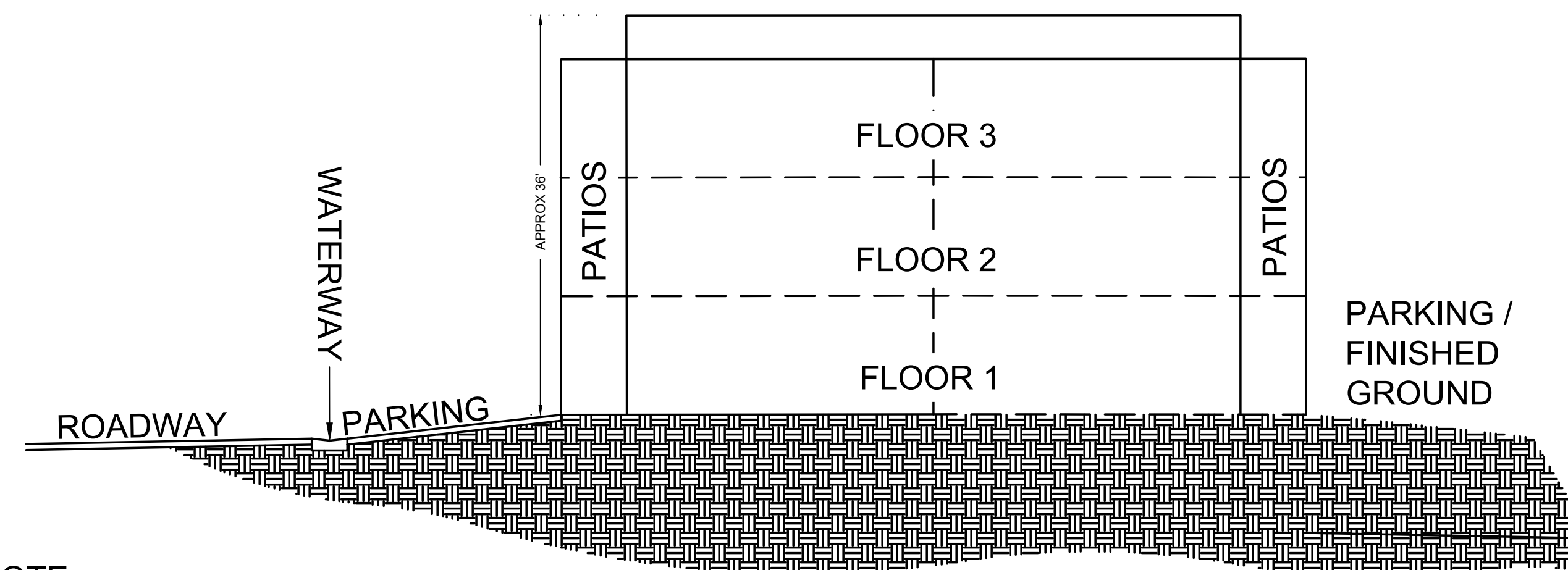
**UTILITY PLAN**  
**ROCKWORTH APARTMENTS**  
**LOCATED IN WASHINGTON, UTAH**





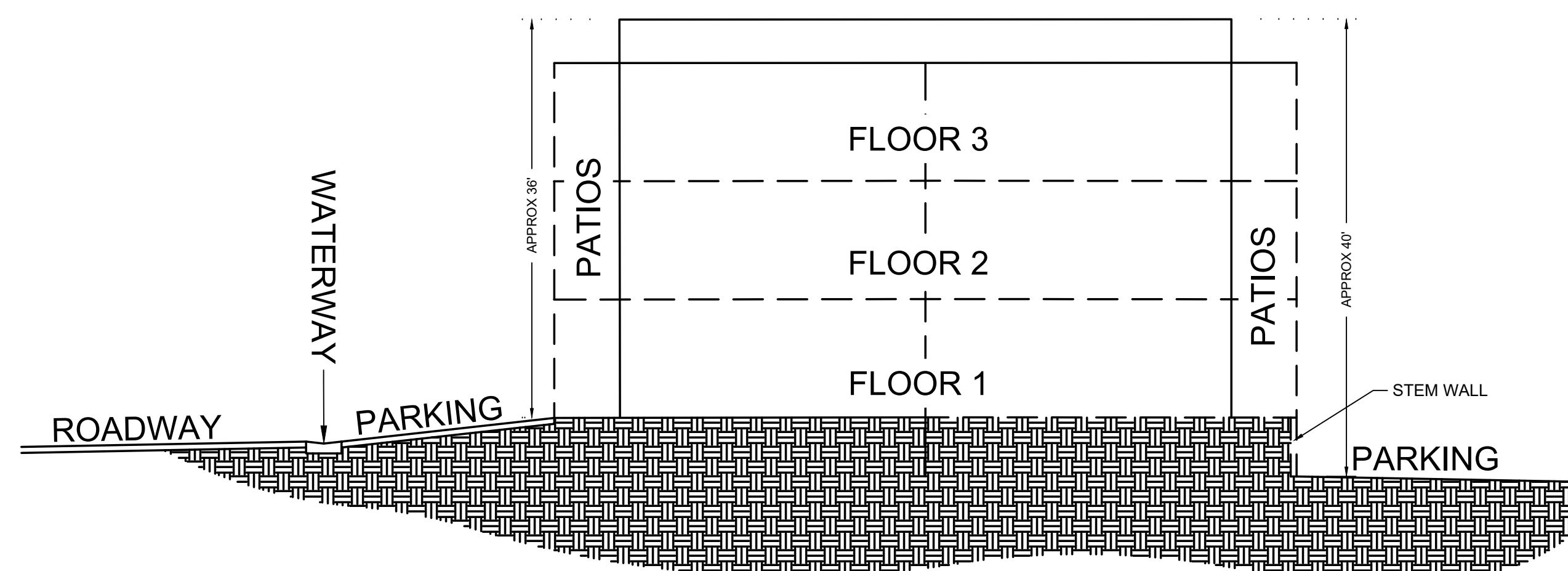
NOTE:  
THIS CROSS SECTION APPLIES  
TO BUILDING B

**A** UNIT DETAIL  
SCALE: 1" = 20'



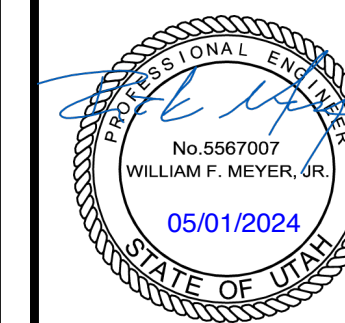
NOTE:  
THIS CROSS SECTION APPLIES  
TO BUILDINGS C, E, & G

**C** UNIT DETAIL  
SCALE: 1" = 20'

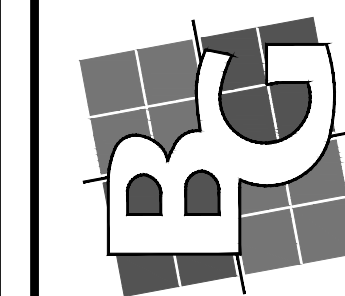


NOTE:  
THIS CROSS SECTION APPLIES  
TO BUILDINGS A, D, & F

**B** UNIT DETAIL  
SCALE: 1" = 20'

[illegible]

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DATE: MAY 2024  
DRAWN: CBW/MG  
APPROVED: WFM  
SCALE: NOTED

## DETAILS

ROCKWORTH APARTMENTS  
LOCATED IN WASHINGTON, UTAH

SHEET  
5 OF 5  
SHE





DATE	PROJECT NUMBER	PROJECT NAME	DEVELOPER / LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWN BY
3/20/2024	UT22098	RESIDENCES AT MILLCREEK WASHINGTON, UTAH	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455		JTA
NO.	REVISION	DATE			
1	XXXX	XX-XX-XX			
2					
3					
4					
5					
6					
7					

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

GRAPHIC SCALE: 1" = 40'

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

LANDSCAPE PLAN  
PRELIMINARY PLANS NOT  
FOR CONSTRUCTION  
LP-COLOR



LANDSCAPE PLAN SPECIFICATIONS

- PART I - 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:
- Site Conditions
  - Guarantees
  - Maintenance
  - Soil Amendments
  - Fine Grading
  - Landscape Edging
  - Furnish and Installing Plant
  - Turf Planting
  - Weed Barrier
- 1.2 SITE CONDITIONS
- A. Examination: Before submitting a Bid, each Contractor shall carefully examine the Contract Documents; shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the Bid the cost of all items required by the Contract Documents as 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 proportionated 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 conditions and shall replace any and all plant material that is lost due to improper application of water.
- 1.8 GUARANTEE
- A. Guarantee: A guarantee period of one year shall begin from end of maintenance period and final acceptance for trees, shrubs, and ground covers. All plants shall grow and be healthy for the guarantee period and trees shall live and grow in acceptable upright position. Any plant not alive, in poor health, or in poor condition at the end of the guarantee period will be replaced immediately. Any plant will only need to be replaced once during the guarantee period. Contractor to provide documentation showing where each plant to be replaced is located. Any outside factors, such as vandalism or lack of maintenance on the part of the Owner, shall not be part of the guarantee.

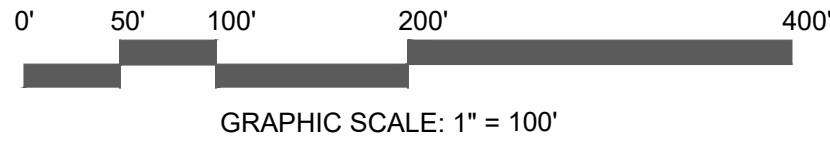
- PART II - PRODUCTS
- 2.1 LANDSCAPE MATERIALS
- A. Tree Staking: All trees shall be staked for one year warranty period. All trees not plumb shall be replaced. Staked trees shall use vinyl tree ties and tree stakes two (2) inch by two (2) by eight (8) foot common pine stakes used as shown on the details.
- B. Tree Wrap: Tree wrap is not to be used.
- C. Mulch/Rock: See Plans. All planter beds to receive a minimum 3" layer for trees, shrubs, and perennials and 1" for groundcovers.
- D. Weed Barrier: DeWitt 5 oz. weed barrier fabric. Manufactured by DeWitt Company, dewittcompany.com or approved equal.
- E. Tree, Shrub, and Grass Backfill Mixture: Backfill mixture to be 75% native soil and 25% topsoil, thoroughly mixed together prior to placement.
- F. Topsoil: Required for turf areas, planter beds and Backfill Mixture. Acceptable topsoil shall meet the following standards:
- PH: 5.5-7.5
  - EC (electrical conductivity): < 2.0 mmhos per centimeter
  - SAR (sodium absorption ration): < 3.0
  - % OM (percent organic matter): >1%
  - Texture (particle size per USDA soil classification): Sand <70%; Clay < 30%; Silt < 70%; Stone fragments (gravel or any soil particle greater than two (2) mm in size) < 5% by volume.
- G. Turf Sod: All sod shall be 18 month old as specified on plans (or approved equal) that has been cut fresh the morning of installation. Only sod that has been grown on a commercial sod farm shall be used. Only use sod from a single source.
- H. Landscape Curb Edging: six (6) inches by four (4) inches extruded concrete curb made up of the following materials:
- Washed mortar sand free of organic material.
  - Portland Cement (see concrete spec. below for type)
  - Reinforced fiber - Specifically produced for compatibility with aggressive alkaline environment of Portland cement-based composites.
  - Only potable water for mixing.
- I. Landscape Metal Edging: 5.5" steel edging with 18" dowels into the ground for stabilization.

- PART III - EXECUTION
- 3.1 GRADING
- A. Topsoil Preparation: Grade planting areas according to the grading plan. Eliminate uneven areas and low spots. Provide for proper grading and drainage.
- B. Topsoil Placement: Slope surfaced away from building at two (2) percent slope with no pockets of standing water. Establish finish grades of one (1) inches for planters below grade of adjacent paved surfaced. Provide neat, smooth, and uniform finish grades. Remove surplus sub-soil and topsoil from the site.
- C. Compaction: compaction under hard surface areas (asphalt paths and concrete surfaces) shall be ninety-five (95) percent. Compaction under planting areas shall be between eighty-five (85) and ninety (90) percent.
- 3.2 TURF GRADING
- A. The surface on which the sod is to be laid shall be firm and free from footprints, depressions, or undulations of any kind. The surface shall be free of all materials larger than 1/2" in diameter.
- B. The finish grade of the topsoil adjacent to all sidewalks, mow-strips, etc. prior to the laying of sod, shall be set such that the crown of the grass shall be at the same level as the adjacent concrete or hard surface. No exceptions.
- 3.3 PLANTING OPERATIONS
- A. Review the exact locations of all trees and shrubs with the Project Representative for approval prior to the digging of any holes. Prepare all holes according to the details on the drawings.
- B. Water plants immediately upon arrival at the site. Maintain in moist condition until planted.
- C. Before planting, locate all underground utilities prior to digging. Do not place plants on or near utility lines.
- D. The tree planting hole should be the same depth as the root ball, and two times the diameter of the root ball.
- E. Trees must be placed on undisturbed soil at the bottom of the planting hole.
- F. The tree hole depth shall be determined so that the tree may be set slightly high of finish grade, 1" to 2" above the base of the trunk flare, using the top of the root ball as a guide.
- G. Plant immediately after removal of container for container plants.
- H. Set tree on soil and remove all burlap, wire baskets, twine, wrappings, etc. before beginning and backfilling operations. Do not use planting stock if the ball is cracked or broken before or during planting operation.

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
3/22/2024	UT22098						
NO.	REVISION	DATE					
1	XXXX	XX-XX-XX					
2							
3							
4							
5							
6							
7							

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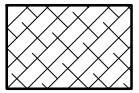

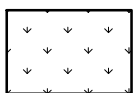

SHEET INDEX

- 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.
4. TURF - SOD LAYING
- A. Top Soil Amendments: Prior to laying sod, commercial fertilizer shall be applied and incorporated into the upper four (4) inches of the topsoil at a rate of four pounds of nitrogen per one thousand (1,000) square feet. Adjust fertilization mixture and rate of application as needed to meet recommendations given by topsoil analysis. Include other amendments as required.
- B. Fertilization: Three weeks after sod placement fertilize the turf at a rate of ½ pound of nitrogen per 1000 square feet. Use fertilizer specified above. Adjust fertilization mixture and rates to meet recommendations given by topsoil analysis.
- C. Sod Availability and Condition: Sod is to be delivered to the site in good condition. It is to be inspected upon arrival and installed within 24 hours. Sod is to be moist and cool to ensure that decomposition has not begun and is to be free of pests, diseases, or blemishes. The Contractor shall be fully responsible for furnishing and laying all sod required on the plans. He shall furnish new sod as specified above and lay it so as to completely satisfy the intent and meaning of the plans and specification at no extra cost to the owner. In the case of any discrepancy in the amount of sod to be removed or amount to be used, it shall be the Contractor's responsibility to report such to the Project Representative prior to commencing the work.
- D. Sod Laying: The surface upon which the new sod to be laid will be prepared as specified in the detail and be lightly watered before laying. Areas where sod is to be laid shall be cut trimmed, or shaped to receive full width sod (minimum twelve (12) inches). No partial strip or pieces will be accepted.
- E. Sod shall be tamped lightly as each piece is set to ensure that good contact is made between edges and also the ground. If voids or holes are discovered, the sod piece(s) is (are) to be raised and topsoil is to be used to fill in the areas until level. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.
- F. Sod shall be rolled with a roller that is at least 50% full immediately after installation to ensure the full contact with soil is made.
- G. Apply water directly after laying sod. Rainfall is not acceptable.
- H. Watering of the sod shall be the complete responsibility of the Contractor by whatever means necessary to establish the sod in an acceptable manner to the end of the Maintenance period. If an irrigation system is in place on the site, but for whatever reason, water is not available in the system. It is the responsibility of the Contractor to water the sod by whatever means, until the sod is accepted by the Project Representative.
- I. Protection of the newly laid sod shall be the complete responsibility of the Contractor. The Contractor shall provide acceptable visual barriers, to include barricades set appropriate distances with strings or tapes between barriers, as an indication of new work. The Contractor is to restore any damaged areas caused by others (including vehicular traffic), erosion, etc. until such time as the lawn is accepted by the Owner.
- J. All sod that has not been laid within 24 hours shall be deemed unacceptable and will be removed from the site.
- 3.5 WEED BARRIER
- A. For the health of the soil and the microorganisms, weed barrier is not recommended. If use is required or requested, do not place in annual or grass areas.
- B. Cut weed barrier back to the edge of the plant rootball.
- C. Overlap rows of fabric min. 6"
- D. Stable fabric edges and overlaps to ground.
- END OF SECTION

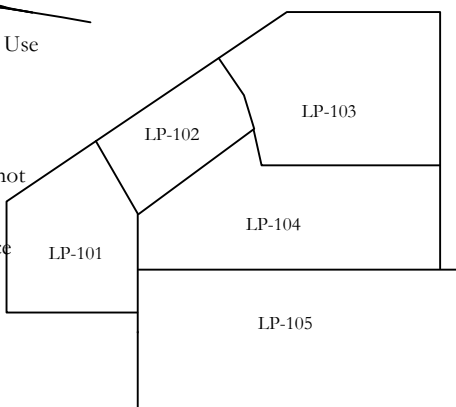
LANDSCAPE NOTES

- INSTALLATION
1. LANDSCAPE CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
2. DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
3. ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS, AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
4. SELECTED PLANTS WILL BE ACCORDING TO THE PLANT LEGEND. IF SUBSTITUTIONS ARE NECESSARY, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO LAYING SOD.
5. SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL. IF A MATCHING SOIL IS NOT LOCATABLE, A 6" DEPTH OF SANDY LOAM TOPSOIL, MIXED PRIOR TO SPREADING WITH 2-3" OF QUALITY COMPOST CAN BE INCORPORATED INTO THE EXISTING SOIL USING THE FOLLOWING DIRECTIONS: SCARIFY TOP 6" OF EXISTING SUBSOIL AND INCORPORATE 3" OF NEW COMPOST ENRICHED TOPSOIL. SPREAD REMAINING TOPSOIL TO REACH FINISHED GRADE.
6. SOD FOR NEW LAWN AREAS SHALL BE A DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
7. EDGING, AS INDICATED ON PLAN, IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS. ANY TREES LOCATED IN LAWN MUST HAVE A 4-6' TREE RING OF THE SAME EDGING.
8. IF REQUIRED BY CITY OR OWNER SPECIFIED, DeWitt 5 OZ WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN. WEED BARRIER SHALL BE CUT BACK FROM EACH PLANT TO THE DIAMETER OF THE ROOTBALL.
9. ROCK MULCH (INORGANIC MULCH) TO BE APPLIED AT THE FOLLOWING DEPTHS: 3" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL (ORGANIC MULCH). NO MULCH SHALL BE PLACED WITHIN 12" OF BASE OF TREE AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS.
10. A NEW UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED BY CONTRACTOR IN ALL LANDSCAPED AREAS. LAWN AREAS TO RECEIVE AT LEAST 100% HEAD TO HEAD COVERAGE AND PLANTER AREAS TO RECEIVE A FULL DRIP SYSTEM TO EACH TREE AND SHRUB. POINT SOURCE DRIP OR IN-LINE DRIP TUBING TO BE SECURED AT EDGE OF ROOTBALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN.
11. UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE.
- INSTALLER RESPONSIBILITIES AND LIABILITIES
1. THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS REQUIRED TO USE TRADE KNOWLEDGE FOR IMPLEMENTATION. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
2. LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND MATERIALS.



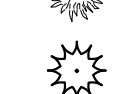


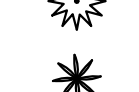

- GRADING AND DRAINAGE REQUIREMENTS
1. AS PER CODE, ALL GRADING IS TO SLOPE AWAY FROM ANY STRUCTURE. SURFACE OF THE GROUND WITHIN 10' FEET OF THE FOUNDATION SHOULD DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6"
2. AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
3. A MINIMUM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

SYMBOL	1 LANDSCAPE DESCRIPTION	QTY
 <div>1-22</div>	PLAYGROUND SURFACE. SOF' FALL ENGINEERED WOOD FIBER. INSTALL AS PER MANUFACTURERS SPECIFICATIONS.	84.79 cy
 <div>1-17</div>		
SYMBOL	1 LANDSCAPE DESCRIPTION	QTY
 <div>1-23</div>	ARTIFICIAL TURF. INSTALL PER MANUFACTURER SPECIFICATIONS.	4,488 sf
 <div>1-19</div>		


SHEET INDEX



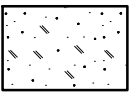
SUCCULENTS

	AM2	33	Agave americana 'Marginata' Variegated Century Plant	5 gal
	AT	110	Agave parryi truncata Artichoke Parry's Agave	5 gal
	DQ'M	54	Dasylirion quadrangulatum Mexican Grass Tree	5 gal
	DW'S	81	Grey Desert Spoon	5 gal
	FS	21	Fouquieria splendens Ocotillo	5 gal
	HF'G	17	Hesperaloe funifera Giant Hesperaloe	5 gal
	NM'S	74	Nolina microcarpa Sacahuista	5 gal

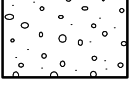
SITE MATERIALS LEGEND

- 


1-01

 15,532 sf
- SODDED LAWN AREA  
LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH RTF WATER SAVER RHIZOMATOUS TALL FESCUE. SEE REDDESERTSODFARM.COM. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.  
ALL LAWN AREAS TO RECEIVER MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED LAWN.  
ALL LAWN AREAS SHALL BE IRRIGATED WITH 100% COVERAGE BY POP-UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR FOOT(4') DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.
- 

1-09

 74,665 sf
- 1/2" MINUS MOHAVE GOLD CRUSHED ROCK OR APPROVED EQUAL. SEE CHEYENNEROCK.COM  
ROCK MULCH PLANTING AREAS TO RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. KEEP ROCK FROM WITHIN ONE FOOT OF TREE TRUNK, SHRUB OR PERENNIAL STEM OR GRASS ROOT BALL.  
INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL ROCK AREAS. KEEP WEED BARRIER 1' AWAY FROM EDGE OF ROOT BALL OF ALL PLANTS.
- 

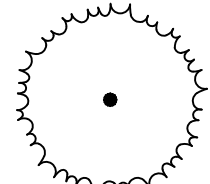

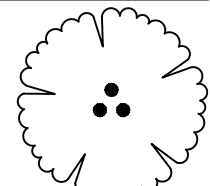

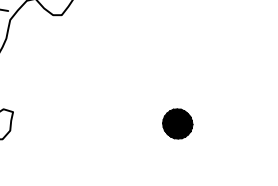
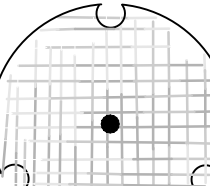

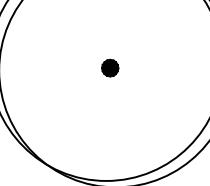
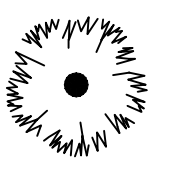
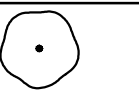









1-10

 833 sf
- 1" MINUS WASATCH GREY CRUSHED ROCK OR APPROVED EQUAL.  
ROCK MULCH PLANTING AREAS TO RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. KEEP ROCK FROM WITHIN ONE FOOT OF TREE TRUNK, SHRUB OR PERENNIAL STEM OR GRASS ROOT BALL.  
INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL ROCK AREAS. KEEP WEED BARRIER 1' AWAY FROM EDGE OF ROOT BALL OF ALL PLANTS.
- 

1-13

 47,296 sf
- 2-8" REDWOOD COBBLE OR APPROVED EQUAL  
SEE LANDSCAPESUPPLYUTAH.COM  
ROCK MULCH PLANTING AREAS TO RECEIVE MIN. 12" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF ROCK MULCH TOP DRESSING. KEEP ROCK FROM WITHIN ONE FOOT OF TREE TRUNK, SHRUB OR PERENNIAL STEM OR GRASS ROOT BALL.  
INSTALL DEWITT 5OZ WEED BARRIER LANDSCAPE FABRIC UNDER ALL LARGE ROCK AREAS. KEEP WEED BARRIER 1' AWAY FROM EDGE OF ROOT BALL OF ALL PLANTS.

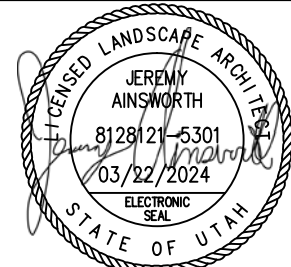
PLANT LEGEND

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
CONIFERS						
	CA'B	9	Cupressus arizonica glabra 'Blue Ice' Blue Ice Arizona Cypress	B & B		5'-6'
	CS'I	25	Cupressus sempervirens Italian Cypress	B & B		5'-6'
DECIDUOUS TREES						
	CL'B	11	Chilopsis linearis 'Burgundy Lace' Burgundy Lace Desert Willow	B & B	Multi-trunked	
	LX'A	23	Lagerstroemia indica x fauriei 'Arapaho' Arapaho Crape Myrtle	B & B	Multi-trunked	
	PCR	11	Pistacia chinensis 'Red Push' Red Push Chinese Pistache	B & B	2"Cal	
	AS'S	29	Acacia stenophylla Shoestring Acacia	B & B	2"Cal	
	C'DM	6	Cercidium x 'Desert Museum' Desert Museum Palo Verde	B & B		
	OE'W	12	Olea europaea 'Wilsonii' Wilson Olive	B & B	2"Cal	
PALMS						
	WF'C	19	Washingtonia filifera California Fan Palm	B & B	2"Cal	
DECIDUOUS SHRUBS						
	LT'C	30	Larrea tridentata Creosote Bush		5 gal	
	SG'R	192	Salvia greggii 'Red' Red Autumn Sage		3 gal	
EVERGREEN SHRUBS						
	LL'L	99	Leucophyllum langmaniae 'Lynn's Legacy' Lynn's Legacy Texas Sage		5 gal	
	LZ'C	20	Leucophyllum zygophyllum Cimmeron Texas Sage		5 gal	
	RO'P	82	Rosmarinus officinalis 'Prostratus' Creeping Rosemary		5 gal	
	SP'B	38	Salvia pachyphylla 'Blue Flame' Blue Flame Blue Sage		2 gal	
GRASSES						
	MR'D	253	Muhlenbergia rigens Deer Grass		2 gal	
PERENNIALS						
	BM'D	107	Baileya multiradiata Desert Marigold		1 gal	
	GL'P	101	Gaura lindheimeri 'Siskiyow Pink' Siskiyow Pink Gaura		1 gal	
	LSS	82	Lavandula stoechas Spanish Lavender		1 gal	

AE URBIA  
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SOUTH JORDAN, UT 84095  
801-575-6455



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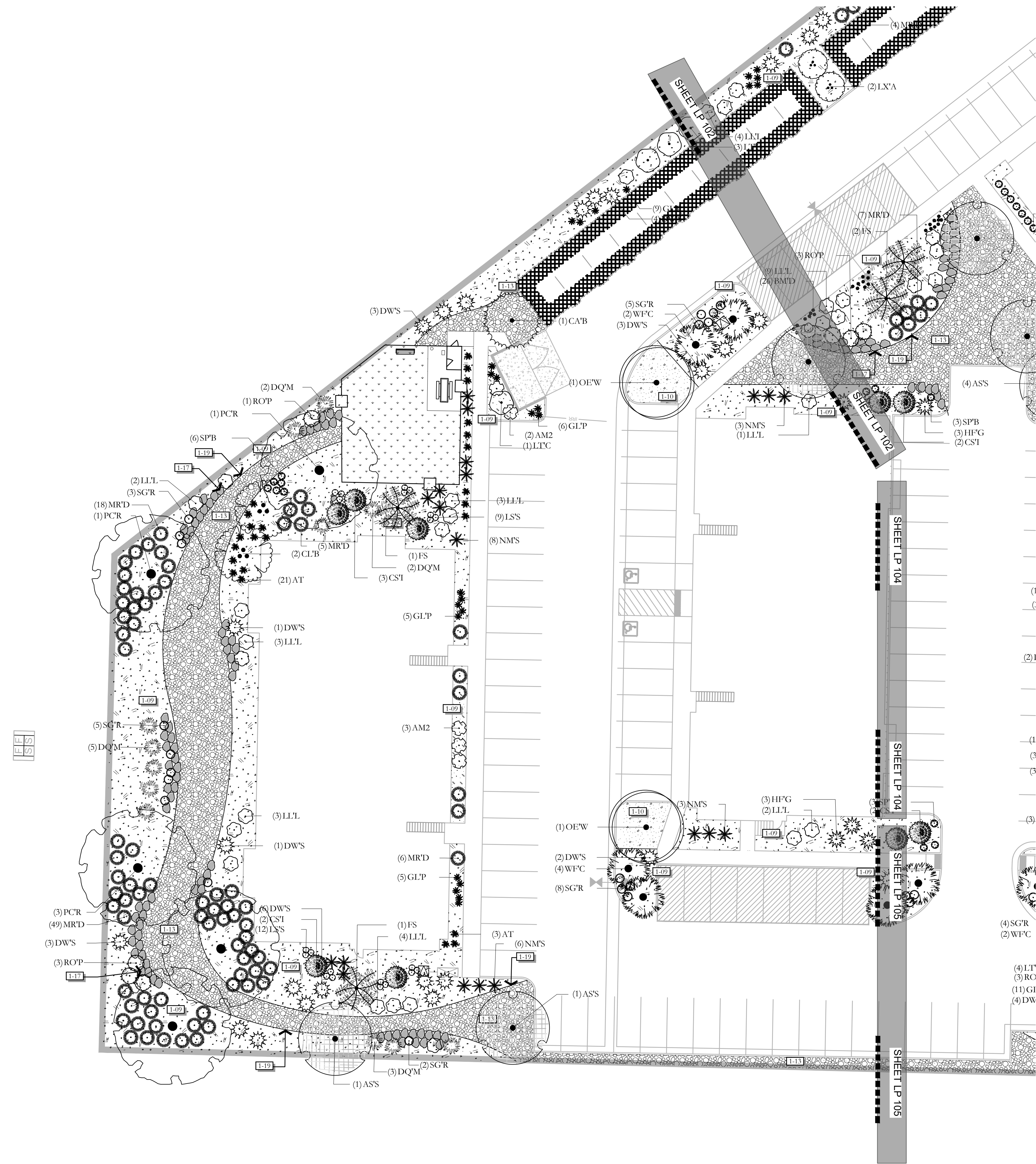
PM:	JTA
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CHECKED:	JMA
PLOT DATE:	3/22/2024

LANDSCAPE PLAN COVER  
PERMIT SET

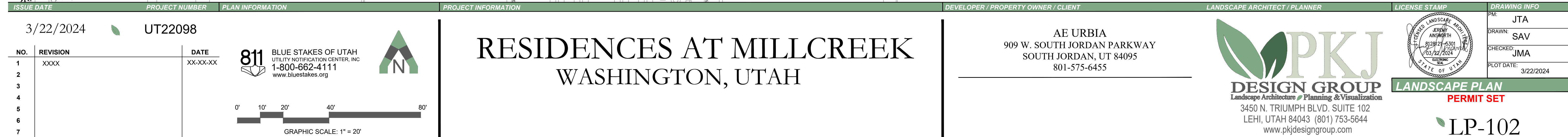
















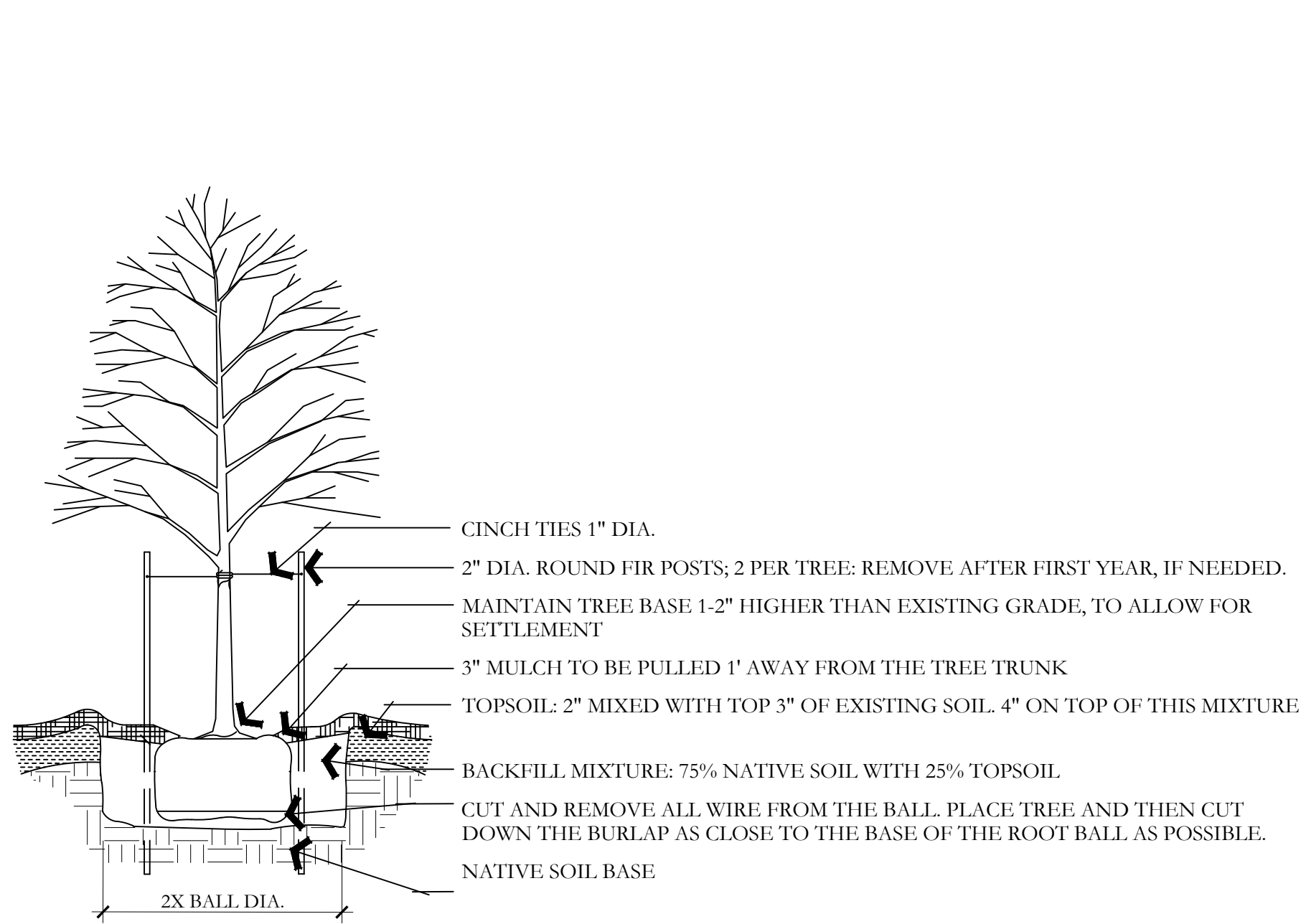




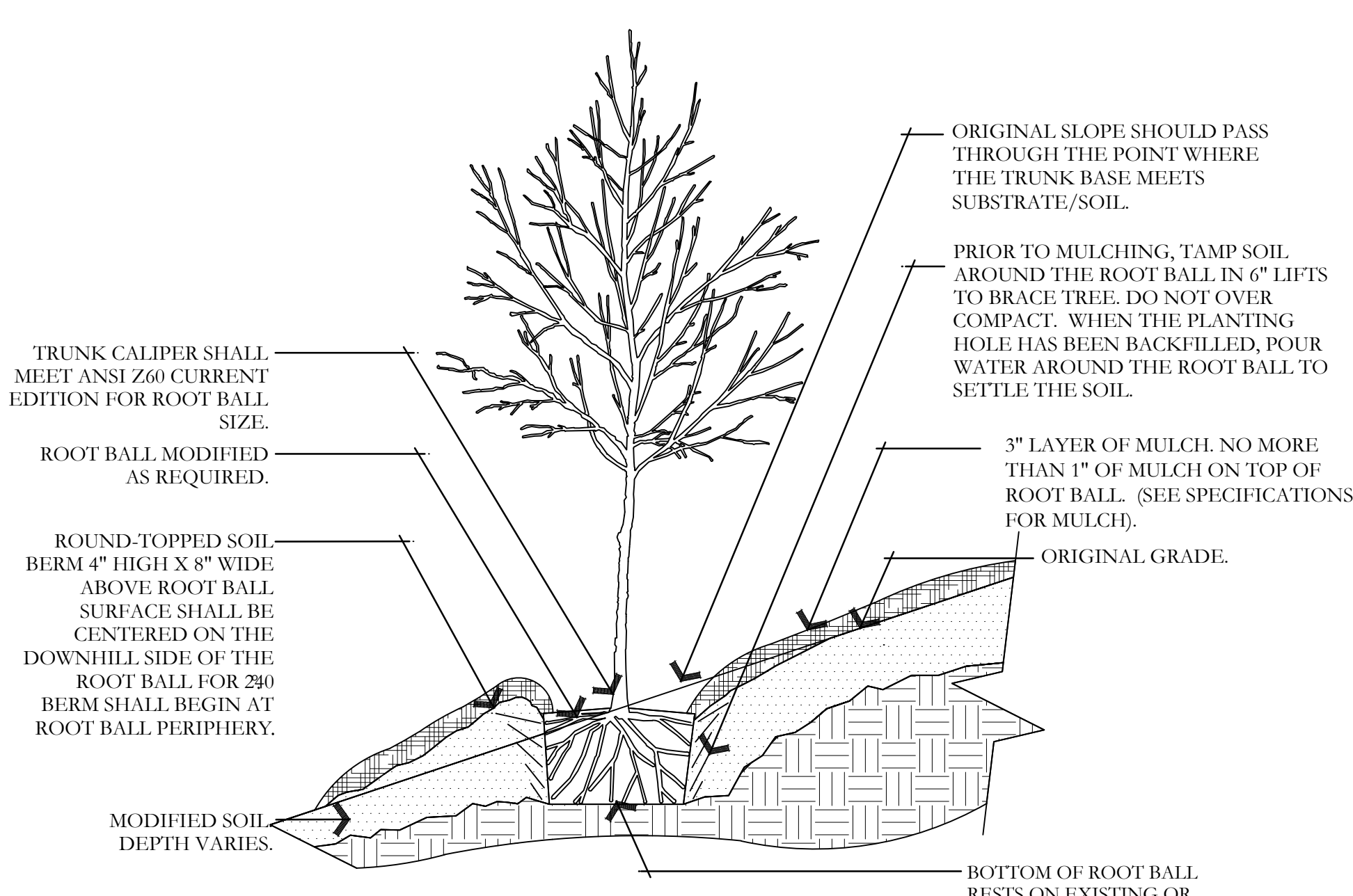




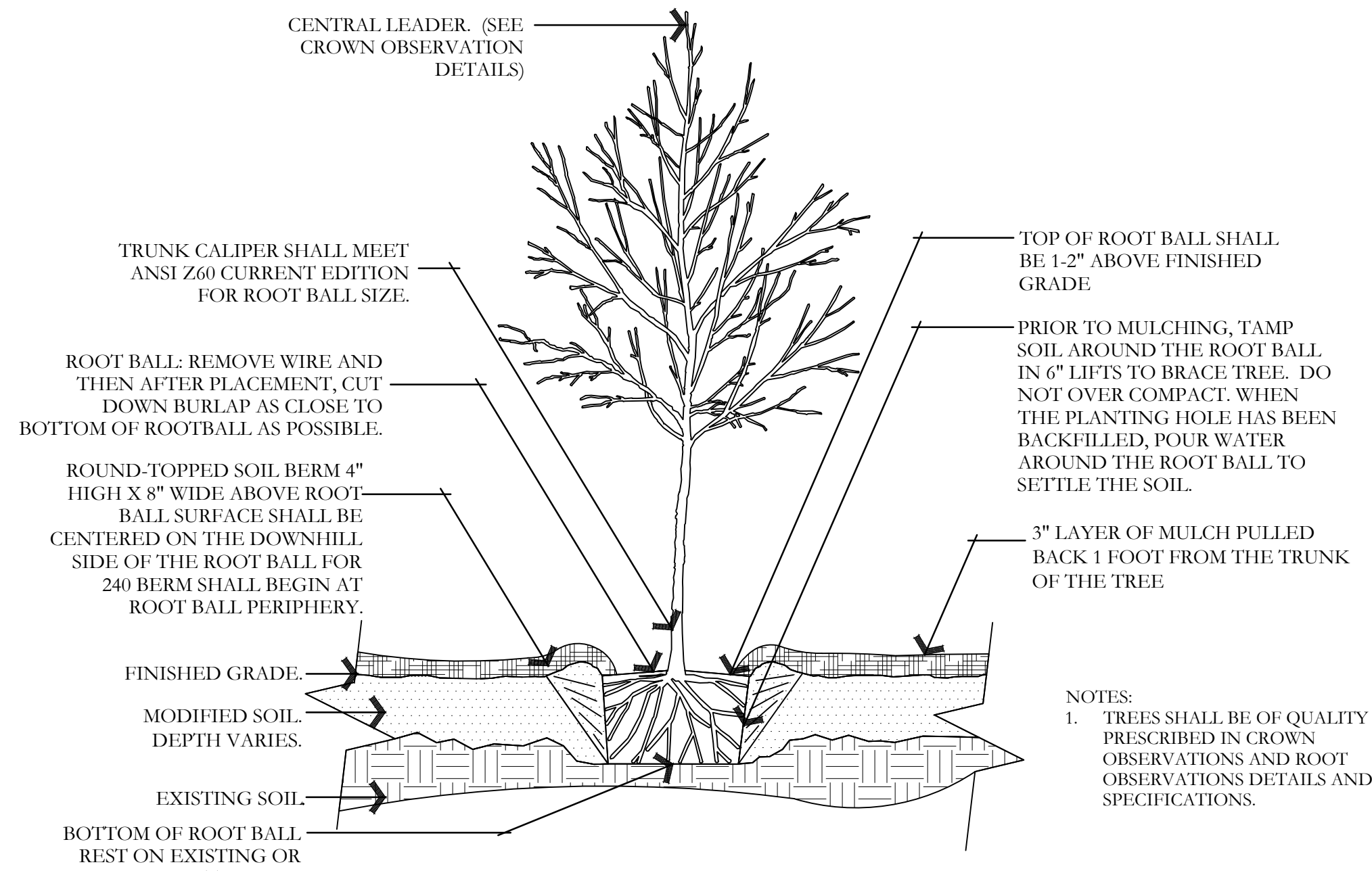




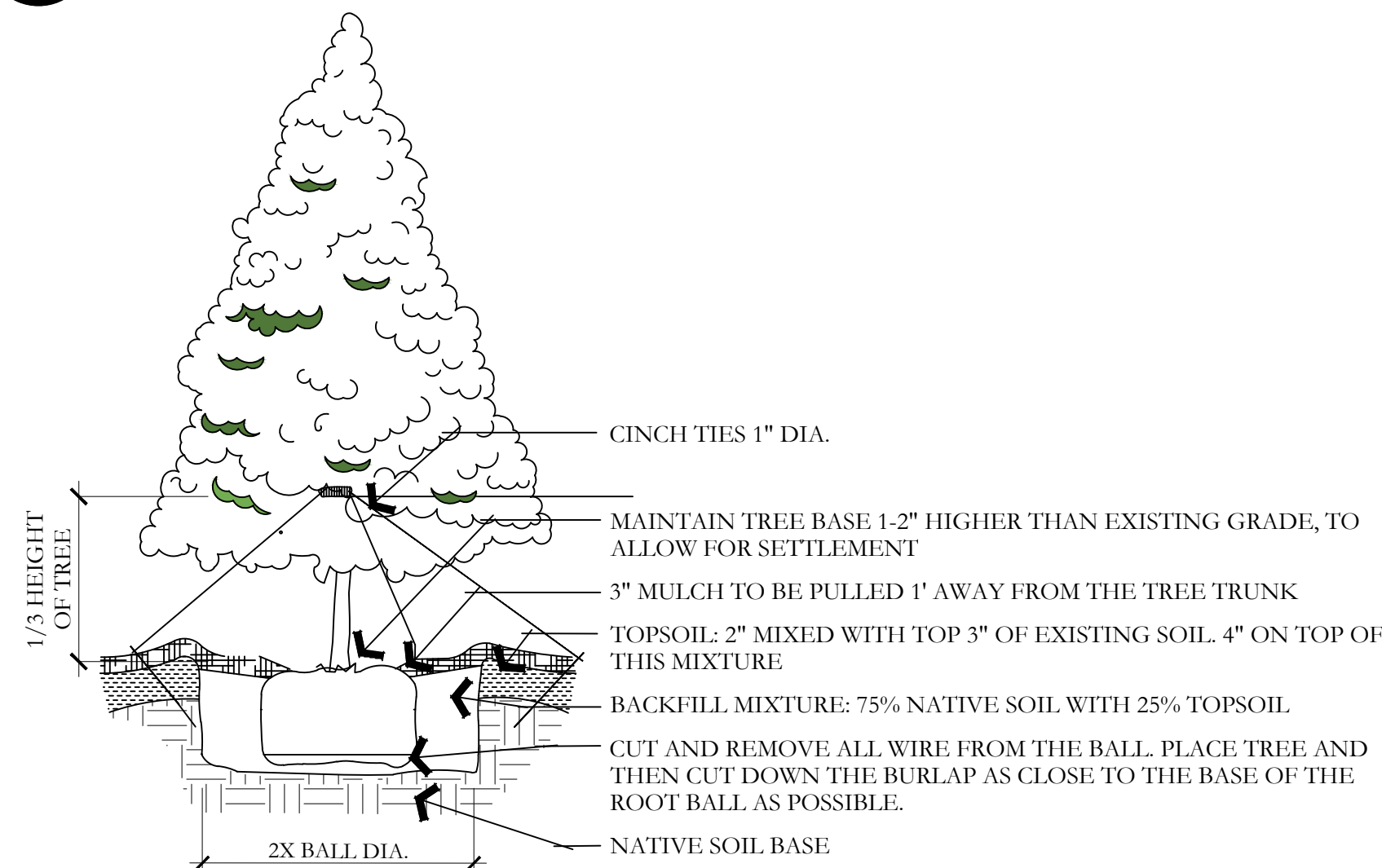
A DECIDUOUS TREE PLANTING  
NOT TO SCALE



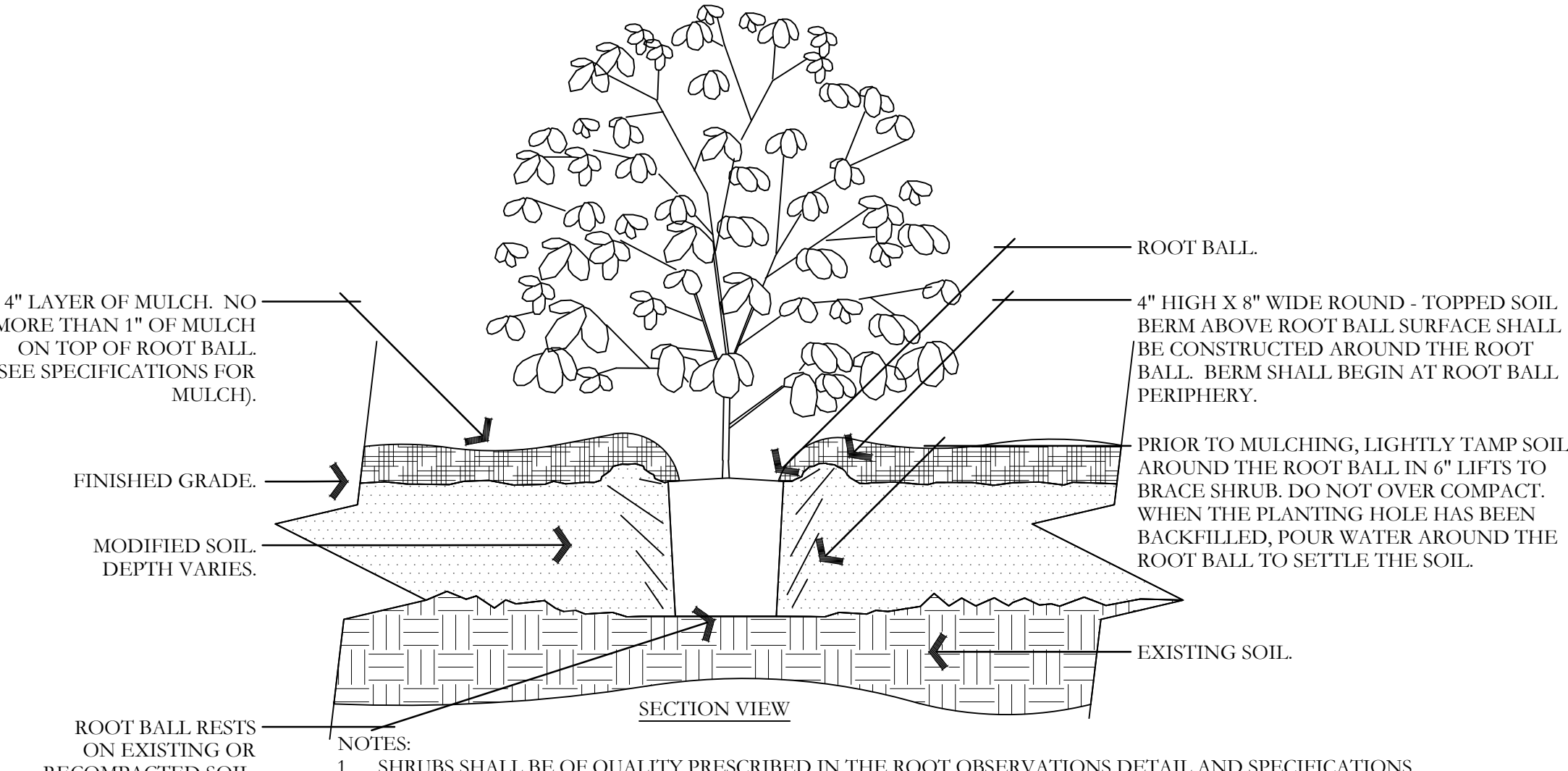
B TREE ON SLOPE 5% (20:1) TO 50% (2:1)  
NOT TO SCALE



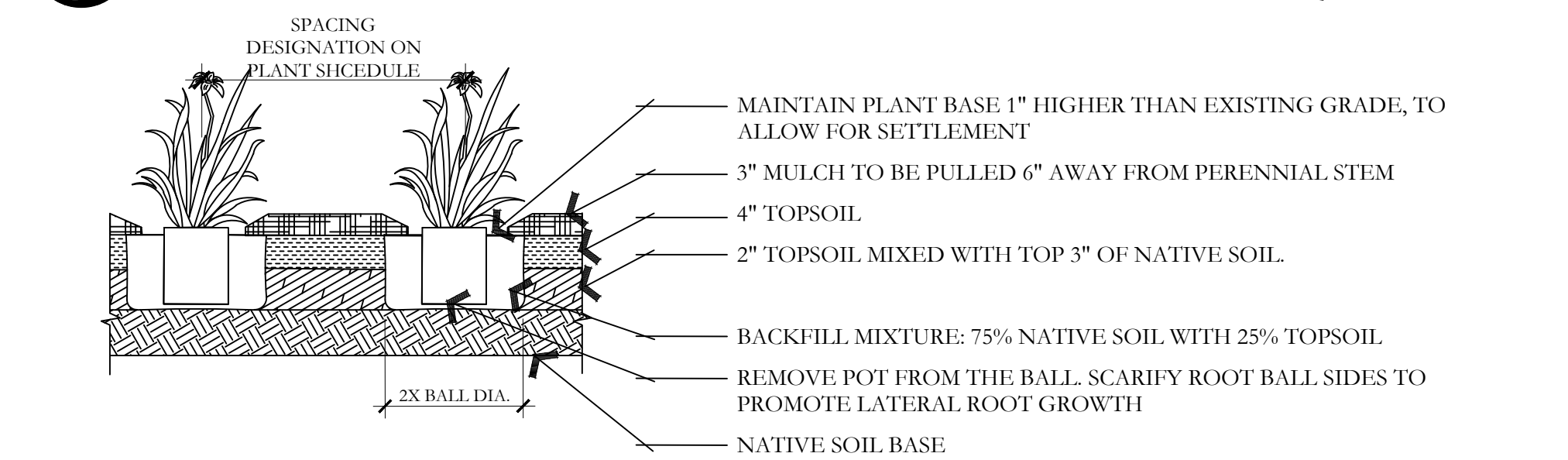
C TREE W/ BERM (EXISTING SOIL MODIFIED)  
NOT TO SCALE



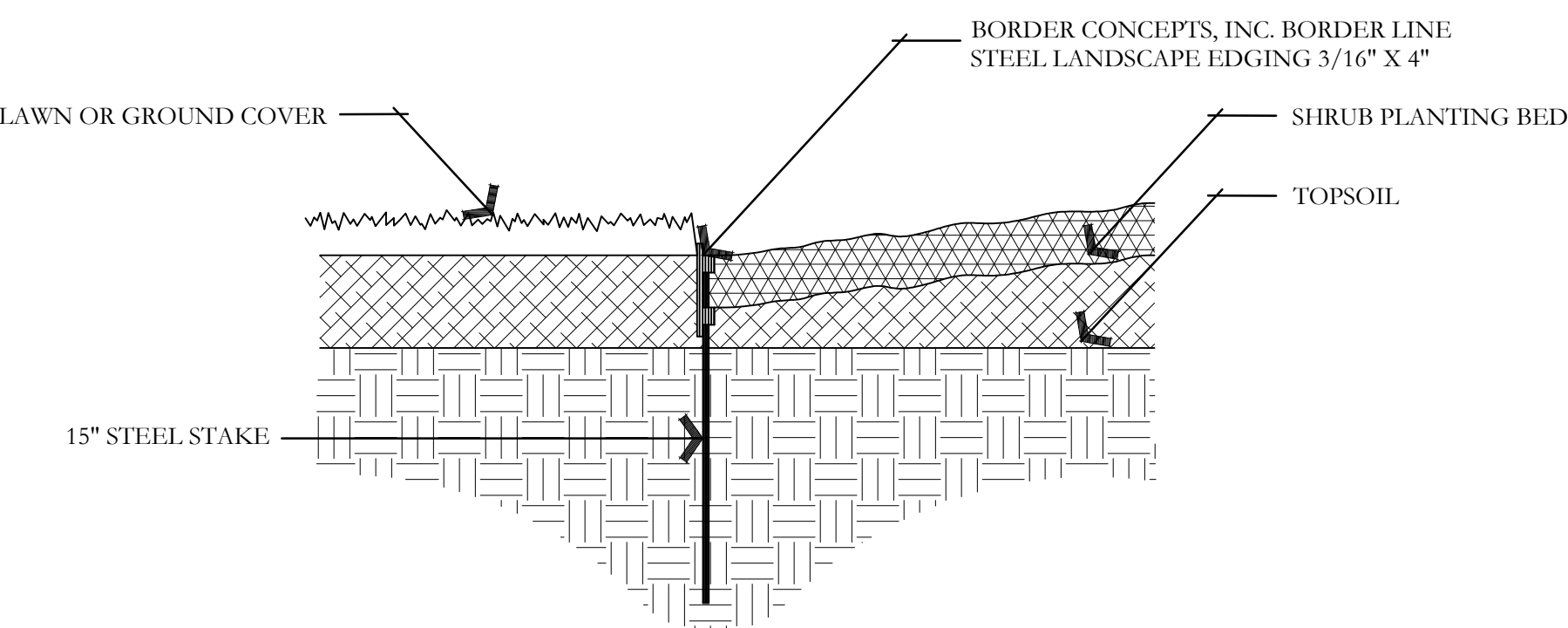
D EVERGREEN TREE PLANTING  
NOT TO SCALE



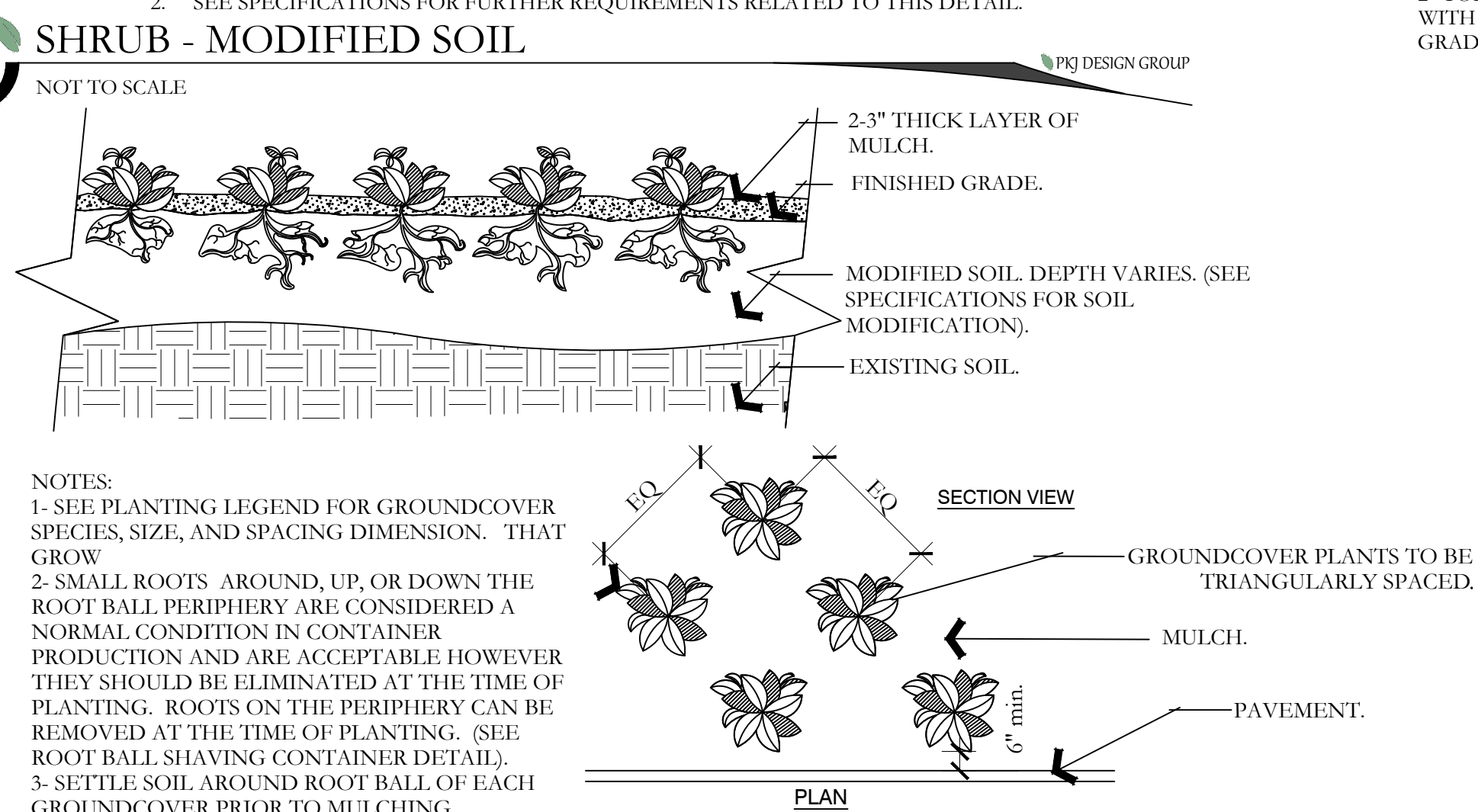
E SHRUB - MODIFIED SOIL  
NOT TO SCALE



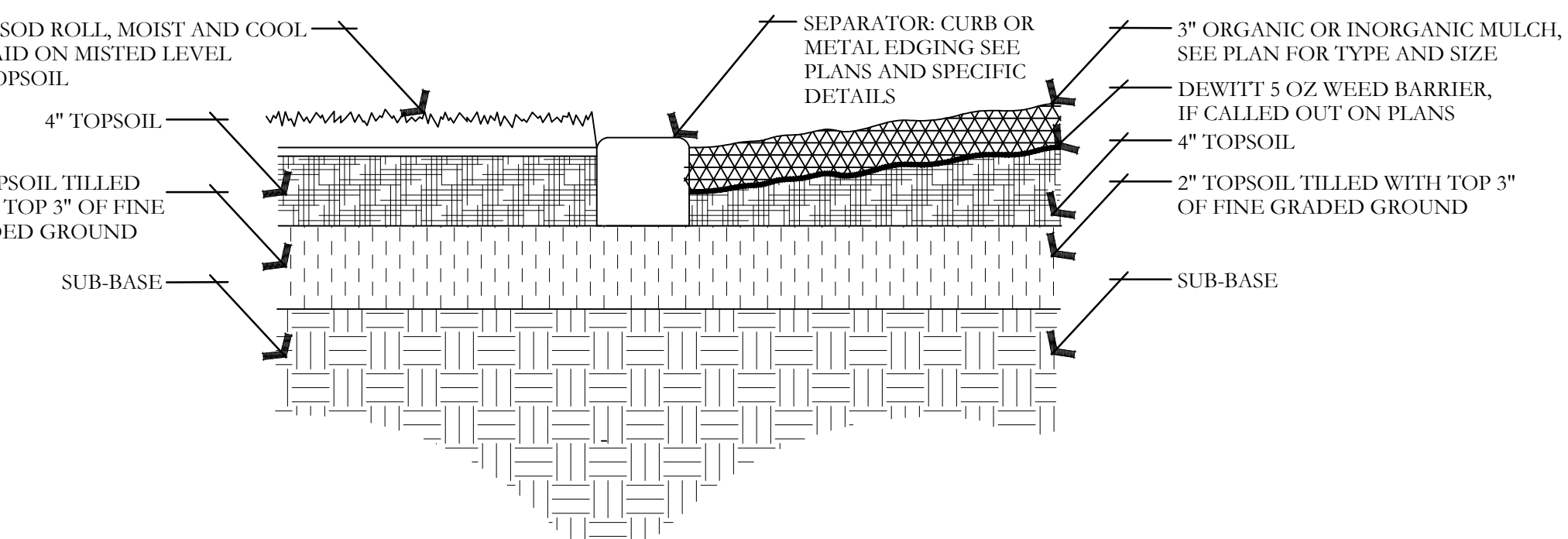
F PERENNIAL PLANTING  
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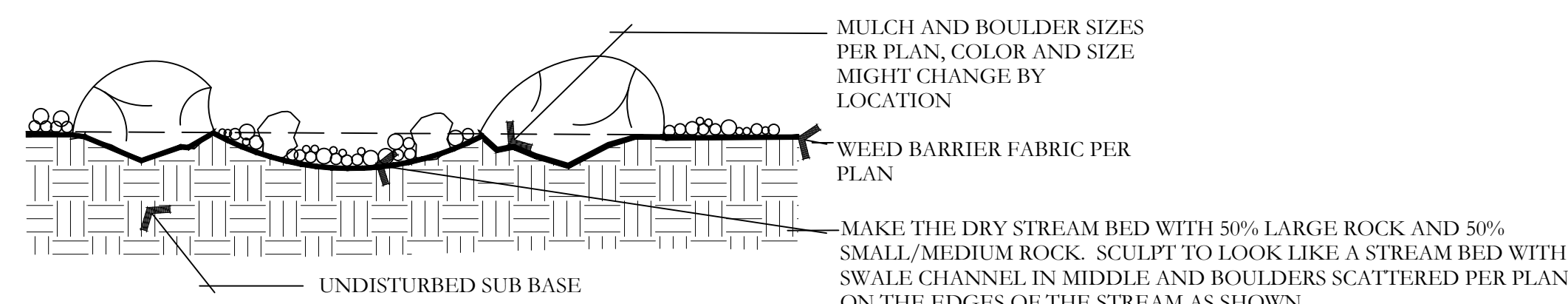
G METAL EDGING DETAIL  
NOT TO SCALE



H PERENNIAL/GROUND COVER PLANTING  
NOT TO SCALE



I SOD LAYING/MULCH DETAIL  
NOT TO SCALE



J BOULDER AND DRY STREAM BED DETAIL  
NOT TO SCALE

ISSUE DATE		PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
3/22/2024		UT22098			AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com		PM: JTA DRAWN: SAV CHECKED: JMA PLOT DATE: 3/22/2024
NO.	REVISION	DATE						
1	XXXX	XX-XX-XX						
2								
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## RESIDENCES AT MILLCREEK WASHINGTON, UTAH

LANDSCAPE DETAILS  
PERMIT SET

LP-501



# RESIDENCES AT MILLCREEK

## WASHINGTON, UTAH

### IRRIGATION PLAN 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. Remove and dispose of any existing sprinkler system components which are disturbed during the construction process and are not to be saved. Restoration of any altered or damaged existing landscape to original state and condition.

###### 1.2 SYSTEM DESCRIPTION

A.Design of irrigation components: Locations of irrigation components on Construction Drawings may be approximate. Piping, sleeving and/or other components shown on Construction drawings may be shown schematically for graphic clarity and demonstration of component groupings and separations. All irrigation components shall be placed in landscaped areas, with the exception of 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 backflow preventor, 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 backflow preventor, saddle, nipples, spools, isolation valves or Stop and Waste valve for landscape irrigation needs and use.

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

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

###### 1.4 REFERENCES

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

- ASTM-American Society for Testing and Materials
- 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 proceeded 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:

- At least thirty (30) days prior to final inspection, the Contractor shall provide Operation and Maintenance manual to OAR, containing:
  - Manufacturer catalog cut sheet and current printed specifications for each element or component of the irrigation system.
  - Parts list for each operating element of the system.
  - Manufacturer printed literature on operation and maintenance of operating elements of the system.
- Section listing instructions for overall system operation and maintenance. Include directions for Spring Start-up and Winterization.
- Project Record Copy
- 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.
- Completed Project As-Built Drawings

- Prior to final inspection, prepare and submit to OAR accurate as-built drawings including 2 wire path and junction box locations.
- Show detail and dimension changes made during installation. Show significant details and dimensions that were not shown in original Contract Documents.
- 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.
- Dimensions are to be taken from permanent constructed surfaces, features, or finished edges located at or above finished grade.
- 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 serves. Laminate map with heat shrink clear plastic.

###### 1.6 QUALITY ASSURANCE

- A.Acceptance: Do not install work in this section prior to acceptance by OAR.
- B.Regulatory Requirements: All work and materials shall be according to any and all rules, regulations or codes, whether they are State or Local laws and ordinances. Contract documents, drawings or specifications may not be construed or interpreted to permit work or materials not conforming to the above codes.
- C.Adequate Water Supply: Water supply to this Project exists, installed by others. Connections to these supply lines shall be by this Contractor. Verify that proper connection is available to supply line and is of adequate size. Verify that secondary connection components may be installed if necessary. Perform static pressure test prior to commencement of work at supplied POC. Notify OAR in writing of problems encountered and pressure reading prior to proceeding.

###### D. Workmanship and Materials:

- 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.
  - All work shall be performed in accordance with the best standards of practice relating to the trade.
- E.Contract Qualifications:
- Contractor shall provide document or resume including at least the following items:
    - That Contractor has been installing sprinklers on commercial projects for five previous consecutive years.
    - Contractor is licensed to perform Landscape and Irrigation construction in the State of this Project.
  - Contractor is bondable for the work to be performed.
  - References of five projects of similar size and scope completed within the last five years. Three of the projects listed shall be local.
  - Listing of suppliers where materials will be obtained for use on this Project.
  - 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.

- Evidence that Contractor currently employs workers in sufficient quantities to complete Project within time limits that are established by the Contractor.
- All General laborers or workers on the Project shall be previously trained and familiar with sprinkler installation and have a minimum of one-year experience. Those workers performing tasks related to PVC pipe shall have certificates designated below.

###### 1.7 DELIVERY-STORAGE-HANDLING

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

###### 1.8 SEQUENCING

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

###### 1.9 WARRANTY

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

###### 1.10 OWNERS 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:

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

#### PART 2 - PRODUCTS

##### 2.1 GENERAL NOTES

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

##### 2.2 POINT OF CONNECTION

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

##### 2.3 CONNECTION ASSEMBLY

A.Culinary water shall be used on this Project. Install backflow preventor and RPZ as needed.

##### 2.4 CONTROL SYSTEM

A.Power supply to the irrigation controller shall be provided for by this Contract. To be installed by owner or electrical contractor.

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

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

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

- A minimum of 36" of additional wire shall be left at each valve, each splice box and at each controller.
- 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.
- Wire splice connectors shall use 3M brand DBV wire connectors. 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.Contractors shall be responsible to protect existing underground utilities and components. Sleeving minimum size shall be 2". Sleeving 2" through 4" in size shall be SCH40 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 sleeves size 4" and larger shall be capped with integral corresponding sized PVC cap caps, pressure fit, unit used, to prevent contamination. Sleeves shall be installed at appropriate depths for main line pipe or lateral pipe.

##### 2.6 MAIN LINE PIPE

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

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

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

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

##### 2.7 MAIN LINE FITTINGS

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

##### 2.8 ISOLATION VALVES

A.Isolation valves 3" and larger shall be Waterson 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 SCH80 PVC TOE Nipples on both sides of the valve. Valve shall be placed so that the handle is vertical toward the top of the valve box in the 'off' position.

##### 2.9 MANIFOLDS

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

##### 2.10 REMOTE CONTROL VALVES

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

##### 2.11 MANUAL CONTROL VALVES

A.Quick coupler valve shall be attached to the manifold sub-main line using a Lasco G17S212 swing joint assembly with snap-lock outlet and brass stabilizer elbow. Quick coupler valve shall be placed within a Carson 10" round valve box. Top of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and operation of key. Base of quick coupler valve and top of quick coupler swing joint shall be encased in 3/4" 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 S/40 PVC

##### 2.14 Spray Sprinklers

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

##### 2.15 RAIN BIRD 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 parked 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 unsuitable 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 Landscape Architect or OAR's approval and must be designated as accepted in writing.

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

#### PART 3 - EXECUTION

##### 3.1 PREPARATION

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

##### 3.2 TRENCHING AND BACKFILLING

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

##### 3.3 SLEEVING

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

##### 3.4 GRADES AND DRAINAGE

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

##### 3.5 PVC PIPE

- Install pipe to allow for expansion and contraction as recommended by pipe manufacturer.
- Install main line pipes with 18" of cover, lateral line pipes with 12" of cover.
- 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.
- Plastic pipe shall be cut squarely. Burs shall be removed. Spigot ends of pipes 3" and larger shall be beveled.
- PE pipe shall not be glued unless ambient temperature is at least 50 degrees F. PE pipe shall not be glued in many 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.
- 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

- All grounding for pedestal controllers shall be as directed by controller manufacturer and ASIC guidelines, not to exceed a resistance reading of 5 OHMs.
- Locate controllers in protected, inconspicuous places, when possible. Coordinate location of pedestal controllers with Landscape Architect to minimize visibility.
- 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 structure. If exterior mounted, wall mount controllers shall have electrical service wire and field control wire in separate, appropriate sized weatherproof electrical conduit, PVC pipe shall not be used.
- Wiring under hardscape surfaces shall be placed continuously in conduit. Contractor shall be responsible to coordinate sleeving needs for conduit or sweeps elbows from exterior to interior of building.

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 this 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 3/4" washed gravel beneath valve box for drainage. Bottom of remote control valve shall be a minimum of 2" above gravel.

##### 3.8 SPRINKLER HEADS

- No sprinkler shall be located closer than 6" to walls, fences, or buildings.
- Heads adjacent to walks, curbs, or paths shall be located at grade and 2" away from hardscape.
- Control valves shall be opened. Then fully flush lateral line pipe and swing joints prior to installation of sprinklers.
- Spray heads shall be installed and flushed again prior to installation of nozzles.
- Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction.

##### 3.9 FIELD QUALITY CONTROL

- Main line pipes shall not be backfilled or accepted until the system has been tested for 2 hours at 100 psi.
- 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.
- Contractor shall provide pressurized water pump to increase or boost pressure where existing static pressure is less than 100 psi.
- Schedule testing with OAR 48 hours in advance for approval.
- Leaks or defects shall promptly be repaired or rectified at the Contractors expense and retested until able to pass testing.
- Grounding resistance at pedestal controller shall also be tested and shall not exceed 5 OHMs.

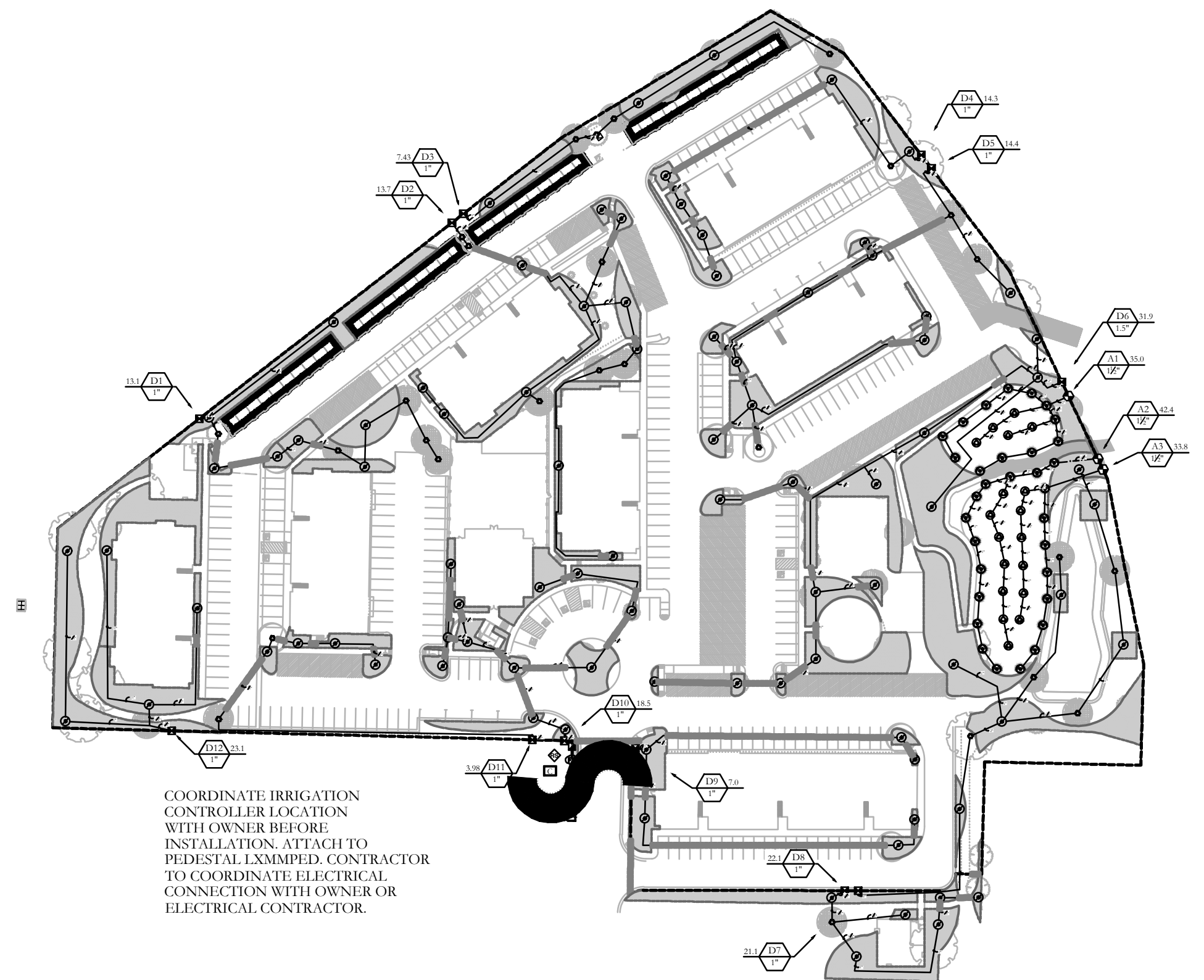
##### 3.10 ADJUSTMENT

- 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.
- Adjust all sprinkler heads for arc, radius, proper trim and distribution to cover all landscaped areas that are to be irrigated.
- Adjust sprinklers so they do not water buildings, structures, or other hardscape features.
- Adjust run times of station to meet needs of plant material the station serves.


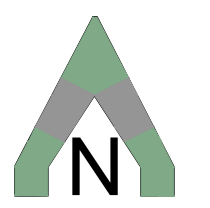

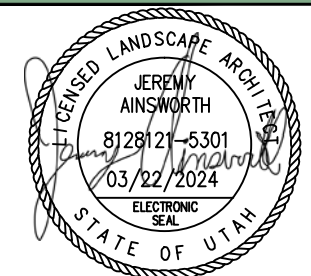
##### 3.11 CLEANING

- Contractor shall be responsible for cleanliness of jobsite. Work areas shall be swept cleanly and picked up daily.
- Open trenches or hazards shall be protected with yellow caution tape.
- Contractor is responsible for removal and disposal of offsite trash and debris generated as a result of this Project.
- OAR shall perform periodic as well as a final cleanliness inspection.
- Contractor shall leave Project in at least a 'broom clean' condition.

END OF SECTION



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

ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
3/22/2024	UT22098	 BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER, INC. 1-800-662-4111 www.bluestakes.org	 RESIDENCES AT MILLCREEK WASHINGTON, UTAH	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	 PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com	 KEVIN ANGSWORTH PROFESSIONAL ENGINEER STATE OF UTAH 8128121-5301 03/22/2024	PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 3/22/2024
GRAPHIC SCALE: 1" = 100'							IRRIGATION PLAN COVER CITY PERMIT SET
NO. REVISION DATE 1 XXXX XX-XX-XX 2 3 4 5 6 7							IR-100



SYMBOL MANUFACTURER/MODEL/DESCRIPTION QTY P

24 25 Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet. 50 4

SYMBOL MANUFACTURER/MODEL/DESCRIPTION QTY

Rain Bird X CZ-100-IVMQ (2) 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm 12

Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation. 90

Rain Bird XFS-09-18 Drip Ring(TREE) 27

Area to Receive Drip Emitters Rain Bird PC (2) Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange. 77,186 s.f.

Emitter Notes:  
PC-05 emitters (1 assigned to each flat plant)  
PC-05 emitters (1 assigned to each 4" pot plant)  
PC-05 emitters (1 assigned to each 1 gal plant) 290  
PC-05 emitters (1 assigned to each 2 gal plant) 291  
PC-05 emitters (2 assigned to each 3 gal plant) 384  
PC-05 emitters (2 assigned to each 5 gal plant) 1,230  
PC-05 emitters (3 assigned to each 15 gal plant)  
PC-05 emitters (3 assigned to each 20 gal. plant)  
PC-05 emitters (3 assigned to each B & B plant) 18  
PC-05 emitters (3 assigned to each B & B, 1.25" Cal plant)  
PC-05 emitters (3 assigned to each B & B, 2" Cal plant) 144  
PC-05 emitters (3 assigned to each B & B, 4-6" plant)  
PC-05 emitters (3 assigned to each B & B, 5'-6" plant) 96  
PC-05 emitters (3 assigned to each B & B, 6" plant)  
PC-05 emitters (3 assigned to each B & B, 7'-9" plant)  
PC-05 emitters (3 assigned to each B & B, 8"-10" plant)  
PC-05 emitters (4 assigned to each B & B, Multi-trunked plant) 128  
PC-05 emitters (4 assigned to each Bulb plant)  
PC-05 emitters (4 assigned to each Plug plant)

SYMBOL MANUFACTURER/MODEL/DESCRIPTION QTY

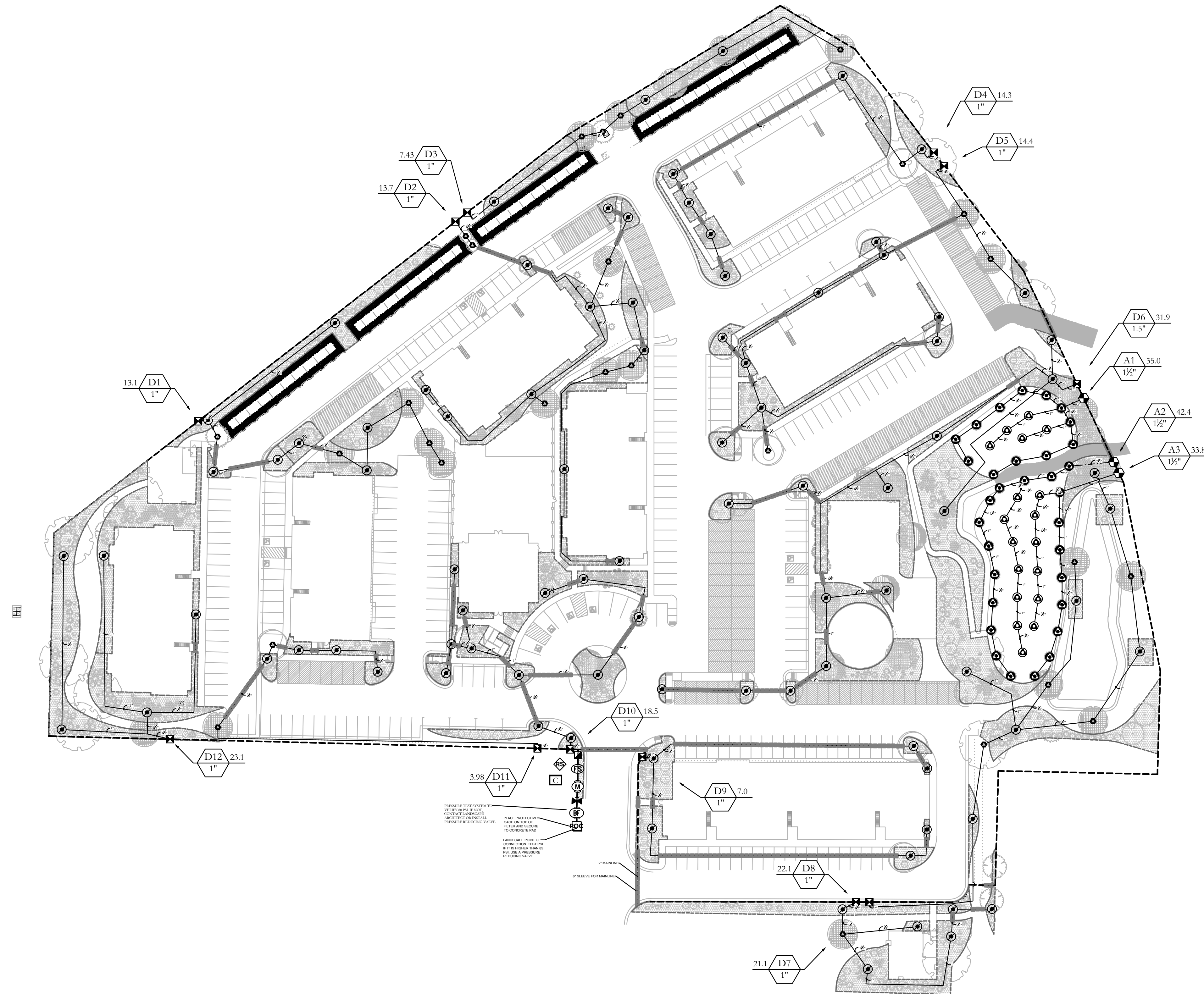
Rain Bird PESB-IVM 1-1/2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications. 3

Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body. 1  
Shut Off Valve 1

Rain Bird EFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator. 1

Zurn 475 2-1/2" Reduced Pressure Backflow Preventer. 1

Rain Bird ESPLXIVM 60 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVM 60-Station, Indoor/Outdoor, Plastic Wall-Mount Cabinet. System Requirements: Rain Bird LXIVM-XXX Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers 1



Rain Bird WRZ-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter. 1

Rain Bird FS-200-B 2in. Flow Sensor, Brass Model. Suggested Operating Range 10 GPM to 100 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P) | LXD | LXME2(P) | ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box. Water Meter 2" 1

Irrigation Lateral Line: PVC Schedule 40-NP 3/4" 4,564 L.F.  
Irrigation Lateral Line: PVC Schedule 40-NP 1" 1,502 L.F.  
Irrigation Lateral Line: PVC Schedule 40-NP 1 1/4" 1,073 L.F.  
Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2" 349.6 L.F.  
Irrigation Lateral Line: PVC Schedule 40-NP 2" 381.0 L.F.  
Irrigation Lateral Line: PVC Class 200 SDR 21-NP 2 1/2" 34.6 L.F.  
Irrigation Mainline: PVC Class 200 SDR 21 2,876 L.F.  
Pipe Sleeve: PVC Class 200 SDR 21 1,522 L.F.

Valve Callout  
# Valve Number  
# Valve Flow  
# Valve Size

ISSUE DATE PROJECT NUMBER PLAN INFORMATION PROJECT INFORMATION DEVELOPER / PROPERTY OWNER / CLIENT LANDSCAPE ARCHITECT / PLANNER LICENSE STAMP DRAWING INFO

3/22/2024

UT22098

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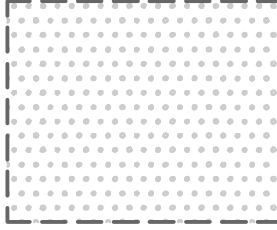
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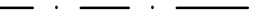
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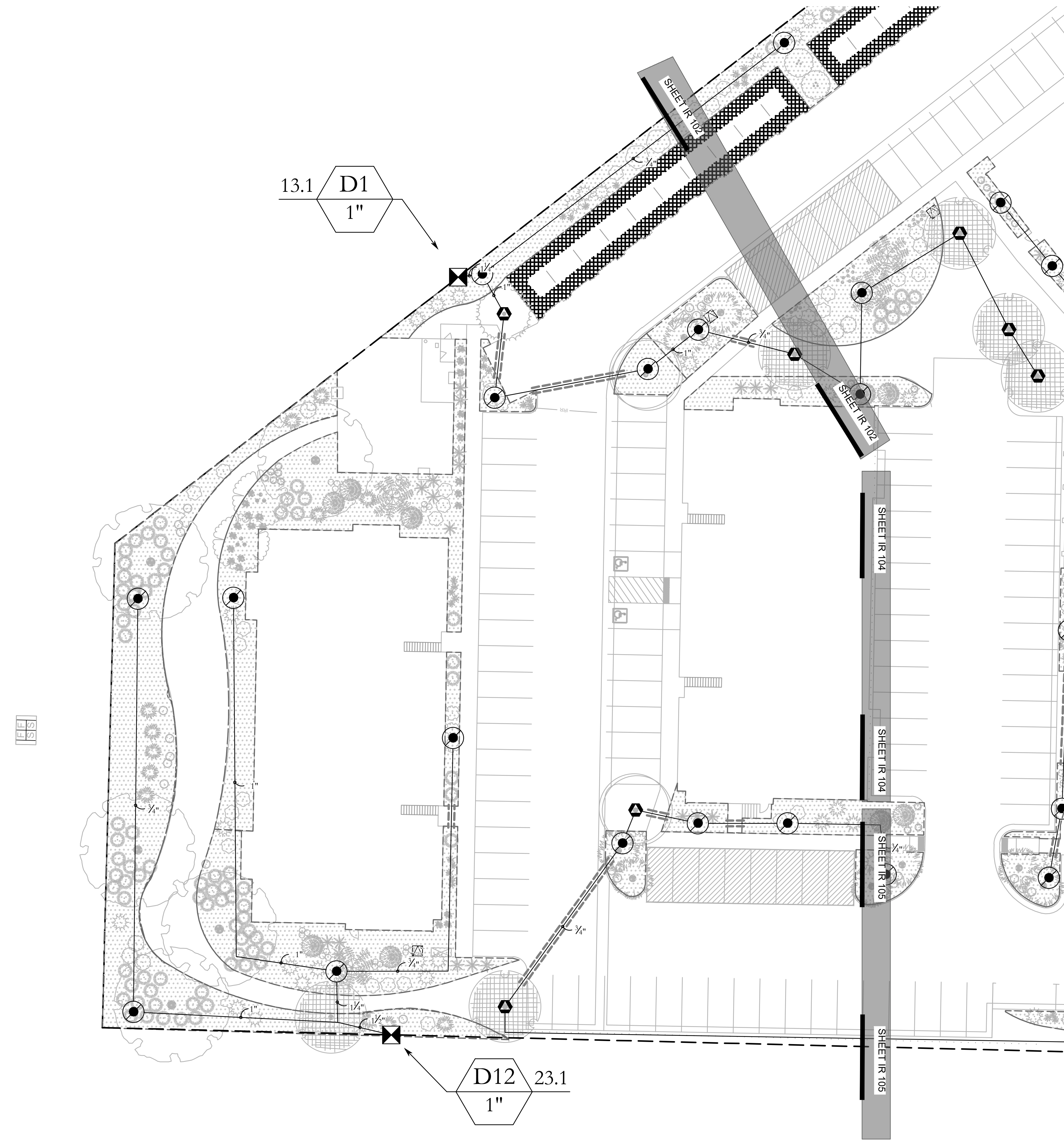
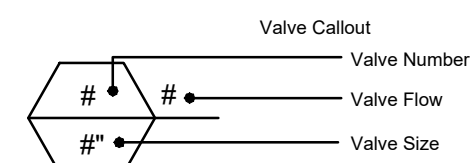
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3/22/2024  
IRRIGATION PLAN OVERALL  
CITY PERMIT SET  
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SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	50	45
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	Rain Bird XZC-100-IVMQ (2) 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	12	
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	90	
	Rain Bird XFS-09-18 Drip Ring(TREE)	27	
	Area to Receive Drip Emitters Rain Bird PC (2) Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange. Emitter Notes: PC-05 emitters (1 assigned to each flat plant) PC-05 emitters (1 assigned to each 4"pot plant) PC-05 emitters (1 assigned to each 1 gal plant) 290 PC-05 emitters (1 assigned to each 2 gal plant) 291 PC-05 emitters (2 assigned to each 3 gal plant) 384 PC-05 emitters (2 assigned to each 5 gal plant) 1,230 PC-05 emitters (3 assigned to each 15 gal plant) PC-05 emitters (3 assigned to each 20 gal. plant) PC-05 emitters (3 assigned to each B & B plant) 18 PC-05 emitters (3 assigned to each B & B, 1.25"Cal plant) PC-05 emitters (3 assigned to each B & B, 2"Cal plant) 144 PC-05 emitters (3 assigned to each B & B, 4-6' plant) PC-05 emitters (3 assigned to each B & B, 5'-6' plant) 96 PC-05 emitters (3 assigned to each B & B, 6' plant) PC-05 emitters (3 assigned to each B & B, 7'-9' plant) PC-05 emitters (3 assigned to each B & B, 8'-10' plant) PC-05 emitters (4 assigned to each B & B, Multi-trunked plant) 128 PC-05 emitters (4 assigned to each Bulb plant) PC-05 emitters (4 assigned to each Plug plant)		

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB-IVM 1-1/2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	3
	Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Shut Off Valve	1
	Rain Bird EFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
	Zurn 475 2-1/2" Reduced Pressure Backflow Preventer.	1
	Rain Bird ESPLXIVM 60 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVM 60-Station, Indoor/Outdoor, Plastic Wall-Mount Cabinet. System Requirements: Rain Bird LXIVM-XXX Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LXIVMSD Surge Device in Rain Bird Round Valve Boxes. Install Per Manufacturers	1

	Rain Bird WR2-RC Wireless Rain Sensor Combo, includes 1 receiver and 1 rain sensor transmitter.	1
	Rain Bird FS-200-B 2in. Flow Sensor, Brass Model. Suggested Operating Range 10 GPM to 100 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P)   LXID   LXME2(P)   ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	1
	Water Meter 2"	1
	Irrigation Lateral Line: PVC Schedule 40-NP 3/4"	4,564 l.f.
	Irrigation Lateral Line: PVC Schedule 40-NP 1"	1,502 l.f.
	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/4"	1,073 l.f.
	Irrigation Lateral Line: PVC Schedule 40-NP 1 1/2"	349.6 l.f.
	Irrigation Lateral Line: PVC Schedule 40-NP 2"	381.0 l.f.
	Irrigation Lateral Line: PVC Class 200 SDR 21-NP 2 1/2"	34.6 l.f.
	Irrigation Mainline: PVC Class 200 SDR 21	2,876 l.f.
	Pipe Sleeve: PVC Class 200 SDR 21	1,522 l.f.



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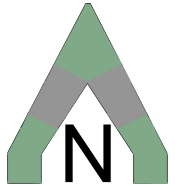
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LANDSCAPE ARCHITECT / PLANNER  
LICENSE STAMP  
DRAWING INFO  
PLOT DATE: 3/22/2024

PKJ  
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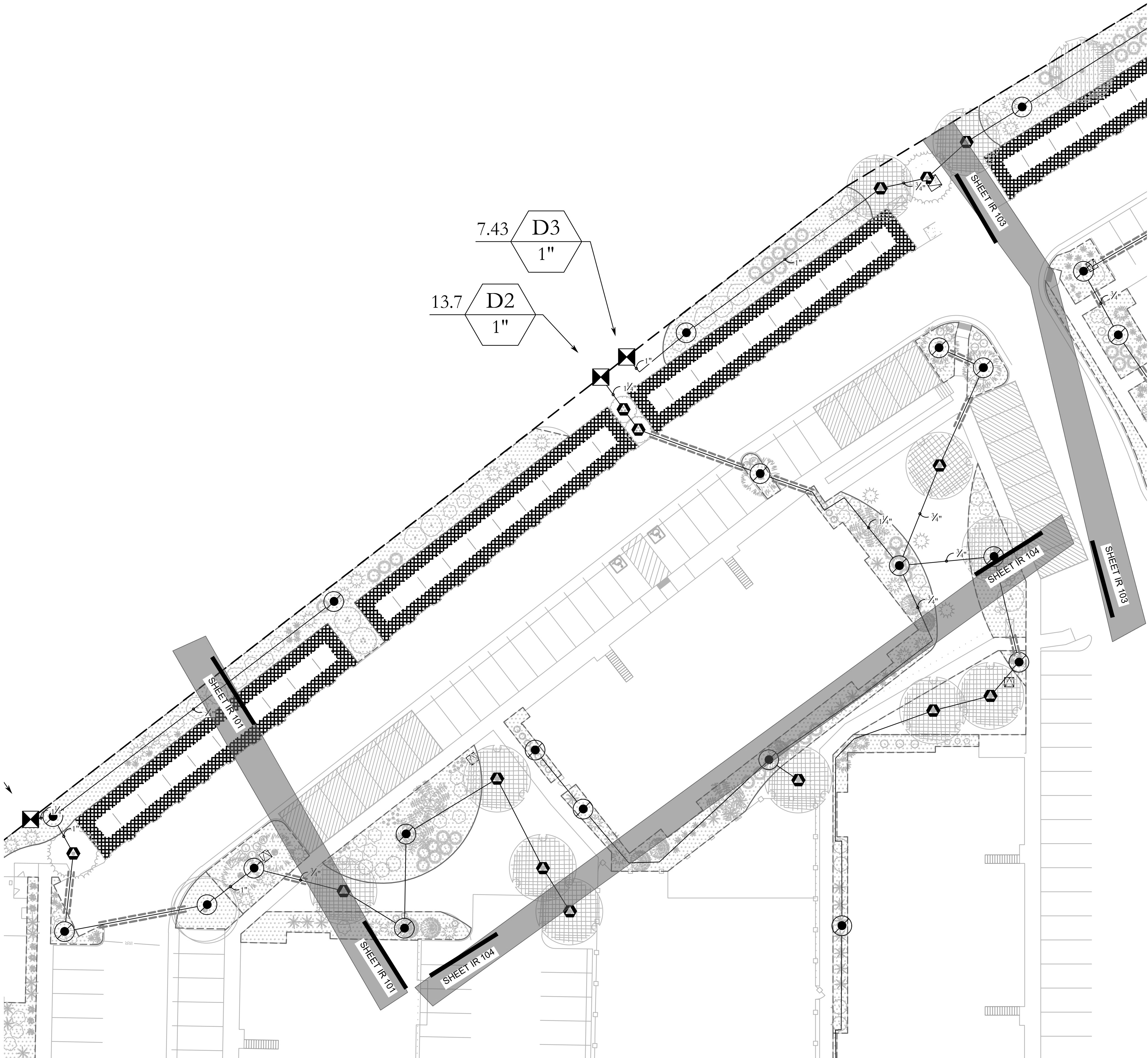
IRRIGATION PLAN  
CITY PERMIT SET  
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SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird R-VAN24 1806-SAM-P45 Turf Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	50	45
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	Rain Bird XCBZ-100-IVMQ (2) 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESBIVM Smart Valve w/ factory installed IVM-SOL. 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	12	
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	90	
	Rain Bird XFS-09-18 Drip Ring(TREE)	27	

	Area to Receive Drip Emitters Rain Bird PC (2) Single Outlet, Pressure Compensating Drip Emitters with Self-Piercing Barb Inlet. Flow rate: 5 GPH=light brown; 7 GPH=violet; 10 GPH=green; 12 GPH=dark brown; 18 GPH=white; 24 GPH=orange.	77,186 s.f.
Emitter Notes:		
PC-05 emitters (1 assigned to each flat plant)		
PC-05 emitters (1 assigned to each 4"pot plant)		
PC-05 emitters (1 assigned to each 1 gal plant)		290
PC-05 emitters (1 assigned to each 2 gal plant)		291
PC-05 emitters (2 assigned to each 3 gal plant)		384
PC-05 emitters (2 assigned to each 5 gal plant)		1,230
PC-05 emitters (3 assigned to each 15 gal plant)		
PC-05 emitters (3 assigned to each 20 gal. plant)		
PC-05 emitters (3 assigned to each B & B plant)		18
PC-05 emitters (3 assigned to each B & B, 1.25"Cal plant)		
PC-05 emitters (3 assigned to each B & B, 2"Cal plant)		144
PC-05 emitters (3 assigned to each B & B, 4'-6' plant)		
PC-05 emitters (3 assigned to each B & B, 5'-6' plant)		96
PC-05 emitters (3 assigned to each B & B, 6' plant)		
PC-05 emitters (3 assigned to each B & B, 7'-9' plant)		
PC-05 emitters (3 assigned to each B & B, 8'-10' plant)		
PC-05 emitters (4 assigned to each B & B, Multi-trunked plant)		128
PC-05 emitters (4 assigned to each Bulb plant)		
PC-05 emitters (4 assigned to each Plug plant)		

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB-IVM 1-1/2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration. With Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	3
	Rain Bird 44-RC 1" 1in. Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	1
	Shut Off Valve	1
	Rain Bird EFB-CP-PRS-D 2" 1in., 1-1/4", 1-1/2in., 2in. Brass Master Valve, that is Contamination Proof w/Self-Flushing Filter Screen. Globe Configuration, Reclaimed Water Compatible, and Purple Handle Cover Designates Non-Potable Water Use. With Pressure Regulator.	1
	Zurn 475 2-1/2" Reduced Pressure Backflow Preventer.	1
	Rain Bird ESPLXIVM 60 Station, 2-Wire Controller w/ Smart Valve Technology. (1) ESPLXIVM 60-Station, Indoor/Outdoor, Plastic Wall-Mount Cabinet. System Requirements: Rain Bird LXIVM-XXX Integrated Valve Modules & 2-Wire Devices. Use Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) 1 YIVMSTD System Device in Rain Bird	1



3/22/2024

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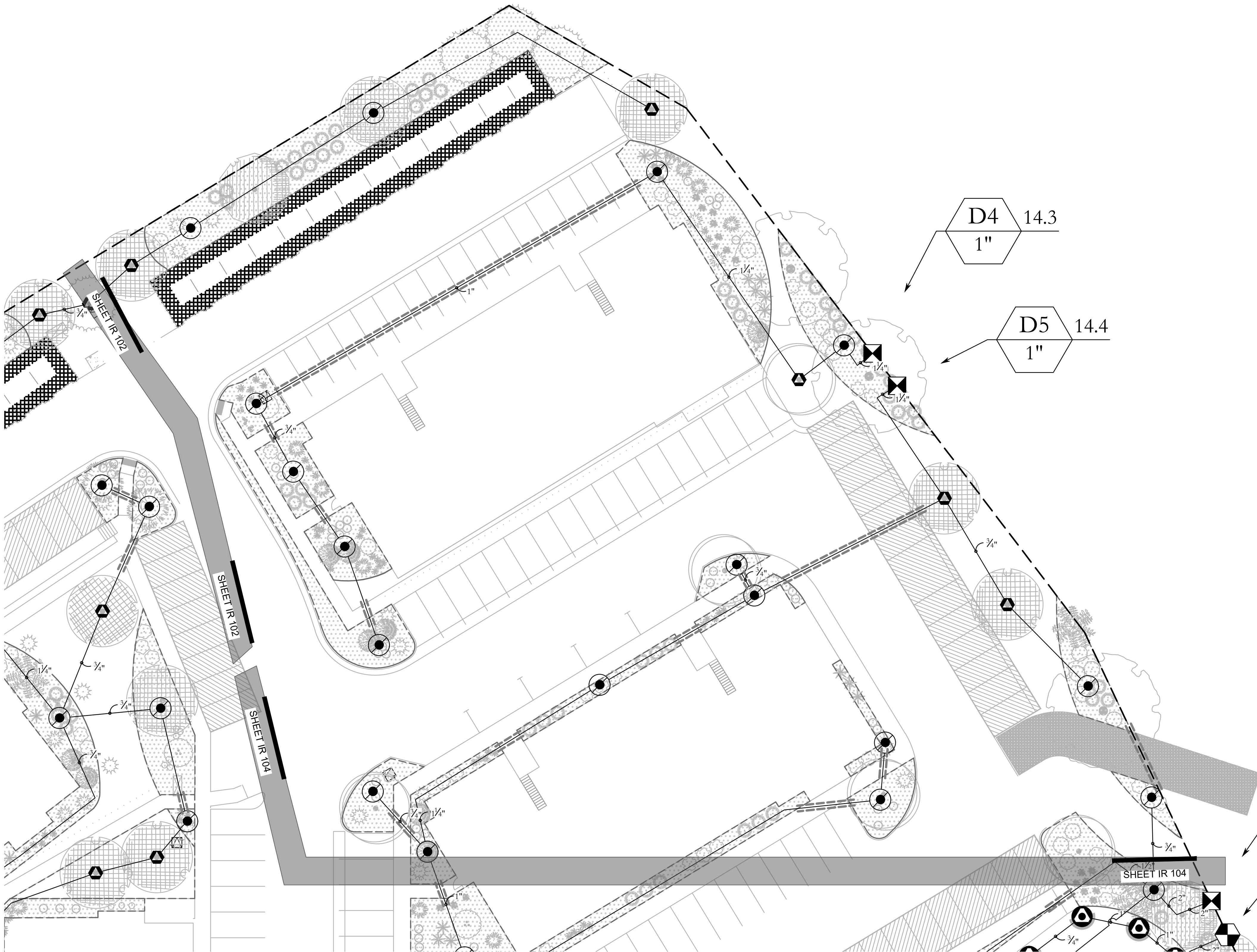
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J. A. P. K. J.  
JANUARY 2021 - DECEMBER 2022  
STATE OF UTAH  
LANDSCAPE ARCHITECT

IRRIGATION PLAN  
CITY PERMIT SET

IR-102





#### IRRIGATION NOTES

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

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

ISSUE DATE		PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
3/22/2024		UT22098		RESIDENCES AT MILLCREEK WASHINGTON, UTAH	AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com		PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 3/22/2024
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**IRRIGATION PLAN**  
CITY PERMIT SET

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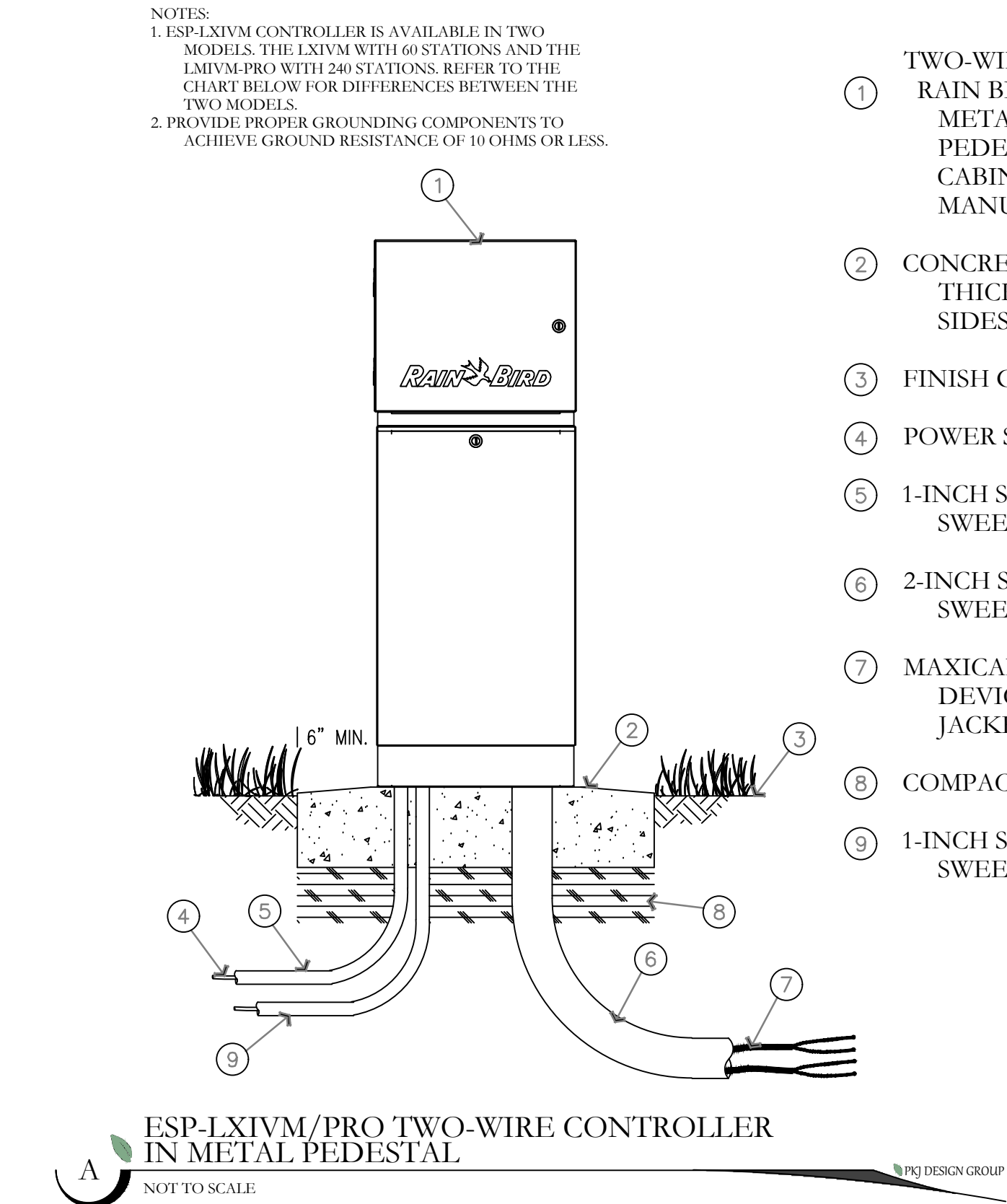






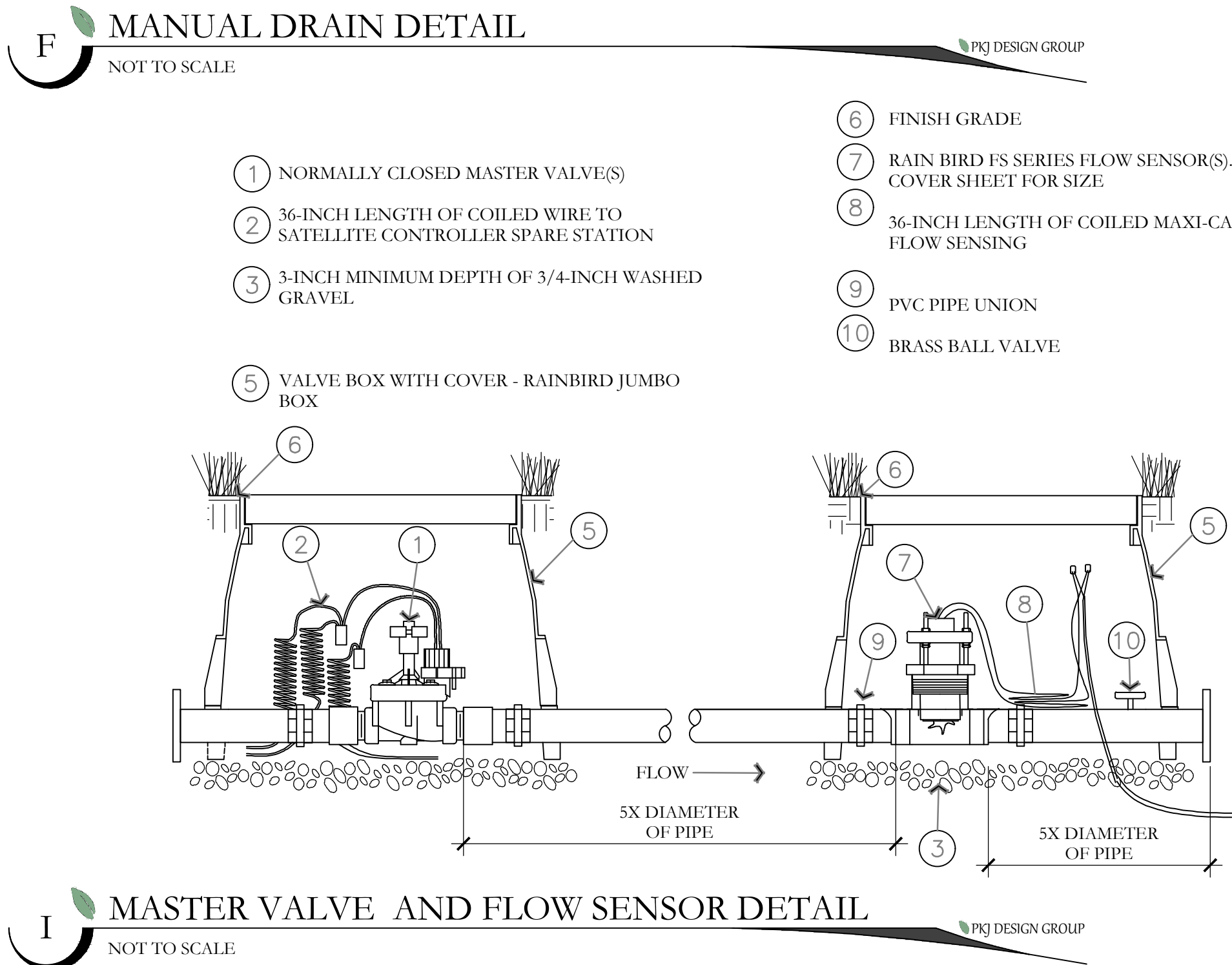
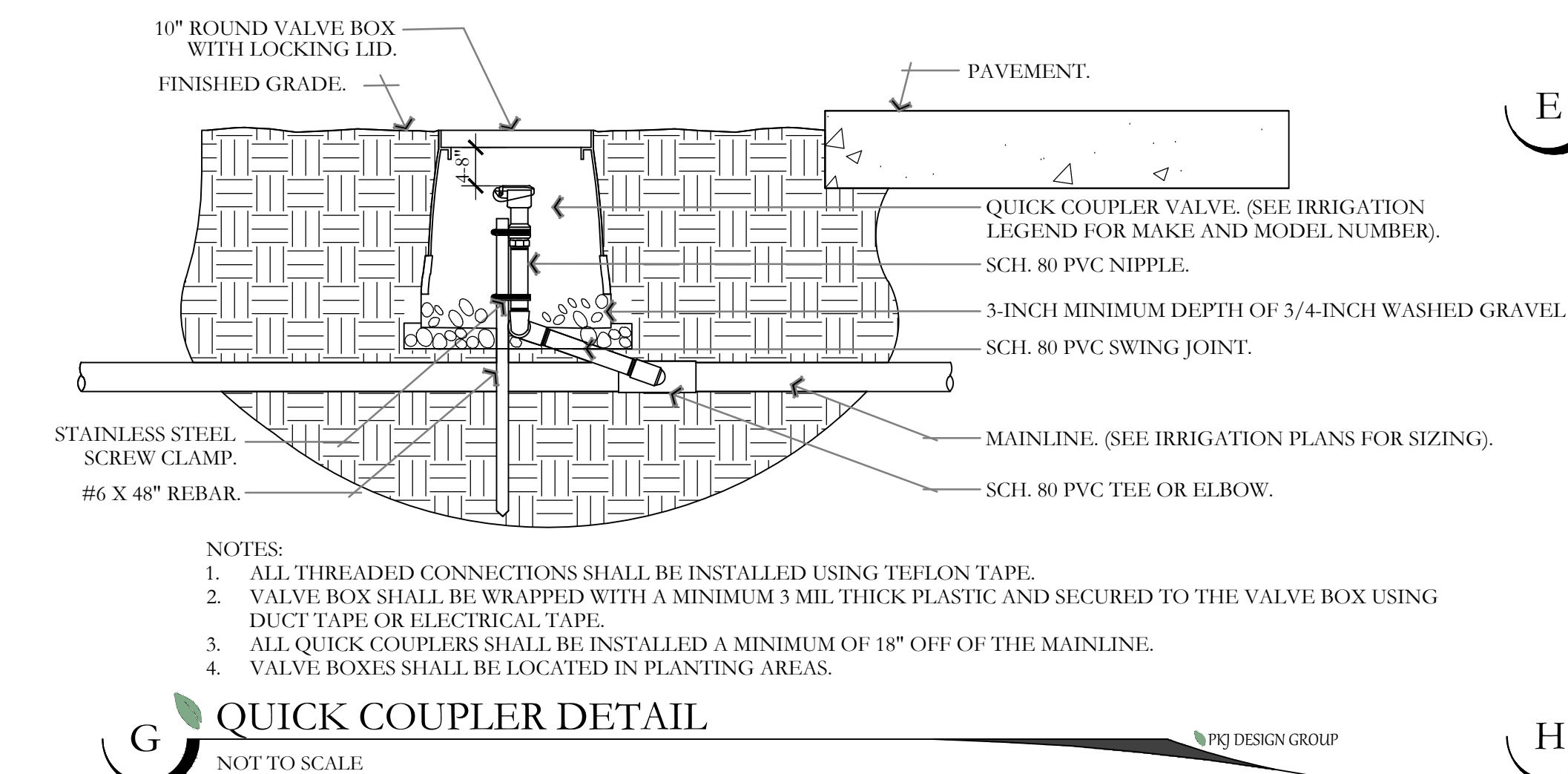
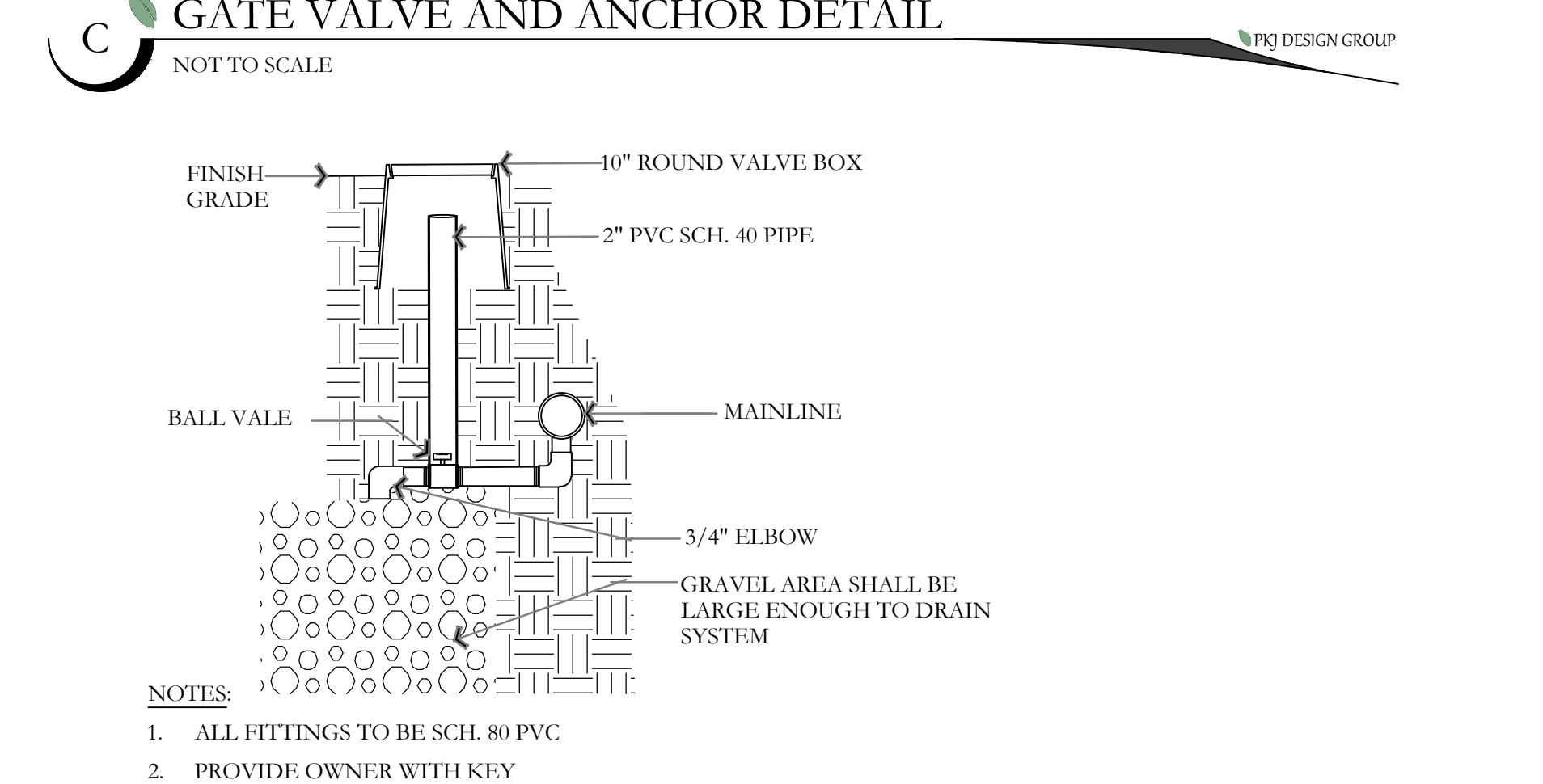
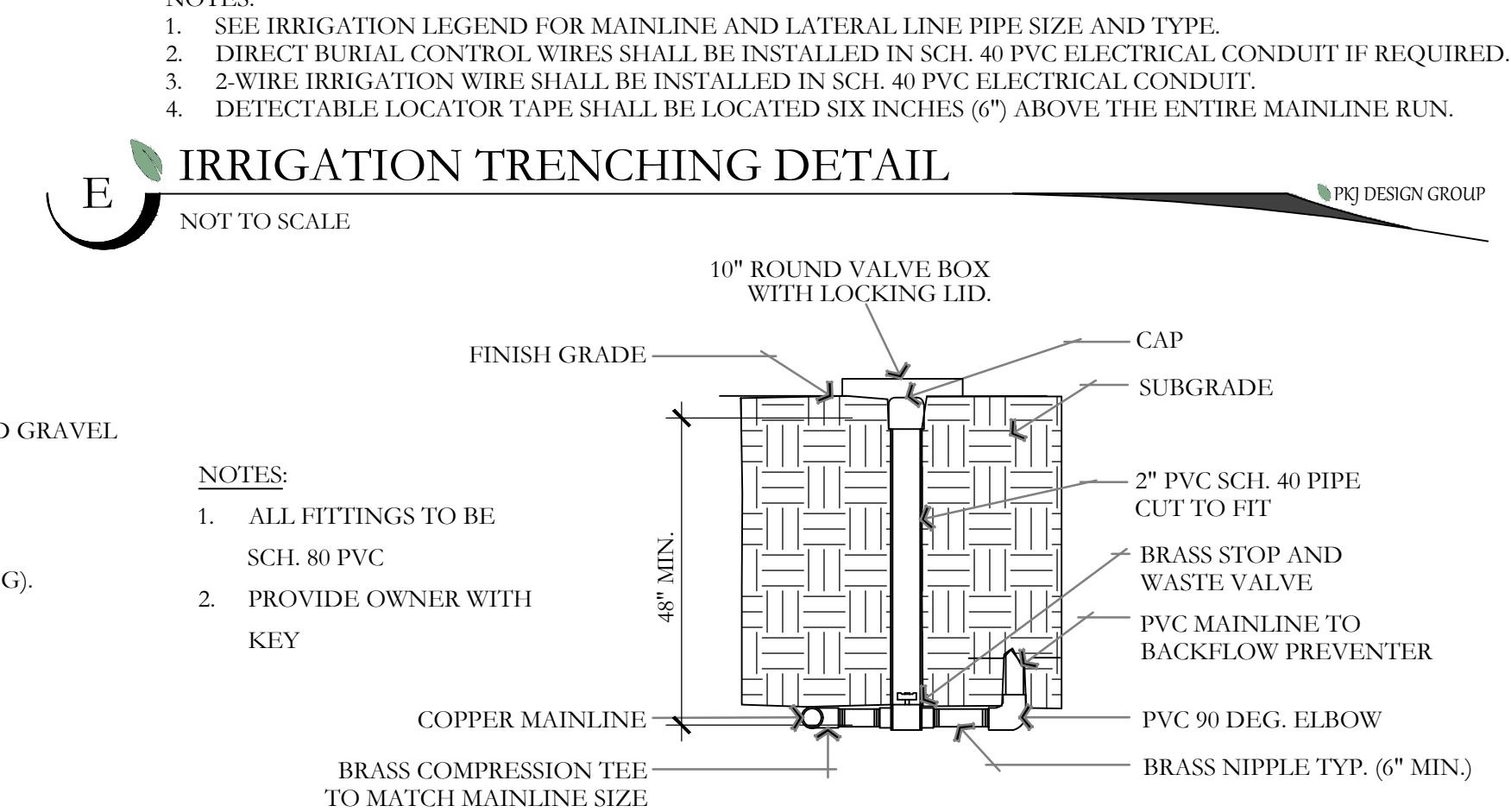
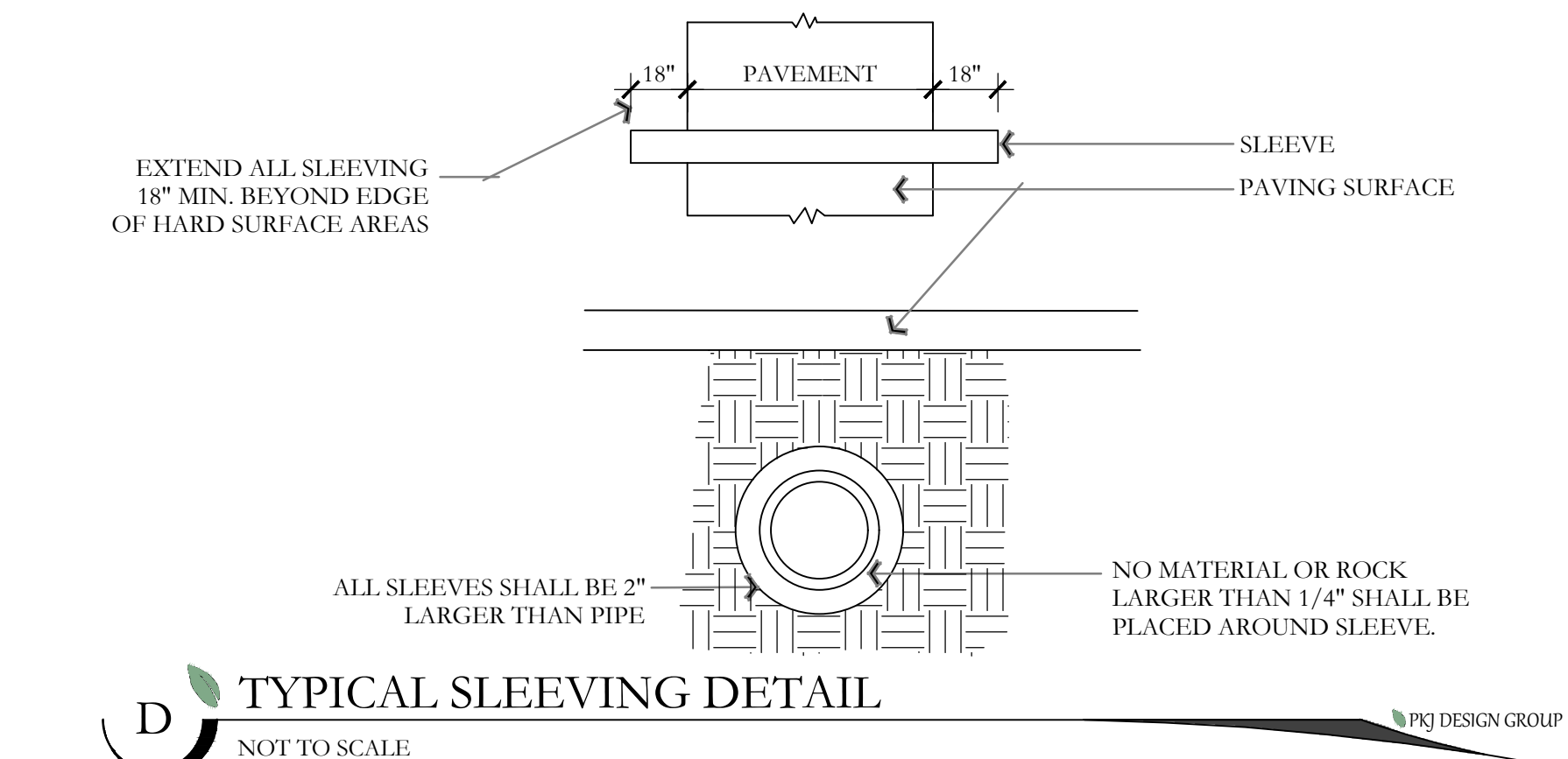
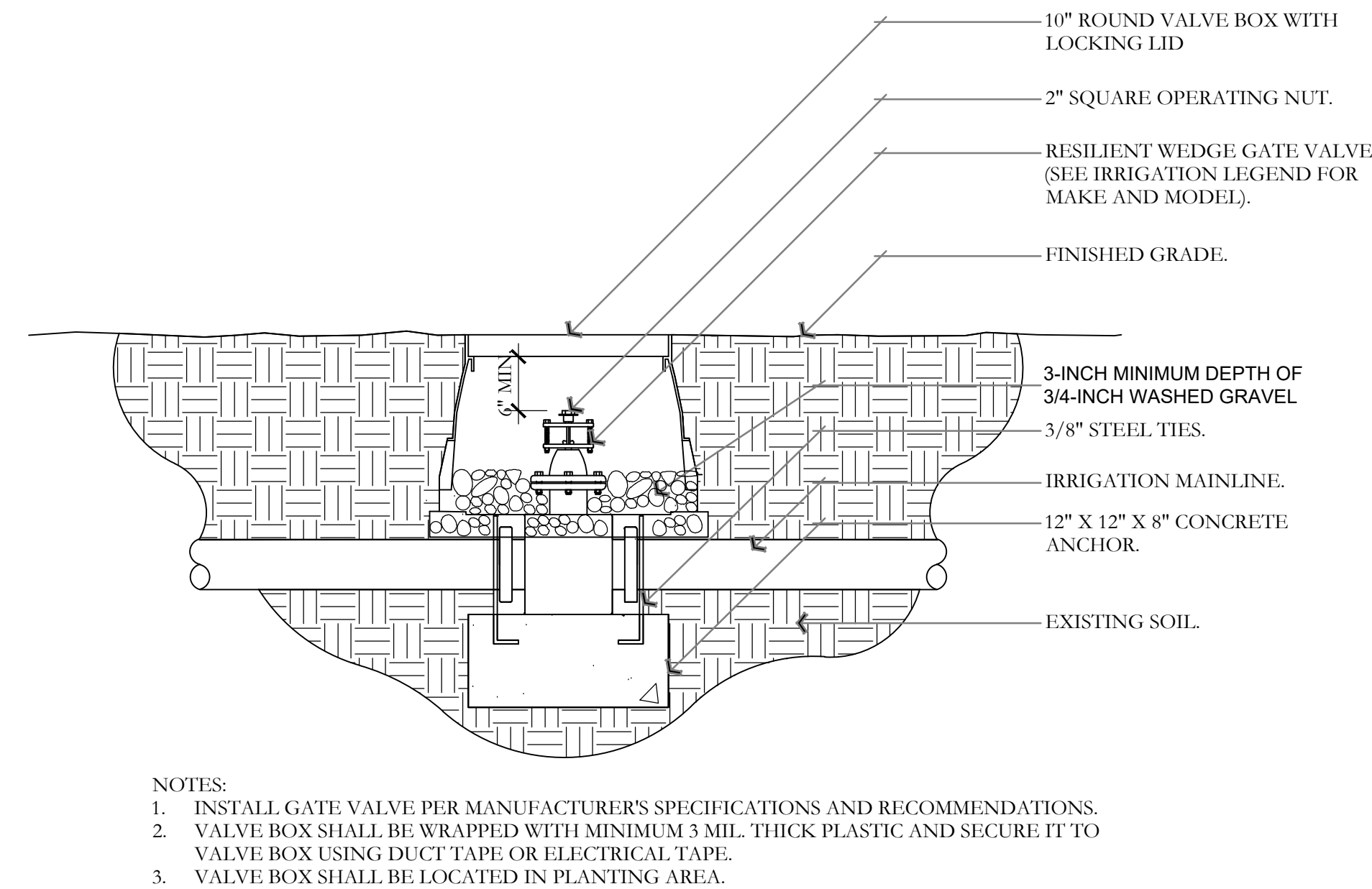
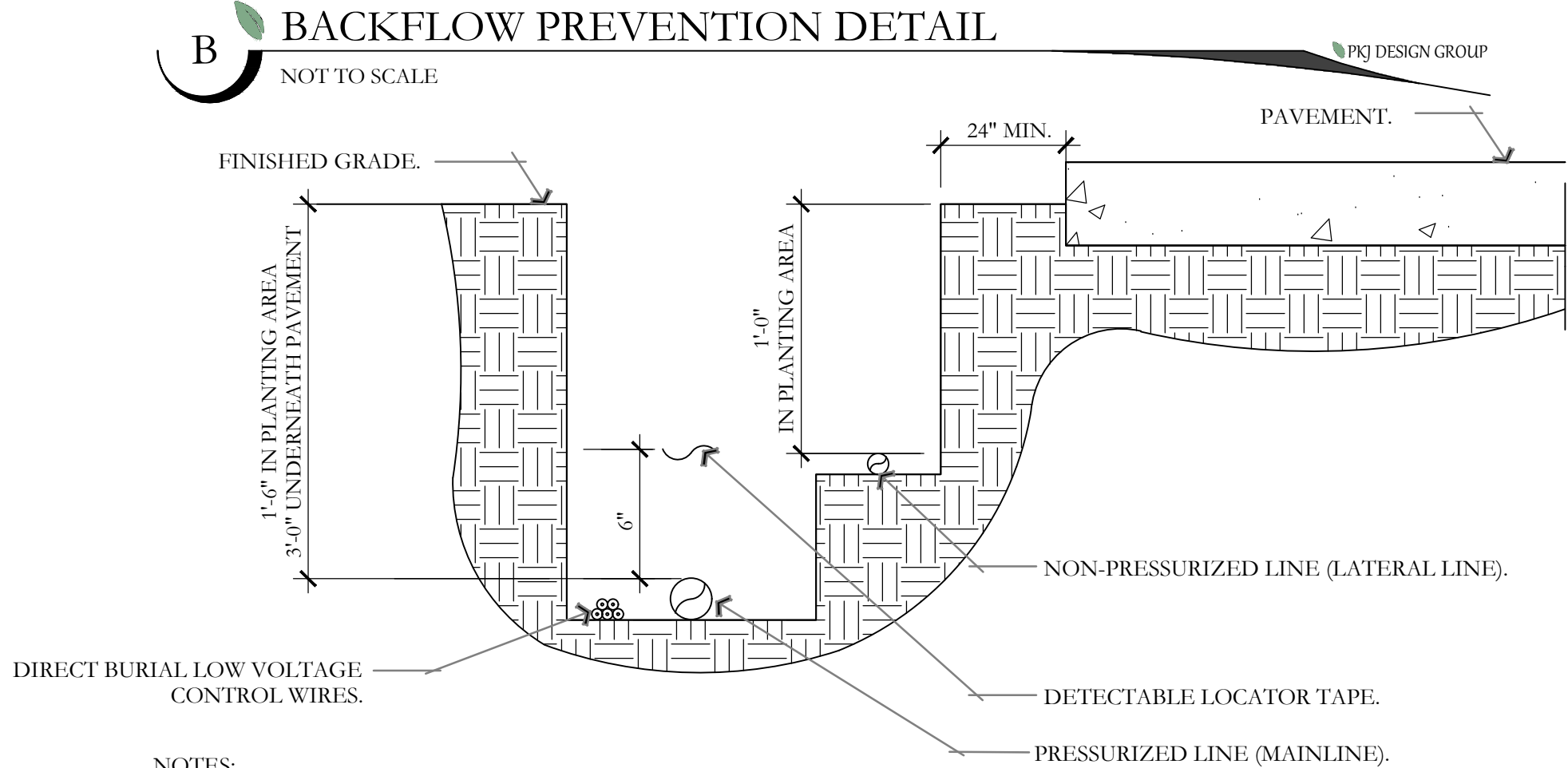
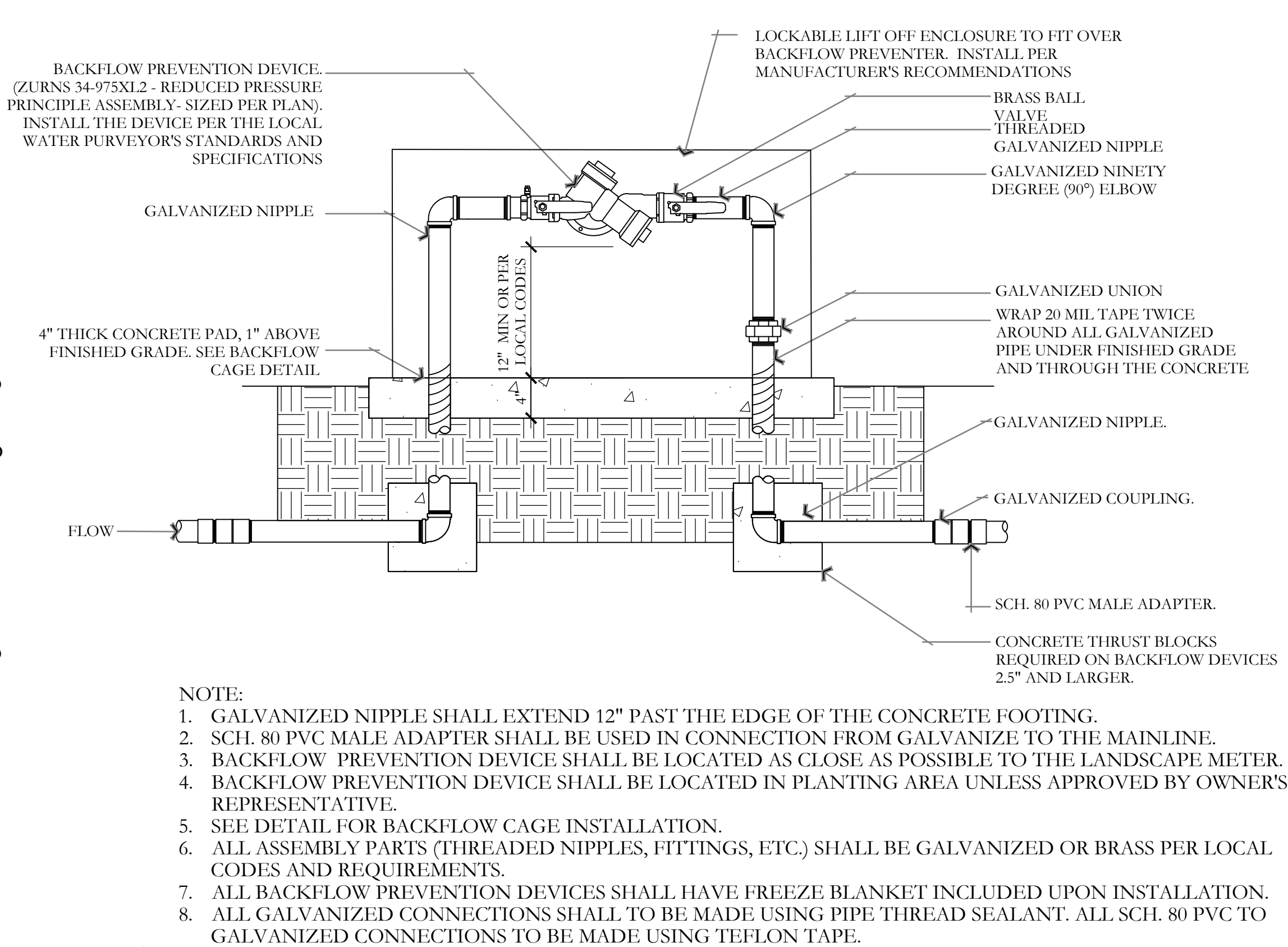




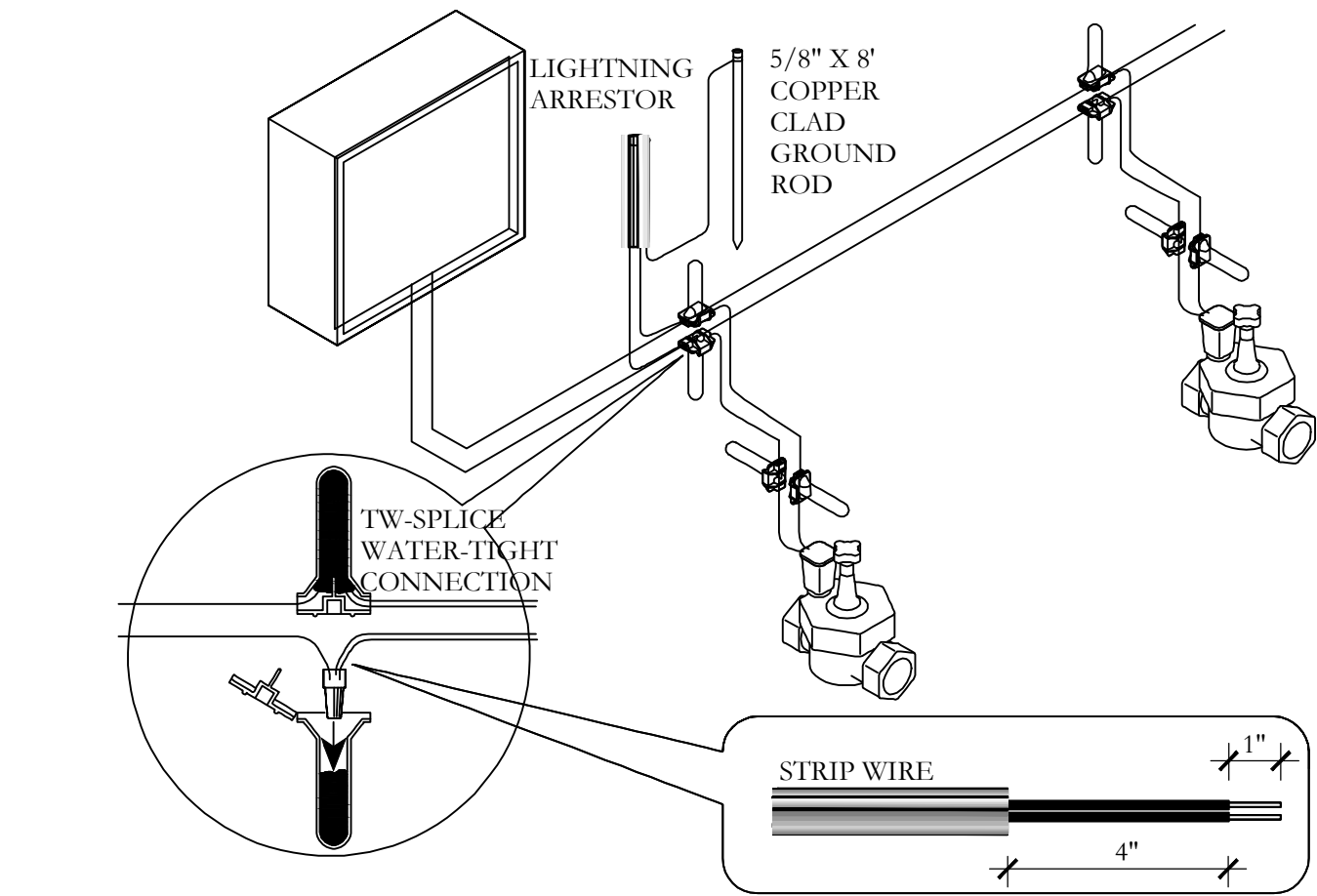


- TWO-WIRE CONTROLLER:  
RAIN BIRD ESP-LXIVM/PRO WITH LXMM METAL CABINET AND LXMMPED METAL PEDESTAL. INSTALL CONTROLLER, CABINET AND PEDESTAL PER MANUFACTURER'S RECOMMENDATIONS.
- CONCRETE PAD: 6-INCH MINIMUM THICKNESS, 6-INCHES LARGER ON ALL SIDES THAN PEDESTAL FOOTPRINT
  - FINISH GRADE
  - POWER SUPPLY WIRE
  - 1-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR POWER SUPPLY
  - 2-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR TWO-WIRE CABLE
  - MAXICABLE TWO-WIRE PATH TO FIELD DEVICES USE A DIFFERENT CABLE JACKET COLOR FOR EACH PATH.
  - COMPACTED SUBGRADE
  - 1-INCH SCH 40 PVC CONDUIT, FITTINGS AND SWEEP ELL FOR GROUND

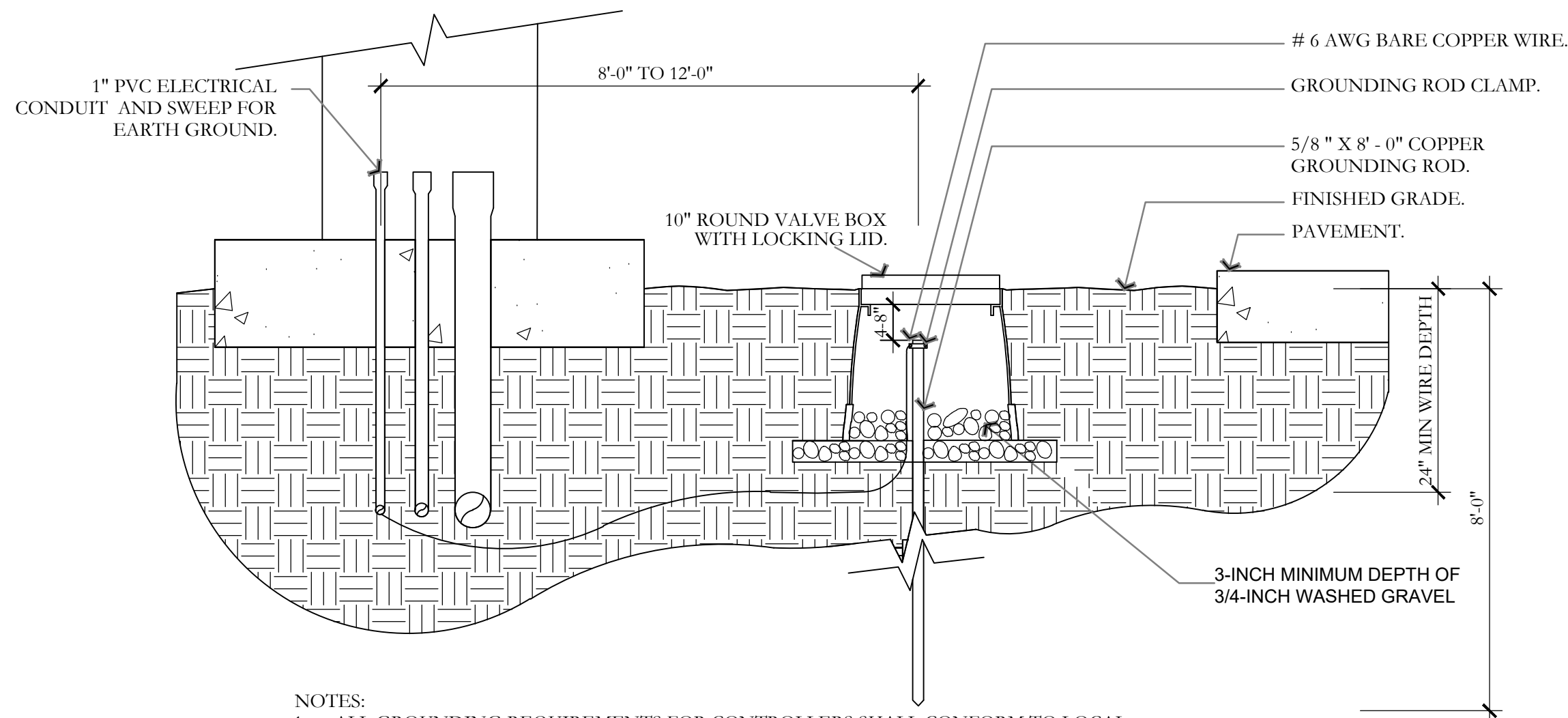
KEY SPECIFICATIONS						
FEATURE	MODEL	MAX PROGRAMS	STATIONS	MAX SIMULATIONS	MASTER VALVES	FLOW SENSORS
	LX-IVM	10	60	8	5	5
	LX-IVM PRO	40	240	16	10	10



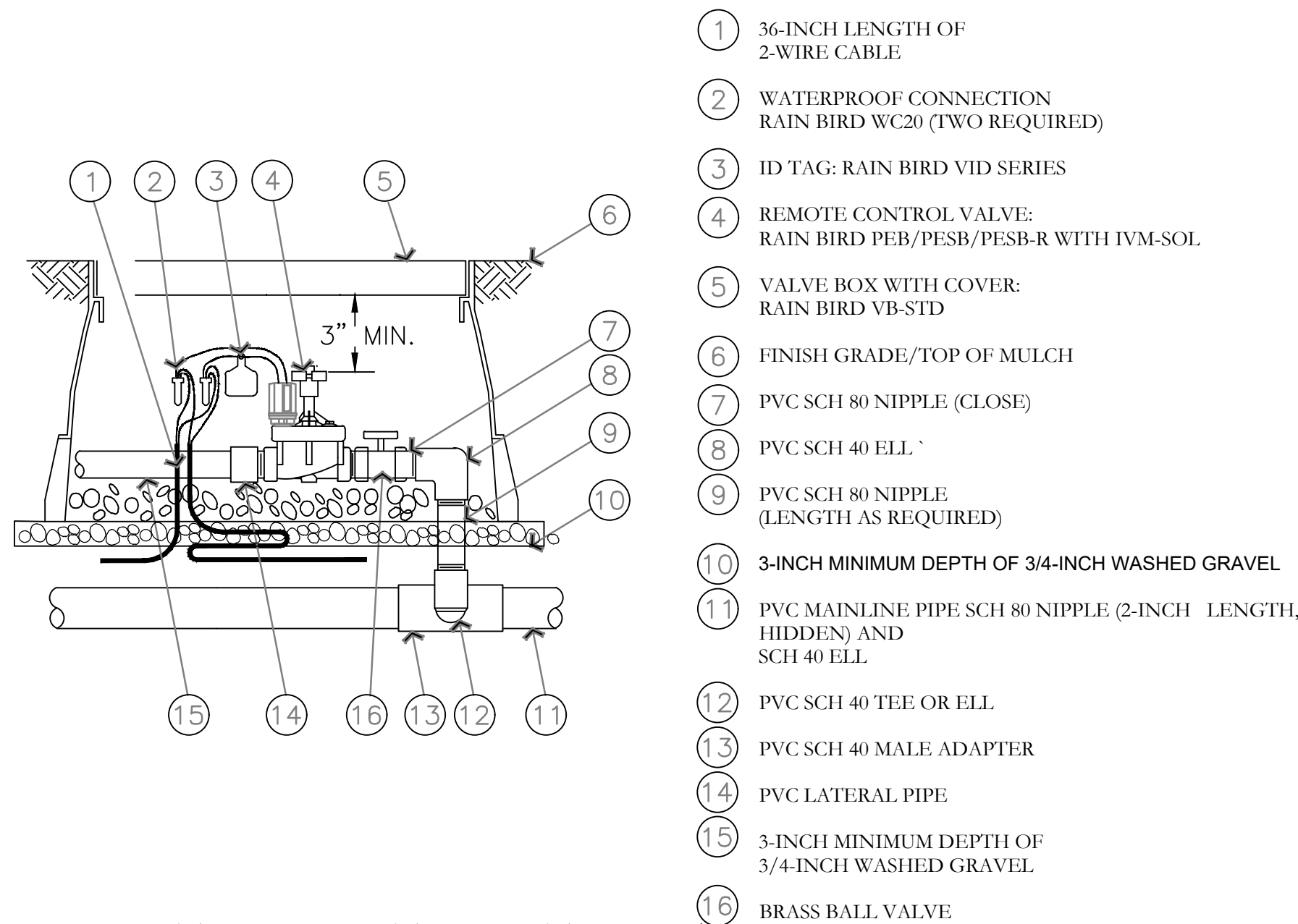




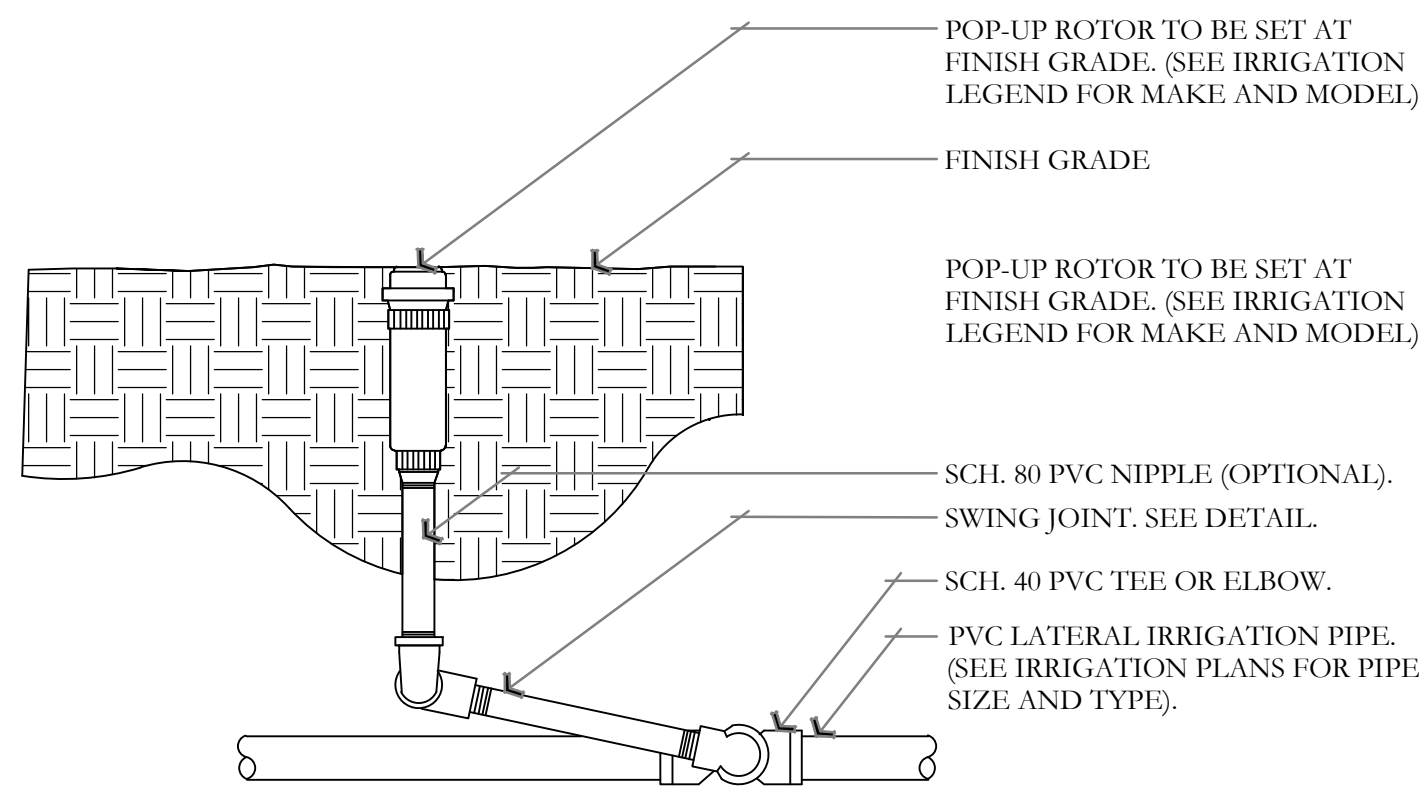
**J 2-WIRE CONNECTION DETAIL**  
NOT TO SCALE



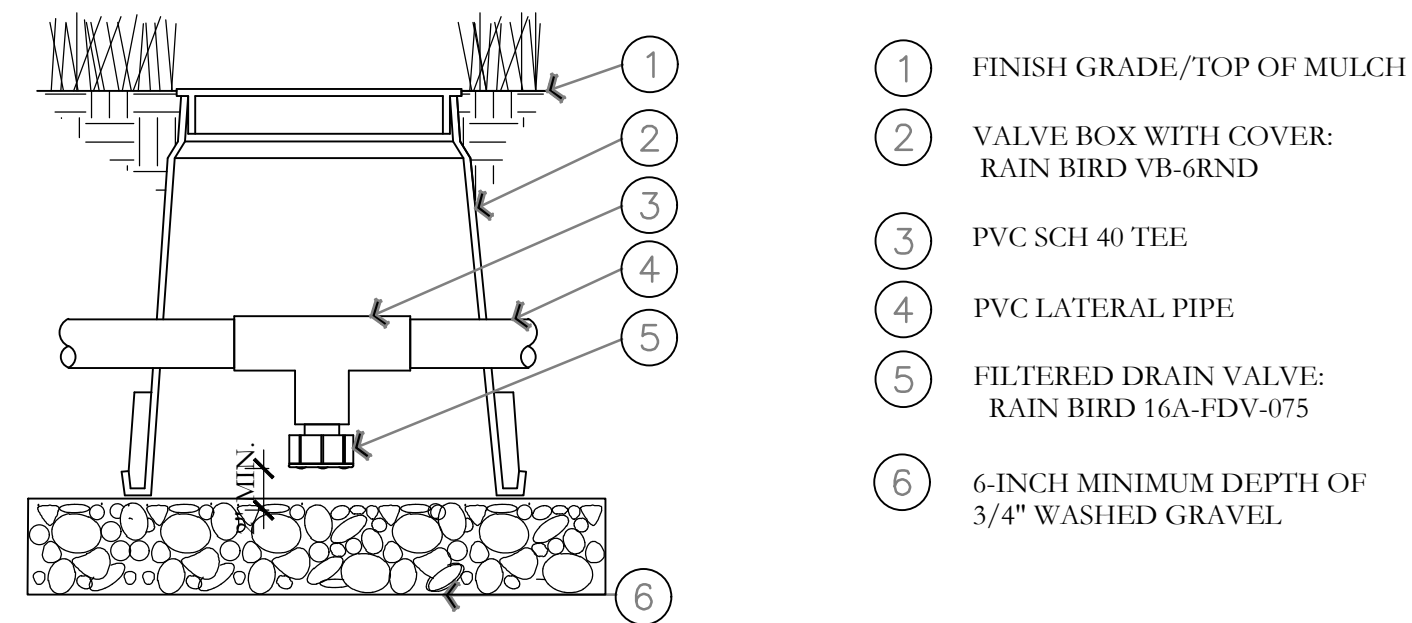
**K GROUNDING ROD DETAIL**  
NOT TO SCALE



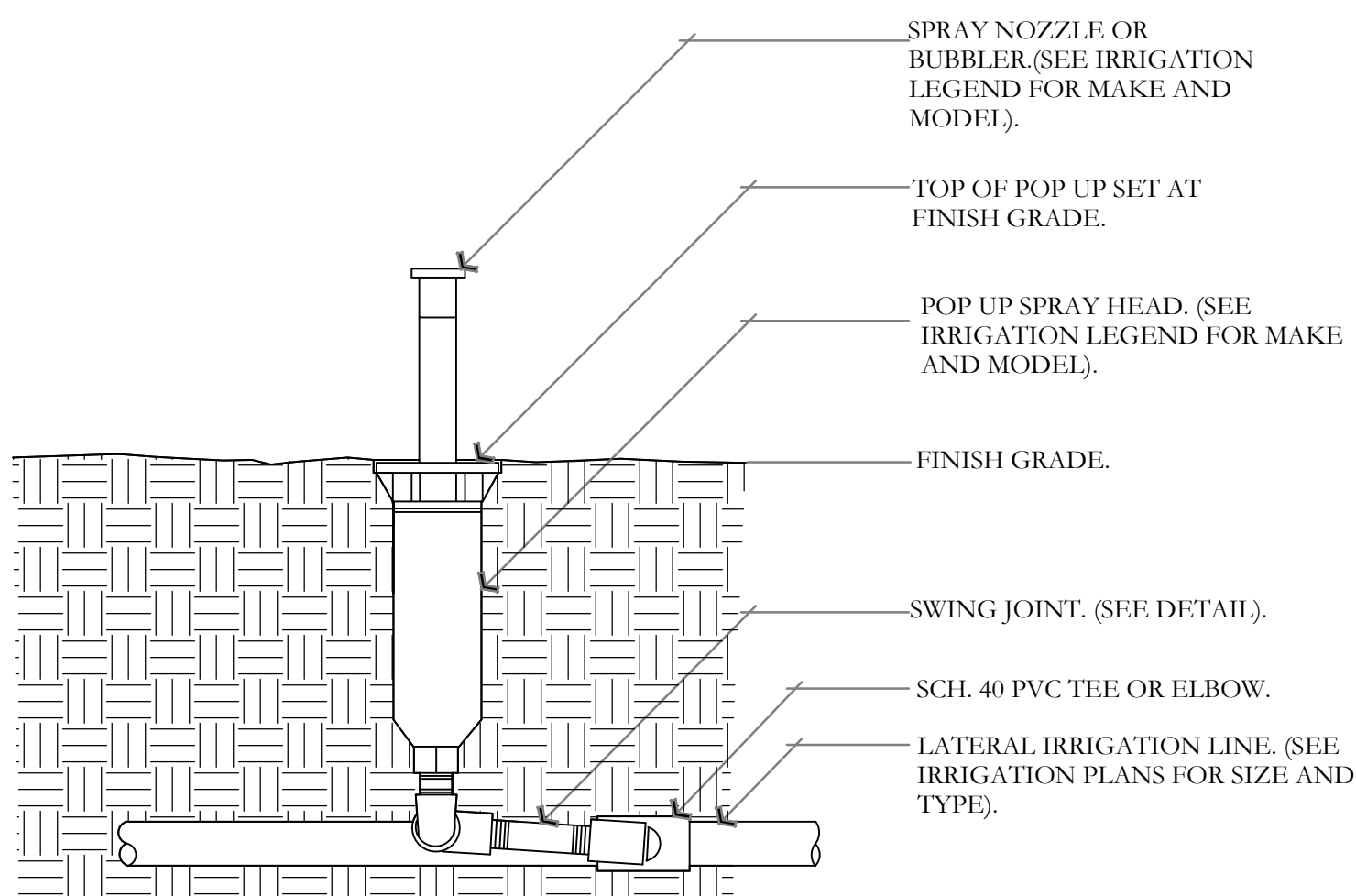
**M ELECTRIC REMOTE-CONTROL VALVE PEB OR PESB SERIES WITH IVM-SOL**  
NOT TO SCALE



**N ROTOR HEAD DETAIL**  
NOT TO SCALE



**L MANUAL LINE DRAIN VALVE DETAIL**  
NOT TO SCALE



NOTE:  
1. 6" POP UPS SHALL BE USED IN TURF AREAS.  
2. CONTRACTOR SHALL SETTLE SOIL AROUND THE POP UP AFTER INSTALLATION.  
3. ALL POP UP SPRAY HEADS SHALL HAVE CHECK VALVES.  
4. ALL SCH. 40 PVC TO SCH. 80 PVC CONNECTIONS SHALL BE MADE USING TEFLON TAPE.

**O POP UP-SPRAY HEAD DETAIL**  
NOT TO SCALE

ISSUE DATE		PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
3/22/2024		UT22098			AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455			PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 3/22/2024
NO.	REVISION	DATE						
1	XXXX	XX-XX-XX						
2								
3								
4								
5								
6								
7								

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**RESIDENCES AT MILLCREEK**  
WASHINGTON, UTAH

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

**IRRIGATION DETAILS**  
CITY PERMIT SET

IR-502



**ROCKWORTH**  
COMPANIES

## RESIDENCES AT MILLCREEK WASHINGTON, UT



**FIBER CEMENT SIDING**  
BEIGE  
WOOD GRAIN



**FIBER CEMENT SIDING**  
BROWN  
WOOD GRAIN



**urbia**  
ARCHITECTS & ENGINEERS

**BOARD & BATTEN SIDING**  
BEIGE - SMOOTH



**LUMBER / TRIMS**  
DARK BROWN

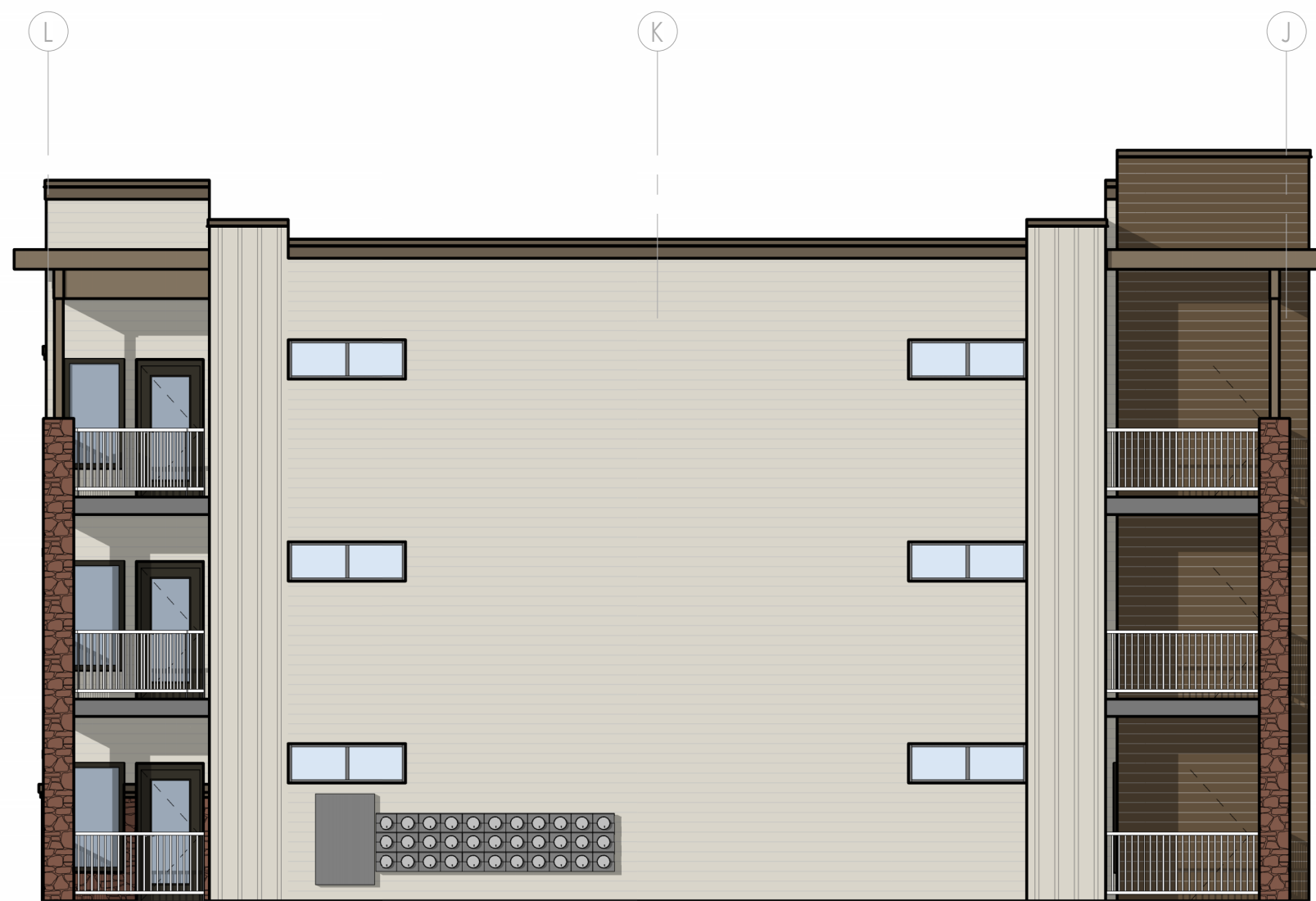


**MANUFACTURED STONE**  
RED/EARTH TONES

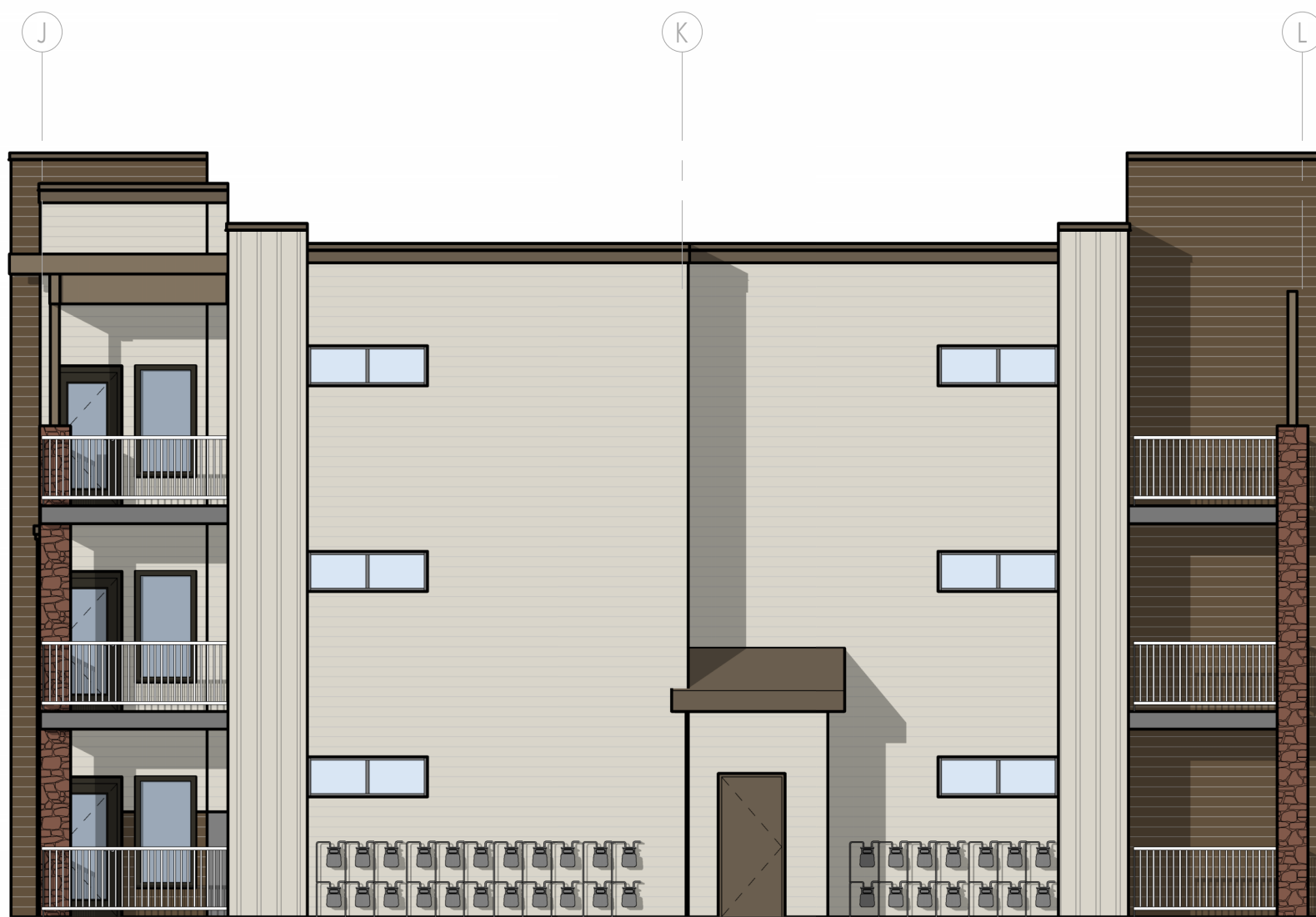


ACTUAL COLORS & TEXTURES MAY VARY





4 BLDG 1 - WEST ELEVATION  
A121 1/8" = 1'-0"



2 BLDG 1 - EAST ELEVATION  
A121 1/8" = 1'-0"

EXTERIOR MATERIALS LEGEND

- MANUFACTURED STONE - RED/EARTH TONES
- FIBER CEMENT SIDING - BEIGE
- FIBER CEMENT SIDING - BROWN
- FIBER CEMENT BOARD & BATTEN - BEIGE
- NATURAL LUMBER - DARK BROWN
- TRIMS / METALS - DARK BROWN

ACTUAL COLORS & TEXTURES MAY VARY



1 BLDG 1 - NORTH ELEVATION  
A121 1/8" = 1'-0"

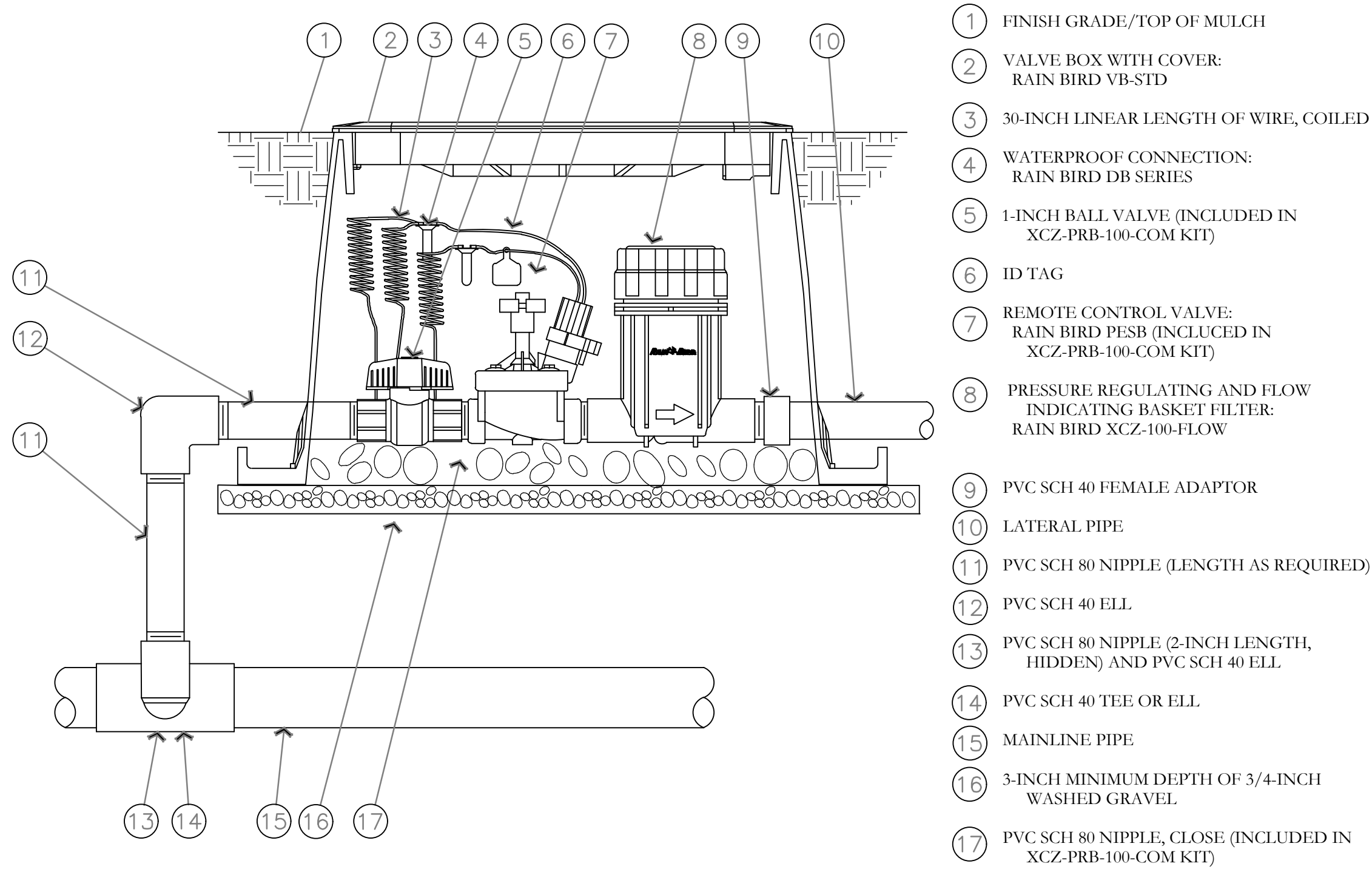


3 BLDG 1 - SOUTH ELEVATION  
A121 1/8" = 1'-0"

RESIDENCES AT MILLCREEK

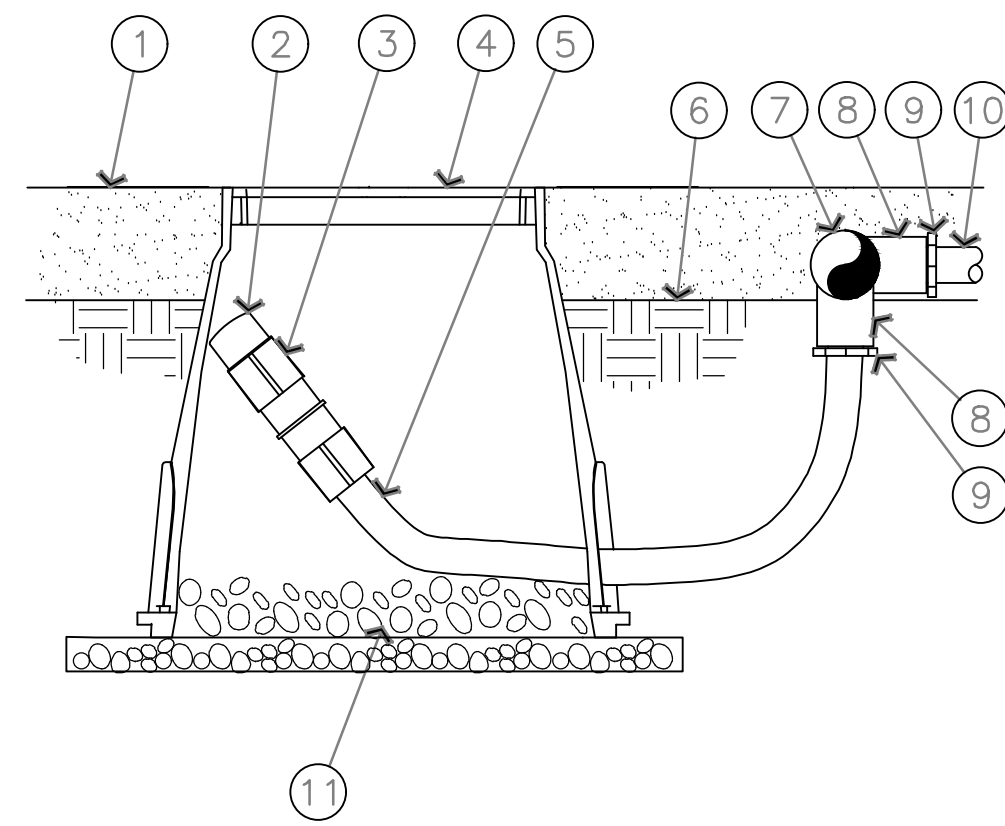
CONCEPTUAL EXTERIOR ELEVATIONS





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

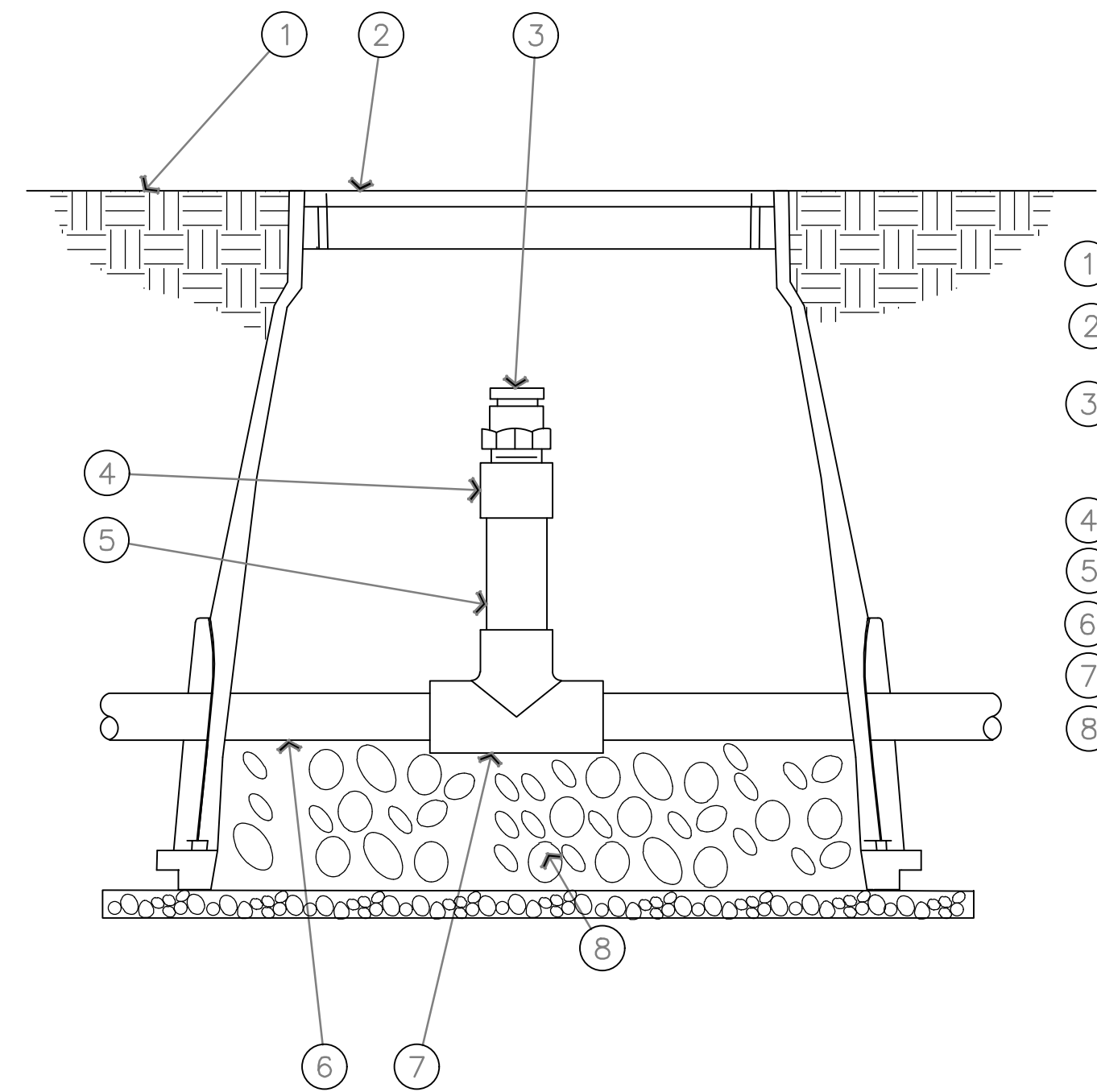
**P** DRIP CONTROL ZONE KIT DETAIL  
NOT TO SCALE



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

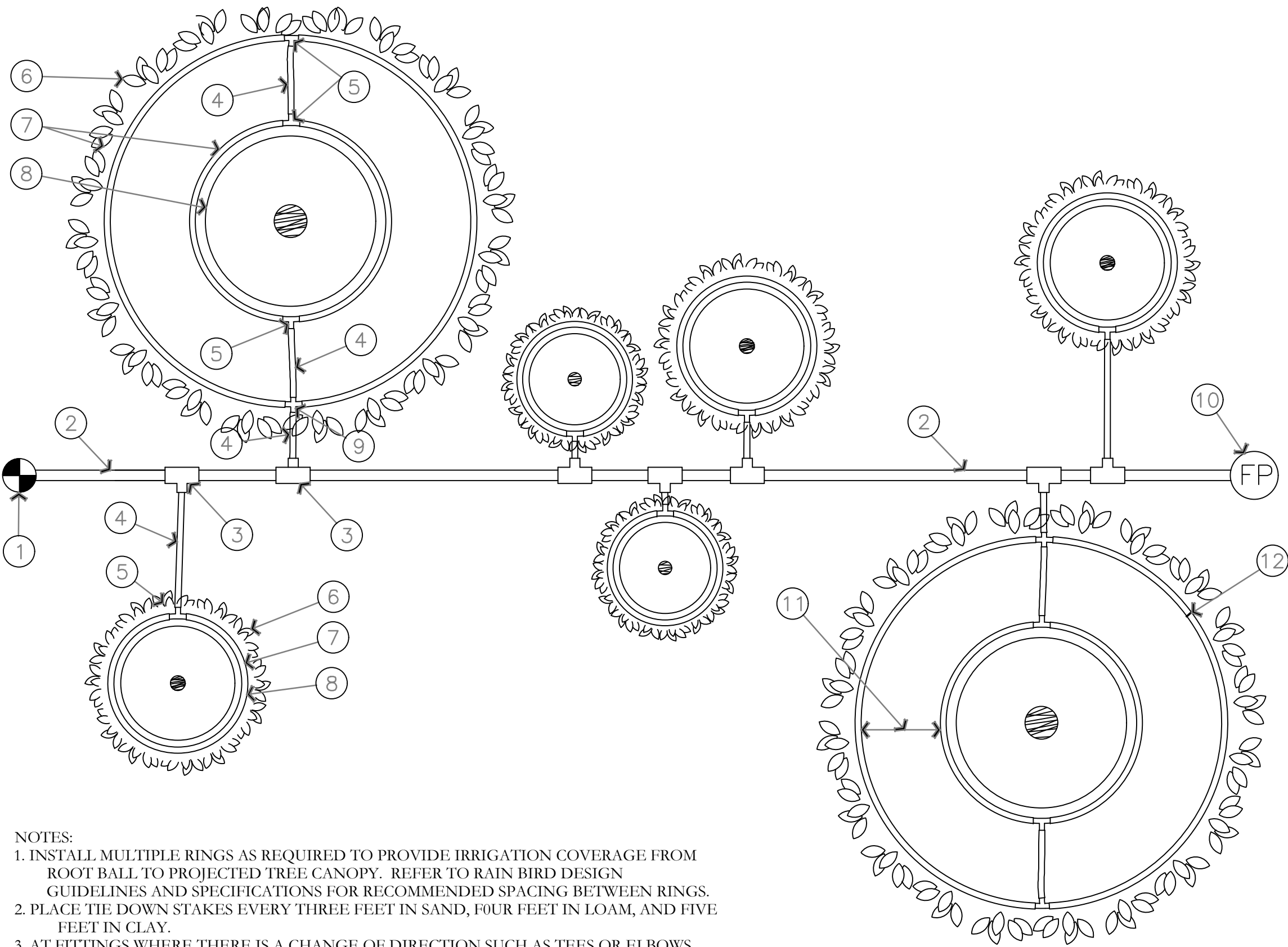
NOTE:  
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT  
FLUSHED WATER OUTSIDE VALVE BOX.

**Q** ON-SURFACE DRIPLINE FLUSH POINT DETAIL  
NOT TO SCALE



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

**R** AIR RELIEF VALVE DETAIL  
NOT TO SCALE



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

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

**S** ON-SURFACE DRIPLINE TREE/SHRUB DETAIL  
NOT TO SCALE

ISSUE DATE		PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
3/22/2024		UT22098			AE URBIA 909 W. SOUTH JORDAN PARKWAY SOUTH JORDAN, UT 84095 801-575-6455	PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com		PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 3/22/2024
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## RESIDENCES AT MILLCREEK WASHINGTON, UTAH

**IRRIGATION DETAILS**  
CITY PERMIT SET

IR-503

WASHINGTON CITY  
PLANNING COMMISSION MEETING  
STAFF REVIEW

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AGENDA ITEM:	5a
HEARING DATE:	June 05, 2024
ACTION REQUESTED:	C-24-07, A request for a Conditional Use Permit for an existing commercial development, located at 2345 North Coral Canyon Blvd.
APPLICANT:	Troy Belliston
OWNER:	DBJM Zion 225 LLC
ENGINEER:	N/A - existing development
REVIEWED BY:	Eldon Gibb, City Planner
RECOMMENDATION:	Recommend approval with conditions

---

**Background**

The applicant is requesting approval of a Conditional Use Permit to give the existing building a facelift. The new exterior finish will enhance the look of the Zion Harley Davidson business by updating the building with modern finishes and colors. The update will include painting the trim and canopies a dark gray color, painting the accent walls beige and black, installing metal copper paneling and extending the existing canopy with post and beam as shown in the exhibit. There are no other changes to the exterior building and use at this time.

Staff has reviewed the proposed project and finds that it meets the intent of the PCD Commercial use regulations.

**Recommendation**

Staff recommends that the Planning Commission recommend approval of C-24-07, allowing for the new exterior finishes to the current existing Zion Harley Davidson business located at 2345 North Coral Canyon Blvd, onto the City Council, with the findings and conditions as outlined below:

## **Findings**

1. The proposed use, at the particular location, is necessary or desirable to provide a service or facility which will contribute to the general well being of the neighborhood and community; and.
2. That such use will not, under the circumstances of the particular case, be detrimental to the health, safety or general welfare of the persons residing or working in the vicinity, or injurious to property or improvements in the vicinity; and
3. The proposed use will comply with the regulations and conditions specified in this title and associating state and federal titles, for such use; and
4. The proposed use will conform to the intent of the general plan.

## **Conditions**

1. Any site improvements shall meet the requirements of City and State adopted codes including but not limited to building setbacks.
2. The development of the site shall comply with the development as approved in the exhibits provided.
3. Any new lighting within the project development will be directed inward to the site.
4. All signage will be in accordance with the adopted sign regulations of the city.
5. Any roof mounted equipment will be screened from view with appropriate finishes closely resembling/accenting the building's exterior finishes.

Exterior remodel of the Harley Davidson building which is cosmetic but will require an amended Conditional Use Permit.





**PROJECT FLOW CARD**

**CUP-24-07 Revised Conditional Use Permit -  
Zion Harley Davidson**

Planning	Reviewed, no concern	
Hillside	NA	
Public Works	Reviewed, no concern	
Engineer	Reviewed, no concern	
Fire Dept.	Reviewed, no concern	
Parks/Trails	Reviewed, No Concerns	
Building Dept.	Ok to proceed	
Washington Power	Reviewed, no concern	
Dixie Power	NA	
Economic Dev.	Reviewed. This project meets the City's priorities for economic development. Improvements to this development are expected to generate increased sales tax to help offset the burden of residential property tax payers. RH	

Additional Comments:



## EXTERIOR RENDERING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

02





WSR-9

Coral Canyon Blvd

2343 N  
Lot 9

Town Center Dr





# ZION HARLEY-DAVIDSON

2345 N. CORAL CAYON BLVD. WASHINGTON, UT 84780

12.01.2023





## EXTERIOR RENDERING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

02





# EXTERIOR RENDERING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

03





# EXTERIOR RENDERING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# EXTERIOR RENDERING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

05





# H-D BRAND FOCAL

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

06





# MOTORCYCLE VAULT

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

07





# MOTORCYCLE SALES

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

08

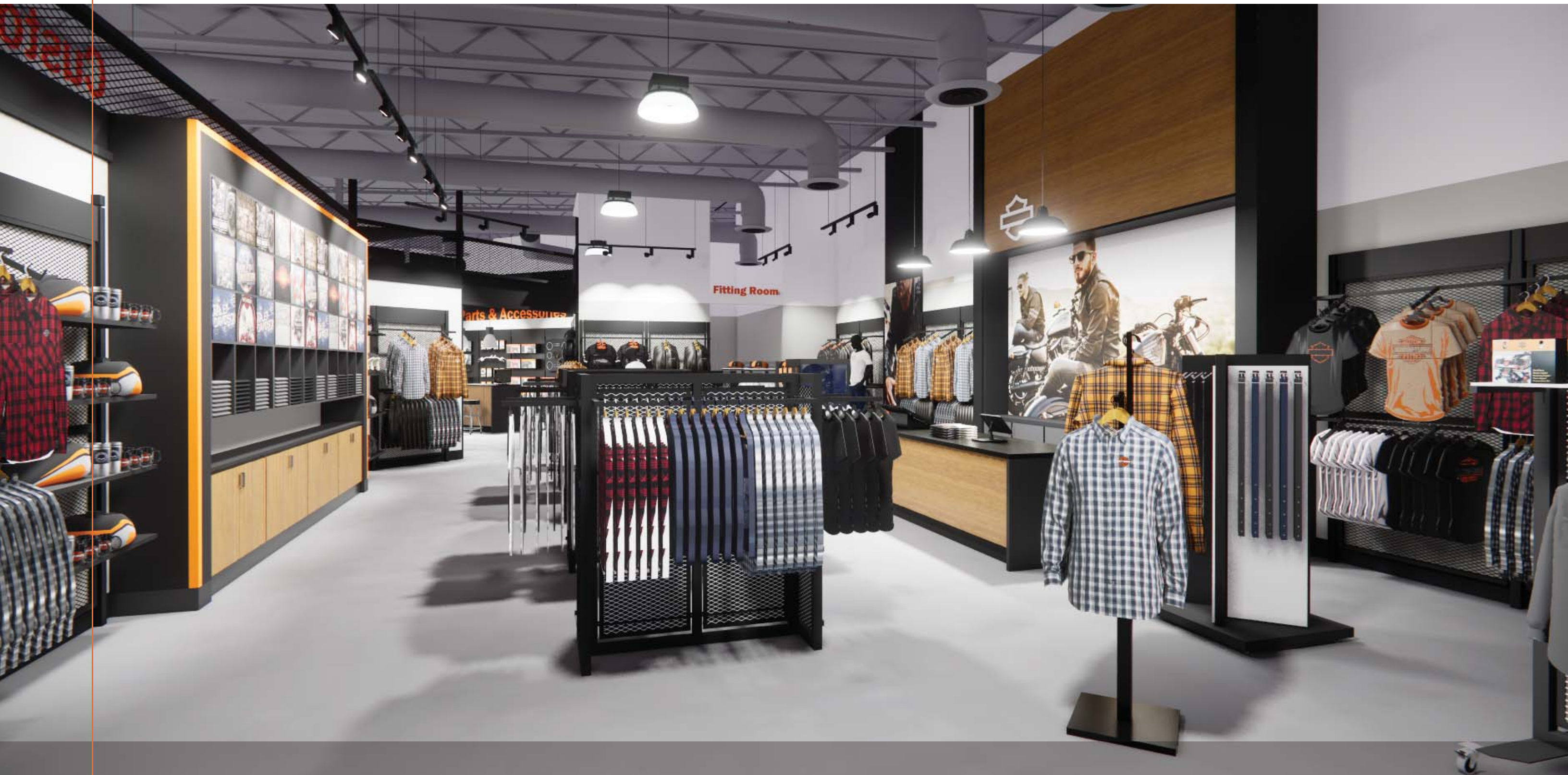




# MOTORCYCLE SALES

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# APPAREL AND LICENSING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

10

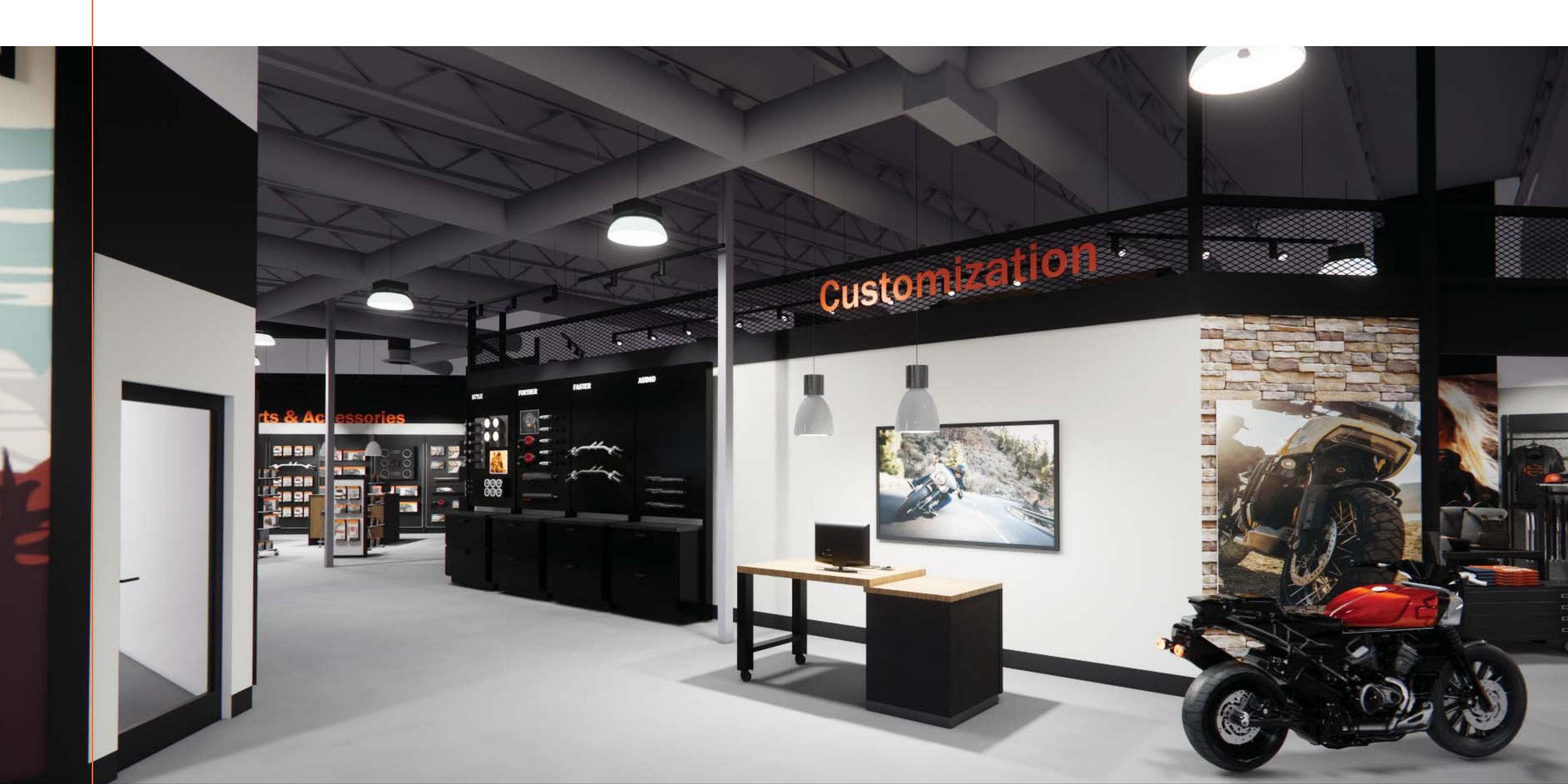




# APPAREL AND LICENSING

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# CUSTOMIZATION

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# PARTS AND ACCESSORIES

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023



STROOM



# DEALER FOCAL

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023



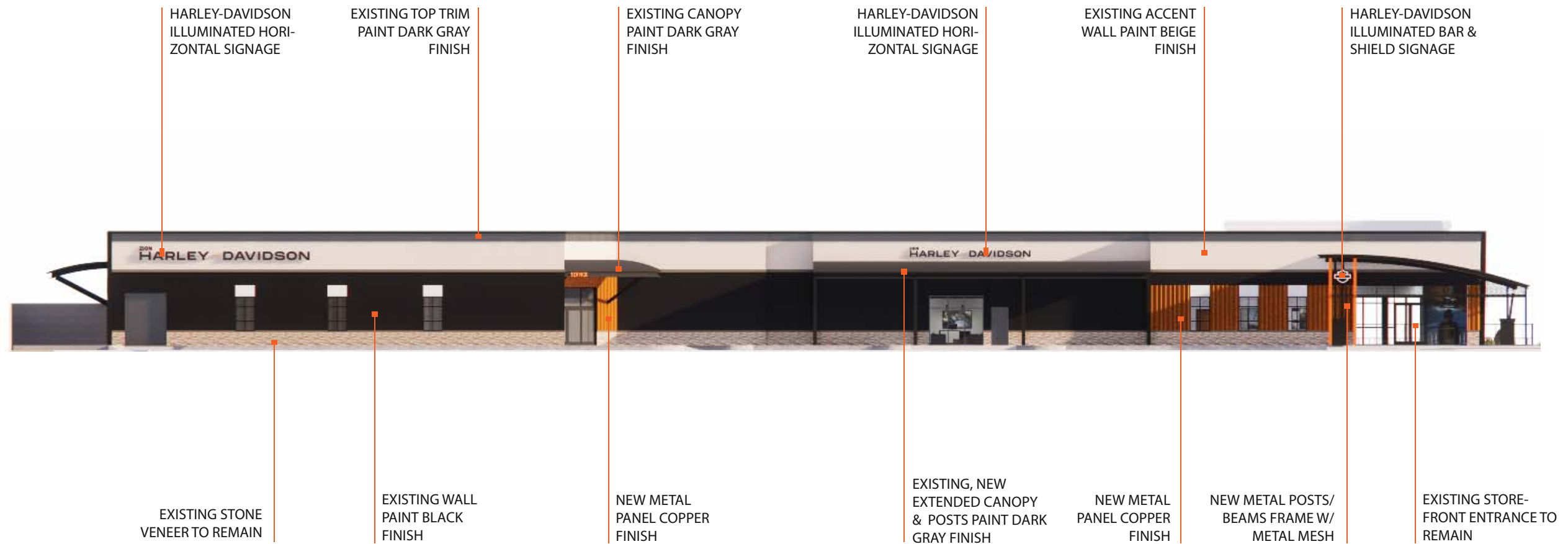


# SERVICE

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

15

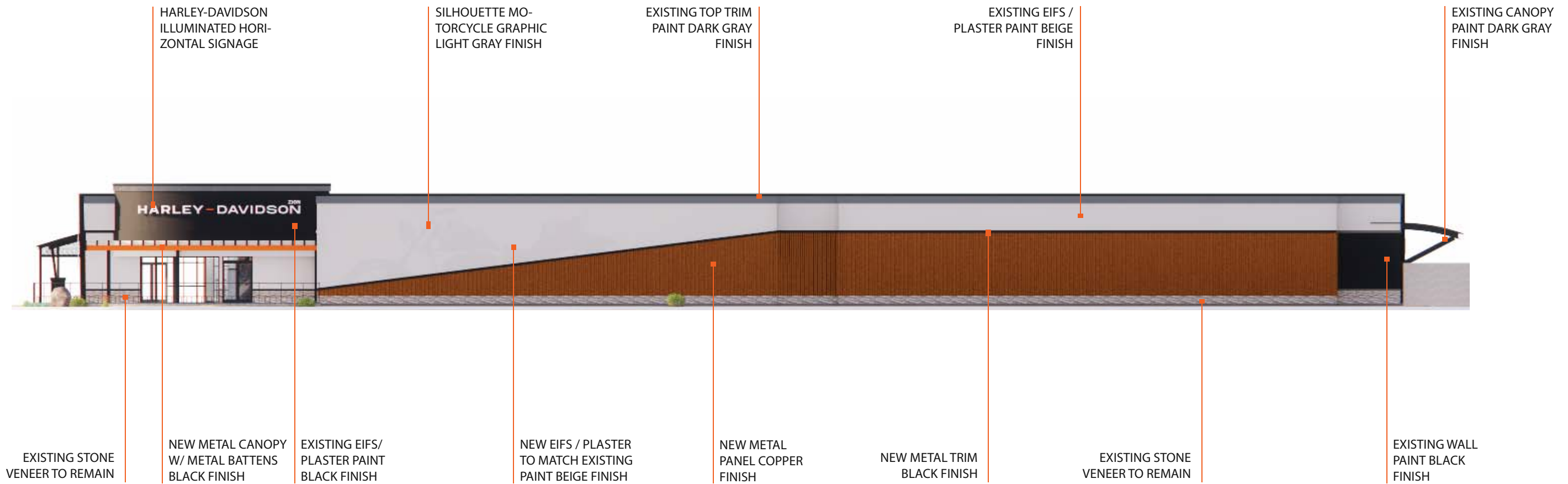




# EXTERIOR ELEVATION

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023

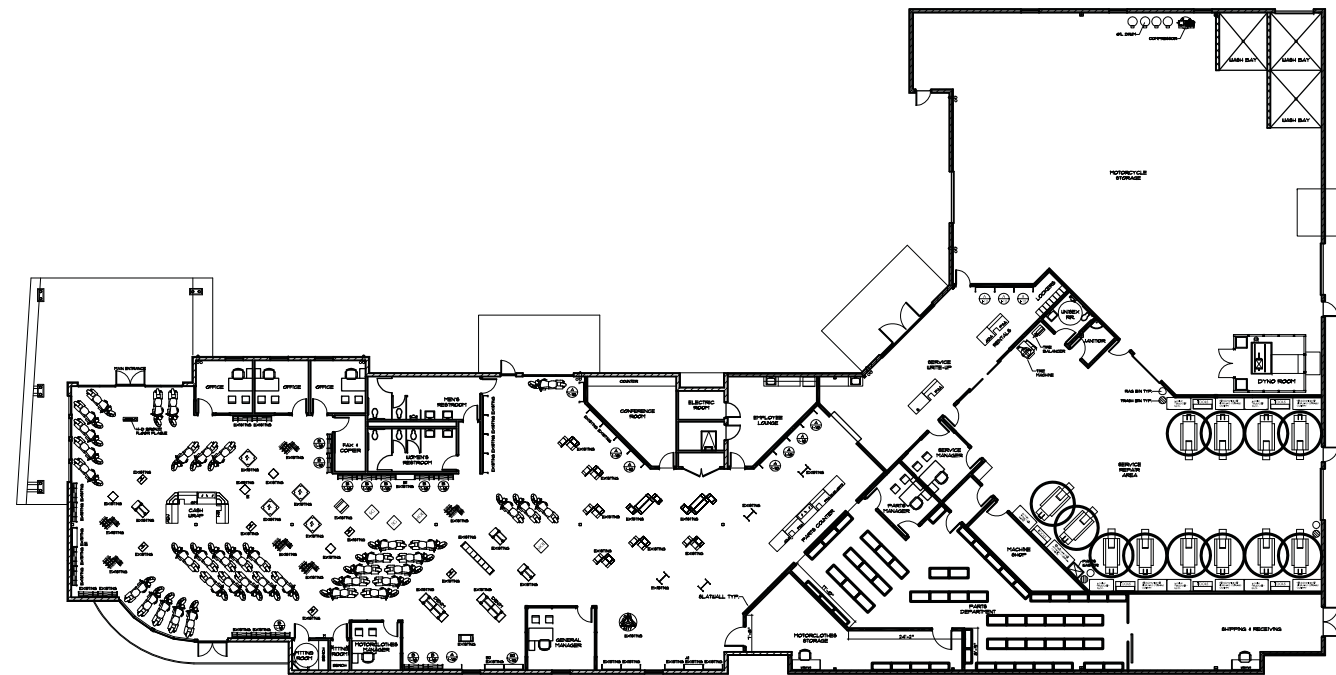




# EXTERIOR ELEVATION

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# EXISTING CONDITIONS

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# EXISTING CONDITIONS

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023





# EXISTING CONDITIONS

ZION HARLEY-DAVIDSON / DESIGNWORK STUDIOS / 12.01.2023