



Staff Report

Coalville City
Community Development Director

To: Coalville City Planning Commission
From: Don Sargent, Community Development Director
Date of Meeting: June 17, 2024
Re: Red Hills Ranch MPD Phase 1 Final Plat and Construction Drawings
Action: Public Hearing and Possible Recommendation

Red Hills Ranch MPD Phase 1 Final Subdivision Plat and Construction Drawings

REQUEST

Review, discuss, and conduct a public hearing on the updated Phase 1 Final Subdivision Plat and Construction Drawings for the Red Hills Ranch Master Planned Development (formerly known as the Parley Brown property).

This item is scheduled for a public hearing and possible recommendation.

BACKGROUND

Property Location

The Red Hills Ranch MPD property is located at approximately 800 South Main Street (Hoytsville Road) and includes several parcels on both the east and west side of Main Street as shown on the Vicinity Map in Attachment A.

MPD and Phase 1 Preliminary Plat Approval

The Red Hills MPD and Phase 1 Preliminary Plat was approved by the City Council on August 8, 2022. The ratification of the Findings of Fact, Conclusions of Law, and Conditions of Approval for the overall development, included as Attachment B, occurred on September 13, 2022. The overall MPD includes 349 total units of residential single-family-lots and townhomes on 248 acres.

Phase 1 Final Plat and Construction Drawings

The applicant, Skylar Tolbert with Ivory Homes, has applied for final subdivision plat and construction drawings approval for Phase 1 of the MPD. Phase 1 includes 7.86 acres and 31 single-family lots.

Planning Commission Review

On August 21, 2023 the Planning Commission conducted an initial public hearing on the Red Hills Phase 1 Final Plat and Construction Drawings. The Planning Commission continued the public hearing to a subsequent meeting for verification that the MPD Conditions of Approval, final plat application, and development code and engineering standards and specifications were addressed. In addition, off-site sewer and water service needed to be explored for review and consideration.

The Planning Commission reviewed and discussed the updated plan set for the project at their last meeting on May 20, 2024 and directed staff to schedule a public hearing for continued review of the project after the applicant addressed the outstanding items for a possible recommendation.

The applicant has prepared and submitted a new updated plan which can be accessed from the following Dropbox link: https://us-west-2.protection.sophos.com/?d=dropbox.com&u=aHR0cHM6Ly93d3cuZHJvcGJveC5jb20vc2NsL2ZpL2NoZ3J0bGc0OHZuZTV1eDR0OTc3cC9JbXB3ZlZlZWVudC1QbGFucy0yNDA1MjJucGRmP3Jsa2V5PXJuemRreHpqeXBly2U4azRybzQ1eWxmZHYmZGw9MA==&p=m&i=NWFmMzE5ZGE3N2E3ZjUxMzQ4MjhhMmQx&t=eXZDSzNCMjA1ZzJPQ1hGRDJmTWJXY1RRbEhKL3l5ZzhRTHhHRDh2Z2lpYz0=&h=ac736c35b1c54d4e9570522547e86c26&s=AVNPUEhUT0NFTkNSWVBUSVa766x6OUk0Kh6o48RCWyb-CQ0rnsFYr_dIAPti-j0Wkw

For reference Attachment C includes the proposed Street Tree and Park Space Landscaping, Details, and Irrigation Plans for the subdivision reviewed at the last meeting.

ANALYSIS

The applicant addressed the outstanding items for the project as requested from the last meeting. Attachment D includes the applicants responses to each item.

Staff has reviewed the responses, and it appears most of the items have generally been addressed by the applicant. Staff did note several follow-up items in red on the response for review and discussion with the Planning Commission.

Further details of the final plat and construction drawings details and will be coordinated with applicant to ensure the drawings comply with the Red Hills Ranch MPD Conditions of Approval, Development Code, and City Engineering Standards and Specifications.

The proposed options for providing sewer and water service to the project were presented by the applicant at the last Planning Commission which are included as Attachment E.

In accordance with the Development Code, the role of the Staff, Planning Commission, and City Council in the review of this application is to ensure compliance and consistency of the final plans with the approved Red Hills Ranch MPD, Development Agreement, Phase 1 Preliminary Plan, and applicable standards of the development code.

Development Agreement: A Development Agreement between the Developer and Coalville City will need to be executed with the final plat approval of Phase 1 to set forth the terms of the MPD approval, describe the developer obligations, and ensure the proposed infrastructure and

other standards and requirements for the project will be provided by the developer as represented.

Required Review Process

The final plat application process includes the review and public hearing by both the Planning Commission and City Council.

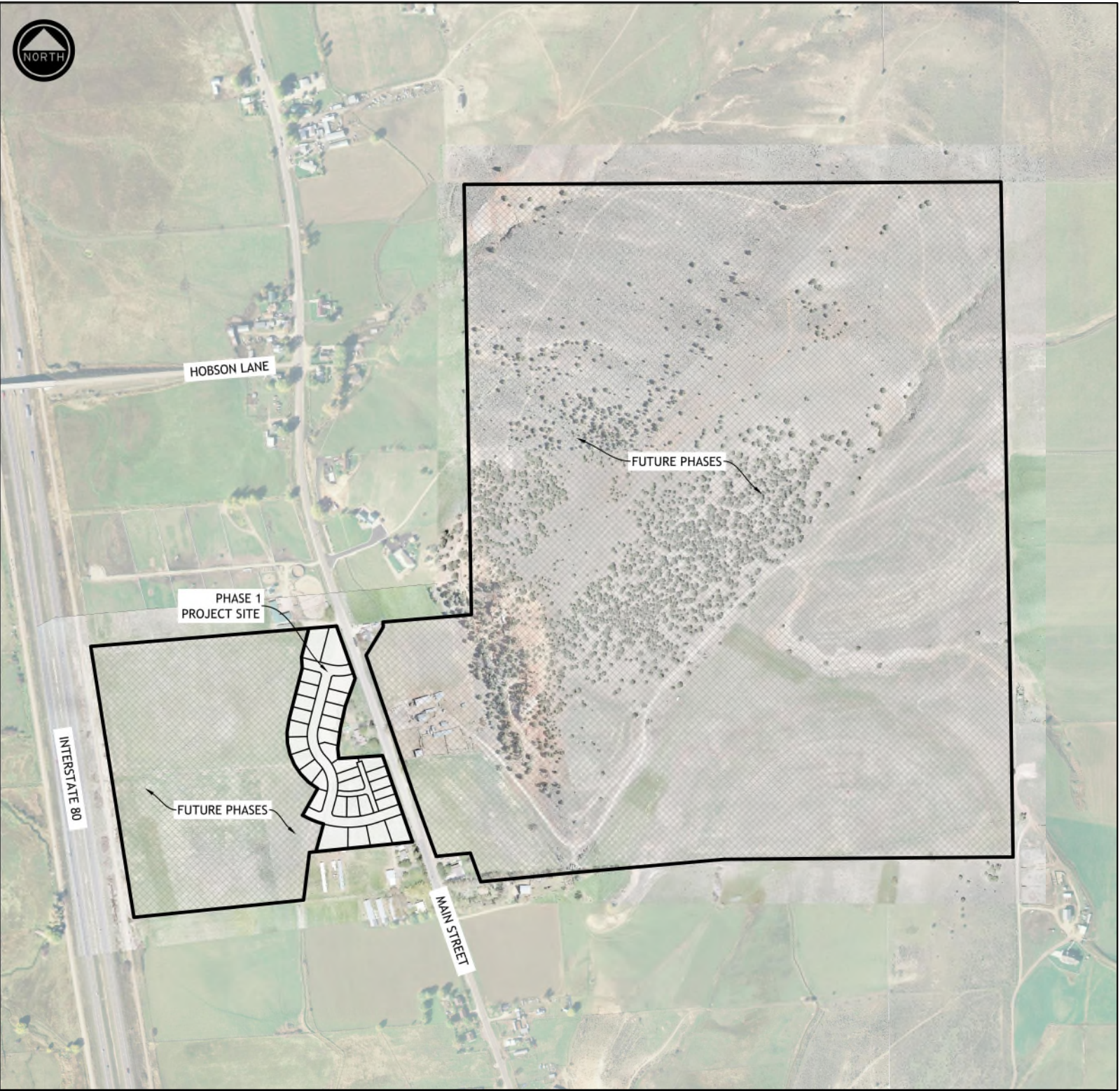
RECOMMENDATION

Staff recommends the Planning Commission review and discuss the updated Red Hills Ranch Phase 1 Final Plats and Construction Drawings, the applicant's responses to the outstanding items, conduct a public hearing, and consider making a recommendation to the City Council with the following conditions:

1. Staff shall finalize the review and verification of the final plat and construction drawing details for Phase 1 for compliance with the MPD approval, the city development code and engineering standards and specifications, and annexation agreement.
2. The applicant shall submit a draft development agreement for the MPD for Staff review and City Council approval prior to recordation of the subdivision plat (MPD COA #13).
3. Secondary water for the development to be provided by the applicant independent of the city secondary water system (MPD COA #4).
4. Final draft of workforce housing program to be provided for review and approval by the City Council prior to approval of the subdivision plat.
5. Applicant to address 30-foot and 20-foot setbacks from public and private roads per (MPD COA #20) and applicable development code requirements.
6. Street trees, park space landscaping, and trail connection to rail-to-trail installation to be the general responsibility of the developer as required by the development code and addressed in the development agreement.
7. Applicant to submit NSFD approval of the subdivision prior to City Council approval of the final plat.
8. Applicant to address open space required for each phase of the MPD in the development agreement.
9. Street lighting poles and fixtures cut-sheet details verifying full cut-off and downward lighting to be provided by the applicant prior to final plat approval by the City Council.
10. Overall fencing plan for the MPD to be addressed in the development agreement.
11. Class I Trail connection to rail-to-trail to include minimum 12-foot easement and be shown or noted on subdivision plat.
12. Designated snow storage areas to be highlighted on Sheet 0-3 of the improvement plans and be approved by public works director prior to City Council approval of subdivision plat.

Attachments:

- A.** Vicinity Map
- B.** Red Hills Ranch MPD Findings of Fact, Conclusions of Law, and Conditions of Approval
- C.** Proposed Street Tree and Park Space Landscaping, Details, and Irrigation Plans
- D.** Applicants Responses to Outstanding Items
- E.** Proposed Water and Sewer Service Off-Site Plans



VICINITY MAP
1" = 300'

RED HILLS RANCH MPD/PHASE 1 PRELIMINARY PLAN

The following are findings of fact, conclusions of law and conditions of approval for the MPD and Phase I Preliminary Plan application for the Red Hills Ranch Development by the City Council for Coalville City ("**City**").

Findings of Fact:

1. In 2001 the City annexed and rezoned the project property, formerly known as the Parley Brown property, and on December 19, 2001, the City entered into an Annexation Agreement (**Exhibit 1**) setting forth provisions for development of the property.
2. The property rezone included the Agricultural (AG), Residential Agricultural (R-5), Low Density Residential (R-1), Medium Density Residential (R-2), and High Density Residential (R-4) Zone Districts in the City.
3. The owner of the Red Hills Ranch Property, American Investment Company (Ivory Homes), ("**Applicant**") applied for a Master Planned Development (**MPD**) and Phase 1 Preliminary Plan on March 15, 2022, for the Red Hills Ranch Property.
4. The Red Hills Ranch MPD and Phase 1 Preliminary Plan Application proposed additional dwelling units above base density of the zone districts under the density bonus provisions of Section 8-6-070:C of the Development code as contemplated by Item 4 of the Annexation Agreement.
5. The maximum potential total number of dwelling units (single-family lots, and townhomes) allowed on the Red Hills Property per the annexation agreement, including the open space density bonus permitted under the Development Code is 396 dwelling units. The applicant proposed and was approved for a total of 349 dwelling units.
6. In accordance with the MPD preliminary plans, the applicant has agreed to 290 single-family dwelling lots and 59 townhome units for a total of 349 units of density for the MPD.
7. The Planning Commission reviewed and discussed the MPD and Phase 1 Preliminary Plan in work sessions beginning on March 21, 2022.
8. On April 7, 2022, the City determined that the MPD and Phase 1 Preliminary Plan application was complete and included all required information.
9. The Applicant submitted responses to the City Staff, Planning Commission and public comments addressing questions regarding the MPD and Phase 1 Preliminary Plan for the development.

10. The Applicant's responses were reviewed by the City Staff and the Planning Commission who expressed several observations and questions to the Applicant, each of which were addressed in the work sessions.
11. Following public hearings on April 18, 2022, May 16, 2022, and June 20, 2022, the Planning Commission recommended approval of the MPD and Phase 1 Preliminary Plan to the City Council on June 20, 2022.
12. The City Council reviewed and discussed the MPD and Phase 1 Preliminary Plan in work sessions beginning on June 27, 2022.
13. Following public hearings on July 11, 2022, and August 8, 2022, the City Council approved the Red Hills Ranch MPD and Phase 1 Preliminary Plan on August 8, 2022, as a land use decision confirmed in these findings of fact, conclusions of law and conditions of approval.

Conclusion of Law:

1. The proposed development is being processed as an MPD as required by the City Development Code for this type of development, which is intended to produce superior project design through development provisions consistent with the goals of the City's General Plan, existing zoning ordinances and the Annexation Agreement for the property.
2. The MPD and Phase 1 Preliminary Plan were determined to comply with the applicable Development Code standards.
3. No new zone district or rezone will result from MPD and Phase 1 Preliminary Plan, and the approval of the MPD and Phase 1 Preliminary Plan is a land use decision by the City Council, acting as the land use authority implementing existing law.
4. The specific land uses and project elements described in the MPD, and set forth in the development agreement, including ranges of dwelling units and various recreation park facilities and other concurrent permitted and supporting facilities and accessory uses, are consistent with the Development Code.
5. The MPD, as conditioned below, satisfies the required findings in Section 8-6-080 of the Development Code with evidence that supports the conclusions for the City to approve a Master Planned Development. In that regard, the City Council makes the following conclusions:
 - a. The MPD site design integrates well into the natural terrain, minimize excessive site grading, and protects and preserves surrounding natural areas.
[8-6080(A)]
 - b. The MPD makes suitable provisions for the protection, preservation, and enhancement of wildlife habitat, watercourses, riparian areas, drainage areas, wooded areas, steep terrain and similar natural features and sensitive lands,

including, but not limited to clustering development to preserve open space, sensitive lands, and wildlife habitat, while avoiding development within areas of steep terrain. **[8-6-080(B)]**

c. The MPD takes adjacent land uses into consideration and mitigates potential impacts, including but not limited to flooding, erosion, subsidence, sloping of the soil or other dangers and nuisances, through careful site planning. Integration of connectivity with adjacent properties, as applicable, has also been considered and provided. **[8-6-080(C)]**

d. The MPD has direct vehicular access from suitable a public road satisfying the requirements of the City Engineering and Development Code, as conditioned below, and fire district standards, including, Main Street (Hoytsville Road). **[8-6-080(D)]**

e. The MPD site plan shows secondary points of access on Main Street and emergency connections to adjoining properties that will be verified for the satisfaction of the required authorities prior to final approval of the development phases. **[8-6-080(E)]**

f. All roads/streets within the MPD follow the natural contours of the site wherever possible to minimize the amount of grading and balance cut and fill. **[8-6080(F)]**

g. Existing or proposed utility and public services shall be adequate to support the MPD at normal service levels and will be designed in a manner to avoid adverse impacts on existing adjacent land uses, public services, and utility resources. **[8-6080(G)]**

h. The proposed structures within the MPD are located on reasonably developable portions of the site as determined by the site analysis and sensitive lands determinations. The open areas within the MPD are designed so that existing significant vegetation can be maintained to the greatest degree possible. **[8-6080(H)]**

i. The MPD includes adequate internal vehicular and pedestrian/bicycle circulation in accordance with the principles of the City Transportation Trails Master Plan. **[8-6-080(I)]**

j. The MPD includes adequate and designated areas for snow removal and snow storage. **[8-6-080(J)]**

k. All exterior lighting within the MPD shall be downward directed and fully shielded in compliance with the City Outdoor Lighting Standards. **[8-6-080(K)]**

l. The MPD, as conditioned, complies with all the requirements of Chapter 8 of the City Subdivision Ordinance. **[8-6-080(L)]**

m. The MPD, as conditioned, is consistent with the City General Plan. **[8-6-080(M)]**

n. The Planning Commission conducted the required public hearing on the MPD and Phase 1 Preliminary Plan on April 18, 2022, with additional public hearings on May 16, 2022, and June 20, 2022. On July 11, 2022, the City Council conducted the required public hearing on the MPD and Phase 1 Preliminary Plan with an additional public hearing on August 8, 2022. **[8-6-080(N)]**

6. The City Council additionally concludes that the setbacks, lot size requirements and parking requirements noted in the below Conditions of Approval improve the project site design, result in the clustering of buildings and lots, preserve contiguous open land and natural resources, provide efficiency of infrastructure, and produce a unique product type project.

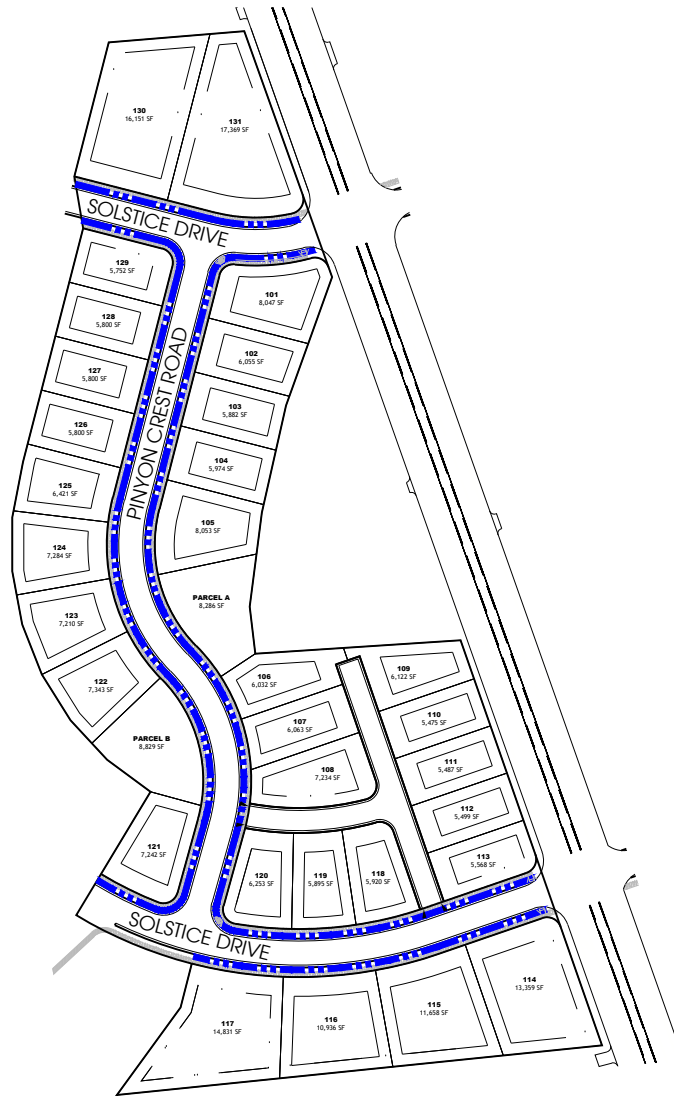
Conditions of Approval:

1. Side yard setbacks for single family dwelling lots shall be a total of 24-feet for each lot with a minimum 6-foot setback as varied for home placement and site conditions. The primary reason for allowing varied setbacks is to provide better site design options for home locations on the lots and to maintain a non-linear, non-repetitive rural design for the development. Also, permitting varied setbacks was part of the negotiations between the City and the Applicant for the developer to pave the rail trail from the Red Hills property trail connection to 100 South.
2. Side yard setbacks for townhome units shall be a minimum of 8-feet.
3. The applicant shall identify, propose and construct a new source of culinary water to serve the development with associated water rights, wet water, storage facilities, telemetry systems, distribution, and service transmission lines, for review and approval by the City as required by the annexation agreement and development code. The water system shall be constructed and operable to city and state engineering standards and specifications prior to submittal of any building permit application for a residential unit.
4. The applicant shall identify and pay for and cause to be made available to the development new irrigation water sources independent of the City Secondary Water System. The Master Developer shall construct required infrastructure and pay for all water rates and costs associated with providing and maintaining a secondary water system for the project.
5. Left and right turn lanes with acceleration and deceleration lanes shall be required for all development access points off Main Street (Hoytsville Road).
6. The applicant shall pave the rail trail from the project property to 100 South.

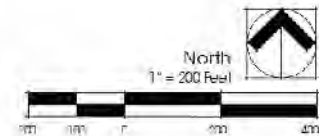
7. The applicant shall provide the parks as approved and shown on the MPD and Phase 1 Preliminary Plan to serve the development.
8. The minimum lot size for all single-family lots shall be 1/8 acre (5,445 square feet).
9. The applicant shall provide a bus stop and staging area as determined by the applicant and school district in the development on the east loop road off Main Street (Hoytsville Road).
10. Twenty-eight (28) workforce housing units (8%) of 349 units of the proposed project shall be provided and interspersed throughout the development and accounted for in each phase of the development as further specified in the development agreement.
11. The applicant shall provide specific provisions and final draft of a workforce housing program for review and approval by the City Council prior to approval of the final subdivision plat for Phase 1 of the development.
12. In accordance with Section 8-6-050 of the Development Code, the MPD shall terminate if Phase I of the final plat is not approved and recorded within three (3) years of the approval of the MPD, approved on August 8, 2022.
13. A development agreement, consistent with the MPD, these Findings, Conclusions, Conditions of Approval, the Annexation Agreement, and the Development Code, between the Applicant and the City is a condition precedent to the final plat approval and recording of the Phase I plat of the MPD.
14. The covenants, restrictions, and other provisions of the development agreement shall run with the land and be binding upon all present and future owners of any portion of the Red Hills Property in the MPD.
15. The development agreement shall implement the MPD provisions and reflect the uses and densities allowed by the MPD and shall be reviewed by the City Staff, City Council, and executed by the mayor as an executive act on behalf of the City and an authorized representative of the Master Developer.
16. The approved 349 dwelling units (290 single-family dwelling lots and 59 townhome units) in the MPD shall be detailed in the development agreement. The specific location of the units shall be determined in project phase plat applications, consistent with the MPD, development agreement, and preliminary plans.
17. The final configuration and design of concurrent permitted and supporting facilities and accessory uses shall be determined in subsequent project phase plat applications.
18. Expansion parcels surrounding and adjacent to the project site may be included within the MPD during the build-out period of the project subject to the processes and standards set forth in the development agreement and the Development Code.
19. The Master Developer shall prepare and submit an annual report for review by the City Council confirming the number of dwelling units that have been developed within the MPD along with other structures and improvements.

20. Residential development and accessory structures shall require front yard setbacks, side yard setbacks and rear yard setbacks of at least, respectively, 20 feet, 12 feet (except for varied setbacks of single-family lots) and 12 feet.
21. Maximum building heights for residential development and accessory structures shall be 35 feet.
22. In addition to the parking requirements set forth in Section 8-6-060 of the Development Code, the applicant shall incorporate shared parking areas to preserve contiguous open land and provide efficiency of parking infrastructure where possible.
23. The development agreement shall reference the standards for the design, configuration, maintenance, and performance of all public and private designated roads within the MPD.
24. The main collector roadways to their intersections with Main Street (Hoytsville Road) shall be constructed to City standards prior to occupancy of any residential unit, support facility or accessory structure as required with any applicable project phase.
25. The MPD shall provide a total of approximately 154.0 acres (62.1%) of the 247.86 acres Red Hills Ranch property in open space. Open space shall be guaranteed by deed restrictions, recorded covenants and/or conservation easement(s).
26. Details of open space protection and/or dedication shall be identified with each phase during the preliminary and final plat or site plan review and approval process, consistent with the development agreement.
27. The MPD phasing plan shall be incorporated in the development agreement. The phasing and timing of infrastructure, required to be installed by the Master Developer, within and outside of the MPD shall be specified in the development agreement.
28. The development review process for all project phases within the MPD, including building envelope review, shall be described within the development agreement.
29. A single Master Developer (or Master Developer transferee) shall be maintained throughout the build-out period of the MPD as set forth in the development agreement.
30. A Storm Water System Drainage Plan for the MPD shall be prepared by the Master Developer and reviewed and approved by the City prior to final plat approval of Phase I.
31. Right to Farm provisions shall be verified by the City prior to final plat approval of Phase I.
32. The development agreement shall include provisions confirming the MPD's requirements that Master Developer shall be responsible for on-site and off-site improvements required for the Red Hills Ranch Property.
33. Secondary and emergency access of each phase of the development shall be verified for satisfaction of the required authorities prior to final approval of any development phase of MPD.

Planting Notes . Street Trees



- (Street trees are to be located at the rate of at least one (1) tree per thirty (30) feet.) However, street trees are to be planted in informal groupings at approximately 15 to 20 feet on center with generous spacing between groupings (Two lots may combine trees to make a larger grouping of trees.) Each lot and each grouping may include one or both of the trees on the Plant List.
 - Trees are to be located 30 feet from corners of intersections
 - Trees are to be located 20 feet from any street light
 - Trees are to be located 10 feet from driveways or utilities.
- Street trees are to be planted at the following rates by individual lot:
 - Lot 114: 8 trees
 - Lots 101 and 121: 6 trees each
 - Lots 120, 129 and 131: 5 trees each
 - Parcels A and B: 4 trees each
 - Lots 105, 115 – 117 and 130: 3 trees each
 - Lots 102 – 104, 106 – 113, 118, 119, 122 – 128: 2 trees each
- Street trees in front of each lot are to be installed by the homeowner in compliance with the Street Tree Planting Plan.
- If driveways or utilities conflict with the street tree placement, the homeowner may apply through the HOA to eliminate a tree or adjust its placement.
- All park strips are to be planted with sod or an HOA-approved water-wise plan. Any water-wise park strip must include approved drip irrigated plantings of low shrubs and groundcovers covering, at maturity, at least 50% of the park strip area.



11 MAY 2024

Street Tree Plan: PHASE ONE

Street Tree Plant List . Red Hill, Coalville, Utah . Ivory Homes

KEY	BOTANICAL NAME	COMMON NAME	SIZE
	<i>Acer grandidentatum</i>	Bigtooth Maple	1 ½" cal.
	<i>Acer tatarica</i> 'Garann'	Hot Wings Maple	1 ½" cal.

RED HILLS

Coalville City, Utah

Ivory Homes . 978 Wood Oak Lane . Salt Lake City, Utah



R. MICHAEL KELLY CONSULTANTS

Land Planning | Landscape Architecture

100 Box 463 Millville, Utah 84526 | (435) 770-7512 | michael@rkc-consultants.com | www.rkc.com



Design Build
Landscape Design
Irrigation Design
Lighting Design
Digital Image Design

P.O. Box 1798
West Jordan, Utah, 84084
Office: 801-282-6303
Fax: 801-282-3076
Web: www.lmsinc.blogspot.com

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Red Hill Landscape

JOB NAME:

ORIENTATION:



DATE:

5/14/2024

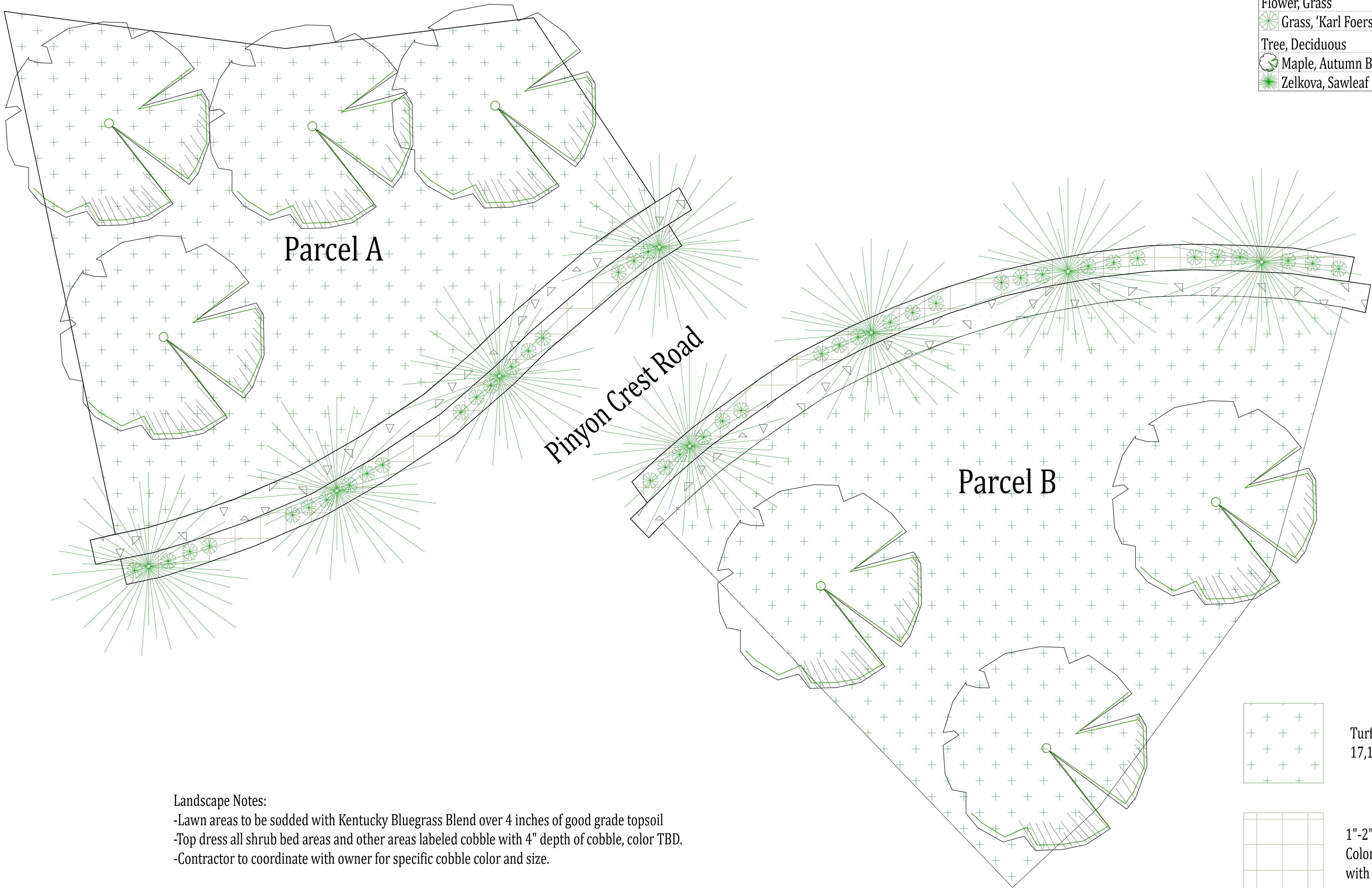
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LANDSCAPE
PLAN

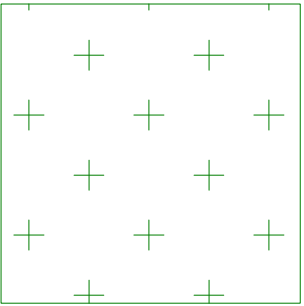
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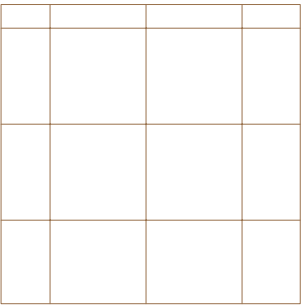
Legend			
	Common Name	Qty	Size
Flower, Grass			
	Grass, 'Karl Foerster'	43	1 Gal
Tree, Deciduous			
	Maple, Autumn Blaze	7	2"
	Zelkova, Sawleaf	8	2"



- Landscape Notes:
- Lawn areas to be sodded with Kentucky Bluegrass Blend over 4 inches of good grade topsoil
 - Top dress all shrub bed areas and other areas labeled cobble with 4" depth of cobble, color TBD.
 - Contractor to coordinate with owner for specific cobble color and size.



Turf Sod, Kentucky Blue blend
17,100 Sq Ft.

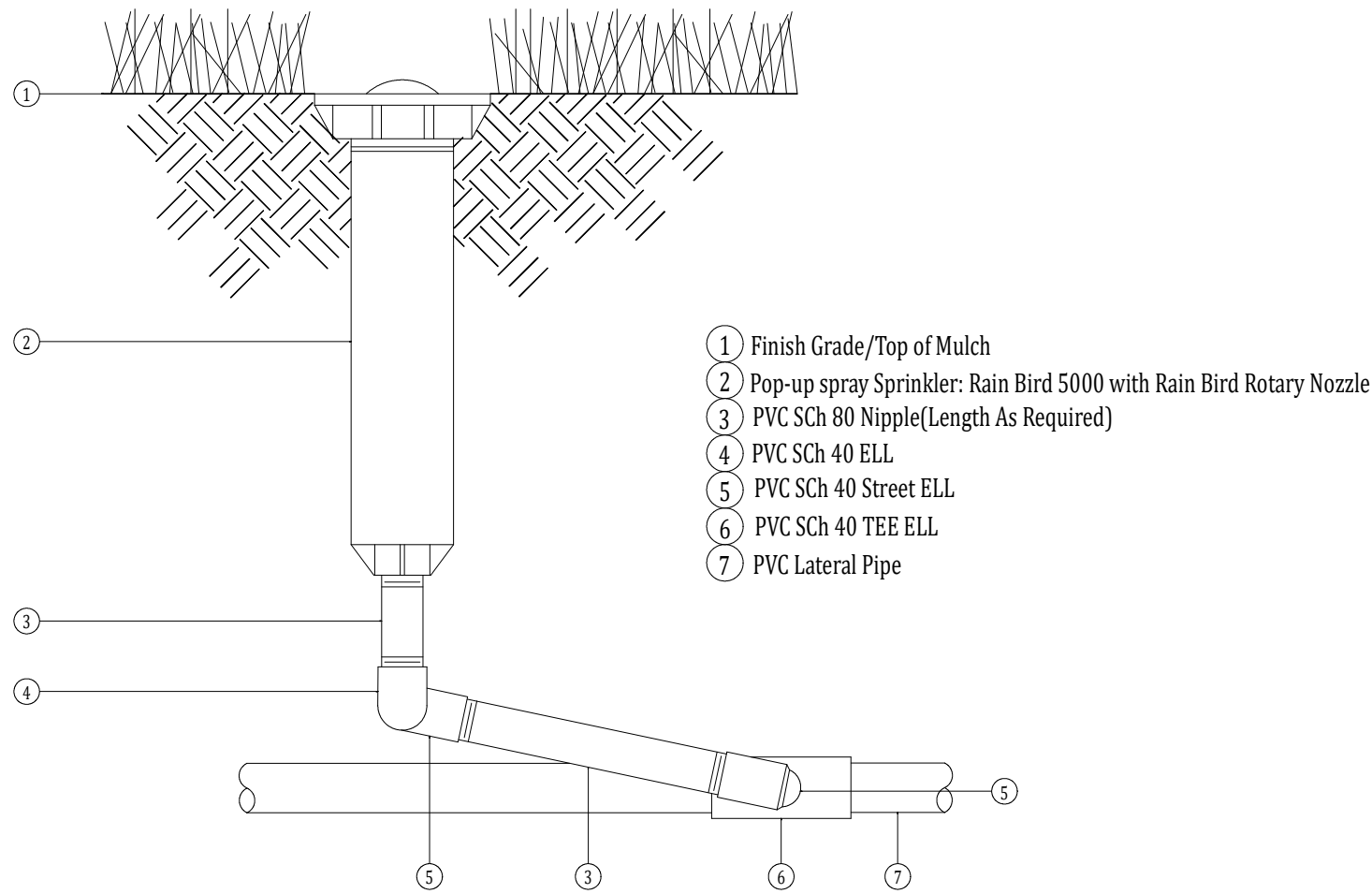


1'-2" Cobble, 26 Tons
Color TBD. Contractor to coordinate
with owner

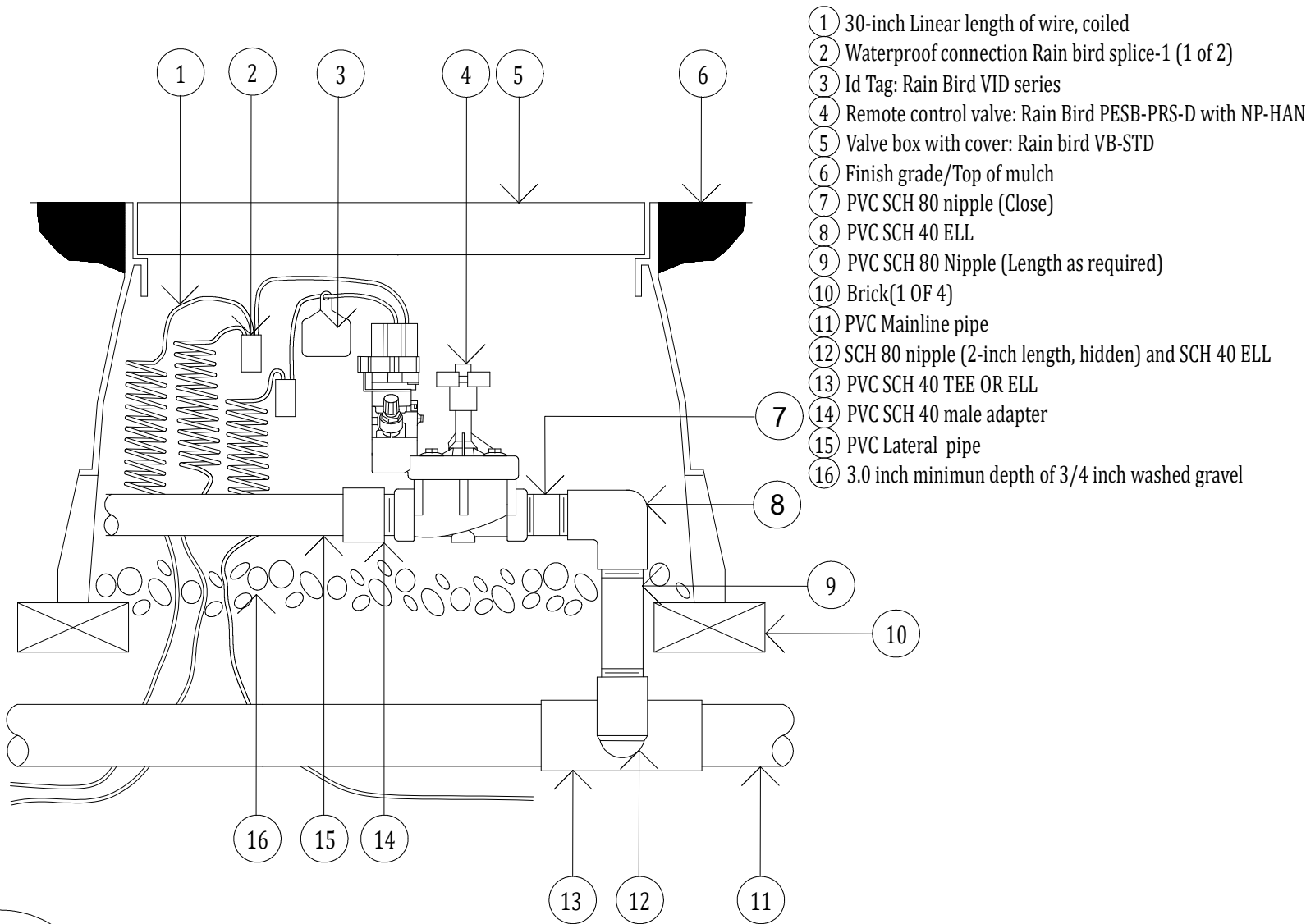


1" = 10'

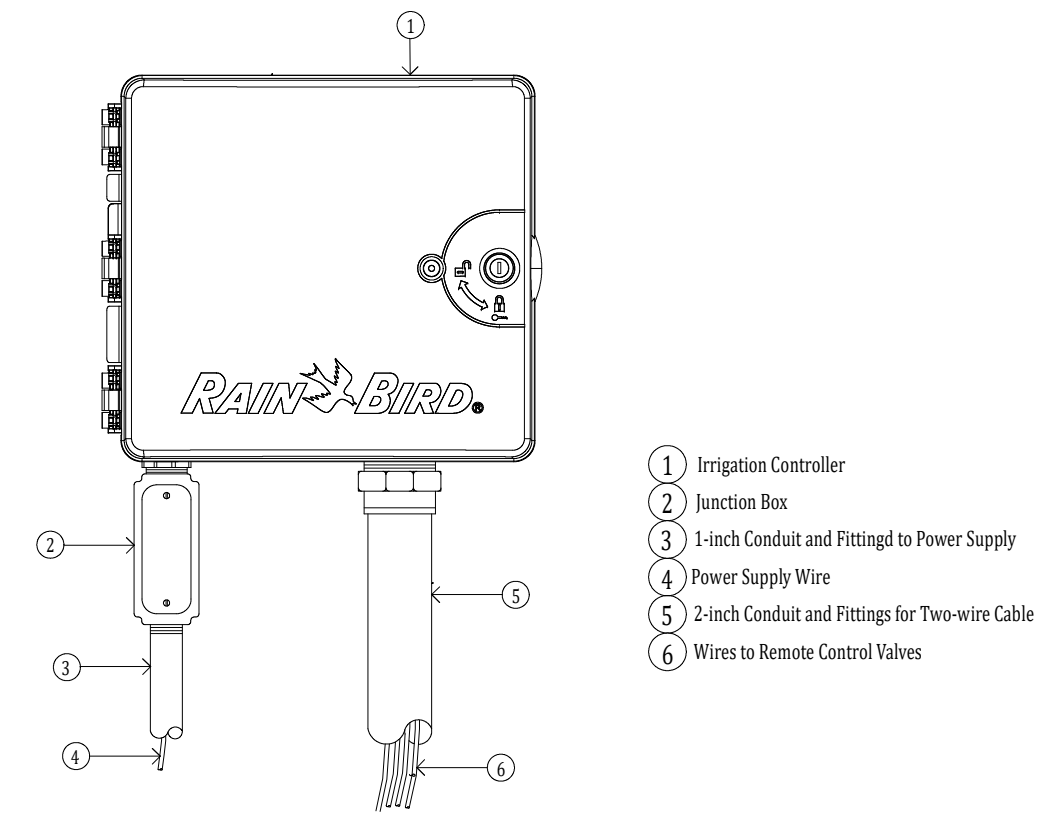
24x36



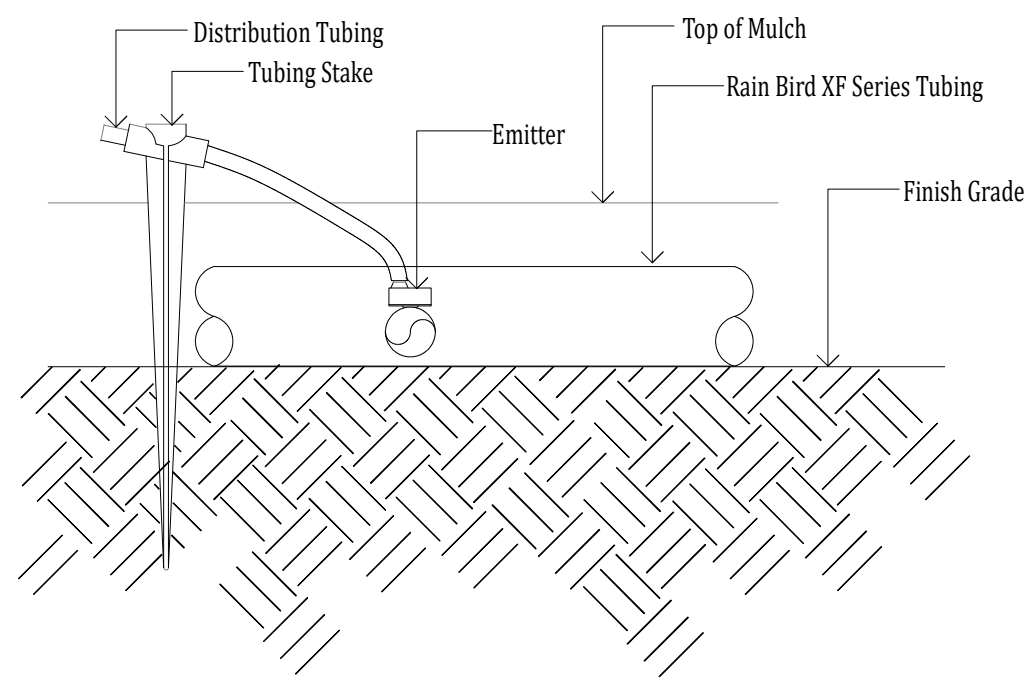
A Rotor Sprinkler Head
Not to Scale



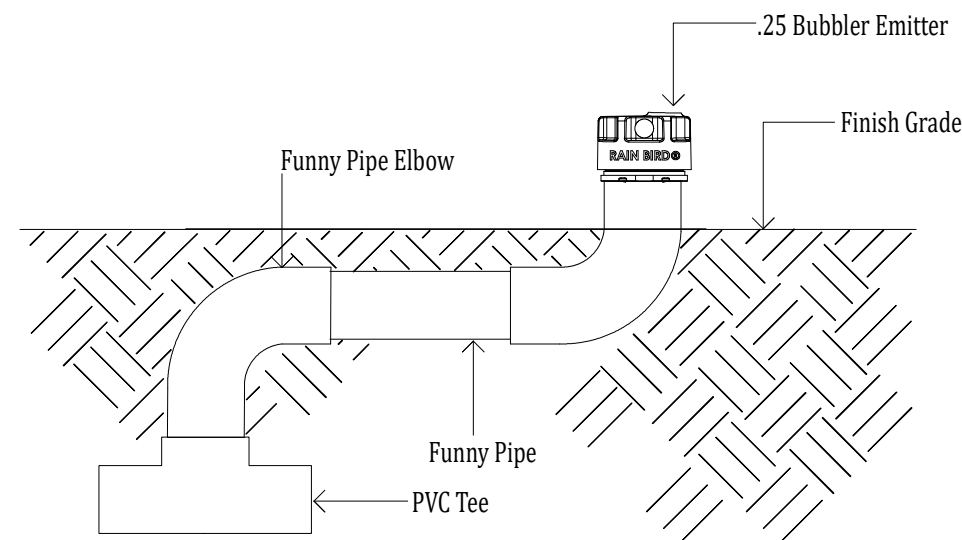
B PEB Series
Not to Scale



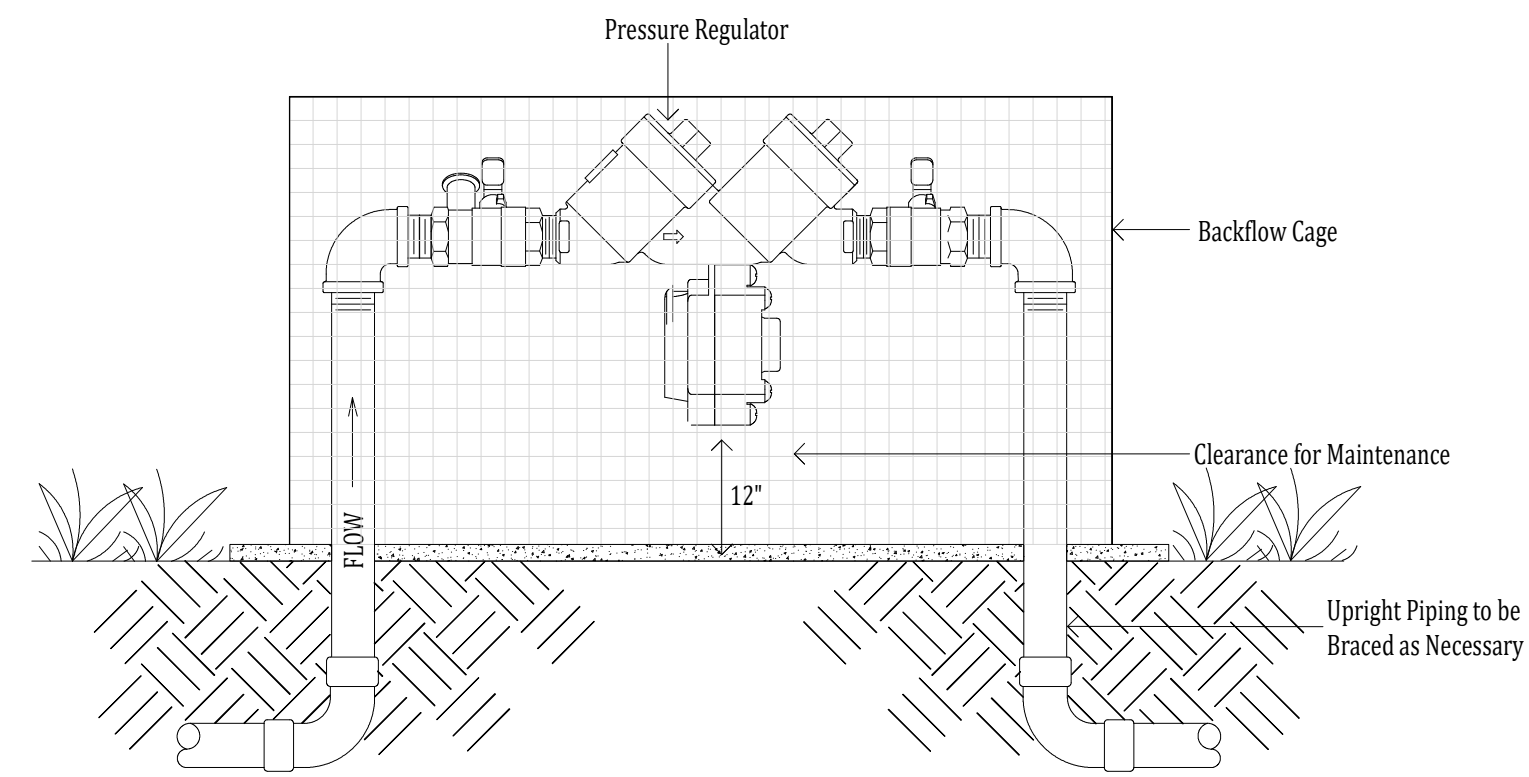
C Controller
ESP LXME



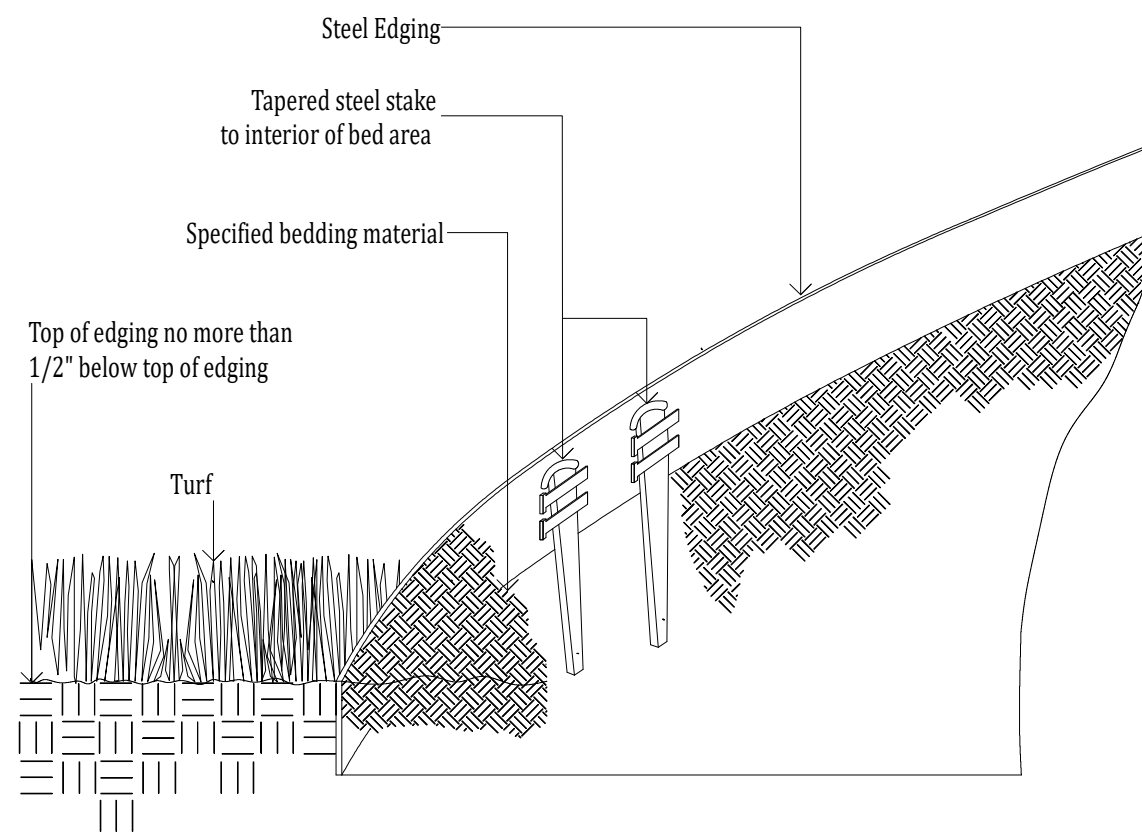
D Landscape Dripline
Not to Scale



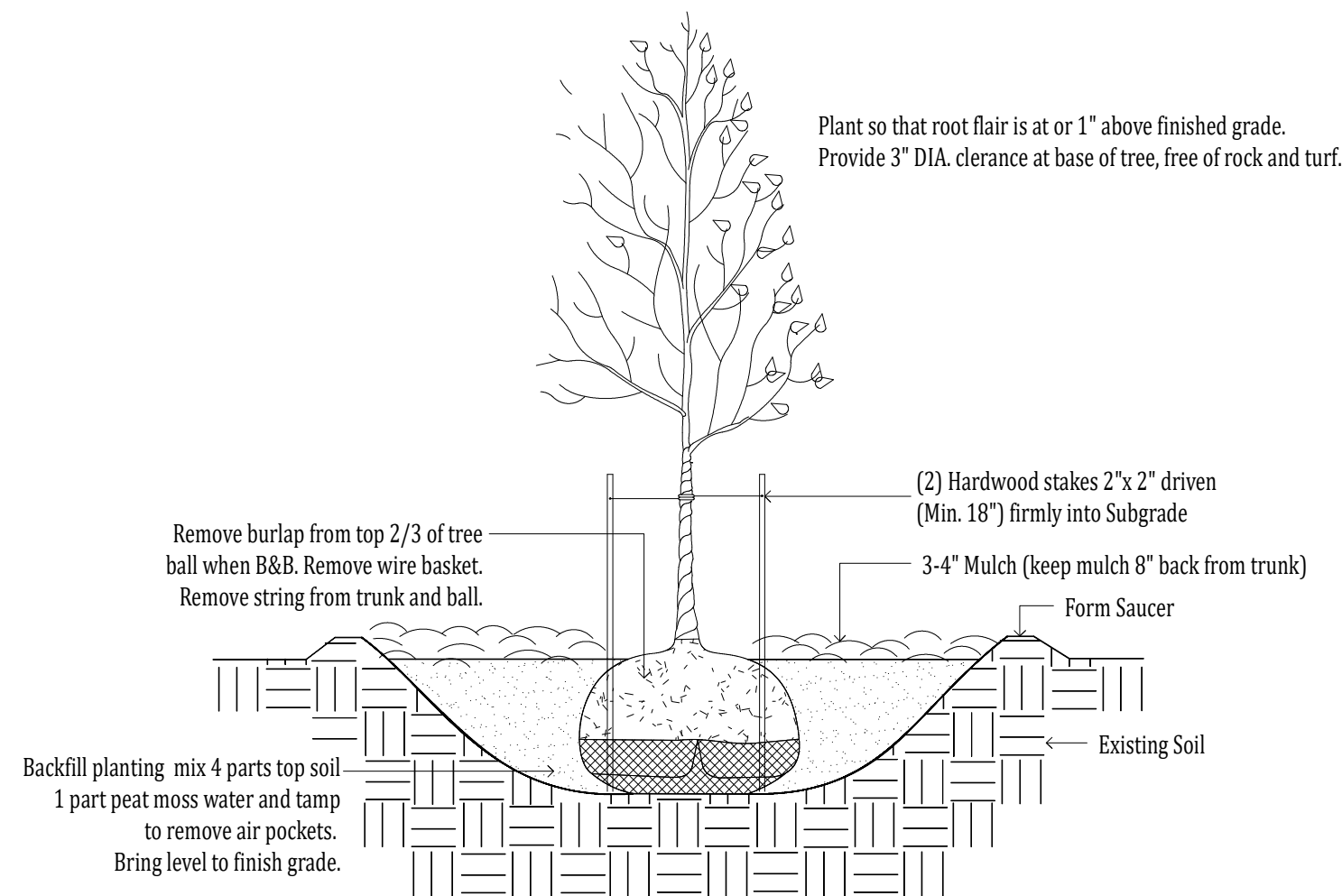
E Bubbler
Not to Scale



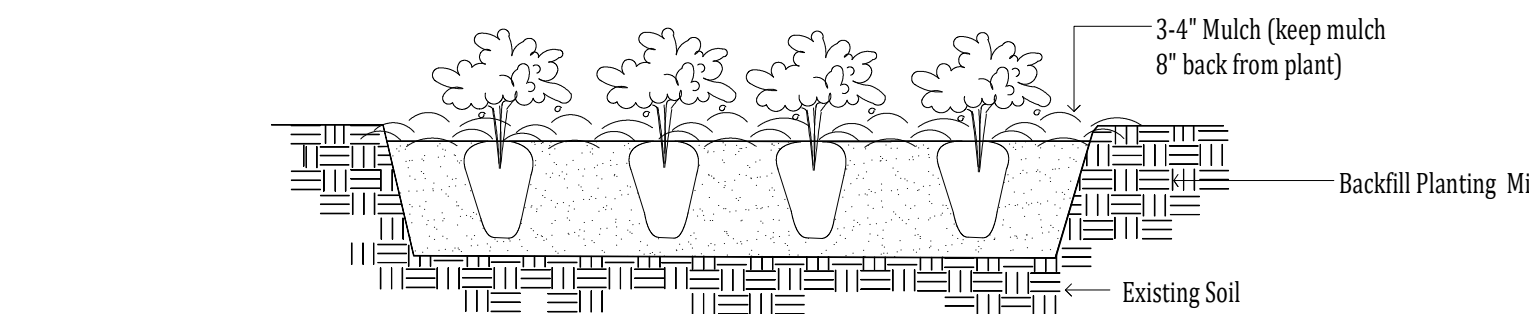
F Back Flow Preventer
Not to Scale



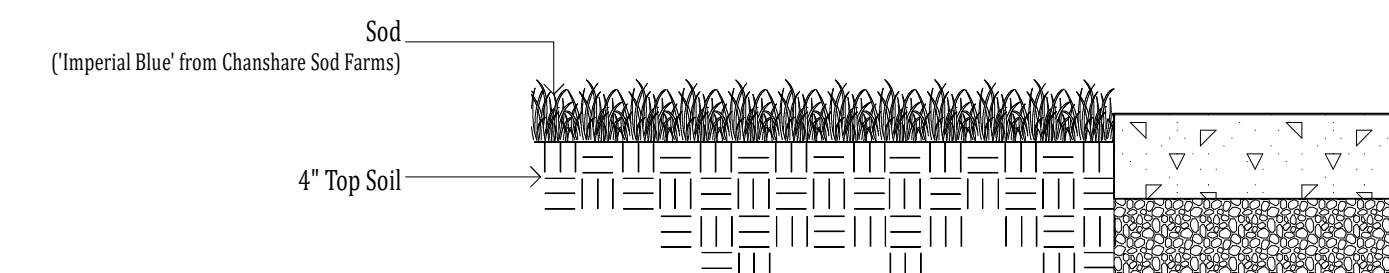
G Metal Edging
Not to Scale



H Tree Planting and Staking
Not to Scale



I Perennial Planting
Not to Scale



J Sod Installation
Not to Scale



Design Build
Landscape Design
Irrigation Design
Lighting Design
Digital Image Design

P.O. Box 1798
West Jordan, Utah, 84084
Office: 801-282-6303
Fax: 801-282-3076
Web: www.lmsinc.blogspot.com

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12/21/2022

Red Hill Details

JOB NAME:

ORIENTATION:



DATE:

5/15/2024

SHEET TITLE:

LANDSCAPE
PLAN

SHEET NUMBER:

L-3.1



Design Build
Landscape Design
Irrigation Design
Lighting Design
Digital Image Design

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Red Hill Irrigation Plan

JOB NAME:

ORIENTATION:



DATE:

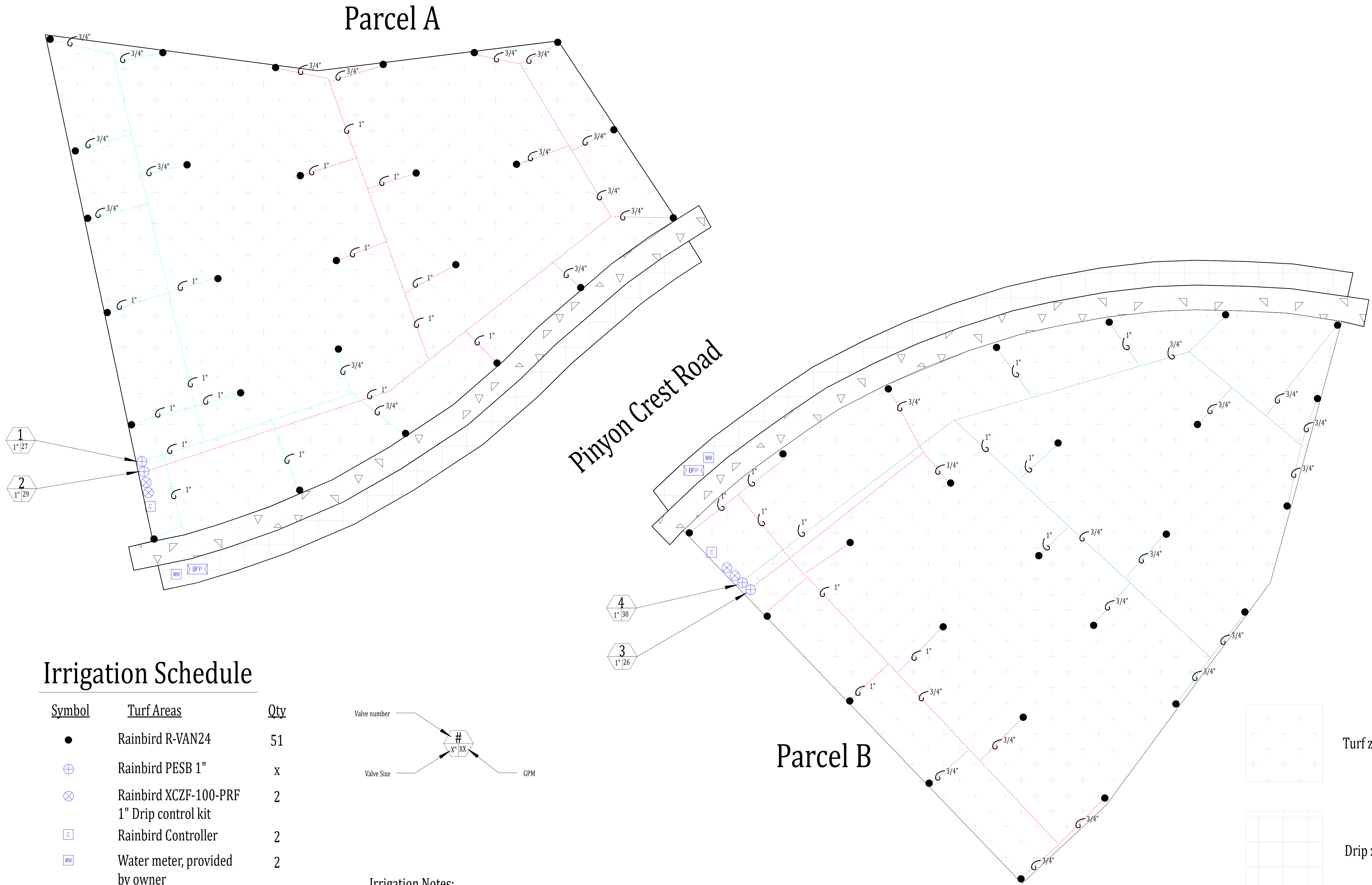
5/14/2024

SHEET TITLE:

LANDSCAPE PLAN

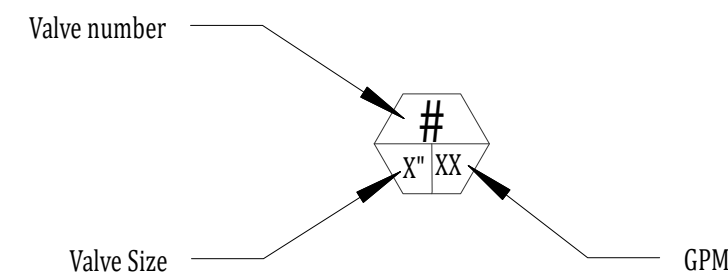
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L-100



Irrigation Schedule

Symbol	Turf Areas	Qty
●	Rainbird R-VAN24	51
⊕	Rainbird PESB 1"	x
⊗	Rainbird XCZF-100-PRF 1" Drip control kit	2
□	Rainbird Controller	2
WM	Water meter, provided by owner	2
BFP	Back Flow Preventor	2



Irrigation Notes:
-Trees and shrubs to be on separate valves
-Trees to be irrigated with bubblers
-Trees in grass not to be irrigated with drip

ATTACHMENT D

Hello Skylar, thanks for attending the Planning Commission meeting last night to review and discuss the updated Red Hills Phase 1 Final Plat and Construction Drawings. The Planning Commission directed staff to schedule a public hearing on the project for their next meeting on June 17th.

1. Provide a written response of compliance with the attached MPD conditions of approval 1, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 17, 20, 26, 30, 31, and 33.

1. *Refer to notes 8, 9, & 10 on the subdivision plat, and the setback detail on sheet O-3 of the Improvement Plans. Lots on a public and private roads require 20' setback. 30' setback required from Hoytsville Road.*
3. *This work is in process, Ivory is working with the City to finalize the design of a pipeline to bring additional water from the Weber River to the existing treatment plant.*
4. *The wet water is to be provided by NSPIC with master meters, the City will own and maintain piping in the subdivision and have individual meters. Ivory will transfer the required water shares to the City. Secondary water system to be independent of city system.*
5. *See the design on sheets O-4 and O-5 of the Improvement Plans.*
6. *The paving of the rail trail is anticipated to occur at the completion of the sewer main construction along the rail trail.*
7. *See Parcels A and B on sheet O-3 of the Improvement Plans. Additionally, refer to the landscape plans for these parcels provided separately.*
8. *Refer to the subdivision plat, the smallest lot in Phase 1 is 5,475 SF.*
10. *These units will be noted on sheet O-8 of the Improvement Plans in the phases they are provided. No units provided with Phase 1 To be addressed in the DA*
11. *Final Draft of work force housing program will be submitted to staff prior to City Council meeting and approval.*
12. *Acknowledged, it is anticipated that the Phase 1 plat will be recorded in 2024.*
13. *Final Draft of Development Agreement will be submitted to staff prior to City Council meeting and approval.*
17. *Acknowledged*
20. *Refer to notes 8, 9, & 10 on the subdivision plat, and the setback detail on sheet O-3 of the Improvement Plans.*
26. *See Parcels A and B on sheet O-3 of the Improvement Plans and note 3 on the subdivision plat.*
30. *See the design of the storm drain system on sheet O-7 of the Improvement Plans.*
31. *See note 5 on the subdivision plat*

33. Two points of access to Hoytsville Road are provided with Phase 1.

2. Provide and/or address the following information requirements of the final plat and constructions drawings application:

a. Open space plan calculations for Phase 1 the development verifying dedicated open space as approved with the overall MPD.

b. Street Lighting Plan with cut-sheet showing full cut-off and directed downward lighting fixture details.

c. Fencing Plan showing proposed locations, materials, colors, and heights.

d. Park Area Plan calculations to verify required park area of 871 square feet of park space per unit of the approved MPD.

e. Trail Plan with Class I Trail access for the required rail trail connection.

f. Trash dumpster locations and snow storage areas.

g. Add signature block to the final plat for City Community Development Director signature.

a. Open space plan calculations for Phase 1 the development verifying dedicated open space as approved with the overall MPD.

b. Street Lighting Plan with cut-sheet showing full cut-off and directed downward lighting fixture details.

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e. Trail Plan with Class I Trail access for the required rail trail connection.

f. Trash dumpster locations and snow storage areas.

g. Add signature block to the final plat for City Community Development Director signature.

See below for individual responses to these items.

1. a. *See Sheet O-8 of the Improvement Plans for a tabulation of open space provided with each phase. This table will be updated with each new phase.*

Total open space required for MPD is 36.8 acres. Phase 1 proposed is 0.39 acre.

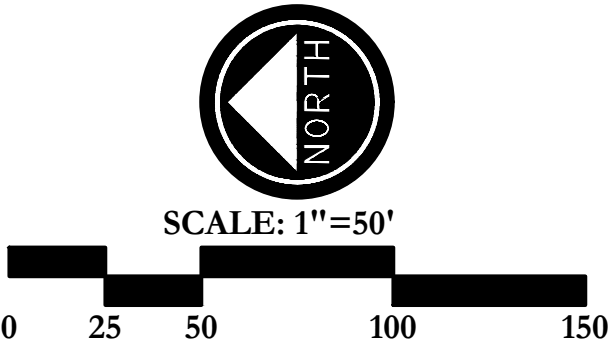
b. *The street light locations are shown on Sheet O-3. Required downlight for street lights will be submitted to city prior to installation.* Street lighting fixture details to be provided prior to City Council approval of subdivision plat.

- c. *Fencing plan will be required and added as an exhibit to the CCRs. CCRs will be recorded with the phase 1 subdivision plat.* Fencing plan to also be addressed in development agreement.
- d. *Park area is short of the 871 sf per unit requirement and will be with Phase 1 brought* current or exceed with a future phase. Applicant proposing 0.39 acre of landscaped park space for phase 1. Total required for 31 lots is 0.62 acres.
- e. *See sheet O-3 of the Improvement Plans for the trail locations and sections.* Class 1 Trail requires 12-foot easement
- f. *No dumpsters are expected, each home will have individual trash cans. Snow storage* is provided in the park strips, common parcels, and the ends of the stub roads. Designated snow storage areas to be highlighted on Sheet 0-3 of the improvement plans and be approved by public works director.
- g. *This signature block has been added to the plat, see the link above.*

RED HILL PHASE 1 SUBDIVISION

LOCATED IN THE NW QUARTER, NE QUARTER, SE QUARTER, AND SW QUARTER OF
SECTION 21, TOWNSHIP 2 NORTH, RANGE 5 EAST, SALT LAKE BASE AND MERIDIAN
COALVILLE, SUMMIT COUNTY, UTAH

30' setback required from Hoytville Road



LEGEND

- BOUNDARY LINE
- LOT LINE
- SECTION LINE
- CENTERLINE / MONUMENT LINE
- ADJACENT PROPERTY LINE
- SURVEY TIE LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- SECTION CORNER (FOUND)
- CALCULATED SECTION CORNER (NOT FOUND)
- ROAD MONUMENT
- MONUMENT TO BE SET
- SANITARY SEWER EASEMENT

NARRATIVE:
THIS SUBDIVISION PLAT WAS PREPARED AT THE REQUEST OF IVORY DEVELOPMENT FOR THE PURPOSE OF SUBDIVIDING LAND KNOWN BY THE SUMMIT COUNTY ASSESSOR AS PARCEL NUMBERS CT-482-F INTO LOTS AS SHOWN HEREON.

BASIS OF BEARING:

THE BASIS OF BEARING FOR THIS SURVEY IS THE UTAH STATE PLANE COORDINATE SYSTEM NAD83 NORTH ZONE-4301, AS DETERMINED BY GPS OBSERVATIONS FROM THE UTAH REFERENCE NETWORK (TURN) GPS, MEASURING SOUTH 89°51'50" EAST BETWEEN A FOUND SUMMIT COUNTY ALUMINUM CAP MONUMENTING THE WEST QUARTER CORNER OF SECTION 21 AND A FOUND SUMMIT COUNTY ALUMINUM CAP MONUMENTING THE EAST QUARTER CORNER OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 5 EAST, SALT LAKE BASE AND MERIDIAN.

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD DIRECTION	CHORD LENGTH
C1	21.23	15.00	N54°57'15"E	19.50
C2	80.21	225.00	N85°16'55"E	79.79
C3	22.33	15.00	S62°17'30"E	20.32
C4	68.82	150.00	N1°16'10"E	68.22
C5	40.96	200.00	N38°36'05"W	40.89
C6	85.33	150.00	N28°10'18"W	84.18
C7	49.37	200.00	N25°39'48"W	49.24
C8	53.69	200.00	N10°54'04"W	53.53
C9	24.67	15.00	S28°08'01"W	21.98
C10	122.07	274.00	S88°00'36"W	121.07
C11	35.25	200.00	N1°50'22"E	35.21
C12	23.63	15.00	S25°53'45"W	21.26
C16	23.50	15.00	S64°06'15"E	21.17
C17	69.00	450.00	N75°24'46"E	68.93

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD DIRECTION	CHORD LENGTH
C20	96.48	450.00	N85°56'50"E	96.30
C24	96.48	450.00	S81°46'05"E	96.30
C26	68.73	400.00	S76°31'43"W	68.65
C28	36.43	300.00	N77°58'22"E	36.40
C29	22.65	15.00	S62°14'34"E	20.56
C30	67.37	400.00	S86°16'34"W	67.29
C32	50.53	300.00	N86°16'34"E	50.47
C33	59.11	400.00	N84°39'55"W	59.06
C34	25.12	15.00	N32°27'01"W	22.29
C36	4.15	200.00	N14°56'14"E	4.15
C37	50.57	300.00	S84°04'10"E	50.51
C39	25.12	15.00	S63°30'48"W	22.29
C40	66.66	400.00	N63°43'51"W	66.58
C43	14.40	150.00	S12°46'53"W	14.39

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD DIRECTION	CHORD LENGTH
C44	142.68	150.00	S17°13'07"E	137.36
C47	2.54	200.00	S44°06'16"E	2.54
C48	59.39	200.00	S35°14'03"E	59.17
C49	58.30	200.00	S18°22'35"E	58.10
C50	58.85	200.00	S10°37'25"W	58.63
C51	26.46	200.00	S10°37'25"W	26.44
C55	23.56	15.00	S30°35'09"E	21.21
C56	25.42	15.00	S28°53'38"W	22.48
C57	82.39	175.00	N89°04'22"W	81.63
C58	371.05	425.00	S83°58'05"E	359.38
C59	255.99	425.00	N88°16'33"E	252.14
C60	115.06	425.00	S66°42'45"E	114.71
C61	183.26	175.00	N14°28'06"W	175.00
C62	179.85	175.00	S15°01'38"E	172.04

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD DIRECTION	CHORD LENGTH
C63	114.16	200.00	N88°03'44"E	112.61
C64	148.25	287.00	N85°49'06"E	146.61
C66	4.09	400.00	N71°18'47"E	4.09
C67	13.01	204.11	N12°28'47"E	13.01
C68	13.01	200.00	N8°45'10"E	13.01

LINE TABLE				
LINE	LENGTH	BEARING	START POINT (N, E)	END POINT (N, E)
L4	13.74	S18°58'47"E	23044.51, 11851.34	23031.52, 11855.81
L2	13.00	S71°01'13"W	23035.75, 11868.10	23031.52, 11855.81
L3	21.86	S18°58'47"E	23027.29, 11843.51	23006.62, 11850.62
L1	13.00	S71°01'13"W	23031.52, 11855.81	23027.29, 11843.51
L6	8.91	N71°01'13"E	22773.40, 11935.16	22776.30, 11943.59
L7	13.00	N71°01'13"E	22776.30, 11943.59	22780.53, 11955.88

GENERAL NOTES:

- 3/4" x 24" REBAR WITH BLUE SURVEY CAP MARKED EDM WILL BE SET AT ALL REAR LOT CORNERS
- A COPPER RIVET WILL BE SET AS AN OFFSET AS THE PROPERTY LINE EXTENDED IN THE BACK OF THE CURB.
- PARCEL A AND PARCEL B IS COMMON SPACE TO BE MAINTAINED BY THE RED HILL HOME OWNERS' ASSOCIATION.
- PRIVATE ALLEYS TO BE MAINTAINED BY THE RED HILL HOME OWNER'S ASSOCIATION.
- THE OWNERS OF PROPERTY WITHIN COALVILLE CITY RECOGNIZE THE IMPORTANCE OF AGRICULTURAL LANDS AND OPERATIONS AND SMALL RURAL BUSINESS ENTERPRISES. IT IS RECOGNIZED THAT AGRICULTURAL LANDS AND OPERATIONS AND RURAL BUSINESS ENTERPRISES HAVE UNIQUE OPERATING CHARACTERISTICS THAT MUST BE RESPECTED. (OWNERS OF EACH LOT PLATTED IN THIS SUBDIVISION / THE OWNER OF THE RESIDENCE CONSTRUCTED UPON THIS LOT) HAS BEEN GIVEN NOTICE AND RECOGNIZES THAT THERE ARE ACTIVE AGRICULTURE LANDS AND OPERATIONS AND RURAL BUSINESS ENTERPRISES WITHIN COALVILLE CITY AND ACKNOWLEDGE(S) AND RESPECT(S) THAT, SO LONG AS SUCH LANDS AND OPERATIONS EXISTS, THERE MAY BE DUST, NOISE, ODOR, PROLONGED WORK HOURS, USE OF ROADWAYS FOR THE PURPOSES OF HERDING / MOVING ANIMALS, AND OTHER ATTRIBUTES ASSOCIATED WITH NORMAL AGRICULTURAL OPERATIONS AND RURAL BUSINESS.
- ALL LOTS SHOWN ARE FOR SINGLE FAMILY DWELLINGS.
- UTILITIES SHALL HAVE THE RIGHT TO INSTALL, MAINTAIN, AND OPERATE THEIR EQUIPMENT ABOVE AND BELOW GROUND AND ALL OTHER RELATED FACILITIES WITHIN THE PUBLIC UTILITY EASEMENTS IDENTIFIED ON THIS PLAT MAP AS MAY BE NECESSARY OR DESIRABLE IN PROVIDING UTILITY SERVICES WITHIN AND WITHOUT THE LOTS IDENTIFIED HEREIN, INCLUDING THE RIGHT OF ACCESS TO SUCH FACILITIES AND THE RIGHT TO REQUIRE REMOVAL OF ANY OBSTRUCTIONS INCLUDING STRUCTURES, TREES AND VEGETATION THAT MAY BE PLACED WITHIN THE PUE. THE UTILITY MAY REQUIRE THE LOT OWNER TO REMOVE ALL STRUCTURES WITHIN THE PUE AT THE LOT OWNERS' EXPENSE, OR THE UTILITY MAY REMOVE SUCH STRUCTURES AT THE LOT OWNERS' EXPENSE, AT NO TIME MAY ANY PERMANENT STRUCTURES BE PLACED WITHIN THE PUE OR ANY OTHER OBSTRUCTION WHICH INTERFERES WITH THE USE OF THE PUE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE UTILITIES WITH FACILITIES IN THE PUE.
- THE SIDE YARD SETBACKS ARE 6' MINIMUM AND 24' TOTAL.
- THE FRONT YARD SETBACKS ARE 20' EXCEPT ON THE REAR LOAD LOTS (106-113 AND 118-120) WHICH ARE 12'.
- THE REAR YARD SETBACKS ARE 12' EXCEPT ON THE REAR LOAD LOTS (106-113 AND 118-120) WHICH ARE 20'.

CITY COMMUNITY DEVELOPMENT DIRECTOR
APPROVED AND ACCEPTED THIS ____ DAY OF _____, 20____, BY THE COALVILLE CITY COMMUNITY DEVELOPMENT DIRECTOR.
SIGNED _____ DATE _____

OWNER / DEVELOPER
IVORY DEVELOPMENT, LLC 978 EAST WOODOAK LANE SALT LAKE CITY, UTAH 84117
SIGNED _____ DATE _____

PUBLIC SAFETY ANSWERING POINT APPROVAL
APPROVED AND ACCEPTED THIS ____ DAY OF _____, 20____, BY THE GIS COORDINATOR / ADDRESSING AUTHORITY.
SIGNED _____ DATE _____

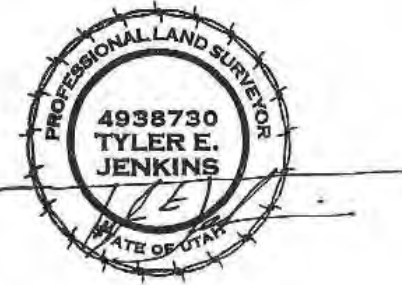
EDM Partners LLC
2815 East 3300 South, Salt Lake City, UT 84109 (801) 305-4670 www.edmpartners.com

SURVEYOR'S CERTIFICATE

I, TYLER E. JENKINS, DO HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF UTAH AND THAT I HOLD LICENSE NO.4938730 IN ACCORDANCE WITH TITLE 58, CHAPTER 22, OF THE PROFESSIONAL ENGINEERS AND LAND SURVEYORS ACT; I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS I HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS SUBDIVISION PLAT IN ACCORDANCE WITH SECTION 17-23-17 AND HAVE VERIFIED ALL MEASUREMENTS; THAT THE REFERENCE MONUMENTS SHOWN ON THIS PLAT ARE LOCATED AS INDICATED AND ARE SUFFICIENT TO RETRACE OR REESTABLISH THIS PLAT; AND THAT THE INFORMATION SHOWN HEREIN IS SUFFICIENT TO ACCURATELY ESTABLISH THE LATERAL BOUNDARIES OF THE HEREIN DESCRIBED TRACT OF REAL PROPERTY; AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS AND STREETS, HEREAFTER TO BE KNOWN AS:

RED HILL PHASE 1 SUBDIVISION

AND THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND.



BOUNDARY DESCRIPTION

A PARCEL OF LAND LOCATED IN THE NORTHWEST QUARTER AND THE SOUTHWEST QUARTER OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 5 EAST, SALT LAKE BASE AND MERIDIAN, SUMMIT COUNTY, UTAH, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHICH IS S89°51'50"E 2105.01 FEET AND N00°00'00"E 211.12 FEET FROM THE WEST QUARTER CORNER OF SECTION 21, TOWNSHIP 2 NORTH, RANGE 5 EAST, SALT LAKE BASE AND MERIDIAN, AND RUNNING THENCE S19°43'34"W 142.13 FEET; THENCE S12°44'15"W 114.30 FEET; THENCE S07°21'39"W 98.70 FEET; THENCE S06°43'16"E 49.37 FEET; THENCE N86°15'19"E 214.36 FEET; THENCE S19°13'43"E 446.93 FEET; THENCE S84°10'15"W 476.25 FEET; THENCE N15°31'54"E 141.11 FEET; THENCE ALONG A NON-TANGENT CURVE TO THE RIGHT, HAVING A RADIUS OF 450.00 FEET, A DISTANCE OF 112.24 FEET, A CHORD DIRECTION OF N67°19'23"W, AND A CHORD DISTANCE OF 111.95 FEET; THENCE N29°49'20"E 150.00 FEET; THENCE N54°55'07"W 55.00 FEET; THENCE N44°24'00"W 55.00 FEET; THENCE N33°52'54"W 55.00 FEET; THENCE N23°21'48"W 55.00 FEET; THENCE N12°50'41"W 55.00 FEET; THENCE N02°19'35"W 55.00 FEET; THENCE N08°59'57"E 63.61 FEET; THENCE N14°24'51"E 260.00 FEET; THENCE N04°36'35"W 52.89 FEET; THENCE N14°24'51"E 145.91 FEET; THENCE N85°17'11"E 136.28 FEET; THENCE S19°39'11"E 272.04 FEET TO THE POINT OF BEGINNING.

CONTAINS 7.86 ACRES IN AREA, 31 LOTS AND 2 PARCELS

OWNER'S DEDICATION

I/WE, THE UNDERSIGNED OWNER(S) OF THE HEREIN DESCRIBED TRACT OF LAND, DO HEREBY SET APART AND SUBDIVIDE THE SAME INTO LOTS AND STREETS AS SHOWN HEREON TO BE HEREAFTER KNOWN AS:

RED HILL PHASE 1 SUBDIVISION

AND DO HEREBY DEDICATE FOR PERPETUAL USE AND DO HEREBY GRANT UNTO EACH PRIVATE UTILITY COMPANY AND PUBLIC UTILITY AGENCY PROVIDING UTILITY SERVICES TO THIS PROJECT, A PERPETUAL NON-EXCLUSIVE EASEMENT IN ALL AREAS SHOWN HEREON INCLUDING THE PUBLIC ROADWAYS TO INSTALL, USE, KEEP, MAINTAIN, REPAIR AND REPLACE AS REQUIRED, UNDERGROUND UTILITY LINES, PIPES AND CONDUITS OF ALL TYPES AND APPURTENANCES THERETO SERVING THIS PROJECT.

NAME: CHRISTOPHER P. GAMVROULAS
TITLE: PRESIDENT OF IVORY DEVELOPMENT, LLC

LLC ACKNOWLEDGEMENT

STATE OF _____)
COUNTY OF _____)

ON THIS ____ DAY OF _____, 20____, PERSONALLY APPEARED BEFORE ME, WHO BEING BY ME DULY SWORN DID SAY THAT THEY ARE THE CHRISTOPHER P. GAMVROULAS, OF IVORY DEVELOPMENT LLC, AND THAT THE FOREGOING INSTRUMENT WAS SIGNED IN BEHALF OF SAID LIMITED LIABILITY COMPANY BY AUTHORITY OF ITS PRESIDENT, AND THEY ACKNOWLEDGED TO ME THAT SAID LIMITED LIABILITY COMPANY EXECUTED THE SAME.

NOTARY PUBLIC

MY COMMISSION EXPIRES: _____
MY COMMISSION NUMBER: _____
RESIDING IN _____ COUNTY, _____

RED HILL PHASE 1 SUBDIVISION

LOCATED IN THE NW QUARTER, NE QUARTER, SE QUARTER, AND SW QUARTER OF
SECTION 21, TOWNSHIP 2 NORTH, RANGE 5 EAST, SALT LAKE BASE AND MERIDIAN
COALVILLE, SUMMIT COUNTY, UTAH

SHEET 1 OF 1

SUMMIT COUNTY RECORDER
RECORDED # _____
STATE OF UTAH, COUNTY OF SUMMIT, RECORDED AND FILED AT THE REQUEST OF: _____
DATE: _____ TIME: _____ BOOK: _____ PAGE: _____
FEE _____
SUMMIT COUNTY RECORDER



MEMORANDUM

To: Skylar Tolbert, Ivory Development
From: Peter Duberow, EDM Partners
Date: March 26, 2024
Subject: **Red Hill Offsite Water and Sewer Up Sizing**

INTRODUCTION

This memorandum has been prepared to summarize the offsite drinking water and sanitary sewer improvements associated with the Red Hill project in Coalville City, UT. Red Hill is a 349-unit development that will be constructed in multiple phases over the next several years. The project is located at the south end of the City with portions of the project located on either side of Hoytsville Road.

In addition to memorializing the plans for providing drinking water and sanitary sewer to the site, this memo also discusses the actual and potential for upsizing each facility for the benefit of Coalville City.

DRINKING WATER

The Red Hill Development is preliminarily entitled based on an existing development agreement (DA) with Coalville City. Per the DA, Red Hill is required to provide a drinking water source adequate for the indoor demands of the proposed 349 units. The Utah Division of Drinking Water (UDDW) standard source requirement is 800 gpd/ERU. For the Red Hill project, this equates to 279,200 gpd (200 gpm +/-). In addition to the source requirement, the DA requires that the development install any necessary storage, pump stations, and transmission lines required to support the project. Per coordination with Coalville City consulting engineer, the City desires to upsize some infrastructure capacities by 550 - 750 gpm.

To provide a drinking water system to the Red Hill project a water system master plan was prepared and consists of the following proposed improvements:

Offsite Improvements

1. **Diversion Connection** - Connect to the existing Weber River Diversion located just south of Icy Springs Road on the west bank of the River. (The connection is to be sized for Red Hill and Coalville City demands).
2. **Raw Water Booster Pump Station (BPS)** - Install a BPS to lift water from the existing wet well at the diversion to the Coalville City's Water Treatment plant. (The pump station is to be sized for Red Hill source demand = 200 gpm)
3. **Raw Water Line** - Install 3,330 LF raw water line from the diversion BPS to the Coalville City Water Treatment Plant. This task includes 350 LF of cased crossing below I-80. (Water line sized for Red Hill and Coalville City)
4. **Water Treatment Upgrades** - Upgrade the existing Coalville City water treatment plant from the current treatment capacity of 300 gpm to the ultimate treatment capacity of 600 gpm. Please note the existing source capacity to the plant (200 gpm) is less than the output capacity (300 gpm). The plant upgrade, in conjunction with the items above, will double the output capacity of the plant and provide source water adequate to achieve said output capacity. Red Hill gains the required 200 gpm source capacity and Coalville



increases output capacity from 200 gpm currently, to 400 gpm to the City and 600 gpm, total.

Onsite Improvements

5. **Water Line Upsize** - Upsize the existing Hoytsville Road water line from Hobson Lane to Red Hill.
6. **Onsite BPS** - This pump station will serve approximately two-thirds of the Red Hill units. The BPS will take suction from the Icy Springs zone and pump to a new storage tank on Red Hill property. It may be feasible to match overflow elevations of the Red Hill Tank with the 1 Million Gallon Tank. The approximate flow rate of the Red Hill BPS is 130 gpm.
7. **Water Storage Tank** - Construct on-site storage tank. The tank is to be sized for 349 Red Hill Units and fire flow. Minimum Tank size is 319,600 gallons.

Refer to Figure C-1, attached, for a depiction of required offsite improvements. Please note, onsite improvements are not shown on the offsite figure.

DRINKING WATER UPSIZING

Based on coordination with City Staff and Consulting Engineer JUB, the following items have been upsized to provide additional capacity for Coalville (Note: the numbers below correspond with the item numbers listed above).

Offsite Improvements

1. **Diversion Connection** - Red Hill Flow Rate = 200 gpm; Additional City Flow Rate = 550 gpm; Design Flow Rate = 750 gpm. Red Hill Required Size = 8"-dia; Combined Required size = 12"-dia. (550 gpm represents capacity for 990 additional units)
2. **Raw Water Booster Pump Station (BPS)** - Red Hill Flow Rate = 200 gpm; Additional City Flow Rate = 0 gpm; Design Flow Rate = 200 gpm. No upsize requested by City.
3. **Raw Water Line** - Red Hill Flow Rate = 200 gpm; Additional City Flow Rate = 750 gpm; Design Flow Rate = 950 gpm. Red Hill Required Size = 6"-dia; Combined Required size = 10"-dia. (750 gpm represents capacity for 1,350 additional units)
4. **Water Treatment Upgrades** - Benefit to Redhill = 200 gpm source. Benefit to Coalville = output capacity increased from 300 gpm to 400 gpm (not including Red Hill). (After removing the Red Hill 200 gpm, the remaining 100 gpm in increased output represents capacity for 180 additional units)

Onsite Improvements

5. **Water Line Upsize** - No additional upsize requested.
6. **Onsite BPS** - No additional upsize requested.
7. **Water Storage Tank** - No additional upsize requested.

SANITARY SEWER

To provide sanitary sewer service to the 349 units associated with the Red Hill Project, several alternatives were considered. The selected alternative consists of installing a gravity collection line from Red Hill to the Coalville City Water Reclamation Facility (CCWRF). The gravity line will be installed within the rail trail corridor to one manhole upstream of the Plant Drain lift station. The Courtney Richins project located north of Red Hill has agreed to cost share in the outfall based on their anticipated development containing 75 units.

The gravity collection line has been sized based on master planning documents prepared by JUB, as follows:

- Average Annual Daily Flow (AADF) of 310 gpd/ERU (per JUB Report, 2012).
- Maximum Daily Flow (MDF) peaking factor of 3.3 (per JUB Report , 2005).
- Sewers sized to be 2/3 full max.
- Slopes are based on UDEQ requirements and EDM Partners preliminary design dated 02/20/24.

The following items are required to complete the offsite improvements for sanitary sewer:

1. **Gravity Collection** - Install 9,600 LF of 8" and 10" sewer and 26+/-manholes.
2. **Plant Drain Lift Station Upgrades** - It is anticipated that upgrades will be required for the existing lift station. The extent of the required upgrades is still in discussion with the City.

Refer to Figure C-2, attached, for a depiction of required offsite sanitary sewer improvements.

SANITARY SEWER UPSIZING

To date, no specific upsizing has been requested from the City. To help facilitate a decision on the nature of the upsizing, EDM Partners has prepared an analysis of alternatives. The analysis considers flows generated by Red Hill and the Richins project as well as the design slopes presented on the preliminary plans. Available capacity was then determined for five scenarios. The scenarios and their results were as follows:

1. Available capacity, no upsize (8" & 10") = 36 units
2. Available capacity, Increase pipe sizes by one size (10" & 12") = 410 units
3. Available capacity, Increase pipe sizes by two sizes (12" & 15") = 931units
4. Available capacity, Increase pipe sizes by three sizes (15" & 18")= 2,034 units
5. Available capacity, Increase pipe sizes by four sizes (18" & 21") = 3,496 units

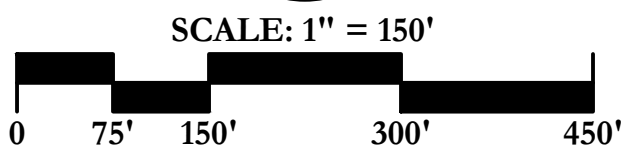
Refer to the attached sanitary sewer calculations for more information.

EDM Partners

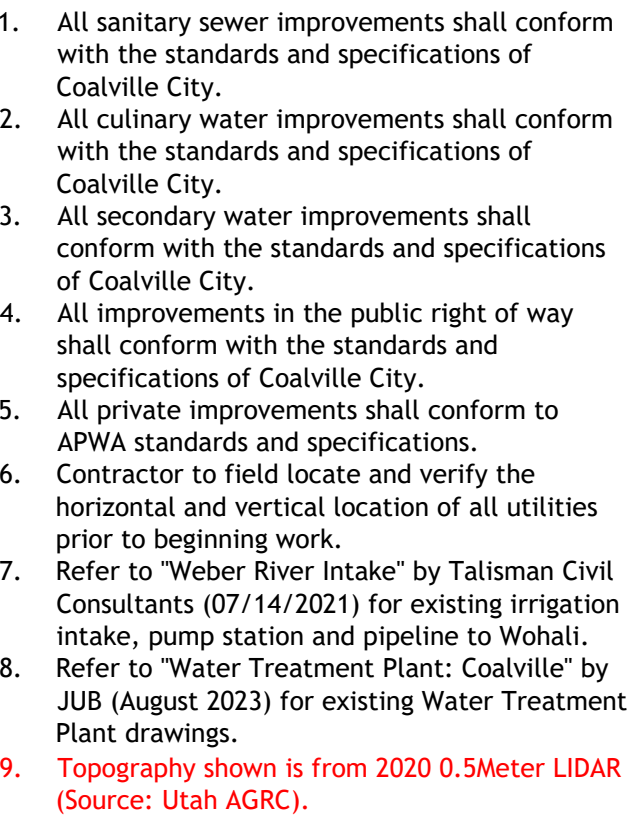


Peter M. Duberow, PE
Project Manager

Attachments: C-1: Offsite Water Plan
 C-2: Offsite Sewer Plan
 Red Hill Offsite Sanitary Sewer Calculations



Ivory Development
978 East Woodoak Lane
Salt Lake City, UT 84117
801-747-7000



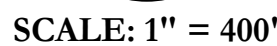
Red Hill - Water

PROJECT:	
DRAWN BY:	PMD
REVIEWED BY:	SMB
REVISIONS:	
No. DATE	REMARKS

DATE: **March 26, 2024**

SHEET NUMBER:

C-1



Ivory Development
978 East Woodoak Lane
Salt Lake City, UT 84117
801-747-7000



NOTES:

1. All sanitary sewer improvements shall conform with the standards and specifications of Coaville City.
2. All culinary water improvements shall conform with the standards and specifications of Coaville City.
3. All secondary water improvements shall conform with the standards and specifications of Coaville City.
4. All improvements in the public right of way shall conform with the standards and specifications of Coaville City.
5. All private improvements shall conform to APWA standards and specifications.
6. Contractor to field locate and verify the horizontal and vertical location of all utilities prior to beginning work.

PRELIMINARY
NOT FOR
CONSTRUCTION

Red Hill - Sanitary Sewer Outfall

Offsite Sewer Plan

PROJECT:	
DRAWN BY:	PMI
REVIEWED BY:	SMI
REVISIONS:	
No. DATE	REMARK

DATE: **March 26, 2024**

SHEET NUMBER:

C-2

Red Hill Sanitary Sewer Calculations															
Scenario	Pipe Location ⁴	Basin Units	Basin AADF ¹ (gpd)	Basin MDF ² (gpm)	US MDF (gpm) ³	Total MDF (gpm)	Pipe Material	n	Diameter ⁴ (in)	Slope ⁴ (%)	Depth (in)	Velocity (ft/s)	Peak Flow @ Given Slope (gpm)	Percent Full By Depth (%)	Comments
Red Hill and Richins w/ current design slopes	Above MH-51	424	131440	301.2		301.2	PVC	0.013	8	0.59%	5.04	2.90	448	63.0%	
	Below MH-51	424	131440	301.2		301.2	PVC	0.013	10	0.25%	5.65	2.11	529	56.5%	
Available Excess Capacity no Upsize	Above MH-51	460	142600	326.8		326.8	PVC	0.013	8	0.59%	5.33	2.95	448	66.6%	8" controls. Capacity for 36 additional EDU
	Below MH-51	460	142600	326.8		326.8	PVC	0.013	10	0.25%	5.95	2.15	529	59.5%	
Increase each pipe by one pipe size	Above MH-51	834	258540	592.5		592.5	PVC	0.013	10	0.59%	6.66	3.42	813	66.6%	10" controls. Capacity for 410 additional EDU
	Below MH-51	834	258540	592.5		592.5	PVC	0.013	12	0.25%	7.68	2.49	861	64.0%	
Increase each pipe by two pipe sizes	Above MH-51	1355	420050	962.6		962.6	PVC	0.013	12	0.59%	7.99	3.86	1,322	66.6%	12" controls. Capacity for 931 additional EDU
	Below MH-51	1355	420050	962.6		962.6	PVC	0.013	15	0.25%	8.93	2.82	1,560	59.5%	
Increase each pipe by three pipe sizes	Above MH-51	2458	761980	1746.2		1746.2	PVC	0.013	15	0.59%	9.99	4.48	2,397	66.6%	15" controls. Capacity for 2034 additional EDU
	Below MH-51	2458	761980	1746.2		1746.2	PVC	0.013	18	0.25%	11.52	3.26	2,537	64.0%	
Increase each pipe by four pipe sizes	Above MH-51	3920	1215200	2784.8		2784.8	PVC	0.013	18	0.59%	11.83	5.04	3,898	65.7%	21" controls. Capacity for 3496 additional EDU
	Below MH-51	3920	1215200	2784.8		2784.8	PVC	0.013	21	0.25%	13.99	3.65	3,827	66.6%	

- Notes:
1. The Average Annual Daily Flow (AADF) is based on 310 (JUB Report, 2012).
 2. The Maximum Daily Flow (MDF) peaking factor is 3.3 (JUB Report , 2005).
 3. Sewers sized to be 2/3 full max.
 4. Slopes are based on EDM Partners preliminary design dated 02/20/24.