



# VILLAGE PLAN AREA 2

March 12, 2021

**FINAL**



**WILDFLOWER**  
AT SARATOGA SPRINGS



## Prepared By

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DAI

LEI Engineers & Surveyors

Landmark Design

Hales Engineering

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# 01 Executive Summary

## Findings for Village Plan 2

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Village Plan Area 2 includes an 80.89-acre area within the 1,202-acre Wildflower Amended and Restated Community Plan (ARCP) located in Saratoga Springs, Utah. The Wildflower Village Plan Area 2 is compliant with all PC Zone Requirements for Village Plans as defined in ***Section 19.26.09 of the Saratoga Springs Municipal Code***. We find that Village Plan Area 2:

- a. Is consistent with the adopted Amended and Restated Wildflower ARCP; Village Plan Area 2 adheres to the development standards, thoroughfare types, and open spaces types and requirements established in the Wildflower ARCP.
- b. Does not exceed the total number of Equivalent Residential Units (ERUs) dictated in the Wildflower ARCP:
  - » The number of potential ERUs established in the Wildflower ARCP for Village Plan Area 2 is 210. Village Plan Area 2 is comprised of commercial areas and one residential neighborhood.
  - » In addition, all acreages, ERUs, open space calculations, etc. are consistent with the Wildflower ARCP. In the case that information in Village Plan 2 differs from the approved Wildflower ARCP, the Wildflower ARCP rules as the governing document.
- c. Is consistent with the utility, infrastructure, and circulation plans of the Wildflower ARCP and Master Utility Plan; includes adequately sized utilities, services, and roadway networks to meet demands; and mitigates the fair-share of off-site impacts;
- d. Properly integrates utility, infrastructure, open spaces, pedestrian and bicycle systems, and amenities with adjacent properties;
  - » Wildflower has been designed to accommodate significant infrastructure elements that are important to the City within the structure of the property. Wildflower was designed to maximize pedestrian, bike, and other mobility options. Open space is highly integrated to provide direct and easy access to residents.
- e. The total number of ERUs found in Type 5 neighborhoods are estimates based on anticipated development types and layouts. These assumptions may change. There is not a maximum number of Type 5 (commercial) ERUs allowed.

Contains the required elements as required in ***Section 19.26.10 of the Saratoga Springs Municipal Code***.

# 02 Legal Description

## Legal Description Prepared by LEI



ENGINEERS  
SURVEYORS  
PLANNERS

### LEGAL DESCRIPTION

#### PREPARED FOR

DAI

Job No. 13-0902

(April 13, 2020)

#### WILDFLOWER VILLAGE 2

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 10 AND THE NORTHWEST QUARTER OF SECTION 15, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SECTION 10, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE N0°20'24"E ALONG THE SECTION LINE 928.72 FEET; THENCE N33°57'04"E 556.57 FEET; THENCE N5°03'04"E 230.08 FEET; THENCE S69°16'00"E 15.42 FEET; THENCE N20°44'00"E 10.00 FEET; THENCE N69°16'00"W 18.23 FEET; THENCE N5°03'04"E 527.75 FEET; THENCE N70°41'02"E 64.33 FEET; THENCE ALONG THE ARC OF A 1041.50 FOOT RADIUS CURVE TO THE RIGHT 85.43 FEET THROUGH A CENTRAL ANGLE OF 4°41'58" (CHORD: N73°02'01"E 85.40 FEET); THENCE N75°23'00"E 47.97 FEET; THENCE S14°37'00"E 107.00 FEET; THENCE N75°23'00"E 26.32 FEET; THENCE ALONG THE ARC OF A 15.00 FOOT RADIUS CURVE TO THE RIGHT 26.18 FEET THROUGH A CENTRAL ANGLE OF 100°00'00" (CHORD: S54°37'00"E 22.98 FEET); THENCE S4°37'00"E 28.31 FEET; THENCE N85°23'00"E 83.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF A 15.00 FOOT RADIUS NON-TANGENT CURVE TO THE RIGHT (RADIUS BEARS: N85°23'00"E) 20.94 FEET THROUGH A CENTRAL ANGLE OF 80°00'00" (CHORD: N35°23'00"E 19.28 FEET); THENCE N75°23'00"E 448.32 FEET; THENCE ALONG THE ARC OF A 1095.00 FOOT RADIUS CURVE TO THE RIGHT 114.94 FEET THROUGH A CENTRAL ANGLE OF 6°00'51" (CHORD: N78°23'26"E 114.88 FEET); THENCE N81°23'51"E 175.77 FEET TO THE WEST RIGHT-OF-WAY LINE OF MOUNTAIN VIEW CORRIDOR; THENCE ALONG SAID RIGHT-OF-WAY LINE THE FOLLOWING SIX (6) COURSES: S8°56'42"E 158.12 FEET; THENCE ALONG THE ARC OF A 2074.50 FOOT RADIUS CURVE TO THE LEFT 426.55 FEET THROUGH A CENTRAL ANGLE OF 11°46'52" (CHORD: S14°50'08"E 425.80 FEET); THENCE ALONG THE ARC OF A 3400.00 FOOT RADIUS CURVE TO THE RIGHT 353.95 FEET THROUGH A CENTRAL ANGLE OF 5°57'53" (CHORD: S17°44'37"E 353.79 FEET); THENCE S14°45'41"E 361.44 FEET; THENCE S12°37'19"E 764.34 FEET; THENCE ALONG THE ARC OF A 1800.00 FOOT RADIUS CURVE TO THE RIGHT 268.03 FEET THROUGH A CENTRAL ANGLE OF 8°31'54" (CHORD: S8°21'22"E 267.78 FEET) TO THE SOUTH LINE OF SAID SECTION 10; THENCE N89°52'02"W ALONG THE SECTION LINE 586.49 FEET; THENCE S0°07'58"W 112.03 FEET; THENCE N89°52'02"W 80.00 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF A 12.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT (RADIUS BEARS: N89°52'02"W) 18.85 FEET THROUGH A CENTRAL ANGLE OF 89°59'55" (CHORD: N44°51'59"W 16.97 FEET); THENCE N89°51'57"W 456.21 FEET; THENCE ALONG THE ARC OF A 429.50 FOOT RADIUS CURVE TO THE RIGHT 299.11 FEET THROUGH A CENTRAL ANGLE OF 39°54'05" (CHORD: N69°54'54"W 293.10 FEET) TO THE SOUTH LINE OF SAID SECTION 10; THENCE N89°52'02"W ALONG THE SECTION LINE 589.57 FEET TO THE POINT OF BEGINNING.

CONTAINS: ±81.40 ACRES

- Civil Engineering
- Structural Engineering
- Surveying
- Land Planning
- Landscape Architecture

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## 03 Buildout Allocation

### Detailed Use

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#### Type 4

The Type 4 area will include up to 210 multi-family ERUs on 14.35 acres and includes approximately 2.81 acres of open space. The current site design is included on the Village Plan 2 exhibits. The final layout and design will be submitted with the Site Plan application, which can be approved by staff. The residents of this neighborhood will be able to use the adjacent trail system to access all the amazing Wildflower amenities detailed in the Wildflower ARCP.

#### Type 5

The uses in the Type 5 areas are designated in the Wildflower ARCP as Neighborhood Commercial (NC) and Community Commercial (CC). Site Plan approval is required to further define users, development designs, and open space, as well as solidify ERUs. Commercial pads may be broken up and developed in distinct sections depending on user, location, and market demands. ERUs in these areas will be determined by City Code and end-user types. Approximately 2,165 square feet of non-residential floor area is equal to one ERU. There is not a maximum number of Type 5 (commercial) ERUs allowed. 5 ERUs per acre are assumed for commercial.

The commercial pad labeled Phase G-3 on the Master Plan has been sold to Academica West. Academica West is the foremost operator of Charter Schools in Utah. They have 25 schools, 15,000 students, and 2,000 employees. They will initially build a school that will service K through 8th grades with a projected opening in Fall 2021. They have purchased sufficient ground to expand the school to include High School grades in the future. Additional approval will be at staff level and achieved through the site plan process.

#### Open Space Use

The open-air storage site is an open space use. This outdoor storage site will be a place for owners and residents to rent space to store RVs, ATVs, boats, and other toys. This use is a deviation from Code since outdoor storage is not allowed in NC/CC or residential zones. The area will be enclosed with a 6' white privacy fence and secure access gates. The privacy fence will provide a visual buffer from the open space and roads surrounding the storage area. The parking lot will not have an onsite manager.

Open-air storage does not count toward the open space percentage or amenity points. Further details will be provided during the Preliminary and Final Plat Applications. These will be reviewed and addressed by the staff.

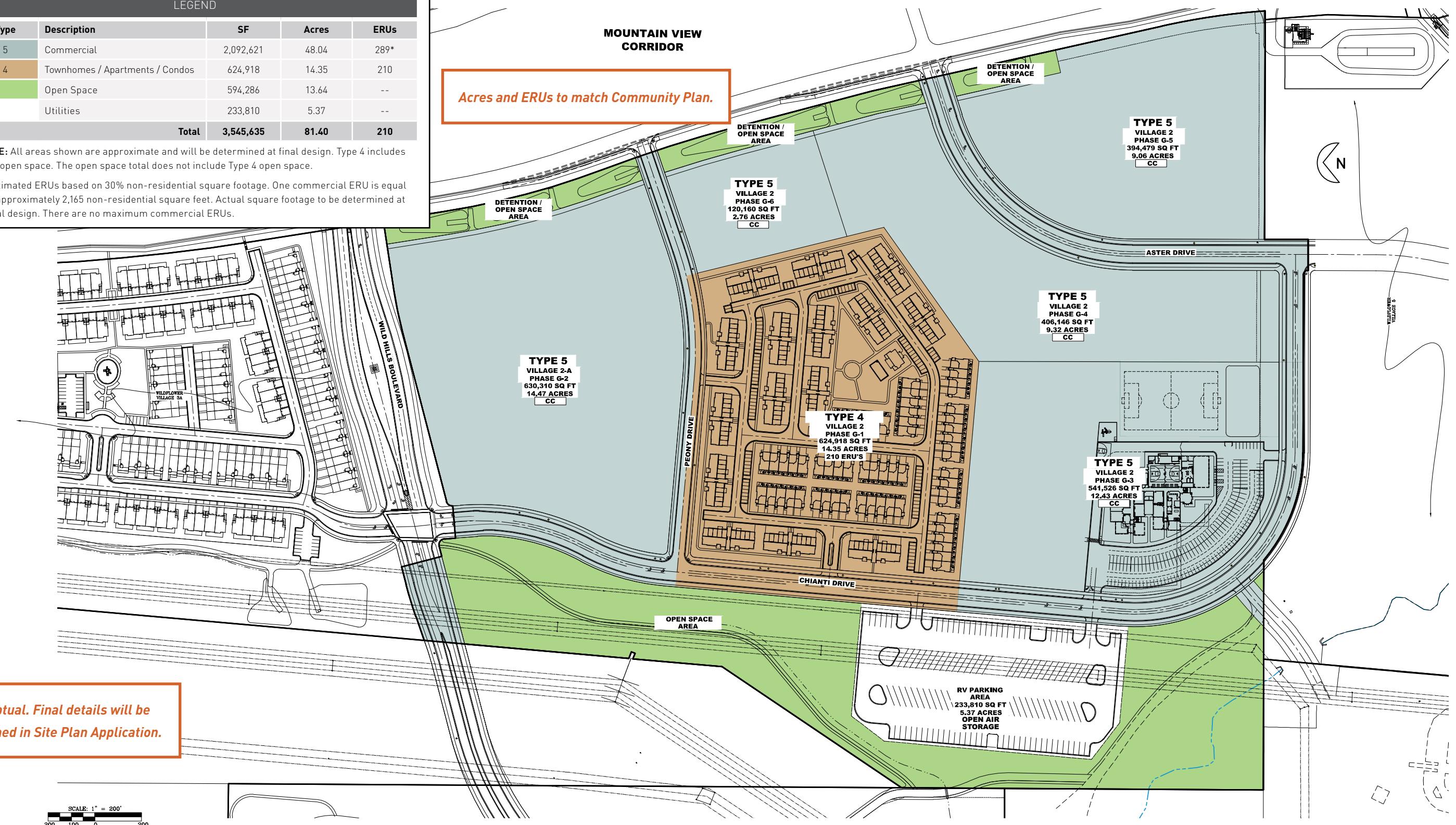


## Detailed Use Exhibit

| Legend       |                                 |                  |              |            |
|--------------|---------------------------------|------------------|--------------|------------|
| Type         | Description                     | SF               | Acres        | ERUs       |
| 5            | Commercial                      | 2,092,621        | 48.04        | 289*       |
| 4            | Townhomes / Apartments / Condos | 624,918          | 14.35        | 210        |
|              | Open Space                      | 594,286          | 13.64        | --         |
|              | Utilities                       | 233,810          | 5.37         | --         |
| <b>Total</b> |                                 | <b>3,545,635</b> | <b>81.40</b> | <b>210</b> |

**NOTE:** All areas shown are approximate and will be determined at final design. Type 4 includes 20% open space. The open space total does not include Type 4 open space.

\* Estimated ERUs based on 30% non-residential square footage. One commercial ERU is equivalent to approximately 2,165 non-residential square feet. Actual square footage to be determined at final design. There are no maximum commercial ERUs.



## Detailed Allocation of All Acreage

The following information details the allocation of all acreage within Village Plan Area 2. Refer to the *Detailed Use Exhibit* on page 3.01, *Open Space Tabulation Exhibit* on page 12.06, and *Lotting Map Exhibit* on page 6.01.

| Area                   | Type   | Description  | Land Use              | Acres  | ERUs in VP2 | ERUs/<br>Gross<br>Acre |  |  |  |
|------------------------|--------|--------------|-----------------------|--------|-------------|------------------------|--|--|--|
| Goldenrod              | Type 5 | Commercial   | Lots/ROW              | 14.47  | TBD         | TBD                    |  |  |  |
|                        |        |              | Open Space            | TBD    |             |                        |  |  |  |
|                        |        |              | Total                 | 14.47  |             |                        |  |  |  |
| Peony                  | Type 4 | Multi-Family | Lots/ROW              | 11.54  | 210         | 14.63                  |  |  |  |
|                        |        |              | Open Space            | 2.81   |             |                        |  |  |  |
|                        |        |              | Total                 | 14.35  |             |                        |  |  |  |
| Aster School Of Dreams | Type 5 | Commercial   | Lots/ROW              | 12.43  | TBD         | TBD                    |  |  |  |
|                        |        |              | Open Space            | TBD    |             |                        |  |  |  |
|                        |        |              | Total                 | 12.43  |             |                        |  |  |  |
| Aster                  | Type 5 | Commercial   | Lots/ROW              | 21.14  | TBD         | TBD                    |  |  |  |
|                        |        |              | Open Space            | TBD    |             |                        |  |  |  |
|                        |        |              | Total                 | 21.14  |             |                        |  |  |  |
| Open Air Storage       |        | Commercial   | Lots/ROW              | 5.37   | TBD         | TBD                    |  |  |  |
|                        |        |              | Open Space            | N/A    |             |                        |  |  |  |
|                        |        |              | Total                 | 5.37   |             |                        |  |  |  |
|                        |        |              | Detention Space       | 2.27   |             |                        |  |  |  |
|                        |        |              | Open Space            | 11.37  |             |                        |  |  |  |
|                        |        |              | Grand Total           | 81.40  | 210         | 14.63                  |  |  |  |
|                        |        |              | Total Open Space      | 16.45* |             |                        |  |  |  |
|                        |        |              | Net Residential Acres | 11.54  |             |                        |  |  |  |

\* The total open space area is 16.45 acres. Refer to *Open Space Tabulation Exhibit* on page 12.06.

- » 210 ERUs are assigned to Village Plan 2 residential neighborhood.
- » All areas shown are approximate, areas to be determined at final design.
- » Refer to the *Lotting Map Exhibit* for Neighborhood Breakdown on page 6.01.

# 04 Development Standards & Design Guidelines

## Type 4

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Front-load and rear-load townhomes are defined in the Wildflower ARCP under the Type 4 category. Village Plan 2 development standards for Type 4 are consistent with standards established for the community. In addition, all building and landscape designs adhere to the design guidelines established in the ARCP.

Type 4 plans adhere to **Saratoga City Code Section 19.16.04** which states "No building shall be closer than 5 feet from any private road, driveway or parking space. The intent of this requirement is to provide for building foundation landscaping and to provide protection to the building." City code doesn't define *Parking Space*. The closest definition is for *Off-street Parking* which is defined as the space within a building, lot, or parking lot, but not within any portion of any public street right-of-way, for the temporary parking of one vehicle. We interpret this definition as the measurement of 5' feet from the foundation of a building to the space designated as parking of one vehicle or measured from the foundation to the right-of-way line as designated in the street cross section. The private 26' right-of-way in the ARCP designates the right-of-way line as back of curb.

## Type 5

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Type 5 site plan and design standards are subject to WDRC approval. The City is required to receive a copy of the WDRC approval before permits are issued. In addition to the WDRC standards, all other City standards, including setbacks, must be met for site plan approval. Staff may approve site plans without additional Planning Commission or City Council approval as long as site plans are consistent with the Village Plan. Commercial designs are meant to be cohesive and consistent across the community, and approval is required by the WDRC.

One commercial ERU is equal to approximately 2,165 non-residential square feet. Actual square footage to be determined at final design. There are no maximum commercial ERUs. 5 ERUs per acre are assumed for commercial.

## Master Homeowners Associations

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In accordance with City Code **Section 19.26.03,2,d of the Planned Community Zone** ordinance, a Master Homeowners Association (HOA) has been established to review, approve, and enforce architectural requirements and restrictions, as well as address common area maintenance obligations as outlined in the Wildflower ARCP. Additional HOAs may be created based on end builder preferences. Master Homeowners Association will still be in affect over all parts of Wildflower. All sub HOAs shall be obligated to follow all Master Homeowners Association and WDRC regulations.

## Wildflower Design Review Committee (WDRC)

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All builders are required to submit exterior elevations, materials, colors, and landscaping plans for a Design Review Process by the Wildflower Development Review Committee (WDRC). The WDRC must review and approve all residential site plans and building permits prior to City submittal as outlined in the Wildflower ARCP.



## Fencing Plan Exhibit

### LEGEND

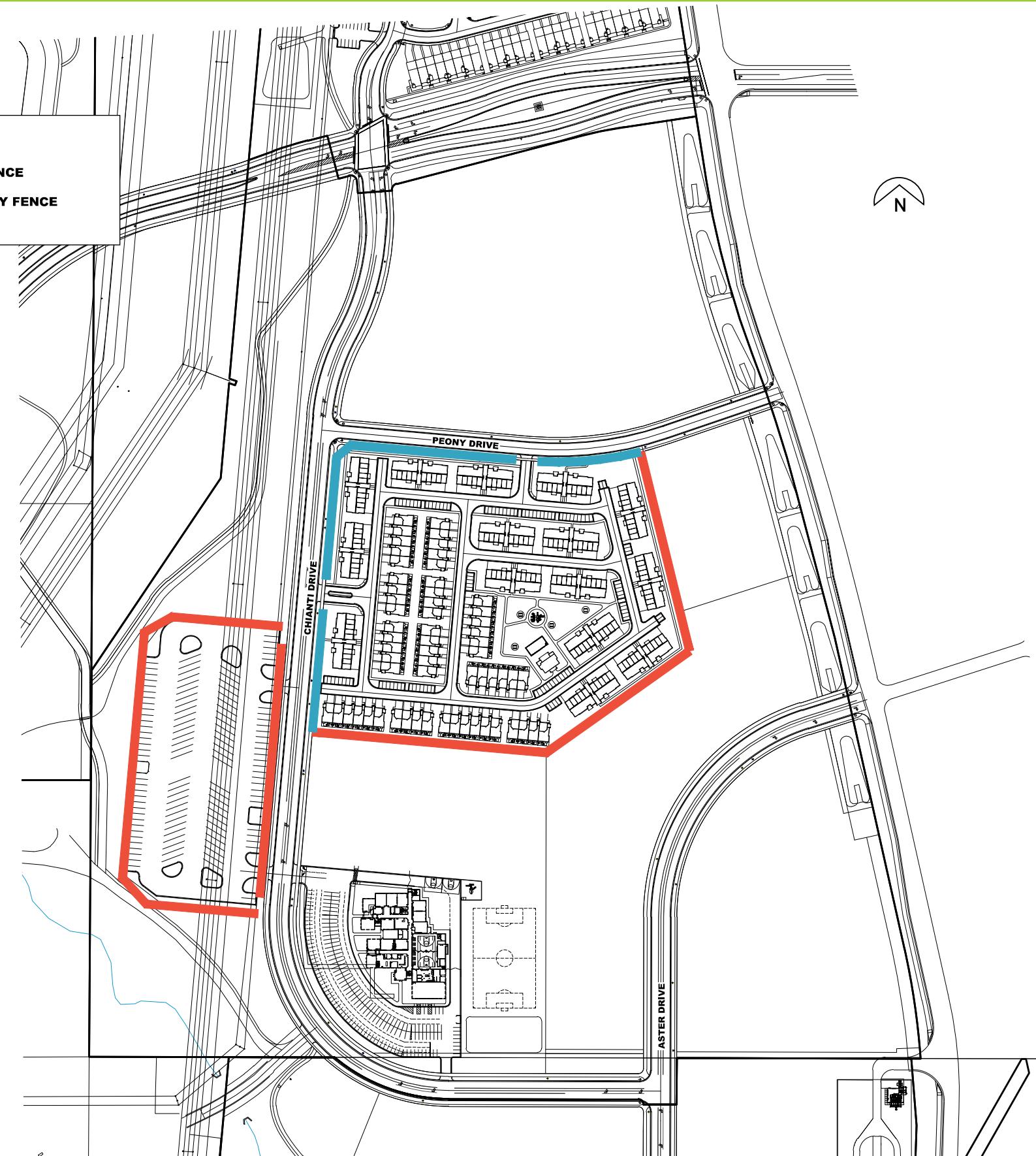
BUILDER: 6' VINYL PRIVACY FENCE

BUILDER: 4' VINYL SIMI-PRIVACY FENCE

### Notes

1. Required fences adjacent to lots are a requirement of the builder, not the developer, and shall be installed prior to receiving certificate of occupancy.
2. If certificate of occupancy is issued between November and March, fencing to be installed by end of June.
3. All fencing will take into account the city site triangle code requirements.

*Conceptual final details will be determined in Site Plan Application.*



# 05 Phasing & Maintenance Plan

## Maintenance

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Maintenance for all common open space areas within Wildflower Village Plan 2, including park strips, private parks, and developed and natural open space, will be provided by the Master Homeowners Association (HOA) and/or Sub Homeowners Associations as described in the Wildflower ARCP.

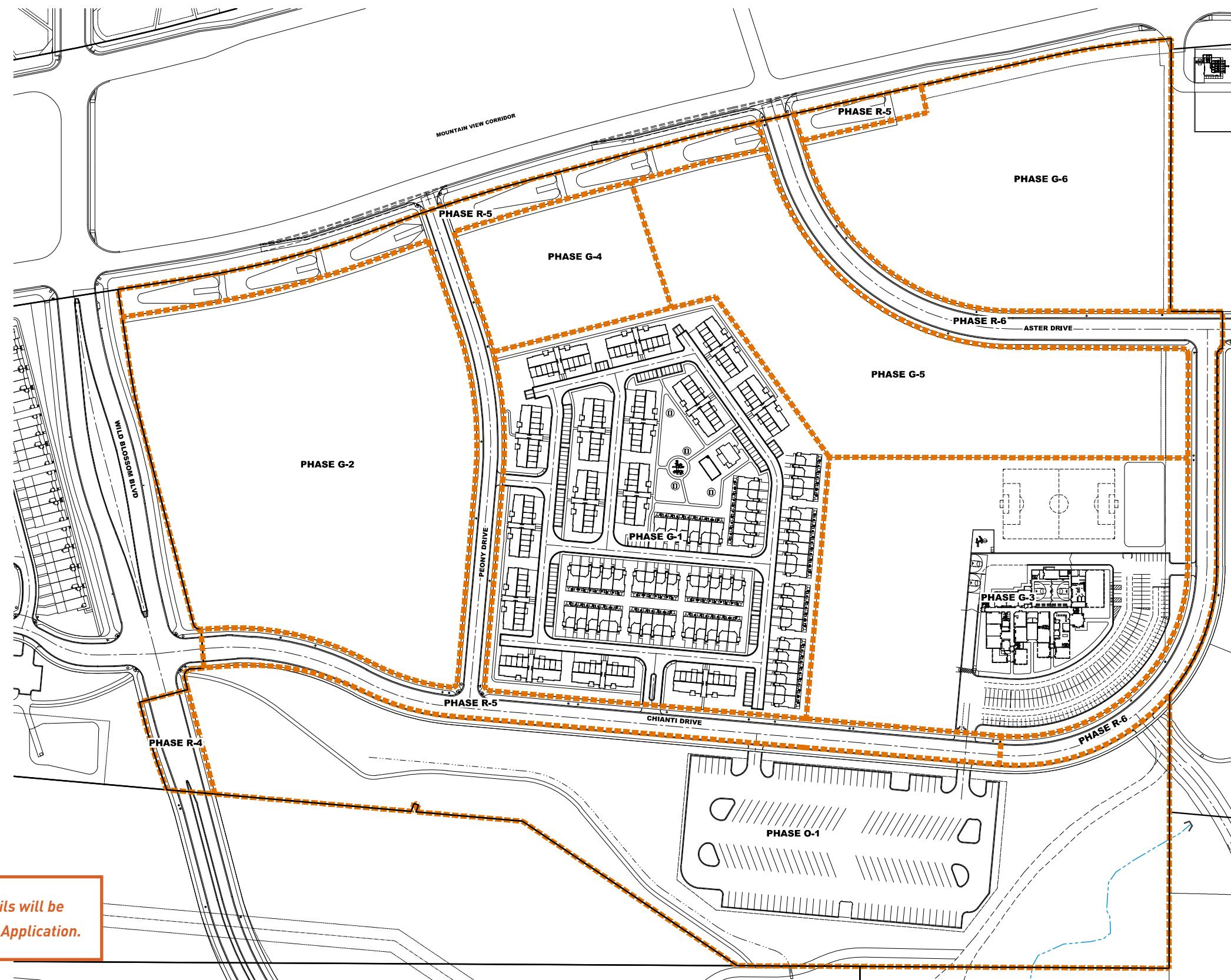
## Phasing

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Wildflower Village Plan Area 2 may be developed in 5 or 6 phases. The Type 4 pad is currently slated to be sold and developed by a separate homebuilder. Wildflower Developers LLC will process the Site Plan submittal, but will allow the homebuilder to independently seek plat approvals and building permits. The homebuilder is required to adhere to all Wildflower ARCP and Village Plan requirements. In addition to the Type 4 area, there are potentially three Type 5 areas. The Type 5 areas will be developed as directed in the Wildflower ARCP and according to City Code.



## Phasing Plan Exhibit



SCALE: 1:100\_XREF  
100 50 0 100

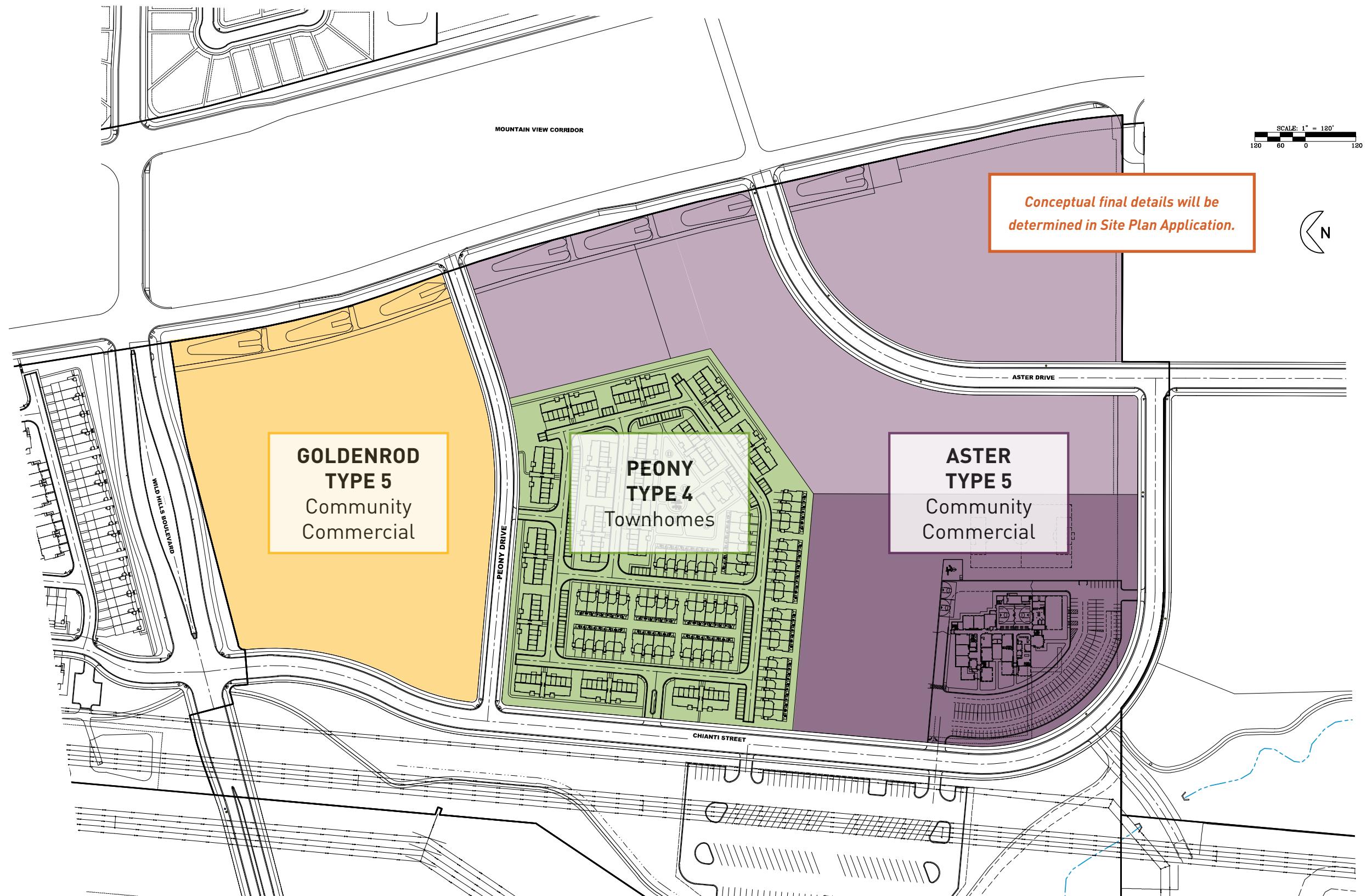


**Note:** Phases may be built out of order and boundary lines may change. Phases that depend on future improvements are not allowed.



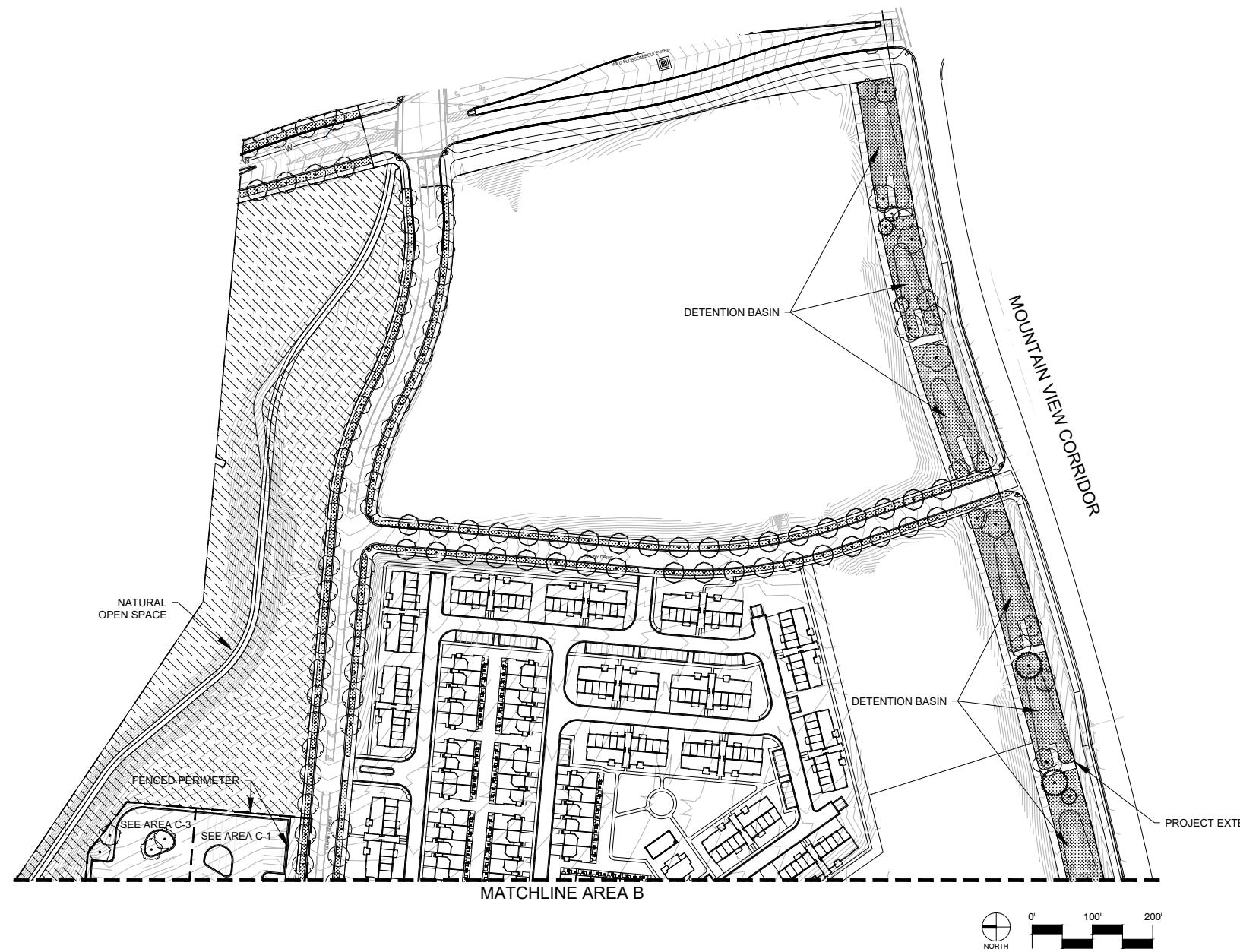


## 06 Lotting Map Exhibit





# Landscape Concept Plan Exhibit - Area A



**Conceptual final details will be determined in Site Plan Application.**

## Concept Plant Schedule

| TREES | BOTANICAL NAME                     | COMMON NAME                  | QTY |
|-------|------------------------------------|------------------------------|-----|
|       | Ginkgo biloba 'Shangri La'         | Shangri La Ginkgo            | 27  |
|       | Juglans nigra                      | Black Walnut                 | 2   |
|       | Pinus nigra                        | Austrian Black Pine          | 7   |
|       | Quercus macrocarpa                 | Burr Oak                     | 8   |
|       | Quercus x macdanielii 'Clemons' TM | Heritage Oak                 | 37  |
|       | Tilia cordata 'Greenspire'         | Greenspire Littleleaf Linden | 50  |
|       | Tilia tomentosa 'Sterling'         | Sterling Silver Linden       | 8   |
|       | Zelkova serrata 'Green Vase'       | Green Vase Sawleaf Zelkova   | 37  |
|       | Zelkova serrata 'Wireless'         | Sawleaf Zelkova              | 52  |

LAWN BLEND  
LOLUM PERENNE / PERENNIAL RYEGRASS  
POA PRATENSIS / KENTUCKY BLUEGRASS 91,630 sf

NATURAL OPEN SPACE  
REPAIR AND/OR REVEGETATE AS REQUIRED WITH  
PLANTINGS SIMILAR TO EXISTING FOOTHILL PLANT  
COMMUNITY. 1,614,673 sf

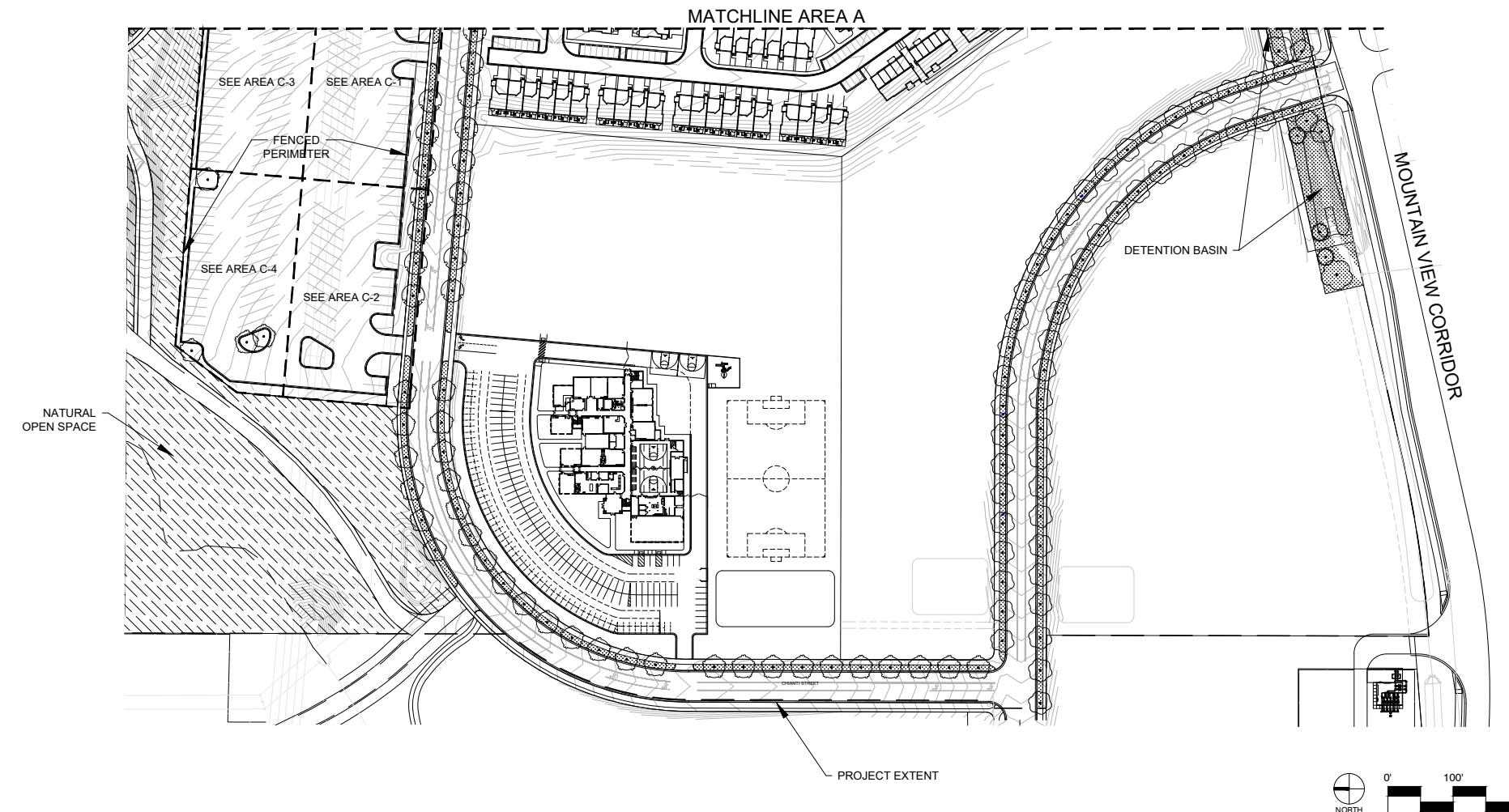
**NOTES:**

1. QUANTITIES SHOWN ARE FOR ENTIRE VILLAGE 2 PLAN.
2. LANDSCAPE PLANS ARE CONCEPTUAL AND EXACT SPECIES SELECTED AT TIME OF PLAT MAY VARY FROM THIS PLAN AS DETAILED DESIGN CONSIDERATIONS ARE MADE. PLANTS WILL GENERALLY BE SELECTED FROM THE CITY'S RECOMMENDED TREE & PLANT PALETTE, THOUGH OTHER APPROPRIATE SPECIES WILL ALSO BE INCLUDED BASED UPON PROFESSIONAL KNOWLEDGE AND EXPERIENCE. THE FINAL LANDSCAPE PLANS WILL BE REVIEWED WITH THE PRELIMINARY PLAT AND SHALL COMPLY WITH SECTION 19.06 OF THE SARATOGA SPRINGS MUNICIPAL CODE.
3. STREET TREE SPACING WILL TYPICALLY BE 50' O.C.. STREET TREE SPACING WILL ALSO BE ADJUSTED FOR DRIVEWAYS, SITE TRIANGLES, AND OTHER SITE CONDITIONS AND REQUIREMENTS.

## DATA SHEET FOR ENTIRE VILLAGE PLAN AREA

| Plant Type                              | Total Qty   | Total SF | Percent of Landscape |
|---|---|----------|----------------------|
| Trees                                   | 228   | N/A      | N/A                  |
| Shrub/Grass/Perennial Mix in Bark Mulch | 630   | 36,100   | 17%                  |
| Turf (including park strips)            |   | 174,700  | 83%                  |
| Total Developed/Irrigated Landscape     |   | 210,800  | 100%                 |
| Turf in park strips                     |   | 83,900   |                      |
| Drought Tolerant Species                | 20 total species (10 trees, 10 shrub/perennial/grass)<br>80% of these are drought tolerant (either low or moderate water use) |          |                      |
| Natural Open Space Restoration          |   | 448,000  |                      |





## Concept Plant Schedule

| TREES | BOTANICAL NAME                      | COMMON NAME                  | QTY |
|-------|-------------------------------------|------------------------------|-----|
| •     | Ginkgo biloba 'Shangri La'          | Shangri La Ginkgo            | 27  |
| •     | Juglans nigra                       | Black Walnut                 | 2   |
| •     | Pinus nigra                         | Austrian Black Pine          | 7   |
| •     | Quercus macrocarpa                  | Burr Oak                     | 8   |
| •     | Quercus x macDaniellii 'Clemens' TM | Heritage Oak                 | 37  |
| •     | Tilia cordata 'Greenspire'          | Greenspire Littleleaf Linden | 50  |
| •     | Tilia tomentosa 'Sterling'          | Sterling Silver Linden       | 8   |
| •     | Zelkova serrata 'Green Vase'        | Green Vase Sawleaf Zelkova   | 37  |
| •     | Zelkova serrata 'Wireless'          | Sawleaf Zelkova              | 52  |

**LAWN BLEND**  
LOLIUM PERENNE / PERENNIAL RYEGRASS  
POA PRATENSIS / KENTUCKY BLUEGRASS 91,630 sf

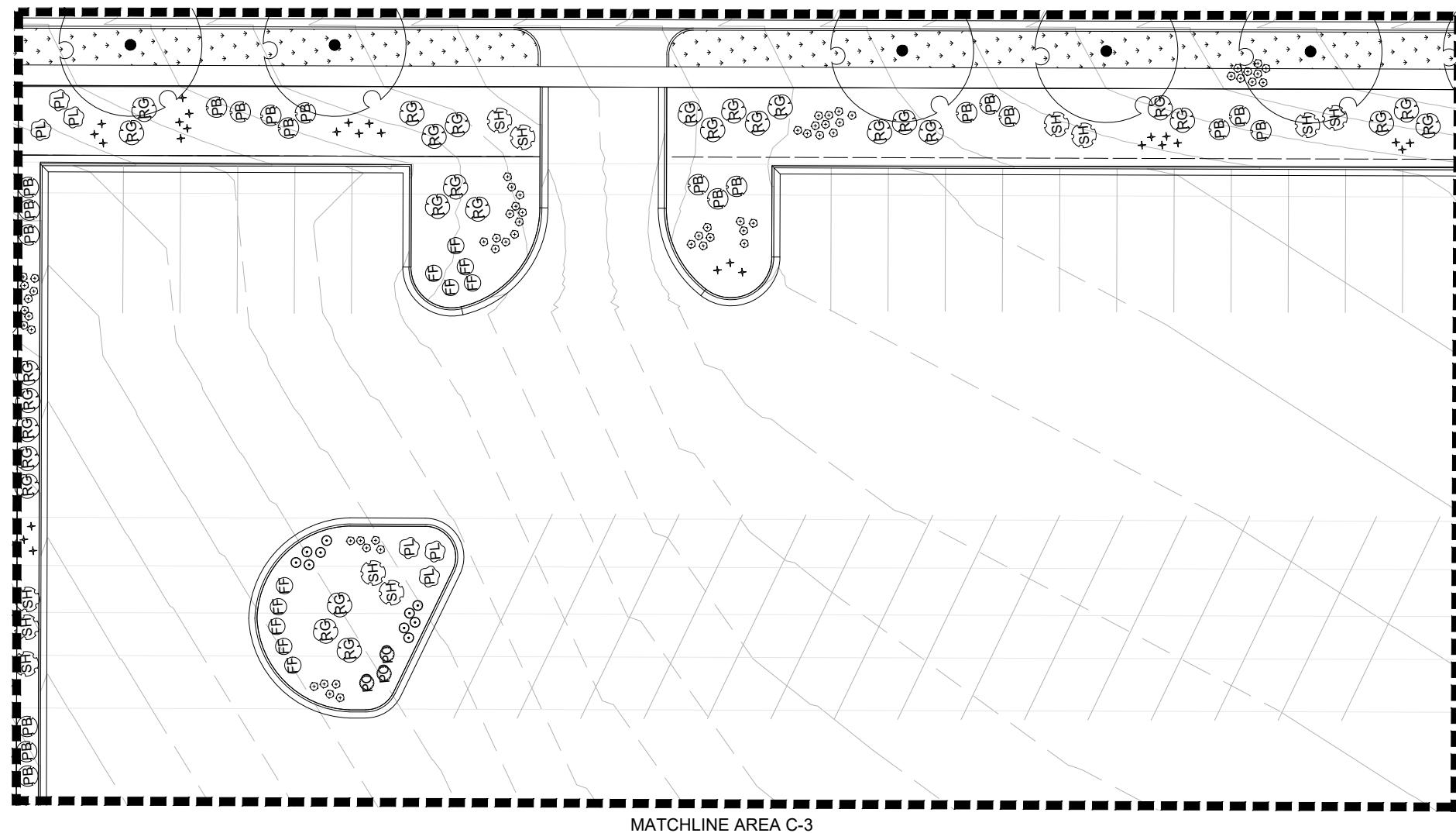
**NATURAL OPEN SPACE**  
REPAIR AND/OR REVEGETATE AS REQUIRED WITH  
PLANTINGS SIMILAR TO EXISTING FOOTHILL PLANT  
COMMUNITY. 1,614,673 sf

**NOTES:**

1. QUANTITIES SHOWN ARE FOR ENTIRE VILLAGE 2 PLAN.
2. LANDSCAPE PLANS ARE CONCEPTUAL AND EXACT SPECIES SELECTED AT TIME OF PLAT MAY VARY FROM THIS PLAN AS DETAILED DESIGN CONSIDERATIONS ARE MADE. PLANTS WILL GENERALLY BE SELECTED FROM THE CITY'S RECOMMENDED TREE & PLANT PALETTE, THOUGH OTHER APPROPRIATE SPECIES WILL ALSO BE INCLUDED BASED UPON PROFESSIONAL KNOWLEDGE AND EXPERIENCE. THE FINAL LANDSCAPE PLANS WILL BE REVIEWED WITH THE PRELIMINARY PLAT AND SHALL COMPLY WITH SECTION 19.06 OF THE SARATOGA SPRINGS MUNICIPAL CODE.
3. STREET TREE SPACING WILL TYPICALLY BE 50' O.C.. STREET TREE SPACING WILL ALSO BE ADJUSTED FOR DRIVEWAYS, SITE TRIANGLES, AND OTHER SITE CONDITIONS AND REQUIREMENTS.

Conceptual final details will be determined in Site Plan Application.





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## Concept Plant Schedule

| TREES                                  |                              |     |  |
|--|------------------------------|-----|--|
| BOTANICAL NAME                         | COMMON NAME                  | QTY |  |
| Ginkgo biloba 'Shangri La'             | Shangri La Ginkgo            | 27  |  |
| Juglans nigra                          | Black Walnut                 | 2   |  |
| Pinus nigra                            | Austrian Black Pine          | 7   |  |
| Quercus macrocarpa                     | Burr Oak                     | 8   |  |
| Quercus x macDaniellii 'Clemons' TM    | Heritage Oak                 | 37  |  |
| Tilia cordata 'Greenspire'             | Greenspire Littleleaf Linden | 50  |  |
| Tilia tomentosa 'Sterling'             | Sterling Silver Linden       | 8   |  |
| Zelkova serrata 'Green Vase'           | Green Vase Sawleaf Zelkova   | 37  |  |
| Zelkova serrata 'Wireless'             | Sawleaf Zelkova              | 52  |  |
| SHRUBS                                 |                              |     |  |
| BOTANICAL NAME                         | COMMON NAME                  | QTY |  |
| Forsythia x 'Fiesta'                   | Fiesta Forsythia             | 40  |  |
| Philadelphus lewisi                    | Wild Mockorange              | 24  |  |
| Physocarpus opulifolius 'Little Devil' | Little Devil Ninebark        | 17  |  |
| Prunus besseyi 'Pawnee Buttes'         | Sand Cherry                  | 62  |  |
| Rhus aromatica 'Gro-Low'               | Gro-Low Fragrant Sumac       | 123 |  |
| Shepherdia argentea                    | Silver Buffaloberry          | 31  |  |
| GRASSES                                |                              |     |  |
| BOTANICAL NAME                         | COMMON NAME                  | QTY |  |
| Calamagrostis x acutiflora 'Overdam'   | Overdam Feather Reed Grass   | 194 |  |
| PERENNIALS                             |                              |     |  |
| BOTANICAL NAME                         | COMMON NAME                  | QTY |  |
| Agastache cana 'Sonoran Sunset'        | Sonoran Sunset Hyssop        | 77  |  |
| Gaura lindheimeri 'Sparkle White'      | Sparkle White Gaura          | 33  |  |
| Rudbeckia fulgida 'Goldsturm'          | Black-eyed Susan             | 29  |  |

**LAWN BLEND**  
LOLIUM PERENNE / PERENNIAL RYEGRASS  
POA PRATENSIS / KENTUCKY BLUEGRASS

**NATURAL OPEN SPACE**  
REPAIR AND/OR REVEGETATE AS REQUIRED WITH PLANTINGS  
SIMILAR TO EXISTING FOOTHILL PLANT COMMUNITY.

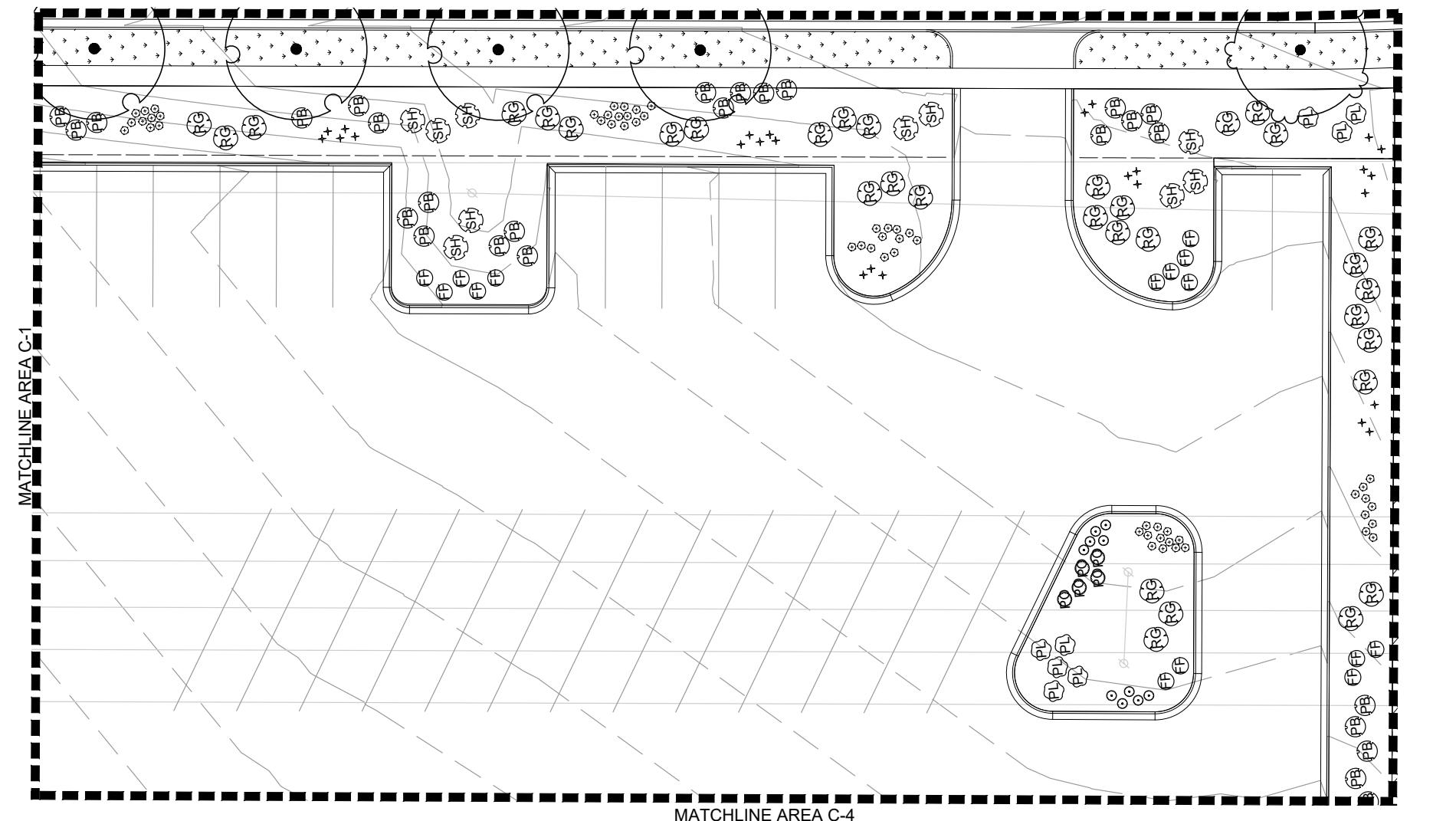
### NOTES:

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2. LANDSCAPE PLANS ARE CONCEPTUAL AND EXACT SPECIES SELECTED AT TIME OF PLAT MAY VARY FROM THIS PLAN AS DETAILED DESIGN CONSIDERATIONS ARE MADE. PLANTS WILL GENERALLY BE SELECTED FROM THE CITY'S RECOMMENDED TREE & PLANT PALETTE, THOUGH OTHER APPROPRIATE SPECIES WILL ALSO BE INCLUDED BASED UPON PROFESSIONAL KNOWLEDGE AND EXPERIENCE. THE FINAL LANDSCAPE PLANS WILL BE REVIEWED WITH THE PRELIMINARY PLAT AND SHALL COMPLY WITH SECTION 19.06 OF THE SARATOGA SPRINGS MUNICIPAL CODE.
3. STREET TREE SPACING WILL TYPICALLY BE 50' O.C. STREET TREE SPACING WILL ALSO BE ADJUSTED FOR DRIVEWAYS, SITE TRIANGLES, AND OTHER SITE CONDITIONS AND REQUIREMENTS.
4. GROUNDCOVER BETWEEN SHRUBS IN PLANTING AREAS TO BE BARK MULCH.





## Landscape Concept Plan Exhibit - Area C2



**Conceptual final details will be determined in Site Plan Application.**

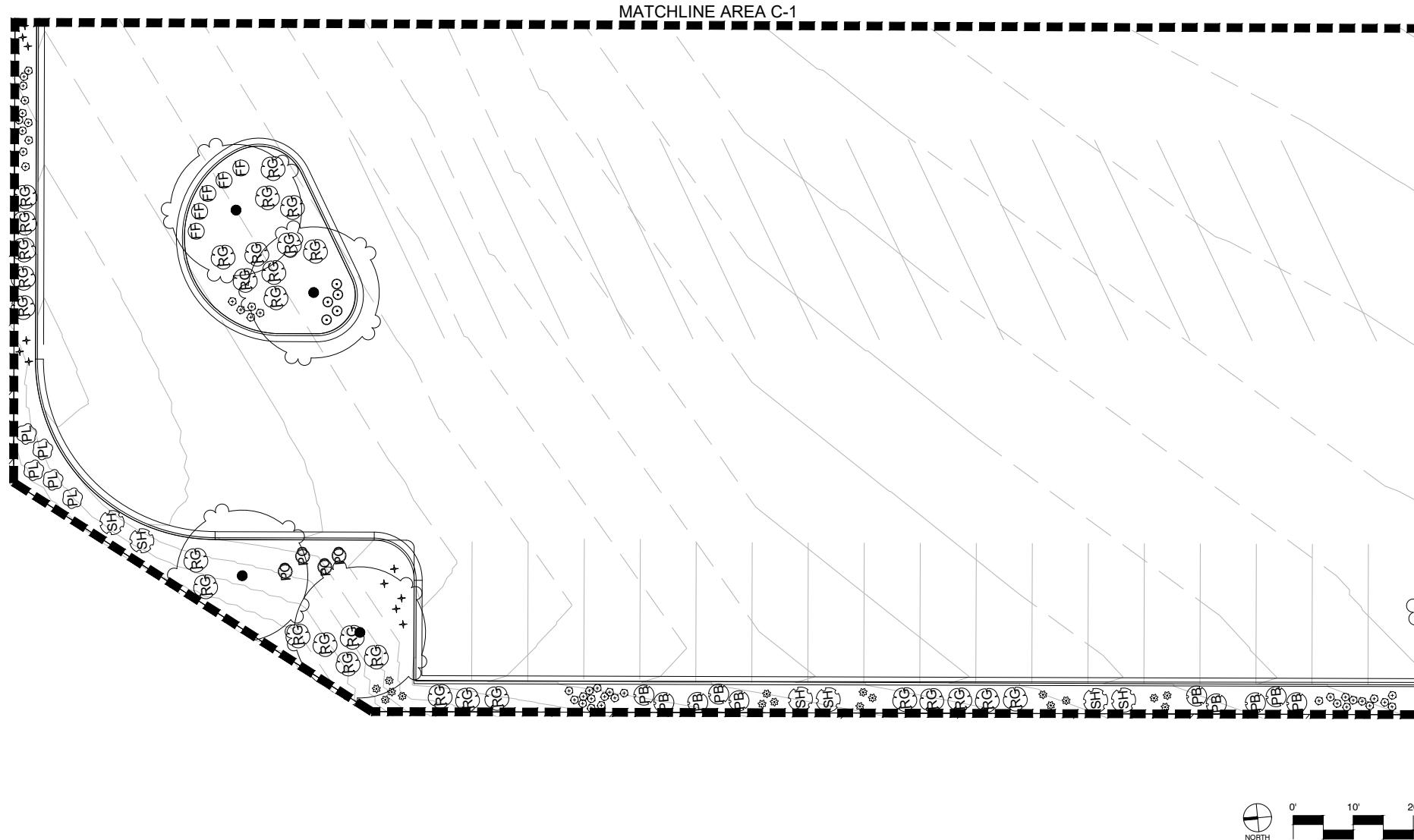
### Concept Plant Schedule

| TREES  |                              |     |
|--|------------------------------|-----|
| BOTANICAL NAME   | COMMON NAME                  | QTY |
| Ginkgo biloba 'Shangri La'   | Shangri La Ginkgo            | 27  |
| Juglans nigra  | Black Walnut                 | 2   |
| Pinus nigra  | Austrian Black Pine          | 7   |
| Quercus macrocarpa   | Burr Oak                     | 8   |
| Quercus x macDaniellii 'Clemons' TM  | Heritage Oak                 | 37  |
| Tilia cordata 'Greenspire'   | Greenspire Littleleaf Linden | 50  |
| Tilia tomentosa 'Sterling'   | Sterling Silver Linden       | 8   |
| Zelkova serrata 'Green Vase'   | Green Vase Sawleaf Zelkova   | 37  |
| Zelkova serrata 'Wireless'   | Sawleaf Zelkova              | 52  |
| SHRUBS   |                              |     |
| BOTANICAL NAME   | COMMON NAME                  | QTY |
| Forsythia x 'Fiesta'   | Fiesta Forsythia             | 40  |
| Philadelphus lewisii   | Wild Mockorange              | 24  |
| Physocarpus opulifolius 'Little Devil'   | Little Devil Ninebark        | 17  |
| Prunus besseyi 'Pawnee Buttes'   | Sand Cherry                  | 62  |
| Rhus aromatica 'Gro-Low'   | Gro-Low Fragrant Sumac       | 123 |
| Shepherdia argentea  | Silver Buffaloberry          | 31  |
| GRASSES  |                              |     |
| BOTANICAL NAME   | COMMON NAME                  | QTY |
| Calamagrostis x acutiflora 'Overdam'   | Overdam Feather Reed Grass   | 194 |
| PERENNIALS   |                              |     |
| BOTANICAL NAME   | COMMON NAME                  | QTY |
| Agastache cana 'Sonoran Sunset'  | Sonoran Sunset Hyssop        | 77  |
| Gaura lindheimeri 'Sparkle White'  | Sparkle White Gaura          | 33  |
| Rudbeckia fulgida 'Goldsturm'  | Black-eyed Susan             | 29  |
| LAWN BLEND   |                              |     |
| LOLIUM PERENNE / PERENNIAL RYEGRASS<br>POA PRATENSIS / KENTUCKY BLUEGRASS                            |                              |     |
| NATURAL OPEN SPACE   |                              |     |
| REPAIR AND/OR REVEGETATE AS REQUIRED WITH PLANTINGS<br>SIMILAR TO EXISTING FOOTHILL PLANT COMMUNITY. |                              |     |

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4. GROUNDCOVER BETWEEN SHRUBS IN PLANTING AREAS TO BE BARK MULCH.





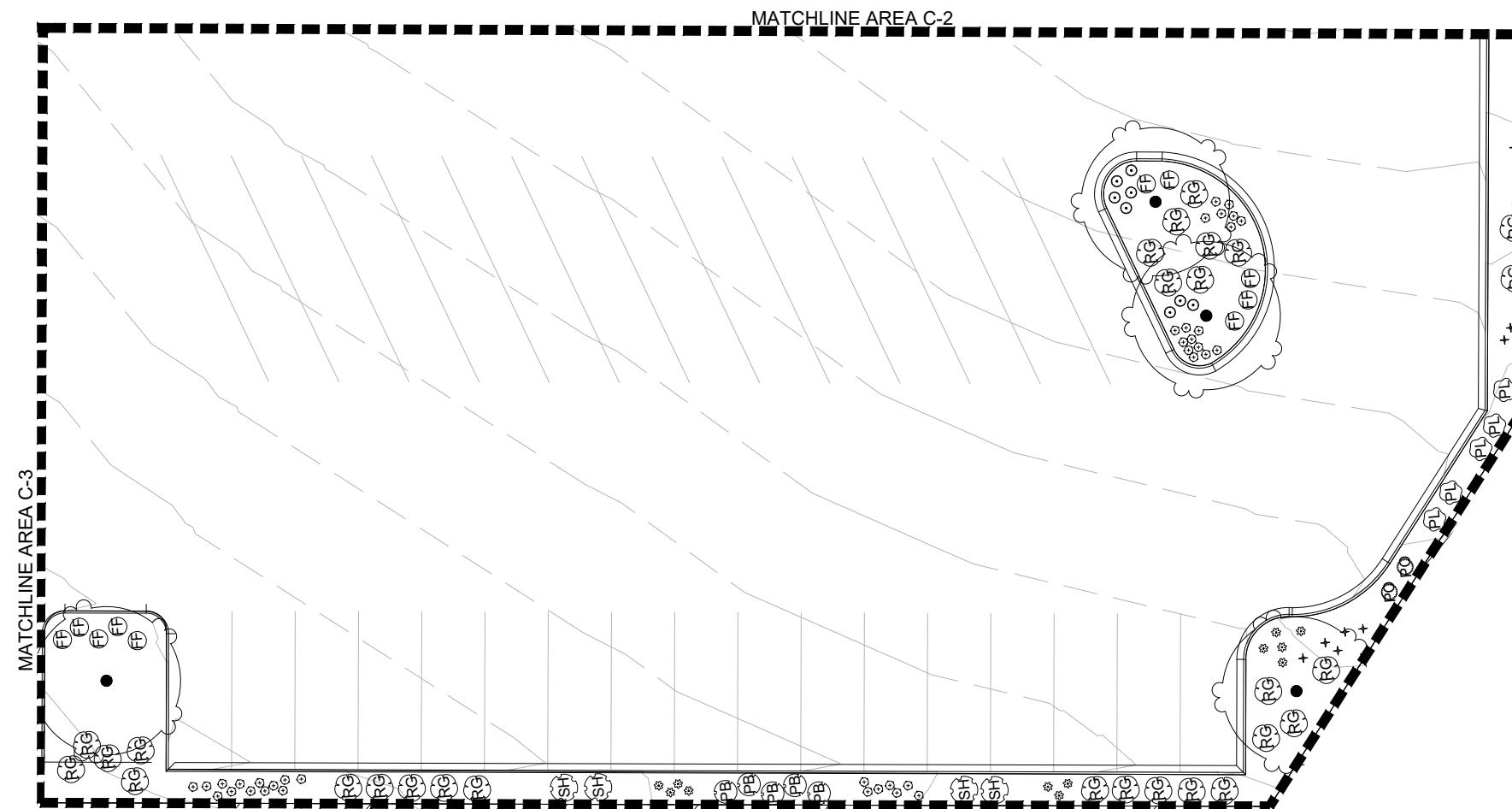
## Concept Plant Schedule

|  | <u>BOTANICAL NAME</u>  | <u>COMMON NAME</u> | <u>QTY</u> |
|--|--|--------------------|------------|
| <b>TREES</b>                           |  |                    |            |
| Ginkgo biloba 'Shangri La'             | Shangri La Ginkgo  | 27                 |            |
| Juglans nigra                          | Black Walnut   | 2                  |            |
| Pinus nigra                            | Austrian Black Pine  | 7                  |            |
| Quercus macrocarpa                     | Burr Oak   | 8                  |            |
| Quercus x macDanielli 'Clemens' TM     | Heritage Oak   | 37                 |            |
| Tilia cordata 'Greenspire'             | Greenspire Littleleaf Linden   | 50                 |            |
| Tilia tomentosa 'Sterling'             | Sterling Silver Linden   | 8                  |            |
| Zelkova serrata 'Green Vase'           | Green Vase Sawleaf Zelkova   | 37                 |            |
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| <b>SHRUBS</b>                          |  |                    |            |
| Forsythia x 'Fiesta'                   | Fiesta Forsythia   | 40                 |            |
| Philadelphus lewisii                   | Wild Mockorange  | 24                 |            |
| Physocarpus opulifolius 'Little Devil' | Little Devil Ninebark  | 17                 |            |
| Prunus besseyi 'Pawnee Buttes'         | Sand Cherry  | 62                 |            |
| Rhus aromatica 'Gro-Low'               | Gro-Low Fragrant Sumac   | 123                |            |
| Shepherdia argentea                    | Silver Buffaloberry  | 31                 |            |
| <b>GRASSES</b>                         |  |                    |            |
| Calamagrostis x acutiflora 'Overdam'   | Overdam Feather Reed Grass   | 194                |            |
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| Gaura lindheimeri 'Sparkle White'      | Sparkle White Gaura  | 33                 |            |
| Rudbeckia fulgida 'Goldsturm'          | Black-eyed Susan   | 29                 |            |
| <b>LAWN BLEND</b>                      | LOLIUM PERENNE / PERENNIAL RYEGRASS<br>POA PRATENSIS / KENTUCKY BLUEGRASS                            |                    |            |
| <b>NATURAL OPEN SPACE</b>              | REPAIR AND/OR REVEGETATE AS REQUIRED WITH PLANTINGS<br>SIMILAR TO EXISTING FOOTHILL PLANT COMMUNITY. |                    |            |

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## Concept Plant Schedule

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|---|--|------------------------------|-----|
| +   | Ginkgo biloba 'Shangri La'             | Shangri La Ginkgo            | 27  |
| +   | Juglans nigra                          | Black Walnut                 | 2   |
| +   | Pinus nigra                            | Austrian Black Pine          | 7   |
| +   | Quercus macrocarpa                     | Burr Oak                     | 8   |
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| +   | Tilia tomentosa 'Sterling'             | Sterling Silver Linden       | 8   |
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| +   | Zelkova serrata 'Wireless'             | Sawleaf Zelkova              | 52  |
| SHRUBS  | BOTANICAL NAME                         | COMMON NAME                  | QTY |
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| PL  | Philadelphus lewisi                    | Wild Mockorange              | 24  |
| PO  | Physocarpus opulifolius 'Little Devil' | Little Devil Ninebark        | 17  |
| PR  | Prunus besseyi 'Pawnee Buttes'         | Sand Cherry                  | 62  |
| RG  | Rhus aromatica 'Gro-Low'               | Gro-Low Fragrant Sumac       | 123 |
| SH  | Shepherdia argentea                    | Silver Buffaloberry          | 31  |
| GRASSES   | BOTANICAL NAME                         | COMMON NAME                  | QTY |
| +   | Calamagrostis x acutiflora 'Overdam'   | Overdam Feather Reed Grass   | 194 |
| PERENNIALS  | BOTANICAL NAME                         | COMMON NAME                  | QTY |
| +   | Agastache cana 'Sonoran Sunset'        | Sonoran Sunset Hyssop        | 77  |
| +   | Gaura lindheimeri 'Sparkle White'      | Sparkle White Gaura          | 33  |
| +   | Rudbeckia fulgida 'Goldsturm'          | Black-eyed Susan             | 29  |
| LAWN BLEND<br>LOLIUM PERENNE / PERENNIAL RYEGRASS<br>POA PRATENSIS / KENTUCKY BLUEGRASS |  |                              |     |

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## Plant Use Detail Exhibit

### TREES



Shangri La Ginkgo



Black Walnut



Austrian Pine



Burr Oak



Heritage Oak



Greenspire Linden



Sterling Silver Linden



Green Vase Zelkova



Wireless Zelkova

### SHRUBS, GRASS, AND PERENNIAL MIX



Fiesta Forsythia



Wild Mockorange



Little Devil Ninebark



Sand Cherry



Grow-Low Sumac



Silver Buffaloberry



Overdam Reed Grass



Sonoran Sunset Hyssop



Sparkle White Gaura



Black-eyed Susan

*Plantings will follow the recommended tree and plant palate within the City's Engineering Standards.*





## Street Tree Plan



### PLANT SCHEDULE

| TREES | BOTANICAL NAME                      | COMMON NAME                  | SIZE    | QTY |
|-------|-------------------------------------|------------------------------|---------|-----|
| ●     | Ginkgo biloba 'Shangri La'          | Shangri La Ginkgo            | 2" Cal. | 27  |
| ●     | Quercus x macdaniellii 'Clemons' TM | Heritage Oak                 | 2" Cal. | 37  |
| ●     | Tilia cordata 'Greenspire'          | Greenspire Littleleaf Linden | 2" Cal. | 50  |
| ●     | Tilia tomentosa 'Sterling'          | Sterling Silver Linden       | 2" Cal. | 8   |
| ●     | Zelkova serrata 'Green Vase'        | Green Vase Sawleaf Zelkova   | 2" Cal. | 37  |
| ●     | Zelkova serrata 'Wireless'          | Sawleaf Zelkova              | 2" Cal. | 30  |

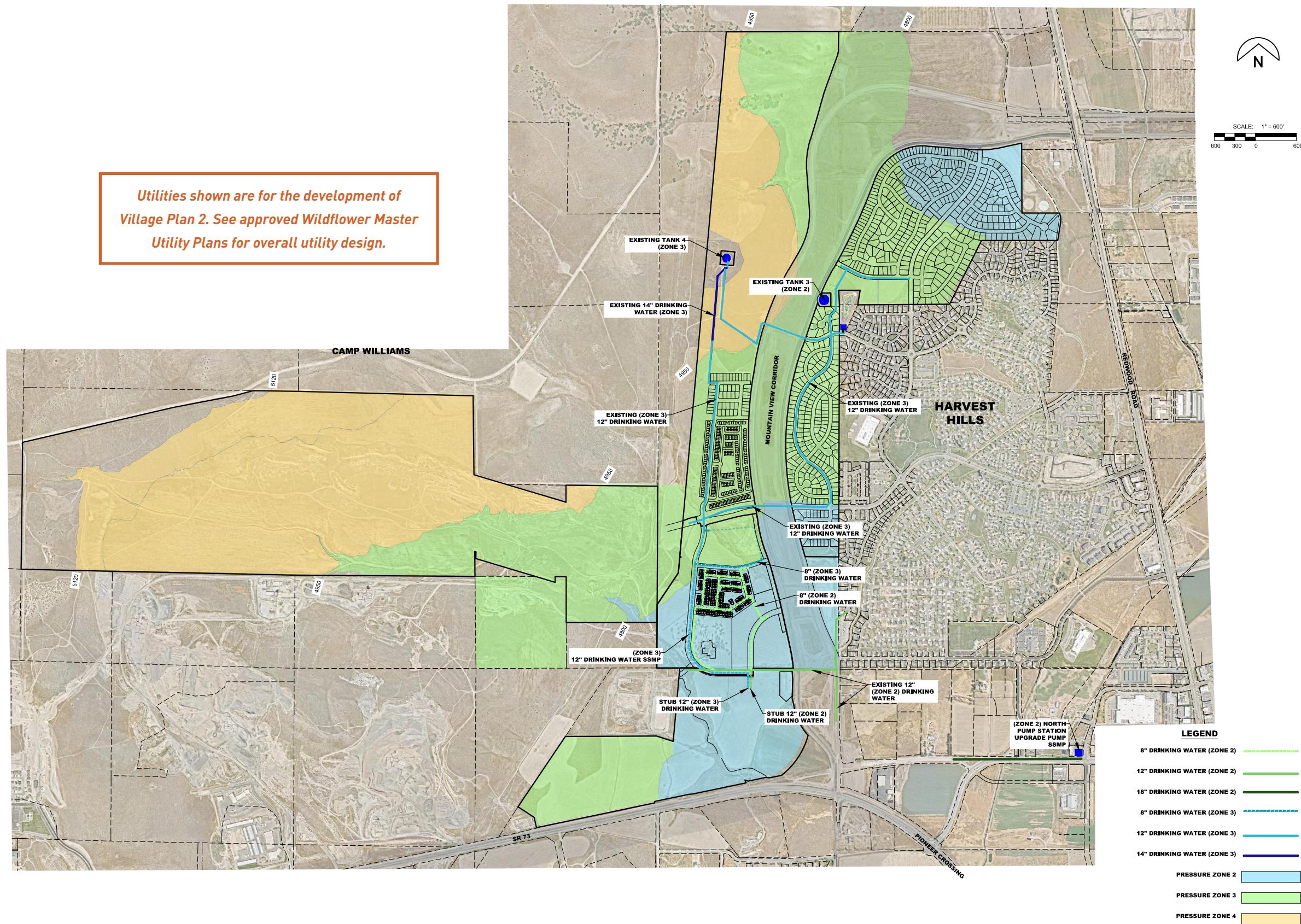
## 08 Utility Plans

The following utility plan diagrams provide master utilities that will serve Wildflower Village Plan Area 2.

- » Culinary Water Plan
- » Secondary Water Plan
- » Sewer Plan
- » Storm Drain



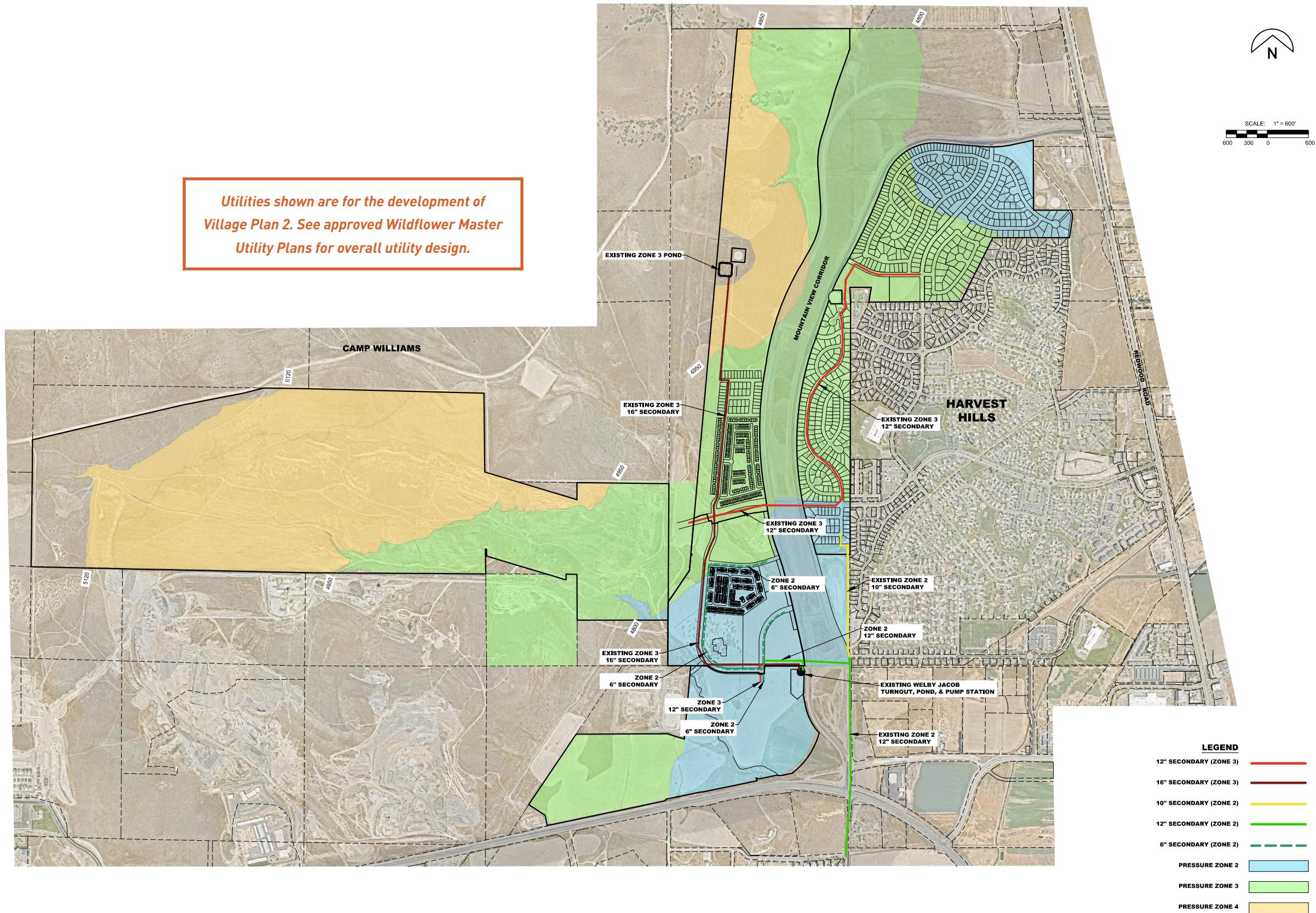
## Culinary Water Plan Exhibit





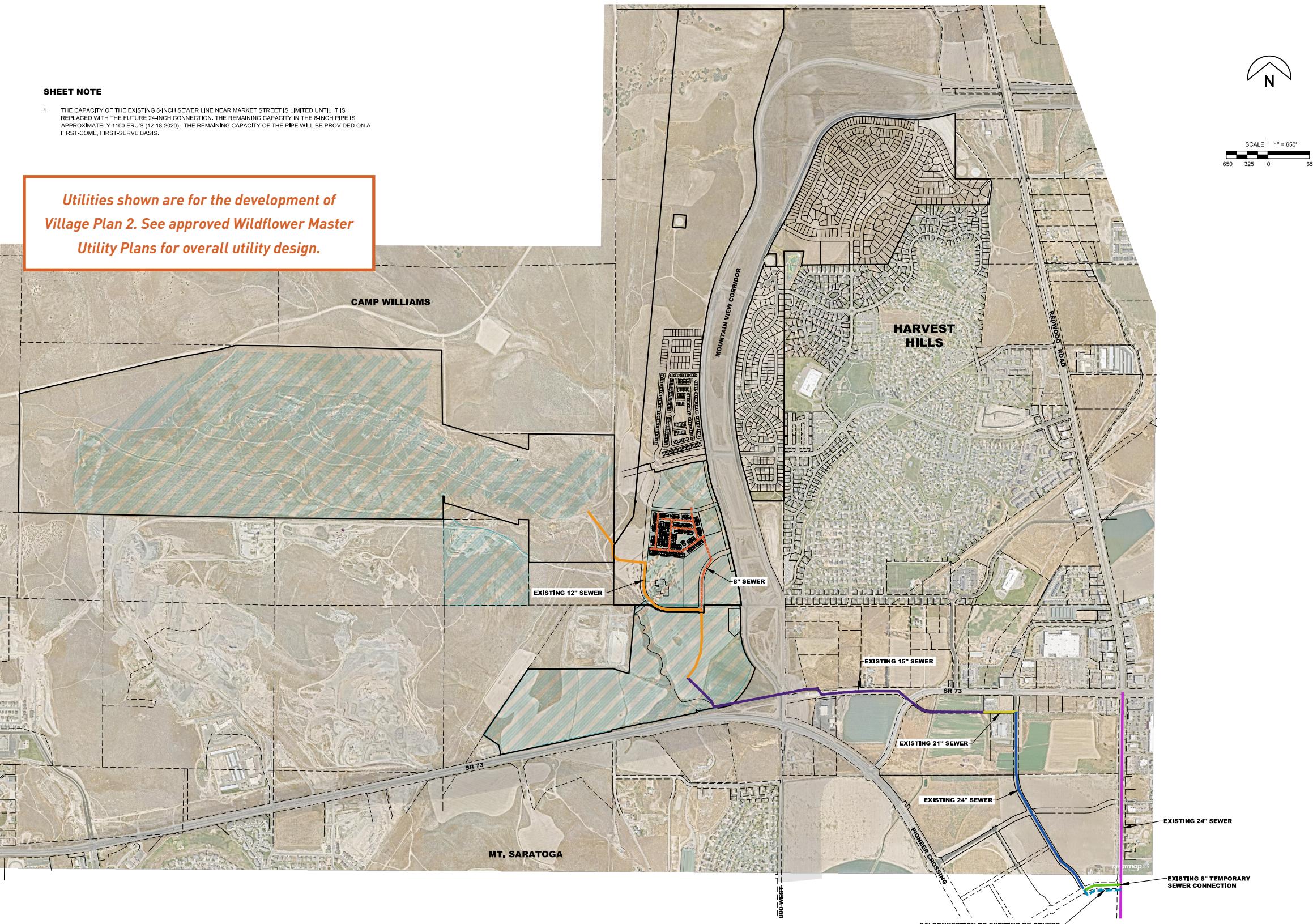
## Secondary Water Plan Exhibit

*Utilities shown are for the development of Village Plan 2. See approved Wildflower Master Utility Plans for overall utility design.*





## Sewer Plan Exhibit



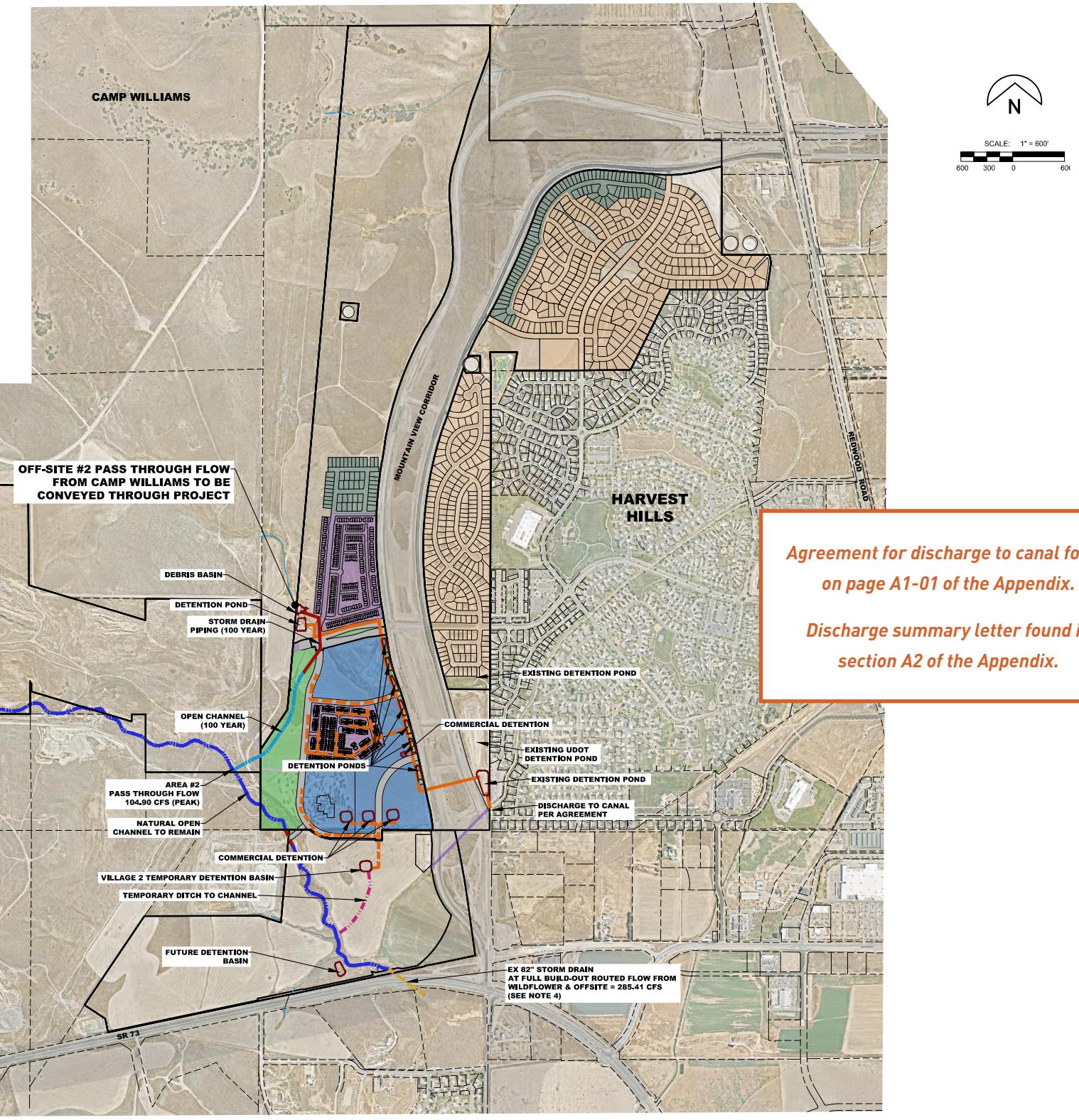


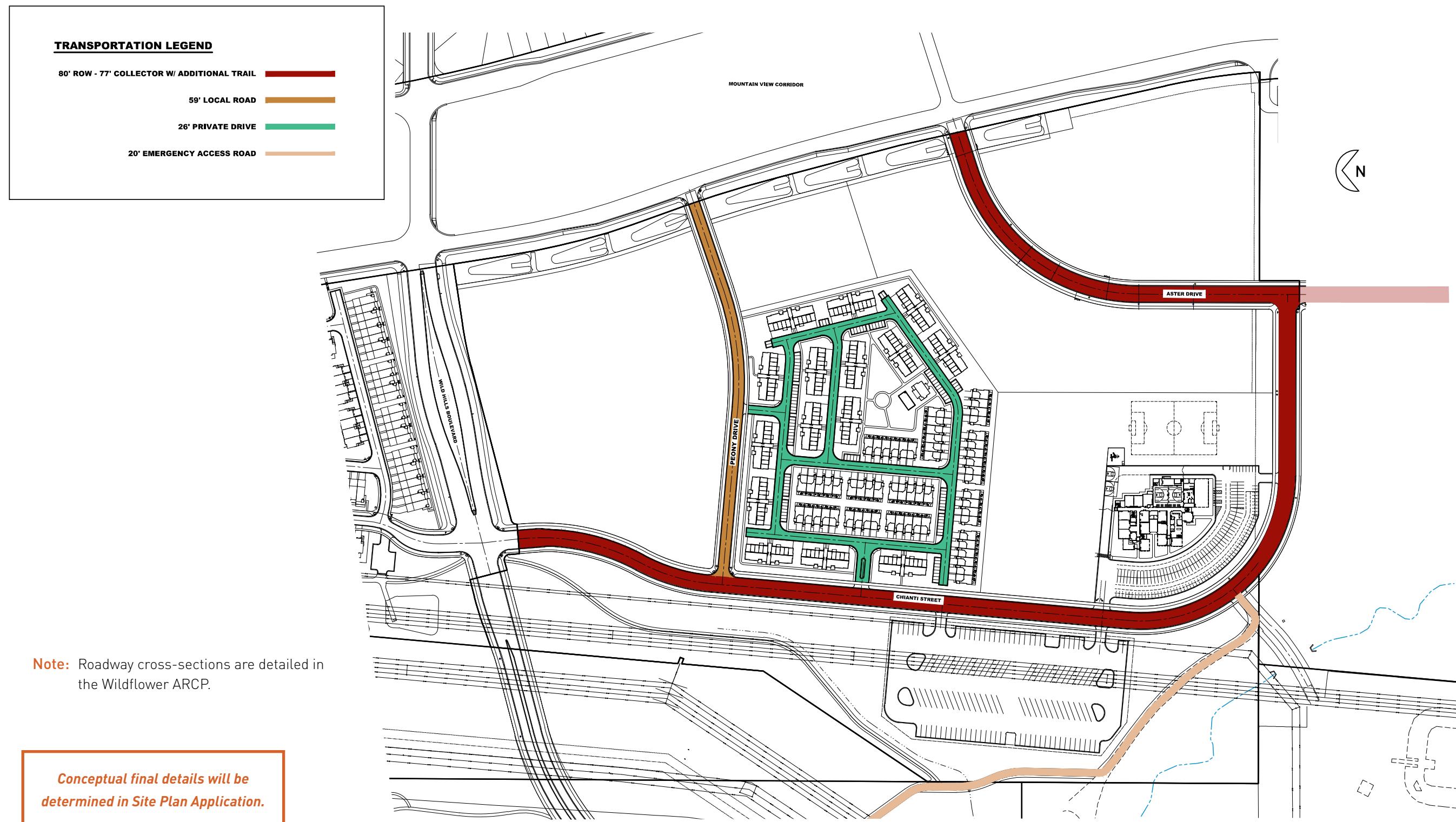
## Storm Drain Exhibit

**NOTES**

1. EAGLE MOUNTAIN CITY TO BE RESPONSIBLE FOR STORM WATER MANAGEMENT OF PROPERTY WITHIN THEIR BOUNDARY.
2. WILDFLOWER TO MANAGE OFF-SITE DRAINAGE FROM CAMP WILLIAMS AS A PASS-THROUGH FLOW MATCHING HISTORICAL FLOW AND DISCHARGE POINTS.
3. STORM WATER TREATMENT DEVICES SHALL BE INSTALLED AT ALL ONSITE DISCHARGE LOCATIONS.
4. AREA DISCHARGES ARE SHOWN AS PEAK FLOWS. COMBINING ROUTING AND HYDROGRAPHS THE PEAK DISCHARGE TO THE EXISTING SR-73 CULVERT CROSSING IS 285.41 CFS.
5. THE MS4 PERMIT REQUIREMENTS AND STUDIES TO BE COMPLETED AS PART OF SITE PLAN & CONSTRUCTION SET SUBMITTALS.

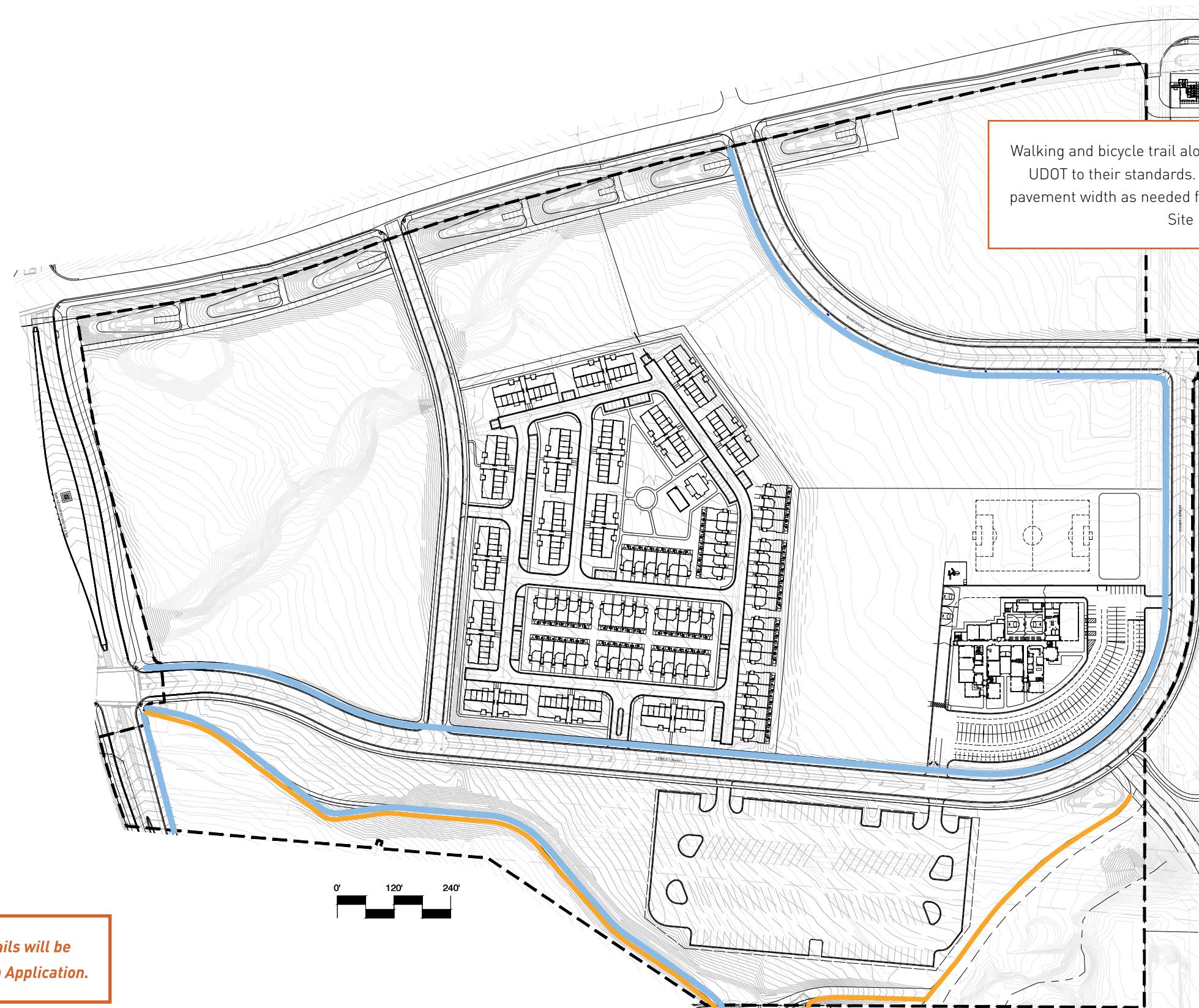
*Utilities shown are for the development of Village Plan 2. See approved Wildflower Master Utility Plans for overall utility design.*







## 10 Pedestrian and Bicycle Plan Exhibit



## 11 Density Transfers

No density transfers are required from the approved Wildflower ARCP. In the event that any density transfers occur, the regulations detailed in the Wildflower ARCP will be followed.

## 12 Additional Detailed Plans

The following elements have been included to detail plans and direction contained in the Wildflower ARCP for Village Plan Area 2:

- » Signage Plan
- » Temporary Signage Plan
- » Grading Plan
- » Open Space Management
- » Traffic Study



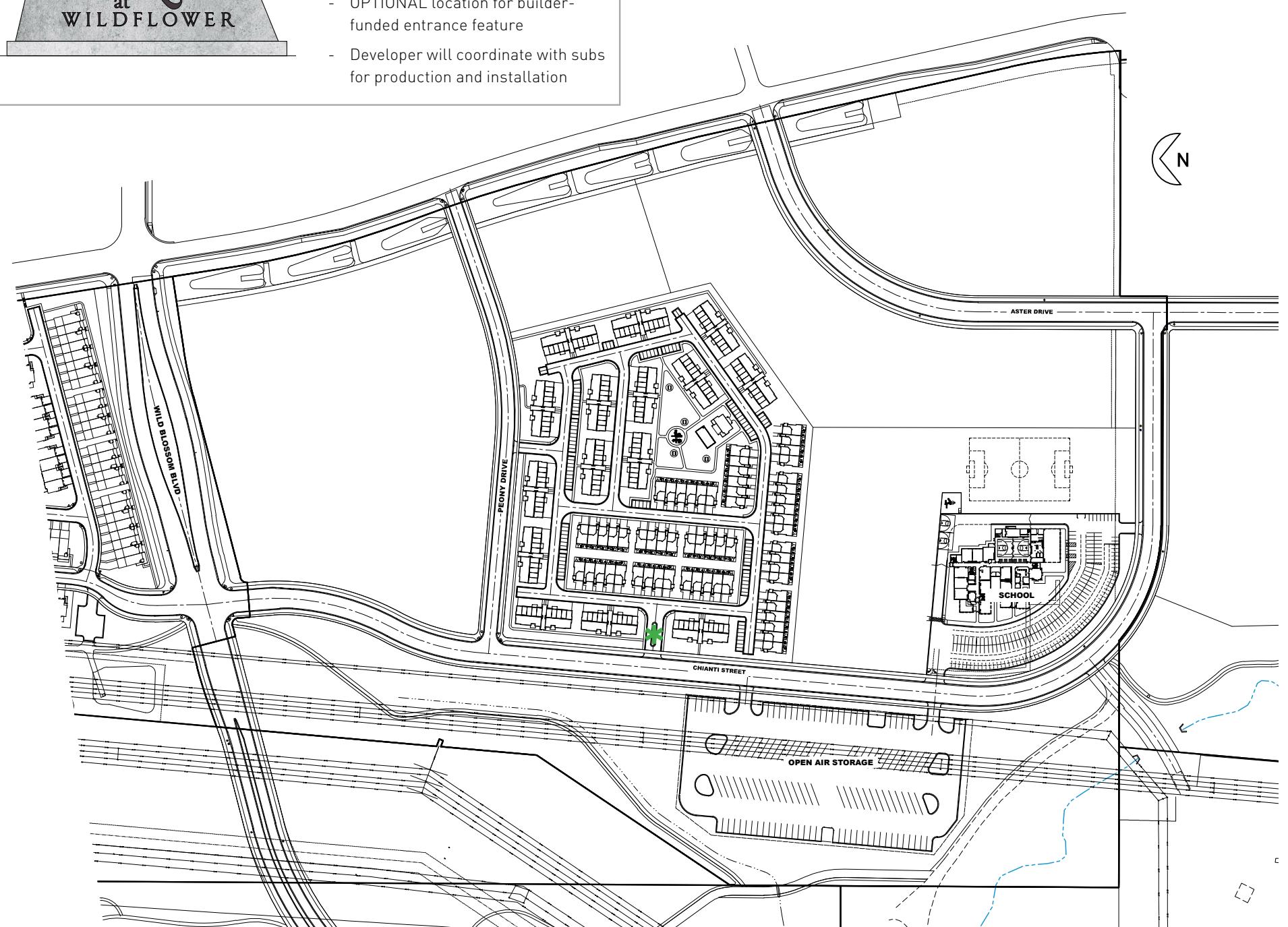
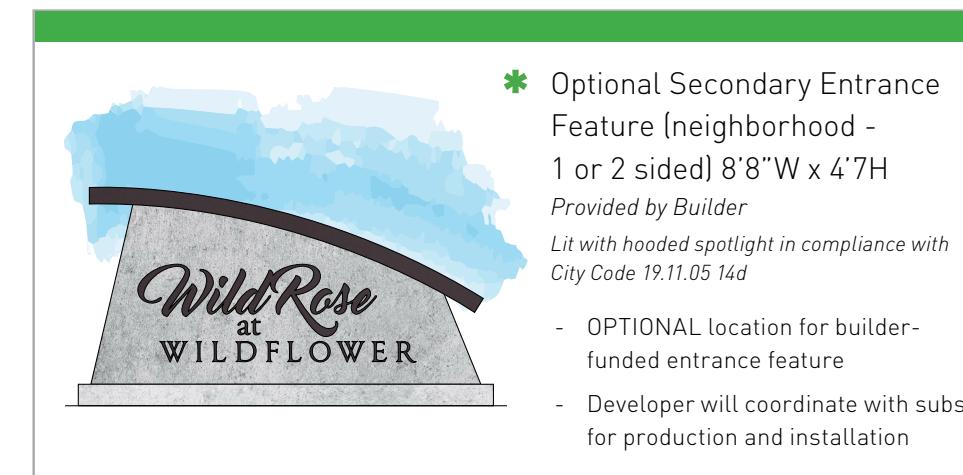
## Type 5 and Open Air Storage Signage

1. Design must be approved by the WDRC.
2. Locations for signs not currently shown in Type 5 and Open Air Storage areas are allowed to be located according to City Code.
3. Signage in Type 5 and Open Air Storage areas shall comply with City Commercial Sign Standards with the exception of the following items in Section 19.18.10.6a as pertaining to Type 5 building signs:
  - i. Number. Each tenant in a building is permitted one primary building sign, and two secondary signs; buildings or uses that are larger than 50,000 square feet and have more than one primary entrance or buildings adjacent to MVC may have a second primary sign.
  - ii. Size, primary signage. The primary building signage shall not exceed a cumulative total size equal to eight percent of the façade on which the sign or signs are mounted, or 30 square feet, whichever is larger; building signage on side of building adjacent to MVC shall not exceed a cumulative total size equal to 19 percent of the façade on which the sign or signs are mounted, or 60 square feet, whichever is larger.

## Notes

1. Locations shown represent the approximate vicinity of signs. Locations will be refined at plat stage. All entrance features will be placed in common areas or signage easements.
2. These features shall not conflict with traffic control signaling or traffic control devices.
3. Sight triangle will be adhered to according to the standards set by the American Association of State Highway and Transportation Officials (AASHTO).

**Conceptual final details will be determined in Sign Permit Application.**





# Temporary Signage Plan Exhibit

Temporary directional signage (✿) may be installed where indicated, as needed to direct traffic to builder model home(s).

The areas highlighted in yellow [Yellow Box] along MVC may require additional branded temporary community information signs during active development. The design and message may vary, but the purpose is to provide information about the Wildflower community. Sign faces shall not exceed 96 sf and height of sign will not exceed 12 feet from grade. Temporary community information signage shall be at least 200 feet from any other temporary sign.

There are 5 commercial parcels in Village Plan 2. Temporary, on-premise signs for Type 5 areas are permitted as detailed in Section 19.18.08. Possible locations for these signs are marked with an (✿). Sign permits, production, and installation of commercial signage shall be the responsibility of commercial tenant/owner.

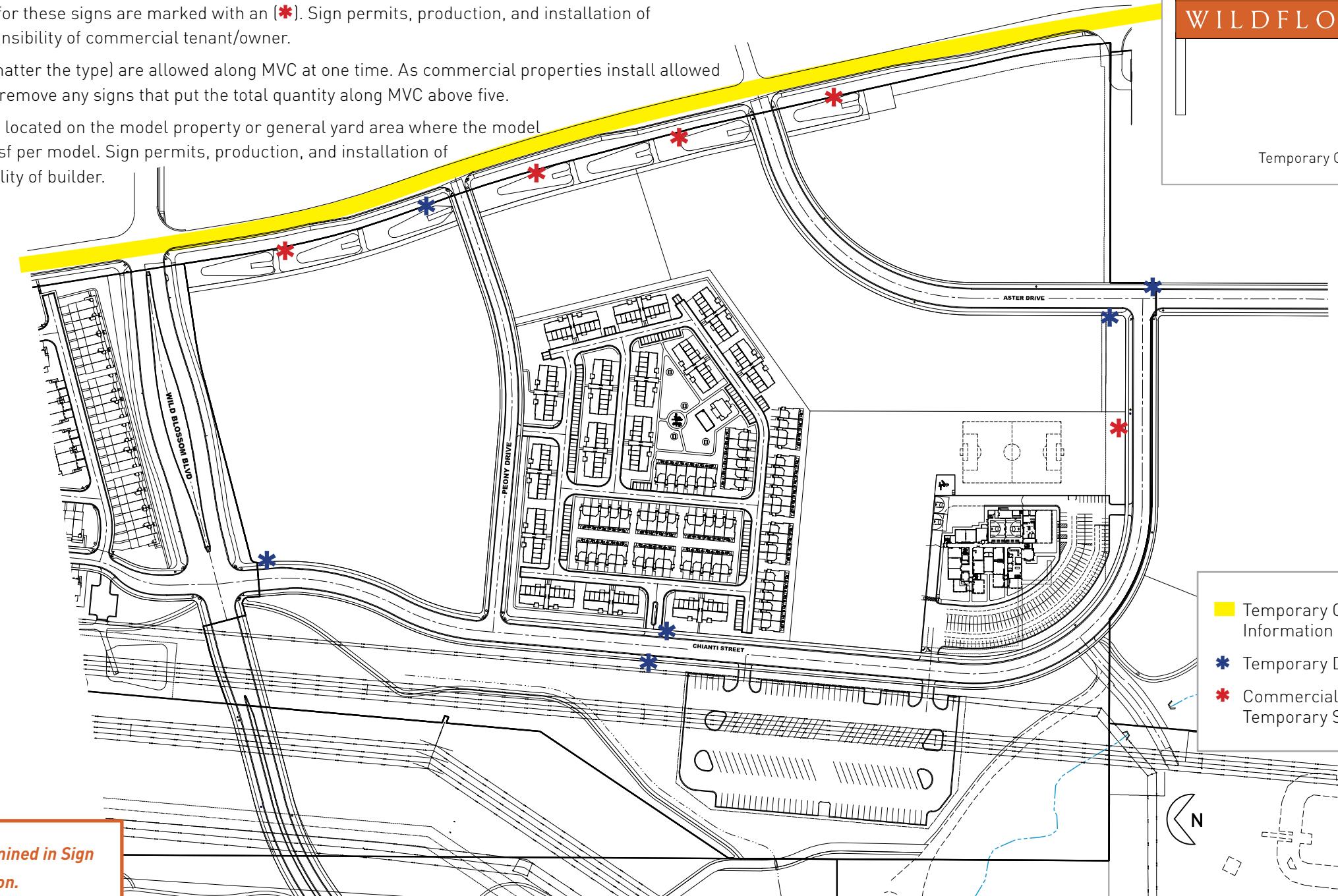
No more than a total of five signs (no matter the type) are allowed along MVC at one time. As commercial properties install allowed signage, the Wildflower developer will remove any signs that put the total quantity along MVC above five.

Builder-branded, model home signage located on the model property or general yard area where the model is located may not exceed a total of 32 sf per model. Sign permits, production, and installation of builder signage shall be the responsibility of builder.

## Notes

1. Locations shown represent the approximate vicinity of signs. All signs will be a minimum of 3' back from any sidewalk and their height/length from property line. Locations will be detailed at sign permit application.
2. Signs shall not conflict with traffic control signaling or traffic control devices.
3. Sight triangle will be adhered to according to the standards set by the American Association of State Highway and Transportation Officials (AASHTO).
4. Temporary signs will be installed on builder-owned lots or open space, not on privately owned lots.

**Final details will be determined in Sign Permit Application.**



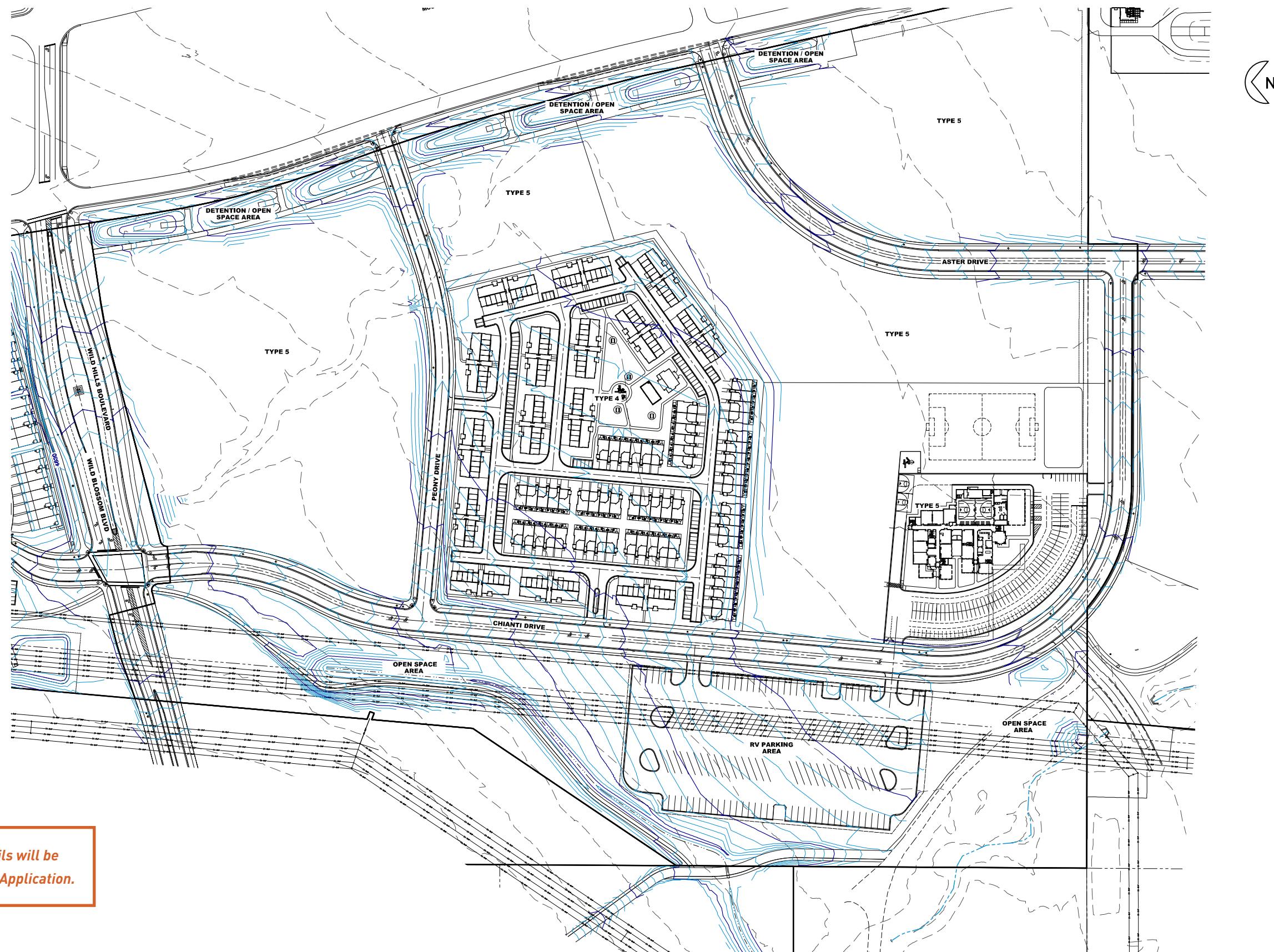
EXAMPLE  
Temporary Community Information Signs



EXAMPLE  
Temporary Directional Sign



## Conceptual Grading Plan Exhibit



# Open Space Management Plan

The total acreage within Village Plan 2 is 81.40 total acres which is comprised of 27.99 acres of Type 4 residential and open space, 5.37 acres for open air storage, and an additional 48.04 acres of commercial. Of the 27.99 acres, 16.45 acres of open space will be provided, which includes 13.64 acres of general open space and 2.81 acres of open space within the Type 4 development. As additional Type 5 property is developed, open space will be provided according to the Wildflower ARCP and City Code. The amount, location, and design details will be determined at Site Plan and Plat submittal.

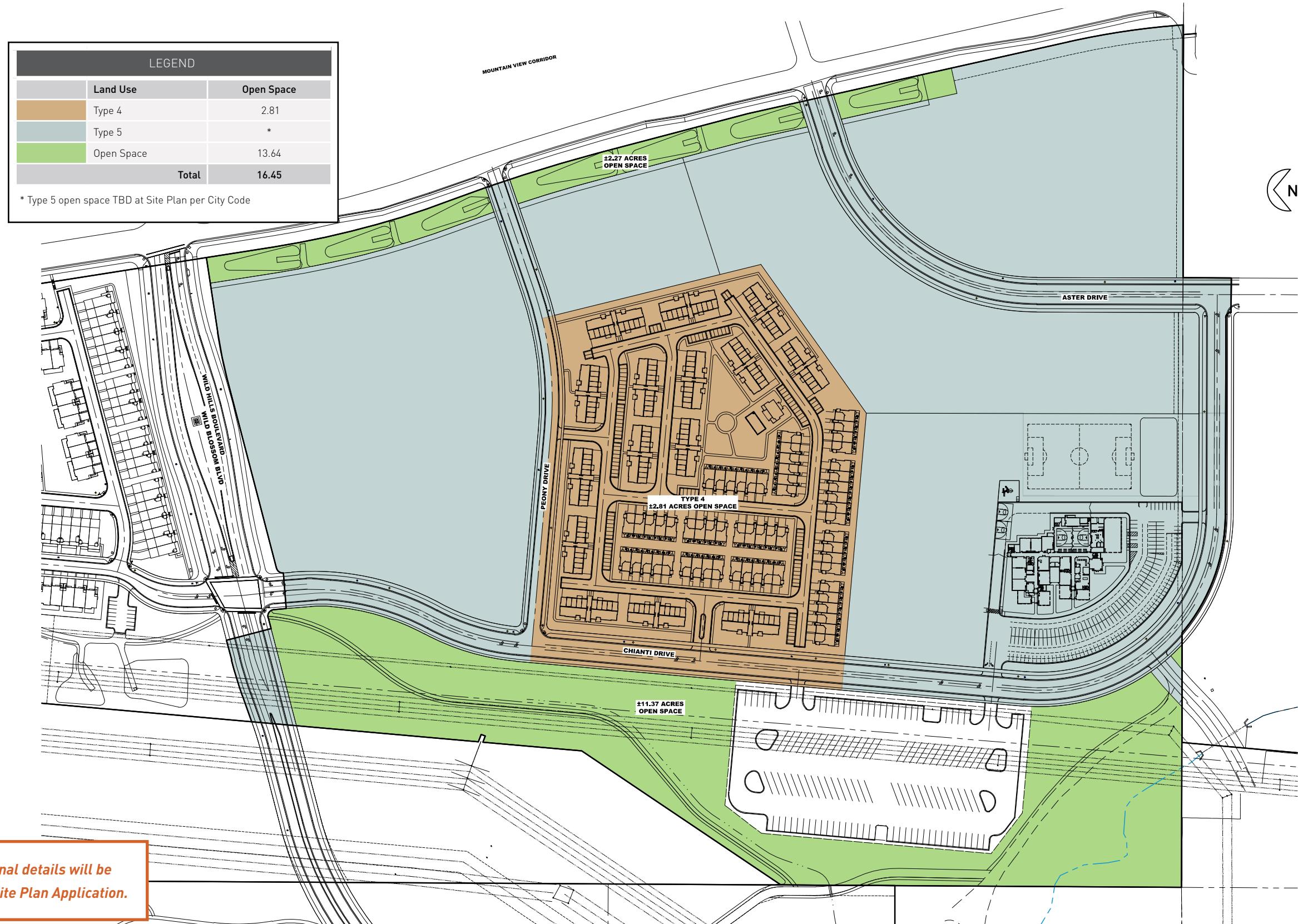
General open space is managed by the Master HOA, and Type 4 open space is managed by a sub-HOA.

The site plan details for the Peony Type 4 townhome neighborhood are included in the Appendix starting on page A3-01. At a minimum, this Edge Homes community will include a 1,348 square foot clubhouse, 25' x 50' swimming pool, 4 picnic tables, and a playground. These amenities add up to 325.32 amenity points as detailed below.

| Type 4 Amenity Points        |          |                 |              |
|------------------------------|----------|-----------------|--------------|
| Proposed Amenity             | Quantity | Points Per Each | Total Points |
| Clubhouse Associated w/ Pool | 1        | 150.0           | 150.0        |
| Pool 25' x 50'               | 1        | 150.0           | 150.0        |
| Picnic Table                 | 4        | .8              | .32          |
| Playground                   | 1        | 25              | 25           |
| Total Type 4 Amenity Points  |          |                 | 325.32       |

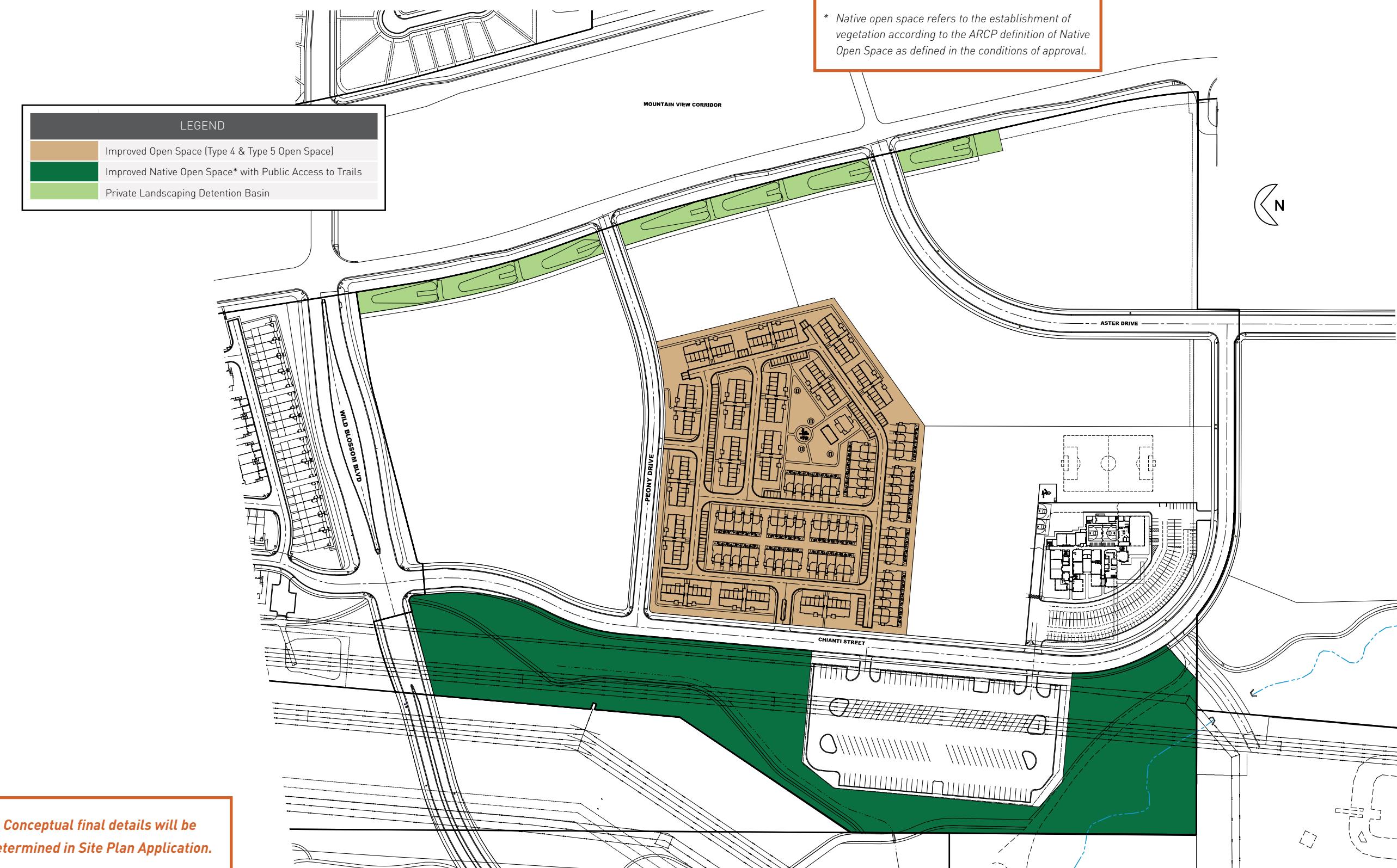


## Open Space Tabulation Exhibit



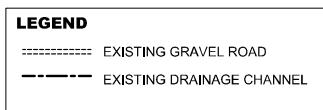


## Open Space Management Exhibit





# Natural Resources Inventory



## SLOPES

THERE ARE NO SIGNIFICANT AREA OF SLOPE GREATER THAN 30% (FOR PURPOSE OF DETERMINING SENSITIVE LANDS AREA. INCIDENTAL & ISOLATED AREA OVER 30% HAVE NOT BEEN INCLUDED.)

## SOILS

A GEOTECHNICAL INVESTIGATION HAS BEEN CONDUCTED BY INFINITY CONSULTANTS, DATED JANUARY 17, 2014. EXCERPTS FROM THE INVESTIGATION INCLUDE:

- THE SUBSURFACE SOILS ENCOUNTERED AT THE SITE CONSIST OF PRIMARILY OF SANDY CLAYS (CL) AND SILTY CLAYS (CL-ML). SILTY SANDS (SM) AND CLAYEY SANDS (SC) WERE FOUND INTERSPERSED WITH CLAYEY SOILS ON THE RIDGE AND IN ITS NEAR VICINITY. COBBLES AND BOULDERS ARE FREQUENTLY FOUND IN THE NEAR SURFACE SOILS AND TOPSOIL. LAYERS OF GRAVEL ARE FREQUENTLY FOUND IN THE SUBSURFACE SOILS.
- NO SUBSURFACE WATER WAS ENCOUNTERED TO THE MAXIMUM DEPTH INVESTIGATED, APPROXIMATELY FEET IN THE TEST PITS AND 50 FEET IN THE BORINGS ALONG THE NORTHERN RIDGE LINES.
- IN THE BORINGS CONDUCTED ON THE SITE, FOR THE PROPOSED CONSTRUCTION, THE BUILDINGS SUPPORTED ON SHALLOW SPREAD FOOTINGS BEARING ON THE UNDISTURBED NATURAL SILT OR CLAY SOILS SHOULD BE DESIGNED FOR A NET ALLOWABLE PRESSURE OF 1,250 POUNDS PER SQUARE FOOT. SHALLOW FOOTINGS BEARING ON NATURAL UNDISTURBED WELL GRADED SANDS, GRAVELS OR AT LEAST 1 FOOT OF COMPACTED STRUCTURAL FILL MAY BE DESIGNED FOR A NET ALLOWABLE BEARING PRESSURE OF 1,500 PSF. BASEMENT FOOTINGS THAT ARE EMBEDDED A MINIMUM OF 6 FEET DEEP FROM THE NATIVE GROUND SURFACE AND ARE BEARING ON THE UNDISTURBED NATURAL SILT OR CLAYS MAY BE DESIGNED FOR A NET ALLOWABLE PRESSURE OF 1,500 PSF. BASEMENT FOOTINGS EMBEDDED MORE THAN 6 FEET AND BEARING ON UNDISTURBED NATURAL WELL GRADED SANDS OR GRAVELS MAY BE DESIGNED FOR A NET ALLOWABLE PRESSURE OF 1,800 PSF.
- AT THE TIME OF THE SITE INVESTIGATION WAS CONDUCTED, VEGETATION AT THE SITE CONSISTED PRIMARILY OF SAGE BRUSH, WITH FARMED AND FALLOW FIELDS. NATIVE GRASSES AND WEEDS WERE PRESENT AROUND THE PERIMETER OF THE FIELDS.
- BASED ON THE INFORMATION COLLECTED DURING OUR SITE INVESTIGATION AND SUBSEQUENT LABORATORY TESTING, WE ANTICIPATE THAT COLLAPSE-SUSCEPTIBLE SOILS WILL NOT BE ENCOUNTERED DURING CONSTRUCTION.
- NO ACTIVE FAULTS ARE MAPPED TO EXTEND THROUGH OR NEAR THE PROPERTY. THE CLOSEST MAPPED FAULT TO THE SITE LIES BENEATH UTAH LAKE, LOCATED APPROXIMATELY 4.5 MILES TO THE SOUTH. (MACHETTE, 1992).

## WETLANDS

NO WETLANDS EXIST ON THIS SITE.

## SPECIAL PROTECTION AREAS

A PHASE I ENVIRONMENTAL ASSESSMENT HAS BEEN CONDUCTED FOR THE WILDFLOWER DEVELOPMENT BY INFINITY CONSULTANTS, DATED DECEMBER 12, 2012. THE CONCLUSION OF THIS ASSESSMENT STATES:

"THE SUBJECT PROPERTY CONSISTS OF OPEN, UNUSED LAND WITH NO STRUCTURES. THERE HAS NOT BEEN ANY HISTORIC USE OF THE PROPERTY THAT IS INCONSISTENT WITH ITS CURRENT USE. THERE IS NO EVIDENCE OF CURRENT OR PAST USE, STORAGE, OR PRODUCTION OF HAZARDOUS CHEMICALS OR PETROLEUM PRODUCTS AT ENVIRONMENTALLY SIGNIFICANT LEVELS ON THE SUBJECT PROPERTY."

IN THE OPINION OF INFINITY CONSULTANTS, THIS ASSESSMENT HAS PROVIDED NO EVIDENCE OF "RECOGNIZED ENVIRONMENTAL CONDITIONS," AS DEFINED BY THE ASTM STANDARD, IN CONNECTION WITH THE SUBJECT PROPERTY. THEREFORE, IT CAN BE CONCLUDED THAT NO FURTHER ACTION IS REQUIRED."

THE FULL PHASE I ENVIRONMENT SITE ASSESSMENT IS TO BE SUBMITTED SEPARATELY AND AVAILABLE FOR FURTHER DETAIL.

## DAMS AND CANALS

NO DAMS EXIST ABOVE THIS SITE. NO CANALS EXIST ON THE PROPERTY.

## SHRUBS, TREES AND WILDLIFE

SUBJECT PROPERTY HAS BEEN HISTORICALLY USED FOR AGRICULTURE AND THUS THERE ARE NO SIGNIFICANT SHRUBS OR TREES. WILDLIFE IS TYPICAL OF THE FOOTHILL AREAS OF THE WASATCH FRONT. NO KNOWN ENDANGERED, THREATENED OR RARE FLORA OR FAUNA ARE KNOWN TO EXIST ON THE SITE.

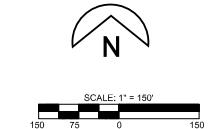
ANY TREES GREATER THAN 2 1/2" CALIPER REMOVED DURING GRADING OPERATIONS WILL BE REPLACED WITHIN THE DEVELOPMENT WITH LIKE KIND OR BETTER, 2 1/2" CALIPER MINIMUM.

## FLOOD PLAIN DATA

AREA SHOWN HEREIN FALLS WITHIN FLOOD ZONE "X" (AREA DETERMINED TO BE OUTSIDE OF 500 YEAR FLOOD PLAIN) AS SHOWN ON FIRM MAPS 4955170105B (JULY 17, 2002) AND 4955170115B (JULY 17, 2002)

## MITIGATION REQUIREMENT

IF AREAS OF PROPOSED DEVELOPMENT ARE DETERMINED UNSUITABLE DUE TO ANY OF THE ABOVE CONDITIONS, ACCEPTABLE MITIGATION MUST BE COMPLETED PRIOR TO DEVELOPMENT, I.E. SOIL STABILIZATION, ENVIRONMENTAL HAZARDS, ETC.



# Traffic Study

Village Plan 2

**HALES**  **ENGINEERING**  
innovative transportation solutions

## Wildflower Village 2

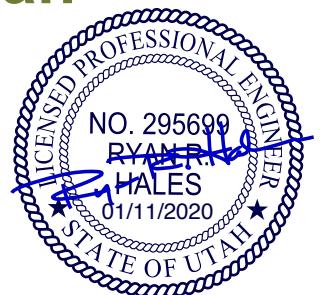
### Traffic Impact Study



## Saratoga Springs, Utah

January 9, 2020

UT19-1603



## EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Wildflower Village 2 development located in Saratoga Springs, Utah. The proposed project is located on the west side of Mountain View Corridor (MVC), south of Harvest Hills Boulevard

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways near the site. Future 2025 conditions were also analyzed.

The evening peak hour level of service (LOS) was computed for each study intersection. The results of this analysis are shown in Table ES-1. Recommended storage lengths are shown in Table ES-2.

| TABLE ES-1<br>LOS Analysis - Evening Peak Hour<br>Saratoga Springs - Wildflower Village 2 TIS |   |                                 |                             |                               |  |
|---|---|---------------------------------|-----------------------------|-------------------------------|--|
| Intersection  | Level of Service (Sec/Veh) <sup>1</sup> |                                 |                             |                               |  |
|   | Existing (2019)<br>Background           | Existing (2019)<br>Plus Project | Future (2025)<br>Background | Future (2025)<br>Plus Project | Future (2025)<br>Plus Project -<br>Mitigated |
| Harvest Hills Boulevard / SB MVC FR   | B (13.5)                                | D (37.5)                        | B (12.1)                    | E (64.8)                      | C (22.1)                                     |
| Harvest Hills Boulevard / NB MVC FR   | A (9.7)                                 | C (20.9)                        | B (14.1)                    | C (26.5)                      | C (20.1)                                     |
| Harvest Moon Drive / SB MVC FR  | D (33.1) / WB                           | F (<50) WB                      | B (12.3)                    | B (15.0)                      | B (12.6)                                     |
| Harvest Moon Drive / NB MVC FR  | A (8.0) / EB                            | E (45.6) / EB                   | B (14.6)                    | B (17.4)                      | B (16.8)                                     |
| Access 1 / Harvest Hills Boulevard <sup>2</sup>   | -                                       | A (7.0) / WB                    | -                           | F (>50) / NB                  | A (7.8) / WB                                 |
| Access 2 / SB MVC FR <sup>2</sup>   | -                                       | D (26.3) EB                     | -                           | E (43.8) / EB                 | E (48.4) / EB                                |
| Access 3 / SB MVC FR <sup>2</sup>   | -                                       | C (21.5)                        | -                           | C (34.6)                      | C (24.4)                                     |
| Access 3 / NB MVC FR <sup>2</sup>   | -                                       | C (29.1)                        | -                           | D (43.9)                      | D (35.6)                                     |
| Access 5 / Access 4 <sup>2</sup>  | -                                       | -                               | -                           | A (1.4) / EB                  | A (2.9) / EB                                 |

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for roundabout, signalized, all-way stop controlled intersections and the worst approach for all other unsignalized intersections.  
 2. This intersection is a project access and was only analyzed in "plus project" scenarios.  
 Source: Hales Engineering, January 2020

| Intersection                        | Storage Length (feet) |     |            |     |           |     |           |     |
|-------------------------------------|-----------------------|-----|------------|-----|-----------|-----|-----------|-----|
|                                     | Northbound            |     | Southbound |     | Eastbound |     | Westbound |     |
|                                     | LT                    | RT  | LT         | RT  | LT        | RT  | LT        | RT  |
| Harvest Hills Boulevard / SB MVC FR | -                     | -   | -          | -   | -         | -   | 150       | 125 |
| Harvest Hills Boulevard / NB MVC FR | -                     | -   | -          | -   | 200       | -   | -         | 100 |
| Access 1 / Harvest Hills Boulevard  | -                     | 125 | 100        | -   | -         | -   | 125       | 100 |
| Access 2 / SB MVC FR                | -                     | -   | -          | 250 | -         | 150 | -         | -   |
| Access 3 / SB MVC FR                | -                     | -   | -          | 250 | -         | 225 | -         | -   |
| Access 3 / NB MVC FR                | 250                   | -   | -          | -   | 475       | -   | -         | -   |

Source: Hales Engineering, January 2020

## SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- New turning movement counts were collected along the newly constructed MVC frontage road system in Saratoga Springs. The estimated project trip assignments of Wildflower Village 3A and Village 4 were added on top of these volumes for the “existing (2019) background” volumes.
- All study intersections are currently operating at an acceptable LOS during the evening peak hour in existing (2019) background conditions.
- The development will consist of residential townhomes, office and retail space.
- The intersections of Harvest Moon Drive / NB MVC FR and Harvest Moon Drive / SB MVC FR are expected to operate at failing levels of service during the evening peak hour with project traffic added. All other intersections are anticipated to operate at an acceptable LOS.
  - *Recommendation:* That traffic signals be installed at Harvest Moon Drive / NB MVC FR and Harvest Moon Drive / SB MVC FR.
- All study intersections are anticipated to operate at an acceptable LOS during the evening peak hour in future (2025) background conditions.
- The Harvest Hills Boulevard / SB MVC FR and Access 1 / Harvest Hills Boulevard intersections are expected to operate at failing levels of service during the evening peak hour in future (2025) plus project conditions.

- Recommendation: That Harvest Hills Boulevard between the Access 1 / Harvest Hills Boulevard and Harvest Hills Boulevard / SB MVC FR intersections have a 5-lane cross section with two lanes in the east – and westbound directions and a two-way left-turn median.
- Recommendation: That dual protected left-turn lanes be added to the eastbound movement at the Harvest Hills Boulevard / NB MVC FR intersection.
- Recommendation: That right- and left-turn pockets for all approaches be added to the Access 1 / Harvest Hills Boulevard intersection. Future developments to the west of this intersection may warrant more improvements.
- Recommendation: That signal timing be adjusted and optimized as traffic volumes increase on Mountain View Corridor and on side streets in the area.
- The delay at Access 2 is due to the high through volumes on the MVC FR. It is anticipated with the MVC freeway will be installed by 2030 and that most of the through volumes on MVC will be drawn away from the frontage roads.

## 13 Site Characteristics

Village Plan 2 is located in the center section of the Wildflower development, south of the main entrance feature. The property is boxed in on three sides. Mountain View Corridor (MVC) is located on the east side of the property, Wildflower Main commercial area is on the South side, and Rocky Mountain Power Corridor is on the West. There will be three main access points; Chianti Drive from the north, Peony in the middle, and Aster Drive from the south. There are two swales that pass through this area that will affect improvement plans and schedules. Most of the area is in the Zone 2 Water Region. All other site characteristics were included in the approved Wildflower ARCP.

## 14 Master Development Agreement

This Village Plan is subordinate to the Master Development Agreement, Wildflower ARCP, and Master Utility Plan which is before the city for City Council Approval.



## APPENDIX

[\*\*A1\*\* Agreement to Discharge to Canal](#)

[\*\*A2\*\* Discharge Summary Letter from LEI](#)

[\*\*A3\*\* Edge Site Plan Details](#)

## A1 Agreement to Discharge to Canal

- » It is understood that a permanent, paved access road is required for all utilities. However, in case of temporary installation conditions, such as extension of utilities through future phases of developments, a temporary all-weather surface is sufficient. A 12 foot access road shall be constructed to all manholes and shall be capable of supporting H-20 loading as determined by a geotechnical engineer.
- » Sewer Mains shall be located as indicated on the City's Standard drawings and shall be located in ROW, dedicated open spaces, private open spaces or 20 foot wide easement.
- » The maximum operating pressure for the water system in the home is to be 110 psi unless otherwise approved by the City Engineer.
- » Use 2019 standards for piping.
- » 18' driveways are allowed, but are not to be counted as parking.
- » All City approvals to be effective for 12 months from the approval date.
- » Clear sight triangle to conform to AASHTO standards.

# Wildflower Utility Master Plan Report

Amendment #1: Village 2 Storm Drain Outfall

February 19, 2021

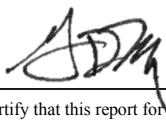
Prepared By:



3302 N Main Street  
Spanish Fork, UT 84660  
(801) 798-0555



2/19/2021

  
I hereby certify that this report for the onsite  
drainage was prepared by me (or under my direct  
supervision) in accordance with the provisions of  
the City of Saratoga Springs Storm Water Design  
Standards and Regulations, and was designed to  
comply with the provisions thereof. I understand  
that the City of Saratoga Springs does not and will  
not assume any liability for drainage facility design.



## DESCRIPTION OF DEVELOPMENT

This amendment was prepared to provide some clarification as well as to highlight the storm drain outfall for the Village 2 area. This falls within the overall Service Area #2 from the approved Wildflower storm drain masterplan. Both the outfall location as well as the outfall flowrate will be discussed in this report.

## PROPOSED STORM DRAINAGE FACILITIES

An excerpt from the approved storm drain masterplan report that discussed the outfall from the developed areas of Service Area #2 is included below.

The onsite development for service area #2 consists of the Wildflower Village 2 and Village 3 development areas. The storm drain design for the Village 3 area has been approved by the City. This area consists of multiple detention basins to slow the overall on-site release from this area to 4.55 cfs as was previously approved. The runoff from the Wildflower Village 3A area will be discharged into the Jacob Welby canal as previously agreed and approved by the canal company, the City and the Developer.

The future runoff from Village 2 will be detained on-site and released at a rate of 5.0 cfs. The final detailed design of this area will be completed in the future. This will limit the combined on-site runoff from Service Area #2 to 9.55 cfs, which is below the approved 12.1 cfs discharge rate from the agreement with the canal company.

When the storm drain masterplan was prepared only Village 3A had been designed, so an allowable discharge of 5.0 cfs was reserved for the future Village 2 outfall design. When Village 2 was designed it was found that due to the grading of the site all the anticipated contributing area would not be able to be routed to the combined Village 3A and V2 outfall under Mountain View Corridor.

An exhibit from the Wildflower Village 2 storm drain report has been included in Appendix A for reference. All the hatched areas in this exhibit were originally expected to be routed under Mountain View Corridor in addition to the Village 3A area to the north. Only the areas in red and blue were routed under Mountain View Corridor. All the commercial area and roads shown in the area in green will flow to the south and eventually be routed under SR-73.

From the Village 2 storm drain report:

As was previously discussed the maximum release rate that was assigned for the full build-out of the Village 3A and Village 2 contributing areas is 9.45 cfs. Of the Village 2 development area, some portions of the future commercial area on the south end will no longer be routed under Mountain View corridor but will be routed to the south to the existing drainage channel. These areas will be required to detain their runoff onsite before releasing downstream. A total release rate of 5 cfs was allotted to the Village 2 area. Based on this release rate, and the contributing area, the maximum release rate is 0.075 cfs/acre. These future commercial areas will need to detain and release at this rate. This will prevent the ultimate discharge at the crossing under SR-71 from exceeding what was originally planned. A breakdown of the release rates is included in Table 1.

*Table 1: Release Rate Summary*

|                               |          |
|-------------------------------|----------|
| Village 2 & 3 Detention Basin | 7.59 cfs |
| Village 2 Future Commercial   | 1.86 cfs |
| Total Village 2 & 3 Release   | 9.45 cfs |

Based on the Village 2 design the total outfall from Village 3A and Village 2 will be 9.55 cfs as was approved in the Utility Master Plan Report. Due to the site grading and the subdivision of the property into commercial lots, the outfall location will change slightly in that only 7.59 cfs will be routed to the pipe under Mountain View Corridor, and the additional 1.86 cfs will be routed to the south and under SR-73.

As was mentioned in the expert from the Village 2 report cited above, all the future commercial areas will be required to detain their runoff to the allowable release rate of 0.075 cfs/acre. Any downstream development to the south will need to account for the runoff from the Village 2 roads as well as the release from the commercial areas. In addition, the downstream development will need to retain and infiltrate the increase in runoff volume from the Village 2 road areas. The commercial lots will also be required to infiltrate their own increase in runoff volume.

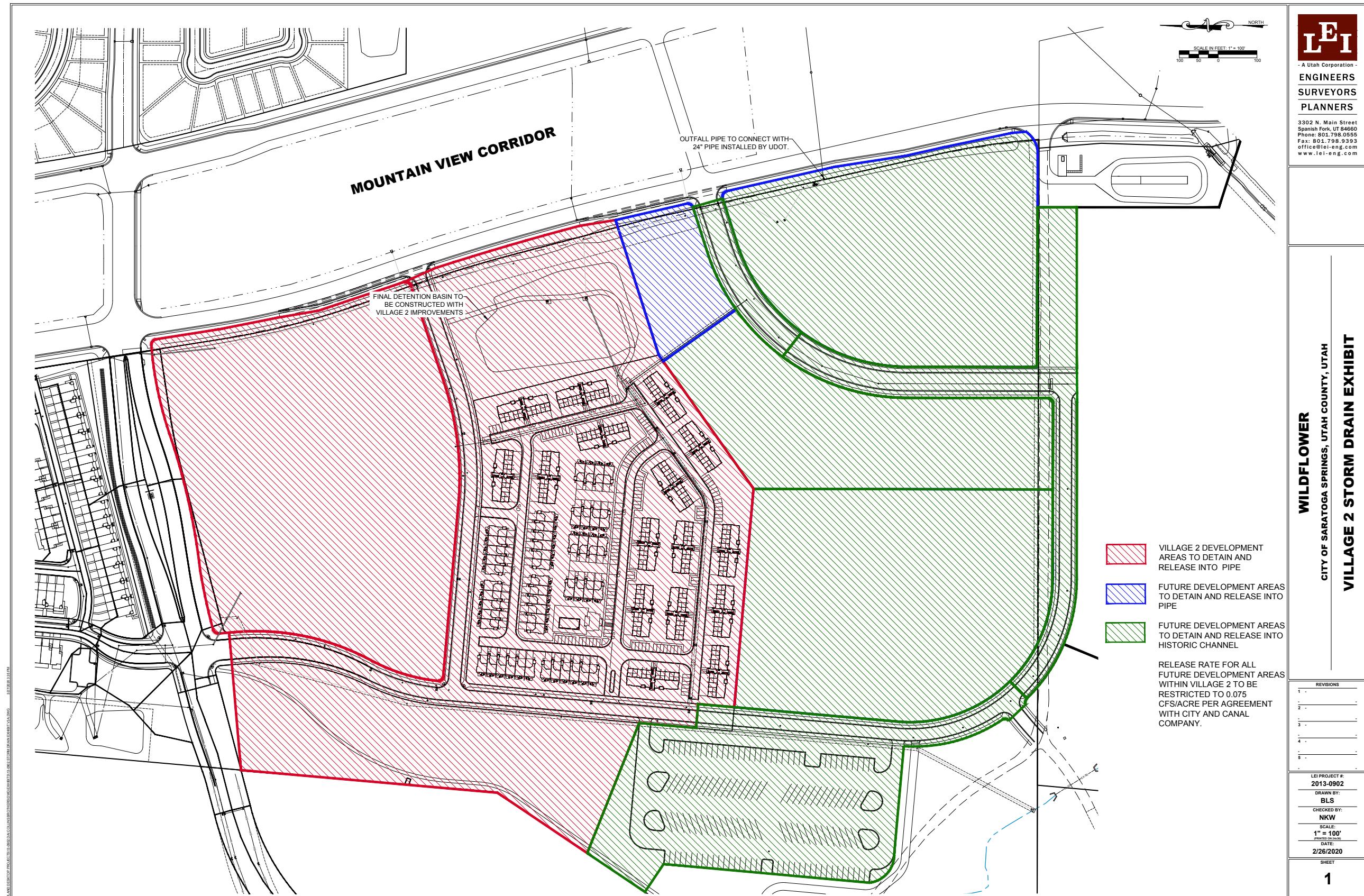
It should be noted that this additional flow discharged to the south will be accounted for in future development and that the overall rate and quantity of runoff discharged to the existing SR-73 crossing will not exceed that that was released in the native, historic conditions. Any increases in flow or volume will be handled by the combination of retention, infiltration, and detention. The specifics of these systems will be designed for the areas to the south of Village 2 in the future.

## **CONCLUSION**

Due to grading constraints all the originally anticipated development areas were not able to be routed to the existing storm drain pipe that was installed under Mountain View Corridor. The updated design of the Wildflower Village 2 area took this into account. The original maximum outfall rate of 9.55 cfs was held for the design, but a small portion of the Village 2 runoff will now be routed to the existing pipe installed under SR-73 rather than the Mountain View Corridor pipe.



## Appendix A – Contributing Area Exhibit



# Welby Jacob Stormwater Agreement

## STORMWATER AGREEMENT

**Welby Jacob Water Users Company**, a Utah non-profit corporation (“Company”), **City of Saratoga Springs**, a Utah Municipal Corporation (“Saratoga”), **Sunrise 3, LLC**, a Utah limited liability company (“Sunrise”), and **Wildflower Master Homeowners Association**, a Utah non-profit corporation (the “Master HOA”) enter into this Stormwater Agreement (“Agreement”), effective the 18th day of May, 2017.

### RECITALS

- A. Company owns and operates an irrigation water canal, part of which is located in Saratoga.
- B. Presently, without Company’s consent or control, unregulated sheet flow from the surrounding undeveloped hills enters the canal near the proposed Wildflower master development project (“Wildflower”) and Harvest Hills subdivision, as depicted in Exhibit A.
- C. Article 17 of the Company’s Bylaws presently states that the “Corporation does not permit water to enter into its Welby and Jacob Canals, which runs or drains off hard surfaces, including but not limited to roads, driveways, roofs and parking lots, from improved and developed properties located near or above the canals.”
- D. Sunrise is in the process of planning and constructing the development of Wildflower in Saratoga. In doing so, Sunrise has proposed a stormwater detention and treatment system (the “Sunrise System”), which is set forth in the Wildflower Storm Drain Master Plan – I (“Master Plan”), attached hereto as Exhibit B.
- E. The Sunrise System has been designed to detain and treat the historically unregulated sheet flow produced at and passing through Wildflower. The Sunrise System is also designed with an outfall line that will discharge the treated stormwater into the Company’s canal, at a controlled discharge rate that will not exceed a maximum discharge rate identified in this Agreement.
- F. The Sunrise System has been designed to discharge stormwater to the Company’s canal at a controlled flow rate which will not exceed a maximum flow rate, as described in this Agreement. Accordingly, the Company’s Board has concluded that the Sunrise System, once properly constructed and maintained according to plans acceptable to the Company, will be a substantial improvement to the current sheet flow discharges and in managing the aforementioned historically unregulated drainage issues. Among other things, the Sunrise System (a) is designed with only three (3) specific connection points to the canal, and (b) will limit the flow rate at which water can enter into the canal.
- G. Saratoga has permitting authority over Wildflower and Saratoga requires that Sunrise construct a stormwater system that accommodates the stormwater created by Wildflower and protects Wildflower and the surrounding area that could be affected by stormwater

created by Wildflower except for stormwater caused by acts of God or from storms exceeding the 100-year storm event.

- H. The Master HOA is formed to own, manage and maintain, following construction by Sunrise and transfer to the Master HOA, certain common areas located within Wildflower. Among other common area not associated with the Sunrise System, these common areas are anticipated to specifically include the storm water detention basins comprising a portion of the Sunrise System (the "Master HOA Owned System"). The Master HOA Owned System is identified in the Master Plan attached hereto as Exhibit B.
- I. Separate from the Sunrise System, the Utah Department of Transportation ("UDOT") is planning an extension to the Mountain View Corridor, to pass through the Wildflower master development project, and is in the process of designing a stormwater retention and treatment system for that extension (portions of the UDOT stormwater retention and treatment system are set forth in the Master Plan). The UDOT System is separate from the Sunrise System and UDOT's obligations will be addressed in a later agreement.
- J. Company agrees to accept discharges from the Sunrise System subject to the terms of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, conditions, agreements, and representations contained herein, the receipt, adequacy, and legal sufficiency of which are hereby acknowledged by the parties, the parties hereto agree as follows:

**AGREEMENT**

1. Because the proposed Sunrise System will manage sheet flow that currently drains from undeveloped hills above the canal into the Jacob Canal and because the Sunrise System will detain storm water less than or equal to the 100-year storm event generated at Wildflower, Company believes that this Agreement is consistent with Article 17 of its Bylaws.
2. Company and the Company's engineers shall under no circumstances have any responsibility for design or construction of the Sunrise System by Sunrise.
3. All work by Sunrise shall be in a good and workmanlike manner.
4. Prior to constructing the Sunrise System, or any component, Sunrise shall deliver to Company and Saratoga plans and specifications for the Sunrise System (the "Plans"). The Plans must be consistent with the Master Plan and Saratoga regulations, and must include the sections of the Company's canal to be piped as indicated in Exhibit B; Sunrise shall obtain the Company's written approval to deviate from the Master Plan in any material manner. Any deviation must also meet Saratoga regulations and be accepted (as defined by Saratoga regulations) by Saratoga through a formal application process. Within thirty (30) days after delivery of the Plans, Company and Saratoga shall each have the right to either (i) accept the Plans by written notice to Sunrise, or (ii) reject the Plans by written notice to Sunrise. In the event that Company or Saratoga rejects the Plans, Company and Saratoga shall deliver written

notice to Sunrise of all objections and revisions that Company and Saratoga has with respect to the Plans. Sunrise will address the items in Company and Saratoga's notice and resubmit the Plans to Company for approval and Saratoga for acceptance. Within thirty (30) days after the date that Sunrise resubmits the revised Plans, Company and Saratoga shall have the right to either (i) accept the revised Plans by written notice to Sunrise, or (ii) reject the revised Plans by written notice to Sunrise. Sunrise and Company and Saratoga shall repeat this process until Company and Saratoga accept the Plans. The Plans accepted by both Company and Saratoga are referred to herein as the "Approved Plans." When Sunrise submits the Plans or any revisions to Company and Saratoga, it must do so in writing and in such writing list this paragraph and state that they have thirty (30) days to accept or reject the Plans pursuant to this paragraph 4 of this Agreement. The Parties may extend the deadlines in this paragraph in writing. Approval and/or acceptance (as applicable) under this Paragraph shall not constitute land use approval or compliance with engineering standards and Sunrise shall comply with procedural requirements of Saratoga land use ordinances and engineering standards.

5. Sunrise shall construct and install the Sunrise System substantially in conformance with the Approved Plans. The Company acknowledges that the Approved Plans include the piping of portions of the existing canal. In this regard, the Company agrees to provide access to, and any license or construction easements as may be reasonably necessary for, Sunrise to complete such piping and installation in accordance with the Approved Plans. Any material change to the Approved Plans shall be subject to the prior written consent of Company and Saratoga. Company and Saratoga shall approve and accept (as applicable), or reject, any written request for a material change to the Plans within thirty (30) days after written notice from Sunrise.

6. Sunrise shall not make any alterations or changes to the Company's canal or properties, except as set forth in the Approved Plans.

7. When Sunrise considers the Sunrise System or phase thereof which connects to, or affects, the Company's canal (the "Applicable Sunrise System Phase")<sup>1</sup>, substantially complete, Sunrise shall notify Company and Saratoga in writing. Company and Saratoga shall review the Sunrise System or Applicable Sunrise System Phase within sixty (60) days of receiving the notice. If Saratoga and Company each determine the Applicable Sunrise System Phase is constructed according to the Approved Plans and Saratoga determines that the applicable 1-year warranty period has expired per City regulations without need for repairs or replacements, Saratoga shall provide Sunrise a written acknowledgment of completion and acceptance ("Sunrise Acceptance Notice") within thirty (30) days of performing the review. If Saratoga or Company determine that changes or repairs are needed for the Applicable Sunrise System Phase to comply with the Approved Plans, Saratoga and Company shall notify Sunrise within thirty (30) days of the review describing the necessary changes and repairs, and Sunrise shall make the specified changes and repairs and then re-notify Company and Saratoga in writing that it has completed the specified changes or repairs. The parties shall then repeat the above process and follow the above timelines as many times as necessary until Saratoga and Company each issue a Sunrise Acceptance Notice.

---

<sup>1</sup> Any reference in this Agreement to the Sunrise System shall include all Applicable Sunrise System Phase.



8. Once Saratoga and Company each issue the Acceptance Notice, (a) Saratoga agrees to assume all of Sunrise's liabilities and obligations under this Agreement insofar as it relates to the "City Owned System" (which includes all of the Sunrise System except for the Master HOA Owned System), and (b) the Master HOA agrees to assume all of Sunrise's liabilities and obligations under this Agreement with respect to the Master HOA Owned System in perpetuity. Sunrise will not transfer any part of the Sunrise System to Master HOA unless and until the Master HOA (1) is solvent, and (2) has recorded a Declaration of Covenants, Conditions, Easements and Restrictions for Wildflower requiring the Master HOA to maintain the Master HOA Owned System as a common expense for those portions of the Wildflower development project benefitting from the same.

9. Company reserves all of its rights necessary to continue operating and maintaining its canal and facilities, including the section of the canal affected by the Sunrise System. Sunrise's construction of the Sunrise System shall not in any manner whatsoever interfere with the Company's use, operation, maintenance, and repair of its canal and related facilities, including the section of the canal affected by the Sunrise System. Any interest Sunrise or Saratoga acquires by this Agreement, is subordinate and subject to the rights of the Company to operate and maintain its canal and related facilities and deliver water through its canal to its shareholders. The Company reserves the right to allow others to encroach upon the canal to construct facilities that do not interfere with the Sunrise System.

10. Saratoga (with respect to the City Owned System) and Master HOA (with respect to the Master HOA Owned System), upon transfer by Sunrise of the same after an Acceptance Notice is issued, shall own the Sunrise System and shall operate, repair, maintain, inspect, and replace such applicable portions of the Sunrise System (i.e., the City Owned System, as to Saratoga, and the Master HOA Owned System, as to the Master HOA) as reasonably determined by such party to be necessary to keep such portion of the Sunrise System in good repair and so such portion of the Sunrise System does not impair or threaten the operation or safety of Company's canal, as reasonably determined by Company. Saratoga, with respect to the City Owned System, and Master HOA, with respect to the Master HOA Owned System, will repair any disrepair or wear of the applicable portions of the Sunrise System that affects or threatens operation of Company's canal, as reasonably determined by Company. The maintenance and repair of the Sunrise System and all associated facilities shall be the sole responsibility of Saratoga (with respect to the City Owned System) and the Master HOA (with respect to the Master HOA Owned System).

11. Sunrise shall be solely liable for any and all damages to third parties resulting during the construction of the Sunrise System.

12. The Sunrise System shall not discharge at any more than the three locations indicated on Exhibit B. The discharge at the north end of the Sunrise System shall not discharge more than 12.1 cfs into the Company's canal at any time and the two discharges at the south end of the Sunrise System shall together not discharge more than a total of 5 cfs, for a combined total of 17.1 cfs (the "Maximum Flow Rate"). The one discharge at the north end of the Sunrise System and the two discharges at the south end are depicted in Exhibit B. Provided that the Sunrise System discharges water into the canal at rates which do not exceed the Maximum Flow

Rate set forth above, the Company shall accept the stormwater discharged from the Sunrise System into Company's canal. In place of flow meters to ensure compliance with the Maximum Flow Rate, Sunrise will design the Sunrise System to implement the Maximum Flow Rate constraints.

13. The water from the Sunrise System shall be the only stormwater discharged to the Canal pursuant to this Agreement. Sunrise (prior to dedication of the Sunrise System or Applicable Sunrise System Phase to Saratoga) and Saratoga and Master HOA (following transfer of the Sunrise System or Applicable Sunrise System Phase to Saratoga and/or Master HOA (as applicable)) shall not discharge any more water to the Canal other than the water from the Sunrise System, and will only discharge water into the Canal pursuant to this Agreement from the locations set forth in the Approved Plans.

14. Hold Harmless-Indemnification.

- a. Company does not assume any liability resulting from this Agreement or the exercise thereof by Sunrise or Saratoga for the design, construction, use or maintenance of the Sunrise System or harm caused by construction or operation of the Sunrise System.
- b. Excluding liability caused by acts of God or storms in excess of the 100-year storm event, Sunrise (prior to dedication of the Sunrise System or Applicable Sunrise System Phase to Saratoga) and separately, each of Saratoga and Master HOA (following transfer of the Sunrise System or Applicable Sunrise System Phase to Saratoga and/or Master HOA (as applicable)) (as applicable, the "Indemnifying Party") shall hold harmless, indemnify, and defend Company and all of its respective officials, board members, officers, managers, agents, and employees from any injury or damage, or any other claim (whether meritorious or not), to any persons or property that may result from, or is claimed to result from, in whole or in part, (i) such portion of the Sunrise System or any Applicable Sunrise System Phase which is owned by such Indemnifying Party; (ii) stormwater from the Sunrise System or any Applicable Sunrise System Phase which is in excess of the Maximum Flow Rate, and such excess is caused by the failure of such portion of the Sunrise System or Applicable Sunrise System Phase owned by such Indemnifying Party, or (iii) such Indemnifying Party's failure to properly maintain, repair or replace any part of the portion of the Sunrise System or any Applicable Sunrise System Phase owned by the applicable Indemnifying Party, or that is caused by such portion of the Sunrise System or any Applicable Sunrise System Phase owned by such Indemnifying Party, in any manner which directly results in the release of stormwater. If Sunrise (prior to dedication of the Sunrise System or Applicable Sunrise System Phase to Saratoga) or Saratoga and Master HOA (following transfer of the Sunrise System or Applicable Sunrise System Phase to Saratoga and/or Master HOA) cannot agree which portion of the Sunrise System caused the harm or who owns the portion of the Sunrise System that caused the harm, Sunrise (prior to

dedication of the Sunrise System or Applicable Sunrise System Phase to Saratoga) or Saratoga and Master HOA (following transfer of the Sunrise System or Applicable Sunrise System Phase to Saratoga and/or Master HOA) shall jointly indemnify Company, provided however, that each of Sunrise, Saratoga and the Master HOA shall retain all claims of contribution and/or subrogation against such other parties in connection with indemnification pursuant to this sentence.

- c. Sunrise, Saratoga and Master HOA shall not interfere with the operation, maintenance and repair of Company's canal. Sunrise (prior to dedication of the Applicable Sunrise System Phase) and Saratoga and Master HOA (following transfer of the Applicable Sunrise System Phase to Saratoga and/or Master HOA (as applicable)) shall be strictly responsible—excluding acts of God or storms in excess of the 100-year storm event—for any damage to, obstruction of, or interference with the use, operation, maintenance, repair, or replacement of the canal or related facilities caused in whole or in part by the design, construction, operation, use, repair or replacement of the portion of the Sunrise System or any Applicable Sunrise System which is the responsibility of such party as set forth herein (except to the extent that Sunrise, Saratoga or Master HOA (as applicable) do not discharge stormwater in excess of the Maximum Flow Rate and are otherwise in compliance with the terms of this Agreement, in which case this indemnity provision will not apply, but all parties will retain their individual liabilities).
- e. Notwithstanding the foregoing, the Company shall be solely responsible for any damage based upon any negligent actions committed by Company.
- f. Company makes no warranty, express or implied, as to its title to the canal or related land or facilities, or as to the validity of any other rights granted under this Agreement.

15. Company shall not have any liability or obligation and Sunrise (prior to dedication of the Sunrise System or Applicable Sunrise System Phase) and Saratoga and Master HOA (following transfer of the Sunrise System or Applicable Sunrise System Phase to Saratoga and/or Master HOA (as applicable)) shall (i) ensure that all stormwater discharged from the Sunrise System to Company's canal shall be discharged in a manner which complies with the Utah Pollutant Discharge Elimination System Permit ("UPDES Permit") issued to Saratoga by the Utah Department of Environmental Quality pursuant to the Clean Water Act and any other federal or state laws and regulations governing or relating to stormwater that apply to the Sunrise System, including but not limited to, by ensuring that no discharge to the canal contains constituents from any hardscape in Wildflower in violation of such UPDES Permit, and (ii) at such party's sole expense, as applicable, obtain any other permits necessary to collect, treat, transport, and dispose of the stormwater entering Company's canal through the Sunrise System. Sunrise (prior to dedication of the Applicable Sunrise System Phase) and Saratoga and Master HOA (following transfer of the Applicable Sunrise System Phase to Saratoga and/or Master HOA (as applicable)) shall hold harmless, indemnify, and defend Company and all of its

respective officials, board members, officers, managers, agents, and employees from any action, including federal or state administrative agency action, or claim (whether meritorious or not) brought against Company under the UPDES Permit or any other water quality or environmental law arising from a breach by Sunrise (prior to dedication of the Sunrise System or Applicable Sunrise System Phase), or Saratoga and Master HOA (following transfer of the Sunrise System or Applicable Sunrise System Phase to Saratoga and/or Master HOA (as applicable)) of the terms of this Section 15. Subject to the foregoing, Company shall be responsible for compliance with water quality and environmental laws with respect to operation of its canal and the conveyance and discharge of water within the Company's canal, not including any water in the canal from the Sunrise System prior to such water's entry into the canal.

16. Sunrise shall pay the engineering, attorney, and board member meeting fees that Company incurs in negotiating and finalizing this Agreement, provided the board members' fees will not exceed \$100 per board member for board meetings needed to address issues relating to the Sunrise System and this Agreement and \$100 per hour per board member for all other work relating to the Sunrise System and this Agreement. Sunrise shall pay the amount owing within thirty (30) days of receiving the accounting of Company's expenses. This provision shall apply until Saratoga issues its Sunrise Acceptance Notice.

17. Sunrise will grant to Saratoga the drainage easement attached at Exhibit C. As long as the Sunrise System is in place, Saratoga shall not abandon or release the easement.

18. If Company, in its sole discretion, determines to install a Supervisory Control and Data Acquisition System, ("SCADA"), Company will send to Sunrise and Saratoga any information all such parties agree is relevant to operation of the Sunrise System.

19. Sunrise shall record this Agreement or a notice thereof in the Office of the County Recorder of Utah County, Utah.

20. All notices required or desired to be given hereunder shall be in writing and shall be deemed to have been given on the date of personal service upon the party for whom intended or if mailed, by certified mail, return receipt requested, postage prepaid, and addressed to the Parties at the following addresses:

Sunrise:      Sunrise 3, LLC  
                    c/o Nate Shipp  
                    1099 W. South Jordan Parkway  
                    South Jordan, Utah 84095

Company:      Welby Jacob Water Users Association  
                    1156 South State Street #201  
                    Orem, UT 84097

Saratoga:      City of Saratoga Springs  
                    c/o City Manager (with a copy to the Public Works Director)  
                    1307 N. Commerce Dr. #200

Saratoga Springs, Utah 84045

Master HOA: Wildflower Master Homeowners Association  
1099 W. South Jordan Parkway  
South Jordan, Utah 84095

with a copy to:

HOA Solutions  
Shelley Grover  
212 E. Crossroads Blvd, #511  
Saratoga Springs, Utah 84045

Any party may change its address for notice under this Agreement by giving written notice to the other party in accordance with the provisions of this paragraph.

21. The Company, at its option, may terminate this Agreement if Sunrise fails to begin construction of the Sunrise System within four (4) years of the date this Agreement is signed by all of the parties. Upon a good faith determination by the Company Board of Directors that there has been a material failure of any party to strictly comply with the terms of this Agreement, Company may, at its option, terminate this Agreement after notice of a period of 30 days to cure the breach and such breaching party's failure to cure the breach within the 30 days, as reasonably determined by Company. If Sunrise or Master HOA breaches the Agreement, Company shall provide a courtesy copy to Saratoga and allow Saratoga the option, in Saratoga's sole discretion, to have an additional 30 days for Saratoga to cure such defect. The breaching party (i.e., either Sunrise, Master HOA and/or both) shall thereafter reimburse Saratoga its costs in curing such defect within 10 calendar days of receipt of invoice by Saratoga. Sunrise and Master HOA agree and consent to a lien or assessment filed on the Wildflower property by Saratoga to pay the costs of curing such breach.

22. If Company ceases to use its canal and formally abandons it, this Agreement will terminate upon mutual agreement and implementation by the parties of an alternative plan for drainage of the stormwater, which shall not require Company to continue operating the canal unless agreed to by the Parties. In the event of abandonment, Company shall give Master HOA, Sunrise, and Saratoga the option of taking over ownership of the canal and Company facilities, upon terms to be negotiated, so that the Sunrise system may continue to operate. In either event, the Company shall have no ongoing obligation, financial or otherwise, by virtue of this Agreement (1) to continue operating or maintaining the canal or (2) in the alternative plan for drainage of stormwater.

23. If Saratoga constructs a permanent master outfall line that can reasonably be designed and constructed to transport the water that will be discharged into Company's canal under this Agreement, and Saratoga and the Master HOA agree that connecting the Sunrise System to such master outfall line is acceptable to them in such parties' sole discretion, then Saratoga and the Master HOA will arrange to discharge the Sunrise System into said system instead of Company's canal. Company shall not incur any expenses in converting the discharge from the Company's canal to the new permanent master outfall system. Nothing in this Section

23 shall obligate either Saratoga or the Master HOA to construct a master outfall line to replace the use of the Company's canal.

24. All of the obligations herein shall survive the execution of this Agreement and shall be continuing obligations.

25. The Parties may not assign or transfer this Agreement without the written consent of all the other parties.

26. This Agreement constitutes the entire agreement between the parties and cannot be altered except through a written instrument signed by each of the parties.

27. The parties have read this Agreement and have executed it voluntarily after having been apprised of all relevant information and risks and having had the opportunity to obtain legal counsel of their choice.

28. This document has been and shall be deemed to be a product of joint drafting by the parties and there shall be no presumption otherwise.

29. This Agreement shall be enforced and governed under the laws of the State of Utah, and jurisdiction for any action based on this Agreement shall be with the District Court of Salt Lake or Utah County, State of Utah.

30. The Exhibits attached are incorporated into and are a part of this Agreement as if fully set forth herein.

31. An "Event of Default" shall occur under this Agreement if any party fails to perform its obligations hereunder when those obligations are due and the defaulting party has not performed the delinquent obligations within thirty (30) days following delivery to the delinquent party of written notice of such delinquency, provided however, that if the cure of such default is of such a nature that it will reasonably require more than thirty (30) days to cure, then no Event of Default shall occur so long as the party in default commences such party's cure within such thirty (30) day period, and diligently pursues such cure to completion.

32. Upon the occurrence of an Event of Default, the non-defaulting party shall have the right to exercise all rights and remedies available at law and in equity, including injunctive relief and specific performance. In support of the latter remedy, the parties acknowledge that their obligations under this Agreement are unique, and defaults may not necessarily be compensated by purely monetary damages. All rights and remedies shall be cumulative.

33. In the event of a suit, claim or action between the parties to enforce the contents of this Agreement, the prevailing party shall be entitled to its costs, including reasonable attorneys' fees, engineering fees, and other professional and expert fees. This shall also include suits, claims, or actions brought by Saratoga against Sunrise or Master HOA to enforce each respective party's obligations herein.

34. Any party's failure to enforce any provision of the Agreement shall not constitute a waiver of the right to enforce such provision or any other provision, nor shall any waiver constitute a continuing waiver. The provisions of this Agreement may be waived only in writing by the party intended to benefit by the provisions, and a waiver by a party of a breach hereunder by the other Party shall not be construed as a waiver of any succeeding breach of the same or other provisions.

35. If any portion of the Agreement is held to be unenforceable, the remaining provisions hereof shall continue in full force and effect.

36. The Parties shall cooperate together, and each Party agrees to execute and deliver such additional documents and instruments and to perform such additional acts as any party may reasonably request or as may be reasonably necessary or appropriate to effectuate, consummate, or perform any of the terms, provisions, or conditions of this Agreement.

37. Nothing in this Agreement shall be construed to create any partnership, joint venture, or fiduciary relationship between the parties.

38. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their heirs, legatees, devisees, administrators, personal representatives, executors, successors, and permitted assigns.

*Remainder of Page Intentionally Left Blank*



IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

SUNRISE 3, LLC

By: Sunrise Managers, LLC

By: \_\_\_\_\_

Its: Manager

Attest: Mindy Davis  
Its: Entitlement Specialist

## WILDFLOWER MASTER HOMEOWNERS ASSOCIATION

By: John Stipp  
Its: Pres

Mr. Wes.

Attest: Diane Kunz

Its: Executive Assistant

## WELBY JACOB WATER USERS COMPANY

By: Darryl Lehman

Its: President

Attest: James Shiff

Its: Secretary

## CITY OF SARATOGA SPRINGS

BY: STEELE

ITS: Mayor

ATTEST: Cinderella SARASOTA, FLA., Sept. 8, 1928

EXHIBIT A  
CONTRIBUTING AREA

*See attached.*



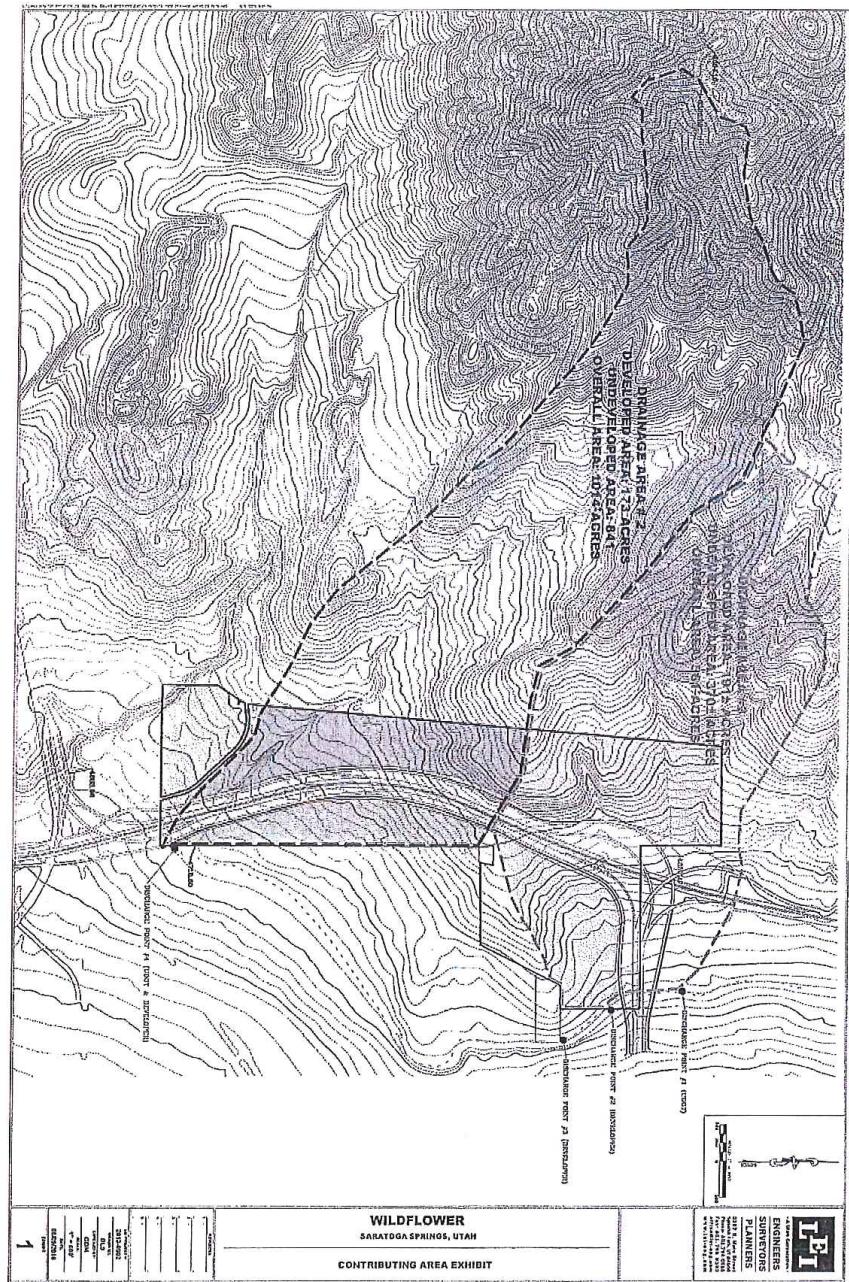


EXHIBIT B

WILDFLOWER STORM DRAIN MASTER PLAN – I

*See attached.*



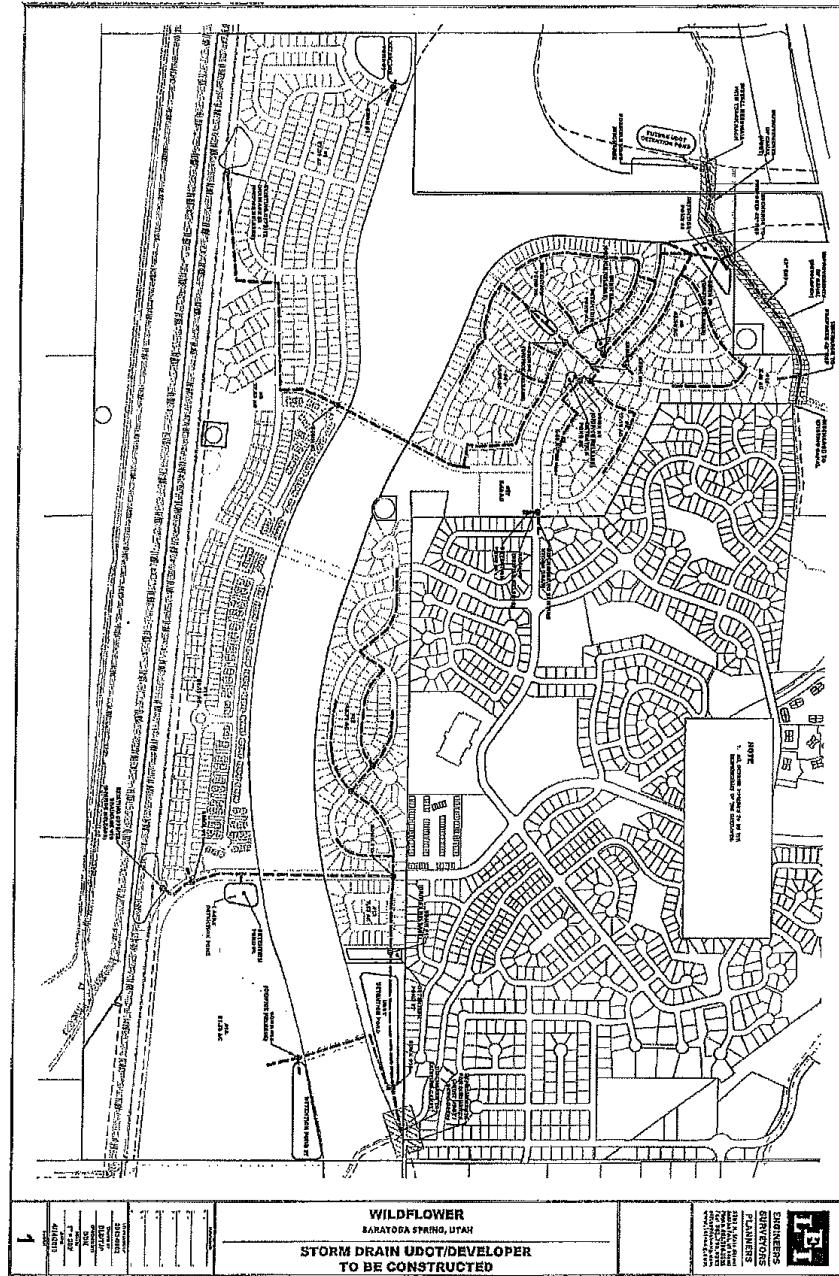


EXHIBIT C

FORM OF DRAINAGE EASEMENT

*[To be attached.]*



# A2 Discharge Summary Letter from LEI



ENGINEERS  
SURVEYORS  
PLANNERS

December 22, 2020

RE: Wildflower Storm Drainage Outfall

This memo will walk through and provide highlights of the Wildflower storm drain system design and detail the proposed discharges to the existing 84-inch pipe under SR-73.

In addition to the on-site development area that will be improved in the future, there are multiple large upstream drainage basins that have historically drained through the Wildflower development area. The on-site development areas will implement detention basins and other associated infrastructure to detain and infiltrate the runoff before it is discharged from the development site. The off-site drainage basins are to remain in their native state, and the runoff from these areas will be routed undetained through or around the Wildflower Springs development and be discharged downstream.

A copy of the overall Wildflower storm drain analysis has been attached to this memo for reference. Copies of relevant exhibits have also been extracted from this report and have been included for easier reference in discussing some of the aspects of the storm drain design.

The Wildflower area has been divided into three separate drainage areas. This is based on upstream contributing drainage basins and downstream discharge points. All three service areas were addressed in the attached overall storm drain analysis.

## Offsite Drainage

The Overall Offsite Contributing Areas exhibit that has been attached shows the six upstream drainage basins that have historically flowed through the Wildflower development area. The runoff from these areas will be conveyed through the Wildflower development and discharged downstream. The runoff from service area #1 (SA #1) will drain to the north of the development and SA #2 and #3 will drain to the southeast corner of the development, where SR-73 curves to the south. At this location there is an existing pipe under SR-73 that will convey the runoff to the south.

## Onsite Drainage

The development area has been divided into multiple areas for the onsite storm drain modeling. These areas are based on the proposed layout of the development and the location of detention and infiltration basins. All onsite runoff will be detained and released at historical or lower release rates and volumes.

## Discharge Rates

Based on the modeling that was completed to meet City requirements, the maximum release rates for SA #1 will be 36.36 cfs/3.54 cfs (offsite/onsite). For SA #2 and #3, the maximum runoff is estimated to be 289.96 cfs/59.39 cfs. This equates to a total flow of 349.35 cfs for

- Civil Engineering
- Structural Engineering
- Surveying
- Land Planning
- Landscape Architecture

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801.798.9393



SA #2 and #3. This total combined flow is based on adding all the peak flows and is not representative of the actual peak flow that will be reached at the discharge point. This is due to the routing that will take place and the different times of concentration for each sub basin. When all the contributing areas are routed to a single point within the SSA model, the maximum peak reached at this point is 285.41 cfs.

These maximum runoff values are likely conservative. LEI's original design of the offsite drainage models utilized soil classification data downloaded from the USDA Websoil survey site and composite curve numbers that were calculated for these areas. These curve numbers ranged from 63.52 up to 66.68. Based on these original curve numbers, the maximum runoff for SA #1 was estimated at 12.77 cfs for the offsite areas. For SA #2 and #3 the offsite runoff was reduced from a total of 289.97 cfs to 109.80 cfs with the lower curve numbers. When all the offsite and onsite areas were routed with the lower curve numbers, the estimated peak was 138.65 cfs.

In an effort to provide conservative runoff estimates, and to lower the chance of downstream flooding, the City requested a curve number of 70 for these offsite areas to be used. This is what is reflected in the included storm drain reports and the higher discharge rates mentioned above.

#### Pre Versus Post Development Discharge Volumes

The Wildflower development will match historic runoff outflows in both rate and volume for development areas within Service Areas #1 and #3. To meet historic runoff volumes, combination detention/retention basins will be installed in Service Areas #1 and #3. These basins will consist of underground infiltration systems such as chambers, perforated pipes, or gravel infiltration galleries installed in the bottoms, and above ground detention storage.

The infiltration areas will be sized to allow the difference in volume from pre-development to post-development conditions to infiltrate into the ground rather than being discharged from the site. This will ensure only the historic volume of runoff is released from the development.

Preliminary calculations were completed for Service Areas #1 and #3 to determine the feasibility of the system as described above. These calculations were done based on the conceptual detention basin locations and infiltration tests that were performed by GeoStrata. The infiltration area that was used was based on 65 percent of the conceptual basins shown on the masterplan drawings. This will allow for the reduction in bottom area from side slopes and other grading within the basins.

The infiltration rates from the GeoStrata tests ranged from 10 inches per hour to 72 inches per hour at the proposed basin locations. To provide a factor of safety in a conceptual design, an infiltration rate of 5 inches per hour was used in the calculations.

Final design will incorporate additional testing and appropriate Best Management Practices (BMPs). The storm drain master plan exhibit and the preliminary calculations for the feasibility of the infiltration systems has been included with this memo. As plans are finalized in the future detailed calculations and designs for these basins will be completed to ensure the volume of runoff released from the site does not exceed the historic runoff volumes. The final design will meet the City feasibility study requirements.

Service Area #2 will drain to the existing Jacob Welby Canal and will meet the requirements of the agreement between the developer, the City, and the canal company.

### Outfall

The existing pipe under SR-73 as surveyed is an 84-inch diameter CMP at a slope of 0.90%. Using Manning's equation, the maximum flow capacity of this pipe is estimated to be 375.17 cfs. Based on these calculated capacities, the outfall pipe should be able to convey the peak runoff.

It should be noted that these runoff rates are all based on 100-year storm flows.

If any more information is needed, please let me know.

Respectfully,



Dan Fechner, P.E.

LEI Engineer



Attachments:

Contributing Area Exhibit

Overall Wildflower Storm Drain Masterplan

Conceptual Infiltration Calculations

GeoStrata Infiltration report

Wildflower Service Area #1-#3 Storm Drain Masterplan Report

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