BEACON POINTE | COMMUNITY PLAN

NOVEMBER 2018 | SARATOGA SPRINGS, UT

BEACON POINTE | TABLE OF CONTENTS

PREFACE	2
EXECUTIVE SUMMARY	2
LEGAL DESCRIPTION	3
USE MAP AND BUILDOUT ALLOCATION	6
OPEN SPACE PLAN	12
GUIDING PRINCIPLES	22
EDGE CONDITIONS	37
TRANSPORTATION PLANS	43
UTILITY CAPACITIES	54
CONCEPTUAL PLANS	61
DEVELOPMENT AGREEMENT	63
ADDITIONAL ELEMENTS	65
DESIGN GUIDELINES	68
APPENDICES	73

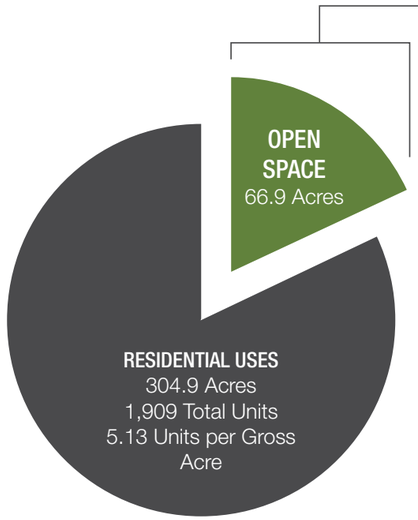
PREFACE

The following Community Plan document addresses the proposed improvements as they pertain to the proposed Beacon Pointe Community located in Saratoga Springs, Utah. The property and the proposed improvements for the development are discussed in detail and follow the requirements set forth within the Community Plan requirements of the City Code of Saratoga Springs. This document and its subsequent Village plans supersede Title 19 land development code and ordinances for the entirety of Beacon Pointe, however any issue not addressed in either the Community Plan or Village Plan, will default to Title 19 standards. The purpose of the document is to inform the City (Staff, Planning Commission and City Council) and Public of the proposed general design elements, open space plans, guiding design principles and land uses for Beacon Pointe. In addition, utility capacities, based on conceptual plans, will outline the methods used to anticipate the demands and service requirements necessary to provide adequate utility service and infrastructure for both the residences within the development and the City.

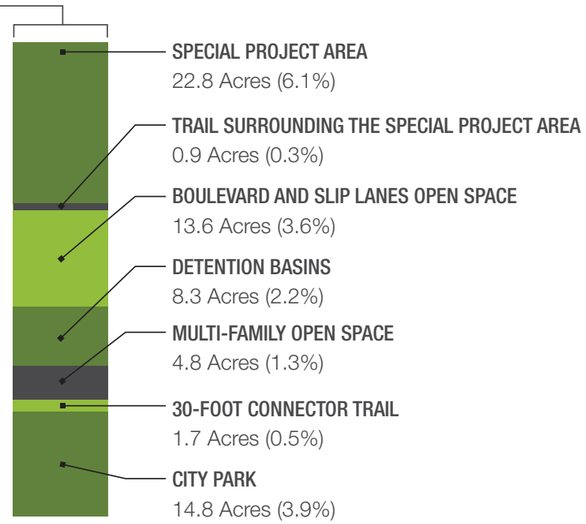
EXECUTIVE SUMMARY

Beacon Pointe is an approximate 371-acre parcel located west of State Route 68 (Redwood Road) and adjacent to the existing Grandview and Saratoga Hills subdivisions of Saratoga Springs and the Saratoga Springs Middle School. The project is ideally situated to provide a significant community amenity and associated land development. The central feature of the site is the 22.8 acre Special Project site which is integrated into the overall Community Plan and focal point for the development.
The proposed Community Plan incorporates the following units and approximate acreages:

371.8 TOTAL ACRES



OPEN SPACE AND COMMUNITY AMENITY PROPOSED
66.9 ACRES (18.0% MINIMUM)



COMMUNITY PLAN I LEGAL DESCRIPTION

THE PROPOSED BEACON POINTE CONTAINS APPROXIMATELY 371.82 ACRES OF PROPERTY. PLEASE SEE APPENDIX A FOR A COPY OF THE ALTA SURVEY FOR THE PROPERTY. THE PARCEL METES AND BOUNDS LEGAL DESCRIPTION IS AS FOLLOWS:

Located in Sections 34 AND 35, Township 5 South, Range 1 West, Salt Lake Base and Meridian, described as follows:
Beginning at a point located N89°50'00"W along the section line 869.33 feet and North 94.03 feet from the North Quarter Corner of Section 34, Township 5 South, Range 1 West, Salt Lake Base and Meridian; thence East 1920.09 feet; thence along the arc of a 1252.50 foot radius curve to the left 1133.77 feet through a central angle of 51°51'52" (chord: N64°04'04"E 1095.46 feet); thence N38°08'08"E 86.51 feet; thence S51°51'52"E 95.00 feet; thence southeasterly along the arc of a 15.00 foot radius non-tangent curve (radius bears: S51°51'52"E) to the left 23.56 feet through a central angle of 90°00'00" (chord: S6°51'52"E 21.21 feet); thence S51°51'52"E 289.73 feet; thence along the arc of a 461.50 foot radius curve to the left 307.17 feet through a central angle of 38°08'08" (chord: S70°55'56"E 301.53 feet); thence East 2586.77 feet; thence to the west right-of-way line of Redwood Road; thence along said right-of-way the following four (4) courses: S0°30'20"W 302.54 feet; thence S2°05'00"E 807.82 feet; thence N9°14'09"E 13.75 feet; thence S2°02'58"E 249.46 feet; thence S87°57'02"W 2.36 feet; thence southwesterly along the arc of a 16.00 foot radius non-tangent curve to the right (radius bears: S87°56'05"W) 25.71 feet through a central angle of 92°03'55" (chord: S43°58'02"W 23.03 feet); thence West 51.25 feet; thence S82°52'30"W 394.63 feet; thence West 541.17 feet; thence along the arc of a 15.00 foot radius curve to the right 23.56 feet through a central angle of 90°00'00" (chord: N45°00'00"W 21.21 feet); thence West 77.00 feet; thence southwesterly along the arc of a 15.00 foot radius non-tangent curve to the right (radius bears: West) 23.56 feet through a central angle of 90°00'00" (chord: S45°00'00"W 21.21 feet); thence South 95.00 feet; thence southeasterly along the arc of a 15.00 foot radius non-tangent curve to the right (radius bears: South) 23.56 feet through a central angle of 90°00'00" (chord: S45°00'00"E 21.21 feet); thence South 724.47 feet; thence along the arc of a 583.50 foot radius curve to the left 374.51 feet through a central angle of 36°46'29" (chord: S18°23'14"E 368.12 feet); thence S36°46'29"E 27.73 feet; thence along the arc of a 506.50 foot radius curve to the right 224.97 feet through a central angle of 25°26'56" (chord: S24°03'01"E 223.13 feet); thence N75°03'56"E 9.49 feet to the northwest corner of Tanner Lane Church Subdivision; thence along said subdivision the following two (2) courses: southeasterly along the arc of a 272.00 foot radius non-tangent curve to the right (radius bears: S75°03'56"W) 70.90 feet through a central angle of 14°56'04" (chord: S7°28'02"E 70.70 feet); thence South 49.29 feet to the north line of Phase 1, Saratoga Hills Subdivision; thence along said north line the following five (5) courses: N89°34'13"W 378.03 feet; thence S89°22'30"W 118.07 feet; thence S77°53'30"W 328.70 feet; thence N48°24'30"W 62.62 feet; thence N89°48'45"W 538.51 feet to the southeast corner of Saratoga Hills 1, 3 Subdivision; thence along said subdivision boundary the following eight (8) courses: N0°11'15"E 111.12 feet; thence N38°22'21"W 472.34 feet; thence S66°59'35"W 270.81 feet; thence S22°42'35"E 120.69 feet; thence S67°17'25"W 56.00 feet; thence S22°42'35"E 32.92 feet; thence along the arc of a 499.00 foot radius curve to the right 186.63 feet through a central angle of 21°25'47" (chord: S11°59'41"E 185.55 feet); thence S1°16'48"E 28.95 feet more or less to the north line of Benches Plat 1, Subdivision; thence N89°45'56"W along the north line of the Benches Plats 1-3 and 10, 2534.65 feet to the northwest corner of the Benches Plat 10 Subdivision, said point also being held as the center of Section 34, Township 5 South, Range 1 West, Salt Lake Base and Meridian; thence N89°50'07"W along the quarter section line 210.01 feet to the Southeast Corner of Plat "A", Questar Benches Minor Subdivision; thence along said subdivision the following three (3) courses: N0°23'17"W 65.00 feet; thence N89°50'07"W 110.00 feet; thence S0°23'17"E 65.00 feet to the quarter section line; thence N89°50'07"W along the quarter section line 609.23 feet; thence northwesterly along the arc of a 3000.00 foot radius non-tangent curve (radius bears: N86°09'41"E) to the right 200.98 feet through a central angle of 3°50'19" (chord: N1°55'09"W 200.95 feet); thence North 1886.79 feet; thence along the arc of a 1810.00 foot radius curve to the right 226.38 feet through a central angle of 7°09'58" (chord: N3°34'59"E 226.23 feet); thence N7°09'58"E 147.66 feet; thence along the arc of a 2000.00 foot radius curve to the left 297.87 feet through a central angle of 8°32'00" (chord: N2°53'58"E 297.60 feet) to the point of beginning.

CONTAINS: ±371.82 ACRES

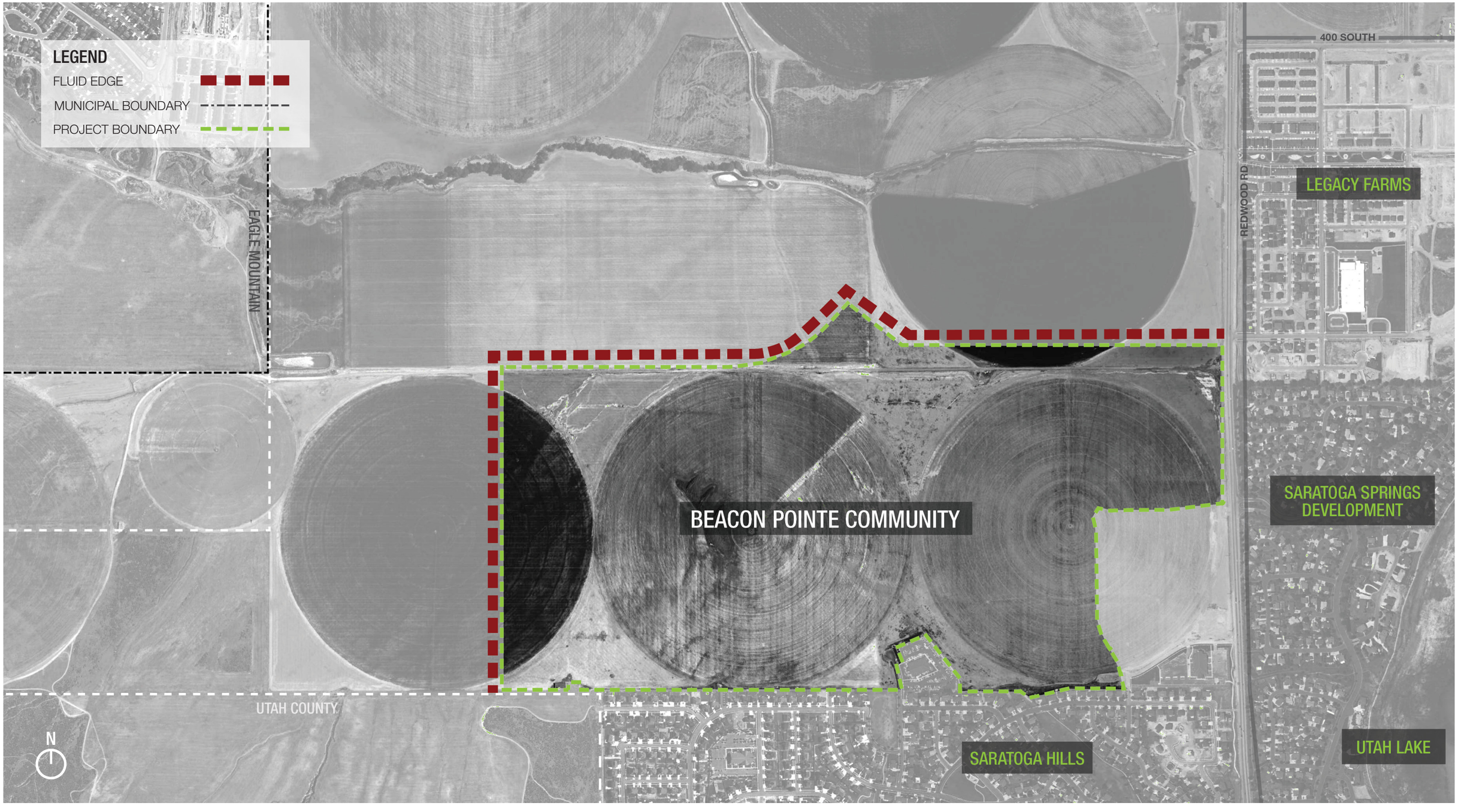
GIVEN THE FLUID NATURE OF THESE ROADWAY ALIGNMENTS AT THIS STAGE OF PLANNING, THE FOLLOWING CONDITIONS ARE PROPOSED RELATED TO THIS COMMUNITY PLAN:

1. Any changes to the boundaries adjacent to the Fluid Edge in Exhibit 1 that results in less than an overall ten-percent (10%) area change (either increase or decrease) will be processed as a minor amendment to this Community Plan. All densities, open space percentages, etc. will be adjusted proportionally for the affected Villages.
2. Should boundary changes result in greater than an overall ten-percent (10%) area change (either increase or decrease) will be processed as a major amendment to this Community Plan.

ALL EFFORTS TO HAVE BEEN UNDERTAKEN TO APPROXIMATELY LOCATE THE NORTH AND WEST BOUNDARIES OF THE COMMUNITY PLAN. HOWEVER, THESE BOUNDARIES ARE DEPENDENT ON SEVERAL FACTORS:

1. The west property line is intended to be the eastern edge of the future Mountain View Corridor (MVC). This boundary may fluctuate based on the final MVC alignments and interchange needs.
2. The north line is intended to be an arterial or collector road between Schoolhouse Road and the proposed MVC. This boundary may fluctuate based on final MVC interchange locations and intersection requirements at Schoolhouse Road and Redwood Road.

BEACON POINTE | COMMUNITY PLAN | PROPERTY BOUNDARY



COMMUNITY PLAN | USE MAP AND BUILDOUT ALLOCATION

The following **Use Map** depicts the proposed land uses for the proposed Beacon Pointe Community. The project is broken down into eight (8) different Villages based on potential development patterns and the progressive construction of infrastructure improvements. The District Area Plan (DAP) for Saratoga Springs provides specific "Place Types" that have been offered as guidelines for future development. The proposed land uses for Beacon Pointe fall within the Traditional Neighborhood and Neighborhood Commercial categories with an overall dwelling density range of 5 to 14 units per acre. The land use tabulations are broken down into the following categories:

CHURCH AND CIVIC USE. An integral part of a master plan development and walkable community is the integration of civic uses such as churches and schools. While the overall site will be accommodating to churches of all faiths, the predominant need for church sites will likely be from the Church of Jesus Christ of Latter-day Saints (henceforth Church of Jesus Christ). The plan depicts two (2) Church of Jesus Christ building sites located throughout the development. These potential sites will be further detailed within subsequent Village Plans and may be relocated to other villages to best serve the community.

SINGLE FAMILY VILLAGES. These areas are characterized by detached, traditional single-family housing products. The single-family areas of development have been set based on the proximity and visual impact from existing development within Saratoga Springs. It is the intention to provide a variety of lot and product sizing within the project in order to produce a diverse and sustainable community.

MIXED RESIDENTIAL. Villages designated as Mixed Residential incorporate a variety of housing products including single family units and attached multi-family units. The integration of multiple housing products within a Village is to be completed through the use of common Village themes, materials, architecture and design. This integration allows for a wider range of product, economic and social diversity which will assist and appeal to citizens in all stages of life. Details of product design will be provided within the individual Village Plans.

MULTI-FAMILY. These neighborhoods are characterized by higher density. The neighborhood location is based on the proximity of major transportation corridors, utilities and access to community services.

OPEN SPACE. The overall site contains over 66 acres (18.0%) of open space with a larger community park with trails, amenities and improvements. Please see the Open Space section of this document for further information. This community plan is exempt from the 20' buffer requirement as defined in 19.26.06 as it would create non-functional and non-usable areas that would be detrimental to the project. See pg. 71 for adopted community buffer.

STORM BASINS. In conjunction with a preliminary storm drainage study, proposed storm basin sites have been identified. It is intended that the basins will be integrated into the overall grading and open space uses where possible. The final location, grading and size of these improvements will be completed during the subdivision phase of each Village. The entirety of the basin may be counted towards open space requirements if improved and functional as recreational open space. Slopes should be mowable and drainage sufficient to allow use outside of storm events.

COMMERCIAL. Certain Villages may be suitable for small neighborhood commercial uses and mixed-use development as outlined in the DAP. The implementation of these possible commercial gathering points is not prohibited and may be implemented over time with subsequent Village Plans.

THE INDIVIDUAL VILLAGE INFORMATION IS BASED ON THE FOLLOWING LAND USE INTENSITIES:

- 4.11 persons per residential ERU has been used for estimating projected populations.
- The DAP states that one ERU is equivalent to 2,165 square feet (sf) of "non-residential area." The 2,165 sf is generated by dividing 10,000,000 sf commercial area by 4,620 non-residential ERUs pursuant to the DAP.

DEFINITIONS:

COMMUNITY OPEN SPACE – Open space area that does count towards the City's Park and Open Space Master Plan.

NET ACREAGE – The area excluding any public open space or civic use that will be used for density calculations.

AMENDMENTS. Amendments to the Community Plan will be classified as minor or major. When determined to be a minor amendment, this change is to be dealt with and approved by City Staff. Major amendments must be brought before the City Council for approval proceeding an initial City Staff review. The following items will be considered minor amendments and processed by City Staff:

- The proposed acreages on the following page for each Village may alter slightly as the development boundaries become more exact. In response to the possible changes resulting from road alignments and design, density transfers of up to 20% may occur between Villages. Because this is being addressed in the Community Plan, this change will be a minor amendment.
- As stated earlier, any changes to the boundary that result in less than an overall ten-percent (10%) area changes (either increase or decrease) will be considered a minor amendment, and all densities, open space percentages, etc. will be adjusted proportionally for the affected Villages. Any unused ERUs resulting from an overall boundary decrease and/or reduced densities from the proposed land uses within this community plan will be credited back to be used in other areas of the District Area Plan.
- Due to the unknown final design and layout of the open space area, any modifications to the open space layout in relation to the detention areas, trail corridors, etc. will be considered a minor amendment as long as the minimum open space requirement is provided with no change to the amenities agreed upon within this Community Plan.

APPROVAL MATRIX

SUBMITTAL TYPE	PLANNING DIRECTOR APPROVAL	PLANNING COMMISSION PUBLIC HEARING	PLANNING COMMISSION RECOMMENDATION	CITY COUNCIL APPROVAL
COMMUNITY PLAN		X	X	X
COMMUNITY PLAN | MAJOR AMENDMENT		X	X	X
COMMUNITY PLAN | MINOR AMENDMENT	X			
MINOR SUBDIVISION [1]	X			
PLAT, CONDOMINIUM OR FINAL	X[2]			
PLAT, PRELIMINARY IN CP OR VP	X[3]			
SITE PLAN	X[4]			
VILLAGE PLAN		X	X	X
VILLAGE PLAN | MAJOR AMENDMENT		X	X	X
VILLAGE PLAN | MINOR AMENDMENT	X			

NOTES:

1. Minor subdivision to include subdividing land for the purposes of land sale based on no building lots being created. Amendment of lot created by minor subdivisions may be completed to allow development.
2. Planning Director approval if the condominium or final plat is consistent with the preliminary plat or as adjusted through the Village Plan Process. If not, City Council approval is required. Consistency of preliminary plat allows for adjustment of utilities based on final calculations and review, lot count decrease and lot dimension variance up to minimum established for applicable Village.
3. Planning Director approval if the preliminary plat layout, the contents of which are defined in City Code 19.26.10 , is contained in the Community Plan or Village Plan. If not, the preliminary plat shall be reviewed by the Planning Commission with a recommendation to the City Council.
4. Planning Director approval if the site plan layout is contained in the Community Plan or Village Plan.
5. Lot count shown in villages or on plats may vary up to 15% with approval by the Planning Director.

THE EIGHT (8) VILLAGES AND THEIR ASSOCIATED ERUs AND ACREAGE ARE AS FOLLOWS:

FOUNDERS BOULEVARD – VILLAGE 1A

This Village will center on the Special Project area as the focal feature of the Community. The decisions of layout, elevations, roadway improvements and housing product selections all accent and enhance the Special Project site. Additional unique aspects of this Village include:

- The proposed Founders Boulevard is key to the establishment of view corridors, transportation planning and housing access. In order to accommodate traffic flow and limit the number of driveway or access points, the use of slip lanes has been incorporated. Slip lanes allow for housing to face the boulevard, while providing shared access, parking, additional landscaping and trail improvements. See the Transportation Section of this document for additional detail.
- All housing products within Village 1 will be single family detached houses which take advantage of the boulevard, view of the Special Project area and trail network. Specific housing layout and design criteria will be provided with the Village Plan submittal.

OVERALL VILLAGE AREA:	**GROSS AREA 45.2 AC (100%)**
Net Acreage:	34.0 Ac (75%)
Single Family Residential:	34.0 Ac (75%)
Public Open Space:	11.2 Ac (25%)
DENSITY (BASED ON NET AC):	3.53 Units per Acre
# OF RESIDENTIAL ERUs:	120 ERUs
PROJECTED POPULATION:	493 Persons

SPECIAL PROJECT SITE – VILLAGE 1B

This Village is the Special Project area and is the focal feature of the Community as previously described. The general land use is as follows:

OVERALL VILLAGE AREA:	**GROSS AREA 22.8 AC (100%)**
Net Acreage:	22.8 Ac (100%)
Special Project:	22.8 Ac (100%)
DENSITY (BASED ON NET AC):	N/A
# OF NON-RESIDENTIAL ERUs:	55 ERUs
PROJECTED POPULATION:	N/A

BECK RIDGE – VILLAGE 2

This Village is located in the northwest corner of the project and overlooks the other Villages within the project due to its natural topography and elevation. With the Village's proximity to the major transportation corridors, it is well suited as a Mixed Residential Land Use with a density of 6.5 units per gross acre.

OVERALL VILLAGE AREA:	**GROSS AREA 36.8 AC (100%)**
Net Acreage:	36.8 Ac (100%)
Mixed Residential:	36.8 Ac (100%)
DENSITY (BASED ON NET AC):	6.5 Units per Acre
# OF RESIDENTIAL ERUs:	239 ERUs
PROJECTED POPULATION:	982 Persons

EASTMOND SPRING – VILLAGE 3

This Village is located just east of Village 2, about the center of the project and overlooks the other Villages within the project due to its natural topography and elevation.

OVERALL VILLAGE AREA:	**GROSS AREA 50.4 AC (100%)**
Net Acreage:	34.8 Ac (69%)
Mixed Residential:	31.1 Ac (62%)
Community Open Space:	3.7 Ac (7.3%)
Public Open Space:	15.6 Ac (31%)
DENSITY (BASED ON NET AC):	5.5 Units per Acre
# OF RESIDENTIAL ERUs:	191 ERUs
PROJECTED POPULATION:	785 Persons

CUTLER VALLEY – VILLAGE 4

This Village is located just east of Village 3, about the center of the project and overlooks the other Villages within the project due to its natural topography and elevation.

OVERALL VILLAGE AREA:	**GROSS AREA 46.0 AC (100%)**
Net Acreage:	42.5 Ac (92%)
Mixed Residential:	38.8 Ac (84%)
Community Open Space:	3.7 Ac (8%)
Civic Use:	3.5 Ac (8%)
DENSITY (BASED ON NET AC):	7.0 Units per Acre
# OF RESIDENTIAL ERUs:	297 ERUs
# OF NON-RESIDENTIAL ERUs:	8 ERUs
PROJECTED POPULATION:	1,221 Persons

BRIDGER FIELD – VILLAGE 5

This Village is located on the northwest side of the project, along the frontage of Redwood Road and the proposed Saratoga Springs Middle School on the south.

OVERALL VILLAGE AREA:	**GROSS AREA 33.1 AC (100%)**
Net Acreage:	33.1 Ac (100%)
Multi-Family Residential:	27.4 Ac (83%)
Community Open Space:	5.7 Ac (17%)
DENSITY (BASED ON NET AC):	12.0 Units per Acre
# OF RESIDENTIAL ERUs:	397 ERUs
PROJECTED POPULATION:	1,631 Persons

PARLEY ORCHARD – VILLAGE 6

This Village is located on the southwest side of the project and borders existing residential housing on the south and the existing Saratoga Springs Middle School on the east.

OVERALL VILLAGE AREA:	**GROSS AREA 48.2 AC (100%)**
Net Acreage:	44.7 Ac (93%)
Mixed Residential:	44.7 Ac (93%)
Civic Use:	3.5 Ac (7%)
DENSITY (BASED ON NET AC):	6.0 Units per Acre
# OF RESIDENTIAL ERUs:	268 ERUs
# OF NON-RESIDENTIAL ERUs:	8 ERUs
PROJECTED POPULATION:	1,101 Persons

WILSON KNOLL – VILLAGE 7

This Village is located on the south side of the project near the center of the project and borders existing residential housing on the south.

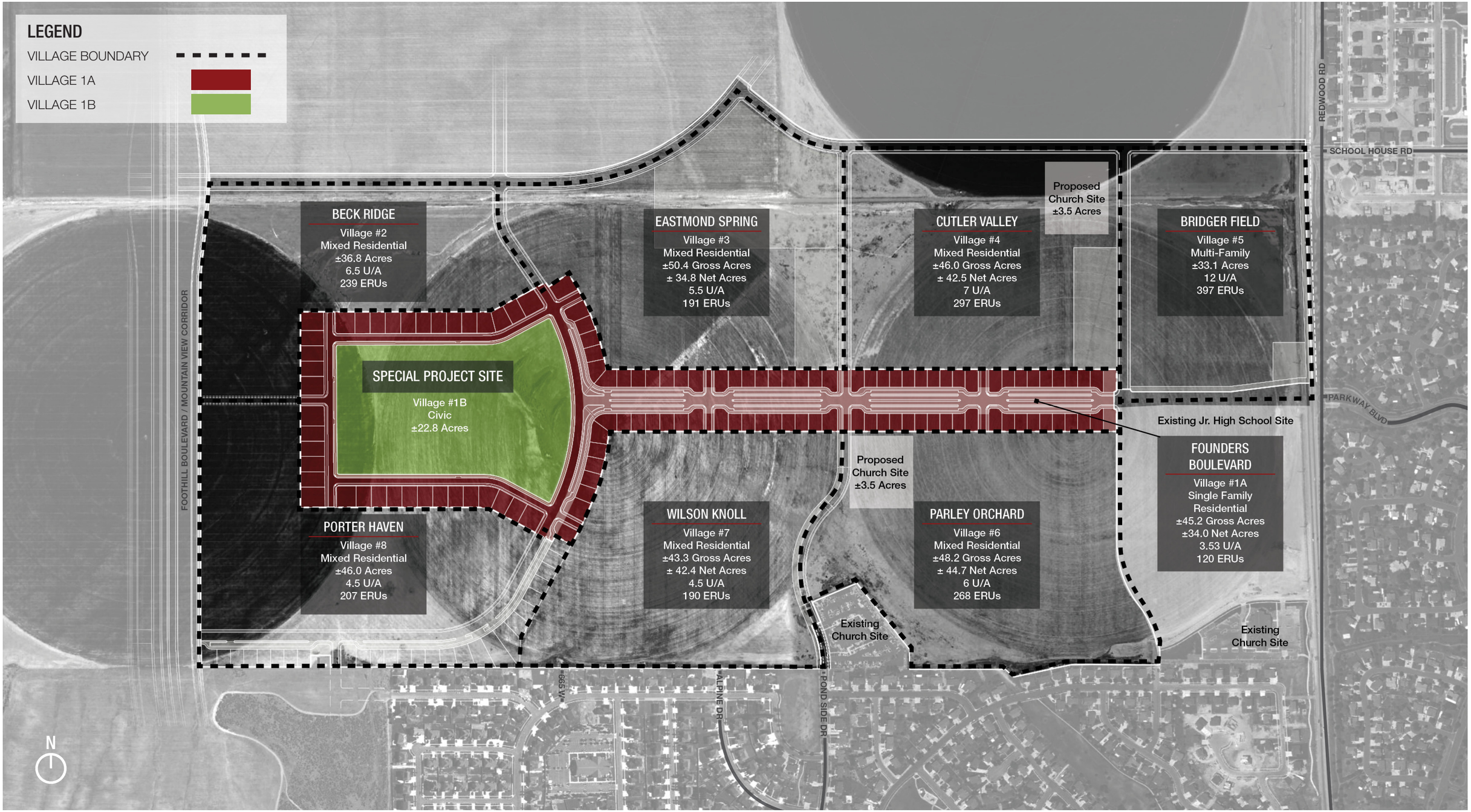
OVERALL VILLAGE AREA:	**GROSS AREA 43.3 AC (100%)**
Net Acreage:	42.4 Ac (98%)
Mixed Residential:	42.4 Ac (98%)
Public Open Space:	0.9 Ac (2%)
DENSITY (BASED ON NET AC):	4.5 Units per Acre
# OF RESIDENTIAL ERUs:	190 ERUs
PROJECTED POPULATION:	781 Persons

CONT'D NEXT PAGE

PORTER HAVEN – VILLAGE 8

This Village is located in the southwest corner of the project near the center of the project and overlooks the other Villages within the project due to its natural topography and elevation.

OVERALL VILLAGE AREA:	**GROSS AREA 46.0 AC (100%)**
Net Acreage:	43.6 Ac (95%)
Mixed Residential:	43.6 Ac (95%)
Public Open Space:	2.4 Ac (5.2%)
DENSITY (BASED ON NET AC):	4.5 Units per Acre
# OF RESIDENTIAL ERUs:	207 ERUs
PROJECTED POPULATION:	850 Persons


LEGEND
VILLAGE BOUNDARY
VILLAGE 1A
VILLAGE 1B
BECK RIDGE
Village #2
Mixed Residential
±36.8 Acres
6.5 U/A
239 ERUs
EASTMOND SPRING
Village #3
Mixed Residential
±50.4 Gross Acres
± 34.8 Net Acres
5.5 U/A
191 ERUs
CUTLER VALLEY
Village #4
Mixed Residential
±46.0 Gross Acres
± 42.5 Net Acres
7 U/A
297 ERUs
Proposed
Church Site
±3.5 Acres
BRIDGER FIELD
Village #5
Multi-Family
±33.1 Acres
12 U/A
397 ERUs
SPECIAL PROJECT SITE
Village #1B
Civic
±22.8 Acres
PORTER HAVEN
Village #8
Mixed Residential
±46.0 Acres
4.5 U/A
207 ERUs
WILSON KNOLL
Village #7
Mixed Residential
±43.3 Gross Acres
± 42.4 Net Acres
4.5 U/A
190 ERUs
Proposed
Church Site
±3.5 Acres
PARLEY ORCHARD
Village #6
Mixed Residential
±48.2 Gross Acres
± 44.7 Net Acres
6 U/A
268 ERUs
Existing Jr. High School Site
FOUNDERS
BOULEVARD
Village #1A
Single Family
Residential
±45.2 Gross Acres
±34.0 Net Acres
3.53 U/A
120 ERUs
Existing
Church Site
Existing
Church Site
FOOTHILL BOULEVARD / MOUNTAIN VIEW CORRIDOR
REDWOOD RD
SCHOOL HOUSE RD
PARKWAY BLVD
665 W
ALPINE DR
POND SIDE DR
N

COMMUNITY PLAN | OPEN SPACE PLAN

BEACON POINTE | COMMUNITY PLAN | OPEN SPACE PLAN

OPEN SPACE

Special Project Area: 22.8 Acres
Trail around S.P Area: 0.9 Acres
Boulevard & Sliplanes O.S.: 13.6 Acres
Detention Ponds: 8.3 Acres
Multi - Family O.S.: 3.2 Acres
Bridger Field Trail: 1.6 Acres
30' Connector Trail: 1.7 Acres
City Park: 14.8 Acres

Total: 66.9 Acres (18.0%)

TABULATIONS

Master Plan Level of Service
0.04 Acres per Gross Acre

Beacon Pointe Area 371.8 Acres

Minimum Level of Service =
(371.8) x (0.04) = 14.8 Acres

CITY PARK
Community Park Type
14.8 Acres

BECK RIDGE

EASTMOND SPRING

CUTLER VALLEY

BRIDGER FIELD

DETENTION BASIN
Neighborhood Park Type
3.7 Acres

DETENTION BASIN
Neighborhood Park Type
3.7 Acres

MULTI- FAMILY OPEN SPACE
Neighborhood Park Type
3.2 Acres

DETENTION BASIN
Neighborhood Park Type
0.9 Acres

SPECIAL PROJECT SITE
Special Use Type
22.8 Acres

FOUNDERS BOULEVARD

TRAIL
Parkway Type
1.6 Acres

TRAIL AROUND S.P AREA
Parkway Type
0.9 Acres

BOULEVARD & SLIP LANES
Parkway Type
13.6 Acres

30' CONNECTOR TRAIL
Connector Trail Type
1.7 Acres

Existing Jr. High
School Site

PORTER HAVEN

WILSON KNOLL

PARLEY ORCHARD

Canal Trail - Wilderness Trail

Existing
Church Site

Existing
Church Site

FOOTHILL BOULEVARD / MOUNTAIN VIEW CORRIDOR

800 West Trail - Urban Trail

REDWOOD RD

SCHOOL HOUSE RD

PARKWAY BLVD

665 W

ALPINE DR

POND SIDE DR

N

LEGEND

- TRAIL CONNECTION (T)
- MASTER PLANNED TRAIL*
- CITY OWNED & MAINTAINED
- HOA / OWNER OWNED & MAINTAINED

*EXACT ALIGNMENT TO BE DETERMINED AT THE VILLAGE PLAN LEVEL

A key element in the livability and long-term desirability of a Master Planned Community is the provision and integration of open space, trail corridors, active recreation and community amenities. Open space is integral to the success of a community as it provides public areas of respite, gathering, and connection. Just as architectural guidelines provide a palette of materials, recommended scale, and building setbacks this plan provides the necessary components for the development of all open spaces.

This plan aims to expand on the traditional suburban park ideals by creating a coherent vision of the variety of open spaces to be developed. Located strategically throughout the community—and with ample pedestrian and bicycle access—open space promotes social interaction and healthier, active lifestyles. Well-designed open space plans incorporate a range of settings for both active and passive uses that cater to a broad range of ages and interests.

Beacon Pointe will meet or exceed the open space requirements per the planning criteria in the City Center District Area Plan (DAP). When possible, these areas should highlight scenic views of the natural environment in an effort to visually connect residents to the surrounding context of the city and valley at large. To encourage the ongoing use of the proposed open space throughout the community, a variety of open space categories should be implemented. Open Space amenities will be defined with each Village Plan and installed by the Village Developer. The intent of each space is to make a memorable landmark and intriguing destination that contributes to a unique sense of place. In particular, the following principles pertain to the designing of urban and neighborhood public spaces:

- Create “outdoor rooms” to give additional purpose to large expanses of open spaces by designing intimate spaces with identifiable use
- Avoid providing too much unprogrammed space in each park; certain parks will require ample space for active recreation, but higher intensity for most parks is desired
- Make each type of open space easily accessible to pedestrians and cyclists; ease of access and visible use encourages community engagement and safety
- Surround with development that will support the use of public space
- Implement the findings and recommendations of the Saratoga Springs’ Parks, Recreation, Trails and Open Space Master Plan as adopted on November 15, 2011 or most current plan, as preferred by Master Developer.
- Create a destination
- Locate community open spaces in areas of high visibility

Founders Blvd looking toward Utah Lake

OPEN SPACE TYPES

Taken from the DAP, the following open space types may be considered for use in the Beacon Pointe Community:

- Plaza
- Entrance Park
- Pocket Park
- Neighborhood Park
- Community Park
- Regional Park
- School Park
- Sports Complex
- Special Use
- Community Garden
- Parkway (Boulevard)
- Greenway
- Park Lawns
- Connector Trail

PLANNED OPEN SPACE

The Beacon Pointe Community Plan will incorporate approximately 66.9 acres of varying types of open space uses that coincide with the open space types listed within the DAP. A Special Assessment Area (SAA), Special Improvement District (SID), Special Service District (SSD), or similar funding mechanism may be established by the City over the entire Beacon Pointe development (excluding Village 1B) for the purposes of financing the maintenance of City owned and maintained open space, excluding the City Park. This City may delegate maintenance responsibilities and associated funding to either a Master HOA or divide between village HOAs. The Master Developer shall not be required to establish or fund a Master HOA. However, the Master Developer agrees to cover maintenance funding shortfalls within the community until such time as 75% of the overall project area is platted. In the event that maintenance is not in compliance with the standards outlined within Appendix E, the Master Developer has the right, but not obligation, to manage the maintenance and receive the designated funding until such time as compliance to standards is reestablished. Once reestablished, the City will once again assume its role in management of the funding and maintenance of City owned open space.

ENTRY PARK | ENTRANCE PARK TYPE (0.4 ACRES). The eastern entrance into the community will feature an entrance park on either side of the boulevard and will provide a formal transition into the development. This open space type is typical of an Entrance Park as defined within the DAP. Details regarding the landscape, signage or monumentation will be provided at the Village Plan level. These park area are to be improved by developer and owned and maintained by the City.

CITY PARK | COMMUNITY PARK TYPE (14.8 ACRES). This park area is centrally located to the Community with connectivity to various “Place Types” within the development. It is the intent of this park and associated trail corridors to meet the proportionate share of the level of service for a Community Park as detailed within the City’s adopted Parks, Recreation, Trails, and Open Space Master Plan. The proximity of the city park is centralized within the landowner’s holdings to provide city dedicated park area for Beacon Pointe and future growth to the north. As such, impact fee credits generated by the development will be utilized for the installation or reimbursement of park improvements,

ENTRANCE PARK

Senna Hills - Austin, TX

The Territories, Edmond, OK

CITY PARK

Brookside Park - South Jordan, UT

Blue Hole Park - Wimberly, TX

SPECIAL PROJECT SITE (PASSIVE PARKS)

Lingfield, England

Yokine, Australia

where appropriate. This open space type is typical of a Community Park as defined within the DAP. Details regarding the landscape and amenities are briefly discussed and illustrated in the landscape plans. The recreational intensity and programming of the Open Space will be refined with input from the City to best meet the needs of the surrounding community. Possible amenities and elements included:

- Open Play Fields
- Tennis Court(s)
- Pickleball Court(s)
- Basketball Court(s)
- Volleyball Court(s)
- Playgrounds
- Walking/Jogging Paths
- Public Restrooms/Pavilions
- Parking
- Splash pad
- Tree Farm

SPECIAL PROJECT SITE | SPECIAL USE TYPE (22.8 ACRES). This site is the focal feature of the development and will be used as an orientation and vista for trail, roads, etc. The site will incorporate significant managed open space, both natural and landscaped. This open space type is typical of a Special Use Area as defined within the DAP. The special project site is unique in that it will have its own set of guidelines for development provided at the Village Plan level and shall not be subject to any SSA, SID, SSD, Master HOA, or similar.

TRAIL AROUND THE SPECIAL PROJECT SITE | PARKWAY TYPE (0.9 ACRES). The 5-foot City standard sidewalk surrounding the Special Project Site will be widened by an additional 5-feet to accommodate a ten-foot wide trail.

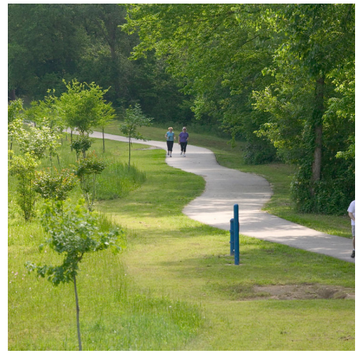
FOUNDERS BOULEVARD | PARKWAY TYPE (13.6 ACRES). The central access and view corridor for the Special Project site will be enhanced from the City standard roadway detail to incorporate unobstructed views, increased landscape planters, trails and tree plantings. This open space type is typical of a Parkway (Boulevard) as defined within the DAP. Please see the Transportation section of this document for further detail. This boulevard is to be improved by the developer and owned and maintained by the City.

FOUNDERS BOULEVARD

Daybreak - South Jordan, UT

Young Avenue - Halifax, NS

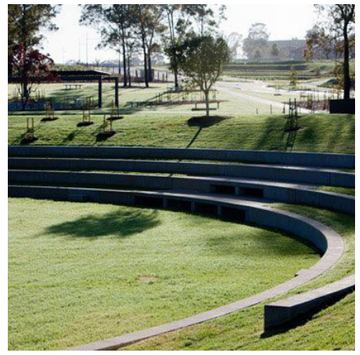
TRAILS



Terry Hershey Park - Houston, TX

Cross Creek Ranch - Fulshear, TX

DUAL-USE DETENTION BASINS



Redfern Park - Minto, Australia

2nd St. Detention Basin - Champaign, IL

NEIGHBORHOOD PARK/DETENTION BASIN | NEIGHBORHOOD PARK TYPE (7.4 ACRES). With the large contiguous areas and proximity to trail corridors and other public open space areas, dual-use detention basin/park areas are to be installed by the developer and owned and maintained by the City.

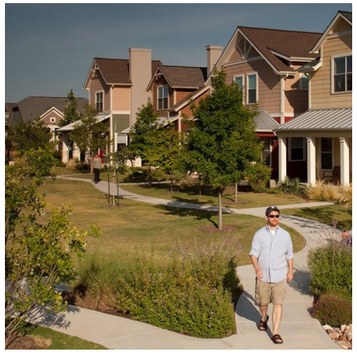
CONNECTOR TRAIL | CONNECTOR TRAIL TYPE (1.7 ACRES). Connector trails will be incorporated with the other open space uses within the Community and provide the connectivity needed between major corridors such as Redwood Road and along Founders Boulevard. Details regarding the landscaping of these connector trails can be found in the landscape plans with more detail at the Village Plan level. These trails are to be improved by the developer and owned and maintained by the City.

BRIDGER FIELD SPECIFIC OPEN SPACE | NEIGHBORHOOD PARK TYPE (4.8 ACRES). Due to the high-density range associated with this Village, a minimum open space requirement of 4.8 acres will be required inclusive of the landscape areas along Redwood Road and Founders Boulevard. This Village level Open Space is to be owned and maintained by a Homeowners Association (HOA). The recreational intensity of the Open Space area will be dependent on the Village housing types, densities, and design and may include the following elements:

- Playground Equipment
- Gathering areas including pavilions, shade structures, etc.
- Village gardens
- Clubhouse
- Fitness Center
- Swimming Pool
- Integrated Trail System
- Sports Facilities for local Village use

BRIDGER FIELD SPECIFIC OPEN SPACE

The Cannery - Davis, CA


Mueller - Austin, TX

Garden Park - South Jordan, UT

Escencia - Rancho Mission Viejo, CA

Ricardo Lara Park - Lynwood, CA

Mason Hills - Leander, TX

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NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

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FENCING

Fences and perimeter walls should help delineate an open space from the adjacent properties. Subsequent Village Plans will elaborate on specific design standards and acceptable materials for this feature by location.

Minimal fencing should be incorporated into open space design except where required for certain sports fields/courts, dog parks, or swimming pools. In general, fence design should relate to the architecture of any structures contained in the open space. Chain link is only acceptable around sports fields and for non-visible rear yard applications such as dog runs.

Fencing is not permitted along the exterior edges of open space with the exception of the Special Project Site or any sport fields. Visual permeability into open spaces invites the public to enter. The City is to accept operations, maintenance, and replacements for all fencing surrounding city-operated Open Space.

Sports Fence - Vinyl Coated

Open Space - Implied Fence

Open Space - Visually Permeable

Special Project - Ornate Fence

COMMUNITY WIDE FEATURES

Some features will extend throughout the Community Plan as a means of distinguishing Beacon Pointe from its surrounding context. These amenities will be used to integrate aspects of placemaking throughout the development. Certain features will vary per Village to further define the character of a neighborhood in conjunction with development typologies and architectural styles. Specific furnishings have been selected for character and quality that correlate with a variety of styles and are provided below:

LIGHTING

Open space lighting will use city standard lighting fixtures with the exception of the Special Project Area. The driving goal of the City and the Community Plan is to reduce light pollution and create safe environments. Lighting is a critical component in creating secure neighborhoods and encouraging use of open space. The Special Project site is the only open space exempt from the dark sky initiative, where uplighting may be used if developed as an ecclesiastical use. The city is to accept operations, maintenance, and replacements for all public lighting.

Several important factors regarding the dark sky initiative were considered to determine an appropriate fixture:

LIGHTING SHIELDING – shielded to reduce glare and direct light to the intended subject
LIGHTING LEVELS – no more than 10% of the lumen output will come out at 90 degrees or above the horizontal plane of the fixture per Saratoga Springs code.
LIGHTING COLOR – Saratoga Springs prohibits the use of bulbs exceeding 4000k in color, except in instances of field lighting for sports fields. Blue light should be avoided due to its impact on light pollution and the health of humans and wildlife.

Saratoga City Standard Light Fixtures | *International Dark-Sky approved fixture*

14' Local Street Light

20' Collector Street Light

28' Arterial Street Light

TRAILS

All trails currently proposed per the “Existing and Planned City Trails” plan for the City prior to the time of submittal will be taken into consideration. The proposed routes for trails extending through the development will be rerouted to align with internal features and connect to existing trails along the border of the project. Exact alignments will be determined along with each Village Plan.

ACCEPTABLE MATERIALS

- Concrete (City-owned Trails)
- Decomposed Granite / Crusher Fines
- Asphalt
- Pavers

DIMENSIONS

- Trail - Minimum width: 10 FT
- Corridor – Minimum width: 18 FT adjacent to street or 20 FT interior to blocks in order to accommodate utilities

TRAIL 10’
18’ TRAIL CORRIDOR

COMMUNITY THEMING

Instead of traditional community monumentation, such as entrance signage or logos, community brand identity & theming should be achieved through site furnishings and material choices, including but not limited to cohesive street lighting, benches, street trees, fencing, walls, and paving materials. The City is to accept operations, maintenance, and replacements for all public furnishings and amenities within city owned Open Space.

VILLAGE THEMING

Each individual Village is encouraged to create a unique sense of place and architectural identity through consistent use of materials, motifs and monumentation. Brand Identity & theming to be established at the Village Plan Level.

SITE FURNISHINGS / AMENITIES

SEATING | Melville Series from Landscape Forms
TRASH RECEPTACLES | Poe Series from Landscape Forms
BIKE RACKS | Emerson by Landscape Forms
SIGN POSTS | Capital Streetscapes 3” Fluted Pole - Ball Finial - Base 31 - White on Green or Blue Street Signs - ST Series frames without scrolls
DRINKING FOUNTAINS | HAWS or Equivalent
PAVILIONS (VARY BY VILLAGE) | Match adjacent Architectural Style
RESTROOMS (VARY BY VILLAGE) | Match Adjacent Architectural Style
Note: All restroom units shall be single seat - unisex to avoid potential conflict
PICNIC TABLES | Match Village Style
BARBECUE GRILL | Titan Great Outdoors or Equivalent

All site furnishings with decorative metal should be powder coated with Landscape Forms ‘Bronze’ or ‘Mercury’ or their RAL equivalent.

Melville Bench Series by Landscape Forms | *Configuration by Village*

bronze mercury

TRADITIONAL

Backed - Wood Seat

Backless - Wood Seat

Skateboard Deterrent - 1 Divider

MODERN

Backed - All Metal

Backless - All Metal

Skateboard Deterrent - 2 Dividers

Poe Series by Landscape Forms

Poe Waste Receptacle

Poe - Slot & Bottle Openings

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NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

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Emerson Bike Rack Series by Landscape Forms

HAWS Drinking Fountains | *Wall & Freestanding*

Capital Streetscapes Sign Posts | *Street & Regulatory Signs*

Park Pavilions | *Vary by Village*

Modern Style

Traditional Style

Pioneer Style

Transitional Style

Picnic Tables | *Vary by Village*

Traditional Example

Rustic Example

Art Piece Example I

Modern Example

Transitional Example

Art Piece Example II

Titan Great Outdoors

Single Post Jumbo Park Style Grill

Public Restrooms | *Vary by Village*

Modern Style

Traditional Style

Pioneer Style

Contemporary Style

PHASING PLAN

The Beacon Pointe Community will consist of eight different Villages with the first phase or Village containing the Special Project Site with the accompanying Founders Boulevard. Although numerical values have been provided for each Village within the Community Plan, the phasing or sequence after this initial Village is unknown at this time and is susceptible to change due to market conditions, utility serviceability, and transportation access. It is the responsibility of each Village to address the development constraints through an individual Village Plan that meets the City's standards and ties to existing improvements at the time of development.

Temporary roadways may be required with each individual village for fire and secondary access purposes. These temporary roads will be addressed at the Village Plan level and be dependent on existing conditions at the time of development.

Each village will be responsible for funding its own required open space, as seen in the table below. As each subsequent Village is developed, developers may either 1) develop the required open space as listed below for their village, 2) reimburse other village developers for excess open space previously developed or 3) purchase excess impact fee credits from Master Developer or other Beacon Pointe Developers.

VILLAGE	TOTAL ACREAGE	OPEN SPACE REQUIRED	OPEN SPACE PROVIDED	CUMULATIVE OPEN SPACE PROVIDED	CUMULATIVE OPEN SPACE REQUIRED	DIFFERENCE (PROVIDED VS. REQUIRED)
1A | FOUNDERS BLVD	45.2	8.1	12.1	12.1	8.1	+4.0
1B | SPECIAL PROJECT	22.8	4.1	22.8	34.9	12.2	+22.7
2 | BECK RIDGE	36.8	6.6	0.0	34.9	18.9	+16.0
3 | EASTMOND SPRINGS	50.4	9.1	19.3	54.2	27.9	+26.3
4 | CUTLER VALLEY	46.0	8.3	3.7	57.9	36.2	+21.7
5 | BRIDGER FIELD	33.1	6.0	5.7	63.6	42.2	+21.4
6 | PARLEY ORCHARD	48.2	8.7	0.0	63.6	50.9	+12.8
7 | WILSON KNOLL	43.3	7.8	0.9	64.5	58.6	+5.9
8 | PORTER HAVEN	46.0	8.3	2.4	66.9	66.9	0

VILLAGE HOMEOWNERS ASSOCIATIONS

Due to the unique land uses within the Beacon Pointe Community, Homeowners' Associations (HOA) may be established for ownership and maintenance of the common areas of individual Villages. Any HOA will be established under the applicable Utah Law with all necessary authority and reserve accounts in order to ensure proper maintenance of all open spaces within each Village. No Master HOA will be established for Village 1B. A Master Homeowner's Association may be created for the overall community for the maintenance of Open Space, whether public or private, however the Master Developer will not be responsible to establish or fund such association.

Early visitors and residents of Saratoga Springs were drawn to the area in hopes of obtaining lakeside property and access to the natural hot springs. Located in an apple orchard, the springs gained popularity along the shores of Utah Lake with a reputation for outdoor recreation at the promising resort-style development headed by the interests and wealth of John Beck. Capitalizing on the natural amenities and planned use of open space, Beck's Saratoga Springs became a popular retreat destination in the Valley.

Planned use of open space became the fundamental concept upon which Saratoga Springs was founded. The desired character of the Community Plan revolves around the area's historic origin, pioneer settlers and early use as a resort destination. The Special Project site for the Church of Jesus Christ serves as a prominent feature and focal point for the Community. Architectural styles will be based on Utah's historic precedents found in early neighborhoods throughout state. In addition to honoring the history of the area, Beacon Pointe will be founded on the design principles of Walkability, Human Scale, Place-making, Social Equality and Environmental Stewardship. Post WWII development trends of sprawling suburban communities will not be allowed. Each Village will cater to the human experience and scale with walkable blocks, pedestrian catered streetscapes, mixed-housing types, and public spaces within close proximity to residents. Although the Community will be comprised of individual Villages, the intent is to create a holistic design approach that connects public spaces and community amenities throughout Beacon Pointe and surrounding neighborhoods. Guiding principles set forth in this section will be used to guide subsequent Village development. Initial design approval will be granted through the Village Architectural Review Committee (ARC) and subsequent enforcement will be administered through Village HOAs. City staff will not be responsible for reviewing or enforcing any portion of this section as a part of the permitting process.

Several key principles help define the development goals and character of Beacon Pointe. These highlight the intent of the guidelines further outlined in this section.

SECURITY
LIGHTING | VISIBILITY | OUTDOOR ACTIVITY

CONVENIENCE
WALKABILITY | WAYFINDING | ACCESSIBLE

EFFICIENCY
WATER-WISE | CIRCULATION | PLANNED

ASSOCIATION
TRAILS | LIVE/WORK/PLAY | ARCHITECTURE

COMFORT
HUMAN SCALE | STREETSCAPES | OPEN SPACE

WELCOME
LANDMARK | MONUMENTATION | PUBLIC SPACE

HISTORIC FOUNDERS

BECK RIDGE
Named after John Beck (1843-1913), a German emigrant and entrepreneur who developed Beck's Hot Springs. With wealth accumulated from the Bullion-Beck mine, he had dreams of the springs becoming reminiscent of the famous New York resort called Saratoga Springs. What began as a simple hot spring in an apple orchard became a well-known resort complete with bathhouses, plunge pools, hot baths, boardinghouses, pavilions, and hayrides.

EASTMOND SPRING
The hot springs resort transferred ownership multiple times over the years and the name evolved. In 1930 Frank H. Eastmond—the operator of the Geneva Resort on the east side of Utah Lake—become the owner of Saratoga Mineral Baths for the next 30 years. The resort became a central feature of recreation in the area including baseball, concerts, boating, and airplane stunt shows.

CUTLER VALLEY
Thomas Cutler (1844-1922) was the general manager of the Utah Sugar Company, the enterprise to which Beck sold the resort. Under management led by his son-in-law, John Y. Smith, the resort was maintained as a popular destination. The company's primary interests, however, were in the 1,000-acre farm surrounding the springs that were used for growing sugar beets.

BRIDGER FIELD
Jim Bridger (1804-1881) is notable in Utah's history as an early frontiersman and settler of the Wasatch Front. He was one of the first explorers of Utah and may have initially served as guide to early settlers in the 1840s.

PARLEY ORCHARD
Parley P. Pratt led a small exploration team along the shores of Utah lake in December 1847. In his journal he wrote: "Here we launched our boat and tried our net, having probably the first boat and net ever used on the sheet of water in modern times."

WILSON KNOLL
William 'Billy' Wilson operated a boating venture that provided multiple daily trips between Geneva Resort, Saratoga, and other resorts on Utah Lake. This provided a more enjoyable mode of transport to the western shores of the lake.

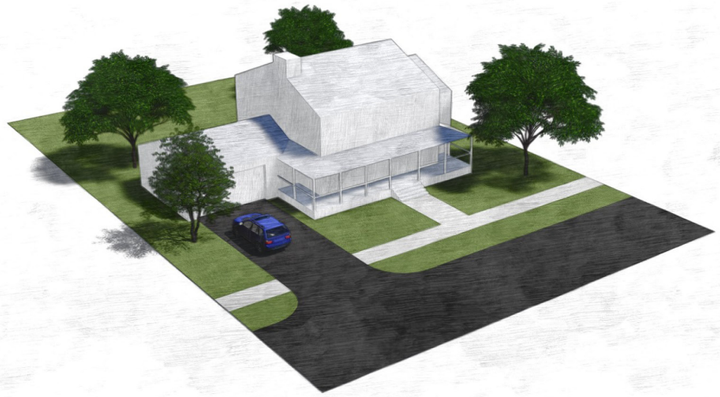
PORTER HAVEN
When in Utah, Orrin Porter Rockwell operated the Hot Springs Hotel at the southern end of the Salt Lake Valley. It housed a Pony Express Station and provided dining facilities, stables, and locally brewed drinks. Although located near Point of the Mountain, its proximity to modern day Saratoga Springs contributed to the perception of hot springs and water recreation in the areas surrounding Utah Lake.

RESIDENTIAL HOUSING TYPOLOGIES†

The following housing types are to be used as guidelines for the Beacon Pointe Community. Although not all housing types will be implemented, providing a diverse offering of product types will allow the community to grow organically over time. As developers and specific products are unknown at this time, further refinement will be detailed at the village plan level.

SINGLE FAMILY DETACHED PRODUCTS

SINGLE-FAMILY DETACHED



Minimum Unit Size: 1200 SF *Private Drive & Garage*
Density: 2-8 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century, Period Revival, Modern, Post War

DRIVE COURT

Minumum Unit Size: 800 SF *Shared Drive & Private Garage*
Density: 4-10 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century, Period Revival, Modern, Post War

GREEN COURT

Minumum Unit Size: 800 SF *Shared Drive & Private Garage*
Density: 4-10 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century, Period Revival, Modern, Post War

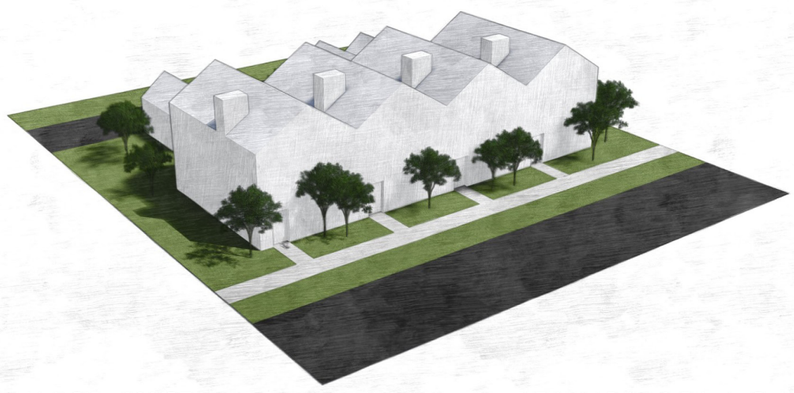
†Architecture shown is for illustrative purposes only and is not indicative of actual intent.

SINGLE FAMILY ATTACHED PRODUCTS

DUPLEX / TRIPLEX

Minumum Unit Size: 800 SF *Private Drive & Garage*
Density: 6-12 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century, Period Revival, Modern, Post War

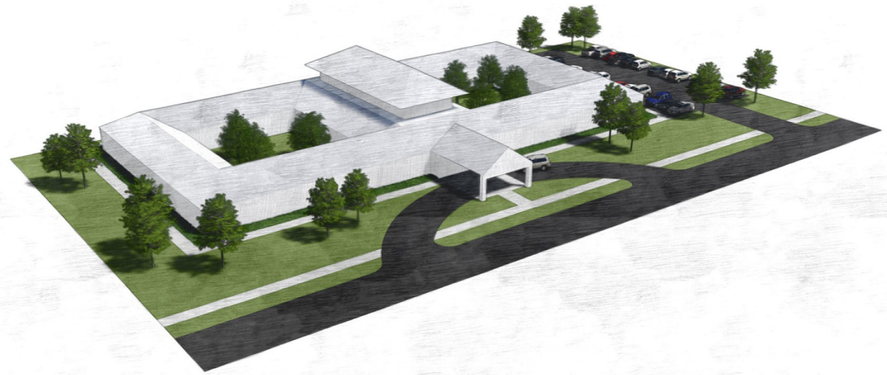
TOWN HOMES



Minumum Unit Size: 800 SF *Private Drive & Private Garage*
Density: 8-16 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century, Period Revival, Modern, Post War

NON-TRADITIONAL PRODUCTS

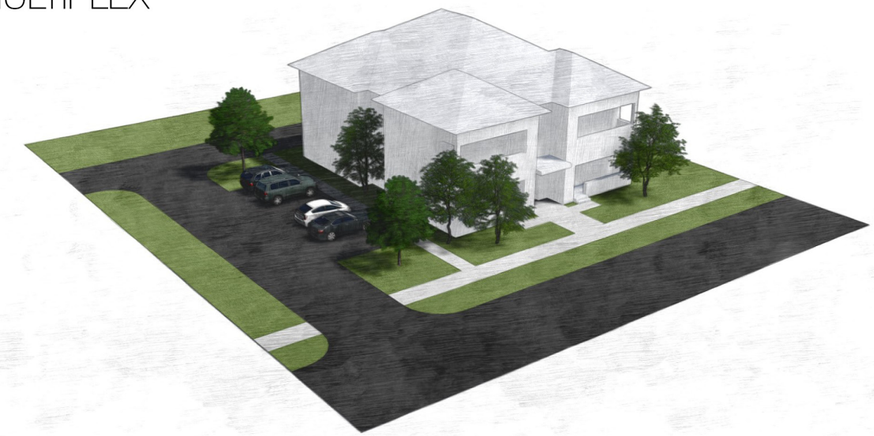
CARE FACILITIES



Minumum Unit Size: None *Shared Drive & Surface Parking*
Density: 6-25 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century

MULTI-FAMILY PRODUCTS

MULTIPLEX



Minumum Unit Size: 500 SF *Shared Drive & Surface Parking*
Density: 6-20 Units per Acre
Styles: Classical, Picturesque, Victorian, Early 20th Century, Period Revival, Modern, Post War

COURTYARD APARTMENTS

Minimum Unit Size: 500 SF *Shared Drive & Surface Parking*
Density: 10-20 Units per Acre
Styles: Early 20th Century, Modern, Post War

MULTI-FAMILY

Minimum Unit Size: 600 SF *Shared Drive & Surface Parking*
Density: 16-25 Units per Acre
Styles: Early 20th Century, Modern, Post War

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NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS
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COMMERCIAL

Integration of smaller scale neighborhood commercial that serves residents and adds character and value to the community (i,e., local cafes, boutiques, dance studios, flower shops, dry cleaners) is encouraged. All commercial should integrate as seamlessly as possible within the surrounding neighborhood fabric and should street park where possible, however small surface lots are permissible. Street fronts should have ground floor visibility and should activate the frontage with displays, outdoor seating and other decorative furnishings. Primary Structures should not break from the existing plane alignment.

DO THIS

Hyde Park - Boise, ID

NOT THIS

Wal-greens - Summersville, WV

Grand Avenue - St. Paul, MN

Red Hanger - West Valley City, UT

Nailed! Salon - Salt Lake City, UT

Dan's Market - Cottonwood Hts, UT

HEAT ISLAND EFFECT

The Heat Island Effect is most prominent in expansive areas of impervious surfaces and minimal vegetation. These conditions are most prevalent in parking lots and roadways. Where such conditions occur, large tree canopies should be incorporated to create shade and minimize reflective heat. Landscape islands and park strips containing these trees should be of sufficient size to avoid stunted growth.

Deciduous trees should be located around southern and western exposures to maximize the shade benefits provided in Utah's summer months. Also, minimize the use of impervious surfaces when not in direct conflict with the intended function of an area.

WATER CONSERVATION

Urban water conservation is a critical aspect in the proper management of Utah's scarce water resources and growing population. Landscape irrigation in urban developments account for more than half of the water demand. While water conserving measures should also be incorporated into a building's interior features, efforts impacting the landscape will yield the greatest results.

Efficient irrigation systems are pivotal to the success of water conservation in the landscape. The city of Saratoga Springs requires the installation of an automated water-conserving irrigation system for all landscaped areas. Additionally, the City requires efficient irrigation heads and rain sensors for all non-residential developments and open spaces. The following list summarizes the focal areas regarding landscape water conservation:

- Use of water-wise plant material
- Efficient irrigation system, including head-to-head coverages in turf areas
- Design lawn areas to be efficiently irrigated so as to avoid overspray
- Water shall not cross onto hardscape, including paths and streets
- Mulch and drip irrigation in most, if not all, planting beds to minimize water loss

STORMWATER RUNOFF

Management of water runoff becomes increasingly important as development occurs and increases the percentage of impervious surfaces located throughout a city. Instead of viewing stormwater management as a negative component of community infrastructure, it should be viewed as a functional and aesthetic resource. When designed in tandem with open space development, water is returned to landscapes allowing for natural treatment and gradual groundwater recharge. With this type of initial planning, stormwater management can become a valuable asset in creating a livable neighborhood with a visible identity. The following features suggest viable ways in which to incorporate green infrastructure to minimize water runoff:

- Bioswales
- Residential Rainwater Harvesting
- Stormwater Parks

All Best Management Practices are encouraged and should be implemented as allowable by law.

SITE CIRCULATION

INTENT

- Accommodate vehicular access and parking while emphasizing the pedestrian experience
- Create ADA accessible trails and paths for cycling and walking that connect to major amenities throughout the development
- Provide access between Villages and align with existing roads adjacent to the development

DESIGN STANDARDS

City owned trails, including those adjacent to roadways will be concrete. Privately maintained trails may use asphalt, concrete, paver, decomposed granite or other compacted materials. Compacted materials should utilize a tackifier and be lined by steel edging on either side of the path to prevent vegetation from taking over pathways.

- Adequate lighting, whether path or area lighting, should be provided for safe usage at night. Lighting should comply with the dark sky initiative.
- Trash receptacles and benches should be placed at a minimum every 1/4 mile.
- Adjacent trees should provide a continuous shade canopy at maturity.
- Planting should be used to direct users to trailheads and add comfort to respite areas.

Beacon Pointe is intended to be a pedestrian-oriented community with streets constructed in scale with the community needs. Planning efforts documented in the DAP reiterate that the development layout should encourage pedestrian movement despite the anticipated prevalence of vehicles. Walkable districts will be a priority to reduce vehicle trips by allowing residents to park and be within walking distance of multiple destinations. Proximity to amenities combined with pedestrian/bike paths, on-street parking, and safe intersection crossings encourages multiple forms of travel.

The desire to accommodate various forms of transportation stems from the documented social and physical benefits associated with increased foot traffic within a community. Providing accessible and visible circulation routes for pedestrians and cyclists correlates to improved rates of physical activity. Providing the infrastructure that encourages physical activity also provides opportunities for social interaction between residents which leads to a higher reported quality of life. Increased interaction and pedestrian movement through a community fosters a sense of ownership and safety.

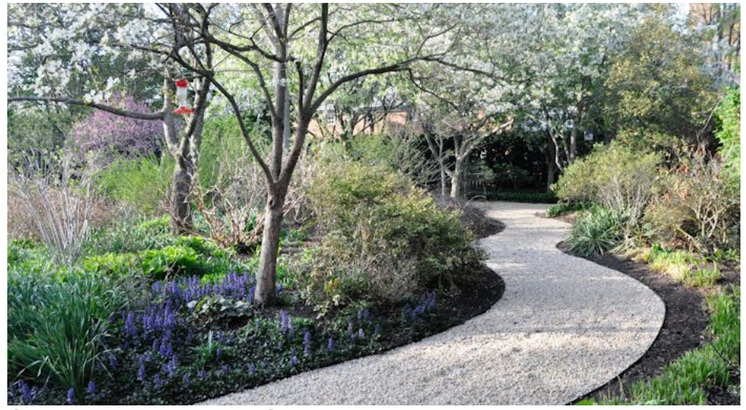
Site circulation will be refined as the street and trail layout for each Village emerges. Temporary roadways may be required with each individual village for fire and secondary access purposes. These temporary roads will be addressed at the village plan level and be dependent on existing conditions at the time of development.

SITE CIRCULATION | STREETSIDE TRAIL

SITE CIRCULATION | INTERIOR TRAIL

SITE CIRCULATION | TRAIL MATERIALS

Asphalt with Concrete Edging



Compacted Aggregate with Steel Edging

Concrete

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STREETSCAPES

INTENT

- Accommodate vehicular movement and parking while catering to the pedestrian experience
- Calm traffic to provide a safer environment for multiple modes of travel
- Create an environment that differentiates Beacon Pointe from surrounding developments

DESIGN STANDARDS

- Select Trees from approved list of Street Trees for Beacon Pointe
- Trees should provide a near continuous canopy at maturity
- Park strips are to be a minimum of 8 feet. Park strips on privates streets may be defined at the Village Plan level.
- Planted medians will contain low growing vegetation that does not exceed 18 inches

The DAP outlines the desire for livable streets to be integrated throughout the Community Plan. Streets in mixed-use centers provide ample opportunity for placemaking including public art, plazas and open space, sidewalks, and street trees. Along residential streets, similar conditions should be incorporated to add character and definition to individual neighborhoods. The treatment of the streetscape area drastically enhances neighborhood identity and long-term community appeal. Well-designed streets foster community involvement and pedestrian traffic.

Livable streets implement a combination of the following design elements:

- Street Facing Architecture
- Street trees for shade and aesthetic qualities
- Benches and street furniture
- Safe intersections crossings – curb extensions and colored/ textured crosswalks
- Wide sidewalks
- On-street parking

Street-facing architecture is another important element of a successful streetscape. Streets are more appealing, more used, and consequently safer when lined with entrances and windows. Streetscapes consisting of fencing, parking, and garage doors are much less inviting of a place. In developments with minimal setbacks, porches and patios help blur the distinction between public and private space. This contributes to a community feel and provides more opportunity for social interaction.

Streetscapes should be a focal element of place-making with special care given to how buildings and public spaces relate. Open spaces along or within the streetscape should be comprised of forms that are coherent with the neighboring buildings. Parking lots and other features that dilute activity and architectural form along a roadway should be placed behind the buildings or be screened with berms, planting, etc.

Street Facing Architecture

Benches & Street Furniture

Street Trees

Safe Intersection Crossings

Wide Sidewalks

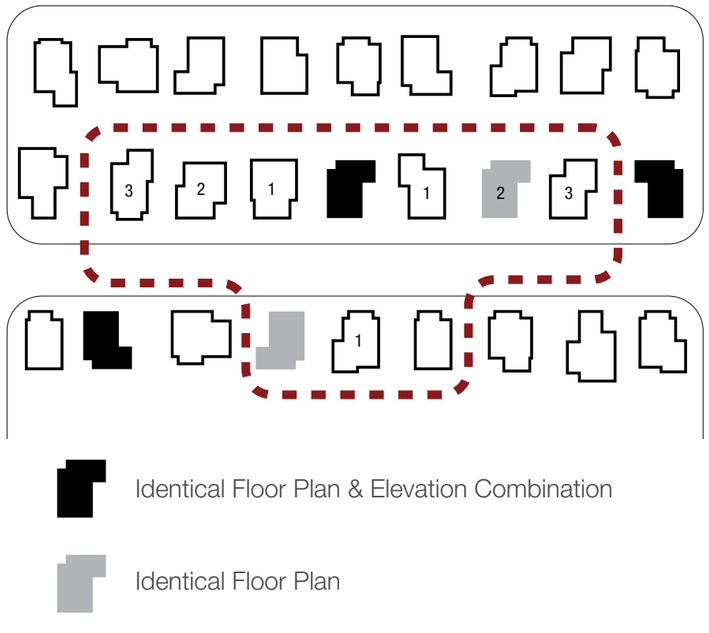
Street Parking

RESIDENTIAL HOUSING

INTENT

- Focus on pedestrian experience, and de-emphasize the dominance of vehicular access/circulation.
- Encourage similar architectural identity through building scale, mass, complexity of form, street setbacks and relationship to each other.
- Allow for a variety of house styles that share common traits relating to mass and scale for neighborhood continuity and pattern.
- Housing types should interact with the street with intentionally planned porches, walks, and landscaping. Porches are strongly encouraged.
- Housing elevations (Floor plan + Elevation) should be unique within their area of influence (Defined as any lot immediately surrounding to the front and three lots on either side of the property) The same floor plan may not be repeated in an adjacent lot, but must be separated by at least one lot.

AREA OF INFLUENCE



DESIGN STANDARDS

- Walkways 5 FT min.
- All buildings to adhere to minimum and maximum setback requirements for each street / housing type.
- De-emphasize garages and driveways (including alley access and smaller driveways) by following setback requirements for site layout.

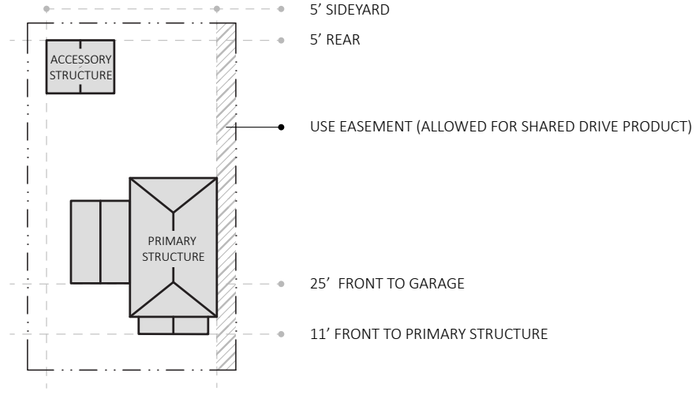
DESIGN GUIDELINES

- Trees planted in park strips should be spaced to provide a continuous canopy at maturity.
- Subdivision lots and placement of buildings should offer a sense of separation without requiring extensive physical separation between buildings.
- Material choices should reflect and define the architectural style of the residence.

SIDE YARDS

- Manage impacts on neighbors through carefully planned side yards. This portion of many residential yards is underutilized. By locating the garage further to the rear of a site, more purpose is given to the side yard. Also, houses not centered in the property provide sufficient space between detached housing units while providing the appropriate space for a drive and garage on the opposite side.

SINGLE FAMILY DETACHED MINIMUM SETBACK DIAGRAM



PARKING / GARAGE / DRIVEWAYS

- The location of garages and the width of a driveway have dramatic impact on the character of a neighborhood. In general, garages and driveways should not be the focal element of any residential unit. If an attached garage is used, the wall plane containing the garage doors is encouraged to be recessed from the primary entrance, living space or porch.
- A rear garage or low impact attached garage is preferred (see illustrations on following page). This provides additional opportunities for privacy while limiting the width of individual lots. These types of garages provide greater architectural character for the side and back of residential units. Additionally, they generate more useful exterior spaces through thoughtful consideration of wall articulation on all sides of the house.
- Shared driveways and Drive courts are also encouraged. Drive courts should provide sufficient space for at least 1 guest spot (parallel or perpendicular) without blocking the driveway. Garages located on a drive court are exempt from front and side setbacks.
- Driveway materials and width should match the character of each village and housing style.
- Min. Width 8 FT, Max Width 20 FT (A taper is encouraged to minimize width at the street edge)

PARKING, GARAGES, & DRIVEWAYS | SHARED DRIVEWAY

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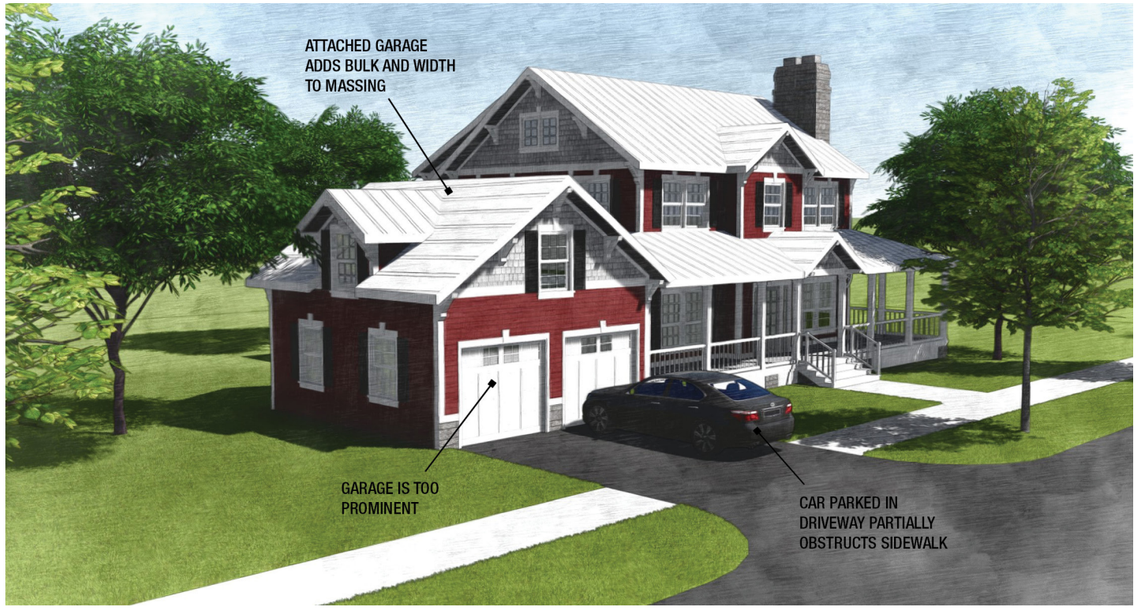
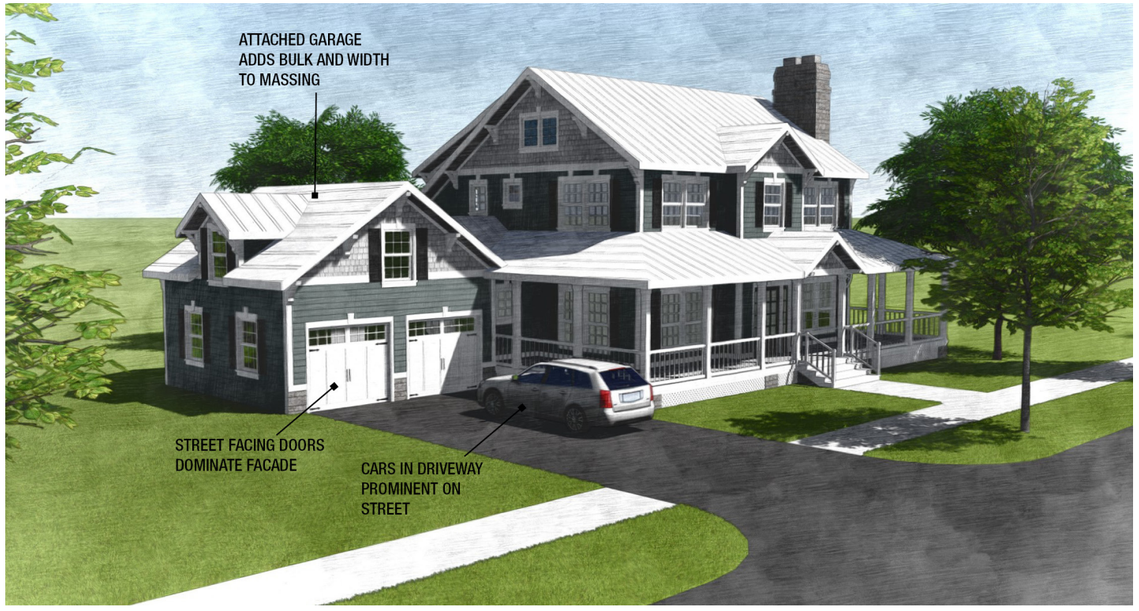
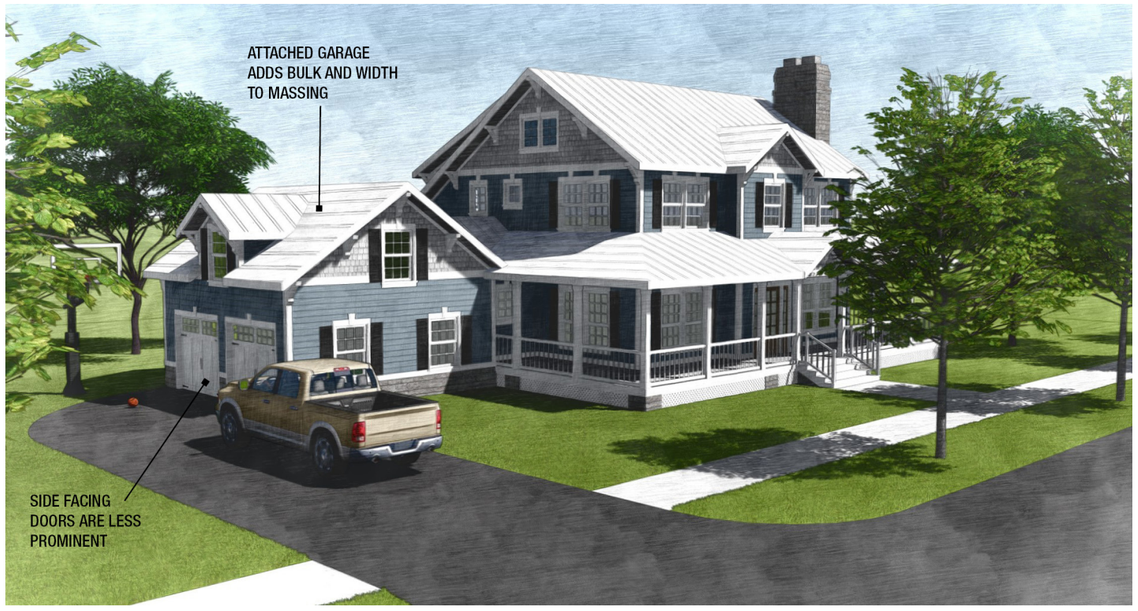
PROTRUDING GARAGE | NOT THIS



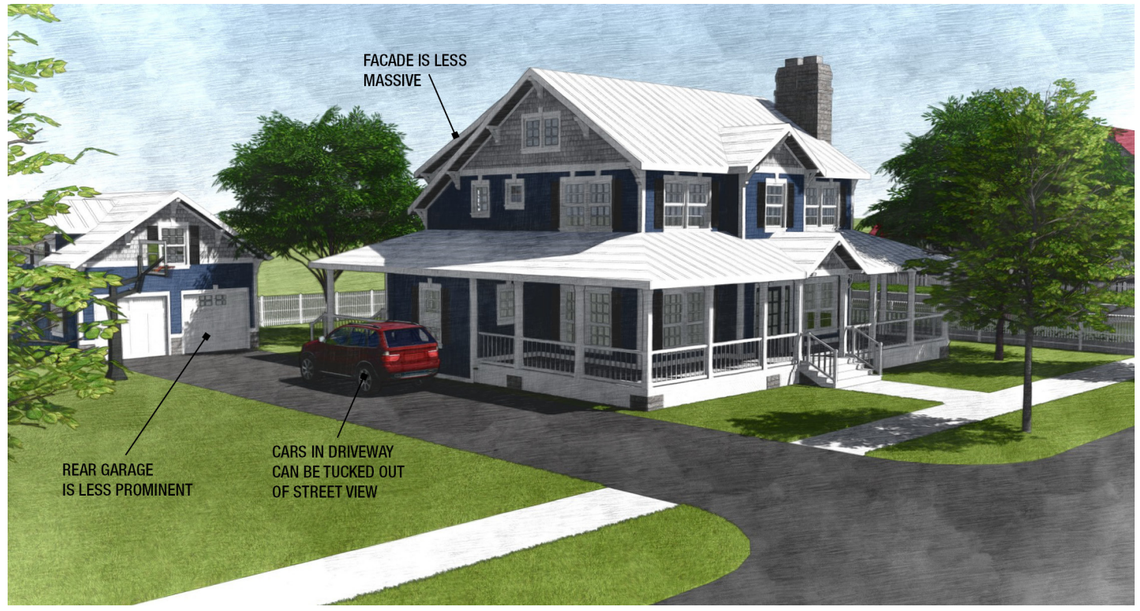
RECESSED GARAGE | GOOD



ROTATED GARAGE | BETTER



REAR GARAGE | BEST



BUILDING MASS / BULK / SCALE

The apparent mass of a residence can alter drastically based on building articulation and attention to human scale. Historic neighborhoods, largely those built prior to 1940, follow traditional community standards that cater to the human experience rather than the vehicular access prominent in modern subdivisions. These traditional standards often focus on street layout and traffic calming measures, but also include residential guidelines and provide architectural precedents.

The aspects of human scale found abundantly in these older neighborhoods pay specific attention to lot configuration and calculated architectural design. Emphasizing human scale, however, does not inherently discourage residences of larger square footages or taller elevations. Rather, it promotes increased attention to the complexity of a building's footprint and massing to avoid boxy residences without facade articulation. Garages and driveways should not be prominent features. House entrances are scaled for human comfort rather than impressive size from the road. Houses may be up to 3 stories tall, but taller structures should pay particular attention to creating human scaled entrances.

DO THIS

House scale should incorporate elements such as openings, materials, and details that respond to human dimensions.

NOT THIS

Houses should not exhibit elements with vertical emphasis that do not evoke human scale, are tall and overpowering, and designed solely to impress.

ROOF DESIGN

Another defining feature of a residence is the roof design. This aspect is highly associated with the architectural style of the residence and should relate to the building character in its overall form and detailing. Designers should pay particular attention to treatments of ridges, overhangs, gutters, and fascia to produce a coherent transition from building mass to roof design.
Roofs should be divided into primary and secondary forms to delineate a clear hierarchy between massing elements. Secondary forms, such as dormers and monitors, should not be too numerous or disproportionately scaled to avoid disrupting the unifying, primary form. Secondary forms should add simple aspects of articulation to the primary form, thus integrating the human scale to the roof mass.

Roof slopes and forms should be consistent for each residence. Variation in slope angles along a roof face should be avoided, except in very rare circumstances. The primary form of the roof is dependent on the complexity of the residence's footprint. Roof design and building footprint should be considered simultaneously.

DO THIS

Additive roof forms and monitor scale should be compatible with existing roof.

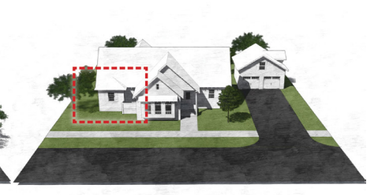
NOT THIS

Monitor scale should not be too large, compete with the existing roof, or look like a separate story.

DO THIS

Dormer style should be consistent with existing roof.

NOT THIS



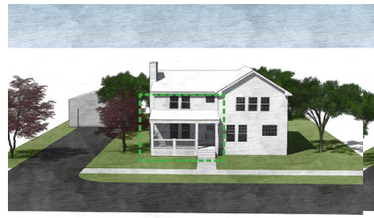
Dormer should not be of a different style than existing roof.

PORCHES

Functionally, porches help define the point of entry for a residence. When designed intentionally, a porch creates functional space that extends private living into the public realm. This architectural gesture provides more life to the front of a residence, providing increased opportunity for neighborly interaction and security.

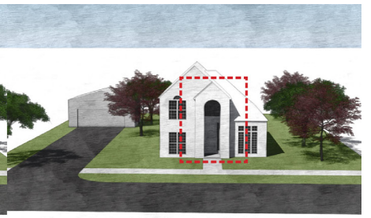
Porch patterns will vary depending on architectural styles and per Village Plans. However, in almost all cases the porch should be integrated into the architecture of the residence. Designers should emphasize human scale when integrating the porch into the overall building massing. Avoid drastic height increases that over emphasize the porch. If the architectural style supports a large covered porch, the space should be of sufficient size to accommodate whatever seating may be placed in the space and pedestrian movement. **Minimum depth 6 FT**

DO THIS



The porch should be incorporated into house as another room and make the entry notable through railings, overhangs, and details. The overall size and style of the porch matches the architectural style.

NOT THIS



The porch should not dominate the house or make it feel tall and looming. This style of porch also provides no usable space.

MATERIALS

Match the style and character of the home. Avoid using too many materials or colors on a single structure.

- Finish materials will vary based on Architectural Style (I,e Corten, Stucco, Concrete & Wood for Modern Building Styles).
- Architectural styles and local precedents will be further defined in Village Plans to more fully articulate the design intent.

IMPACTS ON NEIGHBORS

PRIVACY. Homeowner privacy can be achieved through careful placement of structures on the property and supplemental landscaping. Screening and creative spatial organization can provide the sense of greater separation than may actually exist between properties. The diagram below illustrates principles that should be applied where possible. However, certain housing typologies are by nature less private and expectations should be managed accordingly.

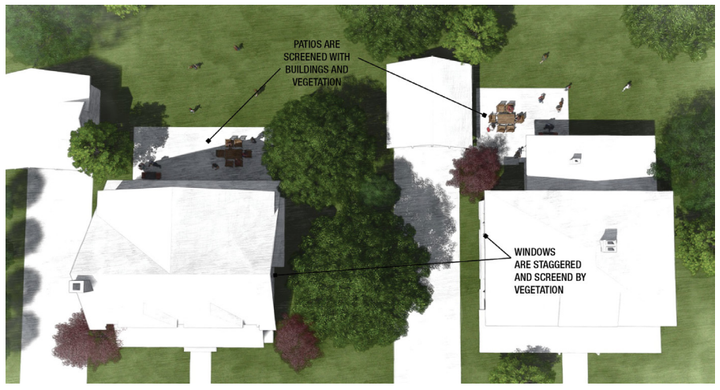
- Fencing can also be used for additional separation and should follow the guidelines provided (see Fencing section on pg. 35).

SUNLIGHT. Inconsiderate placement of structures and housing can negatively impact neighbors and create undesired microclimates across property lines. Similarly, scale and massing of housing units should take into consideration the shadows it will cast. However, sunlight is not a rare commodity in Utah and should not be the sole determining factor to determine compliance of a structure.

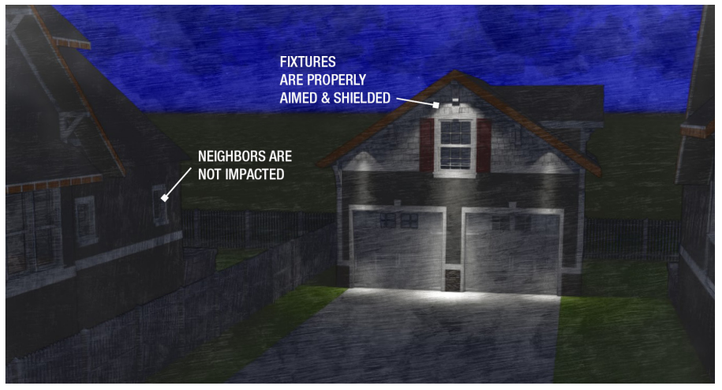
LIGHTING. Exterior lighting should be done with specific intentions rather than highlighting various surfaces solely for decorative purpose. It should be directed to the ground and avoid casting light across property lines or into windows. Light fixture styles should be consistent with the architectural style. Avoid clear glass and clear bulbs to prevent glaring light.

WINDOWS AND BALCONIES. While consideration of window placement on the exterior quality of a building is important, it should not negatively impact interior spaces. Window placement should avoid being aligned with windows on adjacent houses. If this in unavoidable, landscaping should be placed to support the goal of privacy between housing units. Windows and doors provide important opportunities to manage building scale. They also function as a means of expressing architectural style through shape, trim, and size. Where large windows are needed, divided lights better compliment human scale. Balconies, if used, should avoid directly overlooking adjacent properties.

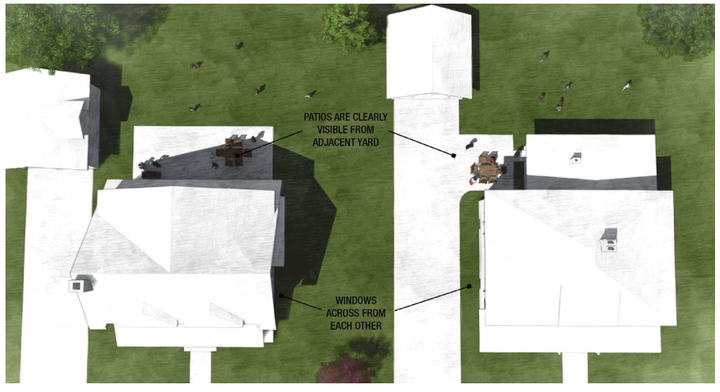
PRIVACY | DO THIS



LIGHTING | DO THIS



PRIVACY | NOT THIS



LIGHTING | NOT THIS

LANDSCAPE PLANS

Landscaping should be considered an extension of a residence and viewed as a series of outdoor rooms. This level of planning can dramatically extend the living environment by creating outdoor spaces with defined functions across the lot. Yards, especially those areas visible from the street, should complement the architecture while expressing the individuality of each homeowner.

Residential landscapes are a visible expression of neighborhood culture and identity. Any guidelines provided in this document are meant to create coherent streetscapes and encourage thoughtful planning of yards for each housing typology. Expression though landscaping is encouraged and aids in personalizing neighborhoods.

Landscape designs should frame the home and reinforce the human scale already integrated into the architecture. For front yards, and side yards adjacent to a road, consider the impact of the design on social opportunities and street life. In general, the landscape should connect the residence to the street.

INTENT

- Landscaping should complement the surrounding architecture and unify residential, commercial, and civic open spaces.
- Landscapes should reduce the apparent mass of adjacent buildings by considering important architectural elements prior to planting and how vegetation will aid in grounding the structure.
- Regardless of development type, landscaping should screen cars, trash enclosures, secondary structures, and parking from the road.
- In commercial areas, vegetation should be used to define boundaries and preserve residential privacy and discourage defaulting to fencing and walls. Plantings should soften fences and walls exposed to public view.
- Landscape should enhance safety and comfort. Avoid vegetation that reduces visibility along primary paths.

DESIGN GUIDELINES

RESIDENTIAL LANDSCAPES

All residential yards are encouraged to have plantings that correspond to the following locations or features of the lot:

FOUNDATION PLANTING

- 3 FT wide densely planted with shrubs to screen the foundation where exposed to view.

FENCE PLANTING

- Minimum of 2-3 FT of landscaping on sides exposed to public view where consistent maintenance is provided.

ALLEY PLANTING

- Shrubs and perennials to be under 3 FT in height
- Minimum of 3 FT of planting

All planting areas (planter beds and lawn) should contain a minimum of 12 inches of topsoil, tilled into the top 4 inches of the existing grade, and 3 inches of mulch (organic or inorganic) to maintain soil moisture and prevent weed growth.

Clean edges between lawn and plantings should be integrated into the landscape and can be accomplished with edging or by shovel cut.

LAWNS

Should be limited to areas where it serves a function. Deep rooted and drought tolerant turf varieties should be considered in an effort to conserve water. Do not place turf in narrow, small, or odd shaped areas that reduce irrigation efficiency. Lawn strips are encouraged to be at least 8 FT wide.

- Lawns must be a minimum of 2 FT from fencing and 3 FT from building foundations on sides exposed to public view.

IRRIGATION

Implement water efficient landscaping techniques. Utilize matched precipitation rate spray and rotor heads for all lawn areas. Avoid overspray by using the appropriate spray head distances and inspect system frequently. Shrub and perennial beds should be drip irrigated to more efficiently water planter areas and avoid spraying the house, garden structures, and fencing.

LANDSCAPE | FOUNDATION PLANTING

LANDSCAPE | FENCE PLANTING

LANDSCAPE | ALLEY PLANTING

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MIXED-USE / COMMERCIAL LANDSCAPES

All mixed-use/commercial development should have plantings that correspond to the following locations or features on the property:

- Foundation
- Fence/Barriers
- Parking
- Access/Delivery

Vegetation to be intermittently planted along building walls, fences, and barriers to soften hardscapes and add human scale elements.

TRAIL LANDSCAPE

- Trees should provide a continuous canopy at maturity
- Shrubs and Ornamental grasses should be used to soften trail borders
- Trail entrances and respite zones should be accented with additional plantings to create a sense of welcome and comfort
- Vegetation should be no higher than 24" for a distance of 3 FT on either side of the trail

LANDSCAPE | TRAIL ENTRANCE

FENCING

Fences and walls help define public and private open space boundaries, but can detract from the character of a community without regulation. The Village Plans will elaborate on design standards, including standards for the perimeter of collector roads. Fence design should correspond to the style of the Architecture. Vinyl and precast concrete products will be allowed on a case-by-case basis as approved by the Architectural Review Committee.

RESIDENTIAL PERIMETER FENCING

- Front Yard Height: maximum of 3 FT
- Back/Side Yard Height: maximum of 6 FT for privacy fencing between lots
- Fence styles should relate to the architectural style of the house
- Acceptable materials – Wood, Metal, Brick, Stone, Architectural Concrete, etc.

COMMERCIAL FENCING

- Height: maximum of 6 FT
- Acceptable materials – Wood, Metal, Gabion, Trendstone, Architectural Concrete or equivalent.
- Avoid fencing except when adjacent to open space or residential property or to screen delivery alleys and dumpsters

INSTITUTIONAL FENCING*

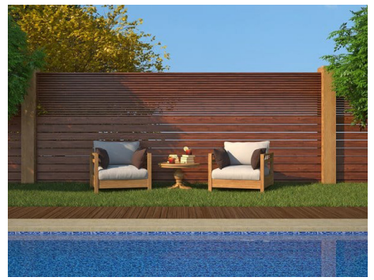
- Height: maximum of 6 FT
- Acceptable materials – Metal, Stone, Trendstone or equivalent

*Village 1B – will be exempt from all fencing standards. Design standards will be established at the village plan level.

FENCING | RESIDENTIAL

Wooden Perimeter Fence

Wooden Privacy Fence



Modern Slat Privacy Fence

Modern Wood & Stucco Privacy Fence

Wood & Metal Perimeter Fence

Traditional White Picket Fence

FENCING | COMMERCIAL / INSTITUTIONAL

Decorative Metal Fence

Post & Chain

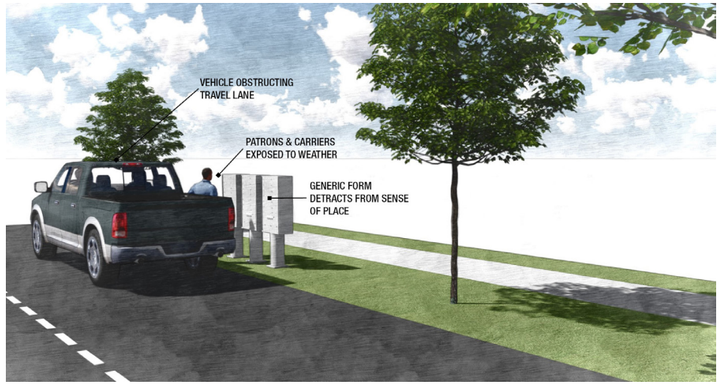
Gabion & Wooden Fence

Contemporary Metal Fence

MAILBOX STRUCTURES (VARY BY VILLAGE)

- Community mailboxes should be easily accessible to pedestrians, cyclists, vehicles, and USPS & ADA compliant.
- Structures should be conveniently located to the residents they serve. No more than 32 homes should be served by any one location.
- A narrow drive or pullout lane for mail delivery and other vehicles should be incorporated for convenience.
- If used, overhead structures should be of a sufficient size so as to be functional in protecting users from inclement weather conditions
- The architectural style of the structure should match surrounding residences and the character of the neighborhood as outlined in the Village Plan.
- Community Mailboxes will be maintained by their respective Village HOAs
- Provide package drop-offs where feasible. Additionally, include adequate package delivery boxes per the number of residents the mailboxes serve. See Village Plans for more details regarding the quantities needed.
- As a decentralized neighborhood, Village 1A will utilize the 16 Door Vogue Classic Cluster Mailbox or approved equivalent, located near the beginning of the slip lane for convenience.
- Mailbox locations will be identified on all final plats.

MAILBOX | NOT THIS



MAILBOX | TRADITIONAL EXAMPLE

MAILBOX | MODERN EXAMPLE

MAILBOX | VILLAGE 1A

MAILBOX | VILLAGE 1A

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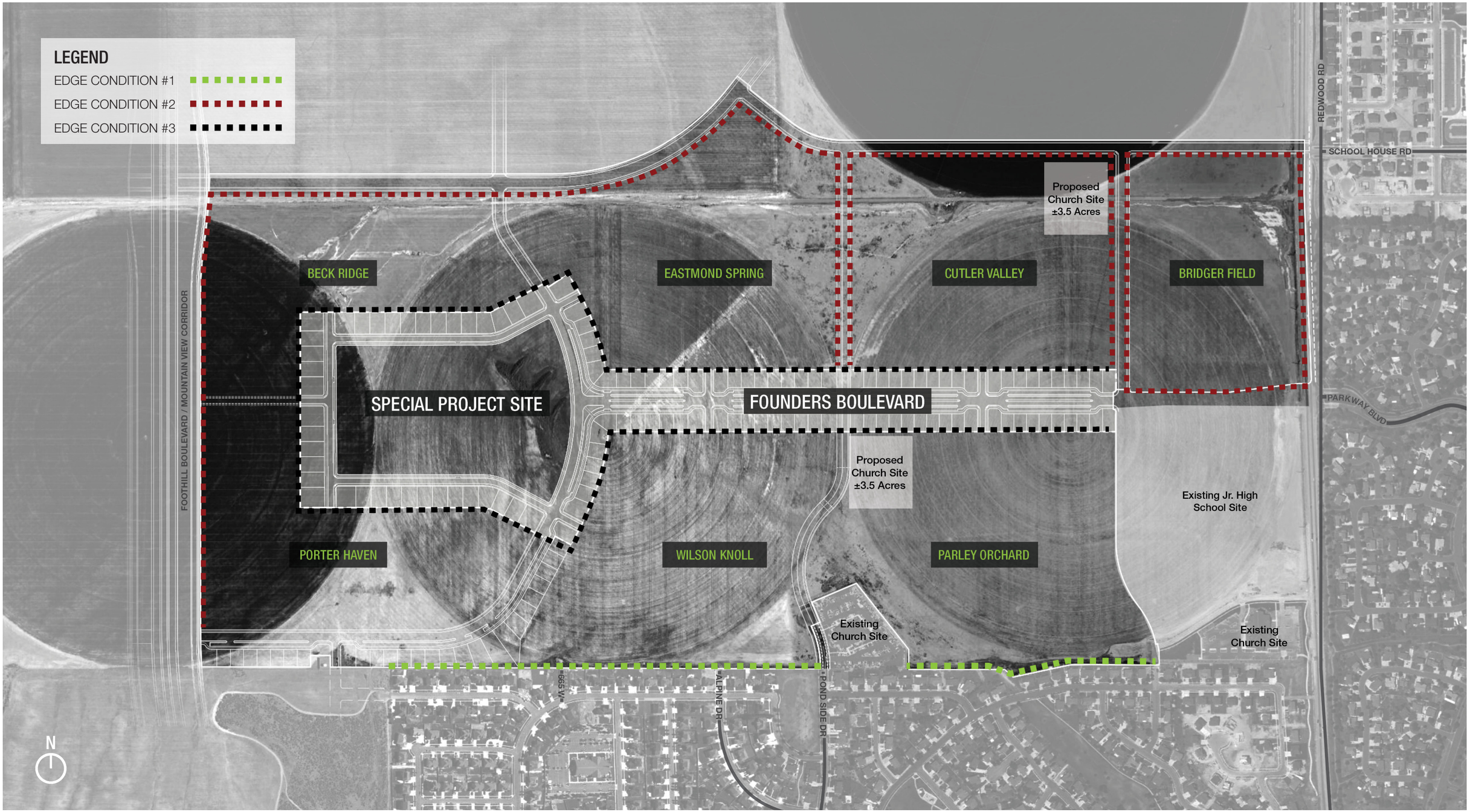
COMMUNITY PLAN | EDGE CONDITIONS



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EDGE CONDITIONS

With the Special Project Community Plan being implemented in eight separate Villages, it is imperative that the interactions between Villages and between Villages and public transportation corridors is regulated. For visual reference, see Exhibit 4. Therefore, three distinct Edge Conditions have been identified:

CONDITION #1. This condition applies along the portion of the south project border in common with the existing Subdivision. In order to transition from these existing uses into individual Villages, the following criteria applies to residential lots which share a property line:

- Fence lines should align with existing lots to the South where possible
- Residential units to be single family detached dwellings
- Minimum 60 FT frontage lots
- 7,000 square foot lots
- Minimum 20 FT rear setback

CONDITION #2. This edge condition applies to Village boundaries which are adjacent to limited access roadways. Where the following restrictions apply:

- All fencing must meet the fencing standards of this Community Plan
- Housing product may face edges with proper accommodations for rear garage loading which meet City standards for the road classification
- Slip lanes, similar in scope and design to Parkway Boulevard, may be incorporated for limit access roads
- Architecture should be articulated on all four sides and approved by the ARC:
  - Wall plane difference of 2 FT minimum, which is intended to give depth and movement to the elevation
  - Wall planes to be extended through to roof line in order to avoid a mono-plane roof
  - No false facades materials partially wrapping the structure

CONDITION #3. In order to preserve the unique characteristics of the Village 1 development and the associated Special Project Area, conditions will be placed along all Village 1 boundaries as follows:

- All fencing must meet the fencing standards of this Community Plan
- Single Family Land Uses
- No alleys or roadways adjacent to edge
- Fence lines are not required to align
- Minimum 20 FT rear setback from Village 1 boundary to all living space

FOUR-SIDED ARCHITECTURE | DO THIS

FOUR-SIDED ARCHITECTURE | NOT THIS

EDGE CONDITION 1

1. Fence line and lots adjacent to existing Subdivision align where possible.
2. Residential units to be single family detached dwellings.
3. Minimum 60 FT frontage lots.
4. 7,000 square foot lots.
5. Minimum 20 FT rear setback.

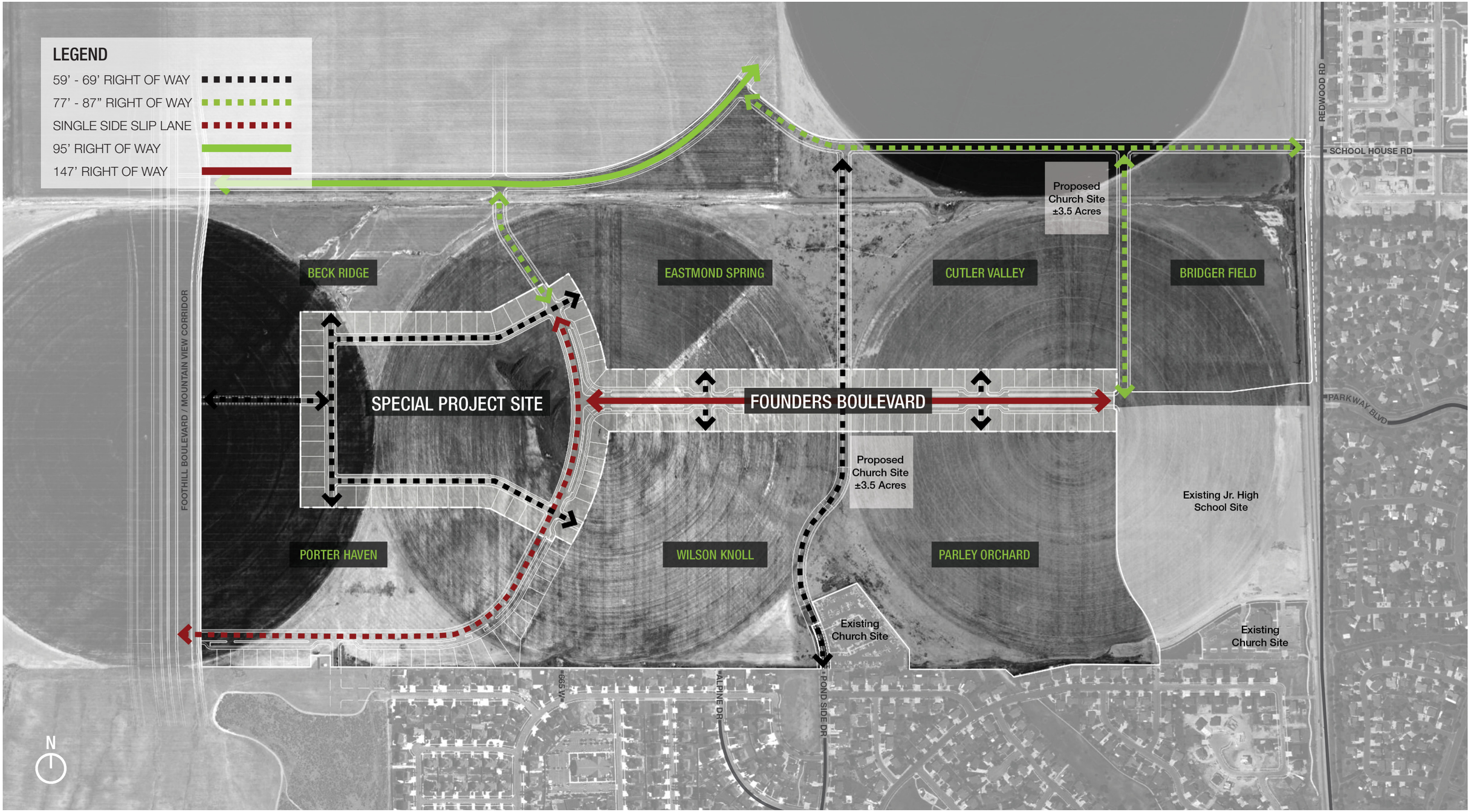
NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

EDGE CONDITION 2

1. Slip lanes, similar in scope and design to Founders Boulevard, may be incorporated for limited access roads.
2. Housing may face edges with proper accommodation for rear garage loading which meet City standards for the road classification.
3. All fencing must meet the fencing standards of Community Plan.
4. Housing elevations adjacent have a wall plane difference of at least 2 FT, to give depth and movement to elevation.
5. Wall planes to be extended to meet roof line.
6. Architecture articulated on all four sides - no partial material wraps.

EDGE CONDITION 3

1. All fencing must meet the fencing standards of Community Plan.
2. Single family land uses.
3. No alleys or roadways adjacent to edge.
4. Fence lines are not required to align
5. Minimum 20-foot rear setback from Village 1 boundary to all living space.
6. Wall planes to be extended to meet roof line.



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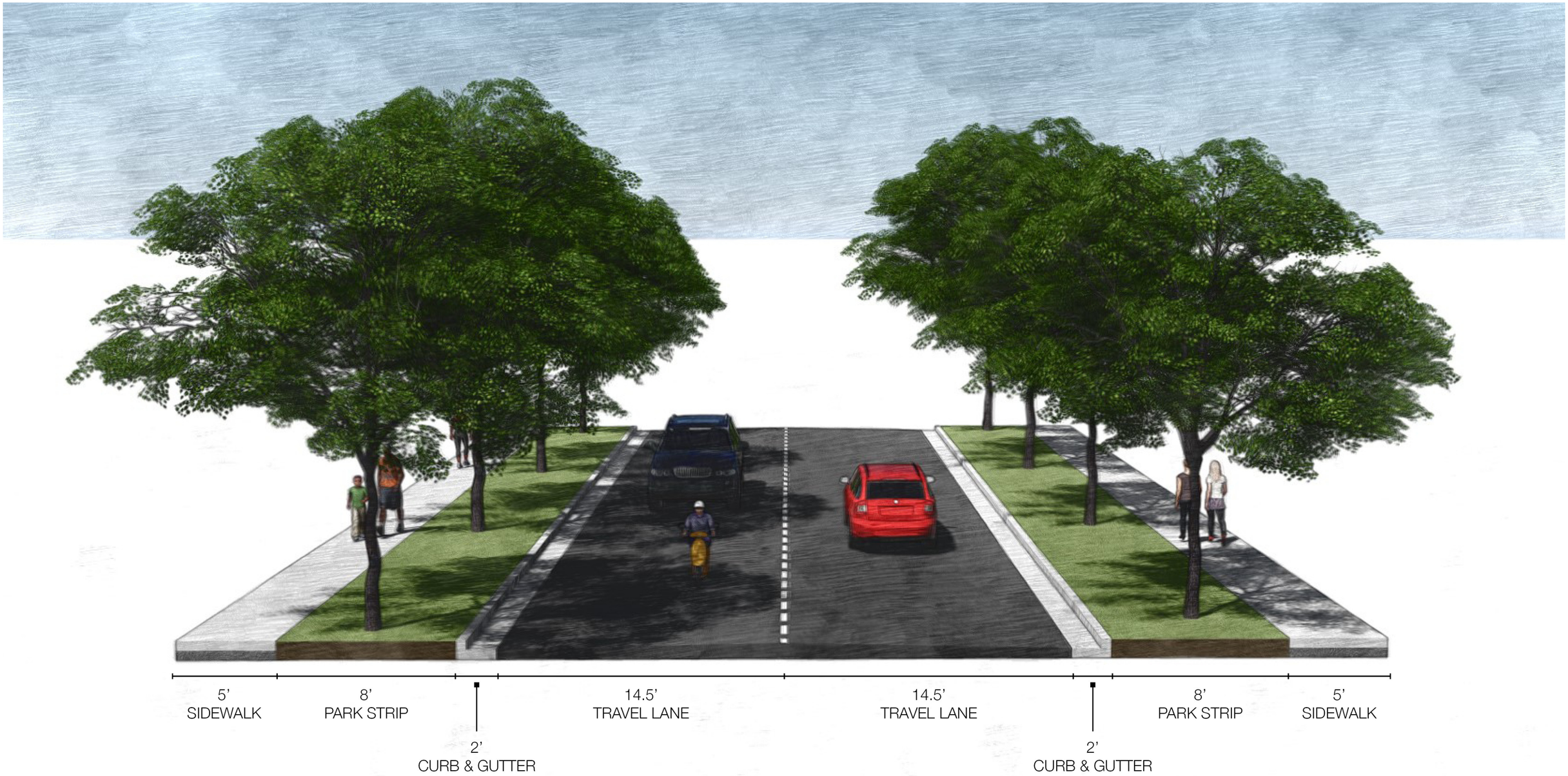
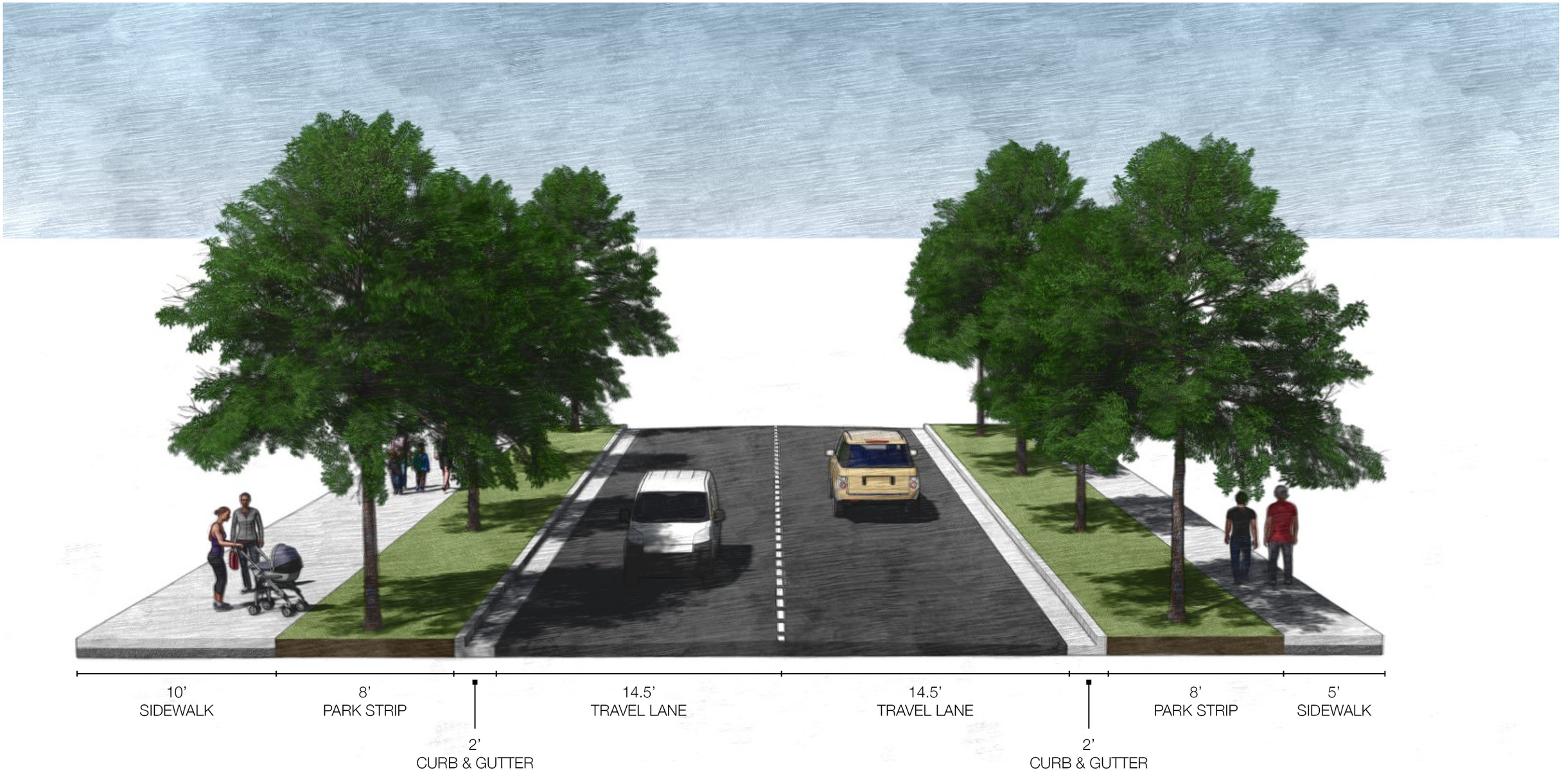


CITY STANDARD LOCAL ROADWAY

59’ RIGHT OF WAY



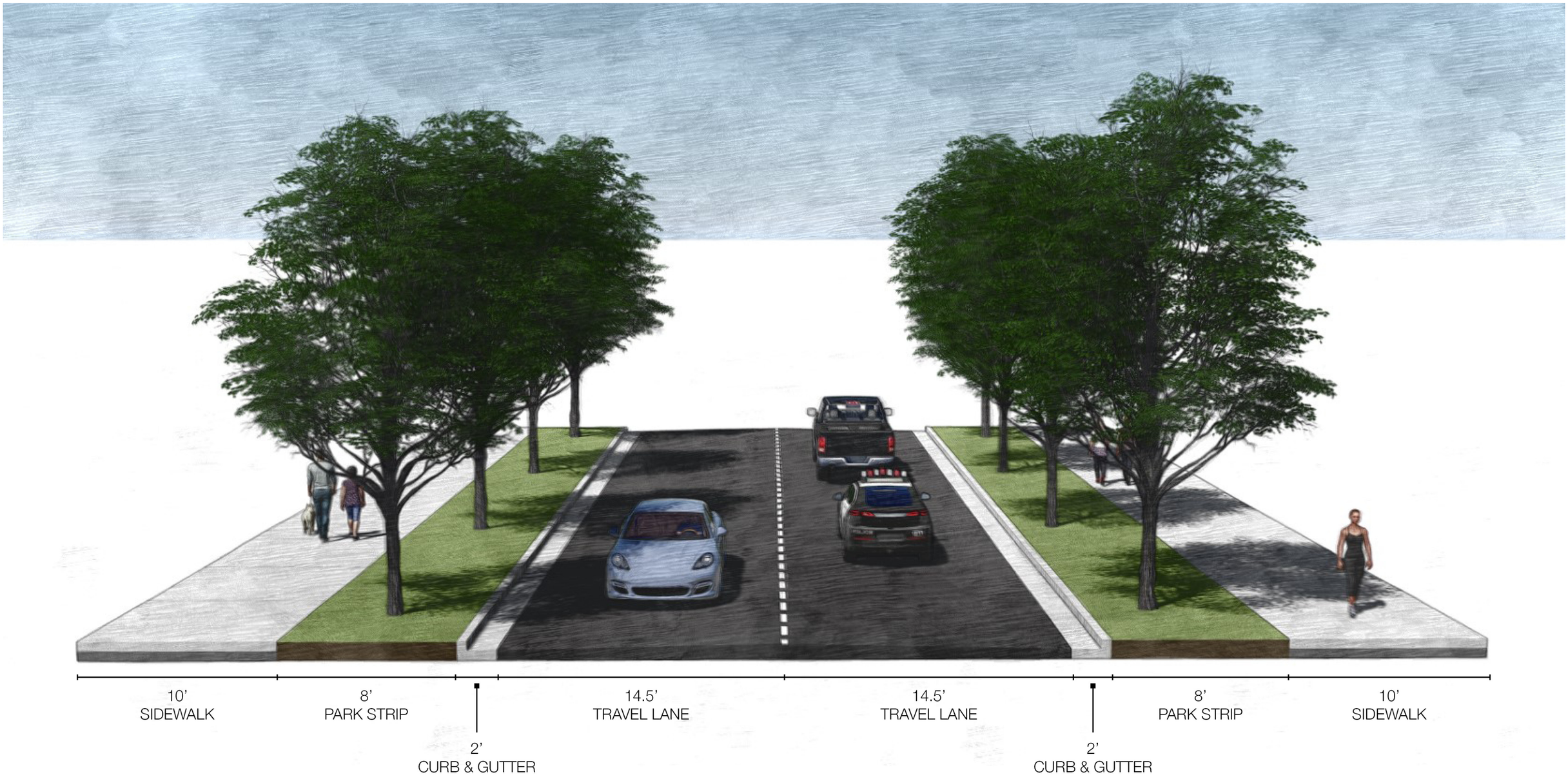
MODIFIED CITY STANDARD LOCAL ROADWAY

64’ RIGHT OF WAY

LEI Engineers & Surveyors

NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

loci



MODIFIED CITY STANDARD LOCAL ROADWAY

69’ RIGHT OF WAY

CITY STANDARD COLLECTOR

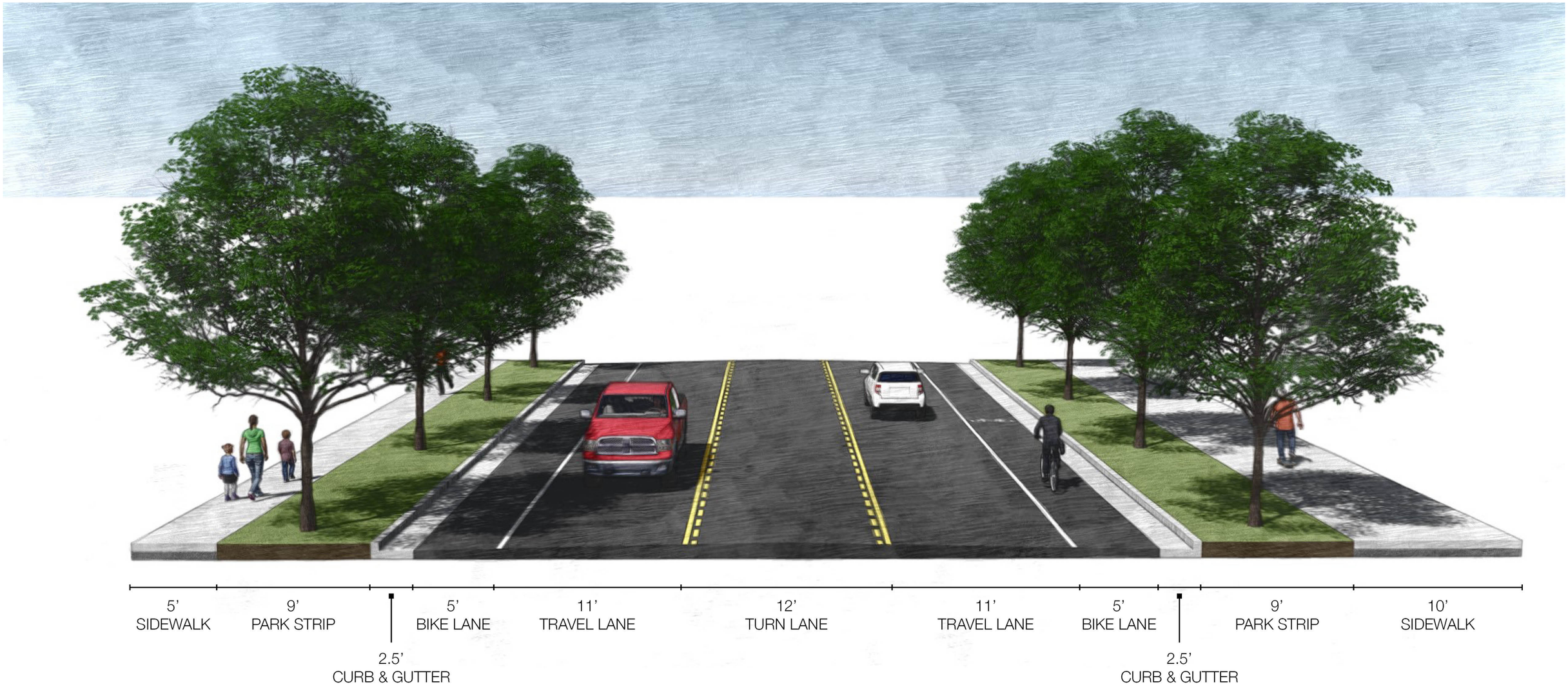
77’ RIGHT OF WAY

(SLIP LANE OPTIONAL SEE PG. 53)

LEI Engineers & Surveyors

NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

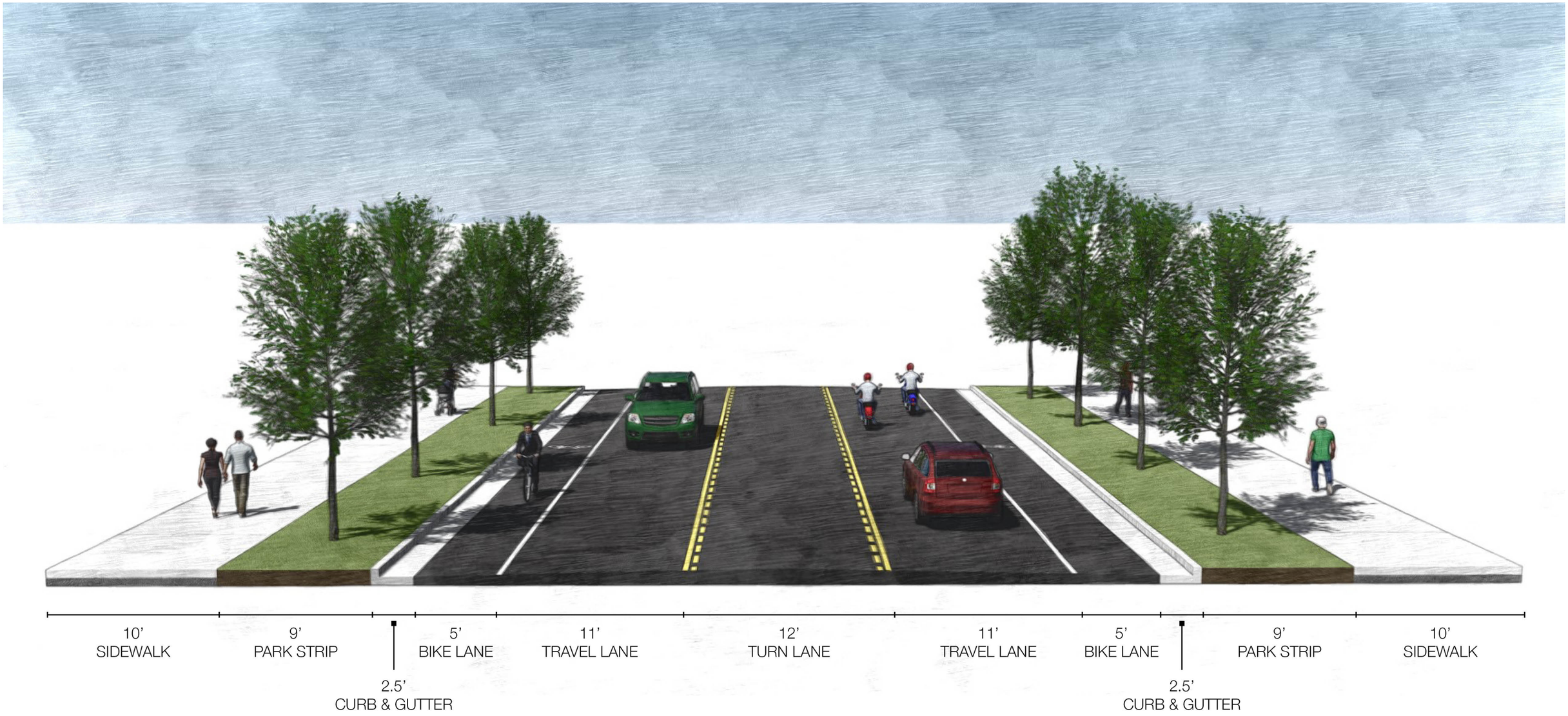
loci



MODIFIED CITY STANDARD COLLECTOR

82’ RIGHT OF WAY

(SLIP LANE OPTIONAL SEE PG. 53)



MODIFIED CITY STANDARD COLLECTOR

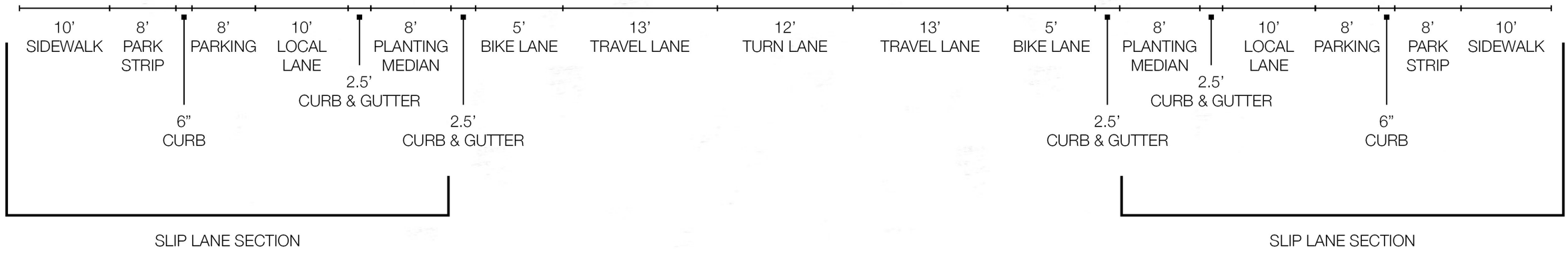
87’ RIGHT OF WAY

(SLIP LANE OPTIONAL SEE PG. 53)

LEI Engineers & Surveyors

NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

loci



FOUNDERS BLVD

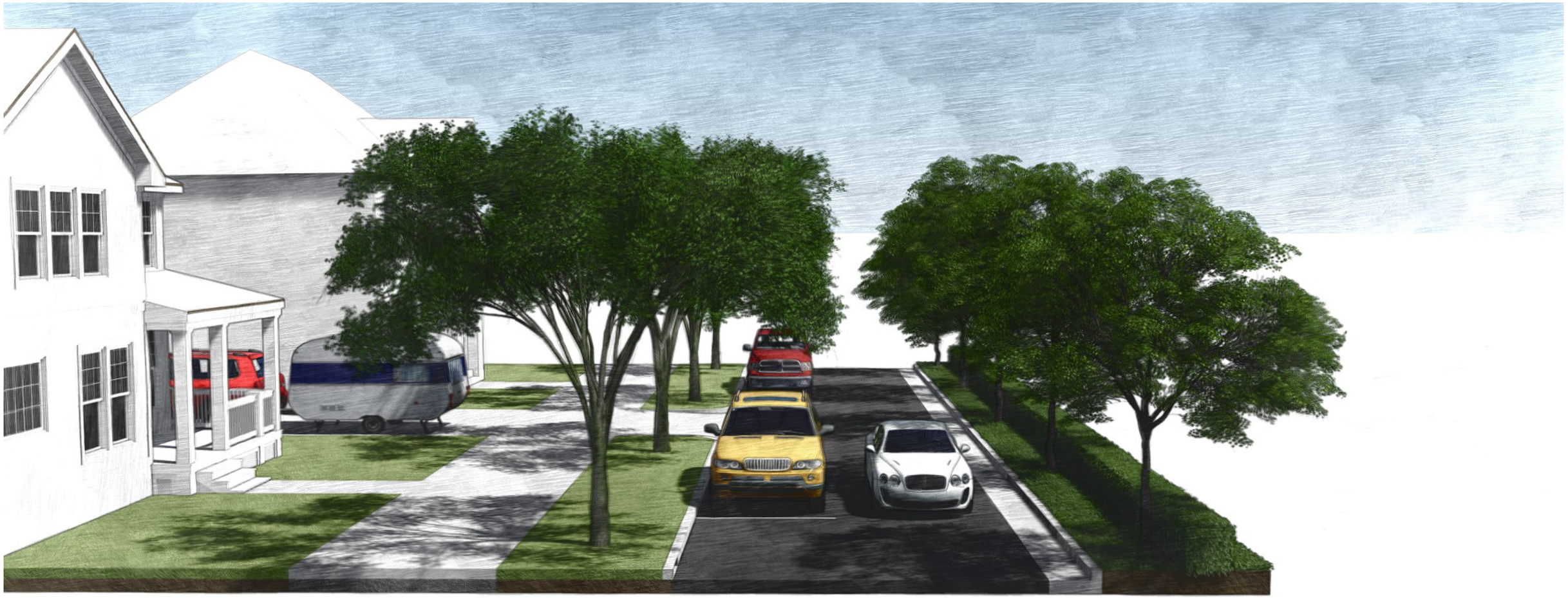
147’ RIGHT OF WAY

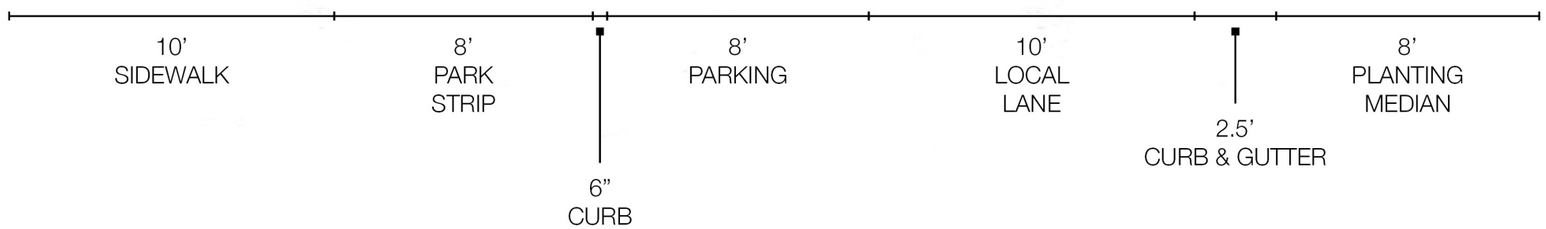
City is to maintain the full right of way, except the park strip which will be maintained by the residence

PRIVATE DRIVE
26’ FIRE LANE

NOTE: Private drives may be furthered defined at the Village Plan level to allow for alleys and other use types.

LEI Engineers & Surveyors
NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS
loci




10’
SIDEWALK
8’
PARK
STRIP
6”
CURB
8’
PARKING
10’
LOCAL
LANE
2.5’
CURB & GUTTER
8’
PLANTING
MEDIAN

SLIP LANE

COMMUNITY PLAN | UTILITY CAPACITIES

The location of the proposed Beacon Pointe has existing utilities located or stubbed on the south and east sides of the project. These utilities include culinary water, secondary water, sanitary sewer and storm water. The following briefly addresses each of the different utilities with more specific information provided within the Utility Master Plan found in Appendix B:

CULINARY WATER

Beacon Pointe falls within two different water zones: Zone 1 and Zone 2 as depicted within the Culinary Water Exhibit. The Zone 1 culinary water area currently contains a 14-inch culinary water main within Parkway Boulevard, an 8-inch main within Old Farm Road and a 14-inch culinary water main within State Route 68 (Redwood Road). These existing water mains will serve as the backbone infrastructure for the lower Zone 1 water area. A 12-inch main is planned along the northern border of the project for future expansion to the north. A standard 8-inch main is planned to be extended from the connection at Parkway Boulevard and Old Farm Road to the west through the rest of the lower zone. A PRV will be installed from Zone 2 to Zone 1 to serve fire flow purposes. Water line sizes are consistent with those depicted in the City's Culinary Water Master Plan and as per discussions with the City staff.

The Zone 2 water area currently only has a few culinary water stubs along the south border of the project. A project size off-site 16-inch culinary water main will be required to connect at the end of the existing Grandview Boulevard and serve as the backbone infrastructure to the upper zone. A 16-inch main is planned along a portion of the northern border of the project for future expansion to the north. A future 20-inch and 24-inch are planned to be stubbed to the west and north, respectively. Other than continuing a 16-inch main to the Special Project Area, all other water mains within the upper zone of Beacon Pointe will consist of a standard 8-inch water main.

SECONDARY WATER

Beacon Pointe falls within two different water zones: Zone 1 and Zone 2 as depicted within the Secondary Water Exhibit. The Zone 1 secondary water area currently contains a 16-inch secondary water main within Parkway Boulevard, a 6-inch secondary main within Old Farm Road and a 12-inch secondary water main within State Route 68 (Redwood Road). These existing water mains will serve as the backbone infrastructure for the lower Zone 1 water area. A 16-inch secondary main will be extended to the north and follow along the northern boundary until transitioning to a 24-inch secondary main that will eventually connect with a future Zone 1 pond. There is an existing 12-inch secondary main that traverses diagonally across the project with an existing booster station and that will need to be relocated as development occurs and the filter station outside of the boundary is relocated. A standard 6-inch main is planned to be extended from the connection at Parkway Boulevard and Old Farm Road to the west through the rest of the lower zone. A temporary PRV will be installed from Zone 2 to Zone 1 until the future Zone 1 pond is constructed. Water line sizes are consistent with those depicted in the City's Culinary Water Master Plan and as per discussions with the City.

The Zone 2 secondary water area currently only has a few secondary water stubs along the south border of the project. A project size off-site 16-inch secondary water main will be required to connect at the end of the existing Grandview Boulevard and serve as the backbone infrastructure to the upper zone. A 24-inch main will run north to south on the west side of the special project area. This main will connect to a 16-inch main stubbing to the west and a 12-inch main running along the northern boundary. A temporary PRV will be installed from Zone 2 to Zone 1 until the future Zone 1 pond is constructed. All other water mains within the upper zone of Beacon Pointe will consist of a standard 6-inch water main.

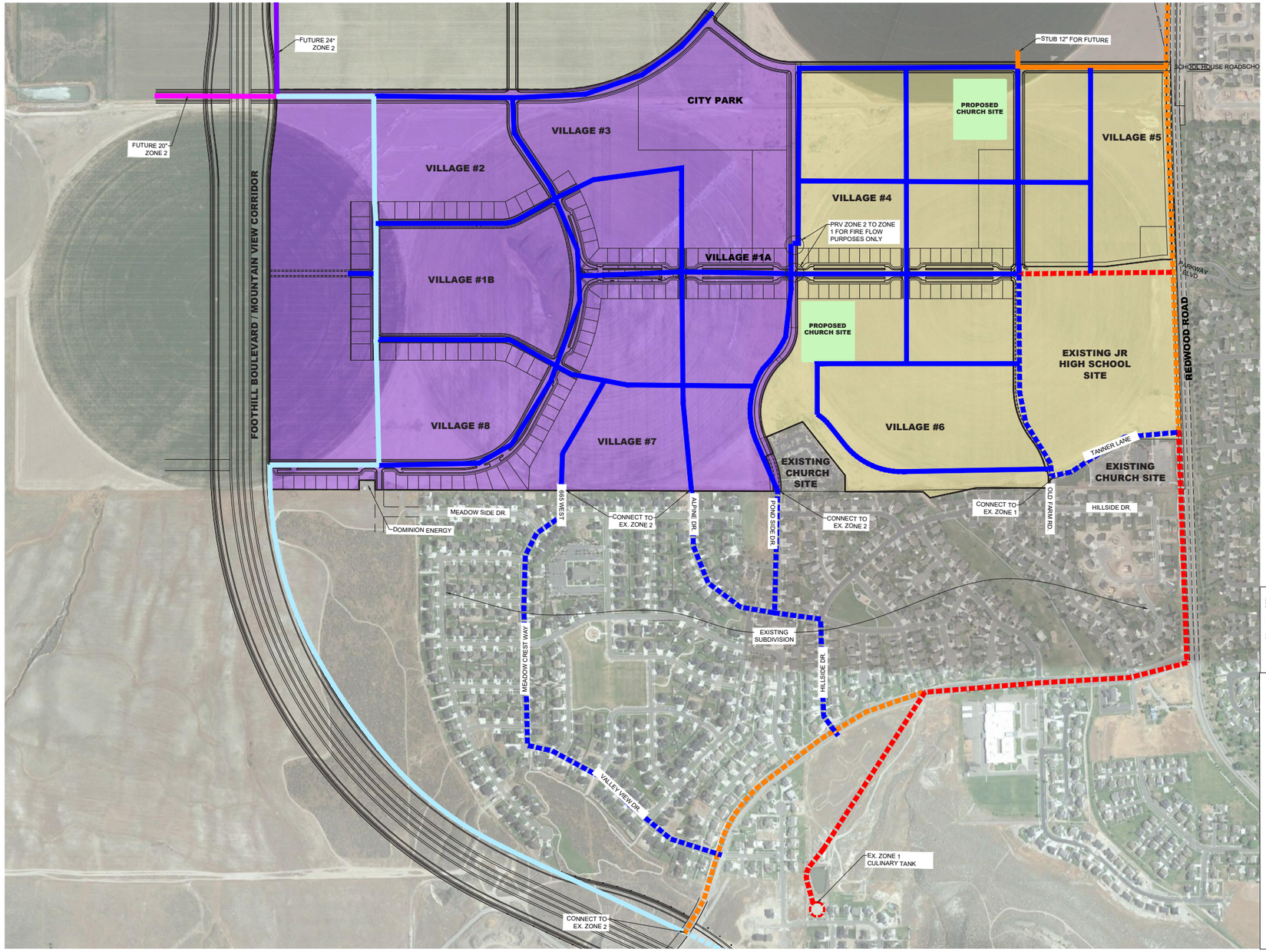
SANITARY SEWER

There is an existing dry 12-inch sewer main installed with Parkway Boulevard that will serve as the backbone for the Beacon Pointe project. This sanitary sewer main will be extended west up the Boulevard and convey sanitary sewer waste from the various Villages within the project and a future development adjacent to the southwest corner of the project. There will be an additional master plan sewer main (SSMP 3A) installed along the northern border of the project. The sanitary sewer main will require an off-site connection to the City's Master Plan sewer to be installed along Redwood Road heading to the north (SSMP 4.1A). The Master Plan sewer will turn east at the intersection of Pony Express until crossing the Jordan River and reaching the connection point at the east boundary of Saratoga Springs. Final alignment and design of this Master Plan sewer will be determined as discussions progress with more information provided at the Village Plan level.

STORM DRAIN

A preliminary storm drain study is found within the Utility Master Plan in Appendix B. As previously determined with the Saratoga Springs Middle School, the overall discharge for this area, including with middle school is limited to 58.0 cfs. The backbone infrastructure for this outfall has been constructed within Parkway Boulevard and stubbed to the west. Beacon Pointe will connect to this storm drain main and convey storm water runoff through various basins located throughout the project.

Note: The following utility exhibits are conceptual in nature and based on current master plans. Revisions and amendments to these exhibits can be approved at staff level.



NOTES

1. ZONE BOUNDARIES ADJUSTED TO ROADWAY LOCATIONS
2. PROPOSED INTERIOR WATERLINE LOCATIONS MAY VARY BASED ON FINAL INTERIOR ROAD LAYOUT.

COLOR CODING LEGEND PIPE: DIAMETER (IN)

- EXISTING 8" CULINARY
- PROPOSED 8" CULINARY
- PROPOSED 10" CULINARY
- PROPOSED 12" CULINARY
- EXISTING 12" CULINARY
- EXISTING 14" CULINARY
- PROPOSED 16" CULINARY
- EXISTING 16" CULINARY
- PROPOSED 20" CULINARY
- PROPOSED 24" CULINARY
- PRESSURE ZONE 1
- PRESSURE ZONE 2

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STATE OF UTAH GREGORY D. MAGLEBY No. 180524 REGISTERED PROFESSIONAL ENGINEER

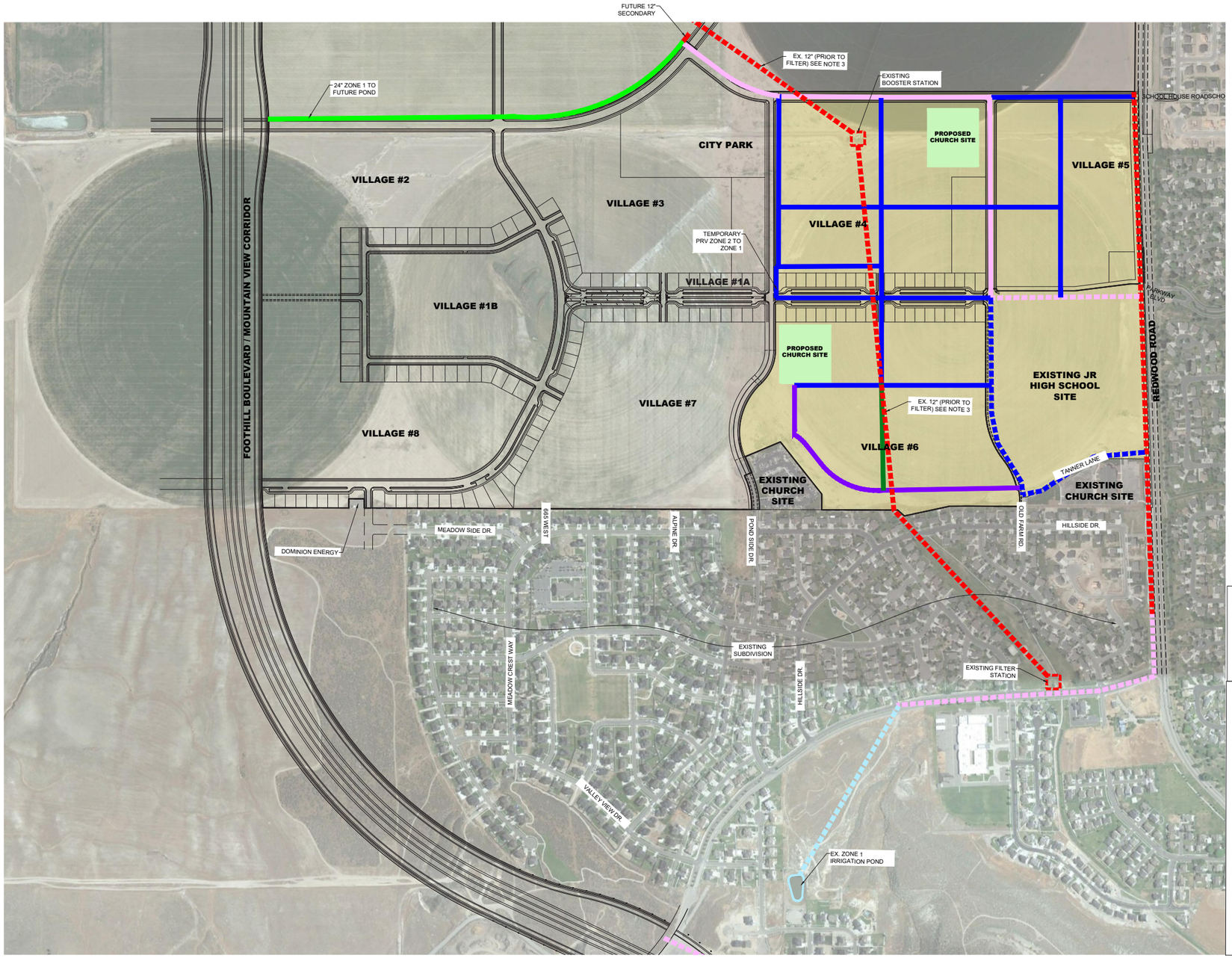
SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH
MASTER CULINARY PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2017-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 300'
DATE: 10/16/2018

SHEET 1

BEACON POINTE | COMMUNITY PLAN | UTILITY CAPACITIES



SCALE: 1" = 300'

300 150 0 300

NOTES

1. ZONE BOUNDARIES ADJUSTED TO ROADWAY LOCATIONS
2. PROPOSED INTERIOR WATERLINE LOCATIONS MAY VARY BASED ON FINAL INTERIOR ROAD LAYOUT.
3. EX. 12" LINE TO BE RELOCATED AS NECESSARY UNTIL CAPITAL FACILITIES PROJECT RELOCATES FILTER STATION.

COLOR CODING LEGEND
PIPE: DIAMETER (IN)

- EXISTING 6" SECONDARY
- PROPOSED 6" SECONDARY
- PROPOSED 8" SECONDARY
- PROPOSED 10" SECONDARY
- EXISTING 12" SECONDARY
- EXISTING 14" SECONDARY
- PROPOSED 16" SECONDARY
- EXISTING 16" SECONDARY
- PROPOSED 20" SECONDARY
- PROPOSED 24" SECONDARY
- FUTURE 12" SECONDARY
- PRESSURE ZONE 1
- PRESSURE ZONE 2

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STATE OF UTAH
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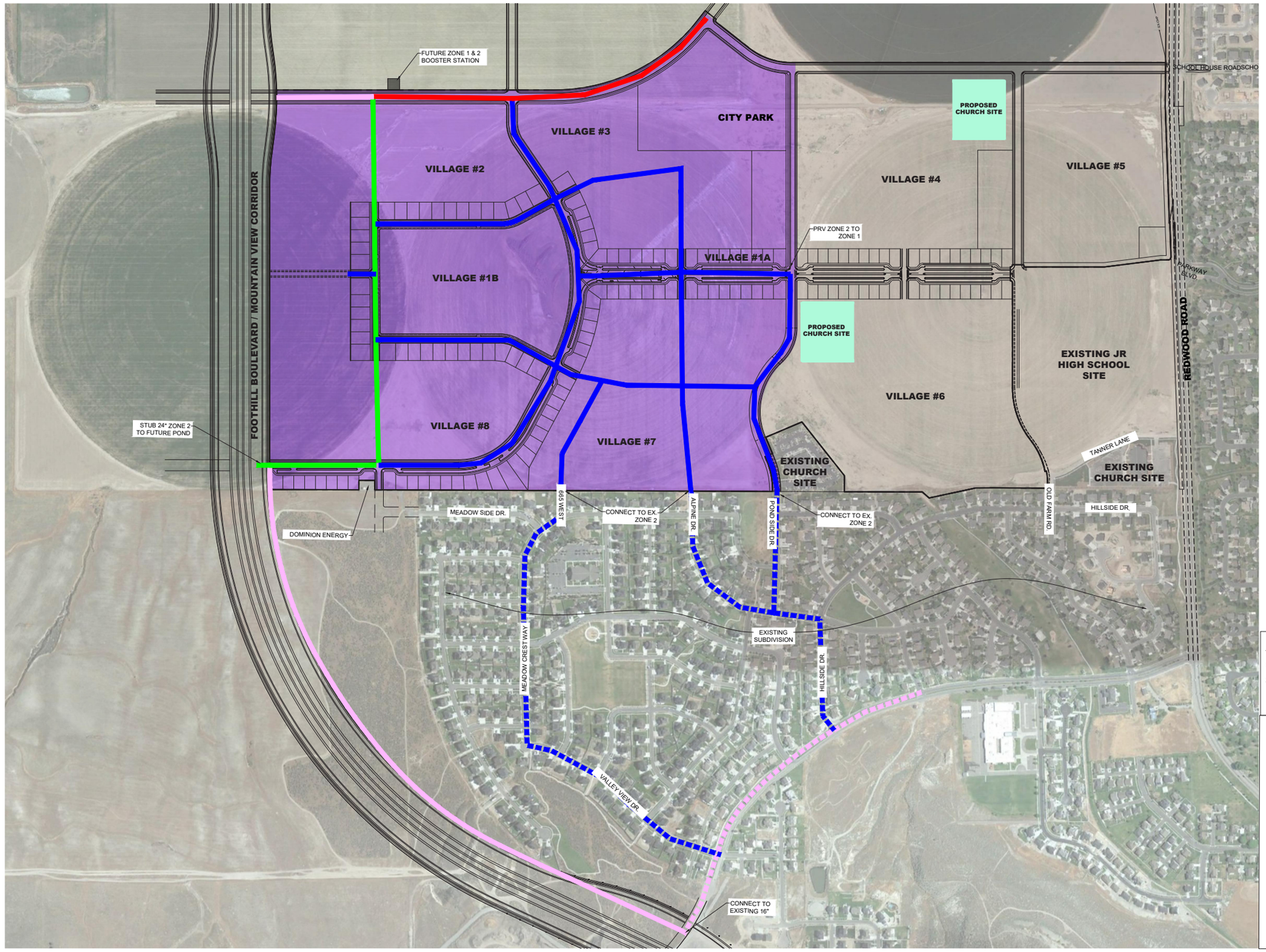
SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH

MASTER SECONDARY PLAN
ZONE 1

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2017-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 300'
DATE: 10/16/2018
SHEET 1

NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS



SCALE: 1" = 300'
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NOTES

1. ZONE BOUNDARIES ADJUSTED TO ROADWAY LOCATIONS
2. PROPOSED INTERIOR WATERLINE LOCATIONS MAY VARY BASED ON FINAL INTERIOR ROAD LAYOUT.

COLOR CODING LEGEND
PIPE: DIAMETER (IN)

- EXISTING 6" SECONDARY
- PROPOSED 6" SECONDARY
- PROPOSED 12" SECONDARY
- EXISTING 12" SECONDARY
- EXISTING 14" SECONDARY
- PROPOSED 16" SECONDARY
- EXISTING 16" SECONDARY
- PROPOSED 20" SECONDARY
- PROPOSED 24" SECONDARY
- PRESSURE ZONE 1
- PRESSURE ZONE 2

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SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH
MASTER SECONDARY PLAN ZONE 2

REVISIONS
1 -
2 -
3 -
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5 -

LEI PROJECT #: 2017-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 300'
DATE: 10/16/2018

SHEET 1

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STATE OF UTAH
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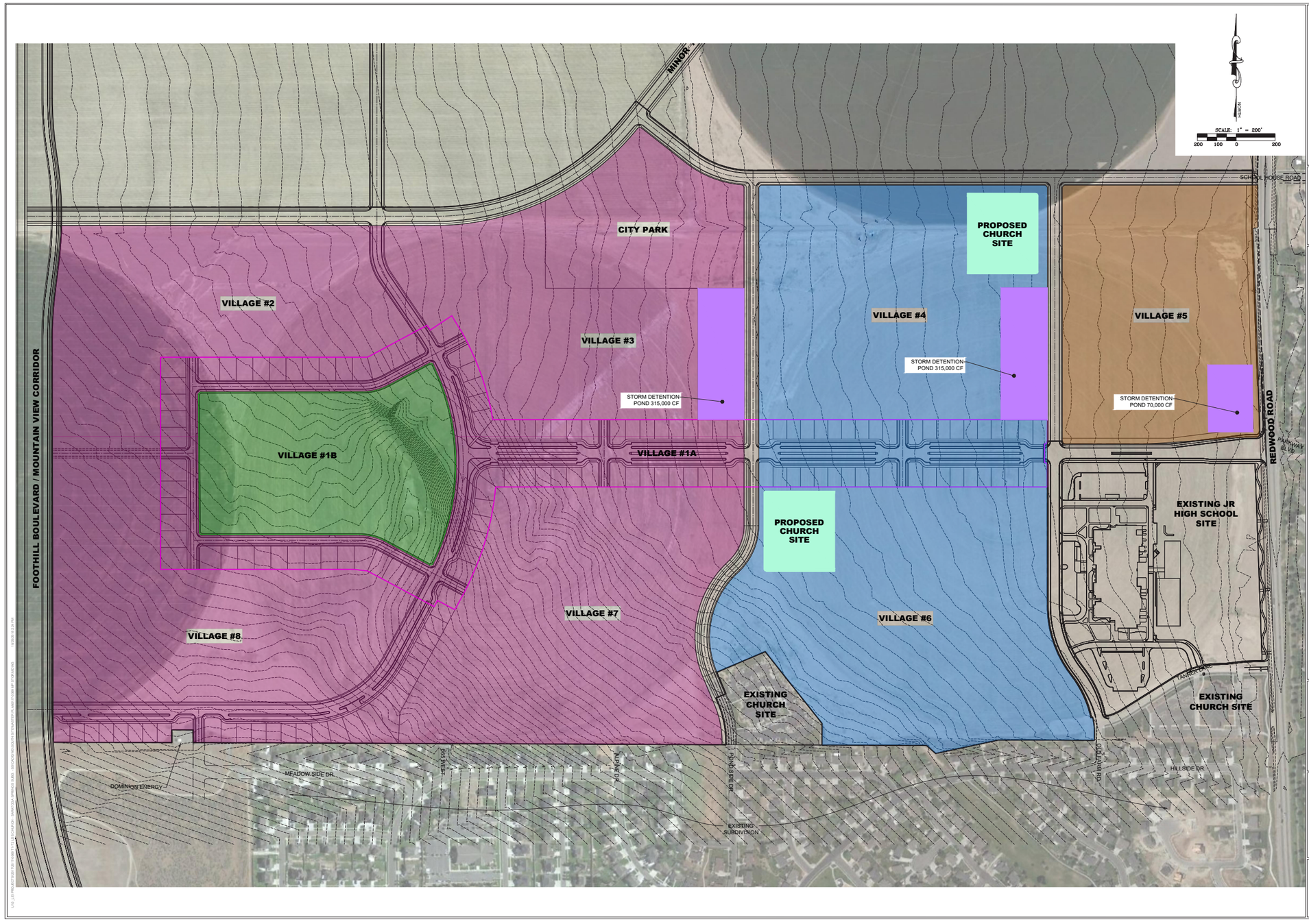
No. 189044
REGISTERED PROFESSIONAL ENGINEER

SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH
MASTER SEWER PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2018-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 200'
DATE: 10/16/2018

SHEET 1



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STATE OF UTAH
GREGORY D. MASLEY
No. 189844
REGISTERED PROFESSIONAL ENGINEER

SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH
MASTER STORM DRAIN PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2018-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 200'
DATE: 10/25/2018

SHEET 1

LEI Engineers & Surveyors
NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS
loci

WILDLIFE MITIGATION PLANS.

The United States Fish and Wildlife Service has been contacted to determine whether there are any endangered species or wildlife that needs to be mitigated at this time. The Division responded and do not have any concerns due to the current agricultural use of the land.

OPEN SPACE MANAGEMENT PLANS.

There are three distinct open space types with varying ranges of management plans. A SAA. SID, SSD, or similar funding mechanism may be established by the City over the entire Beacon Pointe development (excluding Village 1B and meetinghouses) for the purposes of financing the maintenance of City owned and maintained open space, excluding the City Park. This City may delegate maintenance responsibilities and associated funding to either a Master HOA or divide between village HOAs. The Master Developer shall not be required to establish or fund a Master HOA. However, the Master Developer agrees to cover maintenance funding shortfalls within the community until such time as 75% of the overall project area is platted. In the event that maintenance is not in compliance with the standards outlined within Appendix E, the Master Developer has the right, but not obligation, to manage the maintenance and receive the designated funding until such time as compliance to standards is reestablished. Once reestablished, the City will once again assume its role in management of the funding and maintenance of City owned open space. The following walks through each type and provides specific detail to management of these areas with more specific detail found in Appendix E:

FOUNDERS BOULEVARD This area is contained within Village 1A and will be improved by the developer and owned and maintained by the City according to the standards outlined within Appendix E.

CITY PARK AND ADJACENT FACILITIES This area includes the City Park, connecting trails and dual-use detention basin areas, which will be improved by the developer and owned and maintained by the City. These improvements follow the City's Park Master Plan and impact fee credits will be given to the developer where appropriate.

VILLAGE HOA Village specific open space will be owned and maintained by their respective Village Home Owner Associations.

HAZARDOUS MATERIAL REMEDIATION PLANS.

No hazardous materials have been identified within the site. Should any hazardous materials be identified through further geotechnical investigation or site observation, acceptable mitigation must be completed prior to development.

COMMUNITY PLAN | DEVELOPMENT AGREEMENT

TO BE SUBMITTED WITH FINAL REVIEW SET

LEI Engineers & Surveyors

NOTE: ALL GRAPHICS SHOWN ARE CONCEPTUAL ONLY - ACTUAL FORM, DESIGN AND LAYOUT WILL BE DETERMINED IN SUBSEQUENT VILLAGE PLANS

loci

The Natural Resource Inventory Map contains information regarding specific site elements such as:

WATERWAYS. There are no existing waterways traversing the site.

GEOLOGICAL INFORMATION. Geological information has been obtained from Utah County Hazards Mapping as published by Utah County Public Works Department, in coordination with USGS, MAG and other applicable agencies:

- The very most eastern portion of the project falls within a high potential for liquefaction. The western portion of the project falls within a low to moderate potential for liquefaction.
- No flood hazards have been identified. The project area is within flood zone "X" according to FIRM map 4955170115B, dated 17 July, 2002.
- No landslides hazards have been identified in the project site.
- No rock fall hazards have been identified in the project site.
- No wildfire hazards have been identified in the project site.
- No dam failure risks have been identified in the project site.
- No avalanche hazards have been identified in the project site.

FAULT LINES. According to Utah County Hazards Mapping as published by Utah County Public Works Department, no fault lines or fault ruptures are identified within the project.

GENERAL SOILS DATA. A geotechnical investigation has been conducted on the development by Terracon Consultants, Inc., dated April 17, 2018. Excerpts from the investigation include:

- The subject property is approximately 371.8 acres and is located at Redwood Road in Saratoga Springs, Utah. The is currently an active farm field and is relatively flat with general topography sloping to the east towards Jordan River and Utah Lake. The project is planned as a multi-use parcel.
- The field exploration included the boring of ten (10) borings with a maximum depth of approximately 10-feet below the existing ground surface. Groundwater was not encountered within the excavations at the depths explored.
- Based on reviewed liquefaction maps the site is in a low potential zone. Based on the subsurface conditions, the potential for liquefaction induced settlement is negligible in the shallow soil profile. Deeper soil borings extending to 50-feet would be required to evaluate liquefaction potential at this site.
- The subsurface soils encountered generally consisted of approximately 1 to 1 ½ feet of topsoil overlaying 9 to 16-feet of silt, silty clay, and lean clay with varying amounts of sand (soft to stiff). Soil below 16-feet consisted of silt with varying amounts of sand, silty sand, and clayey gravel with sand (hard/medium dense to very dense). All vegetation, topsoil, deleterious materials and loose, soft or otherwise unsuitable material should be removed below construction areas.
- Continuous or isolated footings may be used to support the structure, with foundations placed entirely on properly placed, compacted, and tested structural fill extending to undisturbed native soils. The net allowable bearing pressure for these conditions range from 1,500 to 2,000 pounds per square foot.
- Minimum roadway section for heavy traffic areas consist of 4-inches of asphalt, 8-inches of road base, over 12-inches of subgrade granular borrow. Minimum roadway section for the parking lot area 3-inches of asphalt over 6-inches of road base and 9-inches of subgrade granular borrow. A CBR value of 5-percent (5%) was obtained.

SLOPES. There is approximately 0.83 acres of area greater than 30 percent slope that has been modified to allow for agricultural use. This area is considered man-made, isolated or without prevailing public benefit and may be graded as part of this development plan.

STATEMENT OF FINDINGS. A statement regarding the findings of this submittal can be found in the Findings section towards the end of the document.

ENVIRONMENTAL ISSUES.

WETLANDS. No wetlands, sources of surface, or shallow groundwater have been identified in the project site.

HISTORICAL SITES. No historical sites have been identified in the project site.

EXISTING TREES. No existing trees are present on the site.

TRAFFIC STUDY. The full traffic study had been included within Appendix C. Fehr and Peers conducted a traffic study of the Beacon Pointe project area in July 2018. Traffic analysis was performed weekday morning (7:00 to 9:00 am) and evening (4:00 to 6:00 pm) on February 28, 2018. This study was scoped to evaluate the traffic operations performance impacts of the project on the following intersections:

1. REDWOOD ROAD (SR-68) / PONY EXPRESS PARKWAY – Signalized
2. REDWOOD ROAD (SR-68) / 400 SOUTH – Unsignalized (Signalization planned for 2020)
3. REDWOOD ROAD (SR-68) / SCHOOL HOUSE ROAD – Unsignalized
4. REDWOOD ROAD (SR-68) / PARKWAY BOULEVARD – Unsignalized (Signalization planned for 2020)
5. REDWOOD ROAD (SR-68) / TANNER LANE – Unsignalized
6. REDWOOD ROAD (SR-68) / GRANDVIEW BOULEVARD – Signalized
7. PROPOSED MOUNTAIN VIEW CORRIDOR NORTHBOUND INTERCHANGE – Signalized
8. PROPOSED MOUNTAIN VIEW CORRIDOR SOUTHBOUND INTERCHANGE – Signalized

RECOMMENDATIONS:

1. Until the final neighborhood is built, as shown in the 2040 scenario, the development will not require the Mountain View Access road to the north to maintain acceptable levels of delay at each of the study intersections. However, once the last neighborhood is built, the additional trips generated by the neighborhood is anticipated to increase delay enough to exceed acceptable levels without the addition of the Mountain View Access Road. Therefore, it is recommended to build the Mountain View Access road before the construction of the final neighborhood is completed.
2. During the 2040 full build analysis, after the Mountain View Corridor is assumed to be built, large vehicle volumes are anticipated to access the Mountain View Corridor during the peak periods at this location and would exceed acceptable levels of delay at the East Loop & Mountain View Corridor Access intersection. The recommended solution would be to signalize the intersection at East Loop & Mountain

View Corridor Access. The 2040 plus project scenario was analyzed without the intersection at Foothill Boulevard (the Mountain View Corridor frontage road) & Mountain View Corridor Access to show that after signalizing the intersection at East Loop & Mountain View Corridor Access, the intersection would still be able to operate at acceptable levels of delay, even without distributing vehicle volumes to Foothill Boulevard.

3. Right turn storage lanes are also recommended to be added for the north and southbound movements at the Redwood Road intersections at School House Boulevard, Parkway Boulevard, and Tanner Lane. Adding a right turn pocket at those intersections will allow the right most lane in both directions to be clear of right-turning vehicles to mitigate impact from projected future traffic growth and the proposed project. It is also recommended to add a second left turn storage lane to the eastbound direction at Parkway Boulevard as demonstrated by the need for it in the future plus-project scenario analyses.

The analysis described in this report shows that the impact of the proposed special use site and housing development would impact vehicle delay at intersections within the immediate vicinity. Implementing the recommended mitigations will alleviate most of the impact from the proposed special use site and housing development and improve the LOS for side streets from the existing conditions.

COMPLIANCE ISSUES.

ARCHITECTURAL STANDARDS. Defined at the Village Plan Level and enforced by the Architectural Review Committee.

COMMON AREA MAINTENANCE. No master HOA common area maintenance is anticipated for the community. Individual villages may have HOA common area maintenance.

The following provides a basic template of the information to be provided for proposed land use within the Community. This will be modified as Villages are more defined through the Community Plan process.

These design guidelines as established through the Community Plan are intended to act as a basis for the subsequent establishment of design standards associated with Village Plans. Therefore, minimum standards have been established at the community wide level and more appropriate site-specific standards will be established at the Village Plan level.

1.1 SINGLE FAMILY DETACHED:

LOT REGULATIONS:

LOT SIZE. The following minimum lot size shall be provided and maintained for each dwelling and uses accessory thereto:

FOUNDERS BLVD | VILLAGE 1A – An area of not less than 6,000 square feet.

- Average lot size 8,500 square feet

BECK RIDGE | VILLAGE 2 – An area of not less than 4,000 square feet.

- Edge Condition 2: Average lot size 4,500 square feet
- Edge Condition 3: Average lot size 8,000 square feet

EASTMOND SPRING | VILLAGE 3 – An area of not less than 2,400 square feet.

- Edge Condition 2: Average lot size 5,500 square feet
- Edge Condition 3: Average lot size 6,500 square feet

CUTLER VALLEY | VILLAGE 4 – An area of not less than 2,400 square feet.

- Edge Condition 2: Average lot size 4,250 square feet
- Edge Condition 3: Average lot size 6,000 square feet

BRIDGER FIELD | VILLAGE 5 – An area of not less than 1,050 square feet.

- Edge Condition 2: Average lot size 1,500 square feet

PARLEY ORCHARD | VILLAGE 6 – An area of not less than 2,400 square feet.

- Edge Condition 1: Average lot size 7,000 square feet
- Edge Condition 3: Average lot size 6,000 square feet

WILSON KNOLL | VILLAGE 7 – An area of not less than 4,000 square feet.

- Edge Condition 1: Average lot size 9,500 square feet
- Edge Condition 3: Average lot size 7,500 square feet

PORTER HAVEN | VILLAGE 8 – An area of not less than 4,000 square feet.

- Edge Condition 2: Average lot size 4,500 square feet
- Edge Condition 3: Average lot size 8,000 square feet

WIDTH. The minimum width for any residential lot shall be 40 feet at the designated front setback. The minimum lot frontage along a public right-of-way shall be 30 feet.

FRONT YARD REQUIREMENTS. The minimum front yard setback shall be 25 feet as measured from a public right-of-way to the garage, and 11 feet measured to foundation of living space, a covered front porch or patio, if present.

SIDE YARD REQUIREMENTS. All dwelling structures, other main buildings and accessory buildings requiring a building permit shall be set back from each side property line a distance of at least 5 feet. Setbacks shall be measured to the foundation, notwithstanding bay windows, pop outs and other structures (excluding eaves) shall not encroach upon the 5 foot setback or public utility easement.

REAR YARD REQUIREMENTS. Primary dwelling structures shall be set back from the rear property line a minimum of 15 feet as measured to the foundation. Accessory Dwelling Units, uncovered decks, patios, garages, and accessory buildings shall be set back from the rear property line a minimum of 5 feet as measured to the foundation, notwithstanding bay windows, pop outs and other structures (excluding eaves) shall not encroach upon the 5 foot setback or public utility easement.

CORNER LOTS. On corner lots, the side yard setback on the street side of the lot shall be 25 feet as measured from a public right-of-way to the garage face and 11 feet measured to foundation of living space, a covered porch, patio, or garage side if present.

The minimum lot size as outlined above shall not contain slopes above 3:1. Slopes designed to accommodate daylight or walkout basements are excluded from this requirement.

SIZE OF BUILDINGS:

HEIGHT OF BUILDINGS. All single-family buildings shall be no higher than 40 feet as measured per Saratoga Springs Land Development Code.

MINIMUM SQUARE FEET. The following requirements apply to dwelling sizes in single-family development areas:

- One-Story Dwellings. The minimum finished square footage shall be 1,000 square feet of living space above grade.
- Multi-Story and Split-Level Dwellings. The minimum finished square footage shall be 1,200 square feet of living space above grade.

MAXIMUM LOT COVERAGE. The maximum lot coverage shall be seventy-five percent.

PARKING REQUIREMENTS

All single-family housing shall incorporate a minimum of 2 (two) enclosed parking spaces.
All single-family housing shall incorporate a minimum 25 foot long driveway when facing a public right-of-way.

ACCESSORY DWELLING UNITS

Accessory Dwelling Units shall be allowed.

CLUSTER HOUSING, DRIVE COURT, GREEN COURT AND OTHER NON-TRADITIONAL SINGLE FAMILY LOTS:

All design criteria for Cluster Housing, Drive Court, Green Court, and other non-traditional single family lots will be established with each Village Plan, if applicable. Design criteria changes will include setbacks, shared driveways, parking requirements, and maximum lot coverage. Notwithstanding, all interior lot lines, exclusive of garage, associated with these product types will be allowed a minimum setback of five feet.

1.2 SINGLE FAMILY ATTACHED:

LOT REGULATIONS:

LOT SIZE. The following minimum lot size shall be provided and maintained for each dwelling and uses accessory thereto:

TWO FAMILY RESIDENTIAL – An area of not less than 4,000 square feet total

THREE FAMILY RESIDENTIAL – An area of not less than 5,000 square feet total

WIDTH. The minimum lot frontage along a public right-of-way shall be 20 feet.

FRONT YARD REQUIREMENTS. The minimum front yard setback shall be 25 feet as measured from a public right-of-way to the garage, and 11 feet measured to foundation of living space, a covered front porch or patio, if present.

SIDE YARD REQUIREMENTS. All dwelling structures, other main buildings and accessory buildings requiring a building permit shall be set back from each side property line a distance of at least 5 feet. Setbacks shall be measured to the foundation, notwithstanding bay windows, pop outs and other structures (excluding eaves) shall not encroach upon the 5 foot setback or public utility easement.

REAR YARD REQUIREMENTS. All dwelling structures shall be set back from the rear property line a minimum of 10 feet as measured to the foundation, notwithstanding bay windows, pop outs and other structures (excluding eaves) shall not encroach upon the 5 foot setback or public utility easement. Uncovered decks, patios and accessory buildings requiring a building permit shall be set back from the rear property line a minimum of 5 feet.

CORNER LOTS. On corner lots, the side yard setback on the street side of the lot shall be 25 feet as measured from a public right-of-way to the garage face and 11 feet measured to foundation of living space, a covered porch, patio, or garage side if present.

NON-TRADITIONAL LOTS:

All design criteria for any non-traditional lots will be established with each Village Plan, if applicable. Design criteria changes will include setbacks, shared driveways, and maximum lot coverage.

SIZE OF BUILDINGS:

HEIGHT OF BUILDINGS. All single-family buildings shall be no higher than 40 feet as measured per Saratoga Springs Land Development Code.

MINIMUM SQUARE FEET. The following requirements apply to dwelling sizes in single-family attached development areas:

- One-Story Dwellings. The minimum finished square footage shall be 1,000 square feet of living space above grade.
- Multi-Story and Split Level Dwellings. The minimum finished square footage shall be 1,200 square feet of living space above grade.

MAXIMUM LOT COVERAGE. The maximum lot coverage shall be seventy-five percent.

PARKING REQUIREMENTS

Two parking stalls to be provided for each unit, one which must be enclosed. Tandem parking of a garage stall and associated driveway stall shall be allowed and count as two stalls. Public street parking does not qualify to meet the requirement.

1.3 MULTI-FAMILY RESIDENTIAL

LOT REGULATIONS:

SETBACK REQUIREMENTS. All multi-family residential buildings shall have a minimum setback of 11 feet from property line to foundation from any public or private right-of-way. The side yard setback requirements shall not apply to any internal property lines; distances between buildings shall govern side yard requirements for buildings adjacent to internal property lines. Any garage entrance facing a public right of way shall have a minimum setback of 25 feet.

DISTANCES BETWEEN BUILDINGS. The minimum distance from a building to exterior lot lines of multi-family development sites is 15 feet measured from foundations. The minimum distance between multi-family residential dwellings is 10 feet, or 5 feet based on interior site phase lines.

ACCESSORY BUILDINGS. The minimum distance between main buildings and accessory buildings shall be 6 feet measured to foundation. All detached garages shall have no minimum setback requirement when adjacent to non-residential zones and shall have a minimum setback of 5 feet from property lines adjacent to residential zones, any public right-of-way, and the peripheral property line of the Beacon Pointe Community boundary.
Any garage entrance facing a public right of way shall have a minimum setback of 25 feet.

SIZE OF BUILDINGS:

HEIGHT OF BUILDINGS. All multi-family buildings in the multi-family residential development area shall be no higher than 45 feet as measured per Saratoga Springs Land Development Code.

MINIMUM SQUARE FEET. The minimum finished square footage shall be 500 square feet for a studio, 600 square feet for a single bedroom dwelling unit and 800 square feet for a two or more bedroom dwelling unit.

OFF-STREET PARKING REQUIREMENTS:

One parking stall to be provided for each unit, which shall be covered. Tandem parking of a garage stall and associated driveway stall shall be allowed and count as two stalls. In addition, 0.5 visitor stalls shall be provided per unit.
On-street parking may be restricted in areas for fire safety reasons. To be coordinated with Fire Chief.

2.0 ARCHITECTURAL STANDARDS:

The architectural standards in this section are intended to establish general guidelines for the Beacon Pointe Community Plan and more detailed standards will be established within each Village Plan. Listed in this section are examples of architectural styles that will be acceptable in any of the subsequent Village Plans. Architectural styles that include extreme colors, problematic materials, or styling as defined by the Architectural Review Committee will not be allowed within the Beacon Pointe Community Plan. However, reasonable variations in the architectural styles and construction materials are allowed and will be necessary to give flexibility for future trends in the market place. All variations in style and material require formal approval from the Village Architectural Review Committee.

2.1 FLOORPLAN AND EXTERIOR COLOR SCHEME MIXING:

In an effort to promote the design of subdivisions with a variety of floorplans, the following community wide restriction will be enforced:

- No single-family homes may be built on lots next door to or directly across the street from a previously selected single family home with the same floorplan.
- Identical floor plan and elevation combinations must be separated by at least 3 lots
- No main body exterior color can be built next door or directly across the street from a previously selected main body exterior color.

2.2 ARCHITECTURAL STYLES:

Allowable styles as set forth in this plan are as described by the Utah Department of Heritage and Arts. Further detail and reference at https://heritage.utah.gov/history/building-styles and in the document 'Architectural Styles in Utah' in Appendix F. Additional styles may be approved by the Master Developer at the Village Plan level.

A. CLASSICAL BUILDING STYLES
- Georgian
- Federal

B. PICTURESQUE BUILDING STYLES
- Greek Revival
- Gothic Revival
- Italianate

C. VICTORIAN BUILDING STYLES
- Stick Style
- Shingle Style
- Victorian Romanesque Revival
- Richardsonian Romanesque
- Second Renaissance Revival

D. EARLY TWENTIETH-CENTURY BUILDING STYLES
- Bungalow
- Arts and Crafts
- Prairie School

E. PERIOD REVIVAL BUILDING STYLES
- Colonial Revival
- Early Christian/Byzantine 1910-1935
- Jacobethan Revival 1900-1935

F. MODERN BUILDING STYLES
- International
- Art Moderne
- Art Deco

G. WORLD WAR II/POST-WAR BUILDING STYLES
- Post-War Colonial Revival
- Post-War Modern
- New Formalism

3.0 PERIMETER BUFFERS AND FENCING:

PERIMETER BUFFERING:

No structure (excluding signs, entry features, and accessory buildings) may be closer than twenty (20) feet to the peripheral property line of Beacon Pointe, however this area may be included in a rear yard and enclosed by a fencing.

FENCING:

All fencing to be installed in accordance with the standards in this document.

4.0 ARCHITECTURAL REVIEW COMMITTEE:

In order to create, maintain and improve the integrity of the community, and to establish and implement a consistent and harmonious design concept and to protect and promote the present and future values of Beacon Pointe, all exterior, architectural building elevations and building materials, floorplans, colors and usage design, site plan and landscape treatments, wall and fencing, and signage within the each Village shall be subject to a design review process and approval established by each respective Village. The committee shall consist of representatives from the following: The Master Developer and a selected team of design professionals, i.e. planners, engineers, architects, contractors, etc. Applicants are responsible for submitting evidence of ARC approval to the City at the time of building permit application. The Master Developer shall retain the right to retain or replace members of the committee at its discretion. The Architectural Review Committee shall be the approval body until the Village is fully built out, at which time it can transition responsibilities over to the Village HOA, if established.

APPENDIX A
BOUNDARY SURVEY 74

APPENDIX B
MASTER UTILITY PLAN 91

APPENDIX C
TRANSPORTATION REPORT 129

APPENDIX D
GEOTECHNICAL REPORT 137

APPENDIX E
OPEN SPACE STANDARDS 168

APPENDIX F
ARCHITECTURAL STYLES IN UTAH 180

TITLE REPORT LEGAL DESCRIPTIONS

PARCEL 1:

COMMENCING 0.50 OF A CHAIN EAST OF THE CENTER OF SECTION 23, TOWNSHIP 5 SOUTH OF RANGE 1 WEST OF THE SALT LAKE BASE AND MERIDIAN; THENCE EAST 19.50 CHAINS; THENCE SOUTH 17.50 CHAINS; THENCE WEST 19.50 CHAINS; THENCE NORTH 17.50 CHAINS TO THE PLACE OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 1 THAT PORTION OF GROUND CONVEYED BY THAT CERTAIN BOUNDARY LINE AGREEMENT RECORDED MARCH 26, 1993 AS ENTRY NUMBER 17379 IN BOOK 3109 AT PAGE 736 OF OFFICIAL RECORDS.

ALSO LESS AND EXCEPTING FROM PARCEL 1:

A PARCEL OF LAND IN FEE FOR THE PURPOSE OF CONSTRUCTING THEREON A ROADWAY KNOWN AS PROJECT NO. 0068, BEING PART OF AN ENTIRE TRACT OF PROPERTY SITUATE IN THE W1/2SE1/4 OF SECTION 23, AND THE W1/2NE1/4 OF SECTION 26, ALL IN T. 5 S, R. 1 W, S.L.B. & M. THE BOUNDARIES OF SAID PARCELS OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER SAID ENTIRE TRACT, WHICH IS 33.00 FT. S89°43'04" E, ALONG THE QUARTER SECTION LINE, FROM THE CENTER OF SAID SECTION 23, AND RUNNING THENCE S89°43'04"E, 51.06 FT. ALONG THE NORTH LINE OF SAID ENTIRE TRACT TO A POINT 77.72 FT. PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SAID PROJECT NO. 0068, OPPOSITE ENGINEER STATION 340+64.21; THENCE S00°08'00" W, 530.12 FT.; THENCE S 00°39'02" E, 180.78 FT.; THENCE S 01°16'33"E, 180.50 FT.; THENCE S 01°03'34" E, 423.38 FT.; THENCE S 01°18'02" E, 173.55 FT.; THENCE S0°24'38"E, 173.55 FT.; THENCE S 00°02'05" W, 502.21 FT.; THENCE S 01°19'03" E, 99.88 FT.; THENCE S00°21'09" E, 421.79 FT.; THENCE S 00°36'54" E, 150.49 FT.; THENCE S 00°11'50"W, 303.53 FT.; THENCE S01°17'58"W, 244.64 FT.; THENCE S00°54'41"W, 565.12 FT.; THENCE S00°32'43"W, 565.49 FT.; THENCE S01°30'32" W, 182.07 FT.; THENCE S04°21'31"W, 360.80 FT. TO A POINT 48.93 FT. PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SAID PROJECT NO. 0068, OPPOSITE ENGINEER STATION 490+07.67; THENCE N. 89°43'04" W., 46.84 FT.; THENCE N. 00°16'56" E., 5,056.50 FT. TO THE POINT OF BEGINNING.

TOGETHER WITH ANY AND ALL ABUTTER'S RIGHTS OF UNDERLYING FEE TO THE CENTER OF THE EXISTING RIGHT-OF-WAY APPURTENANT TO THIS CONVEYANCE. (NOTE: ALL BEARINGS AND DISTANCES BASED UPON THE UTAH STATE PLANE COORDINATE SYSTEM OF 1983 AT GROUND, UTAH CENTRAL ZONE BASED UPON UTAH DEPARTMENT OF TRANSPORTATION SURVEY CONTROL SHEETS FOR FEDERAL AID PROJECT STP-0068(42)26 SR-68 REDWOOD ROAD, BANGERTER HWY TO SARATOGA SPRINGS ENVIRONMENTAL ASSESSMENT STUDY DATED FEBRUARY 8, 2008)

PARCEL 2:

COMMENCING 20.0 CHAINS WEST OF THE NORTHEAST CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 22.50 CHAINS; THENCE WEST 19.50 CHAINS TO THE EAST LINE OF A ROAD; THENCE SOUTH ALONG ROAD 27.17 CHAINS; THENCE SOUTH 86°30' EAST 19.54 CHAINS; THENCE NORTH 5.86 CHAINS TO THE POINT OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 2:

A PARCEL OF LAND IN FEE FOR THE PURPOSE OF CONSTRUCTING THEREON A ROADWAY KNOWN AS PROJECT NO. 0068, BEING PART OF AN ENTIRE TRACT OF PROPERTY SITUATE IN THE W1/2SE1/4 OF SECTION 23, AND THE W1/2NE1/4 OF SECTION 26, ALL IN T. 5 S, R. 1 W, S.L.B. & M. THE BOUNDARIES OF SAID PARCELS OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER SAID ENTIRE TRACT, WHICH IS 33.00 FT. S89°43'04" E, ALONG THE QUARTER SECTION LINE, FROM THE CENTER OF SAID SECTION 23; AND RUNNING THENCE S89°43'04" E, 51.06 FT. ALONG THE NORTH LINE OF SAID ENTIRE TRACT, TO A POINT 77.72 FT. PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SAID PROJECT NO. 0068, OPPOSITE ENGINEER STATION 340+64.21; THENCE S00°08'00" W, 530.12 FT.; THENCE S 00°39'02" E, 180.78 FT.; THENCE S01°16'33" E, 180.50 FT.; THENCE S01°03'34" E, 423.38 FT.; THENCE S01°18'02" E, 173.55 FT.; THENCE S0°24'38"E, 173.55 FT.; THENCE S 00°02'05" W, 502.21 FT.; THENCE S 01°19'03" E, 99.88 FT.;THENCE S00°21'09" E, 421.79 FT.; THENCE S00°36'54" E, 150.49 FT.; THENCE S 00°11'50"W, 303.53 FT.; THENCE S01°17'58"W, 244.64 FT.; THENCE S00°54'41"W, 565.12 FT.; THENCE S00°32'43"W, 565.49 FT.; THENCE S01°30'32" W, 182.07 FT.; THENCE S04°21'31"W, 360.80 FT. TO A POINT 48.93 FT. PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SAID PROJECT NO. 0068, OPPOSITE ENGINEER STATION 490+07.67; THENCE N.89°43'04" W., 46.84 FT.; THENCE N 00°16'56" E., 5,056.50 FT. TO THE POINT OF BEGINNING.

TOGETHER WITH ANY AND ALL ABUTTER'S RIGHTS OF UNDERLYING FEE TO THE CENTER OF THE EXISTING RIGHT-OF-WAY APPURTENANT TO THIS CONVEYANCE.

(NOTE: ALL BEARINGS AND DISTANCES BASED UPON THE UTAH STATE PLANE COORDINATE SYSTEM OF 1983 AT GROUND, UTAH CENTRAL ZONE BASED UPON UTAH DEPARTMENT OF TRANSPORTATION SURVEY CONTROL SHEETS FOR FEDERAL AID PROJECT STP-0068(42)26 SR-68 REDWOOD ROAD, BANGERTER HWY TO SARATOGA SPRINGS ENVIRONMENTAL ASSESSMENT STUDY DATED FEBRUARY 8, 2008)

PARCEL 3:

ALL OF GOVERNMENT LOTS 2, 4 AND 5 OF SECTION 23, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN.

LESS AND EXCEPTING FROM PARCEL 3 THAT PORTION OF GROUND CONVEYED BY THAT CERTAIN BOUNDARY LINE AGREEMENT RECORDED MARCH 26, 1993 AS ENTRY NUMBER 17379 IN BOOK 3109 AT PAGE 736 OF OFFICIAL RECORDS.

PARCEL 4:

GOVERNMENT LOT 3 OF SECTION 25, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN.

ALSO THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER SECTION 25, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN.

ALSO BEGINNING 20.00 CHAINS EAST FROM THE WEST QUARTER SECTION CORNER OF SECTION 25, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, AND RUNNING THENCE NORTH 27.00 CHAINS MORE OR LESS TO THE MEANDER LINE; THENCE SOUTHEAST ON SAID MEANDER LINE 10.50 CHAINS TO THE CENTER OF A ROAD; THENCE, WITH SAID ROAD, SOUTH 19°15' WEST 21.50 CHAINS; THENCE WEST 1.70 CHAINS TO THE POINT OF BEGINNING.

PARCEL 5:

BEGINNING AT A POINT ON THE MEANDER LINE 30.5 CHAINS, MORE OR LESS, EAST OF THE NORTH QUARTER CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, AND RUNNING THENCE WITH THE MEANDER LINE SOUTHERLY 6.50 CHAINS, MORE OR LESS, TO A POINT EAST 0.5 CHAINS AND SOUTH 508.5 FEET AND SOUTH 86°30' EAST 32.0 CHAINS, MORE OR LESS, FROM THE NORTH QUARTER CORNER OF SAID SECTION 26; AND RUNNING THENCE SOUTH 86°30' EAST 2546.3 FEET, MORE OR LESS, TO THE WEST LINE OF A ROAD; THENCE NORTHEASTERLY ALONG SAID WEST LINE OF A ROAD 530 FEET, MORE OR LESS, TO THE WEST BANK OF THE JORDAN RIVER; THENCE WESTERLY ALONG SAID WEST BANK OF THE JORDAN RIVER 1340 FEET, MORE OR LESS, TO THE SECTION LINE BETWEEN SECTIONS 24 AND 25, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE WEST ALONG SAID SECTION LINE 1340 FEET, MORE OR LESS TO THE POINT OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 5 ALL OF GOVERNMENT LOT 3 OF SECTION 25, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN.

PARCEL 6:

BEGINNING AT A POINT 0.5 CHAINS EAST OF THE NORTH QUARTER CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, AND RUNNING THENCE SOUTH 508.5 FEET; THENCE SOUTH 86°30' EAST 32.0 CHAINS, MORE OR LESS, TO THE MEANDER LINE; THENCE WITH SAID MEANDER LINE NORTHERLY 630 FEET, MORE OR LESS, TO THE SECTION LINE; THENCE WEST ON SAID SECTION LINE 30.0 CHAINS, MORE OR LESS, TO THE POINT OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 6 THE FOLLOWING:

COMMENCING 20.0 CHAINS WEST OF THE NORTHEAST CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 22.50 CHAINS; THENCE WEST 19.50 CHAINS TO THE EAST LINE OF A ROAD; THENCE SOUTH ALONG ROAD 27.17 CHAINS; THENCE SOUTH 86°30' EAST 19.54 CHAINS; THENCE NORTH 5.86 CHAINS TO THE POINT OF BEGINNING.

ALSO LESS AND EXCEPTING FROM PARCEL 6 THE FOLLOWING:

COMMENCING AT A POINT IN THE EAST LINE OF A ROAD, WHICH POINT OF BEGINNING IS EAST 0.50 CHAINS AND SOUTH 4.67 CHAINS FROM THE NORTH QUARTER SECTION CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE SOUTH 86°30' EAST 32.00 CHAINS MORE OR LESS TO THE MEANDER LINE IN LOT 1 OF SECTION 26; THENCE, WITH SAID MEANDER LINE, SOUTHERLY AND EASTERLY TO THE EAST LINE OF SECTION 26; THENCE SOUTH ON SAID SECTION LINE 28.50 CHAINS MORE OR LESS TO THE QUARTER SECTION LINE; THENCE WEST 39.50 CHAINS TO THE EASTERLY LINE OF SAID ROAD; THENCE, WITH SAID ROAD LINE, NORTH 35.33 CHAINS TO THE POINT OF BEGINNING.

PARCEL 7:

COMMENCING AT A POINT IN THE EAST LINE OF A ROAD, WHICH POINT OF BEGINNING IS EAST 0.50 CHAINS AND SOUTH 4.67 CHAINS FROM THE NORTH QUARTER SECTION CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE SOUTH 86°30' EAST 32.00 CHAINS MORE OR LESS TO THE MEANDER LINE IN LOT 1 OF SECTION 26; THENCE, WITH SAID MEANDER LINE, SOUTHERLY AND EASTERLY TO THE EAST LINE OF SECTION 26; THENCE SOUTH ON SAID SECTION LINE 28.50 CHAINS MORE OR LESS TO THE QUARTER SECTION LINE; THENCE WEST 39.50 CHAINS TO THE EASTERLY LINE OF SAID ROAD; THENCE, WITH SAID ROAD LINE, NORTH 35.33 CHAINS TO THE POINT OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 7 THE FOLLOWING:

BEGINNING ON THE NORTH RIGHT OF WAY FENCE LINE OF 6800 NORTH STREET, SAID POINT BEING NORTH 10.28 FEET TO THE CENTERLINE OF SAID STREET, AND ALONG SAID CENTERLINE SOUTH 89°55'10" WEST 596.19 FEET, AND NORTH 1°09'00" EAST 24.00 FEET, FROM THE EAST QUARTER CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, AND RUNNING THENCE ALONG SAID NORTH RIGHT OF WAY FENCE LINE SOUTH 89°55'10" WEST 200.00 FEET, THENCE NORTH 1°09'00" EAST 209.00 FEET, THENCE NORTH 89°55'10" EAST 200.00 FEET, THENCE SOUTH 1°09'00" WEST 209 FEET TO THE POINT OF BEGINNING.

ALSO LESS AND EXCEPTING FROM PARCEL 7 THE FOLLOWING:

BEGINNING AT A POINT ON THE NORTH RIGHT OF WAY LINE OF 6800 SOUTH STREET, SAID POINT BEING NORTH 10.28 FEET TO THE CENTERLINE OF SAID STREET, AND SOUTH 89°55'10" WEST 796.19 FEET ALONG SAID CENTERLINE, AND NORTH 01°09'00" EAST 24.00 FEET, FROM THE EAST QUARTER CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, SAID POINT IS THE SOUTHWEST CORNER OF THE EXISTING SARATOGA SPRINGS SUBSTATION PROPERTY RECORDED AT ENTRY NO. 11107, BOOK 2129, PAGE 177, IN THE UTAH COUNTY RECORDER'S OFFICE; AND RUNNING THENCE SOUTH 89°55'10" WEST 110.00 FEET ALONG SAID RIGHT OF WAY LINE; THENCE NORTH 01°09'00" EAST 209.00 FEET; THENCE NORTH 89°55'10" EAST 110.00 FEET TO THE NORTHWEST CORNER OF SAID EXISTING SUBSTATION PROPERTY; THENCE SOUTH 01°09'00" WEST 209.00 FEET ALONG THE WEST BOUNDARY OF SAID EXISTING SUBSTATION PROPERTY TO THE POINT OF BEGINNING.

ALSO LESS AND EXCEPTING FROM PARCEL 7:

A PARCEL OF LAND IN FEE FOR THE PURPOSE OF CONSTRUCTING THEREON A ROADWAY KNOWN AS PROJECT NO. 0068, BEING PART OF AN ENTIRE TRACT OF PROPERTY SITUATE IN THE W1/2SE1/4 OF SECTION 23, AND THE W1/2NE1/4 OF SECTION 26, ALL IN T. 5 S, R. 1 W, S.L.B. & M. THE BOUNDARIES OF SAID PARCELS OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER SAID ENTIRE TRACT, WHICH IS 33.00 FT. S89°43'04" E, ALONG THE QUARTER SECTION LINE, FROM THE CENTER OF SAID SECTION 23; AND RUNNING THENCE S89°43'04"E, 51.06 FT. ALONG THE NORTH LINE OF SAID ENTIRE TRACT, TO A POINT 77.72 FT. PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SAID PROJECT NO. 0068, OPPOSITE ENGINEER STATION 340+64.21; THENCE S00°08'00" W, 530.12 FT.; THENCE S 00°39'02" E, 180.78 FT.; THENCE S01°16'33" E, 180.50 FT.; THENCE S01°03'34" E, 423.38 FT.; THENCE S01°18'02" E, 173.55 FT.; THENCE S0°24'38"E, 173.55 FT.; THENCE S 00°02'05" W, 502.21 FT.; THENCE S 01°19'03" E, 99.88 FT.;THENCE S00°21'09" E, 421.79 FT.; THENCE S 00°36'54" E, 150.49 FT.; THENCE S 00°11'50"W, 303.53 FT.; THENCE S01°17'58"W, 244.64 FT.; THENCE S00°54'41"W, 565.12 FT.; THENCE S00°32'43"W, 565.49 FT.; THENCE S01°30'32" W, 182.07 FT.; THENCE S04°21'31"W, 360.80 FT. TO A POINT 48.93 FT. PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SAID PROJECT NO. 0068, OPPOSITE ENGINEER STATION 490+07.67; THENCE N.89°43'04"W., 46.84 FT.; THENCE N00°16'56" E., 5,056.50 FT. TO THE POINT OF BEGINNING.

TOGETHER WITH ANY AND ALL ABUTTER'S RIGHTS OF UNDERLYING FEE TO THE CENTER OF THE EXISTING RIGHT-OF-WAY APPURTENANT TO THIS CONVEYANCE.

(NOTE: ALL BEARINGS AND DISTANCES BASED UPON THE UTAH STATE PLANE COORDINATE SYSTEM OF 1983 AT GROUND, UTAH CENTRAL ZONE BASED UPON UTAH DEPARTMENT OF TRANSPORTATION SURVEY CONTROL SHEETS FOR FEDERAL AID PROJECT STP-0068(42)26 SR-68 REDWOOD ROAD, BANGERTER HWY TO SARATOGA SPRINGS ENVIRONMENTAL ASSESSMENT STUDY DATED FEBRUARY 8, 2008)

PARCEL 8:

BEGINNING AT A POINT WHICH IS NORTH 89°49'28" WEST ALONG THE SECTION LINE 662.01 FEET (BASED ON THE UTAH STATE COORDINATE SYSTEM, CENTRAL ZONE AND DATA PUBLISHED BY THE UTAH COUNTY SURVEYOR AS OF JANUARY 1986) FROM THE NORTHEAST CORNER OF SECTION 35, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE SOUTH 55°45'00" WEST 224.06 FEET TO A FENCE LINE; THENCE SOUTH 89°57'50" WEST ALONG SAID FENCE LINE 1787.50 FEET; THENCE NORTH 1°34'00" WEST 133.32 FEET TO THE SECTION LINE; THENCE SOUTH 89°49'28" EAST ALONG SAID SECTION LINE 1976.36 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 8:

A PARCEL OF LAND IN FEE, SITUATE IN THE NW1/4NE1/4 OF SECTION 35, T. 5S. R.1W., S.L.B.&M. THE BOUNDARIES OF SAID PARCEL OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID ENTIRE TRACT WHICH IS 2638.37 FEET N89°49'28"W ALONG THE SECTION LINE FROM THE NORTHEAST CORNER OF SAID SECTION 35; AND RUNNING THENCE S89°49'28" E 37.36 FEET ALONG SAID SECTION LINE TO A POINT WHICH IS 60.00 FEET RADIALLY DISTANT EASTERLY OF THE CENTERLINE OF SR-68 OF PROJECT NO. F-0068(48)26 AT APPROXIMATE ENGINEER STATION 139+00.76; THENCE SOUTHERLY 133.14 FEET ALONG THE ARC OF A 9960.00-FOOT RADIUS NON-TANGENT CURVE TO THE LEFT (NOTE: CHORD TO SAID CURVE BEARS S00°45'17"E FOR A DISTANCE OF 133.14 FEET) CONCENTRIC WITH SAID CENTERLINE TO THE SOUTHERLY BOUNDARY LINE OF SAID ENTIRE TRACT; THENCE S89°55'55"W 37.36 FEET ALONG SAID SOUTHERLY BOUNDARY LINE TO THE SOUTHWEST CORNER OF SAID ENTIRE TRACT; THENCE N01°34'00"W 133.32 FEET ALONG THE WESTERLY BOUNDARY LINE OF SAID ENTIRE TRACT TO THE POINT OF BEGINNING AS SHOWN ON THE OFFICIAL MAP OF SAID PROJECT ON FILE IN THE OFFICE OF THE UTAH DEPARTMENT OF TRANSPORTATION.

TOGETHER WITH ANY AND ALL ABUTTER'S RIGHTS OF UNDERLYING FEE TO THE CENTER OF THE EXISTING RIGHT-OF-WAY APPURTENANT TO THIS CONVEYANCE.

PARCEL 9:

PARCEL 2, SARATOGA DRIVE CHURCH SUBDIVISION, ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE AND OF RECORD IN THE OFFICE OF THE UTAH COUNTY RECORDER.

LESS AND EXCEPTING FROM PARCEL 9 THE FOLLOWING DESCRIBED PROPERTY CONVEYED TO THE UTAH DEPARTMENT OF TRANSPORTATION BY QUIT CLAIM DEED RECORDED JUNE 22, 2005 AS ENTRY NUMBER 67145:2005 OF OFFICIAL RECORDS:

A PARCEL OF LAND IN FEE FOR THE WIDENING OF THE EXISTING HIGHWAY STATE ROUTE 68 KNOWN AS PROJECT NO. 0068, BEING PART OF AN ENTIRE TRACT OF PROPERTY, SITUATE IN THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN. THE BOUNDARIES OF SAID PARCEL OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING IN THE WESTERLY BOUNDARY LINE OF SAID ENTIRE TRACT AT A POINT 900.31 FEET NORTH 0°38'00" EAST FROM THE SOUTH QUARTER CORNER OF SAID SECTION 26; AND RUNNING THENCE NORTH 0°38'00" EAST 1764.79 FEET ALONG SAID WESTERLY BOUNDARY LINE TO THE NORTHERLY BOUNDARY LINE OF SAID ENTIRE TRACT; THENCE NORTH 89°56'00" EAST 50.94 FEET ALONG SAID NORTHERLY BOUNDARY LINE TO A POINT 63.00 FEET PERPENDICULARLY DISTANT EASTERLY FROM THE CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 21+00.20; THENCE SOUTH 0°26'40" WEST 345.24 FEET ALONG A LINE PARALLEL TO SAID CONTROL LINE; THENCE SOUTH 02°59'21" WEST 180.16 FEET TO A POINT 55.00 FEET PERPENDICULARLY DISTANT EASTERLY FROM THE CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 15+74.98; THENCE SOUTH 0°26'40" WEST 415.00 FEET ALONG A LINE PARALLEL TO SAID CONTROL LINE; THENCE SOUTH 1°33'19" WEST 152.76 FEET TO A POINT 52.04 FEET PERPENDICULARLY DISTANT EASTERLY FROM THE CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 10+07.25; THENCE NORTH 88°26'41" WEST 21.30 FEET TO A POINT 30.74 FEET PERPENDICULARLY DISTANT EASTERLY FROM SAID CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 10+07.67; THENCE SOUTH 01°33'19" WEST 450.50 FEET TO A POINT 22.01 FEET PERPENDICULARLY DISTANT EASTERLY FROM SAID CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 5+57.25; THENCE SOUTH 88°26'41" EAST 21.30 FEET TO A POINT 43.30 FEET PERPENDICULARLY DISTANT EASTERLY FROM SAID CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 5+56.84; THENCE SOUTH 1°33'19" WEST 221.92 FEET TO A POINT 39.00 FEET PERPENDICULARLY DISTANT EASTERLY FROM THE CONTROL LINE OF SAID PROJECT AT ENGINEER STATION 3+34.96; THENCE NORTH 89°33'20" WEST 32.76 FEET TO THE POINT OF BEGINNING AS SHOWN ON THE OFFICIAL MAP OF SAID PROJECT ON FILE IN THE OFFICE OF THE UTAH DEPARTMENT OF TRANSPORTATION.

ALSO LESS AND EXCEPTING FROM PARCEL 9:

A PARCEL OF LAND IN FEE, BEING PART OF PARCEL 2, SARATOGA DRIVE CHURCH SUBDIVISION, ACCORDING TO THE OFFICIAL PLAT THEREOF, RECORDED AS ENTRY NO. 140578:2004, IN THE OFFICE OF THE UTAH COUNTY RECORDER, SITUATE IN THE NW1/4SE1/4 AND THE SW1/4SE1/4 OF SECTION 26, T.5S. R.1W., S.L.B.&M. THE BOUNDARIES OF SAID PARCEL OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING AT A SOUTHWEST CORNER OF SAID ENTIRE TRACT WHICH IS THE SOUTH QUARTER CORNER OF SAID SECTION 26; AND RUNNING THENCE N00°38'00"E 900.31 FEET ALONG THE QUARTER SECTION LINE; THENCE S89°33'20"E 32.76 FEET; THENCE N01°33'19"E 221.92 FEET; THENCE N88°26'41"W 21.30 FEET; THENCE N01°33'19"E 450.50 FEET; THENCE S88°26'41"E 21.30 FEET; THENCE N01°33'19"E 152.76 FEET; THENCE N00°26'40"E 415.00 FEET; THENCE N02°59'21"E 180.16 FEET; THENCE N00°26'40"E 311.23 FEET TO THE NORTHWEST CORNER OF SAID ENTIRE TRACT; THENCE S89°56'00"E 8.95 FEET ALONG THE NORTHERLY BOUNDARY LINE OF SAID ENTIRE TRACT TO A POINT WHICH IS 60.00 FEET PERPENDICULARLY DISTANT EASTERLY FROM THE CENTERLINE OF SR-68 OF PROJECT NO. F-0068(48)26 AT APPROXIMATE STATION 165+33.16; THENCE S00°38'00"W 2457.11 FEET PARALLEL TO SAID CENTERLINE TO A POINT OPPOSITE ENGINEER STATION 140+76.05 AND A POINT OF CURVATURE WITH A 9940.00-FOOT RADIUS CURVE TOTHE LEFT; THENCE SOUTHERLY 174.24 FEET ALONG THE ARC OF SAID CURVE (NOTE: CHORDTO SAID CURVE BEARS S00°07'52"W FOR A DISTANCE OF 174.23 FEET) CONCENTRIC WITH SAID CENTERLINE TO THE SOUTHERLY LINE OF THE SW1/4SE1/4 OF SAID SECTION 26; THENCE N89°49'28"W 61.53 FEET ALONG SAID SOUTHERLY LINE TO THE POINT OF BEGINNING AS SHOWN ON THE OFFICIAL MAP OF SAID PROJECT ON FILE IN THE OFFICE OF THE UTAH DEPARTMENT OF TRANSPORTATION.

THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS 91,489 SQUARE FEET IN AREA OR 2.100 ACRES, OF WHICH 25,206 SQUARE FEET OR 0.579 ACRE IS NOW OCCUPIED BY THE EXISTING HIGHWAY.

PARCEL 10:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 15.53 CHAINS; THENCE EAST 13.04 CHAINS; THENCE SOUTH 15.49 CHAINS; THENCE WEST 13.04 CHAINS TO THE PLACE OF BEGINNING.

LESS AND EXCEPTING FROM PARCEL 10 THE FOLLOWING:

BEGINNING AT A POINT LOCATED NORTH 1.28 FEET FROM THE SOUTH QUARTER CORNER OF SECTION 24, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 20.00 FEET; THENCE EAST 0.81 FEET; THENCE SOUTH 89°32'36" EAST 44.87 FEET; THENCE NORTH 89°56'36" EAST 278.42 FEET; THENCE NORTH 89°41'22" EAST 239.13 FEET;THENCE SOUTH 89°43'48" EAST 256.26 FEET; THENCE SOUTH 89°46'30" EAST 44.62 FEET TO A POINT OF INTERSECTION WITH AN EXISTING NORTH-SOUTH FENCE LINE; THENCE ALONG SAID FENCE SOUTH 01°11'27" EAST 20.01 FEET TO A POINT OF INTERSECTION WITH AN EXISTING EAST-WEST FENCE LINE ON THE NORTH SIDE OF SARATOGA ROAD; THENCE THE FOLLOWING SIX (6) COURSES AND DISTANCES ALONG SAID EAST-WEST FENCE LINE: (1) NORTH 89°46'30" WEST 45.12 FEET; (2) NORTH 89°43'48" WEST 256.17 FEET; (3) SOUTH 89°41'22" WEST 239.08 FEET; (4) SOUTH 89°56'36" WEST 278.55 FEET; (5) NORTH 89°32'36" WEST 44.88 FEET; (6) WEST 0.73 FEET TO THE POINT OF BEGINNING.

PARCEL 11:

COMMENCING 40.10 CHAINS WEST AND 12.50 CHAINS SOUTH OF THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 5 SOUTH, RANGE 1 WEST OF THE SALT LAKE BASE AND MERIDIAN; THENCE EAST 5.01 CHAINS; THENCE SOUTH 00°10'00" EAST 12.05 CHAINS; THENCE NORTH 89°45'00" WEST 5.01 CHAINS; THENCE NORTH 00°10'00" WEST 12.02 CHAINS TO THE PLACE OF BEGINNING

PARCELS 13-17 (Not Included In This Survey)

PARCEL 18:

COMMENCING 68 RODS NORTH OF THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 92 RODS; THENCE EAST 158 RODS; THENCE SOUTH 92 RODS; THENCE WEST 158 RODS TO THE PLACE OF BEGINNING.

ALSO: COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 68 RODS; THENCE EAST 158 RODS; THENCE SOUTH 68 RODS; THENCE WEST 58 RODS; THENCE NORTH 40 RODS; THENCE WEST 20 RODS; THENCE SOUTH 40 RODS; THENCE WEST 80 RODS TO THE PLACE OF BEGINNING.

ALSO: THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN.

LESS AND EXCEPTING FROM PARCEL 18 THE FOLLOWING:

BEGINNING AT A POINT ON THE WEST LINE OF 10800 WEST UTAH COUNTY ROAD, WHICH POINT IS NORTH 1823.83 FEET AND WEST 21.94 FEET (BASED ON THE UTAH STATE COORDINATE SYSTEM, CENTRAL ZONE AND DATA PUBLISHED BY THE UTAH COUNTY SURVEYOR AS OF JANUARY 1986) FROM THE SOUTH QUARTER CORNER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, THENCE NORTH 89°29'43" WEST 186.85 FEET; THENCE NORTH 10°22'26" WEST 858.36 FEET TO THE QUARTER SECTION LINE; THENCE SOUTH 89°57'34" EAST ALONG SAID QUARTER SECTION LINE 348.86 FEET TO THE WEST LINE OF SAID ROAD; THENCE SOUTH 00°30'17" WEST ALONG SAID ROAD LINE 845.76 FEET TO THE POINT OF BEGINNING.

ALSO LESS AND EXCEPTING FROM PARCEL 18 THE FOLLOWING:

BEGINNING 49.5 FEET WEST FROM THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF SECTION 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; SAID POINT BEING ON THE SOUTH PROPERTY LINE AND THE CENTER LINE OF CANAL; THENCE A STRIP OF LAND 2 RODS WIDE, EXTENDING 1 ROD TO THE RIGHT AND 1 ROD TO THE LEFT FROM THE CENTER LINE OF A CANAL DESCRIBED AS FOLLOWS:

NORTH 2°WEST 58.7 FEET; THENCE NORTH 00°32' EAST PARALLEL WITH AND 49.5 FEET WEST OF THE QUARTER SECTION LINE THROUGH THE CENTER OF SECTION 26, 1375.3 FEET; THENCE NORTH 25°05' WEST 485.8 FEET; THENCE NORTH 08°55' WEST 775 FEET TO THE QUARTER SECTION LINE.

ALSO LESS AND EXCEPTING FROM PARCEL 18:

A PARCEL OF LAND IN FEE, SITUATE IN THE NE1/4SW1/4 OF SECTION 26, T.5S. R.1W., S.L.B.&M. THE BOUNDARIES OF SAID PARCEL OF LAND ARE DESCRIBED AS FOLLOWS:

BEGINNING AT A NORTHEAST CORNER OF SAID ENTIRE TRACT WHICH IS 1823.57 FEET N00°38'00"E ALONG THE QUARTER SECTION LINE AND 33.00 FEET N89°29'43"W FROM THE SOUTH QUARTER CORNER OF SAID SECTION 26; AND RUNNING THENCE ALONG THE EXISTING HISTORIC NORTHERLY WAY LINE OF SR-68 THE FOLLOWING TWO (2) COURSES AND DISTANCES: (1) S00°38'00"W 393.86 FEET; THENCE (2) N30°41'31"W 51.93 FEET TO A POINT WHICH IS 60.00 FEET PERPENDICULARLY DISTANT WESTERLY FROM THE CENTERLINE OF SR-68 OF PROJECT NO. F-0068(48)26 AT APPROXIMATE ENGINEER STATION 153+75.33; THENCE N00°38'00"E 349.44 FEET PARALLEL TO SAID CENTERLINE TO A NORTHERLY BOUNDARY LINE OF SAID ENTIRE TRACT; THENCE S89°29'43"E 27.00 FEET ALONG SAID NORTHERLY BOUNDARY LINE TO THE POINT OF BEGINNING AS SHOWN ON THE OFFICIAL MAP OF SAID PROJECT ON FILE IN THE OFFICE OF THE UTAH DEPARTMENT OF TRANSPORTATION.

TOGETHER WITH ANY AND ALL ABUTTER'S RIGHTS OF UNDERLYING

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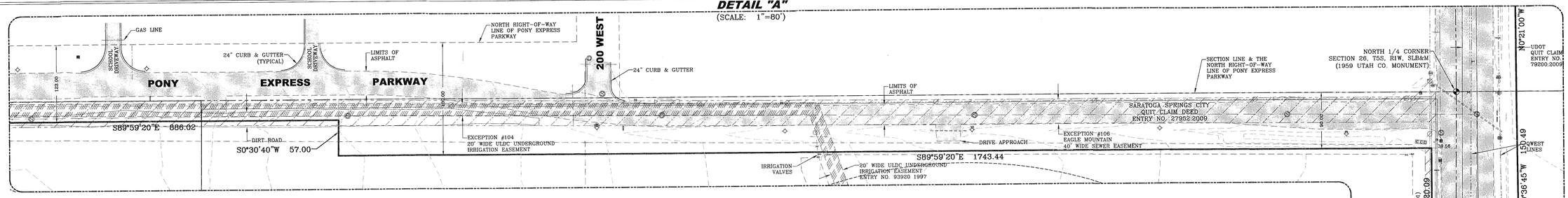
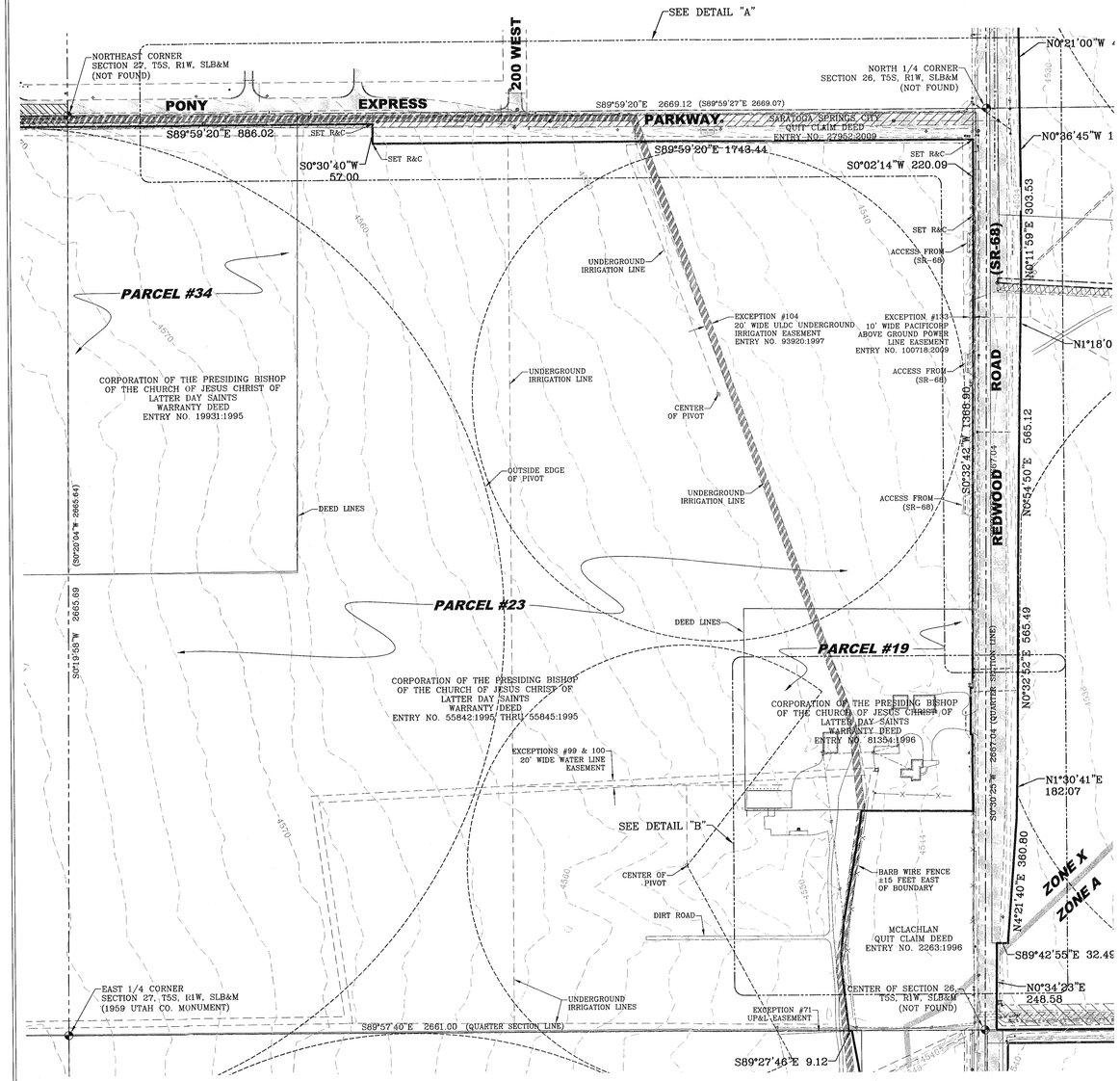
(SCALE: 1"=80')





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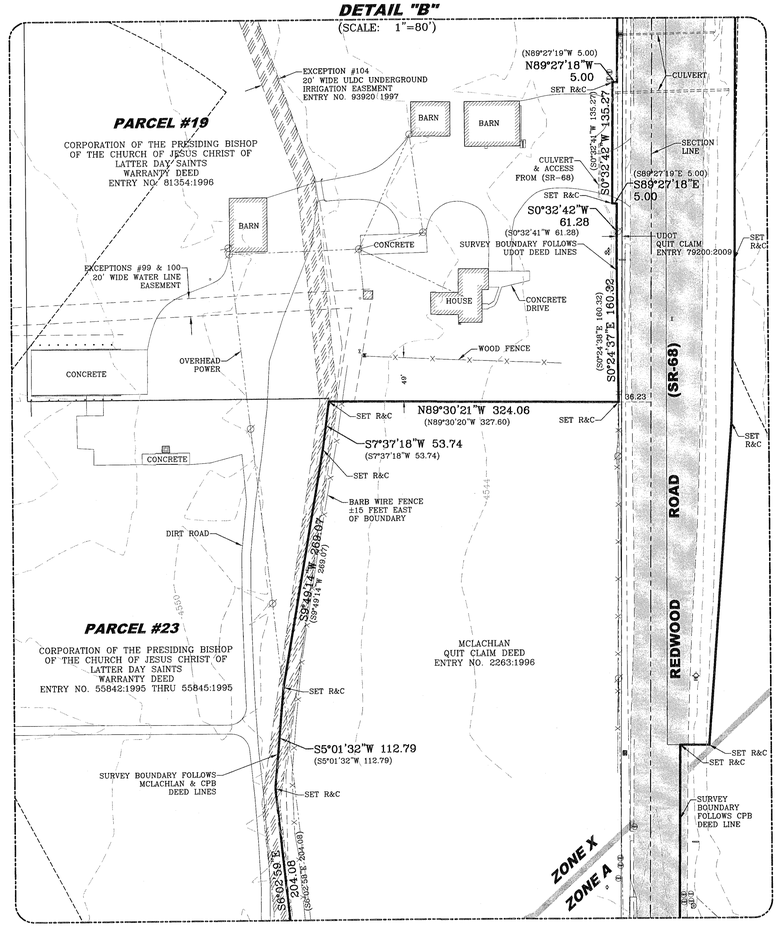

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Fax: 801.798.9393
office@lei-eng.com
www.lei-eng.com

STATE OF UTAH
CHAD A. POELSEN
No. 361152
3/1/2011
PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: NW QUARTER OF SECTION 26, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS	
1	3/16/2011 UPDATES PER CLIENT REVIEW
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11-05

LEI PROJECT #:	2010-0670
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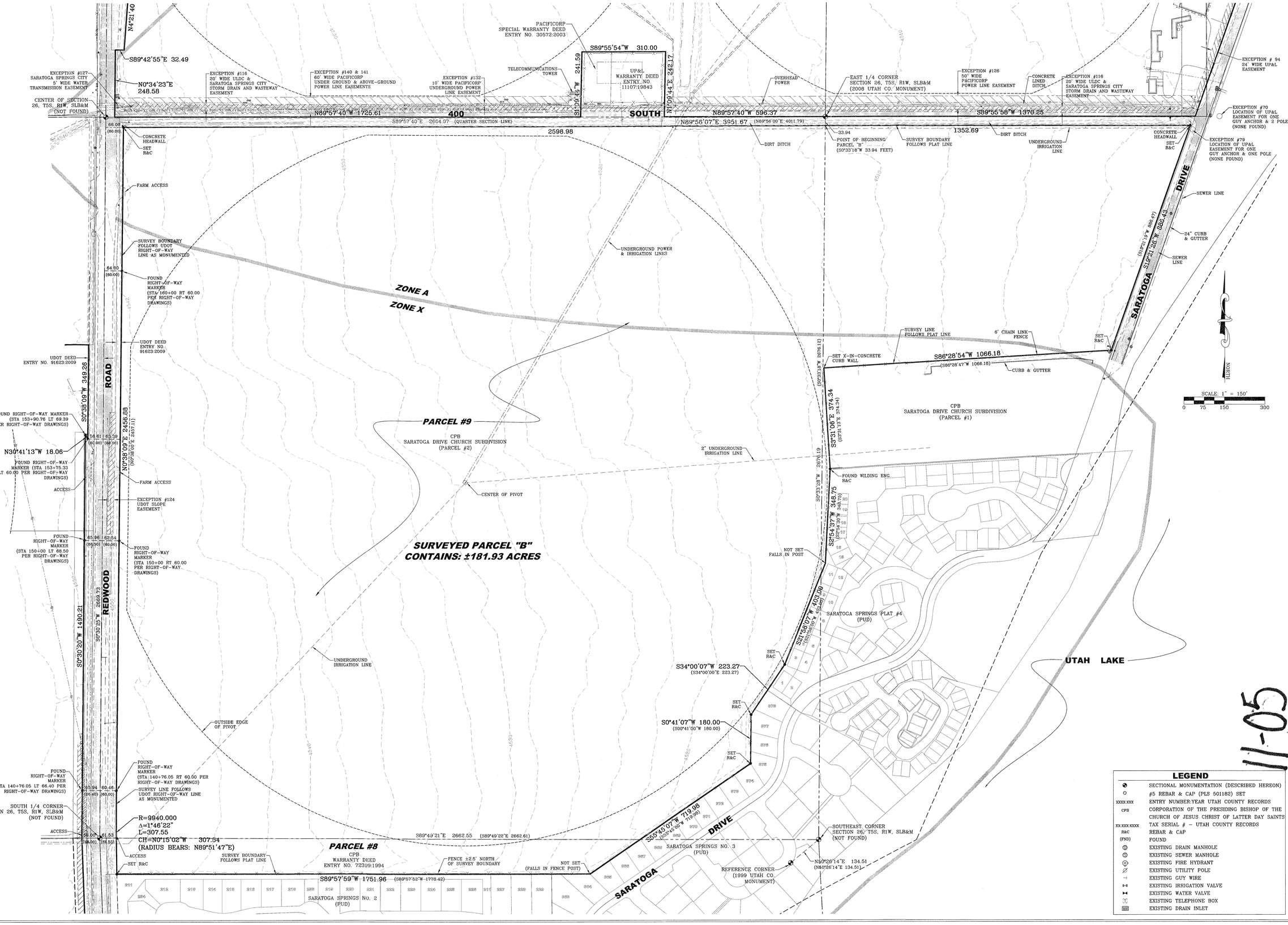
CHECKED BY:	CAP
SCALE:	1" = 200'
DATE:	12/31/2010
SHEET	10 OF 16



LEGEND

●	SECTIONAL MONUMENTATION (DESCRIBED HEREON)
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CPB	CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS
XX:XXX:XXXX	TAX SERIAL # – UTAH COUNTY RECORDS
R&C	REBAR & CAP
(FND)	FOUND
	EXISTING DRAIN MANHOLE
	EXISTING SEWER MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING IRRIGATION VALVE
	EXISTING WATER VALVE
	EXISTING TELEPHONE BOX
	EXISTING DRAIN INLET

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STATE OF UTAH
CHAD A. POULSEN
No. 501182
3/31/2011
PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SE 1/4 SEC. 26 & SW 1/4 OF SEC. 25, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS	
1	3/16/2011 UPDATES PER CLIENT REVIEW
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LEI PROJECT #:	2010-0670
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CHECKED BY:	CAP
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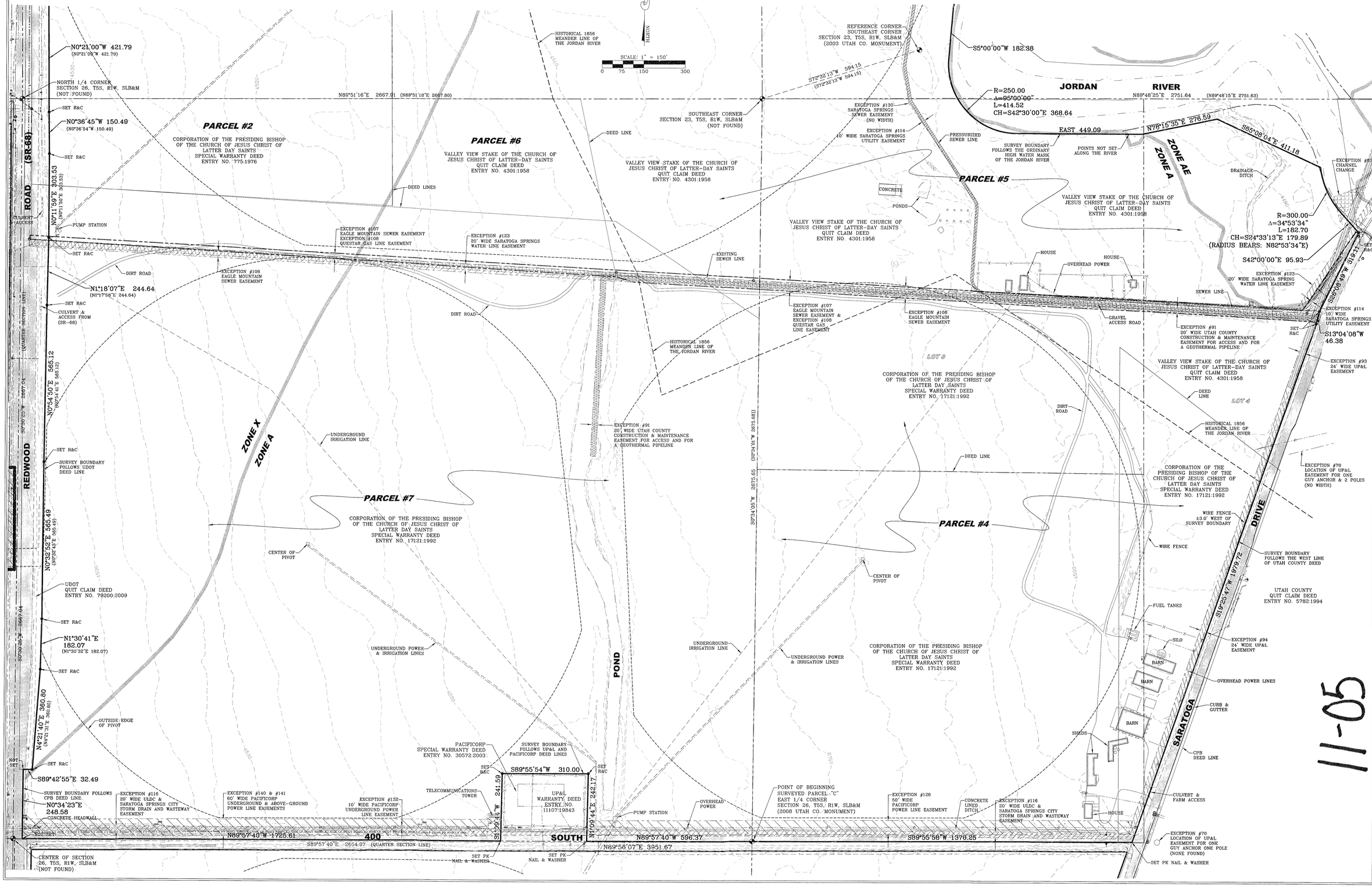
DATE:	12/31/2010
SHEET	11 OF 16

11-05



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STATE OF UTAH — CHAD A. POULSEN — No. 501123 — 3/21/2011 — PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: NE 1/4 OF SEC. 26 & NW 1/4 OF SEC. 25, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS	
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LEI PROJECT #: 2010-0670
DRAWN BY: CAP/RWH
CHECKED BY: CAP
SCALE: 1" = 200'
DATE: 12/31/2010
SHEET: 12 OF 16

11-05

DETAIL "A"
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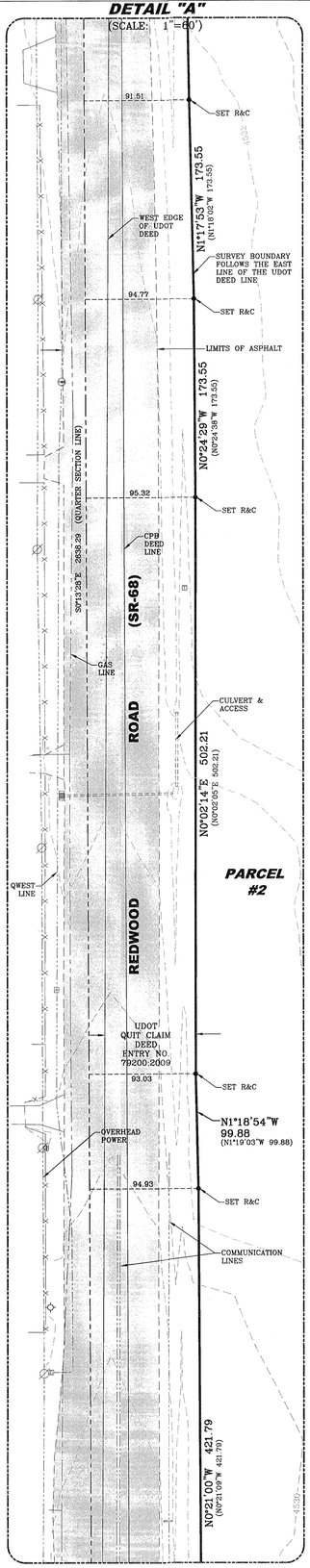

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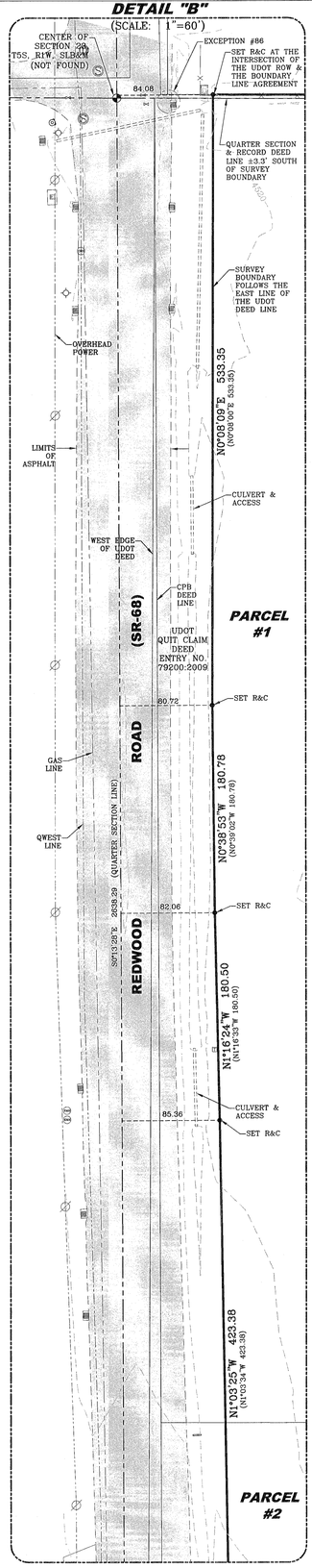

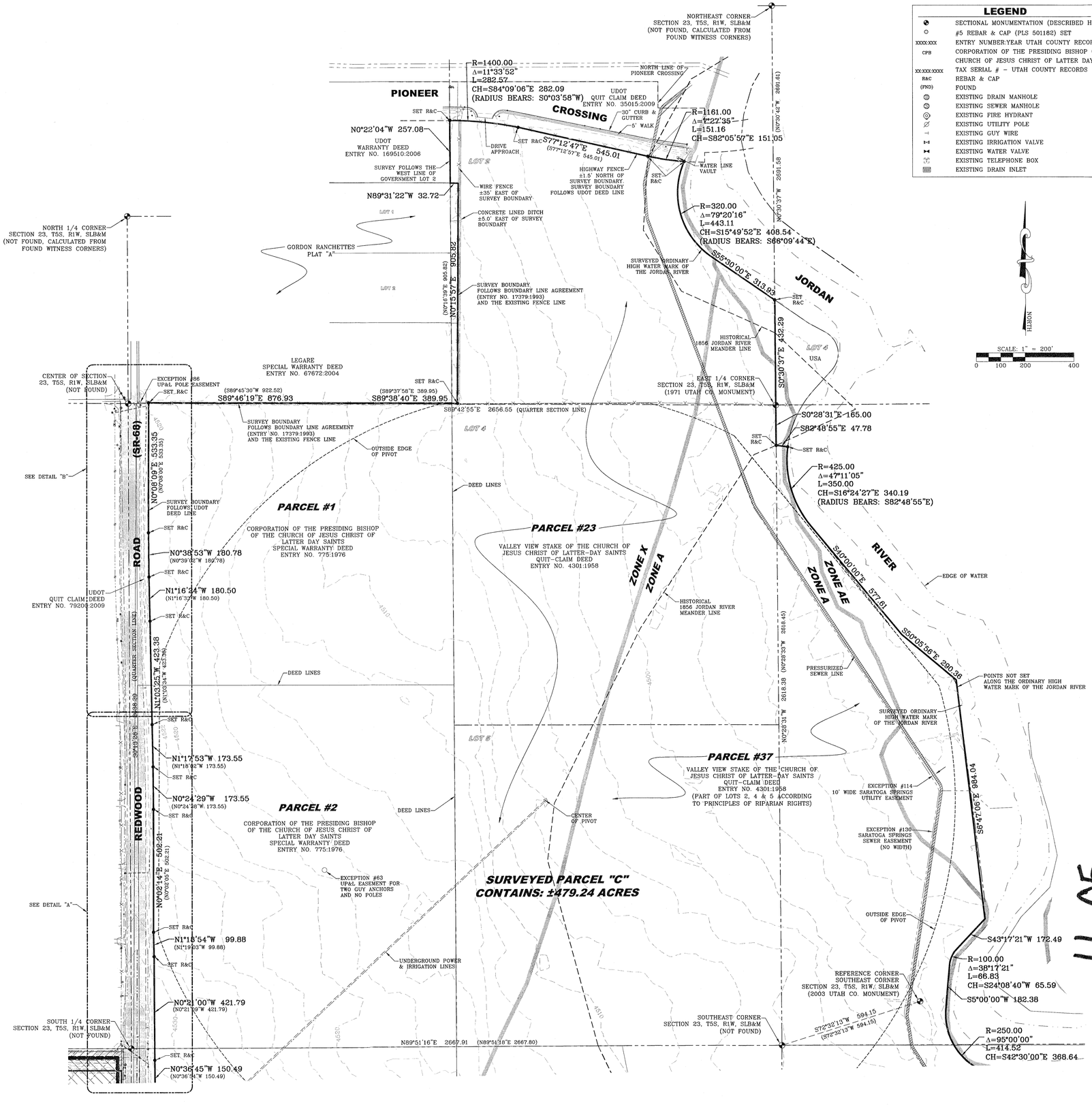

LEGEND

◉	SECTIONAL MONUMENTATION (DESCRIBED HEREON)
○	#5 REBAR & CAP (PLS 501182) SET
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CPB	CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS
XX:XXX:XXXX	TAX SERIAL # – UTAH COUNTY RECORDS
R&C	REBAR & CAP
(FND)	FOUND
Ⓜ	EXISTING DRAIN MANHOLE
Ⓢ	EXISTING SEWER MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING IRRIGATION VALVE
	EXISTING WATER VALVE
	EXISTING TELEPHONE BOX
	EXISTING DRAIN INLET

NORTH
SCALE: 1" = 200'
0 100 200 400

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www.lei-eng.com

STATE OF UTAH
GERALD A. POULSEN
No. 501182
3-3-2011
PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: PORTIONS OF SECTIONS 23 & 24, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS
1 3/16/2011 BRDY UPDATES PER CLIENT REVIEW
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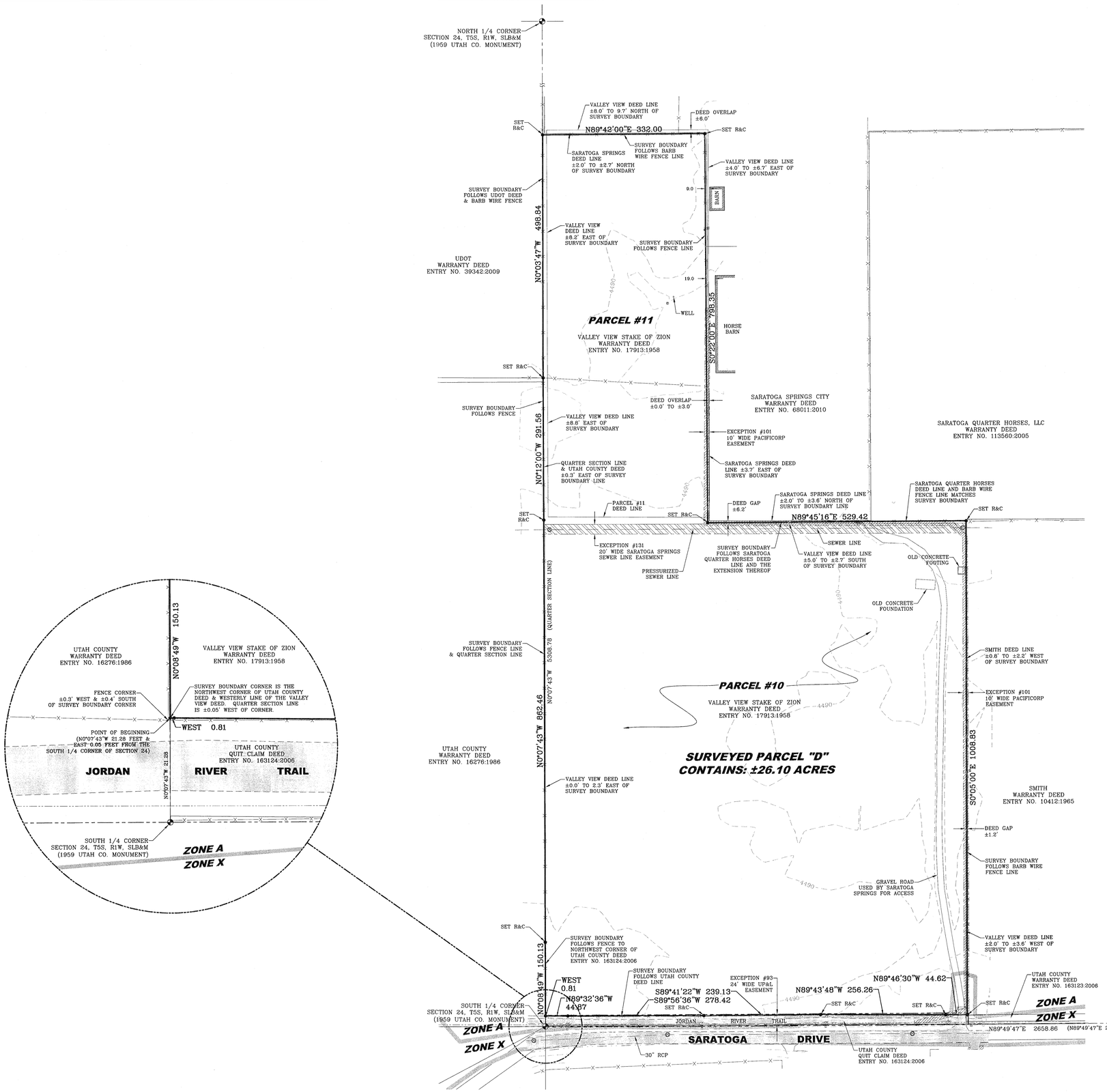
LEI PROJECT #: 2010-0670
DRAWN BY: CAP/RWH
CHECKED BY: CAP
SCALE: 1" = 200'
DATE: 12/31/2010

SHEET
13 OF 16

11-05



NORTH

SCALE: 1" = 100'

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LEGEND

◆	SECTIONAL MONUMENTATION (DESCRIBED HEREON)
●	#5 REBAR & CAP (PLS 501182) SET
XXXX:XXX	ENTRY NUMBER:YEAR UTAH COUNTY RECORDS
CPB	CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS
XX:XXX:XXXX	TAX SERIAL # – UTAH COUNTY RECORDS
R&C	REBAR & CAP
(FND)	FOUND
	EXISTING DRAIN MANHOLE
	EXISTING SEWER MANHOLE
	EXISTING FIRE HYDRANT
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING IRRIGATION VALVE
	EXISTING WATER VALVE
	EXISTING TELEPHONE BOX
	EXISTING DRAIN INLET

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STATE OF UTAH
CHAD A. POULSEN
No. 501182
REGISTERED LAND SURVEYOR
3/31/2011

ALTA/ACSM LAND TITLE SURVEY

LOCATION: A PORTION OF SECTION 24, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS	
1	3/16/2011 UPDATES PER CLIENT REVIEW
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LEI PROJECT #:	2010-0670
DRAWN BY:	CAP/RWH
CHECKED BY:	CAP
SCALE:	1" = 100'
DATE:	12/31/2010
SHEET	14 OF 16

11-05

LEI
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STATE OF UTAH
CHAD A. POULSEN
No. 5411182
PROFESSIONAL LAND SURVEYOR
2/3/11

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTION 23-27 & 33-35, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

11-05

REVISIONS

1 3/16/2011 UPDATES PER CLIENT REVIEW
2
3
4
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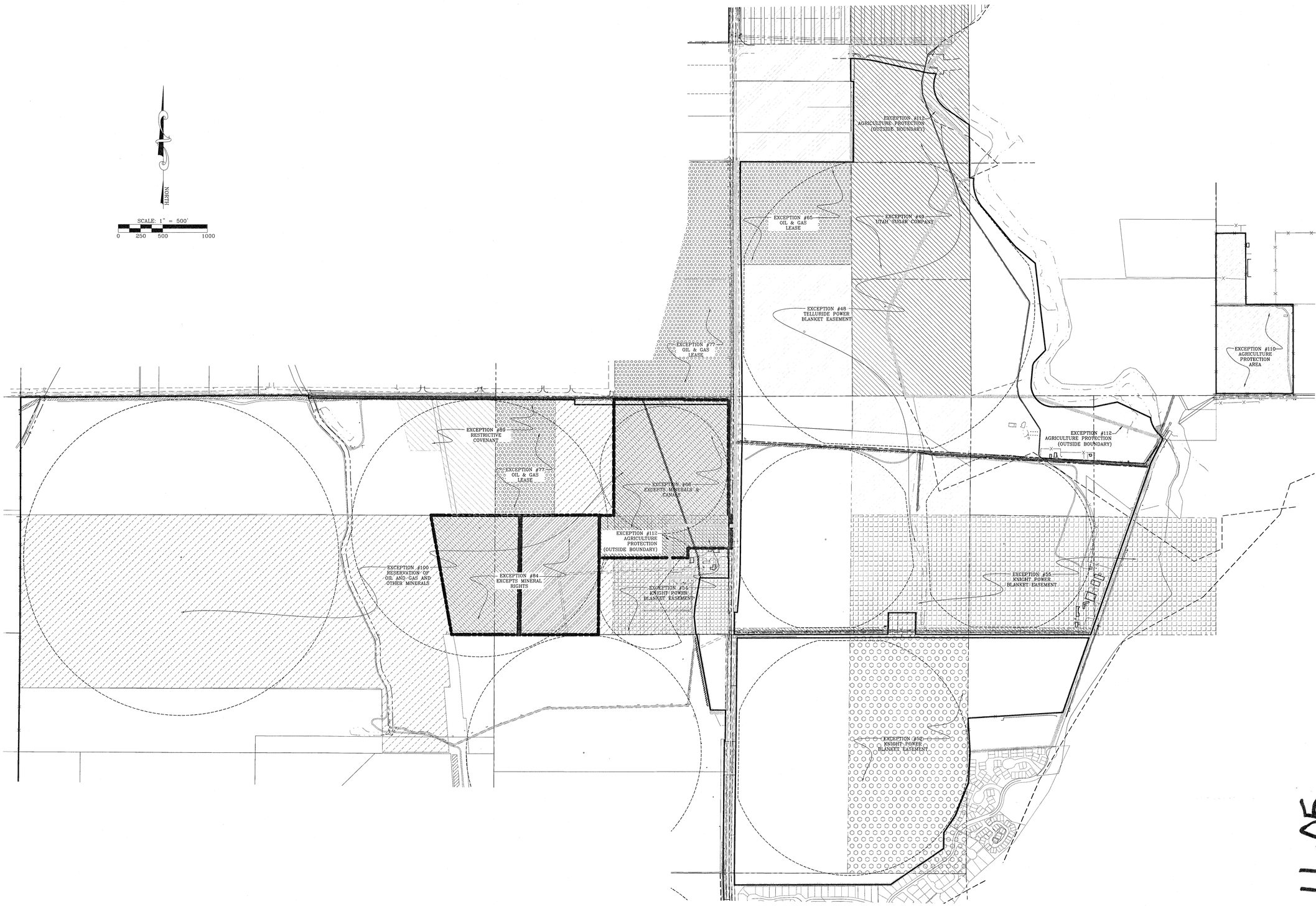
LEI PROJECT #: 2010-0670
DRAWN BY: CAP/RWH
CHECKED BY: CAP
SCALE: 1" = 500'
DATE: 12/31/2010

SHEET
15 OF 16



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STATE OF UTAH
CHAD A. POULSEN
No. 501182
PROFESSIONAL LAND SURVEYOR
3/21/2011

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTIONS 23-27 & 33-35, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS	
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LEI PROJECT #:	2010-0670
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SHEET	16 OF 16

11-05

SURVEYED COMPOSITE DESCRIPTIONS

SURVEYED PARCEL "A"
WEST PARCEL SURVEY DESCRIPTION
(INCLUDES PARCEL NO. 18-31 & 34-35))

PORTIONS OF SECTIONS 26, 27, 33, 34 & 35, TOWNSHIP 5 SOUTH RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE EAST ¼ CORNER OF SECTION 33, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE N0°28'25"E ALONG THE SECTION LINE 1,331.65 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 33; THENCE N89°19'36"W ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER 1,326.36 FEET TO THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE S0°28'25"W ALONG THE WEST LINE OF SAID SOUTHEAST QUARTER 1,331.45 FEET TO THE QUARTER SECTION LINE; THENCE N89°19'04"W ALONG THE QUARTER SECTION LINE 1,326.36 FEET TO THE CENTER OF SAID SECTION 33; THENCE S0°28'25"W ALONG THE QUARTER SECTION LINE 2,679.22 FEET TO THE SOUTH ¼ CORNER OF SAID SECTION 33; THENCE N89°36'04"W ALONG THE SECTION LINE 1,330.26 FEET TO THE SOUTHWEST CORNER OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SAID SECTION 33; THENCE N0°24'38"E ALONG THE WEST LINE OF SAID EAST HALF 2,685.82 FEET TO THE NORTHWEST CORNER OF SAID EAST HALF; THENCE N0°39'37"E ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 33, 1,331.73 FEET TO THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE N89°17'47"W ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 33, 1,328.88 FEET TO THE WEST LINE OF SAID SECTION 33; THENCE N0°50'50"E ALONG THE SECTION LINE 1,332.24 FEET TO THE NORTHWEST CORNER OF SAID SECTION 33; THENCE S89°16'29"E ALONG THE SECTION LINE 2,649.07 FEET TO THE NORTH ¼ CORNER OF SAID SECTION 33; THENCE S89°20'08"E ALONG THE SECTION LINE 2,652.72 FEET TO THE NORTHEAST CORNER OF SAID SECTION 33; THENCE N0°35'58"E ALONG THE SECTION LINE 2,659.04 FEET TO THE WEST ¼ CORNER OF SECTION 27, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE N0°08'25"E ALONG THE SECTION LINE 2,647.73 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27; THENCE N89°33'20"E ALONG THE SECTION LINE 2,668.51 FEET TO THE NORTH ¼ CORNER OF SAID SECTION 27; THENCE S89°41'46"E ALONG THE SECTION LINE 565.37 FEET; THENCE S0°18'14"W 33.00 FEET TO THE SOUTH RIGHT-OF-WAY LINE OF PONY EXPRESS PARKWAY AS DESCRIBED IN DEED ENTRY NO. 19931:1995 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE S89°41'46"E ALONG SAID SOUTH RIGHT-OF-WAY LINE 2,101.46 FEET TO THE EAST LINE OF SAID SECTION 27; THENCE S89°59'20"E 886.02 FEET TO THE WEST LINE OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 27952:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID REAL PROPERTY THE FOLLOWING TWO (2) COURSES: S0°30'40"W 57.00 FEET; THENCE S89°59'20"E 1,743.44 FEET TO THE WEST LINE OF REDWOOD ROAD (SR-68) AS DESCRIBED IN DEED ENTRY NO. 79200:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID WEST LINE THE FOLLOWING SEVEN (7) COURSES: S0°02'14"W 220.09 FEET; THENCE S0°32'42"W 1,368.90 FEET; THENCE N89°27'18"W 5.00 FEET; THENCE S0°32'42"W 135.27 FEET; THENCE S89°27'18"E 5.00 FEET; THENCE S0°32'42"W 61.28 FEET; THENCE S0°24'37"E 160.32 FEET TO THE INTERSECTION WITH THE NORTH LINE OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 2263:1996 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID REAL PROPERTY THE FOLLOWING FIVE (5) COURSE: N89°30'21"W 324.06 FEET; THENCE S7°37'18"W 53.74 FEET; THENCE S9°49'14"W 269.07 FEET; THENCE S5°01'32"W 112.79 FEET; THENCE S6°02'59"E 204.08 FEET TO THE QUARTER SECTION LINE; THENCE S89°27'46"E ALONG THE QUARTER SECTION LINE 9.12 FEET TO THE NORTHWEST CORNER OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 73670:2005 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID REAL PROPERTY THE FOLLOWING TWO (2) COURSES: S10°22'26"E 858.36 FEET; THENCE S89°29'43"E 169.10 FEET TO THE WEST LINE OF REDWOOD ROAD (SR-68); THENCE ALONG SAID WEST LINE THE FOLLOWING SIX (6) COURSES: S0°38'09"W 349.26 FEET TO A FOUND MONUMENT; THENCE N30°41'13"W 18.06 FEET TO A FOUND MONUMENT; THENCE S0°30'20"W 1,490.21 FEET; THENCE S2°05'00"E 807.82 FEET TO A FOUND MONUMENT; THENCE N9°14'09"E 13.75 FEET TO A FOUND MONUMENT; THENCE S2°02'58"E 1,850.21 FEET TO THE INTERSECTION WITH THAT BOUNDARY LINE AGREEMENT DESCRIBED IN DEED ENTRY NO. 90036:1993 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID BOUNDARY LINE AGREEMENT THE FOLLOWING FOUR (4) COURSES: N89°33'22"W 1,287.56 FEET; THENCE S89°23'21"W 118.07 FEET; THENCE S77°54'21"W 328.70 FEET; THENCE N48°23'39"W 62.62 FEET TO A POINT ON THE NORTH LINE OF SARATOGA HILLS PLAT "C" SUBDIVISION ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE UTAH COUNTY RECORDER; THENCE N89°47'54"W ALONG SAID NORTH LINE 865.50 FEET TO THE EAST ¼ CORNER OF SECTION 34, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, SAID POINT ALSO BEING THE NORTHEAST CORNER OF THE BENCHES PLAT 1 SUBDIVISION ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE UTAH COUNTY RECORDER; THENCE N89°45'56"W ALONG THE NORTH LINE OF THE BENCHES PLATS 1-3 AND 10, 2,703.01 FEET TO THE NORTHWEST CORNER OF THE BENCHES PLAT 10 SUBDIVISION, SAID POINT ALSO BEING HELD AS THE CENTER OF SECTION 34, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE N89°50'07"W ALONG THE QUARTER SECTION LINE 2,702.98 FEET TO THE POINT OF BEGINNING.

CONTAINS:±1,768.86 ACRES

SURVEYED PARCEL "B"
SOUTH PARCEL EAST OF REDWOOD ROAD SURVEY DESCRIPTION
(INCLUDES PARCEL NO. 8-9)

ALL OF THAT REAL PROPERTY KNOWN AS PARCEL #2, SARATOGA DRIVE CHURCH SUBDIVISION ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE ONE CABLE TV, UTAH COUNTY RECORDER AS ENTRY NO. 140578:2004, MAP NO. 10844 TOGETHER WITH THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 72399:1994 IN THE OFFICIAL RECORDS OF UTAH COUNTY, LESS THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 91623:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY LOCATED IN SECTIONS 25 & 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN, SARATOGA SPRINGS, UTAH COUNTY, UTAH, AS SURVEYED AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF PARCEL #2, SARATOGA DRIVE CHURCH SUBDIVISION ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE UTAH COUNTY RECORDER AS ENTRY NO. 140578:2004, MAP NO. 10844 LOCATED S0°33'18"W ALONG THE SECTION LINE 33.94 FEET FROM THE EAST ¼ CORNER OF SECTION 26, T5S, R1W, S.L.B. & M.; THENCE ALONG SAID PARCEL #2 THE FOLLOWING NINE (9) COURSES: N89°56'07"E 1,352.69 FEET; THENCE S19°21'26"W 886.43 FEET; THENCE S86°28'54"W 1,066.18 FEET; THENCE S3°31'06"E 374.34 FEET; THENCE S2°54'37"W 348.75 FEET; THENCE S21°58'07"W 403.00 FEET; THENCE S34°00'07"W 223.27 FEET; THENCE S0°41'07"W 180.00 FEET; THENCE S55°45'07"W 719.98 FEET TO THE NORTH LINE OF SARATOGA SPRINGS NO. 3 SUBDIVISION; THENCE S89°57'59"W ALONG THE NORTH LINE OF SARATOGA SPRINGS NO. 3 AND NO. 2 SUBDIVISIONS 1,751.96 FEET TO THE INTERSECTION WITH THE EASTERLY RIGHT-OF-WAY LINE OF REDWOOD ROAD (SR-68) ACCORDING TO THE OFFICIAL MAPS THEREOF AND AS DESCRIBED IN DEED ENTRY NO. 91623:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID EASTERLY RIGHT-OF-WAY LINE THE FOLLOWING TWO (2) COURSES: NORTHWESTERLY ALONG THE ARC OF A 9,940.00 FOOT RADIUS NON-TANGENT CURVE TO THE RIGHT (RADIUS BEARS: N88°51'47"E) 307.55 FEET THROUGH A CENTRAL ANGLE OF 1°46'22" (CHORD: N0°15'02"W 307.54 FEET); THENCE N0°38'09"E 2,456.88 FEET TO THE NORTH LINE OF SAID PARCEL #2; THENCE N89°56'07"E ALONG SAID NORTH LINE 2,598.98 FEET TO THE POINT OF BEGINNING.

CONTAINS: ±181.93 ACRES

SURVEYED PARCEL "C"
NORTH PARCEL EAST OF REDWOOD ROAD SURVEY DESCRIPTION
(INCLUDES PARCEL NO. 1-7)

ALL OF THAT REAL PROPERTY DESCRIBED IN DEEDS ENTRY NO. 17121:1992, 4301:1958 AND 775:1976 IN THE OFFICIAL RECORDS OF UTAH COUNTY, LESS THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 79200:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY LOCATED IN SECTIONS 23, 24, 25 & 26, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN, SARATOGA SPRINGS, UTAH COUNTY, UTAH, AS SURVEYED AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE EAST 1/4 CORNER OF SECTION 26, T5S, R1W, S.L.B. & M.; THENCE N89°57'40"W ALONG THE QUARTER SECTION LINE 596.37 FEET; THENCE N1°09'44"E 242.17 FEET; THENCE S89°55'54"W 310.00 FEET; THENCE S1°09'44"W 241.59 FEET TO A POINT ON THE QUARTER SECTION LINE; THENCE N89°57'40"W ALONG THE QUARTER SECTION LINE 1,725.61 FEET; THENCE N0°34'23"E 248.58 FEET TO THE SOUTH LINE OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 79200:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID REAL PROPERTY THE FOLLOWING SEVENTEEN (17) COURSES: S89°42'55"E 32.49 FEET; THENCE N4°21'40"E 360.80 FEET; THENCE N1°30'41"E 182.07 FEET; THENCE N0°32'52"E 565.49 FEET; THENCE N0°54'50"E 565.12 FEET; THENCE N1°18'07"E 244.64 FEET; THENCE N0°11'59"E 303.53 FEET; THENCE N0°36'45"W 150.49 FEET; THENCE N0°21'00"W 421.79 FEET; THENCE N1°18'54"W 99.88 FEET; THENCE N0°02'14"E 502.21 FEET; THENCE N0°24'39"W 173.55 FEET; THENCE N1°17'53"W 173.55 FEET; THENCE N1°03'25"W 423.38 FEET; THENCE N1°16'24"W 180.50 FEET; THENCE N0°38'53"W 180.78 FEET; THENCE N0°08'09"E 533.35 FEET TO THE INTERSECTION WITH THE SOUTH LINE OF THAT BOUNDARY LINE AGREEMENT DESCRIBED IN DEED ENTRY NO. 17379:1993 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID BOUNDARY LINE AGREEMENT THE FOLLOWING FOUR (4) COURSES: S89°46'19"E 876.93 FEET; THENCE S89°38'49"E 389.95 FEET; THENCE N0°13'57"E 995.82 FEET; THENCE N89°31'22"W 32.72 FEET TO THE WEST LINE OF GOVERNMENT LOT 2, SECTION 23, T5S, R1W, SLB&M; THENCE N0°22'04"W ALONG THE WEST LINE OF SAID LOT 2, 257.08 FEET TO THE SOUTH LINE PIONEER CROSSING ACCORDING TO THE OFFICIAL MAPS THEREOF; THENCE ALONG THE SOUTH LINE OF PIONEER CROSSING AND THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO 35015:2009 IN THE OFFICIAL RECORDS OF UTAH COUNTY THE FOLLOWING THREE (3) COURSES: SOUTHEASTERLY ALONG THE ARC OF A 1,400.00 FOOT RADIUS NON-TANGENT CURVE TO THE RIGHT (RADIUS BEARS: S0°03'58"W) 282.57 FEET THROUGH A CENTRAL ANGLE OF 11°33'52" (CHORD: S84°09'06"E 282.09 FEET); THENCE S77°12'47"E 545.01 FEET; THENCE ALONG THE ARC OF A 1,161.00 FOOT RADIUS CURVE TO THE LEFT 151.16 FEET THROUGH A CENTRAL ANGLE OF 7°27'35" (CHORD: S82°05'57"E 151.05 FEET) TO THE AS SURVEYED ORDINARY HIGH WATER MARK OF THE JORDAN RIVER; THENCE ALONG SAID ORDINARY HIGH WATER MARK THE FOLLOWING TWO (2) COURSES: SOUTHEASTERLY ALONG THE ARC OF A 320.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT (RADIUS BEARS: S66°09'44"E) 443.11 FEET THROUGH A CENTRAL ANGLE OF 79°20'16" (CHORD: S15°49'52"E 408.34 FEET); THENCE S55°30'00"E 313.93 FEET TO THE EAST LINE OF SECTION 23, T5S, R1W, SLB&M; THENCE S0°30'57"E ALONG THE SECTION LINE 432.29 FEET TO THE EAST ¼ CORNER OF SAID SECTION 23; THENCE S0°28'31"E ALONG THE SECTION LINE 165.00 FEET; THENCE S82°48'55"E 47.78 FEET TO THE ORDINARY HIGH WATER MARK OF THE JORDAN RIVER; THENCE ALONG SAID ORDINARY HIGH WATER MARK THE FOLLOWING TWELVE (12) COURSES: SOUTHEASTERLY ALONG THE ARC OF A 425.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT (RADIUS BEARS: S82°48'55"E) 350.00 FEET THROUGH A CENTRAL ANGLE OF 47°11'05" (CHORD: S16°24'27"E 340.19 FEET); THENCE S40°00'00"E 577.61 FEET; THENCE S50°05'56"E 290.36 FEET; THENCE S6°47'06"E 984.04 FEET; THENCE S43°17'21"W 172.49 FEET; THENCE ALONG THE ARC OF A 100.00 FOOT RADIUS CURVE TO THE LEFT 66.83 FEET THROUGH A CENTRAL ANGLE OF 38°17'21" (CHORD: S24°08'40"W 65.59 FEET); THENCE S5°00'00"W 182.38 FEET; THENCE ALONG THE ARC OF A 250.00 FOOT RADIUS CURVE TO THE LEFT 414.52 FEET THROUGH A CENTRAL ANGLE OF 95°00'00" (CHORD: S42°30'00"E 368.64 FEET); THENCE EAST 449.09 FEET; THENCE N78°15'35"E 276.59 FEET; THENCE S65°08'04"E 411.18 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF A 300.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT (RADIUS BEARS: N82°53'34"E) 182.70 FEET THROUGH A CENTRAL ANGLE OF 34°53'34" (CHORD: S24°33'13"E 179.89 FEET); THENCE S42°00'00"E 95.93 FEET TO THE NORTHERLY LINE OF SARATOGA DRIVE AS DEFINED BY DEED ENTRY NO. 5782:1994 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID NORTHERLY LINE THE FOLLOWING THREE (3) COURSES: S26°08'49"W 319.11 FEET; THENCE S13°04'08"W 46.38 FEET; THENCE S19°25'47"W 1,979.72 FEET TO THE INTERSECTION WITH THE EAST-WEST QUARTER SECTION LINE OF SECTION 25, T5S, R1W, SLB&M; THENCE S89°55'58"W ALONG SAID QUARTER SECTION LINE 1,370.25 FEET TO THE POINT OF BEGINNING.

CONTAINS: ±479.24 ACRE

SURVEYED PARCEL "D"
EAST PARCEL SURVEY DESCRIPTION
(INCLUDES PARCEL NO. 10-11)

ALL OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 17913:1958 LESS THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 163124:2006 IN THE OFFICIAL RECORDS OF UTAH COUNTY LOCATED IN SECTION 24, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN, SARATOGA SPRINGS, UTAH COUNTY, UTAH, AS SURVEYED AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 163124:2006 IN THE OFFICIAL RECORDS OF UTAH COUNTY LOCATED N0°07'43"W ALONG THE QUARTER SECTION LINE 21.28 FEET AND EAST 0.05 FEET FROM THE SOUTH ¼ CORNER OF SECTION 24, T5S, R1W, S.L.B. & M.; THENCE ALONG AN EXISTING FENCE THE FOLLOWING SIX (6) COURSES: N0°08'49"W 150.13 FEET; THENCE N0°07'43"W 862.46 FEET; THENCE N0°12'00"W 291.56 FEET; THENCE N0°03'47"W 498.84 FEET; THENCE N89°42'00"E 332.00 FEET; THENCE S0°22'00"E 798.35 FEET TO THE INTERSECTION WITH THE WESTERLY EXTENSION OF THE SOUTH LINE OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 113560:2005 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE N89°45'16"E ALONG SAID SOUTH LINE AND ITS EXTENSION 529.42 FEET; THENCE S0°05'00"E 1,008.83 FEET TO THE NORTH LINE OF THAT REAL PROPERTY DESCRIBED IN DEED ENTRY NO. 163124:2006 IN THE OFFICIAL RECORDS OF UTAH COUNTY; THENCE ALONG SAID NORTH LINE THE FOLLOWING SIX (6) COURSES. N89°46'30"W 44.62 FEET; THENCE N89°43'48"W 256.26 FEET; THENCE S89°41'22"W 239.13 FEET; THENCE S89°56'36"W 278.42 FEET; THENCE N89°32'36"W 44.87 FEET; THENCE WEST 0.81 FEET TO THE POINT OF BEGINNING.

CONTAINS: ±26.10 ACRES S

NOTES

1. THE PURPOSE OF THIS SURVEY IS TO PROVIDE AN ALTA/ACSM LAND TITLE SURVEY & CERTIFICATION FOR THE PARCEL(S) OF LAND SHOWN HEREON, INCLUDING 28 OF THE PARCELS REFEREED TO IN THE TITLE COMMITMENT REFERRED TO HEREON AND AS DESCRIBED ON SHEET NO. 1 OF THIS SURVEY. COMPOSITE SURVEYED DESCRIPTIONS OF THE COMBINED PARCELS HAVE BEEN PROVIDED AND ARE DEFINED IN FOUR (4) SEPARATE PARCELS LISTED AS PARCELS "A-D" AS SHOWN ON THE LEFT HAND SIDE OF THIS SHEET.

2. A TITLE COMMITMENT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY NATIONAL COMMERCIAL SERVICES, PHOENIX ARIZONA ORDER NO. NCS-454388-PHX1, EFFECTIVE DATE: SEPTEMBER 06, 2010, PREPARED FOR THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS, WAS UTILIZED IN THE PREPARATION OF THIS SURVEY. LEI CONSULTING ENGINEERS AND SURVEYORS, INC. IS ENTITLED TO RELY ON THE ACCURACY OF THAT REPORT, AND IS NOT LIABLE FOR ERRORS AND OMISSIONS BASED ON THE RELIANCE OF SAID TITLE REPORT. ALL RECORD PARCELS AND TITLE EXCEPTIONS NOTED ON THIS SURVEY ARE REFERENCED FROM SAID DOCUMENT.

3. THE BASIS OF BEARING FOR THIS SURVEY IS S0°20'51"W BETWEEN THE WEST 1/4 CORNER AND THE SOUTHWEST CORNER OF SECTION 14, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN. REFER TO THE COVER SHEET FOR THE TIE TO THE MONUMENTS HELD AS THE BASIS OF BEARING FOR THIS SURVEY.

4. #5 REBAR AND CAP (PLS #501182) SET AT ALL BOUNDARY CORNERS UNLESS NOTED OTHERWISE

5. DEEDS AND PLATS OF RECORD HAVE BEEN ROTATED TO MATCH THE AFOREMENTIONED BASIS OF BEARING

6. THIS DRAWING, ITS DESIGN, AND INVENTION THEREOF, IS THE PROPERTY OF LEI CONSULTING ENGINEERS AND SURVEYORS, INC. AND IS SUBMITTED TO, AND IS FOR THE EXCLUSIVE USE OF THE CLIENT REFERENCED ON THE SURVEY. ONLY COPIES AUTHORIZED IN WRITING AND INDIVIDUALLY SIGNED AND SEALED BY THE SURVEYOR MAY BE USED AS THE OFFICIAL WORK OF THE SURVEYOR. THIS DRAWING AND ANY COPY THEREOF MAY NOT BE RELIED UPON FOR ANY PURPOSE, BY ANY PARTY, EXCEPT AS STATED IN THE AGREEMENT BETWEEN LEI CONSULTING ENGINEERS AND SURVEYORS, INC., AND ITS CLIENT DATED JULY 21, 2010

7. THIS DRAWING AND ANY COPY THEREOF MAY ALSO NOT BE RELIED UPON FOR ANY PURPOSE UNDER ANY OF THE FOLLOWING CONDITIONS:
   A. ORIGINAL AND ANY COPIES NOT INDIVIDUALLY SIGNED AND SEALED BY THE SURVEYOR
   B. DEPENDENT MONUMENTS AND DATA SET, OR PUBLISHED, BY OTHERS AND USED BY THE SURVEYOR ARE SUBSEQUENTLY FOUND TO BE IN ERROR
   C. IMPROVEMENTS SHOWN HAVE BEEN ALTERED, CHANGED, OR ADDED TO, SUBSEQUENT TO THE SURVEY

8. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAN, NO ATTEMPT HAS BEEN MADE AS A PART OF THIS SURVEY TO OBTAIN OR SHOW DATA CONCERNING EXISTENCE, SIZE, DEPTH, CONDITION, CAPACITY, OR LOCATION OF ANY UTILITY OR MUNICIPAL/ PUBLIC SERVICE FACILITY. FOR INFORMATION REGARDING THESE UTILITIES OR FACILITIES, CONTACT THE APPROPRIATE AGENCIES

9. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAN, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE PROPERTIES SHOWN HEREON: EASEMENTS, ENCUMBRANCES, BUILDING SETBACK LINES, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE RESTRICTIONS.

10. THE PARCELS SHOW HEREON LIE WITHIN FLOOD ZONE X(AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD), ZONE A (AREAS INUNDATED BY THE 100-YEAR FLOOD, NO BASE FLOOD ELEVATION DETERMINED) AND WITHIN ZONE AE (BASE FLOOD ELEVATIONS DETERMINED AS DETERMINED BY FEMA (FEDERAL EMERGENCY MANAGEMENT AGENCY) AS SHOWN ON FIRM (FLOOD INSURANCE RATE MAP) PANEL NO. 4902500115 A AND 49551701151B, EFFECTIVE DATE: JULY 17, 2002. THE FLOOD PLAIN ZONES HAVE BEEN SHOWN ON THE COVER SHEET OF THIS SURVEY AND THE BOUNDARIES DIVIDING THE FLOOD ZONES HAVE BEEN SHOWN ON THE VARIOUS SHEETS OF THIS SURVEY WHERE THEY BISECT THE PROPERTY. THE BOUNDARY OF ZONE A WAS SCALED IN FROM THE FIRM MAP.

11. THE VESTING DOCUMENTS (AND TITLE REPORT PARCEL DESCRIPTIONS) REFLECT LEGAL DESCRIPTIONS THAT ARE BOUNDED BY TWO UTAH LAKE IRRIGATION COMPANY CANALS (KNOWN AS THE SARATOGA AND GARDNER CANALS) THAT HISTORICALLY RAN THROUGH PORTIONS OF SECTIONS 27, 34 & 35. AS OF THE DATE OF THIS SURVEY, SAID CANALS HAVE BEEN ABANDONED AND FILLED IN. NO DOCUMENTS WERE PRESENTED TO THIS SURVEYOR, OR REFERENCED IN THE TITLE REPORT THAT WOULD INDICATE THAT THE GROUND UNDERNEATH THE CANALS HAVE BEEN FORMALLY ABANDONED OR CONVEYED/REVERTED TO OTHER PARTIES. A SUBSEQUENT SEARCH IN THE OFFICE OF THE UTAH COUNTY RECORDER RESULTED IN THE DISCOVERY OF A QUIT CLAIM DEED RECORDED IN DEED ENTRY NO. 93921:1997 CONVEYING ALL OWNERSHIP AND RIGHT-OF-WAY INTEREST FROM THE UTAH LAKE DISTRIBUTING COMPANY (FORMERLY UTAH LAKE IRRIGATION COMPANY) TO THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS. FURTHERMORE, THOSE PORTIONS OF THE UTAH LAKE DISTRIBUTION CANAL WITHIN THE "SOUTH 1518.26 FEET OF THE SOUTHEAST QUARTER OF SECTION 27, THE NORTHEAST QUARTER OF SECTION 34, AND THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN" WERE CONVEYED TO THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS AS DESCRIBED IN DEED ENTRY NO. 64824:2002 IN THE OFFICIAL RECORDS OF UTAH COUNTY. WHILE THE LINES REPRESENTING THE TITLE REPORT PARCELS ARE SHOWN AND NOTED ON THIS SURVEY, A COMPOSITE LEGAL DESCRIPTION AND ASSOCIATED ACREAGE HAS BEEN PROVIDED FOR THE USE OF THE CHURCH THAT INCLUDES THE LAND PREVIOUSLY OCCUPIED BY THE ABANDONED CANALS.

12. UNDERGROUND UTILITIES HAVE BEEN SHOWN HEREON BASED ON OBSERVED EVIDENCE. ADDITIONAL UTILITIES INCLUDING BUT NOT LIMITED TO: POWER, PHONE, CABLE TV, WATER, SEWER AND SPRINKLER LINES MAY EXIST WITHIN THE BOUNDARIES OF THIS SURVEY AND BLUE STAKES SHOULD BE CONTACTED PRIOR TO DIGGING. ENGINEERS, CONTRACTORS, AND OTHERS THAT RELY ON THIS INFORMATION SHOULD BE CAUTIONED THAT THE LOCATIONS OF THE EXISTING UTILITIES MAY NOT BE RELIED ON AS BEING EXACT OR COMPLETE. ADDITIONAL EXPLORATION, VERIFICATION AND RELOCATION OF EXISTING UTILITIES WILL BE THE SOLE RESPONSIBILITY OF ANY CONTRACTOR PRIOR TO OR DURING CONSTRUCTION OF ANY ADDITIONAL IMPROVEMENTS.

13. THE RIGHT-OF-WAY OF REDWOOD ROAD (SR-68) LOCATED WITHIN THE SOUTH HALF OF SECTION 26 AND THE NORTH HALF OF SECTION 35, T5S, R1W, SLB&M WAS DETERMINED FROM THE OFFICIAL RIGHT-OF-WAY MAPS PROVIDED BY UDOT TOGETHER WITH THE LOCATION OF EXISTING RIGHT-OF-WAY MONUMENTS. THE CONVEYANCE DOCUMENT FROM "CPB" TO UDOT RECORDED AS DEED ENTRY NO. 91623:2009 DESCRIBES PROPERTY WITHIN THE SOUTH HALF OF SAID SECTION 26 AND CALLS FOR THE QUARTER SECTION LINE BEARING OF N0°38'00"E. THIS APPEARS TO BE IN ERROR AS THE MEASURED QUARTER SECTION LINE BEARING IS N0°38'20"E AND THOSE CONVEYANCE DOCUMENTS FROM "CPB" TO UDOT WITHIN THE NORTH HALF OF SAID SECTION 26 RECORDED AS ENTRY NO. 79200:2009 CALL FOR THE QUARTER SECTION LINE BEARING OF N0°39'24"E WHICH FITS WELL WITH THE SURVEYED QUARTER SECTION LINE. THIS SURVEY HOLDS THE MONUMENTED RIGH-OF-WAY LINE AND MEASURED TIES BACK TO THE QUARTER SECTION LINE ARE SHOWN ON SHEETS NO. 8, 9 & 11 HEREON.

14. THE AREA DESCRIBED AS PARCEL #37 IS THAT PORTION OF PARCEL #3 THAT IS SUBJECT TO RIPARIAN RIGHTS. IN 1856 THOSE LANDS WITHIN TOWNSHIP 5 SOUTH , RANGE 1 WEST WERE ORIGINALLY SURVEYED AND SUBDIVIDED INTO SECTIONS AND GOVERNMENT LOTS IN ACCORDANCE WITH THE SPECIAL INSTRUCTIONS ISSUED BY THE GOVERNMENT OF THE UNITED STATES OF AMERICAN. AS PART OF THAT SURVEY THOSE LANDS ADJACENT TO ANY NAVIGABLE BODIES OF WATER INCLUDING UTAH LAKE AND THE JORDAN RIVER WERE DELINEATED FROM THE BED OF SAID BODIES OF WATER BY RUNNING A MEANDER LINE. THE INTENT OF THE MEANDER LINE WAS TO RUN ALONG THE ORDINARY HIGH WATER MARK OF THE NAVIGABLE BODY OF WATER. PER THE MANUAL OF SURVEY INSTRUCTIONS THE MEANDER LINE IS NOT A FIX BOUNDARY BUT WAS RUN IN ORDER TO DELINEATED UPLAND LANDS OWNERS FROM THE BEDS OF THE NAVIGABLE BODIES OF WATER OF WHICH THE OWNERSHIP WOULD BE RETAINED BY THE FEDERAL OR STATE GOVERNMENTS. THE MEANDER LINE WAS USED TO REPORT ACREAGE AND TO ESTABLISH UPLAND LOTS SUITABLE FOR AGRICULTURAL PURPOSES THAT COULD BE SOLD TO THE PUBLIC. THOSE GOVERNMENT LOTS CREATED BY THE RUNNING OF THE MEANDER LINE CARRIED WITH THEM RIPARIAN RIGHTS WHICH INCLUDE THE BOUNDARIES OF THEIR LANDS MOVING WITH THE ORDINARY HIGH WATER MARK OF THE ADJACENT BODY OF WATER. AS A RESULT OF THE 1856 ORIGINAL SURVEY THE MEANDER LINE WAS ESTABLISHED SOME DISTANCE FROM THE CURRENT CHANNEL OR ORDINARY HIGH WATER MARK OF THE JORDAN RIVER AND THE QUESTION HAS BEEN ASKED CONCERNING THE OWNERSHIP OF THAT AREA LYING BETWEEN THE 1856 MEANDER LINE AND THE CURRENT ORDINARY HIGH WATER MARK.

IN ORDER TO ANSWER THIS QUESTION THE FOLLOWING INFORMATION WAS CONSIDERED:

FIRST, ON THE ORIGINAL 1856 SURVEY THE AREA BETWEEN THE MEANDER LINE AND THE CHANNEL OF THE JORDAN RIVER WAS IDENTIFIED AS "MARSH". THIS CAUSED THE QUESTION TO BE ASKED AS TO WHETHER THIS AREA WAS BEING DELINEATED FOR SOMETHING OTHER THAN A LINE BETWEEN UPLAND OWNERS AND THE BED OF NAVIGABLE WATERS. IN THE HISTORY WE FIND THAT IN THE ACT OF SEPTEMBER 28, 1850 SWAMP AND OVERFLOWED LANDS TO THE STATES WITHIN THE UNION. AS A PART OF THIS ACT THOSE AREAS DEFINED AS SWAMP AND OVERFLOWED LANDS WERE TO BE SURVEYED AND IDENTIFIED BY THE GENERAL LAND SURVEYOR AND SAID LANDS WOULD BE REPORTED ON THE OFFICIAL SURVEY PLAT OF THAT AREA. EVEN THOUGH IT WAS INTENDED THAT THE MEANDER LINES RUN ALONG THE ORDINARY HIGH WATER MARK OF THE BODY OF WATER IT HAS BEEN DETERMINED THAT IN MANY CASES THE MEANDER LINES WERE OFTEN ERRONEOUSLY RUN BETWEEN THE UPLAND AND THE SWAP AND OVERFLOWED LANDS. IT APPEARS THAT THE MEANDER LINE DEVIATED FROM THE ORDINARY HIGH WATER MARK OF THE RIVER TO INCLUDE LANDS THAT HE IDENTIFIED AS MARSH. IN ACCORDANCE WITH THE UTAH ENABLING ACT OF 1894, THE ACT OF 1850 WAS NOT EXTENDED TO THE STATE AND AS A RESULT EVEN IF TH

TITLE REPORT SCHEDULE B-EXCEPTION

1-6. ***(General Title Exceptions, not plottable)***

7-45. ***(General Property Taxes, not plottable)***
(The following affects Parcels 1, 2, 3, 7 through 12, 17, 29, 32, 33 and 36)

46. Any charge upon the land by reason of its inclusion in Saratoga Springs City District and are subject to the levies and assessments thereof.
(Not plottable)
(The following affects Parcels 4, 5, 6, 13, 14, 15, 16, 18 through 28, 30, 31, 34 and 35)

47. Any charge upon the land by reason of its inclusion in Utah County District and are subject to the levies and assessments thereof.
(Not plottable)
(The following affects Parcels 1, 2, 3, 5, 6, and 37))

48. An easement over, across or through the land for electric transmission lines and incidental purposes, as granted in The Telluride Power Company by Instrument recorded January 19, 1903 as Entry No. 389 in Book 64 at Page 440 of Official Records.
(A blanket easement for one pole line and electric circuits in a portion of Sections 23 & 26. See Sheet No. 16)
(The following affects Parcel 37)

49. The interest, if any, of The Utah Sugar Company, a corporation, acquired under and by virtue of that certain deed recorded March 17, 1903 as Entry No. 1100 in Book 64 at Page 508 of Official Records wherein Utah County, a Municipal corporation of the State of Utah appears as Grantor.
(This deed appears to include Government Lots 2, 4 & 5 of Section 23 previously owned by John Beck. The legal description is ambiguous and it is unclear what if any remaining interest The Utah Sugar Company has in any portion of the subject property. See Sheet No. 16)
(The following affects Parcels 7, 20, 22, 23, 30, and 31)

50. An easement over, across or through the land for electric transmission lines and incidental purposes, as granted to The Telluride Power Company by Instrument recorded July 7, 1904 as Entry No. 2218 in Book 65 at Page 541 of Official Records.
(Blanket Easement as shown on Sheet No. 15)
(The following affects Parcels 19 and 23))

51. An easement over, across or through the land for electric transmission line and incidental purposes, as granted to Knight Power Company, a Corporation by Instrument recorded September 2, 1911 as Entry No. 3670 in Book 128 at Page 6 of Official Records.
(Blanket Easement as shown on Sheet No. 15)
(The following affects Parcel 18)

52. An easement over, across or through the land for a right of way to erect and maintain a line of poles for an electric transmission line or circuits and incidental purposes, as granted to Knight Power Company, a Corporation by Instrument recorded September 13, 1911 as Entry No. 3785 in Book 128 at Page 27 of Official Records.
(Blanket Easement as shown on Sheet No. 16)
(The following affects Parcel 15)

53. ***(Not applicable to this survey)***

54. An easement over, across or through the land for electric power transmission and incidental purposes, as granted to Knight Consolidated Power Company, a corporation by Instrument recorded May 13, 1912 as Entry No. 2389 in Book 109 at Page 571 of Official Records.
(Blanket Easement as shown on Sheet No. 16)
(The following affects Parcels 4 and 7)

55. An easement over, across or through the land for electric transmission and incidental purposes, as granted to Knight Consolidated Power Company, a corporation by Instrument recorded May 13, 1912 as Entry No. 2390 in Book 128 at Page 592 of Official Records.
(Blanket Easement as shown on Sheet No. 16)
(The following affects all Parcels)

56. An easement over, across or through the land for use and incidental purposes, as granted to Utah Power Company, a corporation by Instrument recorded October 9, 1912 as Entry No. 4165 in Book 137 at Page 33 of Official Records.
(General description by Section, not plottable)
(The following affects Parcels 24 and 26)

57. A Canal right of way over a portion of subject property as disclosed in that certain Warranty Deed recorded August 5, 1918 as Entry No. 6041 in Book 173 at Page 50 of Official Records.
(Describes an existing canal in Section 34, TSS, R1W, SLB&M, however no canal remains in this location)
(The following affects Parcel 17)

58. ***(Not applicable to this survey)***
(The following affects Parcel 26)

59. A Canal right of way over a portion of subject property as disclosed in that Warranty Deed recorded September 21, 1923 as Entry No. 7214 in Book 236 at Page 278 of Official Records.
(Location of the easement is shown on Sheet No. 5 & 15, however there is no canal remaining at this location)
(The following affects Parcels 23, 24, 29 and 30)

60. A Canal right of way over a portion of subject property as disclosed in that Quit Claim Deed for Right-of-Way recorded December 30, 1932 as Entry No. 8787 in Book 294 at Page 475 of Official Records.
(This document describes a right-of-way along the westerly bank of an existing canal. The canal is no longer in existence, approximate location is shown on Sheet No. 5, 6, 8 & 15)
(The following affects Parcel 26)

61. Warranty Deed recorded November 14, 1947 as Entry No. 12736 in Book 490 at Page 93 of Official Records.
(Includes a reservation of "all minerals of any and all kind....including all oils and natural gas. Shown on Sheet No. 15)
(The following affects Parcels 15 and 16)

62. ***(Not applicable to this survey)***
(The following affects Parcel 2)

63. An easement over, across or through the land for electric transmission, distribution and telephone circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded June 3, 1948 as Entry No. 5337 in Book 499 at Page 148 of Official Records.
(Includes an easement for two guy anchors, however no guy wires remain. Location shown on Sheet No. 13)
(The following affects Parcels 32 and 33)

64. ***(Not applicable to this survey)***
(The following affects Parcel 1)

65. An Oil and Gas Lease by and between John N. Whimpey and Irene P. Whimpey, his wife as Lessor and Collins Brothers Oil Company as Lessee, recorded April 25, 1953 as Entry No. 4856 in Book 615 at Page 519 of Official Records.
(Lease is subject to a term of ten years and as long thereafter as oil or gas is produced. There is no observable evidence of oil or gas extraction from the property. The location of the easement is shown on Sheet No. 16)
(The following affects Parcel 19)

66. Quit Claim Deed recorded May 28, 1953 as Entry No. 6158 in Book 628 at Page 263 of Official Records.
(Includes the reservation to the State of Utah for all coal, oil, gas, mines, metals, gravel and all other minerals of whatsoever kind together with the rights-of-ways for canals, ditches, tunnels, telephone and transmission lines constructed by the United States. Location of property is shown on Sheet No. 14)
(The following affects Parcel 27 and 28)

67. Special Warranty Deed recorded December 17, 1953 as Entry No. 13769 in Book 641 at Page 495 of Official Records.
(Excepts unto the Utah Lake Irrigation Company a strip of land two rods wide for canal purposes. Also excepts unto The Federal Land Bank of Berkeley one-half of the interest in all oil, gas, petroleum, naphtha, other hydrocarbon substances and minerals of whatsoever kind... upon or beneath the property together with the right of entry which may be necessary to obtain such substances. Location shown on Sheet No. 15)
(The following affects Parcel 13)

68. ***(Not applicable to this survey)***
(The following affects Parcel 30)

69. Special Warranty Deed recorded December 12, 1955 as Entry No. 16492 in Book 699 at Page 518 of Official Records.
(Excepts unto The Federal Land Bank of Berkeley one-half of the interest in all oil, gas, petroleum, naphtha, other hydrocarbon substances and minerals of whatsoever kind... upon or beneath the property together with the right of entry which may be necessary to obtain such substances. Location shown on Sheet No. 15)
(The following affects Parcel 4)

70. An easement over, across or through the land for electric transmission, distribution and telephone circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded October 18, 1960 as Entry No. 14446 in Book 857 at Page 31 of Official Records.
(Location of this easement is outside the limits of this survey. Location shown on Sheet No. 12)
(The following affects Parcels 23 and 18)

71. An easement over, across or through the land for electric transmission, distribution and telephone circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded October 18, 1960 as Entry No. 14447 in Book 857 at Page 33 of Official Records.
(Line easement for two guy anchors and two poles, no width given. Shown on Sheet No. 9 & 10)
(The following affects Parcel 34)

72. An Oil and Gas Lease by and between Beulah T. Evans a widow and Grant S. Evans and Lois Evans, husband and wife as Lessor and Collins Brothers Oil Company as Lessee, recorded December 23, 1960 as Entry No. 17932 in Book 862 at Page 339 of Official Records.
(Lease is subject to a term of ten years and as long thereafter as oil or gas is produced. There is no observable evidence of oil or gas extraction from the property. The location of the easement is shown on Sheet No. 15)
(The following affects Parcel 33)

73-75. ***(No applicable to this survey)***
(The following affects Parcel 35)

76. An Oil and Gas Lease by and between Lawrence Evans and Connie P. Evans, husband and wife as Lessor and Collins Brothers Oil Company as Lessee, recorded December 23, 1960 as Entry No. 17939 in Book 862 at Page 354 of Official Records.
(Lease is subject to a term of ten years and as long thereafter as oil or gas is produced. There is no observable evidence of oil or gas extraction from the property. The location of the easement is shown on Sheet No. 15)
(The following affects Parcels 15, 16, 32, 33, and 34)

77. An Oil and Gas Lease by and between The Federal Land Bank of Berkeley, owner of a half interest in the oil, gas and other hydrocarbon substances in or under the land herein described as Lessor and Collins Brothers Oil Company as Lessee, recorded December 23, 1960 as Entry No. 17942 in Book 862 at Page 360 of Official Records.
(Lease is subject to a term of ten years and as long thereafter as oil or gas is produced. There is no observable evidence of oil or gas extraction from the property. The location of the easement is shown on Sheet No. 16)
(The following affects Parcels 12, 14, 15, and 16)

78. ***(No applicable to this survey)***
(The following affects Parcel 9)

79. An easement over, across or through the land for electric transmission, distribution and telephone circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation, by Instrument recorded May 18, 1961 as Entry No. 6478 in Book 873 at Page 93 of Official Records.
(Easement allows for one guy anchor and pole. Location shown on Sheet No. 11)
(The following affects Parcels 1, 2, 7, 8, 9, 12, 17, 18, 19, 23, and 28)

80. Rights of the Utah State Department of Highways as to a 66 foot highway (State Road 68 or Redwood Road) as defined in that Quit Claim Deed recorded November 21, 1962 as Entry No. 15766 in Book 921 at Page 513 of Official Records.
(The current bounds of State Road 68 extend beyond the limits described herein. Current right-of-way is shown hereon)
(The following affects Parcel 28)

81. An easement over, across or through the land for construction of an irrigation facility and incidental purposes, as granted to Utah State Road Commission by Instrument recorded May 27, 1963 as Entry No. 6982 in Book 939 at Page 339 of Official Records.
(Area described herein was later conveyed to the Utah State Road Commission in fee recorded in Deed Entry No. 10995:1963 in the official records of Utah County. Shown on Sheet No. 8)
(The following affects Parcel 25)

82. An easement over, across or through the land for electric transmission, distribution and telephone circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded July 31, 1964 as Entry No. 11487 in Book 980 at Page 500 of Official Records.
(Easement is 130 feet wide for (one) two-pole structure. Location of structure and easement are shown on Sheet No. 4 and 15)
(The following affects Parcel 5)

83. An easement over, across or through the land for construction of a highway as Project No.205 and incidental purposes, as granted to Utah County Corporation of Utah by Instrument recorded November 2, 1966 as Entry No. 12532 in Book 1063 at Page 562 of Official Records.
(Easement to allow for the construction and maintenance of a channel change appurtenant to the construction of a highway. Shown on Sheet No. 12)
(The following affects Parcel 23)

84. Warranty Deed recorded January 4, 1967 as Entry No. 124 in Book 1070 at Page 163 of Official Records.
(Document contains the language "less all mineral and oil rights heretofore reserved to the State of Utah". Location of property described herein is shown on Sheet No. 16)
(The following affects Parcel 30)

85. Warranty Deed recorded March 23, 1978 as Entry No. 10879 in Book 1630 at Page 676 of Official Records.
(Deed excepts a strip of land to the Utah Irrigation Company for its canal, however no evidence of the canal exists in this location. Also the deed excepts gas, oil and other mineral rights as shown on Sheet No. 15)
(The following affects Parcel 1)

86. An easement over, across or through the land for electric transmission and distribution circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded January 13, 1980 as Entry No. 27096 in Book 1852 at Page 787 of Official Records.
(Easement is for two guy anchors, location is outside the boundary of the subject property as shown on Sheet No. 13 of this survey. No guy anchors were found)
(The following affects Parcel 18)

87. An easement over, across or through the land for electric transmission and distribution circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded February 17, 1982 as Entry No. 3863 in Book 1965 at Page 67 of Official Records.
(Easement is a centerline description along the westerly side of Redwood Road outside the bounds of the subject property as shown on Sheet No. 9 of this Survey. It appears that the power line has been relocated to the west of this easement)
(The following affects Parcel 28)

88. An easement over, across or through the land for electric transmission and distribution circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded February 17, 1982 as Entry No. 3864 in Book 1965 at Page 68 of Official Records.
(Easement is a centerline description along the westerly side of Redwood Road along an existing line of power poles outside the bounds of the subject property as shown on Sheet No. 8 of this survey)
(The following affects Parcels 34 and 35)

89. Restrictive Covenant Precluding the Residential or other Non-Agricultural use of the Land recorded May 5, 1982 as Entry No. 11170 in Book 1979 at Page 103 of Official Records.
(Portions of Parcels 34 and 35 are subject to the terms and conditions set forth herein. Location of the affected property is shown on Sheet No. 16 of this survey)
(The following affects Parcel 18)

90. An easement over, across or through the land for electric transmission and distribution circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation, its successors in interest and assigns by Instrument recorded May 21, 1982 as Entry No. 12741 in Book 1981 at Page 869 of Official Records.
(Provides an easement ten (10) feet wide along an existing pole line for three poles and four guy anchors together with an location easement for a single pole as shown on Sheet No. 9 of this survey)
(The following affects Parcels 4, 5, and 7)

91. An easement over, across or through the land for right of access and construction easement and incidental purposes, as granted to Utah County, a body corporate and politic, and Salt Lake County, a body corporate and politic, and their assigned agents and contractors by Instrument recorded April 9, 1986 as Entry No. 10479 in Book 2294 at Page 424 of Official Records.
(Provides a twenty (20) foot wide access and construction and permanent maintenance easement for a Geothermal Pipeline shown on Sheet No. 12 of this survey)
(The following affects Parcels 18 and 22)

92. Declaration of Farm Unit recorded November 3, 1987 as Entry No. 40630 in Book 2465 at Page 415 of Official Records.
(Subject to the terms and conditions outlined therein. Location shown on Sheet No. 15 of this survey)
(The following affects Parcels 5 and 10)

93. An easement over, across or through the land for electric transmission, communications circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded January 14, 1988 as Entry No. 1009 in Book 2482 at Page 480 of Official Records.
(Provides for a twenty four (24) foot wide transmission line easement as shown on Sheet No. 12 and 14 of this survey)
(The following affects Parcels 4 and 5)

94. An easement over, across or through the land for electric transmission, communications circuits and incidental purposes, as granted to Utah Power & Light Company, a corporation by Instrument recorded January 14, 1988 as Entry No. 1010 in Book 2482 at Page 482 of Official Records.
(Provides for a twenty four (24) foot wide transmission line easement as shown on Sheet No. 12 of this survey)
(The following affects Parcels 32, 33, and 35)

95. A right of way over a portion of subject property as disclosed by that certain Warranty Deed recorded June 27, 1989 as Entry No. 18168 in Book 2607 at Page 836 of Official Records.
(This is a portion of the right-of-way for the Pony Express Parkway as shown on Sheet No. 7 of this survey)
(The following affects Parcels 20, 23, 30, 31 and 35)

96. Easements over and across a portion of subject property associated with the Welby Canal and the Jacob Canal as disclosed in that certain Quit Claim Deed recorded October 4, 1991 as Entry No. 39521 in Book 2841 at Page 5 of Official Records.
NOTE: The above easement purports to affect the subject property, but the exact location cannot be determined because of an incomplete legal description.
(A blanket easement and Quit Claim deed for land and water conveyance facilities associated with the Welby and Jacob Canals as shown on Sheet No. 15 of this survey)
(The following affects Parcels 4 and 5)

97. The legal description contained in that certain QuitClaim Deed executed by Utah County, in favor of Utah County, recorded January 21, 1994 as Entry No. 5782 in Book 3351 at Page 95 of Official Records, overlaps and conflicts with the land described herein.
(Deed appears to provide the location of the westerly line of Saratoga Drive and was held as the easterly boundary line of Parcels 4 and 5 as shown on Sheet No. 12 of this survey)
(The following affects Parcels 19 and 23)

98. Deed of Trust and Assignment of Rents dated January 6, 1995 by and between Scott Cooper McLachlan and Julie A. McLachlan, husband and wife, as to an undivided 50% interest; and James C. Yates and Cindy P. Yates, husband and wife, as to an undivided 50% interest as Trustor in favor of Utah Production Credit Association as Trustee and Utah Production Credit Association as Beneficiary, to secure an original indebtedness of $1,926,000.00 and any other amounts or obligations secured thereby, recorded January 11, 1995 as Entry No. 2076 in Book 3602 at Page 792 of Official Records.
(Not plotted)
(The following affects Parcels 19 and 23)

99. An easement for a waterline over and across a portion of subject property as disclosed by that certain Warranty Deed recorded August 25, 1995 as Entry No. 55842 in Book 3752 at Page 1 of Official Records.
(Provides a twenty (20) foot water line easement as shown on Sheet No. 6, 9 & 10 on this survey)
(The following affects Parcel 23)

100. Warranty Deed recorded August 25, 1995 as Entry No. 55845 in Book 3752 at Page 9 of Official Records.
(Reserves oil, gas and other minerals of every kind underlying the surface of the subject property. Also provides a right-of-way for a canal across said lands, location shown on Sheet No. 16))
(The following affects Parcels 10 and 11)

101. An easement over, across or through the land for electric transmission lines, distribution lines, communication lines and fiber optics and incidental purposes, as granted to Pacificorp, an Oregon corporation by Instrument recorded October 4, 1996 as Entry No. 81702 in Book 4088 at Page 664 of Official Records.
(Ten (10) foot wide easement as shown on Sheet No. 14 herein)
(The following affects Parcel 15)

102. Quit-Claim Deed recorded September 25, 1997 as Entry No. 75002 in Book 4387 at Page 563 of Official Records.
(Not applicable to this Survey)
(The following affects Parcel 15)

103. Quit-Claim Deed recorded September 25, 1997 as Entry No. 75003 in Book 4387 at Page 564 of Official Records.
(Not applicable to this Survey)
(The following affects Parcels 18, 19, 23, 32, 33, 34 and 35)

104. An easement over, across or through the land for the maintenance of an underground irrigation line recorded November 26, 1997 as Entry No. 93920 in Book 4446 at Page 843 of Official Records.
(Twenty (20) foot wide irrigation easement as shown on Sheet No. 7, 9 & 10 herein)
(The following affects Parcel 15)

105. The legal description contained in that certain Warranty Deed executed by Jan W. Lawrence and Gary R. Lawrence, in favor of Jan W. Lawrence and Gary R. Lawrence, wife and husband, as joint tenants, recorded September 22, 1998 as Entry No. 96230 in Book 4784 at Page 817 of Official Records, overlaps and conflicts with the land described herein.
(Not applicable to this Survey)
(The following affects Parcels 4, 5, 7, 23, 34 and 35)

106. Agreement and Grant of Easement to the Town of Eagle Mountain recorded October 20, 1998 as Entry No. 106499 in Book 4819 at Page 90 of Official Records.
(Forty (40) foot wide sewer easement as shown on Sheet No.7, 10 &12 of this survey)
(The following affects Parcels 4, 5 and 7)

107. Agreement and Grant of Easement to the Town of Eagle Mountain recorded October 20, 1998 as Entry No. 106500 in Book 4819 at Page 101 of Official Records.
(Sewer easement as shown on Sheet No. 12 survey)
(The following affects Parcels 4, 5 and 7)

108. An easement over, across or through the land for gas service pipeline and incidental purposes, as granted to Questar Gas Company by Instrument recorded May 17, 1999 as Entry No. 57051 in Book 5087 at Page 243 of Official Records.
(Gas line easement as shown on Sheet No. 12 survey)
(The following affects Parcels 18, 20 through 27, and 30 through 35)

109. Notice of Creation of Agriculture Protection Area recorded September 9, 1999 as Entry No. 99910 in Book 5211 at Page 168 of Official Records.
(Subject to the terms and conditions set forth therein, location shown on Sheet No. 15 of this survey)
(The following affects Parcels 10 and 11)

110. Notice of Creation of Agriculture Protection Area recorded March 10, 2000 as Entry No. 19295:2000 of Official Records.
(Subject to the terms and conditions set forth therein, location shown on Sheet No. 16 of this survey)
(The following affects Parcels 12 through 17)

111. Notice of Creation of Agriculture Protection Area recorded March 10, 2000 as Entry No. 19296:2000 of Official Records.
(Not applicable to this Survey)
(The following affects Parcels 1 through 9 and 19)

112. Notice of Creation of Agriculture Protection Area recorded March 10, 2000 as Entry No. 19297:2000 of Official Records.
(Subject to the terms and conditions set forth therein, location shown on Sheet No. 16 of this survey)
(The following affects Parcel 35)

113. Right of way for a canal known as the Jacob Canal over and across a portion of subject property as defined in that certain Notice of Interest in Canal Property Easement recorded March 21, 2000 as Entry No. 22190:2000 of Official Records.
(49.5 foot wide easement for the Jacob Canal, location is shown on Sheet No. 7 of this survey)
(The following affects Parcels 1, 2, 3, 7, and 23)

114. An easement over, across or through the land for a perpetual right-of-way and easement to lay, maintain, operate, repair, inspect, protect, install, remove and replace utility pipe, lines and other utility transmission and distribution structures and facilities and incidental purposes, as granted to Town of Saratoga Springs, a body politic of the State of Utah by Instrument recorded June 28, 2000 as Entry No. 50583:2000 of Official Records.
(Ten (10) foot wide sewer easement as shown on Sheet No. 12 & 13 of this survey)
(The following affects Parcel 29)

115. Notice of Creation of Agriculture Protection Area recorded September 29, 2000 as Entry No. 76925:2000 of Official Records.
(Subject to the terms and conditions set forth therein, location shown on Sheet No. 15 of this survey)
(The following affects Parcels 4, 7, 18, 22 and 23)

116. An easement over, across or through the land for a storm water and natural drainage channel and as a wasteway for routine and emergency operation, management, regulation, use, maintenance and safety of the canal and incidental purposes, as granted to Town of Saratoga Springs, a Utah municipal corporation and the Utah Lake Distributing Company by Instrument recorded November 20, 2001 as Entry No. 120357:2001 of Official Records.
(Twenty (20) foot wide easement for storm water along the "Tickville Wash". Deeded location differs from existing channel and ditches as shown on Sheet No. 6, 9, 11 & 12 of this survey)
(The following affects Parcels 15, 16, 23, and 35)

117. Easements associated with the Utah Lake Distribution Canal over and across subject property as defined in that Notice of Interest in Canal Property Easement recorded October 31, 2002 as Entry No. 129142:2002 of Official Records.
(Defines a 49.5 foot wide easement for the Utah Lake Distributing Canal as shown on Sheet No. 6 & 7 of this survey)
(The following affects Parcels 20 and 31)

118. Quit-Claim Deed recorded September 24, 2003 as Entry No. 155269:2003 of Official Records.
(Appears to define property outside of the bounds of and adjacent to this survey as shown on Sheet No. 4, 6 & 7)
(The following affects Parcels 3 and 17)

119. An easement over, across or through the land for sewer trasmission and distribution structures and facilities and incidental purposes, as granted to Town of Saratoga Springs, a body politic of the State of Utah by Instrument recorded December 15, 2003 as Entry No. 196230:2003of Official Records.
(Describes a twenty (20) foot wide sewer easement that is outside the limits of this survey, not shown)
(The following affects Parcel 3)

120. An easement over, across or through the land for water transmission and distribution structures and facilities and incidental purposes, as granted to Town of Saratoga Springs, a body politic of the State of Utah by Instrument recorded December 15, 2003 as Entry No. 196231:2003 of Official Records.
(Describes a fifteen (15) foot wide waterline easement that is outside the limits of this survey, not shown)
(The following affects Parcel 3)

121. The legal description contained in that certain Special Warranty Deed executed by Kerry R. Posey and Bobbie M Posey, in favor of Bobbie M. Posy, Trustee of the Bobbie M. Posey Charitable Ramainder UniTrust dated August 2004 recorded August 24, 2004 as Entry No. 96887:2004 of Official Records.
(Describes property that is outside the limits of this survey as shown on Sheet No. 16 of this survey)

122. Easements, notes and restrictions as shown on subdivision plat of Saratoga Drive Church Subdivision recorded December 15, 2004 as Entry No. 140578:2004 66 58of Official Records.
(Easements have been shown on Sheet No. 11 of this survey)
(The following affects Parcel 4, 5 and 7)

123. An easement over, across or through the land for water transmission and distribution structures and facilities and incidental purposes, as granted to City of Saratoga Springs, a body politic of the State of Utah by Instrument recorded April 6, 2005 as Entry No. 36145:2005 of Official Records.
(Twenty (20) foot wide water line easement shown on Sheet No. 12 of this survey)
(The following affects Parcel 9)

124. An easement over, across or through the land for the purposes of constructing thereon cut and/or fill slopes and appurtenants parts thereof and incidental purposes, as granted to Utah Department of Transportation recorded June 22, 2005 as Entry No. 67146:2005 of Official Records.
(An easement for cut and fill slopes currently within the bounds of the Redwood Road (SR-68) right-of-way as shown on Sheet No. 9 & 11 of this survey)
(The following affects Parcels 26 and 29)

125. An easement over, across or through the land for storm pipeline or drainage ditch and related improvement equipment and incidental purposes, as granted to Development Associates, Inc. a Utah corporation by Instrument recorded July 26, 2005 as Entry No. 80150:2005 of Official Records.
(A twenty (20) foot wide storm drain easement as shown on Sheet No. 5 & 8 of this survey)
(The following affects Parcels 4 and 7)

126. An easement over, across or through the land for electric power distribution and incidental purposes, as granted to Pacificorp, an Oregon corporation by Instrument recorded August 1, 2005 as Entry No. 82940:2005 of Official Records.
(A fifty (50) foot wide easement as shown on Sheet No. 11 & 12 of this survey)
(The following affects Parcel 7)

127. An easement over, across or through the land for water transmission and incidental purposes, as granted to City of Saratoga Springs, a body politic of the State of Utah by Instrument recorded August 12, 2005 as Entry No. 88577:2005 of Official Records.
(Five (5) foot wide easement as shown on Sheet No. 11 of this survey)
(The following affects Parcel 33)

128. An easement over, across or through the land for water transmission and distribution structures and facilities and incidental purposes, as granted to City of Saratoga Springs, a body politic of the State of Utah by Instrument recorded September 1, 2005 as Entry No. 97348:2005 of Official Records.
(Not applicable to this Survey)
(The following affects Parcel 25)

129. An easement over, across or through the land for water transmission and distribution structures and facilities and incidental purposes, as granted to City of Saratoga Springs, a body politic of the State of Utah by Instrument recorded September 1, 2005 as Entry No. 97349:2005 of Official Records.
(A ten (10) foot water line easement as shown on Sheet No. 4 of this survey)
(The following affects Parcels 3, 4 and 37)

130. An easement over, across or through the land for sewerline facilty and incidental purposes, as granted to City of Saratoga Springs by Instrument recorded May 10, 2006 as Entry No. 57845:2006 of Official Records.
(A centerline description of a sewer easement with no width specified as shown on Sheet No. 11 & 12 of this survey. It appears that Saratoga Springs City was not certain as to the ownership of the lands between the historical meander line and the ordinary high water mark of the Jordan River and so they obtained an easement from the State of Utah (owners of the bed of the Jordan River) and the Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints as described in Exception #114)
(The following affects Parcel 10)

131. An easement over, across or through the land for sewer transmission and distribution structures and facilities and incidental purposes, as granted to City of Saratoga Springs, a body politic of the State of Utah by Instrument recorded May 25, 2006 as Entry No. 64952:2006 of Official Records.
(A 20' wide sewer easement shown on Sheet No. 14 of this survey)
(The following affects Parcel 7)

132. An easement over, across or through the land for underground power line and incidental purposes, as granted to Pacificorp, an Oregon corporation by Instrument recorded September 22, 2006 as Entry No. 125095:2006 of Official Records.
(A ten (10) foot wide easement as shown on Sheet No. 11 & 12 of this survey)
(The following affects Parcel 23)

133. An easement over, across or through the land for electric power lines and incidental purposes, as granted to PacifiCorp, an Oregon Corporation, d/b/a Rocky Mountain Power by instrument recorded September 18, 2009 as Entry No. 100718:2009 of Official Records.
(A ten (10) foot wide easement as shown on Sheet No. 10 of this survey)
(The following affects Parcels 1, 2, 7, 12, 17, 19 and 23)

134. Abutter's rights in favor of Utah Department of Transportaion as disclosed by Quit Claim Deed recorded July 20, 2009 as Entry No. 79200:2009 of Official Records.
(The abutter conveyed any rights of underlying fee to the center of the existing right-of-way of Redwood Road (SR-68). The Grantor however retained the mineral rights. The location these parcels are shown on Sheet No. 9, 12 & 13 of this survey)
(The following affects Parcel 17)

135. ***(Not applicable to this Survey)***
(The following affects Parcels 8, 9, 18 and 28)

136. Abutter's rights in favor of Utah Department of Transportaion as disclosed by Quit Claim Deed recorded August 20, 2009 as Entry No. 91623:2009 of Official Records.
(The abutter conveyed any rights of underlying fee to the center of the existing right-of-way of Redwood Road (SR-68). The Grantor however retained the mineral rights. The location of these parcels are shown on Sheet No. 8, 9 & 11 of this survey)

137-139. ***(Not applicable to this Survey)***
(The following affects Parcel 7)

140. An easement over, across or through the land for electric power lines, power facilities and incidental purposes, as granted to PacifiCorp, an Oregon Corporation, d/b/a Rocky Mountain Power by Instrument recorded February 9, 2010 as Entry No. 11275:2010 of Official Records.
(A sixty (60) foot wide above ground power line easement as shown on Sheet No. 11 & 12 of this survey)
(The following affects Parcel 7)

141. An easement over, across or through the land for power line, power facilities and incidental purposes, as granted to PacifiCorp, an Oregon Corporation, d/b/a Rocky Mountain Power by Instrument recorded February 9, 2010 as Entry No. 11276:2010 of Official Records.
(A sixty (60) foot wide underground power line easement as shown on Sheet No. 11 & 12 of this survey)
(The following affects Parcels 18 and 28)

142. An easement over, across or through the land for overhanging wires, power facilities and incidental purposes, as granted to PacifiCorp, an Oregon Corporation, d/b/a Rocky Mountain Power by Instrument recorded March 23, 2010 as Entry No. 23271:2010 of Official Records.
(An overhang power line easement as shown on Sheet No. 8 & 9 of this survey)
(The following affects Parcel 35)

143. Permanent Slope, Utility and Construction Easement Agreement by and between Corporation of the Presiding Bishop of The Church of Jesus Christ of Latter-day Saints, a Utah coporation sole and the City of Saratoga Springs, a Municipal corporation of the State of Utah recorded April 6, 2010 as Entry No. 27808:2010 of Official Records.
(A ten (10) foot wide permanent slope and utility easement as shown on Sheet No. 7 of this survey)
(The following affects Parcels 36)

144. The interest if any of the City of Saratoga Springs in and to said property. Utah County is showing said city as the owner of Lot 3, Saratoga Springs Alpine School District. The City of Saratoga appears to have acquired interest only to that portion known as Pony Express Parkway by Special Warranty Deed recorded April 6, 2010 as Entry No. 27809:2010 of Official Records.
(Not applicable to this Survey)
(The following affects Parcel 3, 5 and 37)

145. The rights of the public to use or pass through the land for recreational purposes and/or access to the waterway known as the Jordan River provided that such public rights have been or may be established by documented or otherwise proven use for a period of time.
(The portions of land adjacent to the Jordan River have been posted with no trespassing signs and hunting on the property is not allowed, however it is evident that portions of the westerly bank of the Jordan River have been used by fishermen and others for recreational purposes)
(The following affects Parcels 1, 2, 7, 8, 12, 17, 18, 19, 23, and 28)

146. Rights of the public in and to that portion of the land lying within State Road 68 (Redwood Road)
(The limits of the right-of-way of Redwood Road (SR-68) have been shown hereon)
(The following affects Parcels 4 and 7)

147. Rights of the public in and to that portion of the land lying within 400 South Street.
(The limits of dedicated right-of-way of 400 South Street together with the existing improvements have been shown hereon. The southerly portion of 400 South Street was dedicated to Saratoga Springs City as shown on the Saratoga Drive Church Subdivision but the northerly portion of said 400 South Street has not been dedicated and is included within the bounds of Parcel No. 1 of this survey as shown on Sheet No. 10 & 11 of this survey. 400 South Street is subject to any rights that the public has acquired by a prescriptive right of use)
(The following affects Parcels 4, 5, and 10)

148. Rights of the public in and to that portion of the land lying within Saratoga Road.
(This survey follows the westerly right-of-way of Saratoga Drive as shown on Sheet No. 10 & 11 of this survey)

149-151. ***(Not applicable to this Survey)***
(The following affects Parcels 3, 4, 5, 6, and 7)

152. The interest of the State of Utah, or others, claiming through or under it, to any portion of the "Sovereign Lands" located within the ordinary high water mark of the Jordan River, as determined by a court of competent jurisdiction or as established pursuant to Chapter 10, Title 65A of the Utah Code.
(The ordinary high water mark of the Jordan River was surveyed and held as the easterly boundary of these Parcels as shown on Sheet No. 12 & 13 of this survey)
(The following affects Parcels 3, 4, 5, 6, and 7)

153. Any adverse claim based upon the assertion that: (a) Some portion of said land is tide or submerged land, or has been created by artificial means or has accreted to such portion so created (b) Some of said land has been brought within the boundaries thereof by an avulsive movement of the Jordan River or has been formed by accretion to any such portion
(It appears that there has been a change in the lands that were included as marsh lands on the original 1856 survey of this area, however the limits of the river channel itself is very similar in nature to its depiction on said survey. The most likely cause of the retcession of the water in this area would be due to the controlled water level in Utah Lake which appeared to be much higher in 1856 than it is today)
(The following affects Parcels 4, 5, 6, and 12)

154. The fact that the legal description of land described herein does not affect a mathematical closure

155. Subject property is made up of numerous contiguous and non-contiguous parcels. Access is assumed to be from existing public roads to those parcels adjacent to said roads. There is no recorded means of access from a public roadway to those parcels not adjacent to a public road, but it is assumed that there exists a valid and subsisting easement over and across an adjoining land for that purpose. The Company does not insure against any loss, damage, claims or rights which would be denied or limit access based on a contrary state of facts
NOTE: Access to and from State Road 68 (Redwood Road) is limited to those openings permitted by the State of Utah Department of Transportation
(Existing roads and points of access have been shown hereon)

11-05

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STATE OF UTAH
CHAD A. POULSEN
No. 501182
3/9/2011
PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTIONS 23-27& 33-35, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS
1 3/16/2011 UPDATES PER CLIENT REVIEW
2
3
4
5

LEI PROJECT #: 2010-0670
DRAWN BY: CAP/RWH
CHECKED BY: CAP
SCALE: NONE
DATE: 12/31/2010

SHEET
3 OF 16

KIOWA VALLEY PLAT "B"

KIOWA VALLEY PLAT "D"

SUNRISE AT KIOWA PLAT "A"

CHEROKEE STREET

DIRT ACCESS ROAD FROM CHEROKEE STREET.

NORTHWEST CORNER SECTION 33, T5S, R1W, SLB&M (2009 UTAH CO. MONUMENT)

S.L.6, L.L.C. QUIT CLAIM DEED ENTRY NO. 155269:2003

S89°16'29"E 2649.07 (S89°16'37"E 2649.13)

NORTH 1/4 CORNER SECTION 33, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

S.L.6, L.L.C. QUIT CLAIM DEED ENTRY NO. 155269:2003

S89°20'08"E 2652.72 (S89°20'15"E 2652.67)

NORTHEAST CORNER SECTION 33 T5S, R1W, SLB&M (1971 UTAH CO. MONUMENT)

IRRIGATION POND

PUMP STATION

S89°50'00"E 2661.04

N0°50'50"E 1332.24

SEE DETAIL "A"

SURVEY BOUNDARY FOLLOWS SECTION LINE

SURVEY BOUNDARY FOLLOWS SECTION LINE & SUBDIVISION PLAT LINES

DIRT ROAD

N89°58'43"E 2664.40

N89°17'47"W 1328.88

N0°50'50"E 2664.47

SURVEY BOUNDARY FOLLOWS 1/16TH SECTION LINES

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS SPECIAL WARRANTY DEED ENTRY NO. 16675:1982

OUTSIDE EDGE OF PIVOT

UNDERGROUND POWER & IRRIGATION LINES

CENTER OF PIVOT

EXCEPTION #82 130' WIDE UTAH POWER & LIGHT COMPANY TRANSMISSION LINE EASEMENT

EXCEPTION #129 10' WIDE SARATOGA CITY WATER LINE EASEMENT

UNDERGROUND POWER & IRRIGATION LINES

CENTER OF PIVOT

OUTSIDE EDGE OF PIVOT

UNDERGROUND POWER & IRRIGATION LINES

OUTSIDE EDGE OF PIVOT

PARCEL #25

PARCEL #26

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS SPECIAL WARRANTY DEED ENTRY NO. 16675:1982

CENTER OF PIVOT

N89°19'36"W 1326.36

OVERHEAD POWER TRANSMISSION LINES

POWER TRANSMISSION POLES

SURVEY BOUNDARY FOLLOWS 1/16TH SECTION LINE

SURVEY BOUNDARY FOLLOWS SECTION LINE

N0°28'25"E 2663.31 (N0°28'15"E 2663.07)

STATE OF UTAH

N0°39'37"E 1331.73

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS SPECIAL WARRANTY DEED ENTRY NO. 16675:1982

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS SPECIAL WARRANTY DEED ENTRY NO. 16675:1982

S0°28'25"W 1331.45

MITCHELL FAMILY TRUST QUIT CLAIM DEED ENTRY NO. 60066:2008

N0°28'25"E 1331.65

SURVEY BOUNDARY FOLLOWS 1/16TH SECTION LINE

BARB WIRE FENCE ±0.2' WEST OF SURVEY BOUNDARY

WEST 1/4 CORNER SECTION 33, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

N89°19'04"W 1333.22

N89°19'04"W 1333.22

SURVEY BOUNDARY FOLLOWS QUARTER SECTION LINE

N89°19'04"W 1326.36

N89°19'04"W 2652.72

EAST 1/4 CORNER SECTION 33, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

SURVEY BOUNDARY FOLLOWS QUARTER SECTION LINE

BARB WIRE FENCE ±0.8' SOUTH OF SURVEY BOUNDARY

N89°50'07"W 2702.98

N0°20'53"E 2692.41 (N0°20'44"E 2,692.27)

SURVEY BOUNDARY FOLLOWS 1/16TH SECTION LINE

N0°24'38"E 2685.82

STATE OF UTAH

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS SPECIAL WARRANTY DEED ENTRY NO. 16675:1982

SURVEY BOUNDARY FOLLOWS QUARTER SECTION LINE

ALMA E. & ETHEL B. RUSHTON FAMILY PARTNERSHIP WARRANTY DEED ENTRY NO. 5968:1983

S0°28'25"W 2679.22

DIRT ROAD

SOUTHWEST CORNER SECTION 33, T5S, R1W, SLB&M (1913 GLO MONUMENT)

SURVEY BOUNDARY FOLLOWS SECTION LINE

SOUTH 1/4 CORNER SECTION 33, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

N89°36'04"W 1330.26

N89°36'04"W 2660.52 (N89°36'03"W 2,660.61)

UNITED STATES OF AMERICA

NORTH

SCALE: 1" = 200'

0 100 200 400

DETAIL "A"

(SCALE: 1"=40')

CHEROKEE STREET

LOT 8

SIDEWALK

24" CURB & GUTTER

N0°50'50"E 801.16 FROM CENTERLINE OF DAKOTA DRIVE TO THE NORTHEAST CORNER OF SECTION 33

DAKOTA DRIVE

N89°59'54"E

24" CURB & GUTTER ±1.6' EAST OF BOUNDARY

4' WIDE SIDEWALK ±1.9' EAST OF BOUNDARY

GAS LINE

LOT 9

LEI

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CHAD A. POWELSEN No. 5011162 3/21/2011 STATE OF UTAH REGISTERED PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTIONS 33, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS	
1	3/16/2011 UPDATES PER CLIENT REVIEW
2	
3	
4	
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LEI PROJECT #:	2010-0670
DRAWN BY:	CAP/RWH
CHECKED BY:	CAP
SCALE:	1" = 200'
DATE:	12/31/2010
SHEET	4 OF 16

11-05

NORTHEAST CORNER SECTION 33, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

IRRIGATION POND

PUMP STATION

UNDERGROUND POWER & IRRIGATION LINES

S89°50'00"E 2661.94 (S89°50'11"E 2661.92)

NORTH 1/4 CORNER SECTION 34, T5S, R1W, SLB&M (1998 UTAH CO. MONUMENT)

UNDERGROUND POWER LINE

DIRT ROAD

S89°45'41"E 2687.71 (S89°45'46"E 2687.74)

CONTROL PANEL

IRRIGATION LINE

NORTHEAST CORNER SECTION 34, T5S, R1W, SLB&M (1971 UTAH CO. MONUMENT)

NORTH

SCALE: 1" = 200'

0 100 200 400

OUTSIDE EDGE OF PIVOT

UNDERGROUND POWER & IRRIGATION LINES

PARCEL #24

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS
WARRANTY DEED
ENTRY NO. 7335:1990

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS
SPECIAL WARRANTY DEED
ENTRY NO. 16675:1982

DEED CALLS TO A LINE 25 FEET WESTERLY OF THE CENTERLINE OF THE UTAH LAKE IRRIGATION COMPANY CANAL WHICH WAS VACATED BY DEED ENTRY NO. 64824:2002

PARCEL #26

DEED GAP ±65'

UNDERGROUND POWER & IRRIGATION LINES

PARCEL #27

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS
WARRANTY DEED
ENTRY NO. 7335:1990

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS
SPECIAL WARRANTY DEED
ENTRY NO. 16675:1982

S89°45'41"E 2663.36

S0°44'18"E 2663.33

DEED LINES

CENTER OF PIVOT

EXCEPTION #60
APPROXIMATE LOCATION OF RIGHT-OF-WAY
CANAL NO LONGER EXISTS

DEED CALLS TO THE CENTERLINE OF THE UTAH LAKE IRRIGATION COMPANY CANAL WHICH WAS VACATED BY DEED ENTRY NO. 64824:2002

SST REBAR & CAP PLS 501182

N0°29'25"E 2663.31

N0°28'25"E 1331.65

CENTER OF PIVOT

EXCEPTION #59
33' WIDE PROVO RESERVOIR COMPANY CANAL RIGHT-OF-WAY
(NO CANAL REMAINS)

S0°24'34"E 2663.32 (QUARTER SECTION LINE)

OUTSIDE EDGE OF PIVOT

CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST IF LATTER DAY SAINTS
SPECIAL WARRANTY DEED
ENTRY NO. 16675:1982

SURVEY BOUNDARY FOLLOWS SECTION LINE BARB WIRE FENCE MATCHES BOUNDARY

HELD THE NORTHWEST CORNER OF THE SUBDIVISION FOR THE CENTER 1/4 CORNER OF SECTION 34 (SET R&C)

FOUND REBAR & CAP PLS# 166572 AT LOT CORNERS (9-TYPICAL)

SURVEY BOUNDARY FOLLOWS THE QUARTER SECTION LINE & NORTH LINE OF SUBDIVISION

SEE DETAIL "A"

SEE DETAIL "B"

SEE DETAIL "C"

EXCEPTION #125
20' WIDE STORM DRAIN EASEMENT

STORM DRAIN LINE

EAST 1/4 CORNER SECTION 34, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

N89°45'56"W 2703.01

WEST 1/4 CORNER SECTION 34, T5S, R1W, SLB&M (1959 UTAH CO. MONUMENT)

N89°50'07"W 2702.98

ALMA E. & ETHEL B. RUSHTON FAMILY PARTNERSHIP
WARRANTY DEED
ENTRY NO. 5968:1983

SURVEY BOUNDARY FOLLOWS THE QUARTER SECTION LINE, BARB WIRE FENCE ±0.8' SOUTH OF BOUNDARY

FOOTHILL BLVD (NOT CONSTRUCTED, FUTURE 100' RIGHT-OF-WAY)

MEADOW SIDE DR.

FOUND SUBDIVISION CENTERLINE MONUMENTS HELD FOR LOCATION OF SUBDIVISION PLAT (TYPICAL)

THE BENCHES PLAT 10

MEADOW CREST WAY

THE BENCHES PLAT 3

THE BENCHES PLAT 2

THE BENCHES PLAT 1

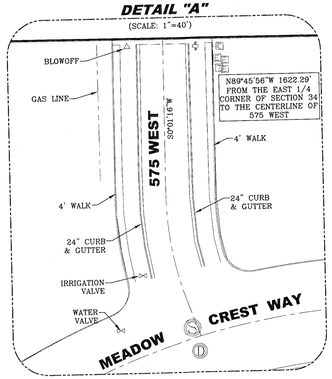
ALPINE DR.

PONDSIDE DR.

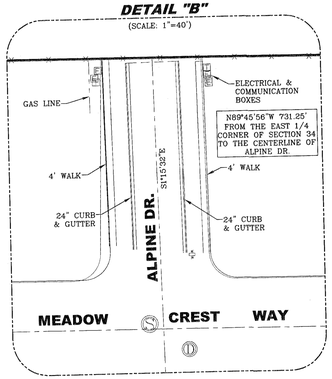
FARMSIDE DR.

SARATOGA HILLS PHASE 1C

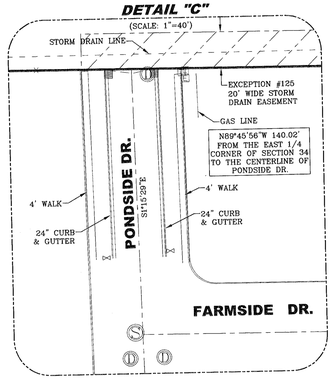
DETAIL "A"
(SCALE: 1"=40')



DETAIL "B"
(SCALE: 1"=40')



DETAIL "C"
(SCALE: 1"=40')



11-05

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STATE OF UTAH
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3/3/2011
PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTIONS 34, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

REVISIONS
1 3/16/2011 UPDATES PER CLIENT REVIEW
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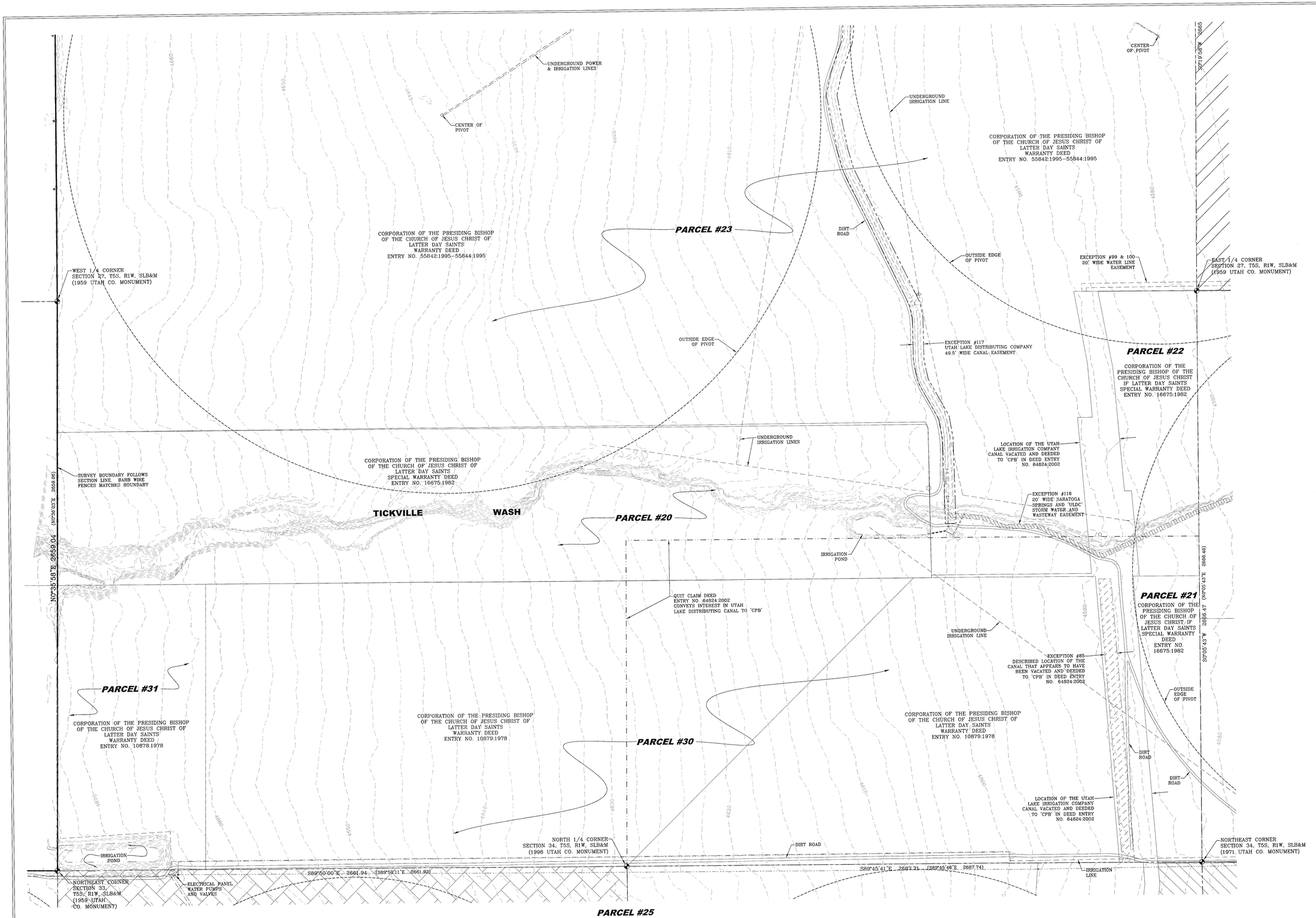
LEI PROJECT #: 2010-0670
DRAWN BY: CAP/RWH
CHECKED BY: CAP
SCALE: 1" = 200'
DATE: 12/31/2010
SHEET: 5 OF 16



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STATE OF UTAH
CHAD A. POULSEN
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ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTION 27, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

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PREPARED FOR: PROPERTY RESERVE INC.

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6 OF 16

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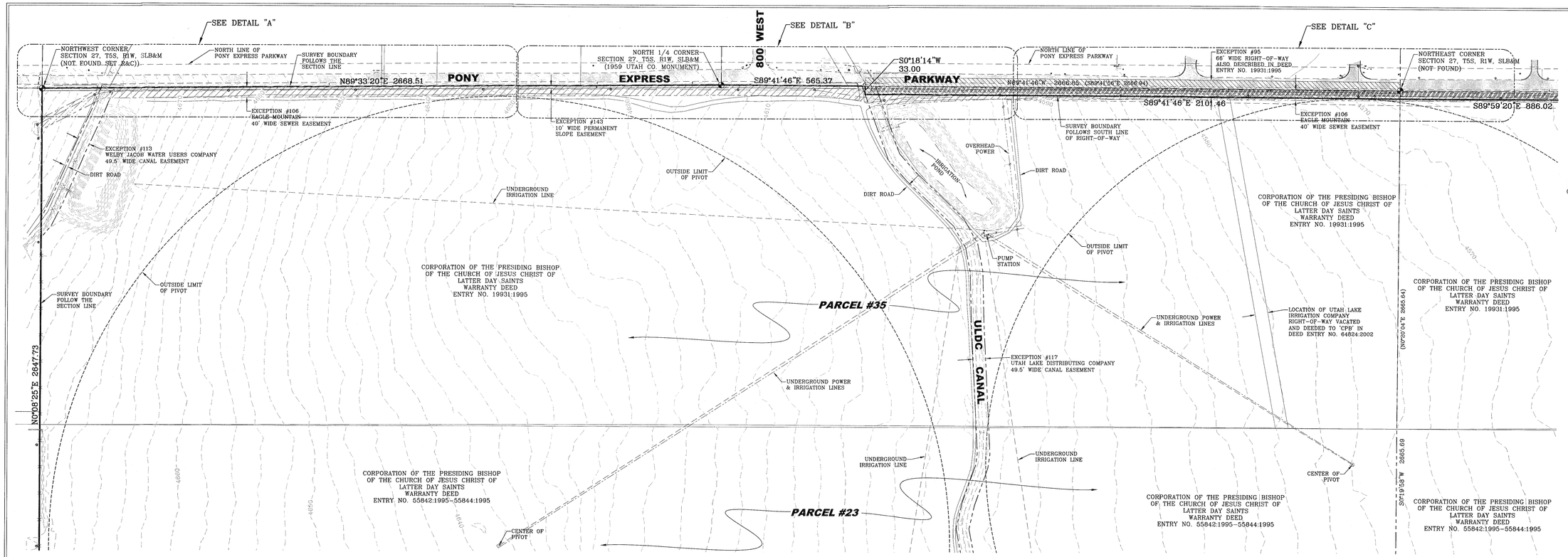

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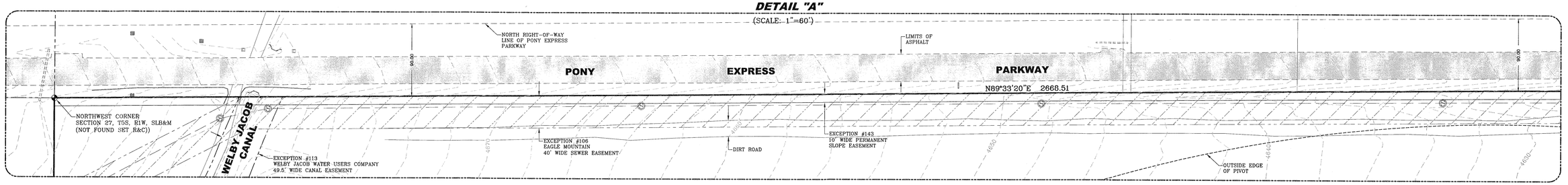

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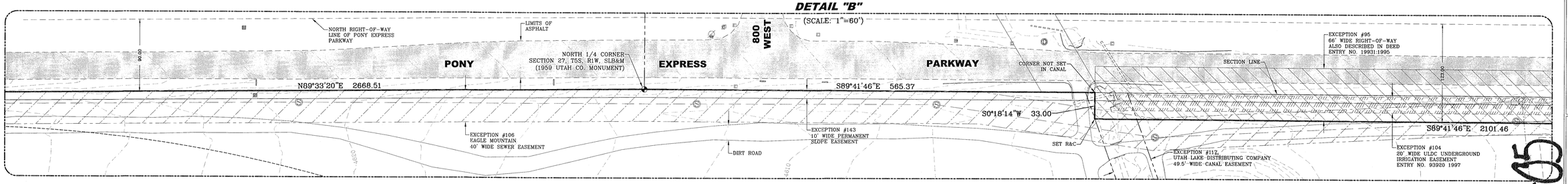

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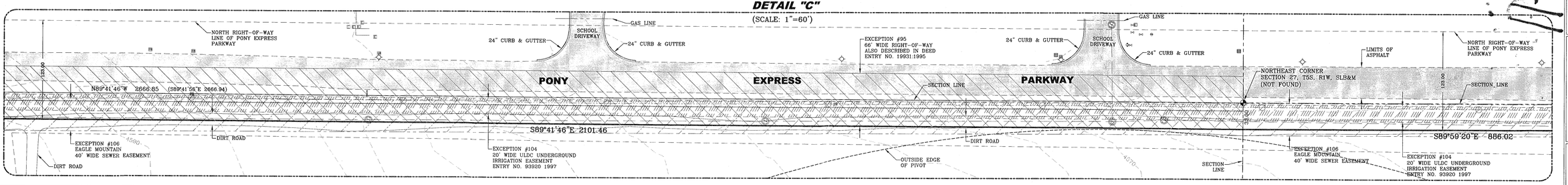

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STATE OF UTAH
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PROFESSIONAL LAND SURVEYOR
3/3/2011

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTION 27, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

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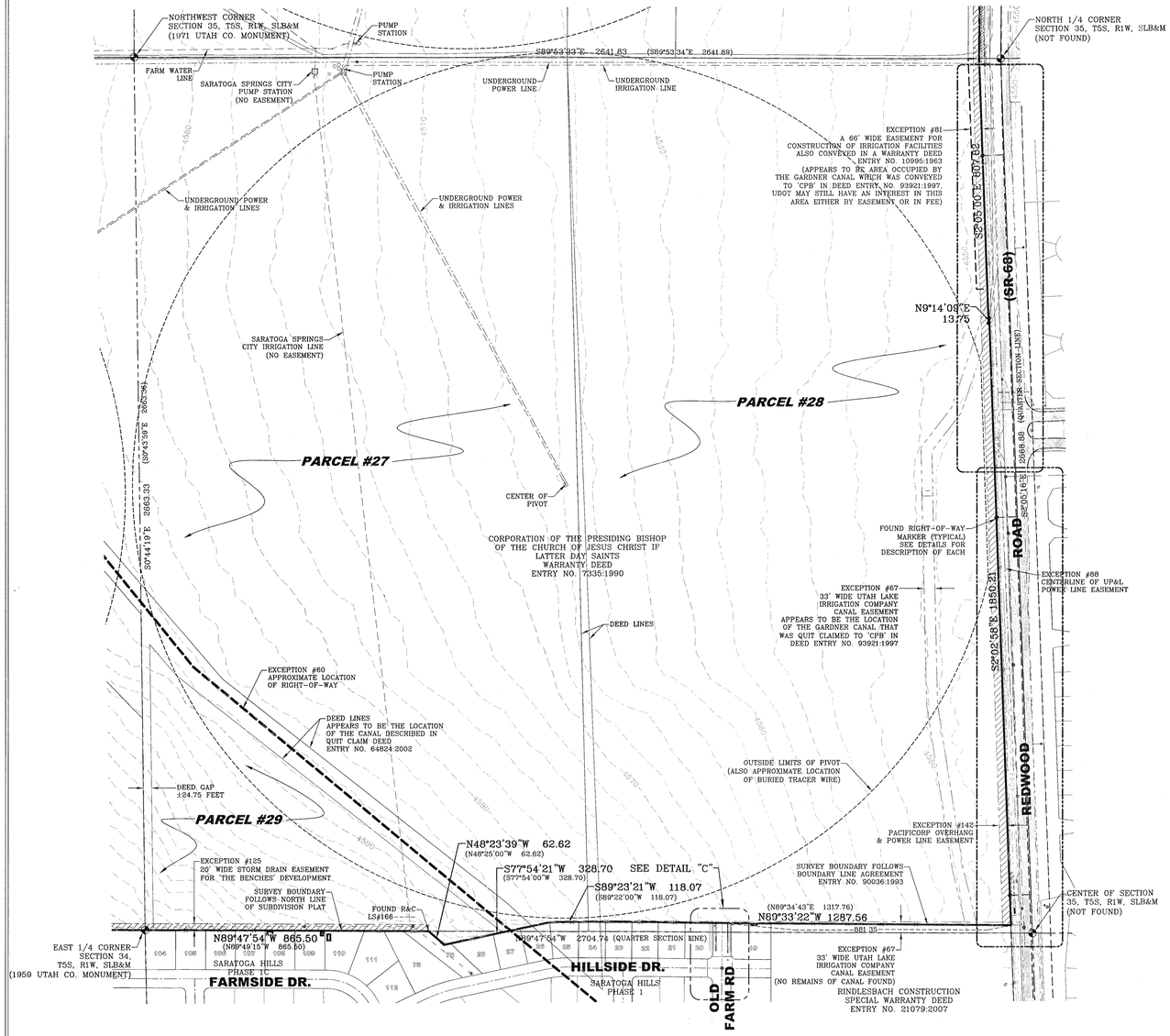

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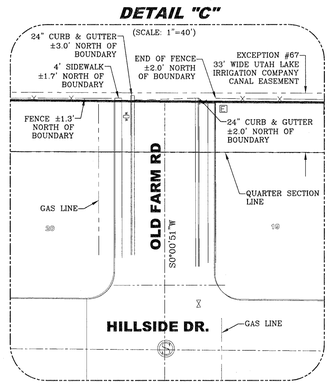

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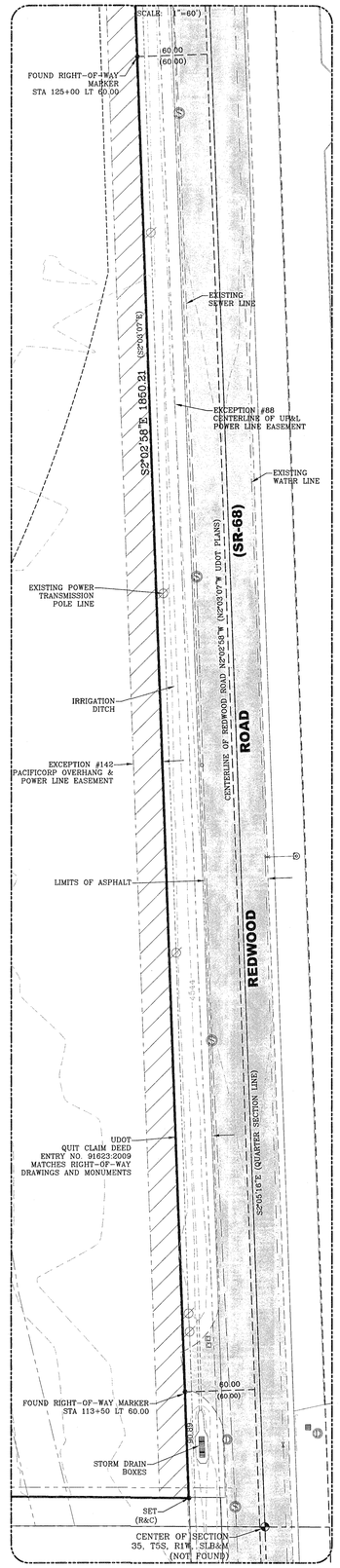

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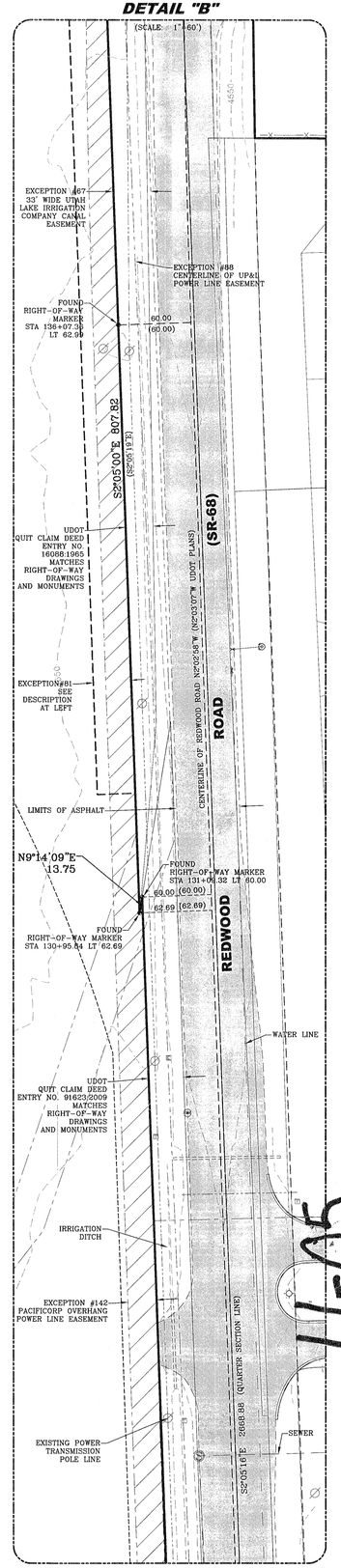

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STATE OF UTAH
CHAD A. POULSEN
No. 5011162
3/31/2011
PROFESSIONAL LAND SURVEYOR

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SECTIONS 35, T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

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SHEET	8 OF 16

NORTH

SCALE: 1" = 200'

0 100 200 400

EXCEPTIONS #99 & 100
20' WIDE WATER LINE EASEMENT

UNDERGROUND IRRIGATION LINE

S89°57'40"E 2661.00 (QUARTER SECTION LINE)

WEST 1/4
SECTION 26, T5S, R1W, SLB&M
(1959 UTAH CO. MONUMENT)

CENTER OF SECTION
26, T5S, R1W, SLB&M
(NOT FOUND)

N0°34'23"E
248.58

EXCEPTION #71
UP&L EASEMENT

S89°27'46"E 9.12

ZONE X

ZONE A

OUTSIDE EDGE OF PIVOT

ROBBINS
WARRANTY DEED
ENTRY NO.
73670:2005

S10°22'26"E 858.36

EXCEPTION #104
20' WIDE ULDC
UNDERGROUND
IRRIGATION
EASEMENT
ENTRY NO.
93920:1997

FOUND
RIGHT-OF-WAY
MARKER
(STA 160+00 RT 60.00
PER RIGHT-OF-WAY
DRAWINGS)

EXCEPTION #116
20' WIDE ULDC &
SARATOGA SPRINGS
STORM DRAIN AND WASTEWAY
CHANNEL EASEMENT
(DEEDED LOCATION APPEARS TO
BE DIFFERENT THAN THE ACTUAL
LOCATION OF THE CHANNEL

CULVERT
(TYPICAL)

TICKVILLE WASH

EXCEPTION #90
UP&L EASEMENT FOR
ONE (1) POLE

S89°29'43"E 169.10

WIRE
FENCE

S0°38'09"W 349.26

(SR-68)

2456.88

OVERHEAD POWER
TRANSMISSION LINE
(NO EASEMENT)

CORPORATION OF THE PRESIDING BISHOP
OF THE CHURCH OF JESUS CHRIST OF
LATTER DAY SAINTS
SPECIAL WARRANTY DEED
ENTRY NO. 16675:1982

N30°41'13"W 18.06

ACCESS FROM
(SR-68)

CENTER OF
PIVOT

PARCEL #18

S0°05'43"W 2656.47 (S0°05'43"W 2656.46)

DEED LINE

EXCEPTION #87
UP&L CENTERLINE EASEMENT

STATE ROAD COMMISSION
ENTRY NO. 16090:1965

ROAD

FOUND
RIGHT-OF-WAY
MARKER
(STA 150+00 RT 60.00
PER RIGHT-OF-WAY
DRAWINGS)

UNDERGROUND POWER
& IRRIGATION LINES

S0°30'20"W 1490.21

S0°30'25"W 2669.73 (QUARTER SECTION LINE)

REDWOOD

CORPORATION OF THE PRESIDING BISHOP
OF THE CHURCH OF JESUS CHRIST OF
LATTER DAY SAINTS
SPECIAL WARRANTY DEED
ENTRY NO. 16675:1982

CORPORATION OF THE
PRESIDING BISHOP OF
THE CHURCH OF
JESUS CHRIST OF
LATTER DAY SAINTS
SPECIAL WARRANTY DEED
ENTRY NO. 16675:1982

DEED
LINES

UDLC QUIT CLAIM DEED ENTRY NO. 19505:1964
APPEARS TO BE THE LOCATION OF THE OLD GARDNER
CANAL WHICH WAS DEEDED TO 'CPB' BY DEED
ENTRY NO. 93921:1997

OPEN DITCH

±36" UNDERGROUND
IRRIGATION LINE

EXCEPTION #90
UP&L EASEMENT

EXCEPTION #142
UP&L OVERHANG
POWER EASEMENT

FOUND
RIGHT-OF-WAY
MARKER
(STA 140+76.05 RT 60.00 PER
RIGHT-OF-WAY DRAWINGS)

DIRT
ROAD

WATER LINE

PUMP STATION

R=9940.000
Δ=1°46'22"
L=307.55
CH=N0°15'02"W 307.54
(RADIUS BEARS: N89°51'47"E)

S89°53'33"E 2641.83 (S89°53'34"E 2641.89)

DIRT ROAD

ACCESS
FROM SR-68

66.00
(66.00)

SOUTH 1/4 CORNER
SECTION 26, T5S,
R1W, SLB&M
(NOT FOUND)

SOUTHWEST CORNER
SECTION 26, T5S, R1W, SLB&M
(1971 UTAH CO. MONUMENT)

SARATOGA SPRINGS
CITY PUMP STATION

PUMP
STATION

OUTSIDE EDGE
OF PIVOT

DETAIL "A"

(SCALE: 1"=60')

SET
(R&C)

S89°27'46"E 9.12

SET
(R&C)

ZONE A

ZONE X

UDOT DEED
ENTRY NO.
67145:2005

66.00
(66.00)

ACCESS
FROM
(SR-68)

ROBBINS
WARRANTY DEED
ENTRY NO.
73670:2005

DIRT
ROAD

WASH

TICKVILLE

S10°22'26"E 858.36

EXCEPTION #116
20' WIDE ULDC &
SARATOGA SPRINGS
STORM DRAIN AND
WASTEWAY EASEMENT
(DEEDED LOCATION APPEARS
TO BE DIFFERENT THAN
ACTUAL LOCATION OF THE
EXISTING CHANNEL)

UNDERGROUND
IRRIGATION LINE

ROAD

(SR-68)

S0°38'09"W 2456.88

64.00
(60.00)

FOUND
RIGHT-OF-WAY
MARKER
STA 160+00
RT 60.00

DEED
GAPS ROW
±6.0' TO
±0.0'

EXCEPTION #104
20' WIDE ULDC
UNDERGROUND IRRIGATION
EASEMENT
ENTRY NO. 93920:1997

SURVEY BOUNDARY FOLLOWS
ROBBINS AND 'CPB' DEED LINES

UDOT DEED
ENTRY NO.
91623:2009

REDWOOD

LIMITS OF
ASPHALT

OVERHEAD POWER
TRANSMISSION LINE
(NO EASEMENT)

S89°29'43"E 169.10

SET
(R&C)

SET (R&C)
AT INTERSECTION OF UDOT
RIGHT-OF-WAY AND
ROBBINS DEED LINE

AREA IS BEING
OCCUPIED BY
ROBBINS

EXCEPTION #90
UP&L EASEMENT FOR
ONE (1) POLE

WIRE FENCE

OUTSIDE LIMITS
OF PIVOT

UDOT DEED
ENTRY NO.
91623:2009

S0°38'09"W 349.26

EXCEPTION #124
UDOT SLOPE
EASEMENT

FOUND RIGHT-OF-WAY MARKER
(STA 153+90.76 LT 69.39
PER RIGHT-OF-WAY DRAWINGS)

FOUND RIGHT-OF-WAY
MARKER (STA 153+75.33
LT (60.00 PER RIGHT-OF-WAY
DRAWINGS)

56.61
(50.00)

83.39
(60.00)

N30°41'13"W 18.06

UDLC QUIT CLAIM DEED ENTRY NO. 19505:1964
APPEARS TO BE THE LOCATION OF THE OLD GARDNER
CANAL WHICH WAS DEEDED TO 'CPB' BY DEED
ENTRY NO. 93921:1997

DEED GAPS THE UDOT RIGHT-OF-WAY
LINE ±0.0' TO 6.0'

STATE ROAD COMMISSION DEED
ENTRY NO. 16090:1965

DETAIL "B"

(SCALE: 1"=60')

ACCESS FROM
(SR-68)

CULVERT

OPEN
DITCH

EXCEPTION
#124
UDOT
SLOPE
EASEMENT

FOUND
RIGHT-OF-WAY
MARKER
(STA 150+00
LT 68.50 PER
RIGHT-OF-WAY
DRAWINGS)

66.96
(68.50)

62.54
(60.00)

FOUND
RIGHT-OF-WAY
MARKER
STA 150+00
RT 60.00

UDLC QUIT CLAIM DEED ENTRY NO. 19505:1964
APPEARS TO BE THE LOCATION OF THE OLD
GARDNER CANAL WHICH WAS DEEDED TO 'CPB'
BY DEED ENTRY NO. 93921:1997

ROAD

(SR-68)

DEED
GAPS ROW
±6.0' TO
±0.0'

S0°30'20"W 1490.21

S0°30'25"W 2669.73

STATE ROAD COMMISSION
ENTRY NO. 16090:1965

WATER
LINE

S0°38'09"W 2456.88

UDOT DEED
ENTRY NO.
91623:2009

DEED GAPS
UDOT ROW LINE
±6.0' TO 0.0'

REDWOOD

LIMITS OF
ASPHALT

OVERHEAD
POWER
LINE

UDOT DEED
ENTRY NO.
91623:2009

EXCEPTION
#90
UP&L
EASEMENT

FOUND
RIGHT-OF-WAY
MARKER
STA 140+76.05
RT 60.00

FOUND
RIGHT-OF-WAY
MARKER
STA 140+76.05
RT 66.40

65.94
(66.40)

60.46
(60.00)

EXCEPTION
#142
UP&L
OVERHANG
POWER
EASEMENT

R=9940.00
Δ=1°46'22"
L=307.55

CH=S0°15'02"E 307.54

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STATE OF UTAH
LICENSED
PROFESSIONAL LAND SURVEYOR
LOAD A.
FOWLSEN
No. 180187
7/11/201

ALTA/ACSM LAND TITLE SURVEY

LOCATION: SOUTHWEST 1/4 SECTION 26 T5S, R1W, SLB&M, SARATOGA SPRINGS, UTAH

PROPERTY OF: THE CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

PREPARED FOR: PROPERTY RESERVE INC.

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DATE: 12/31/2010

SHEET

9 OF 16

Beacon Pointe
Master Utility Plan

Saratoga Springs, Utah

October, 2018

10/25/2018

TABLE OF CONTENTS

Table of Contents i

Introduction 1

Culinary Water 1

- Overall Water Demands 1
- Buildout Conditions Summary 2

Secondary Water 2

- Overall Water Demands 3
- Delivery 3
- Buildout Conditions 3

Sanitary Sewer 4

- Routing/Pipe Sizing 4

Storm Drain 5

Appendix A - Culinary Water Master Plan Exhibit 6

Appendix B – Culinary Water Model Information 7

Appendix C – Culinary Water Model Results 8

Appendix D – Secondary Water Master Plan Exhibit 9

Appendix E – Secondary Water Model Information 10

Appendix F – Secondary Water Model Results 11

Appendix G – Sanitary Sewer Master Plan Exhibit 12

Appendix H – Storm Water Master Plan Exhibit 13

Appendix I – Storm Water Hydrology Study 14

INTRODUCTION

The location of the proposed Beacon Pointe development is bounded by major transportation corridors and existing residential development on three sides of the property. Redwood Road bounds the property on the east side, the future Foothills Boulevard/Mountain View Corridor is on the west, and the existing Grandview Subdivision is on the south of the property. The following report addresses each of the different utilities required for development and any specific requirements for each:

CULINARY WATER

The proposed Beacon Pointe development falls within the Zone 1 and Zone 2 Water zones. There is currently Zone 1 culinary water infrastructure located within Redwood Road, and Zone 2 water infrastructure in the Grandview Subdivision. Each component of source, storage and delivery will be assessed for the City's needs. Appendix A shows an overall master plan layout for the culinary water that reflects the information provided within this section.

For purposes of establishing necessary utility capacities, the determination of ERUs is based on the methodologies established within the City's individual IFFP and Master Plan studies. Design criteria used within the Master Plan are as follows:

- Source Required per ERU: 800 gpd
- Storage Required per ERU: 400 gpd
- Average Day Demand per ERU: 400 gpd or 0.28 gpm
- Peak Day Demand: Double the average day demand
- Peak Instantaneous Demand: Double the peak day demand
- Fire Flow: 2,000 gpm (residential)
  1,100 gpm (civic)
- Minimum Residual Pressure: 20 psi
- Maximum Velocity (Peak Instantaneous Event): 6 ft/s

Overall Water Demands

The overall culinary water demands for source and storage at a build-out condition are shown in Table 1.

Source

The culinary water source for these projects will connect to the existing Zone 1 and Zone 2 water source.

Table 1: Overall Culinary Water Demands

Zone 1	Units	ERUs	Source Req'd (gpd/ERU)	Total Source (gpm)	Storage Req'd (gal/ERU)	Total Storage (gal)
Residential	1000	1000	800	555.6	400	400,000
Church	---	6	800	3.3	400	2,400
Total		**1,006**		**558.9**		**402,400**

Zone 2	Units	ERUs	Source Req'd (gpd/ERU)	Total Source (gpm)	Storage Req'd (gal/ERU)	Total Storage (gal)
Residential	913	913	800	507.2	400	365,200
Civic [1]	---	32	800	17.8	400	12,800
Church	---	5	800	2.8	400	2,000
Total		**950**		**527.8**		**380,000**

[1] Civic area ERUs to be verified with final design of Village 1B

Storage

The existing Zone 1 and Zone 2 tanks will be utilized for the development.

Delivery

Water line sizing, as shown on the Culinary Water Master Plan Exhibit have been sized to provide the larger of the peak instantaneous or peak day plus fire scenarios. A fire flow of two-thousand (2,000) gallons per minute for residential, and one-thousand, one-hundred (1,100) gallons per minute for the civic area were used. The model was calibrated to model the flow for peak instantaneous and peak day plus fire. Information used to calibrate the model to reflect the anticipated uses is shown in Appendix B. The results of this modeling are included in Appendix C.

Buildout Conditions Summary

Source: Saratoga Springs City System
Storage: Existing Zone 1 and Zone 2 Water Tanks
Delivery: See the water model for sizes.

SECONDARY WATER

The proposed Beacon Pointe development will be supplied from both Zone 1 and Zone 2 secondary water from existing and proposed waterlines. Each component of source, storage and delivery will be assessed for the City's needs. Appendix D shows an overall master plan layout for the secondary water that reflects the information provided within this section.

For purposes of establishing necessary utility capacities, the determination of ERUs is based on the methodologies established within the City's individual IFFP and Master Plan studies. Design criteria used within the Master Plan are as follows:

- Source Required: 0.75 AF/yr or 7.5 gpm/Irrigated Acre (IA)
- Storage Required: 9,216 gal/Irrigated Acre (IA)
- Civic/Church Estimate: 25% total area irrigated
- Irrigated Area per Residential Lot:
  - ROW Area: Based on anticipated density. See table 2.
  - Irrigated area per lot: 65% landscaping
- Peak Day Demand: 7.5 gpm per irrigated acre
- Peak Instantaneous Demand: 15 gpm per irrigated acre
- Maximum Velocity (Peak Instantaneous Event): 6 ft/s

Table 2: ROW Percentages

Village	% ROW	Overall % Irrigated
1A	25%	---
1B	---	25%
2	28%	---
3	27%	---
Park	---	100%
4	30%	---
5	---	30%
6	27%	---
7	25%	---
8	25%	---

Overall Secondary Water Demands

The overall secondary water demands for source and storage at a build-out condition are shown in Table 3.

Table 3. Overall Secondary Water Demands

Zone 1	**ERU or Acres**	**% Irrigated (IA / ERU)**	**Irrigated Area (Acres)**	**Source Req'd (gpm/IA)**	**Total Source (gpm)**	**Storage Req'd (gal/IA)**	**Total Storage (gal)**
Residential	1000	0.056	56.2	7.5	421.5	9216	517,900
Church	7.0	25%	1.8	7.5	13.1	9216	16,128
Total			57.9		434.6		**534,028**

Zone 2	**ERU or Acres**	**% Irrigated (IA / ERU)**	**Irrigated Area (Acres)**	**Source Req'd (gpm/IA)**	**Total Source (gpm)**	**Storage Req'd (gal/IA)**	**Total Storage (gal)**
Residential	913	0.102	93.5	7.5	701.5	9216	862,060
Civic/Church	22.8	25%	5.7	7.5	42.8	9216	52,531
City Park	15.7	100%	15.7	7.5	117.8	9216	144,691
Total			114.9		862.0		**1,059,283**

Delivery

Water line sizing, as shown on the Secondary Water Master Plan Exhibit have been sized to provide the necessary flows as per City Code. Information used to calibrate the model to reflect the anticipated uses is shown in Appendix E. The results of this modeling are included in Appendix F.

Buildout Conditions

Source: Saratoga Springs City System
Storage: Existing Zone 1 and Zone 2 Ponds
Delivery: See the water model for sizes

SANITARY SEWER

An exhibit has been provided within Appendix G showing the proposed master plan routing of the sanitary sewer for the development.

The development will be connected by a trunk line that runs north and south, in the center of the development, from the future Pony Express Parkway. This sewer line will then run east and connect to the existing 48" sewer line that runs to the treatment plant. The ERUs for the development are shown in Table 4:

Table 4. Overall Sanitary Sewer ERU Allocation for Beacon Pointe

Sewer Area "Node A" ERUs	
Residential	496
Civic	55
Total	**551**
Sewer Area "Node B" ERUs	
Residential/Open Space	411
Total	**411**
Sewer Area "Node C" ERUs	
Residential	603
Church	6
Total	**609**
Sewer Area "Node D" ERUs	
Residential	397
Total	**397**

Final alignment and design will be determined as discussions progress with more information provided at the Village Plan level. The alignments shown within the sewer exhibit found in Appendix G are conceptual in nature and are subject to change as the entitlement process progresses.

Routing/Pipe Sizing

The development area was divided into three main areas, as well as a possible future upstream contributing area. The ERUs that were calculated for each of these areas were used to determine appropriate pipe sizing for the main trunk line.

Design Capacity

The following criteria has been used to evaluate the capacity of the proposed sewer pipeline:

- Minimum Slope = 0.40%
- d/D = 0.80 (as per City's current master plan study)
- n = 0.013
- Peaking Factor = 2.5
- Flow = 255 gpd per ERU per City Master Plan

Pipe Capacity Calculations

Based on the criteria listed above, pipe capacity calculations have been provided showing the anticipated flow and the equivalent amount of ERUs for the inflow from the service areas. There is the possibility that the land to the north of the project may be developed in the future. This land

includes approximately 86 acres. An assumed density of 6 units per acre was used for this future inflow into the sewer system. See the calculations in Table 5:

Table 5. Sewer Pipe Sizing Calculations

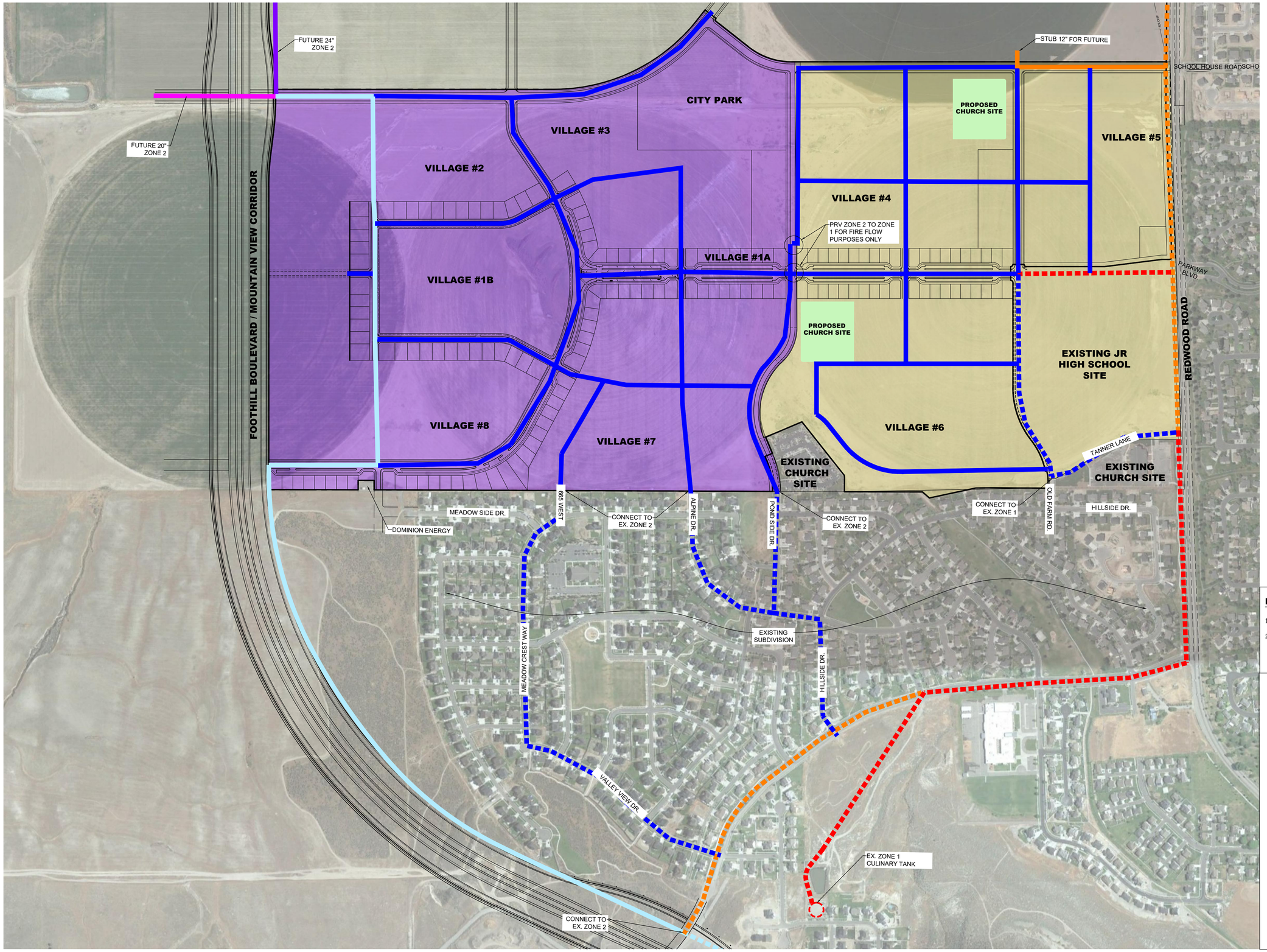
Node	ERUs	GPD/ERU	Peaking Factor	Peak Flow (GPD)	Peak Flow (GPM)	Cumulative Flow (GPM)	Cumulative Flow (CFS)	Pipe Diameter (IN)	Minimum Slope	Capacity - 80% Full (CFS)
A	551	255	2.5	351,263	243.9	243.9	0.54	8	0.40%	0.75
B	411	255	2.5	262,013	182.0	425.9	0.95	10	0.28%	1.14
C	609	255	2.5	388,238	269.6	698.2	1.56	10	0.55%	1.59
D	397	255	2.5	253,088	175.8	873.9	1.95	10	0.85%	1.98

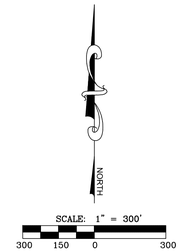
STORM DRAIN

The storm water runoff will be routed by pipes to the east end of the project where it will be discharged into an existing outfall pipe. The overall discharge from the site, including the new junior High school will be limited to 58.0 cfs. The TR-55 Method was used to determine the runoff from this area and modeled using Autodesk Storm and Sanitary Sewer Analysis (SSA) program. An exhibit showing the main backbone line and proposed detention basin locations is included in Appendix H. Based on City requirements, the pipes will be sized to convey the 10-year flows to the outfall, and the detention basins will be sized to detain the 100-year storm event. Runoff in excess of the 10-year storm event will be conveyed as overland flow by the proposed roads to the detention basins.

A hydrological study was conducted for this service area and determined approximately 40.26 cfs and 52.24 cfs will discharge for a 10-year and 100-year storm event, respectively. The future pipes will be sized with the final construction drawings to accommodate these flows. See Appendix I for a copy of the hydrologic study.

APPENDIX A - CULINARY WATER MASTER PLAN EXHIBIT





NOTES

1. ZONE BOUNDARIES ADJUSTED TO ROADWAY LOCATIONS
2. PROPOSED INTERIOR WATERLINE LOCATIONS MAY VARY BASED ON FINAL INTERIOR ROAD LAYOUT.

COLOR CODING LEGEND
PIPE: DIAMETER (IN)

- EXISTING 8" CULINARY
- PROPOSED 8" CULINARY
- PROPOSED 10" CULINARY
- PROPOSED 12" CULINARY
- EXISTING 12" CULINARY
- EXISTING 14" CULINARY
- PROPOSED 16" CULINARY
- EXISTING 16" CULINARY
- PROPOSED 20" CULINARY
- PROPOSED 24" CULINARY
- PRESSURE ZONE 1
- PRESSURE ZONE 2

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STATE OF UTAH
GREGORY D. MAGLEBY
No. 189844
9/26/18
REGISTERED PROFESSIONAL ENGINEER

SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH

MASTER CULINARY PLAN

REVISIONS
1 -
2 -
3 -
4 -
5 -

LEI PROJECT #: 2017-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 300'
DATE: 10/16/2018

SHEET
1

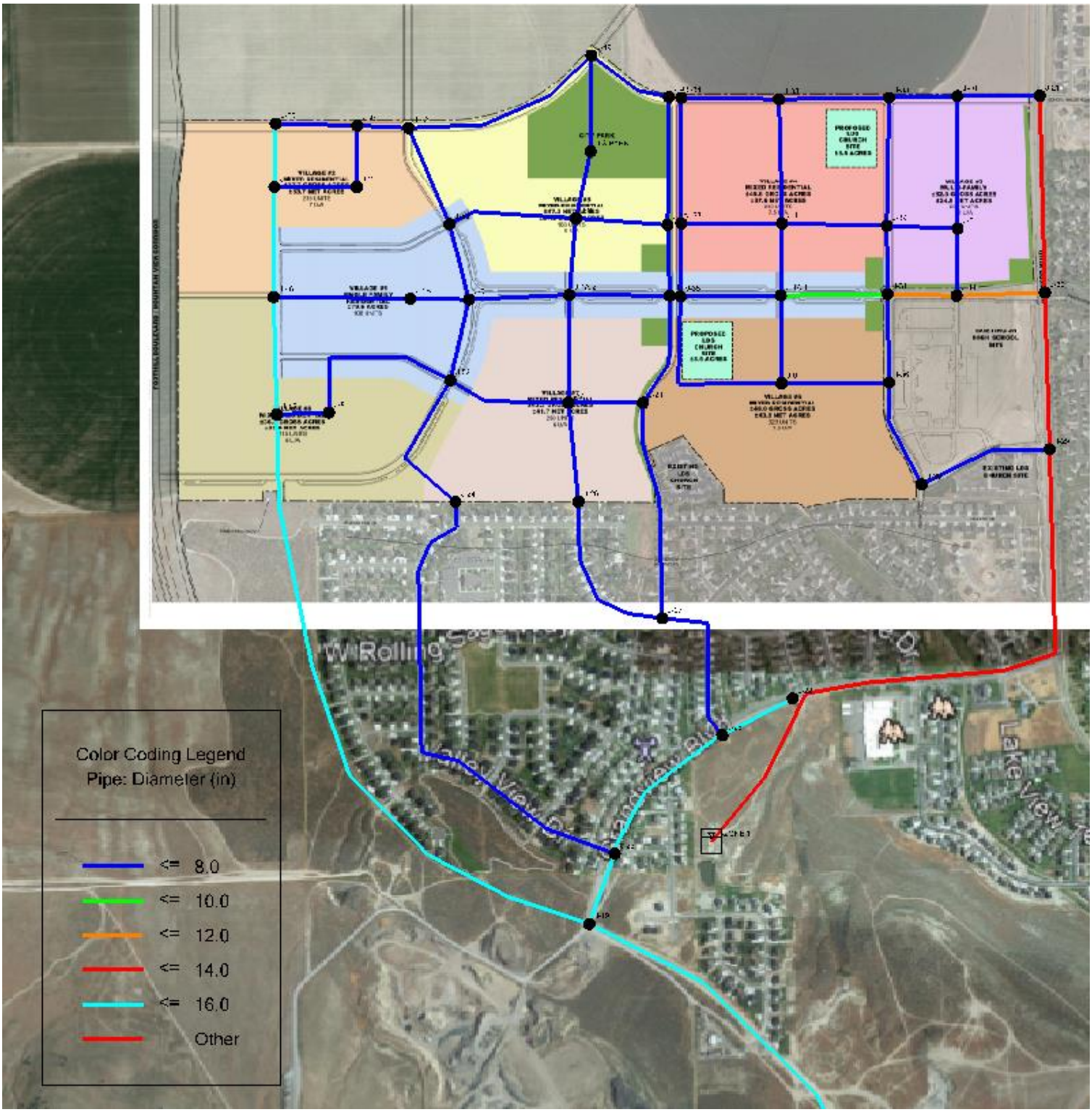
APPENDIX B – CULINARY WATER MODEL INFORMATION

Table 1: Input Data for Overall Culinary Model

Culinary Demands									
Junction No.	Residential Units	Equivalent Residential Units	Capita/ Unit	Capita	Average Flow/ Capita (gpd)	Average Flow (gpd)	Average Flow (gpm)	Peak Day Demand (gpm)	Peak Instantaneous Demand (gpm)
Zone 1									
1A	38	0	4.11	156	99	15,462	11	**21**	**43**
4	295	3	4.11	1225	100	122,478	85	**170**	**340**
5	397	0	4.11	1632	100	163,167	113	**227**	**453**
6	268	3	4.11	1114	100	111,381	77	**155**	**309**
Zone 2									
1A	82	0	4.11	337	100	33,702	23	**47**	**94**
1B	0	37	4.11	152	100	15,207	11	**21**	**42**
2	239	0	4.11	982	100	98,229	68	**136**	**273**
3	196	0	4.11	806	100	80,556	56	**112**	**224**
Park	0	0	4.11	0	100	-	0	**0**	**0**
7	192	0	4.11	789	100	78,912	55	**110**	**219**
8	207	0	4.11	851	100	85,077	59	**118**	**236**

APPENDIX C – CULINARY WATER MODEL RESULTS

Culinary Model



Scenario: Peak Instantaneous
Current Time Step: 0.000 h
FlexTable: Junction Table

Label	Elevation (ft)	Pressure (psi)	Demand (gpm)	Pressure (Calculated Residual) (psi)
J-1A-1	4,573.00	78	43	(N/A)
J-1A-2	4,595.00	137	94	(N/A)
J-1B	4,642.00	117	42	(N/A)
J-2	4,629.00	123	273	(N/A)
J-3	4,594.00	138	224	(N/A)
J-3-PARK	4,592.00	139	0	(N/A)
J-4	4,571.00	79	340	(N/A)
J-5	4,554.00	86	453	(N/A)
J-6	4,578.00	76	309	(N/A)
J-7	4,614.00	129	219	(N/A)
J-8	4,671.00	105	236	(N/A)
J-19	4,800.00	50	0	(N/A)
J-20	4,632.00	122	0	(N/A)
J-21	4,554.00	87	0	(N/A)
J-22	4,650.00	115	0	(N/A)
J-23	4,762.00	66	0	(N/A)
J-24	4,674.00	104	0	(N/A)
J-25	4,690.00	97	0	(N/A)
J-26	4,638.00	119	0	(N/A)
J-27	4,650.00	114	0	(N/A)
J-28	4,612.00	130	0	(N/A)
J-29	4,550.00	89	0	(N/A)
J-30	4,575.00	78	0	(N/A)
J-31	4,561.00	83	0	(N/A)
J-32	4,552.00	88	0	(N/A)
J-33	4,560.00	84	0	(N/A)
J-34	4,582.00	74	0	(N/A)
J-35	4,583.00	74	0	(N/A)
J-36	4,563.00	83	0	(N/A)
J-37	4,582.00	74	0	(N/A)
J-38	4,571.00	79	0	(N/A)
J-39	4,561.00	83	0	(N/A)
J-40	4,555.00	86	0	(N/A)
J-41	4,554.00	87	0	(N/A)
J-42	4,616.00	128	0	(N/A)
J-43	4,582.00	143	0	(N/A)
J-44	4,583.00	143	0	(N/A)
J-45	4,670.00	105	0	(N/A)
J-46	4,650.00	114	0	(N/A)
J-47	4,636.00	120	0	(N/A)
J-48	4,628.00	123	0	(N/A)
J-49	4,592.00	139	0	(N/A)
J-50	4,582.00	143	0	(N/A)
J-51	4,620.00	127	0	(N/A)
J-52	4,649.00	114	0	(N/A)
J-53	4,613.00	130	0	(N/A)

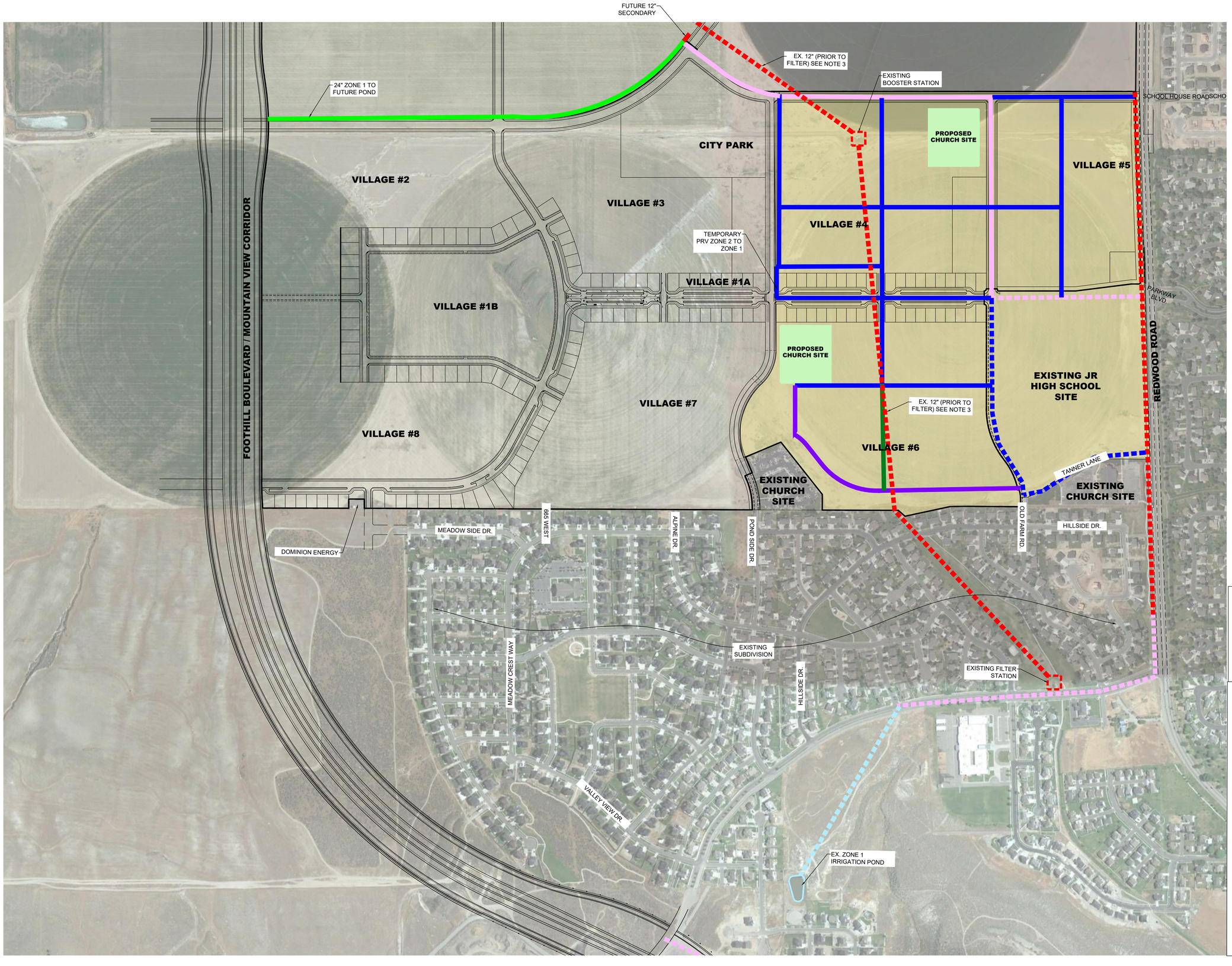
Scenario: Peak + Fire
Current Time Step: 0.000 h
FlexTable: Junction Table

Label	Elevation (ft)	Pressure (psi)	Demand (gpm)	Pressure (Calculated Residual) (psi)
J-1A-1	4,573.00	81	21	22
J-1A-2	4,595.00	140	47	84
J-1B	4,642.00	119	21	55
J-2	4,629.00	125	136	62
J-3	4,594.00	140	112	81
J-3-PARK	4,592.00	141	0	66
J-4	4,571.00	82	170	21
J-5	4,554.00	89	227	29
J-6	4,578.00	79	155	20
J-7	4,614.00	132	110	76
J-8	4,671.00	107	118	46
J-19	4,800.00	51	0	21
J-20	4,632.00	124	0	77
J-21	4,554.00	89	0	37
J-22	4,650.00	116	0	78
J-23	4,762.00	68	0	35
J-24	4,674.00	106	0	20
J-25	4,690.00	99	0	63
J-26	4,638.00	121	0	43
J-27	4,650.00	116	0	54
J-28	4,612.00	132	0	71
J-29	4,550.00	91	0	52
J-30	4,575.00	80	0	20
J-31	4,561.00	86	0	34
J-32	4,552.00	90	0	44
J-33	4,560.00	87	0	23
J-34	4,582.00	77	0	20
J-35	4,583.00	77	0	20
J-36	4,563.00	85	0	24
J-37	4,582.00	77	0	20
J-38	4,571.00	82	0	20
J-39	4,561.00	86	0	29
J-40	4,555.00	89	0	29
J-41	4,554.00	89	0	39
J-42	4,616.00	131	0	72
J-43	4,582.00	145	0	63
J-44	4,583.00	145	0	83
J-45	4,670.00	107	0	65
J-46	4,650.00	116	0	72
J-47	4,636.00	122	0	76
J-48	4,628.00	125	0	71
J-49	4,592.00	141	0	70
J-50	4,582.00	145	0	81
J-51	4,620.00	129	0	77
J-52	4,649.00	116	0	64
J-53	4,613.00	132	0	73

Scenario: Peak + Fire
Current Time Step: 0.000 h
Fire Flow Node FlexTable: Fire Flow Report

Label	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-1A-1	2	True	2,500	4,000	4,021	22
J-1A-2	2	True	2,500	4,000	4,047	84
J-1B	4	True	4,000	4,046	4,067	55
J-2	2	True	2,500	4,000	4,136	62
J-3	2	True	2,500	4,000	4,112	81
J-3-PARK	2	True	2,500	4,000	4,000	66
J-4	6	True	2,500	3,949	4,119	21
J-5	2	True	2,500	4,000	4,227	29
J-6	4	True	2,500	3,689	3,844	20
J-7	2	True	2,500	4,000	4,110	76
J-8	2	True	2,500	4,000	4,118	46
J-19	5	True	1	4,000	4,000	21
J-20	4	True	1	4,000	4,000	77
J-21	4	True	1	4,000	4,000	37
J-22	4	True	1	4,000	4,000	78
J-23	4	True	1	4,000	4,000	35
J-24	6	True	1	3,820	3,820	20
J-25	4	True	1	4,000	4,000	63
J-26	4	True	1	4,000	4,000	43
J-27	4	True	1	4,000	4,000	54
J-28	4	True	1	4,000	4,000	71
J-29	4	True	1	4,000	4,000	52
J-30	6	True	1	3,643	3,643	20
J-31	4	True	1	4,000	4,000	34
J-32	4	True	1	4,000	4,000	44
J-33	5	True	1	4,000	4,000	23
J-34	6	True	1	3,155	3,155	20
J-35	6	True	1	3,550	3,550	20
J-36	5	True	1	4,000	4,000	24
J-37	6	True	1	3,538	3,538	20
J-38	6	True	1	3,695	3,695	20
J-39	4	True	1	4,000	4,000	29
J-40	4	True	1	4,000	4,000	29
J-41	4	True	1	4,000	4,000	39
J-42	4	True	1	4,000	4,000	72
J-43	4	True	1	4,000	4,000	63
J-44	4	True	1	4,000	4,000	83
J-45	4	True	1	4,000	4,000	65
J-46	4	True	1	4,000	4,000	72
J-47	4	True	1	4,000	4,000	76
J-48	4	True	1	4,000	4,000	71
J-49	4	True	1	4,000	4,000	70
J-50	4	True	1	4,000	4,000	81
J-51	4	True	1	4,000	4,000	77
J-52	4	True	1	4,000	4,000	64
J-53	4	True	1	4,000	4,000	73

APPENDIX D – SECONDARY WATER MASTER PLAN EXHIBIT



NOTES

1. ZONE BOUNDARIES ADJUSTED TO ROADWAY LOCATIONS
2. PROPOSED INTERIOR WATERLINE LOCATIONS MAY VARY BASED ON FINAL INTERIOR ROAD LAYOUT.
3. EX. 12" LINE TO BE RELOCATED AS NECESSARY UNTIL CAPITAL FACILITIES PROJECT RELOCATES FILTER STATION.

COLOR CODING LEGEND
PIPE: DIAMETER (IN)

- EXISTING 6" SECONDARY
- PROPOSED 6" SECONDARY
- PROPOSED 8" SECONDARY
- PROPOSED 10" SECONDARY
- EXISTING 12" SECONDARY
- EXISTING 14" SECONDARY
- PROPOSED 16" SECONDARY
- EXISTING 16" SECONDARY
- PROPOSED 20" SECONDARY
- PROPOSED 24" SECONDARY
- FUTURE 12" SECONDARY
- PRESSURE ZONE 1
- PRESSURE ZONE 2

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STATE OF UTAH
GREGORY D. MAGLEBY
No. 189844
REGISTERED PROFESSIONAL ENGINEER
COORDINATION

SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH

MASTER SECONDARY PLAN
ZONE 1

REVISIONS
1 -
2 -
3 -
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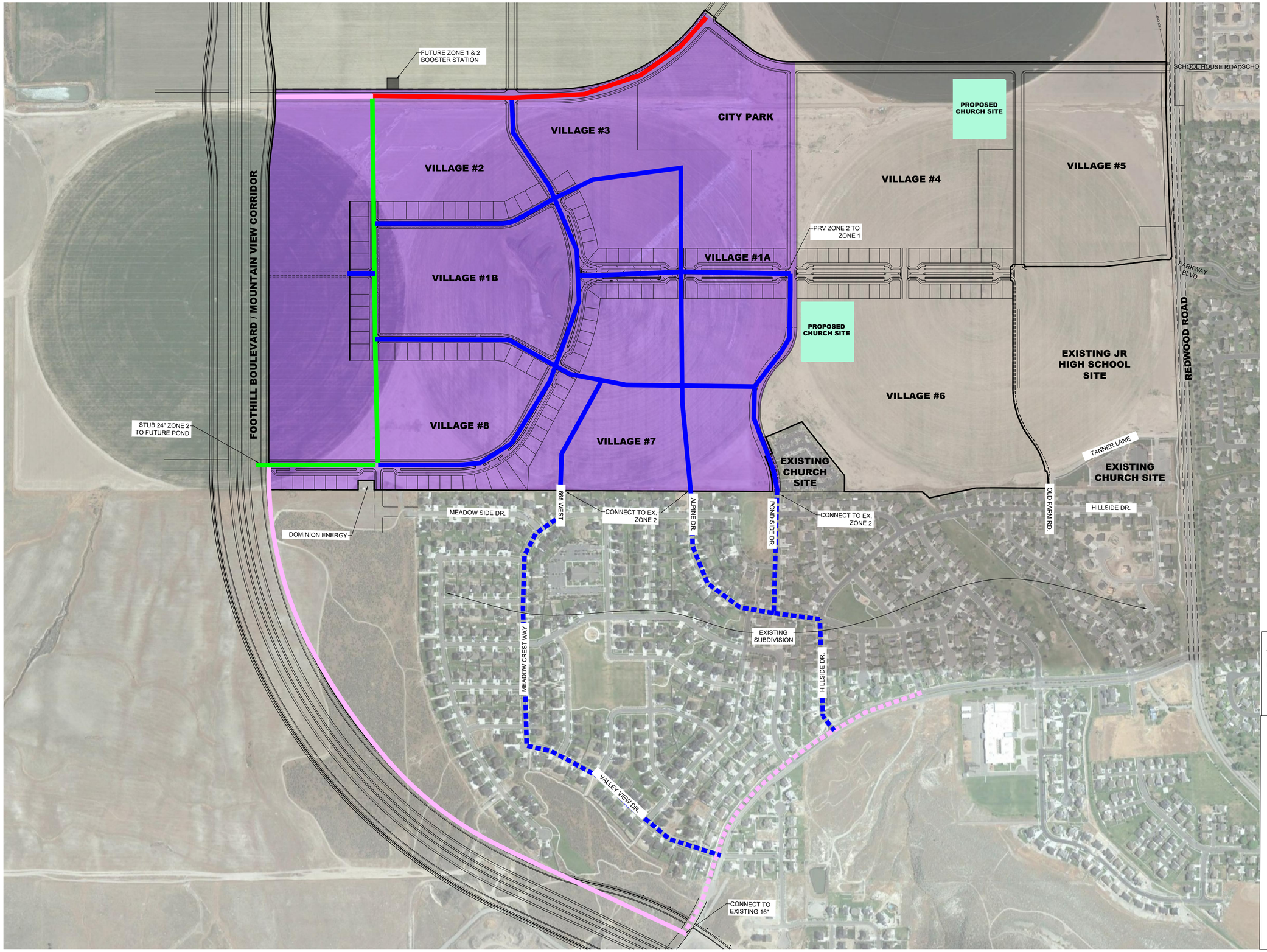
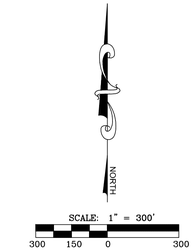
LEI PROJECT #: 2017-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 300'
DATE: 10/16/2018

SHEET
1





NOTES

1. ZONE BOUNDARIES ADJUSTED TO ROADWAY LOCATIONS
2. PROPOSED INTERIOR WATERLINE LOCATIONS MAY VARY BASED ON FINAL INTERIOR ROAD LAYOUT.

COLOR CODING LEGEND
PIPE: DIAMETER (IN)

- EXISTING 6" SECONDARY
- PROPOSED 6" SECONDARY
- PROPOSED 12" SECONDARY
- EXISTING 12" SECONDARY
- EXISTING 14" SECONDARY
- PROPOSED 16" SECONDARY
- EXISTING 16" SECONDARY
- PROPOSED 20" SECONDARY
- PROPOSED 24" SECONDARY
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STATE OF UTAH
GREGORY D. MAGLEBY
No. 169844
REGISTERED PROFESSIONAL ENGINEER
COMMISSION

SUBURBAN LAND RESERVE
SARATOGA SPRINGS, UTAH

MASTER SECONDARY PLAN
ZONE 2

REVISIONS
1 -
2 -
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5 -

LEI PROJECT #: 2017-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 300'
DATE: 10/16/2018

SHEET
1

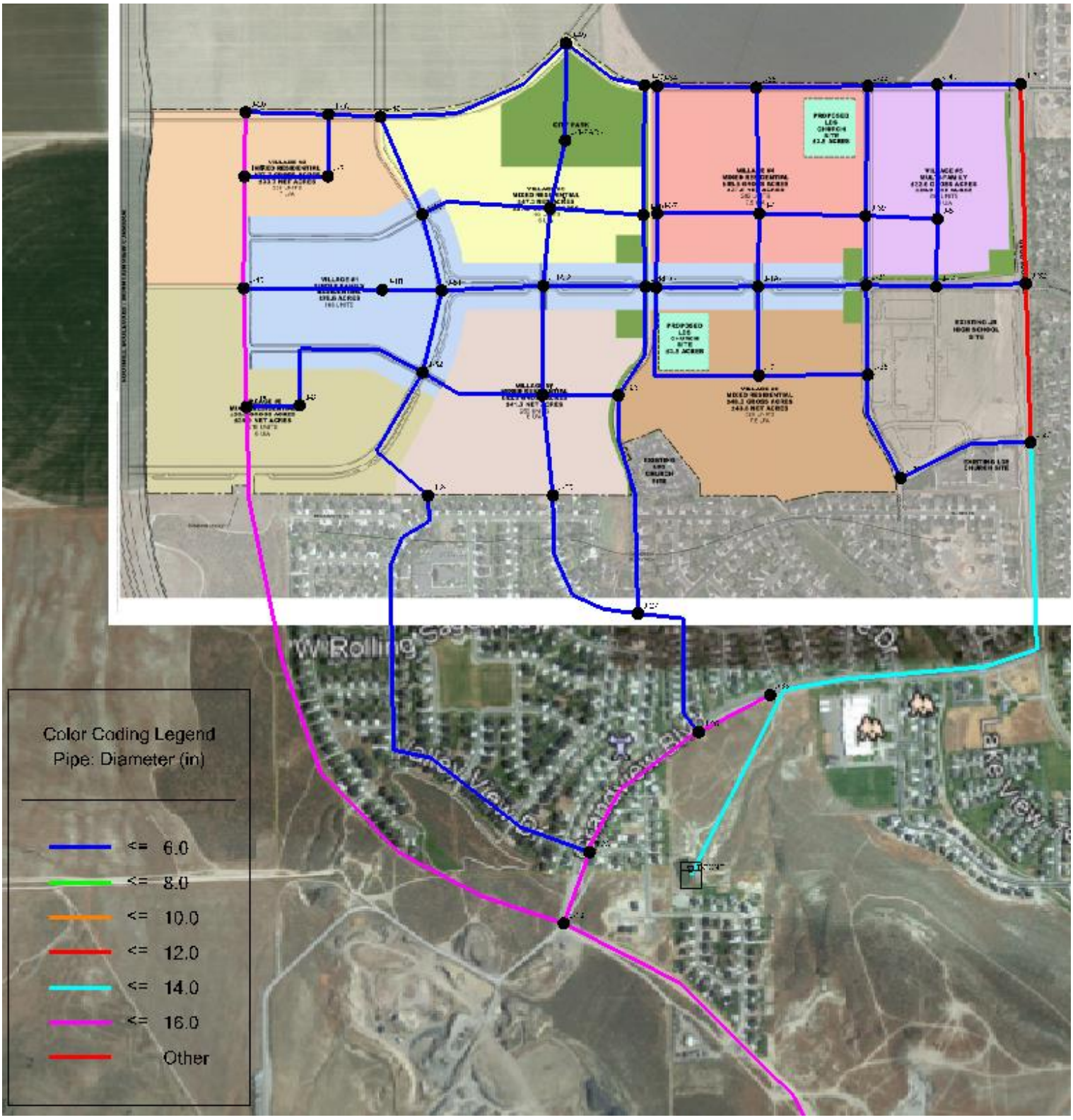
APPENDIX E – SECONDARY WATER MODEL INFORMATION

Secondary Demands

Junction No.	Residential Units	Residential Development Area (ac)	ROW (ac)	Avg. Lot Size (ac)	Lot Irrigated Area (65%) (ac)	Total Irrigated Lot Area (ac)	Church/Civic (ac)	Church/Civic Irrigated Area (25%) (ac)	Open Space/Park (100% irrigated) (ac)	Total Irrigated Area (ac)	Peak Day Demand (gpm/ac)	Peak Day Demand (gpm)	Peak Instantaneous Demand (gpm/ac)	Peak Instantaneous Demand (gpm)
Zone 1														
1A	38	12.20	3.05	0.24	0.16	5.95	0.00	0.00	0.00	5.95	6.5	**39**	15	**89**
4	295	42.10	12.63	0.10	0.06	19.16	3.50	0.88	0.00	20.03	7.5	**150**	15	**300**
5	397	33.10	0.00	0.00	0.00	9.93	0.00	0.00	0.00	9.93	7.5	**74**	15	**149**
6	268	44.60	12.04	0.12	0.08	21.16	3.50	0.88	0.00	22.04	7.5	**165**	15	**331**
Zone 2														
1A	82	33.10	8.28	0.30	0.20	16.14	0.00	0.00	0.00	16.14	7.5	**121**	15	**242**
1B	0	22.80	0.00	0.00	0.00	0.00	22.80	5.70	0.00	5.70	7.5	**43**	15	**86**
2	239	36.80	10.30	0.11	0.07	17.22	0.00	0.00	0.00	17.22	7.5	**129**	15	**258**
3	196	35.70	9.64	0.13	0.09	16.94	0.00	0.00	0.00	16.94	7.5	**127**	15	**254**
Park	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.80	14.80	7.5	**111**	15	**222**
7	192	42.60	10.65	0.17	0.11	20.77	0.00	0.00	0.90	21.67	7.5	**163**	15	**325**
8	207	46.10	11.53	0.17	0.11	22.47	0.00	0.00	0.00	22.47	7.5	**169**	15	**337**

APPENDIX F – SECONDARY WATER MODEL RESULTS

Secondary Water Model



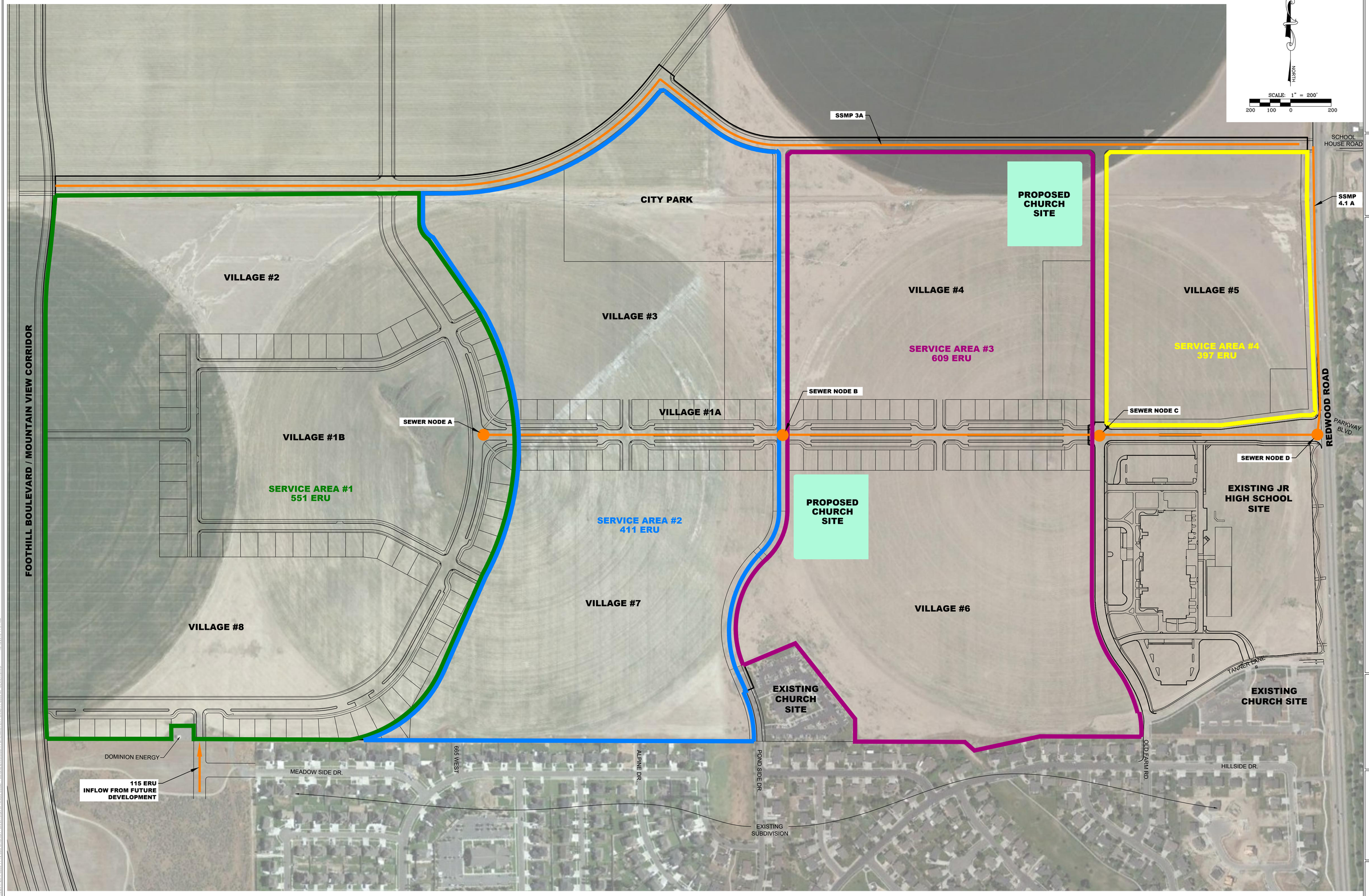
Scenario: Peak Day
Current Time Step: 0.000 h
FlexTable: Junction Table

Label	Elevation (ft)	Pressure (psi)	Demand (gpm)	Pressure (Calculated Residual) (psi)
J-1A-1	4,573.00	80	39	(N/A)
J-1A-2	4,595.00	137	121	(N/A)
J-1B	4,642.00	118	43	(N/A)
J-2	4,629.00	123	129	(N/A)
J-3	4,594.00	138	127	(N/A)
J-3-PARK	4,592.00	139	111	(N/A)
J-4	4,571.00	81	150	(N/A)
J-5	4,554.00	89	74	(N/A)
J-6	4,578.00	78	165	(N/A)
J-7	4,614.00	129	169	(N/A)
J-8	4,671.00	105	163	(N/A)
J-19	4,800.00	51	0	(N/A)
J-20	4,632.00	123	0	(N/A)
J-21	4,554.00	90	0	(N/A)
J-22	4,650.00	115	0	(N/A)
J-23	4,762.00	67	0	(N/A)
J-24	4,674.00	104	0	(N/A)
J-25	4,690.00	98	0	(N/A)
J-26	4,638.00	119	0	(N/A)
J-27	4,650.00	114	0	(N/A)
J-28	4,612.00	130	0	(N/A)
J-29	4,550.00	92	0	(N/A)
J-30	4,575.00	80	0	(N/A)
J-31	4,561.00	86	0	(N/A)
J-32	4,552.00	91	0	(N/A)
J-33	4,560.00	86	0	(N/A)
J-34	4,582.00	77	0	(N/A)
J-35	4,583.00	76	0	(N/A)
J-36	4,563.00	85	0	(N/A)
J-37	4,582.00	76	0	(N/A)
J-38	4,571.00	81	0	(N/A)
J-39	4,561.00	86	0	(N/A)
J-40	4,555.00	89	0	(N/A)
J-41	4,554.00	89	0	(N/A)
J-42	4,616.00	129	0	(N/A)
J-43	4,582.00	143	0	(N/A)
J-44	4,583.00	143	0	(N/A)
J-45	4,670.00	106	0	(N/A)
J-46	4,650.00	115	0	(N/A)
J-47	4,636.00	121	0	(N/A)
J-48	4,628.00	124	0	(N/A)
J-49	4,592.00	139	0	(N/A)
J-50	4,582.00	143	0	(N/A)
J-51	4,620.00	127	0	(N/A)
J-52	4,649.00	114	0	(N/A)
J-53	4,613.00	130	0	(N/A)

Scenario: Peak Instantaneous
Current Time Step: 0.000 h
FlexTable: Junction Table

Label	Elevation (ft)	Pressure (psi)	Demand (gpm)	Pressure (Calculated Residual) (psi)
J-1A-1	4,573.00	75	89	(N/A)
J-1A-2	4,595.00	129	242	(N/A)
J-1B	4,642.00	111	86	(N/A)
J-2	4,629.00	117	258	(N/A)
J-3	4,594.00	129	254	(N/A)
J-3-PARK	4,592.00	130	222	(N/A)
J-4	4,571.00	76	300	(N/A)
J-5	4,554.00	85	149	(N/A)
J-6	4,578.00	73	331	(N/A)
J-7	4,614.00	121	325	(N/A)
J-8	4,671.00	98	337	(N/A)
J-19	4,800.00	47	0	(N/A)
J-20	4,632.00	118	0	(N/A)
J-21	4,554.00	88	0	(N/A)
J-22	4,650.00	112	0	(N/A)
J-23	4,762.00	63	0	(N/A)
J-24	4,674.00	98	0	(N/A)
J-25	4,690.00	95	0	(N/A)
J-26	4,638.00	111	0	(N/A)
J-27	4,650.00	107	0	(N/A)
J-28	4,612.00	122	0	(N/A)
J-29	4,550.00	90	0	(N/A)
J-30	4,575.00	77	0	(N/A)
J-31	4,561.00	82	0	(N/A)
J-32	4,552.00	89	0	(N/A)
J-33	4,560.00	82	0	(N/A)
J-34	4,582.00	72	0	(N/A)
J-35	4,583.00	71	0	(N/A)
J-36	4,563.00	81	0	(N/A)
J-37	4,582.00	72	0	(N/A)
J-38	4,571.00	77	0	(N/A)
J-39	4,561.00	82	0	(N/A)
J-40	4,555.00	85	0	(N/A)
J-41	4,554.00	85	0	(N/A)
J-42	4,616.00	122	0	(N/A)
J-43	4,582.00	135	0	(N/A)
J-44	4,583.00	134	0	(N/A)
J-45	4,670.00	101	0	(N/A)
J-46	4,650.00	110	0	(N/A)
J-47	4,636.00	116	0	(N/A)
J-48	4,628.00	118	0	(N/A)
J-49	4,592.00	130	0	(N/A)
J-50	4,582.00	135	0	(N/A)
J-51	4,620.00	119	0	(N/A)
J-52	4,649.00	107	0	(N/A)
J-53	4,613.00	122	0	(N/A)

APPENDIX G – SANITARY SEWER MASTER PLAN EXHIBIT



NORTH

SCALE: 1" = 200'

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GREGORY D MAGLEBY
No. 180644
9/23/18
REGISTERED PROFESSIONAL ENGINEER

SUBURBAN LAND RESERVE

SARATOGA SPRINGS, UTAH

MASTER SEWER PLAN

REVISIONS

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LEI PROJECT #: 2018-0069
DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 200'
DATE: 10/16/2018

SHEET 1

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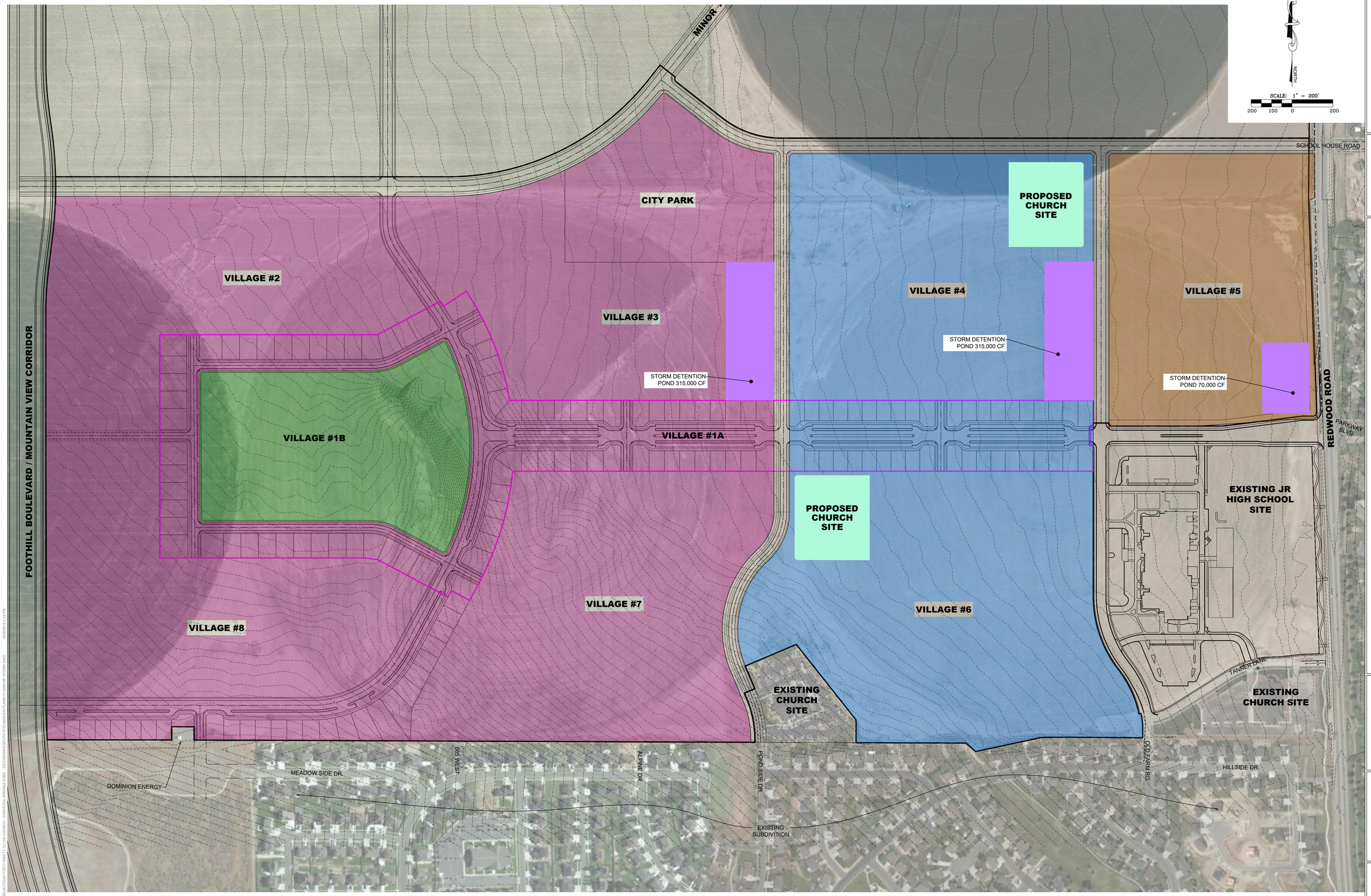
APPENDIX H – STORM WATER MASTER PLAN EXHIBIT



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SUBURBAN LAND RESERVE

SARATOGA SPRINGS, UTAH

MASTER STORM DRAIN PLAN

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DESIGNED BY: GDM
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DATE: 10/25/2018

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APPENDIX I – STORM WATER HYDROLOGY STUDY

Beacon Pointe

PRELIMINARY STORM DRAIN ANALYSIS

Revised: October 25, 2018

Prepared By:

10/25/2018

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Description of Development

The Beacon Pointe development site is to be located north of the existing Grandview subdivision, and west of Redwood Road, in Saratoga Springs, Utah. There is a total of approximately 372 acres in the proposed development. The development is to consist of residential housing, church areas, civic areas, parks, and other open space.

Existing Storm Drainage Features

There is no existing storm drain infrastructure that drains into this site. See the exhibit included in Appendix A for the included areas. There is an existing storm drain stub that was installed with the recent junior high improvements that this development will connect to. In addition, portions of the infrastructure installed with the school will need to be modified to add an additional basin and a storm water cleaning device. This was planned and accounted for in the design of the school system. See the storm drain report that was submitted with the school for details. The outfall for the Beacon Pointe development will be the existing outfall that is shared with the school.

Anticipated Discharge

A model was created using Autodesk Storm and Sanitary Sewer Analysis (SSA) for the proposed development. The model was set up based on the TR-55 methodology and City standards. This was done in order to estimate the peak flows that could be expected from the site.

The anticipated pervious and impervious areas were calculated for the site based on the preliminary design of the site. Individual pervious and impervious areas were calculated for each village. The pervious and impervious areas were assigned the curve numbers of 61 and 98 respectively. Detailed calculations for each village are included in Appendix B.

The time of concentration was calculated based on the methodology outlined in the TR-55 design manual. The time of concentration from the hydraulically most distant point to the nearest discharge point or basin was calculated for each village. Detailed calculations for the contributing areas and time of concentration are included in Appendix B.

The results from the SSA model for the total release from the 5-year, 10-year, and 100-year storm events are shown in Table 1.

Table 1: Maximum Runoff Estimates

Storm Event	Maximum Runoff (cfs)
5-yr, 3-hr	36.06
10-yr, 3-hr	39.94
100-yr, 3-hr	52.24

As was previously mentioned, the runoff will be discharged into the existing outfall pipe installed with the school. The storm drain report that was previously submitted for this area, including the school, stated that the overall site has an allowable discharge rate of 58.00 cfs. Of this discharge, the school has an allowable discharge rate of 5.76 cfs, leaving the Beacon Pointe development the remaining 52.24 cfs.

A hydrodynamic storm water treatment device will be installed at the lower end of the Beacon Pointe development. The treatment device will be sized and rated to treat the runoff from the 5-year storm event according to City standards with the final design drawings.

Storm Drain Pipe Sizing

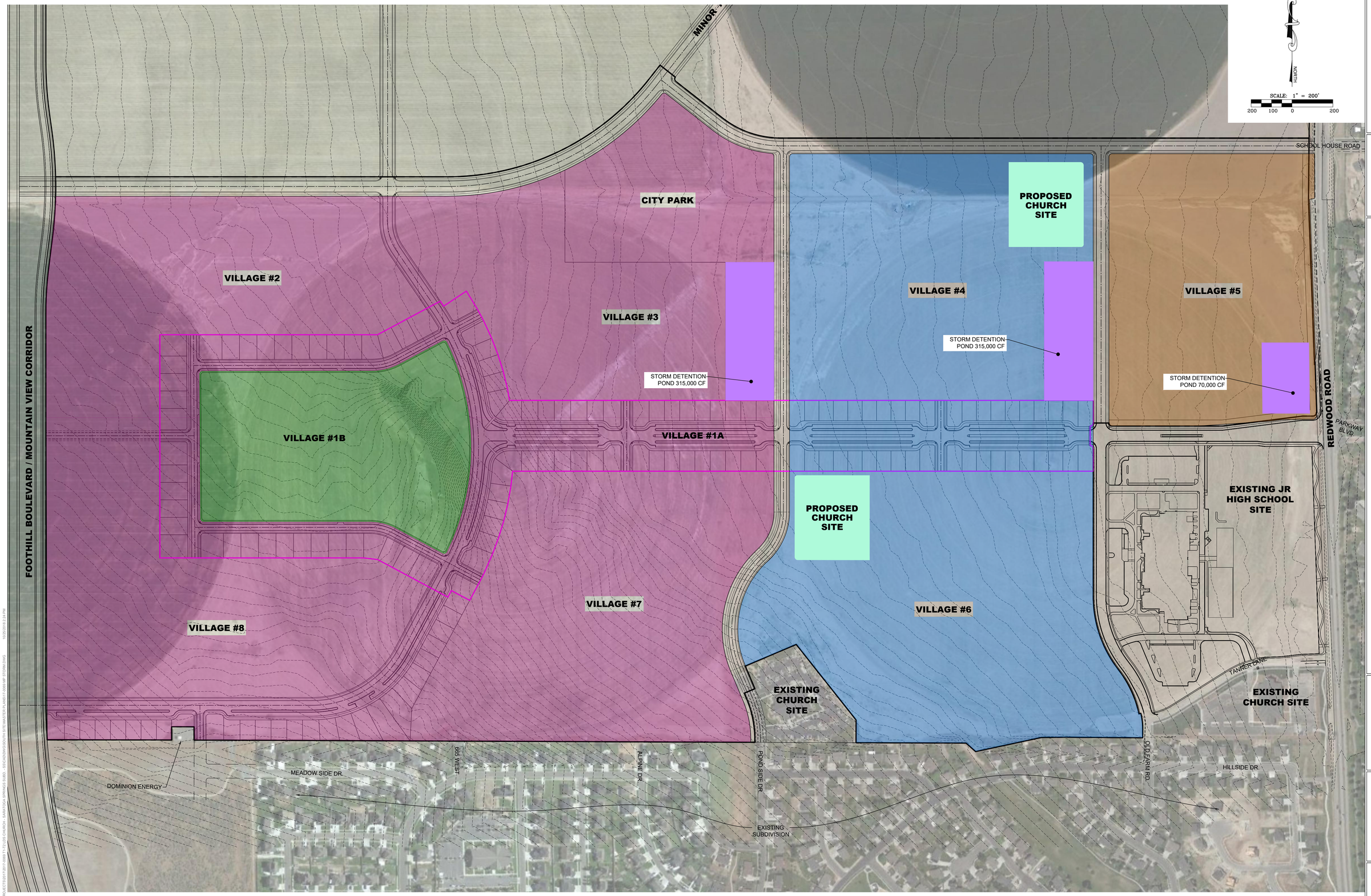
The storm drain pipes will be sized to convey the runoff from the 10-year storm event according to City standards. Any runoff in excess of the 10-year storm event will be conveyed by the streets as overland flow. This overland flow will be directed to the detention basins that are to be installed throughout the development.

Pipe sizing calculations will be completed with final village plans. The existing stub and outfall pipes installed with the school were sized to accommodate the future upstream discharges.

Conclusion

A storm drain model was created using the SSA software to estimate the runoff from the Beacon Pointe development. The runoff is to be routed to detention basins throughout the development. The runoff will pass through a hydrodynamic separator prior to being discharged into the existing outfall pipes installed with the recent junior high school improvements. Pipe sizing calculations will be completed with final construction drawings.

Appendix A – Contributing Area Exhibits



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SUBURBAN LAND RESERVE

SARATOGA SPRINGS, UTAH

MASTER STORM DRAIN PLAN

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DRAWN BY: TJP
DESIGNED BY: GDM
SCALE: 1" = 200'
DATE: 10/25/2018

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Appendix B – Area and Time of Concentration Calculations

Village 1A

Area	45.3	Acres	Road	9.06	Acres	20%	Upper Elevation	4638		
Lots	120	Units	Lot Imp.	5.51	Acres		Lower Elevation	4562	T_1	0.53 hr
Church	0	Acres	Church Imp.	0	Acres	75%	Total Length	3000 ft	T_2	0.01 hr
			Total Imp.	**14.57**	**Acres**		L_1	300 ft	T_3	0.24 hr
			Pervious	**30.73**	**Acres**		S	0.025 ft/ft	T_t	0.77 hr
							L_2	150 ft	T_t	**46.47 min**
							V_2	3.24 fps		
							L_3	2550 ft		
							V_3	3 fps		

Village 1B

Area	22.8	Acres	Lot Imp.	17.10	Acres	75%	Upper Elevation	4648		
Lots	0	Units	**Total Imp.**	**17.10**	**Acres**		Lower Elevation	4638	T_1	0.85 hr
			Pervious	**5.70**	**Acres**		Total Length	1300 ft	T_2	0.02 hr
							L_1	300 ft	T_3	0.08 hr
							S	0.008 ft/ft	T_t	0.95 hr
							L_2	150 ft	T_t	**56.91 min**
							V_2	1.78 fps		
							L_3	850 ft		
							V_3	3 fps		

Village 2

Area	36.8	Acres	Road	7.36	Acres		Upper Elevation	4641		
Lots	239	Units	Lot Imp.	10.97	Acres		Lower Elevation	4616	T_1	0.67 hr
			Total Imp.	**18.33**	**Acres**		Total Length	1800 ft	T_2	0.02 hr
			Pervious	**18.47**	**Acres**		L_1	300 ft	T_3	0.13 hr
							S	0.014 ft/ft	T_t	0.81 hr
							L_2	150 ft	T_t	**48.64 min**
							V_2	2.40 fps		
							L_3	1350 ft		
							V_3	3 fps		

Village 3

Area	50.5	Acres	Road	10.1	Acres		Upper Elevation	4615		
Lots	196	Units	Lot Imp.	9.00	Acres		Lower Elevation	4585	T_1	0.63 hr
Park	14.8		**Total Imp.**	**19.10**	**Acres**		Total Length	1900 ft	T_2	0.02 hr
			Pervious	**31.40**	**Acres**		L_1	300 ft	T_3	0.13 hr
							S	0.016 ft/ft	T_t	0.79 hr
							L_2	150 ft	T_t	**47.12 min**
							V_2	2.55 fps		
							L_3	1450 ft		
							V_3	3 fps		

Village 4

Area	45.6	Acres	Road	9.12	Acres		Upper Elevation	4581		
Lots	295	Units	Lot Imp.	13.54	Acres		Lower Elevation	4562	T_1	0.75 hr
Church	3.5	Acres	Church Imp.	2.625	Acres	75%	Total Length	1850 ft	T_2	0.02 hr
			Total Imp.	**25.29**	**Acres**		L_1	300 ft	T_3	0.13 hr
			Pervious	**20.31**	**Acres**		S	0.010 ft/ft	T_t	0.90 hr
							L_2	150 ft	T_t	**54.23 min**
							V_2	2.06 fps		
							L_3	1400 ft		
							V_3	3 fps		

Village 5

Area	33.1	Acres	Road	6.62	Acres		Upper Elevation	4561		
Lots	397	Units	Lot Imp.	18.23	Acres		Lower Elevation	4546	T_1	0.78 hr
			Total Imp.	**24.85**	**Acres**		Total Length	1600 ft	T_2	0.02 hr
			Pervious	**8.25**	**Acres**		L_1	300 ft	T_3	0.11 hr
							S	0.009 ft/ft	T_t	0.91 hr
							L_2	150 ft	T_t	**54.58 min**
							V_2	1.97 fps		
							L_3	1150 ft		
							V_3	3 fps		

Village 6

Area	48.1	Acres	Road	9.62	Acres		Upper Elevation	4609		
Lots	268	Units	Lot Imp.	12.30	Acres		Lower Elevation	4562	T_1	0.53 hr
Church	3.5	Acres	Church Imp.	2.63	Acres	75%	Total Length	1900 ft	T_2	0.01 hr
			Total Imp.	**24.55**	**Acres**		L_1	300 ft	T_3	0.13 hr
			Pervious	**23.55**	**Acres**		S	0.025 ft/ft	T_t	0.68 hr
							L_2	150 ft	T_t	**40.67 min**
							V_2	3.20 fps		
							L_3	1450 ft		
							V_3	3 fps		

Village 7

Area	43.5	Acres	Road	8.7	Acres		Upper Elevation	4673		
Lots	192	Units	Lot Imp.	8.82	Acres		Lower Elevation	4585	T_1	0.43 hr
			Total Imp.	**17.52**	**Acres**		Total Length	2150 ft	T_2	0.01 hr
			Pervious	**25.98**	**Acres**		L_1	300 ft	T_3	0.16 hr
							S	0.041 ft/ft	T_t	0.60 hr
							L_2	150 ft	T_t	**36.07 min**
							V_2	4.11 fps		
							L_3	1700 ft		
							V_3	3 fps		

Village 8

Area	46.1	Acres	Road	9.22	Acres		Upper Elevation	4701		
Lots	207	Units	Lot Imp.	9.50	Acres		Lower Elevation	4659	T_1	0.55 hr
			Total Imp.	**18.72**	**Acres**		Total Length	1900 ft	T_2	0.01 hr
			Pervious	**27.38**	**Acres**		L_1	300 ft	T_3	0.13 hr
							S	0.022 ft/ft	T_t	0.70 hr
							L_2	150 ft	T_t	**42.18 min**
							V_2	3.02 fps		
							L_3	1450 ft		
							V_3	3 fps		

Beacon Pointe Community Plan

Traffic Analysis - CONFIDENTIAL

Prepared for:
Suburban Land Reserve, Inc.

September 2018

UT18-2104

FEHR PEERS

1. Executive Summary

This study provides a summary of the potential transportation-related impacts from the proposed special use site located on Redwood Road (SR-68) between Tanner Lane and School House Road in Saratoga Springs, Utah. This study analyzes the traffic operations and impacts for 2018 background, 2020 background, 2020 opening day, 2040 background, and 2040 plus project conditions at key intersections. The plus project analysis includes project trips generated from the proposed project.

1.1 Traffic Conditions

1.1.1 Study Intersections

The following intersections were included in this study:

1) Redwood Road (SR-68) / Pony Express Parkway – Signalized
2) Redwood Road (SR-68) / 400 South – Unsignalized (Signalization planned for 2020)
3) Redwood Road (SR-68) / School House Road – Unsignalized
4) Redwood Road (SR-68) / Parkway Boulevard – Unsignalized (Signalization planned for 2020)
5) Redwood Road (SR-68) / Tanner Lane – Unsignalized
6) Redwood Road (SR-68) / Grandview Boulevard – Signalized
7) Proposed Mountain View Corridor Northbound Interchange – Signalized
8) Proposed Mountain View Corridor Southbound Interchange – Signalized

1.1.2 Traffic Volumes

Fehr & Peers collected traffic counts at the study intersections to establish a baseline of existing conditions and operations for the area. Weekday peak period traffic counts were recorded from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM on February 28, 2018 at all study intersections. The turning movement counts collected for the proposed Tanner Lane Middle School TIS performed by Hales Engineering were used for Parkway Boulevard.

1.1.3 Existing Conditions

The two currently signalized intersections operate within acceptable levels of service during the peak hours, but the heavy through volumes cause the left turning movements to fail at the unsignalized intersections at 400 South, School House Road, Parkway Boulevard and Tanner Lane.

1.1.4 2020 Background Conditions

Traffic expected to be generated from the planned middle school to be built between Tanner Lane and Parkway Boulevard was included in the 2020, 2025, and 2040 conditions analyses. Similar to existing conditions, the signalized intersections operate within acceptable levels of delay during the peak hours, but the heavy northbound and southbound through volumes on SR-68 will cause the left turning movements at SR-68 & School House and SR-68 & Tanner Lane to fail during the AM peak hour.

1.1.5 Project Conditions

The proposed special use site and surrounding housing development will be located in the property between Tanner Lane and School House Road. On opening day, the special use site parcel is to be bounded on all sides by approximately 80 acres of single family housing. Trip generation for the special use site was obtained by counting the trips in and out of the Payson, Utah special use site. Trip generation rates for the surrounding housing development were obtained from the *Institute of Transportation Engineers – 10th Edition Trip Generation Manual* (ITE Manual). On opening day in 2020, the special use site and surrounding housing development (108 total housing units) is expected to generate 274 trips in the AM peak hour and 480 trips in the PM peak hour. As the next six neighborhoods are built, the total number of residences increases to 1,727 units and the trips generated by the project increases to 1,300 trips in the AM and 1,812 trips in the PM by 2025. After the Mountain View Corridor opens and the final neighborhood is built, the development will have 1,909 total housing units and is expected to generate a total of 1,538 trips in the AM and 2,128 in the PM by 2040. Until the final neighborhood is built, as shown in the 2040 scenario, the development will not require the Mountain View Access road to the north to maintain acceptable levels of delay at each of the study intersections. However, once the last neighborhood is built, the additional trips generated by the neighborhood is anticipated to increase delay enough to exceed acceptable levels without the addition of the Mountain View Access Road. Therefore, it is recommended to build the Mountain View Access road before the construction of the final neighborhood is completed.

1.1.6 Opening Day 2020 plus Project Conditions

The signalized intersections typically operate within acceptable levels of delay during the peak hours. The unsignalized intersection at SR-68 & School House is expected to continue to fail during the AM peak hour and the unsignalized intersection at SR-68 & Tanner Lane is expected to fail during both the AM and PM peak hours.

1.1.7 2025 Background Conditions

Beacon Pointe is proposed to continue constructing additional neighborhoods before the completion of the Mountain View Corridor project so an additional horizon year was analyzed to account for additional planned neighborhoods. The signalized intersections operate within acceptable levels of delay during the peak hours. However, the unsignalized intersections at SR-68 & School House and SR-68 & Tanner Lane are expected to continue to fail during both peak hours.

1.1.8 2025 plus Project Conditions

The signalized intersections continue operate within acceptable levels of delay during the peak hours with the exception of the intersection at Pony Express Parkway, which exceeds capacity in the PM peak hour. Parkway Boulevard is also anticipated to fail during both peak hours, but changing the eastbound approach to have two left turn lanes decreases the delay at the intersection to acceptable levels. The unsignalized intersections at SR-68 & School House and SR-68 & Tanner Lane are expected to continue to fail during both peak hours.

1.1.9 2040 Background Conditions

The Mountain View Corridor project and the Pony Express Parkway extension to the I-15 are expected to be completed between 2020 and 2040. The Mountain View Corridor access road is currently planned to route along the northern border of Beacon Pointe and then curve to the north to connect with SR-68 at 400 South. School House Road is also anticipated to extend to the west along the northern border of the project and connect with the Mountain View Corridor access road. To adjust for the addition of the proposed roads, background traffic was redistributed throughout the network. Furthermore, the interchange ramps for the Mountain View Corridor were also included in the 2040 analyses. The signalized intersections throughout the network operate within acceptable levels of delay during the peak hours, with the exception of Pony Express Parkway which exceeds capacity in the PM peak. The unsignalized intersections at SR-68 & School House and SR-68 & Tanner Lane are expected to continue to fail during both peak hours.

1.1.10 2040 plus Project Conditions

The signalized intersections operate within acceptable levels of delay during the peak hours, with the exception of Pony Express Parkway which exceeds capacity in the PM peak. The unsignalized intersections at SR-68 & School House and SR-68 & Tanner Lane are expected to continue to fail during both peak hours.

1.1.11 Parkway Boulevard Slip Lane Configuration

The proposed extension of Parkway Boulevard into Beacon Pointe will be a local residential street. The boulevard is proposed to provide one travel lane each way in the eastbound and westbound directions, with one way slip lanes to the north and south of the boulevard. There are also sidewalks between the slip lanes and the houses on the boulevard. Based on the project team's understanding of the proposed slip road configuration along Parkway Boulevard, the design is acceptable from a transportation engineering perspective, given the context of the proposed roadway and surrounding development. However, the final design should include measures to adhere to the sight distance standards specified in the AASHTO manual.

1.1.12 Internal Circulation

Due to the size of Beacon Pointe and the large number of vehicles likely to travel along Parkway Boulevard to access SR-68, it is anticipated that the intersection at Old Farm Road & Parkway Boulevard will need to be signalized as early as the 2025 plus project scenario. During the 2040 full build analysis, after the Mountain View Corridor is assumed to be built, large vehicle volumes are anticipated to access the Mountain View Corridor during the peak periods at this location and would exceed acceptable levels of delay at the East Loop & Mountain View Corridor Access intersection. The recommended solution would be to signalize the intersection at East Loop & Mountain View Corridor Access. The 2040 plus project scenario was analyzed without the intersection at Foothill Boulevard (the Mountain View Corridor frontage road) & Mountain View Corridor Access to show that after signalizing the intersection at East Loop & Mountain View Corridor Access, the intersection would still be able to operate at acceptable levels of delay, even without distributing vehicle volumes to Foothill Boulevard.

With those recommended signals implemented, all internal intersections in Beacon Pointe operated at acceptable levels of delay during the 2040 plus project conditions. All intersections in the housing development operated at LOS C or better in the AM and PM peak hours, with the exception of the signalized intersection at Old Farm & Parkway, which operates at LOS D in the Synchro models.

1.1.13 Recommended Mitigations

Currently TransPlan40, the regional transportation plan for Utah County proposes improvements to widen Redwood Road to two lanes in each direction. This study also accounts for the corridor agreement between Saratoga Springs and UDOT to signalize the intersections at 400 South and at Parkway Boulevard in the future. This study confirms that those signals will be needed and should be planned for as preliminary analysis shows they will be warranted based on projected future traffic volumes. Another signal at School House Boulevard is recommended to be installed as warranted. Without those signals, the side-street movements are anticipated to operate at failing levels of service.

Right turn storage lanes are also recommended to be added for the north and southbound movements at the Redwood Road intersections at School House Boulevard, Parkway Boulevard, and Tanner Lane. Adding a right turn pocket at those intersections will allow the right most lane in both directions to be clear of right-turning vehicles to mitigate impact from projected future traffic growth and the proposed project. It is also recommended to add a second left turn storage lane to the eastbound direction at Parkway Boulevard as demonstrated by the need for it in the future plus-project scenario analyses.

Furthermore, it is recommended that as Pony Express Parkway approaches failing conditions, that the intersection be analyzed to determine if an alternative intersection design similar to the proposed continuous-flow intersection (CFI) at Pioneer Crossing would be an appropriate mitigation.

1.2 Conclusion

Currently, only the intersections at Pony Express Parkway and Grandview Boulevard operate within acceptable levels of service during the peak hours. The other four existing intersections experience unacceptable delays on the side-street turning movements due to the lack of gaps in the northbound and southbound traffic on Redwood Road. Projected 2020, 2025 and 2040 future conditions suggest that without mitigation, all intersections in the project area will operate at unacceptable levels of service during the peak hours with or without the additional trips from the proposed project.

The analysis described in this report shows that the impact of the proposed special use site and housing development would impact vehicle delay at intersections within the immediate vicinity. Implementing the recommended mitigations will alleviate most of the impact from the proposed special use site and housing development and improve the LOS for side streets from the existing conditions.

Going forward, typically a traffic impact study would be performed for each individual neighborhood before it is built. However, since a traffic analysis was performed for the entire Beacon Pointe community, Fehr & Peers recommends developing a traffic monitoring plan to be implemented after completion of each neighborhood to verify that traffic volumes are tracking with the estimations made within this traffic analysis.

1.2.1 LOS Summary

Table 1 reports LOS at the study intersections along SR-68 and at the Mountain View Corridor interchange. For signalized intersections, average vehicular delay and LOS are reported. For unsignalized intersections, the worst movement delay and LOS are reported. Detailed descriptions of the intersection operations can be found in the subsequent chapters. All columns reflect conditions with current lane configurations and no mitigations.

Table 1: AM, PM and Saturday Peak Hour Level of Service Summary

Intersection			2020 Background	2020 + Project	2025 Background	2025 + Project	2040 Background	2040 + Project
ID	Location	Period	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh	LOS & Sec/Veh
1	Redwood Road (SR-68) / Pony Express Parkway	AM	C / 25 (1)	C / 27 (1)	C / 29 (1)	C / 34 (1)	D / 54 (1)	D / 54 (1)
		PM	C / 29 (1)	C / 32 (1)	D / 35 (1)	E / 72 (1)	D / 51 (1)	E / 67 (1)
2	Redwood Road (SR-68) / 400 South	AM	A / 3 (1)	A / 4 (1)	A / 4 (1)	A / 9 (1)	B / 12 (1)	C / 26 (1)
		PM	A / 3 (1)	A / 4 (1)	A / 4 (1)	A / 8 (1)	A / 6 (1)	C / 20 (1)
3	Redwood Road (SR-68) / School House Boulevard	AM	F / >120 (2)	F / >120 (2)	F / >120 (2)	F / >120 (2)	F / >120 (2)	F / >120 (2)
		PM	D / 33 (2)	E / 43 (2)	D / 30 (2)	F / >120 (2)	F / >120 (2)	F / >120 (2)
4	Redwood Road (SR-68) / Parkway Boulevard	AM	A / 7 (1)	A / 9 (1)	A / 8 (1)	D / 36 (1)	A / 9 (1)	C / 23 (1)
		PM	A / 3 (1)	B / 12 (1)	A / 3 (1)	D / 41 (1)	A / 5 (1)	B / 10 (1)
5	Redwood Road (SR-68) / Tanner Lane	AM	E / 47 (2)	E / 48 (2)	F / 68 (2)	F / 79 (2)	F / >120 (2)	F / >120 (2)
		PM	D / 34 (2)	E / 35 (2)	E / 43 (2)	E / 47 (2)	F / >120 (2)	F / >120 (2)
6	Redwood Road (SR-68) / Grandview Boulevard	AM	B / 12 (1)	B / 12 (1)	B / 13 (1)	B / 12 (1)	B / 20 (1)	C / 20 (1)
		PM	A / 6 (1)	A / 6 (1)	A / 6 (1)	A / 6 (1)	A / 7 (1)	A / 9 (1)
7	Proposed Mountain View Corridor Interchange NB	AM	-	-	-	-	D / 39 (1)	C / 22 (1)
		PM	-	-	-	-	C / 33 (1)	B / 19 (1)
8	Proposed Mountain View Corridor Interchange SB	AM	-	-	-	-	B / 17 (1)	C / 21 (1)
		PM	-	-	-	-	C / 34 (1)	C / 21 (1)

1. Intersection average LOS and delay for signalized intersections.
2. Worst movement LOS and delay for unsignalized intersections.

Source: Fehr & Peers.

Terracon GeoReport

Preliminary Geotechnical Engineering Report

Saratoga Springs Parcel 1 (South)
Saratoga Springs, Utah
April 17, 2018
Terracon Project No. 61185035

Prepared for:
Suburban Land Reserve, Inc.
Salt Lake City, Utah

Prepared by:
Terracon Consultants, Inc.
Midvale, Utah

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials

April 17, 2018

Suburban Land Reserve, Inc.
79 South Main Street, Suite 500
Salt Lake City, Utah 00000

Attn: Mr. Sean Skanchy
P: (801) 321-8718
E: example@client.com

Re: Preliminary Geotechnical Engineering Report
Saratoga Springs Parcel 1 (South)
Redwood Road and Pioneer Crossing
Saratoga Springs, Utah
Terracon Project No. 61185035

Dear Mr. Skanchy:

We have completed the Preliminary Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P61185035 dated March 9, 2018. This report presents the findings of the subsurface exploration and provides preliminary geotechnical recommendations concerning earthwork and the design and construction of foundations and floor slabs for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

PROFESSIONAL ENGINEER
No. 9865658-2202
CHARLES V. MOLTHEN
4/17/18
STATE OF UTAH

Charles V. Molthen, P.E.
Senior Staff Engineer

Rick L. Chesnut, P.E., P.G.
Principal.

REPORT TOPICS

INTRODUCTION 1
SITE CONDITIONS 1
PROJECT DESCRIPTION 2
GEOTECHNICAL CHARACTERIZATION 2
GEOTECHNICAL OVERVIEW 3
EARTHWORK 4
SHALLOW FOUNDATIONS 7
SEISMIC CONSIDERATIONS 9
FLOOR SLABS 10
PAVEMENTS 11
CORROSIVITY 13
GENERAL COMMENTS 13

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS (Boring Logs and Laboratory Data)
SUPPORTING INFORMATION (General Notes and Unified Soil Classification System)

Preliminary Geotechnical Engineering Report

Saratoga Springs Parcel 1 (South)
Redwood Road and Pioneer Crossing
Saratoga Springs, Utah

Terracon Project No. 61185035
April 17, 2018

INTRODUCTION

This report presents the results of our subsurface exploration and preliminary geotechnical engineering services performed for the Saratoga Springs Parcel 1 to be located at Redwood Road and Pioneer Crossing in Saratoga Springs, Utah. The purpose of these services is to provide preliminary information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Excavation considerations
- Preliminary Foundation design and construction
- Preliminary Floor slab design and construction
- Seismic site classification per IBC
- Preliminary Pavement design and construction

The geotechnical engineering scope of services for this project included the advancement of 10 test borings to depths ranging from approximately 15 to 16½ feet below existing site grades.

Information presented in this report is preliminary in nature and may change following additional exploration, laboratory testing, and analysis. We understand that a final, design-level geotechnical investigation will be completed at a later time. Recommendations presented in this report are for conceptual planning purposes and should not be used for final design.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and as separate graphs in the **Exploration Results** section of this report.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at Redwood Road and Pioneer Crossing in Saratoga Springs, Utah. The south parcel is approximately 450 acres.
Existing Improvements	The site is currently an active farm field.
Current Ground Cover	Tilled earth.
Existing Topography	Relatively flat with general topography sloping to the east towards the Jordan River and Utah Lake.

PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed in the project planning stage. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Information Provided	Information provided in email from Sean Skanchy
Project Description	The project is a multiuse parcel.
Proposed Structure(s)	Unknown.
Grading/Slopes (assumed)	A grading plan has not been developed. Planned site grades are unknown.

GEOTECHNICAL CHARACTERIZATION

Subsurface Profile

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the data and our understanding of the geologic setting and planned construction. The following table provides our geotechnical characterization.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation, foundation options and pavement options. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Stratum	Approximate Depth to Bottom of Stratum (feet)	Material Description	Consistency/Density
1	1 to 1 ½	Plow disturbed soil	---
2	9 to 16	Silt, silty clay, and lean clay with varying amounts of sand[1]	Soft to stiff
3	16 to 16½ [2]	Silt with varying amounts of sand, silty sand, and clayey gravel with sand	Hard / Medium dense to very dense

1. Silty sand was encountered within this stratum in boring B-4;
2. Maximum depth explored.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

Groundwater Conditions

The boreholes were observed while drilling and after completion for the presence and level of groundwater. Groundwater was not observed in the remaining borings while drilling, or for the short duration the borings could remain open. However, this does not necessarily mean the borings terminated above groundwater, or the water levels summarized above are stable groundwater levels. Due to the low permeability of the soils encountered in the borings, a relatively long period may be necessary for a groundwater level to develop and stabilize in a borehole. Long term observations in piezometers or observation wells sealed from the influence of surface water are often required to define groundwater levels in materials of this type.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the project concept. Additional geotechnical exploration should be completed to aid in completing design and construction plans for the project.

GEOTECHNICAL OVERVIEW

Based on the results of our exploration, it is our opinion that the site is suitable for the proposed construction, provided the recommendations presented in this report are followed.

Based on the results of our exploration, we recommend that the proposed structure be supported on a lightly-loaded shallow strip and spread footing foundation system bearing on undisturbed native soil or properly placed and compacted Structural Fill extending to suitable soils.

Preliminary geotechnical engineering recommendations for foundation systems and other earth-connected phases of the project are outlined below. The recommendations contained in this report are based upon the results of data presented herein, engineering analyses, and our current understanding of the proposed project. The recommendations presented in this report should be verified with a design-level geotechnical investigation of the site once site grading and structure type and layout have been determined.
The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

Earthwork is expected to include clearing and grubbing, excavations and fill placement. The following sections provide preliminary recommendations for use in the project conceptual planning. Recommendations may change based on completion of a final geotechnical investigation at the site.

Site Preparation

All vegetation, topsoil, deleterious materials and loose, soft or otherwise unsuitable material should be removed below construction areas. Following removal of unsuitable materials, the exposed subgrade should be proof rolled to identify soft or deflecting areas. These areas should be removed and replaced with properly placed and compacted Structural fill or stabilized using a combination of Stabilization Fill and geotextiles. Backfill of excavations should be completed, using properly placed and compacted Structural Fill.

Soft spot stabilization, if needed, should include placement of a geogrid product such as those provided by Tensar® (TX grid) or Mirafi® on top of the subgrade soil prior to placement of the Stabilization Fill to improve stabilization support. A separation fabric, such as Mirafi® N-series, should be placed between the native soil and the grid and on top of the Stabilization Fill.

Evidence of other underground facilities, such as septic tanks, gasoline station components, cesspools, and unknown utilities, was not observed during the site reconnaissance, such features could be encountered during construction. If unexpected underground facilities are encountered, such features should be removed and the excavation thoroughly cleaned prior to backfill placement and/or construction

Fill Material Types

All fill materials should be inorganic soils free of vegetation, debris, and fragments larger than three inches in size. Pea gravel or other similar non-cementitious, gap-graded materials should not be used as fill or backfill without the prior approval of the geotechnical engineer. Fill material should meet the following requirements:

Fill Type [1]	Application	Requirements			
		Gradation			Plasticity
		Size	Percent **finer** by weight (Foundations)	Percent **finer** by weight (pavements)	
Structural Fill	Required for all fill under foundations, floor slabs, and pavements	3 inch No. 4 Sieve No. 200 Sieve	100 35-60 15 max	100 35-75 45 max	Liquid limit 30 max Plasticity Index 6 max
Stabilization Fill	Fill used to stabilize soft, potentially pumping subgrade	6 inch No. 200 Sieve	100 5 max	100 5 max	-

1. All fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the geotechnical engineer for evaluation.

The on-site soils may not be considered for reuse as engineered fill. Materials proposed for use as engineered fill should be tested to verify conformance with the materials requirements presented above. It should be noted that use of on-site materials that contain significant fines will require special care and time to moisture condition and compact. This should be considered in developing the construction schedule.

Fill Compaction Requirements

Engineered fill should meet the following moisture condition and compaction requirements:

ITEM	DESCRIPTION
Fill Lift Thickness	8-inches or less in loose thickness
Compaction [1]	95% of the material's maximum dry density (modified Proctor - ASTM D 1557)

ITEM	DESCRIPTION
Moisture Content	Within 2% of optimum moisture content as determined by the modified Proctor test at the time of placement and compaction

Where light compaction equipment is used, as is customary in utility trenches, the lift thickness may need to be reduced to achieve the desired degree of compaction

Utility Trench Backfill

All trench excavations should be made with sufficient working space to permit construction, including backfill placement and compaction. If utility trenches are backfilled with relatively clean granular material, they should be capped with at least 18 inches of cohesive fill in non-pavement areas to reduce the infiltration and conveyance of surface water through the trench backfill.

Grading and Drainage

Any areas of standing surface water should be drained as far in advance of construction as possible. Any saturated soils should be removed prior to placing fill or proceeding with construction.

Surface water should not be allowed to pond on the site and soak into the soil during construction. Construction staging should provide drainage of surface water and precipitation away from the building and pavement areas. Any water that collects over or adjacent to construction areas should be promptly removed, along with any softened or disturbed soils. Surface water control in the form of sloping surfaces, drainage ditches and trenches, and sump pits and pumps will be important to avoid ponding and associated delays due to precipitation and seepage.

Roof gutters and downspouts that drain water a minimum of 10 feet beyond the footprint of the proposed structures are recommended. This can be accomplished using splash-blocks, downspout extensions, and flexible pipes that are designed to attach to the end of the downspout. Flexible pipe should only be used if it is day lighted in such a manner that it gravity-drains collected water. Splash-blocks should also be considered below hose bibs and water spigots. Sprinkler systems should not be installed within five feet of foundation walls. Landscaped irrigation adjacent to the foundation systems should be minimized or eliminated.

Earthwork Construction Considerations

It is anticipated that excavations for the proposed construction can be accomplished with conventional earthmoving equipment.

Upon completion of grading, care should be taken to maintain the subgrade moisture content prior to construction of floor slabs and pavements. Construction traffic over the completed subgrade

should be minimized. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted prior to floor slab and pavement construction and observed by Terracon.

All excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will probably be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

Construction site safety is the responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean that Terracon is assuming any responsibility for construction site safety or the contractor's activities; such responsibility shall neither be implied nor inferred.

Terracon should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; proofrolling; placement and compaction of controlled compacted fills; backfilling of excavations into the completed subgrade, and just prior to construction of building floor slabs.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for lightly loaded shallow foundations. Preliminary design recommendations for shallow foundations for typical lightly loaded single to two-story structures are presented in the following paragraphs. Additional earthwork or other foundation types or depth may be required for larger or unique structures. When specific building plans are developed a design level geotechnical exploration and report should be performed for each specific building site.

Preliminary Design Parameters

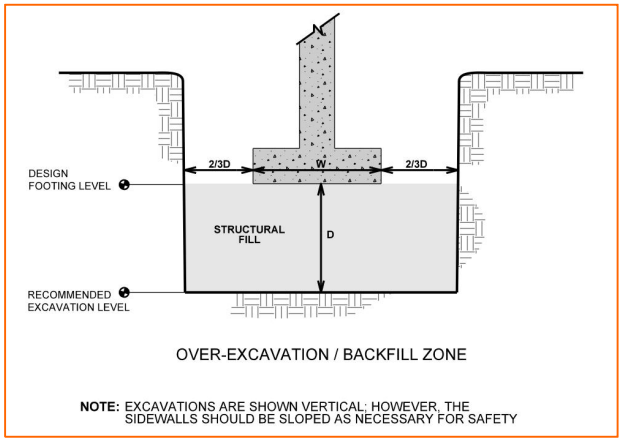
Parameter	Continuous	Isolated
Net allowable bearing pressure for lightly loaded footing bearing on undisturbed native or properly placed and compacted Structural Fill [1]	1,500 to 2,000 psf	
Minimum Dimensions	16 inches	24 inches
Minimum embedment of exterior footings below finished grade for frost protection [2]	30 inches	
Minimum embedment of internal footings below finished grade for frost protection[2]	12 inches	
Approximate total settlement [3]	1 inch or less	
Approximate differential settlement [3]	< ½ inch over 40 feet	<½ inch between columns
Ultimate coefficient of sliding friction	0.30 (Native Soil), 0.40 (Structural Fill)	

1. The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. A factor of safety 3.0 has been applied. These bearing pressure values can be increased by 1/3 for transient loads.
2. Unsuitable or soft soils should be undercut, and the footings should be deepened to bear on the competent bearing stratum or could bear on lean concrete extending from the foundation base to competent bearing stratum.
3. The shallow foundation excavation sides must be nearly vertical and the concrete should be placed neat against these vertical faces for the passive earth pressure values to be valid. Passive resistance in the upper 3 feet of the soil profile should be neglected. If passive resistance is used to resist lateral loads, the base friction should be neglected. Apply a factor of safety of at least 2.0 to this value when designing for lateral force resistance.
4. And to reduce the effects of seasonal moisture variations in the subgrade soils. For perimeter footings and footings beneath unheated areas.
5. Settlements resulting from the structural loads are noted in **Project Description**. Additional, fill-induced settlement of about ¼ inch per foot of fill can be expected.

Foundation Construction Considerations

As noted in **Earthwork**, the footing excavations should be evaluated under the direction of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are encountered at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on backfill placed in the excavations. This is illustrated on the sketch below.



Over-excavation for structural fill placement below footings should be conducted as shown below. The over-excavation should be backfilled up to the footing base elevation, with Structural Fill placed, as recommended in the **Earthwork** section.

SEISMIC CONSIDERATIONS

Based on the results of our exploration, the subsurface soil profile is best represented by Site Class E according to the 2015 IBC. The National Seismic Hazard Map database was searched to identify the peak ground acceleration (PGA) and spectral accelerations for 0.2 second (Ss) and 1.0 second (S1) periods for a 2% probability of exceedance (PE) in 50 years at the project site for site class B. These values should be adjusted for site effects, using appropriate site class factors from the 2012 IBC.

DESCRIPTION	VALUE
2012 IBC[1]	E[2]
Site Latitude	N 40.34659°
Site Longitude	W -111.92837°
S_o PGA	0.353 g
S_s Spectral Acceleration for a Short Period	0.877 g
S_1 Spectral Acceleration for a 1-Second Period	0.296 g
F_a Site Coefficient for a Short Period	1.048
F_v Site Coefficient for a 1-Second Period	2.814

1. Note: In general accordance with the *2015 IBC,* Table 1613.5.2. IBC Site Class is based on the average characteristics of the upper 100 feet of the subsurface profile.

2. Note: The 2015 IBC requires a site soil profile determination extending to a depth of 100 feet for seismic site classification. The current scope does not include the required 100-foot soil profile determination. Borings extended to a maximum depth of 16½ feet, and this seismic site class definition considers that encountered soils continues below the maximum depth of the subsurface exploration. Additional exploration to deeper depths would be required to confirm the conditions below the current depth of exploration.

Based on reviewed liquefaction maps the site is in a low potential zone. Based on the subsurface conditions, the potential for liquefaction induced settlement is negligible in the shallow soil profile. Deeper soil borings extending to 50 feet would be required to evaluate liquefaction potential at this site.

FLOOR SLABS

Floor Slab Design Parameters

Item	Description
Floor slab support	A minimum of 4 inches of crushed gravel underlain by properly prepared native soil.
Estimated modulus of subgrade reaction	90 pounds per square inch per in (psi/in) for point loading conditions.

The use of a vapor retarder should be considered beneath concrete slabs on grade that will be covered with moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Any unsuitable subgrade materials observed during construction should be overexcavated and replaced with new Structural Fill.

Floor Slab Construction Considerations

On most project sites, the site grading is generally accomplished early in the construction phase. However, as construction proceeds, the subgrade may be disturbed due to utility excavations, construction traffic, desiccation, rainfall, etc. As a result, the floor slab subgrade may not be suitable for placement of base rock and concrete, and corrective action will be required.

Terracon should review the condition of the floor slab subgrades immediately prior to placement of the granular leveling course and construction of the slabs. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas containing backfilled trenches. Areas where unsuitable conditions are located should be repaired by removing and replacing the affected material with properly compacted fill.

PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs, noted in this section, must be applied to the site, which has been prepared as recommended in the **Earthwork** section.

Pavement Design Parameters

Preliminary pavement sections were developed using AASHTO 93 design methodology and assumed traffic volumes. Pavement sections were developed for vehicular parking. Pavement sections for truck traffic areas are not part of this scope of work. If actual truck traffic is determined for the site, we should be notified so the pavement sections can be modified for the truck traffic. Design traffic and estimated 18-kip Equivalent Single Axle Loads (ESAL) are summarized in the following table.

Section	Design ESALs[1]
Automobile Parking	15,000
Drive Lanes	75,000

1. Design ESALs assumed.

Based on N-values from the SPT tests during the filed exploration, a design CBR value of 5 percent was chosen, which resulted in a subgrade resilient modulus of 7,157 psi and a k-value of 141 pci.

Pavement Section Thicknesses

The following minimum pavement sections, or approved equivalent, may be placed on properly prepared subgrade soils

Traffic Area				
	Asphalt Cement	Portland Cement Concrete	Aggregate Base	Total Thickness
Automobile Parking	3.0	---	6.0	9.0
	---	5.0	6.0	11.0
Drive Lanes/ Entrances/Exits	4.0	---	8.0	12.0
	---	5.5	6.0	11.5
Dumpster Pad	---	7.0	6.0	13.0

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses for typical light commercial applications and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

- Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
- Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
- Install below pavement drainage systems surrounding areas anticipated for frequent wetting.
- Install joint sealant and seal cracks immediately.

- Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
- Place compacted, low permeability backfill against the exterior side of curb and gutter.
- Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

CORROSIVITY

The table below lists the results of laboratory soluble sulfate, soluble chloride, electrical resistivity, and pH testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary					
Boring	**Sample Depth (feet)**	**Soil Description**	**Soluble Sulfate (percent)**	**Electrical Resistivity (Ω-cm)**	**pH**
B-3	2	Lean Clay	72	3,470	8.11
B-7	2	Silty Clay	827	1,250	8.57

Results of soluble sulfate testing indicate samples of the on-site soils tested possess negligible to moderate sulfate concentrations when classified in accordance with Table 4.3.1 of the ACI Design Manual. Concrete should be designed in accordance with the provisions of the ACI Design Manual, Section 318, Chapter 4. The subsurface soils a considered slightly aggressive to buried steel.

GENERAL COMMENTS

As the project progresses, we address assumptions by incorporating information provided by the design team, if any. Revised project information that reflects actual conditions important to our services is reflected in a final report. The design team should collaborate with Terracon to confirm these assumptions. This facilitates the incorporation of our opinions related to implementation of our geotechnical recommendations. Any information conveyed prior to the report is for informational purposes only and should not be considered or used for decision-making purposes.

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until the final geotechnical exploration or during or after construction. Terracon should be retained as the Geotechnical

Engineer, to complete the final geotechnical exploration and report, and to provide observation and testing services during pertinent construction phases.

Our scope of services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third party beneficiaries intended. Any third party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for conceptual planning purposes and not for final design or to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

SITE LOCATION AND EXPLORATION PLANS

SITE LOCATION

Suburban Land Reserve, Inc.-Saratoga Springs Parcels ■ Saratoga Springs, UT

April 12, 2018 ■ Terracon Project No. 61185035

Terracon GeoReport

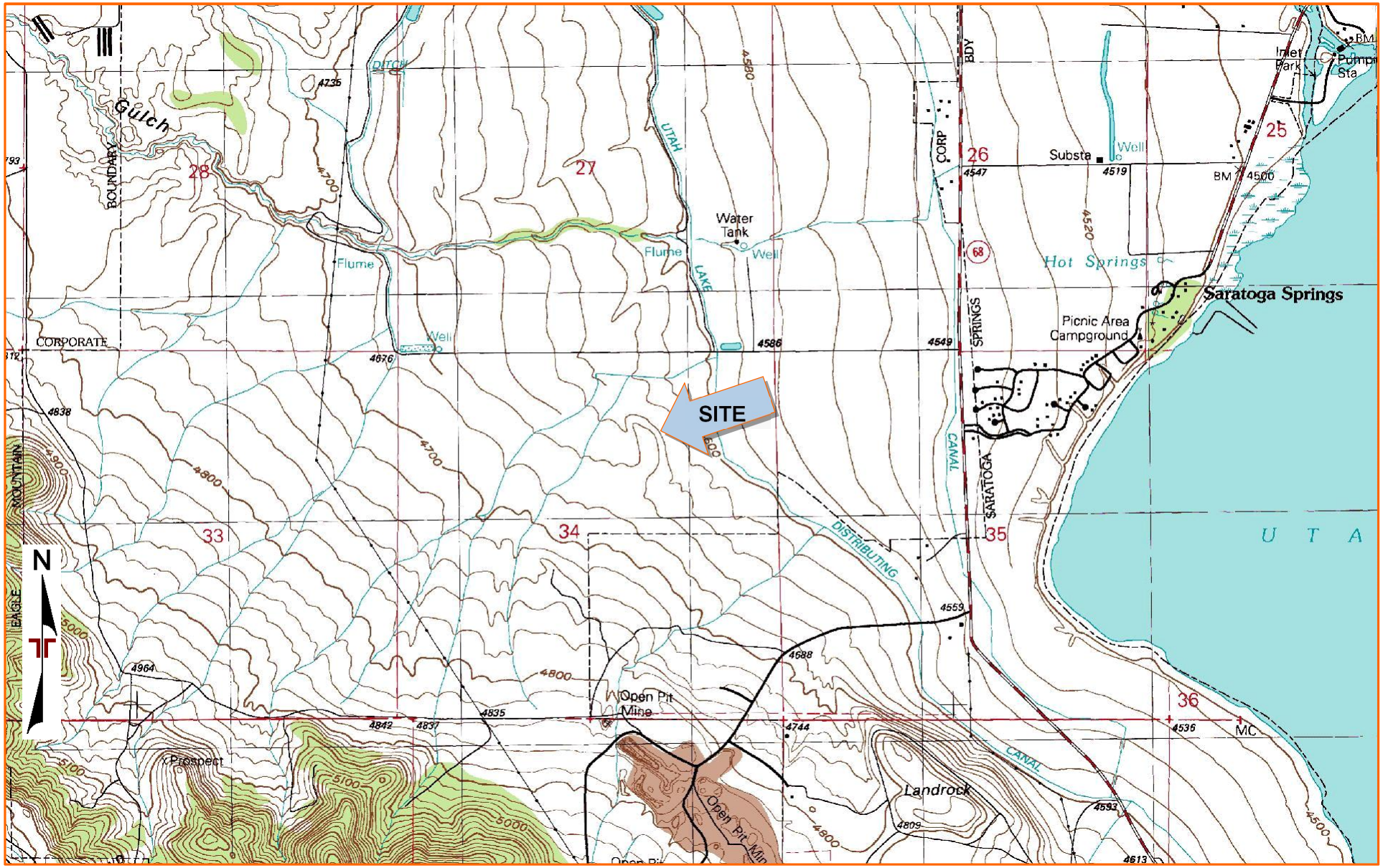


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: SARATOGA SPRINGS, UT (1/1/1997).

EXPLORATION PLAN

Suburban Land Reserve, Inc.-Saratoga Springs Parcels ■ Saratoga Springs, UT

April 12, 2018 ■ Terracon Project No. 61185035

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Borings	Boring Depth (feet)	Planned Location
10	15 to 16½	Scattered across parcel.

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±10 feet). If elevations and a more precise boring layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced the borings with a truck-mounted rotary drill rig using continuous flight augers. Four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. In the thin-walled tube sampling procedure, a thin-walled, seamless steel tube with a sharp cutting edge is pushed hydraulically into the soil to obtain a relatively undisturbed sample. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths.

The sampling depths, penetration distances, and other sampling information are recorded on the field boring logs. The samples are placed in appropriate containers and taken to our soil laboratory for testing and classification by a geotechnical engineer. Our exploration team prepares field boring logs as part of the drilling operations. These field logs include visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs are prepared from the field logs. The final boring logs represent the geotechnical engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

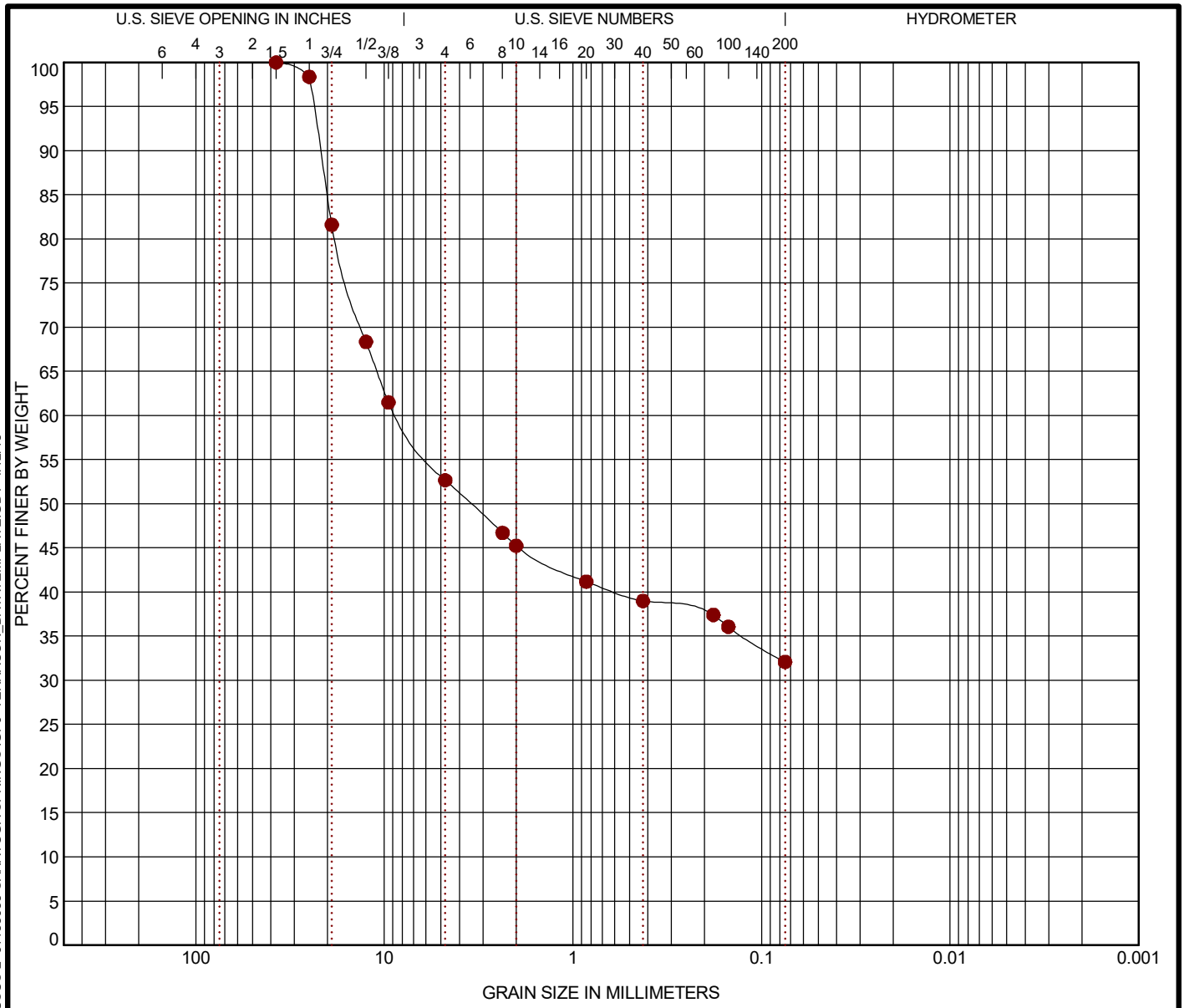
The project engineer reviews the field data and assigns various laboratory tests to better understand the engineering properties of the various soil strata as necessary for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods are applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D422 Standard Test Method for Particle-Size Analysis of Soils
- ASTM D2166/D2166M Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
- ASTM D2850 Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils
- ASTM D2435/D2435M Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading

The laboratory testing program often includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify the soil samples in accordance with the Unified Soil Classification System.

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring ID	Depth	USCS Classification	WC (%)	LL	PL	PI	Cc	Cu
B-6	14 - 15	CLAYEY GRAVEL with SAND (GC)	6	27	15	12		

Boring ID	Depth	D_{100}	D_{60}	D_{30}	D_{10}	%Gravel	%Sand	%Silt	%Fines	%Clay
B-6	14 - 15	37.5	8.453			47.3	20.6		32.1	

PROJECT: Saratoga Springs Parcels (South)

SITE: Redwood Road
Saratoga Springs, Utah

Terracon
6949 S High Tech Dr Ste 100
Midvale, UT

PROJECT NUMBER: 61185035

CLIENT: Suburban Land Reserve, Inc.
Salt Lake City, UT

EXHIBIT: B-1

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS-2 61185035 SARATOGA SPRINGS .GPJ TERRACON_DATATEMPLATE.GDT 4/12/18

INORGANIC ANALYTICAL REPORT

Client: Terracon Consultants, Inc. **Contact:** Charles Molthen
Project: Saratoga Springs Parcels (South) / 61185035
Lab Sample ID: 1804145-001
Client Sample ID: B-3 @ 2.0-3.5
Collection Date:
Received Date: 4/6/2018 1655h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
pH @ 25° C	pH Units		4/6/2018 1850h	SW9045D	1.00	**8.11**	
Resistivity	ohm-cm		4/9/2018 800h	SM2510B	10.0	**3,470**	&
Sulfate	mg/kg-dry		4/9/2018 715h	SM4500-SO4-E	12.2	**72.0**	&

& - Analysis is performed on a 1:1 DI water extract for soils.
The date collected and expiration status of the sample is unknown as this information was not provided by the client.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. Confidential Business Information: This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.

INORGANIC ANALYTICAL REPORT

Client: Terracon Consultants, Inc. **Contact:** Charles Molthen
Project: Saratoga Springs Parcels (South) / 61185035
Lab Sample ID: 1804145-002
Client Sample ID: B-7 @ 2.0-3.5
Collection Date:
Received Date: 4/6/2018 1655h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
pH @ 25° C	pH Units		4/6/2018 1850h	SW9045D	1.00	**8.57**	
Resistivity	ohm-cm		4/9/2018 800h	SM2510B	10.0	**1,250**	&
Sulfate	mg/kg-dry		4/9/2018 715h	SM4500-SO4-E	286	**827**	&

& - Analysis is performed on a 1:1 DI water extract for soils.
The date collected and expiration status of the sample is unknown as this information was not provided by the client.

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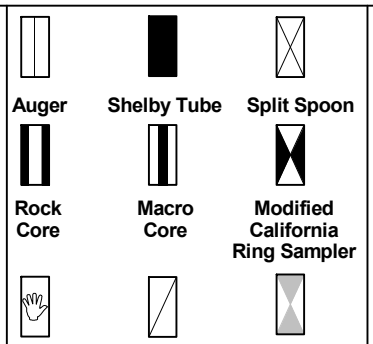
SUPPORTING INFORMATION

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING



WATER LEVEL

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

(HP)	Hand Penetrometer
(T)	Torvane
(b/f)	Standard Penetration Test (blows per foot)
N	N value
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance Includes gravels, sands and silts.			CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength, Qu, psf**	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**
Very Loose	0 - 3	0 - 6	Very Soft	less than 500	0 - 1	< 3
Loose	4 - 9	7 - 18	Soft	500 to 1,000	2 - 4	3 - 4
Medium Dense	10 - 29	19 - 58	Medium-Stiff	1,000 to 2,000	4 - 8	5 - 9
Dense	30 - 50	59 - 98	Stiff	2,000 to 4,000	8 - 15	10 - 18
Very Dense	> 50	≥ 99	Very Stiff	4,000 to 8,000	15 - 30	19 - 42
			Hard	> 8,000	> 30	> 42

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

UNIFIED SOIL CLASSIFICATION SYSTEM

Saratoga Springs Parcel 1 (South) ■ Saratoga Springs, Utah

April 17, 2018 ■ Terracon Project No. 61185035

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	Cu ³ 4 and 1 £ Cc £ 3 [E]		GW	Well-graded gravel [F]
			Cu < 4 and/or 1 > Cc > 3 [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F, G, H]
			Fines classify as CL or CH		GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	Cu ³ 6 and 1 £ Cc £ 3 [E]		SW	Well-graded sand [I]
			Cu < 6 and/or 1 > Cc > 3 [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G, H, I]
			Fines classify as CL or CH		SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above “A”		CL	Lean clay [K, L, M]
			PI < 4 or plots below “A” line [J]		ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried / Liquid limit - not dried	< 0.75	OL	Organic clay [K, L, M, N] / Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above “A” line		CH	Fat clay [K, L, M]
			PI plots below “A” line		MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried / Liquid limit - not dried	< 0.75	OH	Organic clay [K, L, M, P] / Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add “with cobbles or boulders, or both” to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ³ 15% sand, add “with sand” to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add “with organic fines” to group name.

[I] If soil contains ³ 15% gravel, add “with gravel” to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add “with sand” or “with gravel,” whichever is predominant.

[L] If soil contains ³ 30% plus No. 200 predominantly sand, add “sandy” to group name.

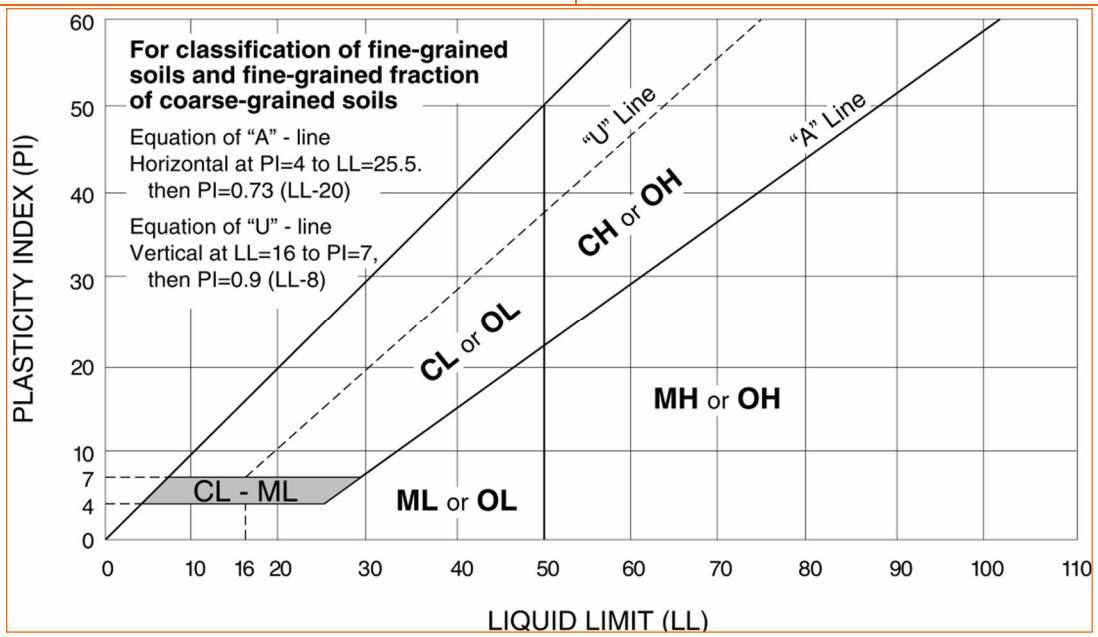
[M] If soil contains ³ 30% plus No. 200, predominantly gravel, add “gravelly” to group name.

[N] PI ³ 4 and plots on or above “A” line.

[O] PI < 4 or plots below “A” line.

[P] PI plots on or above “A” line.

[Q] PI plots below “A” line.



MAINTENANCE PLAN

The overarching goal of community open space is to provide clean and safe recreational opportunities. This should be attained without overtaxing the available City resources for maintenance. As the community grows, the maintenance system must be capable of expanding to assure proper care of the community open spaces. All designs must consider maintenance requirements, plant selection, lawn size and shape, and the proximity of open space to avoid undue burdening of maintenance efforts.

VILLAGE HOA MAINTENANCE STANDARDS

The minimal level of open space maintenance is outlined in Section 19.19.08 in the Saratoga Springs code. In summary, all open space is to be regularly managed to maintain a clean, healthy appearance free of weeds and broken amenities. The following recommendations expound on that foundation to contribute to the safety and appearance of the public open spaces that will be managed by Village specific HOAs. Each HOA will develop a maintenance plan and set standards that include the following:

- Develop a lifecycle maintenance plan in order to anticipate upkeep on buildings, furniture, grounds, and other structures in an effort to prolong the lifespan of each amenity.
- Create standards outlining acceptable levels of maintenance for each open space including—but not limited to—weeds, material wearing, seasonal cleaning and structural damage. Provide descriptions of Very Good, Satisfactory, and Poor for vegetation, hardscape materials, buildings, and other amenities.
- Park amenities that remain unused should be removed and replaced with more desired amenities to encourage use of available open space with immediate value for the community.
- Establish a process to efficiently explore alternative methods of reducing costs and maintenance funding to continuously improve existing systems.

Turf, plantings, irrigation, and all amenities will be maintained according to the guidelines below and as outlined by the City open space standards. The matrix below provides an abbreviated example of improvement and replacement standards that should be adapted to meet the specific requirements of each open space component.

CONDITION	DEFINITION	ACTION
VERY GOOD	Any damage to an amenity or landscape can be repaired through proper maintenance. Vegetation is healthy and largely free of weeds. Use of the open space is not hindered by any problems.	Perform preventative measures to avoid additional damage caused by weathering and normal use. Continue maintenance as scheduled.
SATISFACTORY	Damage is noticeable but poses no immediate safety threat. Any dilapidation is contained to small areas that does not impede use by residents. Preventative measures have slowed additional deterioration from occurring.	Complete replacement may not yet be warranted, but immediate maintenance should be performed. Repair or replace damaged or unsightly components of the amenity or landscape.
POOR	Deterioration has reached a level where use is inhibited and/or safety has become a concern.	Complete removal and replacement is likely necessary. This should be done promptly to avoid compounding problems.

PLANTING

ANNUALS / PERENNIALS – used strategically in high impact areas such as park entrances. These should only be in small manageable areas to avoid high costs associated with replanting and bed maintenance. Choose perennials that have prolonged bloom periods (seasonal) and do not require deadheading to prevent a weedy appearance.

SHRUBS / GROUNDCOVER – used in massings to provide a more uniform maintenance plan for the shrubs. Choose low maintenance species that only require trimming once or twice a year. Groundcovers should be included primarily in areas where they are allowed to spread without threat of outcompeting companion plants.

LAWN – designed in widths and shapes that can be irrigated and mowed efficiently. No lawn strips will be less than 8’ wide or on a slope greater than 4:1.

TREES – species with messy fruit or seeds should be not be planted adjacent to primary circulation paths. Select species with an appropriate canopy height and coverage for the application. Avoid conflict with power lines that would require unsightly limbing.

HARDSCAPE

Hardscape should be power-washed and inspected for cracks and settling annually. Some of the acceptable hardscape materials include:

- Concrete
- Stone Pavers
- Asphalt
- Decomposed granite / Crusher fines

STRUCTURES

All structures should use materials that are durable and weather well over time. Seasonal cleaning and repair at the beginning and end of each winter will help identify potential maintenance issues before they become a problem.

- Pavilions
- Restrooms
- Arbors / Pergolas / Trellis

- Playground equipment

AMENITIES

Consistent products and product lines should be used for all public open spaces. This simplifies maintenance strategies by limiting the variety of materials, paint colors, and manufacturers.

- Fencing / Privacy Walls
- Drinking fountains
- Seating
- Lighting
- Trash receptacles

VILLAGE 1 MAINTENANCE PLAN

Due to its prominent connection to the Special Project Site, Village 1 has defined landscape and amenity maintenance standards in addition to the City requirements typical of all open space projects. Special consideration will be taken during the plant establishment period to promote growth and acclimation. This timeframe will also monitor proper installation of all open space amenities and furnishings to determine wear and ongoing upkeep strategies. This period is assumed to be one year from the date of Substantial Completion. Maintenance during this timeframe includes monitored water regimens to encourage healthy root growth of all trees, shrubs, and lawns.

The Special Project Site contained in Village 1B will have a separate Management Plan outlined by the project Landscape Architect and Owner upon completion which will be maintained by a private owner. The following Maintenance Plan applies to open space in Village 1A, which will be maintained by the city. If desired by the City of Saratoga Springs, a maintenance shed can be discretely incorporated into the Village Plan and design for easier access to the open space dedicated to the City. Additionally, to avoid undue burden on City maintenance, the required equipment to maintain the Boulevard to the desired standard may also be dedicated to the City at the time of transferred ownership. The maintenance and replacement standards for Village 1A are outlined below:

TREES

Each tree should be inspected annually by a certified arborist. Any recommendations given during the evaluation will be implemented per the timeline provided by the arborist to ensure the longevity of the tree. Select removal of trees is acceptable upon categorization into a 'Poor' condition as described below. A portion of the City Park will be designed with a grove of 'replacement trees' to be transplanted if the occasion arises that street trees along Founders Boulevard are to be removed and replaced.

Recommended tree species in the slip lane median include:
Ornamental Pear – *Pyrus calleryana* 'Cleveland Select'
Flowering Crabapple – *Malus* 'Spring Snow'
Lavalle Hawthorn – *Crataegus x lavallei*
Tatarian Maple – *Acer tatarica*

Recommended tree species in the slip lane park strip include:
Bloodgood London Plane Tree – *Platanus acerifolia* 'Bloodgood'
Cimmaron Green Ash – *Fraxinus pennsylvanica* 'Cimmaron'
Green Vase Zelkova - *Zelkova serrata* 'Green Vase'
Bur Oak – *Quercus macrocarpa*

SHRUB & GROUNDCOVERS

At a minimum, landscape beds should be maintained monthly to avoid extensive weed growth. Maintenance teams will visually evaluate plant material at this point to determine immediate needs. As required by individual shrub species, pruning should occur at least once a year. Groundcover maintenance should follow best management practices to maintain dense coverage for each plant variety including pruning / trimming or late fall / early spring mowing to encourage growth in groundcovers.

Proper and consistent maintenance can extend the life of ornamental plants. Spray for weeds and pests as required to maintain 'Satisfactory' and 'Very Good' conditions in all landscape beds. Maintain 2-3 inches of mulch in all plantings. If needed, apply slow release fertilizers in light applications to maintain plant health.

Recommended shrub species:
Mockorange – *Philadelphus coronaries* / *Philadelphlus microphyllus*
American Cranberry Bush – *Viburnum trilobum* 'Bailey Compact'
Gro Low Sumac – *Rhus aromatica* 'Gro-Low'
Alpine Currant – *Ribes alpinum*
Shrubby St. John's Wort – *Hypericum* x 'Hidcote'

LAWNS

Complete replacement of lawn areas is seldom required when installed in compliance with best practices. Lawn areas will be maintained weekly through regular mowing and evaluated seasonally for upkeep requirements including aeration, soil nutrient requirements, and herbicide applications. Lawns should not reach a height greater than 4 inches. Lawns kept between 2-4 inches during the growing season will be more stress tolerant and less susceptible to weed germination. In preparation for winter, lawns should be cut to 1.5-2 inches.
Lawns in the landscape medians of Village 1A are ornamental in nature and less likely to receive pedestrian traffic. Therefore, more drought tolerant varieties will be used. Such varieties include: Kentucky Blue low input cultivars (Baron, EverGlade, Award, Bedazzled, Total Eclipse) and Tall Fescues (Coronado Gold, Blade Runner, Inferno, Matador GT, Cayenne, Silverstar)

IRRIGATION

When installed properly and maintained regularly, complete replacement of an irrigation system is likely not required. Irrigation systems will be adjusted seasonally to conform to the watering needs of the vegetation. All irrigation systems are to be periodically audited and winterized. Irrigation should not run during the day, except for audits and testing to adjust spray patterns. Systems should be designed and maintained to avoid overspray onto roads and walkways. The irrigation system will be installed with a smart controller that includes rain and flow sensors and monitors evapotranspiration rates to adjust water output. Irrigation programming will include a minimum of three seasonal adjustments.

LIGHTING

Recommended lighting levels should be met and maintained per City standards and according to design intent. Lamp color is to be consistent throughout the Village. Fixtures to be replaced with same fixture or approved equivalent if no longer available.

CONCRETE SIDEWALKS

When replacement of concrete sidewalks is required, do so in sections determined by expansion joints and / or saw cuts. Otherwise the preferred option is regular maintenance and joint sealant.

STREET SIGNAGE

Street signage includes traffic control signs, park and trail information signs, and street name signs. Replacements to be the same or approved equivalent if no longer available.

SITE FURNISHINGS

All furnishings associated with the Founders Boulevard will come from a single source for each item type. This simplifies maintenance by using a single color, limited materials, and standardized upkeep requirements. Consolidating product sources also decreases cost through manufacturer incentives such as quantity discounts. Site furnishings as listed in the Open Space Plan, replacements are to be the same or approved equivalent if no longer available.

CITY PARK MAINTENANCE PLAN

The proposed City Park, which will be maintained by the city, is to be located in Village 3 and further designed and outlined in the Village Plan. The maintenance plan provided is to ensure satisfactory maintenance standards resulting from the park's greenway connection to the Special Project site. Similar to the open space of Village 1A, special consideration will be taken during the plant establishment period to promote growth and acclimation of all vegetation. This timeframe will also monitor proper installation of all open space amenities and furnishings to determine wear and ongoing upkeep strategies. This period is assumed to be one year from the date of Substantial Completion. Maintenance during this timeframe includes monitored water regimens to encourage healthy root growth of all trees, shrubs, and lawns.

The elements outlined in this section of the maintenance plan include all the potential uses that may be integrated into the park design. Exact quantities and inclusion are yet to be determined and approved in the Village Plan. The maintenance standards outlined are in addition the City standards. Such standards may be relaxed temporarily due to drought, other environmental disaster, or economic hardship, for a period no longer than three (3) years.

FENCING

Materials to be installed per best practices and properly primed, stained, or coated to ensure optimum performance and longevity. All fencing is to be inspected annually for damage and assessed for preventative maintenance. Any visual defects found while performing routine maintenance for other City Park amenities is to be corrected immediately.

PLAYGROUND

Equipment will be a high standard and quality to ensure longevity. Obtain all maintenance manuals from manufacturers to further define the maintenance requirements for specific components. Equipment selection and playground area design will occur at the Village Plan level.

WALKING / JOGGING TRAILS

Consistent and programmed maintenance for each component will maximize the useful life and function of the amenity. The only acceptable trail material for city owned trails is concrete.

PARKING

Complete replacement should not be necessary for many years after installation when properly installed and regularly maintained. As part of the maintenance plan, parking lots should be regularly swept to prevent collection of debris, inspected for damage, and any cracks periodically sealed.

RESTROOMS

All structures should use materials that are durable and weather well over time. Seasonal cleaning and repair at the beginning and end of each winter will help identify potential maintenance issues before they become a problem. Restrooms should be checked and cleaned according to city schedule. This schedule should be adjusted as use of the City Park increases with Village development and a more accurate understanding of daily use is acquired. Maintenance includes the following:

- Refilling dispensers
- Cleaning mirrors and toilets
- Mopping floor
- Removing graffiti
- Fixing lighting
- Fixing door handles and stalls
- Plumbing and drains

PAVILIONS

All structures should use materials that are durable and weather well over time. Seasonal cleaning and repair at the beginning and end of each winter will help identify potential maintenance issues before they become a problem. The City Park may have several pavilions to provide areas of gathering, shade, and seating. Maintenance includes structural repairs and general upkeep, trash collection, and cleaning of all furnishings. Pavilions should be maintained at a minimum of once per week. Consistent use will mandate increases to the frequency of maintenance and periodic inspection.

TREES

Each tree should be inspected annually by a city staff. Any recommendations given during the evaluation will be implemented per the timeline provided by the arborist to ensure the longevity of the tree. Select removal of trees is acceptable upon categorization into a 'Poor' condition as described n the evaluation matrix. A portion of the City Park will be designed with a grove of 'replacement trees' to be transplanted if the occasion arises that street trees along Founders Boulevard are to be removed and replaced. The varieties of trees in this grove will correspond with the trees planted in the public open space of Village 1A as listed below.

Recommended 'Replacement Trees' for Founders Boulevard:

Ornamental Pear – Pyrus calleryana 'Cleveland Select'
Flowering Crabapple – Malus 'Spring Snow'
Lavalle Hawthorn – Crataegus x lavallei
Tatarian Maple – Acer tatarica
Bloodgood London Plane Tree – Platanus acerifolia 'Bloodgood'
Cimmaron Green Ash – Fraxinus pennsylvanica 'Cimmaron'
Green Vase Zelkova - Zelkova serrata 'Green Vase'
Bur Oak – Quercus macrocarpa

Plant replacement trees according to the tree types chosen for Founders Boulevard. Other trees in the City Park will be selected for their shade value, resistance to pests and disease, and ornamental value. Trees in need of frequent pruning due to weak wood and included bark are discouraged.

SHRUBS & GROUNDCOVERS

Landscape beds should be maintained monthly to avoid extensive weed growth. Maintenance teams will visually evaluate plant material at this point to determine immediate needs. As required by individual shrub species, pruning should occur at least once a year. Groundcover maintenance should follow best management practices to maintain dense coverage for each plant variety including pruning / trimming or late fall / early spring mowing to encourage growth.

Proper and consistent maintenance can extend the life of ornamental plants. Spray for weeds and pests as required to maintain 'Satisfactory' and 'Very Good' conditions in all

landscape beds. Maintain 2-3 inches of mulch in all planting beds. If needed, apply slow release fertilizers in light applications to maintain plant health.

When selecting vegetation, consider multiple variables to minimize the demands on maintenance. Select shrubs that do not require frequent soil amending, high water use, or constant pruning to maintain neat appearance.

PERENNIALS & SEASONAL FLOWERS

Landscape beds containing seasonal flowers should be planted at a minimum of once a year. Seasonal flowers should be designed in large massings with deliberate plant selection. Perennial plants will be selected for ease of maintenance, long bloom periods, and predominately medium - low water use. Avoid perennial plants that spread aggressively through self-seeding or runners when planted in beds with other plants. These beds should be maintained monthly to avoid extensive weed growth. Maintenance teams will visually evaluate plant material at this point to determine immediate needs for replacement or maintenance of dead or unsightly material. Flower beds are to be designed at a manageable size and located near areas with greatest visibility: park entry signs, pavilions, plazas, etc.

Spray for weeds and pests prior to seasonal planting to maintain 'Satisfactory' and 'Very Good' conditions in all landscape beds. Maintain 2-3 inches of mulch in all planting beds. If needed, apply slow release fertilizers in light applications to maintain plant health.

LAWNS

Complete replacement of lawn areas is seldom required when installed in compliance with best practices. Lawn areas will be maintained weekly through regular mowing and evaluated seasonally for upkeep requirements including aeration, soil nutrient requirements, and herbicide application. Lawns should not reach a height greater than 4 inches. Lawns kept between 2-4 inches during the growing season will be more stress tolerant and less susceptible to weed germination. In preparation for winter, lawns should be cut to 1.5-2 inches.

Therefore, more drought tolerant varieties will be used. Such varieties include: Kentucky Blue low input cultivars (Baron, EverGlade, Award, Bedazzled, Total Eclipse) and Tall Fescues (Coronado Gold, Blade Runner, Inferno, Matador GT, Cayenne, Silverstar)

IRRIGATION

When installed properly and maintained regularly, complete replacement of an irrigation system is likely not required. Irrigation systems will be adjusted seasonally to conform to the watering needs of the vegetation. All irrigation systems are to be periodically audited and winterized. Irrigation should not run during the day, except for audits and testing to adjust spray. Systems should be designed and maintained to avoid overspray onto roads and sidewalk. The irrigation system will be installed with a smart controller that includes rain and flow sensors and monitors evapotranspiration rates to adjust water output. Irrigation programming will include a minimum of three seasonal adjustments.

LIGHTING

Recommended lighting levels should be met and maintained per City standards and according to design intent. Lamp color is to be consistent throughout the Park. Fixtures to be replaced with same fixture or approved equivalent if no longer available.

CONCRETE SIDEWALKS

When replacement of concrete sidewalks is required, do so in sections determined by expansion joints and / or saw cuts. Otherwise the preferred option is regular maintenance and joint sealant.

SIGNAGE

Signage includes traffic control signs as well as park and trail informational signs. Replacements to be the same or approved equivalent if no longer available.

SITE FURNISHINGS

All furnishings will come from a single source for each item type. This simplifies maintenance by using a single color, limited materials, and standardized upkeep requirements. Consolidating product sources also decreases cost through manufacturer incentives such as quantity discounts. Site furnishings as listed in the Open Space Plan, replacements are to be the same or approved equivalent if no longer available.

SPORTS COURT

All concrete sports courts are to be installed with quality materials and will follow best practices to increase product longevity. Sports court refers specifically to pickleball, tennis, basketball, and volleyball. Each of these may be included in the City Park, but the Village Plan will assess community needs at a future date to finalize which, if any, sports courts will be included.

OPERATIONS & MAINTENANCE MANUAL

An Operations and Maintenance manual should be produced which includes the following:

- Irrigation System & Layout (as built)
- Recommended Irrigation Control Settings (evaluated annually)
- Plantings & Furnishing Maintenance
- Equipment Maintenance

EVALUATION MATRIX | TREES

CONDITION	DEFINITION	ACTION
VERY GOOD	Tree is new and / or healthy. Poor maintenance practices, natural forces or insects / pests may have slightly damaged the tree.	**Do not consider replacement under these conditions.** Tree will be inspected annually by a certified arborist. Perform preventative measures and maintenance as directed by the certified arborist's annual report.
SATISFACTORY	Growth and development of the tree is continuing, though hindered by poor maintenance practices, natural forces or insects / pests that affected its earlier growth. Most damage has been stopped or altered enough to extend the life of the tree. Any damage present does not pose an immediate threat to the safety of residents.	**Replacement is not yet justified; perform necessary maintenance as recommended by the certified arborist.** Growing replacement or phasing trees should be considered to allow time for adequate growth within the portion of the City Park designated as a tree nursery / grove for transplanting options.
POOR	50%-75% of the tree has died. Deterioration and / or poor growth has caused concern for safety and protection of surrounding plants, surfaces, buildings, etc. Neatness and cleanliness are significant concerns.	**Remove this tree.** If available, replace this tree with the same variety grown for replacement purposes in the City Park.

EVALUATION MATRIX | SHRUBS & GROUNDCOVERS

CONDITION	DEFINITION	ACTION
VERY GOOD	Shrub or groundcover is new and / or healthy. Poor maintenance practices, natural forces or insects / pests may have slightly damaged the shrub or groundcover. Long-term effects are negligible. Mulch covers the soil evenly to prevent weed growth and maintain soil moisture.	**Do not consider replacement under these conditions.** Perform preventative measures of maintenance to encourage good form, and healthy growth. Follow plant specific recommendations for all shrubs and groundcovers, including seasonal pruning and trimming. Add pre-emergent herbicide and mulch annually to keep soil covered and free of weeds.
SATISFACTORY	30-50% of the limbs have died or show considerable signs of altered growth. Extensive damage to the growth of the shrub or groundcover area has occurred due to insect / pest infestation or other natural forces. Mulch is thin and no longer covers soil in large areas. Weeds are larger than 3 inches and visible from the road.	**Replacement is not yet justified; perform necessary maintenance as recommended.** If growth of groundcover becomes patchy, infill with additional plants per recommended spacing. Major structural pruning of shrubs should occur during periods of dormancy or other times best suited to the health or flowering of the plant. Weeds should be removed immediately.
POOR	50% or more of the shrub or groundcover area has died. Deterioration has caused concern for safety and protection of surrounding plants, surfaces, buildings, etc. Neatness, cleanliness, and appearance are significant concerns.	**Replace select shrubs or ground cover areas.** If problems arises as a result of a plant's inability to survive in the intended space, replace all with a comparable plant species. Otherwise replace individual plants with the same species.

EVALUATION MATRIX | LAWN

CONDITION	DEFINITION	ACTION
VERY GOOD	Lawn is new and / or healthy. Poor maintenance practices, natural forces or insects / pests have damaged the lawn area in small areas. Some bare patches less than 12 inches are visible and a few dry spots in the lawn are visible.	**Do not consider replacement under these conditions.** Perform preventative maintenance as directed by a turf expert including fertilization and aeration. Perform a water audit annually, or more regularly if dry spots occur, to determine water distribution and adjust run times.
SATISFACTORY	Growth and development of the lawn area is continuing though hindered by poor maintenance practices, poor soil conditions, natural forces, or insects / pests. Most damage has been stopped or altered enough to extend its life and promote turf growth.	**Replacement is not yet justified; perform necessary maintenance.** Research and alter maintenance practices if condition worsens.
POOR	50% or more of the lawn has died. Deterioration raises concerns regarding the desired aesthetic of the open space and detracts from the landscape function.	**Replace affected areas as required through re-seeding or sod.** If re-sodding, schedule replacement during the cool season to avoid stress and promote root establishment during spring and fall months.

EVALUATION MATRIX | IRRIGATION

CONDITION	DEFINITION	ACTION
VERY GOOD	All parts of the system are reliable. Turf and planting areas are adequately covered and little to no dry spots in the lawn are visible. The system contains no broken pipes or heads. Distribution uniformity is above 55% for spray heads and 65% for rotors and rotary nozzles.	**Do not consider replacement under these conditions.** Perform irrigation audit annually. Head adjustments may need to be made to maintain the system and improve water distribution.
SATISFACTORY	Some components have failed and been replaced. Others are approaching the end of their useful lifespan. Considerable adjustments need to be made to improve water distribution and output.	**Replacement is not yet justified; perform necessary repairs and adjustments.** Replace faulty components and continue to evaluate the entire system annually.
POOR	Complete lack of coverage to turf and plantings due to low pressure caused by leaks, worn and broken sprinkler heads, and extensive expansions / modifications of the system.	**Obtain a recommendation from a licensed landscape architect and / or certified irrigation auditor to determine the extent of repairs needs.** Study the life cycle cost to determine whether to continue replacing faulty irrigation components or retrofit the existing system by zone. As a last resort, consider complete system replacement.

EVALUATION MATRIX | PERENNIALS & SEASONAL FLOWERS

CONDITION	DEFINITION	ACTION
VERY GOOD	The sign maintains its light reflectivity and is legible day and night. The fixture and attachments show little to no sign of damage caused by improper maintenance or natural forces.	**Do not consider replacement under these conditions.** Perform preventative maintenance to maintain uniform color and sign quality needed for traffic safety.
SATISFACTORY	Some fading of sign letters and reflectivity are noticeable but pose no safety threat to traffic and navigation. The fixture and attachments show visible damage.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Any exposed metal on the fixture should be repaired with matching paint. Replace components of the street signage that cannot be repaired.
POOR	Sign is faded and difficult to see and poses a threat to safe traffic patterns and neighborhood navigation. Fixture and / or attachments are bent or otherwise damaged beyond repair.	**Replace immediately.** Replace multiple components that are beyond repair, unless that cost is greater than an entirely new street sign and fixture.

EVALUATION MATRIX | PAVILIONS

CONDITION	DEFINITION	ACTION
VERY GOOD	Surrounding areas are free of weeds and trash. Pavilion still appears to be new and provides respite from sun / rain. Concrete pad has minimal cracks. Any storage associated with the pavilion is organized and sanitary.	**Do not consider replacement under these conditions.** Perform preventative maintenance on structure to prolong lifespan.
SATISFACTORY	Pavilion components show wear typical of frequent use and natural forces. Cracks in concrete pad present a tripping hazard.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Evaluate reoccurring repairs and determine of partial replacement is cost effective. Repair cracks in concrete pad as necessary.
POOR	Use and natural forces have rendered the pavilion a danger.	**Replace immediately.** If not entirely, replace the components that render the pavilion to be a hazard.

EVALUATION MATRIX | LIGHTING

CONDITION	DEFINITION	ACTION
VERY GOOD	Lenses or covers have no cracks or discoloration. Operating noise is not noticeable. The fixture is generally undamaged but may show some wear from natural forces or poor maintenance. All fixtures are operational.	**Do not consider replacement at this point.** Perform preventative measures as prescribed by the light fixture manufacturer. Scratches and dings exposing the metal should be repaired with colors provided by the manufacturer. Replace spent light bulbs immediately.
SATISFACTORY	Cracked or discolored lenses or covers can be economically replaced. Operating noise is acceptable. Wear is spreading and more noticeable but can still be repaired.	**Replacement is not yet justified; unless repairs approach the cost of replacing the fixture.** Continue to perform preventative measures as prescribed by the manufacturer. Replace components of the fixture as necessary.
POOR	Repairs either cannot be made or would be costlier than replacement. Operating noise is distracting. Deterioration has caused concern for safety and visibility due to decreased light output or structural damage.	**Replace the fixture.** Only replace select fixtures as necessary.

EVALUATION MATRIX | CONCRETE SIDEWALKS

CONDITION	DEFINITION	ACTION
VERY GOOD	The concrete is beginning to show defects with a few hairline cracks and minor chipping / spalling. There are no trip hazards or portions of upheaval or major settling.	**Do not consider replacement under these conditions.** Perform necessary maintenance measures to prevent and slow further deterioration.
SATISFACTORY	Cracks in concrete have spread and widened. The amount of chipping and spalling has increased causing uneven surfaces and tripping hazards. More than 75% of the surface is without defect.	**Replacement is not yet justified; perform necessary repairs and replace small sections where possible.** Repair and / or replace any joint sealant that has failed. Seal all new cracks wider than 1/8 inch. Grind trip hazards smooth.
POOR	Cracks in concrete are numerous, large and extensive. Widespread spalling, chipping and cracking have deformed the face of the concrete making it rough. More than 50% of the surface has defects.	**Remove and replace the concrete.**

EVALUATION MATRIX | STREET SIGNAGE

CONDITION	DEFINITION	ACTION
VERY GOOD	The sign maintains its light reflectivity and is legible day and night. The fixture and attachments show little to no sign of damage caused by improper maintenance or natural forces.	**Do not consider replacement under these conditions.** Perform preventative maintenance to maintain uniform color and sign quality needed for traffic safety.
SATISFACTORY	Some fading of sign letters and reflectivity are noticeable but pose no safety threat to traffic and navigation. The fixture and attachments show visible damage or signs of vandalism.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Any exposed metal on the fixture should be repaired with matching paint. Replace components of the street signage that cannot be repaired.
POOR	Sign is faded and difficult to see and poses a threat to safe traffic patterns and neighborhood navigation. Fixture and / or attachments are bent or otherwise damaged beyond repair.	**Replace immediately.** Replace multiple components that are beyond repair, unless that cost is greater than an entirely new street sign and fixture.

EVALUATION MATRIX | SITE FURNISHINGS

CONDITION	DEFINITION	ACTION
VERY GOOD	The item is generally undamaged showing no signs of poor maintenance, vandalism, or deterioration from natural forces.	**Do not consider replacement under these conditions.** Follow manufacturer provided maintenance strategies to prolong the life of the item. Repair any scrapes that expose the metal components of the item.
SATISFACTORY	Most damage or wear is repairable and maintenance is expected to extend the life and improve the appearance of the item.	**Replacement is not yet justified; perform necessary repairs and adjustments.** Continue manufacturer's maintenance suggestions and replace components of the item that are beyond repair and do not exceed the price of a new item.
POOR	The item no longer functions as intended due to vandalism, deterioration, or natural forces.	**Replace the item.** The fixture cannot be repaired and should be replaced with a new item matching the existing amenity.

EVALUATION MATRIX | RESTROOMS

CONDITION	DEFINITION	ACTION
VERY GOOD	The whole structure appears to be in new or like-new condition. Restrooms are clean and stocked with supplies. All light fixtures (interior and exterior) are in working order.	**Do not consider replacement at this point.** Perform preventative measures to preserve all materials and surfaces of the restroom structure. Adjust the upkeep schedule as required to maintain clean and sanitary facilities.
SATISFACTORY	Some weathering is visible on the structure but damage can be repaired. The interior is sanitary but shows signs of use and minor vandalism.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Continue to perform preventative maintenance and fix problems that arise due to high use and vandalism.
POOR	The structure and internal components need frequent repairs. Broken equipment, natural deterioration, and vandalism discourages use and negatively impacts the perception of the park.	**Replace immediately.** Perform cost analysis of remodel versus complete rebuild. Paint and install new amenities as needed before complete demolition and rebuild.

EVALUATION MATRIX | PLAYGROUND

CONDITION	DEFINITION	ACTION
VERY GOOD	Any damage to an amenity can be repaired through proper maintenance. Use of the equipment is not hindered by any problems.	**Do not consider replacement under these conditions.** Perform preventive measures to avoid additional damage caused by weathering and normal use. Continue maintenance as scheduled.
SATISFACTORY	Damage is noticeable but poses no immediate safety threat. Any dilapidation is contained to small areas that does not impede use by residents. Preventative measures have slowed additional deterioration from occurring.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Replacement of certain components may be warranted, but immediate maintenance should be performed. Repair or replace damaged or unsightly components of the playground.
POOR	Deterioration has reached a level where use is inhibited and/or safety has become a concern.	**Replace immediately.** Action should be taken promptly to avoid compounding problems and potential injury.

EVALUATION MATRIX | WALKING / JOGGING TRAILS

CONDITION	DEFINITION	ACTION
VERY GOOD	There are a few cracks, dips, or surface imperfections caused by weathering, settling, and use.	**Do not consider replacement under these conditions.** Seal cracks greater than 1/8 inch. Fill dips deeper than 3 inches in decomposed granite / crusher fines.
SATISFACTORY	There are some linear cracks, some alligator cracking, no potholes or major spalling. Tripping hazards exist due to settling or upheaval.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Seal cracks, remove and replace alligator crack areas with shallow or deep patching. Repair tripping hazards.
POOR	There are numerous cracks, potholes, discoloration, and severe crumbling occupying more than 50% of the pavement. Decomposed granite / crusher fines are no longer contained within the edging and surface is uneven. Deterioration poses a threat to safety.	**Before complete replacement, perform a life cycle cost analysis to ensure replacement justified.** If complete replacement is not justified, continue to seal crack and patch as necessary. Add additional decomposed granite / crusher fines to the path and repair edging to prolong the life cycle.

EVALUATION MATRIX | SPORTS COURT

CONDITION	DEFINITION	ACTION
VERY GOOD	The concrete is beginning to show defects with a few hairline cracks and minor chipping / spalling. There are no trip hazards or portions of upheaval. If sand, the area is free of weeds and debris. Painting, striping, and associated furnishings are in working condition.	**Do not consider replacement under these conditions.** Perform necessary maintenance measures to prevent and slow further deterioration. Courts should be assessed annually for damage and needed repairs.
SATISFACTORY	Cracks in concrete have spread and widened. The amount of chipping and spalling has increased causing uneven surfaces and tripping hazards. More than 75% of the surface is without defect. Weeds and debris are accumulating. Painting, striping, and furnishings show signs of fading and wear.	**Replacement is not yet justified; perform necessary repairs and replace small sections where possible.** Repair and / or replace any joint sealant that has failed. Seal all new cracks wider than 1/8 inch. Grind trip hazards smooth. Weed and add additional sand if needed.
POOR	Cracks in concrete are numerous, large and extensive. Widespread spalling, chipping and cracking have deformed the face of the concrete making it rough. More than 50% of the surface has defects.	**Remove and replace the concrete.**

EVALUATION MATRIX | PARKING

CONDITION	DEFINITION	ACTION
VERY GOOD	There are a few cracks, oxidation has started (the asphalt color is changing from black to gray) but there is no raveling (loss of surface material due to weathering or traffic).	**Do not consider replacement under these conditions.** Seal cracks greater than 1/8 inch.
SATISFACTORY	There are some linear cracks, some alligator cracking, no potholes, minor raveling, and some oxidation.	**Replacement is not yet justified; perform necessary maintenance and repairs.** Seal cracks, remove and replace alligator crack areas with shallow or deep patch. If the pavement has been in this condition for more than three years, apply asphalt emulsion sealer and re-stripe.
POOR	There are numerous linear cracks, areas of alligator cracking occupying more than 50% of the pavement, some potholes, and considerable oxidation and raveling.	**Before complete replacement, perform a life cycle cost analysis to ensure replacement justified. If complete replacement is not justified, continue to seal cracking and patch as necessary. Fill potholes and apply asphalt emulsion sealer and re-stripe.**

Architectural Styles in Utah
Background for Teachers

Neighborhoods are our most immediate communities. Neighborhoods are defined, as much as anything else, by the houses in them. And houses, in turn, are defined by their architectural styles. Different styles affect the way that people interact with, use, and feel about their houses.

Background

At the outset, it's important to note that each period of architecture contains several different styles that share certain qualities and are associated with that period. For example, Queen Anne, Eastlake, Shingle, and Stick are all styles of the Victorian period. But for the sake of simplicity, the various styles of each period will be referred to collectively. So the term "style" in this lesson plan really refers to several styles associated with a given period. Students looking for further explorations may be encouraged to learn about the different styles associated with a particular period.

This lesson plan will cover eight styles of architecture commonly found in Utah houses:

- Pioneer
- Victorian
- Early Twentieth Century
- Period Revival
- Early Modern
- Post-War Modern

These different styles of architecture reflect different social, economic, and cultural trends and influences. So the design of houses, by reflecting prevailing trends and influences, has much to tell us about how people lived in various historical periods.

The architectural styles in this plan are differentiated by the following characteristics:

- Shape: (orientation, vertical v. horizontal): Does a house feel taller ("stretched up") or longer ("stretched out")?
- Balance/Symmetry: Does a house feel balanced (even) or imbalanced (uneven)? If you divided the façade in two, would the two sides match? Are they "mirror images"?
- Lines (straight v. curved): Are the lines of the house straight with right angles or are there a curves and different angles?
- Materials: Is the house constructed primarily of one material or is it made of several different materials?
- Roof: What shape is the roof? What is its "pitch": Is it steep or shallow or even flat?
- Windows: What shapes and sizes are the windows? Do they have lots of panes of glass (lights-)" or are they basically just glass?

- Entry: Where is the main entry located? In the middle of the façade or to the side? Is it plain or elaborate? Does it include any type of porch or stoop?

- Ornamentation: Is the ornamentation fancy and intricate or is there relatively little decoration (or none at all)?

Sometimes, discussions of style are complicated by the fact that many houses have been built in an "eclectic" style. That is, they incorporate design elements from different periods or from different styles within a period. For example, a house that is considered "Victorian Eclectic" may contain elements from Queen Anne, Eastlake, and other Victorian styles. And it's not unusual to see houses whose design bridges periods. For example, it's not uncommon to see a house that incorporates basic elements from the Pioneer Period with details from the Victorian Period. As you discuss architectural styles with students, make them aware that they may see "eclectic" homes in their neighborhood.

People who study architecture sometimes refer to "styles" and "types" of houses separately. "Style" refers to the architectural details and ornamentation applied to the outside of a house's basic structure. "Type" refers to the basic structure layout (floorplan). Certain house types (e.g. Cross Wing) can be constructed in different styles. This lesson plan focuses on "styles" common in Utah neighborhoods but will also refer to several important "types".

The following information outlines the primary styles found in Utah neighborhoods. The outline is organized by architectural period, from the oldest (Pioneer) to the newest (Post-War Modern). At the beginning of each period overview is a list of the primary styles associated with that period. Talking about architectural styles by period allows for connections to other history and social studies topics of the same general timeframes. For example, a discussion about Utah settlement in the late 1800s could include a discussion of architectural styles from that period and what those styles may say about how people lived.

Pioneer Period (1847 – 1890)

Common Styles of the Pioneer Period

Federal

Georgian

Greek Revival

About the Pioneer Style

- Pioneer styles were based on early Greek, Roman, and English architecture. Houses built in the Pioneer styles often told others that the owner was wealthy and of high social standing.
- This style was carried through from colonial America and was prevalent in the U.S. during the middle part of the nineteenth Century.
- Houses built in the Pioneer styles feel formal and austere.

The Pioneer Style in Utah

- The Pioneer styles were brought to Utah by Mormon settlers and was prominent in Utah until the mid-late nineteenth Century.
- Because living conditions in Utah were more humble than in other parts of the country, Pioneer style houses in Utah often were often smaller and simpler than those found elsewhere.

- Builders' handbooks such as *The Practical House Carpenter,* published in 1841, may also have influenced builders and craftsmen in Utah to build in this style.
- Pioneer styles can also be found to have influence from other countries as early Utah settlers brought traditional building skills with them from their homelands.

What to Look For

- Shape: The house feels stretched out. It's rectangular with one long side and one short side.
- Balance/Symmetry: The façade is commonly symmetrical. The front door is usually in the middle of the facade with evenly spaced windows on either side.
- Lines: Walls and details emphasize straight lines and right angles. If there are any curves, they're found in arches above the windows.
- Materials: There is little variety in materials—usually just masonry (brick, stone, or adobe) for the main house portion, and wood (window frames, doors, and trim) for the details.
- Roof: The roof has gables and a shallow pitch.
- Windows: The windows are tall with numerous "lights" (panes).
- Entries: The front door is on the long side of the house and is often highlighted by sidelights.
- Ornamentation: The front facade is relatively plain with little if any ornamentation.

Victorian Period (1880-1910)

Common Styles of the Victorian Period

Queen Anne

Shingle

Eastlake

Victorian Gothic

Stick

Victorian Eclectic

About the Victorian Style

- By the late nineteenth Century, the Pioneer styles came to be seen as artificial an unnatural. The Victorian style, by contrast, was considered to be more natural and more honest.
- Victorian architecture focused on the textures and forms of the materials, displaying high craftsmanship. The goal was to express a playfulness and spontaneity rather than austere control.
- Significant changes in architects' education affected the sophistication and quality of design, and numerous magazines and stylebooks helped make the Victorian style popular.
- In addition, the availability of mass-produced millwork and decorative ornamentation promoted the stylistic changes (the intricacy of detailing) emphasized in Victorian architecture.
- Houses built in the Victorian style feel exuberant—sometimes a little "over the top."

The Victorian Style in Utah

- As Utah became less isolated in the late nineteenth Century, the Victorian style popular in other parts of the country appeared in and around Salt Lake City and eventually spread to rural Utah, as materials and information became more widely disseminated.
- The proliferation of the Victorian style coincided with periods of great economic growth in Utah and a substantial increase in the state's population.
- During the Victorian period, the "Cross Wing" became the principle house type built in Utah. Cross Wing houses were built with two wings placed at right angles to form a "T" or an "L". Cross Wing houses were popular during the Victorian period, because they expressed asymmetry, and they were ornamented according to various Victorian styles.

What to Look For

- Shape: The house feels stretched up, often with towers or turrets pointing to the sky.
- Balance/Symmetry: The façade is asymmetrical.
- Lines: The lines are irregular, with lots of curves and variety of angles.
- Materials: Materials are often varied to create a diversity of textures.
- Roof: The roof has a steep pitch.
- Windows: Windows are commonly "double-hung" (one "sash" over one "sash") and have few lights.
- Entry: The main entry is usually to one side (as exemplified by the "Cross Wing" house type popular during this period).
- Ornamentation: The façade is highly textured and decorated with intricate ornamentation. (The term "gingerbread" is often associated with Victorian houses.) The house may be brightly colored and/or multi-colored.

Early Twentieth Century Period (1900 – 1925)

Common Styles of the Early Twentieth Century Period

Bungalow

Arts and Crafts

Prairie School

About the Early Twentieth Century Style

- At the turn of the Twentieth Century, houses with all of the ornamentation of the Victorian era fell out of favor with the public as they were perceived to look ungainly and old-fashioned. It became more fashionable to build houses that were less visible and less intrusive on the landscape. So houses became less ornamented.
- Houses built in early Twentieth Century styles feel simple and informal.

The Early Twentieth Century Style in Utah

- In the early Twentieth Century, communities along the Wasatch Front were growing fast. To accommodate the growth, house lots became smaller, so houses had to become smaller.
- The smaller houses were constructed primary in two types: the Bungalow (which is also a style of house) and the Foursquare Box.
    - Bungalows were low (usually one story) with low-pitched roofs and became the most popular house type in Utah in the early Twentieth

Century. Most Utah bungalows were built by local contractors following ideas contained in popular pattern books and home improvement magazines.

- Foursquare Box houses were cube-shaped and usually two stories, often with wide front porches and dormers facing the street. With their regular predictability, Foursquare houses represented the opposite to the irregularity and variation of Victorian houses.

- Early Twentieth Century styles became popular in Utah in part because several Utah architects had worked in Chicago where the styles originated and were constructed by the thousands. Between 1910 and 1920, a number of architects in Salt Lake City and Ogden specialized in the early Twentieth Century styles.

What to Look For

- Shape: Even though it may be small, the house feels stretched out, primarily because it is often low to the ground.
- Balance/Symmetry: The façade may be symmetrical or asymmetrical.
- Lines: Walls and ornamentation emphasize straight lines and right angles.
- Materials: Materials are varied and often include brick, stucco, wood, and stone. Wood framing is often exposed (most visibly under the eaves). The foundation is often constructed of cobblestone or brick (sometimes of "clinker brick").
- Roof: The roof has a low pitch.
- Windows: Windows may vary quite a bit both in size and the number of lights.
- Entry: There is typically a wide front porch or veranda. The front door may be located in the middle of the façade or to one side.
- Ornamentation: There is relatively little ornamentation. The ornamentation that does exist is usually found in woodwork such as rafter framing that is exposed.

Period Revival Period (1910 – 1955)

Common Styles of the Period Revival Period

Colonial Revival

Tudor Revival Cottage

English Tudor

Neoclassical

About the Period Revival Style

- The term Period Revival refers to a wide range of historically-based styles.
- Numerous articles in the architectural press on the "country house" reinforced a return to historicism in the teens and twenties. The proliferation of this style was enhanced by the rising popularity of photography.
- The outdoor living area appeared during this period, which in turn led to a lowering of the height of the first floor in relation to ground level. Unlike the usual Victorian practice of building the house several feet above "grade", the Period Revival house was built within twelve to eighteen inches of grade to allow the family's living patterns to extend onto a terrace.
- Period Revival houses imitate older styles: They look like something out of another time such as Colonial America or medieval England or Europe.

- Houses in the Period Revival can also include influences from other styles such as Spanish Revival and the Classical Revival.

The Period Revival Style in Utah

- The popularity of these styles in the U.S. (and Utah) was due to:
  - a surge in nationalistic pride following World War I and a corresponding interest in returning to the classical styles;
  - soldiers returning from the war and bringing with them historical styles that they had seen in Europe; and
  - the publication of early Twentieth Century "plan books" that contained numerous Period Revival designs.
- The architectural style of the "country house," which reflected the social aspirations of well-to-do or upper-middle-class owners in older neighborhoods, quickly migrated to the rapidly expanding suburbs and their spacious house sites.

What to Look For

There are two primary Period Revival styles in Utah: Colonial Revival and Tudor Revival. Although they share the characteristic that they look like something from long ago, they are very different from one another and are addressed separately here.

- Colonial Revival: Colonial Revival houses look like something out of Colonial America.
  - Shape: The house is maybe a little more stretched out than stretched up, but not in an obvious way.
  - Balance/Symmetry: The façade is symmetrical.
  - Lines: The walls and ornamentation emphasize straight lines and right angles.
  - Materials: There is generally little variety in materials—usually just masonry and wood.
  - Roof: The roof has a shallow pitch.
  - Windows: The windows are not large, but they generally have lots of lights. Some windows are arched with lights running through the arch (Palladian window).
  - Entry: There is usually a front porch, often with columns, that highlights the main entry. Even without a front porch, the main entry is often accented or highlighted with a decorative "crown" molding.
  - Ornamentation: Other than the front entry, there is little if any ornamentation.

- Tudor Revival: Tudor Revival houses look like something out of medieval England. A common variation are the English Tudor, commonly see as a two-story variety on a larger lot, and the English Cottage, a smaller version of the English Tudor house with many of the same characteristics.
  - Shape: The house itself generally feels more stretched out than stretched up, but the steep roof pitch gives it a "taller" feeling.
  - Balance/Symmetry: The façade is asymmetrical.
  - Lines: The walls generally emphasize straight lines, but the exposed woodwork may display curves.
  - Materials: Materials are varied and always include exposed wood (called "half timbering").
  - Roof: The roof has a steep pitch that often makes the house feel taller. Sometimes these roofs include multiple projections with dormers and curving slopes.

- Windows: Windows take a variety of sizes and shapes but are generally tall with lots of lights.
- Entry: The entry may be in the middle of the façade or to one side, but even if it's in the middle, the asymmetry of the façade makes it feel as if it's off to one side. The main entry is often highlighted with some form of masonry or stonework.
- Ornamentation: If brick or stone are used as the primary building material, they are often multi-colored. The walls display exposed wood framing, but it's fake—not actually part of the structure.

Variations of the Period Revival style extend to additional influences such as Spanish Colonial Revival, Classical Revival, Georgian Revival, Gothic Revival, Pueblo Revival, and others. A mix of these styles is most accurately referred to as an eclectic variation on a style.

Early Modern Period (1930 – 1955)

Common Styles of the Early Modern Period

International

Art Moderne (Streamline Moderne)

Art Deco

About the Early Modern Style

- "Modern" architecture first appeared in America in the 1922 Chicago Tribune Tower competition, which was a worldwide competition to design an early skyscraper.
- Architects first designing in the Early Modern styles came from Europe, which was the "breeding ground" for modern architectural thought through the Bauhaus School.
- By the end of the 1940s, American architectural education had incorporated teaching in the Early Modern styles, despite a good deal of protest by more traditionally trained architects.
- The Early Modern styles promoted the "machine aesthetic" which borrowed the appearance of machined surfaces and used machine-finished industrial products.
- Houses built in the Early Modern styles often look and feel like machines.

The Early Modern Style in Utah

The Early Modern styles were not very popular in Utah, so it's unusual to find houses in this style in residential neighborhoods, and those that do exist often find themselves surrounded by more traditional style houses.

What to Look For

- Shape: The house feels stretched out and often looks like blocks have been attached to each other.
- Balance/Symmetry: The façade is asymmetrical.
- Lines: Walls emphasize straight lines, although a corner of the house may be curved.
- Materials: Masonry is the primary material, often covered by stucco (for a smooth appearance).
- Roof: The roof is always flat.
- Windows: Windows are large with lots of lights. The window frames are made of metal. There are often corner windows where two separate windows meet at the corner and even some that follow the curve of the corner.
- Entry: The main entry is usually plain, although there may be an awning.
- Ornamentation: There is little if any extra ornamentation as the ornamentation was thought to come from the unique shape created by the design itself. If there is added ornamentation it is usually metal accents (e.g. steel pipe railings) that reinforces the straight lines of the house.

Post-War Modern Period (1949 – 1970)

Common Styles of the Post-War Modern Period

Minimal Traditional

Post-War Modern

Ranch

About the Post-War Modern Styles

- As the Twentieth Century progressed, Modernism had an increasing influence on traditional housing types. Following the 1930s, residential architectural design began to combine modernism with historical allusion.
- Houses were now becoming pared down and much less ornamented rather that displaying lots of historically-based details.
- By the end of the 1930s a combination of events fostered the transition in design to smaller houses in a simpler, less ornate style:
    - The nation was recovering from the Great Depression, which forced a change in how buildings were designed—smaller and simpler with less embellishment.
    - European modernism influenced American architectural thought, and the sparseness of Modernism became more commonly applied to residential architectural styles.

- While houses generally were smaller during World War II, they grew in the 1950s. This change was due to several factors:
  - Post-war prosperity increased due to veterans receiving GI Bills and easier house-financing terms.
  - As the number of marriages and size of families increased, the small World War II-era-cottage type was becoming obsolete.
  - With greater prosperity, house lots grew larger, creating more space for larger houses.
- In response to the compact, tightly confined WWII-era cottages, these larger houses (often called "Ranch" houses) stretched the house and provided larger window openings to allow the outdoors in. The exterior appearance of these newer houses resembled that of houses built before and during World War II, only larger.
- As the period progressed, houses increasingly emphasized outdoor space—particularly in the backyard—so front entrances became less important.
- Houses built in World War II and Post-War styles look and feel very simple and basic—almost plain.

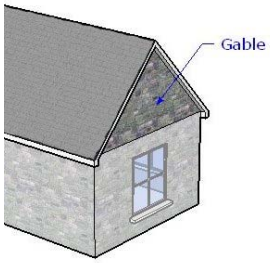
The Post-War Modern Styles in Utah

- During World War II, few new houses were constructed but those that were constructed were small and simple.
- After World War II, population growth moved to the suburbs, due to the following factors:
  - Road construction and increased automobile ownership encouraged people live farther from urban centers.
  - Suburban developments offered larger lot sizes that accommodated the increasing size of houses.
- As a result of suburban development, house sizes increased, but the style remained relatively simple.

What to Look For

- Shape: The house may feel "boxy" (from early in this period) or it may feel stretched out (from later in this period).
- Balance/Symmetry: The façade is usually asymmetrical, and there is often a gable facing the street.
- Lines: Walls and ornamentation emphasize straight lines and right angles.
- Materials: There is little variety of materials. Brick is the primary material, although siding is sometimes used to cover the exterior walls.
- Roof: The roof has a shallow pitch.
- Windows: Windows are not large; however, there is often a picture window (large single pane window) in the façade. Windows typically have few lights and are often "sliders" (windows that open horizontally rather than vertically).
- Entry: The main entry may be in the center of the façade or to one side, but the asymmetry makes it feel as if it's off to one side.
- Ornamentation: There is little or no ornamentation.
- Ranch Style houses usually have an attached garage.

Glossary



- Eave: The part of a roof that projects out past the house itself.
- Elevation: The side of a house (usually a term used in referring to an architectural drawing).
- Façade: The front or main side of a building.
- Gable: The gable is the triangle formed by the two sides of a roof and the main body of the house itself. (See picture.)
- Light: A single pane of glass in a window.
- Ornamentation: The decorative elements on a house.
- Pitch: Pitch is the slope of a roof—basically, how steep it is.
- Sash: The frame of a window.
- Symmetry: When two halves of a facade are the same. If you draw a line through the middle of the façade, the two halves are mirror images of each other.